UNITED STATES DEPARTMENT OF COMMERCE
U.S. Census Bureau
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To: Allison Plyer
Chair
Census Scientific Advisory Committee

From: Steven D. Dillingham
Director
U.S. Census Bureau

Subject: Recommendations and Comments to the Census Bureau from the Census Scientific Advisory Committee Fall 2019 Meeting

The U.S. Census Bureau thanks the Census Scientific Advisory Committee for its recommendations. We are responding to the committee recommendations submitted during its 2019 Fall Meeting on September 12-13, 2019.

Your expertise is necessary to ensure that the Census Bureau continues to provide relevant and timely statistics used by federal, state, and local governments, as well as business and industry, in an increasingly technologically oriented society.

Attachment

Census Scientific Advisory Committee Fall 2019 Meeting
Recommendations

To: Steve Dillingham
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Census Scientific Advisory Committee

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CSAC appreciates the breadth of topics covered on the first day, but found that 30 minutes is not sufficient for a substantive presentation and discussion. For future meetings, we would like to reserve a minimum of 30 minutes for discussion time. In addition, CSAC requests that there is a discussant in each session.

Thank you for your recommendation. We will do our best to accommodate your suggestion.

The discussion will be most productive if members receive the materials two weeks in advance. The discussants especially appreciate when supplemental, more in-depth materials are available, such as the research plan provided for the Demographic Analysis or the spreadsheet with the proposed early 2020 Census products.

Thank you for your recommendation. We will do our best to accommodate your suggestion.

CSAC members would like to focus the Spring meeting and all future meetings on areas where CSAC scientific expertise can help in decision-making. If there are topics that are more informational and of interest to members, we suggest shifting them to one-way briefings.

Thank you for your recommendation. We will do our best to accommodate your suggestion.

I. Update on the 2020 Census (ADDC)

CSAC would like to congratulate the Census Bureau on the start of the 2020 Decennial with the launch of the in-field address canvassing. As planned by the Census, the adoption of new technology and software for in-office address canvassing led to a cost and resource savings.

This is a good news story. CSAC has questions related to the address canvassing and cost savings:

1. How did the end-result (actual) cost savings compare to the estimates presented in previous years' budget plans?

   The Census Bureau will conduct a detailed cost assessment as part of the overall 2020 Address Canvassing Operational Assessment. While this assessment will include background information about earlier efforts to estimate cost and potential savings, the analysis will focus on the final planned budget for the in-office and in-field components baselined in the 2019 version of the 2020 Census Life Cycle Cost Estimate, as compared with the actual spending that will be finalized later in FY 2020.

2. It was presented that the current in-field failure rate is 32%, for reasons such as these being the most difficult/complex areas as opposed to the easier ones that could be done in the office. CSAC would like to know the results of this accuracy assessment of the in-office work. For example, of the 70% that was done in-house, what was the failure rate?

   Below, we provide preliminary rates at which clerks made errors for two time periods. While each time period represents a different quality control (QC) sampling scheme, one can roughly consider the first set of work reflecting the review of the entire country. The second time period reflects the review of blocks that were determined to have some attribute that signaled the block may have changed since the first time it went through in-office canvassing. We refer to this second set of blocks as triggered blocks.

   - *October 2015 through mid-March 2018: error rate = 4.5 percent*
   - *Mid-March 2018 through March 2019: error rate = 6.9 percent*

   Because the QC plan fixes errors, we estimate the outgoing error for these time periods as

   - *October 2015 through mid-March 2018: outgoing error rate = 2.9 percent*
   - *Mid-March 2018 through March 2019: outgoing error rate = 3.3 percent*

   The general approach to QC for the in-office canvassing was to select a sample of blocks that a clerk worked. This sample of blocks would be re-worked by other clerks. For each block that was in the QC sample, the outcomes of the two clerks were compared through an automated system. If the clerks had similar outcomes, the block passed. If the outcomes were different, an adjudicator would review the block and determine the final outcome for the block. This final outcome could be the same as one of the two clerks, or it could be a third outcome. In the former situation, the clerk who was incorrect generally was assessed an error. In the latter situation, both clerks could be assessed an error.

The rate at which blocks were sampled depended on how well the clerk performed. A new clerk had all blocks reviewed in QC until the clerk was performing satisfactorily (less than 5 percent error rate). Once this occurred, blocks were sampled at varying rates depending on the rate at which the clerk was making errors.

3. CSAC would like to know about lessons learned during the in-office address canvassing that would improve that process for future projects.

   The Census Bureau will continue to assess results and lessons learned from all components of the In-Office Address Canvassing operation and document those in the 2020 In-Office Address Canvassing Assessment Report. We would be happy to share our findings.

4. For planning future in-office address canvassing, are there potential new data sources (example: private sector imagery from insurance companies) that would enhance and improve the process?

   For future In-Office Address Canvassing efforts, the Census Bureau is exploring both new data sources and revised methodologies to enhance and improve the process. From the perspective of new data, we are exploring the use of building footprint and LiDAR to attempt to identify new housing unit structures on the landscape. We are in early exploration of how we might incorporate these new sources of data with data in our MAF/TIGER data set to identify areas that may be experiencing a change in housing units. We are also continuing to explore how we can better utilize various geospatial data (addresses, geospatial data, imagery) from our state and local partners in the process to not only identify where change is occurring, but to attempt to update our databases to reflect this change. As for process improvements, as detailed in #3 above, we are exploring how changes to the processing flow might enable the same person who has identified issues to correct them, and we are also examining how various forms of "automated change detection" will help us focus our efforts in clerical review on those areas experiencing change.

5. Both the schedule and budget are tracking better than predicted for the in-field address canvassing (which is great news). CSAC would like to know the result of schedule and budget for the in-field address canvassing. What are the lessons learned that contributed to the improved productivity (example mentioned: the larger laptop screens made the process more efficient than the 3" x 3" screens from the previous Decennial)?

   The In-Field Address Canvassing operation completed on October 11, 2019. The Census Bureau will conduct a detailed schedule and cost assessment as part of the overall 2020 Address Canvassing Operational Assessment. While we did not complete a time and motion study during the operation, the Census Bureau did observe higher than expected In-Field Address Canvassing productivity rates. The improved productivity rates could be attributed to the following:

- *The large laptop screens made the process more efficient. The listers, particularly those that also worked during the 2010 Census, provided feedback that the LiMA laptop is much easier and more efficient to use than the 3"x3" screens used in the past. The laptops allowed them to see the map and the address list at the same time and they did not have to toggle as frequently.*
- *LiMA software functionality allowed for more efficient update of multiunit addresses. In the past, listers were required to update the address for every unit in a multiunit if the address elements common to all the units, that is the basic street address, was incorrect. The LiMA allowed for bulk edits to the street name and ZIP code, which likely saved time.*

Please note that this is anecdotal information and there was no formal study of lister time and motion for the In-Field Address Canvassing operation.

6. It is also encouraging that the self-response rate for the end-to-end 2018 test exceeded expectations (from an estimated 49% to 53% for the 2018 end-to-end test). This response rate supports the Census' estimate for the 2020 Decennial (60.5%) because the 2020 will include promotion, advertising and increased partnership involvement. Breakdowns by demographic group (race/ethnicity, age, etc.) should help to guide the Bureau's efforts to improve usability of the ISR particularly for hard-to-count groups.

   Thank you for your input. The Census Bureau continues to work on developing and implementing communications and partnership activities that will prompt all audiences to fill out the decennial census.

For the 2018 end-to-end analysis, some additional CSAC questions are:

1. Are there results for the estimated overcount and undercount by demographic group?

   The 2018 End to End Census Test did not include a Post-Enumeration Survey. As a result, we do not have any results that would provide estimated overcounts or undercounts by demographic group.

2. What percentage of respondents used the ID sent to them vs. entering the address themselves?

   In the 2018 End to End Census Test, 9.2 percent of self-responses from internet (ISR) and phone (CQA) were Non-ID responses where the respondent entered an address themselves rather than entering an ID. When considering all modes (including paper) 6.3% of self-responses were Non-ID responses. These percentages also include Coverage Improvement (CI) Usual Home Elsewhere (UHE) cases that were processed through Non-ID. Analysis is currently underway to derive a "true Non-ID" percentage that removes these CI UHE cases. Upon completion of the analysis, the Census Bureau will share the results with the CSAC.

3. CSAC would appreciate additional breakdowns for demographic group for the analysis presented:

    a. Type of response (Internet, Paper, Phone) by demographic group

    In response, the Census Bureau would like to refer the CSAC members to Al Fontenot's 2020 Census Program Update delivered at the spring 2019 CSAC meeting. Specifically, slides 5, 7, and 9 provide information on the proportion of self-response by mode (internet, paper, and phone) by race, Hispanic origin, and tenure, respectively.

    b. Nonresponse followup (33.2%) by demographic group

    The Census Bureau thanks CSAC for this question. In response, the Census Bureau would like to refer the CSAC members to Al Fontenot's 2020 Census Program Update delivered at the Spring 2019 CSAC meeting. Specifically, slides 4, 6, and 8 provide information on the proportion of self-response and Nonresponse Followup by race, Hispanic origin, and Tenure, respectively.

    c. Other response (14.5%) by demographic group. Can this 'Other' category be broken down any further?

    The category "Other" includes responses from coverage improvement and Nonresponse Followup administrative records. For disclosure avoidance reasons, we are unable to release the exact numbers for each category.

    d. Breakoffs by demographic group and an example of the screen they dropped off (Confirm, Complete, Residence). In other words, would you show CSAC what the respondents were looking at when they dropped off?

    Analysis of breakoffs by demographic group and by screen where the breakoff occurred is underway. The Census Bureau will share the results of our analysis upon completion and clearance for release.

    e. Device use by demographic group (PC, Tablet, Mobile)

    Analysis of device use by demographic group is underway. The Census Bureau will share the results of our analysis upon completion and clearance for release.

Other CSAC questions related to the 2020 update:

1. In view of current status of the citizenship question, how is the Census modifying its outreach plans and its coordination with the partners?

    While the citizenship question is no longer on the questionnaire, our integrated communications plan will emphasize the protection and confidentiality of the Census

Bureau data. We know this message to be important for the noncitizen population. We will continue working with trusted voices in local communities to encourage people to participate. Our paid media campaign deals with these issues forthrightly, and we plan to use traditional advertising, digital advertising and social media to spread the word that the census is safe. We also hire enumerators locally that we expect will collectively speak dozens of languages to help us convey the message that participating in the census is safe.

2. CSAC would like to know more details about the structure of the Cyber testing for potential threats or disruptions. Are there red team, blue team type tests for Cyber protection?

   Yes. The details of these tests are not public, due to the sensitivity of the data.

3. How will respondents know that the Census Bureau has successfully received their response?

   Respondents using the online option will receive a confirmation screen after clicking "submit" at the end of the questionnaire. Respondents who respond via mail or telephone will not receive a similar confirmation, but will be removed from further follow-ups. Regardless of mode, respondents cannot contact the Census Bureau to verify who was reported for their household. Legal and security are primary reasons that make the Census Bureau unable to respond to requests for confirmation of a response.

4. How will respondents know that a purported online Census form is legitimate?

   *To ensure that respondents access the online census questionnaire, we are instructing respondents to please use only 2020census.gov or type in the URL shown on a mailing from the Census Bureau. Also, we advise to look for the "**S**" in https:// (in the URL). This URL ensures that a respondent is using a secure connection.*

5. Will the Census Bureau be establishing internet Self-Response kiosks in local communities?

   No. We will, however, offer Mobile Questionnaire Assistance (MQA) in 2020. In addition, states, cities, and localities may choose to make computers available to respondents for completing the census. The MQA initiative will allow census employees to visit hard-to-count neighborhoods to solicit online or telephone response. Potential locations will vary but may include public locations like street fairs, houses of worship, local grocery stores, and libraries.

6. Will the Census Bureau be recommending that all respondents type the URL in directly, or will it be OK for third parties to link directly to the form?

The Census Bureau allows linking to the launch page at 2020census.gov; for security reasons, we discourage linking directly to the questionnaire. Of course, respondents may type the URL displayed on their questionnaire directly into the browser.

CSAC members would appreciate a demonstration or interactive opportunity to use the Internet Self-Response interface.

Thank you for your interest in the Internet Self-Response instrument. We will look for an opportunity to provide you with a demonstration.

II. Integrated Communications Program (ADDC, ADCOM)

CSAC would like to thank the Census Bureau and Team Y & R for their presentation on the Integrated Communications Program and answers to questions from CSAC.

CSAC recommends a focus on hard-to-count populations in early rounds of communication. CSAC agrees with the use of non-response rates as a key input for allocation of resources once enumeration begins. CSAC recommends flexibility in the use of identified segments in order to address groups with high non-response rates that may not be well represented in the currently identified segments.

CSAC welcomes the communication program's addressing the historical undercount of young children, as well as the focus on schools in hard-to-count communities. Several civic groups are investing in research around messaging to hard-to-count groups about the value of the census. CSAC encourages the Bureau and Team Y&R to consult regularly with these groups and take their findings into consideration. The submitted letter from the Partnership for America's Children and the Coalition on Human Needs is one example describing focus group results for young families. Other efforts can be found on the Funders Committee for Civic Participation website at https://funderscommittee.org/resource/recording-slides-fci-briefing-series-census-2020-messaging-testing-results/ Sharing the plans for digital advertising with major civic stakeholders would also aid in external group's planning.

CSAC questions related to the Integrated Communications Program:

1. What languages in addition to English and Spanish will be part of the integrated communications program beyond taglines and 2020census.gov (e.g., television, radio, print, social media)?

   Our paid advertising, promotional materials and promotional items will be available in English, Spanish, and the same languages covered by the ISR and the communications campaign. The additional languages are Chinese (Mandarin and Cantonese), Korean, Tagalog/Taglish, Vietnamese, Japanese, Russian, Arabic, Polish, French, Haitian Creole, and Portuguese.

Other than the English and Spanish full versions, the website will include a page for each of the 59 languages that are supported by the language guidelines developed by the 2020 Census Language Program. These pages will include information specific to each audience as well as the video and print language guides.

Statistics In Schools materials will be available in English and Spanish. A take home letter is being produced in all 13 languages supported by the campaign. Social media will be available in English and Spanish for native content. For paid social media content, we will have messages available in the other languages covered by the ISR and the communications campaign [Chinese (Mandarin and Cantonese), Korean, Tagalog/Taglish, Vietnamese, Japanese, Russian, Arabic, Polish, French, Haitian Creole, and Portuguese].

2. Could you provide greater detail on how each communication modality will be assessed for effectiveness?

   The Integrated Partnership and Communications operation (IPC) uses a number of communications channels, including paid media, earned media, partnerships, social media, Statistics in Schools (SIS), and the website. These communication channels have different measures of effectiveness and performance — for example, digital media will measure impression counts and click-through rates for individual advertisements whereas national television measures delivery of advertising spots according to the approved media plans.

   During the enumeration, the Census Bureau and its communications contractor, Team Y&R will examine daily response rates as well as monitor traditional/social media, and customer feedback metrics. These metrics include call center contacts, feedback from field operations, and web page views. This holistic analysis will enable the Census Bureau to identify opportunities to optimize the communications campaign with changes to messages, channels, and spend levels to maximize self-response and communications efficiency.

   After the enumeration, campaign optimization outcomes will be analyzed to document the changes to the communication campaign across channels and the underlying data that shaped those decisions. In addition, the Census Bureau is designing a series of evaluations and assessments to examine the effectiveness of the partnership and communications program.

3. How will advertising efforts be re-allocated during enumeration if they are purchased ahead of time (e.g., for television)?

   During enumeration, we will be evaluating the advertising efforts (in radio, TV, and digital) in terms of content and effectiveness. If we see content that is misunderstood or is not driving the response we are expecting, we can switch the advertisement for more effective content. If we see response rates are lagging in a designated market area

(DMA), we can move additional resources. In addition, we have a contingency fund for the campaign that can be used if new content needs to be developed or additional space needs to be purchased. We will deploy additional resources for partnerships, social media, and public relations in low response areas, as needed.

4. How are print materials going to be used and delivered (e.g., posters, brochures)?

   Our partnership specialists will use promotional materials and will deliver these materials to our partners, mostly at the local level. Partnership specialists will also use these materials at events with the public. Materials will be delivered to our partnership specialists using the Government Publishing Office (GPO). As our official government distributor, GPO will be the source from which to order print materials, as needed.

5. CSAC would like information about specific programs targeting response rates for people living on reservations.

   Field Decennial and the regional offices will utilize the Community Partnership and Engagement Program (CPEP) to conduct outreach to people living on reservations. To help ensure an accurate count of all American Indians and Alaska Natives in the 2020 Census, the Census Bureau held began early in the decade and conducted 17 tribal consultations, plus a national webinar, with federally and state-recognized tribes and Alaska regional and village corporations to discuss the 2020 decennial programs. These consultations garnered feedback from the tribes on all census operations, including geography, recruitment activities, data collection operations and outreach and promotion.

   These consultations informed the development of the Tribal Liaison program which was created to enhance the partnership between the Census Bureau and federally recognized tribal governments. Additionally, Field Division has conducted several tribal liaison trainings in the regions.

   For the 2020 Census, tribal liaisons will focus most of their efforts on outreach and promotion, recruitment for census jobs, enumeration planning and assistance, and post-census activities.

   The main focus of tribal governments liaisons is:

   - *Continue or work with tribal officials to establish a Tribal Complete Count Committee (TCCC) or secure involvement of community-based groups to promote the census. Establishing a TCCC will play a major role in conducting census outreach and promotion activities for its tribal citizens.*

   - *Communicate the benefits of having a complete and accurate census count of all tribal citizens that includes infants, children of all age groups, adults, and elders.*

- *Identify a wide range of community events at which presentations can be made to promote the census and recruit for temporary local census jobs.*

- *Identify appropriate media that combines traditional media and online or social media for promoting the 2020 Census on tribal lands and areas. Utilizing a wide variety of media sources will help reach a broader range of generational groups within the community. Options may include newspaper, newsletters, radio, television, websites, blogs, Facebook pages, and other local media sources.*

- *Identify locations with internet access to implement the Mobile Questionnaire Assistance Program, which allows a person to complete the online census questionnaire on-site with help from census staff. Once established, these individuals will work at visible locations in local hard-to-count neighborhoods, such as trading posts, tribal museums, cultural and heritage centers, powwows, festivals, events and other high-traffic venues. The staff would be highly mobile, potentially visiting multiple areas in a day to generate the greatest awareness and participation. The ACOs and partnership specialist will work together to identify areas that are low responding and focus efforts there.*

Distribute Census Bureau and/or tribal promotional materials.

Education and outreach to tribal schools are also a vital component of the AIAN program. Field Division and the Statistics in Schools Program are working with the Bureau of Indian Education and the National Indian Education Association for a complete list of schools to distribute 2020 Census information via kits and maps.

The Community Partnership Engagement Program (CPEP) Program will continue to work with local and national partners, such as the Alaska Federation of Natives, the National Congress of American Indians, the Navajo Nation, Sitting Bull College Census Information Center, and First Alaskans Institute, as well as the Departments of Interior, Health and Human Services, Education, Justice, Housing and Urban Development, and the Bureaus of Indian Affairs, Indian Education, and Indian Health Services on the federal level. Census Bureau Director Steve Dillingham conducted tribal consultations at the Alaska Federation of Natives and the National Congress of American Indians tribal conventions.

III. Update on Partnership Program (ADCOM, FLD)

CSAC commends the Bureau's development of an Internet Self-Response (ISR) mode for the 2020 Census. This will be the first time a decennial Census incorporates this mode. However, doubts remain about how respondents will interact with the ISR, and partners are an essential

mechanism for promoting the use of ISR. CSAC recommends that the video demonstration of the ISR be made available publicly as soon as possible and shared with partners, so that partners have time to develop materials to promote and guide the use of ISR.

1. CSAC commends the Bureau's openness to allowing partners to provide devices to respondents who wish to access the ISR. CSAC hears feedback from partners that they are anxious to help the 2020 Census by providing devices, but they currently lack the guidance on how to provide devices to respondents that takes into account all relevant legal and technical considerations, and where they should call if they have problems during a large scale event. In addition, partners need to know how they can protect/secure the responses of individuals using their devices from malware, prevent keyloggers, etc. Template messages or promotional information that partners can use about their providing devices for online self-response would be very helpful as well. CSAC recommends that the Partnership Program publish and disseminate as soon as possible written guidance for local governments, libraries and other partner organizations that will host devices or standalone kiosks for people to answer the Census to promote best practices for maximizing digital security. Please advise when you plan to release this type of guidance for partners. [One example of a resource being developed by civil society groups is "Preparing for the Digital Decennial Census" https://www.digitalequitylab.org/preparing-for-the-digital-decennial-census-risk-assessment-strategies/]

   While we appreciate the interest and enthusiasm of our partners, the Census Bureau cannot provide legal advice or informational technology support to outside entities or third parties. We have advised partners that they should procure their own legal counsel and information technology support to address their questions and concerns. However, the Census Bureau has published a Q&A, which we have disseminated to all partnership specialists and posted online at: https://2020census.gov/content/dam/2020census/materials/partners/2019-10/partners-self-response.pdf.

2. Partners can be an essential mechanism to improve response. Partners can hold activities where they coordinate response through devices brought by respondents. But, there is currently a concern that such mass response promotion from a single location may activate the Bureau's cybersecurity protocols and block access to the ISR. CSAC recommends that the Bureau consider offering a secure remote WiFi server that can be deployed by its partnership specialists to such activities, so as to avoid having the Bureau's cybersecurity block these response promotions activities.

   The Census Bureau has built a safe and secure system for the public to complete the 2020 Census online. From the moment responses are submitted, the information is protected by sophisticated security measures that meet federal government cyber security standards. Testing indicates legitimate responses from a single public source will not be an issue.

3. Some CSAC members found it difficult to find the Statistics in Schools (SIS) resources on the 2020 Census website. CSAC recommends making SIS resources accessible in a more intuitive way on the website.

   The Census Bureau accepts this recommendation and used this feedback to make updates to the SIS website which now features a description of the importance of SIS in 2020 in the center section of the main page along with prominent links to 2020 Resources, ways to get involved and 2020 maps. Finally, the Census Bureau will continue to update the 2020 Census campaign website with content that will focus on the key aspects of the campaign at that time. During peak times (i.e. SIS week) there will be clear linkages to the program from the campaign site.

4. CSAC is concerned about the possibility of a persistent undercount of young children. Therefore, CSAC strongly recommends the Bureau partner with organizations who serve young children. CSAC would like a one-way briefing on the Undercount of Young Children Program and Census Bureau's efforts to address it.

   The National Partnership Program has a dedicated account manager for the young children portfolio, and is successfully engaging organizations at all levels that represent the young child audience. The Annie E. Casey Foundation, for example, has participated in more than five Census Solutions Workshops across the country and is a champion of the 2020 Census Count all Kids initiative. The Federation of Pediatric Organizations (FOPO) published an article about the 2020 Census in a major pediatric journal distributed to more than 20,000 pediatricians and pediatric researchers across the nation. Additionally, the Molly of Denali children's show is promoting the 2020 Census via social media from January through April of 2020 and created coloring pages for kids featuring 2020 Census key messaging with the Molly of Denali character. The National Diaper Bank Network is asking each diaper bank affiliate to print and distribute 2020 Census half pagers in diaper packages. The Census Bureau would be happy to provide a briefing about its efforts to address the undercount of young children.

   CPEP, in coordination with the National Undercount of Young Children program, has developed a regional implementation plan for conducting local outreach to hospitals, free clinics, day care facilities, and other organizations who serve this population. These outreach efforts will be launched in January 2020. Additionally, regional offices have held Partner Summits focused on the undercount of young children. These summits have been an opportunity for local partners to become educated and devise strategies to address what has been determined as the fastest growing hard-to-count population. At the conclusion of partner summits, partner organizations become Census Ambassadors and continue to promote the Census through their various coalitions and partner networks.

5. A sizable portion of children are educated in home schooling arrangements. These children may also form part of families that are reluctant to participate in the Census. CSAC recommends that the Bureau consider partnering with state-level home school regulating agencies or home schooling associations to have them distribute Census related materials, including Statistics in Schools materials, to students.

   CPEP and the SIS program are working in concert to reach children and their families in a variety of ways, from partnerships with local school districts to home schooling associations.

6. Children in high-conflict separations may be an overlooked source of the young children undercount. Currently, the Bureau recommends parents coordinate in which home the child will be counted on the Census form, but the Bureau does not provide guidance to parents who are unable to make this coordination with the other parent. The Bureau should provide clear guidance to parents in this situation that supports the reporting of the children, even when the parent cannot coordinate with the other parent.

   In communications and partnership efforts, the Census Bureau explains the residence criteria that people should be counted where they live and sleep most of the time. If parents are unable to coordinate, then they each must use their best judgement for where to count the child. The Census Bureau has processing steps in place that help identify potential duplicate responses in these types of situations.

7. CSAC is pleased at the progress with the deployment of the 2020 Census Partnership and Engagement Program (CPEP). The Program, however, lacks a way to measure its impact and its effectiveness. CSAC recommends that the Program for Evaluations and Experiments (CPEX) program be directed to include a program evaluation of the 2020 Census Partnership Program that allows the Census Bureau to understand what aspects of this program work in promoting response. CSAC also recommends that a Working Group be formed to assist in developing and analyzing an evaluation of the Partnership Program.

   Currently, the Census Bureau performs tracking, monitoring, reporting, and decision-making about the progress and associated risks for the program. With headquarters staff and 1,500+ partnership staff in the regions, the Census Bureau must measure progress toward accomplishing its goals using a systematic and transparent approach. Previous evaluations of advertising and partnership efforts have found it difficult to attribute either of these IPC components as having an effect on response rates. Nonetheless, the Census Bureau is conducting an operational assessment of the CPEP program via a survey for the Partnership Specialists and Partnership Coordinators, and a qualitative component (interviews and observations). Survey topics include (a) training materials and recommendations to improvement (b) experience using Census materials in the field, (c) interactions between partnership specialists and coordinators, (d) interactions with Customer Relationship Management (CRM) database, (e) experience outreaching to partner organizations, (g) type and quality overall relationship they have

with partner organizations and how to keep cultivating this relationship toward 2030. The design of the interview protocol addresses the same topic areas addressed in the survey component described above. The selected partnership specialists will participate in the interview while they are part of the ethnographic observation component.

8. CSAC commends the Bureau's commitment to the Partnership Program. Currently, the goal of the Bureau's partnership specialists is to achieve a certain number of partnership agreements. As a result, partnership specialists work to make sure partnership agreements are signed, with little time devoted to working with partners to promote Census response. The Bureau reported that it has already signed some 54,000 partner agreements so far for the 2020 Census. CSAC is not aware of any thorough evaluation of the effectiveness of the Partner Program. Going forward, CSAC recommends that partners focus not just on signing agreements, but also on working with partners to actually promote Census participation. As part of this work, partnership specialists can gather data on partner activities, that would help the Census Bureau evaluate the Partnership Program. CSAC believes the Partnership Program may need to prioritize the quality of partnerships over the quantity of partnerships. For the 2030 Census, the Partnership Program could be transformed to have less partners, who are engaged in more meaningful decennial Census activities that support participation. As part of this overhaul, the Census could consider maintaining its Partnership Program throughout the decade leveraging a small team of regional partnership specialists and its State Data Center (SDC) network to maintain the partnership relations. Much like the SDC program, the Census Bureau and its regional partnership specialists could provide draft correspondence to partner organizations for distribution by partners to their networks.

   Thank you for your recommendations. Through our CRM system, partnership staff are able to record activities with current and future Census Bureau partners. The CRM also monitors and generates reports on the status of activities that partner organizations pledge to complete in support of the 2020 Census. This tool is critical to maintaining current historical records that provide the legacy of partnership efforts throughout the decade.

9. CSAC applauds the CPEP programs for developing regional plans responsive to local context. Given the wide range of organizations in any given region working on census outreach, we ask that those plans be published on the Census Bureau website. We encourage each region to determine measures of activities and results.

   Due to the sometimes sensitive nature of our outreach in particular communities, the Census Bureau does not publish advance outreach efforts and strategies on our public website.

10. CSAC encourages the Partnership Program to explore a system for voluntary submission, publishing, and archiving of written plans or other key materials from the 2020 Complete Count Committees, possibly for peer learning around best practices now but also for thinking about developing guidance and materials for Complete Counts in 2030.

Census Open Innovation Lab (COIL) supported activity has been collected via an external repository (via Rock the Vote) for partner-led content, including from Complete Count Committees (CCC)s. We also have the interactive map available where CCCs can go to find contact information for other CCCs.

11. CSAC also encourages the Partnership Program to educate the local specialists so they can promote the Bureau's efforts to fight rumors and misinformation (namely the webpage and the dedicated email address) to their local organizations.

    Partnership staff have been trained on fighting 2020 Census rumors (via our train-the-trainer sessions and materials) and we have also walked through the site in detail on one of our Nationwide Partnership calls, which all partnership staff across the country are required to attend. We will continue to remind our specialists through future training and nationwide calls.

IV. Plans to Evaluate 2020 (ADDC)

CSAC appreciated the high-level overview of the 2020 Census Program for Evaluations and Experiments (CPEX), which will provide not only essential documentation of current decennial census operations, but also important information for planning of the next decennial.

1. CSAC would welcome the opportunity to have one-way briefings from Census on the detailed plans for selected experiments and evaluations, in advance of presentations on any findings. Such briefings would allow technical experts on CSAC to understand the study methodology, enabling them to provide better insights and targeted advice on CPEX analysis and results.

   The Census Bureau accepts this recommendation, and as CPEX study plans are baselined, they can be made available to CSAC members. Our current list of baselined study plans is:

   - *Administrative Record Dual System Estimation*
   - *Evaluation of the Reengineered Address Canvassing Operation*
   - *Research on Hard to Count Populations: Non-English Speakers and Complex Household Residents including Undercount of Children*
   - *Analysis of Census Internet Self-Response Paradata by Language*
   - *Evaluating Privacy and Confidentiality Concerns*
   - *The Undercount of Young Children: A Qualitative Evaluation of Census Materials and Operations: Part 2, PES and AdRec Match to 2020 Census*
   - *Group Quarters Advance Contact (GQAC): Refining Classification of College or University Student Housing*
   - *Real-Time 2020 Administrative Record Census Simulation*
   - *Extending the Decennial Census Environment to the Mailing Materials*
   - *Evaluation of the Optimization of Self-Response in the 2020 Census*

   Authors will be made available to brief CSAC members on the study plans of interest.

2. CSAC would like to have presentations on findings from the 2020 CPEX as those results become available. CSAC anticipates that the results from the Real-Time 2020 Administrative Record Census Simulation experiment should be available relatively quickly and might be among the first sets of results presented.

   The Census Bureau accepts this recommendation. Authors will be made available to brief CSAC members on the results of the 2020 CPEX studies as they become available.

3. CSAC appreciates the planned evaluations described in the Undercount of Young Children: A Qualitative Evaluation of Census Materials and Operations. CSAC would like further details on evaluations of the young children undercount that Census Bureau has already done, and to what extent these previous studies are informing the 2020 CPEX evaluation.

   The Census Bureau accepts this recommendation. Research to date has established the magnitude of the problem and uncovered some of the characteristics of households and individuals most affected. Please visit https://www.census.gov/programs-surveys/decennial-census/2020-census/research-testing/undercount-of-young-children.html for a list of Census Bureau research on this topic. However, we do not know why respondents fail to include young children on the initial census questionnaire. This question is the focus of this CPEX evaluation. Existing research has been used to develop and hone the recruiting and screening methodology, the cognitive interview protocol, and the focus group moderator guide. Research also has led to the development of a "grounded vignette" methodology, where respondents are asked about various living situations and then probed on who they would list on the census and why.

4. CSAC assumes (and recommends) that the two experiments on Extending the Census Environment to the Mailing Materials and Optimization of Self-Response in the 2020 Census will be designed similarly to the ones in 2010, so that the Bureau will be able to analyze the effects of the different methods on the response rates of different hard-to-count groups.

   The Census Bureau does not accept this recommendation. The experiments were designed to allow for the comparison of self-response rates across panels separately within the two 2020 Census contact strategies. This design is analogous to the design of the 2010 Census mail experiments where the sample was stratified by mail replacement strategy. The finalized sample design for the two 2020 Census experiments mentioned does not oversample hard-to-count groups.

5. Because the 2020 Decennial is the first online census, CSAC recommends that the Bureau try to measure how much the digital divide might impact any undercounts. This question might be addressed within one or more of the planned 2020 CPEX evaluations.

The Census Bureau does not accept this recommendation. The 2020 CPEX program is currently not designed to measure the effect of the introduction of the internet response option on coverage. The Optimization of Self-Response in the 2020 Census Experiment includes a panel where respondents are not informed of the internet instrument and are instead provided only a paper questionnaire. The purpose of this panel is to measure differences in response rates rather than coverage, and the finalized sample design for this experiment does not support the analysis of impacts on undercounts.

6. CSAC suggests considering adding university-owned housing units (which may appear to be single-family) to the exploration of the new group quarters categories for student housing, given rising trends towards university learning communities.

   The Census Bureau accepts this recommendation. The CPEX program is focused on identifying and studying privately owned and managed student housing units, rather than those owned by universities. However, during the 2020 Group Quarters Advance Contact operation, a census worker will confirm with the GQ administrator if the student housing is owned/managed by a college/university or a private company or agency. This information will be covered in the operational assessment for the Group Quarters Advance Contact operation.

7. The 2020 Census Operational Assessments will give measures of how effective and productive the Census Bureau's systems were for 2020, providing useful data for planning of the 2030 decennial. CSAC recommends that the Census Bureau track not only these 2020 metrics as a 2030 baseline, but also the quality of the Bureau's ability to predict these 2020 metrics in 2020. In 2030, the Census Bureau will be making predictions about 2030 performance. Based on 2020 prediction performance, what kinds of 2030 predictions are likely to be reliable?

   The Census Bureau accepts this recommendation. We have developed demand models for all major 2020 systems and operations, and we will be assessing how well our models predicted peak demand times and volumes. This assessment can be used to inform systems planning and design for the 2030 Census.

8. In the experiment Optimization of Self-Response in the 2020 Census, CSAC would like clarification on whether the panel that receives NO mail materials (but only NRFU if no response is received) is geographically clustered. If so, CSAC has concern that this panel would unfairly disadvantage that geographic area.

   The Census Bureau accepts this recommendation. The sample for this panel is not geographically clustered. The primary sampling unit is housing unit.

9. CSAC would like further details on the sampling frame and analysis plans for the Optimization of Self-Response in the 2020 Census. Would each panel be a full cross-section of the population, or would the panels be differentially selected (for example,

are the elderly going to be more likely to get paper and younger populations the digital submission)? Further, what geographic information might be used in analysis (for example, young, urban, black men may be the source of the undercount).

The Census Bureau accepts this recommendation. The sampling frame for the Optimization of Self-Response in the 2020 Census is Type of Enumeration Area (TEA) 1 housing units stratified by production 2020 Census contact strategy. The sample sizes were calculated to allow for the comparison of self-response rates across panels separately within 2020 Census contact strategy. The 2020 Census contact strategy was assigned to all housing units before selection and was determined using American Community Survey (ACS) response rates, the average age of the housing unit's tract per the ACS, and the number of high-speed internet connections per the Federal Communications Commission (FCC).

V. Demographic Analysis (ADDP)

CSAC appreciates the timely, thorough and well documented materials on Demographic Analysis (DA). The methods are rigorous and thoughtful. The committee was pleased to hear that the Census Bureau has critically considered the increasing complexity of race/ethnic classification, both in terms of aligning Census and vital records' classification strategies as well as the potential for individuals to change how they self-identify over time.

1. The committee welcomes further briefings on the Bureau's continued research into these fraught questions, and on the potential for gender classification to grow increasingly complex.

   The Demographic Analysis (DA) program welcomes opportunities to discuss our research and receive feedback on our methodology. The DA program uses information on birth and death certificates and other data to develop estimates by sex. At this time, we are not planning to address changes in gender classification over the life course for the 2020 DA.

2. Regarding the Bureau's question about additional characteristics to estimate in the DA program, CSAC recommends consideration of breakdown by Asian/Pacific-Islander particularly in light of CBAMS results that find that Asians are the most likely to be fearful that Census 2020 data will be used against them. In addition, American Indian/Native American statuses would be valuable. We recognize these breakdowns will most likely only be possible for younger cohorts, and only if these characteristics are available on birth certificates.

   The Census Bureau accepts the recommendation. We currently plan to produce a series of DA estimates for the population aged 0 to 17 in 2020 by full race detail, including Asian and American Indian or Alaska Native (AIAN). We have also done some research on producing an Asian or Pacific Islander (API) series for the cohorts born after 1980

(ages 0 to 39 in 2020). We could potentially produce these estimates for the AIAN population beginning with cohorts born after 1980 or even earlier, although we have not conducted research on this as of yet, and it will be contingent on resource and data availability.

3. Estimating international migration is clearly the greatest sources of error in the Demographic Analysis. Especially for older cohorts, estimating international migrant flows is difficult especially for the residual foreign born. CSAC finds the possibility of shifting to a stock approach to estimating international migration appealing, and would like to hear more about this approach when it is more fully developed. The committee does appreciate current cooperation with foreign statistical agencies and encourage additional collaborations with statistical agencies to better understand and verify domestic data on international migration trends. In addition, CSAC appreciates efforts to research probabilistic measures of uncertainty using Bayesian modeling techniques for 2020. It would be interesting to hear more about what the actual approach would look like, so that CSAC could offer more targeted advice. The Bayesian approach seems most promising for addressing uncertainty in international migration.

   The Census Bureau partially accepts the recommendation. We are also hopeful that the Foreign-born Stock Method will improve the validity of the 2020 DA estimates. We plan to test this method in the coming months and can update CSAC about the results. The Net International Migration Branch continues to collaborate with Statistics Canada and Mexico's National Institute of Statistics and Geography (INEGI), and we hope to use data from these agencies to improve the 2020 DA estimates. Unfortunately, we have had to scale back on our measures of uncertainty and are no longer planning on doing the Bayesian approach for the official series of 2020 DA estimates. At this time, we are planning to produce a range of estimates (high, middle, low) to reflect uncertainty. However, we plan to continue researching the Bayesian approach for estimates produced after 2020.

4. CSAC also applauds the implementation of experimental series, especially the attention to young children and the potential for geographic detail.

   The Census Bureau has made improving the coverage of young children a priority for the 2020 Census. DA provides a robust estimate of net coverage error for young children because the estimate comes primarily from birth records, which are considered complete in the United States. We plan to use the DA method to develop state- and county-level estimates of net coverage error for young children. We appreciate that CSAC recognizes the importance of these estimates for understanding the coverage of this population.

5. With regards to Medicare data, CSAC appreciates that we can now evaluate/compare Medicare approach for ages 65-84 and the cohort component approach for these ages. For those age 85plus, the report recognized complications with duplicate records and underreporting of deaths in the Medicare data for the very old. CSAC recommends Demographic Analysis explore the merits of using matched Vital Statistics and Social Security death records to address the latter issue.

The Census Bureau cannot accept this recommendation. We currently do not have approval to link death records to the Medicare file, and getting approval would require getting permission from all 50 states individually. The Social Security and Vital Statistics death records are relatively consistent with one another. We already match the Social Security Master Deaths file with the Medicare file to remove reported deaths. We have started working with staff at the Center for Medicare and Medicaid Services (CMS) to develop a method for removing the "immortal" records (where it appears that someone has reached an implausible age) from the Medicare files. We will continue collaborating with CMS on this issue.

6. CSAC looks forward to hearing how DA methods evolve in the coming years, including the potential for greater integration of administrative records in Census programs. Perhaps greater integration of alternative administrative records, such as school enrollment records and state identification records could help to inform a migration component that could make it possible to estimate sub-national DA for states and/or metropolitan areas, especially for children.

   The Census Bureau accepts this recommendation. Administrative records are a strength of the DA method because they enable the estimates to be independent of the census being evaluated. We are always looking for ways that we can incorporate new sources of data to improve the DA estimates. We appreciate the recommendation to explore school enrollment data or state identification records to make sub-national estimates. We will plan to update CSAC about this work.

7. CSAC would like to know when the detailed operational plan for the 2020 Post-Enumeration Survey will be published. CSAC recommends that the Census Bureau provide at the next meeting a detailed description of plans for the Post-Enumeration Survey, similar to the level of detail they provided on the Demographic Analysis.

   The Census Bureau accepts this recommendation. We would be glad to present the Post-Enumeration Survey Detailed Operational Plan at an upcoming CSAC meeting. Because resources for research and testing were limited over the past decade, the PES design and operations are very similar to the 2010 Census Coverage Measurement. Additionally, it is important to note that as the PES design and operations have been baselined, it is difficult to make changes at this point. Thus, it is unlikely that we will have the ability to make changes based on CSAC feedback.

VI. Update on the 2020 Census Products (ADDC, ADDP)

CSAC very much appreciates having the detailed spreadsheet with the DHC tables and the thoughtful background about the context in which decisions are being made.

1. The committee encourages the Bureau to create a public communications plan for disseminating information about the proposed product design which includes audiences

of users with a range of technical backgrounds. To make it as easy as possible for users to learn about the decisions and upcoming plans for the design of the 2020 products, CSAC suggests that this include a dedicated landing page for related materials that provides succinct information about the primary driver of protecting individual privacy, any other inputs, and opportunities to engage. CSAC recommends that the team planning for dissemination consider ways that they can leverage the Customer Relationship Management system and the 2020 Partnership lists to reach out to a broad base of users about the changes to the published tables.

The Census Bureau accepts the CSAC's suggestion regarding the communications plan and web presence for 2020 Data Products and Differential Privacy. The release of the 2010 Demonstration Product in late October prompted us to include information on materials that support both the demonstration product and other 2020 product planning documents from our outreach to CSAC and other stakeholders. We have also begun working with the Bureau liaisons with the Data Dissemination and Partnership specialists and the Bureau's partners in dissemination in the State Data Centers and Census Information Centers. We appreciate your feedback, and we realize that we need to improve communication on navigating to the site. We maintain pages dedicated to 2020 Census disclosure avoidance within our main Statistical Safeguards page. We encourage visitors to use the main search engine on the Census Bureau site to navigate to the page. Just search "Disclosure Avoidance" or "differential Privacy" from the census.gov home page.

2. Disclosure avoidance is essential but data about children and youth by age are similarly important. To reassure and effectively communicate with the public and user community about how tradeoffs will be made and be explicit about what data will be made available, CSAC recommends that, as with the DHC, information is publicly provided about the details of future products, particularly as it relates to children and youth. For example, CSAC suggests that a table or memo that outlines the counts/tabulations that will be available for children and youth at each level of geography. In particular at what levels of geography will detailed data about children be tabulated with information about the household and will data for children at low levels of geography contain more error?

   The Census Bureau accepts the CSAC's suggestion regarding details of counts and tabulations that will be available for children and youth. We are releasing the table outlines for the DHC and other products on a flow basis within the detailed spreadsheet through the web and presentations to data user stakeholders. Data will be available for children by single year of age at the block level and then iterated by race for age groups also at the block level. The Census Bureau is currently working to address the challenges presented to the CSAC on providing counts of children by householder characteristics and household type. We will provide updates on the development of household data at the next CSAC meeting. The release of the 2010 Demonstration Product will also begin the

dialogue with data users on the trade-off between accuracy and epsilon (the setting for differential privacy) as well as the proposed presentation of data tables and geographic detail.

3. CSAC recommends that the dissemination team consider ways to reach out to the data science and analytics education community, including textbook authors to broaden the audience for Census 2020 products.

   The Census Bureau accepts the CSAC's recommendation to develop materials to broaden the audience and to communicate about the 2020 Census products and differential privacy. We plan to follow your recommendation from the spring meeting to develop a "handbook" series describing differential privacy similar to the ACS handbook series.

VII. Disclosure Limitation Recommendations (ADRM)

The CSAC thanks the Bureau for the presentation, and applauds the open source release of the code used for the 2018 end-to-end test.

1. We strongly commend the disclosure avoidance work and the care that John Abowd and others have taken to maintain the rigor in the released data products.

   The Census Bureau thanks CSAC for their assessment.

2. We appreciate the need of the USCB to continue to be on the forefront on privacy protection in a rapidly changing societal environment, and efforts to engage with the public on the topic through forums such as the new video. We have full confidence that the USCB procedures put in place to ensure that data supplied for PL94-171 are statistically accurate, and appreciate the acknowledgement for analytical purposes of micro-data, in contrast to aggregated counts needed for redistricting, use of the FSRDC may become an even more important asset, but suggest that given the wide user community of various census data products, additional, perhaps customized outreach to particular types of user communities will help to increase the understanding of new disclosure avoidance techniques.

   The Census Bureau accepts this recommendation. We agree that stakeholder outreach regarding the transition to differential privacy and the impact that it will have on data use is critical. Several offices within the Census Bureau have been actively engaged in targeted outreach activities to key data user communities. To date, in addition to numerous presentations on differential privacy at professional association meetings and symposia, sessions on the impact of differential privacy on data use for State Data Center affiliates and members of the redistricting community, and individual outreach to other key data users, we have also conducted several tribal consultations on this issue

with American Indian and Alaska Native tribal leaders. We intend to continue this outreach throughout the coming year. We welcome suggestions for additional data user groups to engage with.

3. The citizenship data are potentially more sensitive than many other attributes. More importantly, it is much more correlated within geographic locations, making reconstruction attacks that account for such correlations much more effective in recovering this attribute. The CSAC recommends that the Bureau consider this increased risk to confidentiality. One approach to handle this is to use a much smaller epsilon for this attribute. While at this stage, it may be hard to redesign the TopDown algorithm to handle attribute-heterogeneous privacy parameters, the Bureau could use randomized response on this attribute before feeding it into the TopDown algorithm. The CSAC recommends that the Bureau evaluate this approach.

   The Census Bureau thanks CSAC for this recommendation. The Census Bureau's Data Stewardship Executive Policy Committee (DSEP) has instructed the 2020 DAS team to design special procedures for ensuring that the Citizen Voting Age Population data are properly protected. The DAS team will examine CSAC's recommendations as well as others put forward by internal experts. No final decisions have been made regarding the total privacy-loss budget for the 2020 Census nor the differentially private algorithms to be used for the CVAP tables, specifically, except that whatever PLB is assigned to the CVAP tables will count against the total PLB for the 2020 Census.

4. CVAP data specifications are supposed to be finalized March 31, 2020. CSAC recommends that these be made available for comment (potentially through the federal register) beforehand.

   The Census Bureau is still developing the methodology for the CVAP special tabulation. The Census Bureau will, however, brief NAC and CSAC on all major developments relating to these data at upcoming meetings.

5. CSAC recommends that the Census develops a public plan for responding to and handling a request from another federal agency (or an executive order to share) to access identifiable citizenship data.

   The Census Bureau accepts this recommendation. Any citizenship information collected by the Census Bureau is subject to the same confidentiality and use restrictions as all other data collected under Title 13 United States Code. The Census Bureau would reject any request to share citizenship data not approved for public release with another agency and, if needed, defend that position in court as it has in the past. The use of citizenship data for authorized statistical purposes will be managed according to the Census Bureau's existing policies and procedures governing data access and use.

6. CSAC recommends engaging with the Formal Methods in Computer Science community as well as the Health Data Privacy community to increase the size of the community looking at differential privacy and the pace of innovation.

   The Census Bureau thanks CSAC for this recommendation. In October 2019, we participated in a symposium hosted by the Harvard Data Science Review in which computer scientists, advanced data users, and privacy experts evaluated our implementation of differential privacy using the Disclosure Avoidance System code on the publicly available 1940 Census data. On December 11-12, the Census Bureau sponsored a National Academies of Science workshop, organized by the Committee on National Statistics, to examine the 2010 Demonstration Data Products released in October. The HSDR evaluations will be included in an upcoming special issue of the Harvard Data Science Review. The CNSTAT workshop report will summarize these, which we will incorporate into future versions of the 2020 Disclosure Avoidance System. We will also participate in the upcoming Global Privacy Summit of the International Association of Privacy Professionals in April 2020.

7. We appreciate that the procedures in place at the FSRDCs remain intact for many projects in its network. Where new disclosure techniques will be used within the FSRDC network, CSAC recommends having such projects undergo a sensitivity analysis – comparing old and new methods of disclosure avoidance – in order to gauge the implications for analysis and guide particular types of data usage.

   The Census Bureau accepts this recommendation. All FSRDC projects undergo a thorough review, which includes analysis of the data's fitness-for-use for the researcher's intended purpose. The data quality implications of disclosure avoidance methodologies (both traditional methods and formally private methods) for the researcher's needs are also considered when reviewing these project proposals.

VIII. Dissemination Plans for the Economic Census (ADEP)

1. CSAC recommends that the Census Bureau investigate the ways in which new types of firms in the gig economy or the sharing economy, like Uber and AirBnB, are captured in the Economic Census and other relevant surveys. Part of that investigation could include a focus on employees who work remotely. CSAC would welcome any information that emerges on this issue as part of the Economic Census 2017.

   The Census Bureau is monitoring the growth of these new business models and taking steps to ensure they are properly measured in our data products.

   The relevant business units that provide taxi transportation services are the individual drivers that use reservation applications such as Uber. These drivers are captured in the Nonemployer Statistics report, which covers businesses that generate annual receipts of $1,000 or more, are subject to federal income taxes, and have no paid employment or payroll. The published nonemployer statistics for taxi and limousine services (NAICS

4853) show substantial growth over the last several years. In 2012, there were 202,320 nonemployers in this industry, whereas in 2017 there were 973,753. This growth accounts for over 30 percent of all growth in the nonemployer universe in recent years.

Nonemployer Statistics data originate from statistical information obtained through business income tax records that the Internal Revenue Service provides to the Census Bureau. We are currently working on improving our processes for identifying the correct industry classification on these tax records. For example, a filer may note their business description by writing in "Uber driver" rather than providing the NAICS code for taxi service. We are instituting automated functions to identify these cases and code them in the correct industry.

Individuals that provide short-term lodging typically either do not need to pay taxes on this income (if the property is rented 14 days or less in the year) or report it on IRS 1040 Schedule E, Supplemental Income or Loss. These filers are not currently included in the universe of eligible nonemployer businesses. If tax regulations change, and these individuals were instead directed to complete IRS 1040 Schedule C, Profit or Loss from Business, they would be included in the eligible nonemployer universe.

Fee revenue retained by the companies that run taxi reservation applications are collected from these businesses directly in the Service Annual Survey and Economic Census. These activities are also classified in NAICS 485310, Taxi Service. Fee revenue retained by the companies that run short-term lodging reservation applications are included in NAICS 561599, All Other Travel Arrangement and Reservation Services. Data from the Nonemployer Statistics report are also included with the Service Annual Survey.

Census Nonemployer Statistics have been cited by economic researchers studying the "gig" economy, as illustrated in a 2016 article from the Brookings Institution: https://www.brookings.edu/research/tracking-the-gig-economy-new-numbers/

Census Nonemployer Statistics are also being used by the Center for Economic Studies (CES) to understand the gig economy (see http://conference.nber.org/conf_papers/f110357.pdf). This research links the nonemployer statistics to demographic information and wage and salary data to understand who the self-employed taxi drivers are and whether taxi-driving is their sole source of income or is a second job. Other research conducted by CES staff examines why the growth in self-employment in the tax data, such as the Nonemployer Statistics, is so much higher than the growth in self-employment recorded in household surveys such as the Current Population Survey or the American Community Survey (see https://www.nber.org/papers/w24950).

2. CSAC recognizes that the Economic Census pertains only to establishments with employees. We also note that some attempts have been made in other surveys to link data from the Nonemployer Statistics data with establishment surveys, like the County

Business Patterns/Non-Employer Statistics (NES) merged dataset. CSAC recommends that the efficacy of additional links of the NES, possibly with the Economic Census, be explored.

Data products from the Economic Census typically include a table that combines data from employer and nonemployer businesses. See link for 2012 Economic Census data. This table is not currently part of our publication plans for the 2017 Economic Census. We will explore producing a similar table, if funding permits.

3. CSAC notes that industries and products are two related ways of summarizing economic activity at the local to national level and appreciates that these dimensions shape the collection and dissemination of the Economic Census. Another dimension is the skill-mix of the geographic area, possibly captured by the distribution of occupations at the establishment. The Census Bureau has several household level surveys that include information on occupation and industry – ACS, CPS, and SIPP. The BLS has an establishment level survey, Occupational Employment Statistics, to produce estimates of wages and employment by occupation, at state- and MSA-levels of geographic detail. CSAC would welcome a presentation at a later date as to the feasibility and desirability of incorporating occupations into the Economic Census.

   We are exploring ways to capture information on skills gaps, education, and related characteristics of businesses and employees, which is a burgeoning data gap in the economy. This information could be used in conjunction with the Economic Census to provide more detail in these areas. We are working with the Bureau of Labor Statistics and other external stakeholders on this effort.

   Through the American Workforce Policy Advisory Board, which was established by the president and is chaired by Commerce Secretary Wilbur Ross and Presidential Advisor Ivanka Trump, the Census Bureau provided input on appropriate instruments to collect data on employer provided training. We are exploring the use of the Annual Business Survey to collect a module on company management practices, including employer provided training; however, funding would need to be secured to pursue this potential collection.

4. When informing users of data disclosure and confidentiality changes, the "Percentage of Rows Suppressed" is a start. CSAC recommends also informing users about the extent to which the omitted rows reflect economic activity, perhaps by reporting the percentage of shipments or revenue associated with the establishments in suppressed rows.

   We will consider this recommendation as results from the 2017 Economic Census are released. Any statistics, such as these would be subject to the same disclosure avoidance methods applied to other statistics published from the Economic Census and would require some time to incorporate into the existing tabulation, disclosure, and dissemination systems.

5. CSAC appreciates the impact that the new IRS restrictions on disclosure have on what can be released from the Economic Census going forward. The need to rely on administrative records from the IRS appears to be due to the fact that the Census Bureau does not contact all establishments directly. Given the impact of the new restrictions, CSAC recommends that the Census Bureau re-evaluate whether the user community would be better served by not relying on IRS data, even at the cost of less frequent data collection.

   The use of IRS data in the Economic Census dates back to the 1950s, when IRS records were first used to gather items like employment, payroll, and sales for small retailers and service providers. This is a long-standing practice that enables us to fully cover the in-scope business universe in the Economic Census in a cost-effective manner. IRS data also are necessary to maintain the Census Bureau's Business Register. The data are used to help determine business existence, industry classification, active status, business address, and employment and payroll and other economic information about a business. Additionally, the use of new privacy protections may allow us to publish even more data than we have in the past. We look forward to this opportunity with the 2022 Economic Census data products.

6. CSAC commends the Bureau for its recent initiatives to improve the scope, detail, accuracy and timeliness of data about numerous economic sectors. However, the Committee is concerned that efforts to improve construction spending data have not progressed sufficiently. This information is an important input to estimates of gross domestic product and is used by a variety of policy makers, private sector users and researchers. The Committee recommends that the Bureau establish a Working Group to assist and review agency efforts to improve construction data. The Working Group should include a variety of public, private-sector and research community stakeholders from outside the CSAC as well as CSAC members.

   We appreciate your recommendation and are working with the Advisory Committee Management Branch to establish a Working Group focused on improvements to the Census Bureau's construction indicator. Additionally, we have several efforts underway to improve these critical data, and once the Working Group is up and running we can share our plans and progress for your feedback.

IX. Public Comments (PPSI, DIR)

CSAC appreciates the Census Bureau enabling public engagement and recommends that the Census Bureau respond in writing to the three written public comments.

Thank you for your recommendation.