

## 2010 Census Integrated Communications Program Evaluation

*Census 2000 was the first decennial census to use a paid advertising campaign. The campaign featured use of print and broadcast media, as well as outdoor advertising, to emphasize the importance of responding to the census. Five advertising agencies were used: one to create the core message, and the others to tailor it to specific audiences. The Census Bureau also established partnerships with many diverse groups at all levels of government, both to publicize the census and to encourage participation. Numerous promotions and special events were held across the country. The available evidence suggests that the Census 2000 Partnership and Marketing Program, along with other efforts aimed at improving census participation, succeeded in reversing a long-term decline in mail response rates (especially in traditionally hard-to-enumerate groups), and may also have improved cooperation with Census Bureau enumerators, helping to shorten and reduce the costs of Nonresponse Follow-up (NRFU) efforts.*

*The 2010 Census Integrated Communications Campaign (ICC) was intended to build on the success of the Census 2000 Partnership and Marketing Program with the same goals of increasing mail back of the census form, improving cooperation with enumerators, and reducing the differential undercount. For 2010, the Census Bureau used an approach that integrated a mix of mass media advertising, targeted media outreach to specific populations, national and local partnerships, grassroots marketing, school-based programs, and special events. By integrating these elements with each other and with the Census Bureau's 2010 operations, the campaign's goal was to more effectively ensure that everyone was reached, especially the hard to enumerate.*

*The 2010 Census ICC contract was a major public expenditure and had great potential to affect the quality and overall cost of the 2010 Census. For these reasons, a rigorous and independent evaluation of the 2010 Census ICC was essential for evaluating the success of the 2010 Census and for planning for the 2020 Census.*

*The Census Bureau sought an independent evaluation of the 2010 Census ICC to determine if the campaign achieved its goals. NORC at the University of Chicago was selected to conduct that evaluation. The evaluation will help stakeholders determine if the significant investment in the 2010 Census ICC was justified by such outcomes as increased mail returns and increased cooperation with enumerators. The full breadth of the campaign has been studied, including paid media/advertising, partnerships, the Census in Schools program, earned media, and other campaign activities. The 2010 Census Integrated Communications Program Evaluation (CICPE) was designed as a multi-method study that will increase the depth and breadth of the evidence available about the 2010 ICC and will support valid, robust, and actionable conclusions about the impact of the 2010 Census ICC.*

*The 2010 CICPE approach is based partly on the Census 2000 Partnership and Marketing Program Evaluation (PMPE), also conducted by NORC at the University of Chicago. That experience demonstrated the strengths of a traditional time-series survey design for measuring the impact of an integrated communications program on critical indicators of exposure, awareness, attitudes, and other predictors of census response behavior. It also revealed significant weaknesses of time-series survey data to assess the impact of an integrated communications campaign, pointing to the potential benefits of a multi-method approach to evaluate the effectiveness of a complex, multidimensional effort to influence public participation in one of the most important civic activities supporting American society and democracy.*

### 2010 CICPE OBJECTIVES

The main objectives of the 2010 CICPE were to assess the extent to which the 2010 Census ICC achieved specific goals related to increased mail returns and improved cooperation with

enumerators. Specific analytic questions to be addressed by the 2010 CICPE included:

- What impact did the 2010 Census ICC as a whole have on the likelihood of returning a census

form or cooperating with enumerators? Specifically, what are impacts of paid media advertising, partnerships, Census in Schools, earned media, and word of mouth interactions about the census?

- Which elements of the 2010 ICC were reported or recalled either least or most often?
- How effective was the campaign in changing positive and negative attitudes and beliefs about the census, and how did this vary by campaign component?
- What differences in awareness, knowledge, and attitudes before, during, and after the 2010 Census ICC were significantly different from those measured before, during, and after the 2000 Advertising Campaign?
- What advertisements, programs, and events (including breaking news events) outside of the 2010 Census ICC had an effect on respondent attitudes and behaviors?
- What return on investment can be estimated for the 2010 Census ICC?

## 2010 CICPE SURVEY DESIGN

The principal data source used for the evaluation was a set of three nationally-representative household surveys conducted between October 2009 and August 2010 to capture knowledge, attitudes and exposure to the campaign. To increase the ability to understand person-specific response to the campaign, the surveys included a panel sample in which the same individuals were interviewed in each of the three waves.

### Survey data collection for the 2010 CICPE took place at three points:

[1] Wave 1 was conducted mid-September 2009 through mid-January 2010, during early partnership activity, to assess baseline levels of all measures of public attention and intentions that were the focus of the 2010 Census ICC;

[2] Wave 2 took place January 19 through March 18, 2010, during the peak of the paid media campaign and partnership activities, but before census forms were distributed to households; and

[3] Wave 3 was conducted during the Non-response Follow-up (NRFU) period from mid-April through mid-July 2010 when people had made their decisions about participating in the mailback phase and had been exposed to the full course of the main paid media and partnership campaigns. Census data on actual 2010 participation are also combined with survey data to determine households' Census behavior.

Survey samples included approximately equal numbers of individuals from five hard to count groups and one comparison group (Hispanic, non-Hispanic African American, American Indian, Asian, Native Hawaiian, and non-Hispanic Whites).

The study design also called for use of supplemental data sources about each of the campaign components to provide alternative measures of exposure and to validate and potentially improve on the evaluation results that rely strictly on survey data. Although several data sources were acquired and investigated (gross rating points for TV and radio advertising, dollars spent on all paid media, integrated partnership contact database, scholastic customer satisfaction interview data), these have yielded fewer fruitful analyses than we had hoped for.

Another feature of this evaluation was the Paid Advertising Heavy-Up (PAHU) experiment. For this experiment, pairs of Designated Market Areas (DMAs) were matched on indicators such as hard-to-count scores, mail return rates in Census 2000, race/ethnic populations, poverty rates, urban/rural composition, linguistic isolation population and number of households. Eight pairs of DMAs were identified, with one DMA of each pair randomly assigned to receive an increase to approximately double the budget initially allocated for paid advertising in that DMA (also known as a "Heavy-up"). Being able to exploit experimental variation in paid media exposure

greatly improves the potential for describing the contribution of campaign components to the outcomes of interest.

Such data quality issues as non-response bias or (for the panel sample) conditioning effects could severely limit the representativeness of the survey data or its relevance to the objectives of the evaluation. Data examinations indicate that the survey data show only negligible non-response bias in terms of census participation, and minimal conditioning effects except in having heard of the census. These examinations endorse the use of the survey data to understand the full population eligible for the decennial census, not only those who completed the 2010 CICPE surveys.

## LIMITATIONS OF THE ANALYSIS AND THE STUDY

The objectives of the 2010 CICPE are quite ambitious, and in several ways not feasible to fully achieve. In this section, we discuss several limitations to the study. The limitations come variously from the design of the ICC, the design of the 2010 CICPE, limits on respondent cognition, and the absence of relevant additional data sources to supplement survey data as we had intended.

We begin by noting that the 2010 CICPE cannot provide an estimate of the total effect of the 2010 ICC. The main reason such an estimate is not possible is that we lack a reasonable 'control' group. In fact, the 2010 ICC has many features that make it almost immune to effective evaluation. In addition to the absence of an experimental design or a control group, we see that many of the resources allocated were targeted toward hard-to-count groups as were new operational features such as bilingual and replacement questionnaires. The result is a singular focus on applying resources to those who are at most risk of noncompliance. Without effective controls, this pattern generates the impression of a negative relationship:

increasing devotion of resources is associated with lower likelihood of census participation. While this resource allocation makes sense as a policy choice for improving census participation, it renders ineffective simple correlational analysis to assess ICC effects. Furthermore, it heavily conflates various efforts to improve participation in ways that almost defy estimation of individual component-level effects.

Analyses reported in this evaluation are based predominantly on individuals' self-reports of exposure to the 2010 ICC. Self-reports are a limited tool for campaign evaluation for two reasons. First, there is leakage between what a campaign implements and what reaches its target individuals. Second, there is the potential issue of systematic bias in who recalls exposure and what exposure is recalled.

This evaluation uses supplemental data drawn from administrative and operational records to develop alternative measures of exposure that might more directly capture campaign activity without being subject to the flaws of self-reports. Of course, administrative and operation records of campaign implementation are themselves imperfect even for measuring average exposure, and they do not at all measure individual exposure. As we discuss elsewhere, the administrative and operational records available to the project team were inadequate for use in the evaluation, leaving self-reported exposure as the primary viable data source.

One important limitation is the inability of respondents to distinguish between exposure to different campaign elements. One danger is the misattribution of an instance of exposure to the wrong campaign component. A second danger is that a respondent might multiply report a single instance of exposure under different components. Although we present results for different campaign

components throughout this evaluation, and these results are often quite stable, we note that there is some likely blurring of components throughout.

Evaluation of the partnership component of the ICC is particularly hampered. First, evaluation literature is richer for marketing evaluation than for this type of social campaign (Evans, W.D., et. al. 2009), so we do not have strong methodological models to follow. Second, the nature of partnership expectations and participation is sufficiently varied that we were not able to develop many enhanced questionnaire items for capturing the quality of partnership exposure experienced by survey respondents.

The 2010 CICPE questionnaires were designed to make use of much of the current methods of evaluating paid and public health media campaigns, including understanding message receptivity, documenting exposure through confirmed awareness items, and incorporating gross-ratings points supplemental data into the analyses. Ultimately, final ads were not available for NORC to include the desired types of items in the Wave 2 questionnaire. Thus the 2010 CICPE measures of paid media exposure during the peak of the paid media efforts are built from relatively simple questionnaire items rather than items that most reliably measure paid media exposure. The more desirable item types were included in the Wave 3 questionnaire.

Finally, the 2010 CICPE includes some research objectives that focus on households with lower propensity for survey completion. It is the case, however, that the response rates to the 2010 CICPE did not generally exceed mailback rates and certainly did not exceed final rates of census form completion at the close of the NRFU period. Thus, 2010 CICPE analyses carry the burden of arguing that partial response to our surveys is still sufficient to shed light on non-response problems in the census. We provide evidence that the 2010 CICPE survey

data in fact suffer only negligible non-response bias and are therefore appropriate for generalizing to the population of households eligible for the 2010 Census.

Despite these limitations, the 2010 CICPE design — taking advantage of survey data and various supplemental data— is robust enough to assess response to the ICC as a whole, and to describe the mechanisms through which ICC exposure can affect knowledge, attitudes, and behaviors toward the Census.

### Main findings of the report include:

- Knowledge of the census increased significantly for the U.S. population as a whole and among key subgroups from fall 2009 to late spring 2010. Attitudes toward the census also became more favorable during that period.
- Exposure to the 2010 ICC was quite high for the population as a whole and for key subgroups, particularly through paid media broadcast on television. On average, a national sample of Americans recalled seeing census-related communications about once a week during the spring of 2010.
- Multivariate regressions indicate relationships between campaign exposure and increases in knowledge and attitudes. We establish these relationships through direct estimation as well as through use of message receptivity analysis, a validated approach from the communication sciences literature.
- A consistent finding of this evaluation is that different subgroups vary in their responses to the different components of the campaign. Aside from word of mouth, statistically significant associations between campaign exposure and mail return promote rather than depress mail return.
- Increased campaign exposure is associated with increased mail return and cooperation with enumerators for some subgroups. The associations of greater knowledge with mail return and

cooperation with enumerators are often larger in magnitude.

Financial data on investment in the ICC were not sufficiently detailed for use in return on investment calculations within the CICPE design. As an alternative, we estimate lower and upper bound estimates of the change in mail return rate and/or cooperation with enumerators associated with campaign exposure. We note that the finding of differential effects across subgroups means that the maximal return comes from targeting components to subgroups. Broader implementation of components to subgroups that do not exhibit returns to those components dilutes the overall return to the campaign.

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Rupa Datta and colleagues, 2012.