



**GEOSPATIAL &
POPULATION STUDIES**

2020 Census: Evaluating the Count

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Outline

- Congressional Apportionment Data
- 2020 Census Evaluations
- Redistricting Data
- Disclosure Avoidance/Differential Privacy
- Next Steps:
 - Census Challenges
 - Demographic and Housing Characteristics Data
 - Estimates Base

Apportionment Population Data

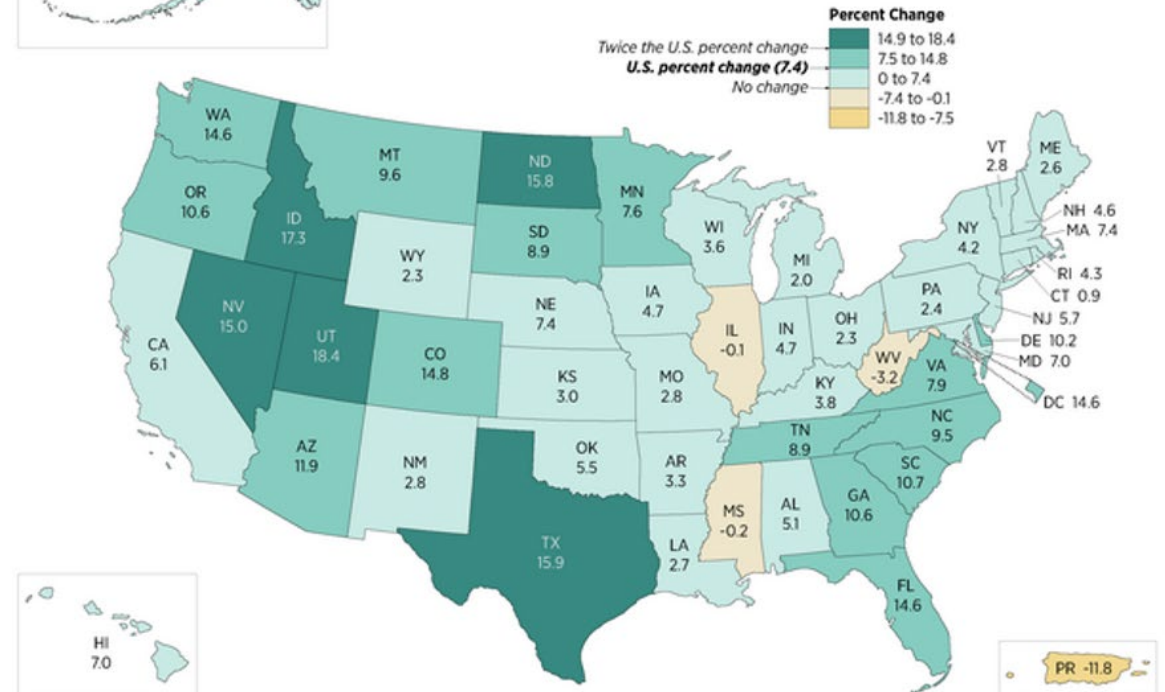
- April 1, 2020 Resident Population

- US – 331,449,281 7.4% 10-year increase
- NM – 2,117,522 2.8% 10-year increase
 - NM 2010 2,059,179 13.2% 10-year increase
 - NM 2000 1,819,146 20.1% 10-year increase

APRIL 27, 2021



Percent Change in Resident Population for the 50 States, the District of Columbia, and Puerto Rico: 2010 to 2020



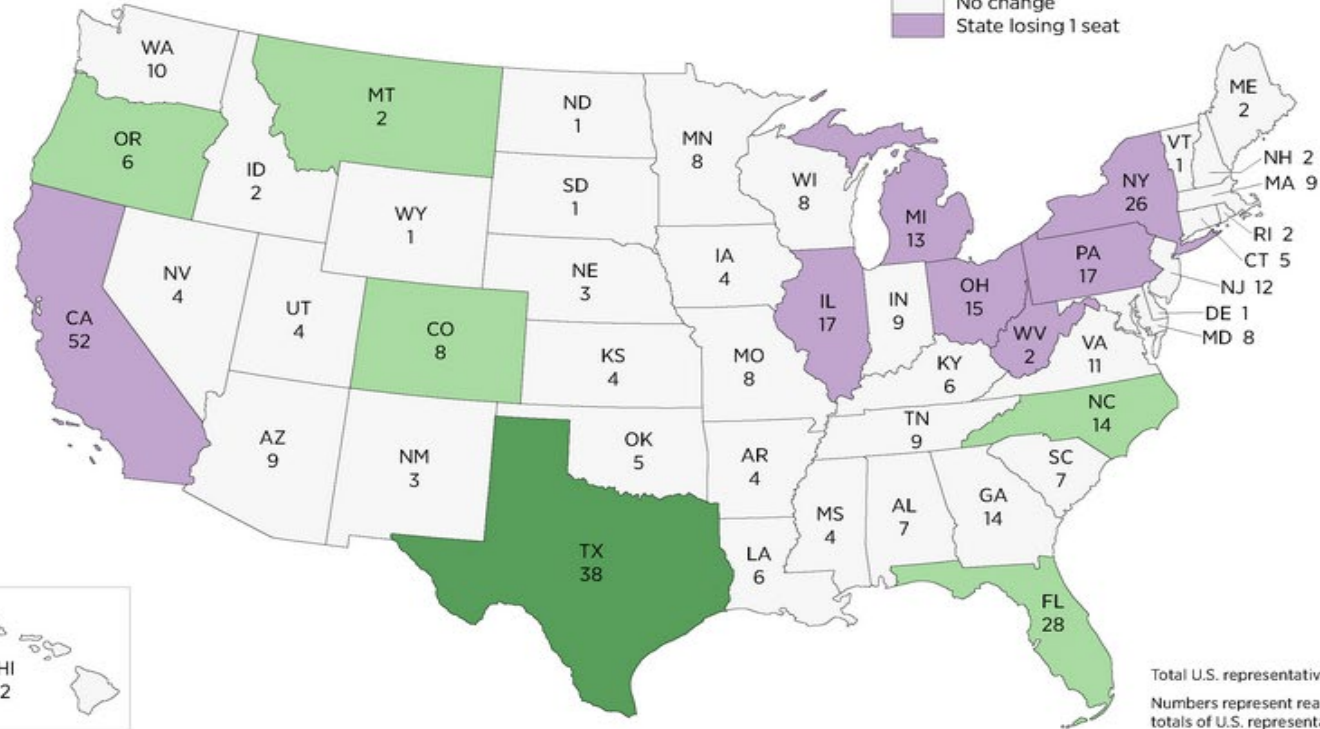
APRIL 26, 2021



Apportionment of the U.S. House of Representatives Based on the 2020 Census

Change from 2010 to 2020

- State gaining 2 seats
- State gaining 1 seat
- No change
- State losing 1 seat



Total U.S. representatives: 435
Numbers represent reapportioned totals of U.S. representatives.

2020 Census Evaluations

- The decennial census is considered the gold-standard of population data
- Census evaluations used for:
 - Estimating net error of the census
 - Estimating under-count or over-counts of various cohorts
 - Assessing impacts of the Covid pandemic and other natural disasters
 - Evaluating various response modes (Self response, NRFU, proxy, etc.)
 - Evaluating census operations and outreach campaigns
 - Estimating return on investment of Complete Count Committee funding
 - Identifying process improvements for 2030

Census Evaluations and Population Estimates

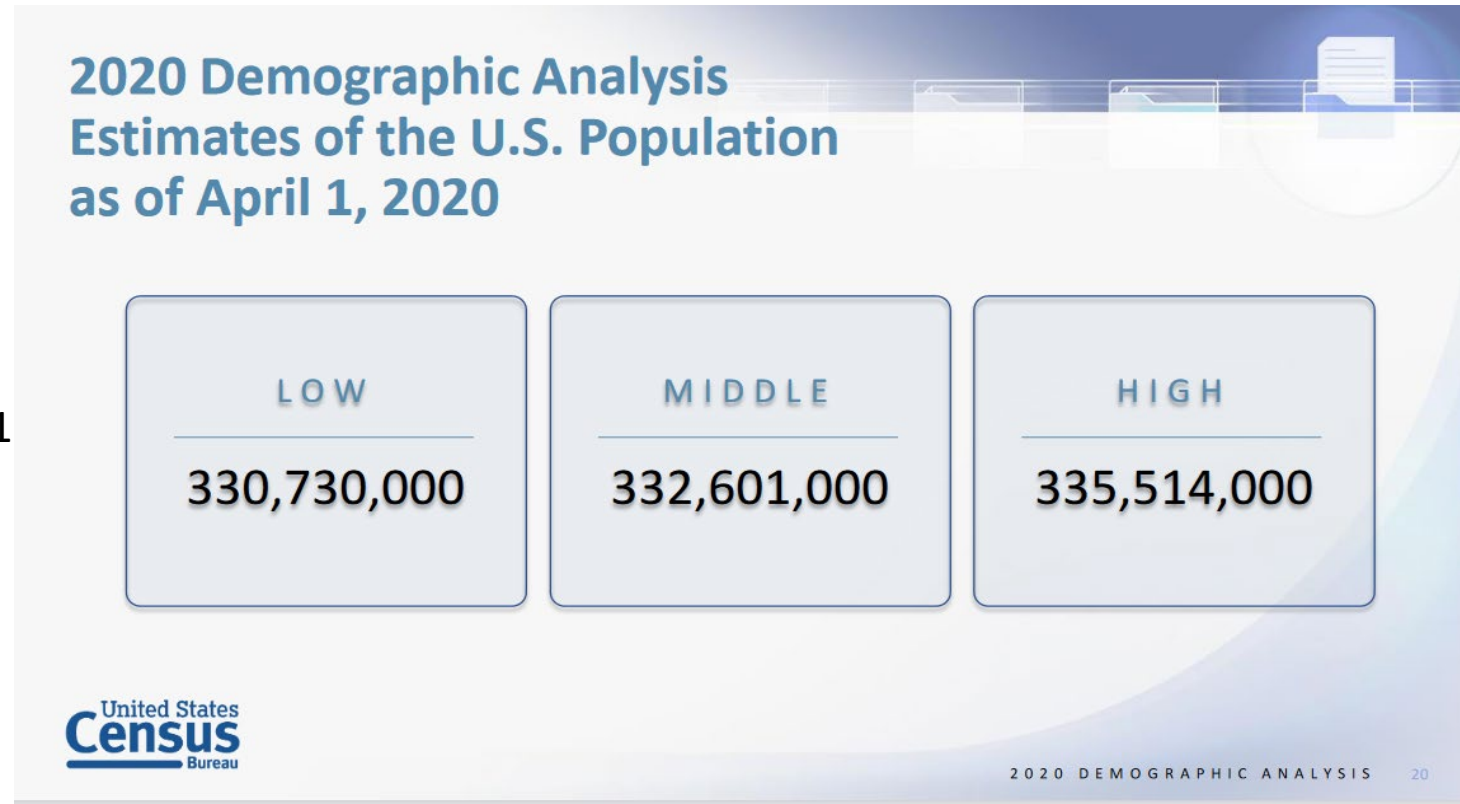
- Decennial Census is the foundation for annual population estimates

$$\mathit{Pop}_{202x} = \mathit{Pop}_{2020} + \mathit{Births} - \mathit{Deaths} \\ + \mathit{In Migration} - \mathit{Out Migration}$$

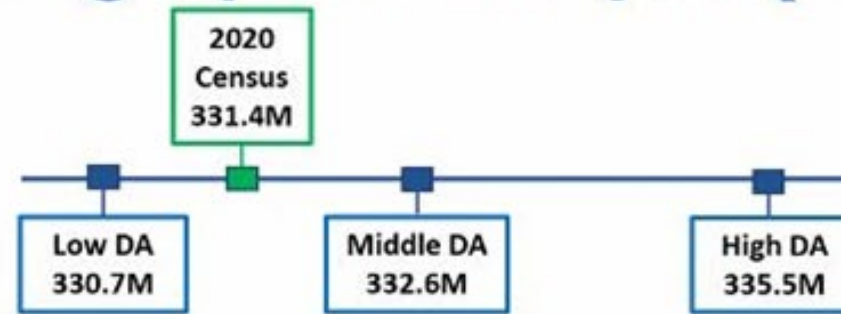
- Census Bureau has some discretion with their estimates methodology including determination of the most accurate base population
- Population Estimates are used for:
 - Equitable distribution of \$1.5 trillion in federal dollars each year
 - Rate denominators such as unemployment, uninsured and Covid vaccinations
 - Population controls for Census Bureau sample surveys such as the American Community Survey, Current Population Survey and Household Pulse Survey

Demographic Analysis

- Census Bureau uses Demographic Analysis (DA) as one method to evaluate **net coverage error at the national level by demographic detail**
 - Coverage differentials by race
 - Undercount of young children
- DA estimates are independent of the 2020 Census
 - DA results released on December 15, 2020
 - First census results released on April 26, 2021



2020 Census U.S. Resident Population Compared with 2020 Demographic Analysis (DA)



The Post Enumeration Survey and DA are the two primary measures of coverage for the decennial census.

The DA estimates are based on administrative records: birth/death records, estimates of international migration, and data from other sources like the Medicare Enrollment Database are used to create an estimate of the resident population on Census Day (April 1) that is independent of the census.

The 2020 Census count falls between the Low DA and Middle DA series, with the estimate of net coverage for the Low series (0.22) suggesting an overcount, and the estimate for the Middle series (-0.35) suggesting an undercount.¹

For 2010, the estimate of net coverage for the Middle DA series (.13) indicated a slight overcount.

¹ Net coverage error = (Census count - DA estimate) / DA estimate * 100

2020 Census Evaluations

- ***American Statistical Association***

- *Evaluation based on Census Operational Quality Metrics e.g.*
 - *Response mode rates (Self Response, Non-Response Follow Up, Proxy, Administrative records, imputation)*
- *Evaluated only the state population totals released in April*
- *Summary of Findings:*
 - ***Repeatedly stressed there is analysis is based on limited data available from Census Bureau***
 - But found “no major anomalies” that would indicate census numbers are not fit for use for purposes of apportionment
 - No evidence of political interference
 - ***Census Bureau should release quality metric data at smaller geographic levels***
- <https://www.amstat.org/asa/files/pdfs/POL-CQI-Task-Force-final-report.pdf>

2020 Census Evaluations

- ***Urban Institute***

- *Projected the 2020 population*
- *Ran a microsimulation of the 2020 Census and compared*
- ***Summary of findings:***
 - “There likely was an overall 0.5 percent net undercount of the US population”
 - “Considerable variation exists in who was undercounted and overcounted overall in the 2020 Census”
 - “Those hardest to count in recent decennial censuses were again likely undercounted in the 2020 Census”
- Good science but should be interpreted cautiously
- <https://www.urban.org/research/publication/simulating-2020-census-miscounts-and-fairness-outcomes>

- **National Academies of Science Center of National Statistics**

- Panel is still investigating
- Informal working groups are advising the census bureau on future data releases

2020 Census Evaluations

- **Census Bureau Post-Enumeration Survey**

- *2nd phase surveying 14,000 housing units is underway*
- “What was expected to be a monthlong operation for gathering information on housing units starting in late October is now set to begin on Nov. 29 and end in March”

<https://www.npr.org/2021/10/08/1043506293/2020-census-results-accuracy-undercount-populations-post-enumeration-survey>

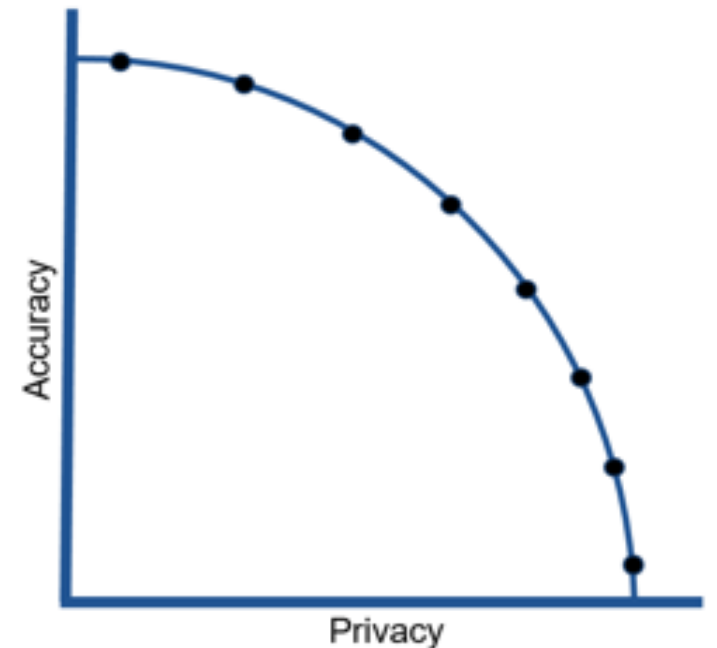
- There are valid concerns about how effective this survey will be due to ongoing pandemic

2020 Redistricting Data

- P.L. 94-171 redistricting data released on Aug. 12, 2021
- Data includes
 - Population and housing down to the Census Block level
 - Race/Ethnicity details
 - Two age categories: 0-17 and 18+
 - Housing Occupancy/Vacancy status
- Not included: Sex, detailed aged, housing characteristics
- **Deliberately noisy data due Disclosure Avoidance measures**
- NM Redistricting is ongoing at state and local level
 - NM Citizen Redistricting Committee met from July 1 - Oct 31, 2021 to adopt recommended redistricting plans for the NM Legislature
 - Legislature will meet in December to adopt maps and send to Governor

Disclosure Avoidance

- Census Bureau has dual mandate to publish accurate statistics and protect respondent privacy
- An innovative Disclosure Avoidance System based on Differential Privacy was applied to the August redistricting data
- Smaller area data (< ~500 people) should be interpreted cautiously
- Disclosure avoidance will not make it possible to determine undercounts for small areas and small cohorts.
- Census Bureau is developing a new algorithm for forthcoming 2020 Census data



Local Government Challenges to Census Counts

- Apportionment and Redistricting data are set and will not be changed
- Any changes to the count will only affect population estimates

Count Question Resolution (CQR)

- The 2020 Census Count Question Resolution program provides a mechanism for governmental units to request a review of their official 2020 Census results and to help ensure that housing and population counts are correctly allocated to 2020 census tabulation blocks in the 50 states, District of Columbia, and Puerto Rico.
- Highest Elected Officials can submit cases from Jan. 2022 – June 2023
- UNM-GPS may be able to provide technical assistance
- **CQR is very limited in scope – does not add people who were missed during the count**
- CQR resulted in minimal change in 2010
 - A net total of 527 people were added in 14 states
 - 2 people added in NM
 - <https://www2.census.gov/programs-surveys/decennial/2010/technical-documentation/errata-notes/errata.pdf>
- Disclosure Avoidance measures will further complicate CQR cases in 2020

State and Local Government Challenges to Census Counts

- **Post-Census Group Quarters Review (PCGQR)**
- Greatest impact of Covid on the 2020 Census may have been to the Group Quarters count
 - Count was as of April 1 but displacement begin in March
 - Enumerator access to certain facilities became very difficult
 - Homeless count delayed until September
 - Count Review Operation of GQs was cancelled
- Highest Elected Officials can submit cases from Spring 2022 through Summer 2023
- **Special Census**
 - Expensive and may not have desired increase in population
- **Litigation**
 - NAACP has filed suit based on systemic undercount of Black population
 - Fair Lines American Foundation which has ties to national republican redistricting efforts has sued over count imputation.

Next Up

Demographic and Housing Characteristics

- Details and proposed table shells:
<https://www.census.gov/newsroom/press-releases/2021/2020-census-data-product-planning-crosswalk.html>
- Disclosure Avoidance still under development
- Planned release in Summer 2022

Vintage 2021 Estimates

- Release planned for mid-December
- A ‘blended base’ will be used for 2020 population
- Will the Census Bureau allow challenges to the estimates base?