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Cognitive Pretesting of the 2017 American Community Survey Mail Design Test: Full Redesign Materials

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Abstract

In preparation for a planned 2017 American Community Survey (ACS) Mail Design Test of revisions to the mailing materials used to elicit survey responses, the Census Bureau's Center for Survey Measurement (CSM) provided an expert review of the proposed mail materials and then, after incorporation of comments from the expert review, conducted cognitive testing of the modified ACS mail materials (hereafter referred to as the Full Redesign). This report summarizes the results and recommendations from cognitive pretesting the 2017 Full Redesign materials. Based on cognitive interviews with 25 respondents representing diverse demographic characteristics, CSM recommended several minor modifications to the Full Redesign materials to improve respondent comprehension and liking. Recommendations included decluttering the return address section of the envelopes, adding a thank you to households that have already responded in a reminder postcard that is sent to all sample units, specifying the statutory authority that makes responding to the survey a legal obligation, and moving a sentence many respondents liked from a later mailing to an earlier mailing.

Keywords: cognitive interviewing; qualitative analysis; American Community Survey; 2017 American Community Survey Mail Design Test; mail materials; respondent recruitment

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EXECUTIVE SUMMARY

Recently, survey expert Dr. Donald Dillman made recommendations for revisions of the American Community Survey (ACS) mail materials. In his recommendations, Dr. Dillman advised the U.S. Census Bureau to put greater emphasis in the mailings on the benefits to respondents, to make each mail piece more distinct and reduce repetition, and to make it clear that the source of the request is the Census Bureau (Dillman, 2016). In preparation for a planned 2017 ACS Mail Design Test of these recommendations, the Census Bureau's Center for Survey Measurement (CSM) first provided an expert review of the proposed mail materials and then, after incorporation of comments from the expert review, conducted cognitive testing of the modified ACS mail materials (hereafter referred to as the Full Redesign). This report summarizes the results and recommendations from cognitive pretesting the 2017 Full Redesign materials.

Methodology

The expert review of the Full Redesign mailing materials was completed in September 2016 by five staff members who conducted independent reviews of the materials followed by two consensus meetings. The cognitive testing was conducted between November 2016 and January 2017 with a total of 25 participants. All participants viewed and responded to the same set of five mailings using the same interviewing protocol.

Each participant completed a face-to-face interview with a trained cognitive interviewer from the CSM staff. The cognitive interviews lasted approximately one hour and took place either at the Census Bureau headquarters in Suitland, MD or at a convenient location in the D.C. metropolitan area. The protocol followed a sequence of presenting each mail package in the order it would be received by sampled households. The protocol included scripted probes for the interviewers to administer and behavioral observations to be recorded. Interviewers also asked emergent probes as prompted by the participant's comments.

Research Questions and Results

This report answers three research questions. The first two reflect the design goals recommended by Dr. Dillman, while the third represents a general objective of cognitive pretesting:

1. Do respondents notice the progressive tone and the unique content of the mail materials?

Without prompting by the interviewers, multiple respondents did notice and comment on a progression in the tone of the mail pieces, with the first two letters being perceived as notably polite and friendly and with the postcard and final envelope standing out as especially firm and potentially threatening. However, respondents did not seem to perceive the content of the mailings as particularly distinct. When asked about differences between the mail pieces, a number of respondents commented that the content was repetitive or just rephrased the same ideas. A few differences, such as the job training data use (mentioned in the letter enclosed with the questionnaire package) or the notification (mentioned in the reminder postcard) that nonresponse would result in contact from an interviewer, stood out to respondents. But, for the most part, respondents seemed to perceive the mailings as being similar in content but more insistent in tone.

2. Do respondents perceive the benefits messages in the letters to be compelling?

Although respondents tended not to perceive the content of the mailings as being unique (including the various benefits statements), they nevertheless indicated that the benefits to their community and the country mentioned in the mail materials were important and motivating.

3. Do respondents identify any recurrent questions or concerns about the mail materials?

A number of overarching questions and concerns emerged across mail pieces. Many of these are addressed in the report recommendations that follow, while others are simply presented for consideration. Key questions and concerns included the feeling that the envelopes were too busy and contained confusing text, skepticism about the legitimacy of the mandatory nature of the survey request, and questions about the deadline for responding and corresponding uncertainty about the urgency of the request.

Recommendations

This report presents the following recommendations:

- **Envelopes:** Restructure the required text on the envelope so that it is not all on the left hand side or does not appear as a single block of text.
- **Initial Letter:** Add the phrase "(Title 13, United States Code)" to the end of the sentence explaining that the survey is required by law ("Your response is required by law.").
- **First Reminder Letter:** Remove the current mandatory sentence ("Your response is critically important to your local community and your country and is required by law (Title 13, United States Code).") from this letter and replace it with the sentence from the second reminder letter (ACS-23(LX)DTR) "Just as people are required to respond to jury duty, get a driver's license in order to drive, pay their taxes and report their income, they also have the obligation to respond to this census survey."
- **Reminder Postcard:** Include a sentence thanking the respondent if they have already completed the questionnaire.
- **Second Reminder Letter:** As a result of the suggested change to the first reminder letter, replace the current mandatory sentence in this letter with the sentence from ACS-20(LX)DTR ("Your response is critically important to your local community and your country and is required by law (Title 13, United States Code).") to avoid repetition.

1 INTRODUCTION

In an era of declining response rates (e.g., Atrostic, Bates, Burt, & Silberstein, 2001; Brick & Williams, 2013), it is increasingly important for federal statistical agencies to design effective mail materials that facilitate self-response. To that end, the American Community Survey Office (ACSO) recently partnered with a communications and marketing firm (Team Reingold) and then subsequently with preeminent survey expert (Dr. Donald Dillman) to evaluate the ACS mailing strategy and to identify improvements that would optimize self-response. Some of the recommendations from Team Reingold and Dr. Dillman have already been tested and incorporated into American Community Survey (ACS) production procedures (Barth et al., 2016; Clark & Roberts, 2016; Heimel, Barth, & Rabe, 2016; Oliver, Risley, & Roberts, 2016), while others remain to be evaluated in future mail strategy tests. The Full Redesign mail materials evaluated in this report are a product of this ongoing research effort and were experimentally evaluated in the 2017 Mail Design Test conducted in August 2017 (Oliver, Longsine, Schriener, & Rabe, 2018).

2 LITERATURE REVIEW

2.1 Mailing Materials, Reingold Study

Between October 2013 and November 2014, Team Reingold conducted extensive qualitative research with the goal of identifying messages and designs of the ACS mail materials that would increase self-response rates (Walker, 2015). Although the findings and recommendations from this research were numerous, several key messaging themes emerged:

- people recognize the Census Bureau but not the ACS,
- hesitance to respond to the ACS often centers around distrust of the government or uncertainty about why the information is needed,
- messages about benefits to the community are perceived to be especially appealing, and
- messages about the mandatory nature of the ACS are more effective and influential than altruistic messages.

Following from the above themes, Team Reingold recommended a number of modifications to the standard ACS mailing materials that were designed to address concerns and increase motivation to respond. For example, it was suggested that the ACS mailing materials be rebranded to emphasize the affiliation with the U.S. Census Bureau, which is more recognizable to and trusted by potential respondents than the ACS. Team Reingold also recommended highlighting the official and mandatory nature of the survey request by continuing to use official-looking mail designs (as opposed to designs that might be more visually interesting but could inadvertently indicate a commercial source), using callout boxes and bolding to highlight important text, using deadline-oriented messaging to increase urgency, streamlining mailings with fewer pieces and less text when possible, and including messages that emphasize community benefits. A number of these recommendations have since been tested by the ACSO in mail tests (Barth et al., 2016; Clark & Roberts, 2016; Heimel, Barth, & Rabe, 2016; Oliver, Risley, & Roberts, 2016) and, when indicated, incorporated into production procedures.

2.2 Dillman on Respondent Contact Strategies

In the summer of 2016, preeminent survey design expert Dr. Donald Dillman provided additional evaluation and recommendations to the ACSO with regard to mailing materials and mail strategy. In general, his suggestions are in harmony with the Team Reingold findings, although Dr. Dillman placed special emphasis on the social exchange model of survey communication. In a recent presentation, Dr. Dillman (2016) urged the ACSO to evaluate all design decisions within the framework of emphasizing benefits to the respondent while minimizing the costs of responding (social exchange) and to treat multiple communications with potential respondents like a conversation (avoiding repetition and superfluous content and observing social norms of politeness, respect, and form-specific conventions).

Specific design decisions recommended by Dr. Dillman were incorporated into the Full Redesign mail materials that were evaluated for this report. These included modifying the envelopes and reducing the total number of mail pieces by eliminating superfluous inserts, identifying the source of the survey request as the U.S. Census Bureau, indicating why response to the survey is mandatory, making use of the first page of the paper questionnaire to explain the task and encouraging response, explaining why the internet response option is emphasized in initial mailings, and continuing to avoid designs that look like marketing in favor of a more official look.

2.3 American Community Survey Respondents

In order to properly evaluate the design changes to the ACS mail materials, the Center for Survey Measurement (CSM) also sought to understand the characteristics of the individuals receiving and responding to the mail materials. This information was crucial to the recruitment plan for cognitive testing (see section 3.3.1).

2.3.1 Respondent Demographics by Mode

The ACS has been conducted monthly across the United States since 2005. Prior to 2013, households were asked to respond to the ACS via a paper questionnaire. If they had not completed the paper questionnaire, they would be contacted to complete the survey via computer computer-assisted telephone interview (CATI) if there was a phone number for the household and then via computer computer-assisted personal interview (CAPI) (Joshipura, 2008). Starting in 2013, the internet option was introduced for the first time. Respondents were initially contacted via mail with a request to complete the survey on the internet. The letter also indicated a paper questionnaire would be sent later. If the respondent had not completed the questionnaire on the internet, they would receive a paper questionnaire via mail. If a household had not responded in either mode, they were then contacted by CATI, followed by CAPI (Baumgardner, 2014).

Prior to implementation of the internet response option, Joshipura (2008) conducted research using the 2005 ACS data on how different socio-economic and demographic characteristics impacted how respondents completed the ACS by mode. Below is a breakdown on who was more likely to respond by mail and who was more likely to respond by CATI/CAPI.

More likely to respond by mail:

- Non-Hispanic respondents
- White respondents
- English-speaking households
- Home owners
- Respondents with more than a high school education
- Households where everyone is over the age of 65

More likely to respond by CATI/CAPI:

- Black respondents
- Spanish speaking households
- Respondents with less than a high school education
- Households where everyone is under the age of 30
- Respondents who lived in a household with a child under the age of 5

Nichols, Horwitz, and Tancreto (2015) evaluated self-response among hard-to-reach groups (respondents without a high school diploma, Black respondents, Hispanic respondents, households where each member is less than 30, households with at least one person who speaks Spanish, and renters) when an internet option was introduced in 2013. Using 2013 ACS data from January, February, and March, the authors applied logistic regression models to evaluate which groups were more likely to respond via internet compared to mail. Below is a breakdown on who was more likely to respond by internet or mail, and groups for which no mode preference was found.

More likely to respond by internet:

• Respondents who live in a household where everyone was under the age of 30

More likely to respond by mail:

- Respondents who live in a household with a Spanish speaker
- Black respondents
- Respondents over the age of 65
- Respondents without a high school education
- Renters

No mode preference found:

- Hispanic respondents
- Respondents who lived in household with a child who was less than 5 years old

3 STUDY METHODOLOGY

3.1 Mailing Materials Tested

All participants in cognitive testing were shown five mailing materials: initial package, first reminder letter, paper questionnaire package, reminder postcard, and the second reminder letter (see Appendix I. 2017 ACS Mail Design Test: Cognitive Interview Mailing Materials).

- The initial package consists of an external envelope (ACS-46IM(X)DTR) containing an initial letter (ACS-13(LX)DTR) and a brochure (ACS-8IM(X)DTR) that explain the purpose of the American Community Survey, and encourage respondents to respond to the survey online. All households would receive this mailing if selected.
- The first reminder mailing piece consists of an external envelope (ACS-40(X)DTR) and the first reminder letter (ACS-20(LX)DTR) restating the purpose of the American Community Survey and encouraging respondents to respond online. All households would receive this reminder letter whether they had already participated or not.
- The questionnaire package is enclosed in an external envelope (ACS-46(X)DTR) and contains the paper questionnaire (ACS-1(X)DMM), a cover letter (ACS-14(LX)DTR), and a return envelope (6385-47). The letter explains that respondents could either respond by filling out the paper questionnaire and mailing it back, or respond online. Households who have not responded by the first cutoff date receive this package in the ACS mailing strategy.
- 4) The reminder postcard (ACS-29(X)DTR) asks respondents to complete the questionnaire packet and mail it back if they had not yet responded. The postcard also informs households that an interviewer would be contacting their home if there was no survey response. Households who do not respond by the first cutoff date are sent this postcard. All households that receive the questionnaire package also receive this mailing.
- A second reminder mailing piece consists of an external envelope (ACS-41(X)DTR) containing a second reminder letter (ACS-23(LX)DTR) offering a last opportunity to respond online. The letter stated that this was the final notice for respondents to fill out the survey online before interviewers would be contacting their households. This letter is sent to all households in the current panel who have not completed the survey (either by internet, mail, or TQA) by the second cutoff date and do not have a telephone number provided on file.

3.2 Expert Review

Prior to cognitive testing, CSM conducted an expert review of all mail materials that were included in the 2017 ACS Mail Design Test, including the external envelopes (see Section 4 Expert Review Findings). Five CSM staff members independently evaluated the content and layout of the letters, postcard, brochure, questionnaire, and envelopes that were being cognitively tested in advance of the 2017 mail test. Reviewers evaluated the content and layout for clarity and comprehension, and assessed whether or not they followed best practices developed for mail materials (Dillman, 2014).

Since the 2017 Mail Design Test, which occurred after the cognitive pretesting, focused on mail materials redesigned based on the input of Dr. Dillman, reviewers ensured that the original content and recommended revisions remained consistent with Dr. Dillman's suggested approach. After each staff member independently reviewed the materials, they held two consensus meetings to discuss all comments and developed a set of recommended changes for the sponsors. The changes suggested by CSM were discussed with the sponsors and then incorporated into the mail pieces for cognitive testing (See Appendix II. 2017 ACS Mail Design Test: Expert Review of the Full Redesign Materials).

3.3 Cognitive Interviewing

From December 2016 to January 2017, 25 face-to-face cognitive interviews were conducted in the Washington D.C. metropolitan area in one round of cognitive testing. The cognitive interviewing team for these interviews consisted of four CSM staff members. Results were used to recommend any changes to the mailing materials prior to the field test.

3.3.1 Respondent Selection

In cognitive testing, recruitment efforts concentrated on finding individuals who met any one of the following criteria since these are found to be related to the mode in which people respond (see section 2.3.1):

- Under the age of 30
- Over the age of 65
- Handled the mail in their household
- Limited internet access

The objective was to recruit individuals who would be likely to respond to the ACS by specific response modes if they were selected for the ACS sample. The goal for the cognitive interview sample was to recruit 15 likely internet responders and 10 likely paper responders. We felt this recruitment goal would balance two competing considerations: the emphasis of the mail materials on encouraging internet as the primary response mode and the need to interview an adequate number of paper respondents to draw conclusions for our research.

During selection, we targeted respondents who represented a variety of demographic characteristics (i.e., age, sex, race, ethnicity, household income, and educational attainment). Recruitment methods included the following: (1) advertisements through Craigslist.com and (2) a broadcast message distributed to all Census Bureau employees who work in the headquarters building in Suitland and may have family or friends interested in participating.

Potential respondents who contacted CSM regarding interest in the study were administered a screener by telephone. The screener asked questions about a respondent's demographic characteristics, electronic device ownership, internet usage, and the handling of the mail in the respondent's household. The cognitive interviews lasted approximately one hour and took place either at the Census Bureau headquarters in Suitland, MD or at a convenient location in the D.C. metropolitan area. Each respondent who participated in the study received \$40 in compensation.

3.3.1.1 Recruitment by likely response mode

To avoid biasing respondents, the recruitment screener did not explicitly ask whether they would respond to a survey on the internet or by paper. Questions that included respondent's age, ownership of devices that can connect to the internet such as desktop, laptop, smartphone, or tablet, and the frequency of respondent's internet usage (whether they use it several times a day, about once a day, a few times a week, a few times a month, or a few times a year) were thought to correlate to likely response mode as proxy criteria for recruiting likely internet and paper responders.

Likely internet responders were determined to be respondents who used the internet several times a day or about once a day and owned at least two of the following: smartphone, desktop, laptop, and tablet. Likely paper respondents were typically identified as those who reported that they used the internet less than a few times a week and owned less than two devices that can connect to the internet. Age was also accounted for when classifying these respondents into the two likely response mode groups because respondents over the age of 65 were expected to be more likely paper responders, based on prior research (Nichols, Horwitz, & Tancreto, 2015). These proxy criteria for likely paper responders were used to increase the likelihood of recruiting a respondent who would respond using the paper questionnaire. During recruiting, seventeen respondents were identified as likely internet respondents while eight respondents were identified as likely paper responders.

After each cognitive interview, respondents were reclassified as likely paper responders or likely internet responders based on their personal indication of which mode they would respond by. Three respondents who were recruited as likely internet responders were ultimately reclassified as likely paper responders. There were no respondents who were recruited as likely paper responders that reclassified as likely internet respondents. As we readjusted our recruiting targets throughout the project, we ended up with 14 likely internet responders and 11 likely paper responders after reclassification.

3.3.2 Respondent Characteristics

In addition to the study-specific recruitment goals listed in Section 3.3.1, we aimed to recruit respondents with diverse demographic characteristics (i.e., age, sex, race, ethnicity, household income, and educational attainment). Table 1 is divided by likely paper responders and likely internet responders following reclassification after the cognitive interviews.

There was a near equal split for sex as there was 13 females and 12 males in the sample. The majority of respondents were either White or Black with one respondent identifying as Asian and the other respondent identifying as Multi-Race. Four of the 25 respondents were Hispanic. The income distribution was close to being balanced across the four income ranges. In terms of education, respondents were almost evenly split between those with higher education (Bachelor's and Post-Bachelor's) and those without at least a Bachelor's. The age distribution was fairly balanced. See Table 1 for a more detailed breakdown.

Table 1. Respondent Characteristics for the Cognitive Pretesting of the 2017 ACS Mail Design Test Materials

	Likely paper	Likely internet	
	responders	responders	Total
N	11	14	25
Ethnicity			
Hispanic	3	1	4
Non-Hispanic	8	13	21
Race			
White alone	7	5	12
Black alone	3	8	11
Asian alone	0	1	1
Two or More Races	1	0	1
1 110 01 112010 114000			†
Sex			
Male	6	6	12
Female	5	8	13
Annual Household Income			
Less than \$25,000	3	5	8
\$25,000 - \$49,999	2	3	5
\$50,000 - \$99,999	4	2	6
\$100,000 or More	2	4	6
Educational Attainment			
High School Degree or Equiv.	5	1	6
Some College, no degree	2	4	6
Bachelor's Degree	2	4	6
Post-Bachelor's Degree	2	5	7
Age			
18-30	2	3	5
31-45	1	4	5
46-55	2	2	4
56-65	3	2	5
65 years and over	3	3	6

3.3.3 The Cognitive Interview Protocol

The protocol was designed to get respondents' feedback to each of the mailing pieces for the ACS. At the beginning of the interview, the respondent was informed they would be giving feedback on mailing materials they would receive if their address had been selected to participate in the ACS.

The respondent was also reminded there were no right or wrong answers when providing feedback to the materials. The respondents were given five mailing materials to examine and answer questions about in the order they would be received when part of the ACS: initial package, first reminder mailing piece, questionnaire package, reminder postcard, and the second reminder mailing piece. After the administration of the fifth mailing, respondents then answered a series of debriefing items about all mailing materials.

When the respondent indicated to the interviewer they were finished reading the materials for each mailing they were asked a series of retrospective probes (Willis, 2015). The quasi-retrospective method (that is, probing after each natural section of the protocol) was used for this cognitive testing so the respondents could look over the mail piece in question without interruption but still recall relevant details when probed.

For three of the five mailings (initial package, paper questionnaire package, and second reminder letter), respondents were asked questions regarding their thoughts and opinions about the envelope before proceeding to treat the envelope as they would if they received it in the mail. If respondents reported they would not open it, they were instructed by the interviewer to open up the envelope and look through the materials inside.

While the respondents were reading each mailing piece, the interviewers also had to fill in a series of observation checks. For the initial package, some of these checks included whether the respondent noticed and read the back of the letter and if the brochure was looked at and read. For the postcard, interviewers observed whether the respondent read the postcard closely (the observation checks for each mailing material can be found in the protocol in Appendix III. 2017 ACS Mail Design Test: Cognitive Interviewing Protocol).

3.3.4 Interviewer Staffing and Training

The interviews were conducted by a team of four experienced interviewers from the CSM. Prior to cognitive testing, the interviewers were trained on the protocol. The team discussed the protocol, mailing materials, and the retrospective probes for each mailing piece. Practice interviews were conducted within the team with each interviewer completing one practice interview before conducting any interviews with respondents.

3.3.5 Interview Consent

All 25 respondents were given a consent form at the beginning of each interview which they all agreed to sign. The consent form documents the respondent's rights as a participant and contains permission to record the interview. The form indicates the recording is needed so there is a complete record of comments which will be used to improve the design of the ACS mailing materials. It also mentions that only staff members directly involved with the mailing materials project would have access to the recordings. The consent form documents that the study is conducted under Title 13.

4 EXPERT REVIEW FINDINGS

As the first step of the pre-testing process, a team of five CSM survey methodologists completed an initial review of the Full Redesign mailing materials, which included letters, postcards, and envelopes, as well as the "How Your Responses Help America" brochure, and the first page of the ACS paper questionnaire. The team reviewed the mailing pieces while taking into consideration the complete test design and goals. Below is a summary of the overall comments and recommendations presented to the sponsors for their consideration. For all mail pieces reviewed, and recommendations and considerations specific to each mail piece, including line-by-line edits with tracked changes, see Appendix II. 2017 ACS Mail Design Test: Expert Review of the Full Redesign Materials.

4.1 Letters and Postcard

The team noted that the tone and "voice" of the materials was inconsistent both within individual mail pieces and also across materials. For the most part, the tone was conversational and friendly, using plain language and polite wording. It is our understanding that this is a deliberate design element of the Full Redesign materials. Beginning in the replacement package letter (ACS-14(LX)DTR), however, the tone became more firm. While the team recognized that it may be desirable to become progressively more insistent throughout the sequence of mailings, we recommended that the overall "voice" of the materials be harmonized to the extent possible to ensure that the materials present a cohesive package of mailings to recipients.

Across all of the mail materials, the team noted that the sender of the materials was referred to in a seemingly-inconsistent way. The sender was alternately referred to in the first person singular (e.g., "I am writing to request your help" in ACS-13(LX)DTR), the first person plural (e.g., "We would prefer that you answer the survey online" also in ACS-13(LX)DTR), and the third person (e.g., "The U.S. Census Bureau has asked for your help" in ACS-29(X)DTR). Switching back and forth between "I" and "we" within the same mail piece and across mail pieces is potentially confusing and makes some paragraphs difficult to process on a first reading. This issue was especially notable when the section refers both to "we" the Census Bureau and "we" the residents of the United States, as in the second paragraph of ACS-14(LX)DTR. The team recommended that all references to the sender of the mail materials be evaluated and, if possible, made consistent across the mail materials. Reviewers noted that if it is necessary to refer to the sender in multiple ways, additional clarification may be needed to indicate the intended referent.

Recognizing that many recipients of the mail materials will not be familiar with the American Community Survey and its relationship to the Census Bureau, the team felt that the language used to identify the survey in different mail pieces was potentially confusing. It was alternately referred to as "the American Community Survey" (all mailings), "an important Census Bureau survey" (ACS-20(LX)DTR), and a "census survey" (ACS-23(LX)DTR).

The language used to refer to the survey questionnaire was also inconsistent across mail pieces and was potentially misleading at times. The questionnaire was alternately referred to as a "form" and a "questionnaire" (e.g., both are used in ACS-14(LX)DTR). The team felt that use of the word "form" to refer to the questionnaire did not seem accurate when intended to identify response

modes other than paper (i.e., if one responds by internet or by phone, one is not really filling out a "form"). Additionally, the team thought that the word "form" might confuse respondents who are used to seeing the word in the context of other official government documents (e.g., a tax return form). There was consensus among team members that "questionnaire" was a more general and preferable term to use throughout the mail materials.

4.2 Envelopes

The team noted some inconsistencies across the envelopes in terms of the design and layout of the content that should be made consistent across all envelopes to the extent possible. The team recommended that all envelopes be modeled after ACS-46IM(X)DTR. The team felt that the placement of the Census Bureau and Department of Commerce Logos and the text "An Equal Opportunity Employer" were ideal. On all envelopes, the team also agreed with the sponsors' decisions to remove the text "National Processing Center" and to change the return address to be local to the District of Columbia. Team members noted that pretesting participants frequently report confusion or even suspicion when noting the Indiana return address on official Census Bureau mailings.

4.3 "How Your Responses Help America" Brochure

As part of the 2017 ACS Mail Design Test, an informative brochure titled "How Your Responses Help America" was included in the initial package sent to respondents. The brochure lists some of the ways ACS data is used and explains how individual respondents help their communities when they participate in the survey. Three versions of the brochure were considered for inclusion in the mail package, which had been reformatted from a larger-sized brochure developed previously. The content was the same in all three of the brochures, but the layout and graphics were different in each version (See Appendix II. 2017 ACS Mail Design Test: Expert Review of the Full Redesign Materials).

The three versions of the reformatted "How Your Responses Help America" brochure were reviewed by the team. The overall aesthetic of Version 1, which contains graphics to the right of the text but no icons to the left of the text, was preferred. The team agreed that Version 2, with images on both sides of the text, was visually overwhelming on the resized brochure. Version 3 contained icons on the left side of the text that were related to the content in the text (i.e., the section on Commuting had a picture of a traffic light to the left of the text) but the team did not think that the icons provided any additional information and were not as appealing in terms of design as the graphics in Version 1 on the right side of the page.

4.4 Questionnaire

The first page of the paper questionnaire (ACS-1(X)DMM) was modified to give a respondent enough information to complete the survey without reading any of the other mail materials. The team questioned whether the modifications needed to accomplish this goal will benefit a sufficient number of respondents to merit the substantial changes to the beginning of the questionnaire. The changes that were made to the format and placement to reduce the amount of space taken up by the household count question, in particular, may alter respondent interpretations and responses in

an undesirable manner. Additionally, some team members felt that respondents who truly want additional information about the survey would not have difficulty finding this information in the additional mail materials that accompany the questionnaire. Despite these concerns, prior research on the ACS mail materials does provide support for the possibility that some respondents (perhaps as many as two-thirds) will not read a letter that is included in a mail package that contains the paper questionnaire (Schwede, 2013). If a large number of respondents forego reading the enclosed letter, then including a complete introduction on the questionnaire itself may improve response rates or data quality.

5 COGNITIVE INTERVIEW FINDINGS

In this section, we present the findings from the cognitive interviews. The analysis of data from the cognitive interviews was guided by three research questions. The first two reflect the design goals recommended by Dr. Dillman, while the third represents a general objective of cognitive pretesting:

- 1. Do respondents notice the progressive tone and the unique content of the mail materials?
- 2. Do respondents perceive the benefits messages in the letters to be compelling?
- 3. Do respondents identify any recurrent questions or concerns about the mail materials?

In this section, each mail package is presented in the order in which it would be mailed, and each item in the mail package is discussed separately. Within the subsection for each mailed item, analyses from the cognitive interviews are then used to present findings in two categories.

First, a section titled "General Feedback for Consideration" includes discussion of noteworthy findings from the interviews that did not result in a direct change to the mail pieces. This feedback is presented both for sponsor consideration and to provide general information about how respondents reacted to the mail piece.

The second section, titled "Recommended Revisions with Justifications," describes any specific recommendations that CSM made regarding revisions to the mail pieces. Findings from the cognitive interviews are presented to provide justification for the recommended revisions. For some mail pieces, no revisions were recommended. For consistency and clarity, the "Recommended Revisions with Justifications" title is still included for mail pieces without revisions, and the content under the title indicates that there were no recommended revisions. After recommendations were made, ACSO made the ultimate decision about which revisions to implement. To view the final tested version of the mail materials, see the 2017 ACS Mail Design Test report (Oliver, Longsine, Schriener, & Rabe, 2018).

In the following sections, when multiple direct quotes are used to illustrate the findings, respondents are referred to using their respondent ID: R01, R02, etc.

5.1 Initial Package

The initial package contained the ACS letter (ACS-13(LX)DTR) and an informational ACS brochure (ACS-8IM(X)DTR) inside an envelope (ACS-46IM(X)DTR). Respondents were asked to share their thoughts and opinions about the ACS envelope before opening it. Once respondents discussed the envelope, they were asked to treat the mail piece as if they had received it at home. Lastly, respondents were also asked to share their thoughts about the brochure. See Appendix I. 2017 ACS Mail Design Test, Cognitive Interview Mailing Materials, pages 2-6 for all materials in the initial package.

5.1.1 External Envelope (ACS-46IM(X)DTR)

General Feedback for Consideration:

Action after Receiving the Envelope

When asked what they would do after receiving the envelope in the mail, most respondents mentioned they would open the ACS envelope right away (22/25), whereas the minority stated they would open the piece of mail at a later time (3/25). Respondents varied in their reasoning towards opening the ACS envelope. The majority of respondents articulated that they would open the envelope because the envelope looked like an official Census envelope.

R01: "I'd open it up because it says official business on it and it's from the Census. It looks official."

R13: "I would definitely open this because I see it's from the Census Bureau."

R12: "It would definitely be important because it says US Census, it's in bold, it says your response is important to your community. I would open it."

Other respondents wanted to open the envelope because they cared for their community to grow and improve; whereas others were just curious about the contents inside.

R19: "The next thing I would do is... open it... because of the statement your response is important for your community and I'm very much community oriented person."

R12: "It would definitely be important because it says ... your response is important to your community."

R04: "I'd probably open it out of curiosity."

R02: "I will open it to see what's in it. What's it about."

The three respondents who would not open it right away explained that the envelope looked like junk mail, was busy, or because the envelope was not addressed to the respondent.

R09: "[I'd] put it aside. Because it looks like junk mail. There's too many addresses, too much stuff on the left."

R15: "If I'm busy, I'd set it aside for later. Probably about a week."

R16: "If it's addressed to the 'resident of' than I would set it down on the counter."

Envelope Elements First Noticed

After reporting what they would do with the envelope if they received it in the mail, respondents were asked "What was the first thing you noticed about the envelope?" Throughout the interviews, respondents noticed two major elements on the ACS envelope. Nine respondents first noticed that the envelope came from the U.S. Census Bureau. "My eye is drawn to the United States Census" were common thoughts when describing what respondents noticed first. The second major envelope element noticed by seven respondents was the statement, 'Your response is important to your community.' Respondents that saw this statement on the envelope had similar thoughts as R16, "It says 'your response is important to your community.' It is definitely attention grabbing. It specifies my community, so I am assuming that it will be for my community."

Envelope elements that were noticed less by respondents were who the letter was addressed to (3 respondents), the envelope coming from the government/Department of Commerce (3 respondents), and the return address (2 respondents). It is important to note, the two respondents that first noticed the 'return address' element had a negative impression of this element. Both respondents mentioned that the area around the return address had too much information.

R09: "There's too much stuff written on the left hand side."

R06: "It just seems to be a bit wordy. Yeah. The part under the address seems to have too much unnecessary info [e.g. equal opportunity employer]".

Likely to Open the Envelope

When discussing envelope components that would likely lead respondents to open the envelope ("Do you see anything about the envelope that might make you more likely to open it?"), respondents varied in what they believed would lead them to open the envelope. The envelope component that would lead most respondents (8 respondents) to open the envelope was the Census logo or Census name written on the envelope. The following sentiments were common when respondents indicated that the Census logo/Census name would lead them to open the envelope.

R11: "The Census Bureau logo, which makes it seem official and valid."

R17: "In the fact that it's the United States Census Bureau."

R18: "The Census is bolded and large. Because I know it's important to participate in a Census."

Following the Census Logo/Census name, seven respondents believed the 'Your response is important to your community' text box would motivate them to open the envelope. For example, a respondent indicated he would be motivated to open based on the statement because he wanted to help his community: "I see that they have a box saying 'your response is important to your community' so they would want that to be something that entices you. I would always want to help my community (R15)." Other envelope elements that would lead some respondents to open the envelope were first class mail on the envelope, that the envelope came from a government entity, and that the envelope has an 'official business' label.

Envelope Components that Stood Out

Next, respondents were asked "Is there anything on this envelope that stood out to you?" The elements that stood out to respondents were similar to the elements they first noticed or that would make them more likely to open the envelope. The major element that stood out from the envelope was the statement, 'Your response is important to your community.' Respondents explained that what made the statement stand out was the format, style, and bolded lettering. Additionally, respondents mentioned that the center position of the text box made the statement stand out, as it was more visible. Overall, respondents said this statement made them think the contents of the envelope were important, made them curious as to what was inside, and made them want to open the envelope because they wanted to help their community. The following summarized the respondents' reasoning regarding why they believe the community statement stood out:

R15: "Your response is important to your community.' Because it's in bold and larger print than anything else and then a box."

R08: "Your response to your community" box stood out. This stands out because I usually do not receive that kind of message on an envelope. But I do open all the mail, even if I know the thing I get in the mail is junk mail."

R17: "The fact that the middle portion, 'your response' is bold and squared off."

Respondents also mentioned other components of the envelope that stood out such as the Census logo, return address, coming from a government entity, and that the envelope seemed to be legitimate and official.

Opening the Initial Envelope

Interviewers observed that 24 of 25 respondents opened the envelope. Of 25 respondents, 24 respondents opened the envelope facing away from them. Once they opened the envelope, 23 of 25 respondents looked at both the brochure and the ACS letter. The other two respondents looked at the letter but not the brochure. The interviewers also observed that of the 23 respondents who looked at both the letter and the brochure, 17 respondents first focused on the letter, whereas six respondents looked at the brochure first.

Recommended Revisions with Justifications:

Throughout the interviews various respondents indicated the envelope had too much text on the left hand side of the envelope where the return address and other small text is printed. These respondents discussed how the envelope seemed too busy, and that the amount of text on the left was overwhelming. For example, one of the respondents stated that she would not open the envelope as the amount of text on the left made it look like junk mail. Therefore, it is recommended that the text on the envelope be adjusted to appear less overwhelming either by removing or moving some of the text in order to reduce the amount of text on the left hand side. For example, the 'ACS-46IM(X) DTR (10-2016)' could be moved to the back as this information is only used internally. This recommendation applies to all of the tested envelopes, which shared an identical format for the return address section.

5.1.2 Letter (ACS-13(LX)DTR)

General Feedback for Consideration:

After providing feedback on the envelope, respondents were instructed to "take the envelope and treat it as you would if you received it in the mail." If respondents indicated that they would not open the envelope, or would not read the letter, this was noted and then they were asked to "Please take a look at the letter that was in the envelope." No instructions were given about how carefully to read the letter content. When respondents were looking at the letter, the interviewers observed that 15 of the 25 respondents turned the letter over and saw that there was text on the back. Of respondents who realized the letter was two-sided, 13 respondents skimmed the content on the back of the letter, whereas two respondents did not appear to have spent time reading the text on the back.

When asked for their general impression about the letter, many respondents said that the box containing the website and login information stood out to them (see Appendix I. 2017 ACS Mail Design Test: Cognitive Interview Mailing Materials). For example, a respondent stated the following "It's bold and it's the first thing that I see," (R17). Two respondents did not have access to a computer or the internet. One said that they would ignore the box because you have to go online - "Requesting to respond to the computer; that stood out to me because I don't have a computer or TV, I ignore those things," (R08). These individuals without internet access skimmed the letter looking for alternative ways to complete the survey as the letter emphasized going online.

Furthermore, when asked to report reasons for responding to the survey and potential motivational text, many respondents noticed the letter focused on motivating them by targeting their respective community. After reading the letter many respondents mentioned their willingness to complete the survey, as they believed they were making a difference when agreeing to complete the survey

R04: "Well, the letter itself, I always like helping people and giving my opinion, I was like, 'Oh, okay, I'll do it."

R03: "I spent more time reading the part with the roads and hospitals. I would do it, if it can help make it better like for the schools... Because it shows how my responses will help..."

Not all respondents noticed the sentence about receiving a paper questionnaire in three weeks ("If you are unable to complete the survey online, the Census Bureau will send you a paper questionnaire in about three weeks.") until explicitly directed to look at it. Some respondents said that the mention of the paper questionnaire was buried. For example, one respondent did not understand or realize there were other ways to complete the survey other than completing it online: "I would have to figure out a way to get this survey done [referring to being unable to complete online]. Because if there is a time limit or if I can't do it over the internet that will be hard," (R03). However, those who did not notice the mention of a paper questionnaire were individuals who would prefer to respond online, and those who could not go online purposely looked for alternative options and were able to find the information needed. Additionally, throughout the cognitive interviews, respondents mentioned that three weeks was too long to wait for a paper questionnaire.

R06: "Three weeks seems too long to wait to send the paper questionnaire."

R25: "No. I also want to say that if the paper questionnaire doesn't come until three weeks later, I'd rather just get it done quickly and be done with it rather than have to wait 3 weeks for something to come in the mail."

There also seemed to be confusion among several respondents as to whether respondents had to call to request a paper survey or whether this would be done automatically. When asked what they would do if they couldn't respond by internet seven respondents stated they would call the number provided on the letter to ask for a paper questionnaire. Some respondents stated:

R01: "I would call and say I can't respond by internet. Can you send me the paper copy?"

R02: "I would call the phone number to the Census and ask if I could get a questionnaire sent out to me."

R18: "I would call to get a printed one."

Respondents were asked what they would do after reading the letter. The majority of respondents (19 out of 25) mentioned they would complete the survey either online or by paper. Some respondents were willing to complete the survey right after reading the letter, "The first thing I would do is I would login to this website here...I would login using this user ID and then I would just go ahead and answer the questions online and then um I'd throw this away, this information away," (R11). However, most respondents that indicated their willingness to complete the ACS said they would likely complete the survey at a later time. Sentiments such as "I would probably put it to the side, and maybe come back for it later," (R16), or "I would probably go online and respond to the survey. It may not be right away depending on the time available. [If I didn't have time right away it'd probably take] a couple of days," (R13) were common among respondents who were willing to compete the survey but a later time.

Seven respondents stated their unwillingness to complete the ACS after reading the ACS initial letter. Respondents who were unwilling to respond stated that it was because they thought it was not important or they would not have time to respond.

R05: "Probably I'd throw it away if I knew it wasn't something I had to do. But if I had time, I'd save it and do it when I had free time."

R12: "Actually to be honest with you, I'd probably read it. I wouldn't take too much of a forward approach to it. I'd definitely process the information you gave me, but to participate or something like that... I probably wouldn't do it unless somebody gave me a bigger description of what I'm participating in except for just saying survey or something like that."

R14: "Well, if I really got in and read all the way through like I just did, I'd probably try to find out why it's required by law, probably google it or something. If I felt like taking it that far. But I'm still not going to fill it out. But I would want to know why it's required by law."

Furthermore, when respondents asked if they thought they had to complete the survey, 15 of 25 respondents were clear that the ACS was a mandatory survey, 9 respondents did not believe the ACS was a mandatory or required, and one respondent was unsure if the ACS was required or not. Respondents who believed the ACS was mandatory stated:

R01: "I would want to do the survey because I am the type of person that would be interested in seeing it and doing it. It also says it's required by law, so you would need to."

R04: "It says your response is required by law."

R16: "Yes I think I would have to do the survey. It is required by law."

Respondents who did not believe they were required to answer the ACS stated:

R08: "No, I don't think I would have to. Somebody would have to certainly. If I wouldn't do it, other people would. 'Your response is required by law' but I think there would be ways not to do it if you didn't want to or if you were incapacitated."

R23: "Just because you've been selected, what makes it required by law? I mean, if it's required by law to me I would think everybody in the neighborhood would have to do it just like everybody has to do their taxes. I mean, I can't see saying doing a survey is required by law."

Mixed reactions were found across respondents regarding the statement on 'your response is required by law.' Respondents were directed to look at the sentence and asked "What is your reaction to that sentence?" After reading the statement, respondents reacted in one of the following ways: 1) curious about why it is require by law and how that requirement is enforced, 2) did not believe there were consequences/penalties for not completing the survey, 3) believed the survey was important, 4) confused as to how the statement would apply to them (respondents without internet access), or 5) viewed the statement as forceful and scary.

R01: "My reaction is what are they going to do if I don't do it. Your response is required by law. So if I don't do it are they going to fine me, are they going to come knock at my door? On the other hand all these people, how are they going to follow through on this, if a lot of people didn't do it. But if I'm expected to do this and I'm an American citizen, ok I should do it. But that's the kind of person I am."

R08: "I take it with a grain of salt. I'm sure it does not apply equally to everyone. As I said, some people are unable to respond. There are some people I know that refuse to pay income taxes and they would think if I am not paying taxes then I don't think I would need to respond."

R12: "Oh, really? Well see, I actually skipped over that sentence. I really didn't notice that sentence. That's kind of like forcing me, that's not too comforting; I'd kind of be agitated because you're making me do something I don't want to do."

Respondents identified different reasons they believe would motivate them to complete the ACS. The most common reason that motivated respondents to complete the survey was the influence the ACS has towards improving roads, school, and hospitals.

R03: "Well mostly the reason why I want to do this survey is because I am in school right now and if it can help schools it'll help me."

R11: "Yeah, because it's needed to determine where uh new services are needed including roads, schools, and hospitals."

R18: "Yes it helps the community. It get roads, schools, hospitals, and veteran services".

Other reasons given that would motivate respondents to complete the survey was the ability to help improve the overall community as well as help distribute \$400 billion in federal funds.

R05: "Just helping out the community, I guess, answering questions about the community."

R15: "Well, that it could impact federal funds for my community and it's saying that my response is required by law [chuckles]."

R25: "Yeah. It says it helps determine annual distribution of more than \$400 billion in federal funds. And deciding where important services are needed, including roads, schools, hospitals, and veterans' services."

Polite Tone

Although respondents were not asked specifically about the tone of the letter, several respondents did comment on this feature. Four respondents indicated the letter was polite and friendly, which supported the goal of the first letter suggested by Dr. Dillman.

R03: "I will appreciate you completing the survey' and I'm like aww of course I will. If they tell me to do it than I will do it but it's nice that they gave me an option. And if it can help, then I will probably do it."

R08: "The politeness of requesting your help, it doesn't say I demand your help."

R21: "It didn't say demand, and it's thanking me in advance... It is a request."

Recommended Revisions with Justifications:

When asked, 12 of the 25 respondents said they thought they had to do the survey because it says it is required by law. Three additional respondents noted that it says it is required by law, but they were either unsure of how to interpret that, or they did not think there would be any consequences of not doing the survey. The remaining 10 respondents did not notice the "required by law" sentence until interviewers pointed it out for further probing.

Regardless of whether or not they noticed the sentence while first reading the letter, when asked follow-up probes about it, many respondents expressed confusion about why they would be required to do the survey. This confusion often resulted in frustration at being forced to do the survey. Only a couple of respondents read the FAQ on the back of the letter that explains the requirement.

When interviewers pointed out the 'required by law' sentence and asked probing questions, some respondents said that they liked that the 'required by law' statement referenced the 'Title 13, United States Code.' They felt that it added more weight to the 'required by law' statement as well as that it gave them something to research if they wanted to understand why the ACS was mandatory.

The following revision is recommended in response to this feedback:

Add "(Title 13, United States Code)" to the end of the sentence explaining that the survey is required by law. In addition to providing respondents with a sense of justification and weight to the legal mandate, including the reference to Title 13 in parentheses may also draw more attention to the sentence, increasing the likelihood of respondents reading that their participation is required.

5.1.3 Brochure (ACS-8IM(X)DTR)

General Feedback for Consideration:

Interviewers recorded observations on how many respondents looked at the brochure in the initial package and were instructed to record unsolicited comments made by respondents. During the debriefing questions, interviewers handed the brochure back to the respondents, asked if there was anything about the brochure that stands out to them, and if there is anything that could be changed to make the respondent more likely to read the brochure.

Twenty-three of the 25 respondents spontaneously looked at the brochure to some extent when opening the initial package. Of those, six looked at the brochure before looking at the letter. Five respondents made unsolicited comments when going through the initial package. Three indicated they would look at the brochure briefly but would not read the whole thing. One respondent said that he would read the brochure more closely than the letter; he liked the illustrations and the illustrations would help get a response from him. The last unsolicited comment was that the brochure was interesting. When probed on what the respondent meant, the respondent said that it is interesting because it is much more user-friendly. He said that it is easier to read and easier to understand in terms of how the information will be used.

When asked about the brochure, many respondents said that they liked that it was colorful, aesthetically appealing, and that they liked the pictures.

R11: "First of all, I like the pictures...It gives me the idea of the type of facilities right away that filling out the questionnaire would help build."

R14: "It's in color, so I kind of like that... I love how it breaks it down. It tells me what I'm going to be doing, and then it gives me the website right here in bold. I'm probably more likely to respond to this than anything else. If you spice this one up and give me a reason why and not that it's required by law."

However, some respondents indicated that features that made the brochure appealing would also lead them to think it was not important. Some respondents commented that there was too much text or that the brochure was too busy, which would lead them to not read the entire brochure.

R05: "But to be honest, I didn't know that it was a Census form just from this first one, because it didn't look- I don't know, I don't know the word that I'm looking for... As important, I guess? Just because it's so colorful. I don't know if that makes sense."

R12: "My first reaction like I said before, it's really colorful. Maybe it's my mind state, but when I see stuff like this, I don't take it too seriously. Now, just glancing over it... it just looks like...what my responses will help. It doesn't give me like... urgent to read it over."

R13: "It certainly seems busy, there's a lot going on. I do like the images. There's definitely a lot of text that I don't know if anyone's really going to spend the time to go through. I think one or two bullet points for each of these is probably easier."

Recommended Revisions with Justifications:

There are no recommended revisions specific to the brochure in the initial package.

5.2 First Reminder Mailing Piece

The second mailing consisted of an ACS envelope (ACS-40(X)DTR) containing an ACS letter (ACS-20(LX)DTR). Respondents were told that about a week after receiving the initial package, they would receive another letter reminding them to complete the survey online. The envelope contains only the first reminder letter. Due to timing, we did not ask respondents about the

envelope in the first reminder mailing piece. See Appendix I. 2017 ACS Mail Design Test, Cognitive Interview Mailing Materials, pages 7-8 for all materials in the first reminder mailing piece.

5.2.1 First Reminder Letter (ACS-20(LX)DTR)

General Feedback for Consideration:

Of the 25 respondents interviewed, all indicated that they would open the envelope if they received it in the mail. Two respondents did not appear to read the letter closely. One of those individuals (R07), noted that he had trouble reading the letter due to vision problems. The second individual (R23) initially skimmed the letter, and noted that he would only skim a second letter if he had already received a similar letter. This respondent did read the letter more carefully when asked if the letter mentioned any new reasons for doing the survey.

Respondents generally responded positively to the letter. They noted that it was shorter than the first, and was a straightforward follow up reminder that covered the same general information as the first letter. Two respondents (R09 and R14) who had said that they would have thrown the first letter away without opening it said that they would open this letter and read it because they would wonder why they are receiving a second letter. For individuals who said that they would do the survey after receiving the first mailing piece, they said that this letter would just serve as a reminder to go online and respond if they had not already done so.

When asked how they would respond to the letter and whether there were any new reasons mentioned for doing the survey, respondents commented again on how their response was required by law. They noticed that this letter was different than the first in that it references the actual law, Title 13. They said that the mention of Title 13 adds legitimacy. One respondent said that he could go online and read about Title 13 and find out *why* his response was required by law. While respondents thought the inclusion of "Title 13, U.S. Code" was an improvement, they stated that they would prefer it if the letter actually explained what Title 13 was, or why their response was required by law.

After reading the first reminder letter, some respondents who indicated a preference to respond by paper said that it would motivate them to consider responding online. Of the two individuals without access to a computer, one said he *might* consider going to a library to respond. For other respondents who had access to a computer but preferred paper, this letter would motivate them to respond online because they focused on the fact that it is required by law and would be afraid of getting in trouble if they do not respond. Even though they were aware that a paper questionnaire would arrive in 10 days, they would still be worried about possible consequences, so they would prefer to complete it as soon as possible.

When analyzing interview summaries, researchers noted any unsolicited comments respondents made that were related to the polite tone, progression of tone (from polite to less polite), and uniqueness of each mailing piece suggested by Dr. Dillman. Only three respondents noticed or commented on the tone of this letter compared to the tone of the previous letter. Two had positive reactions - one said that the letter is still very polite, which they liked, and the other perceived this

letter to be nicer than the first one and, as a result, he was more inclined to respond. The third respondent (R25) who commented on tone noted that the type of language in the letter would typically result in her ignoring the request.

R25: "There's some language in here that is the kind of thing where if I get that in an email, I tend to ignore it."

Interviewer: "Like what?"

R25: "I would *really appreciate* receiving your response soon."

Interviewer: "Why would you ignore that?"

R25: "Because it doesn't say I have to respond. That would go to the bottom of the

pile."

Respondents did not note the letter being unique. The main distinction that was made was that it was shorter than the first letter, which they viewed favorably. Many respondents just noted that it was pretty much the same as the first letter, just slightly rephrased.

Recommended Revisions with Justifications:

Throughout the interviews, respondents continued to be confused about why the survey was required by law. This requirement, without understanding it, was off-putting to many respondents. A few respondents even mentioned wanting to ignore the survey as a result of frustration or an act of rebellion.

After reading the second reminder letter (ACS-23(LX)DTR), which is the fifth and final mailing (see Section 5.5.2 for a discussion of this mailing piece), many respondents said that they liked the sentence that compares the requirement to do the survey to jury duty and other civic obligations ("Just as people are required to respond to jury duty, get a driver's license in order to drive, pay their taxes and report their income, they also have the obligation to respond to this census survey."). Respondents said that the sentence makes it feel more important to them, which would encourage them to respond. Multiple respondents also commented on how they liked that it finally helped to clarify why it was required by law. Relevant discussion is included here due to the recommended revisions in both the first and second reminder letters.

R23: R mentioned the sentence about response obligation being like jury duty or other civic responsibility. "That, to me, is more understandable than just putting Title 13 U.S. code on it."

R25: "I think the examples of 'just as people are required to report to jury duty, get a driver's license to drive, and pay taxes...' sort of puts responding to this higher level. Because people don't necessarily think of responding to the Census as important as showing up for jury duty. I think it's good."

It is recommended that the two mandatory sentences from the first reminder letter (ACS-20(LX)DTR) and the second reminder letter (ACS-23(LX)DTR) be switched. The recommended revision is to move the following sentence to the first reminder letter: "Just as people are required to respond to jury duty, get a driver's license in order to drive, pay their taxes and report their income, they also have the obligation to respond to this census survey." The original sentence from

the first reminder letter would be moved to the second reminder letter: "Your response is critically important to your local community and your country and is required by law (Title 13, United States Code)." See Appendix IV. 2017 ACS Mail Design Test: Mailings With Recommended Revisions, for details.

5.3 Questionnaire Package

The mail package is mailed in a 6" x 11.5" envelope (ACS-46(X)DTR) that contains a cover letter (ACS-14(LX)DTR) reiterating the survey request, a paper copy of the 28-page ACS questionnaire (6385-47), and a return envelope for mailing back the completed questionnaire. Respondents were handed a complete paper questionnaire package and were told that they would receive this mailing about two weeks after the previous mailing, if they had not already responded online (or if they had responded too late). Interviewers asked all respondents to evaluate the external envelope before opening it. Then, as with the preceding mail pieces, respondents were instructed to treat the mailing as they would if they had received it at their address. Interviewers observed the order in which respondents looked at the content of the mailing and used that order to determine the order for discussing the mail pieces. That is, interviewers probed about either the questionnaire first or the letter first, depending on the order that the respondent had spontaneously looked at the materials. Probes about the paper questionnaire focused only on the redesigned first page of the questionnaire and not the full survey content. No specific questions were asked about the included return envelope. See Appendix I. 2017 ACS Mail Design Test, Cognitive Interview Mailing Materials, pages 9-12 for all materials in the initial package.

5.3.1 External Envelope (ACS-46(X)DTR)

General Feedback for Consideration:

When asked "What was the first thing you noticed about this envelope?", respondents reported that the most notable features of the external envelope for the questionnaire package were its size (mentioned by twelve participants) and the box indicating "U.S. CENSUS FORM ENCLOSED - YOUR RESPONSE IS IMPORTANT TO YOUR COMMUNITY" (mentioned by eleven participants). Comments about the size, thickness, and weight of the mailing tended to have a negative tone and came both from likely internet responders and likely paper responders:

R10: "It's very big. And it's starting to get very serious. I'd probably start getting annoyed that I'm starting to get all this stuff from these people. It's getting bigger, it's getting heavier," (likely paper responder).

R12: "It's kind of intimidating. It's big, it's bulky," (likely paper responder).

R21: "It's too big!...This would scare me. The thickness, it would make me dread doing it," (likely internet responder).

Despite some respondents finding the size and weight of the mailing to be intimidating (implying it contains a large, time-intensive questionnaire), all indicated that they would eventually be motivated to open it (although a few mentioned that they would wait until they had more time before opening it).

Recommended Revisions with Justifications:

There are no recommended revisions specific to the external envelope for the paper questionnaire package (ACS-46(X)DTR). For recommendations that apply equally to all of the envelopes, see Section 5.1.1.

5.3.2 Letter (ACS-14(LX)DTR)

General Feedback for Consideration:

The two individuals who did not have access to a computer reiterated that they would have waited for the paper questionnaire to arrive to respond to the survey. Three other individuals who had access to a computer maintained a strong preference for the paper mode; they were not motivated to go online by the previous letters. All three said they would respond to the survey by paper after receiving this package.

Many respondents noted that they most likely would have responded to the survey online before reaching this point in the series of mailings. They said that if, for some reason they had not yet responded, receiving the large envelope would serve as a reminder and prompt them to reply. The chosen response mode at this point varied. Some respondents said that after receiving the package they would respond online so that they did not have to deal with the paper questionnaire. Other respondents indicated that they felt like they had to do it by paper once they received the package. They were generally aware that they could still go online to respond, but they felt that it would be wasteful to not use the paper questionnaire after it was sent to them.

R10: "In this situation, I would probably get to it with the form instead of online." **Interviewer:** "Why is that?"

R10: "Because it's already here. I don't have a computer at home. I'd have to do it on my phone and that's not that easy. I'd probably just start filling this out. But I wouldn't like it. It's way too many questions. There's like 20 questions here."

R25: "It says you can still respond online. Based on how big [the questionnaire] is, I would probably still go online to do it."

R12: "After receiving this letter, it would definitely make me not want to do it, but I feel like I'm forced to do it, by law. Anything that comes up in law, you don't want to get in trouble. I feel like it'd take.... You know by looking at the thickness of the survey, I'd probably have to take a couple hours off my day to do it so I could read everything thoroughly."

R03: "I would prefer doing it over the internet because it is faster. But I would probably go with the paper because it would be easier. Like I said, my computer is sluggish sometimes, it slows down or it would freeze so I would rather do the paper than having to go through the internet based on my computer."

In terms of the letter content, reactions were similar to those for the letters that came earlier in the mailing sequence. Nine respondents mentioned the mandatory nature of the survey request, most continuing to express confusion or frustration about their legal requirement to respond. Nine respondents indicated that the content was basically the same as other letters or just reworded,

while 4 respondents felt the letter was more succinct, and 6 noted the addition of job training to the list of data uses. Two respondents responded favorably to the phrase "as promised" which referred back to pledges in the preceding letters to send a paper questionnaire if an internet response was not received. Three respondents also mentioned the continuing absence of a due date for response.

R14: "I don't remember reading anything about a due date... I don't see any numbers here.... I don't see anything about a due date, so.... I'm probably going to hang on to this until I have a whole day free, nothing on my plate, like a lazy weekend, which doesn't really happen that often. That's when I'm getting to this. And if you're not giving me a due date, I'm not in any... there's no urgency."

R15: "I guess in a way there is... there's no due date. Actually, there's no date at all. I probably would go back and go 'When do I have to do this by?' and then I see no date."

Interviewer: "Would having a date on there affect how you treat the package?" **R15:** "A little bit, yeah. Well, it would put a deadline on it for me, mentally. There's not even... I mean there's nothing. It might help because it would put a little bit more urgency to it."

Recommended Revisions with Justifications:

There are no recommended revisions specific to the cover letter (ACS-14(LX)DTR) included in the questionnaire mail package.

5.3.3 ACS Paper Questionnaire (ACS-1(X)DMM)

General Feedback for Consideration:

When asked to provide feedback on the first page of the questionnaire, many respondents commented on the overall size and apparent amount of content in the entire questionnaire and had little to say about the first page per se. Several noted that the background color stood out. A few commented that the first page looked formal or official and like they would expect.

R13: "That it does seem very formal. Nothing really in particular. It certainly looks like a questionnaire I'd receive from the Census Bureau. It talks about how I can go online if I want to as well."

R09: "It looks very official. The layout... I like it."

Twenty-two of the 24 respondents (due to time constraints, one respondent was not asked this probe) indicated that it was clear from the first page of the questionnaire what they were supposed to do. Of the remaining two respondents, one indicated that he wouldn't really look at the first page but would give the entire questionnaire to his wife to fill out while the other respondent was expecting to see more instructions about how to fill out the survey (rather than a reiteration of the survey request). One respondent who thought the first page was clear nevertheless expressed some confusion about what kind of writing implement could be used to fill out the questionnaire. Most respondents also noted, when asked about ways of responding, that responding online was still an option.

Recommended Revisions with Justifications:

There are no recommended revisions specific to the first page of the paper questionnaire included in the questionnaire mail package.

5.4 Reminder Postcard (ACS-29(X)DTR)

As respondents were handed the reminder postcard, they were told, "About four days after receiving the previous package, you would receive this postcard. Please look over it." Respondents were handed the post card with the address facing them. Interviewers were instructed to observe the respondents behavior, and to record whether they turned the postcard over to look at the back, and whether or not they appeared to read the postcard closely. After respondents indicated that they were done looking at the post card, interviewers asked a general probe to elicit feedback: "What did you think about the postcard? For example, did anything stand out to you, what did you notice first, did you spend more time on one part of the postcard?"

Two respondents were not shown the postcard; their interviews were approaching one hour before making it to this section, so the section was skipped in the interest of time. Of the 23 respondents who were shown the postcard, all 23 turned the postcard over, and all appeared to read the text on the back of the postcard. See Appendix I. 2017 ACS Mail Design Test, Cognitive Interview Mailing Materials, pages 13-14 for the front and back of the reminder postcard.

General Feedback for Consideration:

Respondents tended to view the postcard negatively. Across all non-neutral respondent reactions to the postcard, 10 comments were negative and only five comments were positive. About half of the negative comments were related to annoyance at receiving another mailing about the survey. The other half were regarding the tone of the postcard. Respondents referred to it as "bossy," "firm and persistent," "forceful," and possibly viewed as a threat. One respondent (R25) said, "So… 'complete or mail back your questionnaire now' is a little bossy."

Thirteen of the 23 respondents who saw the postcard noted that it said that the Census Bureau would start calling or visiting individuals who had not yet responded to the survey. In-person visits were seen as an indication that the Census Bureau was getting serious about getting individuals to respond to the survey. Though many of the respondents reiterated that they probably would have already responded to the survey before they would receive the postcard, they said that if the had not responded, the mention of an in-person contact would motivate them to respond online to avoid someone coming to their home. All respondents who receive the questionnaire package get the reminder postcard, regardless of whether or not they have responded to the survey. One respondent (R24) said, "It says on here that if I don't, they're going to send somebody out to my house...that's going to motivate me to finish this thing...I don't want nobody come knocking on my door."

Multiple respondents commented on how the postcard was a waste of paper and time. These individuals told the interviewers that they would have already responded to the survey by this point. A few respondents said that if they had already responded and still received the postcard, they would be annoyed. They also noted that if they had not done the survey, the reaction to the postcard would depend on the receiver's intentions. If they were planning on responding but had not gotten to it yet, the postcard would serve as a simple reminder. If they were not planning on

responding, they saw the postcard as pointless. As one respondent (R06) said, "Something tells me that the person that did not do this is getting ready to say, 'Look, I didn't do it before. I'm not gonna do it now. You better stop sending me this stuff!"

Recommended Revisions with Justifications:

The postcard arrives soon after the paper questionnaire. Respondents may have just completed the survey, be in the process of filling it out, or about to respond. One respondent commented on how he is feeling rushed by the mailings. Some respondents said that they might get the questionnaire and postcard at the same time due to the frequency with which they check their mail. Others expressed annoyance by saying things like, "I would wonder, 'Don't they know...? Aren't they receiving what I already sent? Why are they still sending me stuff?' I'd be getting tired of all this stuff in the mail," (R10).

To soften the tone of the postcard and acknowledge the possibility that respondent received the postcard even though they have already responded, it is recommended that the postcard include phrasing thanking the respondent if they have already completed the questionnaire (added text in red). The first paragraph would read, "I have asked for your help in completing the American Community Survey. **If you have already responded, I want to thank you.** If you have not already responded, I would really appreciate it if you would complete the survey soon."

5.5 Second Reminder Mailing Piece

Respondents were then given the second reminder letter as the last mailing piece to evaluate. This mailing piece is comprised of the external envelope (ACS-41(X)DTR) containing the second reminder letter (ACS-23(LX)DTR). Before being handed the envelope with the second reminder letter, respondents were told that they would receive this letter in the mail about three weeks after the previous postcard if they had not responded to the ACS either by mail or online.

The envelope design was similar to other letters as it displayed the United States Census Bureau logo and Department of Commerce emblem, the National Processing Center address, the text, "OFFICIAL BUSINESS Penalty for Private Use \$300," and the text, "An Equal Opportunity Employer." The main difference was that the box displayed on upper-middle portion contained the text "**Final Notice** Respond Now" with the "final notice" text in bold font.

This mailing contained a letter explaining this was the last chance to respond to the ACS before an interviewer would be contacting the home. The letter also highlighted the importance of completing the American Community Survey by how it assists national, state, and local communities and comparing it to other mandatory obligations ("Just as people are required to report for jury duty, get a driver's license in order to drive, pay their taxes and report their income, they also have the obligation to respond to this Census Bureau survey."). See Appendix I. 2017 ACS Mail Design Test, Cognitive Interview Mailing Materials, pages 15-16 for all materials in the second reminder mailing piece.

¹ The sentence is shown in bold in this report to indicate newly added text. It will not be bold in the mail materials.

5.5.1 External Envelope (ACS-41(X)DTR)

General Feedback for Consideration:

When given the envelope with the second reminder letter, all 24 respondents mentioned that the first thing they noticed was the "**Final notice**, respond now" box. One respondent was not shown the second reminder mailing piece due to time constraints in the interview. Fifteen respondents mentioned that this 'final notice' text would make them more likely to open the envelope. Almost half of the respondents implied that the envelope had a more serious or negative tone because of this 'final notice' text.

R10: "Wonder what's the consequences if I don't respond now. What are they gonna do, put me in jail? Fine me? That's if I didn't do it."

R12: "Final notice respond now. Mmmhmm. It's really forceful. It's just forceful, respond now. It'd make me like go, 'Oh, so they're serious?' So now we already have a history of getting stuff in the mail. So now that I haven't done it, I got the final notice, so I'm getting a little nervous."

R16: "It says final notice respond now. It seems that the US Census Bureau is very serious about this."

R21: "Ok, I'm warning you, you gotta fill out this thing or you're gonna be in trouble."

There was a mixture of positive and negative feelings towards the 'Final notice, respond now' box. Two respondents mentioned that it didn't bother them but they could see this notice bothering somebody else. Respondents who had a positive view of the 'final notice, respond now' generally saw this as a way to prompt someone to complete the survey if they had not yet.

R18: "Because it lets me know it's my last opportunity to respond by mail or online before people start calling me or coming to my door."

Respondents who had a negative view of this box saw this as a threat or an unnecessary piece of mailing.

R19: "It's questioning my intelligence."

R08: "If I had already responded I would open it with a sigh of annoyance."

Only two respondents suggested that the 'final notice, respond now' text would not convince the respondent to complete the survey if they had not responded.

The majority of the respondents mentioned that they would open the envelope or complete the survey when they received this letter in the mail. For those that reported they would have already completed the survey before the second reminder letter, only one respondent (R24) mentioned that he would ignore this mailing.

Overall, the envelope with 'final notice, respond now' appeared to be successful in convincing respondents to open the envelope and read the letter.

Recommended Revisions with Justifications:

There are no recommended revisions for this envelope specifically other than the global recommendations for all the envelopes from the expert review (see Section 5.2) and Section 5.1.1.

5.5.2 Second Reminder Letter (ACS-23(LX)DTR)

General Feedback for Consideration:

As with the external envelope, the letter seemed to convey urgency in completing the American Community Survey. There wasn't a strong feeling of positive emotion towards the letter among respondents, but they appeared to understand the intent of the letter. Although there were three respondents that reported they would not respond after reading the letter, the majority of respondents said this letter would encourage them to complete the survey.

The text that appeared to resonate with respondents in encouraging them to complete the ACS was the text saying that interviewers would soon be attempting to contact the household:

"Soon, Census Bureau interviewers will be attempting to contact households who have not yet responded to the American Community Survey. We do this in-person follow-up as part of our effort to produce the most accurate results possible. There is still time to respond online, and I would appreciate it if you would respond now because it saves the cost of sending someone to your home."

Eighteen respondents noticed this text in the letter. Out of those 18, eight respondents mentioned it would encourage them to respond so they would avoid interviewer contact.

R03: "Okay, it says there is still time to respond online. I am starting to calm down, it is not a big deal [based on the message]. But then it talks about sending people to our house, so I would want to respond [to avoid this]."

R15: "I would.... At this point, really sit down and do the questionnaire. Because nothing I hate more than anybody knocking on my door. So this, of everything, would be the incentive. That might be something.... Well, maybe it's good to save it for last. I was going to be like maybe you should put that in a little bit earlier, because I really don't like people knocking at my door."

R17: "I still would want to do it online because I wouldn't want to have to deal or have to talk to anybody."

Four respondents also mentioned during the debriefing that the second reminder was the letter that stood out the most and would convince someone to respond because of the chance of an interviewer contacting the household.

A second feature of the letter that was commonly noted among respondents was the following text: "Just as people are required to report for jury duty, get a driver's license in order to drive, pay their taxes and report their income, they also have the obligation to respond to this Census Bureau survey." During retrospective probing, thirteen respondents noticed this sentence highlighting the comparisons between completing the ACS and other legal obligations. The majority of respondents viewed this sentence very positively. In general, they thought the sentence referencing other civic duties indicated the seriousness and importance as a legal obligation in completing the ACS.

R14: "They explain.... It says, just as you have to do jury duty, blah blah blah... they also have the obligation to respond to this Census Bureau survey. I don't know, just that, as opposed to 'required by law.' I like that wording better."

R9: "That I have to do jury duty, I have to get a driver's license, that this is my responsibility just like jury duty." Interviewer: "How do you feel about that sentence?" "That's new information to me. I honestly did not know that that was my duty as a citizen to do anything with the Census other than count the number of people in my house." This respondent also recommended placing this "jury duty" sentence in the first letter.

R13: "That, to me, is more understandable than just putting Title 13 U.S. code on it."

Twelve respondents said this letter would encourage them to respond to the survey online. Four respondents mentioned that they would call the phone number provided on the letter; three of the four indicated that they would call with the intention of completing the survey by phone. Three respondents mentioned that they would fill out the questionnaire and mail it back. One respondent mentioned that he would try to find the paper questionnaire and if not, he would complete the survey online. Although a few respondents mentioned mailing back the paper questionnaire, it seems completing the survey online was a popular choice.

A few respondents did note in the debriefing that they would be annoyed by the time the second reminder letter arrived because of the repetitiveness. One respondent mentioned (R07) that he wouldn't really respond because there are no real repercussions of not responding (even if letter stated "required by law."). A second respondent (R12) said the text urging the respondent to reply online because it "saves the cost of sending someone to your home," would deter her from responding to the survey, saying she would think "Ok, I'm gonna cost you money because you're costing me time.' So I'd be kind of rebellious about that one. Now I want to make you spend money." A third respondent (R24) implied it would depend on the person's motivation to complete the survey and not the letter itself at this point. A fourth respondent (R08) mentioned she would just be stubborn and not respond.

Overall, the messages in the letter would encourage the majority of respondents to complete the survey if they had not responded to that point. The sentences mentioning interviewer contact if there was still no response and the legal obligation (jury duty) to respond to ACS was productive to encourage respondents to complete the ACS. However, respondents generally appeared to interpret "interviewer contact" as the representatives coming to the household

Recommended Revisions with Justifications:

In general, respondents liked the sentence that compared completing the Census Bureau survey to being required to report for jury duty and other legal obligations as a citizen or resident of the United States. As mentioned above, a few respondents found this sentence to be more understandable on why it's important to complete the ACS compared to the "required by law" text in earlier letters. As noted under the recommendations for the first reminder letter (Section 6.2.1), we recommend moving the sentence comparing the ACS to other legal obligations to the first reminder letter (second mailing) to replace the sentence "Your response is critically important to your local community and your country is required by law." The sentence mentioning the response being "required by law" would then replace the "jury duty" sentence in the second reminder letter.

6 CONCLUSIONS

From August 2016 through February 2017, the Center for Survey Measurement reviewed the Full Redesign mailing materials to be used in the 2017 ACS Mail Design Test. CSM performed a two-step review of the Full Redesign materials, beginning with an expert review that was followed by in-person cognitive testing. This report answers three key research questions, reflecting the goals of the 2017 ACS Mail Design Test.

1. Do respondents notice the progressive tone and the unique content of the mail materials?

Without being directly prompted to compare the tone of the mail pieces, some respondents did notice and comment on a progression in the tone of the mail pieces, with the first two letters being perceived as notably polite and friendly and with the postcard and final envelope standing out as especially firm and potentially threatening. However, respondents did not seem to perceive the content of the mailings as particularly distinct. When asked about new reasons to respond to the survey in the various mail pieces, a number of respondents commented that the content was repetitive or just rephrased the same ideas. It is important to note that one limitation of cognitive interviews is the back-to-back review of the mailing materials. This may make the materials appear more repetitive than if they were spaced properly. Although a few small differences stood out, for the most part respondents seemed to perceive the mailings as being similar in content but more insistent in tone.

2. Do respondents perceive the benefits messages in the letters to be compelling?

Although respondents tended not to perceive the content of the mailings as being unique (including the various benefits statements), they nevertheless indicated that the benefits to their community and the country mentioned in the mail materials were important and motivating.

3. Do respondents identify any recurrent questions or concerns about the mail materials?

A number of overarching questions and concerns emerged across mail pieces. Key questions and concerns included:

1. the feeling that the envelopes were too busy and contained confusing text,

- 2. skepticism about the legitimacy of the mandatory nature of the survey request, and
- 3. questions about the deadline for responding and corresponding uncertainty about the urgency of the request.

This report also presents a number of recommended modifications to the mail materials, based on the findings from cognitive testing. These include restructuring the required text on the envelope to appear less cluttered, adding language to thank individuals receiving later mailings who may already have responded, and making modifications to the mandatory statements to improve respondent understanding.

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