

Do We Actually Have a Population Problem?

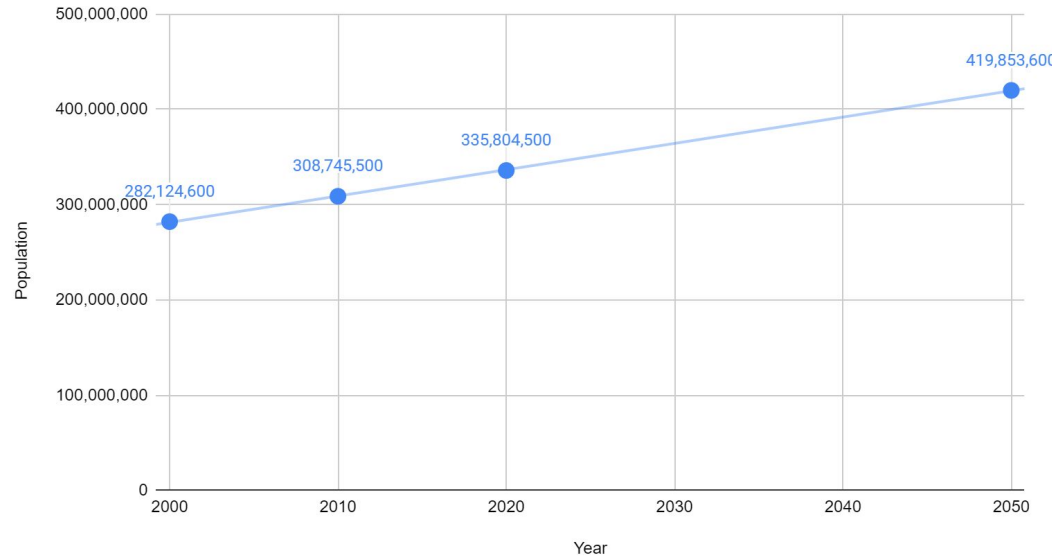
Chloe Rushing
October 2022

Issue

“The U.S. population was 309 million in 2010; by 2050, the U.S. population is estimated to be greater than 400 million persons.”^[2]
- U.S. CDC

- The rapidly growing U.S. population may cause overpopulation which will lead to a lack of food and resources necessary to maintain us.
- Hypothesis: A high birth rate greatly increases population. How do we prevent overpopulation?

(Approximate) Population According to the CDC



U.S. Birth Rate Trends by Age Group

Process and Approach

- U.S. CDC birth rate data^[1]
 - Separated data by race/ethnicity
 - Percentage of yearly births per 1,000 women; excluded ages 10-14 and 45-54 due to outlier data
 - Percentage differences from previous year; used 2000-2019 as most common timespan
 - Summed percentage differences, total births in 2019
-

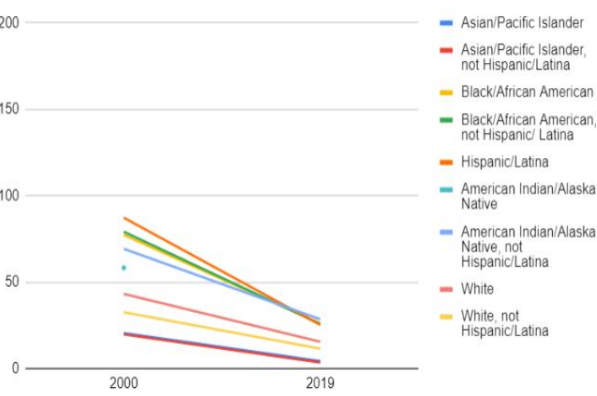
What Does This Tell Us About Birth Rates From 2000-2019?

- Decrease for ages 15-29
- Increase for ages over 30, not significant portion of live births
- Smallest and largest **increase** between 40-44 and 35-39 at **1.92%** and **16.03%** respectively
- Smallest and largest **decrease** between 25-29 and 20-24 at **26.75%** and **51.97%** respectively

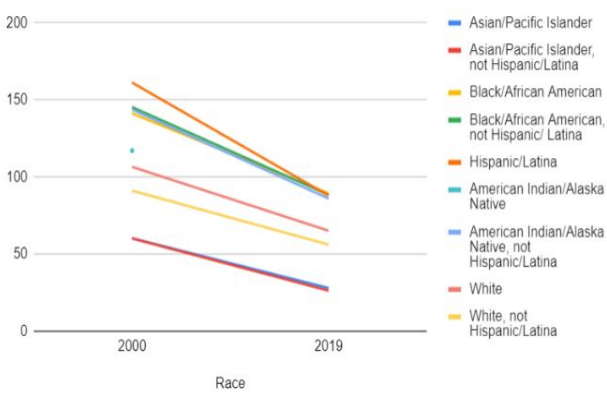
So...What do We Need to do?

2000 vs. 2019 Live Births

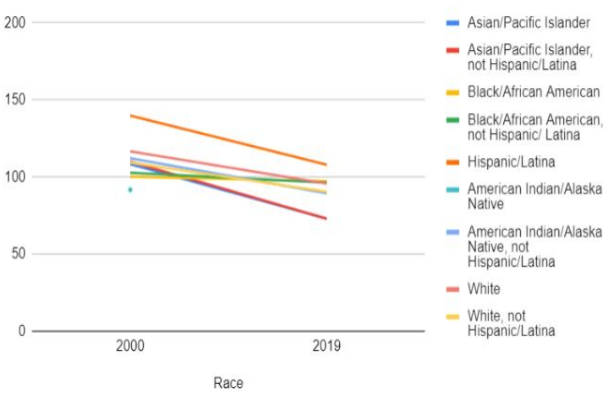
15-19



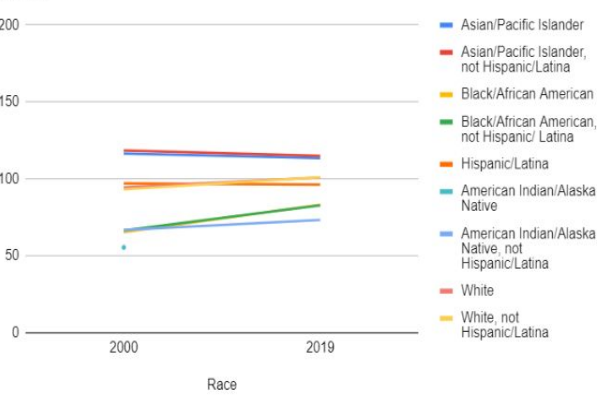
20-24



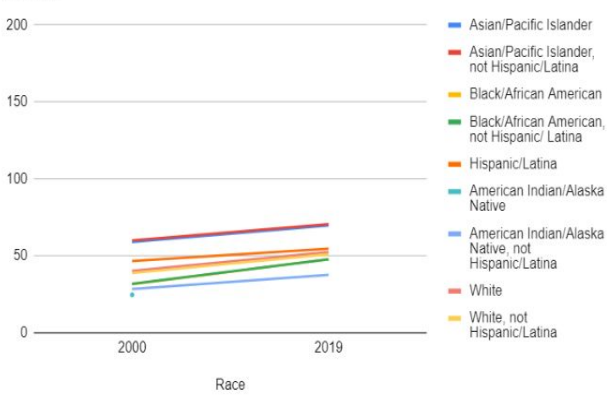
25-29



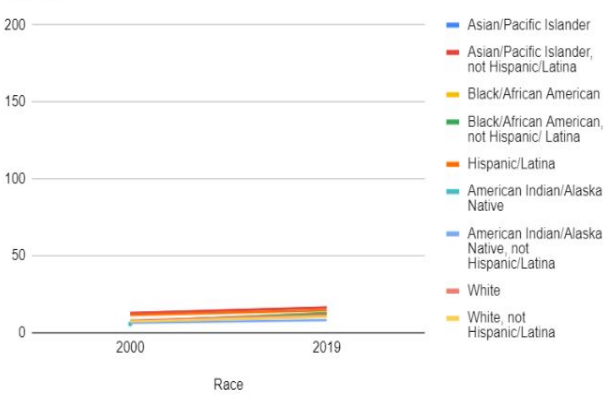
30-34



35-39



40-44



Increasing Birth Rate ->? Overpopulation

- **Hypothesis:** A high birth rate greatly increases population

Year	Population	Change per 1 year
2000	282,124,600	
2010	308,745,500	2,662,090.00
2020	335,804,500	2,705,900.00
2050	419,853,600	2,801,636.67

- **Conclusion:** Birth rate does not contribute much to U.S. population
- Data shows greater decrease in birth rate than increase
- Approximately 3000 total births between 2019-2020; way less than 2,705,900
- No need to act on birth rate as it is already so low

Further Exploration

- What other contributors are there to the U.S. population?
- How did the pandemic affect the current U.S. population?
- How does the U.S. population and its growth represent the world's population?

References and Appendix

- [1] “Births - Health, United States.” Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 12 Aug. 2022, <https://www.cdc.gov/nchs/hus/topics/births.htm#explore-data>.
- [2] “CDC Surveillance System: Estimated and Projected Population in the U.S.” Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, <https://nccd.cdc.gov/ckd/detail.aspx?Qnum=Q155#tab-KeyPoints>.

Thank You.