Increasing AHS Response Rates

A second advance letter does not significantly improve outcomes

Agency Objective The goal of the project was to more efficiently achieve a desired response rate for the American Housing Survey (AHS). This could be achieved either by increasing the relative response rate of experimental groups or by reducing the level of effort as measured in the average number of in-person attempts per case or the average time each case is in the field.

Background The American Housing Survey (AHS) establishes multiple indicators of housing quality and supply. It is administered by Census on behalf of the US Department of Housing and Urban Development. The survey is fielded until an appropriately high response rate is achieved (around 80 percent) to reduce the impact of non-response bias.

The AHS is fielded in the summer of odd numbered years. An advance letter is sent to all housing units selected for the survey shortly before the field period begins. Field representatives then attempt to survey each housing unit in person until the targeted response rate is achieved.

Program Change Census has identified a number of barriers to survey response. These include the hassle factor of scheduling and completing an in-person survey, a lack of understanding as to why completing a survey is important to an individual, and trust and data privacy concerns. To address trust, the evaluation tested several versions of advance letters incorporating insights from behavioral science. These included incorporating an implementation planning tear-off tool,[1] simplifying language describing how data was used to plan for locally-relevant services such as schools and roads,[2] including a social norm stating that more than 86% of households respond,[3] language addressing privacy concerns, and using respected organizations as an additional messenger.[4] The letters were sent at the beginning of August 2017, about one month into the field period.

Evaluation Methods 84,879 housing units were randomly assigned to five groups – four groups were selected to be sent a second advance letter and one group was selected as a control group and was not sent a second letter. The basic version of the second advance letter included a plain language rewriting of general information about the AHS, how AHS data was used, and included an implementation intention prompt for the recipient to schedule a time with a field representative to complete the survey. A second version added a call out box to the base second advance letter which included wording about how the Census protects the privacy and confidentiality of data. A third version included the same information as the base second advance letter but also included the United Way logo and a short statement from the president and CEO of the United Way Worldwide explaining how United Way uses AHS data. A fourth version substituted the Great Nonprofits logo and a statement from the CEO of Great Nonprofits the comparable United Way elements.

The primary analysis focused on three outcomes: relative response rate among groups, the average number of in-person contact attempts, and the average number of days each case was in the field. In all cases OLS was applied to a regression of the outcome of interest on indicator variables for the four treatment groups, and heteroskedastic robust standard errors were used.

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[1] Milkman et al. 2011. Using implementation intentions prompts to enhance influenza vaccination rates. *PNAS*, 108(26), 10415-10420

[2] Yammarino, F. J., Skinner, S. J., & Childers, T. L. (1991). Understanding mail survey response behavior. Public Opinion Quarterly, 55, 613-629.

[3] U.K. Behavioral Insights Team (2012). Fraud, error and debt: behavioural insights team paper.

[4] Marianne Bertrand, Dean Karlan, Sendhil Mullainathan, Eldar Shafir, Jonathan Zinman; What's Advertising Content Worth? Evidence from a Consumer Credit Marketing Field Experiment. Q J Econ 2010; 125 (1): 263-306.

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After looking at outcome data, it became apparent that many of the cases had been contacted by field representatives and many had completed the survey prior to the letters being mailed. A set of unplanned, exploratory analyses were completed which repeated the main analyses on a sample restricted to the cases open at the time the letters were mailed.

Results There were no significant differences between any of the experimental groups and the control group on any of the main outcomes.

When limiting the analysis to the cases that were still open (i.e., contact attempts were still being made) at the time of the mailing, the Census-branded second advance mailer was most effective. This version contained simplified language describing the purpose of the AHS, a short link to validate an enumerator's employment, and an implementation intention. The letter increased the response rate by 1.3 percentage points (control rate=68.2 percent) and decreased the average number of days cases were in the field by 1.1 days (control average=44.7 days). The other versions of the letter were not different from the control group with respect to any of the outcomes. While these results were statistically significant at conventional five percent level, the results should be interpreted with caution both because the analyses were unplanned and results were not corrected for multiple comparisons.

Conclusion Results suggest that a second advance letter is not successful at improving the efficiency of survey administration in all cases.