

“Carrot” or “Stick” Approach to Reminder Cards: What Do Cognitive Respondents Think?

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Abstract

Reminder cards and replacement questionnaire packages might increase mail response rates at relatively low cost. An added mailing might be especially useful in the American Community Survey. It uses three successive modes of contact to raise response rates which become increasingly more expensive: mailout questionnaires, telephone interviews, and personal visit interviews. The U.S. Census Bureau is conducting research to assess whether sending an added mailing to mail nonresponders for whom we lack phone numbers—who bypass the telephone phase and fall into the most expensive personal visit pool—might increase mail response rates enough to offset the extra cost. Which motivational message works best as a third reminder mailing in this survey: a friendly message appealing to respondents’ sense of civic engagement (the “carrot” approach) or a stern message saying “You are required by U.S. law (Title 13, U.S. Code) to respond to this survey” and “a representative may come to do a personal visit if the completed form is not received” (the “stick” approach)? This paper presents findings from cognitive testing in which respondents were given, one at a time, a carrot approach reminder card, a stick approach reminder card, and a replacement questionnaire package with a mostly carrot approach cover letter. Respondents were asked to rank them by personal preference and likeliness to respond. Results show that the stick approach elicits very strong reactions; many said they would complete and send immediately, but others would refuse to participate at all. Is the stick approach too risky? One method will advance to a split-panel test. The paper weighs the pros and cons of the stick and carrot approaches and also suggests the possibility that strong messages may produce ordering effects in cognitive interviews.

Key Words: American Community Survey, reminder cards, mandatory appeals, benefits appeals, cognitive testing

1. Introduction

Might additional reminder cards and replacement questionnaires targeted to a specific nonresponder type increase mail response rates enough to justify the extra cost? If so, an added mailing might be especially useful in the American Community Survey (ACS), a rolling federal survey that starts a new panel of 250,000 household addresses monthly. The ACS uses three successive contact modes over the three-month collection period which become increasingly more expensive: mailout questionnaires, telephone interviews, and personal interviews with about one-third of nonresponders.

One set of ACS mail nonresponders goes directly from the least expensive mail mode to the most expensive personal visit mode: mail nonresponders for whom we lack phone numbers. This set has an estimated 45,000 households (18 percent of the monthly sample). The U.S. Census Bureau is conducting research to assess whether targeting an additional reminder card or replacement questionnaire to these ACS mail nonresponders—who bypass the phone phase altogether—will potentially increase mail response rates, decrease costs, and improve data quality by including a larger proportion of households in the dataset. The methodology includes cognitive testing of new mailing materials and, pending funding, a 2009 split-panel test in a live ACS production panel of mail nonresponders for whom we have no phone number. Using one month of production data, the sample of mail nonresponders for whom we lack phone numbers will be split into thirds: 15,000 housing units will receive a new additional reminder card, 15,000 will receive a second replacement questionnaire and cover letter, and the remainder will receive no additional mailing (John Chesnut, personal communication).

Which type of message should we use in a new targeted reminder card? The Census Bureau has used two types of motivational messages. The first is a friendly message documenting positive benefits of the survey and appealing to the respondents’ sense of civic engagement. Altruistic messages were suggested for the census by former Census Bureau Director Ken Prewitt, according to Dan Cork at a meeting of the National Academy of Sciences Panel on Design of the 2010 Census Program of Evaluations and Experimentation (Cork, July 16, 2007). The “carrot” approach is the model for the Bureau’s Integrated Communication Plan for the 2010 Census.

The second approach is more formal and stern; it informs respondents that they are required by law to respond and may imply or state that some action will follow if the completed form is not received soon. We call this the “stick” approach.

This paper presents results from the cognitive testing research phase. We developed and tested two new reminder cards—one using the carrot approach, the other, the stick approach—and a new replacement questionnaire mailing package cover letter combining elements of both. We compare cognitive respondents’ reactions to the three materials and their rankings in terms of personal likeliness to respond.

We start by summarizing past research on this topic and identifying key statements in the three messages. We then describe the research methods and how comments and rankings of personal likeliness to respond were elicited from respondents. Then we show respondents’ rankings of the three materials and present their comments on each one that reveal the pros and cons of the approaches and postcard

versus replacement questionnaire formats. We discuss decisions made on which card to use and what changes have been made to the new ACS materials. We then present unexpected findings on ordering effects and discuss wider implications for survey methodology (for additional results from this cognitive testing project, see Schwede 2008).

Previous Research

The decennial census and the ACS are among a number of U.S. population data collections that require response. While some Census Bureau establishment surveys are mandatory, testing of those messages has not yet been done (Diane Willimack, personal communication). Two large-scale experiments are relevant to this study. In the first, Don Dillman and associates tested whether “benefits appeals” and “mandatory appeals” analogous to our carrot and stick approaches would raise mail completion rates of questionnaires containing the content of the 1990 decennial census short form (Dillman, Clark and Treat 1994; Dillman, Singer, Clark and Treat 1996; with summary in Dillman 2007). Underlying this test is Dillman’s use of social exchange theory, first published in his 1978 book, asserting that “the respondent is more likely to respond if she or he believes that in the long run the anticipated benefits of responding outweigh the costs” (Dillman, Singer, Clark and Treat 1996: 378). In this experiment, the benefits and mandatory messages were tested in two places in the questionnaire mailing—as short messages printed on the front of the questionnaire mailing package envelope and as longer messages on a package insert. The mandatory message raised mail completion rates a statistically significant 9 to 11 percent. The short mandatory message on the envelope, “Your response is required by law: U.S. Census Form Enclosed,” raised rates by 8.4 to 9.2 percent; the insert was not needed. In contrast, the benefits message, “It Pays to Be Counted in the Census,” did not result in a statistically significant increase in the mail completion rate for either the envelope or insert. Interestingly, this outcome is inconsistent with findings from focus groups done before the experiments to test message wording. Focus group participants were nearly unanimous in choosing the “benefits appeals” approach over the mandatory appeals approach (Dillman, Singer, Clark, and Treat 1996). Dillman cites prior reviews by Linsky (1975) and Childers, Pride, and Ferrell (1980) of studies testing associations of appeals for social utility (helping the population of which the respondent is a member) and other appeals for help on response rates. No study covered in those reviews showed statistically significant associations between social utility or other help appeals and response rates.

The ACS Voluntary Test tested voluntary and mandatory ACS messages, as part of a study requested by Congress to assess any impact on mail cooperation rates of changing the ACS from a mandatory to a voluntary survey. The researchers’ first report showed that a change from mandatory methods in 2002 and 2003 to voluntary methods in the experiment gave a statistically significant mail response rate decline of almost 21 percent nationally (US Census Bureau 2003). In the second, they tested experimental and current mandatory and voluntary messages. A more direct voluntary message produced a further decline of 4 percent, while the use of new mandatory materials and a more user-friendly form gave just under a two percent statistically significant increase (US Census Bureau 2004).

The Three ACS Messages Tested

The ACS mailings include a pre-notice letter, questionnaire package, reminder card, and second questionnaire package. We developed two reminder cards and one cover letter to follow these materials to mail nonresponder households for whom we lack phone numbers for the split-panel test. We printed the postcards on larger-than-usual 5 ½ by 8 ½ inch green cardstock to make them more noticeable in a stack of mail. The letter was on standard white paper and included with the form and other materials in a 6 by 11 ½ inch envelope.

These materials are shown in Figures 1 to 3 at the end; we summarize them here. All begin with the statement: “Within the last few weeks, the U.S. Census Bureau mailed American Community Survey questionnaire packages to your address twice.” They each thank the respondent if he/she has already sent it (although the language varies), and all say, “If you have not, please complete one and send it now.” All include the same confidentiality statement, toll-free help number, agency logo and Census Bureau Director’s signature.

The carrot approach on the first postcard has four distinct features. First, the sentence showing appreciation if the respondent has already sent in the form thanks the respondent very much. Second, the key bolded sentence tells respondents their answers are important: **“Your response is critically important to your local community and to your country.”**

The third feature aims to stimulate teamwork and civic engagement in community institution-building: “By answering these questions, you help provide local and national leaders with the information they need for planning schools, hospitals, and other community services.” The fourth feature mentions program benefits: “The information is also used to develop programs to reduce traffic congestion, provide job training, and plan for the healthcare needs of the elderly.” The carrot does not mention consequences if the form is not sent.

The stick postcard was designed to be formal and stern, with three different features. First, the key bolded message is about the survey’s mandatory nature, **“You are required by U.S. law (Title 13, United States Code) to respond to this survey.”** Second, it has the more clipped “thank you.” The third stick feature is an announcement of possible consequences if the form is not returned: “If you do not send your completed questionnaire back, a Census Bureau representative may contact you by personal visit to complete the survey.”

The new replacement package cover letter combines elements of both. The letter includes the four carrot features and all of the carrot card wording. It includes a new carrot-type motivational sentence from the Census Bureau director as the second sentence, “I asked you

to help us with this very important survey by completing a questionnaire and mailing it back but we have not received one yet.” It includes the mandatory stick feature, but in toned-down, non-boldfaced text, “You are required by U.S. law to respond to this survey.” This message is embedded in the fourth paragraph, compared to the stick’s first paragraph. It does not cite Title 13. The letter also includes the stick message of consequences if the form is not received, but in carrot-like language, “This survey is so important that a Census Bureau representative may contact you by personal visit if we do not receive your completed questionnaire.” The letter also states that the household was chosen by address, not by name, in a random sample. It mentions the enclosed questionnaire and brochure.

Methods

We aimed to recruit cognitive respondents at risk of falling into the category of mailout nonresponders for whom we lacked phone numbers—the target population for these added mailings. We used the 2006 ACS dataset to identify characteristics of such personal visit-phase households and persons that fall in this category, finding that our target population had disproportionately higher concentrations of renters, movers, people in multi-unit structures, crowded households, and households on public assistance, those with no telephone service and Spanish-speaking households. We recruited from our existing respondent database and from special craigslist.org postings.

Fifteen taped cognitive interviews were conducted in the Washington, DC area in our lab or at places convenient to respondents in Fall, 2007. Our sample, comprised of non-Hispanic whites and African Americans, had renters, those in multi-unit structures, households on public assistance or disability, and those with no landline phone. Respondents ranged from low to high in education and income.

We will use the replacement questionnaire package with cover letter and just one postcard approach in the split-panel test. To maximize our chances to test the two cards against each other and to try to avoid ordering effects on personal likeliness to respond, we varied the order of the postcards, with the stick card first in seven interviews and the carrot first in the other eight. We say more on this later.

We gave respondents the sequence of ACS mailing materials that would come to their addresses prior to the experimental mailing (pre-notice letter, questionnaire package, reminder card and second questionnaire package) and then gave experimental versions. We asked them to read the first experimental one, then used general probes to elicit their first reaction, assess comprehension, and learn if anything stood out or raised questions before going to the next form. After the second version, We asked them to rank the two in terms of which he/she liked better, which would be more likely to influence him/her personally to respond, and which would be more likely to influence people in general. (In most cases, the answers were the same, so we present results here in terms of one variable: personal likeliness to respond.) We then gave them the letter, used the same probes, and asked them to rank all three by personal likeliness to respond. We asked specific probes on key experimental features: 1) the carrot’s paragraph on civic engagement and benefits, 2) the stick’s sentences on “required by law” and possible Census Bureau representative personal visits if the completed form were not received, 3) and the letter’s modified mandatory and personal visit statements. These comments identified wording problems in key features of each version.

Results

In summary, three versions were tested: 1) the carrot postcard with its friendly, supportive message, appealing to people’s sense of altruism and civic responsibility, 2) the stick postcard with its stern message, “Your response is required by law (Title 13, US Code),” and the possibility of having a Census Bureau representative visit their home if the form were not received soon, and 3) the letter combining these elements and softening the stick message. There were clear differences in the rankings.

Table 1: Respondent rankings of personal likeliness to respond by approach

<i>Form Type</i>	<i>Most preferred</i>	<i>Middle</i>	<i>Least preferred</i>
Stick postcard	7	-	8
Carrot postcard	2	12	1
Letter	6	3	6

Table 1 shows polarized rankings for the stick card in personal likelihood to respond: seven respondents rated it highest and eight lowest, with no one in the middle. The seven ranking it first fell into two groups, based on their reactions. In the first group, three gave analytical responses about the key features of the message. One said, “This gets right to the point. It’s required by law, title, and code; that’s very important. I have to take care of it right away. This other one [carrot card], I’d probably overlook it.” Another said,

“This is more threatening [than the carrot] in a sense. The bolded part, legally with Title 13, we have to respond. For a lot of people, just invoking authority, you think, oh my gosh, Title 13, does that mean I go to jail? People would not necessarily know the consequences. That [the stick] is more effective in getting people to respond at this point after repeated contacts, if they didn’t do it. I think it would be more effective in getting people to respond. This is the next step in the process if you don’t comply, then we’ll come and visit you. They don’t make any bones about it.”

In the second group, the remaining four gave more emotional responses along the lines of “The government is coming to get me; I’d better do it immediately to keep them from coming to my house.” One man with a marketing background said about the stick card:

“I really like it. This will get a response: You are required by law. The [carrot] won’t get as much attention; you’re relying on my sense of civic duty. The other, you’re telling me it’s my civic duty. There’s a heck of a lot of difference between responding to what you have to do and your sense of civility. This one is the motivator; you’ll definitely get your response quicker. Keep them from coming. I will do it right then and there. Keep anyone from knocking.”

Another man said the stick would influence him to respond quickly, but didn’t say he liked the stick as the previous man had:

“I have to take care of it right away...to prevent someone from coming out; I don’t like talking to strangers. I don’t want someone sitting and looking at me while I’m filling out all this information. I wouldn’t feel comfortable. Most people, if they are on welfare or something, don’t want people to come and find out how many people live there.”

The eight who ranked the stick card lowest fell into 2 general categories. One highly educated woman made an analytical statement: “Punishment doesn’t work for me, maybe for someone else, but not for me. I have mixed feelings. I’d double check first (on the web or with my lawyer). If it is true, of course I will do it. If it is not, I’d ignore it.”

The second category of those ranking the stick lowest consisted of 6 people who had an emotional reaction; they said they found the stick message threatening, intimidating, or scary and they felt annoyed, offended or angry. Two said this message angered them to the point that if they hadn’t already sent in their census forms, they would refuse to do the ACS at all. One man compared the two:

You need to tear this [stick] one up. This is going to make people angry. This one made me upset, and you’re going to threaten me, and this is required by law, yeah, this one is trash. This other one [carrot] is perfect. It lets you know your response is critically important. It’s worded much better. My blood pressure just went down a lot! This one (the stick). How can you make me do something? What are you going to do, lock me up? It’s like a probation officer or a bounty hunter or policeman or person from the army is coming.”

These results show that the stick approach sometimes struck a nerve. The sentence eliciting visceral reactions was the bolded message, “**You are required by U.S. law (Title 13, United States Code) to respond to this survey.**” The bolded text, the explicit citing of Title 13, US Code, and the implicit threat of a personal visit by a Census Bureau representative contributed to the strong reactions. The direct active voice sentence construction, “You are required by law...” might also have been a factor.

Five reacted so strongly to the bolded message that they stopped reading the card right there to voice their opinions. As a result, they did not notice the sentence about a personal visit until we specifically read it to them and probed on it. Two of these ranked the stick the highest and three as the lowest in personal likeliness to respond. Several raised confidentiality and privacy concerns about having a representative do a personal visit interview. They would be more likely to complete the mail form to avoid a home visit and giving information to a stranger. One who chose the stick as most influential said, “As a result of seeing that personal visit part, I would want to get this into the mail as soon as possible. I’m saying my information or answers or opinion that I share are confidential.”

In contrast, the carrot postcard got a calm reaction. Most said it was a nice message that drew them in and mentioned important programs. After reading it, most said they would be more likely to complete the form. But when it was time to rank the three messages in personal likeliness to respond, just two ranked it highest. One said, “I like this [carrot] better because it’s more compact, simple, to the point. I could move on. It’s more convenient. Everything is here and it’s easy to see. It...doesn’t take much time.”

Twelve of the 13 others ranked it second. Some said the letter did not differ much from earlier mailings. Most liked the message. Some said what resonated was the mention of specific services personally important to them. One commented on the carrot (and letter),

“It’s important that you do this. It helps a lot of people. This is confidential. It has a lot to do with programs. Roads, healthcare is very important. What stood out is ‘your response is critically important.’ This is very well emphasized. I appreciate how this is worded—it’s actually making me a part of this. Again, my response is critical. So I really need to sit down and address this right away.”

The person who ranked the carrot card lowest may have responded to seeing the same key wording on both the carrot and letter:

“It’s hard to pick the second; neither one is great. Not a lot there for me to worry about or think about. Talking about schools and services is not new—you keep saying that. [He picks the letter as second, leaving the carrot card last.]

Our third form, the letter, got a more balanced ranking. Six ranked it highest, three placed it in the middle, and six put it last. Among those ranking the letter highest, one said, “This is asking for help. It is showing appreciation. They really thank me for doing it and how it can help the community. The letter is more inviting than [the carrot card]. It shows concern for the community.”

Three others who ranked the letter highest noted the letter's confidentiality statement (the same wording is in all three). One said, "What stuck out? It's confidential. You don't have to worry about others getting the information. On the other one [carrot] they didn't say it was confidential. It made me feel more safe about giving my information." Another said he liked the letter package because "they have everything together" in the envelope. In contrast, another who liked the letter best had the opposite reaction: "Don't send me the second survey. Let me go online...Please don't waste my taxpayer dollars. I work too hard—we contribute too much already."

The large size of the package was mentioned as a negative by several of the six who ranked the letter least preferable. One preferred a compact version and another said, "The letter is last. It's another big envelope: the last thing you want to see is another package." Another who ranked the letter lowest expressed her opinion on the carrot and stick approaches:

The letter would not move me. Thank you "very much." "Please..." It's not stern, it's soft. My response won't make that much of a difference. There's a disjuncture between perceived services and link to community [she doesn't see link in her community]. Unless the letter says you'll be jailed and fined up to x amount of dollars, my life comes first. Consequences move the majority of people. Sometimes doing the right thing doesn't reign supreme these days."

This woman and three others suggested that we'd do better if we combined the mandatory message of the stick approach and the "Your response is critically important" part of the carrot approach. One of these who had ranked the stick highest suggested,

"To get it to work and save paper, put this 'you're required' right after the first sentence, then say 'critically important', then we'd really like you to respond. Then put all of these into the letter. Combine 'you have to' with 'please.' Tell them it's legal and also appeal to civic duty and humanity. We really need your help and it's important not just for you but for your community. The double whammy. Get all three in one package."

Summary and Implications of the Findings

In sum, the stick postcard elicited strong reactions in many respondents: seven ranked it highest in personal likelihood to respond and thought it would push people to respond quickly, but eight ranked it lowest, with no one in the middle. The bolded mandatory message "You are required by U.S. law (Title 13, US Code) to respond to this survey" got strong reactions from most, even some who ranked it highest in personal likelihood to respond; people used adjectives such as threatening, intimidating, scary and offensive. Two said they would be so offended they would not respond at all. One warned that while he personally thought this would be the most influential, it would backfire with people in some cultures, including Hawaiians.³ Going with the stick approach as tested could risk annoying or offending some respondents, maybe counteracting gains we might make with people who would "get on the stick" and send it fast.

The carrot postcard elicited very different reactions. Most respondents liked the friendly, altruistic approach and said they would be more likely to complete a form after getting it. No one was offended. But only two ranked it highest, one lowest, and the rest were in the middle. Some said this message would not do anything for them and they might not feel the need to respond quickly, or at all. Would the carrot approach raise response rates enough to justify the added costs?

The cover letter combining both approaches got a more balanced reaction than the stick and at a lower decibel level; six each ranked it highest and lowest, with three in the middle. The emotional reactions were muted here. This may be because the mandatory letter message "You are required by US law to respond to this survey" 1) was not boldfaced, 2) was embedded in the fourth paragraph, not the first, and 3) did not include the Title 13 reference. But it could also be that having already seen and reacted to the stronger mandatory message on the stick card, respondents were desensitized to this message in the letter. The next letter sentence on the Bureau's reciprocal requirement to keep data confidential may also have dampened reaction to the respondent's requirement to respond.

5.1 The postcard

Based on these findings, we revised our materials. As noted, the size of our future sample limits us to just one postcard in the split-panel test. We accepted our respondents' suggestion to combine the stick and carrot messages in the new reminder postcard, as shown here.

³ A recent cognitive study of mandatory ACS messages with English, Spanish, Chinese, Korean, and Russian respondents in those languages confirms this respondent's opinion that the directness of the mandatory message may result in culturally inappropriate, strong messages in some cultures. Pan, Landreth, Schoua-Glusberg, Hindsdale and Park (2007) conducted 112 cognitive interviews with mandatory messages translated word-for-word in five languages: English, Spanish, Chinese, Korean and Russian. The mandatory message was similar, but not identical to the one tested here in English: "You are required by U.S. law to respond to this survey (Title 13, United States Code, Sections 141, 193 and 221). The directness of the message resulted in inappropriately strong messages for the Chinese and Korean respondents. Explicit references to Title 13 were interpreted as threatening, as in our study.

1. We retained the wording and boldfacing of “You are required by US law to respond to this survey,” but deleted the citation to Title 13 of the U.S. code, as some respondents reacted very strongly to it. This remains as the second sentence of the first paragraph.
2. We moved the confidentiality statement immediately after the statement listed above to help balance the respondents’ mandatory message by stating that the Census Bureau has reciprocal mandatory requirements: to protect confidentiality.
3. We added in bold to paragraph 2, sentence 1, “Your response is critically important to your local community and to your country.”
4. We followed this with the followup personal visit interview sentence, substituting “interviewer” for “representative”: “If you do not send your completed questionnaire back, a Census Bureau interviewer may contact you by personal visit to complete the survey.”
5. We added a phone option, “If you would like to complete the survey by telephone or need assistance, please call...”

5.2 The Letter

1) We replaced the last line of the tested version with, “If you would like to complete the survey by telephone or need assistance, please call our toll-free number (1-800-354-7271). You can also use the enclosed guide if you need help filling out the questionnaire.”

2) As in postcard change 4 above, we substituted “interviewer” for “representative”: “This survey is so important that a Census Bureau interviewer may contact you by personal visit if we do not receive your completed questionnaire.”

These cognitive testing results on the performance of carrot and stick approaches designed to raise ACS response rates may be of use in the decennial census. They may also be of use in other mandatory surveys of the Census Bureau and other government agencies.

Wider Issues for Survey Methodology

We had an additional, unexpected finding of more general interest to survey methodologists. It is clear from the respondents’ reactions that the stick postcard often elicited strong feelings. Earlier we mentioned that we randomized the postcard order to mitigate ordering effects, but always tested the letter last. Might the ordering of the stick and carrot cards as either first or second piece have an effect on respondents’ rankings after seeing all three messages, when one elicited such strong feelings? Tables 2 to 4 show the rankings of the 15 cases by whether the carrot or the stick card was presented first in the interview. The small numbers of non-random cases mean that these findings are tentative. For the carrot approach in Table 2, we see just slight middle-of-the-road differences in the two groups.

Table 2: Rank of the carrot approach in personal likeliness to respond by order of postcards

<i>Form Type</i>	<i>Most preferred</i>	<i>Middle</i>	<i>Least preferred</i>
Carrot first	1	7	-
Stick first	1	5	1

Table 3: Rank of the stick approach in personal likeliness to respond by order of postcards

<i>Form Type</i>	<i>Most preferred</i>	<i>Middle</i>	<i>Least preferred</i>
Carrot first	5	-	3
Stick first	2	-	5

Table 4: Rank of the letter in personal likeliness to respond by order of postcards

<i>Form Type</i>	<i>Most preferred</i>	<i>Middle</i>	<i>Least preferred</i>
Carrot first	2	1	5
Stick first	4	2	1

In Table 3, we do see clear ranking differences for the stick card. When the carrot card was given first, five ranked the stick card highest and three the lowest. In contrast, when the stick card was given first, the rankings invert; just two ranked the stick highest while five rated it lowest. Table 4 shows letter results. When the carrot card was given first, the letter was rated highest by two and lowest by five, with one in the middle. The numbers flipped with the stick card first: four rated it highest and one lowest, with two in the middle.

These results suggest that ordering effects may have occurred, probably due to the strong reactions to the stick card. Of the seven who got the stick first, the majority (four) ranked the more neutral letter highest. In contrast, of the eight who got the carrot first, the majority (five) ranked the stick highest. This interaction is only suggestive due to the small number of non-random cases. We wish that

we 1) had randomized all three, not just the two postcards, and 2) had enough cases for a statistical comparison. We suggest more systematic exploration of possible ordering effects when messages may elicit strong respondent reactions as a topic for future research.

Acknowledgments

This draft report is released to inform interested parties of ongoing research and to encourage discussion of work in progress. The author thanks Theresa DeMaio, Jennifer Guarino Tancreto, John Chesnut, Debra Klein, and Mary Davis for helpful comments on earlier drafts.

References

Childers, T.L, Pride, W.M. and Ferrell, O.C. 1980. "A Reassessment of the Effects of Appeals on Response to Mail Surveys." *Journal of Marketing Research* vol. XVII, 365-70.

Dillman, D. A. 2007. *Mail and Internet Surveys: The Tailored Design Methods*. Second edition. Hoboken, N.J: Wiley & Sons.

Dillman, D.A. 1978. *Mail and Telephone Surveys: the Total Design Method*. New York: Wiley-Interscience.

Dillman, D.A., Clark, J.R., and Treat, J. B. 1994. Influence of 13 Design Features on Completion Rates to Decennial Census Questionnaires. *Proceedings of the 1994 Annual Research Conference and CASIC Technologies Interchange*.

Dillman, D. A., Singer, E., Clark, J. and Treat, J. 1996. Effects of Benefits Appeals, Mandatory Appeals, and Variations in Statements of Confidentiality on Completion Rates for Census Questionnaires, in *Public Opinion Quarterly*, Volume 60: 376-389.

Linsky, A.S. 1975. "Stimulating Response to Mailed Questionnaires: a Review." *Public Opinion Quarterly* 39:82-101.

Pan, Y., Landreth, A., Schoua-Glusberg, A., Hindsdale, M., and Park, H. 2007. Effects of Language and Culture on Interpretation of Translated "Confidentiality" and "Mandatory" Survey Messages. Presentation given at the Federal Committee on Statistical Methodology Research Conference in Arlington, VA. November 5-7, 2007.

Schwede, L. 2008. Final Report on Cognitive Testing of Reminder Cards and a Revised Replacement Questionnaire Package Cover Letter: The American Community Survey Additional Mailing Project. Available at <http://www.census.gov/srd/www/byname.html>

U.S. Census Bureau. 2003. Meeting 21st Century Demographic Data Needs—Implementing the American Community Survey. Report 3: Testing the Use of Voluntary Methods. Washington DC. December, 2003.

U.S. Census Bureau. 2004. Meeting 21st Century Demographic Data Needs—Implementing the American Community Survey. Report 11: Testing U.S. Census Bureau. 2004. Meeting 21st Century Demographic Data Needs—Implementing the American Community Survey. Report 11: Testing Voluntary Methods - Additional Results. Washington DC: U.S. Census Bureau, December.

Figure 1: The Carrot Card on green cardstock (actual test size: 5 ½ by 8 ½ inches)

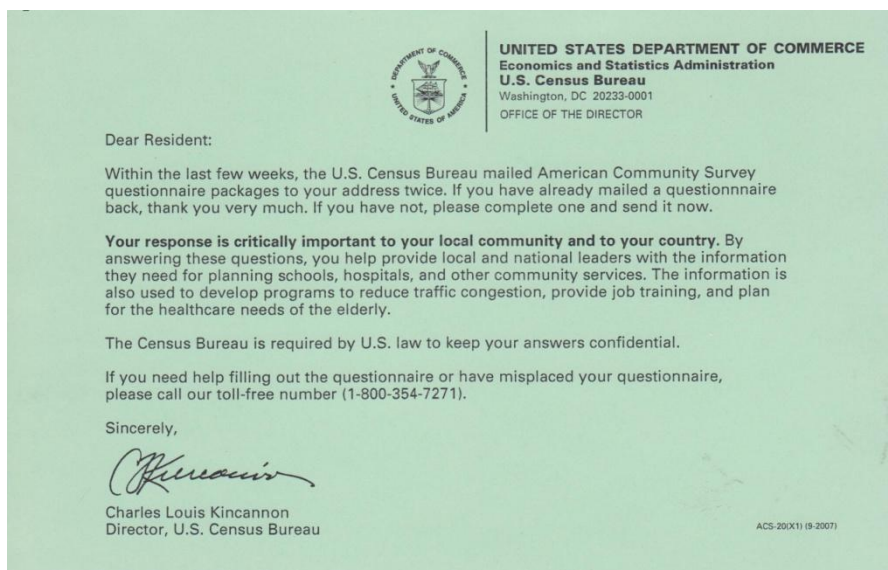


Figure 2: The Stick Postcard on green cardstock (actual test size: 5 ½ by 8 ½ inches)

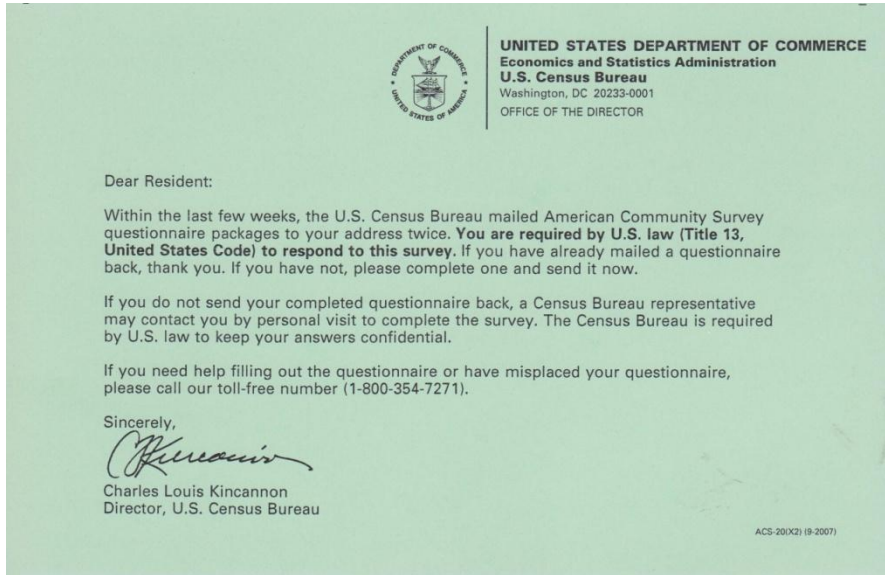


Figure 3: The Letter on white paper (actual test size 8 ½ by 11 inches)

