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April 8, 2025

VIA EMAIL

Joshua Coutts U.S. Census Bureau Geography Division 4600 Silver Hill Road Washington, DC 20233

Re: Request for Comments - Gridded Census Data

Dear Mr. Coutts,

The United States National Grid (USNG) Institute provides educational outreach and technical assistance to federal, state, local, and tribal governments, as well as commercial entities, to facilitate use of the USNG for scalable decision-making across sectors. Considering the delivery of U.S. Census Bureau data in a gridded format, the Institute wishes to present examples of the implementation of the USNG from Georgia, Illinois, Minnesota, and California, which this distinctive census data format could enhance.

In Cobb County, Georgia, the USNG is deployed to support an array of public services, including trail maps, urban planning, and, more recently, community mapping initiatives. Currently, opportunity zones, which reflect areas with ethnic minority populations, food deserts, and limited access to public transportation, are applied to USNG grid cells to encourage a spatially consistent method of visualizing disparities in public services. Data is aggregated from census blocks. However, pre-existing conversion to the USNG would eliminate reliance on inconsistent secondary allocation methods to ensure geometries are congruent. Similarly, the Centers for Disease Control disseminated COVID-19 data by zip code tabulation areas. However, this is unintuitive and difficult for small jurisdictions to use. Issues of geometric consistency in Zip Code Tabulation Areas (ZCTAs) can be easily resolved through the implementation of gridded mapping, the scalable nature of the USNG being well-suited to maintain the privacy of residents and reduce the risk of geometric subtraction with pre-formulated 100m, 1km, and 100km cells, respectively.

In Cook County, Illinois, the Department of Emergency Management and Response utilizes daytime and resident population data, calculated from census block data within the USNG, to facilitate the rapid and accurate deployment of emergency services. Applying the USNG in this way prevents the communication of long-form decimal degree coordinates and can be done quickly with simplified coordinate systems. Enriched with census data, grids could further support

response efforts by providing demographic characteristics that would otherwise require specialized knowledge to share.

Counties in northeastern Minnesota leverage the USNG in compliance with FEMA damage assessment guidance. While ground surveys are essential for planning appropriate and proportional responses, they do not necessarily reflect the population density of a given region. To fill this need, census data is used to identify areas in greatest need of rapid deployment. This requires a conversion of census data to USNG cells, which is often conducted by areal interpolation and relies on assumptions of homogeneous distribution in its calculation. An out-of-the-box conversion of census geometry to USNG would increase the accessibility of census data to USNG users and encourage the integration of additional demographic characteristics beyond population density, saving time and potentially saving lives.

In the State of California, the USNG is applied at a 100m scale in support of small-area estimates of population and housing units. These estimates are provided to small jurisdictions, such as libraries, water, fire, and utility districts, whose geographies are underrepresented by city or county boundaries and lack the resources to produce estimates. Subdividing census data into finite USNG geographies would dramatically simplify the estimation process and minimize reliance on secondary sources for top-down allocation. Furthermore, implementation would reduce barriers to accessing high-quality housing and population information, empowering some users to aggregate their own estimates within time and resource constraints.

Because many programs in disparate states already use Census Bureau data after it has been inefficiently transformed locally for use within USNG based applications, we strongly encourage the Bureau to adopt USNG as a future data delivery format.

Please contact me directly if you need additional information: 651-456-5411, chair@usngi.org.

Sincerely,

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Stephen D. Swazee Sr. Chair