January 8, 2015

2014 AMERICAN COMMUNITY SURVEY RESEARCH AND EVALUATION REPORT MEMORANDUM SERIES #ACS 14-RER-30

MEMORANDUM FOR ACS Research and Evaluation Advisory Group

From: James Treat (signed on 01/14/2015)

Chief, American Community Survey Office

Prepared by: Shelley Walker

American Community Survey Office

Subject: American Community Survey Messaging and Mail Package Assessment

Research: Cumulative Findings Report

Attached is the final American Community Survey Research and Evaluation report of the cumulative findings from the ACS Message and Mail Package Assessment Research project. This report provides key considerations for ACS mail package testing and recommends two alternate mail package designs for field-testing. These findings reflect the results of seven iterative, mutually supportive qualitative and quantitative research studies conducted during Fiscal Year 2014. This research incorporated an extensive review of existing ACS mail package research and 2010 decennial and evaluation studies.

If you have any questions about this report, please contact Shelley Walker on (301) 763-4045.

Attachment

cc:

ACS Research and Evaluation Work Group ACSO PMGB COM PMGB

ACS Integrated Communications Steering Committee

Ian O Brien CNMP Jennifer Smits PIO

Michael Cook

Messaging and Mail Package Assessment Research Subteam:

Agnes Kee ACSO

Cheryl Chambers Dameka Reese Gary Chappell Tasha Boone Shelley Walker

Nancy Bates ADRM Laura Sewell CNMP

Monica Wroblewski

Jennifer Hunter Childs CSM Eric Charles Newburger DIR

Stephen Buckner

Jennifer Kim DMD

Belkines Arenas Germosen

Thomas Chesnut DSMD Jennifer Guarino Tancreto DSSD

Anthony Tersine, Jr Elizabeth Poehler

Justin Keller EPCD

Timothy Olson FLD

Michele Hedrick PIO

Stacy Vidal

W Neil Tillman

Catherine Rosol ERIMAX

American Community Survey Messaging and Mail Package Assessment Research: Cumulative Findings

Final Report Dec. 19, 2014

DECISION PARTNERS





Table of Contents

EXECUTIVE SUMMARY	3
Introduction	3
Key Considerations for ACS Mail Package Field Testing	4
Proposed Alternative Mail Package Designs for Use in Field Testing	7
PROJECT BACKGROUND	9
ACS Messaging and Mail Package Research Approach	11
Key Findings and Implications	12
Expert Review of Mail Package Designs	17
RESEARCH STUDIES	19
Mental Models Interviews	19
Deliberative Focus Groups	25
Key Informant Interviews	28
Message Testing: Benchmark Survey	32
Message Testing: Refinement Survey	35
Mail Package Focus Groups and One-On-One Interviews	39
Online Visual Testing	48
KEY CONSIDERATIONS FOR ACS MAIL PACKAGE FIELD TESTING	56
Recommended Experimental Dimensions for ACS Field Testing	56
Proposed Alternative Mail Package Designs for Use in Field Testing	60
APPENDIX A: MAIL PACKAGE DESIGNS	65

EXECUTIVE SUMMARY

Introduction

Between October 2013 and November 2014, Team Reingold supported the U.S. Census Bureau's American Community Survey Office (ACSO) in conducting a series of related research studies aimed at improving the design of the American Community Survey (ACS) mail package and messaging toward potential ACS respondents. Cumulative findings from this research and resulting recommendations for further testing are outlined in this report.

The goals of this research were:

- To develop and test messages and mail package designs to increase ACS self-response rates, thereby decreasing the expense of costly follow-up outreach to non-responders
- To obtain insights to support general outreach, data dissemination, materials development, and call center and field operations

In support of these goals, Team Reingold conducted seven iterative, mutually supportive qualitative and quantitative research studies designed to triangulate attitudes and messages about the ACS and identify effective mail package designs:

- Mental Models interviews with individuals who work closely with ACS stakeholders (respondents and data users)
- Deliberative focus groups with stakeholders who are distrustful of the government
- Key informant interviews
- Comprehensive message testing: benchmark survey
- Comprehensive message testing: refinement survey
- Mail package focus groups and one-on-one interviews
- Online visual testing of alternative mail package designs

In July 2014 the Census Bureau engaged expert mail survey researcher Don Dillman to review Team Reingold's proposed alternative mail package designs prior to our final round of testing. Additionally, in July 2014 Team Reingold provided draft designs to members of the Census Bureau's National Advisory Committee and Census Scientific Advisory Committee. We have factored their review into our recommendations.

The results from these research studies will be used to inform future field testing with alternative mail packages, to be conducted by ACSO. Results may also inform broader ACS messaging efforts, with the potential to be used in materials for outreach and field operations and to promote education and awareness about the ACS.

The research findings are intended to provide guidance on effective messaging and designs to encourage participation in the ACS. However, as these studies were conducted under the CLMSO's Generic Clearance for Data User and Customer Evaluation, these studies should not be used to draw inferences regarding the U.S. population at large and should not be used to publish any official statistical estimates.

Review of Decennial Census Research

Our research approach was informed by an extensive review of existing ACS mail package research and the 2010 decennial planning and evaluation studies. Among other decennial studies, we reviewed the following reports:

- Census Integrated Communications Program Evaluation (CICPE), 2009–2012
- 2010 CBAMS I and CBAMS II, 2008 and 2011
- 2010 Census Integrated Communications Program Paid Advertising Assessment Report
- 2010 National Partnership Research Final Report
- Paid Advertising Heavy-Up Experiment (PAHUE), 2010
- Gallup Census Continuing Tracking Survey (CCTS), December 2009

 –April 2010
- Continuous Attitude Tracking Study (CATS), October 2009–April 2010
- Mail-Back Audience Segmentation, 2007

In general, this existing literature helped us identify what the most significant factors for survey response are and what hypotheses the Census Bureau had already thoroughly tested. Previous segmentation and focus groups studies have found that messages that appeal to community benefit are broadly effective (See Bates et al., 2009; Conrey et al., 2012; Newburger, July 2009; Newburger, August 2009). Studies have also found that messages about mandatory participation are effective at boosting response rates, though many respondents react negatively to these messages (See Leslie, 1996; Schwede, 2008; Navarro, 2011).

More specifically, we adopted several questions about benefits, harms, and likelihood to participate in data collections from the CBAMS I segmentation research, and used some of the key findings from the 2010 National Partnership Research to identify the kinds of community leaders that we interviewed for the Key Informant Interview process.

We also benefited greatly from the robust research and experimentation conducted by ACSO in the development of the online response option (for an overview see Tancreto, 2013 "Evolution of ACS Respondent Contact Materials").

Key Considerations for ACS Mail Package Field Testing

Building on Team Reingold's research, ACSO plans to conduct field testing with alternative mail packages. Only real-world experiments can definitively identify which modifications to the mail package improve self-response rates. Following are suggested considerations and issues to be examined in further testing of alternative ACS mail package designs.

See the "Key Considerations for ACS Mail Package Field Testing" section of this report below for additional details on suggested approaches for field testing.

Recommended Experimental Dimensions for Field Testing

Based on our research findings and discussions about the ACS mail package, in the table below we identify five changes to the ACS mail process that could have a sizeable impact on self-response rates. We also include broad assessments about the opportunity for cost savings and of how likely the hypothesis will be validated by testing. As real world testing of these elements has not yet been conducted, these assessments are speculative and subject to interpretation.

#	Priority Dimensions for Testing	Opportunity for savings	Likelihood of success
1	Pursue visual design changes through alternative mail package designs		
	We propose to move forward with two alternative designs ("Official" and "Blended" concepts) that include prominent use of the Census Bureau logo, changes to the return address, and enhancements to the text of letters including callout boxes, bolding, and other visual devices. Based on the Online Visual Testing results, we found these alternative designs were seen as more "urgent," "attention-grabbing," and "important," suggesting that they present an opportunity for significant improvement in ACS response rates.	High	Medium / High
2	Add deadline-oriented messaging to mailing envelopes		
	We recommend testing versions of the envelopes, letters, and mail pieces that include mentions to "respond now" and "open immediately." For comparison purposes, we recommend a control package that retains the current language.	Medium	High
3	Eliminate the pre-notice mailing in favor of an added actionable contact		
	We recommend that the Census Bureau test eliminating the pre-notice mailing in favor of adding an "actionable" contact that allows recipients to respond to the survey online. Cutting the pre-notice is also one of Don Dillman's core recommendations. We believe cost savings would be likely to materialize from using an alternative contact to direct recipients to the online response portal: Even as the paper survey response invitations are mailed, online responses are still being completed at about 0.5% of initial eligible households per day. If the Census Bureau could gather just those online responses earlier, then those households could be skipped with the bulkier mail response packages.	Medium	High
4	Test additional mailing pieces		
	We recommend testing whether or not a further mailing, such as an additional reminder card, can prompt enough additional self-responses to justify the additional mailing. Consider testing this piece in the Internet response phase and/or at the end of the current mailing sequence. In 2011, the Census Bureau found it was cost effective to send an additional reminder postcard to households that could not be reached by CAPI operations. Our goal would be to send additional reminder cards until we reach the point of diminishing returns. Based on the ACS studies we have reviewed, the Census Bureau has not conducted testing to determine the saturation point where further mailings are not productive.	Medium	Medium
	Further tailor materials for non-English speaking populations		
	Use alternative or additional mailings for households in areas that meet certain criteria (i.e., in tracts with linguistically isolated communities).	more analysis necessary	Medium

Increasing self-response among Spanish-speaking populations, in particular, could be a significant win for overall response rates. These communities could be identified using ACS population estimates. Team Reingold proposes, in particular, to send an additional English-Spanish bilingual reminder postcard to appropriate target communities.

Sequential field testing to focus experimental dimensions

As the number of test conditions increases, the test becomes larger and more complex. Adding additional panels increases the number of households that must participate in the field test — both from larger numbers of test cells and from larger numbers of cases in each test cell to maintain the same precision over multiple comparisons. As such, we likely cannot test all the hypotheses in a single field test. To manage the size and complexity of any one round of field testing, the variations can be divided into several rounds of sequential testing. Where possible, it will be important to prioritize and streamline the hypotheses and independent variables in ACS field testing.

Sampling and design

To our understanding, field testing for the ACS will use production sample from 2015. Households will be randomly selected to receive a variation on the mail package (specific number and types of variations will depend on the hypothesis we are testing). Because previous research around self-response rates and mail packages have found effect sizes between 0% and 11% (see Dillman, July 2014), we know that any definitive field test will require a substantial number of households to draw statistically significant conclusions (likely between 5,000–20,000 households per test cell, depending on the specifics of the test).

Sample stratification

In ACS field testing, we recommend including addresses from both high- and low-response areas in all mail treatment panels. Some treatments may be more effective with high-response areas or low-response areas. For example, a particular mail strategy may be particularly effective in high-response areas with "fence-sitters," people who do not have particularly strong views about whether to complete the survey or not, but just need a reminder to participate. Alternatively, a mail strategy may be particularly effective with multi-unit renters, who require very noticeable mail to hold their attention. In that case, the Census Bureau could design a geo-targeted program—for example sending additional reminder postcards to in-sample households in low response areas.

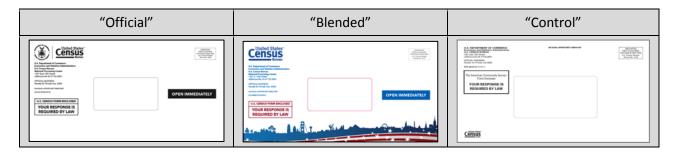
Evaluation

The primary measure of a successful mail package is that it increases the self-response rate over a control that receives the current package. We anticipate that it will be useful to conduct this analysis for both households in high- and low-response areas. Because several of the mail packages we have designed include multiple mail pieces that are different from the control, we recommend assessing the differences in response rates in several phases, such as weekly.

Additional Census Bureau analysis can examine error rates, imputation rates, and other measures of data quality (see Horwitz et. al. [2012]. "Use of Paradata to Assess the Quality and Functionality of the American Community Survey Internet Instrument").

Proposed Alternative Mail Package Designs for Use in Field Testing

Based on our research to date, Team Reingold proposes to move forward with two alternative designs (referred to as "Official" and "Blended" concepts) for field testing, in addition to the current ACS design as a control. We arrived at these concepts through multiple rounds of revision reflecting learnings from successive research studies, including focus groups and online visual testing of design concepts, and in consideration of Don Dillman's review of interim-stage designs. See Appendix A for full suite of proposed designs.



Our proposed "Official" design builds on successful elements of the existing ACS mail package, and introduces improvements to visual design and messaging suggested by our research. In our final research study, the online visual testing survey, we found that this design concept outperformed all other designs tested, including the Control, on several criteria.

Our second proposed design represents a "blended" approach, incorporating successful elements from the Official concept with the more evocative visual aesthetic of our earlier "Patriotic" design theme. While the Official version outperformed Patriotic overall in the last round of testing, we would propose testing some elements of Patriotic that seemed to perform well. The goal with this mailing series is to deliver some straightforward and simple pieces interspersed with more designed elements. We would like to determine whether some recipients who would overlook a straightforward, minimal-looking package would be drawn to a more eye-catching, evocative design. This quasi-Patriotic blend is intended to cater to diverse tastes. It is also designed to appear progressively governmental and "severe" as the mail sequence goes on: it begins with a brighter, friendlier look, and becomes increasingly stern and "governmental" by the time of the final mailing.

Proposed Adjustments to the ACS Mail Sequence

In field testing these alternative concepts, Team Reingold proposes to make some adjustments to remove, reorder, or combine certain pieces within the existing mail sequence.

Rem Telephone Contact (CATI) Paper 2nd Reminder Internet Reminder Reminder Personal Questionnaire Postcard OR Invitation letter Postcard Visit (CAPI) Additional Postcard ✓ A1. Envelope ✓ Rem1. Envelope ✓ B1. Perforated ✓ D1. Two-sided √ E1. Two-sided ✓ C1. Envelope ✓ A2. Instruction ✓ Rem2. Letter bilingual postcard postcard ✓ C2. Instruction card ✓ Rem3. Multicard postcard (choice) √ A3. Letter lingual buck slip C3. Paper survey ✓ A4. Multi- C4. FAQ brochure lingual brochure C5. Return envelope ✓ C6. Choice letter

Proposed Adjustments to the Existing ACS Mail Process

Proposed adjustments include:

- Eliminate the pre-notice mailing in favor of an actionable reminder letter
 - We believe the pre-notice contact represents a missed opportunity as it does not enable recipients to respond to the survey. In our tests, some participants objected to "a mailing telling me to look out for a mailing that tells me to go online" as a waste of their time and of taxpayers' money. Don Dillman also strongly advocates removing this mailing. To preserve the current number of respondent contacts, we follow Dillman in suggesting in place of the pre-notice mailing a sealed reminder letter featuring the response URL to be sent following the Internet invitation mailing (which would now be the first mailing in the sequence). The advantage of sending a sealed-letter mailing at this stage is that it can provide explicit instructions about inputting the user ID at the response URL.
- In mail package focus groups and interviews, one of the highest-scoring pieces we tested was a sealed, perforated postcard (See item B1, Appendix A). Advantages of this card include its connotations with other important government-issued mail; a sealed format conveying confidentiality and enabling more explicit instruction about inputting the personalized user ID at the response URL; and a bi-fold format providing added space to include foreign-language text. Based on the effectiveness of this piece in testing, we propose to send it to all respondents as an initial reminder postcard preceding distribution of the paper questionnaire mailing (and following an initial reminder letter). The effect of sending an additional reminder within the Internet response phase likely would be to increase online response. Potential added costs of producing a more complex piece should be weighed against its potential to increase early response rates. This piece can also be customized with added Spanish or other foreign-language

text for distribution in communities known to have sizable populations of non-English speakers.

Eliminate the user guide and multilingual brochure in favor of integrated instructional brochures

The current 16-page ACS user guide was largely found to be intimidating or unhelpful, and contributed to a sense of "clutter" in the survey mailing. Similarly, while we recognize that the Census Bureau has conducted testing on the effectiveness of the current multilingual brochure, most participants in our research who interacted with the brochure — including in our bi-lingual focus group and interviews— found the piece unhelpful or the layout perplexing. Don Dillman also recommends removing both of these pieces. In their place, we propose to 1) combine key multilingual text with OMB-required language into an attractive, intuitive brochure for inclusion in the Internet invitation mailing, and 2) incorporate the useful "Why do we ask these questions?" section of the user guide with elements of the existing ACS FAQ and multilingual brochures into a comprehensive brochure for inclusion in the paper questionnaire mailing.

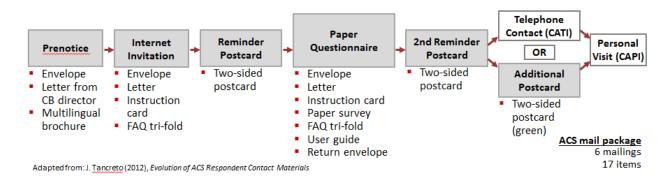
PROJECT BACKGROUND

The American Community Survey (ACS) collects detailed socioeconomic data from about 3.5 million households in the United States and 36,000 households in Puerto Rico each year. The resulting tabulations are provided publicly on an annual basis. ACS data are widely used inside and outside the federal government, and play an important role in determining how more than \$400 billion in federal and state funds are distributed each year (Groves, 2012).

The ACS is a multi-modal survey. Households initially receive a series of mailings to encourage them to respond online or by mail (see the 2009 ACS Design and Methodology Report for a full description). These modes are identified as self-response. After this phase, Census Bureau representatives attempt to follow up with the remaining households by telephone. Finally, in-person visits are made to a subsample of the households that could not be contacted by telephone.

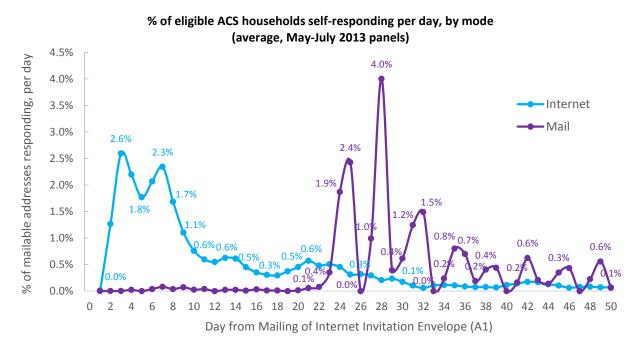
The current ACS mail approach has been developed through a series of Census Bureau research projects (see Tancreto, 2012).

Current ACS Mail Package



Patterns in Online and Mail Response Rates

On the basis of averaged response rate data from three 2013 survey panels, a total of 49.2% of initial households self-respond by mail or online in the 100 days they are in-sample. A majority of those self-responses (55%) are online and the balance (45%) is received in the mail.¹



Online responses begin arriving two days after the Internet invitation is mailed. Nearly four percent of households complete the ACS online by the end of Day 3, suggesting that at least some households almost immediately complete the survey. At least one percent of households complete the online survey every day for about a week (during which the reminder postcard arrives). After that, the rate falls to about half a percent of households per day. A trickle of online responses continues for the rest of the month, with about one quarter of online response (6.15% of total eligible households) arriving after the mail invitations packets are sent on Day 21.

Mail responses begin returning around Day 22. The mail response rates are also frontloaded, with two-thirds of the total mail response (14.98% of total eligible households) arriving by Day 35, and the final third arriving between Day 36 and Day 100. Because USPS does not deliver on Sunday, there are no mail responses on Day 26, 33, 40, or 47.

Review of previous ACS research

The Census Bureau has previously conducted a variety of studies regarding the impact of the structure and design of the ACS mail package on self-response rates. Most of these studies have focused on adding or removing pieces from the mail package. For example, in 2010, the Census Bureau tested through a repeated cognitive interview process different messaging and color on ACS letters and envelopes that distinguished the ACS from the decennial enumeration (Schwede and Sorokin 2009).

¹ The Census Bureau provided Team Reingold response rate data for panels from May, June, and July 2013 with the response rates by mail and online broken out by days after the Internet invitation is mailed (Day 0). We combined those three panels using a simple average.

Other tests have looked at the presence of icons compared with text-only instructions (Matthews et al. 2012), and different messaging approaches to reminder postcards (Schwede 2008).

In 2012, just less than 60 percent of households self-responded to the ACS survey (Olson, 2013). A 2011 follow-up study indicates that the top two reasons given by non-response households for why they did not respond to the ACS were: 1) they did not recall receiving mail about the ACS, and 2) they did not open the envelopes. This represents just over half (56%) of non-response households that received the "push" mail strategy currently implemented by the ACS (Nichols, 2012).

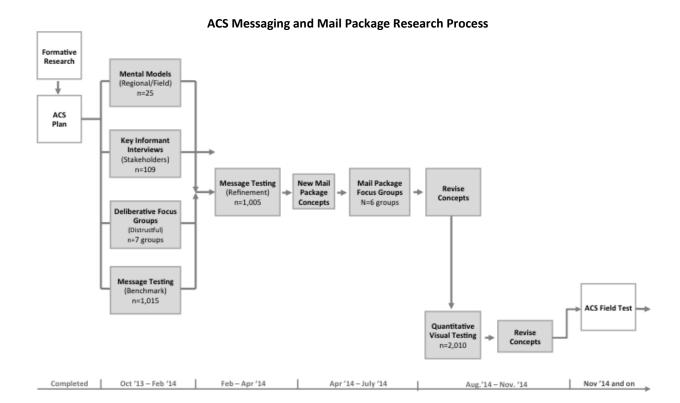
These households represent a key area of opportunity for the ACS. Telephone and in-person ACS completions are significantly more labor-intensive, and therefore more expensive, for the Census Bureau. If the Census Bureau could increase rates of recipients opening and keeping ACS mailings, it would see increased self-response rates, lowering the costs associated with contacting non-responder households by phone and field contact. For example, the Census Bureau anticipates a net savings of more than \$875,000 per year in nonresponse follow-up costs by increasing the overall mail response rate by 1.6 percent after including an additional reminder postcard (see Chesnut, 2010).

Other academic studies have identified the importance of design in mail packages, and how it can account for a significant amount of the variance in opening and read-through rates in direct mail campaigns (Feld et al. 2013, De Wulf, Hoekstra, & Commandeur, 2000). It follows that by refining the design of the mail packages, the ACS could increase opening and read-through rates, increase self-response rates, and reduce costs.

The last time the Census Bureau conducted testing with a completely different visual design was in the early 1990s. In that test, the more formal, "government" mail style dramatically outperformed the more colorful, "marketing" approach — though the alternative design did not display that response was required by law (Leslie, 1996).

ACS Messaging and Mail Package Research Approach

Between October 2013 and November 2014, Team Reingold supported ACSO in conducting a series of closely related research projects related to messaging and the ACS mail package with potential respondents to the ACS. This research aimed to increase participation rates in the ACS survey and reduce the amount of follow-up activities with non-response households.



In late 2013 and early 2014, the Team Reingold conducted several studies to develop effective messaging strategies that could be used in ACS mail pieces to increase self-response rates. These projects included mental modeling based on n=25 field interviews; n=7 deliberative focus groups; a two-wave comprehensive messaging survey of n=2,015 telephone respondents; and in-depth key informant interviews with n=109 ACS and community stakeholders. Together, these projects identified messaging themes that are most likely to increase response rates among those who receive ACS pieces in the mail.

Using these results, Team Reingold developed three alternative mail package designs and revised them through a series of n=6 focus groups and n=34 one-on-one interviews. We also incorporated recommendations from an independent review by an expert mail-out survey researcher (Dillman, 2014).

Finally, we conducted online visual testing to refine and improve the proposed designs of the alternative ACS mail packages. After the findings and recommendations from this online visual testing have been incorporated into design revisions, ACSO will design and implement field testing using the designs. The goal of these tests will be to measure real-world changes in response rates and monitor potential data quality issues. This may include testing variations on the designs to identify whether specific elements of the package improve or harm response rates.

Key Findings and Implications

Crosscutting high-level findings from Team Reingold's research studies include the following:

Emphasize the highly favorable Census brand in ACS materials

Nearly every one of Team Reingold's studies affirmed that people are largely unaware of ACS, but are highly aware of — and have favorable views toward — the Census Bureau and the decennial census.

This lack of prior awareness of ACS brings people to question its legitimacy and the importance of participation.

The American Community Survey was also a peculiar "blind spot" on tested mail materials: Even by the end of long conversations about the mail pieces in our focus groups, a majority of participants had never referred to the ACS by name, instead confusing the survey with the decennial census or referring to it merely as "a census survey."

Conversely, our online visual testing found that participants were strongly drawn to the U.S. Census Bureau logo: In our image click exercise, the Census logo received the majority of initial clicks in virtually *every* click test heat map.

If lack of awareness of the ACS contributes to questions of its credibility and consequently decreased likelihood of self-response, creating increased awareness about and context for the ACS among recipients could lead to improved response rates. More closely associating ACS with the Census brand could create a ready point of reference for respondents, helping reassure them as to ACS' origin, purpose, and credibility.

However, counter to a hypothesis stemming from our initial messaging research studies, simply placing the ACS and Census logos in close proximity on the alternative designs did not seem to be enough to bring participants to clearly associate ACS with Census or for ACS to inherit the "glow" of the Census brand. Considering also the frequent confusion of the ACS with the decennial census, future testing should further downplay or even eliminate the ACS designation in favor of Census branding or else more explicitly and more prominently articulate the relationship between ACS and the decennial census.

Use visual design principles to draw attention to key messages and help respondents better navigate ACS materials

Existing ACS materials are largely "flat," with a minimal use of text formatting or clear sense of what are the most important elements or calls to action on a page. In our testing, elements such as Web addresses, telephone numbers, and text that were enhanced using graphic design techniques received more attention.

For example, the Patriotic Internet invitation used a blue accent box to call out the Web address to complete the survey: This item was clicked earlier and more frequently in the Image Click Analyzer visual testing exercise as compared to the same content when featured less prominently in other mail designs, including the Control.

A successful package will use visual emphases to clearly call out proven messages, establish graphic hierarchies of important elements, and better help the respondent visually navigate the package.

Use deadline-oriented messages to attract attention and create a sense of urgency

Based on Online Visual Testing results, we found that alternative designs using prominent deadlineoriented messages such as "respond now" and "open immediately" were seen as more urgent, attention-grabbing, and important, suggesting that they present an opportunity for significant improvement in ACS response rates.

In other qualitative studies, participants volunteered that a stated deadline or due date would be a strong motivator for them to respond in a timely fashion, especially when coupled with the "required by

law" notice. In addition, several participants responded positively to "respond now," "now is the time to respond," and similar urgent or deadline-oriented messages.

We recognize that the idea of adding a self-response deadline is a matter given close consideration in past Census Bureau research and that there are numerous difficulties in operationalizing a deadline given the rolling schedule of survey dissemination. Nonetheless, the benefits of including some form of deadline — or even the appearance of a deadline — may merit further consideration.

Prioritize an official, "governmental" appearance over a visually rich "marketing" approach In mail package focus groups and interviews, participants found that compared with some of the more colorful, image-rich, or "friendly" designs of the alternative packages, the Control package — with its straightforward design, typeface, and production quality — was more like what they would expect to

straightforward design, typeface, and production quality — was more like what they would expect to receive from the government and therefore more important, more credible, and less likely to be an advertisement or a solicitation. In the visual testing exercise, moreover, participants were more likely to sort marketing-like materials into the "trash." Don Dillman strongly echoed these sentiments on the basis of prior research.

Notably, however, after integrating learnings from the focus groups, the revised "Official" design — which combined the stark appearance of the Control with prominent graphic elements promoting urgency — significantly outperformed the Control in subsequent visual testing.

The first priority of a successful ACS mailing package should be that it looks official, legitimate, and important. While the existing ACS package is successful on many of these fronts, there are significant opportunities to make a future design appear more modern and better organized by applying best practices of graphic design. A successful package will strike a balance between conveying that the mailing is official and important while also being eye-catching and inviting enough to provoke respondents to notice, open, and complete the survey.

Emphasize effective "mandatory" messaging

In numerous studies, we found the "required by law" message to be the single most effective message in attracting attention and motivating participants to complete the survey. This largely confirms existing Census research.

In our online visual testing, the "mandatory" message clearly caught participants' attention in envelopes, letters, instruction cards, and reminder notices. For example, nine in ten respondents highlighted the words "required by law" in the Official pre-notice letter — which was more than three times greater than the next-most identified words.

Interestingly, in our mail package focus groups and interviews, we found these messages to be a strong motivator both for more altruistic individuals who said they would fill out the survey willingly and for those who admitted they would do it only because they were required to.

Moreover, we saw little resistance to the idea of *more* and *earlier* legal warnings, including the threat of a fine. Frequently, participants — even more clearly cynical individuals — volunteered that strongly worded warnings should be conveyed early and often if the Census Bureau expects recipients to respond in a timely manner.

As could be expected, there were a few individuals who bristled at the mandatory nature of the survey, especially among those admittedly distrustful of the government. For such individuals, it may be useful to more clearly make the case for *why* completing the survey is mandatory – in terms of generating accurate data to best serve communities, etc.

Demonstrate benefits of ACS participation to local communities

Several of our studies suggested that participants evaluate the ACS foremost in terms of tangible, visible benefits to their local communities — such as improvements to roads, schools, and hospitals. We found that participants were often more interested in potential benefits for their own neighborhoods than for the nation, their states, or even their cities.

Of the fourteen message variations we tested in the Refinement Survey, the two messages about how state and local leaders could use ACS data to build roads, schools, and hospitals were the most likely to increase respondents' reported likelihood to respond.

After initial messaging studies, Team Reingold hypothesized that it may be valuable to customize and geographically target ACS materials to speak to local benefits in respondents' areas (our best available and most feasible proxy was federal dollars allocated to states on the basis of ACS data). However, upon further testing, we conclude that the benefits of mass customization are likely not worth the added operational difficulties. It is possible that providing information about state-level benefits is not granular enough for respondents to connect ACS participation with real-world benefits "before their eyes."

Nevertheless, ACS should continue to use generic messages that emphasize community value. While secondary to punitive messages in their impact on motivating response, altruistic messages about the benefits of participation for one's community were more likely to inspire goodwill and create positive associations to the survey.

Draw a clearer connection between objectionable questions and real-world applications and benefits Many participants, especially those distrustful of government, objected to seemingly obscure questions — including those about household plumbing, commute time, etc. — as being overly intrusive or irrelevant, and such questions frequently brought them to question the legitimacy and importance of the survey.

If individuals better understood the purposes or direct applications of seemingly irrelevant ACS questions, they may be less defensive and more inclined to self-respond. ACS materials should demonstrate the practical applicability of objectionable ACS questions, tying them directly to their use by some meaningful government program or service.

Team Reingold has proposed drawing greater emphasis to the useful "Why do we ask these questions?" component of the ACS user guide by featuring this in an attractive, more comprehensive FAQ brochure to be included in the survey questionnaire mailing.

Field representatives should also be well equipped to respond to common objections. As one data collector we interviewed said, "I like to turn complaints about intrusive questions into an 'a-ha' moment" by explaining how responses to seemingly irrelevant questions are actually used.

Streamline mail packages and individual materials

Some participants felt strongly that the survey envelopes and overall mailing sequence contained too many or redundant pieces, creating unnecessary clutter and wasting paper and money. Similarly, many felt that certain individual pieces contained too much information and were too wordy or "busy." Participants frequently volunteered the idea that "less is more."

Many participants confessed that clutter is a "turn-off" for wanting to complete the survey. Some suggested that if respondents were too overwhelmed by the materials, they would just throw them out and give up. Some felt that certain pieces were redundant (for example, the Internet invitation letter and instruction card) and could be eliminated or combined.

Don Dillman also felt strongly that the envelope mailings contained too many enclosed pieces, and that certain pieces could be combined.

Several participants said they would expect that all of the information contained in the paper mailings would appear online as well, leading them to consider much of the paper unnecessary. It will be valuable to consider what information is online and what is not, and retain only the most essential information in the paper mailings.

A streamlined mail package, using a minimum effective number of materials and focused, actionoriented individual pieces, will likely facilitate survey response and improve the user experience.

Acknowledge language and cultural barriers to participation

Language barriers can affect respondents' ability to answer the survey and effectively communicate with Census data collectors. Nearly all data collectors (90%) in our mental models interviews mentioned language as a barrier to survey completion.

Greater awareness, availability, and targeted dissemination of Spanish- and other foreign-language materials could help improve response rates among hard-to-reach communities. The Census Bureau should consider testing alternative or additional outreach materials geared toward non-English speakers, particularly in districts with large populations of foreign-language speakers.

In particular, mailing materials should make clear how respondents can access the survey in their own language.

Materials should also acknowledge particular cultural barriers to completion. For example, our research found that migrant or Hispanic communities might be particularly sensitive to privacy or confidentiality issues insofar as those relate to immigration status.

Utilize local influencers as trusted messengers

In our Key Informant Interviews, leaders active with high-interest populations (low-income, minority, non-English, etc.) continually stressed the importance of communicating the value of ACS through trusted community channels.

Community leaders and organizations have greater trust built up in the community and are likely more credible messengers about local benefits from participation in the ACS than the Census Bureau. It may also be worthwhile to include testimonials from trusted local figures in ACS materials. Doing so could positively dispose respondents to the survey and concisely illustrate tangible community benefits

of ACS participation.

Having the right tools and training is key to persuading respondents in the field

Resources available to field personnel are often insufficient to the communications challenges they face. Data collectors report they often have to work hard "on the fly" to convey the relevance of the ACS to the respondent and underscore the importance of participating.

It will be valuable to equip staff with messages, materials, and training that enable them to underscore ACS' relevance—particularly at the local community level—for respondents and other stakeholders.

Expert Review of Mail Package Designs

Following our messaging research, Team Reingold developed three initial alternative mail package design concepts for further testing. In July 2014, the Census Bureau engaged expert mail survey researcher Don Dillman to review these interim-stage designs prior to their revision for online visual testing. He also closely reviewed the current ACS mailing package.

We summarize Dillman's findings below, including descriptions of how we have incorporated his review into our final recommendations for alternative ACS mail package designs:

Use designs that meet expectations of government-issued mail

On the basis of existing research, Dillman argues that ACS mailing materials should be consistent with what people expect from the government; graphical layouts and colors make materials appear more like a marketing effort for a commercial product. In accordance with this suggestion and our own research, Team Reingold has significantly scaled back any "marketing" orientation in favor of designs that convey importance and an "official government" aesthetic.

Centralize pertinent information and streamline mailing packets

Including a larger number of enclosures in envelope mailings makes the response task appear more difficult and is likely to decrease response. Some materials in the ACS package are redundant, and others divide important instructions across multiple pieces. Team Reingold's research supports this assessment, and we have proposed alternative designs that remove superfluous on unhelpful materials — such as the user guide and multilingual brochure — and integrate redundant information into unified pieces.

Eliminate the pre-notice mailing

Dillman argues that the ACS pre-notice as presently conceived is likely unhelpful to promoting response and can be eliminated or combined with the Internet invitation mailing. He also suggests that the total number of mail contacts is more important than a pre-notice mailing per se. If the pre-notice mailing remains, it should be personalized and include the mandatory notice. The suggestion to eliminate the prenotice supports Team Reingold's early proposal to do so, and we remain amenable to cutting this mailing. Dillman additionally suggests replacing the current reminder postcard with the sealed-letter format of the pre-notice letter; the advantage of this format is that it can provide explicit direction about inputting the user ID to respond online without compromising personalized information.

Offering a choice of response modes can be detrimental to response

Giving recipients the choice between response mode can give rise to a "paradox of choice," whereby offering a choice makes deciding what to do more difficult, and can delay response or encourage

choosing neither of the available choices. If providing a choice is necessary, Dillman suggests moving away from a "you decide" approach and rather explain that we are making another response option available as a helpful service to respondents.

Avoid redundant language and materials

Messaging and visual elements lose efficacy as they are repeated in subsequent mailings. Redundancy gives the impression, "I've seen this letter before, so why should I continue reading?" Team Reingold's research corroborates this suggestion, and we have endeavored to vary language and design between successive pieces of the same kind, including letters and postcards.

Avoid transitioning from positive to negative print

Visual science research has shown that people do not navigate well from positive print to negative print. Team Reingold has acknowledged this recommendation and removed the majority of reverse print from our proposed designs. We have, however, retained isolated amounts of reversed print in a few key areas. We believe the results of our Online Visual Testing indicate that viewers are still taking note of these reverse-print elements, even alongside other positive print.

Personalize communications to convey a sense of importance

Dillman suggests that, in favor of "mass mailing" techniques, letters to respondents should appear as a personal appeal to the recipient, including featuring a salutation from and signature by the director of the Census Bureau and use a more intuitive return address (the return address on current ACS materials would seem so suggest that the director of the Census Bureau is based in Indiana). Team Reingold has incorporated these suggestions, to the extent possible, into all of our proposed final letters.

Emphasize the mandatory response message

In line with existing Census research and Team Reingold's findings, Dillman notes the positive effect on response rate of prominent disclosure of the mandatory message. Mandatory messages have been featured prominently throughout Team Reingold's proposed designs.

Isolate experimental variables for testing

Looking at Team Reingold's proposed designs, given the great variety of differences between them, Dillman wonders how a field test could pinpoint the causes of an increase or decrease in response rates. We are certainly cognizant of this issue of isolating variables, and in our latest design versions we have endeavored to further converge alternative designs to help minimize independent variables — for example, we now use the same text copy in both proposed alternatives.

However, isolating dimensions will largely need to be addressed in the design of the field test. For example, the first round of field testing could explore variations in visual design or deadline messaging, and subsequent rounds could look at alternative reminder cards, etc. (See our detailed suggestions in the "Key Considerations for ACS Mail Package Field Testing" section of this report, below.)

RESEARCH STUDIES

Following are brief descriptions of the research design, methodology, and key findings from the ACS messaging and mail package research studies:

- Mental Models interviews with individuals who work closely with ACS stakeholders (respondents and data users)
- Deliberative focus groups with stakeholders who are distrustful of the government
- Key informant interviews
- Comprehensive message testing: benchmark survey
- Comprehensive message testing: refinement survey
- Mail package focus groups and one-on-one interviews
- Online visual testing of alternative mail package designs

For greater detail on study methodology and findings, see included links to access the full report on each study.

Mental Models Interviews With Individuals Who Work Closely with ACS Stakeholders (Respondents and Data Users)

Full report available at:

http://www.census.gov/acs/www/Downloads/library/2014/2014 Kovacs 01.pdf

Description of Research

"Mental Models" are tacit webs of belief all people draw upon to make decisions about complex issues. These constructs, uncovered through empirical research, must be addressed through communications in order to change attitudes, beliefs, and behaviors.

Team Reingold conducted Mental Models interviews (n=25) with both ACS Data Collectors and Data Disseminators to gather in-depth insights from those who most closely engage ACS stakeholders, including respondents, non-respondents, and data users.

Our goal was to leverage the knowledge and experience of personnel in the regional offices, State Data Centers, and Census Information Centers to develop recommendations to improve the effectiveness of the Census Bureau's interactions with both ACS respondents and data users, and ultimately support regional communications and improve outreach to external audiences.

We conducted confidential, one-on-one telephone interviews between December 10 and December 23, 2013, with 25 individuals selected by the Census Bureau.² Interviews averaged 52 minutes in length, ranging from 18 to 75 minutes. Interviewees included:

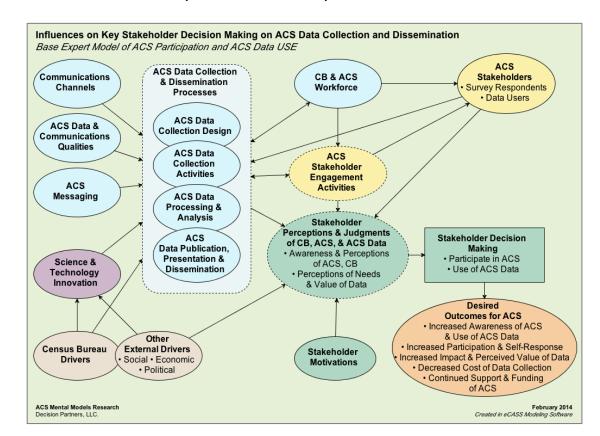
- FLD Regional Staff (12) Includes Field Representatives, Field Supervisor, and Survey Statistician Field positions, from the following offices:
 - New York (2)
 - Philadelphia (2)
 - Chicago (2)
 - Atlanta (2)
 - Denver (2)
 - Los Angeles (2)
- Data Dissemination Specialists (7) Includes Data Dissemination Specialist, Information Services Specialist, and PDS Manager positions, from the following offices:
 - Los Angeles (2)
 - New York
 - Philadelphia
 - Chicago
 - Atlanta
 - Denver
- CATI Interviewers (4), from the following Call Centers:
 - Tucson, AZ (2)
 - Hagerstown, MD
 - Jeffersonville, IN
- State Data Center Representative (1)
- Census Information Center Representative (1)

The research approach began with the development of an "Expert Model," developed in coordination with a small group of internal Census experts, which served as the analytical framework for interviews conducted with a broader sample of field personnel who have direct contact with ACS respondents and ACS data users.

Structured qualitative analysis of the interviews against this Expert Model enabled identification of the key areas of alignment and critical gaps in the thinking between the experts and the stakeholders. The interviews were designed to address key topics emerging from the Expert Model while allowing for other topics to surface through free expression.

Team Reingold

² Some interviewees only had experience with either data collection or dissemination, and were therefore unable to respond to both sets of questions in the interview protocol. As such, the "n" of the results has been reduced to n=22 for responses to questions on data collection and n=14 for responses to questions on data dissemination.



Expert Model of ACS Participation and Data Use

Stakeholder interviews focused on topics including:

- ACS Data Collection
 - Characteristics of non-respondents and most challenging populations to engage
 - What is working well when engaging non-respondents
 - Barriers to increased self-response and opportunities for improvement
- ACS Data Dissemination
 - ACS data users and their needs/uses for ACS data
 - What is working well with ACS data dissemination
 - Barriers to increased ACS data use and opportunities for improvement
 - Potential new users of ACS data

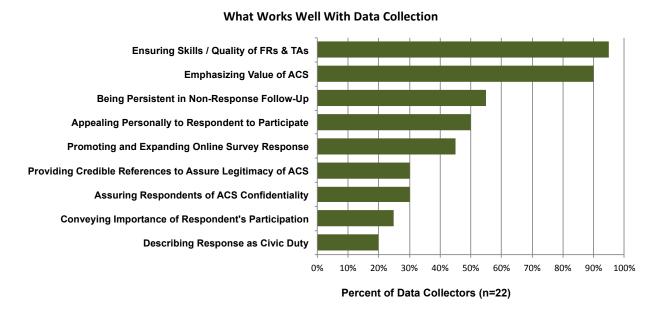
Key Findings and Implications

Demonstrate "What's in it for me?"

The importance of respondents' participation in the ACS and its value to their communities should be made clear.

When asked what is working well when engaging hard-to-reach populations, 90 percent of data collectors mentioned that they often can convince reluctant respondents to participate by emphasizing

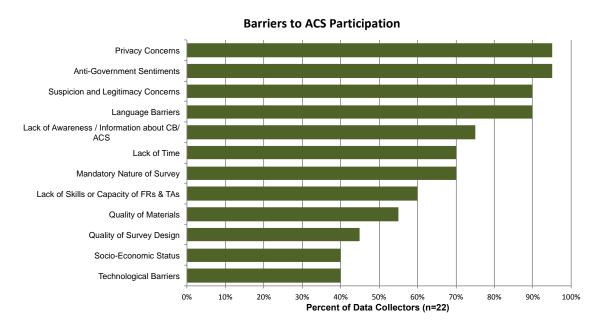
the value ACS can bring to them individually, to their community, and to society at large.



As one interviewee suggested, "The one thing that has traditionally worked best is when the question 'What's in it for me?' is answered."

Address barriers to participation: privacy, legitimacy, distrust of government

When asked about barriers that may contribute to respondents deciding not to participate in the ACS, Data Collectors frequently discussed issues including privacy concerns, anti-government sentiments, and concerns about the legitimacy of the survey.



Nearly all Data Collectors (95%) mentioned respondents being hesitant to share private information, noting that they often express concern about the confidentiality of the survey, especially for some sensitive topics such as income, and many are concerned about falling victim to identity theft.

"The people that have the most real concerns are the foreign-born because of immigration. They really feel that if anyone finds out there's multiple families in a house and not all of them are documented, that somehow this will lead to deportation."

Nearly all Data Collectors (95%) discussed some respondents' negative perception of government and distrust of government-sponsored activities, including the ACS.

"Confidentiality is an issue and people worry about their information and their privacy. All the stuff with the NSA doesn't help our cause. We try our best to tell people they become a number and they're not recognizable, but it's hard."

Ninety percent of Data Collectors discussed respondents questioning the legitimacy of the ACS when it arrives in the mail and of Census Bureau personnel when they are conducting non-response follow-up activities, and generally being suspicious due to, for example, concerns about falling victim to a scam.

Respondents lack awareness of ACS

Lack of awareness and knowledge about ACS (despite familiarity with the Census Bureau and the decennial Census) negatively influences respondents' perception of the legitimacy of the survey and the importance of participation, as well as use of ACS data.

Most Data Collectors (75%) thought that a lack of information about the ACS was a barrier to participation. They noted that people may not understand the personal and societal benefits of the survey data, or they may be misinformed about how the data are being used.

Draw a clearer line of site between ACS questions and their uses

Participants said many respondents are unable to see from specific ACS questions to why those questions are asked to how the results are used. Accordingly, the value of responding to the ACS is not clear.

"One of my wife's relatives works in job placement for veterans. He uses Census Bureau data to get jobs for veterans. I tell them the VA uses the survey to secure funding for jobs. That's why we ask questions about where you work and what kind of job you do."

"I explained to her the real need for this question is to establish commuting times, which will eventually lead to the expansion of her road so she don't have to deal with congestion. We try to turn a complaint into an 'ah-ha' moment."

Cultural and language challenges create significant barriers to participation

Language barriers (foreign languages and language level) can affect respondents' ability to answer the survey and effectively communicate with Census personnel.

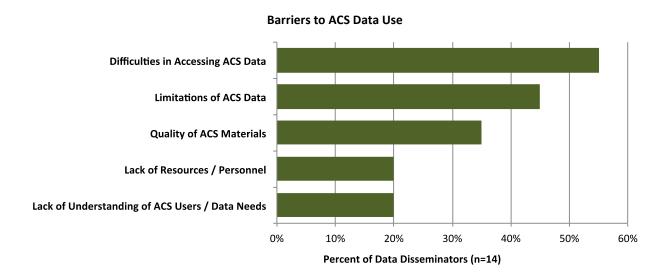
Nearly all Data Collectors (90%) mentioned language as a barrier to survey completion. They noted this is often an issue not only for respondents whose first language is not English and who struggle with the survey, but also for native speakers who have difficulties with the language level in the survey, the instructions, or the associated mailings.

Having the right tools is key to persuading respondents in the field

ACS field personnel report they lack robust communications resources that they can readily adapt to a respondent's local situation. They have to work hard "on the fly" to convey the relevance of the ACS to the respondent and underscore the importance of participating.

Address barriers to data use: difficulty of access, quality of materials

When asked what isn't working well with current data dissemination activities, Data Disseminators highlighted difficulties that users have in accessing ACS data, the limitations of ACS data, and the quality of ACS materials



Many Data Disseminators (55%) spoke of the difficulties users have accessing ACS data, specifically mentioning challenges with American FactFinder.

Some (35%) focused on the quality of ACS materials, noting that they can be difficult to read, unappealing, and not targeted to the needs of data users or specific to the users' community.

Deliberative Focus Groups With Stakeholders Who Are Distrustful of the Government

Full report available at:

http://www.census.gov/acs/www/Downloads/library/2014/2014 Orrison 01.pdf

Description of Research

Many Americans distrustful of the federal government are resistant to completing the American Community Survey, or to completing it in a timely manner, causing the Census Bureau to incur significant extra expense in follow-up efforts.

Team Reingold conducted focus groups (n=7) in cities across the country with individuals identified to be distrustful of the government, with the goal to understand what messages or arguments would best motivate them to self-respond to the ACS.

Focus group locations were selected on the basis of geographic and racial/ethnic diversity, and diversity of ACS self-response rates.

Focus Group Location	2012 Self Response Rate	Percent Hispanic Pop.	Percent Black Pop.	Percent White Pop.	Percent Asian Pop.	Percent AI/AN Pop.	Percent NHOPI Pop.
Albuquerque, NM	.44–.54	45.9%	2.8%	42.8%	2.5%	3.9%	.1%
Atlanta, GA	.45–.54	5%	53.6%	36.3%	3.3%	.2%	0%
Dallas, TX	.30–.54	41.9%	24.4%	29.5%	2.8%	.2%	0%
Los Angeles, CA	.30–.61	48.1%	9.3%	28.9%	11.3%	.2%	.2%
Richmond, VA	.54–.61	5.9%	50.1%	38.9%	3.5%	.2%	0%
St. Louis, MO	.54–.67	3.4%	49.1%	42.2%	2.6%	.2%	0%
Washington, DC	.61–.67	9%	51.3%	34%	3.5%	.2%	.1%
Source: American Fact Finder; ACS Self-Response Rates (2012) by Congressional District							

There were roughly 24 to 28 participants in each of the seven groups, for a total of n=186 participants.

The Los Angeles focus groups was conducted in Spanish with participants who self-identified as being primarily Spanish speakers.

Participants were recruited according to their attitudes toward the federal government with regard to trustworthiness, privacy, and intrusiveness. Screening questions were sourced from relevant sections of CBAMS II. Screening questions were used to determine respondents' trust of the federal government to use their information responsibly, keep the public's best interests in mind, and keep personal information private.

The "jury-style" deliberative format, modeled on a courtroom trial, compelled individuals who may be naturally inclined to oppose the ACS to nevertheless develop and defend arguments in its favor. The deliberative "jury group" format is a bottom-up, organic approach to identifying which messages resonate with everyday people, with minimal moderator intervention.

Deliberative Focus Groups - Research Design

Stage 1 Small groups reference materials in support of a perspective (pro/con) and develop arguments based on what resonates most with them. Most-engaged participants from small groups present arguments to larger group. Larger group acts as a jury on which arguments are most persuasive. "Pro" Group Engaged Participants "Jury" Group "Con" Group

The focus groups occurred in two stages. In stage one, small groups of participants were assigned to review a selection of existing messages and materials to develop and discuss arguments either for or against self-responding to the ACS. This way, individuals who were inclined to distrust the government were nevertheless incentivized to find the best arguments in support of the ACS.

The most engaged or articulate participants from these small groups were then asked to argue their respective cases in front of a larger group of "jurors." In this second stage, the opposing teams of advocates cross-examined each other, and the moderator led the jury in deliberating on which arguments were most persuasive.

Key Findings and Implications

America knows Census—but not the ACS

The overwhelming majority of focus group participants were unaware of or had misunderstandings about the ACS. Even individuals who had actually received the survey or used the data did not necessarily connect it to ACS. However, participants did have a strong awareness of—and more positive inclination toward—Census and the decennial survey.

"I think it would help if there was more education—because none of us have ever heard of [the ACS].... And especially with everything going on, Snowden and...the spying.... I think the more educated you are that it's a positive thing... would help tremendously with keeping people warm and fuzzy about filling this out." —Participant, Atlanta

If lack of awareness of the ACS contributes to questions of its credibility and consequently decreased likelihood of self-response, creating increased awareness about and context for the ACS among recipients could lead to improved response rates. More closely associating ACS with the Census brand

could create a ready point of reference for respondents, helping reassure them as to ACS' origin, purpose, and credibility.

"Why would you possibly need to know this?"

Participants frequently objected to ACS questions that they viewed as irrelevant or for which they did not understand the purpose. Concerns about "privacy" often became an issue in proportion to participants' inability to see the practical value of such questions. In addition to questions about topics participants viewed as opaque or absurd, they frequently could not understand why it was necessary to collect respondents' names or other personally identifying information, when response is purportedly confidential.

"The thing is that if I don't have hot water, maybe I didn't pay my bill. But they are asking a lot of unnecessary questions. They should be...going straight to the point. And this is scary especially to the Hispanic community." – Participant, Los Angeles

If individuals better understood the purposes or direct applications of seemingly irrelevant ACS questions, they may be less defensive and more inclined to self-respond. ACS materials should demonstrate the practical applicability of objectionable ACS questions, tying them directly to their use by some meaningful government program or service.

"They already have this information"

Participants often believed that the information ACS collects is already available from other sources, and were unaware that some of the sources they cited rely on ACS data. This belief often led to a paradoxical line of argument, whereby participants claimed to value their privacy, yet preferred that government extract personal information from an array of public and private sources than to ask for it directly.

"You have the local data, they know the schools, they know the population of their counties. They have this information. So we're doing a redundant collection of information upon information. How much information do we need to make the decisions on where our money is going to be spent?" —Participant, Atlanta

Demonstrating the ACS' unique value or pointing to ways that the data it collects are in fact used by "existing" sources of information could help dispel perceptions that ACS is redundant and unwarranted. The Census Bureau should use messages that demonstrate the important role ACS data play in our daily lives, and how ACS is actually used by "existing" resources that individuals, small businesses, or community nonprofits value. Messages could indicate how such resources as Zillow, Pew Research Surveys, etc., are "powered by" ACS.

Community benefit is key

Participants frequently evaluated the benefits of the ACS in terms of perceivable, concrete benefits to their local communities. Participants were often more interested in potential benefits for their own neighborhoods than for the nation, their states, or even their cities.

Pointing to tangible results—like improvements to roads, schools, or hospitals—realized as benefitting local communities or small businesses thanks to ACS data could positively dispose respondents toward

ACS' practical utility, thereby increasing likelihood of self-response. Messages could even be targeted to specific geographic locations, pinpointing infrastructural or other improvements that have made a difference in the quality of life of local communities.

Given that developing "hyper-local" examples for every community will be infeasible to operationalize, Team Reingold suggests 1), testing localized messages among a small number of priority "pilot" communities of low self-response, and 2), testing national-level messages using representative examples from particular communities that may resonate with other communities.

Language challenges create barriers to response

Participants in some groups, including the Spanish-language group, felt that non-English speakers are at a further disadvantage when it comes to awareness or understanding of the ACS, as information about the ACS and response options may not be readily available in their language. In particular, participants cited this as a barrier to self-response for Spanish-speaking populations.

Greater awareness, availability, and targeted dissemination of Spanish- and other foreign-language materials could help improve response rates among hard-to-reach communities. The Census Bureau should consider testing alternative or additional outreach materials geared toward non-English speakers, particularly in districts with large populations of foreign-language speakers. Mailing materials should make clear how respondents can access the survey in their own language.

Key Informant Interviews

Full report available at:

http://www.census.gov/acs/www/Downloads/library/2014/2014_Hagedorn_02.pdf

Description of Research

Previous Census Bureau analysis has identified socioeconomic and demographic characteristics that predict self-response rates. In an analysis of 2005 ACS self-response rates, characteristics such as income below the poverty line, minority, and non-citizen were associated with below average self-response participation rates.

The qualitative Key Informant Interview study was designed to gather insights from leaders that use data professionally or work for organizations that conduct outreach to low-income, minority, or immigrant populations. By better understanding how these groups interact with ACS data and with their communities, the Census Bureau can improve outreach and data delivery efforts. This is particularly meaningful for the high-interest populations that have low ACS self-response rates and therefore incur costly follow-up from Census Bureau field representatives in terms of time, money, and effort.

Team Reingold conducted in-depth telephone interviews (n=109) with key stakeholders in five segments — business, academia/research, state and local government, tribal government, and advocacy and community associations — to inventory stakeholder knowledge of ACS, identify key gaps, discuss potential themes and messages, and assess the best communication and outreach channels to specific groups. The sample sizes were designed to allow the research team to assess a broad range of

stakeholders, with more interviews allotted to segments that have greater heterogeneity and a broader range of experiences.

This study was specifically designed to reach beyond existing formal channels for external consultation (such as advisory boards and committees) in order to identify original approaches for the ACS.

Like other qualitative stakeholder surveys, these interviews are not intended to draw representative conclusions about all data users or stakeholders.

Key Findings and Implications: Hard to Reach Populations

Based on the Key Informant Interviews, we offer the following recommendations for improving response rates to the ACS data collection from low-income, minority, and immigrant populations:

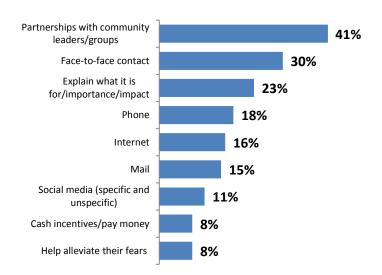
Partner with local organizations to advocate for the legitimacy and value of participating in the American Community Survey

The organizational leaders we spoke to with high-interest community outreach experience were certain that a local connection was critical for encouraging participation. Partnerships with community leaders were the most commonly cited (39%) type of communication/outreach from the Census Bureau that would encourage community members to fill out a survey.

These community leaders and organizations have greater trust built up in the community and are likely more credible messengers about local benefits from participation in the ACS than the Census Bureau.

Some participants suggested that tapping into community organizers and leaving

What type of outreach from the Census Bureau would work best in reaching members of your community to fill out a survey?



more of a footprint in the individual communities with a longer-term relationship with civic organizations and outreach infrastructures would be beneficial for all involved.

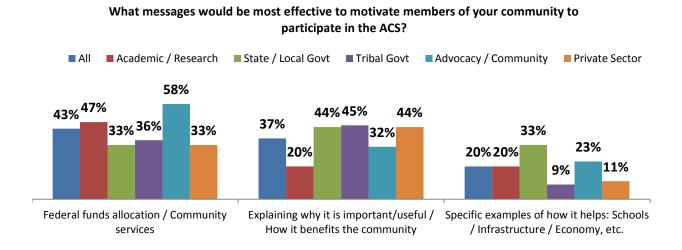
"For engagement, probably the best thing is partnerships with community agencies, other non-profits that tend to be able to bring folks together. It could be anything from the Development Coalition here in our region to a church organization to a Rotary club...any of those kinds of organizations."

Hospital Vice-President

The challenge with any ACS partnership directed at increasing response is figuring out how to communicate with in-sample households in an efficient and cost effective manner. On average, only 3% of households are selected for participation per year, though some small and low-response areas have substantially higher proportions of their population that are sampled for the survey. It seems potentially useful to explore ways to incorporate partnerships in the ACS mail process, potentially as part of the existing mail materials or as a separate mail item.

Demonstrate the local benefit of ACS to survey respondents

Interview participants also stressed the importance of an explanation of benefits to the community. Many suggested using specific, concrete examples of how the ACS could provide positive change in their community. Several participants mentioned schools a potential target of these specific examples, because they are a part of every community.



Emphasize the impact that the ACS has on distributing federal funding, and that survey participation ensures that participants' communities get their fair share

There was some suggestion that while members of the community understood that it was important to fill out the decennial Census, that there wasn't the same level of importance being given to participation in the ACS. Particularly with low-income or minority populations, some of the local governments, tribal governments, and non-profits we spoke to were concerned about an under-count and a resulting decrease in federal funding.

Fully four in ten (43%; 44 of 102) said the most effective messages related to the availability of community services or the allocation of federal funds. Several participants stressed that there was going to be federal funding distributed every year, and that not responding to the survey was doing a disservice to the community by undercounting the area and therefore depriving them of possible federal resources.

Key Findings and Implications: Data Users

Based on the Key Informant Interviews, we offer the following recommendations for encouraging further use of ACS data by key stakeholders in the non-profit, academic, government, and private sectors:

Raise awareness among organizations and potential users that are unaware of the ACS

Nearly four in ten (39%; 43 of 109) participants said their colleagues and peers likely knew nothing or almost nothing about the ACS. Only one in eleven (12%; 13 of 109) participants were coded as saying their peers knew a lot about the survey.

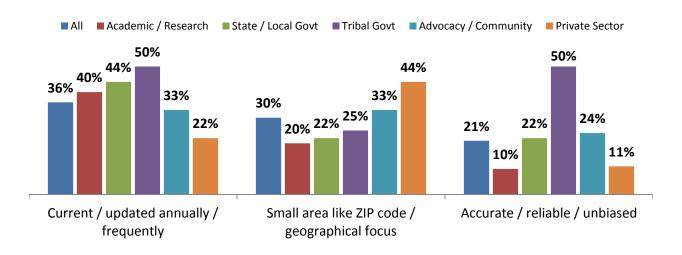
Over half (53%) of participants indicated that email would be an effective way to reach out to organizations like theirs to communicate benefits of ACS data. Professional conferences (19%) and workshops / training sessions (16%) were also frequently cited as key outreach methods, especially among government employees and academics/researchers.

There may be a missing opportunity to use the existing Census Bureau website to cross-promote the American Community Survey. One of the most common paths for participants to learn about the ACS and the data it provides was through the Census website itself. At least five ACS data users said they learned about the ACS through Census.gov, including several who noted that they have been using ACS data for years, but were unaware what the particular source of the data was until they accessed the website during the interview.

Emphasize that ACS data are accurate, available to the public at no cost, more precise than other sources, and updated annually

Among the n=103 data users we interviewed, we heard a strong desire for data that are accurate (92% very appealing), freely available to the public (79%), have greater precision than other sources (79%), and updated annually (75%). Among the n=53 ACS data users that we spoke with, we heard that the ACS is perceived as achieving those goals.

What do you find most useful about the data provided by ACS?



Develop additional training resources and continue to improve data dissemination tools

The most common frustration about ACS data, mentioned by fully one-third of participants (34%; 18 of 53), was difficulty with finding the data that they wanted.

Among the n=53 ACS data users we spoke with, a number mentioned an interest in learning how to use the updated American FactFinder, especially with its updated decision-making tree. This was a common theme across data users from all five segments, but impacted most of all the private sector businesses

and advocacy/community groups who seemed to be the most time-compressed. Several participants said that, even though they knew the information was available from the Census Bureau, they subscribed to expensive data intermediaries to help them find and manipulate the data they needed for their work.

"I wish it was easier to use it directly on the Census site, and be able to search it and manipulate it. I wish I didn't have to rely on other intermediaries to make the data useful for me. I think it would be really helpful if the Census would think through a much more user-friendly interface for ACS that would help ordinary people to ask simple questions and get simple answers to them."

Non-profit foundation low-income director

Several participants expressed a desire to have Census staff come and speak to them one-on-one about the new data sets and how best to use them. A few participants mentioned going to trade association conferences might be a beneficial way to talk to people about new data sets.

Message Testing: Benchmark Survey

Full report available at:

http://www.census.gov/acs/www/Downloads/library/2014/2014 Hagedorn 01.pdf

Description of Research

This quantitative study involved conducting telephone interviews (n=1015) with a representative sample of the U.S. population, with the aim to gather attitudinal data about ACS and identify the best message themes surrounding ACS participation (e.g., civic duty, importance for governance, community benefit).

Interviews were conducted between January 25 and February 5, 2014, with adults who generally handle the mail for their household, using a sample of both landline and cell phone numbers. Prior to fielding, the Benchmark questionnaire was cognitively tested and several changes were incorporated in order to improve clarity and user-friendliness.

We used a Random Digit Dialing (RDD) sampling approach for both the landline-exchange and cellular interviews in order to minimize coverage omissions and ensure a broad response pool. Landline interviews were stratified by ACS self-response rates to ensure that high-, medium-, and low-response counties had proportional representation in the overall survey results.

If interviewers identified Spanish-speaking households that indicated a preference to conducting the interview in Spanish, a Spanish-language interviewer called back to complete the interview. Respondents heard a random selection of six of eleven messages, with closed-ended questions measuring their assessment of each message heard.

Results from this study were further explored in the second, Refinement phase of message testing.

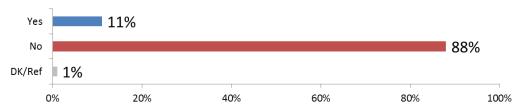
The research findings are intended to provide guidance (within a reasonable degree of certainty among survey respondents) on which messages are more or less effective than other messages. However, the surveys will not produce detailed statistical inferences about the population as a whole.

Key Findings and Implications

Improve public awareness and use messages that educate respondents about the ACS

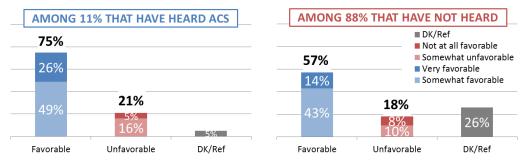
Only one in nine (11%) respondents said they had previously heard of the American Community Survey. This suggests that the first messaging barrier for the ACS might start with awareness: messaging may need to jointly inform and persuade households to respond.

8. Have you ever heard of the American Community Survey?



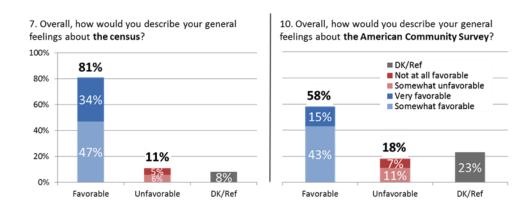
A promising finding is that the relatively small number of respondents who were aware of the ACS were more favorable (75%) than the larger group who were not familiar (57%). After respondents heard various messages, favorability to the American Community Survey had increased to 76% (an 18-percentage point increase from the pre-measures). This suggests that greater awareness and education about the ACS may lead to more favorable impressions of the data collection.

10. Overall, how would you describe your general feelings about the American Community Survey?



Explore ways to leverage the census' favorable brand to enhance the profile of the ACS

The census has a very strong name recognition and favorability across gender, age, race, and income levels. While the ACS had limited awareness, nine in ten (90%) adults we interviewed were aware of the census and four in five (81%) had a favorable view of it.



Explore the impact of different messages about choice of response modes

The top-testing message in the benchmark survey was "there are many ways to respond to the ACS including online, by mail, by phone, and in-person." This message was the most believable of the messages and a majority (52%) of respondents said the statement made them more likely to complete the ACS. This suggests that the Census Bureau research team should test messages around the response modes that can be used to complete the survey.

Messages Tested - Ranked by "Much More Likely" to Complete the ACS

Message	% "Much more likely" to complete the ACS	% "Very believable"
There are many ways to respond to the American Community Survey. It can be completed by mail, by phone, online, or in person.	22	51
State and local leaders use data from the American Community Survey to determine where to build new roads, schools, and hospitals.	20	26
The American Community Survey helps determine the annual distribution of more than \$450 billion dollars in federal funds that go to communities nationwide.	19	21
Even though all households participate in the census every ten years, only a small number of households are selected to participate in the American Community Survey each year.	18	37
Filling out the American Community Survey is required by law, just like filling out the census once every ten years.	18	21
The census has operated continually since Thomas Jefferson, James Madison, and the other Founders established it in 1790. Participating in the American Community Survey is an expression of patriotism and civic duty.	17	28
The American Community Survey is required by law to be completely non-partisan and non-political. This ensures that the statistics the Census Bureau gathers and produce are both reliable and trustworthy.	17	23
The American Community Survey is used to produce key	16	19

economic indicators. Businesses use the ACS to create jobs, plan for the future, and grow the economy.		
The American Community Survey is often the most reliable source of accurate and timely statistical information essential for decision making.	16	17
Nothing in the private sector compares to the American Community Survey. It is a leading source of information Americans use to learn about their neighborhoods, communities, cities, and states.	15	21
All individual information collected as part of the American Community Survey is kept strictly confidential. The answers from individual respondents cannot be shared with anyone – not even other government agencies.	15	16

Anchor the ACS to community value and explain how ACS data are used locally

Messages that described local benefits resulting from ACS participation (state and local leaders using ACS data to build infrastructure, and the distribution of \$450 billion of state and federal funds to communities) were in the top three messages for making people say they would be "much more likely to complete the ACS." Two in five (40%) people we interviewed said they believe answering the ACS could benefit their community

Separate the ACS from views on the federal government

A majority (52%) of respondents said they had an unfavorable view of the federal government and fully three in four (76%) said they trust the government in Washington to do the right thing "only some of the time" or "never." These negative perceptions come in stark contrast to the generally favorable view of the census that we measured among respondents. The American Community Survey would likely benefit by keeping its image distant from the wider frustration and disappointment in the federal government.

With this in mind, the least successful message was that "ACS responses are strictly confidential and cannot be shared, even with other government agencies." This tested in the bottom tier of messages in terms of both believability and likelihood to participate. In part, this may have been because the idea of "sharing with other government agencies" brought to mind recent headlines around national security and spying.

Message Testing: Refinement Survey

Full report available at:

http://www.census.gov/acs/www/Downloads/library/2014/2014_Hagedorn_03.pdf

Description of Research

Team Reingold conducted a second wave of telephone interviews (n=1,005) with a broad sample of the American public to drill down on the most effective messages, words, or phrases tested in the Benchmark Survey. The study also built on learnings from other qualitative ACS research projects, including the Key Informant Interviews, Deliberative Focus Groups, and Mental Modeling Interviews.

The initial Benchmark study measured awareness and general perceptions of the ACS; it also tested a variety of messages that became the foundation for the message themes and variations tested in the Refinement Study. The Refinement phase used the same methodology as the Benchmark, but used some different questions and messages to build on the learnings from that study.

This phase consisted of n=1,005 closed-ended telephone interviews among U.S. adults who generally handle the mail for their household. Data were collected through closed-ended live telephone interviews conducted in English, with Spanish language callbacks as necessary, between March 19 and April 2, 2014.

The message testing consisted of seven message themes. Each theme consisted of an "A" and "B" variation that differed in tone, language, or what kind of statistic was used in the message. Respondents heard either the "A" or "B" message. We analyzed the data to identify which messages were most effective at increasing likelihood to participate in the ACS survey.

Key Findings and Implications

Emphasize the U.S. Census Bureau brand to ACS participants

While both the Commerce Department and the Census Bureau were recognized by more than nine in ten respondents, there was a significant gap in favorability towards the two organizations. The Census Bureau had a +75% net favorability, compared to a +23% net favorability for the Commerce Department.

Favorability: Overall, how would you describe your general feelings about?							
	ACS	U.S. Census	Commerce	Federal			
	ACS	Bureau	Department	Government			
Very favorable	14	32	13	11			
Somewhat favorable	46	50	46	35			
Somewhat unfavorable	10	4	26	27			
Very unfavorable	4	3	10	25			
Net Favorability	+46	+75	+23	-6			

In addition, people who had negative views of the federal government tended to have more negative views on the Commerce Department. Views on the Commerce Department were correlated with attitudes towards the federal government (r = .58).

Current ACS materials prominently feature the U.S. Department of Commerce return address and seal. Further research should explore whether participants respond more favorably to positioning the survey in closer relation to the Census Bureau than to the Commerce Department.

Stress tangible and direct benefits of ACS, including roads, schools, and hospitals

Of the fourteen message variations we tested, the two messages about how state and local leaders could use ACS data to build roads, schools, and hospitals were the most likely to increase respondents' likelihood to respond.

				Likelihood t	o Particip	oate	
#	Message	More likely	Much more likely	Somewhat more likely	more	Somewhat less likely	Much less likely
1	State and local leaders in [respondent's state] can use American Community Survey data to determine where to build roads, schools, and hospitals.	61	26	35	26	5	7
_	State and local leaders across the nation can use American Community Survey data to determine where to build roads, schools, and hospitals.	59	26	33	27	6	6
	The American Community Survey and the Census show us not only the number of people who live in the country, but also how we live as a nation including our education, housing, jobs, and more.	58	25	33	28	6	8
3	Even though all households participate in the census every ten years, only a small number of households participate in the American Community Survey every year. The American Community Survey provides a more up-to-date picture of our communities.	54	18	36	30	7	7
	American Community Survey data help determine the annual distribution of more than \$400 billion in federal funds to communities nationwide.	57	22	35	26	7	8
2	American Community Survey data are used to distribute funds that build and maintain nearly one million miles of highways and fund over four thousand hospitals in communities nationwide.	55	23	32	30	7	6
5	By law, Census Bureau employees cannot publically release any American Community Survey information that could identify an individual. The penalties for unlawful disclosure can be up to two hundred and fifty thousand dollars and/or up to five years in prison.	55	24	31	30	7	6
	Census Bureau employees are prohibited by law from releasing any information that can identify any individual who fills out the American Community Survey. Millions of people securely participate in the American Community Survey every year.	55	21	34	32	5	7
6	The American Community Survey is the most reliable source for accurate data about every community in the country from the smallest rural communities to the largest cities.	54	19	35	29	8	8
	The American Community Survey is a leading source of information people use to learn about their neighborhoods, communities, cities, and states.	50	21	29	33	7	8
4	Local charities and non-profit organizations use American Community Survey data to better understand and meet community needs. This detailed, local information is not available from other sources.	54	19	35	29	8	8
	Small businesses use American Community Survey	49	20	29	34	10	6

	data to better understand and meet community needs. This detailed, local information is not available from other sources. This detailed, local data is not available from other sources.						
	Filling out the American Community Survey online is the quickest and easiest way to complete the survey. A paper survey is sent to people who do not complete the survey online.	52	24	28	31	7	9
,	Filling out the American Community Survey online conserves natural resources and saves taxpayers' money. A paper questionnaire is sent to people who do not complete the survey online.	49	19	30	34	8	8

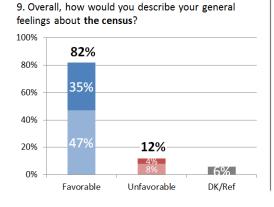
Three in five people we interviewed said the theme made them more likely to participate (a customized "in your state" variation had 61% say they were more likely; an "across the nation" variation had 59%). In both, over a quarter (26%) of mail-handling adults we interviewed said they would be "much more likely" to participate.

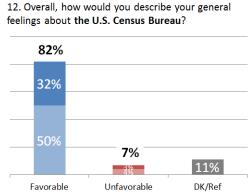
This message made a direct connection to tangible benefits for respondents because of their participation in the survey. The Refinement messages reinforced perceptions that participation in the ACS was good for communities. While 38% of respondents initially said that participating in the ACS could benefit their community, 45% said participation could help their community after hearing the messages. This increase was larger than the comparable 2% increase in the Benchmark survey.

These messages can be reinforced with examples of local governments' use of ACS data or partnerships with national and state-level associations of local governments. Further research may benefit from exploring whether the examples and partnerships can be effectively incorporated into messaging directed at survey participants to convey tangible benefits in participants' communities.

Position ACS alongside the decennial census to show how we live as a nation

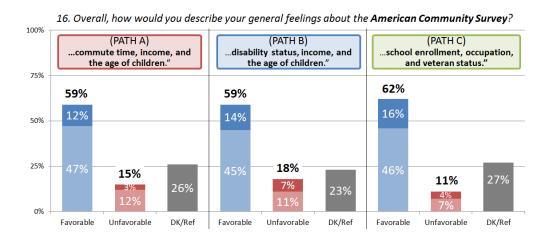
To a large extent, the Census Bureau and the decennial census are interchangeable to the mail-handling adults we talked to in terms of awareness and favorability. Nine in ten (94% and 90% respectively) people have heard of the Census Bureau and the census and four in five (82%) have favorable impressions.





The single most believable message (83% "somewhat" or "very" believable) was that, "the American Community Survey <u>and the census</u> show us not only the number of people who live in the country, but also how we live as a nation, including our education, housing, jobs and more" (emphasis added). Nearly three in five (58%) respondents said the message also made them more likely to respond to the ACS, which was the third highest among the fourteen messages we tested.

Focus on personal milestones and avoid sensitive topics to describe the survey in the mail package In order to explore the effects of providing an example of the kinds of questions on the ACS or a checklist of documents to collect before beginning the survey, we tested three variations on the description of the ACS. While all three variations had the same introduction, they listed different examples of topics that the ACS covers in the survey.



While the favorable scores between the three variations were similar, topics such as "disability status, income, and the age of children" triggered statistically significantly lower favorability (18% unfavorable) of the ACS than "school enrollment, occupation, and veteran status" (11% unfavorable).

Mail Package Focus Groups and One-On-One Interviews

Description of Research

Team Reingold conducted a series of focus groups and one-on-one interviews across the country to understand how different messages and design elements might affect the likelihood of potential respondents to notice, open, or respond to the ACS mail package.

Locations were selected to represent a diverse range of geographies and racial/ethnic demographics. In addition, we deliberately sourced these locations from low-response geographies (as determined with reference to Olson, "ACS Self-Response Rates by Congressional District in 2012") with the goal of targeting low-response population groups (including minority, low income, and immigrant populations).

Demographics and ACS Response Rates by Location

	Response Rate	Hispanic	Black	White	Asian	AI/AN	NHOPI
		Pop.	Pop.	Pop.	Pop.	Pop.	Pop.
Chicago	.302–.612	28.9	32.4	31.7	5.4	.2	-
Fresno, Calif.	.302–.445	46.9	7.7	30	12.3	.6	.1
Miami	.302–.445	70	16.3	11.9	.9	.1	-
New Orleans	.302–.445	5.2	59.6	30.5	2.9	.2	-
New York, N.Y.	.302–.612	28.6	22.8	33.3	12.6	.2	-
Phoenix	.302–.445	.1	6.2	47.1	3.1	1.6	.2

We used a screening process so that participant demographics approximated those in the chosen geography. We also included participants who answered screener questions indicating that they may have distrustful attitudes toward the federal government. About one-third of participants had relatively distrustful attitudes toward the federal government on the basis of their responses to these questions.

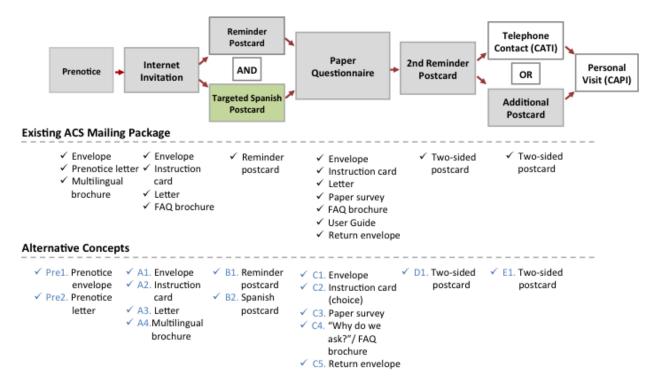
We conducted six focus groups with 52 participants and interviews with 34 participants, for a total of 86 participants. Interviewees were recruited from the same pool as the focus group participants. They were screened for the same characteristics as focus group participants, but those who fell into hard-to-reach categories of particular interest (e.g., tribal members) were considered first for individual interviews to ensure sufficient depth of input.

We interviewed four individuals from tribal lands, with an additional American Indian participating in one focus group.

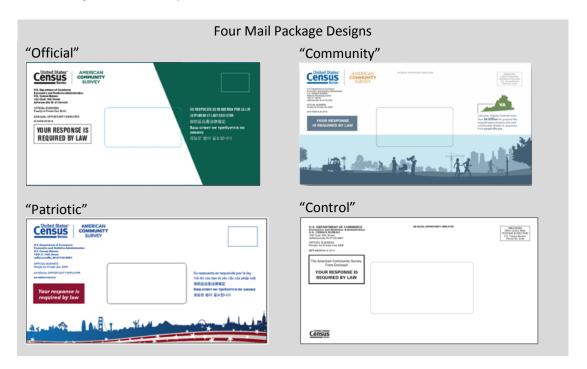
In Miami, we deliberately recruited a mixture of ESL (English as a second language) and English/Spanish bilingual participants, with the goal of gathering perspectives from Spanish-speaking populations.

We developed and tested three design concepts — we refer to these as "Community," "Official," and "Patriotic" themes — in addition to the existing package, which we also tested as an experimental control.

ACS Mailing Sequence: Elements in Existing and Alternative Concepts



We asked participants to provide input on the design, messaging, and layout of each variation. The different design concepts were presented to participants in a counterbalanced order to avoid potential order effects. At each stage in the mailing sequence we asked participants to rank the concepts in order from most to least effective (1 to 4) at bringing them to notice, open, or respond to the package. We also gathered rankings for the concepts as a whole.



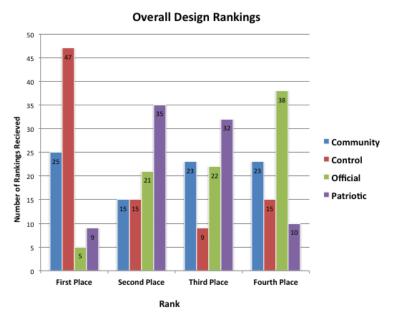
Individual interviews mimicked the structure of the focus groups, but had a more granular focus. In addition, the facilitator showed interviewees an alternative "B" version of one mailing package concept (the Community theme), which differed only in the visual prominence given to "American Community Survey." The facilitator probed to determine whether participants had different reactions to the version that did not prominently display the ACS name.

In Miami (where all participants were bilingual English/Spanish speakers), participants were also asked to consider the packages from the imagined perspective of a recipient who did not speak English.

Key Finding and Implications

The existing ACS package was seen as most effective

Among the design alternatives, participants most frequently cited the existing design ("Control") as being the most effective at bringing them to take note of or open the mailing package and respond to the survey.



Participants found that compared with some of the more colorful, image-rich, or "friendly" designs of the alternative packages, the Control package — with its straightforward design, typeface, and production quality — was more like what they would expect to receive from the government and was therefore more important, more credible, and less likely to be an advertisement or a solicitation. They frequently associated the simplicity of this design with something they might receive from other governmental agencies — the IRS and state DMVs were common points of reference.

"The blank and dull one looks like other mail that's important. If it says it's from the government, usually that will get your attention." – Participant, Miami

The U.S. Department of Commerce seal featured in Control package was a strong signifier to participants that the mailing was "official," sent by the government, and therefore to be taken seriously. Participants frequently said that these elements were "the first thing they saw" when perusing the packets. This is

interesting in light of Refinement survey findings that saw a relatively low public favorability for the Commerce Department. However, it was not clear that the *content* of the seal — including the name of the originating agency — had this effect so much as the visual presence of the seal itself. In this case, the use of *a* government seal — *any* seal — may have been more responsible for this positive effect than the appearance of the Commerce seal, specifically.

"It's simple, it's to the point... It looks like my government is trying to save money and I like that, because it's my tax dollars." – Participant, Phoenix

One participant had the interesting perspective that, while we may associate the existing design with what the government *is*, some of the more colorful designs give a sense of what we would like the government *to be*.

Despite the preference of many participants for the existing package, others felt the design to be dated ("like something from the '80s"), text-heavy, and poorly presented.

Interestingly, some participants more readily "saw" things in the alternative designs than in the existing package — including the response URL, Spanish-language directions, the "required by law" notice, and reasons for completing the survey — even though they featured much the same content.

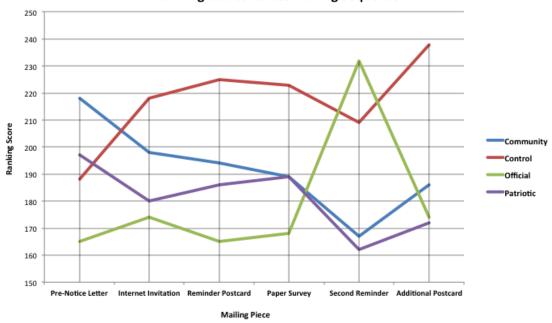
Some participants also said they would be less likely to remember prior mailings from the relatively "unbranded" existing package compared with the more memorable, more distinctively "branded" alternatives.

The first priority of a successful ACS mailing package should be that it looks official, legitimate, and important. While the existing ACS package is successful on many of these fronts, there are significant opportunities to make a future design appear more modern and better organized by applying best practices of graphic design. A successful package will use color and visual emphases to clearly call out proven messages, establish graphic hierarchies of important elements, and better help the respondent visually navigate the package.

Consider a hybrid of effective design elements

We observed a fairly stark division between types of individuals who preferred the colorful, more "designed" alternative packages and those who preferred the minimal, official-looking design of the existing package.





The graph above charts a composite of participants' rankings of the concepts across the different phases of the mailing sequence, with four points awarded for each first choice, down to one point for each last (fourth) choice.³

One interesting phenomenon we observed was a progressive movement away from the more colorful or inviting options at the beginning of the sequence toward the more simple and stern designs (primarily the Control) by the end of the sequence. There was a strong sense among many participants that the mailings should intensify in urgency and take a "no nonsense" approach by the end of the sequence.

Several participants noted that the more "designed" versions "catch the eye" but seem less important. Some participants thought that the more colorful versions invited a more "leisurely" response.

"First I liked the colorful ones because they were inviting you to go online. But now it's a little more serious." – Participant, Miami

Interestingly, despite the low performance of the Official theme overall, there was significant interest in the perforated, tear-open design of that theme's additional postcard. Frequently, individuals who generally preferred the existing package switched to preferring the Official design at this stage.

While the Control was the clear winner, based on positive responses to certain elements of other designs, it is clear that the existing package presents a number of areas for improvement. There are also significant opportunities to pull strengths from different pieces across themes to ultimately develop a compelling "hybrid" package. A successful package will strike a balance between conveying that the mailing is official and important while also being inviting and eye-catching enough to provoke

2

³ The scale of this chart is truncated for visual clarity. The y-axis scale begins at 60 points.

respondents to notice, open, and complete the survey. It may also be valuable to progressively increase the appearance of gravity and urgency throughout the sequence.

Effective tactics to consider include using visual hierarchies to call out important messages, demonstrating local community benefits more clearly, rethinking the design of reminder postcards, incorporating "Keep this card" messaging, developing more engaging and streamlined brochures, and using alternative color schemes.

"American Community Survey" doesn't register

Remarkably, even by the end of long conversations about the mail pieces, a majority of participants had never referred to the American Community Survey by name. Moreover, numerous participants appeared to have ended the sessions without a clear sense of what exactly they had been discussing: Many confused the survey with the decennial census (explaining it as "a count of the population") or referred to it merely as "a census survey."

"I wouldn't even consider the idea that the survey has a name. I just assumed it was the census." – Participant, Miami

When facilitators explicitly asked about alternate ("A/B") versions of the Community package (one with and one without an ACS "logo" alongside the Census Bureau logo) participants typically felt either that the ACS identifier was "nice to have" but not essential to their understanding of the package or that it actually detracted from the design. (By contrast, participants almost invariably noticed the Census logo and, on the existing package, the U.S. Department of Commerce seal.)

Much of the indifference to the ACS label may have stemmed from the fact that participants had little prior awareness of the survey relative to their strong awareness of the decennial census.

Several comments are telling:

- I don't even think they need "American Community Survey." It looks more official with just "Census."
- [The ACS logo] doesn't hurt, but it doesn't add a lot of value.
- I'd prefer it without it. I know what the census is. I see there's a survey inside. The American Community Survey doesn't ring any bells for me.
- If you don't have that "Census" on there, it just feels like a survey that comes in the mail.
- If it's coming from "American Community Survey," I might not fill that out.
- [Removing the ACS logo] takes the marketing out of it.

Some participants felt that the word "survey" in "American Community Survey" made it seem as if their response was optional or voluntary, in contrast with their understanding that responding to the survey is required by law.

All of this said, for some participants, the ACS designation usefully conveyed that the survey in fact deals with local issues — that "this is about your community."

Counter to an initial hypothesis stemming from our prior research studies, simply placing the ACS and Census logos in close proximity on the alternative designs did not seem to be enough to bring participants to clearly associate ACS with Census or for ACS to inherit the "glow" of the Census brand. Considering also the frequent confusion of the ACS with the decennial census, alternatives for future testing may be to further downplay or even eliminate the ACS designation in favor of Census branding or else more explicitly and more prominently articulate the relationship between ACS and the decennial census.

Punitive messages resonate more than altruistic messages

A more punitive, "stick" approach to messaging resonated foremost with participants. However, more altruistic "carrot" messages — especially those about local community benefits — were an effective complement and offered participants a reason to *want* to complete the survey.

"I want to do it more so than just filling it out because of the railroads or because of the buildings.... I just don't want to be in trouble." – Participant, Chicago

Stern or punitive messages — in particular, "Your response is required by law" — were widely cited as being the most effective at getting potential respondents to notice, open, and respond to the mailings (Cf. Schwede, 2008). As one participant said, "If it's not required by law, it's not going to happen."

Interestingly, we found these messages to be a strong motivator both for individuals who preferred the more colorful designs and for those who preferred the existing version, and also for both those who said they would fill out the survey willingly and those who said they would do it only because they were required to.

Moreover, we saw little resistance to the idea of *more* and *earlier* legal warnings, including the threat of a fine. Frequently, participants — even more clearly cynical individuals — volunteered that strongly worded warnings should be conveyed early and often if the Census Bureau expects people to respond in a timely manner.

Secondary motivators to respond to the package were the "incentive" messages — primarily those having to do with community benefit, including the frequently cited improvements to roads, schools, and hospitals. Participants felt that by understanding how their responses would be used and how the survey would benefit their communities, they would be more inclined to respond. As one participant said, "I would answer if I knew it affects me."

Some participants saw in these messages a compelling reason to *want* to complete the survey, rather than to *have* to complete it. In general, knowing *why* they *should* respond inclined participants more positively to the survey than simply knowing that they *must* respond.

As could be expected, there were a few individuals who bristled at the mandatory nature of the survey. Still, given our experience of past research into ACS messaging, in particular with individuals who were admittedly distrustful of the government, we were somewhat surprised that so many participants accepted, and even welcomed, these stern notices.

It will likely be beneficial to retain and even accentuate stern messages such as "Your response is required by law" on the ACS mailing package. Moreover, to promote earlier response, it may be valuable to introduce stern messages earlier and more frequently in the ACS mailing sequence. To maximize effect, consider combining stern messages with positive messages about community benefits.

Less is more

Some participants felt strongly that the envelopes and overall mailing sequence contained too many pieces, creating unnecessary clutter and wasting paper. Similarly, many felt that certain individual pieces contained too much information and were too wordy or "busy." Participants frequently volunteered the idea that "less is more."

Many participants confessed that clutter is a "turn-off" for wanting to complete the survey. Some suggested that if respondents were too overwhelmed by the materials, they would just throw them out and give up.

"When you have more pieces, you have more junk, and you're probably going to throw away something you need." – Participant, Phoenix

Several participants said they would expect that all of the information contained in the paper mailings would appear online as well, leading them to consider much of the paper unnecessary.

Some felt that certain pieces were redundant (for example, the Internet invitation letter and instruction card) and could be eliminated or combined.

"Four documents telling me to do the same thing? I'm going to get frustrated."

- Participant, Phoenix

Many participants viewed the multilingual brochures, in particular, as superfluous. In practice, participants may have glanced at or opened the brochures, but rarely spent time reading through them. They felt that between the letter and instruction card, they had sufficient information to do what they were being asked to do.

A streamlined package could be more effective at encouraging recipients to self-respond. For example, a combined FAQ/multilingual brochure/instructional pamphlet (rather than multiple separate pieces) may be all that recipients need or want. It will be valuable to think through what information is online and what is not, and retain only the most essential information in the paper mailings.

Be deadline-oriented

Several participants volunteered that a stated deadline or due date would be a strong motivator for them to respond in a timely fashion, especially when coupled with the "required by law" notice. Some participants suggested using specific dates (e.g., "due by June 4") or timeframes ("two weeks from now"). In addition, several participants responded positively to "Respond now," "Now is the time to respond," and similar urgent or deadline-oriented messages.

We recognize that the idea of adding a self-response deadline is a matter given close consideration in past Census Bureau research and that there are numerous difficulties in operationalizing a deadline given the rolling schedule of survey dissemination. Nonetheless, the benefits of including some form of deadline — or even the appearance of a deadline — may merit further deliberation.

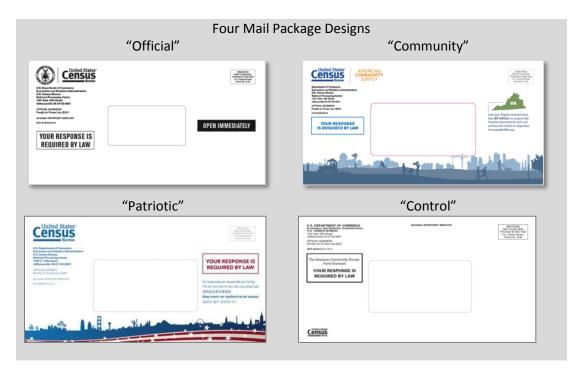
Online Visual Testing

Full report available at:

http://www.census.gov/acs/www/Downloads/library/2014/2014 Hagedorn 04.pdf

Description of Research

The Online Visual Testing study used interactive, computer-based tools to gather input toward refining and improving the visual design and messaging of the ACS mail package. This survey of n=2,010 U.S. adults who generally handle the mail for their households explored Team Reingold's three proposed alternative mail package designs ("Community," "Official," and "Patriotic") as well as the current ACS mail package as a control condition.



The Online Visual Testing study had two goals: to identify ways to improve individual mail pieces (though elements such as design, layout, and messaging) and to compare across the current mail package and the three alternative mail package concepts to see if certain designs are more effective at conveying information and encouraging responses.

Participants were sampled from an online panel that closely resemble the U.S. population using an address-based recruitment approach. The panel vendor provided Internet access to recruited households that did not have it.

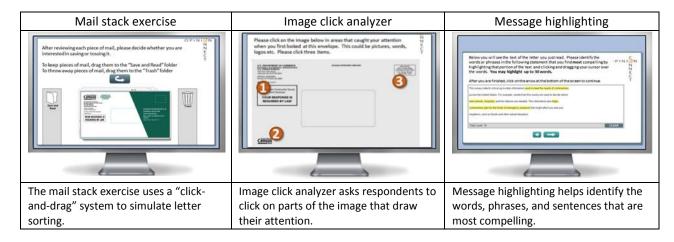
The Online Visual Testing design was monadic: Any given respondent saw just one of the four designs. Each of the four test cells had roughly identical demographic characteristics (gender, age, and race/ethnicity).

Participants self-administered the survey through an online portal on their computers. Respondents went through a series of online exercises that follow the progression of mail items in the ACS mail package. We tested a selection, though not all, of the items in the mail package.

As part of the survey, participants completed a series of exercises that tested various pieces of the ACS mail package:

- 1. Mail Stack Exercise: This exercise presented participants with an interactive simulation asking them to sort a collection of mail including the pre-notice envelope, the Internet invitation envelope, or the reminder postcard. Participants also saw six pieces of non-Census Bureau mail including a mix of simulated bills, letters, and advertisements that are representative of the mail a typical household receives. The order of the mail pieces was randomized.
 - Participants viewed the mail pieces on their screen and flipped over mail item by clicking the button to reveal the reverse side. Participants were able sort designs into either to "save and read" or "trash" categories. A series of follow-up questions provided insights surrounding participants' recall and retention of aspects of ACS packaging.
- 2. Image Click Analyzer: This exercise asked respondents to click on the areas of designs that caught their attention, illustrating the visual hierarchy of various layouts and mapping the flow of the design. It identified where respondents' eyes were drawn when they looked at the designs whether to logos, headings, bolded words, etc. Respondents used image click analyzer tools a total of four times on several pieces of mail.
- **3. Message Highlighting**: This exercise asked respondents to highlight words and phrases that they found compelling within written text, rather than focusing on visual design elements. Participants first saw text of the pre-notice letter and then the Internet invitation letter.

Illustration of the Three Visual Testing Exercises



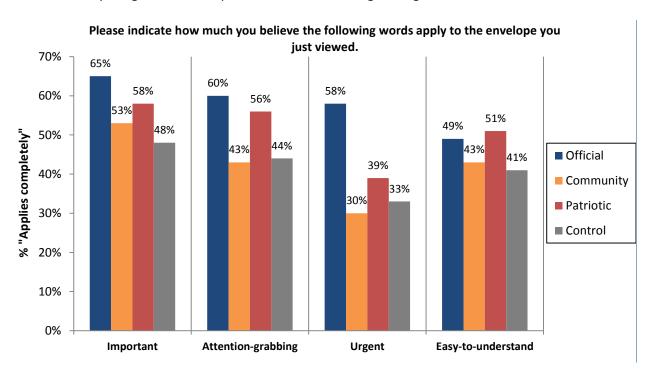
4. Closing perception questions: These questions gauged participants' perceptions of the range of pieces they saw during the survey. Findings from these closing questions helped identify the perceived "tone" of particular packages by assessing how well respondents felt certain descriptive terms applied to the designs they reviewed. We also asked participants to assess how likely they would be to participate in the ACS if they received these mailings at their home, and what they perceived the purpose of the ACS to be.

Key Findings and Implications

Visual design elements can have a significant impact on how individuals interact with and remember mail items

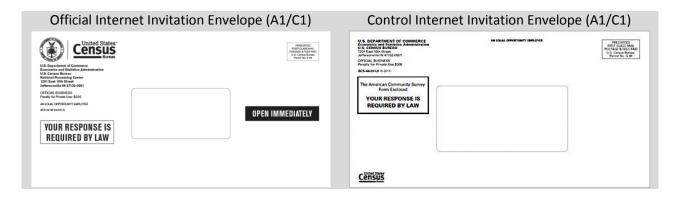
The Online Visual Testing study found opportunities to make the ACS mail package seem more eyecatching, important, and authoritative to households.

After viewing the Internet invitation envelopes, for example, respondents who saw the Official design were 2.8 times more likely to say the envelope was "urgent" than those who saw the Control. They were also more likely to agree it was "important" and "attention-grabbing."



The front of the Official Internet invitation envelope was also the top performer in the Mail Sort Exercise, with nineteen in twenty (95%) mail-handling adults indicating they would "Save and Read Later."

We attribute this strong performance to the high-contrast "Open Immediately" callout box on the front of the envelope, the prominent use of the Census Bureau logo and governmental-looking Commerce Department logo, and the overall "Spartan" aesthetic.



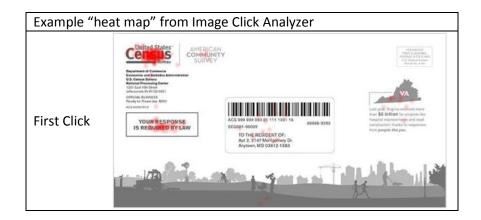
We saw similar results when respondents were asked to evaluate the full suite of materials. The following table displays the percentage of respondents that indicated a given adjective applied completely to the series they had just reviewed. Again, the Official design conveys a strong sense of importance and urgency.

Descriptive Terms	% selected "Applies completely" (+/- compared to Control package)					
	ALL	Official	Community	Patriotic	Control	
Official	60	64	56	62	58	
Official	00	(+6)	(-2)	(+4)	(n/a)	
Important	53	59	50	56	44	
Important	55	(+15*)	(+6)	(+12*)	(n/a)	
Facy to understand	50	51	49	50	49	
Easy-to-understand		(+2)	(+0)	(+1)	(n/a)	
Attention grabbing	47	55	43	50	39	
Attention-grabbing	47	(+16*)	(+4)	(+11*)	(n/a)	
Livront	41	52	36	42	34	
Urgent	41	(+18*)	(+2)	(+8*)	(n/a)	
Trustworthy	26	39	36	36	35	
Trustworthy	36	(+4)	(+1)	(+1)	(n/a)	
Informativa	22	34	33	35	28	
Informative	32	(+6)	(+5)	(+7*)	(n/a)	

^{*}Indicates statistically significant difference with family-wise correction for multiple comparisons (p<.05)

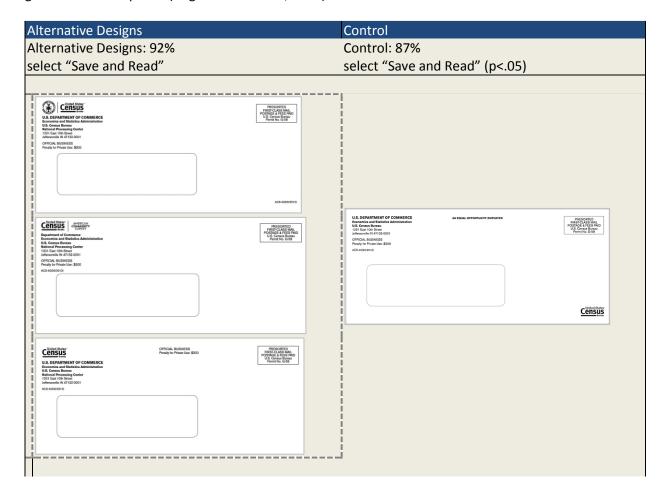
The U.S. Census Bureau logo should feature prominently on appropriate mail items

The Census Bureau logo is a powerful tool for recognition. In the Image Click Exercise, the Census Bureau logo received the majority of initial clicks in virtually *every* click test heat map.



In the Mail Sort Exercise, for example, we found that the pre-notice envelopes with the Census Bureau logo in the top-left corner had a statistically significantly higher proportion select "Save and Read Later" than the Control with a text-only "U.S. DEPARTMENT OF COMMERCE" header.

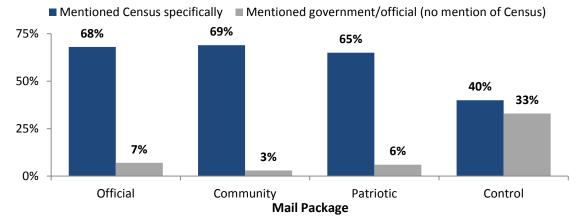
There was not a statistically significant difference between the three alternative pre-notice letter designs in terms of "Save and Read Later" (p>.40). This suggests that the Census Bureau logo is the driving factor for the differences observed between the alternative mail packages and the control. This reinforces previous survey findings that the Census Bureau is an exceptionally well-known and respected organization to the public (Hagedorn & Green, 2014).



Based on open-ended recall questions following the Mail Sort Exercise, participants were less likely to recognize that the pre-notice envelope, Internet invitation envelope, and reminder postcard as coming from the U.S. Census Bureau. Respondents who saw designs with prominent Census Bureau logos were 27 percentage points more likely to specifically mention the "census" when asked what they remembered seeing in the mail sort exercise.

What kind of mail items do you remember seeing in the mail sort exercise?

(Coded open-ended responses, selected responses)



Those who saw the Control design, which uses the Census Bureau logo less prominently, were much more likely to mention the mail as coming from the Commerce Department (29%) than the those who saw the alternative designs (1% or less) in open-ended responses. As noted in previous studies, the Census Bureau has significantly higher favorability than the Commerce Department or the federal government as a whole.

Key messages should be emphasized using callout boxes, line spacing, and bolded text

Elements like Web addresses, telephone numbers, and text that were enhanced using graphic design techniques received more attention.

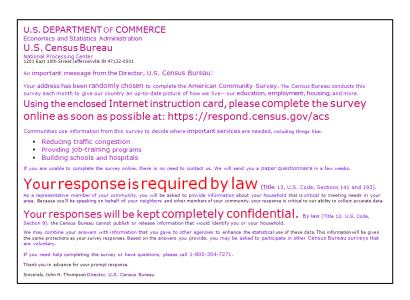


For example, the Patriotic Internet invitation used a blue accent box to call out the Web address to complete the survey: This item was clicked earlier and more frequently in the Image Click Analyzer Exercise as compared to the same content when featured less prominently in other mail designs, including the Control.

"Your response is required by law" attracts more attention than any other message

For envelopes, letters, instruction cards, and reminder notices, the "mandatory" messaging clearly caught participants' attention. For example, nine in ten respondents highlighted the words "required by law" in the Official pre-notice letter, which was more than three times greater than the next most identified words.

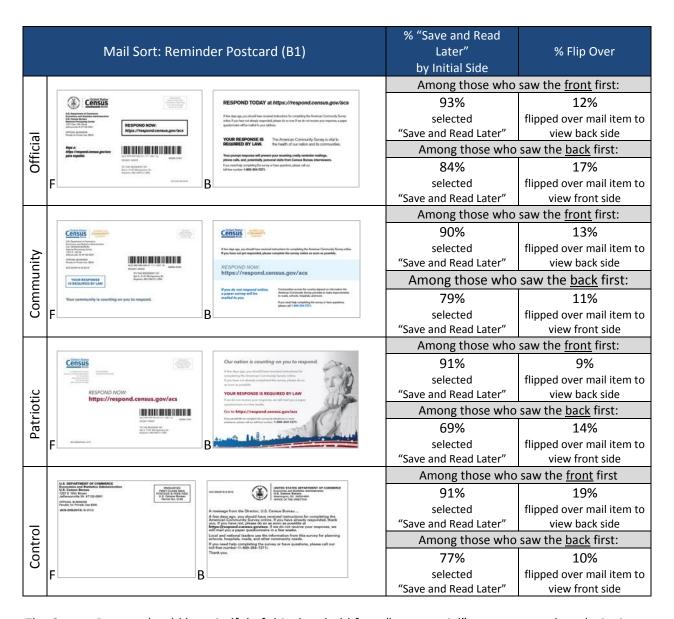
Message Highlighting: Official Pre-Notice Letter



These test results strongly support continued use and further exploration of mandatory message language on envelopes and letters.

Avoid a commercial "marketing" aesthetic

In the Mail Sort Exercise, nearly one in three (31%) of respondents who initially saw the back of the Patriotic reminder postcard (which featured a prominent Lincoln Memorial image) indicated that they would sort the postcard into the "Trash." Similarly, the respondents discarded the vast majority of the advertising pieces in the "clutter reel" (department store ad: 80% "Trash," dental insurance ad: 87% "Trash," car ad: 95% "Trash"). This suggests that upon first glance, this particular design does not appear "formal" enough to be recognized as a legitimate government notification or communication.



The Census Bureau should be mindful of this threshold for a "commercial" appearance when designing further testing. On the other hand, designs that are formal yet evocative may be a catalyst for drawing respondents into the ACS material. This is demonstrated by the Patriotic design's use of color, a flag motif, and American landmarks.

KEY CONSIDERATIONS FOR ACS MAIL PACKAGE FIELD TESTING

Building on Team Reingold's research, ACSO plans to conduct field testing with alternative mail packages. Only real-world experiments can definitively identify which modifications improve self-response rates.

Greater participation in the self-response phases can result in significant cost efficiencies by reducing the number of telephone and in-person follow-up contacts necessary to preserve the ACS' high-quality data. In addition, fewer non-response follow-up activities can reduce the number of burdensome personal contacts from Census Bureau representatives for the public at large.

Recommended Experimental Dimensions for ACS Field Testing

Based on our research findings and discussions about the ACS mail package, in the table below we identify five changes to the ACS mail process that could have a sizeable impact on self-response rates. We also include broad assessments about the opportunity for cost savings (if the hypothesis is validated by testing). A "High" opportunity indicates the possibility of a significant change in response rates (>5%), whereas a "Low" opportunity indicates the possibility of a smaller change (<2%). We also include an assessment of how likely the hypothesis will be validated by testing. As real-world testing of these elements has not yet been conducted, these assessments are speculative and subject to interpretation.

#	Priority Dimensions for Testing	Opportunity for savings	Likelihood of success
1	Pursue visual design changes through alternative mail package designs We propose to move forward with two alternative designs ("Official" and		
	"Blended" concepts) that include prominent use of the Census Bureau logo, changes to the return address, and enhancements to the text of letters including callout boxes, bolding, and other visual devices. Based on the Online Visual Testing results, we found these alternative designs were seen as more "urgent," "attention-grabbing," and "important," suggesting that they present an opportunity for significant improvement in ACS response rates.	High	Medium / High
2	Add deadline-oriented messaging to mailing envelopes		
	We recommend testing versions of the envelopes, letters, and mail pieces that include instructions to "open immediately," and respond "now." For comparison purposes, we recommend a control package that retains the current language.	Medium	High
3	Eliminate the pre-notice mailing in favor of an added actionable contact		
	We recommend that the Census Bureau test eliminating the pre-notice mailing in favor of adding an "actionable" contact that allows recipients to respond to the survey online. Cutting the pre-notice is also one of Don Dillman's core recommendations. We believe cost savings would be likely to materialize from using an alternative contact to direct recipients to the online response portal: Even as the paper survey response invitations are mailed, online responses are still being completed at about 0.5% of initial eligible	Medium	High

households per day. If the Census Bureau could gather just those online responses earlier, then those households could be skipped with the bulkier mail response packages.

4 Test additional mailing pieces

We recommend testing whether or not a further mailing, such as an additional reminder card, can prompt enough additional self-responses to justify the additional mailing. Consider testing this piece in the Internet response phase and/or at the end of the current mailing sequence. In 2011, the Census Bureau found it was cost effective to send an additional reminder postcard to households that could not be reached by CAPI operations. Our goal would be to send additional reminder cards until we reach the point of diminishing returns. Based on the ACS studies we have reviewed, the Census Bureau has not conducted testing to determine the saturation point where further mailings are not productive.

Medium Medium

5 Further tailor materials for non-English speaking populations

Use alternative or additional mailings for households in areas that meet certain criteria (i.e., in tracts with linguistically isolated communities). These communities could be identified using ACS population estimates. Team Reingold proposes, in particular, to send an additional English-Spanish bilingual reminder postcard to appropriate target communities.

May vary; more analysis necessary

Medium

Other testing approaches we considered, but do not find as promising, include the following:

#	Secondary Considerations for Testing	Opportunity for savings	Likelihood of success
1	Separately test each specific change in the visual design		
	We could test each element of the visual design that was changed in the Official or Blended design (i.e. separately testing the logos, or the changes to return address, or the Americana footer). However, this will add significant complexity to the test and greatly increase the number of households that have to be included in the mail test. The differences from any one change could be quite small, so the testing may not be able to detect differences.	Low	Low
2	Separately test each mail piece that has been revised		
	Similar to #1, we could test each mail item independent of theme—for example, a test condition that includes every element of the "Control" package along with a pre-notice letter from a different package. Another package could change one other letter or any combination of changes. This approach would quickly add many test conditions to the experiment, and greatly increase the complexity and number of households included. Furthermore, it could confuse participants who see a mix of visual branding.	Low	Low

3 Change timings of mailings

The current mail schedule is spaced out over several weeks. It's possible that participants forget receiving information between mail cycles—therefore a more condensed mailing schedule would have an increased impact on response. For example, mail items could be sent so that they arrive at households on consecutive days. However, this would create logistical challenges as the delays between mail items are necessary to remove households that have completed their ACS response forms from the mailing universe.

Low-Medium

4 Remove disclaimer language in the pre-notice letter

In July 2014, prior to online visual testing, the Census Bureau requested that updated designs include the following language, "We may combine your answers with information that you gave to other agencies to enhance the statistical uses of these data. This information will be given the same protection as your survey response. Based on the information that you provide, you may be asked to participate in other Census Bureau surveys that are voluntary." Some participants may find this language vague, unnerving, or confusing. As a result, they may choose not to participate in the survey—or delay beginning the response. The Census Bureau could conduct testing to mitigate this risk—such as moving the disclaimer language to the FAQ document, or removing it entirely to measure the impact on response rates.

Low-Medium High

5 Add additional ACS branding to mail package.

We could test whether adding additional references to the American Community Survey, such as a logo above the return address, would increase response. Based on our findings from the Refinement messaging study, we do not believe there is significant brand recognition of the ACS that could drive a significant change in response rates.

Low Low

Sequential Field Testing to Focus Experimental Dimensions

As the number of test conditions increases, the test becomes larger and more complex. Adding additional panels increases the number of households that must participate in the test – both from larger numbers of test cells and from larger numbers of cases in each test cell to maintain the same precision over multiple comparisons. As such, we likely cannot test all the hypotheses in a single field test. To manage the size and complexity of any one round of field testing, the variations can be divided into several rounds of sequential testing.

For example, the first round of field testing could explore variations in visual design and deadline messaging, and subsequent rounds could look at additional reminder cards and a non-English outreach program for selected areas.

It will be important to prioritize and streamline, where possible, the hypotheses and independent variables in ACS field testing.

Sampling and Design

Field testing for the ACS will use production sample from 2015. A selection of households will be randomly selected to receive a variation on the mail package (specific number and types of variations will depend on the hypothesis we are testing). Because previous research around self-response rates and mail packages have found effect sizes between 0% and 11% (see Dillman, July 2014), we know that any definitive field test will require a substantial number of households to draw statistically significant conclusions (likely between 5,000–20,000 households per test cell, depending on the specifics of the test).

Sample stratification

In ACS field testing, we recommend including addresses from both high- and low-response areas in all mail treatment panels. The 2014 decennial field test stratified test cells into high- and low- response areas.

Some treatments may be more effective with high-response areas or low-response areas. For example, a particular mail strategy may be particularly effective in high-response areas with "fence-sitters," people who do not have particularly strong views about whether to complete the survey or not, but just need a reminder to participate. Alternatively, a mail strategy may be particularly effective with multi-unit renters, who require very noticeable mail to hold their attention. In that case, the Census Bureau could design a geo-targeted program—for example sending additional reminder postcards to in-sample households in low response areas.

A sub-sample of households that do not respond is selected for computer-assisted personal interviews (CAPI). The CAPI sampling rate can vary depending on the response rate for the area. In most areas, 33.3% of the remaining households are selected for CAPI interviewing. However, in low-response areas, the number can increase to either 40% or 50%.

CAPI Sampling Rate	Percent selected
Select addresses in Alaska or Hawaii, or areas with concentration	
of American Indians, (see ACS Design Methodology for specific	100.0 %
definitions)	
Other unmailable addresses	66.7 %
Mailable addresses in tracts with predicted levels of completed	50.0 %
interviews prior to CAPI subsampling below 35%	30.0 %
Mailable addresses in tracts with predicted levels of completed	40.0 %
interviews prior to CAPI subsampling between 35% and 51%	40.0 /6
Mailable addresses in other tracts (greater than 51%)	33.3 %

Adapted from ACS Design Methodology, Table 4-4: CAPI Sampling Rates

This implies that the Census Bureau realizes greater cost savings from an incremental increase in low-response areas than from the same increase in high-response areas. For example, having a mailing flight that increases the self-response rate by one individual reduces the number of CAPI-eligible households by 0.5 in a high response area (typical self-response rate above 51%), but it only reduces the number of CAPI-eligible households by 0.33 in a low-response area (typical self-response rate below 35%). It may be even more difficult to complete a CAPI interview in a low-response area than high-response area, resulting in even greater cost differences.

As the Census Bureau designs the ACS mail test, we recommend stratifying the mail test into high- and low- response areas. The research team can then oversample low-response areas relative to their portion in the population. For example, one half of test addresses could be sampled from the lowest quarter of self-response rates. This will provide more precise measures of what works in low-response areas.

We would exclude unmailable addresses and group quarters from the ACS mail test. Similarly, we would consider whether it is practical to include areas in Alaska, Hawaii, and concentrated American Indian areas, as unanticipated declines in response rates could result in very expensive additional CAPI interviews.

Evaluation

The primary measure of a successful mail package is that it increases the self-response rate over a control that receives the current package. We anticipate that it will be useful to conduct this analysis for both households in high- and low-response areas. Because several of the mail packages we have designed include multiple mail pieces that are different from the control, we recommend assessing the differences in response rates in several phases, such as weekly:

Example	Self-response rate (online and by mail combined)								
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6			
	(Day 7)	(Day 14)	(Day 21)	(Day 28)	(Day 35)	(Day 42)			
Mail Condition A	16%	23%	26%	38%	44%	50%			
Mail Condition B	44%	20%	28%	40%	44%	46%			
Control	12%	18%	21%	34%	39%	43%			

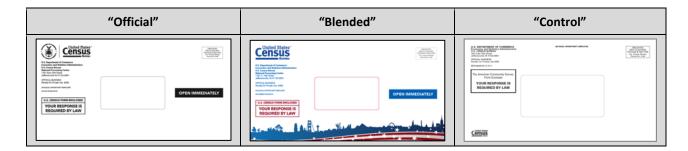
Additional Census Bureau analysis can examine error rates, imputation rates, and other measures of data quality (see Horwitz et. al. [2012]. "Use of Paradata to Assess the Quality and Functionality of the American Community Survey Internet Instrument").

Proposed Alternative Mail Package Designs for Use in Field Testing

A 2011 follow-up study indicates that the top two reasons given by non-response households for why they did not respond to the ACS were (1) they did not recall receiving any ACS mail, and (2) they did not open the envelopes. This represents just over half (56%) of non-response households (Nichols, 2012).

On that basis, the Team Reingold created alternative mail designs using visual design principles aimed to attract and hold attention. The Online Visual Testing suggests that the Official and Patriotic designs succeed in looking more "urgent," "attention-grabbing," and "important."

Based on our research to date, Team Reingold proposes to move forward with two alternative designs (referred to as "Official" and "Blended" concepts) for field testing, in addition to the current ACS design as a control. We arrived at these concepts through multiple rounds of revision reflecting learnings from successive research studies, including mail package focus groups and online visual testing of design concepts.



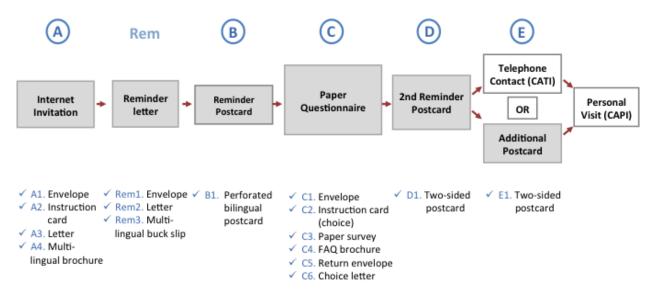
Our proposed "Official" design builds on successful elements of the existing ACS mail package, and introduces improvements to visual design and messaging suggested by our research. In our final research study, the online visual testing survey, we found that this design concept outperformed all other designs tested, including the Control, on several criteria.

Our second proposed design represents a "blended" approach, incorporating successful elements from the Official concept with the more evocative visual aesthetic of our earlier "Patriotic" design theme. While the Official version outperformed Patriotic overall in the last round of testing, we would propose testing some elements of Patriotic that seemed to perform well. The goal with this mailing series is to deliver some straightforward and simple pieces interspersed with more designed elements. We would like to determine whether some recipients who would overlook a straightforward, minimal-looking package would be drawn to a more eye-catching, evocative design. This quasi-Patriotic blend is intended to cater to diverse tastes. It is also designed to appear progressively governmental and "severe" as the mail sequence goes on: it begins with a brighter, friendlier look, and becomes increasingly stern and "governmental" by the time of the final mailing.

Proposed Adjustments to the ACS Mail Sequence

In field testing these alternative concepts, Team Reingold proposes to make some adjustments to the role of certain pieces within the existing mail sequence.

Proposed Adjustments to the Existing ACS Mail Process



Suggested revisions include:

- Eliminate the pre-notice mailing in favor of an actionable reminder letter
 - We believe the pre-notice contact represents a missed opportunity as it does not enable recipients to respond to the survey. In our tests, some participants objected to "a mailing telling me to look out for a mailing that tells me to go online" as a waste of their time and of taxpayers' money. Don Dillman also strongly advocates removing this mailing. To preserve the current number of respondent contacts, we follow Dillman in suggesting in place of the pre-notice mailing a sealed reminder letter featuring the response URL to be sent following the Internet invitation mailing (which would now be the first mailing in the sequence). The advantage of sending a sealed-letter mailing at this stage is that it can provide explicit instructions about inputting the user ID at the response URL.
- In mail package focus groups and interviews, one of the highest-scoring pieces we tested was a sealed, perforated postcard (See item B1, Appendix A). Advantages of this card include its connotations with other important government-issued mail; a sealed format conveying confidentiality and enabling more explicit instruction about inputting the user ID at the response URL; and a bi-fold format providing added space to include foreign-language text. Based on the effectiveness of this piece in testing, we propose to send it to all respondents as an initial reminder postcard preceding distribution of the paper questionnaire mailing. Potential added costs of producing a more complex piece should be weighed against its potential to increase early response rates. This piece can also be customized with Spanish or other foreign-language text for distribution in communities known to have sizable populations of non-English speakers.
- Eliminate the user guide and multilingual brochure in favor of integrated instructional brochures

The current 16-page ACS user guide was largely found to be intimidating or unhelpful, and contributed to a sense of "clutter" in the survey mailing. Similarly, while we recognize that the

Census Bureau has conducted testing on the effectiveness of the current multilingual brochure, most participants in our research who interacted with the brochure — including in our bi-lingual focus group and interviews— found the piece unhelpful or the layout perplexing. Don Dillman also recommends removing both of these pieces. In their place, we propose to 1) combine key multilingual text with OMB-required language into an attractive, intuitive brochure for inclusion in the Internet invitation mailing, and 2) incorporate the useful "Why do we ask these questions?" section of the user guide with elements of the existing ACS FAQ and multilingual brochures into a comprehensive brochure for inclusion in the paper questionnaire mailing.

Works Cited

Bates, N. et al. (2009). "Messaging to America: Census Barriers, Attitudes, and Motivators Survey Research (CBAMS)." American Association of Public Opinion Researchers (AAPOR) Conference Paper. Hollywood, Florida.

Chestnut J. (2010). Testing an Additional Mailing Piece in the American Community Survey. 2009 American Community Survey Additional Mailing Test.

Conrey, F., ZuWallack, R., Locke, R. (2012). "Census Barriers, Attitudes, and Motivators Survey II: Final Report". ICF Macro.

Groves, R. (1 March 2012). The Pros and Cons of Making the Census Bureau's American Community Survey Voluntary. Testimony before House Committee on Oversight and Government Reform.

Hagedorn, S and R. Green. (May 2014). "ACS Messaging Research: Refinement Survey." American Community Survey Research and Evaluation Report Memorandum Series.

Leslie, T. (13 Nov. 1996). "U.S. Census Test – Mail Response Analysis." 1996 National Content Survey DSSD Memorandum No. 2.

Matthews, B. et al. (25 June 2012). "2011 American Community Survey Internet Tests: Results from Second Test in November 2011." American Community Survey Research and Evaluation Program.

Navarro, A., King K., M. Starsinic (27 Sept. 2011). "Comparison of the American Community Survey Voluntary Versus Mandatory Estimates". ACS Research and Evaluation Program.

Newburger, E. (July 2009). "2010 Census Communications Campaign Creative Copy Testing (Phase 1) Final Summary Report". C2PO Census Integrated Communications Research Memoranda Series, No. 13.

Newburger, E. (Nov. 2009). "2010 Census Communications Campaign Creative Copy Testing (Phase 2) Final Summary Report". C2PO Census Integrated Communications Research Memoranda Series, No. 16.

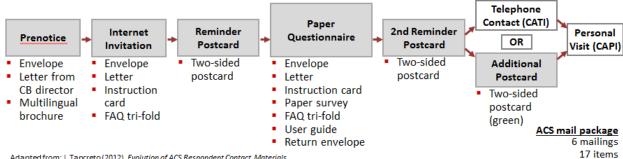
Nichols, E. (2012). "The April 2011 American Community Survey Internet Test: Attitudes and Behavior Study Follow Up." American Community Survey Research and Evaluation Program, #2012-03.

Olson, T. (2013). 2012 ACS Self Response Data. Respondent Advocate for Household Surveys.

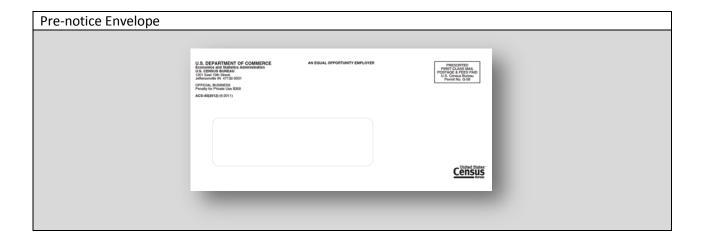
Schwede, L. (2008). "Carrot or Stick Approach to Reminder Cards: What do Cognitive Respondents Think?" Conference Paper, 2008 AAPOR: Section of Survey Research Methods.

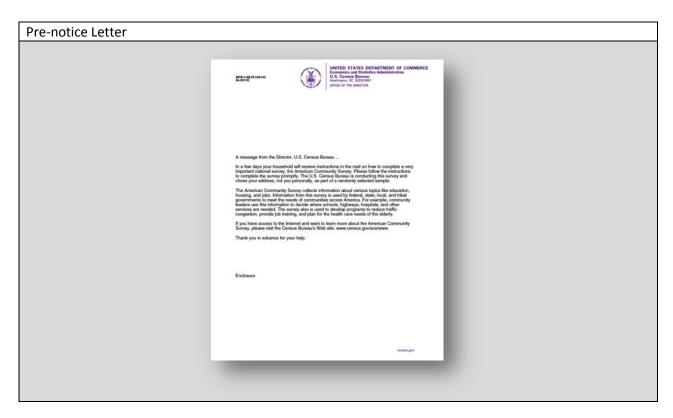
APPENDIX A: MAIL PACKAGE DESIGNS

Current ACS Mailing Package



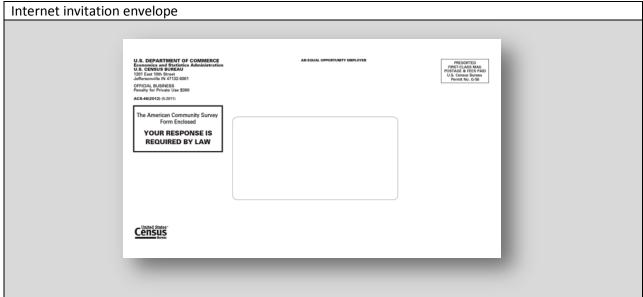
Adapted from: J. Tancreto (2012), Evolution of ACS Respondent Contact Materials

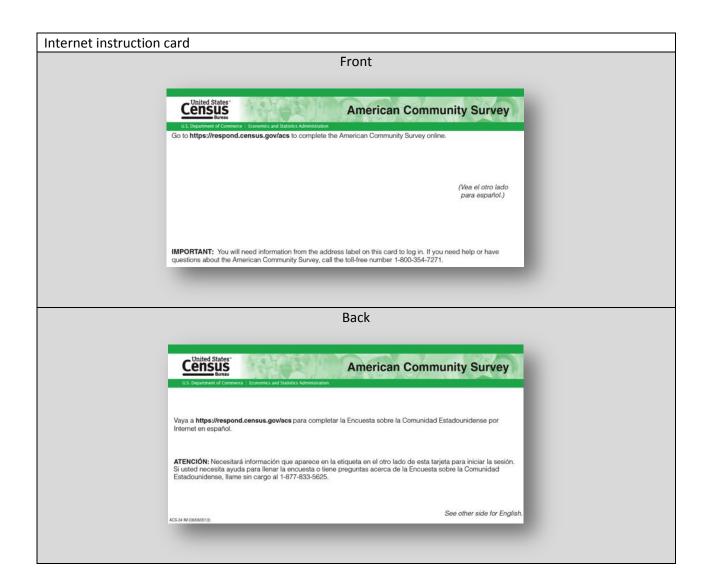


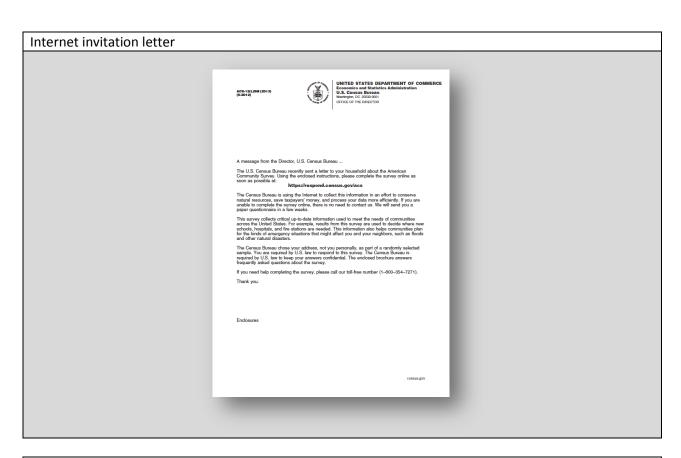






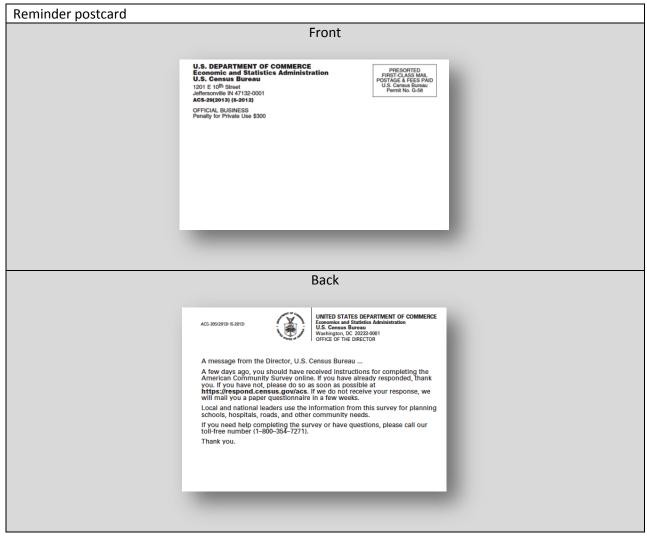


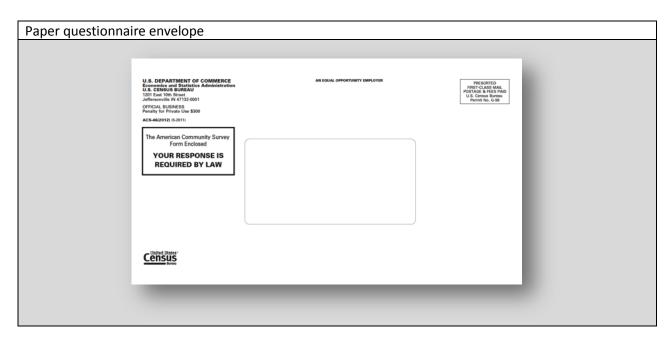


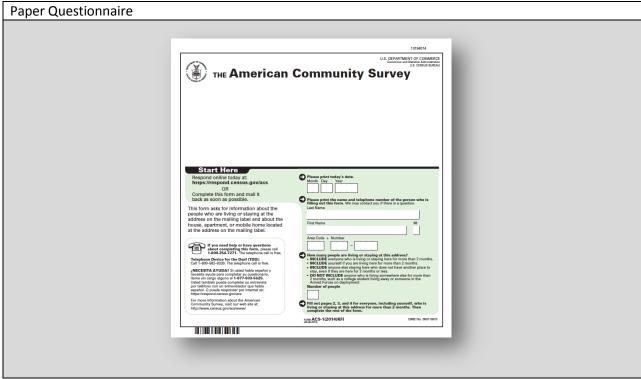


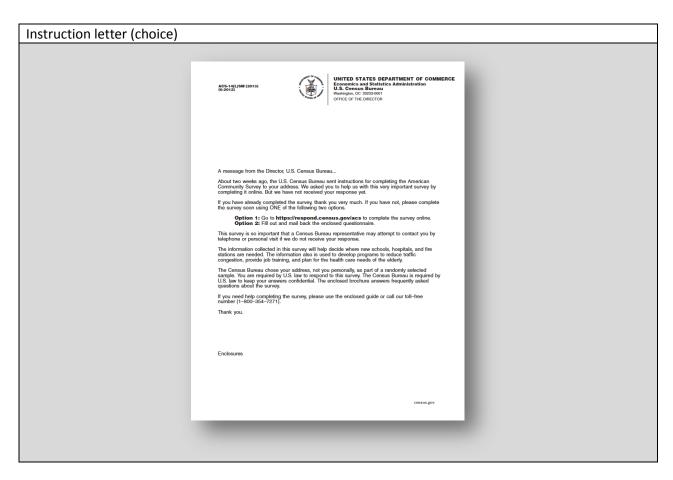






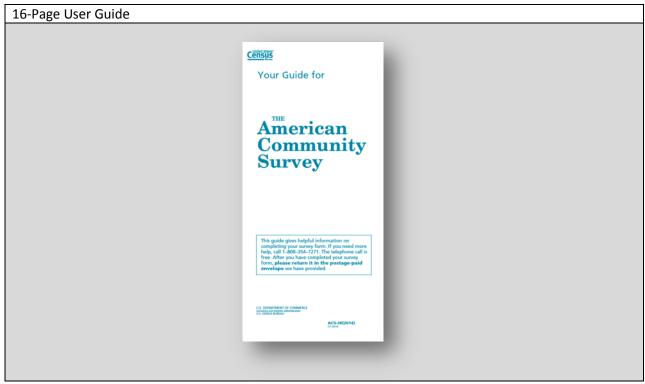




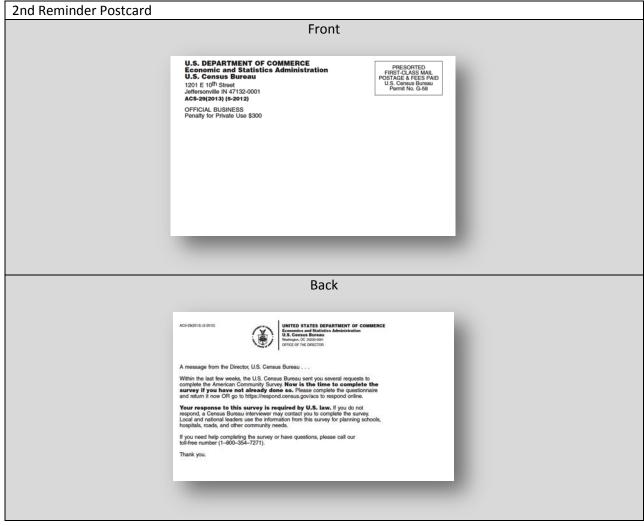


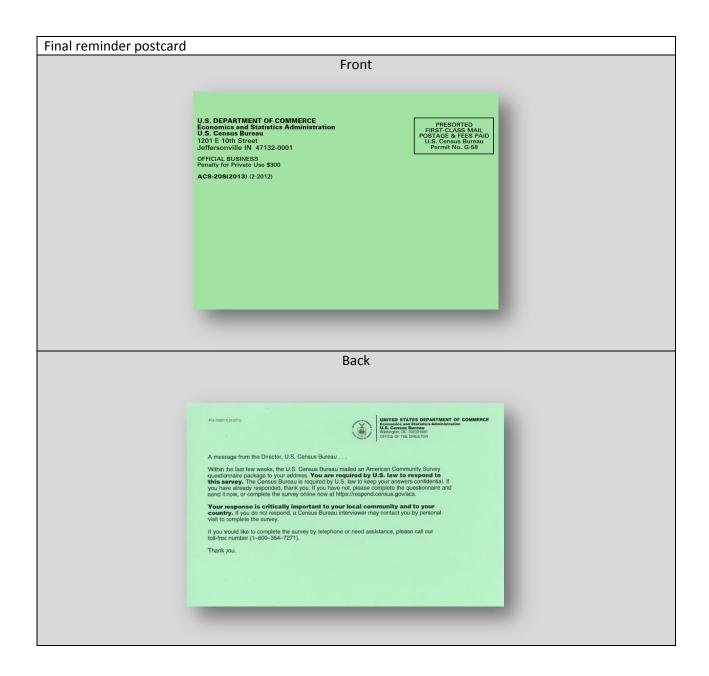




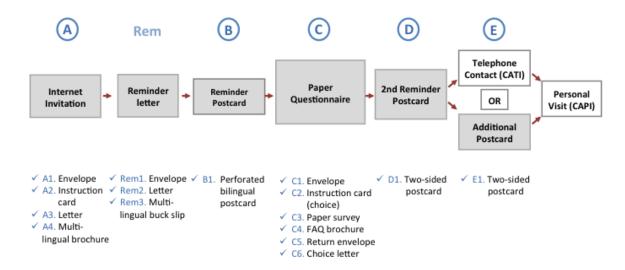




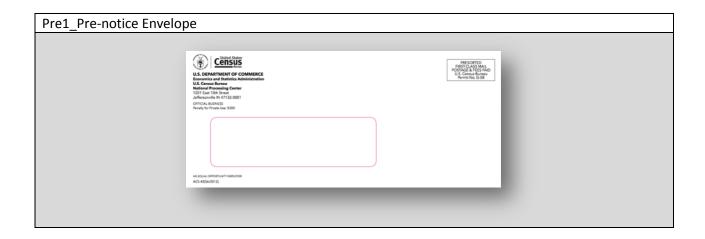




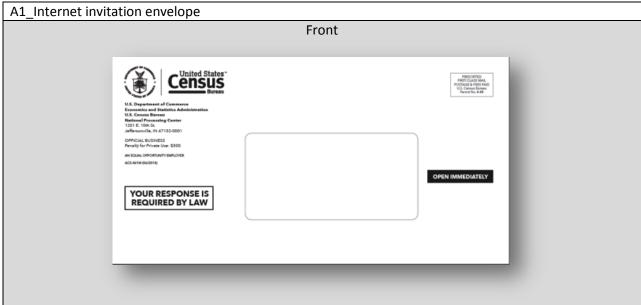
Alternative Concept: "Official" Design



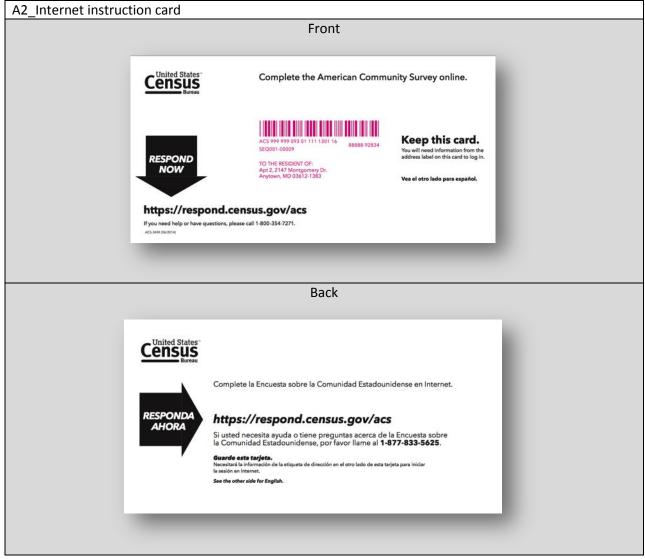
Note: Team Reingold has also provided Prenotice-stage materials for ACSO's potential use in field testing.

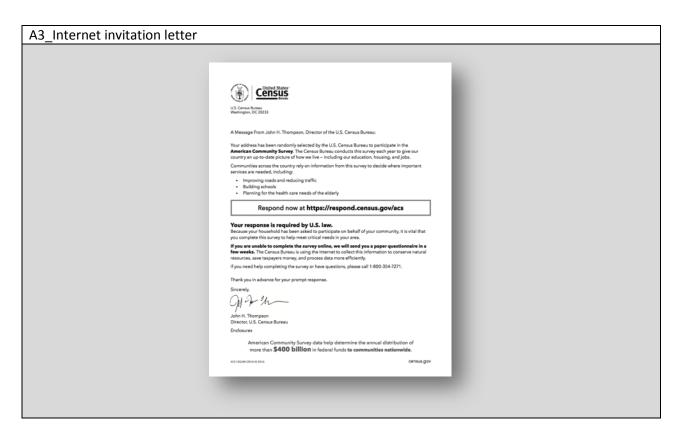


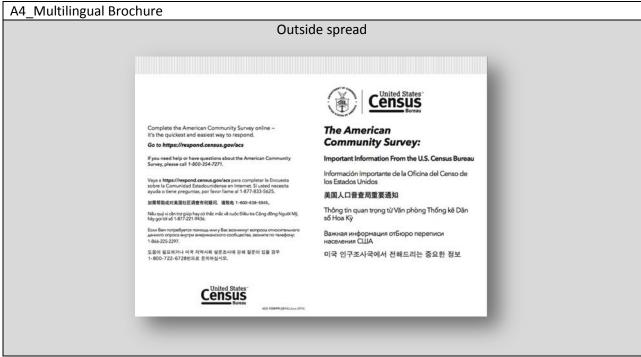


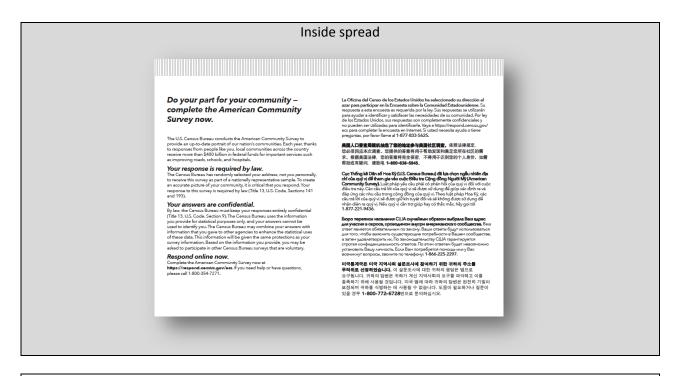


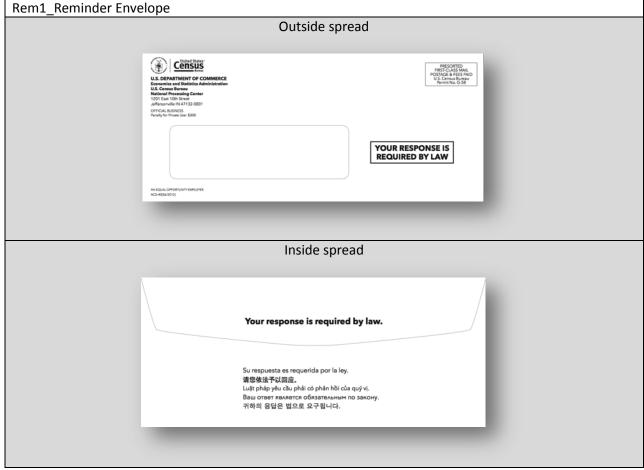


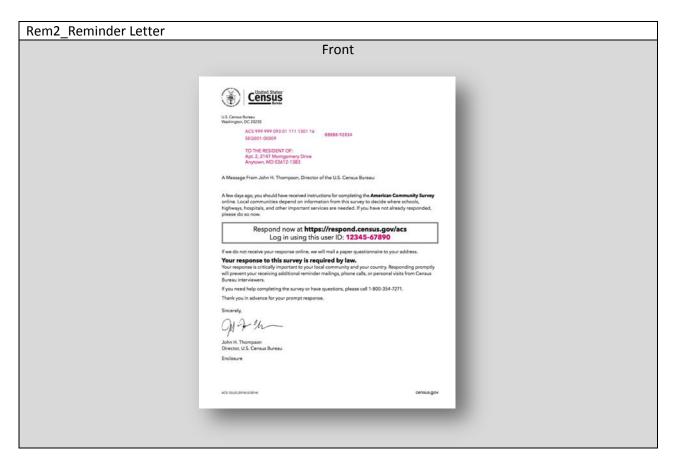


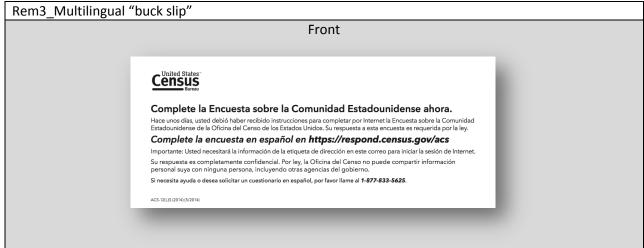




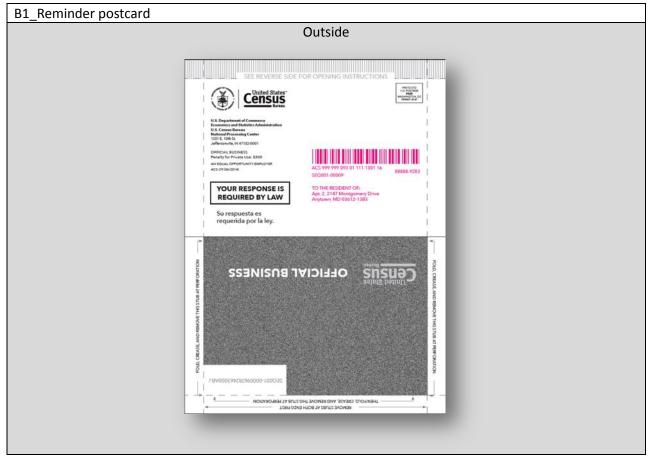


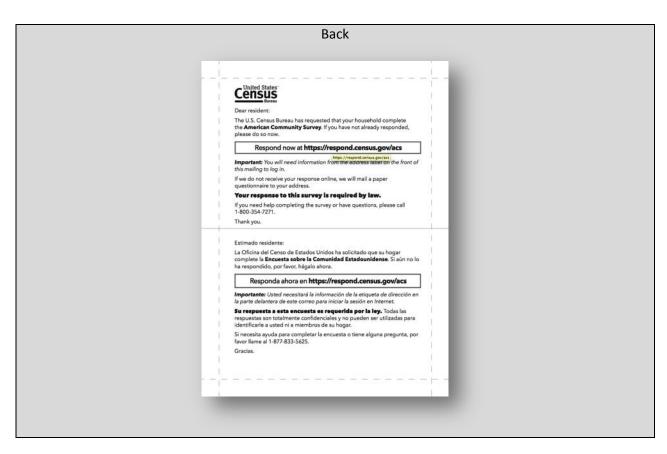


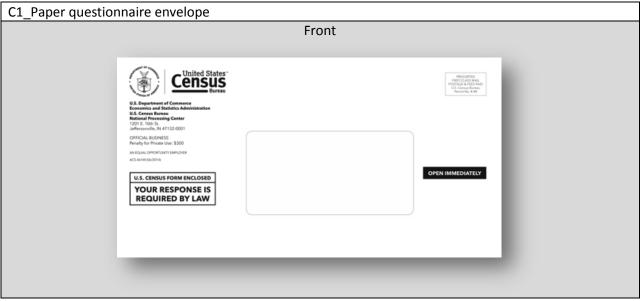




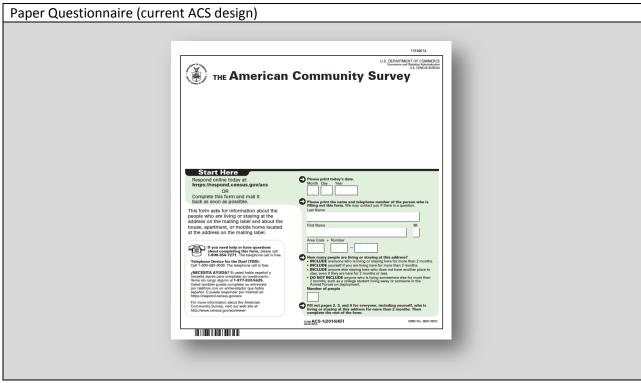


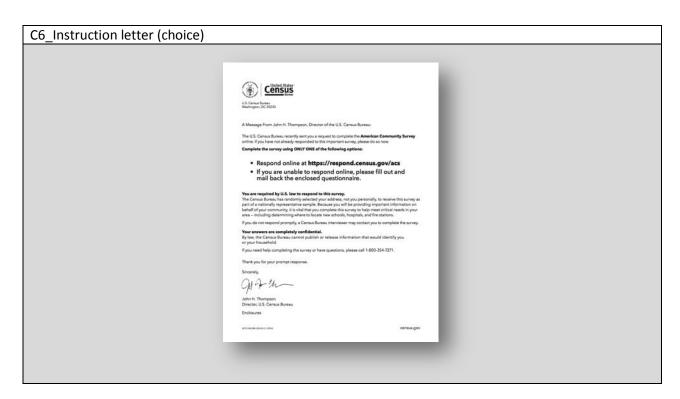


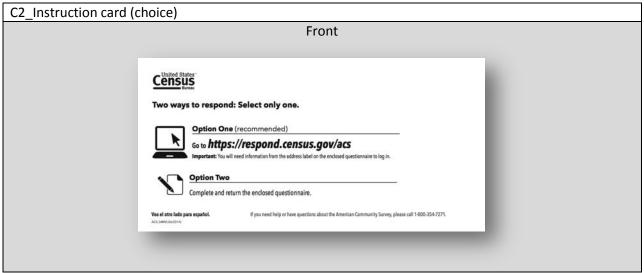


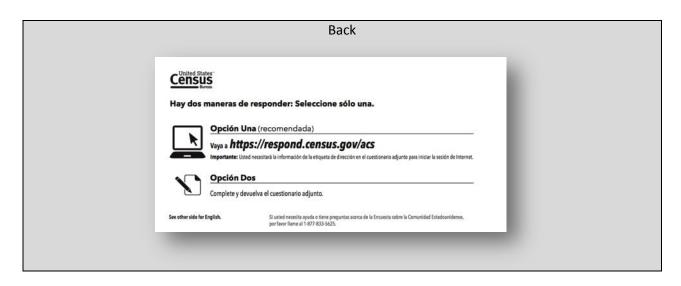


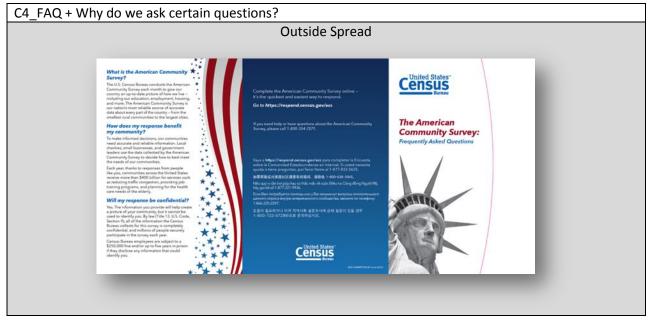






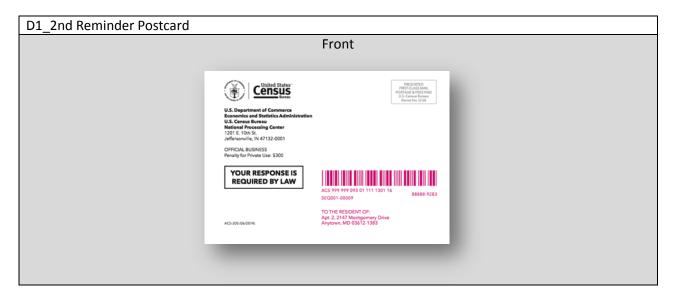


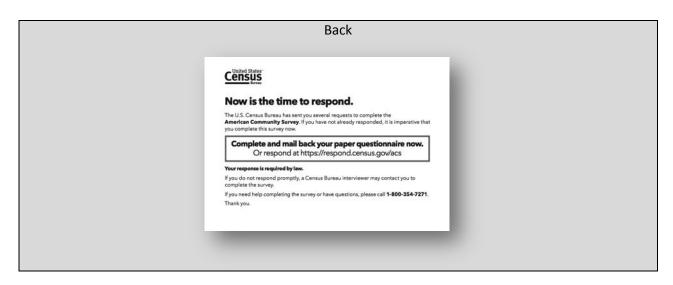


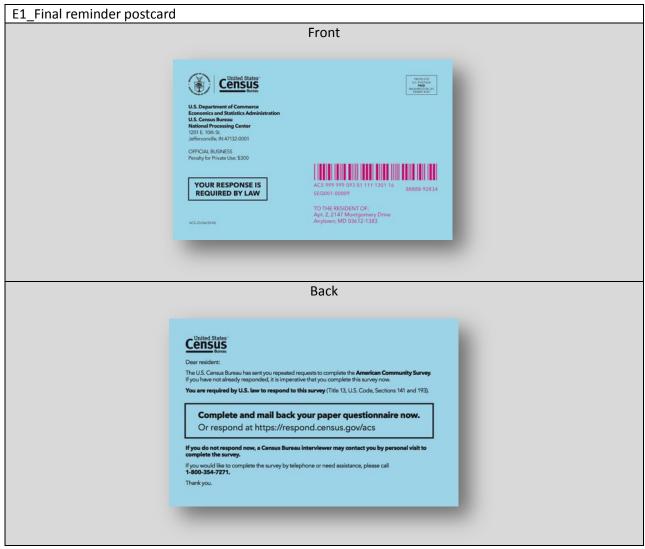






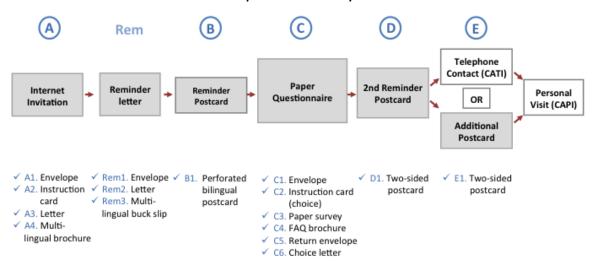






Alternative Concept: "Blended" Design

Proposed ACS mail sequence



Note: Team Reingold has also provided Prenotice-stage materials for ACSO's potential use in field testing.

