April 23, 2020

Director Steven D. Dillingham
United States Department of Commerce
U.S. Census Bureau
Office of the Director
Washington, DC 20233-0001

Delivered via email Emailed to: steven.dillingham@census.gov; Katherine.dodson.hancher@census.gov; Dee.A.Alexander@census.gov

Dear Director Dillingham:

We are writing to provide recommendations on the U.S. Census Bureau’s proposed 2020 Census Disclosure Avoidance System (DAS) Improvement Metrics. These metrics were made available to the public on March 27, 2020 with feedback requested by April 24, 2020. We have reviewed all relevant information on the proposed metrics and the latest updates to the DAS at your webpage: https://www.census.gov/about/policies/privacy/statistical_safeguards/disclosure-avoidance-2020-census.html.

The National Congress of American Indians (NCAI) is the oldest, largest, and most representative national organization serving the broad interests of American Indian and Alaska Native (AI/AN) tribal nations and advocates to uphold and strengthen tribal sovereignty. Every tribal nation, as a sovereign nation, has the right to be counted and to have accurate data about their nation produced from the decennial census.

We appreciate the time your staff spent with our team to discuss recent changes to the plans for implementing the DAS with the 2020 Census and your efforts to be responsive to input received from tribal nations during your agency’s tribal consultation efforts in 2019. We urge you to immediately implement the following recommendations and/or to immediately provide an update to all tribal nations on your plans with the DAS to ensure accurate and accessible decennial census data for the priority use cases of tribal nations.
Recommendation #1 – Continue Tribal Consultation

We understand that the planned tribal consultation or listening sessions scheduled for April 2020 had to be postponed due to the current coronavirus (COVID-19) pandemic. However, we still encourage you to formally consult with tribes on this metrics issue, as well as your other DAS plans, so that tribal nations can give meaningful input before you finalize plans to implement any planned DAS methods for the 2020 Census.

While tribal listening sessions were held last fall, tribal consultation is needed on the following topics:

- Results of the December 2019 Committee on National Statistics Workshop;
- Specific findings from the workshop that illustrated significant errors, especially for small, rural, and remote populations, and most concerning, the erasure of many tribal nations in the dataset;
- New plans for the DAS including the new proposed “TopDown Algorithm” for Group 1 data products (P.L. 94-171 Redistricting Data File and Demographic/Housing Files);
- The impact of the new proposed method for all AI/AN Geographies in the TopDown Algorithm;
- Strategies for post-processing after the TopDown Algorithm is applied;
- The proposed metrics; and
- Plans for Group 2 data products (including AI/AN Summary Files).

Analysis of the 2010 Demonstration Data products released in 2019 revealed that the planned DAS algorithm disproportionally and negatively impacted American Indian and Alaska Native (AI/AN) census data. Tribal consultation is required when federal policies and decisions may have an impact on tribal nations and meaningful tribal consultation must continue until the needs of tribal nations are addressed.

Recommendation #2 – Provide More Detail on How Metrics will Fulfill Priority Use Cases for the 2020 Census Data

In several meetings and tribal listening sessions in 2019, the U.S. Census Bureau staff requested information on how tribal nations use census data, and then stated that they would design the DAS to ensure accurate, accessible data for “priority use cases.” NCAI previously has provided input on the following priority use cases for tribal nations:

- Accurate representation in the P.L. 94-171 Restricting File
- Accurate census data for federal funding formulas and decisions
- Accurate and accessible census data for local tribal governance
- Accurate census data for research about AI/ANs
However, for the current request for information on metrics, the U.S. Census Bureau has not provided adequate information for a lay audience on why they chose these metrics, how these metrics will impact priority use cases, and what targets for these metrics will indicate adequate accuracy for the priority use cases we provided. Having metrics that only provide information on whether error measurements improve, or whether accuracy, bias, or outliers improve, is not adequate to determine if the priority use cases requested by tribal nations and others have been adequately addressed, and whether data will be accessible and accurate for those uses.

The U.S. Census Bureau must provide more detail on the proposed targets for metrics to meet the priority use cases. The metrics provided are limited and do not provide the confidence that the algorithm is changing in needed ways to ensure tribal nations are treated equitably with the rest of the United States. The need to ensure usable, quality, and equitable data on tribal nations for these priority uses is of the utmost importance.

**Recommendation #3 – Provide Greater Access to Tribal Nations and their Representatives to View the Results of Data Runs as New DAS Algorithmic and Other Adjustments Occur**

NCAI is grateful for the opportunity to be included in the current plans for viewing results of data runs after key adjustments to the TopDown Algorithm and other adjustments are made to the DAS in a series of informal expert meetings organized through the National Academies of Sciences, Engineering, and Medicine. However, the information cannot be kept behind closed doors since the U.S. Census Bureau is required to consult with tribal nations on this topic. There needs to be a direct relationship between the U.S. Census Bureau and tribal nations through consultation, and any results from data runs, including changes in metrics and the actual data, must be shared publicly with tribal nations before final decisions are made, and must be shared in plain language or lay language. We also request that the impacts of these data runs be shared with other impacted small, rural, and remote populations. While the U.S. Census Bureau may have been planning to only share metrics changes with each data run, we need to see the underlying data as well.

**Recommendation #4 – Release a New 2010 Demonstration Product to the Public with Any Significant Adjustments to the DAS for Public Viewing and Analysis**

NCAI recommends that the Census Bureau provide more data access on each new run of the data through the algorithmic adjustments to the privacy measures, similar to the 2010 Demonstration Product made public in October 2019. Public access should include release of a new data product on any new data runs, access to data users with special sworn status to test the data quality and run analyses, and a release of data to show impact on AI/AN statistical areas and tribal nations. Now that the timeline for enumeration has been extended, and the U.S. Census Bureau has requested a longer
extension for delivery of data products, there should be adequate time to allow public viewing and analysis.

**Recommendation #5 – Ensure that Tribal Nations Receive the Same Data Treatment as State Level Data**

We understand that the new proposed census geographic “spine” pulls AI/AN tribal areas onto the main “spine” or geographic breakdown and allows for the epsilon to be applied directly to AI/AN tribal geographies. Since tribal nations are sovereign nations, NCAI recommends the U.S. Census Bureau ensure tribal nations receive the same data treatment as state level data for equitable processes. NCAI also requests the following information:

- NCAI requests a further explanation as to whether tribal nation population levels are being held invariant since tribal nations need local numbers to be accurate for tribal governance;
- Please explain if tribal nations are considered state-equivalents and will have invariant total populations by tribal nation;
- NCAI requests that the Census Bureau define what tribal areas are included on which side of the geographic spine, and why Oklahoma Tribal Statistical Areas are separated onto different sides of the geographic spine from other AI/AN statistical areas;
- NCAI requests that the Census run the tests using epsilons more likely to be used in the 2020 DAS so we may have a more accurate understanding of how the data will be impacted by any adjustments. The 2010 Demonstration Products used a privacy epsilon of six with minimal epsilon adjustments. The metrics provided for measuring changes, positive or negative, to the DAS algorithm are based on a data run that used a higher and a more uniform privacy application that would not be used in the actual data protection.

**Recommendation #6 – Share the Metrics and Changes to the TopDown Algorithm in an Understandable Manner to Entry-Level Data Users and the General Public**

The proposed metrics do not provide meaningful information to most tribal or government leaders. They also do not provide enough meaningful information to data users. The metrics and changes to the algorithm must be shared in an understandable way to an entry-level data user and the general public. NCAI suggests the following strategies:

- NCAI recommends that maps displaying the randomness measures, systematic bias metrics, and the error changes on each data run be made available to tribal nations.
- All tables produced must include outlier metrics;
- NCAI recommends the Census Bureau rethink how to illustrate to the public the changes being made to the algorithm and the data quality changes so that
the information is available in a more meaningful and understandable way. The relative use of each of the proposed metrics remains unclear. The metrics are not helpful for even an advanced or expert data user to regain trust in the data quality.

- NCAI recommends the adjustments to data quality be provided through real world applications.
- NCAI recommends that the U.S. Census Bureau reveal what portion of the total error in results of data runs is attributable to Differential Privacy vs. post-processing.
- A written document must be produced and made public after each data run that explains the results in a manner that is accessible to a lay person and in plain language.

**Recommendation #7 – Tribal Population Counts and Geographies Must Be Incorporated into Any Data Runs or Information on Impact of DAS Adjustments**

Analyses at the National Academies of Sciences, Engineering, and Medicine workshop in December showed how large data fluctuations occurred at different tribal nation population sizes. As a result, the population sizes need to be taken into account during the data runs and shown in the results. NCAI suggests the following strategies:

- Use cases for different tribal sizes and geographies must be run and made available to tribes;
- Fluctuations between tribal populations in a similar geographical areas need to be identified. Small shifts between blocks and block groups may seem acceptable to an unfamiliar data user, but these small shifts of tribal population losses may represent potentially large funding losses in federal funding formulas;
- Publish impact of adjustments on total population and voting-age population for tribal nations and consider making these both invariant at the state and tribal nation level;
- Data runs must include AI/AN alone AND AI/AN in combination tabulations for the differing population sizes. Only analyzing data for AI/AN alone data is not acceptable since tribal citizens are in both categories.
- NCAI recommends testing coding strategies, such as binning data, be run to test further potential data quality adjustments with input from tribal consultation; and
- Clarification is needed on what exactly will be invariant in the data.

**Recommendation #8 – Publish All Comments Received on the Proposed Metrics**

NCAI recommends the U.S. Census Bureau publish the comments received from data users, tribal governments, and organizations in response to the proposed metrics. The concepts around the DAS are sufficiently complicated to the lay public, and review of
letters from multiple stakeholders can help tribal nations refine their recommendations.

**Recommendation #9 – Create a New Timeline for Decisions on DAS**

We are aware that the U.S. Census Bureau recently submitted a new timeline for enumeration and data products for Census 2020 to the U.S. Congress. NCAI recommends that a new timeline for differential privacy decisions be built into the new proposed timeline that allows for more consultation and public review of adjustments to the DAS and resulting impacts on data accuracy at the local tribal level and for all tribal priority use cases.

Access to accurate data on the AI/AN population at all levels is important to tribal nations, given the multiple uses of the data in redistricting, governance, research, and federal agency resource allocation and decision-making. Given the high potential for negative impact from the DAS on federally recognized tribal governments and their citizens, as we learned from the 2010 Demonstration Products, we request that you respond to this letter as soon as possible. If you have any questions, please feel free to contact us at research@ncai.org.

Sincerely

Kevin Allis
Chief Executive Office
National Congress of American Indians