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Item 2 of the provisional agenda

Innovations in census methodology and use of new data sources**Overcoming barriers to effective and efficient enumeration in the 2020
Census****Note by U.S. Census Bureau***Summary*

For the 2020 Census, the U.S. Census Bureau will use new and innovative methods to overcome barriers to full participation in the count, and at the same time to attain significant cost savings. Achieving both these goals required sustained research and testing from 2012 through 2017 to identify cost drivers, factors most likely to prevent or hinder full enumeration, and feasible innovations and alternatives to address those cost drivers and enumeration barriers. Development of the final 2020 Census plans also required extensive consultation with myriad stakeholders in the census, including agencies of the Federal Government, the Congress, state, tribal, and local governments, advisory committees and technical experts, the business community, academia, and the American public. Many of these same stakeholders also will be crucial partners in communicating the importance of participating in the 2020 Census to their constituents, clients, and neighbours.

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I. Background

1. The Decennial Census is mandated by Article I, Section 2 of the Constitution. It provides the official population counts for determining the allocation to states of seats in the United States House of Representatives and for determining how the districts are defined for those seats (Congressional apportionment – 435 seats in House of Representatives). The decennial census also provides comprehensive and useful demographic information about all people living in the United States. Over \$400 billion in funding is allocated annually by federal agencies using information from the decennial census programme.

2. The 2020 Census is being conducted in a rapidly changing environment, requiring a flexible design that takes advantage of new technologies and data sources while minimizing risk to ensure a high quality and accurate population count. Some of the important considerations we needed to take into account as we designed the 2020 Census were as follows:

- **Declining response rates** – Response rates for Census Bureau surveys and for surveys and censuses in general have declined as people are overloaded with requests for information and become increasingly concerned about sharing information. People are inundated with information and one more request is just that, one more request. For the Census where we have to count people once, only once, and in the right place we need to combat those reasons for declining response rates and motivate people to respond;
- **Planning for the increasingly complex living arrangements and population** – Households are becoming more diverse and dynamic, making it a challenge to associate an identified person to a single location. For example, blended families may include children who have two primary residences. Additionally, some households include multiple relationships and generations. These are factors we need to take into account as we are thinking about how we are going to conduct the Census and how we are going to ensure we count everyone;
- **A very mobile population** – The United States continues to be a highly mobile nation as about 12 percent of the population moves in a given year, based on results from the American Community Surveys conducted in 2012-2013 and 2013-2014. Continued growth in the use of cellular telephone technology and an associated reduction in landline telephones tied to physical locations may also complicate enumeration. Our goal for the Census is not only to count the people, but to count the people where they are, so that these data can be used for apportionment and redistricting. And with a population as mobile as our is, this is a challenge; and,
- **Technology** – This Census will be infused with technology throughout, which brings innovation, new ideas, efficiency, and increased quality, but also brings a challenge.

3. While the purpose of the 2020 Census is to conduct a census of population and housing and to disseminate the results to the President, the states, and the American people, the goal of the 2020 Census is to count everyone once, only once, and in the right place. The challenge is to do this at a lower cost per household than the 2010 Census, while maintaining high quality results.

II. 2020 Decennial Census Innovation Areas

4. The Census Bureau embraced this challenge first by identifying the major cost drivers of the decennial census. Then, from 2013 through 2015, the Census Bureau conducted research and testing related to major innovations that showed the most promise of significant cost savings. From that work, across four key innovation areas, the Census Bureau estimated we can avoid billions in costs relative to the cost of repeating the 2010 Census design and operations in 2020. The results of the research and testing, other key information, and input from a wide variety of stakeholders then was used to develop and document the design in the 2020 Census Operational Plan, issued in September of 2015, and updated in September 2016.

5. All four innovation areas are aimed at maintaining the quality of the Census, while taking advantage of new data and methodologies to reduce the costs of fieldwork.

A. Innovation Area 1: Reengineering Address Canvassing for the 2020 Census

6. The Census Bureau will conduct a 100 percent in-office canvass of the nation's addresses, and will continually update the address list based on data from multiple sources, including the U.S. Postal Service, tribal, state, and local governments, satellite imagery, and third-party data providers. This office work also will determine which parts of the country still will require fieldwork because address updates cannot be obtained or verified, or because they are areas undergoing rapid change. In our operational plan, the Census Bureau predicts in-field canvassing will be needed for approximately 30 percent of the total number of addresses.

B. Innovation Area 2: Optimizing Self-Response for the 2020 Census

7. The goal of this innovation area is to communicate the importance of the 2020 Census to the United States population, and to generate the largest possible self-response and thus reduce the workload for expensive in-person follow-up with those households. This will be done in several ways:

- By enabling people to respond via multiple modes (Internet, paper, or telephone);
- By allowing respondents to submit a questionnaire without a unique identification code;
- By providing online forms in multiple languages; and
- Through an extensive advertising and partnership programme.

8. The Census Bureau plans to motivate people to respond by using technology, administrative records, and third-party data to tailor contact strategies to different demographic groups and geographic areas. The Census Bureau also plans to utilize its partnership program for such things as providing information to trusted community leaders to serve as spokespersons, and to host events with community, recreation, local governments and faith-based organizations. The Census Bureau is also planning a robust communications campaign with components such as paid advertising, digital and social media and public relations. These partnership activities, communication efforts, and contact strategies will encourage the use of the Internet as the primary response mode to a sequence of invitations and postcard mailings.

C. Innovation Area 3: Utilizing Administrative Records and Third-Party Data for the 2020 Census

9. The goal of this innovation area is to use information people have already provided to improve the efficiency and effectiveness of the 2020 Census, and in particular reduce expensive in-person follow-up activities. Administrative record data refers to information from federal and state governments. Third-party data refers to information from commercial sources.

10. Data from both sources can help improve the quality of the address list (frame), increase the effectiveness of advertising and contact strategies, validate respondent submissions, and reduce field workload for follow-up activities. As has been done in prior decades, administrative and third-party data are used to update the address frame and reflect changes that occur over time. These data also will be used to help validate respondent addresses for those who respond without providing a unique Census ID.

D. Innovation Area 4: Reengineering Field Operations for the 2020 Census

11. The goal of this innovation area is to use technology to efficiently and effectively manage the 2020 Census fieldwork, and as a result, reduce the staffing, infrastructure, and “brick and mortar” footprint required for the 2020 Census. The three main components of the reengineered field operations are streamlined office and staffing structure, increased use of technology, and increased management and staff productivity.

12. This brings us to the overall design. At its simplest, this is what the census is all about:

- Establishing Where to Count (Identify all addresses where people could live);
- Motivating People to Respond (Conduct a nation-wide communications and partnership campaign);
- Counting the Population (Collect data from all households, including group and other unique living arrangements), and
- Releasing Census Results (Process and provide Census data).

13. Of course implementing this design is not simple. For example, we know not everyone will respond (we are estimating about 60% self-response), and there are a variety of other barriers that must be addressed to ensure accurate counts and quality data.

III. Overcoming Barriers to Enumeration

14. For this reason, besides focusing on cost-saving innovations, the Census Bureau has been examining what is known about barriers to a full enumeration, and how to overcome these barriers.

A. What characteristics make some people harder to count?

15. In an era of falling response rates for surveys of all kinds, it is increasingly harder to gain cooperation from nearly all households, no matter the survey or sector: public or private.

16. Some populations, however, present particular challenges that make them even harder to enumerate than the general population. Based on the Census Bureau’s previous

research, surveys, and tests, we have learned the following factors may lead to a person being harder to count:

- Low income;
- Not speaking English at all, or not speaking it fluently;
- Renting a residence (versus owning);
- Being young and moving frequently;
- Not having a high school diploma.

Other things we know include:

- Some populations are isolated—by geography, culture and/or language, (i.e., Remote Alaskans, the foreign born, undocumented residents);
- Other people are living in non-typical housing (i.e., seasonal migrant worker camps, car garages, storage units and even caves), or without housing, altogether (homeless);
- Some individuals might be unlikely or unwilling to participate due to fear and/or distrust of the government, privacy concerns, or a lack of knowledge/awareness of the Census;
- Research going back to the 1990s has measured undercounts of young children (under 5 years of age).

B. How can outreach and partnerships help overcome enumeration barriers?

17. Although we believe offering additional self-response options via the Internet or telephone will make it easier for people to participate in the 2020 Census, we also know it will be important to conduct both general and focused outreach to remind people it is time for the census, the importance of participating, and how they can respond.

18. The Census Bureau and its communications contractor are in the process of developing several communications and outreach strategies to reach and encourage hard-to-count (HTC) populations to respond to the 2020 Census questionnaire and to fill it out completely and accurately for all household members.

19. As planned, the Census Bureau's fundamental strategy will rely on research-backed, data-driven audience insights, designed to help customize messaging to each specific HTC population at the local level. Our contractor also will hire specialized firms with expertise in specific communications areas and cultures and ethnicities. In addition, they will help us develop in-language and culturally sensitive materials for tailored distribution.

20. The Census Barriers, Attitudes and Motivators Survey (CBAMS) will help determine decisions about the segmentation and strategies that will be designed and implemented to reach harder to count populations.

21. Paid advertising, in particular digital media, will be segmented and targeted to specific audiences taking into account the digital divide between population groups. Special efforts are being taken to ensure that the census message is disseminated to a wide range of digital media sources to include those that are most popular such as Facebook, Twitter, Instagram, Snapchat and other sites and platforms used by harder to count groups.

22. To help deliver these messages, we will rely on national, regional and local partners. These partners are trusted voices in their communities, so they can more effectively deliver

messaging that addresses unique cultural, regional, and/or geographic nuances to motivate various populations to participate in the 2020 Census. Over 300,000 partners worked with the Census Bureau on the 2010 Census.

23. Partnership specialists will be in communities throughout the country creating awareness and conducting outreach activities. They also will provide guidance and support to State Complete Count Committees (SCCC's) and Local Complete Count Committees (CCC's) in their efforts to encourage participation in the Census process.

24. Finally, the enumerators hired to visit non-responding households also are important to the outreach efforts. The objective of the 2020 Census recruiting programme is to attract qualified applicants to apply for hundreds of thousands of positions, and to attract a diverse group of applicants from the community who know and understand the culture and nuances of the people who live in that community.

IV. Conclusion

25. For the 2020 Census, the U.S. Census Bureau will use new and innovative methods to overcome barriers to full participation in the count,

26. Over the past five years, we have fundamentally redesigned our decennial census operations and processes. After a four-year period of research and testing early in the decade, we released the 2020 Census Operational Plan in October 2015.

27. This will be a census of firsts for the United States - the first where most people will be encouraged and able to respond online; the first to use aerial imagery to verify that our list of addresses for the nation is correct and up-to-date; the first to automate follow-up field work for those that do not self-respond to the census; and the first to make extensive use of data that the public has already provided to the government, and data that is available from commercial sources.

28. We anticipate we can avoid billions in costs through these innovations, allowing us to invest in communications, partnerships, and other efforts to address those things that make it harder to count some segments of our population and housing, and thus to achieve our overall goal of counting everyone once, only once, and in the right place.
