UNITED STATES DEPARTMENT OF COMMERCE
U.S. Census Bureau
Office of the Director
Washington, DC 20233-0001

AUG 2 1 2019

MEMORANDUM FOR: Allison Plyer
Chair
Census Scientific Advisory Committee

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

Subject: U.S. Census Bureau Responses to 2019 Spring Census Scientific Advisory Committee Recommendations

The U.S. Census Bureau thanks the Census Scientific Advisory Committee for its recommendations. We are responding to the committee recommendations submitted during its March 28-29, 2019, meeting.

Your expertise is important to ensuring 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

Recommendations and Comments to the Census Bureau
from the Census Scientific Advisory Committee
Spring 2019 Meeting

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

From: Allison Plyer
CSAC Chair

March 28, 2019

I. Update on the 2020 Census

CSAC was pleased to hear that the Census Bureau has already done a great deal of the risk assessment and risk mitigation analysis in response to the concerns that were raised by CSAC. For example, CSAC is reassured that Census is already cooperating with other federal agencies and with social media companies to thwart potential cyber-attacks on Census cyber-infrastructure and to cooperate in the monitoring of social media for potential manipulation by foreign actors on response levels.

CENSUS RESPONSE:

The Census Bureau agrees with the statement and continues to prioritize risk assessment and mitigation analysis in response to the concerns raised by CSAC.

II. Possible Addition of the Citizenship Question

The Supreme Court is expected to decide the issue of whether or not the Census may add the citizenship question by June of this year. In the event that the Supreme Court rules in favor of adding the citizenship question, CSAC requests that Census provide additional information at the fall 2019 CSAC meeting as described below:

1. A March 2019 Harvard study entitled "Estimating the Effect of Asking about Citizenship on the U.S. Census: Results from a Randomized Controlled Trial" (available at: https://shorensteincenter.org/estimating-effect-asking-citizenship-u-s-census/) provides credible quantitative evidence that the addition of a citizenship question would "significantly increase the percent of questions skipped, with particularly strong effects among Hispanics, and makes respondents less likely to report having members of their household who are of Hispanic ethnicity." Further, this study concluded that the addition of the citizenship question would have reduced "the number of Hispanics reported in the 2010 Census by approximately 4.2 million." However, the researchers did not know where the Citizenship Question would be asked on the 2020 Census survey, and therefore, randomly rotated where it appeared on their survey instrument. It is known that there are many subtleties associated with adding a question to a survey. For example, where the new question is placed on the census form can affect response rates on other questions, and this new question is likely to affect self-identification by racial and ethnic group. CSAC would like to understand, in more detail, where the question will be placed on the 2020 Census questionnaire and how Census expects to assess the impact of the addition of the citizenship question on the response rate to the other questions that will be

asked on the 2020 Census form. CSAC would like a report-out on the results of the summer 2019 survey testing the impact of the citizenship question at our fall 2019 meeting.

CENSUS RESPONSE:

In Department of Commerce v. New York, No. 18-966 (June 27, 2019), the Supreme Court determined the Department's explanation to include a citizenship question on the 2020 Census insufficient to support the Department's decision. On July 2, the Census Bureau initiated printing of the 2020 questionnaires without a citizenship question and continues to do so in accordance with the "Executive Order on Collecting Information about Citizenship Status in Connection with the Decennial Census" issued July 11, 2019. Given the recent turn of events, CSAC's request is now moot.

2. The Bureau expects to gather data during the 2020 Census that would be useful in determining how to adapt its editing, imputation and other protocols used post-processing to reflect the differential impact of census non-response across the different states to inform reapportionment. CSAC requests more detail on how Census intends to deal with this issue.

CENSUS RESPONSE:

The Census Bureau accepts the request to provide more detail about how the imputation and other protocols in the post-processing reflect the census non-response.

Following data collection in past censuses, the Census Bureau has not processed the data differently from state to state according to the different levels of self-response. This will remain the same for the 2020 Census.

After data collection is completed, the Census Bureau will use count imputation for unresolved addresses. The procedure is executed independently for each state. The Census Bureau would be happy to provide more information about the count imputation procedure at a future meeting.

We want to be clear that the Census Bureau does not make any adjustments to the final census counts and reapportionment results based on the results of the Post-Enumeration Survey, Demographic Analysis, or any other data collection.

3. The addition of this question could significantly increase the volatility of the overall non-response rate to the 2020 Census. It is possible that the full scale of likely non-responsiveness may only reveal itself early in 2020, depending on the degree to which a large-scale non-compliance movement were to get underway. So, if the question is added, Census needs to fully prepare to pivot quickly in early 2020 to whatever measures would need to be taken if it appears that non-response will be (much) higher than planned for.

CENSUS RESPONSE:

In Department of Commerce v. New York, No. 18-966 (June 27, 2019), the Supreme Court determined the Department's explanation to include a citizenship question on the 2020 Census insufficient to support the Department's decision. On July 2, the Census Bureau initiated printing of the 2020 questionnaires without a citizenship question and continues to do so in accordance with the "Executive Order on Collecting Information about Citizenship Status in Connection with the Decennial Census" issued July 11, 2019.

We will continue to strive for the most accurate and complete count possible. To this end, we will persist in leveraging partners across the nation to spread awareness of the importance of a complete and accurate count during the multiple phases of our communications campaign. The campaign begins with an awareness phrase, during which time messaging is focused on educating people about the importance of participating in the 2020 Census. This is followed by a motivation phase, when messaging is focused on encouraging people to "self-respond to the 2020 Census". Next comes a reminder phrase, in which messaging is focused on "it is not too late to self-respond," and "cooperate with census takers who come to your door."

The process of engaging partners is well underway. Forty-eight states (plus the District of Columbia and Puerto Rico) have either formed complete count commissions or are in the process of doing so, supplemented by thousands of complete count committees now operational at the local level. Hundreds of organizations have already agreed to be official 2020 Census partners as well.

4. Administrative data holds the potential to provide more reliable citizenship data than adding the question to the 2020 Census survey. CSAC would like an update of the Census' August 2018 study of alternative citizenship data sources now that the Census has acquired new administrative data (such as from US Citizenship and Immigration Services).

CENSUS RESPONSE:

The Census Bureau presumes the Committee is referring to the research conducted by the Research and Methodology Directorate to inform the Secretary's decision on citizenship. There was not a planned 2018 research project relating to alternative citizenship data, and the Census Bureau has no plans to conduct a formal study in the next year.

The Census Bureau is negotiating with the State Department, the Department of Homeland Security, and other departments and agencies for relevant administrative records and working to receive test data to ensure our systems are able to read-in the files. We are happy to brief you on the status of the work at the fall meeting.

5. With the addition of the citizenship question, the Census would need to decide on a Non-Response Follow-Up protocol that responds to the higher non-response rates that would be a likely result. In the event of limited NRFU resources, CSAC recommends that such follow-up be limited to priority data elements, excluding the Citizenship Question. CSAC would like a briefing on the protocol to be used.

CENSUS RESPONSE:

In Department of Commerce v. New York, No. 18-966 (June 27, 2019), the Supreme Court determined the Department's explanation to include a citizenship question on the 2020 Census

insufficient to support the Department's decision. On July 2, the Census Bureau initiated printing of the 2020 questionnaires without a citizenship question and continues to do so in accordance with the "Executive Order on Collecting Information about Citizenship Status in Connection with the Decennial Census" issued July 11, 2019.

We have no plans to change the design or contact strategies for the Nonresponse Followup operation. Given the recent turn of events, CSAC's request is now moot.

III. End-to-End Tests

It appears that the 2018 end-to-end tests have gone well. However, given how critical these tests are for ensuring the smooth functioning of the 2020 Census, CSAC would like to learn more in a one-way briefing regarding what weaknesses and vulnerabilities have been identified, and how Census is responding to these challenges. CSAC would be particularly interested to know about:

1. Census' experience in the end-to-end test with using administrative data for NRFU or for post-processing imputation,

   CENSUS RESPONSE:

   The Census Bureau would be happy to provide a briefing on the findings from the 2018 End-to-End Census Test related to the use of administrative records for the NRFU operation.

2. Lessons learned on training the enumerators on the new technology, and

   CENSUS RESPONSE:

   When training enumerators for NRFU using devices and the Enumeration instrument Field Data Capture (FDC), we learned that enumerators needed additional training, as well as hands-on experience in navigating through the instrument screens. In 2018, our training emphasized interviewing skills, not the technical skills needed to use the device. For 2020, we are adding an FDC skills module to our online training. Under this module, each trainee will walk through the entire interview path on their device as part of the classroom training role play exercises. For listing operations training, we primarily learned that we needed to simplify device login and provide a single sign-on approach with systems. We have implemented both of these updates.

3. Lessons learned from the online responses, including paths followed by users, drop-off points, and share using mobile device by demographic group.

   CENSUS RESPONSE:

   The Census Bureau will be evaluating information gathered during the 2018 End-to-End Census Test about how users interacted with the Internet Self-Response instrument. When that evaluation is complete and available for release, we would be happy to provide a briefing on the data. We anticipate that we will complete the evaluation in the fall of 2019.

4. An analysis of how self-response and self-response by internet correlate with tract-level indicators of computer and internet access newly available from the ACS.

CENSUS RESPONSE:

The Census Bureau accepts this recommendation. We are planning to conduct this analysis. We would be happy to share the results with the CSAC. They are expected in fall of 2019.

In addition to the recommendations above, we also believe that the "type of enumeration area" map is very helpful to local outreach planning. CSAC recommends that the Bureau publish the tract-level data on which tracts will receive the "internet-first" (i.e. invitation letter only) vs. "internet-choice" (i.e. a form with the first mailing) to help local groups tailor their messaging and outreach to different neighborhoods.

CENSUS RESPONSE:

This is a helpful recommendation, and we will release this information in late fall.

CSAC requests that the Census Bureau consider the benefits of publishing video of the interface before the actual data collection to help community groups provide guidance on navigating the 2020 interfaces, particularly for hard-to-count groups.

CENSUS RESPONSE:

The Census Bureau will produce video language guides that walk respondents through the internet instrument. These videos will provide general information about the 2020 Census, a brief overview of the internet instrument, and a detailed view of the questions. These videos will be available in English and in 59 non-English languages.

Finally, CSAC requests that the Fall 2019 CSAC meeting agenda include a discussion of the evaluations and assessments that are planned for the 2020 Census coverage and quality, specifically the Post-Enumeration Survey, and the Demographic Analysis components of the Census Program for Evaluations and Experiments (CPEX) for 2020. We would appreciate a listing of all the planned CPEX components in the Bureau's written response.

CENSUS RESPONSE:

The Census Bureau would be happy to provide the Committee with a presentation covering the operational assessments and the 2020 CPEX. The final list of CPEX projects is still undergoing internal review and approval but can be provided to the Committee upon final approval.

IV. Census Barriers, Attitudes and Motivators Survey and Focus Groups Final Report

CSAC would like to commend the Census Bureau for their extensive and well-formulated research agenda dedicated to developing an effective communications plan for motivating self-response to the decennial census. The study design for CBAMS exemplifies this dedication, with both a quantitative survey component adhering to the highest standards of statistical practice, and qualitative focus groups providing context, support and illustrative information to support fuller understanding of the quantitative results.

1. Census properly notes that CBAMS survey results (weighted estimates computed from those willing to complete a CBAMS survey) may be biased if CBAMS nonrespondents are in fact less willing to complete the decennial census than CBAMS respondents. Nonresponse bias is of

concern because CBAMS response behavior is plausibly correlated with decennial response propensity. While the nonresponse adjustment used for the CBAMS analysis reduces bias under a plausible assumed response model, CSAC recommends further empirical investigation to assess the quality of that assumed model.

CENSUS RESPONSE:

The Census Bureau accepts this recommendation. We plan to explore how CBAMS respondents' decennial census response behaviors differ from (1) their response behaviors stated in CBAMS and (2) the decennial census response behaviors of CBAMS non-respondents. (This also relates to Recommendation IV.2)

2. CBAMS represents a unique opportunity to follow up on the decennial census response behavior for a randomized assignment of households into a CBAMS "treatment group" and a non-CBAMS "control group." All households in the treatment group received the CBAMS treatment, with some self-selecting into CBAMS respondents and some self-selecting into CBAMS non-respondents. All three groups can be followed to determine their actual decennial census response behavior, with the control group providing baseline response behavior in the decennial environment (including the communications campaign) and the two CBAMS groups providing response behavior before and after the decennial environment. CSAC recommends that Census undertake a research program to follow up with the CBAMS groups according to their decennial response behavior.

   CENSUS RESPONSE:

   The Census Bureau accepts these recommendations. Currently, we are exploring multiple options to utilize the 2020 CBAMS survey sample and findings to inform further research.

3. CSAC recommends that if a second CBAMS is conducted after 2020, then at least some of the originally-selected CBAMS households should be selected for follow-up interviews.

   CENSUS RESPONSE:

   The Census Bureau accepts these recommendations. Currently, we are exploring multiple options to utilize the 2020 CBAMS survey sample and findings to inform further research.

4. CBAMS found unfamiliarity, distrust, misconceptions, and concerns with the decennial census. These attitudes about Census may persist well past 2020. CSAC recommends that Census develop an ongoing monitoring effort of barriers, attitudes and motivators throughout the decade.

   CENSUS RESPONSE:

   The Census Bureau accepts this recommendation as understanding the public's pulse is critical to developing communications strategies for the intercensal years, including impact on American Community Survey (ACS) and other Census Bureau surveys.

V. Update on Integrated Partnership and Communications Program

CSAC appreciates the preparations and research that have contributed to the development of the Integrated Partnership and Communications Program to date. The decennial census is an enormous undertaking requiring extensive field work. When respondents are motivated to participate, the field work is more cost effective, and the resulting data quality is better.

CSAC has several recommendations for the Bureau to consider with the aim of increasing the effectiveness of the Integrated Partnership and Communications Program, while still carefully managing taxpayer dollars.

1. CSAC recommends the Awareness phase begin in the fall of 2019 using social media targeting hard-to-count populations. This recommendation would not alter the traditional media plan, but it would leverage the availability of low-cost social media to partially implement one of the recommendations of the 2010 Census outreach program assessment.

   CENSUS RESPONSE:

   The Census Bureau agrees that certain, hard-to-count populations need earlier, more robust outreach. For that reason, we formally started our early education efforts in October 2018. At this moment, we have a very robust social media outreach with content updated on a monthly basis. However, your suggestion of paid social media advertising merits consideration, and Census Bureau leadership is currently evaluating its potential implementation.

2. CSAC recommends evaluating advertising during the early half of the Motivation phase and adjusting ad selection so that the most effective ads are used more intensely during the latter part of the Motivation phase and during the Reminder phase.

   CENSUS RESPONSE:

   Thank you for your recommendation. The Census Bureau currently is planning its campaign optimization program, which is closely related with our Motivation and Reminder phases. We will be looking at several data sources, including response rates, to make adjustments in our paid advertising, but also in other efforts, such as partnerships, social media engagements, and media outreach.

3. CSAC recommends that the Census Bureau use rapid response and nimble communications capabilities to respond to local communications crisis that can arise during the combined Census-Election Year. Specifically, Census should use and empower local partnership specialists to monitor local social media and to be able to respond to local communications crisis.

   CENSUS RESPONSE:

   Rapid response is a key part of our campaign through our campaign optimization efforts in which we will be using all campaign components, such as paid advertising, partnerships, and media outreach, to find quick solutions to specific response rate issues and local communications crises. Our local partnership specialists will be a vital element of these efforts, and social media monitoring and crisis management are included in their training program. However, as explained during the meeting, individual social media accounts are against Census Bureau social media policies and are not envisioned as part of the local partnership specialists tools.

4. CSAC recommends that the Bureau negotiate agreements with social media platforms to promote the Census. For example, there could be a Google Doodle or a Facebook status update or digital sticker that adds an "I filled in my Census" overlay over the person's profile pic. Another example could be partnering with Amazon so that Alexa reminds everyone to participate on Census Day.

   CENSUS RESPONSE:

   Team Y&R and the Census Bureau have discussed this possibility as part of both our paid advertising and national partnerships efforts, and we feel very positive of the possibility of implementing this idea. We will keep you posted.

5. CSAC recommends that the Bureau explore ways to provide immediate feedback after self-response, such as viewing current response rates in their location or in competing locations.

   CENSUS RESPONSE:

   The Census Bureau will be providing daily updates of census self-responses during the enumeration period. The self-response rates will be provided at the tract level for all tracts with more than 20 households. The map and associated data file will be updated once a day, 7 days a week from mid-March to mid-May and once a day, 5 days a week from mid-May to the end of July.

6. CSAC recommends partnering with national privacy groups to aid in communicating that Census 2020 participation is important for the functioning of our democracy and does not compromise the privacy of respondents nor is respondents' data shared with other agencies. Ensure that the messaging addresses the concerns raised in the CBAMS focus groups.

   CENSUS RESPONSE:

   We concur and efforts are underway. Our communications research determined that privacy and confidentiality are key themes that need to be addressed through our communications and partnership programs. Messaging has been developed and was tested through online panels, focus groups, and community representative reviews. The final messaging will be revised when the data has been analyzed. We can update the group on these findings at our next meeting.

7. CSAC requests an update of the Integrated Partnership and Communications Program at the fall 2019 CSAC meeting.

   CENSUS RESPONSE:

   The Integrated Partnership and Communications (IPC) program appreciates your interest and accepts this recommendation.

8. CSAC recommends that the Bureau budget the necessary resources and secure the competencies necessary to evaluate the effectiveness of the communications plan after the 2020 Census.

CENSUS RESPONSE:

The Census Bureau accepts this recommendation and confirms that is currently evaluating how to assess the IPC program at the end of 2020 Census operations.

VI. Proposed 2020 Data Products Plan

1. CSAC recognizes the difficult challenge of weighing the needs of a multitude of user groups and appreciates the opportunity to provide feedback on the 2020 data products before the plans have been finalized. We commend and recommend continuing the practice of transparent deliberations as Census decides what tables to discontinue while considering the tradeoffs between accuracy and privacy.

   CENSUS RESPONSE:

   The Census Bureau accepts this recommendation. We will continue to update CSAC and other stakeholders on the development of our 2020 Census data products.

2. CSAC recommends that Census conduct a sentiment analysis of the July 2018 Federal Register responses, review internal analytics on the frequency of queries from 2010 tables from American Fact Finder, and inquire about analytics from external data visualization and query systems, like PolicyMap, Community Commons, IPUMS and NHGIS. As Census makes decisions about which tables to include, CSAC recommends that the Census directly engage with stakeholder groups who care about the table subject matter for input on which crosstabs are most critical for their work at what level of accuracy. In prioritizing additional outreach, CSAC recommends that the Bureau review the various sources of input so far and prioritize user groups from whom you have not yet heard. We encourage Census to reach out through NAC/CSAC for recommendations on specific interest groups, as needed.

   CENSUS RESPONSE:

   The Census Bureau accepts this recommendation. Throughout the remainder of this year, we plan to continue conducting outreach and engagement with key stakeholders to determine their critical data needs. This feedback, in conjunction with feedback received from the Federal Register Notice, will be considered as final data product plans are developed.

3. CSAC recommends that the Bureau publish a summary of their analysis and/or select generalized use cases (policy analysis, legislative, planning, commercial decisions, weighting controls, etc.). This will help all users understand the breadth of audiences that the Census needs to serve as context when decisions are made to eliminate tables provided in 2010.

   CENSUS RESPONSE:

   A summary of the use cases provided from the Federal Register Notice comment period will be published with the final 2020 Census Data Products Plan in a Federal Register Notice. As in previous summaries of Federal Register Notice comments, this summary will provide detailed counts of the types of comments and use cases we received (e.g., legal, programmatic, etc.) and provide examples of use cases that were submitted.

4. The December 2018 Federal Register notice stated that the Bureau would consider a design change to include the citizenship question on the PL 94-171 Redistricting Data File if the Federal Register responses demonstrated a need for them. CSAC would like to know what the response to this Federal Register notice was and, subsequently, how it informs Census' final decision about the Redistricting Data File.

   CENSUS RESPONSE:

   The Census Bureau is unable to describe the responses to the Federal Register as they have not yet been delivered to the Census Bureau from Office of Management and Budget (OMB). The Census Bureau had to repost the Federal Register Notice due to an absence of the ability to accept comments during the government shutdown. This reposting occurred on February 13, 2019. OMB is still conducting their review and should deliver those responses to the Census Bureau when their review is complete. Those comments will be incorporated with the feedback received regarding the prototype redistricting data, which was published in March of 2019 (https://www2.census.gov/census_2020/). The consolidated package of comments and feedback will be reviewed for indications of needed design changes, if any.

5. In communicating the need and challenges of implementing differential privacy methods, CSAC recommends the Bureau look at lessons from developing the ACS User Guides - providing tailored information for each audience with a particular perspective about the implications of the changes for their purposes. It would be helpful to frame the guidance regarding the fitness of the data for different use cases.

   CENSUS RESPONSE:

   The Census Bureau accepts this recommendation. We will review the lessons learned from developing the ACS User Guides, and we intend to provide tailored information to specific audiences as appropriate. Additionally, we will continue to use the expertise from our Population Division, Center for Enterprise Dissemination and Disclosure Avoidance, and the Communications Directorate to create audience-appropriate messaging about the transition to differential privacy and the implications for this on the 2020 Census data products to our stakeholders.

6. Beyond the discussion of table selection, CSAC suggests that the Bureau take the 2020 Census as an opportunity to expand to new user groups. Census could strengthen non-traditional users as new constituencies for census data. For example, national media (New York Times, Wall Street Journal, etc.) are active consumers of census data, and they could recommend broader associations of data journalists for outreach. Textbook authors or online instructors for data science, statistics, or programming are also potential users of census data. These would be found through contacts with leading programs at universities.

   CENSUS RESPONSE:

   The Census Bureau accepts this recommendation. As part of our ongoing outreach with data users about the 2020 Census data products, we have included academic data users and associations, such as the Population Association of America and the American Statistical Association. We plan to continue this engagement. We will explore ways we can engage textbook authors, online instructors, and data journalists as we continue our outreach.

VII. Managing Privacy-Loss Budget for 2020 Census

1. CSAC thanks the Census Bureau for presenting on this important subject as the Bureau's thinking evolves. CSAC understands that exact invariants put strong constraints on the set of feasible datasets, making any confidentiality protection method, including the formal privacy methods, more vulnerable. This suggests that the privacy harm of releasing any invariant should be balanced against the utility of reporting it exactly. While the reapportionment of congressional seats may be an invariant that may need to be computed exactly, CSAC recommends that the Bureau consider the option of only releasing the exact seat apportionment, and noisy state population counts consistent with it, rather than reporting the exact state populations needed to compute the reapportionment.

   CENSUS RESPONSE:

   The Census Bureau acknowledges CSAC's suggestion regarding the use of apportionment counts as an invariant instead of the use of state level counts. However, after discussions within the Census Bureau, we have determined that holding the apportionment counts invariant and publishing noisy state level counts would not significantly impact the overall privacy protections. Furthermore, we believe that removing the state level Population invariant would be unduly confusing to the public and would significantly increase the public education and customer engagement requirements associated with the move to formal privacy. As a result, we have decided to retain a per state population invariant for the 2020 Decennial Census

2. Principled balancing of accuracy requirements is an important question. Answering this would require collecting data on the common use cases. See discussion under "Proposed 2020 Data Products Plan" for several recommendations for collecting and prioritizing common use cases. The question of prioritizing use cases is an important one, and the Bureau may consider forming a working group to address this.

   CENSUS RESPONSE:

   The Census Bureau accepts CSAC's suggestion regarding the collection and prioritization of use cases for the 2020 Data Products Plan.

   At the present time, the Census Bureau has several internal working groups that have been meeting for more than a year collecting and prioritizing common use cases for the 2020 Data Products and processing the information supplied by users in response to Federal Register Notices on these data products. These working groups are now developing suitable accuracy metrics. We will expand these working groups to include outside stakeholders in the near future, and we will report to CSAC on those activities.

3. The technical problem of optimizing the mechanism given the outcome of the prioritization, is an optimization problem of the type that the Bureau already solves. The other hyperparameters in the system, such as the partitioning of the privacy budget across geographical levels, can be optimized for the same objective. The Bureau may use previous census data to do this optimization, or use recently developed algorithms (https://arxiv.org/abs/1811.07971) to select good hyperparameters on the 2020 Census data itself.

CENSUS RESPONSE:

The Census Bureau accepts the suggestion regarding hyperparameters and the use of 2010 data. The Census Bureau is already making use of data from the 2010 Census in developing the 2020 Disclosure Avoidance System.

We are now also exploring whether we can use changes from 2000 to 2010 to build a model that we could then apply to the 2010 data to make predictions about aspects of the 2020 data. Such predictions would allow us to increase the accuracy of the 2020 Disclosure Avoidance System without impacting the privacy-loss budget.

Unfortunately, although the optimization mechanism used in the 2020 Disclosure Avoidance System has some similarities to other optimization problems that the Census Bureau solves, this optimization problem has significant differences both in terms of scale and in terms of the number of hyperparameters in the system. As a result, even though overall objective functions may have some similarities, the differences remain quite significant.

4. Statistical analyses on the differentially private datasets would require users to apply a different set of techniques. CSAC recommends that the Bureau publish user guides that include examples of some of the common kinds of analyses that users of the data typically do. The Bureau may consider making available tools to do these kinds of analyses.

CENSUS RESPONSE:

The Census Bureau accepts the suggestion regarding the publishing of common kinds of data analyses that users typically do, as well as the publishing of tools for performing these kinds of analyses. The Census Bureau will evaluate the possibility of making such tools available.

VIII. Community Partnership and Engagement Program: An Overview and Update

1. CSAC appreciates the information shared in the presentation. CSAC believes it is crucial to have quantitative data on the impact of the partnership program, to inform training and advocate for appropriate budget and staffing for future censuses. CSAC therefore encourages Census to continue investigation into quantifying the impact of CPEP overall, and Partnership Specialists specifically. Perhaps a single metric for impact can't capture the wide variety of target outreach populations and outreach efforts across Partnership Specialists—that may suggest a need for the development of Partnership Specialist personas and metrics to evaluate success for each persona.

CENSUS RESPONSE:

Measuring the performance of the Partnership Program is challenging due to the indirect relationship between partners and census response rates. Intuitively, it makes sense that relationships with trusted voices convey to the American public the importance of completing the decennial census and would help increase response rates. Previous evaluations of advertising and partnership efforts, however, have found it difficult to attribute which IPC component effects on response rates. However, technological changes and new communication vehicles make it easier for staff to fine tune efforts to gauge effectiveness.

For example, staff will use the CRM and other tools to document many of the data points below to determine if at least 50 percent of all national partners will have the capacity to reach one or more hard-to-count populations by March 2020.

The Census Bureau will use the following criteria to help to determine effectiveness of the Partnership Program:

- *Governments and partners are aware and support the 2020 Census.*
- *Partnerships educate people about the 2020 Census to motivate self-response and encourage cooperation with enumerators.*
- *Partnership events and activities scheduled in areas with concentrations of low response result in increased response rates.*
- *Website visits and trends are tracked around the time when partnership community events occur.*
- *Leveraging partnerships in traditionally low response score areas.*

The Partnership Program will have internal measures to monitor staff work flow and other measures to track progress toward objectives. The following measures are examples of metrics captured in the CRM that will be used to track the effectiveness:

- *Number of committed State Complete Count Commissions, Complete Count Committees, and Tribal Complete Count Committees.*
- *Number of organizations with partnership agreements (signed and verbal).*
- *Number of organizations engaged by partnership staff.*
- *Estimated monetary "value" of activities conducted by partners.*
- *Number of partnership activities recorded in the CRM.*

The following are potential methods that the Census Bureau is exploring that could be used to capture the metrics. The Census Bureau continues to refine appropriate measures as the Partnership Program matures before 2020.

- *Tracking of partners, partner events, number of attendees, and partner provided resources.*
- *Monitoring of response rates prior to and after events.*
- *Partner organizations can use census campaign codes where a link directs people to the Census Bureau website electronically and tracks the number of respondents who click that link.*

The items listed above are a few of the methods that the Census Bureau is evaluating to determine a quantifiable means of measuring the success of the CPEP program overall, and partnership specialists individually.

2. Furthermore, CSAC encourages Census to share lessons about best practices and innovative ideas coming out of the Partnership program with the network of Complete Count Committees, who are doing similar activities with similar goals. This information should be synthesized and considered as input for materials to guide Complete Count Committees and community partners for 2030. (FLD)

CENSUS RESPONSE:

In a number of states, State Complete Count Commissions are showing leadership by conducting meetings with local government Complete Count Committees (CCCs) or visiting local CCCs to ensure that synergy with statewide initiatives occur.

CCCs at the state and local levels are increasingly requesting Census Solutions Workshops during their meetings to help develop work plans. Census Solutions Workshops give CCCs a framework for brainstorming that emphasizes bringing diverse partners together and practicing empathy to develop relevant solutions for specific hard-to-count communities.

CCCs are increasingly integrating strong digital engagement strategies into work plans. Digital engagement can produce great returns with relatively little effort. By identifying social medial influencers in their communities to send out key census messages, they are ensuring that hard-to-count communities hear from trusted voices in the electronic realm.

CCCs understand the role that children play in educating their families about the importance of the census, particularly in households with recent immigrants. By appointing top officials of local school boards into their committees, CCCs are able to use 2020 Census Statistics in Schools materials efficiently and comprehensively once they become available.

CCCs are harnessing data to ensure that strategies created to reach hard-to-count communities address the underlying factors for being hard to count. Committees are using the Response Outreach Area Mapper, and are looking to their State Data Centers and Census Bureau Data Dissemination Specialists to help get the data and analytics they need to conduct meaningful outreach.

3. To this end, CSAC also recommends that Census work with Partnership Specialists to articulate their individualized outreach goals for the 2020 Census and publish those goals to the public. Having published goals will help Complete Count Committees understand where outreach coverage and outreach gaps exists, to focus their work, and it could inform where we need additional Partnership Specialist coverage for the 2030 census.

CENSUS RESPONSE:

The Community Partnership and Engagement Program (CPEP) has one primary and two secondary goals. By March 2020, the CPEP will secure 300,000 partners that are located in and serving the traditionally hardest to count communities.

Specifically, CPEP will establish partnerships with at least one organization in, or that serves, all tracts with a Low Response Score of 30 or higher (9 percent of all census tracts) and in 70 percent of tracts with a Low Response Score between 20 and 30 (41 percent of all census tracts) by March 2020.

Additionally, CPEP will facilitate the formation of Complete Count Committees (CCCs) or similar efforts in all 50 states, the District of Columbia, Puerto Rico, and cities with a population of 200,000 or more by January 2020.

Each partnership specialist has an individual goal of securing high quality and high impact partners to support the 2020 Census and engage their communities to participate and respond. These individual goals are specific to the communities for which they are assigned. These goals are further refined and informed by additional data from partner organizations, natural

disasters, and or other events that may occur that result in a newly emerged hard-to-count population.

4. In the continued hiring for Partnership Specialists for the 2020 census, CSAC highlights the opportunity to continue focusing on populations with the historically greatest undercounts, for example young children as highlighted by the representative of Zero to Three in their public comment during this meeting, as well as populations Census expects to have increased non-response in 2020 based on the latest CBAMS data.

   CENSUS RESPONSE:

   The primary focus of the Community Partnership and Engagement Program (CPEP) is outreach to populations with historically the highest historic undercounts. Our hiring strategy is to recruit partnership specialists who live in the communities in which they will be working. Because of this strategy, partnership specialists join the Census Bureau with specific knowledge and language skills in these communities. Additionally our partnership specialists are often multilingual, which affords us the capability to deliver the right message to the right audiences. In addition to community and language skills, they also often have expertise in specific focus areas such as early childhood, homelessness, veterans, migrant workers, faith based, differently abled, foreign born, and many more.

5. Regarding the data used to inform Partnership Specialist outreach: the national data at the tract level could be misleading in some cases given the ACS 5-year averages and margins of error. CSAC encourages Partnership Specialists to reach out to their local civic data and technology communities (including local Chief Data Officers/planning offices, community data organizations, applied academic centers, volunteer civic tech groups, private sector firms) for assistance in using local data and tools to supplement the national data platforms and to encourage digital inclusion organizations to get involved in outreach.

   CENSUS RESPONSE:

   The Response Outreach Area Mapper (ROAM) is one of many tools and resources that Partnership Specialists can leverage to identify people living in areas that traditionally have lower response rates. Partnership Program staff use Census Bureau data and research to identify the demographic characteristics of HTC groups. The Census Bureau will distribute this information to partners and the public to use when shaping their outreach efforts. In addition, regional census centers will use this information when developing and implementing partnership activities to illustrate types of partner organizations and where, geographically, to conduct events within each region.

   Partnership specialists work closely with partner organizations, State Data Centers, Census Information Centers, governmental planning offices, and tribal, federal, and state organizations, in addition to community leaders and organizations, to inform them where populations that are traditionally undercounted are and to ascertain the best outreach strategies that resonate with these communities.

IX. Current Population Survey Annual Social and Economic Supplement

CSAC thanks the Census for the presentation and discussion of improvements in the CPS ASEC supplement. The user community will benefit from the improved accuracy. As discussed during the session, the communication and outreach related to the changes is critical for the user community's utilization of the data and understanding of the new process. The following are CSAC's recommendations related to the questions Census presented:

1. In both the refined processes for the economic and health data of the CPS ASEC, CSAC agrees it represents a break in time series for being able to compare the newly processed data with legacy data. As such, the communication of the change is critical for the user community. Overall, CSAC recommends Census consider defining a 'break in time series' and develop a protocol for procedures to follow in such an occurrence, such as setting best statistical practices for bridging the transition and communicating the changes to users.

   CENSUS RESPONSE:

   The Census Bureau accepts this recommendation. We will establish a task force through our Current Population Survey Annual Social and Economic Supplement (CPS ASEC) Change Control Board to develop a proposed protocol for procedures to follow when there is a break in a time series. This protocol will be shared with the Quality Program Staff, which maintains the quality standards and guidelines for the entire Census Bureau. Since ideally this protocol should apply to all time series estimates throughout the Census Bureau, the protocol would need to be approved by the Census Bureau's Methodology and Standards Council.

2. The current outreach being conducted by the Census regarding the change in the CPS ASEC is encouraged and appreciated. This includes multiple published papers, press releases, attendance and communication at relevant user conferences, and hosting an expert user group for a presentation. In addition to these efforts, CSAC recommends development of a user matrix that can cross reference the communication methods for each user group. For example, 'user group 1' was notified of these changes through x,y,z, etc.

   CENSUS RESPONSE:

   The Census Bureau accepts this recommendation.

User Group	Expert Meeting/ Webinar	Website	Pre-Release Webinar	Working Papers/ Research Files	America Counts Story	Conference Presentations
Media		*X*	*X*		*X*	
Academics/ Researchers/ Students	*X*	*X*		*X*		*X*
General public		*X*			*X*	
Other federal statistical agencies/	*X*	*X*		*X*		*X*

data users						
Respondents					*X*	
Congressional offices	*X*	*X*		*X*		

3. CSAC mentioned the following additional outreach suggestions:

   a. A short article that groups like the Association of Public Data Users or the American Statistical Association could place in their newsletters

      CENSUS RESPONSE:

      We expect that our "America Counts" story on the change will be suitable for use in newsletters for these types of groups.

   b. Academic Community – communication to students and professors that use the data for research

      CENSUS RESPONSE:

      We have presented (and will be presenting) papers discussing the impact of the changes at various academic conferences, including the Population Association of America, APPAM (Association for Public Policy Analysis and Management), Joint Statistical Meetings of the American Statistical Association, and the Society for Government Economists.

   c. Policy research organizations – as participants in the expert meeting and a source for additional communication suggestions.

      CENSUS RESPONSE:

      At the May 13, 2020, meeting, we will ask participants to make suggestions for additional outreach regarding the changes. In response to a request by one participant invited to the May 13 expert meeting, we will be providing a call-in and webinar option for the expert meeting. Approximately 20+ people will attend in person and 13 people have responded that they will be calling in to the meeting. The webinar will be recorded and available on census.gov.

   d. State and Local Public Health Officials

      CENSUS RESPONSE:

      We will be doing some research on networks of state and local public health officials in order to send out the" America Counts" story with links to the working papers on the impact on health insurance estimates to these networks.

e. Population Association of America

CENSUS RESPONSE:

We presented a half-day pre-conference workshop on the upcoming changes to the CPS ASEC on April 9, 2019, in Austin, Texas.

f. Potential use of social media and/or blogs, including for lay audiences

CENSUS RESPONSE:

We are currently writing a story for "America Counts" that should be an excellent vehicle to reach lay audiences.

Since our CSAC presentation, we have launched a new page on census.gov that provides users with easy access to all the research and data sets related to the redesign of the processing system. https://www.census.gov/data/datasets/time-series/demo/income-poverty/cps-asec-design.html.

4. CSAC recommends Census investigate the potential use of administrative records as a method of quality control of responses to the income questions. Can administrative records be used in cases where respondents are resistant to answer specific questions about income, as opposed to follow up and options to enter a range of income?

CENSUS RESPONSE:

The Census Bureau accepts this recommendation. The Census Bureau is actively engaged in research regarding the potential uses of administrative records to evaluate the quality of responses to the income questions and to reduce respondent burden. As an example, the following presentation was given at the PAA pre-conference workshop on using administrative records to evaluate the accuracy of respondents taking advantage of the bracket option for income responses: "Are Bracket Responses Accurate." It is available at https://www.census.gov/library/working-papers/2019/demo/SEHSD-WP2019-22.html.

X. Economic Census Internet Self-Response Experience

1. CSAC appreciated the presentation on the Internet self-response experience for the Economic Census. There are many potential advantages to an all-electronic approach, including greater accuracy, cost savings, greater convenience for a majority of respondents, and overall efficiency. Having a single place for businesses to manage all their surveys is another positive as it will lead to consistent experiences and clear expectations. The single customer relationship management tool should help eliminate duplicate efforts to address concerns.

CENSUS RESPONSE:

We appreciate your feedback and support for this initiative.

2. The quality of the implementation of the self-response experience is critical for success. Having one platform for the development and delivery of surveys should make it easier to make necessary improvements as needed.

CENSUS RESPONSE:

We appreciate your feedback and support for this initiative.

3. With respect to security and registration, CSAC recommends following the latest NIST guidelines available at https://pages.nist.gov/800-63-3/sp800-63b.html
   The guidelines do not recommend periodic changes of passwords. CSAC recommends the implementation of multi-factor authentication to increase security. CSAC also recommends educating respondents on phishing risks.

   CENSUS RESPONSE:

   We have been analyzing the system paradata from the registration process. Based on this review, we understand that respondents are struggling mainly with password complexity, set up and usage of security questions, and password resets. We have briefed Census Bureau management on the paradata findings, as well as the recommendations of CSAC. We plan to meet with our Office of Security very shortly to work on possible solutions, including the investigation of multifactor authentication.

4. CSAC recommends following human-centered approaches to the design of self-response instruments such that the effectiveness, efficiency, learnability, memorability, and utility of the user interface is optimal in a wide variety of platforms (e.g., mobile). For example, additional unnecessary clicks or page loads will likely decrease response rates. There are also opportunities to increase responses by providing value to respondents. Perhaps the same portal used to answer surveys could be used to deliver customized products to businesses (e.g., regional reports, or reports on a particular sector of the economy). Tutorials (e.g., videos) could also be used to help, for example, small business owners with lower computer literacy. Monitoring non-response rates should enable the identification of types of businesses that may be struggling with the new approach, which could inform redesigns of the system and/or the availability of more resources.

   CENSUS RESPONSE:

   For the 2017 Economic Census, we performed respondent debriefings and are using that feedback to improve our instruments for the 2018 Company Organization Survey and Annual Survey of Manufactures (COS/ASM). We also provided some tutorials on the Respondent Portal and the Centurion tools for the 2017 Economic Census. We are adding more tutorials for our annual 2018 COS/ASM collection to better assist respondents with the reporting process. We are currently investigating using the Respondent Portal to provide more tailored messaging to our respondents regarding data products and are considering doing this when they first burn their Authentication code as well as a thank you for response. When considering major changes to the instruments, we also perform usability testing with respondents to help inform the best design options.

5. CSAC also recommends continued attention paid to addressing employee turnover issues (i.e., employee responding to surveys leaves the company) and encouraging respondents to designate delegates.

CENSUS RESPONSE:

We would like respondents to use the delegation feature in the tool to share survey access within their company. If they fail to do this, we have ways to delegate for them or provide them with a new authentication code. We do know based on usage statistics and debriefings that many respondents do not know that delegation is an option. We are planning to make enhancements to the system so this functionality will be more obvious to respondents.

XI. Public Comments

CSAC appreciates the public's interest in and support of the Census Bureau and the time taken to submit public comment to the CSAC. As a response to the public comments, CSAC would like to hear the following from the Census Bureau:

1. In light of the comments from CBAMS presentation on possible unwillingness of some populations to respond to the 2020 Census, as well as the March 2019 Harvard study that estimated an increased undercount of the Hispanic population from adding the citizenship question, CSAC would like to know the justification for the statement in Section 8 of supporting statement Part A of the 2020 Census Information Collection Request (ICR) that "The Census Bureau has identified no credible quantitative evidence that the addition of a citizenship question would impact the net undercount of the 2020 Census."

   CENSUS RESPONSE:

   The CBAMS results are referring to the census response rate--whether someone self responds by Internet or telephone. This is not the same as the coverage rate--whether someone is included in the final census counts. Lower self-response rates do not mean all the non-responders will be missed but that the Census will cost more and that we will have to visit more homes in person to count the residents and collect their information in person.

2. CSAC agrees that the undercount of young children is a critical issue and would like a discussion of it included in the evaluation plans session recommended in the above section responding to the "Update on the 2020 Census". We would also appreciate a summary in your written response of the actions taken in the 2020 census procedures, materials, and outreach to reduce the undercount.

   CENSUS RESPONSE:

   The Census Bureau is planning to brief the CSAC on these issues in their fall 2019 meeting. Current actions in 2020 Census procedures, materials, and outreach are still in final development, but include revised questionnaire wording, help screens, interviewer/enumerator training, and frequently asked questions, as well as integrated messaging throughout the media campaign and specific messaging and outreach to target groups.

APPENDIX

May 31, 2019

Research & Testing and 2020 Census Evaluation, Experiment, and Operational Assessment Study Plans/Reports

2020 Census Program for Evaluations and Experiments (CPEX)[1]
➢ **Evaluations (7)**
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 ["language"]
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
➢ **Experiments (5)**
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
Vacant Crowdsourcing Experiment
Impact of Asking Citizenship on Self-Response Rates, Data Quality, and Coverage Assessment in the 2020 Census
2020 Census Operational Assessments[2](48)
Archiving Operational Assessment
Census Questionnaire Assistance Operational Assessment

Content and Forms Design Operational Assessment
Coverage Improvement Operational Assessment
Count Question Resolution Operational Assessment
Decennial Logistics Management - Logistics Management Support Operational Assessment
Decennial Logistics Management - Space Acquisition and Lease Management Operational Assessment
Decennial Service Center
Demographic Analysis Operational Assessment
Enumeration at Transitory Locations Advance Contact Operational Assessment
Enumeration at Transitory Locations Operational Assessment
Evaluation and Experiments Operational Assessment
Federally Affiliated Count Overseas (FACO) Operational Assessment
Field Infrastructure – Field Office Administration and Payroll Operational Assessment
Field Infrastructure – Recruiting, Onboarding, and Training Operational Assessment
Forms, Printing and Distribution Operational Assessment
Geographic Partnership Programs Operational Assessment
Group Quarters Advance Contact Assessment Report
Group Quarters Enumeration and Military Enumerations Assessment
In-Field Address Canvassing Operational Assessment
In-Office Address Canvassing Operational Assessment
Integrated Partnership and Communications Operational Assessment
Integrated Partnership and Communications Contract Assessment
Research to Support the Integrated Partnership and Communications Program
Internet Self-Response Operational Assessment (Internet & Mail Contact)
Island Areas Censuses Operational Assessment
Language Services Operational Assessment
Local Update of Census Addresses (LUCA) Operational Assessment
Maritime Vessel Enumeration Report
Non-ID Operational Assessment
Nonresponse Followup Operational Assessment
Paper Data Capture Operational Assessment
Post Enumeration Survey (PES) SAMPLING and ESTIMATION Operational Assessment
Post Enumeration Survey (PES) FIELD OPERATIONS Initial Listing (IL) and Initial Housing Unit Followup (IHUFU) Operational Assessment
Post-Enumeration Survey (PES) FIELD OPERATIONS Person Interview (PI) & Person Followup (PFU) Operational Assessment
Post-Enumeration Survey (PES) FIELD OPERATIONS Final Housing Unit Followup (FHUFU) Operational Assessment
Post-Enumeration Survey (PES) MATCHING Initial Housing Unit (IHU) Matching Operational Assessment
Post-Enumeration Survey (PES) MATCHING Person Matching Operational Assessment

Post-Enumeration Survey (PES) MATCHING Final Housing Unit (FHU) Matching Operational Assessment
Redistricting Data Program Operational Assessment
Response Processing Operational Assessment
Self-Response Quality Assurance Operational Assessment
Service-Based Enumeration Assessment Report
Systems and Applications in the 2020 Census (Security, Privacy, and Confidentiality)
Update Enumerate Operational Assessment
Update Leave Operational Assessment
Response Rates Assessment Study
Item Nonresponse Rates Assessment Study
Quality Control Study Plan for Listing Operations
2020 Census Quality Control (QC)
Quality Control Study Plan for Enumeration Operations
Address Canvassing QC Results
Update Leave QC Results
Nonresponse Followup QC Results
Person Interview QC Results
Independent Listing QC Results

1 As study plans undergo review by the Decennial Research Objectives and Methods (DROM) working group, some evaluations or experiments may be de-scoped from the research program.

2 This is an inventory of 2020 Census operational assessments as of May 31, 2019. All 2020 Census operations have at least one operational assessment planned, except for Data Products and Dissemination, Systems Engineering and Integration, and IT Infrastructure. In addition for the Program Management operation, a "quality assessment" will be produced for each business process in lieu of an operational assessment. They will be managed and tracked by the Decennial Program Management Office.