



## **Suggestions To Address Census 2030 Planning Challenges Identified As Priorities in The Census Bureau's Federal Register Notice of August 17, 2022**

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### **Overview--Considerations Related To All Priority Questions**

The Census Bureau's Federal Register Notice provides an excellent inventory of key issues to consider in formulating recommendations for Census 2030 planning. My discussion and suggestions presented here are relevant to each of those issues and to the specific questions posed in the Census Bureau's Federal Register Notice requesting input for Census 2030 planning, taking into consideration the specific topics highlighted in the Bureau's inventory.

I appreciate the clear framing of the priority questions posed to commenters but want, at the same time, to call attention to ways in which these separately-identified questions/issues are intertwined. Given the way these issues are linked together, I highlight some of the overarching implications for the Census Bureau's methodological approach to research-driven census improvement.

I have tracked Census Bureau efforts to improve the decennial census for more than three decades-- focusing on issues related to differential undercount of the most socially and economically marginalized households, neighborhoods, and communities. Over this time, I have been able to observe many improvements in decennial census methodology but, at the same time, a persistent reluctance to redesign longstanding operational procedures to deal with evolving and new challenges in data collection and analysis as U.S. society moves forward.

### **Need for Changes in Research Strategy For Census Improvement**

Understanding the genesis of each of the problems that erode census data quality is a crucial step in finding solutions. The search for specific solutions to address identified problems is valuable. However, there are also over-arching issues of organizational culture and social science methodological approach the Census Bureau should confront in order to make the best possible progress in mitigating the chronic problem of differential undercount that is becoming more challenging each decade.

Census Bureau researcher, Kirsten West, incisively focused on the intersection between Census Bureau/OMB conceptual systems and locally-prevalent ones in an important early analysis (West and Fein 1990):



*The framework shows that “enumerability” or countability is determined by the interaction between planned census operations and the cultural and social structural configuration of the population subject to enumeration. In other words, enumeration is the outcome of both the census process and the social system that embeds this process.*

The factors that contribute to differential undercount and resulting erosion of data quality are complex so the optimal research strategy is one where there is careful attention not simply to each individual factor but, also, to the interactions among them.

The Census Bureau’s focus on narrowly-framed national-level analysis of racial/ethnic disparities in census enumeration has, practically speaking, limited Census Bureau understanding of the complex dynamic interaction of multiple underlying co-variant factors that give rise to what I consider to be “structural” causes of differential undercount and the closely-related concern about how that biases the quality of data on population characteristics.

The Census Bureau’s overall approach to planning for Census 2030 should pivot toward more geographically fine-grained analyses (at lower levels of census geography) and more nuanced understanding of the ways in which co-variant factors associated with differential undercount interact. This pivoting can, essentially, provide higher resolution in viewing/understanding the challenges faced and the basis for developing improved and, in some cases, innovative new strategies for improving census data quality.

#### The Need for An Organizational Commitment To Investments To Assure Equity

The Census Bureau’s overall research needs to go beyond efforts designed to remedy individual operational procedures one by one and move toward a more integrated, less-siloed applied research program. Pivoting toward “deeper” research rather than piecemeal efforts can, in fact, be cost-effective. Understanding patterns of non-response is a useful first step but the Bureau’s research must scrutinize underlying causal factors more diligently to provide the optimal analytic framework for re-designing operations.

One organizational step forward that would be valuable as well as cost-effective would be to adopt Bureau-wide requirements for an “equity impact assessment” as to how the findings from each census improvement research project (e.g. the CPEX applied research initiatives) would affect socioeconomic and sociopolitical equity—that is, to move us toward “a census that mirrors America” (see National Research Council, 1993).

Presumably, creating a better-meshed, less-fragmented, research program will require attention to better coordination among distinct administrative divisions within the Census Bureau. For example, ongoing ACS implementation can be better used as a testbed for decennial census design and operations, as well as generating insights used in communicating with the public. Many other cross-office collaborative efforts hold promise too—particularly those that strive to “translate” research-based insights into action, where there is not simply internal and external distribution of research findings but, also, broad discussion of potential operational implications.



An organizational approach that has shown great promise in addressing the problems inherent in an endeavor as huge and complex as the decennial census is that used by the National Institutes of Health (which addresses an extraordinarily broad range of scientific issues). NIH has, for example, an ongoing external Clinical-Translational Research Program and, in responding to the COVID-19 crisis, established a 7-pronged initiative based on well-justified research objectives. The “translational” challenge is one the Census Bureau can benefit from confronting—better linking insights from its applied research program to operational solutions across the full spectrum of census operations (including messaging and partnership arrangements).

The NIH COVID-19 applied research approach is characterized by investments in basic science (ACTIV—development of therapeutic interventions and vaccines) complemented with significant investments to increase equity: RADx-UP (research on underserved populations’ access to diagnostics) and CEAL (community engagement alliance) to link researchers and grassroots organizations promoting vaccination in vulnerable populations. The value of the NIH approach is that it is “balanced”—based on a commitment to research that gives the same weight to investments in practical efforts to enhance equity as to the ongoing search for statistical work-arounds when operational shortcomings undermine enumeration of hard-to-count populations.

Ongoing pursuit of more and more cost-effective solutions to enumeration of the 80% or so of U.S. households that are “easy-to-count” is well-justified but there is, at the same time, a need to invest more and invest more wisely in overcoming the problems encountered in accurately enumerating the remaining 20%. These expenditures may not be welcome to administrators or Congress, but the investment is necessary to assure the utility of the overall census dataset—especially since the primary use cases for decennial census data include fair allocation of political power and public sector (federal and state) funding, as well as myriad business planning and research uses in crucial areas such as health research and education policy.

#### Macro-level and Micro-level analysis are both needed to better reach and motivate respondents

Macro-level analysis of large-scale societal developments—for example, ongoing changes in family formation, housing/residence patterns, local socioeconomic context and media usage--can contribute to better understanding how to reach potential respondents. But this macro-level analysis should, ideally, be closely linked to “micro-level analysis” to best understand how message framing, mode of communication, impact individual respondents’ decision-making about survey response.

In particular, more social network analysis is needed, including research on how the social networks of historically hard-to-count populations differ from those of easy-to-count populations can provide crucial insights as how messaging strategy for promoting census participation can be optimized.

A key set of societal developments that the Census Bureau has only addressed sporadically, and where the Bureau’s research has been under-funded, and often too narrowly-focused is the growing sociological, cultural, linguistic, diversity that accompanies growing racial/ethnic



diversity in the U.S. dramatically impacts households' attitudes about and interactions with all levels of government and engagement with different media channels.

These macro-level societal developments, inevitably, shape potential survey respondents' attitudes about the decennial census (and, perhaps even more problematically, the American Community Survey). Traditional, standard, assumptions about question sensitivity and framing may well no longer be reliable and research may show the need for major questionnaire re-design and survey methodology in an era when public distrust of "government" is escalating rapidly.

#### More Attention To Diverse Cultural and Sociopolitical Factors Affecting Differential Census Response Needed

The historical record of Census Bureau research, despite some valiant efforts to seriously address US diversity, shows an organizational tendency toward ethnocentricity. This is particularly evident in the Census Bureau's rudimentary conceptualization of "households" that compromises data collection since it leads to partial household omission in "complex households" and total household omission of low-visibility, hidden housing units. This is a high priority issue that can productively be addressed using ethnographic research as a tool both for questionnaire re-design and innovative operational improvements. I offer suggestions for both.

The Census Bureau's limited appreciation of U.S. population diversity is also evident in its mediocre organizational commitment to facilitate language access. This is unfortunate because there is already such powerful evidence of the positive impact that adoption of the bilingual questionnaire had on Spanish-dominant households' response in 2010). There should have been more efforts to build on this successful innovation to facilitate language-minority households' response in 2020; nonetheless, efforts can be resumed in planning for 2030 and I suggest several useful steps forward

The same insular organizational perspective can be seen in the lack of fundamental Census Bureau research about ways in which the framing of questions about racial/ethnic identity affect community-wide levels of census response. What is at stake is not simply quality of responses to the question but, more broadly, racial/ethnic minority communities' perspective on response to a questionnaire which was so evidently indifferent to their personal conceptualizations of race/ethnicity.

The negative impact of Census Bureau acquiescence with OMB's crude taxonomy of race and ethnicity has not been fully considered in eliciting information on race/ethnicity. Colleagues and I, for example, documented how Mexican and Central American immigrants whose fundamental self-identification relates to ethnicity come to reluctantly construct/learn OMB-defined concepts of race and "Hispanic origin" (Kissam, Nakamoto, and Herrera, 1995; Gabbard et. al. 2008) and how problematic respondents consider census questionnaire posing of these key questions to be.



### Renewed Reliance on Ethnographic Research Is Needed To Provide A Basis for Improving Response and Census Data Quality

Unfortunately, the Census Bureau has also only given sporadic attention to the implications to the ethnographic research on factors affecting respondent motivation (e.g. Anderson, 1989; Bourgois 1990), living/housing conditions (e.g. Mahler, 1993, Martin, Brownrigg and Fay 1990, Montoya 1993, Hainer 1987), social networks, and conceptualization of family and household (e.g. Stepick, Stepick, and Wobus, 1992, Hamid 1991, West 1985, Martin and De La Puente 1992, Hamid and Brownrigg 1992, Schwede 2003, Turner et al 2015). The need for organizational mechanisms for “translating” research findings into operational planning is clear.

After a brief, modestly-funded but valuable, episode of investment in ethnographic research in the period from 1985-1995, the Bureau has subsequently been reluctant or unable to incorporate insights generated from this investment into re-design of operations, partnerships, and messaging. Cost-effective approaches were pioneered in the Census Bureau’s ethnographic research program in 1990, reported by 1992-1993 but insights largely ignored.

Despite progress in disciplines relevant to the Census Bureau’s survey methodology such as behavioral economics, social psychology, marketing, and communication theory, the bulk of the Bureau’s research program has consisted primarily of sound but more narrowly-focused survey research, and statistical analysis. In particular, experiments designed to test alternative questionnaires or contact strategies need to be designed to allow more fine-grained analysis of variations in the behavior of the full spectrum of respondents than has customarily been conducted.

In the area where my own research has focused—differential undercount of Mexican and Central American immigrants and migrant/seasonal farmworkers (Gabbard, Kissam, and Martin 1993; Kissam and Jacobs 1996, Kissam 2010, Kissam 2017, Kissam, Quezada, and Intili 2019, Kissam 2020), the earlier ethnographic research by the Census Bureau provided me many practical insights that are relevant to questions being articulated today in 2022: for example, challenges in MAF-building, problems stemming from ambivalence in distinguishing housing units (HU’s) from households (HHs) that has given rise to differential undercount affecting low-income neighborhoods and communities, where “complex” (doubled-up) households are prevalent, and marginalized social groups’ perspectives on providing information to the government. I discuss some of the implications of our research findings in explaining the rationale for my specific recommendations.

### Additional Attention Is Needed to Understanding and Addressing The Distinct Factors That Affect Immigrant Census Response and Consequent Differential Undercount

Fair and accurate enumeration of immigrants is a chronic challenge for the decennial census—because so many immigrant households are marginalized both socio-politically and socioeconomically. This is particularly crucial for the estimated 22 million people living in U.S. “mixed status” households (where some household members lack legal status while other are citizens or lawful residents).



There are also potential challenges in securing response from immigrant households where all household members do have lawful status but where that legal status may be fragile or impermanent (e.g. DACA recipients, TPS beneficiaries, humanitarian parole beneficiaries). These populations with fragile lawful status are significant: 610,000 DACA recipients, 504,000 TPS recipients, 470,000 asylum seekers with pending cases). Immigrant households are not evenly distributed throughout the U.S. so differential undercount of immigrants has practical implications for allocation of funding in hundreds of municipalities and counties in the U.S. where the highest concentrations of immigrants (including naturalized citizens, lawful permanent residents, lawful residents with fragile status and undocumented immigrants) reside.

Most immigrants do indeed belong to race/ethnic minority populations and efforts to decrease differential undercount of these populations contribute to improvements in enumeration of immigrant households. But the specific factors and dynamics of immigrant undercount differs from undercount of minority populations.

Attention to differential undercount and resulting degradation of census data quality is compromised by reducing analysis to a very limited set of factors—undercount in relation to race/ethnicity, undercount as related to home ownership or renting, and, fairly recently, undercount of young children. A more fine-grained analysis of disparities in enumeration of diverse sub-populations is needed because, the aggregate of multiple “micro-disparities” in enumeration has a negative impact on practical policy and program design decisions.

Our San Joaquin Valley analysis of patterns of self-response, for example, shows that % of non-citizens in a tract (a proxy for % of undocumented immigrants—as shown by analyses by Jeffrey Passel, Robert Warren, Manuel Pastor and others) is highly correlated with level of self-response and this, in turn, suggests the utility of messaging specifically targeted to immigrant sub-populations. Interestingly, we found that naturalized Latino citizens were more willing to respond to the census than even US-born Latinos—a finding that, of course, suggests this sub-population might play a valuable role as influencers promoting census response (especially because they are typically older, settled households).

From a practical perspective, it is important to understand that immigrant populations’ willingness to participate in the census is conditioned by many interacting factors that vary from place to place, that vary in relation to national origin and early experience with home country governments, local public and government attitude vis-à-vis immigrants.

For example, differences in overall perspective among different generations of immigrants (Generation 1, Generation 1.5, Generation 2+) and immigrant legal statuses (undocumented, lawfully present but not permanent residents—DACA and TPS, legal permanent residents, naturalized citizens) vary tremendously. This, in turn, shapes household, social network, and community dialogue about census response. To effectively tailor campaign efforts to persuade reluctant heads of household, these dynamics need to be understood. Our San Joaquin Valley research, for example, showed that Hispanic DACA recipients varied a great deal in their perspectives about census response but that all played a prominent role in advising their parents about census response.





Without a more nuanced understanding of differential undercount than is provided by crude analyses of racial/ethnic disparities using dual-estimation methodology (the PES), the Census Bureau's research efforts have, in particular, left it ill-prepared to consider how immigration status, immigrants' home-county experience, duration of U.S. residence, and social networks affect census response and, consequently, differential undercount.

To be sure, the Bureau's Center for Administrative Records Research and Applications did important research on the limitations on availability of administrative records (AdRecs) for immigrants (Bhaskar et al 2015, Bhaskar et al 2018). Their detailed regression analysis had implications for further exploring assessment of allegedly "high quality" administrative datasets and messaging no provisions were made to incorporate these insights into Census 2020 operations.

#### Learning How To Learn from Experience—Research Opportunities Missed In Consideration Of The Proposed Question on Citizenship

Census Bureau researchers (Myers and Goerman, 2018) sounded the alarm about the impact that adding the citizenship question might have on 2020 census response among immigrants but, during the litigation and after the litigation, there was inadequate followup research or communications strategy to determine how to counter immigrants' concerns about how their census responses might be used.

The initial insights generated by the Census Bureau's focus groups reported by Myers and Goerman provided a marvelous basis for framing hypotheses to be testing in the course of further research—but at that point, the Census Bureau, in part due to political interference, did not adequately explore what the impact of the citizenship question might be although other researchers, for example, examined the important issue of spillover effects (Baum et. al. 2022).

The Bureau's split-panel research testing response to a census questionnaire with the citizenship question or without it (Velkoff et. al. 2019) was valuable and generated significant findings but could, ideally, have served as the basis for follow-on research about factors affecting census response. Widespread input from leading researchers that was ignored due to political interference and extensive testimony by experts in the course of litigation surfaced a wide range of issues that should have explored but were not. The insights generated in the course of the controversy deserve attention because they provide guidance about the type of research needed to improve response among hard-to-count households.

Our research on low-income Latino households' in the San Joaquin Valley (Kissam 2019, Wadsworth, Kissam, Quezada, and Intili 2019) indicated there would be lasting impacts on both self-response and proxy response during NRFU arising from the highly-public conflict over the citizenship question. The extent to which the historical ripples from this high-profile national controversy continue to affect immigrant households' responsiveness will need to be addressed in planning for 2030.



The testimony of Dr. Matt Barreto of UCLA based on his extensive experience in Latino survey research was that he expected widespread impacts but there is little evidence of Census Bureau special efforts to find strategic workarounds—in messaging or in NRFU design although it was clear that the hot-button issue of the citizenship and the still broader concerns it uncovered, about the purpose of federal government data collection, could not be swept under the rug.

Although the concept of “trust” and “trusted voices” permeates Bureau and other analyses of ways to promote census response, Census Bureau research has not probed deeply enough into the extensive and fascinating literature on the ways in which social networks establish and reinforce or undermine trust in messengers who are at different social network distances from message recipients. The ways in which the social dynamics that affect census self-response and NRFU response are related to individual respondents’ social networks and, more broadly, to hard-to-count populations’ community-wide social networks have not been explored as a source of insights for approaches to enhancing census response.

Changing societal conditions inevitably challenge longstanding conceptualizations of communication interactions. My own research on social networks and information-sharing among Mexican immigrants in farmworker communities shows, for example, that workplace-based relationships, including cross-ethnic ones, compete strongly with traditional social networks (nuclear family, extended family, fellow home-villagers/*paisanos*) as nodes for exchanging information and advice). At the same time, informal community relationships also play a larger role in providing advice and influencing opinions than is generally recognized (corner store owners in small agricultural communities).

#### A Deeper Analysis of Census Bureau Partnership Objectives, Relationships, and Financing Is Needed

Census Bureau partnership efforts have, over several decades, failed to adequately appreciate the major role that non-formal social networks play in shaping survey response and have, consequently neglected to include strategies to impact communication within those networks despite an extensive research literature on social network dynamics. Message campaign metrics have, for example, relied on standard measures of market penetration and ignored the importance of strategies designed to facilitate and promote primary audiences’ re-framing and communicating persuasive messages to secondary audiences (although marketing specialists have given extensive attention to these dynamics).

Although the Bureau’s initiation of LUCA represented an important step forward in partnering with local government, it sparked little followup even after an excellent evaluation of Census 2010 LUCA (Swartz, Virgile, and Timko 2012) showed many shortcomings in the federal-state-local government partnership that could have been addressed in 2020.

Review of the range of Census Bureau’s partnerships and the structuring of partnerships with external partners in lead-up to census implementation show a narrowly-conceptualized vision of its partnerships—oriented almost exclusively toward external partners’ role as “cheerleaders” to disseminated standard messages encouraging census response.





## The Census Bureau Needs To More Carefully Assess Proposed Technology Solutions

One of the most serious instances where organizational “tunnel vision” (driven in part by focus on operational costs rather than data quality) compromised decennial census integrity was organizational indifference to and inadequate operational response to variations in Internet connectivity, devices used (e.g. tablets vs. mobile phone) for online transactions, cultural and socioeconomic variations in familiarity with online interactive transactions, and digital literacy.

The resulting bottom line was that self-response via the online portal was extremely difficult for low-literate low-income respondents with only mobile phone connectivity even if they were motivated to respond.

Despite well-founded enthusiasm about the operational benefits of online census response, there appears to have been little interest in the ways in which online response might exacerbate differential undercount and, inevitably, widen the “digital equity gap” separating “hard to count” populations, households, neighborhoods, communities from “easy to count” ones.

In particular, extent of broadband connectivity in a census tract/neighborhood, while an important consideration in planning for online census response is an unfortunately crude proxy for confronting the real-world dynamics of households’ ability and willingness to submit personal information to the Census Bureau via an online portal. Key considerations which the Census Bureau failed to explore include variations in type and extent of online time within households, device ownership, types of transactions customarily conducted online—the multiple dimensions of “online life” in the U.S.

The bottom line is that online response broadened the “digital equity” gap in census self-response as can be seen in the Census Bureau’s releases of information on mode of self-response by tract in Census 2020 (Census Bureau 2022).

Colleagues and I recently have shown dramatic disparities in self-response at the sub-state and sub-county levels of geography that are highly correlated with HTC index and Internet connectivity (Robinson, Kissam, and O’Hare 2022). The dramatic technological advance in decennial census methodology so celebrated by the Census Bureau has significantly increased inequity (since NRFU only compensates imperfectly for low self-response).

These over-arching considerations related to organizational culture must be integrated into the Census Bureau’s overall applied research program to inform and ultimately shape data-gathering operations, data analysis, and reporting in Census 2030.

One way to address this over-arching set of considerations would be to implement a Bureau-wide requirement to assess any proposed operational changes via an “equity impact report” which assesses whether changes would ameliorate or exacerbate chronic disparities in census enumeration. This would offset the understandable but worrisome organizational inclination to focus on operational “solutions” to data-gathering which work well for many mainstream



households but which, by compromising equitable allocation of federal and state funding based on census and ACS data, that consistently exacerbate the underlying inequities in U.S. society.

Taking into consideration these cross-cutting issues that are highly relevant to answering each of the specific questions posed by the Census Bureau, I offer suggestions in response to each of the topic areas prioritized in the Federal Register notice soliciting input. I include in the response to each topical question a rationale for the specific suggestions I offer.

### **Topic A: Reaching and Motivating Everyone**

Concerns about reaching everyone in the U.S. and convincing all of them to self-respond to the decennial census (and the ACS) are well-justified. I would like to highlight some challenges that need to be overcome and offer some suggestions about potential solutions (which would, of course, need to be tested as part of the Bureau's research program during the next several years and in the 2028 dress rehearsal).

I offer suggestions related to several sub-areas under this broad category of concerns:

- MAF-Building
- Response Modalities for Complex Households
- Motivating and facilitating Self-Response
- Motivating and facilitating NRFU Response

#### Expand and Enhance MAF-building and quality control

#### ***Overview/Rationale for Recommendations***

Current MAF-building procedures contribute significantly to systematic differential undercount of societally marginal populations and households.

It should be noted that PES-based estimation of housing unit omissions is also inadequate since it is unreasonable to believe that the Census Bureau was able to actually independently identify housing units for the P-sample. The Census Bureau's ethnographic research program has, in various instances, identified many omissions and erroneous enumerations in both the E-sample and the P-sample.

An innovative "triple enumeration" research design in the 1986 Test Census (see Fein 1989 and Fein and West, 1993) provided a basis for estimating the magnitude of this problem—an important consideration since PES-based estimates of differential undercount fail to capture the full impact of housing units omitted from the MAF. This research design still has great promise for research to support Census 2030 planning.

LUCA was, as a result of pressure from local governments, instituted as an innovative attempt to improve the MAF. However, the Census Bureau's evaluation of LUCA in Census 2010 showed many shortcomings in the effort due to various factors that included both level of local



government participation and local government organizational capacity to meaningfully participate in LUCA. Large, affluent municipal governments such as New York City with the technical sophistication of demographers such as Joseph Salvo and his team were able (with several years of effort) to significantly improve the MAF in their jurisdiction via LUCA. However, smaller municipalities were not. The municipalities with lower levels of technical expertise and resource generally participated in LUCA by adding or subtracting housing units based on property tax records. 911 databases were also used in some municipalities but were not useful or reliable in others.

### ***Specific Recommendations***

My recommendations for MAF-building include the following:

1. Improve targeting of in-field address canvassing to more reliably identify the areas with the highest proportion of omitted housing units.

The Bureau's naive assumption that satellite-based identification to guide in-field address canvassing to focus on areas of new construction would be useful was seriously misguided (because AdRecs related to new construction are relatively good) and most hidden/low-visibility housing units are not reliably identifiable in satellite imagery (e.g. basements, sheds/outbuilding used for housing, garages used for housing). PES-based analyses of patterns of housing omission in remote rural areas also undermined Census Bureau recognition that hidden housing units in urban neighborhoods was also a problem.

My own research on hidden housing units and targeting for our experiment with community-based address canvassing (Kissam, Quezada, Intili 2018) showed that analysis of PDB data (i.e. ACS-derived block and tract-level characteristics) combined with local low-income community grassroots organizations' insights provided a valuable and cost-effective basis for targeting in-field address canvassing.

We learned that PDB-based analyses using ACS variables hypothesized to predict higher density of hidden housing units yielded useful but modest results—in part because distinctive local conditions affected patterns of hidden housing in significant ways. However, reliance on local key informants provided additional valuable insights that enhanced our targeting of areas to canvass.

For example, a relatively affluent blue-collar neighborhood of San Jose with a high rate of home ownership had many hidden backyard housing units and garages converted to housing because settled Mexican immigrants were in financial straits which motivated them to seek additional sources of income. In the Coachella Valley, clusters of trailers (so-called *polancos*) were not in the MAF because state legislation had limited municipal licensing requirements for clusters of <13 trailers.



2. Re-design in-field address canvassing to include partnerships with knowledgeable grassroots organizations active in low-income areas where hidden/low-visibility housing units are most prevalent.

Fund these local partnerships at an adequate level to support the grassroots organizations in conducting thorough locally-directed and implemented in-field canvassing as well as advising Census Bureau canvassers of clues for identifying hidden housing units during a final pre-decennial pass of address canvassing.

Colleagues and I assessed locally-generated guidance as part of preparation for Census 2000 in farmworker areas of the Los Angeles and Seattle regions and found that local community workers had distinct knowledge that allowed them to very successfully identify housing units. Lessons learned were documented in GAO Report 03-605 (2003). Experience in our community-based address canvassing in 2018 similarly showed that the “clues” for identifying hidden housing units varied from one locale to another (e.g. swamp coolers in Mecca, CA, molding on garage doors in San Jose, CA, back-alley gates in Fresno, CA).

3. Assess local government capacity to effectively participate in LUCA and provide technical assistance to municipalities that lack the organizational capacity to effectively participate.

Structure local LUCA funding and T/A to require significant local financial match but provide funding based on a sliding-scale to allow participation by local governments without the financial resources to effectively improve the MAF in their local area. Require that requests for technical assistance and/or funding identify activities local government applicants are prepared to implement.

Design the LUCA program of technical assistance to include annual conferences to include “peer-based learning” where municipalities and counties that are receiving LUCA T/A support to report on strategies being tested and results—with required reporting on administrative datasets used and/or number of addresses canvassed in pilots, yield of newly-identified low-visibility/hidden housing units, and insights on clues for detection.

4. Pilot in 2025-2026 and, if successful, go on to full-scale implementation of the option of federal/local partnerships for continuous MAF improvement during the final 3 years prior to the decennial census (2027-2029)

Review each year’s yield of newly-identified previously-hidden housing units to determine if they continue to exist or whether they have been abandoned/demolished/converted. Include as part of the continuous MAF improvement, identification and characterization of Transitory Locations and, as with individual housing units, monitor changing conditions (e.g. more RVs parked at a location vs. municipal abatement of such venues).

Identify local panels of key informants to provide yearly updates to the Census Bureau on their observations about local housing stock and conditions—e.g. new types of hidden housing units, increase in prevalence of hidden housing units in diverse neighborhoods, newly-established transitory locations (e.g. former motel converted into informal housing), and unusual types of



hidden housing units, e.g. subleased casitas (auxiliary housing) in affluent, sometimes gated, communities.

5. Conduct a study of the completeness and accuracy of local property tax records, 911 databases and the USPS sequence file.

The quality of the USPS sequence file is, presumably, being eroded as mail delivery operations evolve (e.g. less on-foot delivery of mail). The assumption that mail delivery personnel have thorough knowledge of the neighborhoods they serve is unfounded.

Design the USPS sequence file study to include a stratified national sample of municipalities and unincorporated areas. (Most hidden housing units are actively concealed from local government and many share mail delivery with the primary housing unit). The study might, additionally, yield insights about prevalence of doubled-up housing units.

Review currently available research and evaluation of local 911 databases. The research I have seen suggests that their quality varies greatly. The best can provide an important supplement to the MAF but others are known to be incomplete and/or inaccurate (See 911.gov for details).

6. Further explore options and issues to be addressed for supplementing the USPS postal sequence file with data purchases from private delivery organizations such as Fedex and UPS.

A historical problem in LUCA has been address formatting variations that have led to erroneous housing unit duplication. This problem can and should be addressed by the Census Bureau leading a national effort to improve standardization of address formatting that engages all stakeholders (e.g. the private sector delivery companies) whose address lists the Census Bureau might want to consider.

7. Staff NRFU with greater emphasis on observational and communication skills and train enumerators adequately to facilitate submissions adding new housing units to the MAF, i.e. “In-field adds”.

It has always been possible in principle for enumerators to add newly-observed housing units that lack postal addresses and/or are not included in the current MAF—but efforts to standardize workload and supervision has discouraged this as a priority.

Provisions should be made to train all enumerators to observe and identify housing units not included on the MAF, add them and enumerate individuals residing in them on the spot or schedule an interview session at a convenient time if possible, or if not, encourage them to self-respond if they are not available, or, re-contact them if no timely self-response is received.

Operational decisions made for the 2020 decennial degraded enumerators and their supervisors’ ability to engage in these field-based efforts to improve MAF completeness and more reliably enumerate individuals in newly-added MAF spots.





I am aware of the challenges the Census Bureau faces in recruiting enumerators with the language and cultural competency to interact with language-minority households. Although progress has been made in this operational area, more is needed. The Census Bureau has already developed good partnerships with local community-based organizations serving various immigrant communities. It will be possible to build on those relationships to further improve recruitment. It should be noted, however, that the Census Bureau's job description for enumerators is not framed with adequate attention to the functional competencies required for top-quality enumerator interactions with hard-to-count populations, especially linguistically-isolated households and enumerators' reports of the Census Bureau's screening process suggest that, at the very least, improved screening for language competency is needed.

8. Revise what was formerly the “Be Counted” initiative in 2010 to include the ability for respondents living in a hidden housing unit who did not received a mailed census form or invitation to self-respond to identify the hidden housing unit they reside in and, during either the self-response phase of the decennial or NRFU, propose it for addition to the MAF.

I have discussed with Census Bureau staff, a very straightforward protocol for designating newly-identified housing units to the principal housing unit USPS address adjacent to the hidden housing unit (e.g. garage of 174 Sycamore lane, trailer in backyard of 798 El Camino) as a basis for submitting non-ID responses. The protocol seemed very sensible and user-friendly but it is not clear that promoted as part of Census Bureau outreach regarding non-ID responses or whether there were erroneous de-duplications of non-ID responses in 2020.

10. Terminate or substantially improve de-duplication editing procedures that rely on AdRecs (since AdRecs such as IRS income tax returns.

IRS records do not necessarily identify all persons residing at a USPS address (and should not since income tax returns reference economically-defined household units). IRS records, also, are not designed to have reliable information on a household's physical residence on Census Day.

### Redesign Census and ACS Response Modalities for Complex Households

#### ***Overview/Rationale for Recommendations***

Census Bureau/OMB terminology relating to households and housing units is inconsistent and presents too many opportunities for household omission in the course of relying on AdRecs during NRFU. Most administrative datasets that include household rosters (i.e. lists of all household members) are based on a definition of “household” as an economic unit or as a socially-defined family unit not as residents of a specific housing unit (as defined by OMB).

Although the current decennial census questionnaire does include a probe/instruction requesting respondents to submit information on non-family and/or non-household members co-habiting in a single housing unit, societal norms discourage primary census respondents from including these additional individuals. It also deserves note that the census form instructions regarding residence rules are problematic for individual with low literacy levels (due to the abundance of distractors and clausal structure).



Moreover, in the case of “complex compounds”, e.g. a property with a single street address where a principal family lives in the housing unit linked to a MAF spot and a family living in a backyard trailer, the OMB definition of “household” (as housing unit with a single entrance) may actually be ambiguous to respondents. The family living in the backyard may, for example, use the kitchen and bathroom in the main house but sleep in the unpermitted housing unit.

### ***Specific Recommendations***

1. Move forward with OMB to re-define the concept of “housing unit” (i.e. residential rules) so as to distinguish it from “household” and re-design the census questionnaire to elicit information on the respondent’s household and allowing submission of multiple household census responses from “doubled-up” housing units.

The reassessment should include both a broad review of the literature (not just Census Bureau literature!) on contemporary living arrangements and social networks and new empirical research on variations in diverse neighborhood and cultural/ethnic populations. The research should give particular attention to diversity in immigrant living situations and cultural contexts because these are shaped not only by current local socioeconomic and cultural context but, also, by home country experience.

The research design should also be designed permit exploration of both social relationships and economic relationships that enter into contemporary definitions of “household” and actual residence patterns/living arrangements—especially in low-income hard-to-count neighborhoods.

The research should be designed to support revision of census enumeration procedures to clearly/explicitly enumerate households and household composition while recognizing that in many cases multiple households share a single housing unit. An important objective of this research should be exploration of messaging required to clarify response procedures.

2. Immediately institute primary empirical research in diverse geographic areas to determine the prevalence and composition of “complex”/doubled-up households (i.e. co-habitation) as well as differing patterns.

A good deal of census literature, for example, focuses on multi-generational households as cases where a housing units is occupied by kin who are not simply nuclear family members. However, in the Mexican and Central American immigrant communities, colleagues and I have focused on, “horizontal” extended families (i.e. sisters and brothers in law, cousins) are more common and distinctive extended migrant social network relationships (referred to as relationships with *paisanos* often) play a role in determining the internal social relationship patterns within a shared housing unit.

Include in the study of doubled-up households attention to informal group quarters (e.g. makeshift women’s shelters) such as labor camps and contractor-provided housing. These congregate living settings differ dramatically from current conceptualizations of “group quarters”



and cannot be effectively enumerated using GQ procedures (because the GQ enumeration procedure assumes there is a person who actively manages congregate living—as in the paradigm case of GQ’s that are long-term care facilities, etc.)

Empirically test the alternative questionnaire design via simulated self-response and cognitive interviewing and simulated interviews with enumerators in a sample of doubled-up housing units. (Research by Yuling Pan, Nancy Bates, and others on skilled census enumerators’ paraphrasing of questions in non-English NRFU interviews provides a wealth of insights about discourse structure and response quality).

3. Test an innovative major modification of decennial census survey administration in which the online invitation sent to a MAF address includes a drop-down menu allowing the online addressee to generate a supplementary separate questionnaire with other households living in the same housing unit or in multiple “satellite” hidden housing units adjacent to a single USPS address/MAF spot.

This version of the “Be Counted” enumeration option may well be increasingly appropriate in Census 2030 and subsequent decennial censuses as online transactions become ubiquitous.

In the interim, a paper/mailed questionnaire version of this procedure might have include a postage-paid mail-return envelope for the additional household at the address to request a census form. These “supplemental” questionnaire requests could be pre-coded with an initial string of designators indicating that the new household’s MAF address will be an additional or “satellite” addition to an extant MAF spot.

### Motivating and Facilitating Self-Response

#### ***Overview/Rationale for Recommendations***

Census Bureau ethnocentricity is quite evident in its’ crude targeting of messaging to promote census participation and its indifference to the response barriers stemming from low literacy. Despite the availability of extensive federally-funded research on literacy (see, for example, Kirsch et al 1993) that stresses multiple dimensions of reading ability, the Census Bureau appears to have persisted in old-fashioned conceptualizations of literacy as unidimensional. In fact, census response requires a fairly high level of specific competencies characterized by the Educational Testing Service as “document literacy” (an important consideration being the impact of distractors in text) and competencies categorized as “quantitative literacy”.

This is particularly crucial because experts project that overall U.S. literacy will continue to decline through 2030 (Science, 2007 <https://doi.org/10.1126/science.315.5816.1199a> ). A priority for Census Bureau research needs to be getting up-to-date in understanding literacy in the U.S., including, for example, attention to the ways in which form design affects readability for less-educated less-literate immigrant respondents (see Sum, Kirsch, and Yamamoto 2004 for an overview of immigrant literacy as assessed in the National Adult Literacy Survey).



Understanding the overlap between digital literacy and print literacy is also an area the Census Bureau appears to have neglected in its enthusiasm to introduce online census response in 2020. The Pew Research Center (Horrigan 2016) has carefully assessed U.S. digital literacy and found that at least 14% of the US adult population are “unprepared” in terms of digital literacy. This has implications both for use of social media as a vehicle for promoting census response and for potential respondents’ ability and aspirations/willingness to respond online.

Census Bureau research has devoted relatively few resources to testing questionnaire design to assess responsiveness to alternative questionnaire designs across the entire spectrum of potential census respondents although the CBAMS research is an exception in that it, quite appropriately, has developed a relatively sophisticated analysis of general responsiveness among different audience segments. It is, however, not clear that the CBAMS research has focused adequately on motivating self-response among the hardest-to-enumerate sub-populations, especially immigrants.

For example, there are multiple dimensions of diversity that must be fully understood as a basis for effective message placement to effectively diverse Hispanic audience segments—not just English, Spanish, or bilingual station format, but also local diversity in terms of immigrants, U.S. born in station coverage area, home country culture/music preferences and vernacular, racial identity, etc. (See Morgan, 2011; Nielsen Diverse Intelligence Series, 2021, for example). Station/program musical genre must be carefully considered as a basis for placement of messages oriented toward a specific market segment. Considering simply diversity in station format/musical genres for reaching Mexican-origin audiences drawing distinctions between Norteño, Tejano, mariachi, banda (Oaxaqueña vs. Sinaloense, tropical, romantica), grupero program segments are crucial for effective targeting.

Similar fine-grained analysis of broadcast media audiences and social media audiences as a basis for message design and placement would greatly enhance the effectiveness of efforts to promote census participation (both self-response and during NRFU).

Nonetheless, despite the Census Bureau’s inability or unwillingness to engage in strategic planning regarding media use (possibly due in part to the convenience of awarding large external contracts for outreach) the main problems in this area seem to rest in “translating” research into effective messaging. Decades of research on messaging to different racial/ethnic groups has shown that Census Bureau messaging does better at increasing awareness of the census than in impacting aspirations to actually respond.

The issue of facilitating self-response for a diverse population has also been neglected—although the dissemination of bilingual questionnaires in English/Spanish in areas with >20% linguistically-isolated households was very helpful. Similarly, the introduction of the online response modality quite obviously facilitated self-response for some households but, unfortunately, not for all.

The Census Bureau/Young and Rubicam report on the integrated Census 2020 communications campaign shows there was a well-reasoned and concerted effort to integrate outreach to promote



census participation with census operations in 2020. The report also shows growing awareness of U.S. diversity. The report also shows an ambitious effort to refine and adjust messaging in the course of data collection (in part due to the challenges faced conducting the decennial census in the middle of the COVID-19 pandemic). Building on these efforts (including assessment of what worked and what didn't) can contribute to development of strategies for 2030.

### ***Specific Recommendations***

#### **Motivating Self-Response**

1. Conduct market segmentation research early enough in the decennial cycle to permit testing of messaging that has been designed taking into account findings regarding motivators and barriers to self-response in diverse multi-dimensionally defined audience segments (not simply as demographic sub-groups and/or racially/ethnically defined audiences).

2. Conduct research to better identify influencers for diverse audience segments. Traditional assumptions about all-purpose influencers are no longer justified. For example, it has long been assumed that elected officials and media stars were effective influencers. This is less the case as trust in government plummets across a broad range of audience segments and as more and more fine-grained media options lead to siloeing.

Consequently, research should:

a) identify an increasingly broad and diverse range of influencers for increasingly smaller/narrower segments of U.S. households,

b) explore “matching” of messages and influencers and media channels

c) identify multiple influencers for each audience segment and design messaging campaigns with a “360 degree surround-sound” strategy so as to assure that each audience segment is exposed to multiple “trusted voices”.

d) re-examine the implications of early research conducted by the Corporation for Public Broadcasting and network partners as part of efforts to develop a system of “quality ratings”. Some aspects of this research have now been standardized in broadcast market research but there is not much evidence that these dimensions (e.g. station “loyalty”) were used in 2020 media buys.

3. Design media strategy to better harmonize media messaging and “on the ground” community-based promotion of census participation. Traditionally, the Census Bureau’s census promotion efforts have been siloed with media messaging being designed and disseminated independently from development of “on the ground” local partnerships with local institutions and community-based grassroots groups.





#### 4. Design and test messages particularly well-suited for diverse media channels.

For example, even standard Spanish-language radio audience research identifies a range of radio formats. Incorporate into media strategy incentives to assure that census promotion messaging is placed in dayparts and program environments that include local programming (believed by audience researchers to have a special role).

#### 5. Explore design of messages for diverse stylistic modes of communication and audiences—e.g. rappers, preachers, health advice podcasts.

Calculate cost/impression with adjustments for estimated enumeration difficulty of relatively small audience segments who may, however, be particularly hard to reach and, therefore, high priority for targeting.

#### 6. Engage Census Bureau regional offices and longtime partner organizations to solicit, review, assess, and fund local grassroots organization efforts to motivate and facilitate self-response (“Get Out The Count” among hard-to-count populations in local areas.

California’s Get Out The Count effort was strategic in contracting with intermediary organizations (in several regions, regional foundations) to fund and supervise local grassroots outreach efforts. Strengths of the initiative included development of a customized state hard-to-count metric (a concept that had been part of the initial development of HTC metrics but never implemented by the Bureau), targeting HTC tracts, and monitoring self-response as a basis for adjusting outreach endeavors. However, the initiative’s activities were limited (as were overall Census 2020 operations) by COVID-19 guidance regarding social distancing. So, further exploration of this promising strategy is merited and much can be learned from discussions with key personnel.

It deserves note also that California’s 2020 Get Out the Count Network provided the platform for subsequent state efforts to promote vaccine acceptance in hard-to-reach communities and population groups. This subsequent large-scale outreach effort has generated further practical operational insights. Emilio Vaca, who managed field operations in both the Census 2020 and the COVID-19 outreach for the state, would be a key informant to consult in designing Census Bureau research on local GOTC.

A forthcoming comprehensive outcome-oriented evaluation of the GOTC effort in a region with a high proportion of hard-to-count tracts (the southern San Joaquin County sub-state region) will be another source of insights for designing further research for locally-implemented GOTC efforts. (Report forthcoming from the University of Southern California Equity Research Institute in early 2023).

A cost-effective and operationally-manageable testbed for gaining insights to refine locally-implemented outreach would be to test messaging and outreach in conjunction with the ACS in earlier years of the decade and, subsequently, as an area of special emphasis in the dress rehearsal.



## Facilitating Self-Response

1. Expand the range of languages available for online self-response. This initiative should not be either difficult to implement or costly, given contemporary technology. The omission of minority languages in Census 2020 was a serious gaffe. As other commenters have noted, there are local areas where minority languages are very prevalent that are not so obvious at the national level. Examples in areas I am familiar with include: Hmong, Khmer, Pashto, and Dari (respondents of Asian ethnicity), Mam, Q'anjob'al, Zapotec, Mixtec, Tsotsil, Tzeltal (indigenous Mexican, Central American respondents). Similar issues may arise for immigrants of African origin (although contemporary educational systems in many African countries have been colonialistic in emphasizing literacy--reading and writing in English or French--not in local languages).
2. Explore technological solutions for text-to-audio conversion to assist low-literate respondents, so that questions in the online response portal can be presented to the respondent orally.
3. Partner with other federal agencies, states, local government, and philanthropy to expand broadband connectivity while, concurrently, providing opportunities for less-educated or computer-savvy respondents to develop digital literacy. There are currently a multitude of somewhat siloed efforts to increase US Internet connectivity—in telehealth, in initiatives to support self-directed online education, in efforts to promote online administrative interactions for transactions such as property tax payment, vehicle registration renewal, immigration-related transactions with USCIS.
4. Expand the Census Bureau's partnership with educational institutions' programs to encourage development and promotion of online response kiosks at adult education program sites, community colleges, local K-12 schools, and local community recreation programs.
5. A recent collaboration between the Census Bureau and the National Telecommunications and Information Administration (NTIA) to map digital equity in each state (King et al 2022) is a welcome step in the right direction and the implications of the report finding should be considered in designing census promotion efforts, designing the census questionnaire, and in preparation of FAQs and other support materials. However, the current analysis only reports digital equity levels at the state level. The analysis needed to inform census questionnaire design and strategies to promote census self-response needs to be much more fine-grained—ideally to the county and sub-county level where there are deep pockets of less-literate, less broadband-connected, less digitally literate households. Mapping digital equity might, for example, provide the basis for effective allocation of funding for questionnaire assistance.
6. Conduct rapid-turnaround formative assessment of census respondents' experiences with online response and mailback response during the decennial census process based on tabulation and analysis of help line call content/questions/complaints.



## Motivating and Facilitating NRFU Response As Well As Self-Response

1. Develop and deploy a census response campaign component specifically designed to increase non-respondents' willingness to respond to enumerators. This campaign should not shy away from addressing widespread concerns about potential government misuse of data—since some of the non-responders may, in fact, simply not have “gotten around” to responding but others quite probably more fall into the extreme “response averse” group.
2. Include in development of the NRFU promotion campaign attention to variations in local mythology and “fake news” about the census and include provisions for tailoring local campaigns to the communication observed in local social networks.
3. Re-design enumerator deployment protocols and software to improve flexibility. Census 2020 operational assessment included many limitations stemming from dysfunctional efforts to streamline and semi-automate supervision of enumerators. In particular, enumerator complaints about software barriers to re-scheduling interviews for households that were willing to respond but tied up for a period of time seem quite reasonable and that enumerator deployment should allow this sort of individual re-scheduling. Documentation of enumerator training suggest that training was inadequate; obviously, more attention needs to be given to households that are reluctant to respond.
4. Conduct ethnographic research to explicitly examine reluctance to participate in proxy interviews and factors that might improve willingness to self-respond—e.g. enumerator requirements, recruitment/hiring since communication skills do not seem to be well-assessed in hiring or, at least, are not highlighted in job descriptions and recruitment materials. For example, our 2018 research in the San Joaquin Valley documented widespread reluctance in low-income Latino neighborhoods to participate in proxy interviews as well as serious limitations on potential proxy respondents' knowledge about neighboring households.
5. Consider eliminating proxy responses or, at the very least, including, as part of the proxy interview protocol screening questions to assess quality of information provided by the proxy respondent.

Property managers, mentioned by the Bureau as a routinely-contacted type of proxy respondent, for example, are inclined not to identify illegally occupied units or reliably state the number of occupants in overcrowded housing units, or may simply only know what rental applications state to be the number of persons in a unit. Neighbors will, in many cases, be aware of the primary household at an address but unaware of rooms rented out etc.

In our San Joaquin Valley research on Latino census responsiveness, only 19% of survey respondents said they would be willing to participate in a proxy interview; moreover, only two-thirds of the survey respondents who were willing to provide information about a neighboring housing unit said they could provide even “basic” information about household members and 25% said they couldn't say anything.



6. Conduct rapid-turnaround formative assessment of census respondents' experiences with enumerators' contacts and/or phone contacts and response reminders based on a survey of NRFU respondents and non-respondents (identified on the basis of preliminary screening question re NRFU response).

## **Topic B: Technology**

### ***Overview/Rationale for Recommendations***

The Census Bureau's use of online technology is an important step forward in making data collection more cost-effective. Unfortunately, it clearly has both advantages and disadvantages. Analysis of Census 2020 patterns of self-response show serious disparities in self-response that are highly correlated with availability of broadband connectivity in a census tract (Robinson, Kissam, and O'Hare 2022). Further analysis shows that Internet connectivity, coupled with presumed digital literacy (with educational attainment as identified in the ACS as a proxy) has broadened the "digital gap" in self-response. Similar patterns can be observed in ACS response.

Given the limitations of NRFU in "curing" the problems stemming from divergent levels of self-response, Internet connectivity has now become a major factor giving rise to differential undercount of racial/ethnic minorities and other socioeconomically, linguistically, and culturally marginalized populations. (See Robinson, Kissam, and O'Hare 2022 presentation that includes PES-based analysis of the relationship between tract-level self-response and PES-identified census omissions).

Although other socioeconomic and demographic factors associated with level of census response (Bruce and Robinson 2006; Erdman and Bates 2017) are often co-variant with Internet connectivity, the ability to respond online (based both on connectivity and respondent language/digital literacy) is a significant determinant of differential self-response. My recent analysis examining factors associated with tract-level self-response in Fresno County, CA census tracts showed that a model incorporating ten ACS-derived variables that provided a good explanation of self-response level (adjusted  $R^2=.669$ ), the single most important factor (Beta) associated with lower self-response was % of non-citizens and the single most important factor associated with higher self-response was broadband connectivity.

### ***Specific Recommendations***

1. Test design of online census response portals to assure efficacy for the full spectrum of digital platforms/devices. Census 2020 online response design only considered portal design for mobile phone platforms very late in the design process and the result, ultimately, had serious limitations.
2. Explore technological solutions to avoid user-generated problems with multi-digit IDs.
3. Explore text-to-audio solutions as a means of facilitating response by low-literate respondents (see Recommendation 2 above under facilitating self-response).



4. Provide online audio FAQ's to assist users in understanding unfamiliar terms or clarifying census concepts/definitions where cultural ambiguity exists. Base development of FAQ answers based on research comparable to the ethnographic research conducted by Yuling Pan and her colleagues (e.g. Isabelli, Pan, and Lubkemann 2012 on enumerator/respondent discourse in NRFU in Spanish-speaking households).

5. Conduct in-depth research on the quality of data in administrative datasets being considered for use in the decennial census and/or ACS. The Census Bureau conducted some such research for 2020 but it was neither adequately in-depth or adequately designed to determine the availability of allegedly “high quality” AdRecs and how patterns of availability and/or quality of such records would affect enumeration. Evaluation of administrative dataset quality should include detailed examination of the circumstances/context in which information is elicited by various administrative entities. It is now half a century since the Census Bureau first explored the ways in which welfare program participation might affect census response (Valentine and Valentine 1971). The Census Bureau should be diligent in assessing the extent to which the circumstances of information elicitation bias analyses of the resulting administrative datasets.

6. Improve data management software to achieve NRFU cost-savings by reducing contact with households that have already responded. Cost-savings should allow adequate re-contacts of non-responding households; Census Bureau reports about re-contacts in Census 2020 provide no clarity about the extent to which actual operations conformed to planning objectives.

I cannot provide a quantitative estimate of the seriousness of the problem but anecdotal reports suggest that a disappointingly high proportion of individuals who had already responded to the census (including online responses) were re-contacted by enumerators.

## **Topic C: New data sources**

### ***Overview/Rationale for Recommendations***

There are two central questions that need to be addressed in any effort to deploy new data sources—including administrative records and other survey data—to enhance decennial or ACS data quality: quality of data, specifically, potential sample bias, and availability of data throughout the U.S.

The Census Quality Reinforcement Task Force network of experts has had extensive discussion, as has the CSAC, and other expert task forces, of new data sources that includes insights from extraordinarily well-informed and analytic researchers and data analysts. These discussions have included attention to the legal context of using additional data sources in the decennial census and the myriad issues about quality of administrative records.

My comments relate to only a few types of data sources where I have adequate insights to make suggestions. There is, without a doubt, a number of other areas where researchers and data analysts with specialized expertise might, by reviewing the shortcomings of census-derived data





in relation to specialized research, provide actionable insights for improving census promotion efforts and data collection procedures. It would be wise to the Census Bureau to sponsor a broad research program on options—while requiring all research to address core concerns/questions about the suitability of alternative data (or, more accurately, analyses of alternative datasets) for well-defined use case, e.g. MAF improvement, hypothesis-generation regarding omissions or duplications.

I would stress, however, that, as noted in my response to the Census Bureau’s question about technology, Census Bureau consideration of new data sources should be diligent in fully assessing the genesis of any potential source of data. The rationale for and procedures used in any administrative entity’s data collection inevitably has the potential to bias the resulting dataset—especially if data collected in the course of those interactions includes sensitive information.

To date, the reviews I have seen of potential administrative datasets have seldom delved deeply enough into the procedural details of each agency’s data collection to give much confidence that the data source being considered is, in fact, “high quality”. There is, in fact, evidence that datasets considered to be “high quality” are, in fact, seriously flawed. To be sure, some datasets may have utility for specific, limited use-cases (e.g. property records for MAF-building) but others that are deemed “high quality” do not.

### ***Specific Recommendations***

1. Explore use of K-6 school enrollment records as a source of supplemental information on numbers of school-age children at the census tract level (since school enrollment data typically includes home address) or for exploring quality of local data on school-age children. This is, inevitably, a challenging task since the exploration would need to explore the context of student data collection for an increasing variety of educational options (charter schools, home schooling, private schools).

I suggest that use of K-6 records has potential but strongly recommend against use of school records for grades associated with student ages 14+ because research indicates that school dropout begins to be significant as early as middle school and is, to some extent, correlated with race/ethnicity and poverty. Of course, there are analytic issues involved in crosswalks between student enrollment data and student age but these would seem to be amenable to statistical analysis. Legal issues might present barriers to adopting this recommendation but it is arguable that school district (LEA) or state education department (SEA) sharing de-identified student data with the Census Bureau would not be improper.

2. Do not even consider DHS datasets as a potential data source. DHS/USCIS records on foreign-born individuals are extensive but riddled with omissions, errors, and are, often, not up-to-date.

Moreover, in many cases, such use, as explained in DHS’s Privacy Impact Statements in the course of Census 2020 planning when the citizenship questions was being considered would violate privacy.



Trump administration efforts to explore alternatives to determine citizenship status of persons residing in the U.S. using DHS/USCIS records was ludicrously naïve but, at the same time, contributed to prolonging anxiety in immigrant communities about violation of privacy and decreasing willingness to respond.

3. Do not consider IRS information as a potential data source. IRS definitions of “household” diverge dramatically from census definitions of household.

Even if the Census Bureau modifies its conceptualization of “household” as I recommend, there will still be a mis-match between income tax return information and the requirements of enumeration.

There is also a substantial literature on mis-reporting by income tax filers. There is also a huge potential that acknowledgement of use of IRS data (currently prohibited I believe) would catastrophically lower willingness to participate in the census—even though, arguably, self-response would preclude Census Bureau use of IRS data for a household.

There has been a valiant effort to use IRS data on ITINs to supplement other sources of data on the local and national distribution of undocumented immigrant earners/households (Hill, Johnson, and Hayes 2011) but the results showed that analysis of ITIN data, although useful for some analyses) would not meet OMB standards for research reporting.

4. Assess the adequacy of standard enumeration procedures by conducting case studies by “triangulating” census-derived and survey-derived or administratively-generated data in cases where special opportunities appear.

These analyses can provide valuable insights about the dynamics of self-response, NRFU, and the resulting level of differential undercount in sub-state areas (at least at the county level, in some potential case studies also in sub-county areas). A key research goal should be exploration of the feasibility and utility of systematically tailoring operational procedures to diverse socioeconomic environments (states, counties, communities, neighborhoods).

An example of a potential case study is examination of public health system COVID-19 vaccination rates (with the numerators being likely to be quite accurate—given strict reporting requirements) where computed vaccination rates of up to 120% suggest that in some rural hard-to-count zipcodes, the vintage 2010 base for population estimates (a component of tract and zipcode-level ACS reports) indicates significant undercount of racial/ethnic minorities. Such analysis does not provide an alternative to enumeration but it does provide guidance about geographic patterns of probable undercount.

An example of another potential “triangulation” case study is analysis of the ACS-derived tabulations of agricultural workers by county with alternative analyses (drawing on data from the USDOL National Agricultural Worker Survey and the USDA Census of Agriculture and, in



states where available, ES/UI data) where decades of research have shown a chronic differential undercount of migrant/seasonal farmworkers.

Case studies comparing decennial census data to school system data for K-6 students to analyses based on demographic analysis (presumably at the county level), coupled with ethnographic research and cognitive interviews with parents would, following the directions suggested by William O'Hare's research provide important insights that could, in turn, inform messaging strategy and operational planning (especially in NRFU).

Local municipally-funded and/or directed research on special populations such as the homeless in a specific area might provide alternative estimates that provide valuable insights about how to improve the standard enumeration approach used in TNSOL. In 2010, for example, my field research team assessed homelessness among migrant/seasonal farmworkers and learned, for example, that many were residing in orchards which could not be reached using the standard TNSOL approach that had been designed for urban areas.

#### **Topic D: How We Contact Respondents**

The issue of how the Census Bureau contacts respondents is central to decennial census quality. It is possible that sample bias resulting from failure to contact potential respondent households threatens census data reliability even more than bias stemming from non-response among households that have been contacted.

My discussion and suggestions about how to reach and motivate potential census respondents to self-respond (Topic A) includes a number of suggestions about contacting respondents. Similarly, my discussion of respondent support services (Topic E below) includes suggestions for contacting and interacting with households during NRFU that have not self-responded.

#### **Top Priority—Improve MAF Quality by Engaging Local Grassroots Organizations Working in Hard-to-Count Neighborhoods in Address Canvassing To Identify Hidden Housing Units**

MAF improvement deserves top priority in Census Bureau planning for Census 2030. MAF quality is crucial since the national inventory of housing units has historically been the de facto sampling frame for the decennial census.

The situation has become more complex with the addition of the online response option but it seems that a MAF point, an address or quasi-address, continues to be central due to the Census Bureau objective of assuring that everyone is enumerated at “the right place”. Omission of housing units from the MAF and from the PES sample is particularly problematic because it makes it impossible to assess the true extent of differential undercount.

It is crucial to understand the seriousness of this problem. Our analysis of 2018 community-based address canvassing as a means to identify low-visibility/hidden housing units in areas with more than 1 million housing units in seven urban and rural California counties suggested an overall housing unit omission rate of >1% in these hard-to-count areas (Kissam, Quezada, and



Intili 2018). However, it is also crucial to understand that the seriousness of housing unit omission varied from place to place—from 0.6% in one large urban county to 8.5% in a medium-sized predominantly rural county.

Ideally, as others have suggested, MAF improvement should be a continuous process throughout the decade. There were efforts to target address canvassing in 2020 when budget constraints did not allow for 100% in-field address canvassing. These were useful—but procedures need to be improved. Given cost constraints, it would probably be satisfactory to hold off on address canvassing and conduct most in the 2 years prior to the decennial.

I recommend 2-stage “targeting” for address canvassing. The first stage would be to target areas with the highest prevalence of hidden housing units. This targeting could rely on a modification of the generalized hard-to-count index along with Census Bureau data from 2020 operational metrics and supplemental data sources identify areas that should be considered for in-field (street-level community based) address canvassing. The second stage would be to implement the local address canvassing—relying not only on analyses of “hard” data (the HTC index components derived from ACS and other Census Bureau internal sources) but local “human intelligence” about neighborhood housing conditions. This approach, developed and refined for decades by Joe Salvo, contributed significantly to MAF improvement in New York City.

#### Top Priority—Revise OMB/Census Definition of “Household” and Redesign Census Forms/Invitation Delivery To Reach Secondary Households within Doubled-Up Housing Units

“Complex households” that is, housing units where multiple families and/or individuals have “doubled up” to share housing in a place defined as a single housing unit under OMB/Census Bureau residence rules is highly prevalent in low-income areas. In looking at farmworker housing, we have very high-quality data (Mines 2018) showing that 54% of the Salinas Valley farmworker households were “complex” ones with multiple families and individuals sharing housing with an average of 3.2 non-family members in each. In our subsequent survey research of Latinos in eight San Joaquin predominantly farmworker areas 28% of respondents lacked standard mail delivery to a mailbox of their own: 13% only received mail at a PO box while 12% only received mail at a mailbox they shared, and 3% had no means of receiving mail.

This is a huge problem. The primary household in these doubled-up housing units typically does not include others living in the same housing unit on their household—because they are not members of their household and, moreover, the primary household typically recognizes that their renting out space is, in most cases, illegal.

My first-hand knowledge of this problems stems from research in Hispanic-majority predominantly farmworker communities but it needs to be noted that similar conditions are prevalent in urban areas and has been well-documented in New York City, for example. We know from the observations of the field researchers in the community-based address canvassing in communities as diverse as Fresno, Redwood City, and San Jose that, in addition, to hidden housing units there were, very often, also, doubled-up housing units.



In resolving the serious ambiguity resulting from Census Bureau/OMB confusing definitions of “household” and “housing unit” I recommend that priority be given to “household” as the basic unit of census tabulation and that the Census Bureau adopt a major re-conceptualization of the “right place” for households to be counted that allows there to be multiple households enumerated at the same USPS “location”. Implementing this re-conceptualization requires significant innovation but is possible—by delivering multiple census forms to each USPS address with instructions to share additional forms (or online response ID) with other households living in the same housing unit.

#### Enhance Identification of Transitory Locations by consulting knowledgeable local observers

The Census Bureau has been wise to recognize the need to identify transitory locations and enumerate the individuals and/or households living in this type of housing. However, procedures for identifying transitory locations have not been systematic enough and are incorrect in assuming that local government can provide adequate lists of such locations. Like hidden housing units, transitory locations may not be identified in official administrative datasets.

It is unclear whether Census Bureau identification of transitory locations adequately identifies employer-provided housing (that is not group quarters) as transitory locations. For example, places where H-2A agricultural workers live—many of whom are considered U.S. residents by IRS and who would be considered to have an apparently transitory location as their “usual” residence due to living there for >6 months—may not be identified as such, being omitted entirely or incorrectly designated as group quarters. Current trends suggest this population may increase to more than 300,000 during the current decade.

It should be noted that properties identified as business addresses in the MAF may also be illegally occupied for housing or low-visibility housing units may be located on business premises.

#### Expand Census Bureau Partnership Efforts To Engage Local Grassroots Organizations in Improving the MAF and Collaborating in NRFU

Expand partnerships in consultation with knowledgeable local observers and organization, including those that were actively engaged in “Get Out The Count” (GOTC) efforts in Census 2020. The Census Equity Initiative philanthropic community collaborators funded extensive GOTC efforts even in states that, unlike California, allocated minimal or no state funding to this activity. Particularly knowledgeable collaborators in this endeavor include Karen Narasaki and Amy Dominguez-Arms. Narasaki has authored an excellent set of overall recommendations for Census 2030 but her personal knowledge of local community resources is unparalleled.



## **Topic E: Respondent support services**

### ***Overview/Rationale for Recommendations***

The worrisome decrease in overall survey response in the U.S. over the past several decades (see Czajka and Beyler 2016) reflects growing distrust in the federal government. Political polling and cross-sectional societal research shows similar patterns. Partisan political conflict over the past several years and the growing popularity of conspiracy theories and belief in “fake news” has broad and chilling implications for self-response in Census 2030. Requesting assistance and receiving assistance in the process of providing personal information as part of census self-response is, inevitably, particularly sensitive. Distrust of “outsiders” has been documented as a factor in ethnographic research on census non-response for many years.

Although the recommendations I offer in response to the Census Bureau’s question about ways to better motivate self-response do not focus on this over-arching challenge, it seems particularly appropriate here to consider the benefits of pivoting toward local support for facilitation of census response—because the gradient between “trusted voices” and “distrusted voices” is becoming steeper every day. Local voices are not always “trusted voices” but focusing on recruiting trusted messengers and response facilitators from local communities at least represents a first step toward identifying the right messengers and facilitators to provide support in responding—especially in hard-to-count neighborhoods where distrust of “outsiders” is prevalent and powerful.

Therefore, my recommendations for respondent support services focus on steps to pivot toward local support rather than centralized support.

### ***Specific Recommendations***

1. Partner with AmeriCorps and local community service programs to provide local questionnaire assistance on demand—by phone, online, in special events, and as part of digital literacy training programs. Partner with local community college, and 4-year colleges to engage students as questionnaire assistance providers as part of school service-learning initiatives.
2. Re-assess the 2010 provision of local questionnaire assistance offices and “Be Counted” forms to consider this strategy for providing self-response assistance as compared to multi-lingual phone-based assistance and to providing on-demand home visits to provide questionnaire assistance. Allocate resources for questionnaire assistance after detailed mapping/analysis of limited-English households, less-educated households, and Internet connectivity. I assume that Recommendation 5 above (locally-provided questionnaire assistance) will be more cost-effective and better-received than questionnaire assistance provided by Census Bureau staff.
3. Reconsider the design, objectives, and materials of the Census in the Schools program to expand local K-12 school systems’ role both in promoting self-response and offering respondent assistance. Recruit staff and volunteers from special purpose school programs. My research on migrant/seasonal farmworker populations has shown, over the years that programs such as





Migrant Education and Migrant Headstart are generally trusted by most farmworker families, including sub-populations that are considered particularly hard to count.

4. Engage local grassroots organizations serving and/or advocating for hard-to-count populations (e.g. immigrants, migrant/seasonal farmworkers, inner-city racial/ethnic minority youth) in recruitment and hiring decisions for partnership specialists.

My experience in the past three decennial censuses suggests that the job descriptions and hiring of partnership specialists is not optimal. In general, as with job descriptions for other census positions, standard requirements for experience and education do not correlate well with actual ability to design and build partnership networks that have solid relationships with hard-to-count populations. In some areas that are extremely diverse in terms of race/ethnicity, an option that should be considered is hiring of multiple partnership specialists (even if only on a part-time or consultant basis) to work with diverse ethnic/racial, linguistic, cultural groups.

### **Rebooting Institutional Memory—A Bibliography**

A ubiquitous challenge to operational improvement in the public sector is lack of “institutional memory”. Despite constant reference to “lessons learned” in a range of policy and program planning documents from federal and state agencies and philanthropy, lessons learned are, in fact, often forgotten. To close, I offer a bibliography as a small contribution toward encouraging the Census Bureau in reviewing and assessing “lessons learned” over the past several decades.

In order to provoke and, hopefully, facilitate consideration of this research I’ve prepared the following bibliography and organized the resources by topic/research methodology:

- Ethnographic Research—The Census Bureau’s 1990 Alternative Enumeration Research Program, earlier ethnographic research by the Bureau and other relevant research
- Analyses of the Dynamics of Differential Undercount of Hard-to-Count Populations and Operational Issues in Census Data Collection and Analysis
- Master Address File Building and Data Quality and Enumeration of Complex Households
- Research on Factors Affecting Census Response.
- Issues Related to Use of Administrative Records and Datasets

The Census Bureau’s professional research staff publications include not only Census Bureau reports but, also, papers published in peer-reviewed journals and illuminating presentations at professional conferences. While there are institutional limitations on using oral history as a means of preserving organizational insights learned in the course of past decades, systematic review of the literature and systematic re-assessment of key issues are a neglected resource.

My answers to the questions posed by the Census Bureau about research to conduct and my suggestions for new procedures in each area are based, in part, on research, including high-quality older research the Bureau may not be attentive to.



My overarching advocacy is that the Census Bureau needs to go beyond recurring analyses of core issues that have been analyzed and re-analyzed during each census and focus more on the broader/deeper factors associated with under-enumeration of hard-to-count groups and how to overcome them, rather than on traditional evaluation of “census quality” per se.

This bibliography does not include analyses such as standard reports on PES findings, documentation of findings from ongoing research activities such as CPEX and the dress rehearsals. They, of course, deserve careful consideration also. There is also a long history of analysis and litigation related to statistical adjustment and, more recently, the proposed addition of the citizenship question—more examples of ways in which a broad range of research can yield actionable insights and suggest promising research techniques than an effort by a retired researcher to be definitive.

I also do not include publications by external experts such as Connie Citro, Joseph Salvo, Ron Prevost, former Census Bureau Director Robert Groves, Amy O’Hara, Danah Boyd, Terri Ann Lowenthal, or members of the Census Scientific Advisory Committee since I expect each will be commenting themselves or Bureau planners will be aware of their analyses and reports by major organizational stakeholders such as the Committee on National Statistics and the American Statistical Association.

This is the tip of the iceberg. It should be stressed that it is important to recognize that the most recent research does not represent “the final word” on key issues. Some of the older research is much more thorough than recent research and even though many aspects of decennial census data collection and analysis have changed dramatically, insights can still be gained from insights about the dynamics of the decennial census from 1970 onwards.

It should be noted that it is crucial to track the ethnographic research literature and insights emerging from market research since societal dynamics that affect census data collection continue to change in ways that will significantly impact survey design and operations.

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