

The Morris Hansen Lecture

Hard-to-Survey Populations and the U.S. Census: Making Use of Social Marketing Campaigns

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Dann (2010, 151) defines social marketing as:

“The adaptation and adoption of commercial marketing activities, institutions and processes as a means to induce behavioral change in a targeted audience on a temporary or permanent basis to achieve a social goal”.

Social marketing campaigns have been used for decades in the United States as a means of influencing social behaviors. During World War II, the U.S. Government launched the Buy War Bonds campaign promoted by the War Advertising Council to encourage public participation in bond investment. More recently, health advocates have leveraged campaigns to influence behaviors including substance abuse prevention, family planning, HIV testing, and healthier food choices (Keller 2015; Andrews and Netemeyer 2015; Dholakia and Dholakia 2015; CDC 2017).

The U.S. constitution stipulates that a population census take place every ten years. In the 1960’s, the census shifted from a personal-visit methodology to one that relied, in part, on self-response using census forms delivered by the United State Postal Service. The success of this shift depended upon the voluntary compliance of households to complete and return a questionnaire. In this context, social marketing can play a pivotal role in response rates by offering the U.S. Census Bureau targeted access to influence behaviors. In line with Dann’s definition, social marketing can produce a temporary behavioral change of voluntary census participation (preferably by self-response); the targeted audiences are populations less inclined to participate (such as racial minorities and recent immigrants); and the social goal is an accurate census, which translates to better political representation, policy decisions, and community planning.

In the monograph *Hard to Survey Populations*, Tourangeau (2014) presents a framework of hard-to-survey populations according to the part of the survey lifecycle affected. For example, a group may be *hard to locate* because they are stigmatized or marginalized and prefer to remain hidden (e.g., undocumented immigrants or

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sexual minorities). Another group may be *hard to contact* because they are highly mobile, homeless, or have physical access barriers such as buzzer entries or reside in gated communities. Still other groups may be *hard to persuade* because they are suspicious of the federal government or have low levels of civic engagement and community attachment. Finally, other populations may be willing to participate in a census but *hard to interview* because of language barriers, low literacy, or lack of internet access.

Many of these barriers can be addressed by certain forms of social marketing. Populations that are hard to locate can be drawn out by engaging grassroots organizations – local community leaders and organizations recruited to serve as trusted voices to speak to constituents on behalf of the Census Bureau. Other elements of the campaign such as direct mail pieces, texts, and phone messages are a means to contact some hard-to-survey populations. Radio, print, and television paid advertisements with targeted messages (many in-language) are crafted and delivered to persuade some groups while click-to-complete digital ads make the actual interview process streamlined and tech-friendly.

The U.S. Census Bureau has a long history of leveraging social marketing techniques to promote the Decennial Census. The agency began a partnership with the Advertising Council (a pro-bono group of advertising agencies that create marketing campaigns for non-profit causes) beginning with the 1950 Census ([U.S. Census Bureau, date unknown](#)). Sports figures, politicians, and actors were featured in radio and television announcements informing populations about the benefits of census participation. By the 1990 Census, the agency realized the need to focus outreach activities more narrowly on racial and ethnic minorities as self-response rates between these groups and the general population began to diverge.

Up to and including the 1990 Census, community-level outreach activities and materials were developed by Census staff while national-level advertisements were delivered in the form of Public Service Announcements (PSAs). The creative content and production of the PSAs were donated to the agency by advertising agencies participating in the Ad Council. The placement of the spots in local and national markets was also free. However, because they generated no revenue, the census spots were run in suboptimal timeslots (after midnight through 5 am) and during programming with very low viewership. Consequently, the PSAs could not effectively target any particular hard-to-survey audience. Nonetheless, prior to the 1990 Census, these outreach efforts, along with earned media and high civic-mindedness of the United States population yielded self-response rates in line with agency expectations and budgets.

However, the 1990 Census proved to be a turning point. By late April 1990, the census was in crisis mode – the agency budgeted for a 70 percent self-response rate (five percentage points below the 1980 rate), yet the mail return was only 63 percent at the time personal-visit follow-ups were scheduled to begin ([Bryant and Dunn 1995](#)). The Census Director at the time, Dr. Barbara Bryant, had no choice but to request Congress allocate over 100 million additional dollars to complete the personal enumeration phase. This event motivated a change in social marketing campaigns for censuses to come – namely ones that involved contracts with advertising agencies to invest hundreds of millions of dollars to add and harness the benefits of *paid advertising* as part of future social marketing campaigns.

1. Operationalizing the Hard-to-Survey in the 2010 Census

The 2010 Census was the first to conduct a structured program of research to classify and pinpoint hard-to-survey populations for purposes of social marketing. One program of research produced a geographic audience segmentation of the entire United States population. This segmentation then became the backbone of the social marketing campaign, informing decisions from messaging, to partnership activities, to media spends, to the media channels selected to deliver the campaign messages.

Eight population segments were identified, each according to propensity for self-response. Three of the segments were predicted to have average or above average mail response – the other five had below average propensity and became the focal point for many aspects of the campaign. These hard-to-survey segments included two Ethnic Enclave groups, two Economically Disadvantaged groups, and a Single Unattached Mobile group (Bates and Mulry 2011). The Ethnic Enclave populations skewed toward recent immigrants with limited English proficiency living in urban areas often in larger households that included children. The Economically Disadvantaged were often made up of African American households with single mothers, lower education, and lower income. Finally, the Single Unattached Mobile segment was characterized by young, unmarried households prone to frequent moves.

In addition to the geographic segmentation, the agency sponsored a survey in 2008 to understand attitudes or “mindsets” of the population toward the Decennial Census. Of the five mindsets identified, three were classified as hard-to-survey and having a lower affinity towards the census. These included the Insulated, the Unacquainted, and the Cynical Fifth (Bates et al. 2009). The Insulated knew a little about the census but were generally indifferent toward it while the Unacquainted contained many foreign born who tended to be tenuously attached to their communities and completely unfamiliar with the census. The Cynical Fifth were identified as anti-government households who believed that census data could be used against them. Not surprisingly, the core characteristic of this population was resistance to responding to the census. The other two mindsets included the Leading Edge and Head Nodders. The former had high familiarity with the census and were predisposed to participate and advocate on behalf of the census. Similarly, the Head Nodders were positively predisposed, but also impressionable and vulnerable to negative news about the census. The behavioral mindsets and geographic segments were instrumental to the marketing campaign as means to develop and test messages that were believable and convincing with their intended targets. They also served as useful benchmarks to evaluate the effectiveness of the campaign as described below.

2. Components of the 2010 Census Social Marketing Campaign

The 2010 campaign was comprised of six interconnected components: paid advertising, earned media, local and national partnerships, the 2010 Census website, public relations, and the Census in Schools program. Paid advertising consisted of over 450 advertisements across television, radio, print, out-of-home and digital (Williams et al. 2015). Advertising was developed in twenty-eight different languages. Earned media and public relations included news releases, news conferences, blogs, a 2010 Census “Road Tour” (launched in early January on the network television Today Show), and a Take 10 Campaign that

broadcast daily mail participation rates by local areas. The partnership program worked to mobilize local leaders and advocacy groups to promote the census among their constituents. More than 257,000 governments, organizations, groups, and businesses partnered with the agency.

The 2010 campaign was likely the largest social marketing campaign in United States history. Between January and July 2010, the campaign was ranked among the top five advertisers with an average number of 42 campaign ad exposures with some targeted audiences having much higher “touches” (Williams et al. 2015). In fact, ad placements were so high that in some markets, the number of desired slots outstripped the available minority media inventory.

2.1. Did Social Marketing Make a Difference?

The 2010 campaign was extremely robust with countless interventions aimed to raise awareness, overcome barriers, and encourage participation. Extra partnership and advertising resources were distributed amongst the hardest-to-count areas, but only one controlled experiment was attempted to measure relationship between advertising “dosage” and behavior (see Bates et al. 2012). As such, attempts to quantify the effects of the campaign were extremely difficult. Nonetheless, I present several metrics that can be loosely construed as “proof” whether the campaign had a positive effect, particularly among hard-to-survey populations.

A common metric used to gauge the success of a census is the self-participation rate. In the case of the 2010 Census, self-response was achieved by completing and mailing back a paper questionnaire. Figure 1 depicts the mail self-response rates for the 1990, 2000, and 2010 Censuses. In 1990 (the last census to depend on a pro bono outreach campaign), the final mail response rate was projected at 70 percent but achieved only 65 percent. The 2000 Census (the first to use paid advertising), budgeted for a 61 percent response rate but achieved 67 percent. The 2010 Census (also with a paid campaign), also achieved a higher-than-projected mail response rate (projected was 64 percent with actual at 67 percent, see Fay et al. 1991; Letourneau 2012). While it is impossible to determine causation between the campaigns and levels of self-response, the fact that a longstanding

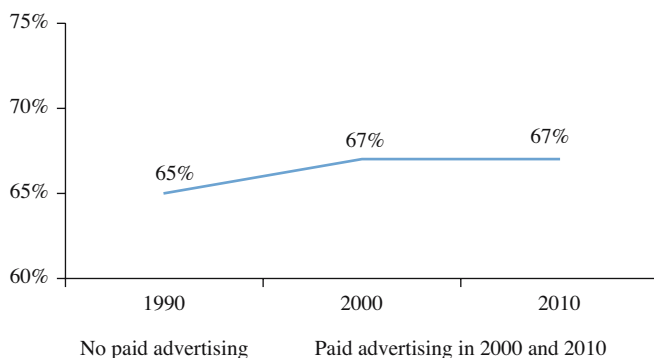


Fig. 1. US Census mail self-response rates: 1990–2010. Source: Fay et al. 1991; Letourneau 2012.

trend of declining self-response was reversed during the two censuses that engaged a paid campaign is noteworthy.

Another metric used to benchmark the effects of the Decennial marketing campaign are the mail check-in rates for the American Community Survey (ACS) during the time of the Decennial Census national campaign versus the same time period in a non-Decennial year. The ACS is a nationwide demographic survey sponsored by the U.S. Census Bureau that is continually in the field. The implementation method for the ACS in 2010 (mail prenotice, initial questionnaire, reminder postcard, and replacement questionnaire) was very similar to the method used in the 2010 Census. [Bates and Mulry \(2012\)](#) illustrate ACS mail check-in rates among the Economically Disadvantaged, Ethnic Enclave, and Single Unattached Mobile segments of the population for the March 2009 ACS panel (a non-decennial year) to the March 2010 ACS panel (the zenith of the 2010 Census marketing campaign). The ACS absolute mail check-in rates were higher for all segments in the decennial year compared to 2009 ([Figure 2](#)). However, the largest *percentage change* was documented among the five hardest-to-count segments. The two Ethnic Enclave segments had percentage changes of 17.4 and 29.3 between the campaign and no-campaign conditions; the two Economically Disadvantaged segments had percentage changes of 18.0 and 28.2; and the Single Unattached Mobile segment had a percentage change of 15.3 between the campaign and no-campaign conditions. Again, while the higher ACS self-participation cannot be directly attributed to the social marketing efforts, it is highly likely that the campaign played a significant role.

In 2010 much of the social marketing was directed toward the hardest-to-count segments including those skewing high on racial and ethnic minority households. Questions about census awareness and likelihood of self-responding were added to a daily Gallup tracking survey in January 2010 and continued until after Census Day, April 1, 2010. [Figure 3](#) graphs, over time, the percent who reported having heard something about

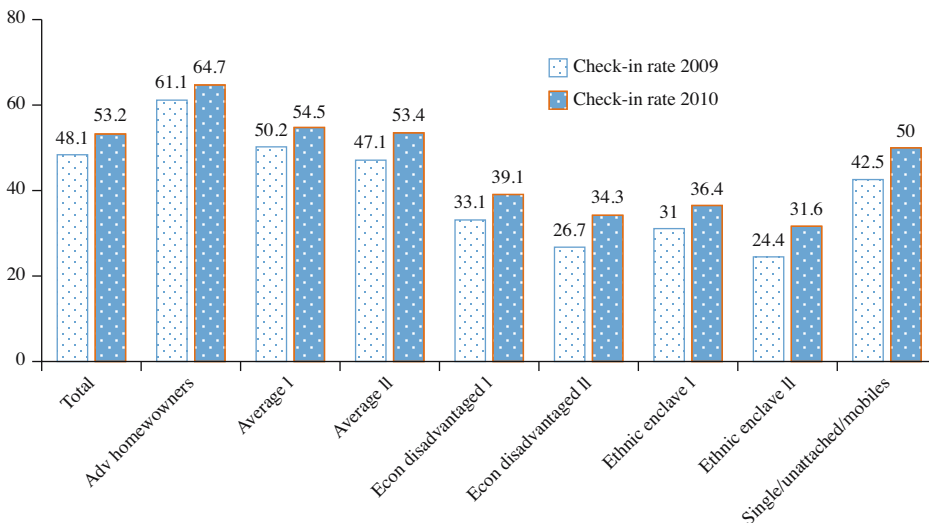


Fig. 2. ACS mail check-in rates by segment: non-Census year (2009) versus Decennial Census year (2010). Source: 2009 and 2010 ACS final mail check-in control file.

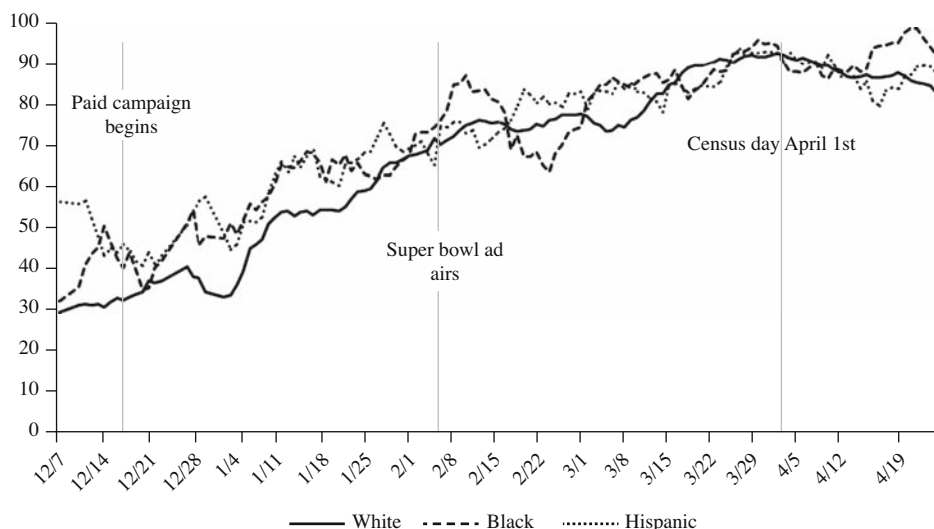


Fig. 3. "How much have you seen or heard recently-within the last week or so-about the 2010 Census?" Response: Heard great deal/some/a little Rolling Week %. Source: Miller and Wakejko 2010.

the 2010 Census. For much of the campaign the awareness among Blacks and Hispanics was higher than whites, suggesting success in raising awareness among some racial and ethnic minorities. Figure 4, however, suggests the campaign did not do as good a job raising awareness among the youngest 18–24 segment where the percent reporting having seen or heard something about the census consistently lagged below other age groups.

The last evaluation metric comes from data collected during a three-wave panel survey conducted as part of the larger independent campaign evaluation (U.S. Census Bureau 2012). In that panel, a subset of items used to form the original five mindsets were included. The first interview wave was conducted before the campaign began, the second wave occurred roughly mid-way through, and the third was fielded as the campaign was winding down. Using discriminant analysis, panel members were classified into mindsets at Wave 1, and then again at Waves 2 and 3 (Bates and Mulry 2012). This allowed us to track changes to mindsets over time as some respondents moved from one to another, due in part presumably, to exposure to the marketing campaign. Figure 5 illustrates the survey panel member's mindset distributions before, during, and at the end of the campaign. Of note is a decrease in the Unacquainted from eight percent at Wave 1 to less than one percent by Wave 3. Additionally, the Leading Edge (the mindset with the highest affinity toward the census), grew from 22 percent to 39 percent. Additionally, the Cynical Fifth decreased by roughly half from a pre-campaign 23 percent to 12 percent by the end. However, little change was observed among the size of the Insulated group.

3. Looking Forward: The 2020 Census Social Marketing Campaign

In August 2016, the U.S. Census Bureau announced a contract with the advertising agency Young and Rubicam (Y&R), to develop and deliver a social marketing campaign for the 2020 Census (U.S. Census 2016). In addition to Y&R, the contract includes the services of

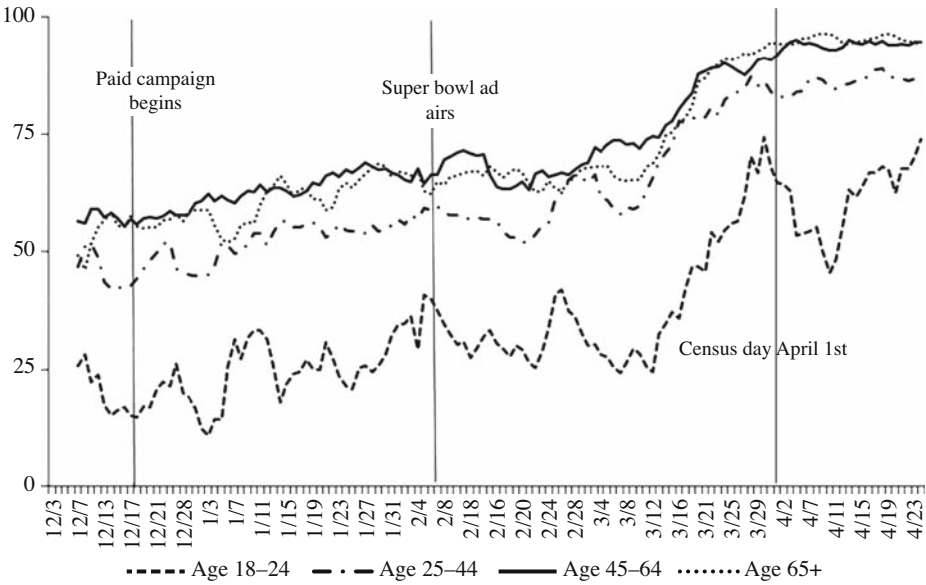


Fig. 4. “How likely are you to participate in the 2010 Census? By participate we mean fill out and mail in a Census form”. Response: Definitely Will/Already Mailed Back Rolling Week %. Source: [Miller and Wakejko 2010](#).

partner agencies each with expertise in reaching a specific population (e.g., African-Americans, veterans, Spanish speakers). Similar to the campaign in 2010, the 2020 campaign plans to make use of paid advertising. However, changes in the advertising industry coupled with the goal of maximizing self-response via the new Internet questionnaire necessitate changes from previous campaigns. For example, the campaign plans to deliver a much higher volume of paid advertising via electronic platforms including advertisements delivered to digital devices that allow households direct access to the census form simply by clicking an ad. These will include ads placed in search engines like Google and Bing, ads in social media feeds such as Facebook, and ads placed

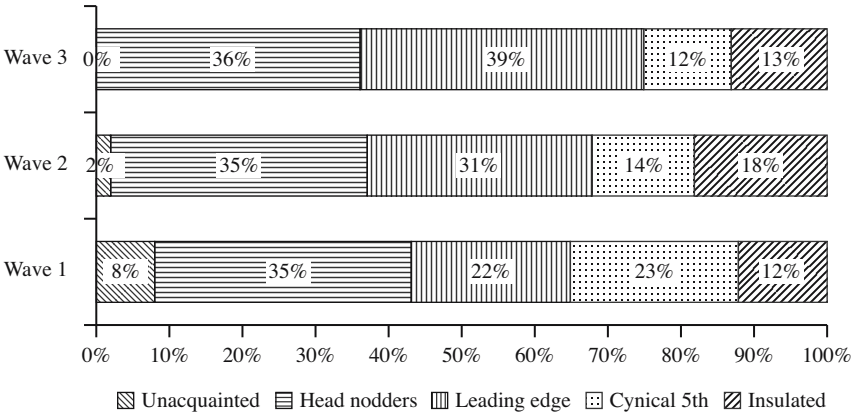


Fig. 5. Shift in mindsets over course of 2010 census social marketing campaign. Source: [ICPCE panel survey data, 2010](#).

on targeted websites. This is in step with the growing percentage of advertising dollars allocated to digital media in the United States. In fact, in 2016 desktop and mobile advertising revenue surpassed television for the first time ([Ad Age 2017](#)).

Increased interest in digital advertising is correlated to the increase in mobile device ownership in the United States – in the context of hard-to-survey populations, this proliferation is important for several reasons. First, the smartphone ownership gap has closed between whites and racial and ethnic minorities in the United States. According to a Pew study ([Rainie 2016](#)), 66 percent of whites owned smartphones in 2016 compared to 68 percent of Blacks and 64 percent of Hispanics. Additionally, 34 percent reported using their phone as primary access to the internet, and this behavior was more likely among young adults, non-whites, and low income/low education populations. Digital ads that contain a direct link to the census form represent a new mode with potential to encourage online response among some populations less inclined to mail back a form or call a toll-free number.

A census test conducted in 2015 in the Savannah, Georgia Designated Market Area (DMA) provided the opportunity to experiment with the delivery of digital ads. In the United States, DMAs are geographic areas that share the same media markets. The Savannah DMA contains 17 counties in the Savannah Georgia area as well as three counties in South Carolina.

The test included a robust social marketing campaign including paid ads, hiring of local partnership specialists, and social and earned media. The digital ads featured embedded URLs enabling respondents to click on the ad and arrive at the landing page of the census test questionnaire. The test campaign delivered ads via search engines, social media in-feeds, and display ads on websites ([U.S. Census 2017](#)). In the Savannah test site, 90,000 households received mailings with an invitation to respond online. At the same time, advertisements with a URL were broadcast on television, radio, in print ads, on billboards, and in digital ads. Sampled mail households that had not responded within three weeks after the first mailing were mailed a paper questionnaire.

To understand the campaign's impact on hard-to-survey populations, we performed a Census-tract level exploratory Factor Analysis (FA) to identify hard-to-survey segments within the DMA ([Virgile and Bates 2016](#)). Inputs to the FA included predictors of Census 2010 self-response including variables such as age, poverty level, education, mobility, home ownership, race/ethnicity composition, and median household income. The FA identified two hard-to-survey segments. The first two contained tracts that skewed young adults who moved frequently and rented; the second tended to include African American female-headed households with low incomes and education. A third hard-to-survey segment was identified using data a different data source – the 2013 Federal Communication Commission (FCC) data file indicating number of households per 1,000 connected to residential high speed Internet. Tracts in the DMA containing between zero and 400 connected households per 1,000 were classified as “low internet connectivity”. Because the Savannah test was primarily a test of online response, households in these tracts were classified as the third hard-to-survey segment. Combined, these three segments comprised approximately one-quarter (25.6 percent) of the Savannah DMA households.

[Figure 6](#) illustrates the 2015 Savannah Census Test response mode distributions across the three segments, and overall. Internet response was the preferred choice among the young/mobile/renter segment (74.3 percent) but less so for the other two – 55.2 percent for

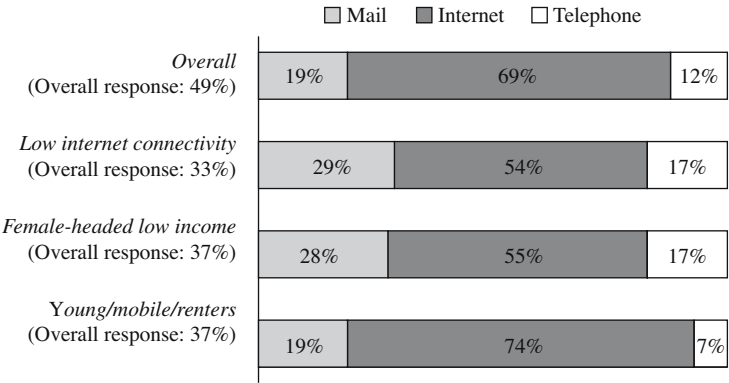


Fig. 6. 2015 Savannah Census Test: Response mode by hard-to-survey segments. Source: Virgile and Bates 2016.

the female headed/low income and education segment, and 53.7 percent for the low internet connectivity segment. Conversely, response by mail and telephone were above average for both the female-headed and low internet tracts (both at 17 percent).

Further analysis of online responses allowed insight into the campaign *source* responsible for driving households to the online form – for example, was it the direct mail piece, traditional ads such as television and radio, or digital ads? For all three hard-to-survey segments, the majority of online responses were most often generated from the URL advertised in the direct mail pieces (see Figure 7). However, close to one-quarter of online responses from the female-headed segment were the result of traditional ads (24.9 percent) and four to six percent of online responses from all three hard-to-survey segments were the result of clicking a digital ad. Given the relatively inexpensive cost of digital ads (USD2.39 was the highest spend per household in the Savannah test), even moderate rates of “click to respond” are noteworthy, particularly among populations that would otherwise require a costly personal visit follow-up in the Decennial Census.

In addition to embracing digital media and advertisements, the U.S. Census Bureau plans to leverage other innovations in the 2020 social marketing campaign. In 2020, households will have the option of responding online without the requirement of entering

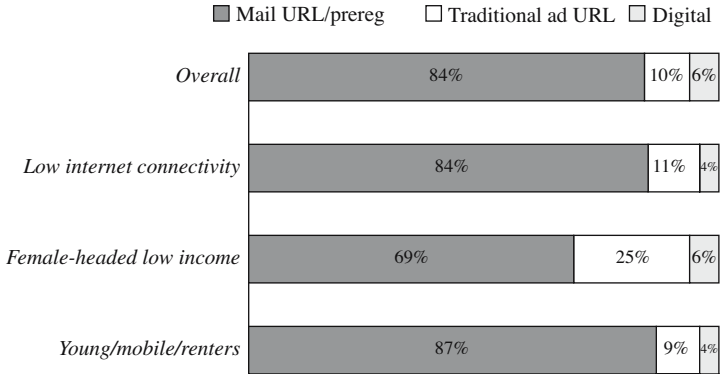


Fig. 7. 2015 Savannah Census Test: Source of online response among hard-to-survey segments. Source: Virgile and Bates 2016.

a pre-assigned address-based Census ID (included in the mail materials). This flexibility allows for online response by simply entering advertised URL’s as part of the campaign or clicking on digital ads.

The U.S. Census Bureau will also conduct a survey to understand the current barriers, attitudes, and motivators to participate in the 2020 Census. These data – combined with ACS response data, previous census response data, and third party data such as voting behavior, internet connectivity, device ownership and computer usage – will be used to cluster households into audience segments with distinct attitudinal themes and media consumption habits. These “mindsets” will guide messaging and social marketing plans for different segments within the larger hard-to-survey population. These mindsets will help the creative advertising teams understand public perceptions of the 2020 Census and identify the type of communications most effective in motivating self-response.

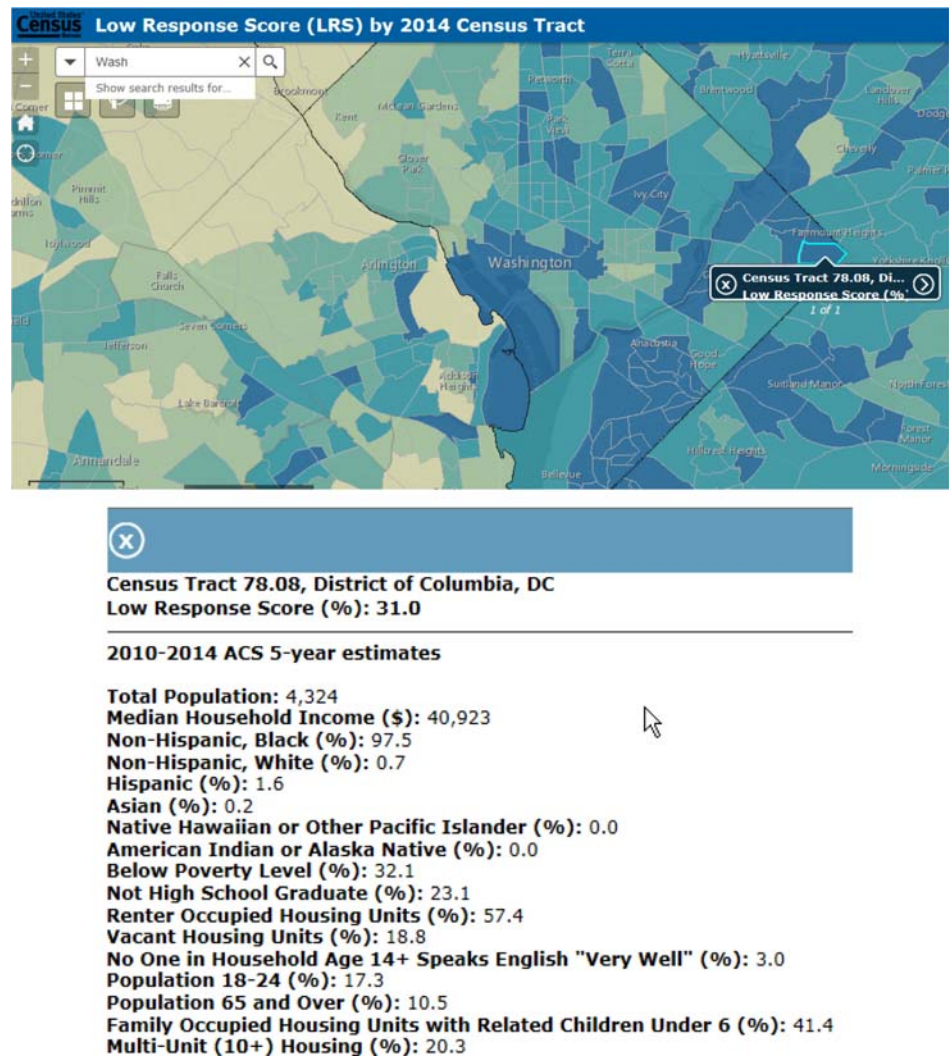


Fig. 8. Screen Shot of Response Outreach Area Mapper (ROAM) Web Application.

The agency has also developed a new metric and mapping application to help locate hard-to-survey populations for Census 2020. The application displays Census tracts within user-defined geographic entities using a thematic color map to indicate each tract's Low Response Score or LRS. The LRS is the predicted *non self-participation* rate using Census 2010 mail response behavior as a guide (Erdman and Bates 2017). Users can enter various geographies including zip codes, states, places, and counties to identify tracts within the geography that have lower self-response propensities requiring extra attention and resources (darker colored tracts). In addition to displaying each tract's LRS, the application also displays a selected number of tract characteristics from the ACS five-year estimates (see Figure 8 for example screen shot of Washington DC and one tract in the Northeast quadrant). The application known as the Response Area Outreach Mapper (ROAM) is available for public use at (website: census.gov/roam) and expected to aid Census Partnership Specialists, city officials, elected officials, complete count committees, and community advocates alike.

The self-response target for Census 2020 is 63.5 percent, of which 47 percent is predicted to come from the Internet, five percent via telephone, and eleven percent through mail (U.S. Census Bureau 2017). Achieving these targets will undoubtedly hinge on the success of the social marketing campaign aimed at hard-to-survey populations. At the time of writing, public opinion of the federal government and U.S. Congress are at historical lows; undocumented populations are increasingly fearful of federal officials; and self-response to federal data collection continues to decline. Such challenges are top of mind to those planning the 2020 Census. Nonetheless, the agency is optimistic that some of these barriers can be overcome by a data-driven social marketing program.

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