Why do survey participants choose to report by Web, paper, or not at all? Results from an American Community Survey Qualitative Study

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ABSTRACT

In April 2011, the U.S. Census Bureau conducted an Internet test of the American Community Survey (ACS), in which different mailing materials and mailing strategies were used to offer an Internet reporting option for the survey. In two conditions, an Internet reporting option was initially offered, with a paper form following in a subsequent mailing. Only the timing of the subsequent mailing varied in those conditions. In two other conditions, both modes were offered simultaneously, but the panels varied the amount of emphasis on the Internet option.

In April and May, the Census Bureau fielded a follow-up telephone survey of approximately 1,700 ACS respondents and nonrespondents to the Internet Test survey. This follow-up study gathered information about how effectively the mailing materials for the Internet Test conveyed the response option choices. Questions in this follow-up study focused on which components of the mailing materials or mailing strategy motivated sample households to respond by the Internet or by the paper form. The follow-up also contained questions to determine why some households did not respond at all.

This paper presents results from the follow-up telephone study of respondents and nonrespondents to the 2011 ACS Internet Test. Results of the follow-up study show that the majority of respondents knew they could respond either by paper or via the Internet to the ACS. The results did not provide substantial support for the finding in the literature (e.g., Millar and Dillman, 2011) that offering multiple modes simultaneously and forcing participants to make a reporting mode choice is the reason why some participants never respond. Instead, many nonrespondents in this study claimed never to have received the ACS envelope; if they did receive the envelope, many said they did not open it because they were too busy.

Introduction

In April 2011, the U.S. Census Bureau fielded an experimental test offering an Internet reporting option in addition to the traditional paper form for the American Community Survey (ACS). Four experimental conditions manipulated the timing of when the different modes were offered and the emphasis placed on the Internet reporting mode. An Internet reporting option was offered as a way to maintain or improve self-response and data quality while reducing costs. As part of the test, the Census Bureau conducted a

qualitative follow-up interview of both respondents and nonrespondents to determine what motivated a response and why some people did not respond at all. The Census Bureau called this qualitative follow-up the Attitudes and Behavior Study (ABS). This paper presents the ABS results.

Background

Singer (2002) describes some research about motivation to participate in surveys. She cites a German study of 140 participants who provided open-ended responses about why they chose to participate in a survey. That study noted that about a third participated because of altruistic reasons (i.e., purpose of the survey was important or for the good of society); another third were interested in the survey topic; and another third for personal reasons such as they promised to do the survey. These reasons are consistent with the work of Groves et al. (2000), which describes factors such as the topic and sponsorship of the survey, concerns about privacy, and the respondent's social and physical environment as factors that affect the respondent's decision to participate in a survey.

More recently, as reported by Business Wire (via Reuters, 2008), Survey Sampling International (SSI) designed a study to analyze the motivating psychological factors behind survey participation. SSI found that people opt to complete online surveys because they are personally fulfilling. Referencing a small qualitative German sample of 25 participants, Bosnjak and Batinic (2000) concluded that the same motivating factors cited by the earlier German study applied to online surveys as well. Bosnjak and Batinic also found material incentives to be a motivating factor. To date, factors that influence the respondent decision to choose one mode over the other in multi-mode surveys have not been extensively studied. In 2000, the Census Bureau contacted 58 nonresponders to a 2000 ACS multi-mode test to determine why they did not respond. The primary reason cited by those nonresponders was that they did not remember receiving the envelope containing the survey invitation (Nichols & Marquis, 2001).

While the reasons for responding or not responding may be unclear, the response rates from multi-mode studies offer concise quantitative data about whether people actually did or did not respond. A frequently reported phenomenon is that when people are given a choice of responding by Internet or mail, they are less likely to respond than when only a mail response is offered (Gentry & Good, 2008; Grigorian & Hoffer, 2008; Millar & Dillman, 2011; Smyth, Dillman, Christian & O'Neill, 2010). In fact, in 2000, the ACS experimented with offering an Internet reporting option in addition to the paper form. In that test, the multi-mode panel had a lower response rate than the control panel, which only offered the traditional paper form (Griffin, Fisher, & Morgan, 2001). From 2000 until 2011, the Census Bureau did not test an Internet option again with the ACS.

For these mode-choice studies, we do not know whether people did not respond because they actively could not decide between the modes, whether they put off the decision so much so that they forgot about the task, whether the choice itself made them reconsider reporting altogether or made the reporting task seem not as urgent, or whether some other

mechanism was at work. One explanation, what might be called, "mode paralysis," is explained in Millar and Dillman (2011). They cite psychological research which posits that

> "…every option has opportunity costs associated with it, and when two options are compared to each other, individuals must consider tradeoffs. This makes each option appear less appealing than it would if offered alone, leading to no compelling reason to select either one… This suggests that by offering a choice between Web or mail response, surveyors are certainly not encouraging response and, in fact, they may even be discouraging it" (p. 252).

In contrast to the 2000 ACS multi-mode test and the other studies mentioned earlier, there was no evidence of lower response rates in the experimental conditions offering a mode choice in the 2011 April ACS Internet Test (Tancreto, Zelenak, Davis, Ruiter, & Matthews, 2012). The ABS provides data on what factors motivated respondents to use the Internet or the paper form to respond and why some people did not respond to the ACS at all. The ABS data also allow us to confirm that the mode choice itself was not a primary reason for not responding.

Method

The 2011 April ACS Internet Test occurred concurrent with the April 2011 ACS data collection. In that test, there were four experimental conditions and a control group (Zelenak, Ruiter, Davis, Horwitz, & Tancreto, 2010). The four conditions varied when the paper form was mailed and the emphasis placed on the Internet reporting option. No Internet option for reporting was available to the control group.

Two of the four conditions were called "Choice" conditions because the paper form and the Internet reporting option were offered concurrently, giving respondents a choice between one or the other. One of the Choice conditions, Prominent Choice, explicitly mentioned the Internet option in the text of the letters and mailing materials. The other Choice condition, the Not Prominent Choice, only subtly mentioned the Internet option on the paper questionnaire itself. This condition was included in the test just in case the other more overt multi-mode conditions dampened response rates as previous multi-mode studies had found. The thought was that the Not Prominent Choice condition was as close to a paper-only condition as possible while offering an Internet reporting option to those who sought it out.

The other two conditions were called "Push" conditions because they attempted to push respondents to report via the Internet. In these conditions, the initial mailing only included access information for the Internet survey. The paper form was later mailed to households that had not responded by the Internet, in a replacement mailing. The two Push conditions differed in how much time had elapsed between the initial and replacement mailings, with the Push Accelerated condition sending the paper form

approximately two weeks after the initial mailing and the Push Regular condition sending the form three weeks after the initial mailing.

The four conditions were crossed by two strata, Targeted and Not Targeted[1], to create eight experimental treatments of 15,000 housing units each. The control was proportionally allocated to the two strata. There were 71,585 housing units in the control Targeted group and 161,683 housing units in the control Not Targeted group.

Tancreto, et al. (2012) found that the Push Accelerated condition produced the highest self-response rate (combining responses from both mail and Internet) among the notification strategies, and achieved a significant 2.6 percentage point increase over the Control in the Targeted stratum. No condition achieved a significantly higher self-response rate compared to the Control in the Not Targeted stratum.

Within approximately three weeks of the April Internet Test, the Census Bureau conducted the ABS. The ABS was a 10-minute computer-assisted telephone interview survey. ACS responding and nonresponding households with telephone numbers were sampled for the study. Three groups from the Internet Test were sampled: Internet responders, mail responders, and nonresponders from each of the four conditions. In addition, a control group of mail respondents from the April 2011 ACS production sample were sampled for the ABS. The ABS sample was not stratified by the two strata used in the ACS Internet Test. The ABS questionnaire contained open-ended questions to determine the reasons for the selection of mode of response or, for the nonrespondents, the decision not to respond.

All total, 1,700 ABS interviews were available for analysis. The ABS response rate was 84 percent for Internet responders; 87 percent for Internet Test mail responders; 38 percent for nonresponders; and 82 percent for control mail responders (Nichols, 2012). Response rate calculation closely resembles AAPOR's response rate 2 (AAPOR, 2009).

This paper presents the ABS results pertaining to the reported reasons for choosing one mode over the other and the reasons for choosing neither.

Limitations

Although there were 1,700 ABS interviews available for analysis, none of these interviews were with Push Regular mail respondents. Households in that condition had received the paper questionnaire only 11 days prior selecting the ABS sample. At the time of the ABS sample selection, there was only one keyed mail form from that condition.

[1] The Targeted stratum included tracts that had the highest levels of Internet subscriptions, usage and preference and were assumed the areas most likely to report via the Internet. The Not Targeted stratum were the areas containing the remaining tracts.

The ABS response rate for the nonrespondent group is low. It could be that the ACS nonrespondents who did not respond to the ABS had different reasons for not responding to the ACS.

The ABS data analyzed in this paper were from open-ended questions with field-coded responses. Additionally, every open question in the ABS had an "other" category. Interviewers field-coded the respondents' answers. The author coded all the responses in the "other" categories with some help from a research assistant. There was no assessment of coding reliability.

Respondents and nonrespondents especially might have felt pressure to give socially desirable answers to the ABS regarding why they chose one mode or why they did not respond to the ACS.

Finally, the ABS respondents had to retrospectively describe past actions with the ACS materials that they might not have encoded at the time, or to which they might have paid scant attention.

Results

Reasons for choosing the Internet to complete the ACS

Some ACS respondents used the Internet to complete the survey because they did not know they had a choice. Approximately 24.1 percent (s.e.=2.8*)* of the 237 Internet respondents in the Push conditions reported that they did not know they could have chosen to report using a paper form. That is significantly higher[2] than the 10.5 percent (s.e.= 2.1) of the 220 respondents in the Choice conditions who reported that they did not know they could complete a paper form. The finding that proportionally more Push respondents did not know about the paper form compared to the Choice respondents is not surprising, since the initial and replacement mailings for the two Choice conditions contained a paper form, whereas only the replacement mailing for the two Push conditions contained the paper form. Over half of the Internet respondents in the Push conditions in the ABS never received the replacement mailing and thus never received the paper form. Unless Push condition respondents read the letter in the initial mailing, they would not know about the availability of a paper form.

Internet respondents who reported knowing there was a paper form option were asked an open-ended question about why they decided to use the Internet, *"Why did you decide to use the Internet to complete the survey?"* About 63 percent (s.e.=3.9) of the 197 Internet respondents in the Choice conditions reported using the Internet to complete the survey because it was easy. This percent is significantly higher than the 44.4 percent (s.e.=3.7) of the 180 respondents in the Push conditions who reported that reason (Wald Chi-Square Test: F=12.4, p=.0005). Other than this difference, the other main reasons reported for choosing the Internet are similar across the conditions. About 20 to 30 percent reported

[2] Using a Wald Chi-Square Test (F=15.3, p<.0001).

that the Internet is faster and approximately the same percent reported that they used the Internet because it was convenient.

About 6 to 14 percent of Internet respondents across the conditions reported that they prefer to do everything on the Internet. Not having the paper form was a reason cited by about 5 to 10 percent of Push respondents.

Most Internet respondents could articulate a reason for choosing the Internet. The "do not know" rate was approximately 8 percent or lower across the conditions.

There were other responses given, but not by more than 5 percent of the respondents in any of the conditions. Some of those reasons included that they did not have to mail the form, it was a new experience, they did not have a return envelope, the Internet was secure, and that it saved money. In the two Push conditions, three respondents reported that they thought they had to use the Internet, and two said the Internet option came first.

Reasons for choosing the paper form to complete the ACS

Similar to the Internet respondents, one main reason why respondents used the paper form to complete the survey was because they did not know they had a reporting mode choice. About 37 to 47 percent of mail reporters reported that they used the paper form because they did not know about the Internet survey. The lack of knowledge of the mode choice was constant across conditions. Approximately half of the 104 Not Prominent Choice mail reporters said they did not know about the Internet reporting option, which is not surprising since notification of the Internet mode was only on the cover of the questionnaire itself. On the other hand, around 37 percent of the 119 Prominent Choice and the 112 Push Accelerated mail reporters said they did not know about the Internet option. It is surprising that so many mail respondents in the Push condition reported not knowing about the Internet option since no paper form was sent in the initial mailing package. It is possible that those mail reporters never opened the initial mailing envelope.

Those who knew about the option of reporting online were asked the open-ended question *"Why did you decide to use the paper form to complete the survey instead of using the Internet?"* The reasons respondents chose to report by paper differed by condition. In the Push Accelerated condition, about 35 percent of the 69 respondents chose paper because they said they did not have Internet access; about 26 percent reported choosing paper because it was convenient and about 19 percent reported "computer issues." These responses suggest that approximately half[3] of the respondents in the Push Accelerated condition, who knew about the Internet offer, used the paper form because they could not report via the Internet.

For the Choice conditions, the most frequently reported reason for choosing paper was that the paper option was convenient, followed by reported lack of Internet access. In fact, combining the two Choice conditions, 50 percent (s.e.=4.1) of the 130 respondents chose the paper form because they preferred it or it was convenient compared with the

[3] 53.6%=18.8% (computer issues)+34.8% (did not have access)

Internet option. That is significantly higher than the 26 percent (s.e.=5.3) of respondents in the Push Accelerated condition who mentioned paper preference as the reason for their choice (Wald Chi-Square Test: F=11.9, p=.0007).

Less than 10 percent (s.e.=3.9) of the respondents in any of the conditions claimed that "computer inexperience" was a reason for choosing the paper form. Less than 8 percent (s.e.=3.1) of the respondents mentioned Internet security as a reason for choosing a paper form.

Approximately 18 percent of the respondents in the Not Prominent Choice condition did not give a reason for choosing paper over the Internet.

Reasons for not responding to the ACS

The two primary reasons given for not responding to the ACS involved receipt of the envelope containing ACS materials: many respondents claimed that they either did not receive the envelope or that they received the envelope but did not open it. This finding held across all conditions. Over 46 percent (s.e.=3.6) of all 795 ACS nonrespondents provided one of those two reasons.[4] The thickness of the initial mailing package appeared to be one reason why some did not recall the envelope. Proportionally more nonrespondents in the Push conditions said they did not receive the envelope compared to those in the Choice conditions: 37.9% (s.e.=2.4) to 29.5% (s.e.=2.4) (Wald Chi-Square Test: F=6.3, p=.01). The only difference between those conditions was the thickness of the envelope in the initial mailing. The initial mailing package for the Push conditions weighted 0.94 oz. It did not contain the form or the questionnaire guide. That envelope was much lighter than the one mailed in the Choice conditions. Those envelopes weighed 4.28 oz. About 40 percent of the nonrespondents who reported that they did not open the envelope said they were too busy to do so.

Approximately 11 percent or less of nonrespondents across the conditions said that they opened the envelope but could not remember how they could respond to the survey (i.e., whether by a paper form or by the Internet, or by another way). We do not know any more about why these people did not respond as the ABS did not ask them any further questions.

Around 8 to 11 percent of ACS nonrespondents in the study said that they remembered they could complete the survey either by the paper form or by the Internet, but they were too busy to do so. Some respondents elaborated more on why they were busy. Approximately 20 percent of that group said they were busy due to the health issues of either themselves or someone in their family.

[4] It could be that even though we screened for mail handlers, some of the ABS respondents were not the household members who saw the mailings. This possibility should have affected all notification strategies equally.

Approximately 4 to 10 percent said they actually did mail in a paper form. Upon review, there was no record of a form being received by the Census Bureau for these cases. Some respondents could have genuinely believed that they mailed the ACS form back. Others might have said they mailed the form back to provide a socially desirable answer. Still others could have been mistakenly thinking of their census form, which was mailed the year earlier. Some respondents said they did not open the envelope because they already responded to the decennial census.

Two reasons mentioned by approximately 5 percent of the ACS nonrespondents, needing data from another person and the sensitivity of the ACS questions, relate to the design and content of the ACS. The ACS requires person-level information for everyone in the household. It is possible, especially in households containing unrelated individuals, that the original respondent did not know this information and would have had to obtain it from another individual. Some respondents reported that some of the ACS questions, for example income, were sensitive. Neither data sensitivity nor needing data from another person were related to mode choice or the particulars of the experimental conditions.

Approximately 6 percent or fewer of the nonrespondents reported that they did not complete the ACS because of "computer issues." "Computer issues" include "inexperienced computer user," "computer is difficult," "no interest in computers," "no computer access," "lost login, User ID/login problems," and "rather use paper." It could be that, when presented with the task of completing the questionnaire online or on paper, some potential respondents focused on the online form. Then, they realized they either did not want to complete the form online or could not do so and then failed to complete the paper questionnaire. Across all conditions, 33 nonrespondents cited computer issues as a reason for not completing the Internet form. In 13 of the 33 cases, the nonrespondent reported not knowing about the paper form even all of them should have received at least one mailing with a paper form. Eight of the 13 were cases in one of the Push conditions. Thus, there appeared to be a small number of people for whom offering an Internet option and not emphasizing the paper form led to a nonresponse.

Very few nonrespondents reported that they did not respond because they were worried about ID theft or about Internet security. Only 3.5 percent (s.e.=0.7) of 795 nonrespondents across the conditions reported that they considered completing the survey by both modes. That would be an upper bound on the percent where hesitation because of the choice might have occurred. However, no one explicitly reported difficulty making the choice between the modes and only four nonrespondents reported that they both knew about the mode choice and had either forgotten about the survey or had not gotten around to completing the survey. Based on these data, the mode choice itself did not appear to be a reason for not responding.

Conclusions

The reasons respondents chose the Internet or the paper form differed by the mailing methodology used in the April 2011 ACS Internet Test. Choice respondents chose their respective reporting mode because they preferred it or considered it convenient or easy.

While a good number of Push respondents also chose their mode for those positive reasons, a significant number chose their mode because the other mode was not "available" to them.

- Internet reporters who initially had an explicit mode choice reported that they chose the Internet because it was easy moreso than Internet reporters who were encouraged to respond online in the Push conditions. A higher percentage of Internet reporters in the Push conditions, on the other hand, did not realize there was a paper form option available. The fact that there was no paper form in the initial mailing was also a reason why some respondents in the Push conditions used the Web.
- A notable finding is that many Push mail respondents who knew about the Internet option considered it and were physically prevented from responding online because they did not have Internet access or because they had computer problems. This was not the case with the Choice mail respondents. The Choice mail respondents chose the paper form because it was convenient.

Overall, about 75 percent of 795 nonrespondents in the study provided one of these five reasons for not responding to the ACS: "did not receive the envelope," "did not open the envelope," "opened the envelope but did not know about either a paper form or an Internet survey," "was too busy," or "reported completing the survey."

None of these reasons pertained to the mode choice offered within the notification strategies. In fact, mode choice in the April 2011 ACS Internet Test was not a reason cited for not responding to the ACS. These ABS data compliment the response rate data from the actual test, which did not find reduced response rates with the conditions that offered multiple modes (Tancreto et al., 2012).

It should be mentioned, however, that a handful of nonrespondents reported that they could not report online and did not realize there was a paper option. Additionally, proportionally more nonrespondents in the push panel reported not receiving the envelope compared to the nonrespondents in the choice panels. These findings suggest that the lighter weight initial mailing package used in the push methodology (because there was no paper form) could be a reason for some nonresponse. However, these results are contradictory to the quantitative data that showed the push methodology increased self-response over the control. Perhaps while the push methodology overall encourages more self-response, there are some for whom this methodology will discourage response.

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Disclaimer

This paper is released to inform interested parties of research and to encourage discussion. The views presented here are those of the author and not necessarily those of the U.S. Census Bureau.

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