

Data Quality and the 2020 Census

Our goal for every census is to count everyone once, only once, and in the right place. Ensuring the quality of the census results is built into every step of conducting the census. Once we release the results, we continue to evaluate the quality of the census.

ENSURING THE QUALITY OF THE CENSUS RESULTS IS BUILT INTO EVERY STEP OF CONDUCTING THE CENSUS.

We spent years planning, researching, testing, and designing the 2020 Census, and incorporating lessons learned from previous censuses:

- **We designed the census based on research and testing.** We began preparing for the 2020 Census even before the 2010 Census ended. We conducted operational census tests in 2013, 2014, 2015, 2016, 2017, and 2018 that built on lessons learned in 2010.
- **We conducted operations and outreach to get a response from everyone.** We delivered up to seven invitations and reminders, including up to two paper questionnaires to households, and gave the public three options to respond—online, by phone, or by mail. The questionnaire was available in 13 languages—giving over 99 percent of U.S. households the option of responding in their preferred language. We also had special operations to count people living in group quarters, transitory locations, and other types of living situations. When we didn't receive a response, census takers visited or called to conduct interviews.
- **We have numerous quality checks built into data collection and data processing.** We introduced prompts into the online questionnaire to help people respond completely and accurately. We gave

census takers mobile devices that allowed us to check the quality of their work in real time. We checked the results against other data sources to see if they made sense.

WHEN COVID-19 STRUCK, WE QUICKLY ADJUSTED OUR PROCEDURES AND TIMELINES TO MINIMIZE THE PANDEMIC'S IMPACT ON THE 2020 CENSUS AND ITS QUALITY.

We took steps for data collection and data processing to “get it right.” Getting it right means we:

- Extended data collection by 2.5 months to allow more time for households to respond and for us to follow up with those that didn't.
- Mailed additional reminders encouraging people to respond.
- Changed our field procedures to minimize in-person contact with the public and trained our census takers to exercise social distancing during contact with respondents. This included making phone calls instead of sending census takers door-to-door to follow up with nonresponding households that hadn't responded yet.
- Deployed staff to places in low-responding areas to answer questions and help people respond to the 2020 Census. We also sent teams of skilled census takers from other parts of the country to areas where response was lagging—such as those that experienced hurricane damage.
- Expanded outreach through our more than 400,000 national and local partners and through national advertising to encourage the public to respond online, by phone, by mail, or to cooperate with census takers.

- Ensured that there was sufficient time for processing the data to ensure accuracy and quality.

As we processed census responses, we again checked the accuracy of the data.

- We started by merging the responses with our file of addresses throughout the United States. We then checked that we had responses from every address and made sure every response was linked to the correct geographic location.
- We removed duplicate responses (people counted in more than one place or an address with more than one response).
- If we weren't able to get a response for an address and couldn't find the missing information through high-quality administrative records or proxy interviews, we used a statistical method called imputation. Imputation makes the overall dataset—or census in this case—more accurate than leaving the gaps blank.
- We checked for anomalies (something that doesn't fit with the patterns we expect). If we found an anomaly, we examined the data more closely. If there was a processing error, we adjusted our programming and ran the files again to fix it, even though this took more time.
- Finally, we compared the census counts to estimates from other population benchmarks—such as demographic analysis and population estimates for April 1, 2020.
- As we finalized the results, we made sure they met our high-quality standards.

We go to great lengths to evaluate the quality of the data.

- We look at operational quality metrics to thoroughly review census operations.
- We compare the census results to other ways of measuring the population, such as demographic analysis and our population estimates.

- We conduct the Post-Enumeration Survey to measure how many people and housing units were missed or counted erroneously in the census.

We invite others to check the quality of our work.

- We have engaged respected members of the scientific and statistical community to conduct independent assessments of the 2020 Census, including the National Academy of Sciences (NAS) Committee on National Statistics, the American Statistical Association Quality Indicators Task Force, and JASON. These independent reports show our commitment to transparency and help build public confidence in the quality and reliability of the 2020 Census data. The groups' recommendations are also helping us to prepare and improve future censuses.

DELIVERING A QUALITY 2020 CENSUS IS OUR HIGHEST PRIORITY. THE CENSUS IS ENSHRINED IN THE U.S. CONSTITUTION AND THEREFORE A CRITICAL PART OF OUR DEMOCRACY.

"We have only one shot to count every person living in the country, and we want the count to be as complete and accurate as possible. We understand the great responsibility that comes with producing statistics that shape every person's and community's future for the next decade."

U.S. Census Bureau Acting Director Ron Jarmin

More information is available at www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/process/data-quality.html.