Final Report for the Usability Evaluation
of ACS 2011 Online Instrument Rounds 4a and 4b

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Report Issued: January 31, 2013

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Final Report for the Usability Evaluation of ACS 2011 Online Instrument Rounds 4a and 4b
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January 30, 2013

Abstract

The Census Bureau’s Usability Lab conducted several rounds of usability testing of the online 2011 American Community Survey Instrument. This report summarizes the findings for rounds 4a and 4b of testing conducted in October-December 2010. We identified elements of the user-interface design that were problematic and led to ineffective and unsatisfying experiences for potential respondents of the survey. Some of these issues included duplication of names on the roster questions, privacy and confidentiality concerns, and difficulty with the income questions. The first and second rounds of testing are documented in Ashenfelter, Holland, Quach, Nichols, and Lakhe (2011a). The third round is documented in Ashenfelter, Quach, Holland, Nichols, and Lakhe (2011b).
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1.0 Introduction and Background

With the increasing use of online surveys to reduce costs and resources, the U.S. Census Bureau is exploring the idea of providing an online option for respondents to complete the American Community Survey (ACS). The ACS, which is an ongoing survey sent to nearly 3 million households nationwide, provides annual data to help determine the allocation of more than $400 billion in federal and state funds across the United States every year.

For an online data collection to be successful, its user interface must support the users’ expectations in completing the survey in an efficient, effective, and satisfying manner. The Census Bureau’s Usability Lab conducted several rounds of usability testing of the online ACS Instrument. The first and second rounds of testing are documented in Ashenfelter, Holland, Quach, Nichols, and Lakhe (2011a). The third round is documented in Ashenfelter, Quach, Holland, Nichols, and Lakhe (2011b). This report summarizes the findings for rounds 4a and 4b of testing conducted in October-December 2010. The goal of testing was to identify elements of the user-interface design that were problematic and led to ineffective and unsatisfying experiences for potential respondents to the survey.

2.0 Methods of the ACS Online Instrument Testing

This section describes how participants were selected for the ACS online instrument testing, how and where the testing was conducted, and what materials were used.

2.1. Participants of the ACS Testing

In Round 4a, 18 participants took part in testing. In Round 4b, 18 participants took part in testing. Testing was conducted in the Usability Lab at the U.S. Census Bureau.

Based on participants’ self-reported information, the researchers knew the following characteristics about participants in rounds 4a and 4b of usability testing:

- Participants had at least one year experience using a computer and the internet.
- Participants had prior knowledge of how to navigate a Web site and/or online survey.
- Participants had little to no experience with the American Community Survey.
2.1.1. Participants in Round 4a

In total, 17 participants were recruited externally (i.e., not Census employees), and 2 dry run participants were recruited internally (i.e., Census employees) for round 4a of usability testing of the ACS instrument. One external participant was excluded from findings due to their inexperience with using the internet. The remaining 18 participants were self-reported to be experienced in navigating the internet and using a computer (see Table 1) and had little to no experience with the ACS. There were 7 female and 11 male participants, ranging from 19 to 68 years of age with the mean age at 43.11 years. The majority of participants reported having at least some college credit.

Table 1. Participants’ Self-reported Computer and Internet Experience (Round 4a)

<table>
<thead>
<tr>
<th>Scale: 1 (no experience) – 9 (very experienced)</th>
<th>Scale: 1 (never) – 5 (very often)</th>
<th>Scale: 1 (not familiar) – 5 (very familiar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall experience with computers</td>
<td>Overall experience with Internet</td>
<td>How often working with data through a computer</td>
</tr>
<tr>
<td>How often working with complex analyses of data through a computer</td>
<td>How often using the Internet or Web sites to find information</td>
<td>Familiarity with Census Terms</td>
</tr>
<tr>
<td>Familiarity with ACS and AFF sites</td>
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<td></td>
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<tr>
<td>Average across participants</td>
<td>6.94</td>
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<td></td>
<td>3.11</td>
<td>3.61</td>
</tr>
<tr>
<td>n=18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.1.2. Participants in Round 4b

In total, 18 participants were recruited externally (i.e., not Census employees) and 1 dry run participant was recruited internally (i.e., a Census employee) for round 4b of usability testing. One of the 19 participants was excluded from usability findings because even after receiving instructions for completing the survey, she completed the ACS for her household pet. The remaining 18 participants were self-reported to be experienced in navigating the internet and using a computer (see Table 2) and had no experience with the ACS. There were 8 male and 10 female participants, ranging from 22 to 72 years of age with the mean age at 42.67 years. The majority of participants reported at least some college credit. Participants in this round were not required to have unique living situations, although an effort was made to target such participants.
Table 2. Participants’ Self-reported Computer and Internet Experience (Round 4b)

<table>
<thead>
<tr>
<th>Scale: 1 (no experience) – 9 (very experienced)</th>
<th>Scale: 1 (never) – 5 (very often)</th>
<th>Scale: 1 (not familiar) – 5 (very familiar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall experience with computers</td>
<td>Overall experience with Internet</td>
<td>How often working with data through a computer</td>
</tr>
<tr>
<td>Average across participants</td>
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<td>2.67</td>
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<tr>
<td></td>
<td></td>
<td>1.56</td>
</tr>
</tbody>
</table>

2.2. Procedures for Rounds 4a and 4b of testing

Before actual testing occurred in each round, the usability staff conducted a dry-run (i.e., pilot test) of the usability study procedure with internal participants (i.e., Census employees) to help ensure an effective usability study. The dry-run sessions followed similar procedures as the actual usability study sessions, and the findings for each round are included in this report.

Usability sessions in both rounds of testing lasted about sixty minutes. Test administration was conducted by Census Bureau usability staff members. Testing occurred in the Usability Lab at the Census Bureau one participant at a time. Upon arriving, each participant was seated in the testing room. The test administrator greeted the participant, explaining the purpose of the session, the testing procedure, and the importance of the participant’s contribution. Before beginning the usability study, the participant read and signed the consent form (Appendix B for Round 4a and Appendix I for Round 4b) explaining that all the information gathered during the study was confidential and that the session would be videotaped and used solely for research purposes. In addition, the participant was informed that eye-tracking and mouse tracing software would be used to see how he/she interacted with the survey instrument. After receiving the participant’s signature on the consent form, video recording began.

The test administrator calibrated the participants’ eyes for eye tracking and gave the participants the mailing materials for the ACS. The participants were informed that, if they were to receive the survey at home, the mailing materials would have their real home address, but for the purpose of the study they were to pretend that their address was the address displayed on the address label of the materials (i.e., 198 Young Road in Anytown, MD). Each participant was asked to complete the survey online.
The test administrator left the room and did a sound check while the participants completed the Questionnaire on Computer Use and Internet Experience (Appendix C for Round 4a and Appendix J for Round 4b). This questionnaire collects demographic and background information that allows us to understand the participants’ background with computers and technology.

After doing a sound check, the session began. The test administrator instructed participants to complete the survey as if they were at home. During the testing, the think-aloud technique was used to understand the participants’ cognitive processes as they interacted with the interface. Think-aloud is modeled on Ericsson and Simon’s (1993) approach to collecting verbal protocols, which was used to maintain a running verbal commentary of the participants’ expectations and reasoning. A participant engaging in a think-aloud activity verbalizes his or her available, conscious thoughts and decisions while completing the survey. If at any time a participant became quiet for more than 10 to 15 seconds, the test administrator encouraged the participant to continue to think-aloud, using prompts such as, “What are you thinking?,” “Can you tell me your thoughts?,” and “Keep talking.”

There were variations in the testing protocol for each round of testing:

**Round 4a:**
- All of the participants were asked to think aloud while completing the survey;
- Participants were paused while completing the survey to check their awareness of the progress indicator feature when it first appeared on the screens;
- Participants were asked to log out of the survey and re-enter after responding to the Mortgage survey items to see if they understood how to do this;
- Participants were asked about their understanding of the Pick Next Person screen;
- On the Presummary screen, participants were asked about their intentions to review their survey response, or simply submit the form without review;
- Participants were asked to complete a vignette where they were told to review and edit responses to survey items prior to submitting the survey. The protocol for Round 4A can be found in Appendix A.

**Round 4b:**
- Participants were not asked to think aloud;
- Participants were randomly assigned to one of two conditions: Condition A (not stopped while completing the survey) or Condition B (stopped to test the save and logout feature). Condition A
was included in order to get a more reliable estimate of how long it took participants to complete the survey.

- Participants were asked about their understanding of the Survey Complete screen once they clicked the Submit button.
- After submitting the survey, participants were asked to re-enter the survey to review their responses and make edits. Participants were assigned a scenario on which to base their edits (e.g., Citizenship (Scenario 1) or Active Duty Status (Scenario 2)). The protocol for Condition A, Scenario 1 can be found in Appendix E, the protocol for Condition A, Scenario 2 can be found in Appendix F, the protocol for Condition B, Scenario 1 can be found in Appendix G, and the protocol for Condition B, Scenario 2 can be found in Appendix H.

After completing the survey, the participant filled out the Satisfaction Questionnaire (Appendix D for Round 4a and K for Round 4b) and the test administrator reentered the participant testing room to ask debriefing questions and inquire about various ACS screenshots allowing for a more conversational exchange about their overall experience.

Screen shots from Round 4a can be found in Appendix L. Three screens were modified between Round 4a and Round 4b. Screen shots for the three revised Round 4b screens can be found in Appendix M.

_Vignettes_

Because of the issues found with the ACS rostering techniques in Round three of this series of iterative testing on the 2011 ACS Internet instrument (see Ashenfelter, et al., 2011b), we added some short vignettes to Rounds 4a and 4b to further test how well the screens and questions worked with respect to accuracy and ease of answering the questions. These vignettes can be found in the protocols in Appendices A and E-H and focus mainly on children in boarding school and children in shared custody.

While boarding school students may not dominate the population in the United States, children in shared custody are extremely common. Specific cognitively complex living situations such as children in boarding school, shared custody, and commuter worker living situations that have been found to be difficult for participants in past census research (e.g., Martin, 2007). Additionally, these are situations where the ACS rules are not intuitive and not clearly displayed without looking at the help text in this instrument.
In Round 4a, there were three vignette questions. First, we showed participants a power point slide with a screenshot of the question, “Are any of these people listed below away NOW for more than two months, like college students living away at school or armed forces personnel living away?” with a list of fake names. We asked them aloud, “Suppose you had a high-school age student living away at boarding school right now. How would you answer this question?”

Next, we showed participants a slide with the question, “Is Child staying at 198 Young Rd. for MORE than two months?” (Yes/No). We asked them aloud, “Suppose you had a child in shared custody that usually lives with you but is with the other parent on the day you complete this survey. Would you include that child when you complete this survey?”

Next, the same slide was kept up, but we asked, “Suppose you had a child in shared custody that usually lives with the other parent but is with you on the day you complete this survey. Would you include that child when you complete this survey?”

In Round 4b, a very similar method was used. We used the same questions as in Round 4a, but we did not show the last two questions on slides. For those questions, we just asked, “Suppose you had a child in shared custody that usually lives with you but is with the other parent on the day you complete this survey. Would you include that child when you complete this survey?”

Next, we asked, “Suppose you had a child in shared custody that usually lives with the other parent but is with you on the day you complete the survey. Would you include that child when you complete the survey?”

Eye-Tracking Analysis

Eye-tracking data were obtained from participants in Rounds 4a and 4b of usability testing and will be referenced throughout the report. Due to technical difficulties and variations in responses to the survey (causing all participants not to receive the same survey items), eye-tracking data were not captured for some participants (the number of participants captured will be noted). In addition, due to changes in the Uniform Resource

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1 According to ACS residence rules, high-school age children at boarding school should be counted at the sample address, so the answer should be “no” to the vignette, and children in shared custody should be counted where they are on the day of the survey regardless of where they usually live.
Locators (URL) during testing, aggregate eye-tracking images for some screens could not be generated. The eye-tracking analyses displayed in the report will consist of the following:

**Heat maps.** The heatmaps generated for this report demonstrate the number of fixations in an area of the screen on a given page. The colors on a heatmap range in visual intensity as the number of fixations in an area of the screen increases. Green indicates a lower number of fixations in a given area, whereas red indicates a higher number of fixations in a given area. As the number of fixations increases the color changes in intensity.

**Gaze opacity.** The gaze opacity images shown clearly demonstrate the areas where most participants did not fixate. For this report, gaze opacity maps were generated based on fixation counts. The brightness of a gaze opacity map ranges from black to white. Areas in black received very few to no fixations and areas in white received more fixations from participants.

**Areas of Interest (AOIs).** Areas of interests are defined by the experimenter at the beginning or end of a usability study. An area is chosen based on interest in a particular feature, an area presumably neglected by participants, or any other question that could be answered utilizing eye-tracking data. Numerous metrics can be exported based on the eye-tracking data gathered from AOI’s in a study. One commonly reported measure, time to first fixation, shows the number of seconds before a participant fixates upon an AOI for the first time. These metrics can be used as indicators as to where participants look first. Another metric, first fixation duration, shows the number of seconds the first fixation lasts. Shorter times indicate participants moving onto other areas, while longer times indicate that participants focused on the content more. Longer fixation durations do not necessarily have negative significance, since they can be indicative of confusion or processing of information. Shorter first fixation duration times spread across the various AOIs may indicate that participants are looking over the entire page to assess where they should start.

**3.0 Usability Study Results of the ACS Instrument**

Over the course of the usability evaluation, the test administrator observed participants’ comments and reactions to the ACS online instrument. The usability staff noted both positive and negative findings. This section discusses specific successes and usability issues that were uncovered as a result of the usability evaluations in rounds 4a and 4b of testing.

The usability issues for each round of testing are classified into the following categories:
• High priority: These issues can prevent respondents from accomplishing their goals. The user-system interaction is interrupted, and no work can continue. They are critical and should be addressed quickly.

• Medium priority: These issues reduce the efficiency with which tasks can be done. They slow down and frustrate the user, but do not necessarily halt the interaction.

• Low priority: These issues are minor, but significant enough to warrant user comments. They negatively impact user satisfaction with the online survey, but do not directly affect performance.

Findings from Round 4a of testing are presented first, followed by the findings from Round 4b. Although some findings were universal across rounds - such as failing to notice essential information, and difficulty reporting responses to survey items - each round of testing provides different supporting examples and will be discussed separately.

4.0 Usability Study Results of Round 4a

4.1. Successes

• Participants were able to successfully log into the ACS using the mailing materials.
• Participants commented that the survey navigation methods were easy to use.
• Participants commented that the survey items were easy to understand.
• Participants commented that the auto-calculation of age on the Date of Birth survey item was helpful.

4.2. High Priority Issues

4.2.1. Roster Duplication

Participants were observed providing duplicate names on Roster items. Figure 1 shows anonymized examples of what one participant entered on the Roster A and Roster B screens and how household members were sometimes duplicated. It appears that participants are focusing on the example cases listed on the Roster screens (e.g., roommate, boarder, etc.) without realizing they are follow-up survey items to the initial household inquiry.

One solution might be to provide some type of name-matching functionality that asks whether participants meant to enter very similar names twice. Another alternative would be to have respondents list all of the household members in each of these categories on the same screen, so it is clear that it is the same question.

\footnote{In this example, the participant did not realize that he had duplicated a household member until he started getting duplicate questions for that household member later on in the survey.}
It is important to clear up duplicate reports because they can produce over-reports of the population and respondent confusion later in the instrument when detailed information is collected.

4.2.2. Missing and Inaccurate Data

We noted several data entry issues for some participants. Several participants entered invalid information while others skipped survey items without entering any information at all. For those who did provide a response it was often given as a guess or estimate. Participants commented that they were not sure of the exact answers and were reluctant to provide an estimated response. While answering housing item 11a (i.e., cost of electricity), one participant commented, “I don’t know that amount…so what do I click?” The Test Administrator (TA) then instructed the participant to respond to the survey item as if they were taking the survey online at home. Ultimately the participant did enter an amount, but it can be assumed that the amount was not an exact figure and it is uncertain what this participant would have done if they were not given this instruction by the TA. Perhaps if they were taking the survey at home, they would have abandoned the survey altogether because they were uncertain about how to proceed. While responding to the date of birth question for housemates, another stated, “I really don’t know their date of birth, but I’m putting something in there.” Here, the participant entered the same date of birth for all members of their household just to proceed through the survey. This type of responding can be damaging to data quality.

Perhaps if respondents understood that providing partial answers was acceptable or if there was some statement about the importance of providing as accurate information as possible, respondents may be more inclined to
exert greater effort in producing more accurate responses. In addition, it is reasonable to assume that guessed responses and missing data may have been attributed to the lab setting. If respondents were at home they would more than likely have access to the documentation they need to provide more accurate responses.

4.2.3. Privacy and Confidentiality concerns

During the debriefing, several participants mentioned their concerns about privacy and confidentiality after completing the online ACS. This may have contributed to the inaccurate responses that were provided in the survey by some participants. It is uncertain whether the concerns were raised due to the lab setting; however, several participants mentioned that they were a bit uneasy with providing responses to the survey.

4.2.4. Difficulty with the Income Questions

Several participants had difficulty in determining how to answer the first few income questions, only to realize that later questions better fit their situations. Several participants hit the “previous” button to go back and change their answers. There may need to be some message that there will be more specific income categories later on in the question series. This problem also occurred in Round 4b and in the later testing of the Puerto Rico Community Survey instrument (Leeman, Fond & Ashenfelter, 2012).

4.2.5. Failure to notice/understand information presented on the screens (especially the PIN screen)

Often participants failed to notice relevant content presented on the online ACS. For example, when participants were paused in the middle of completing the ACS and asked how much longer the survey would take to complete, most participants did not mention anything about the progress indicator feature on the right side of the screen. They also did not tend to refer to content that was presented on the PIN screen they had seen prior to them being paused, when they answered. A participant commented, “This is such a long survey, maybe you can break it down in sections and have the sections along the top line there.” This participant completely overlooked the progress indicator feature that was displaying the same type of information they sought on the right side of the screen.

Failing to notice content on the ACS may be attributed to its presentation. Often, Internet users will scan content on the screen, failing to read it in its entirety, thus causing them to miss vital information. While logging back into the survey one participant mentioned, “If I didn’t write down that PIN number it would have been an issue.” He noted that the survey may want to let respondents know that they should write the PIN down and
clearly state that they are going to need the PIN to reenter the system. Although this content was presented on the PIN screen, it was obviously overlooked by the respondent. If the respondent had not written the PIN down he would have been unable to reenter the survey had he logged out at home. While on the PIN screen another participant commented “I probably wouldn’t read all that” and did not appear to have read the content presented on the screen, although he did write down the PIN saying, “I’m glad it’s in red, that’s good.” According to the Heatmap and Gaze opacity images shown in Figure 2 and Figure 3 respectively, most participants did not fixate on the PIN screen in its entirety, missing relevant information.

There were some participants who did not write down their PIN at all. They simply were able to recall their PIN when they were asked to log back into the survey. This may be an issue because memory (over long periods of time) has the tendency to decline. If these participants had forgotten their PIN, they could not log back into the survey and continue from the point where they left off. Instead, they would have to call the help number and start the survey over again from the beginning. It is possible that if these participants were at home taking the survey, they may have written down their PIN for later use, but chose not to due to the lab setting.

It is important that essential content on the ACS be easily recognized by respondents and written for the web (Redish, 2007). The content presented on the PIN screen can be condensed into more manageable pieces of information so that respondents gather necessary information from the screen. Important information, such as the purpose of the PIN and the length of the survey, can be broken out into a bulleted list rather than embedded in a paragraph. The text should be short and concise, making the online reading process smoother for the respondent (Powell, 2000).
Figure 2. Heatmap of the PIN screen across all participants (n=18).

Figure 3. Gaze opacity image of the PIN screen across all participants (n=18).
4.3. Medium Priority Issues

4.3.1. Failure to notice the Save and Logout feature

Participants in Condition B were paused in the middle of completing the survey and asked how they would log out of the survey if they needed to leave for an appointment and return later. Some failed to notice the “Save and Logout” button on the top navigation. See Figure 4. One participant said “I would look for a sign-out button or a button that says survey not completed will return or something like that….something that indicates that its ok to leave and to return……I don’t see anything like that….maybe if I click on Security I would see something.” This participant was going to select the security link located at the bottom of the page incorrectly because she did not notice the save and log out on the top navigation. Five other participants also completely overlooked the “Save and Log out” button on the top navigation when asked to log out of the survey and had to be directed by the TA to this feature of the screen.

The save and log out feature is an important tool for respondents to safeguard their information if they are unable to complete the survey in one sitting. Therefore, it is important that this feature be easily accessible and noticeable to respondents. In debriefing, a participant recommended placing the “Save and Logout” button closer to the center of the top navigation so that it will be more noticeable.

4.3.2. Difficulty reporting responses to open-ended survey items

While completing the online ACS several participants had difficulty entering their responses to open-ended survey items. For example, while responding to the Field of Degree Question (Figure 5) (i.e., Please enter the specific major (s) of any BACHELOR’S DEGREES this person has received.), a participant asked “If you have a split major what happens? Do you put both majors in for a Bachelor’s degree?”
While answering the ancestry question (Figure 6), this participant made the same comment about being unsure if you could enter more than one ethnic origin. Eventually, the participant decided to select “help” and was able to see that they could enter more than one ethnic origin in the entry field. Another participant also experienced the same uncertainty for the ethnic origin question and asked if he could write more than two ethnicities in the ancestry box.

It is evident that these participants were unsure of the number of allowable characters in the response entry fields for open-ended items. While the wording of the question may imply that more than one response can be reported (e.g., Please enter the specific major(s) of any BACHELOR’S DEGREES this person has received), the size of the entry box may have been misleading. Perhaps it would be useful if there was a character countdown feature shown below the entry box or if some explicit statement was given that respondents were allowed to enter more than one if applicable. Displaying a scroll bar in the entry box may also be useful. A suggested solution is shown in Figure 7.
The same uncertainty of response formats occurred while participants were responding to open-ended items requiring numerical values on the ACS. While responding to any survey items requiring numerical values, a participant said, “I was wondering if I need to put a comma in here,” and three other participants were observed entering decimals in the entry boxes although decimals were already present outside the box. While responding to survey item 33 (i.e., What time did this person usually leave home to go to work LAST WEEK?) for Person 2 in their household, a participant was observed entering “7:” in the first entry box and 0 in the second box, when a colon was already presented between the fields (see Figure 8).

Although this type of uncertainty may be uncommon in online household surveys requiring numerical responses, providing additional guidance to respondents about intended response formats may be useful. For example, by making the open-ended hour item for numerical values with decimals right-justified instead of left-
justified, respondents will notice the decimal points already there and will be less inclined to include them in their response.

4.4. Low Priority Issues

4.4.1. Failure to Review Responses to the ACS due to respondent fatigue

After participants completed the online ACS instrument, very few participants chose to review their responses. Most participants commented that they did not want to do so because the survey was quite long and they didn’t want to devote any additional time to it. Others commented that they were confident about the answers they provided and did not feel the need to review their responses.

When asked why she didn’t want to review her responses to the survey, one participant answered, “because it took a long time and I don’t want to read it over.” Another participant commented, “I wouldn’t want to go back through all that.” These participants may have been less likely to review responses provided to the survey because they were uncertain about how long it would take or how the information would be presented (e.g., would they have to look through each survey item to review their responses, would the responses be shown on one screen, etc.). Alternatively, another participant commented that he would review his responses because the questions on the ACS were “complex.”

Although choosing to review responses may be uncommon for survey respondents, it may be beneficial to the ACS. Since most respondents may choose not to review their responses it may be useful to show the review screen immediately after the respondent has completed the survey.

5.0 Changes made based on Usability Study of Round 4a

After Round 4a of usability testing, the usability team discussed the major findings with the ACS sponsor team. As a result of Round 4a testing, the following changes were made to the online instrument:

- Because participants frequently overlooked the “Save & Logout” link at the top right corner of the screen, the sponsor moved the Save & Logout link closer to the center of the page, as shown in Figure 11 (see Figure 9 for placement in Round 4a).
Figure 9. Placement of the “Save and Logout” Link in Round 4b

- A Date and Time Stamp was added to the Thank You screen (Figure 10). This change was not directly related to a usability finding, but could help reassure respondents that their data has indeed been submitted because a timestamp has been provided.

Figure 10. The time and date stamp was added to the Survey Complete screen

- Because of the issues with Roster duplication identified in Round 4A, the sponsor made changes intended to convey that the question was looking for additional people who might have been missed and not whether people already listed on Roster A fit the example categories. They added uppercase text on Roster B and moved the question above the list of household names already entered, as shown in Figure 11 (see Figure 1 for placement in Round 4a).
Figure 11. Roster B screen showing uppercase question text and revised question placement.

- On Review & Edit screens (see Figure 12), when a new question was added based on a changed answer:
  a. The screen displayed a new highlighted message at top of screen;
  b. The screen displayed and highlighted new question row, added arrow before new question;
  c. The screen showed [BLANK] for a new question answer.

These changes were not based on usability results directly, but on the concern of experts about the usability of this screen.
Figure 12. Review and Edit Screen for the Housing Questions
6.0 Usability Study Results of Round 4b

6.1. Successes

The successes in Round 4b of testing for the ACS online instrument are listed below.

- Participants were able to successfully log into the survey using the mailing materials.
- Most participants noticed the Save and Logout feature (which demonstrates that the revision to the screen was effective).
- Most participants were able to navigate through the survey successfully.
- Most participants liked the auto-tabbing feature.
- Most participants were able to review and edit survey answers “successfully” during the vignette. This result was likely impacted by the revisions made to the review screen.

6.2. High Priority Issues

6.2.1. Privacy and Confidentiality concerns

As in Round 4a, several participants mentioned their concerns about privacy and confidentiality after completing the online ACS. One participant commented that she was a little reluctant about providing “true” information so she made up estimates to the questions. Another participant commented that he was reluctant to enter information in the survey because he did not know exactly “who they were” (referring to the ACS). He further stated that it may be beneficial to tell who the ACS is in the survey. During debriefing, a participant stated that she felt like the survey was intrusive and that she did not know what the survey was for or how the information would be used. She stated that if she knew the purpose of the survey, she may have felt more comfortable providing the information. One participant made up the name of his roommate (naming her “Jane Smith”). He mentioned that the reason for this was because of the lab setting and if he were at home he would have entered the correct information, so some of this effect may have been an artifact of the lab setting.

It is important to note that information regarding privacy and confidentiality, as well as the purpose of the ACS, would have been provided in the mailing materials that respondents would receive at their home address. However, it may also be useful to have this information easily accessible on the online survey as well. This type of information can be provided on the login screen or on the screen immediately following a successful login to the survey. The information should be short and concise, simply stating the purpose of the survey and confidentiality assurance. A message to respondents about the usefulness of their information may also help.
6.2.2. Grayed out text was misunderstood

When a participant responded “yes” to certain questions, such as whether or not anyone in the home uses electricity, a follow-up question (such as how much is paid for electricity) appeared at the bottom of the screen and the original question became grayed out to indicate that it had already been answered. Grayed out text presented on follow-up survey items may have been a bit distracting to some respondents. One participant actually reread the text in gray, assuming that it was a new survey item. On the follow-up electricity question, another participant actually tried responding to the grayed out survey item. The heatmap in Figure 13 shows the amount of focus the participant paid to the gray text. This participant was attempting to change his/her response to the survey item (to No instead of Yes), but after unsuccessfully trying to select the grayed out radio button, the participant commented, “It doesn’t change so I’ll keep going.” Here, the participant did not understand that the grayed out text was unavailable and that in order to change his/her response, he/she needed to select the previous button below the question. Not realizing this, the participant continued through the survey, unable to enter the correct response to the survey item.

We recommend testing a version of this screen where the gray text is eliminated from the follow-up question screen, since it is not understood as inaccessible. For example, on the electricity item (question 11), when the respondent selects Yes to item a, both item a and the follow-up question should be accessible. The follow-up item can disappear if/when the respondent selects No to the previous item (i.e., they will not receive the follow-up question).

![Figure 13. Heatmap of a participant’s response to the electricity follow-up question](image-url)
6.2.3. Difficulty responding to the Place of Birth survey item

On the Place of Birth screen, participants had to select whether they were born in the United States or outside of the Country. If they selected “In the United States,” a drop-down menu appeared and the next step was to select a state. If they selected “Outside of the United States,” the text entry field below the question became active and the next step was to enter the name of the country.

Although they were able to recover, several participants experienced some difficulty responding to the place of birth item shown in Figure 14. Most participants who were born in the U.S. would either attempt to select the state before the radio button or they selected the radio button without selecting a state and continued. After several attempts to select a state from the drop down menu before selecting the radio button, one participant had to be instructed by the TA to select the radio button to proceed.

Perhaps this type of responding occurred because participants did not read the instructions clearly. It is common for respondents to skip over instruction text because they assume they know how to answer the question.

![Figure 14. The Place of Birth survey item.](image)

6.2.4. Difficulty providing responses to open-ended survey items

As in Round 4a, there were some issues with open-ended survey items. At least four participants appeared to have difficulty responding to open-ended survey items on the ACS. While responding to the Race item, a participant typed African American (Ghanaian American), then deleted Ghanaian American from her response.
When asked about this during debriefing the participant mentioned that she was unsure whether she could “enter more than one.” This type of misunderstanding can lead to reporting errors (e.g., under-reporting) to survey items. Respondents should be given guidance on the options available to them when responding to open-ended survey items. Perhaps including a character countdown feature (shown in Figure 7) or a scroll bar in the entry box may assist in letting respondents know that they can include more than one response in the entry field.

While responding to the employer address survey item (for Person 1 and Person 2 of their household), a participant entered the city and state in the street name entry box and typed not sure in the county entry box. Similarly, another participant typed don’t know in the county name entry box. These participants may not have read the field labels or were unsure of how to respond if they did not know information. Ensure that field labels are noticeable to respondents. It may also be useful to include a soft edit for invalid responses so that respondents are made aware and can correct their mistakes.

Again, providing additional guidance to respondents about intended response formats may be useful. For example, by making the open-ended item for numerical values with decimals right-justified instead of left-justified, respondents may notice the decimal points already there and will be less inclined to include them in their response.

### 6.2.5. Failure to notice content on the PIN screen

As in Round 4a, there is evidence that participants did not read and process all of the information on the PIN screen. Figures 15 and 16 show that the primary focus was on the PIN itself and Figure 16 shows that participants did not read the message about not being able to reset the PIN if it is lost or forgotten.

All participants copied the PIN from the PIN screen; however, it is unclear whether they read and understood the content on the PIN screen in its entirety. For example, one participant asked the TA, “Should I make a note of the PIN?” This participant may not have understood the purpose of the PIN and/or why they would need it. During debriefing, another participant mentioned that it would be a good idea to state how long the survey would take to complete. He seemed to have missed this information on the PIN screen. The heatmap in Figure 15 shows the most read part follows an F-shaped reading pattern (Nielsen, 2006). There is a drop-off after the initial few words.

The content presented on the PIN screen provides essential information that the respondent needs to know. The text should be written for the web so that it can be easily read and understood by respondents. Dense text is
likely to be overlooked by respondents. Consider bulleted important content such as how long the survey will take to complete, the purpose of the PIN, etc., instead of embedding it into a paragraph format.

Figure 15. Heatmap of the PIN screen across participants (n=14).

Figure 16. Gaze opacity map of the PIN screen across participants (n=14).
6.2.6. Problems with the Income Questions

As in Round 4a, participants frequently had trouble accurately answering the income questions. Specifically, they answered some income questions and then learned that later questions more directly applied to what they had entered, so they went back and changed their responses to the previous questions. Several participants did math on scratch paper to answer these questions.

7.0 Satisfaction Measurement Results

This section explains the participants’ satisfaction with completing the ACS online. Participants were asked to complete a satisfaction questionnaire at the end of the testing session. They were asked to rate their satisfaction on a scale of 1 to 9 (with 1 being the lowest and 9 being the highest) on nine different elements. Overall the participants gave high ratings in their satisfaction scores for the ACS online instrument in both rounds of testing. The results are presented for Round 4a followed by Round 4b of testing.

7.1. Round 4a: User Satisfaction

User Satisfaction Results
In a usability study, the goal is typically to attain an overall satisfaction score of at least five on a nine-point scale. Figure 17 shows the graph of the mean satisfaction ratings for various elements of the ACS. The average satisfaction score for participants in Round 4a was 7.64 out of 9 (1 low and 9 high), which is quite close to the 80 percent goal. The aspect of the online survey to score the highest satisfaction rating was “Forward navigation” at 8.41. The lowest scoring aspect of the survey was “Overall reaction to survey,” scoring 6.82.
7.2. Round 4b: User Satisfaction

User Satisfaction Results

Figure 18 charts the mean satisfaction ratings for various elements in Round 4b of the ACS testing. The average satisfaction score for participants in Round 4b was 7.50 out of 9 (1 low and 9 high). These rankings are essentially the same as they were as in Round 4a, and both rounds had very high levels of satisfaction. The aspect of the online survey to score the highest satisfaction rating was “Forward navigation” at 8.24. The lowest scoring aspect of the survey was the “Overall reaction to the survey,” scoring 6.94.
Figure 18. Mean Satisfaction ratings across participants for survey elements in Round 4b ACS testing. n=18

8.0 Round 4b-ConditionA: Efficiency

As noted previously, Round 4b of testing included a condition that did not require thinking aloud (Condition A). Since this procedure essentially replicates the process a person would go through at home, efficiency, or time, data can be reported. On average, the 12 participants in Condition A took about 27 minutes and 6 seconds to complete the survey. Of those 12, the four participants who chose to review their responses prior to submitting the survey averaged 23 minutes and 38 seconds. Participants in Round 4b were not required to reside in unique living situations. Therefore, households consisted of 1 or 2 persons. The seven participants with 1-person
households took an average of 20 minutes and 19 seconds to complete the survey whereas the five participants with 2-person households took an average of 26 minutes and 12 seconds to complete the survey. There is some evidence that respondents with larger households took longer to complete the survey.

9.0 Vignette Results from Rounds 4a and 4b

As in Round 3, participants continued to apply their own heuristics to answer the ACS roster questions for the vignette questions in Rounds 4a and 4b. According to ACS residence rules, high-school age children at boarding school should be counted at the sample address, so the answer should be “no” to the vignette, and children in shared custody should be counted where they are on the day of the survey regardless of where they usually live. The results indicate that comprehension of these rules is both a usability issue and a content issue.

9.1. Vignette Results from Round 4a

Twelve participants answered the vignettes from Round 4a. The results can be found at the end of Appendix A. All 12 answered “Yes” to the first question about the boarding school student, which is incorrect according to the ACS residence rules. None of these participants said anything like “it depends” or that they would need to see some help text, etc.

For the second vignette, 11 participants said that yes, they would count the child who usually lives with them but is staying with the other parent on the day of the survey. This is incorrect according to ACS rules (although it is consistent with decennial census residence rules). One participant said that he would have to look at the help text to make a decision because he lost custody in real life two months ago and would not be sure what to do.

For the third vignette, three participants said yes they would count the child staying with them even if that child usually stays with the other parent, eight said they would not count the child, and one said it would depend on how long the child was staying with them (if it was over two months “then it counts.”) Clearly, this residence rule is not obvious to respondents.

9.2. Vignette Results from Round 4b

Sixteen participants completed the vignettes for Round 4b. The results are included at the end of Appendix E. For the first question, 15 of the 16 participants answered the boarding school student question incorrectly
according to the ACS residence rules. The participants said they would say “Yes” that they would include the boarding school student who was living away from home for more than two months, on the roster. The participant who said she would select “No” said she would have otherwise selected “Yes” but did not see “boarding school student” on the list of examples of people living away from home and decided not to select “Yes” for this reason alone.

For the second question, 15 of the 16 participants would count the child who usually lives with them but is with the other parent on the day they take the survey. Again, this is inconsistent with ACS residence rules.

Only three of the 16 participants would count the child if he or she were staying with them on the day they answered the survey if he or she usually lived with the other parent for the third question. Twelve would not count them and two said it would depend on how long the child was staying with them and said they might need to look at some help text.

Further testing is recommended to examine alternative rostering methods to ensure both ease of use of the instrument and an accurate roster. For instance, usability staff recommends breaking the roster questions into a series of short questions that ask about shared custody and boarding school situations as appropriate to ensure an accurate roster (e.g., like the alternative roster that was vetted but not tested before Round 3; Ashenfelter, et al., 2011b).

10.0 Discussion

Round 4a of usability testing revealed positive and negative aspects of the online American Community Survey. Among the positive aspects, participants liked the age auto-calculation functionality as a method to verify their response. Participants also had little trouble logging into and navigating through the survey. Overall, two high priority issues, two medium priority issues, and one low priority issue are presented in this report. Participants often guessed or gave an estimate when they did not know an exact answer to a survey item.

Information on the survey was rarely read by the participants. Information presented on the PIN screen about the length of the survey and the importance of the PIN was often overshadowed by the PIN itself. Participants also skimmed text on the PIN screen in Round 3 and this is common practice for online users. In Round 4a, participants also had difficulty finding the “Save & Logout” link, and were unsure if questions requiring text entry would allow more than one response. Participants also entered non-numerical characters such as commas.
or periods for questions expecting numerical input. Lastly, participants did not review their answers to the survey, possibly due to fatigue and the length of the survey. Combined with guesses and estimates, the Census Bureau may receive inaccurate or incomplete data as participants respond to the survey.

Several changes were made to the American Community Survey between Rounds 4a and 4b of testing. The “Save & Logout” link was moved closer to the center of the page, and changes were made to the roster screen in order to prevent participants from duplicating people on the roster. Participants had little trouble with roster duplication or logging out in Round 4b after these changes.

Round 4b of the online American Community Survey testing revealed three high priority issues; however, there were far more successes. Participants were able to login to the survey, and most participants had little trouble navigating the survey. Testing of the review screen revealed that the majority of participants were able to successfully review their answers, as well as notice any new items that appeared due to their modifications. However, there were also new issues, as well as repeated issues seen from previous rounds of testing. Participants voiced concern about the purpose of data collection and how it would be shared. Few, if any, participants looked at the privacy and confidentiality links at the bottom right of every screen, or the privacy and confidentiality information on the login page. Similar concerns about the respondents’ privacy were seen in Round 3 of ACS testing (Ashenfelter et al., 2011b). Also similar to Rounds 3 and 4a, participants often missed information about the survey length and importance of the PIN. Unlike the previous rounds, a new finding emerged from Round 4b of testing. Some participants did not understand the grayed text used to indicate inaccessible inputs or information. Some participants recovered and correctly responded to the question while others skipped the question. These issues may interfere with completion of the survey, or cause missing data as respondents skip questions they deem inaccessible.

Overall, it appears that with minor modification in the way content is presented and the type of guidance that is afforded to users in completing the survey, the user experience can be enhanced. Data quality can also be improved and respondent burden will be minimized. Essentially this can lead to more accurate responses and increased satisfaction with the survey.

As in the Round 3 of usability testing for the 2011 ACS Internet testing, there are some major issues with the way that the roster questions are asked. Further testing is needed to eliminate non-sampling error associated with difficult residence rules that are not readily available to respondents as they take the survey.
11.0 References


Appendix A: General Protocol for Round 4

Date_______________________; Participant #________; Experimenter: _______________

General Introduction: American Community Survey Internet Instrument

Thank you for your time today. My name is XX and I work here with the Human Factors and Usability group. I will be working with you today. If you have a cell phone, please turn it off or put it in vibrate. We will be evaluating the design of the online American Community Survey by having you complete it. Your experience with the survey is an essential part of our work. I did not create the survey, so please share both your positive and negative reactions to it. We are not evaluating you or your skills, but rather you are helping us see how well the survey works. The entire session should last about an hour. Your comments and feedback will be given to the developers of the survey and may be used to improve it.

First, I would like to ask you to read and sign this consent form. It explains the purpose of today’s session and informs you of your rights as a participant. It also tells you that we would like to videotape the session, with your permission. Only those of us connected with the project will review the tape and any other data collected during the session, and it will be used solely for research purposes. We may also use clips from the tape to illustrate key points about the survey to the Web design team. In addition, there may also be observers from the project team observing this session in another room.

Hand the participant the consent form; give time to read and sign; sign own name and date if you have not already done so.

Start the tape.

I would like you to tell me your thoughts about the screens as you look at them. In other words, I would like you to "think aloud" as you go through the Web pages. If you expect to see a piece of information and it isn’t there, tell me. If you expect something to happen and it doesn’t happen, tell me. Let me know if you don’t know what to do next. Finally, if anything is confusing on the screen, let me know that too.

Pull up www.wtop.com in Firefox.

Before we get started, let’s practice thinking aloud, since it’s not something that you would normally do while working online. Pretend that you have a minute or two to kill at your desk at work or at home and talk me through your thought process as you try to find something interesting to read.

Ok, that’s exactly what I would like for you to do throughout the session. If at any time during the session you get quiet, I may remind you to talk to me. This is not to interrupt your thought process, but simply to remind you to keep talking to me. Please focus on verbalizing what you are thinking as you complete the survey.

Do you have any questions about the think aloud technique that we just practiced?

While you are completing the survey, we will record the movements of your eyes with our eye-tracking monitor to get a record of where you are looking on the screen and we will record your mouse movements to see how you are interacting with the survey.

Now I am going to calibrate your eyes for the eye tracking.

Now that we have your eyes calibrated, we are ready to begin. Please respond to the survey online as you would at home. You may answer the survey questions as they apply to you in your real life. Although the materials will give you an internet address, or URL, to enter to access the survey, you will not need to enter that because our testing software will open the survey for you.

Please imagine that you received this packet in the mail at your home. These are the mailing materials you will need to start the survey. If you were to receive the survey at your home, the mailing materials would have your
real address. Since we cannot replicate that for the lab setting, all participants will use the same address. For the purposes of this study, please pretend that your address is 198 Young Rd in Anytown MD.

I am going to go around to the other room to do a sound check. While I am doing that, please take a moment to complete this questionnaire. [Hand Participant questionnaire on Computer experience and demographics]

I’m going to leave but we will still be able to communicate through a series of microphones and speakers. Do you have any questions before we begin?

*Leave room. Once in control room do a sound check and Start the eye-tracking software: Tobii Studio. The mouse tracing software will start when Studio opens Internet Explorer.*

Encourage R to think aloud while completing the survey. Ask probe questions about what they are thinking if they are having trouble with any part of the survey.

**Overall Probe:** Make a note if a person left a page with a blank answer. If it had a soft edit, ask them whether the edit persuaded them to answer it.

**PIN Screen:** Seemed to read it [ ] Wrote PIN down [ ]
Write down the PIN in case the Participant does not.

**STOP AFTER ROSTER CHECK (Final List of eligible people)!!!!!!!!!**

Check Awareness or use of progress indicator

I’m going to pause you for a second:

About how much longer do you think the survey will take? How did you come up with that answer?

Notes on other screens:
STOP PARTICIPANT AFTER MORTGAGE QUESTIONS

Second Check of awareness or use of progress indicator
I’m going to pause you for a second: About how much longer do you think the survey will take? How did you come up with your answer?

Let’s say you have to leave for an appointment, what would you do?
Observe: did they find “save & logout” button?
Observe: Use “save & logout” [ ] Close browser [ ] Other (explain) [ ]

Let’s select “save & logout” right now. Pretend you have left for your appointment and have returned. You want to reenter the survey. What would you do?
Observe: if they mention PIN, and if they remember it.

Thanks for that information, okay you can continue.

STOP AT PICK NEXT PERSON

The PICK NEXT PERSON comes before Person Questions;

PROBE: What do you think this question is asking you to do?
PRESUMMARY SCREEN (list of Names with Review Answers Links):

I’m going to pause you again:
Take a look at this screen, before making a selection on the screen, please tell me what you would do if you were taking this at home and why?
(if they chose submit) Why wouldn’t you select review first?

Vignette
Now let’s go to review (anyway) and see how that screen works for you.
Suppose you wanted to review the answers you gave for yourself, what would you do? Note what they say/do. If they don’t click the “review answers” link, have them do that.
Suppose you wanted to change the answer for place of birth from the United States to England, how would you do that? After they made the change, did they click return, or did you have to tell them?

When they got back to review and edit screen, did they notice the new line on the table for Citizenship with a [Blank] for the response? What did they do? IF they didn't notice it, point it out and ask them what they would do now.

This one only works if the person is born in the U.S. If they aren't born in U.S. have them edit housing question 4 (how many acres?) to more than 1 acre so the agricultural sales question is added to the review and edit screen.

Debriefing Questions
Show each relevant screen and allow the participant to look at each screen as you ask questions about it.

Debriefing:

What was your overall impression of the survey?

PROBE ABOUT ANY UNUSUAL RESPONSES.

If they mentioned that someone in their household uses more than one mode of transportation to get to work (such as bus and subway) and they chose one, ask why they chose that one.

MOVE ON TO THE POWERPOINT SLIDES

Slide 1:
Did you notice the progress indicator on the right side of the screen?
What do you think the grayed out text indicates?
What do you think the question below is asking you?
Slide 2:
Why do you think the question at the top of the page is grayed out?
Did you think you could change the answer to the grayed out question?

Slide 3:
Suppose you had a high-school age student living away at boarding school right now. How would you answer this question?
Slide 4: Suppose you had a child in shared custody that usually lives with you but is with the other parent on the day you complete this survey. Would you include that child when you complete this survey?

Suppose you had a child in shared custody that usually lives with the other parent but is with you on the day you complete this survey. Would you include that child when you complete the survey?
<table>
<thead>
<tr>
<th>Participant#</th>
</tr>
</thead>
<tbody>
<tr>
<td>RACE: White  Black  Hispanic  Asian  Other</td>
</tr>
<tr>
<td>AGE RANGE: &lt; 30  31-45  46-60  61+</td>
</tr>
<tr>
<td>GENDER: M  F</td>
</tr>
<tr>
<td>EDUCATION: HS/GED  Some Coll/AA  Bachelor’s  Some grad</td>
</tr>
<tr>
<td>DATE OF INTERVIEW:</td>
</tr>
<tr>
<td>INTERVIEWER:</td>
</tr>
</tbody>
</table>
Each year, the Census Bureau conducts many different usability evaluations. For example, the Census Bureau routinely tests the wording, layout and behavior of products, such as Web sites, online surveys, and letters sent through the mail in order to obtain the best information possible from respondents.

You have volunteered to take part in a study to improve the usability of an online version of the American Community Survey (ACS) that is currently being developed. In order to have a complete record of your comments, your usability session will be videotaped. We plan to use the tapes to improve the design of the product. Staff directly involved in the usable design research project will have access to the tapes. We also plan to perform an eye-tracking analysis of your session. Your participation is voluntary and your answers will remain strictly confidential.

This usability study is being conducted under the authority of Title 13 USC. The OMB control number for this study is 0607-0725. This valid approval number legally certifies this information collection.

I have volunteered to participate in this Census Bureau usability study, and I give permission for my tapes to be used for the purposes stated above.

Participants Name: ___________________________________
Participants Signature:________________________    Date:________________

Researcher’s Name: ___________________________ Date:____________
Researcher’s Signature:_________________________Date:____________
Appendix C: Background Questionnaire for Round 4A

Questionnaire on Statistical Background, Computer Use, Internet Experience

YOUR ANSWERS ARE CONFIDENTIAL

Demographics

1. What is your age? _______________

2. Are you male or female? _______________

3. What is your level of education?
   ___grade school
   ___some high school
   ___high school degree
   ___some college
   ___2-year college degree
   ___4-year college degree
   ___some postgraduate study (e.g., M.A., M.B.A., J.D., Ph.D., M.D., programs)
   ___postgraduate degree (e.g., M.A., M.B.A., J.D., Ph.D., M.D.)

Computer Experience

1. Do you use a computer at home, at work, or both? 
   (Check all that apply.)
   ___Home
   ___Work
   ___Somewhere else, such as school, library, etc.

2. If you have a computer at home,
   a. What kind of modem do you use at home?
      ___Dial-up
      ___Cable
      ___DSL
      ___Wireless (Wi-Fi)
      ___Other ____________
      ___Don’t know ______

   b. Which browser do you typically use at home? Please indicate the version if you can recall it.
      ___Firefox
      ___Internet Explorer
      ___Netscape
      ___Other ____________
      ___Don’t know

   c. What operating system does your home computer run in?
      ___MAC OS
      ___Windows 95
      ___Windows 2000
      ___Windows XP
      ___Windows Vista
3. On average, about how many hours do you spend on the Internet per day?
   ___ 0 hours
   ___ 1-3 hours
   ___ 4-6 hours
   ___ 7 or more hours

4. Please rate your overall experience with the following:
   Circle one number.

<table>
<thead>
<tr>
<th>No experience</th>
<th>Very experienced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>Internet</td>
<td>1 2 4 5 6 7 8 9</td>
</tr>
</tbody>
</table>

5. What computer applications do you use?
   Mark (X) for all that apply
   ___ E-mail
   ___ Internet
   ___ Word processing (MS-Word, WordPerfect, etc.)
   ___ Spreadsheets (Excel, Lotus, Quattro, etc.)
   ___ Accounting or tax software
   ___ Engineering, scientific, or statistical software
   ___ Other applications, please specify____________________________
For the following questions, please circle one number.

6. How *comfortable* are you in learning to navigate new Web sites?

7. Computer windows can be minimized, resized, and scrolled through. How *comfortable* are you in manipulating a window?

8. How *comfortable* are you using, and navigating through the Internet?

9. How *often* do you work with any type of data through a computer?

10. How *often* do you perform complex analyses of data using a computer?

11. How *often* do you use the Internet or Web sites to find information? (e.g., printed reports, news articles, data tables, blogs, etc.)

12. How *familiar* are you with the Census (terms, data, etc.)?

13. How *familiar* are you with the current American Community Survey (ACS) and American FactFinder (AFF) sites (terms, data, etc.)?
Appendix D: Satisfaction Questionnaire for Round 4A

Questionnaire for User Interaction Satisfaction (QUIS)

Please circle the numbers that most appropriately reflect your impressions about using the ACS Web survey.

1. Overall reaction to the Web Survey: terrible wonderful
   1 2 3 4 5 6 7 8 9 not applicable

2. Screen Layouts: illogical logical
   1 2 3 4 5 6 7 8 9 not applicable

3. Use of terminology throughout the survey: inconsistent consistent
   1 2 3 4 5 6 7 8 9 not applicable

4. Instructions displayed on the screens: inadequate adequate
   1 2 3 4 5 6 7 8 9 not applicable

5. Questions displayed on the screens: confusing clear
   1 2 3 4 5 6 7 8 9 not applicable

6. Questions can be answered in a straight-forward manner: never always
   1 2 3 4 5 6 7 8 9 not applicable

7. Organization of question, instructions, and response categories in the survey: confusing clear
   1 2 3 4 5 6 7 8 9 not applicable

8. Forward navigation: difficult easy
   1 2 3 4 5 6 7 8 9 not applicable

9. Overall experience of completing the survey: difficult easy
   1 2 3 4 5 6 7 8 9 not applicable

10. Additional Comments:
Appendix E: General Protocol for Round 4B: Condition A, Scenario 1

Date_______________________; Participant #________; Experimenter:_______________

General Introduction: American Community Survey Internet Instrument

Thank you for your time today. My name is XX and I work here with the Human Factors and Usability group. I will be working with you today. If you have a cell phone, please turn it off or put it in vibrate. We will be evaluating the design of the online American Community Survey by having you complete it. Your experience with the survey is an essential part of our work. I did not create the survey, so please share both your positive and negative reactions to it. We are not evaluating you or your skills, but rather you are helping us see how well the survey works. The entire session should last about an hour. Your comments and feedback will be given to the developers of the survey and may be used to improve it.

First, I would like to ask you to read and sign this consent form. It explains the purpose of today’s session and informs you of your rights as a participant. It also tells you that we would like to videotape the session, with your permission. Only those of us connected with the project will review the tape and any other data collected during the session, and it will be used solely for research purposes. We may also use clips from the tape to illustrate key points about the survey to the Web design team. In addition, there may also be observers from the project team observing this session in another room.

Hand the participant the consent form; give time to read and sign; sign own name and date if you have not already done so.

Start the tape.

While you are completing the survey, we will record the movements of your eyes with our eye-tracking monitor to get a record of where you are looking on the screen [and we will record your mouse movements to see how you are interacting with the survey]. These recordings may make the survey screens load a little more slowly than they normally would.

Now I am going to calibrate your eyes for the eye tracking.

Do Calibration

Now that we have your eyes calibrated, we are ready to begin. Please respond to the survey online as you would at home. You may answer the survey questions as they apply to you in your real life. Please imagine that you received this card in a packet in the mail at your home. These are the mailing materials you will need to start the survey. If you were to receive the survey at your home, the mailing materials would have your real address. For the purposes of this study, please pretend that your address is 198 Young Rd in Anytown MD.

I am going to go around to the other room to do a sound check. While I am doing that, please take a moment to complete this questionnaire. [Hand Participant questionnaire on Computer experience and demographics]

I’m going to leave but we will still be able to communicate through a series of microphones and speakers. Do you have any questions before we begin?

Leave room. Once in control room do a sound check and Start the eye-tracking software: Tobii Studio. The mouse tracing software will start when Studio opens Internet Explorer.

Allow the participant to proceed through the entire instrument without probing. You may answer their questions if they have trouble, but hold all probes until debriefing.

Things to watch for to ask about in debriefing:
- Issues with respondent name being automatically entered on roster
- Issues with duplicate names on roster
- Awareness or use of progress indicator
• Issues with Pick Next person screen
• Issues with Finished person screen
• Navigation issues – use of Previous, Next, and other instrument buttons, browser buttons
• Awareness or use of help
• Reaction and response to edit messages

PIN Screen: Seemed to read it [ ] Wrote PIN down [ ]
Write down the PIN in case the Participant does not.

Write down number of people on Roster Check (Final List of eligible people)!!!!!!!!!

Review:
Did they click “Review?” Yes___ No____
Did they change and Answer? Yes___No____
   If they changed an answer and a new question is displayed, did they notice the new message and
   the highlighted row? Yes___ No____
   Did they answer the new question? Yes____No____

Survey Complete Screen
[If they click submit] What do you think the text on this screen is telling you?

Do you think there is anything else that needs to be done before the survey is complete? Yes___ No____

SAVE EYETRACKER DATA AND GO BACK IN USING EXPLORER ALONE

Debriefing: Go Back Into the Survey using the User ID and PIN

Vignette
This is the screen where you would see if you were to click the Review button.
Suppose you wanted to review the answers you gave for yourself, what would you do? Note what they say/do. If they
don’t click the “review answers” link, have them do that.
Suppose you wanted to change the answer for place of birth from the United States to England, how
would you do that? After they made the change, did they click return, or did you have to tell them?

When they got back to review and edit screen, give them a moment to look at the screen. Then ask, “Did you
notice the message the top of the screen and the new line on the table for Citizenship with a [Blank] for the
response?” Yes____No____

What did they do? IF they didn't notice it, point it out and ask them what they would do now. Did they click the
new question to complete it? Yes_______ No________

Have them complete the Citizenship question with “Yes, born abroad of U.S. citizen parent or parents.”
When they got back to review and edit screen, give them a moment to look at the screen. Then ask, “Did you notice the message the top of the screen and the new line on the table for Year of Entry with a [Blank] for the response?” Yes____ No______

Do you think this message refers to the question you just answered, or to a new question?
Old____New____

If you were taking this survey at home, do you think that you would want to print your answers for your records?

If so, how would you do that?

This one only works if the person is born in the U.S. If they aren't born in U.S. have them edit housing question 4 (how many acres?) to more than 1 acre so the agricultural sales question is added to the review and edit screen.

Overall Probe: Make a note if a person left a page with a blank answer. If it had a soft edit, ask them whether the edit persuaded them to answer it.

What was your overall impression of the survey?

PROBE ABOUT ANY UNUSUAL RESPONSES.

If they mentioned that someone in their household uses more than one mode of transportation to get to work (such as bus and subway) and they chose one, ask why they chose that one.

MOVE ON TO THE POWERPOINT SLIDES

Slide 1: People

What do you think is this screen asking you to do?
Slide 2: Miss
What do you think this screen is asking you to do?
If you had already listed someone on the previous screen, but they fit one of the example categories (roommate, foster child, boarder, live-in employee, how would you answer this question?

Slide 3
Suppose you had a high-school age student living away at boarding school right now. How would you answer this question?
Last question: Suppose you had a child in shared custody that usually lives with you but is with the other parent on the day you complete this survey. Would you include that child when you complete this survey?

Suppose you had a child in shared custody that usually lives with the other parent but is with you on the day you complete this survey. Would you include that child when you complete the survey?

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Appendix F: General Protocol for Round 4B: Condition A, Scenario 2

Date_______________________; Participant #________; Experimenter:_______________

General Introduction: American Community Survey Internet Instrument

Thank you for your time today. My name is XX and I work here with the Human Factors and Usability group. I will be working with you today. If you have a cell phone, please turn it off or put it in vibrate. We will be evaluating the design of the online American Community Survey by having you complete it. Your experience with the survey is an essential part of our work. I did not create the survey, so please share both your positive and negative reactions to it. We are not evaluating you or your skills, but rather you are helping us see how well the survey works. The entire session should last about an hour. Your comments and feedback will be given to the developers of the survey and may be used to improve it.

First, I would like to ask you to read and sign this consent form. It explains the purpose of today’s session and informs you of your rights as a participant. It also tells you that we would like to videotape the session, with your permission. Only those of us connected with the project will review the tape and any other data collected during the session, and it will be used solely for research purposes. We may also use clips from the tape to illustrate key points about the survey to the Web design team. In addition, there may also be observers from the project team observing this session in another room.

Hand the participant the consent form; give time to read and sign; sign own name and date if you have not already done so.

Start the tape.

While you are completing the survey, we will record the movements of your eyes with our eye-tracking monitor to get a record of where you are looking on the screen [and we will record your mouse movements to see how you are interacting with the survey]. These recordings may make the survey screens load a little more slowly than they normally would.

Now I am going to calibrate your eyes for the eye tracking.

Do Calibration

Now that we have your eyes calibrated, we are ready to begin. Please respond to the survey online as you would at home. You may answer the survey questions as they apply to you in your real life.

Please imagine that you received this card in a packet in the mail at your home. These are the mailing materials you will need to start the survey. If you were to receive the survey at your home, the mailing materials would have your real address. For the purposes of this study, please pretend that your address is 198 Young Rd in Anytown MD.

I am going to go around to the other room to do a sound check. While I am doing that, please take a moment to complete this questionnaire. [Hand Participant questionnaire on Computer experience and demographics]

I’m going to leave but we will still be able to communicate through a series of microphones and speakers. Do you have any questions before we begin?

Leave room. Once in control room do a sound check and Start the eye-tracking software: Tobii Studio. The mouse tracing software will start when Studio opens Internet Explorer. Allow the participant to proceed through the entire instrument without probing. You may answer their questions if they have trouble, but hold all probes until debriefing.

Things to watch for to ask about in debriefing:

- Issues with respondent name being automatically entered on roster
- Issues with duplicate names on roster
- Awareness or use of progress indicator
- Issues with Pick Next person screen
• Issues with Finished person screen
• Navigation issues – use of Previous, Next, and other instrument buttons, browser buttons
• Awareness or use of help
• Reaction and response to edit messages

PIN Screen: Seemed to read it [ ] Wrote PIN down [ ]
Write down the PIN in case the Participant does not.

Write down number of people on Roster Check (Final List of eligible people)!!!!!!!!!

Review:
Did they click “Review?” Yes____ No____
Did they change and Answer? Yes____No______
   If they changed an answer and a new question is displayed, did they notice the new message and
   the highlighted row? Yes____No______
   Did they answer the new question? Yes____No______

Survey Complete Screen
[If they click submit][What do you think the text on this screen is telling you?

Do you think there is anything else that needs to be done before the survey is complete? Yes____ No____

SAVE EYETRACKER DATA AND GO BACK IN USING EXPLORER ALONE

Debriefing: Go Back Into the Survey using the User ID and PIN

Vignette
This is the screen where you would see if you were to click the Review button.
Suppose you wanted to review the answers you gave for yourself, what would you do? Note what they say/do. If they
don’t click the “review answers” link, have them do that.
Suppose you wanted to change the answer to the “Serve on Active Duty” Question to “Yes, now on active
duty?” After they made the change, did they click return, or did you have to tell them?
[If they were on active duty, just have them do Scenario 1 – Place of Birth.]

When they got back to review and edit screen, give them a moment to look at the screen. Then ask, “Did you
notice the message the top of the screen and the new line on the table for “When serve on active duty” with a
[Blank] for the response?” Yes____No____

What did they do? IF they didn't notice it, point it out and ask them what they would do now. Did they click the
new question to complete it? Yes_______ No________

Have them complete the “When Serve on Active Duty” question with “September 2001 or later.”
When they got back to review and edit screen, give them a moment to look at the screen. Then ask, “Did you notice the message on the top of the screen and the new line on the table for “VA Disability Rating” with a [Blank] for the response?” Yes_____ No_______

Do you think this message refers to the question you just answered, or to a new question?
Old___New___

If you were taking this survey at home, do you think that you would want to print your answers for your records?
If so, how would you do that?

Debriefing Questions
Show each relevant screen and allow the participant to look at each screen as you ask questions about it.

Debriefing:
Overall Probe: Make a note if a person left a page with a blank answer. If it had a soft edit, ask them whether the edit persuaded them to answer it.

What was your overall impression of the survey?

PROBE ABOUT ANY UNUSUAL RESPONSES.
If they mentioned that someone in their household uses more than one mode of transportation to get to work (such as bus and subway) and they chose one, ask why they chose that one.

MOVE ON TO THE POWERPOINT SLIDES
Slide 1: People
What do you think is this screen asking you to do?
Slide 2: Miss

What do you think this screen is asking you to do?
If you had already listed someone on the previous screen, but they fit one of the example categories (roommate, foster child, boarder, live-in employee, how would you answer this question?

Slide 3

Suppose you had a high-school age student living away at boarding school right now. How would you answer this question?
Last question: Suppose you had a child in shared custody that usually lives with you but is with the other parent on the day you complete this survey. Would you include that child when you complete this survey?

Suppose you had a child in shared custody that usually lives with the other parent but is with you on the day you complete this survey. Would you include that child when you complete the survey?

| Participant#:
| RACE: White  Black  Hispanic  Asian  Other |
| AGE RANGE: ≤ 30  31-45  46-60  61+ |
| GENDER: M  F |
| EDUCATION: HS/GED  Some Coll/AA  Bachelor’s  Some grad |
| DATE OF INTERVIEW: |
| INTERVIEWER: |
Appendix G: General Protocol for Round 4B: Condition B, Scenario 1

Date___________________; Participant #________; Experimenter:_______________

General Introduction: American Community Survey Internet Instrument

Thank you for your time today. My name is XX and I work here with the Human Factors and Usability group. I will be working with you today. If you have a cell phone, please turn it off or put it in vibrate. We will be evaluating the design of the online American Community Survey by having you complete it. Your experience with the survey is an essential part of our work. I did not create the survey, so please share both your positive and negative reactions to it. We are not evaluating you or your skills, but rather you are helping us see how well the survey works. The entire session should last about an hour. Your comments and feedback will be given to the developers of the survey and may be used to improve it.

First, I would like to ask you to read and sign this consent form. It explains the purpose of today’s session and informs you of your rights as a participant. It also tells you that we would like to videotape the session, with your permission. Only those of us connected with the project will review the tape and any other data collected during the session, and it will be used solely for research purposes. We may also use clips from the tape to illustrate key points about the survey to the Web design team. In addition, there may also be observers from the project team observing this session in another room.

Hand the participant the consent form; give time to read and sign; sign own name and date if you have not already done so.

Start the tape.

While you are completing the survey, we will record the movements of your eyes with our eye-tracking monitor to get a record of where you are looking on the screen [and we will record your mouse movements to see how you are interacting with the survey]. These recordings may make the survey screens load a little more slowly than they normally would.

Now I am going to calibrate your eyes for the eye tracking.

Do Calibration

Now that we have your eyes calibrated, we are ready to begin. Please respond to the survey online as you would at home. You may answer the survey questions as they apply to you in your real life. Please imagine that you received this card in a packet in the mail at your home. These are the mailing materials you will need to start the survey. If you were to receive the survey at your home, the mailing materials would have your real address. For the purposes of this study, please pretend that your address is 198 Young Rd in Anytown MD.

I am going to go around to the other room to do a sound check. While I am doing that, please take a moment to complete this questionnaire. [Hand Participant questionnaire on Computer experience and demographics]

I’m going to leave but we will still be able to communicate through a series of microphones and speakers. Do you have any questions before we begin?

Leave room. Once in control room do a sound check and Start the eye-tracking software: Tobii Studio. The mouse tracing software will start when Studio opens Internet Explorer.

Things to watch for to ask about in debriefing:
- Issues with respondent name being automatically entered on roster
- Issues with duplicate names on roster
- Awareness or use of progress indicator
- Issues with Pick Next person screen
- Issues with Finished person screen
- Navigation issues – use of Previous, Next, and other instrument buttons, browser buttons
• Awareness or use of help
• Reaction and response to edit messages

PIN Screen: Seemed to read it [ ] Wrote PIN down [ ]
Write down the PIN in case the Participant does not.

Write down number of people on Roster Check (Final List of eligible people)!!!!!!!!!

STOP PARTICIPANT AFTER MORTGAGE QUESTIONS AT PICK NEXT PERSON (OR PLACE OF BIRTH FOR 1-PERSON HOUSEHOLDS)

What do you think this question is asking you to do?

Let’s say you have to leave for an appointment, what would you do?
Observe: did they find “save & logout” button?
Observe: Use “save & logout” [ ] Close browser[ ] Other (explain)[ ]

Let’s select “save & logout” right now. Pretend you have left for your appointment and have returned.
You want to reenter the survey. What would you do?
Observe: if they mention PIN, and if they remember it.

Thanks for that information, okay you can continue.
Review:
Did they click “Review?” Yes__ No____
Did they change and Answer? Yes____No____
    If they changed an answer and a new question is displayed, did they notice the new message and the highlighted row? Yes__ No____
    Did they answer the new question? Yes____No____

Survey Complete Screen
What do you think the text on this screen is telling you?

Do you think there is anything else that needs to be done before the survey is complete? Yes____ No____

SAVE EYETRACKER DATA AND GO BACK IN USING EXPLORER ALONE

Debriefing: Go Back Into the Survey using the User ID and PIN

Vignette
This is the screen where you would see if you were to click the Review button.
Suppose you wanted to review the answers you gave for yourself, what would you do? Note what they say/do. If they don’t click the “review answers” link, have them do that.
Suppose you wanted to change the answer for place of birth from the United States to England, how would you do that? After they made the change, did they click return, or did you have to tell them?

When they got back to review and edit screen, give them a moment to look at the screen. Then ask, “Did you notice the message the top of the screen and the new line on the table for Citizenship with a [Blank] for the response?” Yes____No____

What did they do? IF they didn't notice it, point it out and ask them what they would do now. Did they click the new question to complete it? Yes_______ No_______

Have them complete the Citizenship question with “Yes, born abroad of U.S. citizen parent or parents.”

When they got back to review and edit screen, give them a moment to look at the screen. Then ask, “Did you notice the message the top of the screen and the new line on the table for Year of Entry with a [Blank] for the response?” Yes_____ No_______

Do you think this message refers to the question you just answered, or to a new question? Old____ New____

If you were taking this survey at home, do you think that you would want to print your answers for your records?

If so, how would you do that?
This one only works if the person is born in the U.S. If they aren't born in U.S. have them edit housing question 4 (how many acres?) to more than 1 acre so the agricultural sales question is added to the review and edit screen.

Overall Probe: Make a note if a person left a page with a blank answer. If it had a soft edit, ask them whether the edit persuaded them to answer it.

What was your overall impression of the survey?

PROBE ABOUT ANY UNUSUAL RESPONSES.

If they mentioned that someone in their household uses more than one mode of transportation to get to work (such as bus and subway) and they chose one, ask why they chose that one.

MOVE ON TO THE POWERPOINT SLIDES

Slide 1: People
What do you think is this screen asking you to do?

Slide 2: Miss
What do you think this screen is asking you to do?
If you had already listed someone on the previous screen, but they fit one of the example categories (roommate, foster child, boarder, live-in employee, how would you answer this question?
Suppose you had a high-school age student living away at boarding school right now. How would you answer this question?

Last question: Suppose you had a child in shared custody that usually lives with you but is with the other parent on the day you complete this survey. Would you include that child when you complete this survey?

Suppose you had a child in shared custody that usually lives with the other parent but is with you on the day you complete this survey. Would you include that child when you complete the survey?
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Appendix H: General Protocol for Round 4B: Condition B, Scenario 2

Date_______________________; Participant #________; Experimenter:_______________

General Introduction: American Community Survey Internet Instrument

Thank you for your time today. My name is XX and I work here with the Human Factors and Usability group. I will be working with you today. If you have a cell phone, please turn it off or put it in vibrate. We will be evaluating the design of the online American Community Survey by having you complete it. Your experience with the survey is an essential part of our work. I did not create the survey, so please share both your positive and negative reactions to it. We are not evaluating you or your skills, but rather you are helping us see how well the survey works. The entire session should last about an hour. Your comments and feedback will be given to the developers of the survey and may be used to improve it.

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Hand the participant the consent form; give time to read and sign; sign own name and date if you have not already done so.

Start the tape.

While you are completing the survey, we will record the movements of your eyes with our eye-tracking monitor to get a record of where you are looking on the screen [and we will record your mouse movements to see how you are interacting with the survey]. These recordings may make the survey screens load a little more slowly than they normally would.

Now I am going to calibrate your eyes for the eye tracking.

Do Calibration

Now that we have your eyes calibrated, we are ready to begin. Please respond to the survey online as you would at home. You may answer the survey questions as they apply to you in your real life.

Please imagine that you received this card in a packet in the mail at your home. These are the mailing materials you will need to start the survey. If you were to receive the survey at your home, the mailing materials would have your real address. For the purposes of this study, please pretend that your address is 198 Young Rd in Anytown MD.

I am going to go around to the other room to do a sound check. While I am doing that, please take a moment to complete this questionnaire. [Hand Participant questionnaire on Computer experience and demographics]

I'm going to leave but we will still be able to communicate through a series of microphones and speakers. Do you have any questions before we begin?

Leave room. Once in control room do a sound check and Start the eye-tracking software: Tobii Studio. The mouse tracing software will start when Studio opens Internet Explorer.

Things to watch for to ask about in debriefing:

- Issues with respondent name being automatically entered on roster
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• Navigation issues – use of Previous, Next, and other instrument buttons, browser buttons
• Awareness or use of help
• Reaction and response to edit messages

PIN Screen: Seemed to read it [ ] Wrote PIN down [ ]
Write down the PIN in case the Participant does not.

Write down number of people on Roster Check (Final List of eligible people)!!!!!!!!!!!

STOP PARTICIPANT AFTER MORTGAGE QUESTIONS AT PICK NEXT PERSON (OR PLACE OF BIRTH FOR 1-PERSON HOUSEHOLDS)

What do you think this question is asking you to do?
Let’s say you have to leave for an appointment, what would you do?
Observe: did they find “save & logout” button?
Observe: Use “save & logout” [ ] Close browser[ ] Other (explain)[ ]

Let’s select “save & logout” right now. Pretend you have left for your appointment and have returned.
You want to reenter the survey. What would you do?
Observe: if they mention PIN, and if they remember it.

Thanks for that information, okay you can continue.
Review:
Did they click “Review?” Yes ___ No ___
Did they change an Answer? Yes ___ No ___
   If they changed an answer and a new question is displayed, did they notice the new message and
   the highlighted row? Yes ___ No ___
   Did they answer the new question? Yes ___ No ___

Survey Complete Screen
What do you think the text on this screen is telling you?

Do you think there is anything else that needs to be done before the survey is complete? Yes ___ No ___
SAVE EYETRACKER DATA AND GO BACK IN USING EXPLORER ALONE

Debriefing: Go Back Into the Survey using the User ID and PIN

Vignette
This is the screen where you would see if you were to click the Review button.
Suppose you wanted to review the answers you gave for yourself, what would you do? Note what they say/do. If they
don’t click the “review answers” link, have them do that.
Suppose you wanted to change the answer to the “Serve on Active Duty” Question to “Yes, now on active
duty?” After they made the change, did they click return, or did you have to tell them?
[If they were on active duty, just have them do Scenario 1 – Place of Birth.]

When they got back to review and edit screen, give them a moment to look at the screen. Then ask, “Did you
notice the message the top of the screen and the new line on the table for “When serve on active duty” with a
[Blank] for the response?” Yes ___ No ___

What did they do? IF they didn't notice it, point it out and ask them what they would do now. Did they click the
new question to complete it? Yes ______ No ______

Have them complete the “When Serve on Active Duty” question with “September 2001 or later.”

When they got back to review and edit screen, give them a moment to look at the screen. Then ask, “Did you
notice the message the top of the screen and the new line on the table for “VA Disability Rating” with a
[Blank] for the response?” Yes ____ No ______

Do you think this message refers to the question you just answered, or to a new question?
Old ___ New ___

If you were taking this survey at home, do you think that you would want to print your answers for your
records?
If so, how would you do that?

Debriefing Questions
Show each relevant screen and allow the participant to look at each screen as you ask questions about it.
Debriefing:

Overall Probe: Make a note if a person left a page with a blank answer. If it had a soft edit, ask them whether the edit persuaded them to answer it.

What was your overall impression of the survey?

PROBE ABOUT ANY UNUSUAL RESPONSES.

If they mentioned that someone in their household uses more than one mode of transportation to get to work (such as bus and subway) and they chose one, ask why they chose that one.

MOVE ON TO THE POWERPOINT SLIDES
Slide 1: People
What do you think is this screen asking you to do?

Slide 2: Miss
What do you think this screen is asking you to do?
If you had already listed someone on the previous screen, but they fit one of the example categories (roommate, foster child, boarder, live-in employee, how would you answer this question?
Slide 3
Suppose you had a high-school age student living away at boarding school right now. How would you answer this question?

Last question: Suppose you had a child in shared custody that usually lives with you but is with the other parent on the day you complete this survey. Would you include that child when you complete this survey?

Suppose you had a child in shared custody that usually lives with the other parent but is with you on the day you complete this survey. Would you include that child when you complete the survey?
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</tr>
</tbody>
</table>
Usability Study of the American Community Survey
Internet Form

Each year, the Census Bureau conducts many different usability evaluations. For example, the Census Bureau routinely tests the wording, layout and behavior of products, such as Web sites, online surveys, and letters sent through the mail in order to obtain the best information possible from respondents.

You have volunteered to take part in a study to improve the usability of an online version of the American Community Survey (ACS) that is currently being developed. In order to have a complete record of your comments, your usability session will be videotaped. We plan to use the tapes to improve the design of the product. Staff directly involved in the usable design research project will have access to the tapes. We also plan to perform an eye-tracking analysis of your session. Your participation is voluntary and your answers will remain strictly confidential.

This usability study is being conducted under the authority of Title 13 USC. The OMB control number for this study is 0607-0725. This valid approval number legally certifies this information collection.

I have volunteered to participate in this Census Bureau usability study, and I give permission for my tapes to be used for the purposes stated above.

Participants Name: ___________________________________
Participants Signature:________________________ Date:_________________

Researcher’s Name:___________________________ Date:_________________
Researcher’s Signature:_________________________ Date:_________________
Appendix J: Background Survey for Round 4B

Questionnaire on Statistical Background, Computer Use, Internet Experience

YOUR ANSWERS ARE CONFIDENTIAL

Demographics

1. What is your age? _______________

2. Are you male or female? __________________

3. What is your level of education?
   ___grade school
   ___some high school
   ___high school degree
   ___some college
   ___2-year college degree
   ___4-year college degree
   ___some postgraduate study (e.g., M.A., M.B.A., J.D., Ph.D., M.D., programs)
   ___postgraduate degree (e.g., M.A., M.B.A., J.D., Ph.D., M.D.)

Computer Experience

1. Do you use a computer at home, at work, or both?  
   (Check all that apply.)
   ___Home
   ___Work
   ___Somewhere else, such as school, library, etc.

2. If you have a computer at home,  
   a. What kind of modem do you use at home?
      ___Dial-up
      ___Cable
      ___DSL
      ___Wireless (Wi-Fi)
      ___Other __________
      ___Don’t know _____

   b. Which browser do you typically use at home?  Please indicate the version if you can recall it.
      ___Firefox
      ___Internet Explorer
      ___Netscape
      ___Other __________
      ___Don’t know

   c. What operating system does your home computer run in?
      ___MAC OS
      ___Windows 95
      ___Windows 2000
      ___Windows XP
      ___Windows Vista
3. On average, about how many hours do you spend on the Internet per day?
   ___0 hours
   ___1-3 hours
   ___4-6 hours
   ___7 or more hours

4. Please rate your overall experience with the following:
   Circle one number.

<table>
<thead>
<tr>
<th>No experience</th>
<th>Very experienced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>Internet</td>
<td>1 2 4 5 5 6 7 8 9</td>
</tr>
</tbody>
</table>

5. What computer applications do you use?
   Mark (X) for all that apply
   ___E-mail
   ___Internet
   ___Word processing (MS-Word, WordPerfect, etc.)
   ___Spreadsheets (Excel, Lotus, Quattro, etc.)
   ___Accounting or tax software
   ___Engineering, scientific, or statistical software
   ___Other applications, please specify____________________________
For the following questions, please circle one number.

<table>
<thead>
<tr>
<th>Question</th>
<th>Not Comfortable</th>
<th>Comfortable</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. How comfortable are you in learning to navigate new Web sites?</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7. Computer windows can be minimized, resized, and scrolled through. How comfortable are you in manipulating a window?</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>8. How comfortable are you using, and navigating through the Internet?</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>9. How often do you work with any type of data through a computer?</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>10. How often do you perform complex analyses of data using a computer?</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>11. How often do you use the Internet or Web sites to find information? (e.g., printed reports, news articles, data tables, blogs, etc.)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>12. How familiar are you with the Census (terms, data, etc.)?</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>13. How familiar are you with the current American Community Survey (ACS) and American FactFinder (AFF) sites (terms, data, etc.)?</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
Appendix K: Satisfaction Questionnaire for Round 4B

Questionnaire for User Interaction Satisfaction (QUIS)

Please circle the numbers that most appropriately reflect your impressions about using the ACS Web survey.

1. Overall reaction to the Web Survey:
   terrible 1 2 3 4 5 6 7 8 9 wonderful
   not applicable

2. Screen Layouts:
   illogical 1 2 3 4 5 6 7 8 9 logical
   not applicable

3. Use of terminology throughout the survey:
   inconsistent 1 2 3 4 5 6 7 8 9 consistent
   not applicable

4. Instructions displayed on the screens:
   inadequate 1 2 3 4 5 6 7 8 9 adequate
   not applicable

5. Questions displayed on the screens:
   confusing 1 2 3 4 5 6 7 8 9 clear
   not applicable

6. Questions can be answered in a straightforward manner:
   never 1 2 3 4 5 6 7 8 9 always
   not applicable

7. Organization of question, instructions, and response categories in the survey:
   confusing 1 2 3 4 5 6 7 8 9 clear
   not applicable

8. Forward navigation:
   difficult 1 2 3 4 5 6 7 8 9 easy
   not applicable

9. Overall experience of completing the survey:
   difficult 1 2 3 4 5 6 7 8 9 easy
   not applicable

10. Additional Comments:
Appendix L: Screen Shots for Round 4A

LOGIN

RESPONDENT NAME

ADDRESS
TYPE OF UNIT

TENURE
YEAR BUILT

WHEN MOVED IN
ACRES

In the last 12 months, what were the actual sales of all agricultural products from this property?

- None
- $1 to $999
- $1,000 to $2,499
- $2,500 to $4,999
- $5,000 to $9,999
- $10,000 or more

AGRICULTURAL SALES
BUSINESS ON PROPERTY

Is there a business (such as a store or barber shop) or a medical office on this property? (Help)
  ☐ Yes
  ☐ No

ROOMS/BEDROOMS

a. How many separate rooms are in this house? Rooms must be separated by built-in archways or walls that extend out at least 6 inches and go from floor to ceiling.

  - INCLUDE bedrooms, kitchens, etc.
  - EXCLUDE bathrooms, porches, balconies, foyers, halls, or unfinished basements.

Number of rooms

b. How many of these rooms are bedrooms? Count as bedrooms those rooms you would list if this house were for sale or rent. If this is an efficiency/studio apartment, enter "0". (Help)

Number of bedrooms

Contact Us
FACILITIES

VEHICLES
HEATING FUEL

- Gas: from underground pipes serving the neighborhood
- Gas: bottled, tank, or LP
- Electricity
- Fuel oil, kerosene, etc.
- Coal or coke
- Wood
- Solar energy
- Other fuel
- No fuel used

ELECTRICITY USE

- Yes
- No
ELECTRICITY PAY

10. Does anyone in this household pay for electricity? Select "Yes" if electricity and gas are billed together.

- Yes
- No

Last month, what was the cost of electricity for this house? If electricity and gas are billed together, enter the combined amount here.

Last month's cost - Dollars


ELECTRICITY INCLUDED

10. Does anyone in this household pay for electricity? Select "Yes" if electricity and gas are billed together.

- Yes
- No

Are the electricity costs included in the rent or condominium fee or is there no charge for electricity?

- Included in rent or condominium fee
- No charge for electricity

Contact Us
GAS PAY

b. Does anyone in this household pay for gas? Select "No" if gas and electricity are billed together and you included the gas payment in the electricity question (7929).

- Yes
- No

GAS USE

b. Does this household use gas?

- Yes
- No
GAS AMOUNT

b. Does anyone in this household pay for gas? Select "No" if gas and electricity are billed together and you included the gas payment in the electricity question. (Help)

- Yes
- No

LAST MONTH, what was the cost of gas for this house? (Help)

Last month's cost - Dollars

$ [ ] 0.00

GAS INCLUDED

b. Does anyone in this household pay for gas? Select "No" if gas and electricity are billed together and you included the gas payment in the electricity question. (Help)

- Yes
- No

Are the gas costs included in the rent or condominium fee, or included in the electricity payment, or is there no charge for gas?

- Included in rent or condominium fee
- Included with electricity payment
- No charge for gas
WATER INCLUDED

11. Does anyone in this household pay for water and sewer? (Help)
   
   Yes
   No

   Are the water and sewer costs included in the rent or condominium fee or is there no charge for water and sewer?
   
   Included in rent or condominium fee
   No charge for water and sewer

   << Previous  Next >>

OTHER FUEL USE

11. Does this household use other fuels like oil, coal, kerosene, wood, or any other fuel?
   
   Yes
   No

   << Previous  Next >>
OTHER FUEL AMOUNT

q. Does anyone in this household pay for other fuels like oil, coal, kerosene, wood, or any other fuel? (Help)

- Yes
- No

Past 12 months’ cost - Dollars
$ [ ] 00

OTHER FUEL INCLUDED

q. Does anyone in this household pay for other fuels like oil, coal, kerosene, wood, or any other fuel? (Help)

- Yes
- No

Are the costs of the other fuels like oil, coal, kerosene, wood, or any other fuel included in the rent or condominium fee, or is there no charge for other fuels?

- Included in rent or condominium fee
- No charge for other fuels
FOOD STAMPS

17. IN THE PAST 12 MONTHS, did anyone in this household receive Food Stamps or a Food Stamp benefit card? Include government benefits from the Supplemental Nutrition Assistance Program (SNAP). Do NOT include WIC or the National School Lunch Program. [Help]

- Yes
- No

CONDO

18. Is this house part of a condominium? [Help]

- Yes
- No
CONDO FEE

Is there a condominium fee? For renters, select "Yes" only if you pay the condominium fee in addition to your rent. Otherwise, select "No". (Help)

- Yes
- No

<< Previous  Next >>

CONDO FEE AMOUNT

Is there a condominium fee? For renters, select "Yes" only if you pay the condominium fee in addition to your rent. Otherwise, select "No". (Help)

- Yes
- No

What is the monthly condominium fee? (Help)

Monthly amount - Dollars

$ ________ .00

<< Previous  Next >>
HOUSE OWNED OR RENTED

HOUSE MONTHLY RENT
RENT INCLUDE MEALS

PROPERTY VALUE
MORTGAGE

MORTGAGE AMOUNT
MORTGAGE TAXES

c. Does the regular monthly mortgage payment include payments for real estate taxes on this property?
   - Yes, taxes included in mortgage payment
   - No, taxes paid separately or taxes not required

MORTGAGE INSURANCE

1. Does the regular monthly mortgage payment include payments for fire, hazard, or flood insurance on this property?
   - Yes, insurance included in mortgage payment
   - No, insurance paid separately or no insurance
SECOND MORTGAGE

a. Do you or any member of this household have a second mortgage or a home equity loan on this property?  
- Yes, home equity loan
- Yes, second mortgage
- Yes, second mortgage and home equity loan
- No

SECOND MORTGAGE AMOUNT

b. How much is the regular monthly payment on all second or junior mortgages and all home equity loans on this property?  If no regular payment required, enter "0".  
Monthly amount - Dollars
$ 0.00

Contact Us
ROSTER B

The following questions are to make sure this list is as complete as possible.

Joseph M. Doe
Sally J. Doe
Michael R. Doe
Jim Doe

Does anyone else live or stay there such as roommates, foster children, boarders, or live-in employees? (Help)

☐ Yes
☐ No

ADD 1

The following questions are to make sure this list is as complete as possible.

Other than the people listed below, does anyone else live or stay there such as roommates, foster children, boarders, or live-in employees? (Help)

☐ Yes
☐ No

Enter the names and then click Next. Enter one person on each line. Leave any extra lines blank. (Help)

First Name         MI         Last Name

Click here to add more people

Contact Us
The next questions are to help refine this list of names.

Joseph M. Doe
Sally J. Doe
Michael R. Doe
Jim Doe
Jack A. Doe
Mark Smith
Jill Doe

Are any of these people away NOW for more than two months, like college students living away at school or armed forces personnel living away? [Help]

- Yes
- No

Select the name(s) of anyone who is away NOW for more than two months. [Help]

- Joseph M. Doe
- Sally J. Doe
- Michael R. Doe
- Jim Doe
- Jack A. Doe
- Mark Smith
- Jill Doe

No one on this list is away NOW for more than two months.
So far, the following people are eligible for this survey:

- Joseph M. Doe
- Sally J. Doe
- Michael R. Doe
- Jim Doe
- Jack A. Doe
- Jill Doe

Do any of these people have some other place where they usually stay? [Help]

- Yes
- No

Select the name(s) of anyone who has another place where they usually stay. [Help]

- Joseph M. Doe
- Sally J. Doe
- Michael R. Doe
- Jim Doe
- Jack A. Doe
- Jill Doe

No one on this list has another place where they usually stay.
TWO MONTHS

ROSTER CHECK
WHO RENTS OR OWNS/REFERENCE PERSON

RELATIONSHIP
AGE/DATE OF BIRTH SOFT EDIT

4 What is Sally J. Doe's date of birth and what is Sally J. Doe's age? Please report babies as age 0 when the child is less than 1 year old. (Help)

- MM
- DD
- YYYY

Verify or enter correct age.

Age (in years)

HISPANIC ORIGIN

3 Is Sally J. Doe of Hispanic, Latino, or Spanish origin? (Help)

- No, not of Hispanic, Latino, or Spanish origin
- Yes, Mexican, Mexican Am., Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, another Hispanic, Latino, or Spanish origin - Enter origin, for example, Argentinian, Colombian, Dominican, Nicaraguan, Salvadorian, Spaniard, and so on.
PLACE OF BIRTH

The following series of questions refer to Sally J. Doe.

Where was Sally J. Doe born? (Help)

- In the United States - Select name of state.
  Select Name

- Outside the United States - Enter name of foreign country, or Puerto Rico, Guam, etc.

<< Previous  Next >>
ATTEND SCHOOL

WHAT GRADE
RESIDENCE ONE YEAR AGO

ADDRESS ONE YEAR AGO
INSURANCE

1. Are you CURRENTLY covered by any of the following types of health insurance or health coverage plans?

   Select "Yes" or "No" for EACH type of coverage in items a -h. [Help]

   a. Insurance through a current or former employer or union (of you or another family member)
   b. Insurance purchased directly from an insurance company (by you or another family member)
   c. Medicare, for people 65 and older, or people with certain disabilities
   d. Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability
   e. TRICARE or other military health care
   f. VA (including those who have ever used or enrolled for VA health care)
   g. Indian Health Service

DEAF

1. Is Sally J. Doe deaf or does she have serious difficulty hearing?

   □ Yes
   □ No
<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Is Sally J. Doe blind or does she have serious difficulty seeing even when wearing glasses?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Because of a physical, mental, or emotional condition, does Sally J. Doe have serious difficulty concentrating, remembering, or making decisions?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DIFFICULTY WALKING

b. Does Sally J. Doe have serious difficulty walking or climbing stairs?
   - Yes
   - No

DIFFICULTY DRESSING

c. Does Sally J. Doe have difficulty dressing or bathing?
   - Yes
   - No
MARRIED IN LAST TWELVE MONTHS

1. In the PAST 12 MONTHS, did Sally J. Doe get married?
   - Yes
   - No

WIDOW

2. In the PAST 12 MONTHS, did Sally J. Doe become a widow?
   - Yes
   - No
YEAR MARRIED

BIRTH
GRANDCHILDREN AT HOME

a. Does Sally J. Doe have any of her own grandchildren under the age of 18 living in this house?

- Yes
- No

NEEDS OF GRANDCHILDREN

b. Is Sally J. Doe currently responsible for most of the basic needs of any grandchildren under the age of 18 who live in this house?

- Yes
- No
HOW LONG GRANDCHILDREN

MILITARY DUTY
PERIOD OF DUTY

VA DISABILITY STATUS
ANY WORK

b. LAST WEEK, did Sally J. Doe do ANY work for pay, even for as little as one hour? (Help)
  - Yes
  - No

WORK ADDRESS LAST WEEK (WORK LOCAL)

At what location did Sally J. Doe work LAST WEEK? If Sally J. Doe worked at more than one location, enter where she worked most last week. (Help)

a. Address (Number and street name) ________________________
   If the exact address is not known, give a description of the location such as the building name or the nearest street or intersection.

b. Name of city, town, or post office ________________________

c. Is the work location inside the limits of that city or town?
   - Yes
   - No, outside the city/town limits

d. Name of county ________________________
TRANSPORT TO WORK

NUMBER OF RIDERS
TIME LEFT FOR WORK

WORK LAST WEEK
2a. LAST WEEK, was Sally J. Doe on layoff from a job? (Help)
   - Yes
   - No

2b. LAST WEEK, was Sally J. Doe TEMPORARILY absent from a job or business? (Help)
   - Yes, on vacation, temporary illness, maternity leave, other family/personal reasons, bad weather, etc.
   - No
RECALL TO WORK

c. Has Sally J. Doe been informed that she will be recalled to work within the next 6 months OR been given a date to return to work? (help)

- Yes
- No

ACTIVE LOOK FOR WORK

During the LAST 4 WEEKS, has Sally J. Doe been ACTIVELY looking for work? (Help)

- Yes
- No
COULD WORK

LAST WORKED
FIFTY OR MORE WEEKS

b. During the PAST 12 MONTHS (52 weeks), did Sally J. Doe work 50 or more weeks? Count paid time off as work. (Help)

☐ Yes
☐ No

WEEKS WORKED

c. How many weeks DID Sally J. Doe work, even for a few hours, INCLUDING paid vacation, paid sick leave, and military service?

☐ 50 to 52 weeks
☐ 48 to 49 weeks
☐ 45 to 47 weeks
☐ 27 to 39 weeks
☐ 14 to 26 weeks
☐ 13 weeks or less
HOURS USUALLY WORKED

During the PAST 12 MONTHS, in the WEEKS WORKED, how many hours did Sally J. Doe usually work each WEEK? (Help)

Usual hours worked each WEEK

TYPE OF BUSINESS

The next series of questions are about the type of business Sally J. Doe worked for and the type of work that she did. Describe clearly Sally J. Doe's chief job activity or business last week. If Sally J. Doe had more than one job, describe the one at which she worked the most hours. If Sally J. Doe had no job or business last week, give information for her last job or business.

Was Sally J Doe --

(Help)
EMPLOYER

[Survey questions and options]

TYPE OF WORK

[Survey questions and options]
DUTIES

WAGES
WAGES AMOUNT

The next few questions are about Sally J. Doe's income during the PAST 12 MONTHS.

For each type of income Sally J. Doe received, give your best estimate of the TOTAL AMOUNT during the PAST 12 MONTHS. (NOTE: The “past 12 months” is the period from today’s date one year ago up through today.)

For income received jointly, report the appropriate share for each person - or, if that’s not possible, report the whole amount for only one person and select “No” for the other person.

a. Did Sally J. Doe receive any wages, salary, commissions, bonuses, or tips during the PAST 12 MONTHS? (Help)

☐ Yes
☐ No

What was the amount? Report amount from all jobs before any deductions for taxes, bonds, dues, or other items. (Help)

TOTAL AMOUNT for past 12 months
$ [ ]

SELF-EMPLOYMENT INCOME

b. Did Sally J. Doe receive any self-employment income from her own nonfarm businesses or farm businesses, including proprietorships and partnerships, during the PAST 12 MONTHS? (Help)

☐ Yes
☐ No
SELF-EMPLOYMENT INCOME AMOUNT

b. Did Sally J. Doe receive any self-employment income from her own nonfarm businesses or farm businesses, including proprietorships and partnerships, during the PAST 12 MONTHS? (Help)

- Yes
- No

What was the amount? Report NET income after business expenses.
If net income was a loss, enter the amount and select "Loss." (Help)

TOTAL AMOUNT for past 12 months
$ 0.00

- Loss

INTEREST

c. Did Sally J. Doe receive any interest, dividends, net rental income, royalty income, or income from estates and trusts during the PAST 12 MONTHS? Report even small amounts credited to an account. (Help)

For income received jointly, report the appropriate share for each person - or, if that's not possible, report the whole amount for only one person and select "No" for the other person.

- Yes
- No
c. Did Sally J. Doe receive any interest, dividends, net rental income, royalty income, or income from estates and trusts during the PAST 12 MONTHS? Report even small amounts credited to an account. (Help)

For income received jointly, report the appropriate share for each person - or, if that’s not possible, report the whole amount for only one person and select “No” for the other person.

\[\text{Yes} \quad \text{No}\]

What was the amount?
If net income was a loss, enter the amount and select “Loss”. (Help)

TOTAL AMOUNT for past 12 months
$[ ] 00

\[\text{Loss}\]
Did Sally J. Doe receive any Supplemental Security Income (SSI) payments during the PAST 12 MONTHS? (Help)

- Yes
- No

What was the amount? (Help)

TOTAL AMOUNT for past 12 months

$___________.00
g. Did Sally J. Doe receive any retirement, survivor, or disability pensions during the PAST 12 MONTHS? Do NOT include Social Security. [Help]

- Yes
- No

What was the amount? [Help]

TOTAL AMOUNT for past 12 months: $________ 00
OTHER INCOME

Did Sally J. Doe receive income on a REGULAR basis from any other sources such as Veterans' Administration (VA) payments, unemployment compensation, child support or alimony during the PAST 12 MONTHS? Do NOT include lump sum payments such as money from an inheritance or the sale of a home. [Help]

- Yes
- No

OTHER INCOME AMOUNT

Did Sally J. Doe receive income on a REGULAR basis from any other sources such as Veterans' Administration (VA) payments, unemployment compensation, child support or alimony during the PAST 12 MONTHS? Do NOT include lump sum payments such as money from an inheritance or the sale of a home. [Help]

What was the amount? [Help]

TOTAL AMOUNT for past 12 months
$ 0.00
TOTAL INCOME

What was Sally J. Doe’s total income during the PAST 12 MONTHS?

If net income was a loss, enter the amount and select "Loss."

- None
- Loss

TOTAL AMOUNT for past 12 months
$ ____________ 00

VERIFY INCOME

According to our calculations, Sally J. Doe received $25,000 from all income sources during the PAST 12 MONTHS. Is this correct?

- Yes
- No
You are almost done. You may choose to review and edit your answers by clicking REVIEW.

To submit your answers and complete the American Community Survey without reviewing, click SUBMIT.

Summary

Please click Review Answers below to view a list of your answers. Then click SUBMIT to complete the American Community Survey.

<table>
<thead>
<tr>
<th>Housing Questions</th>
<th>Review Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person Info</td>
<td>Review Answers</td>
</tr>
</tbody>
</table>

Submit
Review & Edit
Housing Questions

1. To change a response, click on the underlined answer to return to that question. Questions shown in grey are not applicable to this person or address.

2. To complete an unanswered question, click on the underlined [BLANK] to return to that question.

<table>
<thead>
<tr>
<th>Field</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building type</td>
<td>one family detached</td>
</tr>
<tr>
<td>First built</td>
<td>1982</td>
</tr>
<tr>
<td>Joseph M. Doe moved into building on</td>
<td>[BLANK]</td>
</tr>
<tr>
<td>Acres with building</td>
<td>1 to 9.9</td>
</tr>
<tr>
<td>Past 12 months agricultural sales at this address</td>
<td>None</td>
</tr>
<tr>
<td>Business on this address</td>
<td>no</td>
</tr>
<tr>
<td>Separate rooms at this address</td>
<td>10</td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Sex</td>
<td>Male</td>
</tr>
<tr>
<td>Date of birth</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>Hispanic, Latino, or Spanish origin</td>
<td>No</td>
</tr>
<tr>
<td>Race</td>
<td>Black, African Am., or Negro</td>
</tr>
<tr>
<td>Place of birth</td>
<td>United States, District of Columbia</td>
</tr>
<tr>
<td>Attended school</td>
<td>No</td>
</tr>
<tr>
<td>Highest level of school completed</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Bachelor's degree major</td>
<td>Electrical</td>
</tr>
<tr>
<td>Ancestry</td>
<td>African American</td>
</tr>
<tr>
<td>Language other than English at home</td>
<td>Yes</td>
</tr>
<tr>
<td>Language spoken</td>
<td>Spanish</td>
</tr>
<tr>
<td>How well speak English</td>
<td>Very</td>
</tr>
<tr>
<td>Residence one year ago</td>
<td>This address</td>
</tr>
<tr>
<td>Health Insurance</td>
<td></td>
</tr>
<tr>
<td>a. Through employer</td>
<td>BLANK</td>
</tr>
<tr>
<td>b. Purchased directly from insurance company</td>
<td>BLANK</td>
</tr>
<tr>
<td>c. Medicare</td>
<td>BLANK</td>
</tr>
<tr>
<td>d. Medicaid/medicaid assistance</td>
<td>BLANK</td>
</tr>
<tr>
<td>f. TRICARE/other military health care</td>
<td>Yes</td>
</tr>
<tr>
<td>g. Indian health service</td>
<td>BLANK</td>
</tr>
<tr>
<td>h. Other health insurance</td>
<td>BLANK</td>
</tr>
<tr>
<td>Deafness</td>
<td>No</td>
</tr>
<tr>
<td>Blindness</td>
<td>No</td>
</tr>
<tr>
<td>Difficulty concentrating/recently</td>
<td>No</td>
</tr>
<tr>
<td>Difficulty walking/debility stairs</td>
<td>No</td>
</tr>
<tr>
<td>Difficulty dressing/bathing</td>
<td>No</td>
</tr>
<tr>
<td>Marital status</td>
<td>Now married</td>
</tr>
<tr>
<td>Gotten married/cohabited last 12 months</td>
<td>Yes</td>
</tr>
<tr>
<td>Became widowed/cohabited last 12 months</td>
<td>No</td>
</tr>
<tr>
<td>Got divorced/cohabited last 12 months</td>
<td>No</td>
</tr>
<tr>
<td>Number of times married</td>
<td>Two times</td>
</tr>
<tr>
<td>Year last married</td>
<td>1987</td>
</tr>
<tr>
<td>Serve on active duty</td>
<td>Yes in past, not during last 12 months</td>
</tr>
<tr>
<td>When serve on active duty</td>
<td>Sept 1980 - July 1990</td>
</tr>
<tr>
<td>VA disability rating</td>
<td>No</td>
</tr>
<tr>
<td>Work for pay-last week</td>
<td>Yes</td>
</tr>
<tr>
<td>Where work last week</td>
<td></td>
</tr>
<tr>
<td>Address (Number and Street name)</td>
<td></td>
</tr>
<tr>
<td>City, town, or post office</td>
<td></td>
</tr>
<tr>
<td>Inside the city limits</td>
<td>Yes</td>
</tr>
<tr>
<td>U.S. county or municipio in Puerto Rico</td>
<td>OK</td>
</tr>
<tr>
<td>U.S. state of Puerto Rico</td>
<td>OK</td>
</tr>
<tr>
<td>Dwelling</td>
<td>Apartment</td>
</tr>
<tr>
<td>Transportation to work last week</td>
<td>Subway or elevator</td>
</tr>
<tr>
<td>Time leave home for work last week</td>
<td>7:30 AM</td>
</tr>
<tr>
<td>Number of minutes to get to work</td>
<td>60</td>
</tr>
<tr>
<td>Worked 30 or more weeks last 12 months</td>
<td>Yes</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>40</td>
</tr>
<tr>
<td>Type of employee</td>
<td></td>
</tr>
<tr>
<td>Employer</td>
<td></td>
</tr>
<tr>
<td>Kind of business or industry</td>
<td>Electrical</td>
</tr>
<tr>
<td>Type of industry</td>
<td>Other</td>
</tr>
<tr>
<td>Kind of work</td>
<td>Electrical</td>
</tr>
<tr>
<td>Activity or Duty at Job</td>
<td>Repairing</td>
</tr>
<tr>
<td>Received wages/salary/bonuses/tips</td>
<td>Yes</td>
</tr>
<tr>
<td>Amount from all jobs</td>
<td>$55,000.00</td>
</tr>
<tr>
<td>Receive self-employment income</td>
<td>No</td>
</tr>
<tr>
<td>Receive interest, rental, royalties, estates, trust income</td>
<td>No</td>
</tr>
<tr>
<td>Receive Social Security, Railroad Retirement income</td>
<td>No</td>
</tr>
<tr>
<td>Receive Supplemental Security Income (SSI)</td>
<td>No</td>
</tr>
<tr>
<td>Receive public assistance</td>
<td>No</td>
</tr>
<tr>
<td>Receive retirement, survivor, disability pensions</td>
<td>Yes</td>
</tr>
<tr>
<td>Amount</td>
<td>$20,000.00</td>
</tr>
<tr>
<td>Receive any other income</td>
<td>No</td>
</tr>
<tr>
<td>Total income last 12 months</td>
<td>$55,000.00</td>
</tr>
</tbody>
</table>
Appendix M: Revised Screens for Round 4B

ROSTER B

The following questions are to make sure this list is as complete as possible.
Other than the person listed below, does ANYONE ELSE live or stay there? (Help)
For example, roommates, foster children, boarders, or live-in employees.

☐ Yes
☐ No

THANK YOU

Thank you for completing the American Community Survey.
Your answers have been submitted to the U.S. Census Bureau.
(December 7, 2010 9:39 am)