



UNITED STATES DEPARTMENT OF COMMERCE
U.S. Census Bureau
Office of the Director
Washington, DC 20233-0001

July 16, 2020

Mr. Tim Storey
Executive Director
National Conference of State Legislatures
7700 East First Place
Denver, CO 80230

Dear Mr. Storey:

The U.S. Census Bureau is very grateful for and proud of the longstanding relationship we have developed with the National Conference of State Legislatures (NCSL), a vital stakeholder organization in regards to our core mission. The venues for interaction and the access to high priority stakeholders NCSL has provided over the years have helped us meet the needs of the states, especially with regard to redistricting. NCSL's support across the decades in advocating on our behalf and in promoting the census and census data has been extremely helpful and appreciated. We look forward to our continued discussions and relationship for many decades to come.

As NCSL is an organization that heavily uses and understands Census Bureau data, we are all the more appreciative that you took the time to express your thoughts and concerns about two major issues affecting the 2020 Census: the current timeline for the delivery of the apportionment and P.L. 94-171 redistricting data, and the implementation of differential privacy for data protection.

Timeline Shift for Data Delivery

Due to the COVID-19 pandemic, the Census Bureau has adjusted 2020 Census operations to protect the health and safety of the American public and Census Bureau employees as well as to ensure a complete and accurate count. In our decisions to suspend field operations and as we have resumed work, the Census Bureau implements guidance from federal, state, local, and tribal authorities regarding COVID-19. Enumeration, office work, processing activities, and other in-person activities will incorporate the most current guidance from federal, state, and tribal government authorities to ensure the health and safety of staff and the public. The Census Bureau is closely coordinating the acquisition of needed personal protective equipment (PPE) for field and office staff through the U.S. Department of Commerce. Deliveries of PPE have been received, and we will continue ordering as needed.

We have extended the time for fieldwork beyond our originally planned schedule, and self-response will continue until operations in the field conclude. Please visit <https://2020census.gov/news-events/operational-adjustments-covid-19.html> for more detailed information about the adjustments to the 2020 Census operations. This page will be updated as the ongoing response to COVID-19 develops.

Due to COVID-19, the current schedule includes a delay of 120 days for the delivery of the apportionment count and the P.L. 94-171 redistricting data. This decision was not made lightly, but was needed to ensure the health and safety of the American public and Census Bureau employees. Although we plan to extend data collection by 90 days, the overall 120-day delay on delivering the data will ensure that we can conduct a complete and accurate count of all communities and deliver data products that meet the quality expected from the decennial census.

The Census Bureau recognizes this delay may raise concerns for states and that each state has unique timing for their redistricting activities. This means each state will have to evaluate its very specific statutory and constitutional requirements to adapt to this delay. We announced this necessary schedule change as early as possible to provide states with the maximum possible time to adapt their processes.

The Census Redistricting Data Program always has been sensitive to the deadlines that states have adopted to permit them to complete their difficult redistricting work. Historically, the program has been organized to try to ensure that states receive their data in as timely a manner as possible. For the last several censuses, the Census Bureau has delivered data to states in weekly groupings. We organize these groupings based on the deadlines faced by the states and the production capabilities of the Census Bureau. This staggered delivery is necessary to allow the needed quality control reviews and materials production that ensures these data releases meet the Census Bureau's data quality standards. We have typically included states with off-year elections in the first week's delivery group.

The plan for the 2020 Census includes a six-week rolling weekly delivery of data to the states. Incorporating the [current schedule](#), that six-week delivery period would start no later than June 17, 2021.

Through the Redistricting Data Program and its official state liaisons, the Census Bureau is working to understand and capture the impacts on individual states of the delayed delivery of the data. We are reaching out to the program's official liaisons for their state's initial impact assessments. From October through November of 2020, the Redistricting Data Office will again approach these liaisons to receive input about how states have addressed the scheduled delay

of the data. We will use this information to organize groupings for delivery of redistricting data in 2021. While the current schedule allows the Census Bureau to deliver redistricting data as late as July 31, 2021, we will strive to release the results as early as possible while complying with our data quality standards.

In keeping with our standard practice of working to get materials to the states in an expedited manner, we will be providing states with geographic support materials well in advance of the redistricting counts. The geographic materials will include the shape files – the files needed for geographic information systems – PDF maps, and other materials. We expect to begin providing these geographic products to the states in early February 2021 and to complete the process of delivering to all states by the end of March 2021. This advance delivery of geographic support materials will allow states and their vendors to begin the process of building and testing their redistricting systems well in advance of receiving the actual data and should help mitigate some of the delays caused by COVID-19.

Disclosure Avoidance and Differential Privacy

The Census Bureau recognizes the unique importance of decennial census data for the fair and equitable allocation of political representation at all levels of government. As such, we consider the use of census data products for redistricting and for enforcement of the Voting Rights Act to be among the highest priority uses of census data. We are committed to ensuring that the 2020 Census data products will be sufficiently accurate to support these important uses.

At the same time, as you acknowledge in your letter, the Census Bureau is prohibited under Title 13, Section 9 from publishing any information that would reveal personally identifiable information about our respondents. With the rise of powerful computer algorithms that can reconstruct individual-level records from tabulated data, and the proliferation of third-party data sources that can then be linked to those records, the privacy risks associated with publishing highly granular statistics contained in our data products have increased enormously. Were the Census Bureau to rely on the traditional approaches to privacy protection that we have used in previous decades, namely the swapping of individual household records across geographies, meeting our statutory obligation to protect respondent privacy would require such high swapping rates that the resulting data would be rendered essentially useless. Consequently, the Census Bureau sees no viable alternative to comply with our Title 13 obligations but to modernize our disclosure avoidance methods through the application of differential privacy.

In your letter, you note that the 2010 demonstration data products that the Census Bureau released in October 2019 contained notable distortions and errors that would impede effective use of the data for redistricting purposes. We are in the process of identifying and mitigating the features of the Disclosure Avoidance System (DAS) Top-Down Algorithm that produced them. As we have publicly stated in our Research Matters blog post on the subject, much of

the significant error and distortion observed in the 2010 demonstration data was not the byproduct of the differential privacy mechanism used to meet our obligations to safeguard respondent privacy under Title 13. Rather, it was caused by operations in the post processing algorithms we used to convert the resulting protected data into the internally and hierarchically consistent data that feed into the tabulation systems that produce the official census data products. As such, there is much we can do to improve the accuracy and fitness-for-use of these data without impacting the privacy guarantee afforded by our use of differential privacy.

In March, we implemented the first of what will likely be a number of significant algorithm design improvements to address this issue. The impact of this design change on the accuracy of the resulting data can be directly observed in the “2010 Demonstration Metrics 2” file, which we released on May 27. When compared with the baseline accuracy measures calculated from the 2010 demonstration data, the improvements in accuracy for total population counts are notable. For example, in the October 2019 DAS run, the total population count for the average county was off by approximately 82 people (0.78 percent). With the algorithm improvements implemented in March, that error has been decreased to only 16 people (0.14 percent). These improvements are also observable at lower levels of geography. In the October 2019 DAS run, total population for the average census tract was off by almost 26 people; now that error has been reduced to just 14.5 people. At the block level, error in the population for the average urban census block has likewise been reduced from 9.2 people to 7.7 people. These accuracy improvements come without any reduction in the strength of the privacy guarantee. That is, the privacy-loss budget for both DAS runs was held constant, so the observed improvements are directly attributable to improvements in our post processing algorithms.

The accuracy metrics we have released for these DAS runs, and that we will continue to release as future improvements to the algorithm are made, allow our data users to assess these improvements and their impact on fitness-for-use in a variety of ways. That said, we recognize that for some important uses of census data there is no substitute for actually examining the underlying data. In your letter, you recommend that the Census Bureau should release additional demonstration data products to support in-depth analysis of the data’s fitness-for-use. Unfortunately, the tabulation, documentation, and quality control processes that the Census Bureau employs for public releases of data products are enormously time and labor intensive. With the 2020 Census now underway, we are unable to support additional releases at the present time. In order to support these detailed assessments without overburdening our tabulation and data products teams, the Census Bureau is committing to release the differentially private, but untabulated, Privacy-Protected Microdata Files (PPMF) produced by each successive iteration of the DAS algorithm for which we publish metrics. While these PPMFs will not be in the standard table structures associated with the P.L. 94-171 or other data products, it would be an easy matter for some of our public data users to tabulate them accordingly. We are confident that this solution will meet your needs.

Our efforts to ensure the accuracy and fitness-for-use of the 2020 Census data products for redistricting and enforcement of the Voting Rights Act are ongoing. Throughout this work, the importance and benefit of the ongoing feedback and support that we have received from NCSL and other prominent users of census data cannot be understated. We look forward to continuing this dialogue over the coming months.

We look forward to our continued collaboration in support of the 2020 Census. If you have additional questions, please contact Chris Stanley, Chief, Office of Congressional and Intergovernmental Affairs, at 301-763-6100.

Sincerely,

A handwritten signature in black ink that reads "Steven D. Dillingham". The signature is written in a cursive style with a large, sweeping initial "S".

Steven D. Dillingham
Director