

STUDY SERIES

(Survey Methodology #2011-08)

**Final Report for Rounds 1 and 2 of
Usability Testing of the 2010 Census
Quality Survey Online Instrument in
Conjunction with the 2010 Decennial Census**

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1.0 Abstract

The Census Quality Survey (CQS) was conducted in order to estimate measurement error, such as simple response variance, from a census Internet questionnaire compared to that from a census paper questionnaire (Hill, Reiser, & Bentley, 2010). This report lists the findings from the first two rounds of usability testing of the instrument prior to implementation. The results showed that participants completed the form quickly and without major difficulty. They did not tend to use help links or instructions. Additionally, some participants excluded or made up some information about the people that lived with them.

2.0 Introduction and Background

When considering an online version of a survey, the overall usability of the survey must be taken into consideration, especially for an instrument that would be used by participants with a wide range of computer skills and expertise. For an online survey 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 two rounds of usability testing of the online CQS instrument in April and June of 2010. The goal was to identify elements of the user-interface design that were problematic and led to ineffective and unsatisfying experiences for the potential respondents of the survey. This report contains results of the CQS usability testing.

3.0 Methods of the CQS Instrument Testing

This section describes how the participants were selected for the CQS online instrument testing, how and where the testing was conducted, and what kinds of materials were used in the testing. Two rounds of testing were conducted. Round 1 took place in April 2010 and involved five participants. All five were Census Bureau employees. Round 2 occurred in June 2010 and included 37 participants. Most were recruited through a database maintained by the Usability Lab. One was an internal Census employee who was recruited through known lab contacts. They were recruited because they had prior knowledge of how to navigate a Web site and/or online survey and had at least one year experience using a computer and the Internet. They also were living in a complex household structure (e.g., living with roommates, having a child in shared custody, or living with five or more people).

All testing was conducted in the Usability Lab at the U.S. Census Bureau.

The usability staff conducted a dry-run (i.e., pilot test) of the usability study procedure prior to each round. Based on the pilot testing sessions, the methods and procedures were slightly refined to ensure an effective usability study. Data from the dry run participants were not included in Round 1 analyses due to changes in the testing procedures. The dry-run session for Round 2 followed similar procedures as the actual usability sessions and the findings for this dry run session were included in the Round 2 findings.

3.1. Participants of the CQS Testing

3.1.1. Participants in Round 1

All five 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 CQS. All were female participants, ranging from 28 to 68 years of age with the mean age of 50.4 years. The majority of participants reported having at least some college credit.

Table 1. Participants' Self-reported Computer and Internet Experience (Round 1)

Participant	Hours per day on the Internet	Scale: 1 -9 No experience – Very experienced		Scale: 1-5 Not comfortable-Comfortable			Scale: 1-5 Never – Very often		
		Overall experience with computers	Overall experience with Internet	Comfort in learning to navigate new Web sites	Comfort in manipulating a window	Comfort in using and navigating the Internet	How often work with data through a computer	How often work with complex analyses of data through a computer	How often use the Internet or Web sites to find information
1	1 to 3	8	8	5	5	5	5	4	5
2	1 to 3	4	5	4	5	4	3	1	4
3	1 to 3	6	5	3	2	3	3	2	2
4	1 to 3	9	9	5	5	5	4	5	5
5	1 to 3	8	8	4	5	4	5	3	5
Average across all participants		7.00	7.00	4.20	4.40	4.20	4.00	3.00	4.20

3.1.2. Participants in Round 2

In total, 37 participants were recruited for Round 2 of usability testing, but only 34 participants' results were included in the results and analysis. Three participants (participants 14, 15, and 34) were excluded from the results because the Usability team determined that they were either under an influence or had a cognitive disability that caused them trouble using the computer. Participants were self-reported to be experienced in navigating the Internet and using a computer (see [Table 2](#)) and had no experience with the CQS. There were 15 male and 19 female participants, ranging from 20 to 64 years of age with the mean age of 38.5 years. The majority of participants reported at least some college credit.

Table 2. Participants' Self-reported Computer and Internet Experience (Round 2)

		Scale: 1 -9 No experience – Very experienced		Scale: 1-5 Not comfortable-Comfortable			Scale: 1-5 Never – Very often		
Participant	Hours per day on the Internet	Overall experience with computers	Overall experience with Internet	Comfort in learning to navigate new Web sites	Comfort in manipulating a window	Comfort in using and navigating the Internet	How often work with data through a computer	How often work with complex analyses of data through a computer	How often use the Internet or Web sites to find information
1(dry run)	4 to 6	7	9	5	5	5	5	3	5
2	1 to 3	4	9	5	5	5	3	1	5
3	4 to 6	7	7	4	3	4	3	3	5
4	7+	8	8	5	5	5	2	2	5
5	4 to 6	6	8	3	2	4	2	2	5
6	1 to 3	4	4	2	2	1	1	1	5
7	1 to 3	9	9	5	5	5	3	2	5
8	1 to 3	8	8	5	4	4	3	2	2
9	7+	9	9	5	5	5	5	5	5
10	7+	7	7	5	2	5	1	1	5
11	1 to 3	8	9	5	5	5	4	2	5
13	1 to 3	6	7	4	4	5	3	2	5
16	1 to 3	8	7	2	2	2	2	1	5
17	4 to 6	7	9	5	5	5	2	1	5
19	1 to 3	9	9	5	5	5	5	4	5
20	1 to 3	9	9	5	5	5	5	2	5
21	1 to 3	5	5	5	5	5	4	3	5
22	1 to 3	5	5	5	5	5	2	2	5
23	4 to 6	8	9	5	5	5	3	3	5
24	1 to 3	1	3	*n/a	*n/a	*n/a	*n/a	*n/a	*n/a
25	1 to 3	9	9	5	*n/a	5	4	1	5
26	4 to 6	9	9	5	5	5	3	2	5
27	4 to 6	8	9	5	4	5	3	2	5
28	1 to 3	5	5	4	3	4	2	2	5
29	4 to 6	9	9	5	5	5	5	2	4
30	1 to 3	6	8	5	5	5	4	4	3
31	1 to 3	4	4	5	3	3	1	1	3
32	1 to 3	7	7	5	5	5	4	1	5
33	1 to 3	4	4	3	2	4	3	1	4
35	1 to 3	7	9	5	5	5	3	1	5
36	1 to 3	6	6	4	5	5	3	3	5
37	0	1	n/a	2	2	2	1	1	2
Average across all participants		6.56	7.39	4.45	4.10	4.45	3.03	2.03	4.61

*n/a= no response provided

Note: Computer and Internet experience for participants 12 and 18 is not available

3.2. Procedure

Each usability session lasted about 60 minutes. The testing was conducted in the Usability lab one participant at a time. Internal participants were met at the Usability Lab for the testing.

Upon arriving, each participant was seated in the testing room. The test administrator greeted the participant and explained the purpose of the session, the testing procedure, and the importance of participants' contributions. The protocol for Round 1 and 2 of the CQS testing is attached in [Appendix C](#). Before beginning the usability session, the participant read and signed the consent form ([Appendix D](#)) explaining that all information gathered during the study was confidential and that the session would be videotaped for research purposes only. Participants were orally informed that eye tracking and mouse tracing software would be used to see how they interacted with the instrument. After receiving the participants' signatures on the consent form, video recording began.

Next, the test administrator asked the participants to do a practice task using a familiar news web site, www.WTOP.com, to practice thinking aloud. They were asked to use the site to find something interesting to read and to verbalize their thought process as they navigated the site. During the testing, the think-aloud technique was used to understand the participants' cognitive processes as they interacted with the interface. The think-aloud procedure 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 during problem-solving tasks. A participant engaging in think-aloud 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."

After the practice think-aloud task, the test administrator calibrated the participants' eyes for eye tracking and gave the participants CQS mailing materials. Two different sets of mailing materials were indirectly tested along with the Internet instrument. The Internet Push materials instructed respondents to complete the survey online. The Internet/Mail Choice mailing materials gave the reader a choice to either complete the survey online or complete the included paper form and mail it back.

Participants were randomly assigned to receive one of these sets of mailing materials. The participants were informed that, if they were to receive the survey at home, the mailing materials would have their real 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., 123 Any Street in Anytown, US). For the participants of the usability sessions, each was told that he/she would have to complete the survey online.

In Round 1, the CQS screens were wireframes (i.e., not fully functional HTML pages with working links, etc.) Participants were asked to pretend that their name was “Pat Smith,” a gender-neutral name that was used for all participants. They were told that a second person named “Chris Smith” also lived with them, and they could answer the questions for Chris as they applied to any other person living in their “real” household, or make up the information if they lived alone. The screens for Round 1 can be found In Appendix A.

In contrast, in Round 2, the screens were functional and participants were asked to complete the survey as it applied to their real life household situation. The screens for Round 2 can be found in Appendix B.

The test administrator left the room and went to a control room to do a sound check while the participant completed the Questionnaire on Computer Use, Internet Experience, and Demographics ([Appendix E](#)). This questionnaire provides demographic and background information that allows the researchers to understand the participants’ level of experience with computers and technology.

After the sound check was completed, the session began. The test administrator instructed the participant to complete the survey as if he/she were at home and to think aloud. After completing the survey, the participant filled out the Questionnaire for User Interaction Satisfaction (QUIS) ([Appendix F](#)) and the test administrator asked debriefing questions ([Appendix G](#)) that elicited information about the participants’ overall impressions of and reactions to specifics aspects of the online CQS instrument.

3.3. Testing Facilities

The CQS participants sat in an experiment room, facing one-way glass and a wall camera, in front of an LCD monitor that was on a table at standard desktop height. During the usability test, the test

administrator sat in the control room on the other side of the one-way glass. Although the test administrator could see the participant, the participant was unable to see her (or him). They communicated through microphones and speakers.

Eye tracking equipment was used during testing. The 17" Tobii LCD monitor was equipped with cameras for eye tracking. Using the Tobii Studio software program, the Tobii eye tracking device monitored the participants' eye movements and recorded eye gaze data. Mouse movements were also recorded using the freeware Java program UsaProxy. Observers from the CQS Web design team were invited to watch a live feed of the usability sessions in a separate observation room from the test participant and the test administrator. At the end of each session, if observers were present, the test administrator and observers discussed the findings from that session and compared them to findings from other sessions.

3.4. Audio and Video Recording

Each test session was video-recorded. The wall-mounted camera recorded the participants' faces and non-verbal behaviors. In addition, video of the participants' monitor was fed through a PC Video Hyper converter Gold Scan Converter, mixed in a picture-in-picture format with the camera video, and recorded with a Sony DSR-20 Digital Videocassette Recorder on 124-minute, Sony PDV metal-evaporated digital videocassette tape. Audio for the videotape was picked up from a desk microphone and a ceiling microphone. The audio sources were mixed in a Shure audio system to eliminate feedback, and then fed to the videocassette recorder.

4.0 Efficiency and Satisfaction Measurement Results

Two measures of usability that are typically reported are how long it took the participant to complete the task (efficiency) and the participant's satisfaction with the application. This section provides the efficiency and satisfaction scores associated with the CQS usability testing. Efficiency is measured by timing how long it took participants to finish the questionnaire. Participants were not aware that they were being timed. Satisfaction is measured by the participant's self-responses to the QUIS. In the QUIS, participants 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 categories. The results are presented for the first round followed by the second round of testing.

4.1. Round 1: User Efficiency and Satisfaction

User Efficiency Results

On average, participants in Round 1 completed the CQS in 8 minutes 35 seconds, which was consistent with the anticipated average completion time of around 10 minutes. Completion times ranged from 6 minutes 29 seconds to 19 minutes 39 seconds. Although participants were asked to think aloud during testing, past research has shown that including a concurrent think-aloud technique during usability testing does not necessarily impact efficiency (Olmsted-Hawala, Murphy, Hawala, & Ashenfelter, 2010).

User Satisfaction Results

In a usability study, the goal is considered to affect a successful instrument design. Typically, a satisfaction questionnaire is used to gauge the success of the design, and the aim is usually to attain an overall satisfaction score of at least five on a nine-point scale. The average satisfaction score for all nine characteristics that were measured in Round 1 was 7.60. As Figure 1 shows, the aspect of the online survey that scored the highest mean satisfaction rating was “Screen Layout” (8.20). The lowest scoring aspect of the survey was “Instructions displayed on the screens” (6.80). Thus, there was very little variation among the ratings. See [Table 3](#) for detailed user satisfaction results.

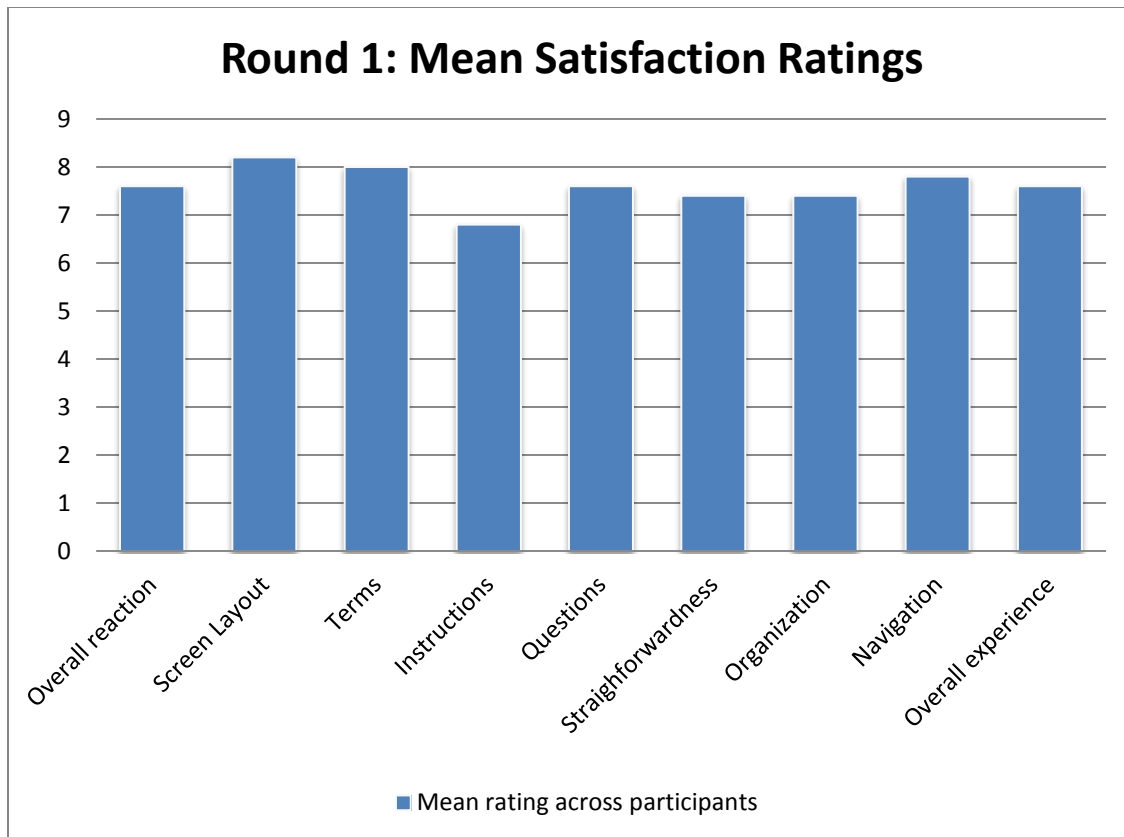


Figure 1. Mean satisfaction ratings for survey elements in Round 1 CQS testing

All nine of the characteristics measured by this satisfaction survey scored very well, which provides evidence that the instrument was successful at providing a satisfying experience for the respondents.

Table 3. Satisfaction Ratings in Round 1

Participant	Overall reaction to survey: terrible - wonderful	Screen layouts: confusing - clear	Use of terminology throughout site: inconsistent - consistent	Instructions displayed on the screens: inadequate - adequate	Questions displayed on screens: confusing - clear	Questions can be answered in a straight-forward manner: never - always	Organization of questions, instructions, and response categories: confusing - clear	Forward navigation: difficult - easy	Overall experience of completing the survey: difficult - easy	Mean rating by participant
1	7	8	8	3	8	7	5	9	7	6.89
2	8	8	9	8	7	9	9	9	8	8.33
3	5	7	5	5	5	3	5	3	5	4.78
4	9	9	9	9	9	9	9	9	9	9.00
5	9	9	9	9	9	9	9	9	9	9.00
Mean rating by question across all participants	7.60	8.20	8.00	6.80	7.60	7.40	7.40	7.80	7.60	7.60

Note: For all items, 1 is low and 9 is high.

4.2. Round 2: User Efficiency and Satisfaction

While Round 1 measured respondent satisfaction with a wireframe version of the CQS instrument, Round 2 measured satisfaction with the fully-programmed instrument.

User Efficiency Results

The average survey completion time for participants in Round 2 of CQS instrument testing was 11 minutes 6 seconds, with a range between 5 minutes, 32 seconds and 21 minutes, 40 seconds. The average was still close to the anticipated duration of 10 minutes. The survey was expected to be short, and most participants finished it very quickly. It is logical that Round 2 took longer to complete than Round 1 because it tested fully-programmed screens that required more interaction from the respondents that Round 1, which tested only low-fidelity wireframe screens, did not require.

User Satisfaction Results

The average satisfaction score for participants in Round 2 was 7.97. This is similar to the ratings for Round 1, which indicates that participants had a satisfying interaction with the CQS instrument in both rounds.

[Figure 2](#) charts the mean satisfaction ratings for various elements of the CQS; again, there was very little variation. The aspect of the online survey to score the highest satisfaction rating was “Forward navigation” (8.66). The lowest scoring aspect of the survey was the “Overall reaction to the survey” (7.53). See [Table 4](#) for detailed user satisfaction results. The average satisfaction scores from both rounds of testing are very close (Round 1=7.60; Round 2=7.97) and are on the high end, which indicates that participants had a satisfying interaction with the CQS instrument in both rounds.

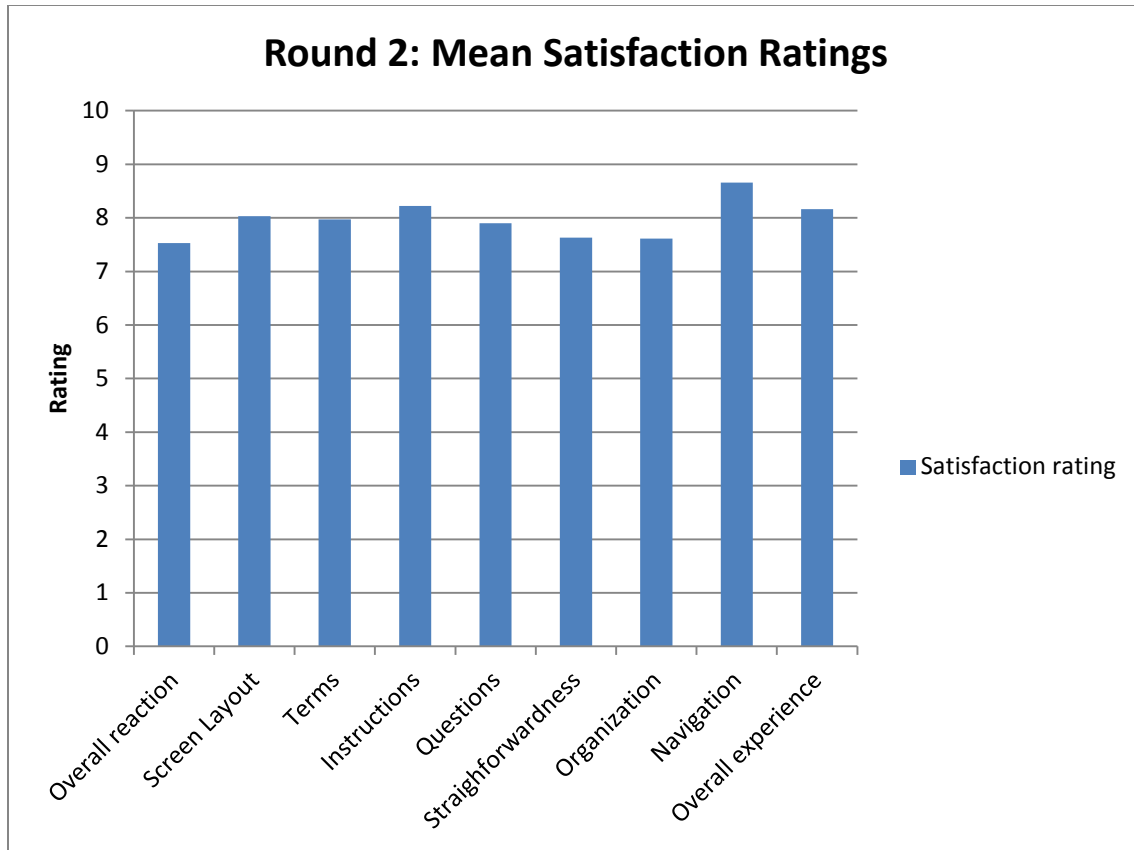


Figure 2. Mean Satisfaction ratings for survey elements in Round 2 CQS instrument testing

Note: Ratings for Participants 12 and 18 are not available

Table 4. Satisfaction Ratings in Round 2 Testing

Satisfaction Questionnaire Items										
Participant	Overall reaction to survey:	Screen layouts:	Use of terminology throughout site:	Instructions displayed on the screens:	Questions displayed on screens:	Questions can be answered in a straight-forward manner:	Organization of questions, instructions, and response categories:	Forward navigation:	Overall experience of completing the survey:	Mean rating by participant
	terrible - wonderful	confusing - clear	inconsistent - consistent	inadequate - adequate	confusing - clear	never - always	confusing - clear	difficult - easy	difficult - easy	
1(dry run)	9	7	7	7	7	8	7	9	7	7.56
2	7	9	7	9	4	9	6	9	8	7.56
3	7	8	8	8	8	8	8	8	8	7.89
4	7	9	9	9	9	9	9	9	9	8.78
5	9	9	9	9	9	9	9	9	9	9.00
6	7	9	9	9	9	7	9	9	8	8.44
7	9	9	9	9	9	9	9	9	9	9.00
8	9	9	9	9	9	9	9	9	9	9.00
9	9	9	9	9	9	9	9	9	9	9.00
10	6	6	6	7	8	6	8	7	8	6.89
11	9	9	8	9	9	8	2	9	9	8.00
13	9	8	8	9	*n/a	8	9	9	9	8.63
16	8	8	7	8	9	9	9	9	8	8.33
17	7	8	5	7	8	3	7	8	6	6.56
19	7	2	5	2	2	3	2	9	5	4.11
20	9	9	9	9	9	9	9	9	9	9.00
21	7	8	8	7	8	8	8	8	8	7.78
22	9	9	9	8	9	8	8	7	9	8.44
23	4	5	7	8	4	2	5	9	4	5.33
24	6	6	6	6	6	6	6	6	9	6.33
25	8	8	9	8	3	6	*n/a	8	8	7.25
26	8	8	8	9	8	7	9	9	9	8.33
27	5	8	9	9	9	5	5	9	8	7.44
28	5	8	7	7	9	9	9	9	5	7.56
29	9	9	9	9	9	8	8	9	9	8.78
30	4	7	8	9	9	9	4	9	8	7.44
31	7	9	8	9	9	9	9	9	9	8.67
32	7	8	8	9	9	8	8	9	9	8.33
33	8	9	9	9	9	9	9	9	9	8.89
35	9	9	8	9	*n/a	9	9	9	9	8.88
36	8	9	9	9	9	9	9	9	9	8.89
37	9	9	9	9	9	9	9	9	9	9.00
Mean rating by question across all participants	7.53	8.03	7.97	8.22	7.90	7.63	7.61	8.66	8.16	7.97

*n/a= no response provided

Note: Satisfaction ratings for participant 12 and 18 are not available

5.0 Usability Study Results of the CQS Instrument

Over the course of the usability evaluation, the test administrators observed participants' comments and reactions to the CQS instrument. The usability staff noted both positive and negative findings. This section discusses specific successes and usability issues that were uncovered.

The usability issues for each round of testing are classified into the following categories:

- Successes: These are the areas where the design of the system met users' needs. Users could accomplish their goals in a timely manner.
- High Priority Issues: 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.
- Medium Priority Issues: These issues slow down and frustrate the user, but do not necessarily halt the interaction.
- Low priority Issues: 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 1 of testing are presented first, followed by the findings from Round 2. Although some findings were universal across rounds - such as difficulty logging in, misinterpreting the functionality of the progress indicator feature, etc. - each round of testing provides different supporting examples and will be discussed separately.

5.1. Usability Study Results of Round 1

5.1.1. Successes

- In general, participants provided positive feedback about their experience completing the online CQS.
- Participants understood the purpose of the PIN and why they might need it.
- The average completion time for participants was near 10 minutes, as expected.
- This round of testing included an "ENTER URL" screen to see whether participants had any difficulty with the "s" in the "https" part of the url address. No serious problems were found with this additional "s."

5.1.2. High Priority Issues

5.1.2.1. Uncertainty about whom to include in the Initial Roster Listing (PEOPLE Screen)

Some participants experienced difficulty deciding who to include on the Roster listing presented on the PEOPLE screen (see Appendices A, B). In fact, one participant clicked on the “Help” link for this screen, which was not yet functional. She said that she had a son in college and she was not sure whether to include him or not; she was concerned about him being counted twice. Another participant commented that a help box with the rules for listing people would be very helpful.

It appears that this uncertainty of whom to include on the roster listing may have been attributed to the limited functionality of the instrument during this initial phase of testing. However, it is important to note that respondents are seeking guidance on whom to include in the roster listing and that information should be readily accessible in the “Help” content.

5.1.2.2. Difficulty locating the Household ID

Participants had some trouble distinguishing the Household ID from the other numbers on the address label of the mailing materials. While commenting on the Satisfaction questionnaire (QUIS), one participant wrote: “Identify household ID on card; possibly star required information.”

Another participant commented that she did not think the Household ID was labeled well enough on the screen. During debriefing, the same participant said that it was problematic that there was nothing on the screen itself telling you where the access code was. The inability to locate the Household ID on the mailing materials can hinder respondents from accessing the online survey and may increase unit non-response (i.e., respondents choosing not to complete the survey at all). This is the first encounter with the survey that respondents have and it is vital to survey completion. If respondents are experiencing difficulty logging in, they may be more likely to abandon the survey prematurely.

5.1.3. Medium Priority Issues

5.1.3.1. Confusing Terminology on the MISS screen

Prior to responding to the MISS survey item, a few participants had to pause to think about what *living and sleeping* meant. One participant commented that *living and sleeping* meant the same thing and was confused as to what they meant when used together. During debriefing, another participant said that “sleeping” could refer to someone who spent the night and sounds more temporary than “living” there. It is evident that respondents may have different interpretations of the words living and sleeping and it is confusing when the terms are used together. This issue is relevant to both the online version of the CQS and any other data collection mode because it involves terminology. Other research has determined that both of these terms are necessary, but perhaps future testing should investigate alternate wording options for this question.

5.1.3.2. Redundancy of question wording on the PEOPLE and MISS screens

Two participants commented that the questions presented on the PEOPLE and MISS screens were the same. Participants notice the listing of examples on the MISS screen (perhaps due to its bulleted format), yet they are not understanding its intent. The purpose of the MISS question should be clearly outlined on the screen. The content preceding the list of examples should be clear and concise, making it easier for respondents to read and comprehend.

It is important that content presented on the survey be clearly understood and differentiated. Having seemingly redundant content on a survey can adversely affect the respondent’s experience with it and should be avoided. However, this issue is not unique to the CQS and is relevant to other Census Bureau surveys and other modes of data collection.

5.1.3.3. Missing or Misunderstanding the Census Day Rule on the AGE Screen

After entering their date of birth on the AGE screen, a few participants thought that their age was calculated incorrectly because it was a year younger than they currently were. They failed to notice the age verification date displayed on the screen (i.e., December 1, 2009). Instead, they were expecting to find their current age in the Age verification box.

5.1.3.4. The Accessibility and Privacy links were overlooked

During debriefing, participants were asked whether they noticed the accessibility and privacy links at the bottom of the screens; very few participants commented that they did. Although we did not ask the participants to complete any tasks involving these links, they are potentially beneficial to respondents completing the survey and should be visible. When asking for personal information a privacy link/statement should be readily available to respondents. To enhance the visibility of these links, one participant recommended placing them near the Instructions, FAQs, and Logout links at the top of the page.

5.1.4. Low Priority Issues

5.1.4.1. Background Color

A few participants mentioned that they did not like the yellow color of the survey. This did not interfere with the participants' ability to complete the survey, but it should be noted that people can have strong emotional reactions to color. An extreme aversion to a certain color could potentially cause someone to discontinue taking the survey or not complete it at all.

5.2. Changes made based on Usability Study of Round 1

After the first round of usability testing, the usability team discussed the major findings with the CQS sponsor team. As a result of the first round of testing, an image depicting an example Household ID was added to the WELCOME screen. Also, the PIN was enlarged based on usability recommendations to make it stand out more, given that there was enough free space on the page to do so. A participant burden statement was added to the WELCOME screen as well, based on correspondence between the usability staff and the Office of Management and Budget (OMB). This statement tells the respondent how long completing the survey should take.

5.3. Usability Study Results of Round 2

5.3.1. Successes

The successes of the usability study of the online CQS instrument are listed below.

- The example Household ID image that was added after the first round of testing appeared to be helpful to participants with locating it in the mailing materials.
- On average, the survey took approximately 10 minutes to complete.

- Although these participants had complex households, there was no duplication between the names entered on the PEOPLE and MISS screens.
- Participants commented that the survey was “quick and simple.”
- Most participants liked the auto tabbing feature, although some had issues with manually tabbing and entering numbers into the wrong field.

5.3.2. High Priority Issues

5.3.2.1. Difficulty Logging in on the WELCOME Screen

The Welcome page (i.e., login screen) is essential in encouraging respondents to proceed through the survey and it should allow them to enter the survey easily (Couper, 2008). If respondents are experiencing difficulties in simply logging in, they may abandon the survey altogether. Although the example Household ID image added to the screen did appear to help participants find the Household ID in the mailing materials, they sometimes entered the example ID from the image first.

Eleven of the 37 of the Round 2 participants experienced difficulty logging in. Nine of the 11 participants had to receive assistance from the test administrator in order to log in successfully. Six of the 11 participants initially failed to use the mailing materials to find the access code and relied solely on the example image of the address label on the screen, entering pound symbols (#) or all zeros (0) in the access code entry fields. During debriefing, Participant 6 commented that he had difficulty finding the access code. Taken together, this suggests that some participants did not read the instructions on the LOGIN screen before attempting to log into the survey.

In testing, most of the participants paid little attention to the text presented above the “Please Log In” message. The eye-tracking results for the login screen showed that the participants skimmed over the instruction text presented at the top of the page and went immediately to the access code entry fields. This is demonstrated in the eye-tracking data shown in [Section 5.1](#). One potential explanation for this is that the white field box instantly catches participants’ attention and they overlook the surrounding text. This is typical web behavior of Internet respondents, where instead of reading the text word for word, they scan the page for content (Head, 1999).

Another potential explanation is the placement of the “Please log in” message in the center of the page as shown in [Figure 3](#). Given its location, the message may be the first thing respondents see when they access the online survey. This message immediately prompts respondents to begin by logging in, without directing them to the mailing materials they received.

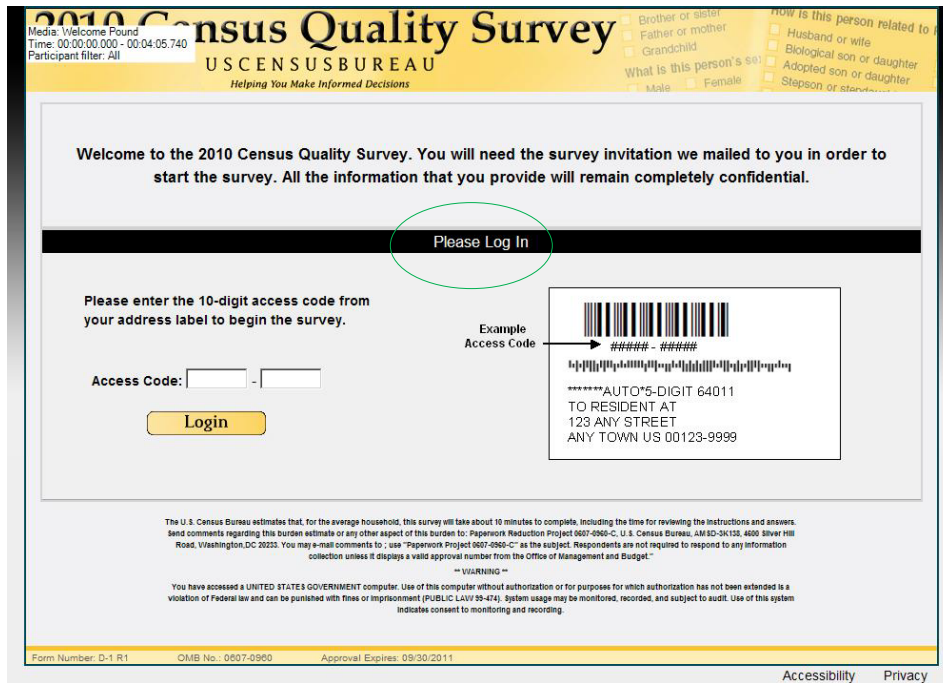


Figure 3. Login screen for the online Census Quality Survey (CQS) Instrument

5.3.2.2. Lack of Disclosure and Falsifying Information

Some participants did not disclose pertinent information while completing the CQS. For example, participants failed to include members of their household on the roster at the PEOPLE screen. Some reported that they were concerned with confidentiality and privacy, while others were uncertain about their housemates’ information (e.g., date of birth, full names, etc.). One participant commented that he did not feel comfortable filling in information without his roommate’s consent. He mentioned that while completing the 2010 Census form for his household, he was able to fill in his section of the form and pass the form to other household members, but in this case (i.e., completing the survey online) that would not be possible. Another participant mentioned that he stayed with his father during Christmas, but he did not want to provide his father’s address when prompted by the survey. He thought the government was trying to “keep track of wherever he goes.” He said most of

the questions are straightforward and simple if he did not have to answer for other peoples' information.

Additionally, one participant stated that he did not know the full names of people in his household on the PEOPLE question because he had recently moved into the home¹. This participant ultimately decided to exclude them from the roster listing altogether. One participant failed to accurately answer the ELSEWHERE question for his roommate because he did not know the address of the second residence. In order to avoid the address question he selected "No" to the ELSEWHERE question and proceeded to the next survey item.

This lack of disclosure could be an issue in obtaining quality data for households who receive the CQS. Respondents may fail to complete the form accurately and submit erroneous data. While this could also happen on paper, it is easier for roommates to pass around a paper form and have everyone fill out their own information. Future research should examine ways to encourage respondents to fill out this information, as this issue is relevant to the Census Bureau's other data collection modes and other surveys.

If personal information is being collected, an easily accessible and understandable privacy statement should be provided to respondents (Powell, 2000). The statement should be visible on the screen. A simple privacy and/or confidentiality statement can ensure respondents that their information will remain confidential and potentially increase their likelihood in disclosing information. One possibility might be to have a Privacy screen displayed after respondents have logged into the CQS informing them of how their information will be kept secure. The content presented on the Privacy screen should be short and concise. Common guidelines for writing for the Web are to use bullets to highlight key information and to avoid dense text.

5.3.2.3. Questions in the Survey appear to be Redundant

A few participants thought that some of the CQS questions were redundant. During debriefing one participant commented that it seemed like he was "being asked the same questions repeatedly" while completing the survey.

¹ This participant apparently overlooked the reference date when deciding whom to list for the PEOPLE screen.

Some participants commented that they were being asked the same question twice when they saw the RIGHT RESPONDENT screen (shown in [Figure 5](#)) following the ADDRESS screen (shown in [Figure 4](#) below). Since the two questions were related, the content from Address screen remained on the page when participants were shown the RIGHT RESPONDENT screen. They understandably believed that this survey item was being asked twice because the content from the previous screen (i.e., Address screen) appears on the new screen (i.e., RIGHT RESPONDENT screen). The text is not grayed out and it appears to be a new survey item. It forces participants to read the content over again, although they've already responded to the question in the previous screen. Some participants even attempted to answer the question again by clicking on the radio buttons. While responding to the RIGHT RESPONDENT survey item, one participant commented, "It asked me the same question again, which I think is weird." Here, the participant's impression of the survey may have been affected. This can be detrimental especially if this occurs early on in the survey. If participants are having a negative reaction to the survey early on, they may be more likely to abandon it prematurely.

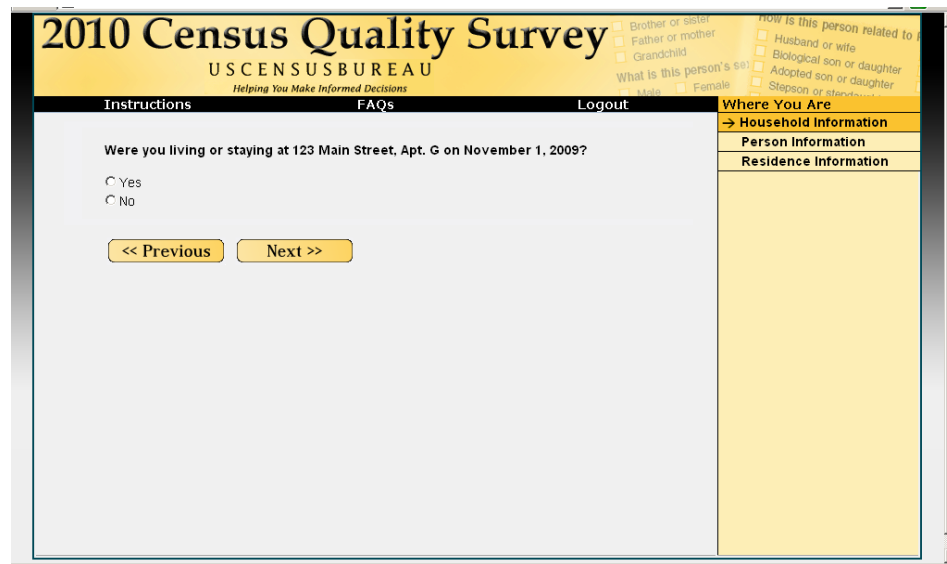


Figure 4. ADDRESS Screen for the online CQS Instrument

Figure 5. The RIGHT RESPONDENT screen for the CQS Instrument

Eliminating the separate ADDRESS screen and combining the ADDRESS survey item (Figure 4) and the RIGHT RESPONDENT survey item (Figure 5) onto one screen as shown in Figure 5, instead of two, may help to remove redundancy. Make the content for the RIGHT RESPONDENT screen unavailable until the respondent selects *Yes* to the ADDRESS survey item. Another option would be to continue having separate screens for each of the survey items, but to gray out the text from the ADDRESS item on the RIGHT RESPONDENT screen so that it is unavailable. Perhaps this will permit respondents to skip over that text and proceed to the new survey item on the screen.

Some participants also felt that the MISS question (Figure 7) was redundant. They believed they answered the question on the previous PEOPLE screen while listing the names of everyone who was staying at their household (Figure 6 below). It appeared that they may not have understood the purpose of the MISS question. Some believed it meant that they did not answer the PEOPLE screen correctly. One participant commented, “I don’t know why it’s asking me twice. I already told them who I put in.”

Figure 6. The PEOPLE screen for the online CQS instrument.

Figure 7. The MISS for the online CQS Instrument

Asking seemingly redundant questions may negatively impact respondents' experiences with completing the online survey. It may be beneficial to test alternative wording of the seemingly redundant questions that occur sequentially in the survey during future testing of online Census-related surveys.

5.3.2.4. Participants Failed to Notice Essential Information

While completing the CQS online, some of the participants overlooked important information that would have been useful in answering questions. For example, during debriefing, 17 participants said they did not notice the reference date of January 1, 2010 on the AGE question (Figure 8 below). Had participants seen this, they may have responded to the question differently. However, there was a soft edit that came up if the date of birth did not match the age or was a nonsensical value.

Participants also failed to notice how long it would take them to complete the survey and whether or not they could retrieve their PIN if they forgot it. The eye tracking opacity image shown in Figure 18 shows that the participants paid less attention to that information, which is consistent with this finding. Failing to read all of the content presented on the PIN screen may cause participants to miss critical information.

The screenshot displays the '2010 Census Quality Survey' interface. At the top, it shows 'USCENSUSBUREAU' and 'Helping You Make Informed Decisions'. The main content area is titled 'What is John M Doe's date of birth? (Help)'. Below this, there are input fields for 'MM / DD / YYYY'. A note states: 'Verify or enter correct age on January 1, 2010. Please report babies as age 0 when the child is less than 1 year old.' The date 'January 1, 2010' is circled in green. At the bottom of the form are buttons for '<< Previous' and 'Next >>'. On the right side, there is a vertical navigation menu with options: 'Household Information', 'Person Information' (selected with a right arrow), and 'Residence Information'. The bottom right corner contains links for 'Accessibility' and 'Privacy'.

Figure 8. The AGE question for the online CQS Instrument

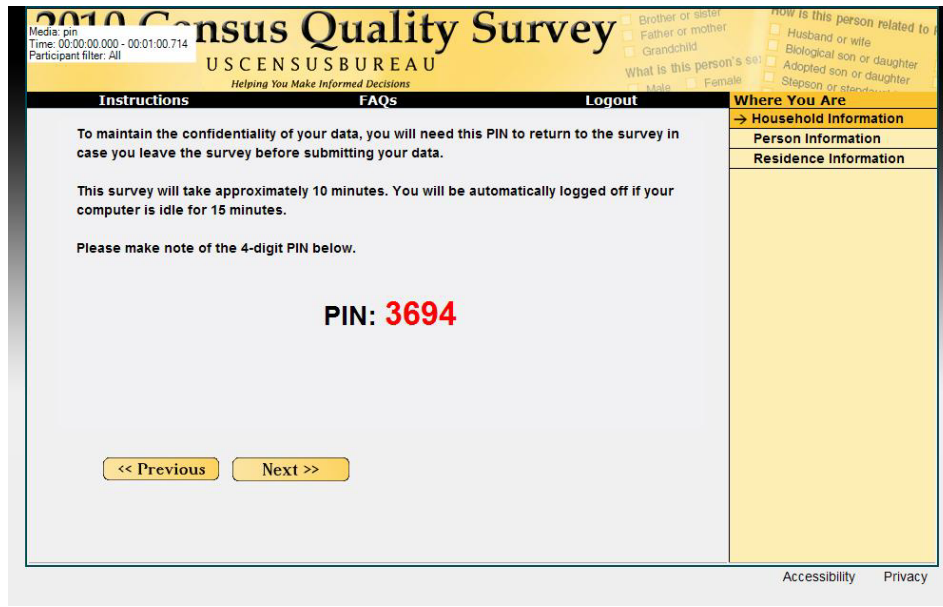


Figure 9. The PIN screen for the online CQS Instrument

There are several lines of text on the PIN screen, which may be unnecessary due to the ubiquitous nature of such screens in modern Web culture. It is important that content for the survey be written for the Web (Redish, 2007). Text on the PIN screen (Figure 9 above) can be condensed into more manageable pieces. 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).

5.3.3. Medium Priority Issues

5.3.3.1. Contradictory responses are accepted

The ELSEWHERE survey question, shown in Figure 10, allowed respondents to select *No* in addition to another response option. For example, one participant was able to select *No* and *Yes, for another reason* and proceed through the survey without receiving an error message or any additional prompts. By selecting *No* to this survey question, it would be logical to expect that they would not be allowed to make other selections from the available response options.

One possible solution might be to gray out the remaining options if the respondent selects *No* to the ELSEWHERE question (Figure 10). Graying out the options indicates that they are no longer available, as shown in Figure 11.

However, the usability staff acknowledges that the decision to allow seemingly paradoxical answers was based on a Census Bureau decision to ensure that the Internet questions had the same meaning and intent as the questions in other modes.

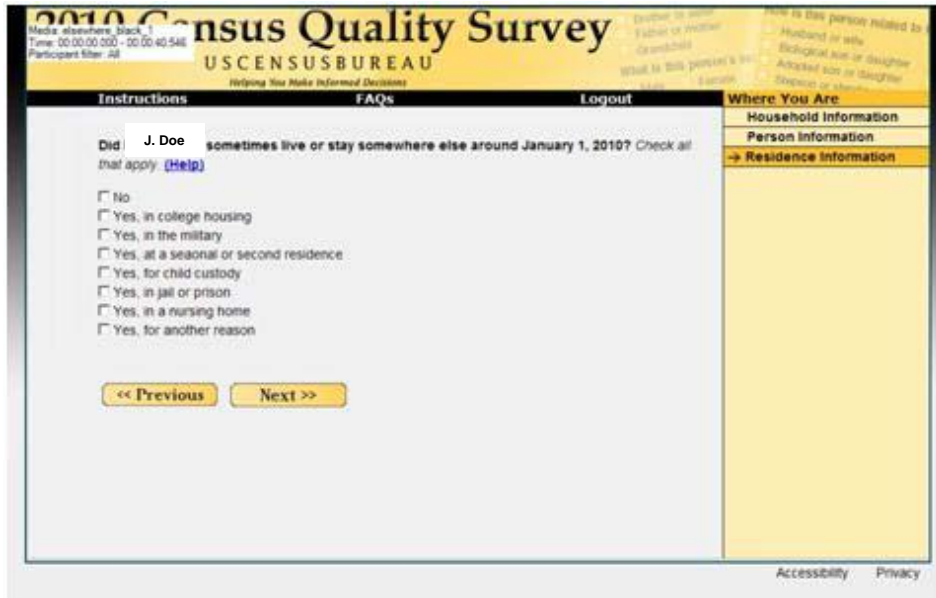


Figure 10. The ELSEWHERE question for the online CQS Instrument

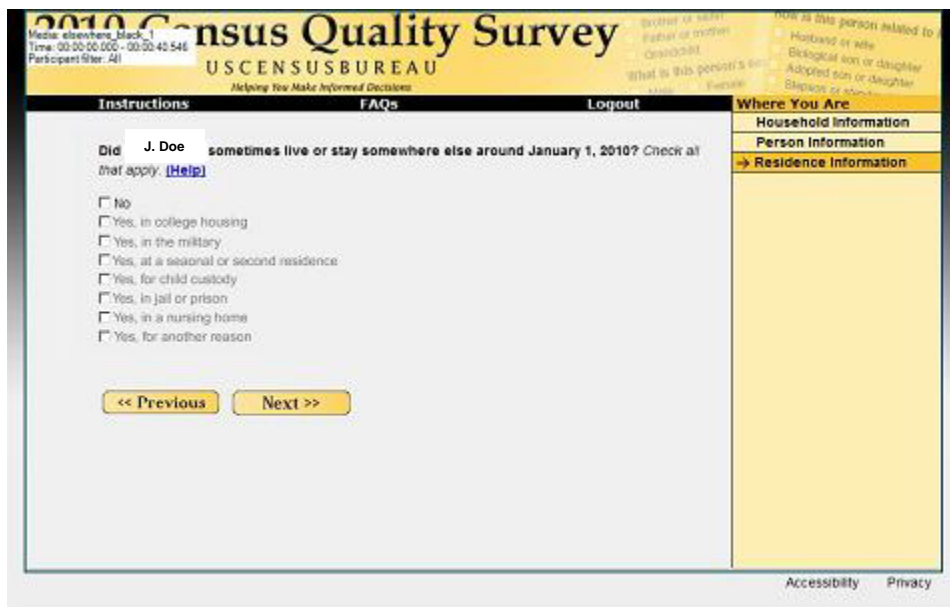


Figure 11. Recommended Functionality for the ELSEWHERE question on the online CQS Instrument

5.3.3.2. Available Help Content on the CQS was not useful

Only two participants in Round 2 clicked on the available help links. Others simply used their best judgment and proceeded through the survey even when they exhibited signs of confusion while responding to survey items. This method of completing online surveys is not uncommon. Respondents are not likely to click on help links for guidance while responding to survey questions. Utilizing the help link requires more effort (Dillman, 2000) and respondents often want to complete the survey in the quickest way possible.

If the content in help is not useful in guiding users, they may be less inclined to use it for future questions. Instead, they may provide inaccurate data to simply proceed through the survey.

5.3.4. Low Priority Issues

5.3.4.1. Aesthetics of the CQS

Several participants gave negative comments about the aesthetics of the online CQS (although it is important to note that this finding is not consistent with the high satisfaction survey ratings given by participants). During debriefing, when asked, six participants commented that they did not like the yellow coloring on the screen. One participant said that the color yellow was sterile and did nothing to catch his eyes. The participant also stated that there was nothing elaborate or creative about the online survey. He said that the survey was “basic” and looked like it had been designed by a beginner or a student. One of the participants mentioned that the graphics (i.e., the banner at the top of the page) on the survey appear to be outdated as if it were from 2004.

Although the aesthetics of the CQS did not hinder our participants from successfully completing the survey, they may have an impact on respondents outside the lab setting. For example, the aesthetics of the online survey may have the ability to influence whether or not a person chooses to respond to the survey at all.

It is important to note that “beauty is in the eye of the beholder” and it will be virtually impossible to create a design that is aesthetically appealing to all respondents. However, there

is evidence that people have different emotional responses to different colors and blue is the most preferred (Palmer & Schloss, 2010; Schloss & Palmer, 2009). Moderation and careful design is the essential element in avoiding potentially jarring visual presentations (Couper, 2008).

5.3.4.2. The Progress Indicator was Overlooked and Misunderstood

Progress indicators are designed to increase the proportion of completed surveys and reduce break-offs (Couper, 2008). They are typically horizontal and indicate progression in an online survey using visual cues. They can be text based or graphical displays (see [Figure 12](#)). In testing the participants paid little attention to the progress indicator feature on the screen. In fact, 17 participants said they did not notice the new feature when it appeared on the ADDRESS screen for the first time.

The feature is on the right side of the screen and unlikely to be noticed by respondents. During debriefing, one participant commented that most people would not notice the feature and that it should be on the top of the page. This is attributed to the fact that Internet respondents typically read web content in an “F” pattern, focusing attention more on content located at the top, left and center of the page (Nielsen, 2006).

Some participants who did notice the feature did not understand its purpose. One participant thought the purpose of the feature was “so that if someone did not understand a question they could click on there to get help.”

Those who did understand the purpose of the progress indicator feature thought the items listed were links that would jump them to different sections of the survey. One participant thought she could use the feature to skip through questions on the survey. This may be attributed to the fact that the text is bold and is preceded by an arrow (→), which is usually indicative of moving forward.

The functionality of the progress indicator feature should be made clear to respondents. For example, moving the indicator to the top or left-hand side of the page, an area that typically receives the most attention, may make the indicator more salient. For a short survey such as the CQS that does not have complex skip patterns in its questions, a dynamic progress

indicator with active HTML links to help navigate around the survey should be tested for future versions of similar surveys.



Figure 12. The progress indicator feature for the online CQS Instrument

5.3.4.3. Auto-Tab Feature

Auto-tabbing is a data entry function that is frequently utilized in online surveys. Auto-tabbing occurs when a respondent enters a specified number of characters in one field on the screen and his/her cursor is automatically moved to the next field in the specified tab order without the respondent having to click or press anything.

During debriefing and/or while entering the access code on the login screen ([Figure 3](#)), 12 participants commented that they expected an auto tab feature. Often participants would key in the string of numbers for the access code into the first entry box, failing to realize that the cursor did not automatically tab over to the next box. While logging in, one participant commented that he had “made a mistake” after he unknowingly keyed the entire 10-digit access code in the first entry box and tried to log into the survey unsuccessfully. He then realized that he needed to use his mouse to click into the second entry box and was able to log in successfully. Here the lack of an auto tab feature may have added undue stress to the participant before he was even able to enter the survey.

The log-in feature should be consistent with respondents’ expectations to promote a more pleasurable experience. We recommend that the entry fields for the access code have the auto tab feature enabled.

6.0 Eye-tracking Data for Round 2

This section of the report summarizes the findings based on eye tracking data from Round 2. Eye-tracking data are not included for Round 1. Eye-tracking data were obtained for 28 of the total 37 participants. The remainder of the participants were not included in the eye-tracking data analysis due to difficulties with the eye-tracking equipment.

Heat maps. The heatmaps (see Figure 14 for an example) generated for this report demonstrate the number of fixations² in an area of the screen on a given page. The colors on a heatmap change 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 (see Figure 13 for an example) 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.

Area of Interests (AOIs). Areas of interest 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 about AOIs 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 can be indicative of confusion, or processing of information. Shorter first fixation duration times spread across the various AOIs may be indicative that participants are looking over the entire page to assess where they should start.

6.1. LOGIN screen

² Fixations were defined for this study as the eye maintaining constant focus in one place for at least 100 milliseconds.

The eye-tracking data of the LOGIN screen showed that most of the participants ignored the instruction text presented on the page. Instead, participants looked at the example image for the necessary information on how to log into the survey. This is shown in the opacity image in [Figure 13](#).



Figure 13. Gaze opacity screenshot of the LOGIN screen (n = 17)

The LOGIN screen was originally tested with the example access code shown as 00000-00000, but participants were entering all zeros in the entry field instead of the numbers listed on the mailing materials to log into the survey. [Figure 14](#) displays the heatmap for the first version of the LOGIN screen using all zeros. Later in testing, the LOGIN screen was revised so that the example image contained all pound symbols (i.e., #####-#####) in hopes that participants would be more inclined to enter the correct numbers from the mailing materials. The heatmap of the second version of the LOGIN screen (i.e., using pound symbols) is shown in [Figure 15](#).

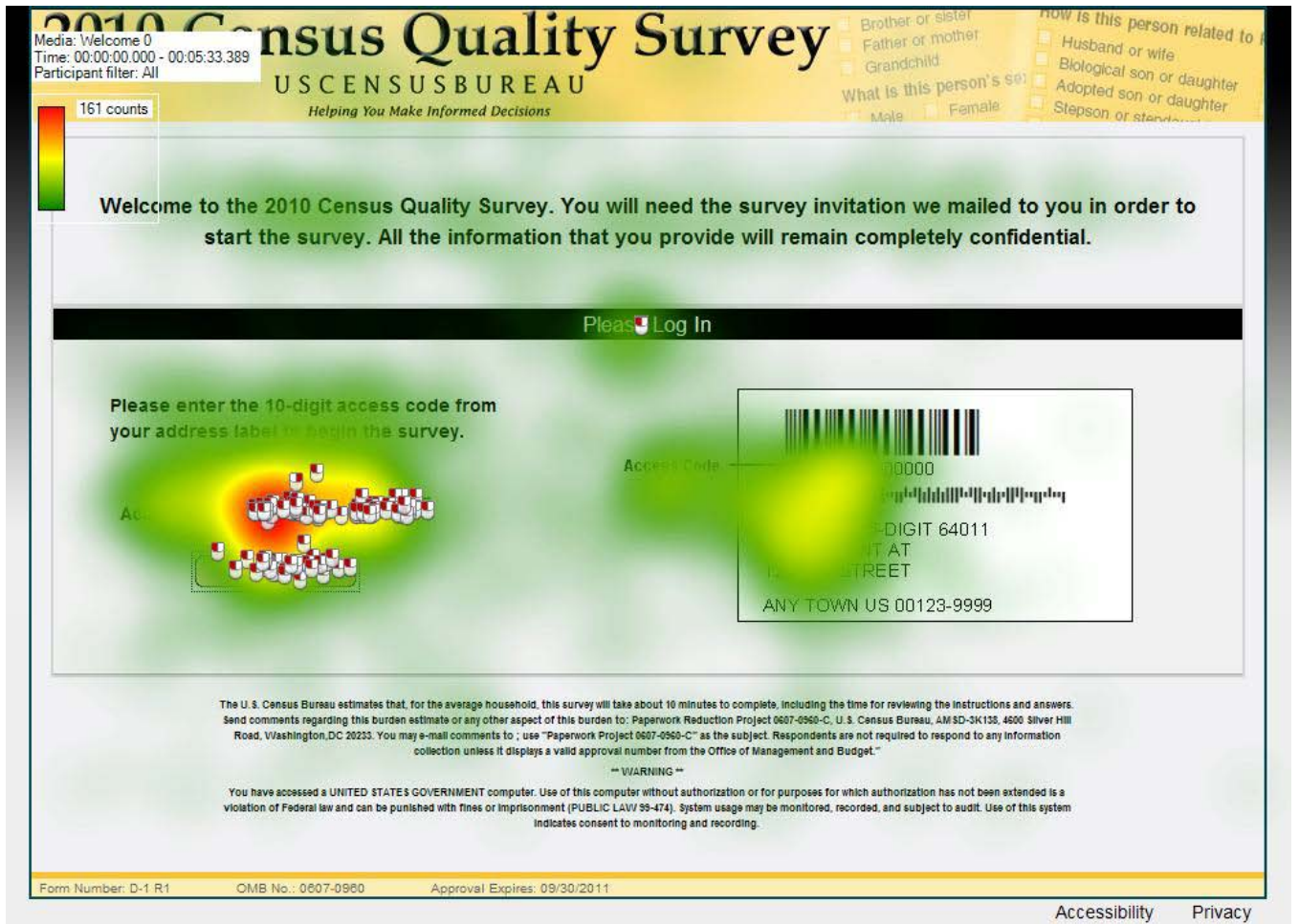


Figure 14. Heatmap of the first version of the LOGIN screen with all zeros in the example image (n = 17)

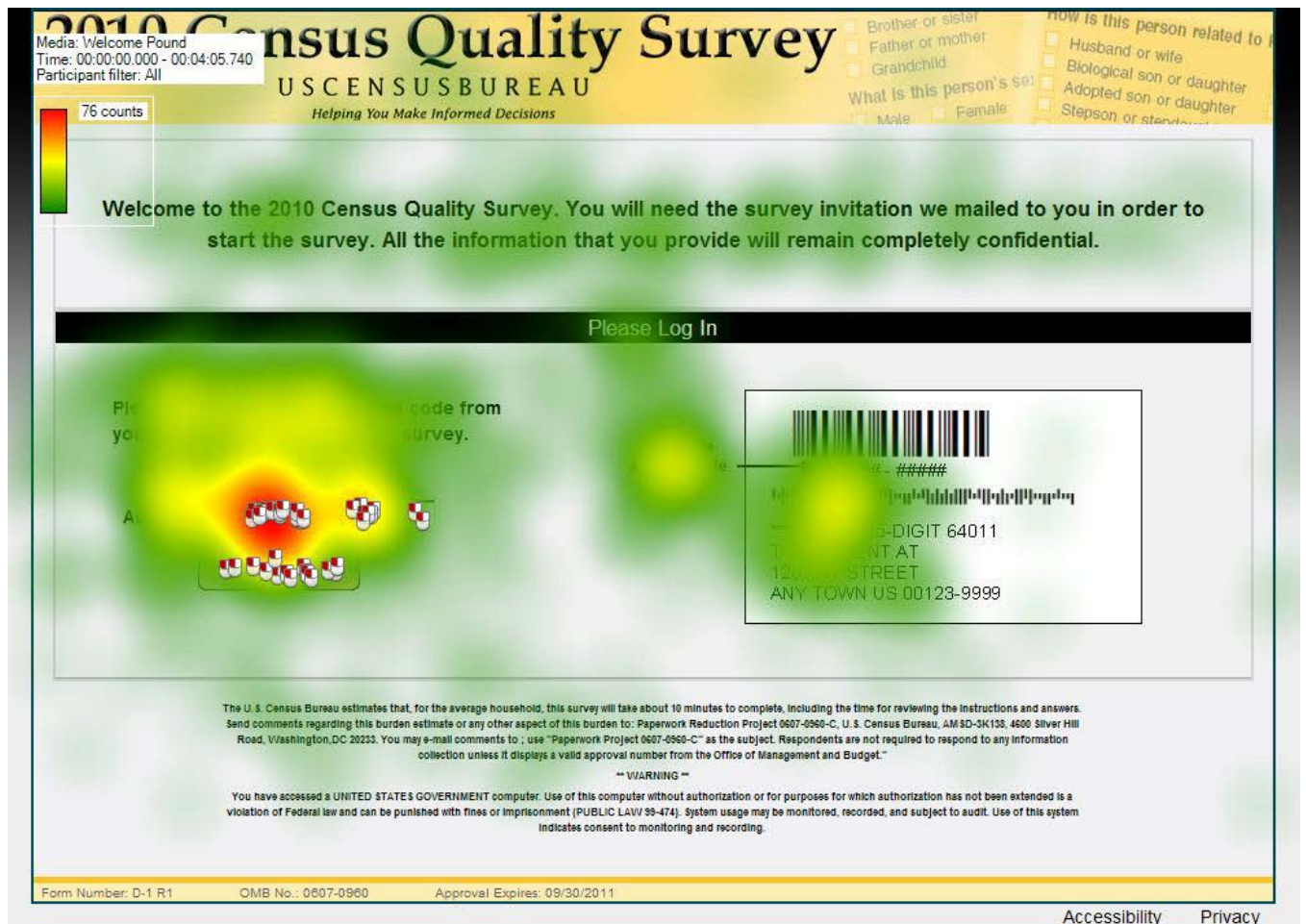


Figure 15. Heatmap of the second version of the LOGIN screen with pound symbols (#) in the example image (n = 10)

[Figure 16](#) shows the defined areas of interest (AOIs) on both versions of the LOGIN screen of the CQS. [Table 5](#) provides the duration of the first fixation for each area of interest defined in versions 1 (example image with zeros) and 2 (example image with pound symbols).

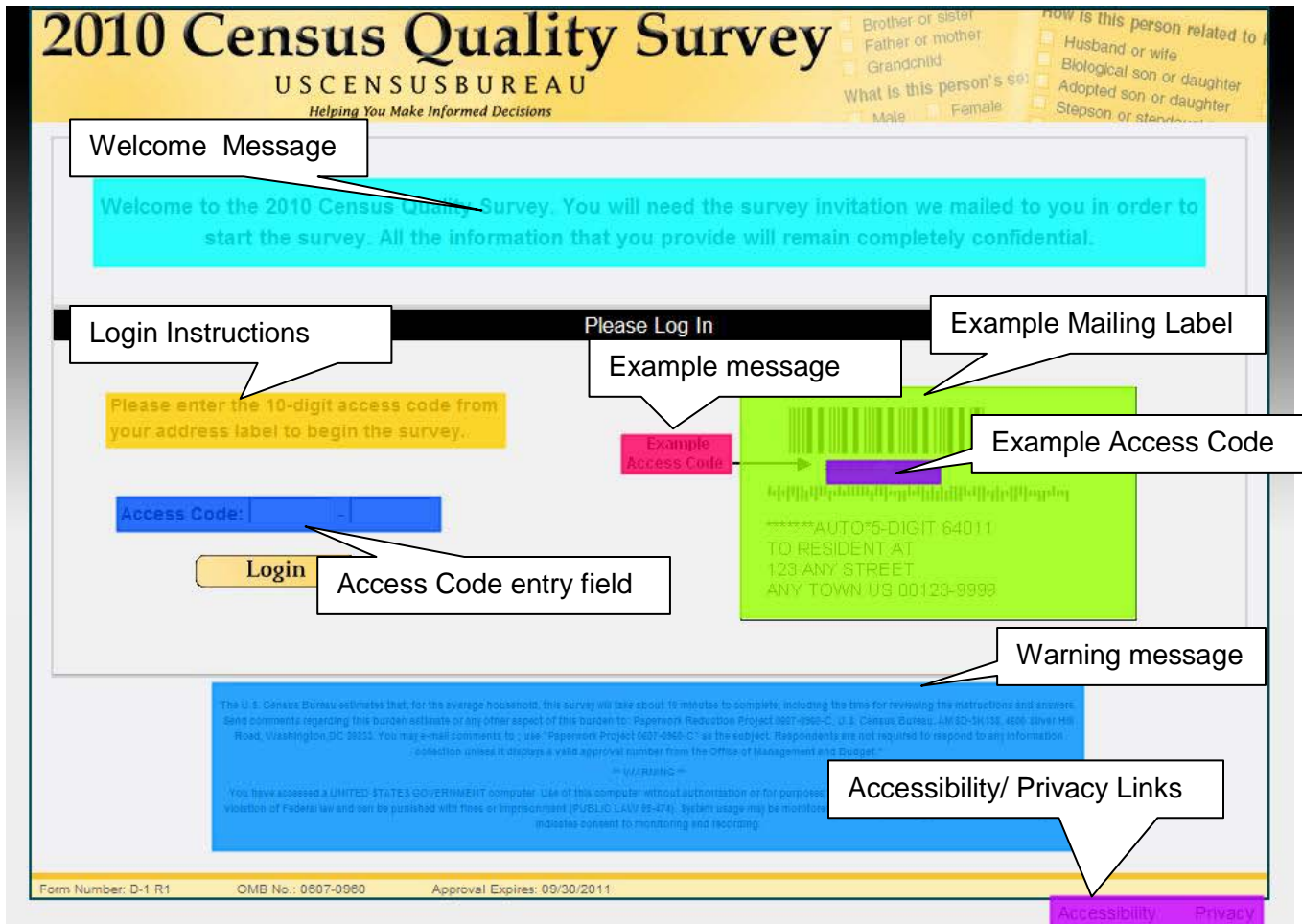


Figure 16. Defined Areas of Interest (AOIs) of the CQS LOGIN Screen

Table 5. Duration of the first fixation (in seconds) for AOI'S on Version 1 and 2 LOGIN screen n=28

Participant	Welcome Message		Login Instructions		Mailing Label		Example Access code		Example message		Access Code Entry Field		Accessibility/Privacy Links		Warning Message	
	Version 1	Version 2	Version 1	Version 2	Version 1	Version 2	Version 1	Version 2	Version 1	Version 2	Version 1	Version 2	Version 1	Version 2	Version 1	Version 2
1	-	*n/a	0.2	*n/a	0.47	*n/a	-	*n/a	-	*n/a	0.29	*n/a	-	*n/a	-	*n/a
3	0.17	*n/a	0.38	*n/a	0.27	*n/a	-	*n/a	0.13	*n/a	0.08	*n/a	-	*n/a	0.22	*n/a
4	0.22	*n/a	0.17	*n/a	0.24	*n/a	0.24	*n/a	-	*n/a	0.26	*n/a	-	*n/a	0.01	*n/a
6	0.25	*n/a	0.17	*n/a	0.25	*n/a	-	*n/a	0.3	*n/a	0.36	*n/a	-	*n/a	0.05	*n/a
7	-	*n/a	0.23	*n/a	0.17	*n/a	-	*n/a	0.17	*n/a	0.57	*n/a	-	*n/a	0.05	*n/a
8	0.23	*n/a	0.24	*n/a	0.15	*n/a	0.09	*n/a	-	*n/a	0.47	*n/a	-	*n/a	0.07	*n/a
9	0.45	*n/a	0.06	*n/a	0.97	*n/a	-	*n/a	0.08	*n/a	0.14	*n/a	-	*n/a	-	*n/a
10	0.2	*n/a	0.22	*n/a	0.41	*n/a	-	*n/a	-	*n/a	0.36	*n/a	-	*n/a	0.05	*n/a
11	0.25	*n/a	0.19	*n/a	0.17	*n/a	0.53	*n/a	-	*n/a	0.2	*n/a	-	*n/a	0.2	*n/a
12	0.37	*n/a	0.52	*n/a	0.47	*n/a	0.11	*n/a	0.32	*n/a	0.27	*n/a	-	*n/a	0.28	*n/a
13	-	*n/a	0.22	*n/a	0.98	*n/a	-	*n/a	0.22	*n/a	0.31	*n/a	-	*n/a	0.13	*n/a
16	-	*n/a	0.23	*n/a	0.07	*n/a	0.01	*n/a	-	*n/a	0.2	*n/a	-	*n/a	0.1	*n/a
17	-	*n/a	0.31	*n/a	0.27	*n/a	-	*n/a	-	*n/a	0.29	*n/a	-	*n/a	-	*n/a
19	0.2	*n/a	-	*n/a	0.22	*n/a	-	*n/a	-	*n/a	0.19	*n/a	-	*n/a	0.24	*n/a
20	0.22	*n/a	0.27	*n/a	0.22	*n/a	-	*n/a	0.12	*n/a	0.32	*n/a	-	*n/a	0.05	*n/a
22	0.13	*n/a	0.13	*n/a	0.37	*n/a	0.56	*n/a	0.22	*n/a	0.2	*n/a	-	*n/a	-	*n/a
25	*n/a	0.24	*n/a	0.17	*n/a	0.31	*n/a	0.74	*n/a	0.29	*n/a	0.17	*n/a	-	*n/a	0.34
26	0.24	*n/a	0.22	*n/a	0.4	n/a	-	*n/a	-	*n/a	0.57	*n/a	-	*n/a	-	*n/a
27	*n/a	-	*n/a	0.16	*n/a	0.3	*n/a	-	*n/a	-	*n/a	0.22	*n/a	-	*n/a	0.21
28	*n/a	0.01	*n/a	0.2	*n/a	0.3	*n/a	0.18	*n/a	0.22	*n/a	0.3	*n/a	-	*n/a	0.05
29	*n/a	-	*n/a	0.32	*n/a	0.46	*n/a	-	*n/a	-	*n/a	0.49	*n/a	-	*n/a	-
31	*n/a	0.25	*n/a	0.21	*n/a	0.93	*n/a	0.81	*n/a	0.77	*n/a	0.21	*n/a	-	*n/a	0.32
32	*n/a	0.22	*n/a	0.16	*n/a	0.26	*n/a	0.94	*n/a	0.22	*n/a	0.16	*n/a	-	*n/a	-
33	*n/a	-	*n/a	0.53	*n/a	0.12	*n/a	-	*n/a	0.64	*n/a	0.18	*n/a	-	*n/a	0.06
34	*n/a	0.28	*n/a	0.18	*n/a	0.05	*n/a	-	*n/a	0.13	*n/a	0.13	*n/a	-	*n/a	-
35	*n/a	0.22	*n/a	0.19	*n/a	0.57	*n/a	-	*n/a	0.21	*n/a	0.22	*n/a	-	*n/a	0.05
36	*n/a	-	*n/a	0.28	*n/a	0.47	*n/a	0.31	*n/a	-	*n/a	-	*n/a	-	*n/a	-
37	*n/a	0.2	*n/a	0.22	*n/a	0.2	*n/a	0.36	*n/a	0.19	*n/a	0.18	*n/a	-	*n/a	0.23
Average Duration (in seconds)	0.24	0.20	0.24	0.24	0.36	0.36	0.26	0.56	0.20	0.33	0.30	0.23	-	-	0.12	0.18

Note: *n/a: not applicable
 - : no fixations were detected

6.2. Progress Indicator Feature

The progress indicator on the right side of the screen first appears on the ADDRESS screen. Analyzing the eye tracking data ([Figure 17](#)) indicated that the participants paid little to no attention to the progress indicator feature on the right side of the screen. This opacity image simply implies that the participants were not actively fixating on the feature; it is important to note that participants could have potentially seen the progress indicator in their peripheral vision without fixating upon it.



Figure 17. Gaze opacity screenshot of the ADDRESS screen.

Out of the 28 participants with eye-tracking data, only three participants fixated on the Progress indicator feature when it first appeared on the CQS (i.e., on the ADDRESS screen). The time to first fixation and the total fixation duration analysis on the Progress Indicator feature for these three participants is displayed in [Table 6](#). A time to fixation score of zero indicates that participants were looking at that area of the screen before the page fully loaded with the eye tracker. The total fixation duration column shows that Participant 37 fixated upon the progress indicator the longest, with 4.91 seconds.

Table 6. Fixation data for Progress Indicator feature on the ADDRESS screen (n=28)

<i>Participant</i>	<i>Time to First Fixation</i>	<i>Total Fixation Duration</i>
6	6.92	0.23
11	0	0.9
37	1.52	4.91
<i>Average (in seconds)</i>	2.81	2.01

6.3. PIN screen

Although, most participants noted their PIN for later retrieval, they seemed to have overlooked the surrounding content on the PIN screen. The gaze opacity image shown in [Figure 18](#) shows that most participants did not read through the text on the screen.

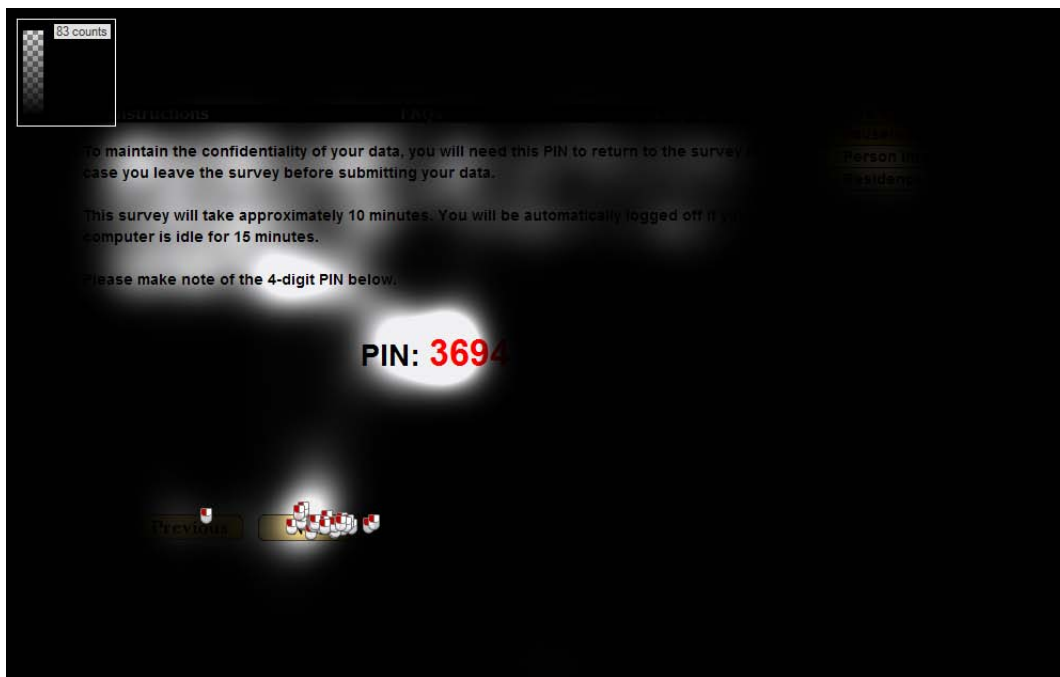


Figure 18. Gaze opacity screenshot of the PIN screen (n = 28)

To examine the various aspects of the PIN screen that participants looked at, we created several AOI's as indicated in [Figure 19](#). [Table 7](#) shows the number of seconds before a participant fixated upon a defined AOI.

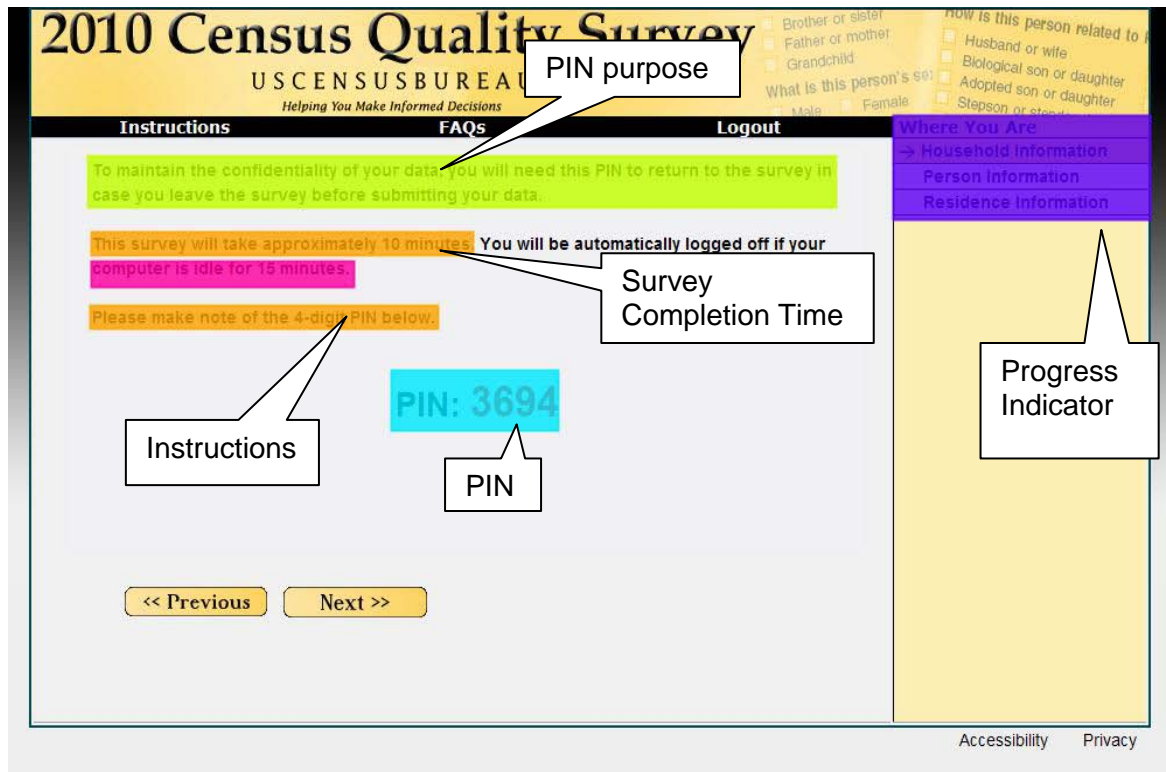


Figure 19. AOI mapping for the PIN screen

[Table 8](#) shows the duration of the first fixation, in seconds, for AOIs ([Figure 19](#)) of the PIN screen. The instructions text received the greatest total fixation duration while the message about the survey's completion time received the least total fixation duration. As outlined in the Usability findings ([Section 4.3.2.4](#)), several participants did not understand the purpose of the PIN or how long the survey would take to complete. The eye-tracking data shows how participants may have missed this information.

Table 7. Time to first fixation to AOIs on the PIN screen

Participant	Instructions	PIN	PIN purpose	Progress Indicator	Survey Completion Time
P01	-	11.69	6.35	-	-
P03	-	0.38	1.57	-	3.57
P04	-	-	-	-	-
P06	0.3	0.53	1.44	21.71	-
P07	-	6.1	0.97	-	8.75
P08	19.39	19.22	4.47	-	-
P09	-	5.72	0	-	6.51
P10	3.01	12.39	1.6	6.26	4.69
P11	19.41	19	0.33	-	12.06
P12	6.05	0.43	0	26.29	5.74
P13	1.91	0.34	0.83	26.36	1.18
P16	13.48	14.88	0.68	38.34	0.41
P17	3.91	4.35	0	-	2.41
P19	3.12	0.54	1.32	3.91	5.59
P20	3.05	0.58	1.24	-	1.77
P22	6.81	0.44	1.22	23.65	4.78
P25	0.44	0.79	2.55	20.8	2.24
P26	0.76	0	0.99	4.14	8.66
P27	0	11.21	0.78	14.27	0.61
P28	-	10.52	-	-	8.63
P29	3.8	0.48	0.66	12.69	-
P31	1.64	21.17	2.16	0	10.54
P32	9.25	0.15	0.52	22.73	5.78
P33	20.27	5.64	4.05	-	25.93
P34	-	26.18	1.7	-	0.54
P35	3.22	0.33	1.03	11.29	13.52
P36	15.71	0.18	-	-	-
P37	26.02	24.43	0.47	20.46	17.28
Average (in seconds)	7.69	7.32	1.48	16.86	6.87

Table 8. Duration of the first fixation (in seconds) for AOI'S on the PIN screen n=28

Participant	Instructions	PIN	PIN purpose	Progress Indicator	Survey Completion Time
P01	-	0.52	2.9	-	-
P03	-	2.94	1.51	-	2.35
P04	-	-	-	-	-
P06	1.92	1.21	2.74	0.5	-
P07	-	1.33	0.49	-	0.33
P08	0.22	0.17	0.59	-	-
P09	-	0.89	1.88	-	0.7
P10	0.31	0.04	0.34	0.22	0.36
P11	2.52	0.75	8.01	-	3.41
P12	4.41	1.78	4.56	0.03	0.57
P13	1.05	2.4	5.91	0.51	2.67
P16	1.71	2.05	5.79	0.45	1.12
P17	0.67	1.37	2.21	-	0.86
P19	0.68	5.12	0.86	1.87	0.58
P20	0.44	0.79	1.04	-	0.27
P22	0.12	3.38	3.05	0.47	1.63
P25	3.23	3.83	2.11	0.57	0.32
P26	1.13	2.89	6.95	0.25	1.1
P27	0.49	1.08	3.96	0.44	1.68
P28	-	1.9	-	-	0.18
P29	2.86	0.82	2.79	0.43	-
P31	0.95	1.83	5.75	2.39	1.23
P32	1.71	3.35	5.13	1.07	1.17
P33	2.19	2.38	2.58	-	1.5
P34	-	0.67	5.4	-	0.14
P35	2.32	3.71	2.07	0.32	0.42
P36	0.61	2.81	-	-	-
P37	0.68	1.87	4.31	0.52	0.33
Average (in seconds)	1.44	1.92	3.32	0.67	1.04

6.4. Household information

6.4.1. PEOPLE and MISS screens

Most of the participants of the CQS instrument testing did not have problems entering the names of the people living in their households. Users quickly moved onto the input fields after scanning the questions. The first screen for the roster section of the CQS was the PEOPLE screen (which asks for a listing of the people living in the household); this was followed by the MISS screen (which asks if participants might have missed anyone on the initial roster listing). Then all participants would see the STAY screen (which is where they add in the missing person(s)) Figures 20 and 21 demonstrate a classic F shaped reading pattern on the PEOPLE (n=28) and MISS (n=6) screens.



Figure 20. Gaze opacity screenshot of the PEOPLE screen (n = 28)

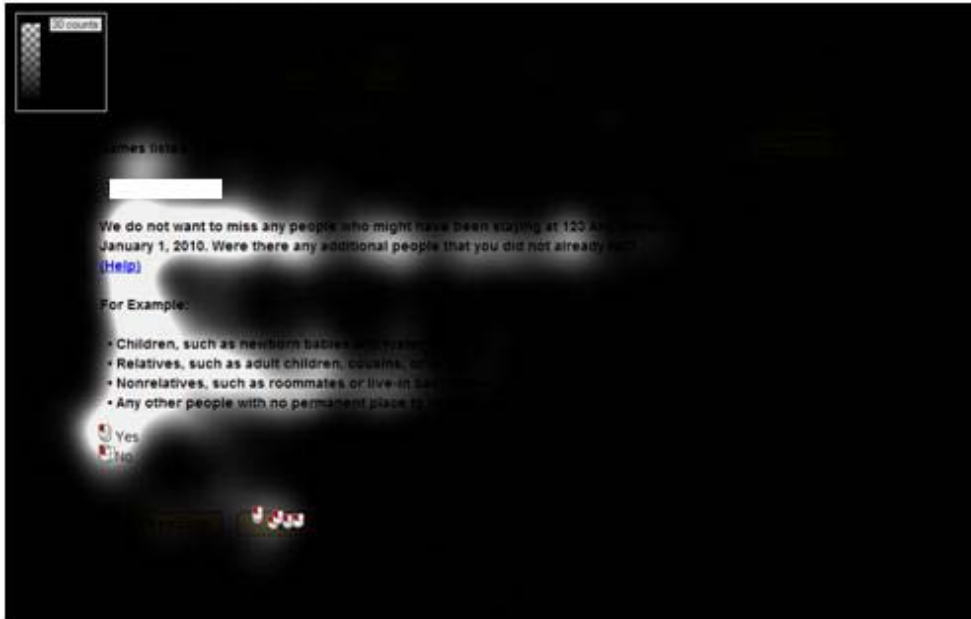


Figure 21. Gaze opacity screenshot of the MISS screen with one name listed (n = 6)

6.4.2. 2010 Census Completion screen

On the 2010 Census Completion screen, which asks whether participants completed the Census 2010 form, the majority of the fixations clustered around the first two response options and the beginning of the question. This pattern may indicate that this question lends itself to satisficing (Krosnick, 1991). See [Figure 22](#).

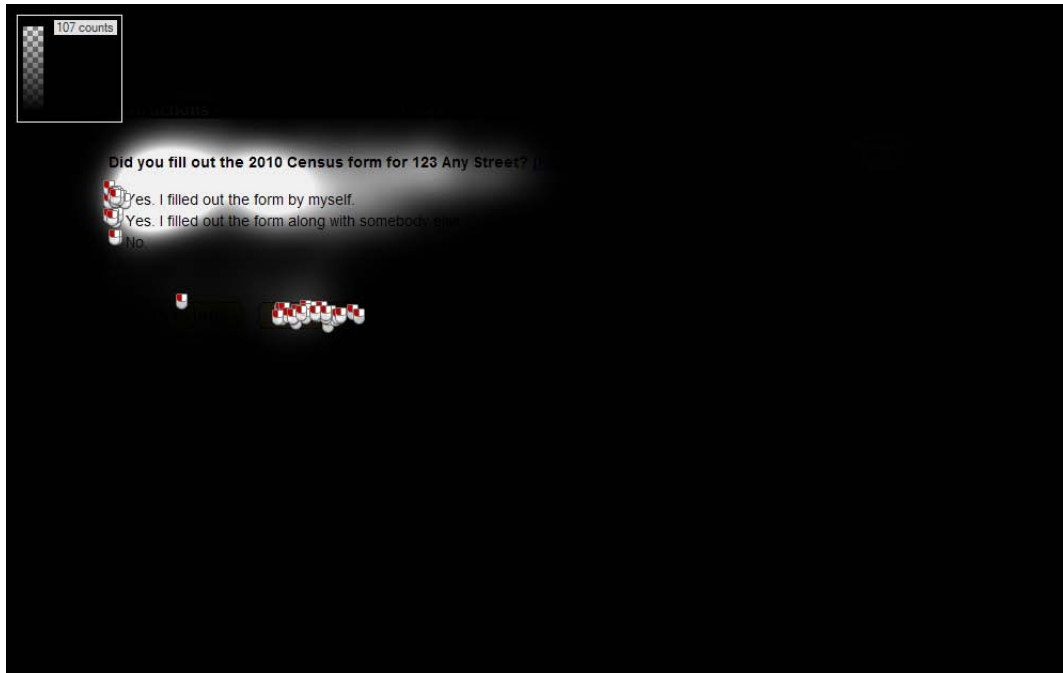


Figure 22. Gaze opacity screenshot of the COMPLETED screen (n = 28)

6.4.3. OWNER screen

On the OWNER screen, which asks who in the household owned/rented the residence, the fixations were largely concentrated around the question and its response options. (See [Figure 23](#).) Fixation lessened as participants read from left to right. The gaze opacity screenshot of this page showed that no participants fixated on the Progress Indicator feature, but they looked at all the response categories. It also seems that fixations trailed off when a parenthetical statement was added or text was italicized.

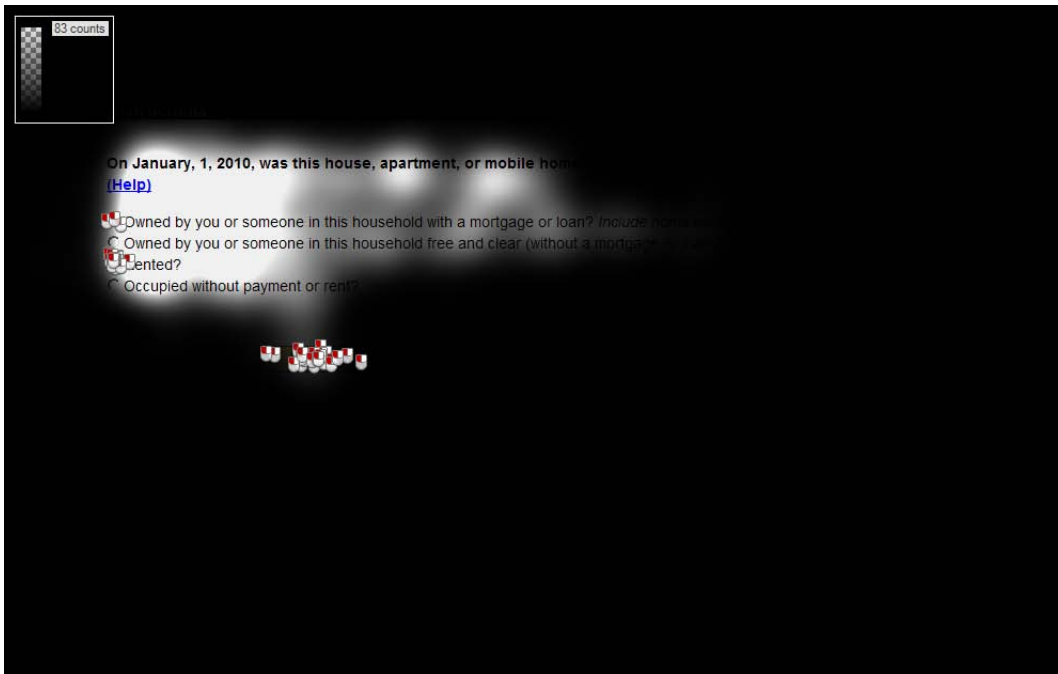


Figure 23. Gaze opacity screenshot of the OWNER screen (n = 26)

6.5. Person Information

There are two versions of the Person information questions of the CQS used in Round 2. In version 1 the names of the household members were initially printed in black. This caused some confusion with participants as they did not notice the transition of names in the question, since it was in all one color (black text). About half way through the Round 2, the names were presented in green (version 2) in hopes that participants would easily notice the change in the names for each question.³ Eye-tracking data revealed that changing the font to green did not appear to have an impact on participant interaction with the survey, so the sponsor team changed it back to black before the survey went live in spring of 2010.

6.5.1. RELATIONSHIP screen

The heatmap and gaze opacity images shown in Figures [24](#) and [25](#) shows the number of fixations from 12 participants when the name was presented in black on the RELATIONSHIP screen.

³ The change to green text was not implemented by the programming team as requested by the sponsor, so the results of changing it cannot be interpreted as originally planned. Results described refer to the changes as implemented, not as originally intended.

Participants did not fixate upon the progress indicator. The mouse clicks and red fixation upon the bottom response options indicate that participants concentrated their responses on the top and bottom of the list.

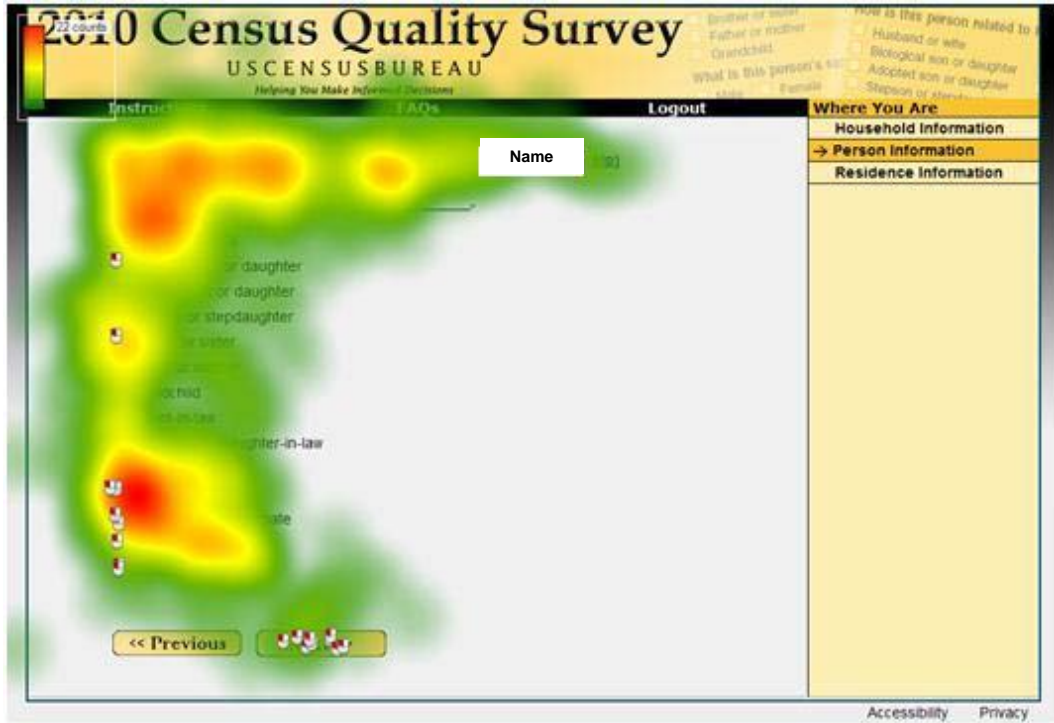
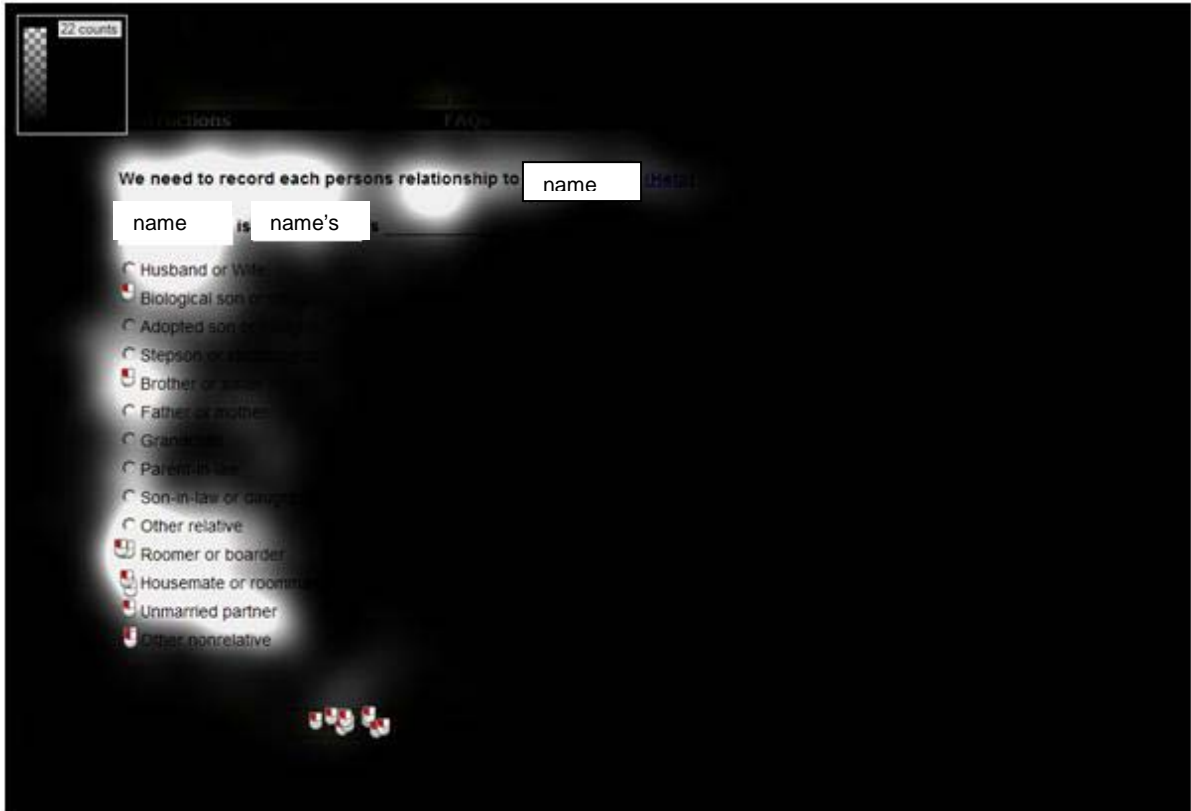


Figure 24. Heatmap of the first RELATIONSHIP screen with the name in black (n = 10)



.Gaze opacity screenshot of the first RELATIONSHIP screen with the name in black (n = 10)

Fourteen participants saw the second version of the RELATIONSHIP screen (name in green text). A similar pattern of concentration of mouse clicks and fixations appeared among the top and bottom response options on the list (shown in Figures 26 and 27). A few participants clicked on the reference person's name. Perhaps these participants thought that the name in green was a link. Looking at the heatmaps, it appears that participants may have fixated on the names slightly more when they were in black text.

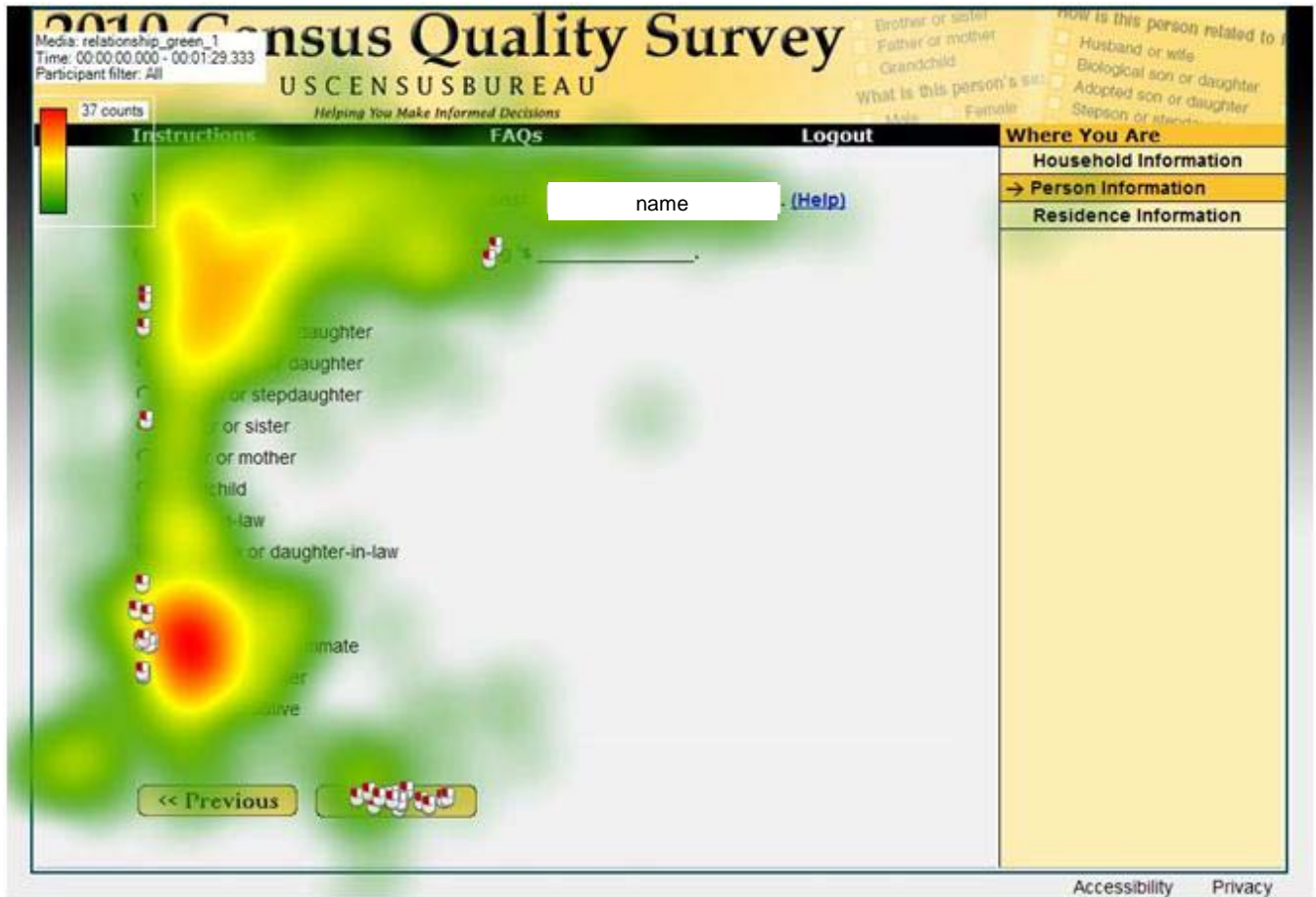


Figure 26. Heatmap of the first RELATIONSHIP screen with the name in green (n = 14)



Figure 27. Gaze opacity screenshot of the first RELATIONSHIP screen with the name in green (n = 14)

6.5.2. SEX screen

On the SEX screen, 15 participants saw version 1 (name in black). Fixations were concentrated on the question and its response options. The gaze opacity map (shown in [Figure 29](#)) generated by the number of fixations, showed that most participants did not fixate upon the progress indicator, although a few did glance at it.

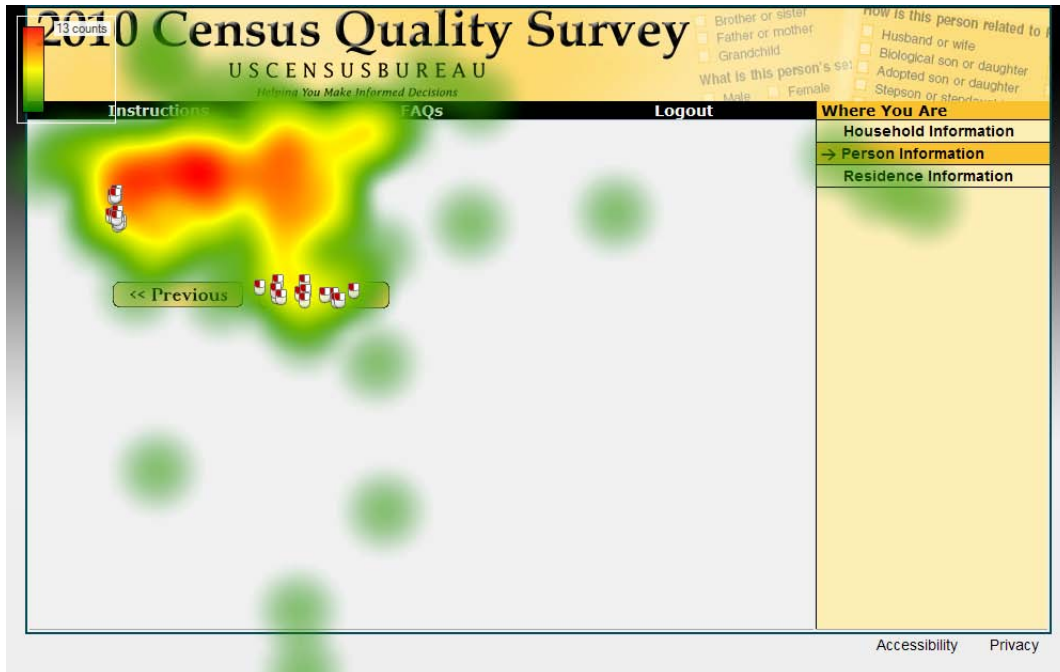


Figure 28. Heatmap of the first SEX screen with the name in black (n = 13)



Figure 29. Gaze opacity screenshot of the first SEX screen with the name in black (n = 13)

Fifteen participants saw the green name variant of the sex question. Similar to the first version (name in black), participants fixated upon the question and responses more than other parts of the screen. See Figures 30 and 31.

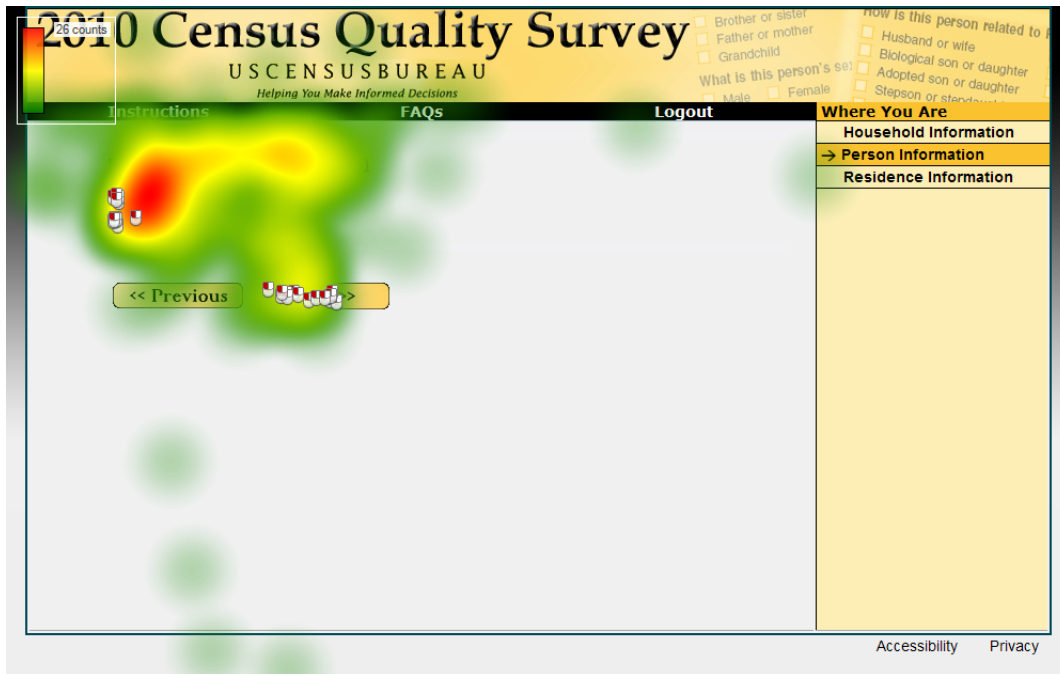


Figure 30. Heatmap of the first SEX screen with the name in green (n = 15)



Figure 31. Gaze opacity screenshot of the first SEX screen with the name in green (n = 15)

6.5.3. AGE screen

On the AGE screen, 13 participants received the first version of the question (name in black) and 15 participants received the second version (name in green). Eye-tracking data show a fairly similar pattern across the two versions. The participants skimmed over the date of birth question, without reading it entirely. A similar pattern appeared for the instructions above the age verification box. A few participants glanced at the Progress Indicator and fixated upon Person Information. The number of mouse clicks on the DOB fields indicates that participants were unaware of the auto-tabbing functionality. However, the number of clicks decreased as participants answered the age question for later household members.



Figure 32. Gaze opacity screenshot of the first AGE screen with the name in black (n = 13)

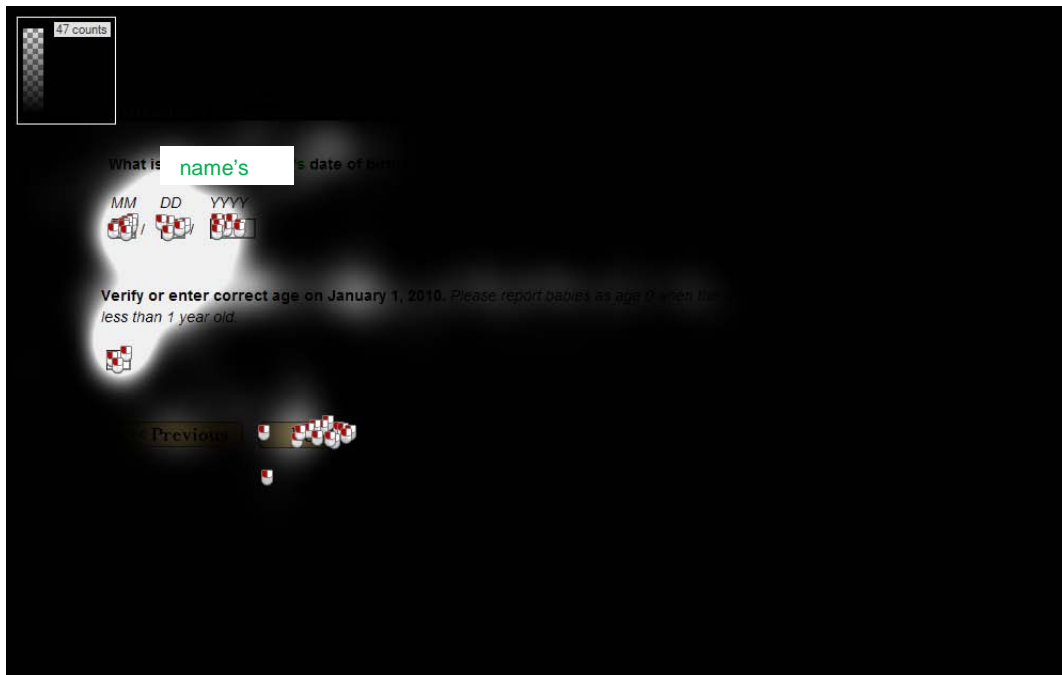


Figure 33. Gaze opacity screenshot of the first AGE screen with the name in green (n = 15)

6.5.4. ORIGIN screen

On the ORIGIN screen, 13 participants received version 1 (name in black). Data indicated a large number of fixations occurred around the question and the “no” response option since many participants were not of Hispanic, Latino, or Spanish origin (see [Figure 34](#)). Some participants fixated upon the Progress Indicator. However, the fixations were not strong enough to appear on the gaze opacity images.

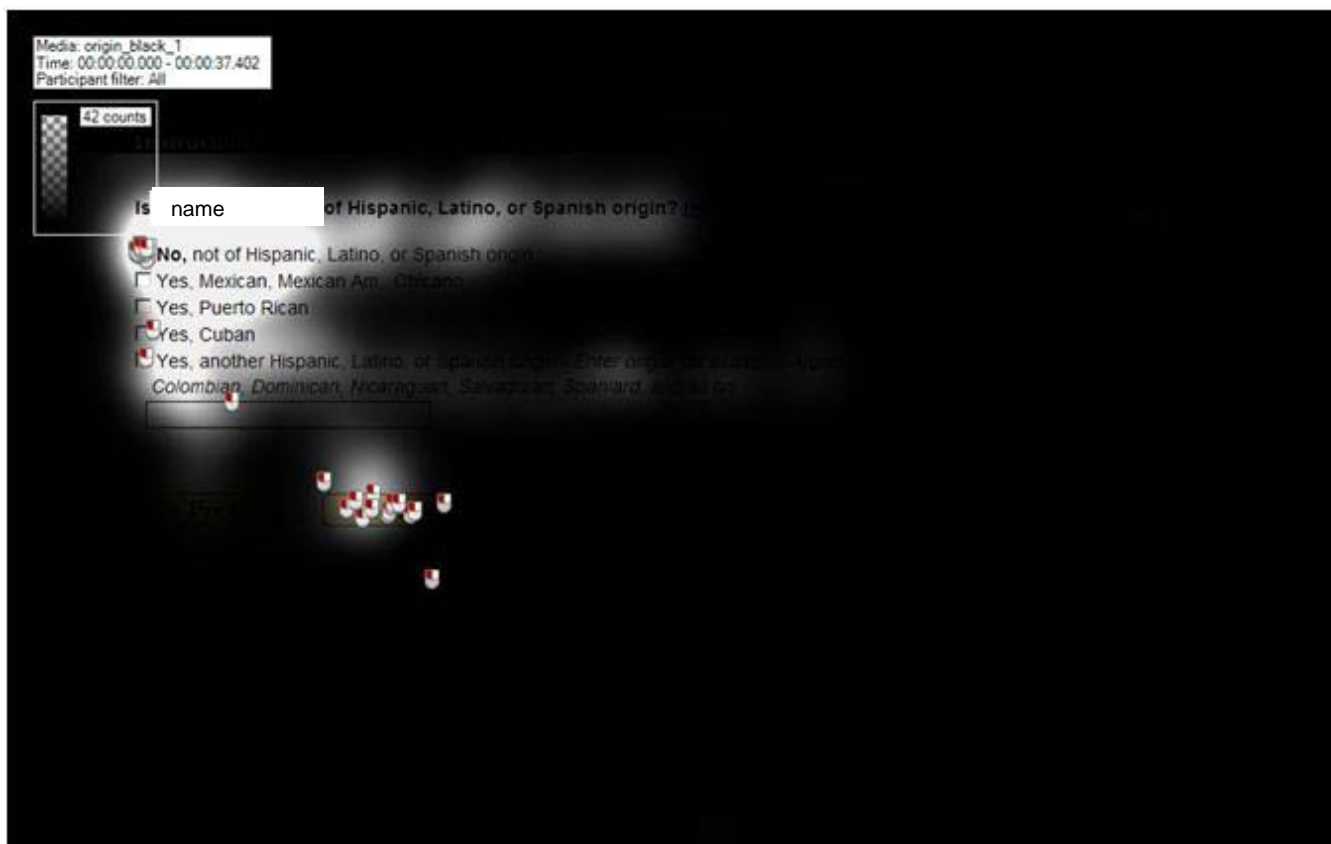


Figure 34. Gaze opacity screenshot of the first ORIGIN screen with the participants' name in black (n = 13)

When the name was presented in black to the 7 participants answering the Hispanic origin question for Person 3, the respondents often skimmed the name and question before responding (see [Figure 35](#)). At this point, participants no longer read all the response options. Some participants fixated upon the progress indicator. One participant clicked on the accessibility and privacy links at the bottom of the Website. Overall, the number of fixations decreased as participants learned the structure of this webpage.

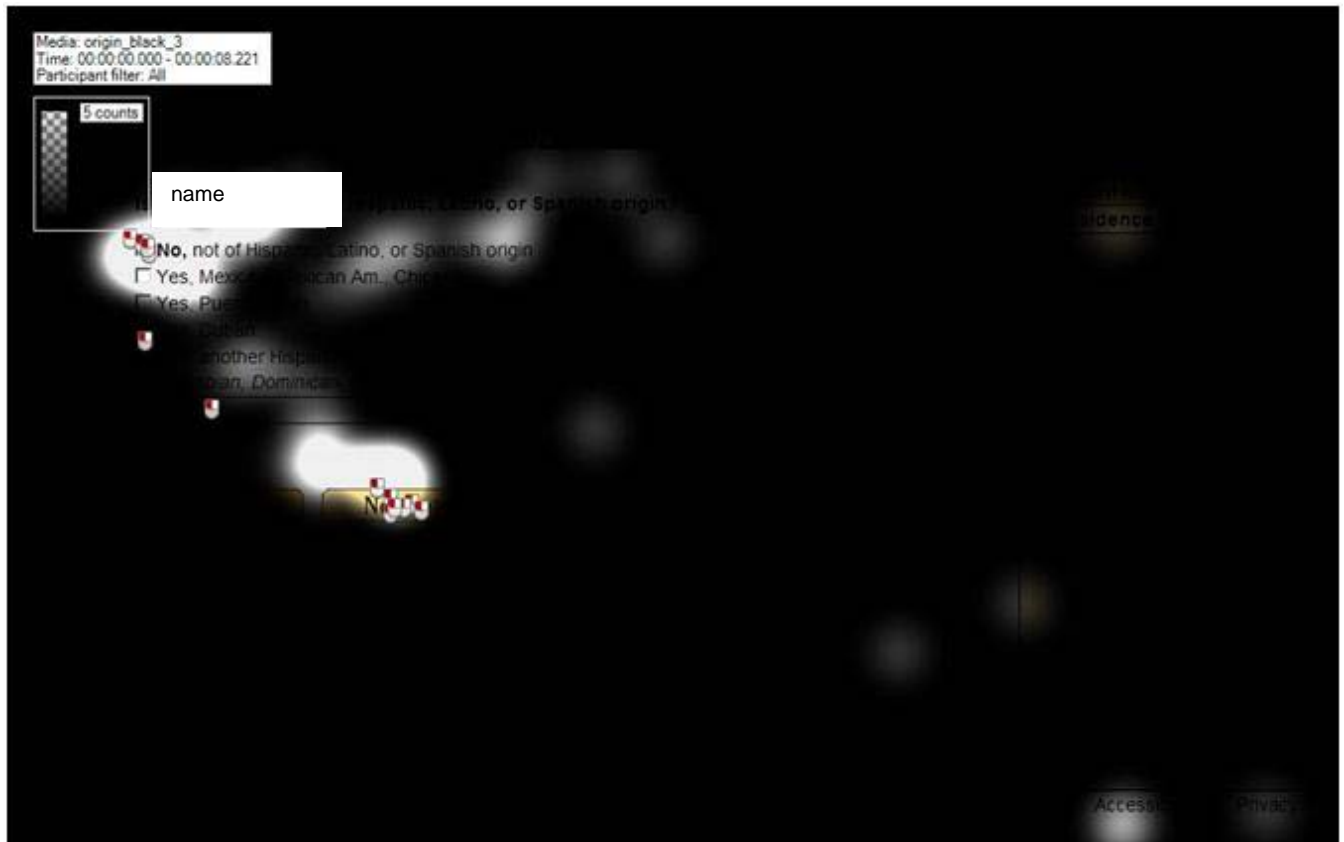


Figure 35. Gaze opacity screenshot of the 3rd ORIGIN screen with the name in black (n = 6).

When the name was shown in green for Person 3 (n=16), participants mainly fixated upon the question and its response options. A large number of fixations occurred around the question and the “no” response option since most participants were not of Hispanic, Latino, or Spanish origin. However, participants who received the first version of the question (name in green) had fewer fixations for the responses and examples. This could be because the green text drew more attention away from the other text associated with the question.

6.5.5. RACE screen

On the RACE screen, the 13 participants who received the first version (name in black) had fixations that concentrated on the top three response options. It appears that participants fixated more on the progress indicator feature on this screen. In fact, one participant tried to click on Residence Information on the progress indicator feature. This participant may have thought Residence Information was a link. Some participants also fixated upon the links at the top of the survey, and they

did not do this for any other question. Participants may have been looking for additional information on how to answer this question.

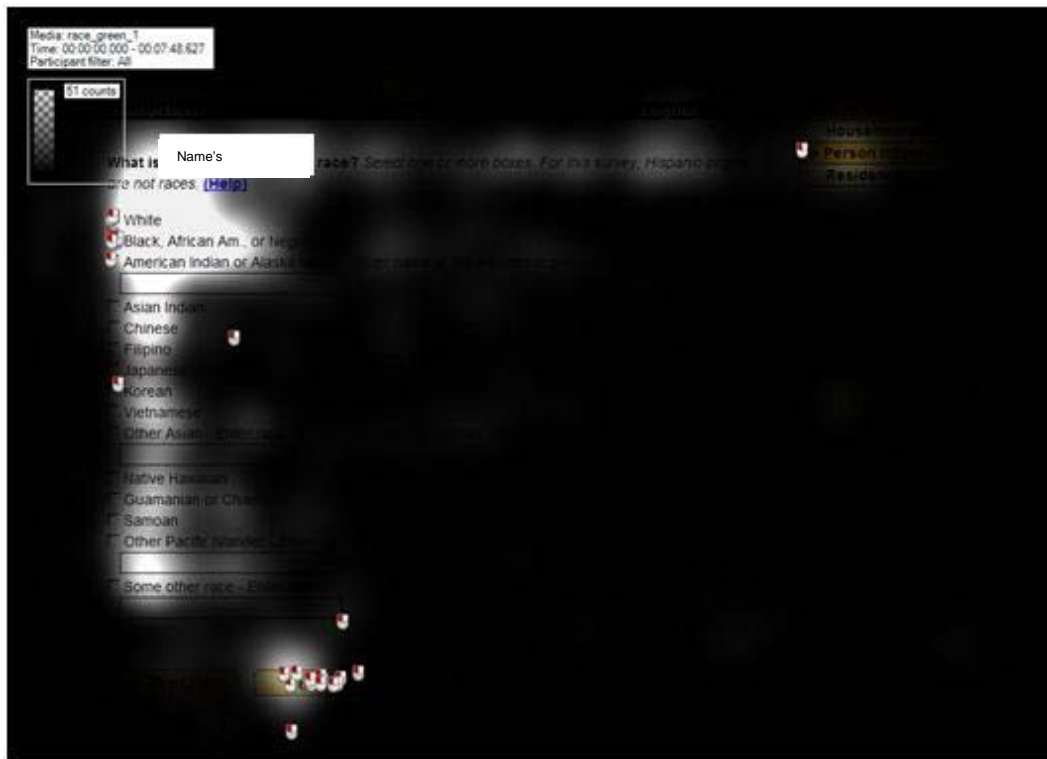


Figure 36. Gaze opacity screenshot of the first RACE screen with the name in black (n = 13)

With the 15 participants who received the second version of the question (name in green), the RACE screen showed a similar concentration of fixations around the first three responses. Some participants fixated upon the Progress Indicator, one participant tried to click the *Person Information* label, and at least one person fixated on the links at the top of the screen. See [Figure 37](#).

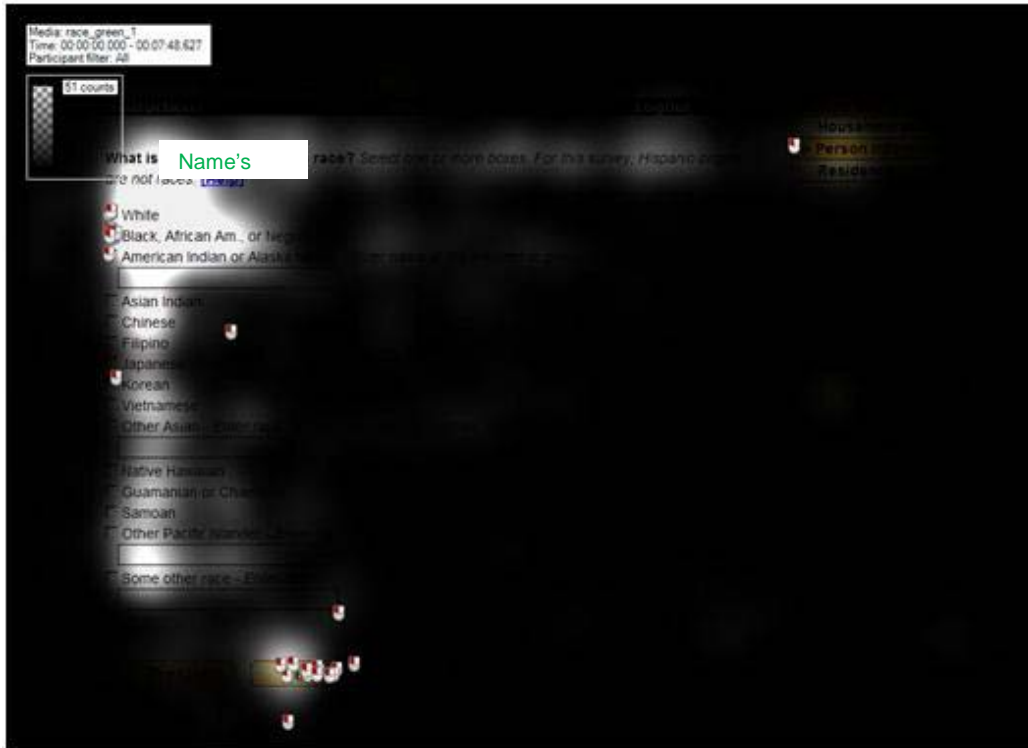


Figure 37. Gaze opacity screenshot of the first RACE screen with participants' name in green (n = 15)

6.5.6. ELSEWHERE Screen

Eye tracking data for 13 participants who received the first version of the ELSEWHERE screen (name in black) shown in [Figure 38](#), shows that the fixations were moderately spread across the question and response options. The distribution of the orange and yellow across the question stem may indicate that users have difficulty understanding the question. The distribution of the orange and red indicates that users fixated upon the response options multiple times before making a selection. This may be indicative of problems with the response options.

The fixation spread for participants who received the green variant of the live or stay question (n=15) shown in [Figure 39](#), resembled the fixation pattern seen for participants who received the black variant with one minor difference. The gaze opacity screenshot of version 2 (name in green) shows that most participants did not look at the Progress Indicator feature on the right.

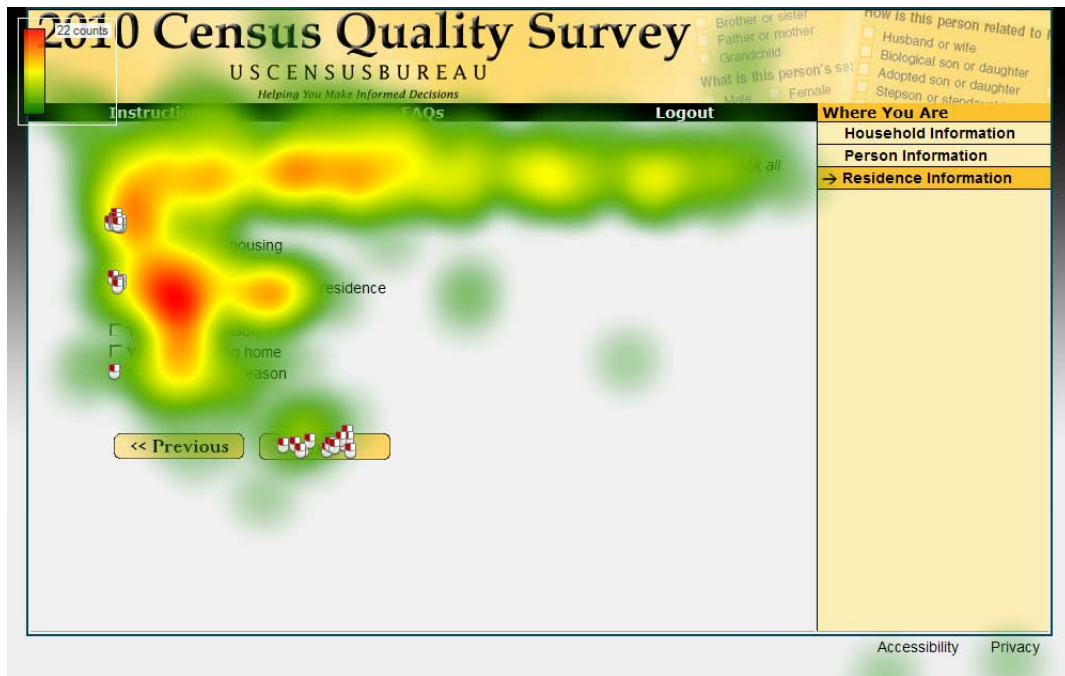


Figure 38. Heatmap of the first ELSEWHERE screen with the name in green (n = 13)

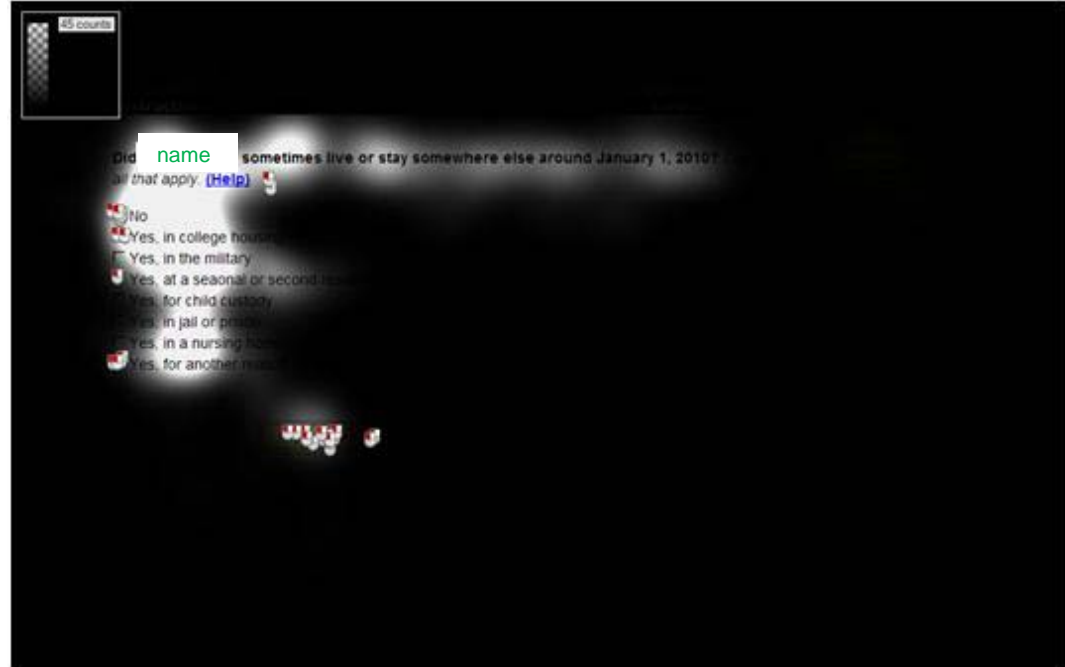


Figure 39. Gaze opacity screenshot of the first ELSEWHERE screen with the name in green (n = 15)

6.5.7. REVIEW screen

For all 28 participants, the eye tracking analysis shows that the majority of the participants' fixations focused on the submit button. The majority of participants submitted their answers without reviewing their responses. The gaze opacity screenshot in [Figure 40](#) shows that users had a higher number of fixations upon the submit button than the review answers button.

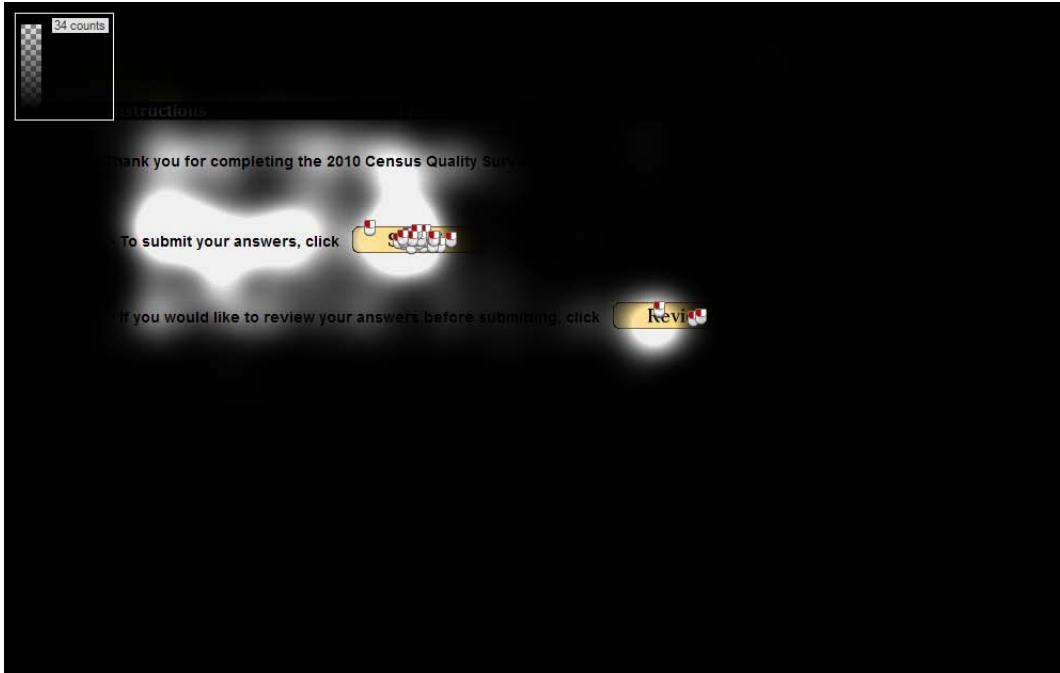


Figure 40. Gaze opacity screenshot of the REVIEW screen (n = 28)

6.5.8. THANK YOU screen

Eye-tracking data shown in [Figure 41](#) (n=28) revealed that the largest number of fixations concentrated around the word “submitted,” which indicates that participants may be searching for confirmation that their responses were received. Participants also fixated upon the accessibility and privacy links at the bottom-right corner of the Website. This may indicate that they were unsure of what to do once submitting their responses to the CQS. In addition, participants rarely fixated upon the accessibility and privacy links from earlier pages of the survey so some participants may be noticing these links for the first time.

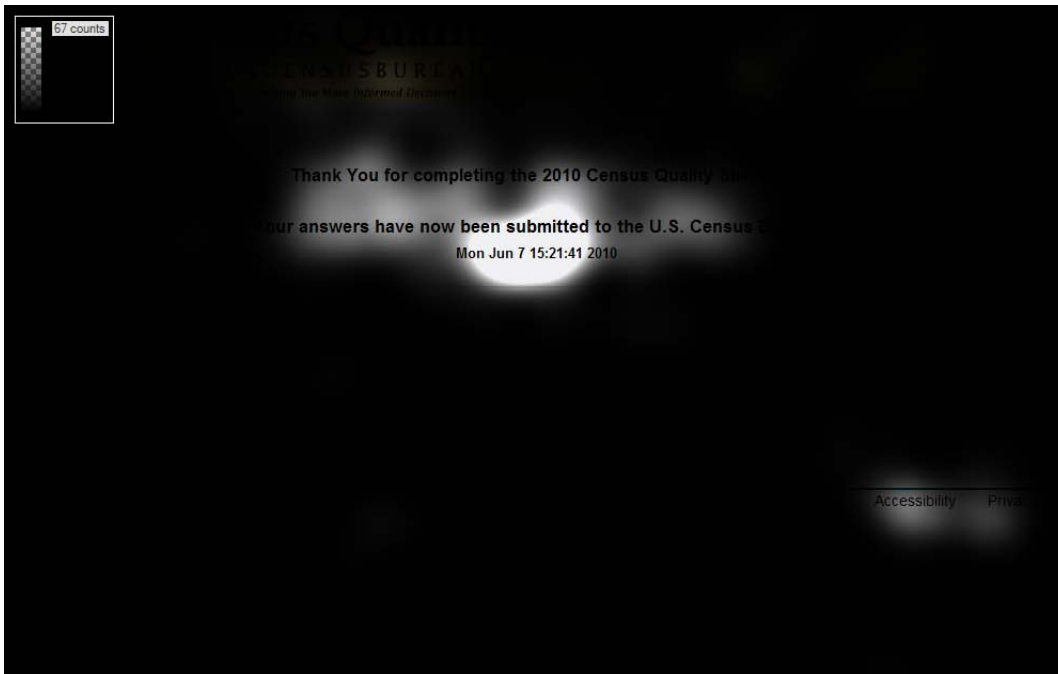


Figure 41. Gaze opacity screenshot of the THANKYOU screen (n = 28)

7.0 Summary

Overall, the CQS instrument performed very well during the two rounds of usability testing. Participants gave high satisfaction ratings and were able to complete the instrument fairly quickly. The most critical issues discovered during the testing included difficulty logging in, participants not disclosing information or falsifying information about other people who live with them, and participants finding some of the questions redundant. The latter two of these issues are not unique to the Internet mode of the CQS, but should be addressed in future survey testing.

In general, participants did not utilize the Help links even when they were experiencing difficulties responding to questions. It could be the case that they were not prominent enough on the screen to be noticed, or Internet users may just be reluctant to access Help text. When presented with large blocks of text, participants did not tend to read all of it, and instead skimmed through content on the page. Although the example access code was changed from 00000-00000 to #####-#####, participants still had difficulty entering the correct access codes into the login fields. Also, although participants did not understand the progress indicator's purpose, it did not interfere with their completion of the survey. Future testing should examine alternate forms of indicating progress in online surveys.

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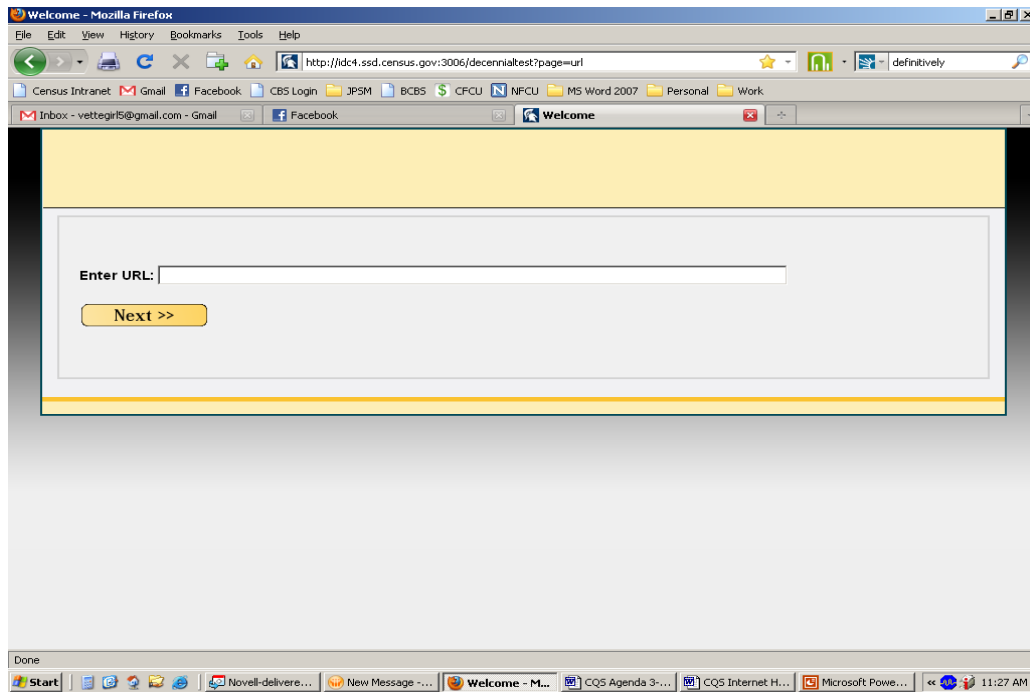
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Schloss, K. B. & Palmer, S. E. (2009). An ecological valence theory of human color preferences. *Journal of Vision*, 9 (8).

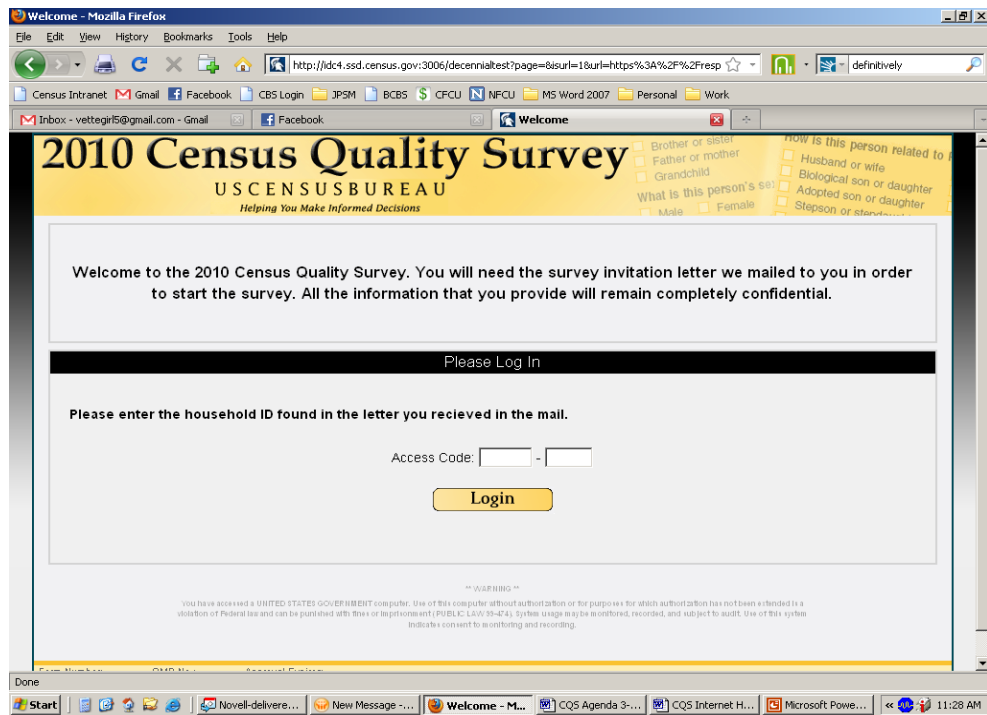
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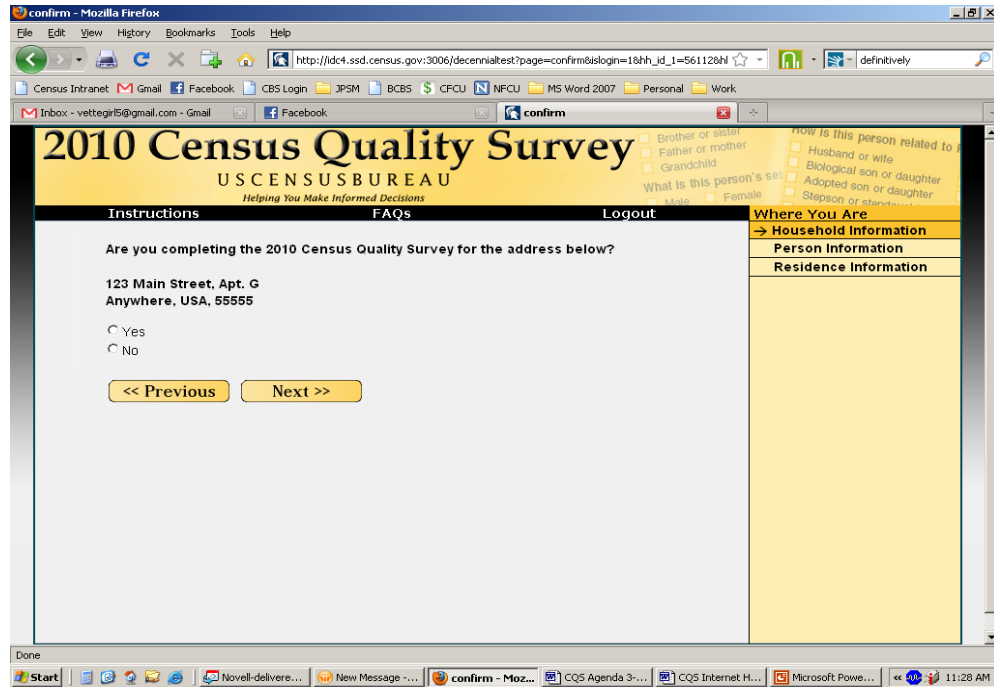
Appendix A: Screens From Round 1



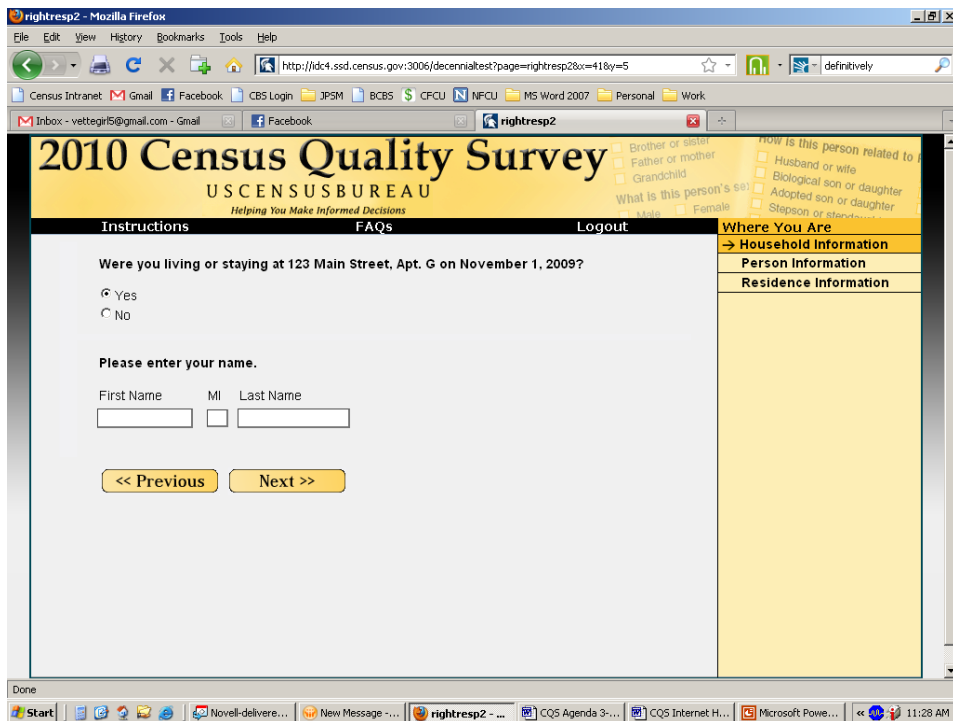
Enter URL Screen



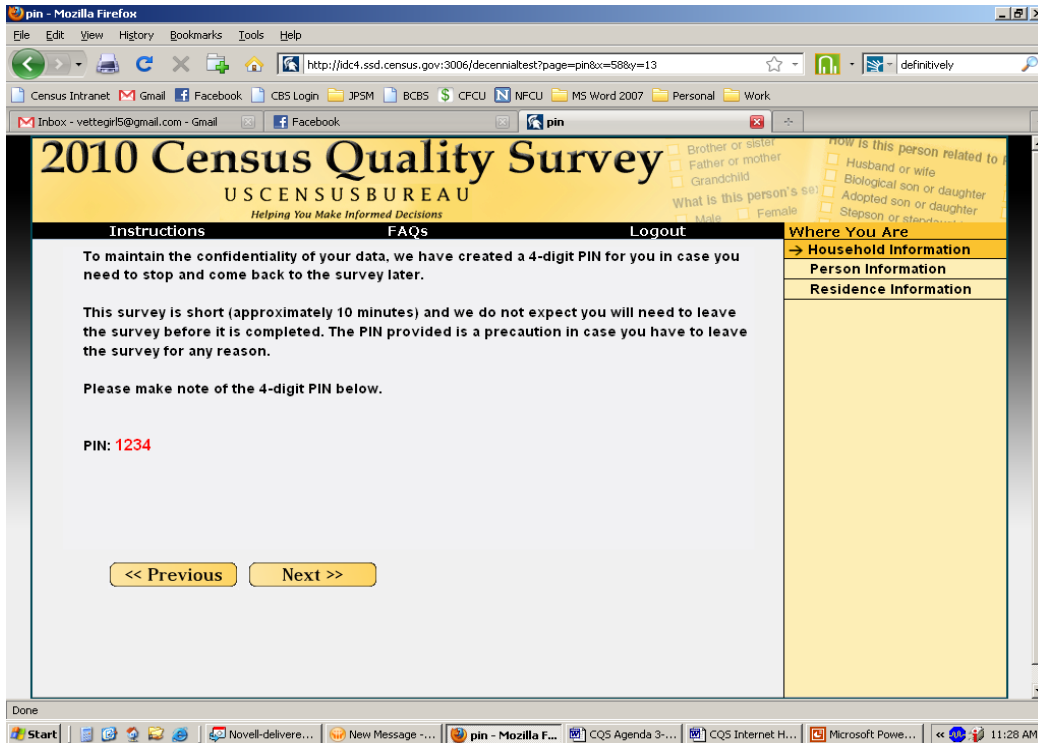
LOGIN Screen



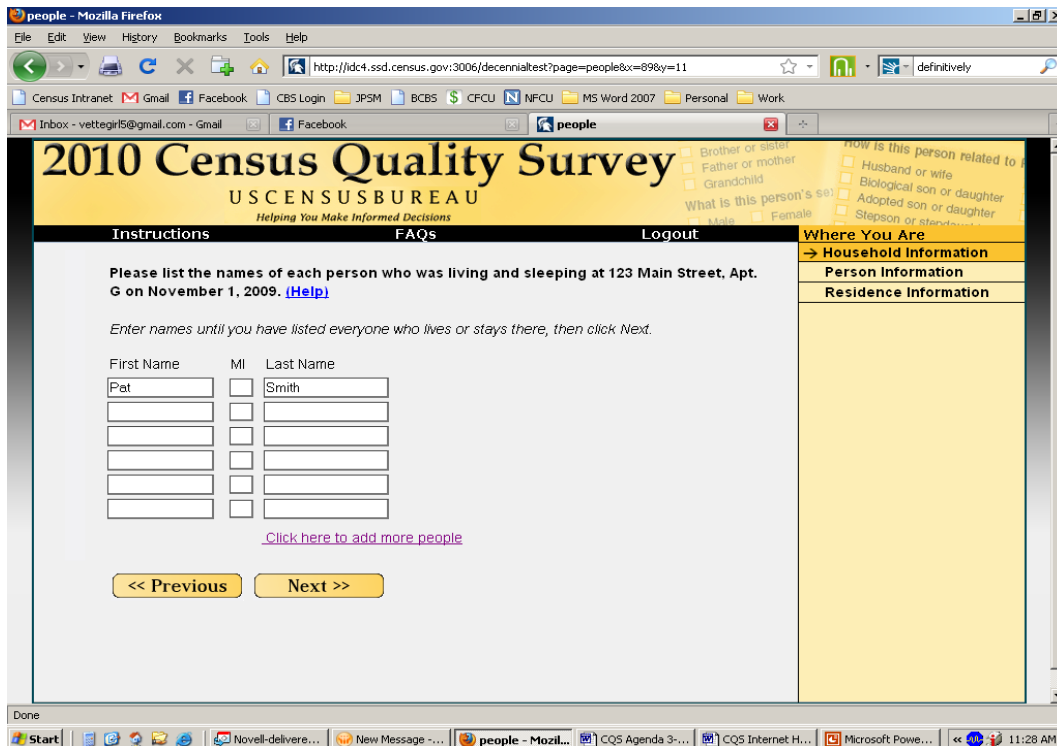
ADDRESS Screen



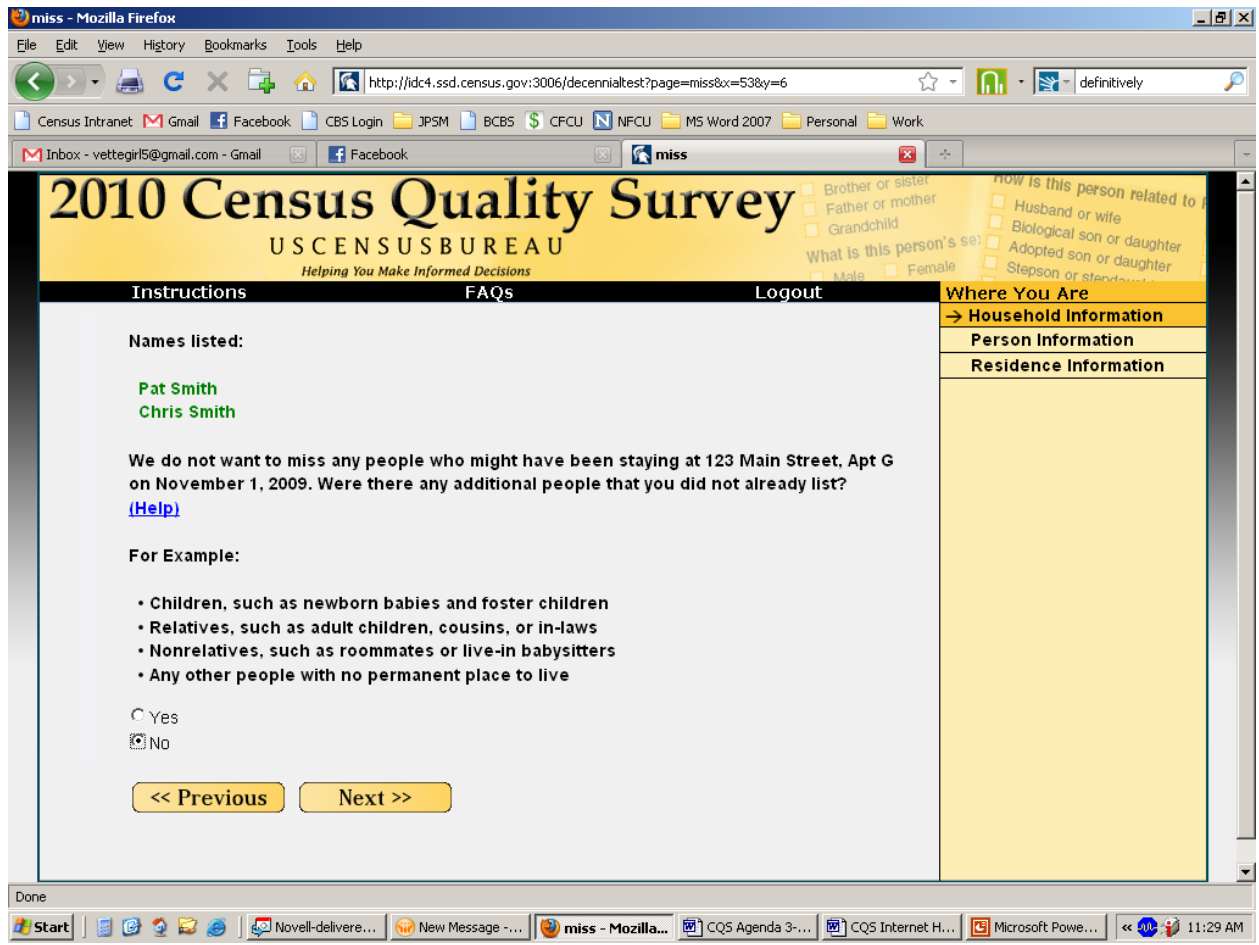
RIGHT_RESP (Right Respondent) Screen



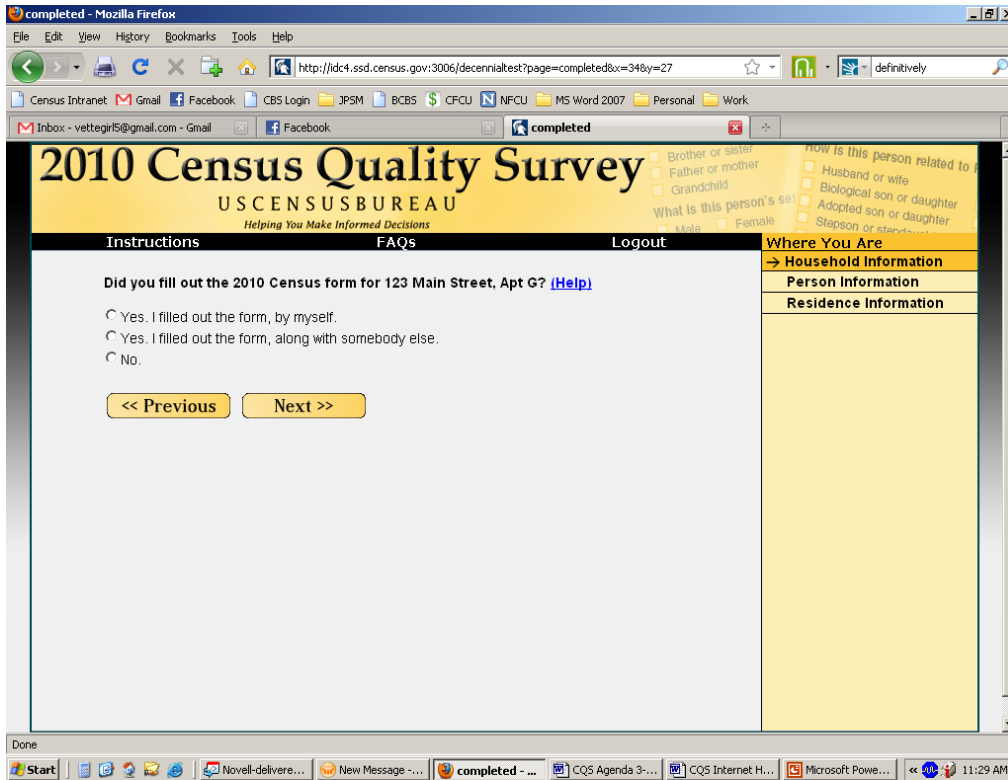
PIN Screen



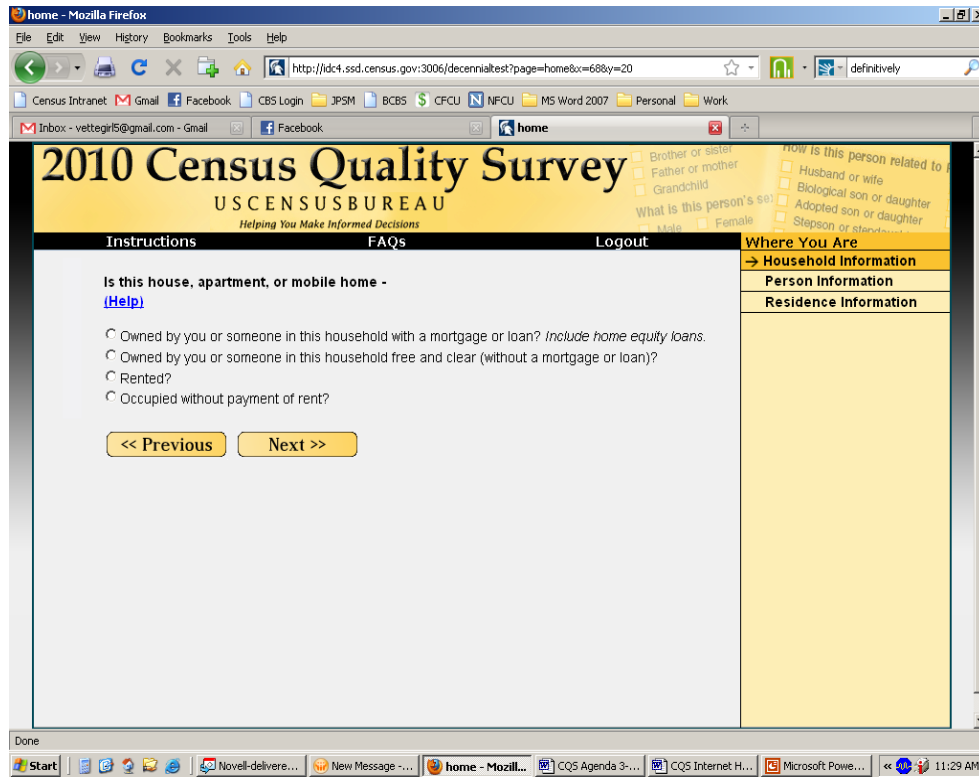
PEOPLE Screen



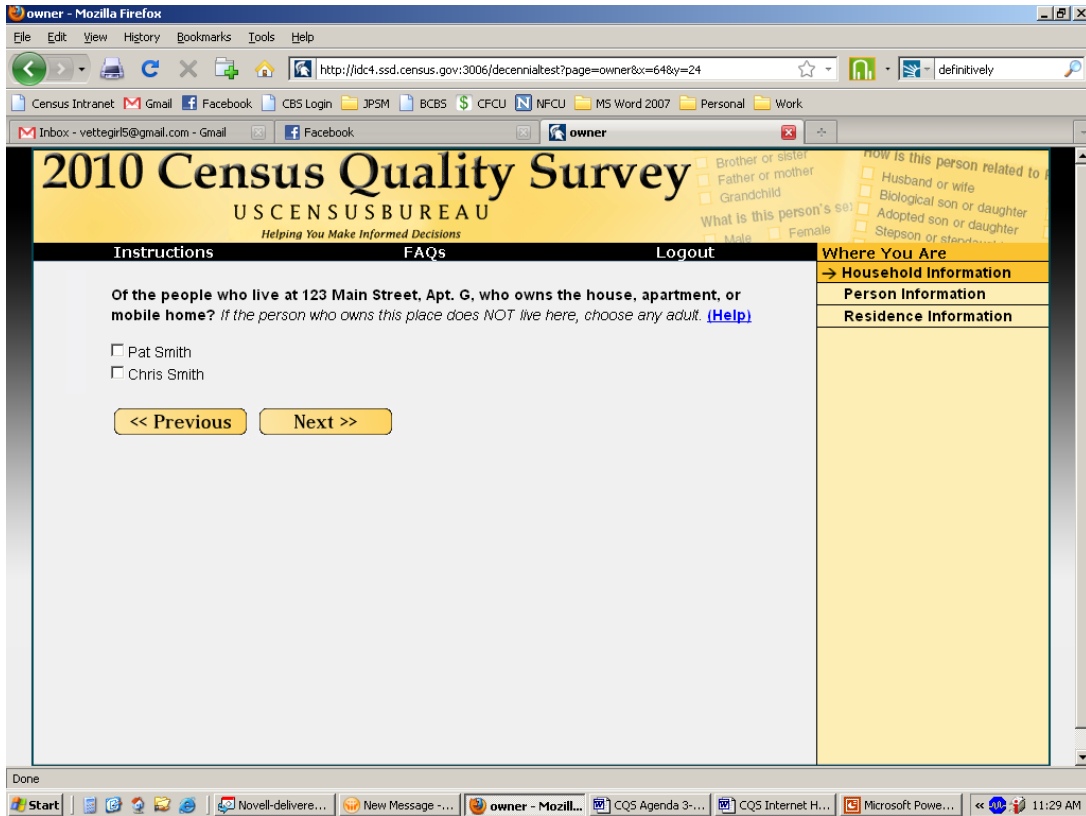
MISS Screen



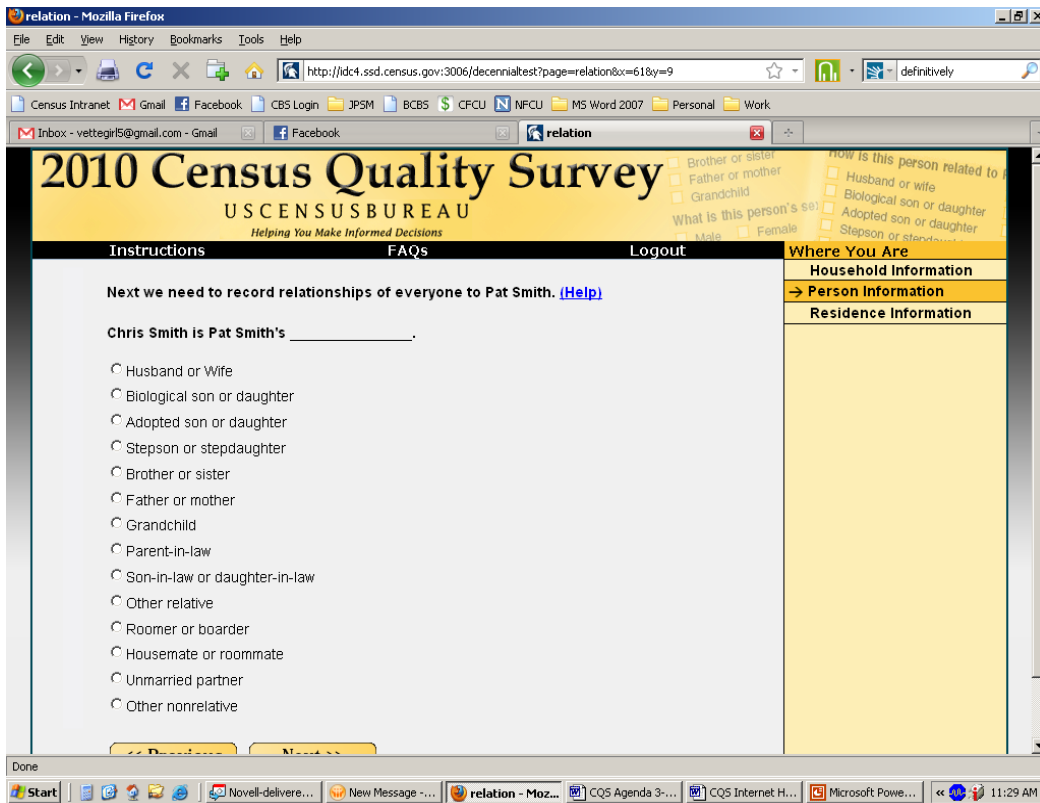
COMPLETED Screen



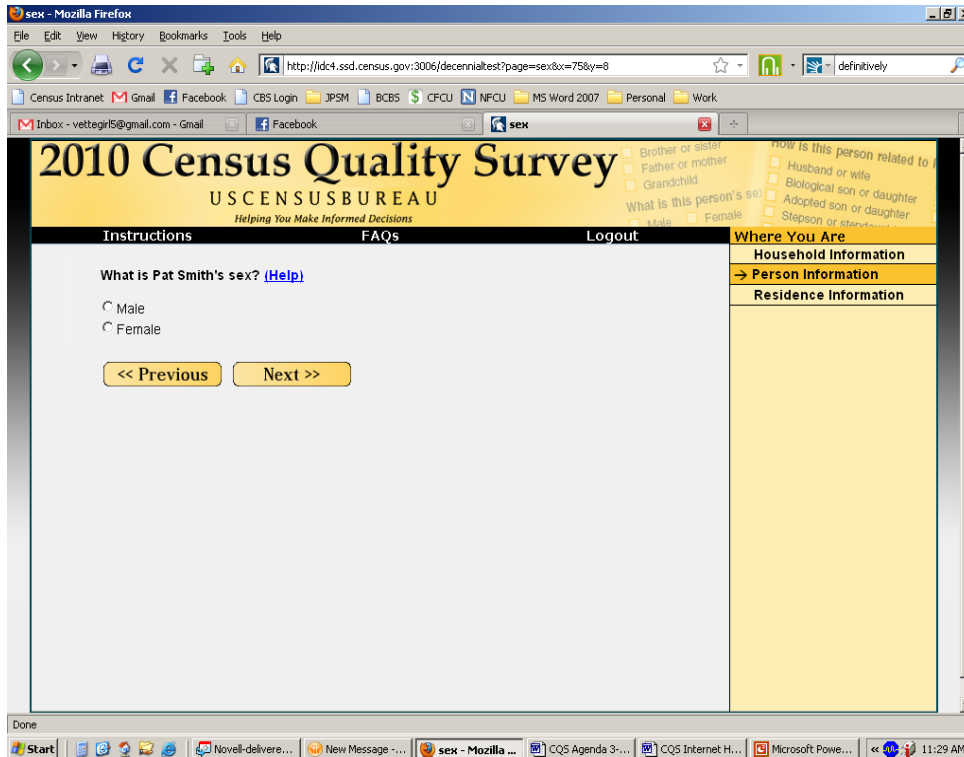
HOME (Ownership) Screen



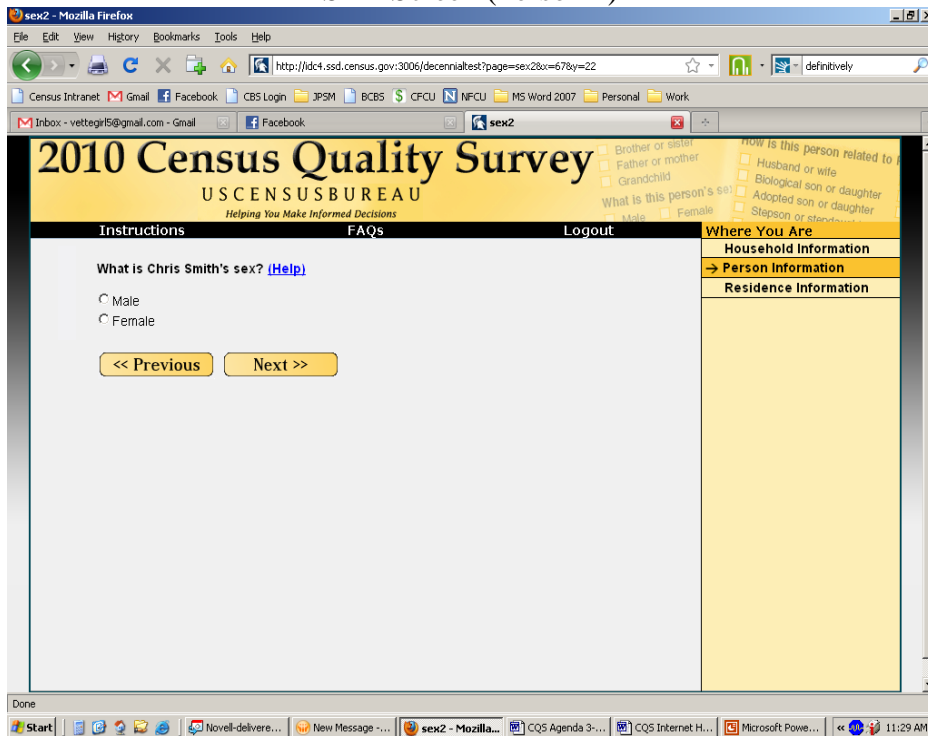
Owner Screen



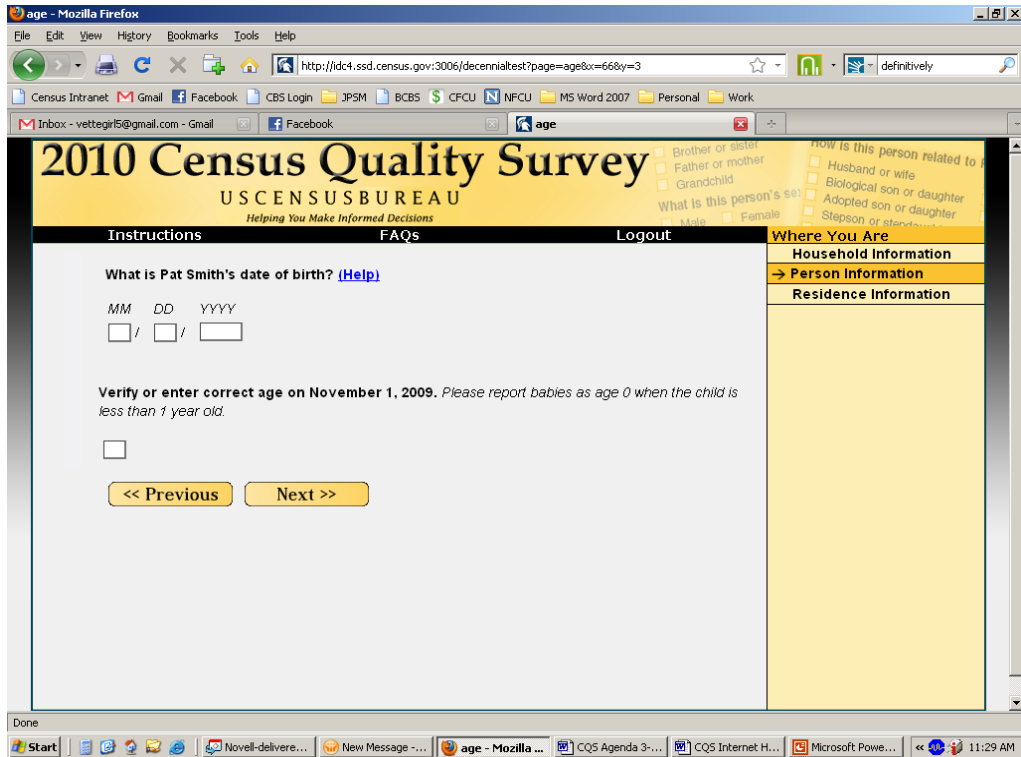
RELATIONSHIP Screen



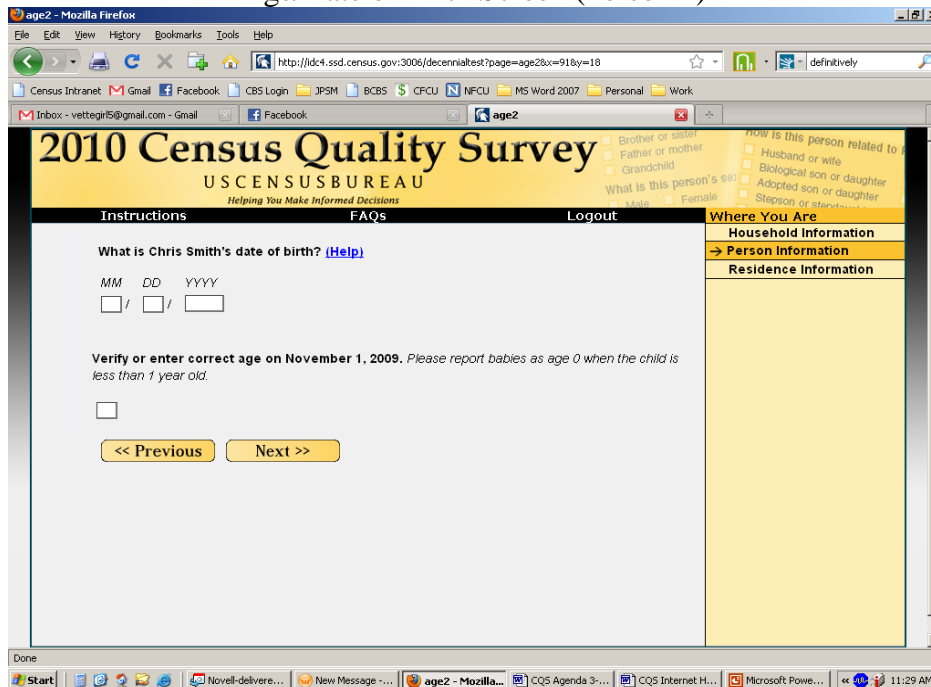
SEX Screen (Person 1)



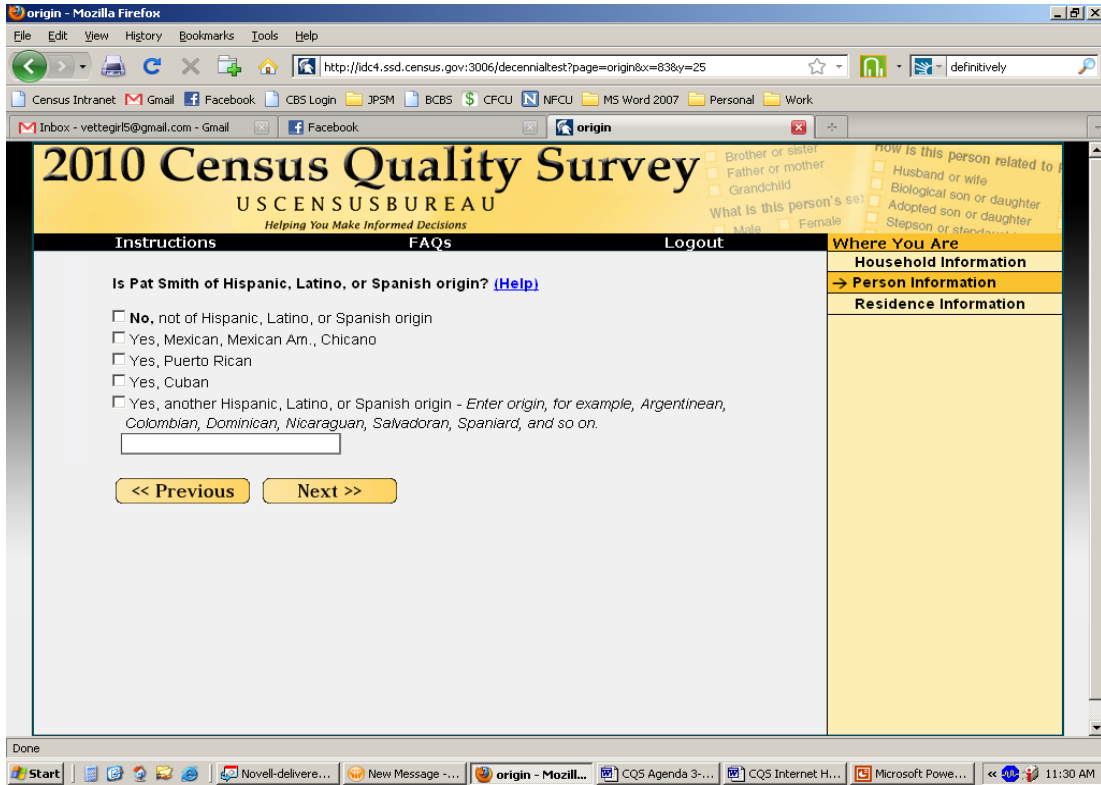
SEX Screen (Person 2)



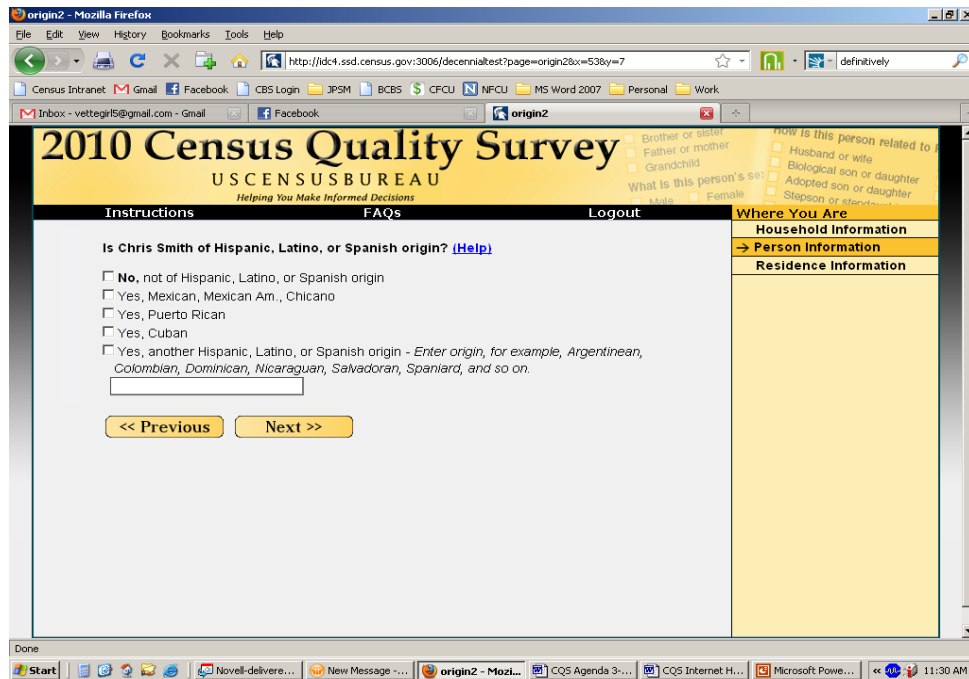
Age/Date of Birth Screen (Person 1)



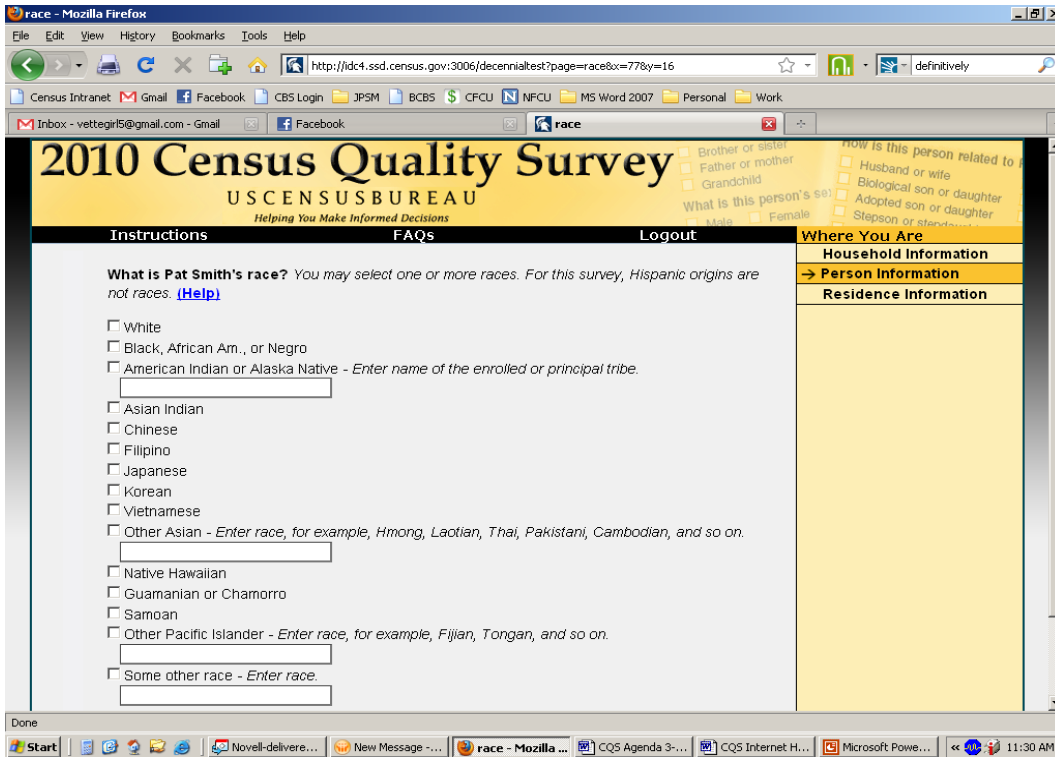
AGE/Date of Birth Screen (Person 2)



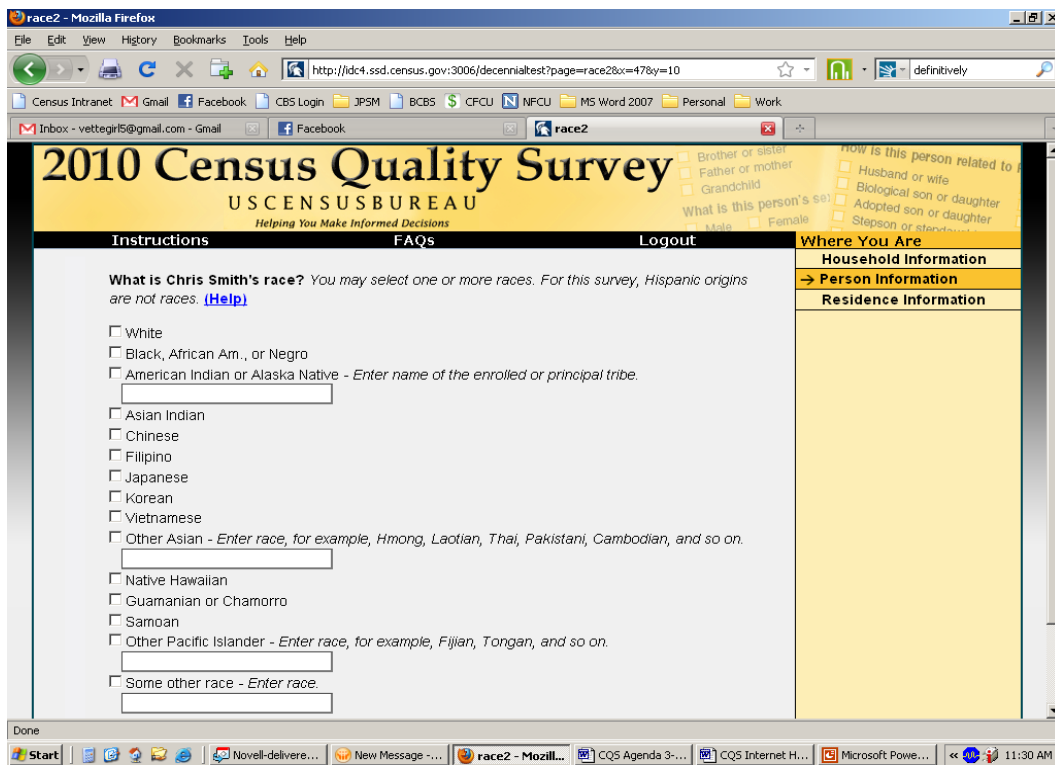
ORIGIN Screen (Person 1)



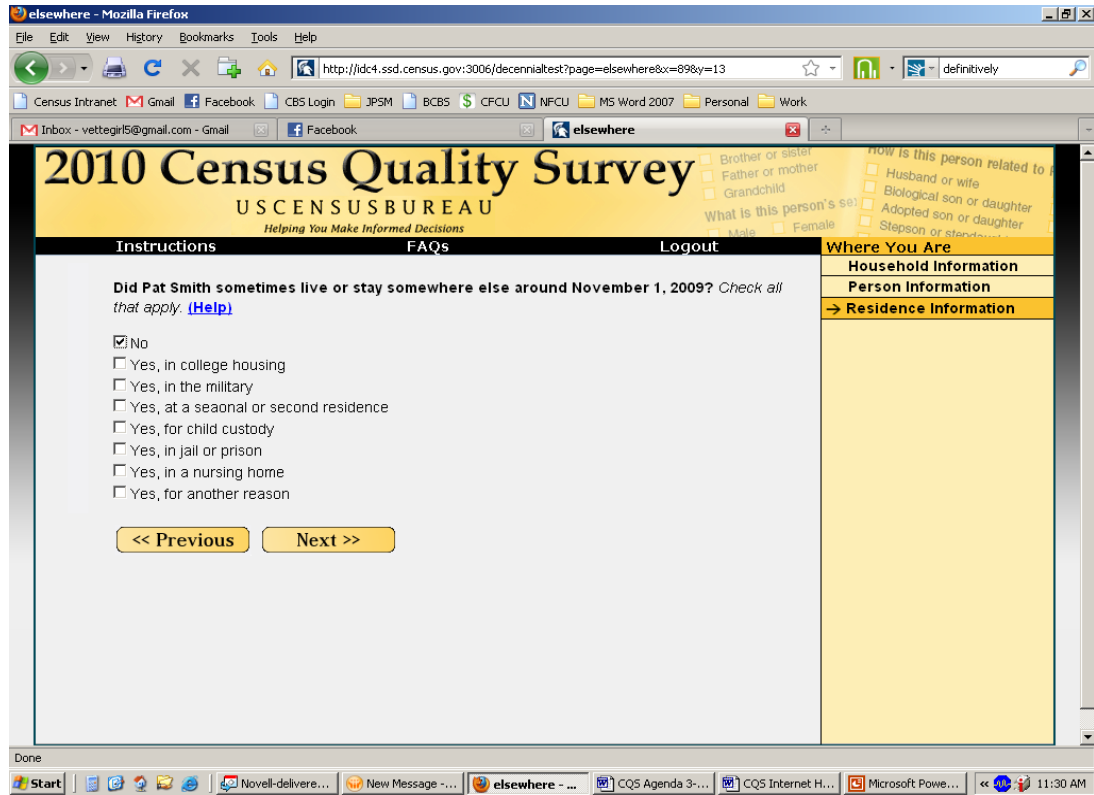
ORIGIN Screen (Person 2)



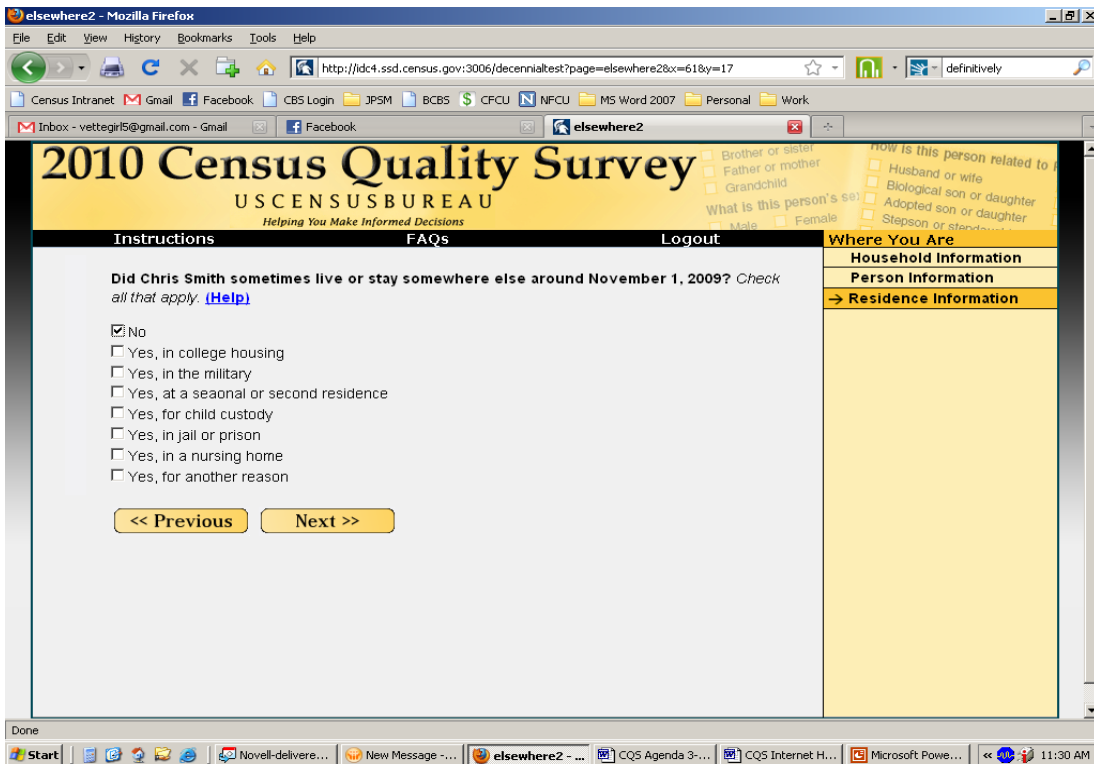
RACE Screen (Person 1)



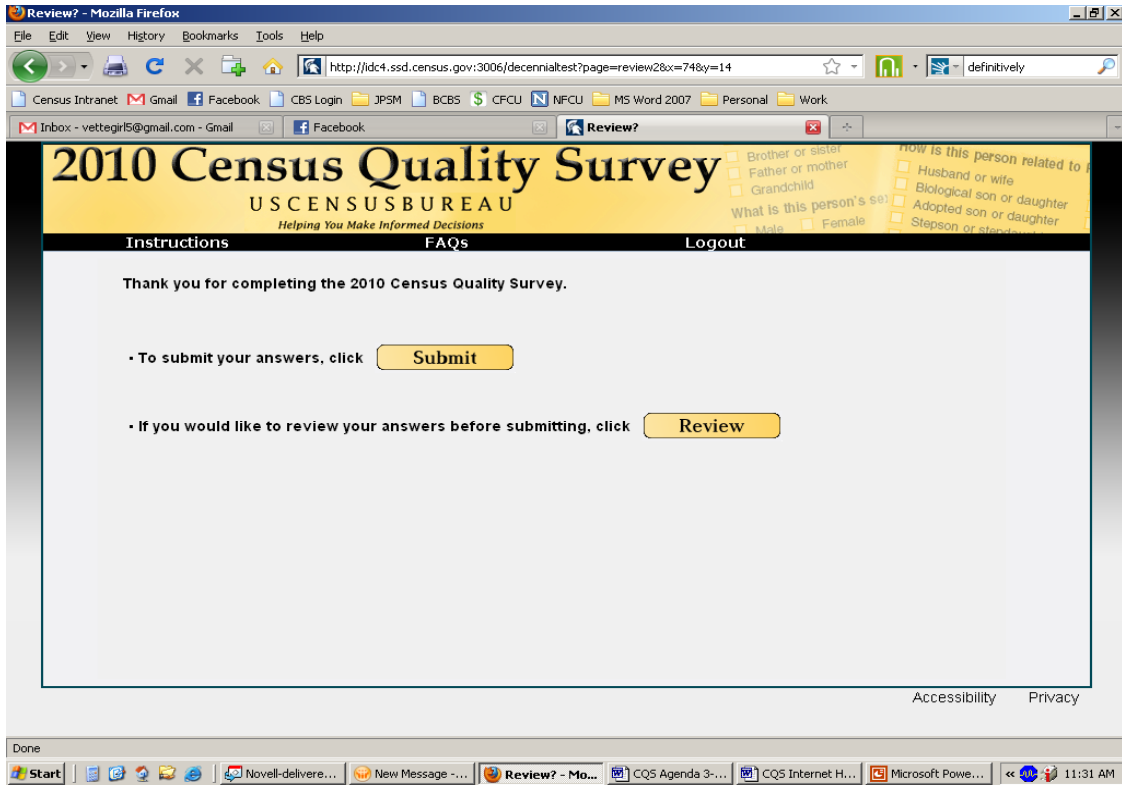
RACE Screen (Person 2)



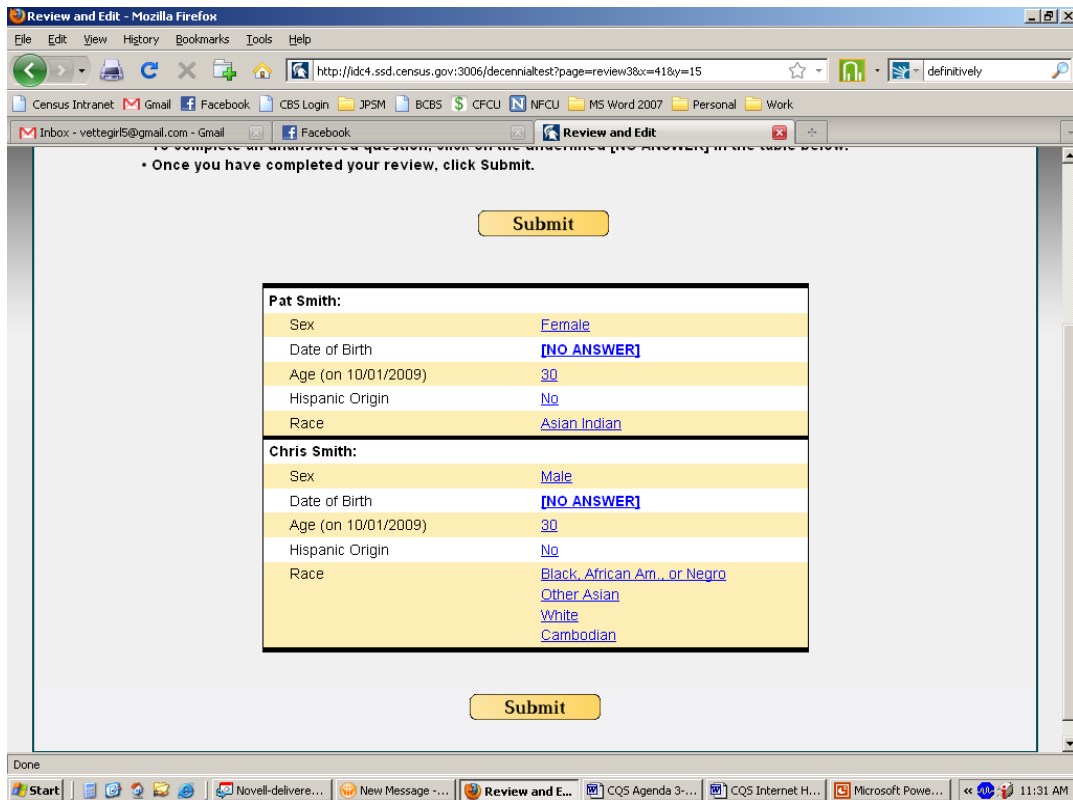
ELSEWHERE Screen Person 1



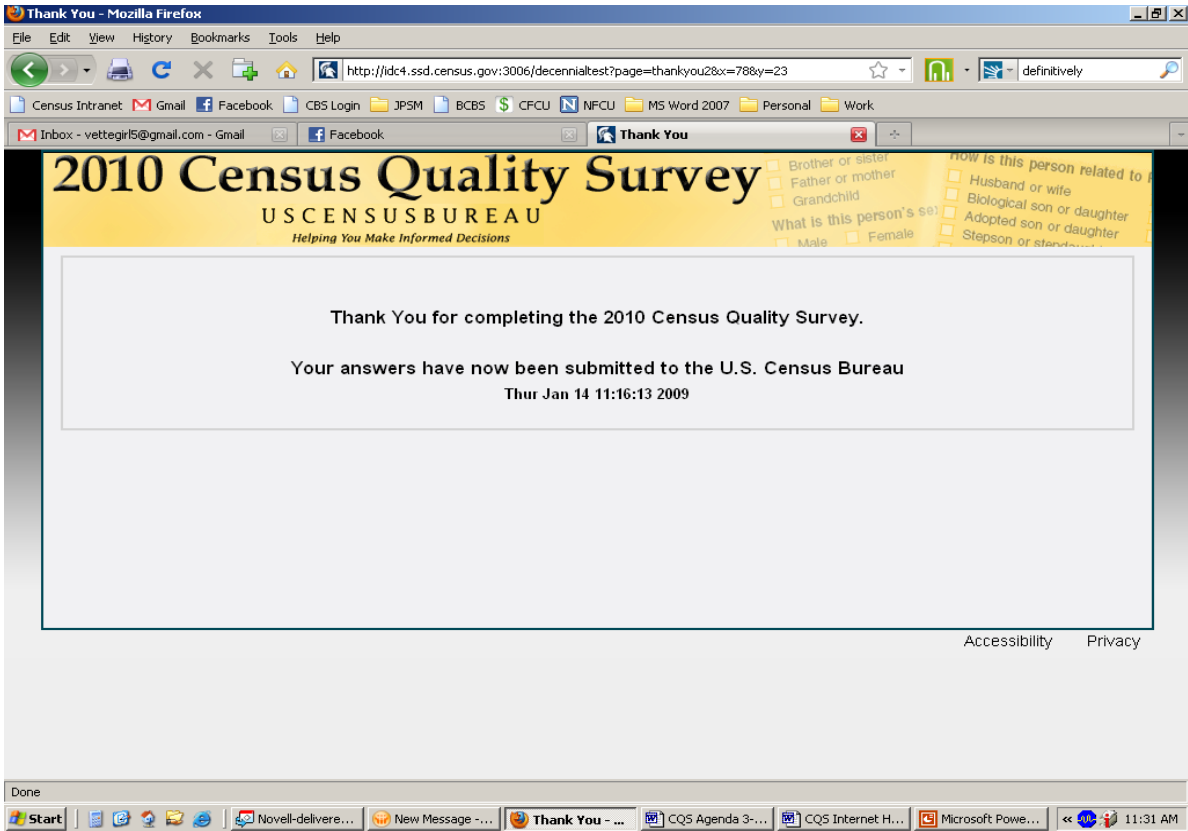
ELSEWHERE Screen (Person 2)



Submit/Review Screen



REVIEW Screen



THANK YOU Screen

Appendix B: Screens from Round 2

2010 Census Quality Survey

USCENSUSBUREAU
Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female

How is this person related to you?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter


Welcome to the 2010 Census Quality Survey. You will need the survey invitation we mailed to you in order to start the survey. All the information that you provide will remain completely confidential.

Please Log In

Please enter the 10-digit access code from your address label to begin the survey.

Access Code: -

Access Code → 00000-00000



*****AUTO*5-DIGIT 64011
TO RESIDENT AT
123 ANY STREET
ANY TOWN US 00123-9999

The U.S. Census Bureau estimates that, for the average household, this survey will take about 10 minutes to complete, including the time for reviewing the instructions and answers. Send comments regarding this burden estimate or any other aspect of this burden to: Paperwork Reduction Project 6607-0960-C, U.S. Census Bureau, AMS/D-3-138, 4600 Silver Hill Road, Washington, DC 20233. You may e-mail comments to: use "Paperwork Project 6607-0960-C" as the subject. Respondents are not required to respond to any information collection unless it displays a valid approval number from the Office of Management and Budget.

** WARNING **

You have accessed a UNITED STATES GOVERNMENT computer. Use of this computer without authorization or for purposes for which authorization has not been extended is a violation of Federal law and can be punished with fines or imprisonment (PUBLIC LAW 55-474). System usage may be monitored, recorded, and subject to audit. Use of this system indicates consent to monitoring and recording.

Form Number: D-1 R1 OMB No.: 0607-0960 Approval Expires: 09/30/2011

Accessibility Privacy

LOGIN Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

- Brother or sister
 - Father or mother
 - Grandchild
 - Husband or wife
 - Biological son or daughter
 - Adopted son or daughter
 - Stepson or stepdaughter
- What is this person's sex?
- Male
 - Female
- How is this person related to you?

Welcome to the 2010 Census Quality Survey. You will need the survey invitation we mailed to you in order to start the survey. All the information that you provide will remain completely confidential.

 Login failed. Please try again.

Please Log In

Please enter the 10-digit access code from your address label to begin the survey.

Access Code: -

Login

Access Code



00000-00000



*****AUTO*5-DIGIT 64011
TO RESIDENT AT
123 ANY STREET
ANY TOWN US 00123-9999

The U.S. Census Bureau estimates that, for the average household, this survey will take about 10 minutes to complete, including the time for reviewing the instructions and answers. Send comments regarding this burden estimate or any other aspect of this burden to: Paperwork Reduction Project 6607-0960-C, U.S. Census Bureau, AMSD-HK138, 4600 Silver Hill Road, Washington, DC 20233. You may e-mail comments to: use@paperworkproject.gov as the subject. Respondents are not required to respond to any information collection unless it displays a valid approval number from the Office of Management and Budget.

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Form Number: D-1 R1

OMB No.: 0607-0960

Approval Expires: 09/30/2011

Accessibility

Privacy

LOGIN (with failure message) Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

Welcome to the 2010 Census Quality Survey. You will need the survey invitation we mailed to you in order to start the survey. All the information that you provide will remain completely confidential.

Please Log In

Please enter the 10-digit access code from your address label to begin the survey. Please use the pin provided.

Access Code: -

PIN:

Login

Access Code



The U.S. Census Bureau estimates that, for the average household, this survey will take about 10 minutes to complete, including the time for reviewing the instructions and answers. Send comments regarding this burden estimate or any other aspect of this burden to: Paperwork Reduction Project 6607-0560-C, U.S. Census Bureau, AMSD-31138, 4600 Silver Hill Road, Washington, DC 20233. You may e-mail comments to: use@paperworkproject.gov as the subject. Respondents are not required to respond to any information collection unless it displays a valid approval number from the Office of Management and Budget.

** WARNING **

You have accessed a UNITED STATES GOVERNMENT computer. Use of this computer without authorization or for purposes for which authorization has not been extended is a violation of Federal law and can be punished with fines or imprisonment (PUBLIC LAW 95-474). System usage may be monitored, recorded, and subject to audit. Use of this system indicates consent to monitoring and recording.

Form Number: D-1 R1

OMB No.: 0607-0960

Approval Expires: 09/30/2011

Accessibility Privacy

LOGIN_AGAIN (with PIN) Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

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[Logout](#)

Where You Are

Are you completing the 2010 Census Quality Survey for the address below? [\(Help\)](#)

123 Any Street
Anywhere, USA, 55555

- Yes
- No

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→ Household Information

Person Information

Residence Information

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CONFIRM Screen

2010 Census Quality Survey

U S C E N S U S B U R E A U

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to you?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

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Where You Are

→ Household Information

Person Information

Residence Information

Were you living or staying at 123 Any Street on January 1, 2010? ([Help](#))

Yes

No

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ADDRESS Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

- Brother or sister
 - Father or mother
 - Grandchild
 - Husband or wife
 - Biological son or daughter
 - Adopted son or daughter
 - Stepson or stepdaughter
- What is this person's sex?
- Male
 - Female
- How is this person related to you?

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Where You Are

→ Household Information

Person Information

Residence Information

Were you living or staying at 123 Any Street on January 1, 2010?

- Yes
- No

Please enter your name.

First Name MI Last Name

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RIGHT_RESP (Right Respondent) Screen

2010 Census Quality Survey

U S C E N S U S B U R E A U

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to you?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

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Where You Are

→ Household Information

Person Information

Residence Information

Is there anyone living or staying at 123 Any Street now who was also there on January 1, 2010? ([Help](#))

- Yes
- No

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TIME Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

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Where You Are

[→ Household Information](#)

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[Residence Information](#)

Is there anyone who usually at 123 Any Street but was temporarily away on January 1, 2010, such as someone who was away at a seasonal or second residence? [\(Help\)](#)

Yes

No

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ADDAWAY Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to you?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

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Where You Are

→ Household Information

Person Information

Residence Information

To maintain the confidentiality of your data, you will need this PIN to return to the survey in case you leave the survey before submitting your data.

This survey will take approximately 10 minutes. You will be automatically logged off if your computer is idle for 15 minutes.

Please make note of the 4-digit PIN below.

PIN: 6673

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PIN Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to you?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

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Where You Are

→ Household Information

Person Information

Residence Information

Please list the names of each person who was living and sleeping at 123 Any Street on January 1, 2010. [\(Help\)](#)

Enter names until you have listed everyone who lives or stays there, then click Next.

First Name	MI	Last Name
Jane	M	Doe
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

[Click here to add more people](#)

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PEOPLE Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

How is this person related to you?
 Brother or sister
 Father or mother
 Grandchild
 Husband or wife
 Biological son or daughter
 Adopted son or daughter
 Stepson or stepdaughter
What is this person's sex?
 Male
 Female

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Where You Are

→ Household Information

Person Information

Residence Information

Names listed:

Jane M Doe
John N Doe
Jack O Doe

We do not want to miss any people who might have been staying at 123 Any Street on January 1, 2010. Were there any additional people that you did not already list?

[\(Help\)](#)

For Example:

- Children, such as newborn babies and foster children
- Relatives, such as adult children, cousins, or in-laws
- Nonrelatives, such as roommates or live-in babysitters
- Any other people with no permanent place to live

- Yes
 No

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MISS Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to you?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

Instructions

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Where You Are

→ Household Information

Person Information

Residence Information

Names listed:

Jane M Doe
John N Doe
Jack O Doe

List those additional people below. Enter names until you have listed everyone who lives or stays there, then click Next. [\(Help\)](#)

First Name	MI	Last Name
<input type="text"/>	<input type="checkbox"/>	<input type="text"/>
<input type="text"/>	<input type="checkbox"/>	<input type="text"/>
<input type="text"/>	<input type="checkbox"/>	<input type="text"/>

[Click here to add more people](#)

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STAY Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
How is this person related to
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter
What is this person's sex?
Male Female

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Where You Are

[→ Household Information](#)

[Person Information](#)

[Residence Information](#)

Did you fill out the 2010 Census form for 123 Any Street? ([Help](#))

- Yes. I filled out the form by myself.
- Yes. I filled out the form along with somebody else.
- No.

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COMPLETED Screen

2010 Census Quality Survey

U S C E N S U S B U R E A U

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to you?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

Instructions

FAQs

Logout

Where You Are

→ Household Information

Person Information

Residence Information

On January 1, 2010, was this house, apartment, or mobile home -

[\(Help\)](#)

- Owned by you or someone in this household with a mortgage or loan? *Include home equity loans.*
- Owned by you or someone in this household free and clear (without a mortgage or loan)?
- Rented?
- Occupied without payment or rent?

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Accessibility Privacy

HOME Screen

2010 Census Quality Survey

U S C E N S U S B U R E A U

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to you?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

Instructions

FAQs

Logout

Where You Are

→ Household Information

Person Information

Residence Information

Of the people who live at 123 Any Street, who owned the house, apartment, or mobile home on January 1, 2010. If none of the people below owned this place, choose any adult. [\(Help\)](#)

- Jane M Doe
- John N Doe
- Jack O Doe
- Baby B Doe

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Accessibility

Privacy

OWNER -OWNS Screen

2010 Census Quality Survey

U S C E N S U S B U R E A U

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

Instructions

FAQs

Logout

Where You Are

Of the people who live at 123 Any Street, who rented this house, apartment, or mobile home? If none of the people below rented this place, choose any adult. [\(Help\)](#)

- Jane M Doe
- John N Doe
- Jack O Doe
- Baby B Doe

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Household Information
Person Information
Residence Information

Accessibility Privacy

OWNER -RENTS Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to Jane M Doe?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

Instructions

FAQs

Logout

Where You Are

Household Information

→ Person Information

Residence Information

We need to record each persons relationship to Jane M Doe. [\(Help\)](#)

John N Doe is Jane M Doe's _____.

- Husband or Wife
- Biological son or daughter
- Adopted son or daughter
- Stepson or stepdaughter
- Brother or sister
- Father or mother
- Grandchild
- Parent-in-law
- Son-in-law or daughter-in-law
- Other relative
- Roomer or boarder
- Housemate or roommate
- Unmarried partner
- Other nonrelative

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Accessibility Privacy

RELATIONSHIP Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

What is this person's sex?
 Male Female

How is this person related to you?
 Brother or sister
 Father or mother
 Grandchild
 Husband or wife
 Biological son or daughter
 Adopted son or daughter
 Stepson or stepdaughter

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Where You Are

Household Information

→ Person Information

Residence Information

What is Jane M Doe's sex? ([Help](#))

- Male
 Female

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SEX Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to you?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

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Where You Are

Household Information

→ Person Information

Residence Information

What is Jane M Doe's date of birth? [\(Help\)](#)

MM DD YYYY
 / /

Verify or enter correct age on January 1, 2010. Please report babies as age 0 when the child is less than 1 year old.

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AGE Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
How is this person related to
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter
What is this person's sex?
Male Female

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Where You Are

Household Information

→ Person Information

Residence Information

Is Jane M 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, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.*

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ORIGIN Screen

2010 Census Quality Survey

US CENSUS BUREAU

Helping You Make Informed Decisions

- Brother or sister
- Father or mother
- Grandchild

What is this person's sex?

- Male
- Female

How is this person related to you?

- Husband or wife
- Biological son or daughter
- Adopted son or daughter
- Stepson or stepdaughter

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Where You Are

Household Information

→ Person Information

Residence Information

What is Jane M Doe's race? Select one or more boxes. For this survey, Hispanic origins are not races. [\(Help\)](#)

- White
- Black, African Am., or Negro
- American Indian or Alaska Native - Enter name of the enrolled or principal tribe.
- Asian Indian
- Chinese
- Filipino
- Japanese
- Korean
- Vietnamese
- Other Asian - Enter race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander - Enter race, for example, Fijian, Tongan, and so on.
- Some other race - Enter race.

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RACE Screen

2010 Census Quality Survey

U S C E N S U S B U R E A U

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
How is this person related to
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter
What is this person's sex?
Male Female

[Instructions](#)

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Where You Are

Household Information

Person Information

→ Residence Information

Did Jane M Doe sometimes live or stay somewhere else around January 1, 2010? Check all that apply [\(Help\)](#)

- No
- Yes, in college housing
- Yes, in the military
- Yes, at a seasonal or second residence
- Yes, for child custody
- Yes, in jail or prison
- Yes, in a nursing home
- Yes, for another reason

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ELSEWHERE Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild

What is this person's sex?
Male Female

How is this person related to you?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

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Where You Are

Household Information

Person Information

→ Residence Information

Please provide the full address of the other place where Jane M Doe sometimes lived or stayed: [\(Help\)](#)

The address is outside of the United States.

Address (Number and street name)

Name of city

Name of U.S. state

Zip Code

If there is no street address or if this is a facility, please type a description in the box below.

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FULLSTAY Screen

2010 Census Quality Survey

U S C E N S U S B U R E A U

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to you?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

[Instructions](#)

[FAQs](#)

[Logout](#)

Where You Are

Household Information

Person Information

→ Residence Information

Where did Jane M Doe live or stay most of the time around January 1, 2010? ([Help](#))

- 123 Any Street
- 222 Secondary Address
- Both places equally
- Neither of these places

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MOST Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

What is this person's sex?
Male Female

How is this person related to you?
Brother or sister
Father or mother
Grandchild
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

[Instructions](#)

[FAQs](#)

[Logout](#)

Where You Are

Household Information

Person Information

→ Residence Information

On January 1, 2010, where was Jane M Doe staying? ([Help](#))

- 123 Any Street
- 222 Secondary Address
- Neither of these places

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WHERE Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

What is this person's sex?
 Male Female

How is this person related to you?
 Brother or sister
 Father or mother
 Grandchild
 Husband or wife
 Biological son or daughter
 Adopted son or daughter
 Stepson or stepdaughter

[Instructions](#)

[FAQs](#)

[Logout](#)

Thank you for completing the 2010 Census Quality Survey.

• To submit your answers, click

[Submit](#)

• If you would like to review your answers before submitting, click

[Review](#)

[Accessibility](#) [Privacy](#)

REVIEW2 Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
How is this person related to
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter
What is this person's sex?
Male Female

[Instructions](#)

[FAQs](#)

[Logout](#)

Review & Edit

- To change a response, click on the underlined answer in the table below.
- To complete an unanswered question, click on the underlined [NO ANSWER] in the table below.
- Once you have completed your review, click **Submit**.

Submit

Jane M Doe:	
Sex	<u>Female</u>
Date of Birth	<u>[NO ANSWER]</u>
Age (on 10/01/2009)	<u>[NO ANSWER]</u>
Hispanic Origin	<u>No, not of Hispanic, Latino, o...</u>
Race	<u>White</u>
John N Doe:	
Sex	<u>Male</u>
Date of Birth	<u>[NO ANSWER]</u>
Age (on 10/01/2009)	<u>[NO ANSWER]</u>
Hispanic Origin	<u>Yes, Puerto Rican</u>
Race	<u>Chinese</u>

REVIEW3 Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

- Brother or sister
 - Father or mother
 - Grandchild
 - Husband or wife
 - Biological son or daughter
 - Adopted son or daughter
 - Stepson or stepdaughter
- What is this person's sex?
 Male Female

Thank You for completing the 2010 Census Quality Survey.

Your answers have now been submitted to the U.S. Census Bureau

Thu Jun 3 14:34:46 2010

[Accessibility](#) [Privacy](#)

THANKYOU Screen

2010 Census Quality Survey

US CENSUS BUREAU

Helping You Make Informed Decisions

- Brother or sister
 - Father or mother
 - Grandchild
 - Husband or wife
 - Biological son or daughter
 - Adopted son or daughter
 - Stepson or stepdaughter
- What is this person's sex?
 Male Female

You do not need to complete this survey at this time.

Thank You.

[Accessibility](#) [Privacy](#)

NOCOMPLETE Screen

2010 Census Quality Survey

USCENSUSBUREAU

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
How is this person related to you?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter
What is this person's sex?
Male
Female

[Instructions](#)

[FAQs](#)

[Logout](#)

Are you sure you want to log out?

If you leave now you will not be able to log in again without your PIN number.

- If you do not want to leave the survey, click [Continue](#)
- If you want to log out, click [Logout](#)

[Accessibility](#) [Privacy](#)

REALLYLOGOUT Screen

2010 Census Quality Survey

U S C E N S U S B U R E A U

Helping You Make Informed Decisions

Brother or sister
Father or mother
Grandchild
What is this person's sex?
Male Female
How is this person related to you?
Husband or wife
Biological son or daughter
Adopted son or daughter
Stepson or stepdaughter

Instructions

FAQs

Logout

Where You Are

→ Household Information

Person Information

Residence Information



Please provide an answer to the question.

Did you fill out the 2010 Census form for 123 Any Street? [\(Help\)](#)

- Yes. I filled out the form by myself.
- Yes. I filled out the form along with somebody else.
- No.

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Accessibility Privacy

Error Message (Example)

Appendix C: Protocol for Testing the Census Quality Survey Web Survey

Thank you for your time today. My name is XX. I work here with the Human Factors and Usability group and I will be working with you today. We will be evaluating the design of the online Census Quality 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.

I would like you to tell me your impressions and thoughts about the screens as you look at them. In other words, I would like you to "think aloud" and talk to me about your impressions. If you expect to see some piece of information or expect something to happen, tell me whether or not it was met.

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. Go to a common Web

site like www.espn.com or yahoo news 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?

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 123 Any Street in Anytown, US.

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. 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.

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 P 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.

Appendix D: Consent Form



Consent Form

Usability Evaluation of the CQS Internet Survey

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 and online surveys, in order to obtain the best information possible.

You have volunteered to take part in a study to improve the usability of the CQS Internet Survey. 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. 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.

Participant's Name

Researcher's Name

Date

Date

Appendix E: Questionnaire on Computer Use, Internet Experience, and Demographics

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
- Other _____
- Don't know

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.

	No experience					Very experienced			
Computers	1	2	3	4	5	6	7	8	9
Internet	1	2	3	4	5	6	7	8	9

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.

	Comfortable			Not Comfortable	
6. How <i>comfortable</i> are you in learning to navigate new Web sites?	1	2	3	4	5

Appendix F: Questionnaire for User Interaction Satisfaction (QUIS)

Please circle the numbers that most appropriately reflect your impressions about using the CQS 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 G: CQS Internet Test Debriefing Questions

After the participant is finished with completing the survey, begin the debriefing questions. Review their responses to QUIS and probe about any drastic scores.

What was your overall impression of the survey?

What are some things that you liked about the design?

What are some things that you disliked about the design?

Is there anything about the design that you didn't understand?

How does this survey compare to the Web surveys that you have taken in the past in terms of visual appeal?

Do you have any additional comments?

Pull up each screen and allow the participant to look at each screen as you ask questions about it.

<http://idc4.ssd.census.gov:3006/decennial>

Login Screen

Did you have any difficulty finding the access code?

Did you have any difficulty entering the access code?

Did you notice the warning message at the bottom of the screen? If not, please read it now. In your own words, what is this message telling you?

2010 Census Quality Survey
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Welcome to the 2010 Census Quality Survey. You will need the survey invitation letter we mailed to you in order to start the survey. All the information that you provide will remain completely confidential.

Please Log In

• Please enter the household ID found in the letter you received in the mail.

Household ID: -

Login

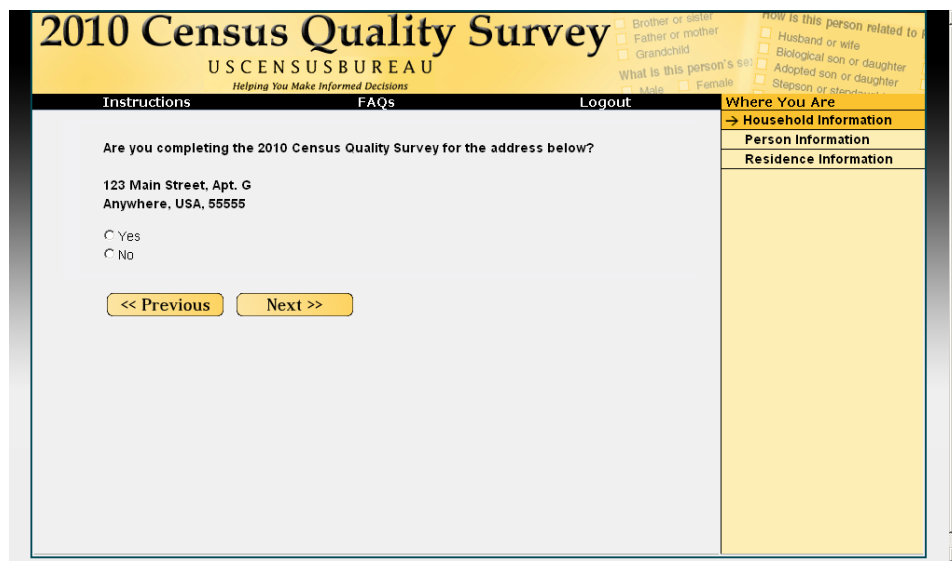
WARNING
You have accessed a UNITED STATES GOVERNMENT computer. Use of this computer without authorization or for purposes for which authorization has not been extended is a violation of Federal law and can be punished with fines or imprisonment (PUBLIC LAW 99-474). System usage may be monitored, recorded, and subject to audit. Use of this system indicates consent to monitoring and recording.
Notice: To improve your experience with our site and to provide the best service possible, we may perform additional monitoring of how you use this site. Click [here](#) for more information.

Address Verification <confirm>

Did you notice that a new feature appeared on the right side of this screen?

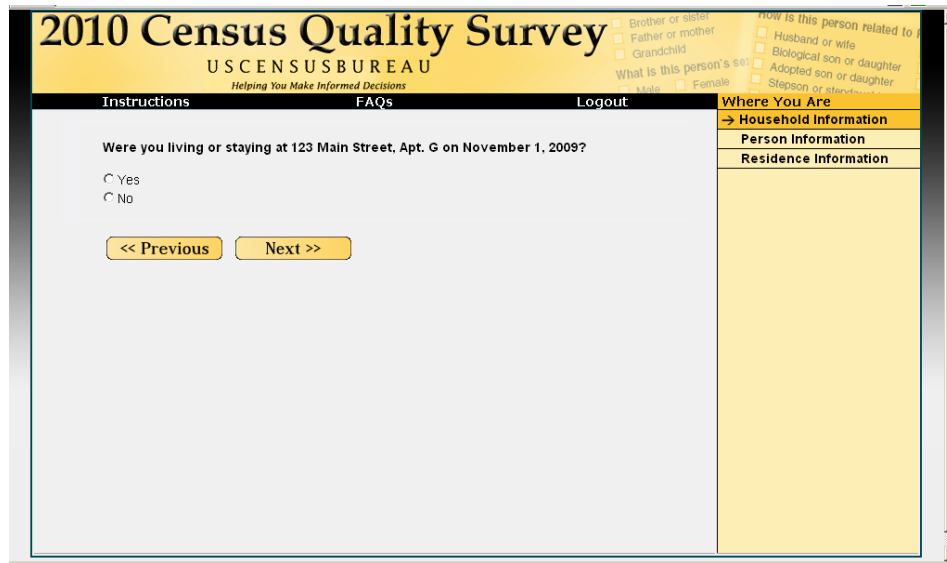
If YES: What did you think was the purpose of this feature? If they say “It tells me where I am” (mimicking the label), ask, “Could you say a little bit more about what that means to you?”

If NO: What do you think would be the purpose for this kind of feature?

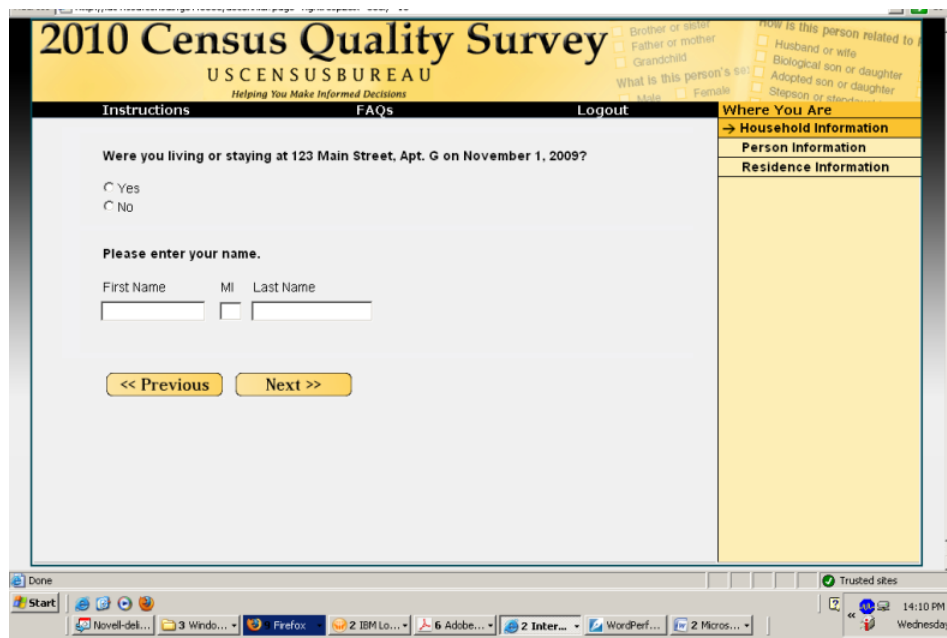


Right Respondent 1 <address>

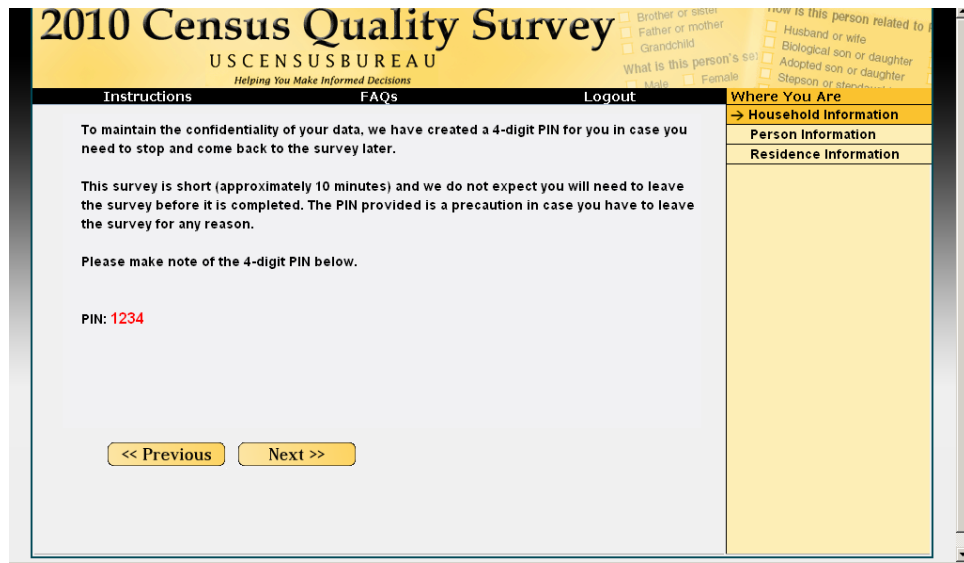
They should say yes to the living or staying there.



Right Respondent 2 <right_resp>



PIN Creation <PIN>



Why did the survey generate this PIN for you?

Did you realize that you needed to make a note of the PIN given to you here in order to access the survey at a later time in case you were not able to finish it during this session?

Do you usually write down PINs that are provided to you?

IF YES: Where do you keep the PIN?

IF NO: Why not?

Do you think there is a way to retrieve the PIN if you forget it?

Do you think there is a way to re-enter the survey without your PIN?

People

In your own words, what does "living and sleeping" mean to you in this question?

What time frame did you use to answer this question? [specific day vs. general time]

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Instructions FAQs Logout

Please list the names of each person who was living and sleeping at 123 Main Street, Apt. G on November 1, 2009. [\(Help\)](#)

Enter names until you have listed everyone who lives or stays there, then click Next.

First Name	MI	Last Name
<input type="text"/>	<input type="checkbox"/>	<input type="text"/>
<input type="text"/>	<input type="checkbox"/>	<input type="text"/>
<input type="text"/>	<input type="checkbox"/>	<input type="text"/>
<input type="text"/>	<input type="checkbox"/>	<input type="text"/>
<input type="text"/>	<input type="checkbox"/>	<input type="text"/>

[Click here to add more people](#)

<< Previous Next >>

Where You Are

- Household information
- Person Information
- Residence Information

Missing People

Did you read the list of examples above the response options?

What did you think this question was asking about?

2010 Census Quality Survey
USCENSUSBUREAU
Helping You Make Informed Decisions

Instructions FAQs Logout

Names listed:

- Te E. Ve
- Jason O. Doedoon
- Cassandrianna M. Smithjohnsons

We do not want to miss any people who might have been staying at 123 Main Street, Apt G on November 1, 2009. Were there any additional people that you did not already list? [\(Help\)](#)

For Example:

- Children, such as newborn babies and foster children
- Relatives, such as adult children, cousins, or in-laws
- Nonrelatives, such as roommates or live-in babysitters
- Any other people with no permanent place to live

Yes
 No

<< Previous Next >>

Where You Are

- Household information
- Person Information
- Residence Information

Note: The "Temp" screen is no longer valid and has been deleted.

Did you fill out the form? <completed>

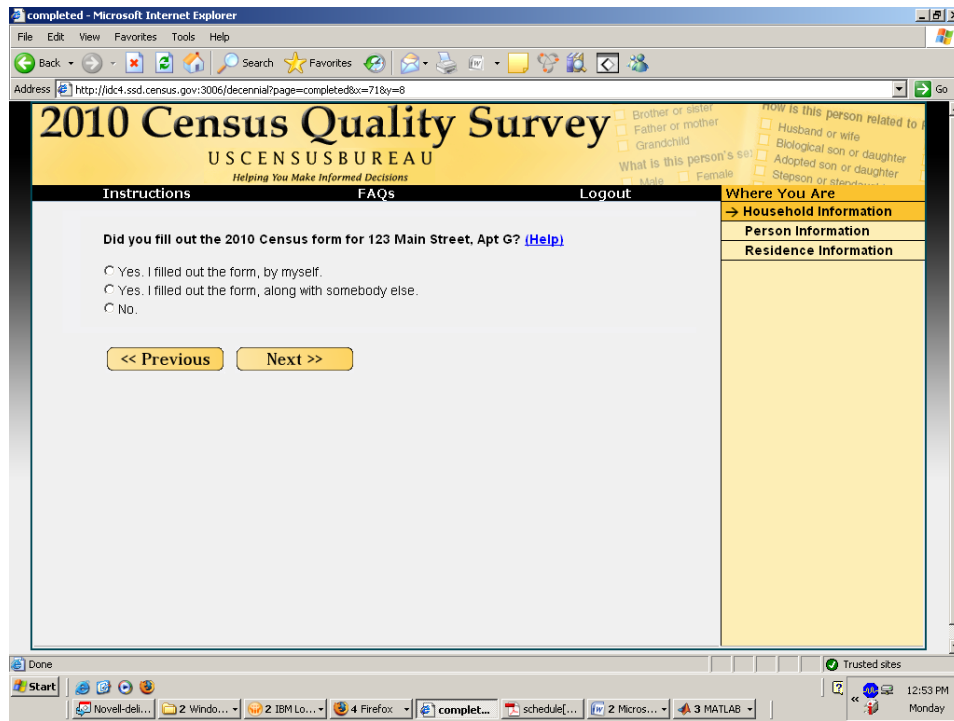
In your own words, what do you think this question was asking you?

Did you notice the "Help" link that followed the question?

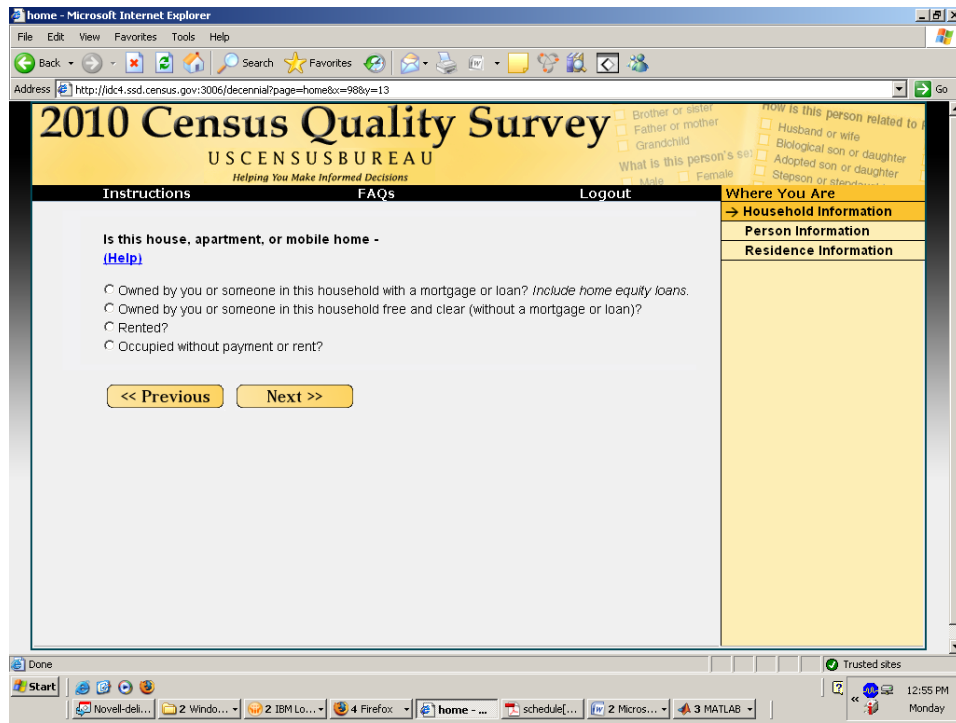
If you clicked on it, what information would you expect to find there?

What do you think the "No" answer means?

How would you answer if you did not know who filled out your household's 2010 Census form?



Tenure <home>



Ownership <owner>

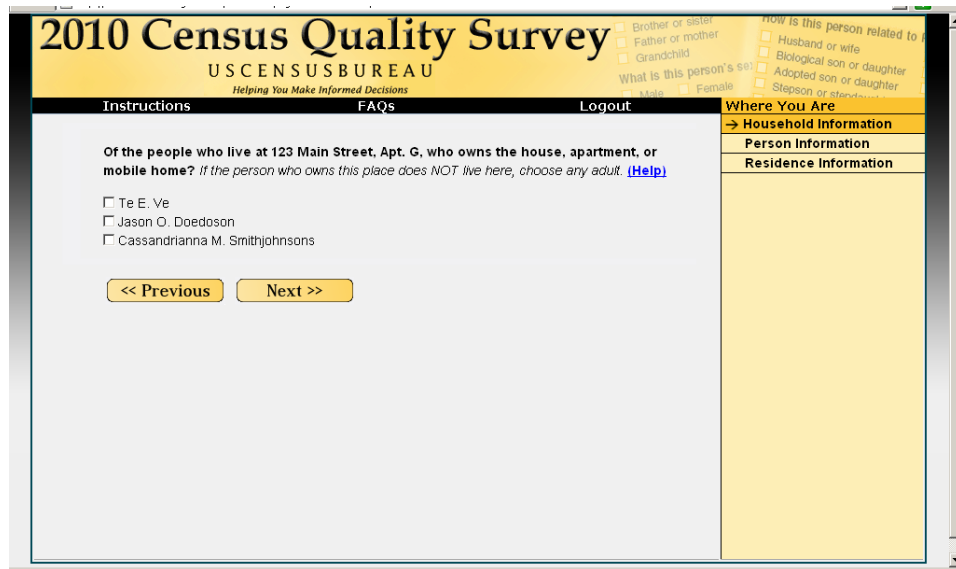


Figure F.10 Name of the owner

Relationship <relation>

Ask if they now noticed that the progress indicator moved to "Person Information".

2010 Census Quality Survey
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Helping You Make Informed Decisions

Instructions FAQs Logout Where You Are

Household Information
→ **Person Information**
Residence Information

Next we need to record relationships of everyone to Te E. Ve. ([Help](#))

Jason O. Doedoso is Te E. Ve's _____.

- Husband or Wife
- Biological son or daughter
- Adopted son or daughter
- Stepson or stepdaughter
- Brother or sister
- Father or mother
- Grandchild
- Parent-in-law
- Son-in-law or daughter-in-law
- Other relative
- Roomer or boarder
- Housemate or roommate
- Unmarried partner
- Other nonrelative

<< Previous Next >>

Accessibility Privacy

Sex (Male or Female)

2010 Census Quality Survey
USCENSUSBUREAU
Helping You Make Informed Decisions

Instructions FAQs Logout Where You Are

Household Information
→ **Person Information**
Residence Information

What is Te E. Ve's sex? ([Help](#))

- Male
- Female

<< Previous Next >>

DOB/Age <age>

Did you notice that the question was asking for Age as of January 1?

Did you notice that the Age box was filled in automatically based on the birth date you entered?

Did you like that the application filled in the age based on the birth date? (assuming they entered a full birth date!)

What would you do if the age displayed was incorrect? What you would change -- dob or age – and how would you do it? Would you expect a recalculation if you changed the date of birth?

Did you notice the labels above the dob boxes? Were the labels above the dob boxes helpful or not very helpful?

The screenshot shows the '2010 Census Quality Survey' interface from the USCENSUSBUREAU. The main heading is '2010 Census Quality Survey' with the tagline 'Helping You Make Informed Decisions'. Below the heading are navigation links: 'Instructions', 'FAQs', and 'Logout'. The current question is 'What is Te E. Ve's date of birth? (Help)'. The form includes input fields for MM, DD, and YYYY, each with a dropdown arrow. Below the input fields is a checkbox labeled 'Verify or enter correct age on November 1, 2009. Please report babies as age 0 when the child is less than 1 year old.' At the bottom are '<< Previous' and 'Next >>' buttons. On the right side, there is a vertical menu titled 'Where You Are' with sub-sections: 'Household Information', 'Person Information' (highlighted with a yellow background and a right-pointing arrow), and 'Residence Information'. A list of relationship options is visible at the top right, including 'Brother or sister', 'Father or mother', 'Grandchild', 'Husband or wife', 'Biological son or daughter', 'Adopted son or daughter', and 'Stepson or stepdaughter'.

Hispanic Origin <origin>

Did you think you were limited to just one response or could you mark as many as you wanted to?

If Yes or No: Why?

If you wanted to answer "Bolivian", how would you do it?

The screenshot shows the '2010 Census Quality Survey' interface from the USCENSUSBUREAU. The main heading is '2010 Census Quality Survey' with the tagline 'Helping You Make Informed Decisions'. Below the heading are navigation links: 'Instructions', 'FAQs', and 'Logout'. The current question is 'Is Te E. Ve of Hispanic, Latino, or Spanish origin? (Help)'. The form includes several radio button options: 'No, not of Hispanic, Latino, or Spanish origin', 'Yes, Mexican, Mexican Am., Chicano', 'Yes, Puerto Rican', 'Yes, Cuban', and 'Yes, another Hispanic, Latino, or Spanish origin - Enter origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.' Below the options is a text input field. At the bottom are '<< Previous' and 'Next >>' buttons. On the right side, there is a vertical menu titled 'Where You Are' with sub-sections: 'Household Information', 'Person Information' (highlighted with a yellow background and a right-pointing arrow), and 'Residence Information'. A list of relationship options is visible at the top right, including 'Brother or sister', 'Father or mother', 'Grandchild', 'Husband or wife', 'Biological son or daughter', 'Adopted son or daughter', and 'Stepson or stepdaughter'.

Race

What did you think of the arrangement of the response options for this question?

If you were American Indian and Asian, do you think the survey would allow you to select both of these responses?

Did you notice that you had to scroll down to find the Next button? Is this design easy to follow and understand or did you have to think about it before you scrolled?

The screenshot shows a survey question titled "What is Te E. Ve's race?" with a note that multiple selections are allowed and that Hispanic origins are not considered races. A "(Help)" link is provided. The options are listed with checkboxes and include text input fields for "American Indian or Alaska Native" and "Other Asian". At the bottom, there are "<< Previous" and "Next >>" buttons. To the right of the question is a vertical sidebar with a yellow background, containing a "Person Information" header and a "Residence Information" section.

Live or Stay Elsewhere? <elsewhere>

Will have one screen for Path Smith and one for Chris Smith.

How many responses do you think the survey would allow you to select for this question?

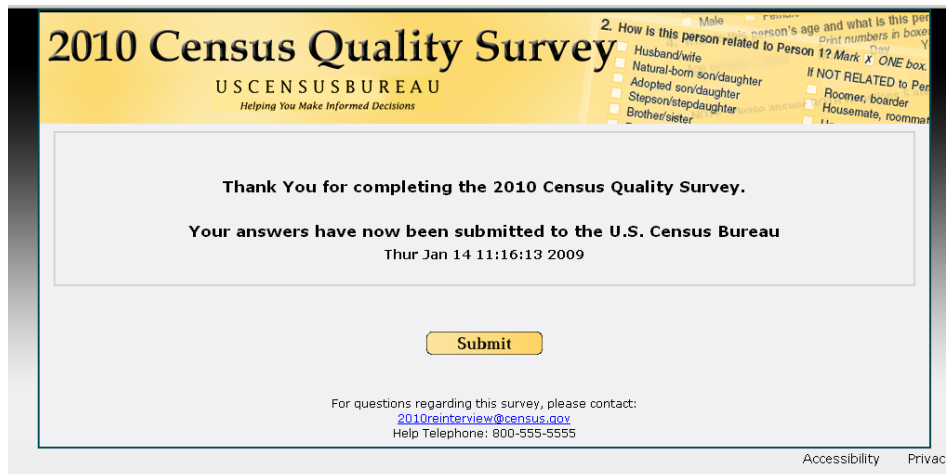
Review/Submit Screen <review2>

If you were taking this online survey at home, would you review your answers before submitting them?

Thank You

Would you normally print this screen for your records?

Do you think this is all you need to do for the survey or is there some other step involved in submitting your answers? If yes, what?



Applies to the whole survey

Did you notice the Instructions, FAQs, and Save & Logout at the top of the page?

Did you realize that these were clickable?

If NO: Would you have clicked on any of these if you had known they were clickable?

If you were to click this, what would you expect to see? (Ask for each individual tab.)

Did you notice the Accessibility/Privacy links at the bottom of each page? If you were to click these links, what would you expect to see?

What did you think about the placement of the Previous and Next buttons? On a scale of one to ten with one being very easy and ten being very hard, how easy or difficult was it to navigate back and forth between the screens?

Other than what we have already talked about, did you have any other comments or suggestions about the Web survey?

