Dr. Steven Dillingham  
Director, U.S. Census Bureau  
4600 Silver Hill Road  
Washington, D.C. 20233

Dr. Dillingham,

We thank you for the opportunity to comment on differential privacy and for providing the 2010 Demonstration Data Products. The Census Bureau provides critical information to states. We greatly appreciate the services you provide and your efforts to seek new ways to protect the privacy of survey respondents.

Colorado’s State Demographer’s Office has analyzed the 2010 Demonstration Data Products and presented their findings to us.\(^1\) We have identified the following patterns based on this analysis:

- A general shift in population from urban areas to rural areas;
- Inaccurate population counts at sub-state levels, and a mismatch between population data and housing-level data;
- Nonsensical population placements (e.g., persons in Census Blocks where housing units are not present); and
- Significant distortions in sub-state demographic data, including statistics on age, sex, and race.

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\(^1\) A Colorado map of differences in population totals and other comparisons between the 2010 Census and demonstration file for counties, census places, legislative districts, census tracts and census blocks is available at http://arcg.is/1X4afz.
The analysis supporting these findings are documented in the attached materials prepared by Colorado’s State Demographer’s Office, including a one-page “fact sheet” and selected maps (Figures 1 through 4).\textsuperscript{1}

The data distortions found in the attached analysis pose the following consequences for the State of Colorado:

- Legal implications, including violation of the United States and Colorado Constitutions, for the state legislative and congressional redistricting process because population, race, and ethnicity counts are not accurate;
- Changes in population-based distributional formulas for federal and state grants and other funding allocations to local governments that are not proportional to actual population counts;
- Inaccurate analyses used to inform public policymaking due to distortions in data, including economic, demographic, household and public health data;
- Reduced confidence in Census Bureau and other government data; and
- Less informed policymaking without a reliable alternative to Census and Census-dependent data.

Given these findings and their consequences for Colorado, we strongly recommend that the Census Bureau hold population and household data invariant at the census block level, and pursue efforts to maintain the accuracy of demographic data (age, race/ethnicity, and sex) at the sub-state level, including counties and census places.

Sincerely,

\[\text{Signature}\]
Speaker K.C. Becker, Chair

\[\text{Signature}\]
President Leroy Garcia, Vice-Chair

\[\text{Signature}\]
Majority Leader Alec Garnett

\[\text{Signature}\]
Majority Leader Stephen Fenberg

\[\text{Signature}\]
Minority Leader Patrick Neville

\[\text{Signature}\]
Minority Leader Chris Holbert
Figure 1
Population Differences across Census Places*
Places (Bubbles) and Unincorporated Areas (County Boundaries)

Source: Colorado Department of Local Affairs, State Demography Office. Available at: http://arcg.is/1X4afz
*Difference in population totals between the 2010 Census and differential privacy demonstration file.
Figure 2
Population Differences across Counties*

Source: Colorado Department of Local Affairs, State Demography Office. Available at: http://arcg.is/1X4afz
*Difference in population totals between the 2010 Census and differential privacy demonstration file.
Rural districts generally gain population, while urban districts are more likely to lose population. The largest variation from the 2010 Census population is 2.8 percent.

Source: Colorado Department of Local Affairs, State Demography Office. Available at: http://arcg.is/1X4afz
*Difference in population totals between the 2010 Census and differential privacy demonstration file.
Rural districts generally gain population, while urban districts are more likely to lose population. House District 49 (Weld County) is 3.5 percent above the 2010 Census population, the rest of the districts are within 3 percent.

Source: Colorado Department of Local Affairs, State Demography Office. Available at: http://arcg.is/1X4afz

*Difference in population totals between the 2010 Census and differential privacy demonstration file.