



# 2020 Census Program Management Review

A Glimpse Inside the Mind of a Respondent:  
Using Paradata to Improve Online Surveys

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September 24, 2013

# Accessing the survey

- Respondents accessed the Internet survey by using a ten-digit access code which was provided on their mailing materials.

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United States<sup>™</sup>  
Census  
Bureau

2012 National Census Test

Please Log In

Example Access Code

##### - #####

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

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

Access Code:  -

Login

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 0607-0970, U.S. Census Bureau, AMSD-3K138, 4600 Silver Hill Road, Washington, DC 20233. You may e-mail comments to [Paperwork@cen.gov](mailto:Paperwork@cen.gov), use "Paperwork Project 0607-0970" 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.

Form Number: DA-1 OMB No.: 0607-0970 Approval Expires: 3/31/13

Accessibility Privacy Security

- Paradata collection began once the respondent entered an access code.
- 37.6% of the sample responded online.

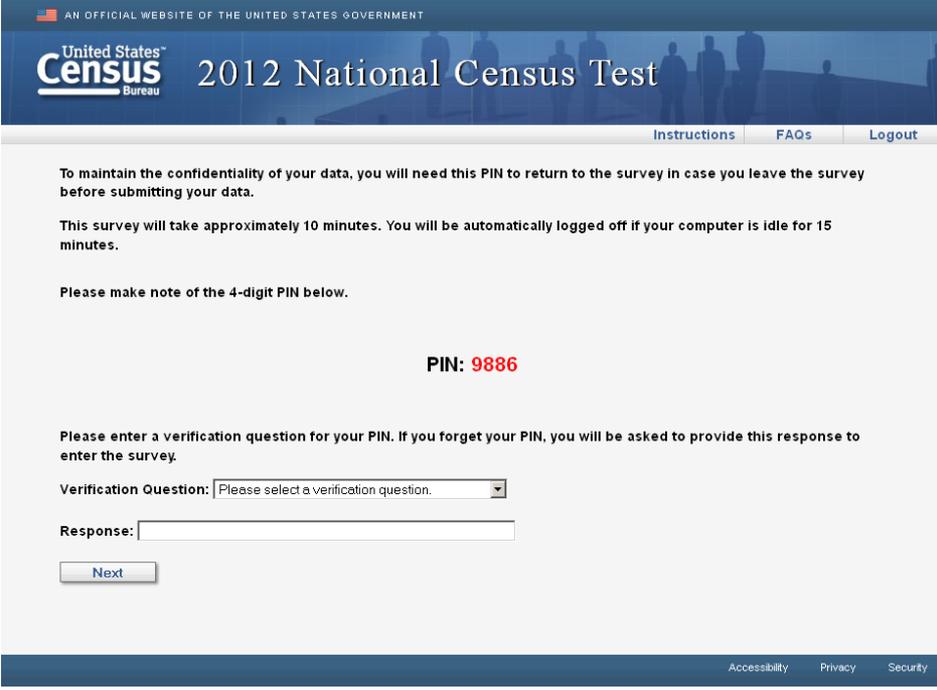
# Accessing the survey (Cont.)

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- Paradata allowed for us to determine the number of logins into the survey.
- 91% of Internet respondents completed the survey with only one login recorded.
- Approximately 95% of the respondents who entered the survey submitted their survey.
- 9% of respondents entered the survey multiple times.

# Accessing the survey (Cont.)

- Once the correct address was confirmed, respondents were provided with an auto-generated 4-digit PIN.
- In case the respondent forgot their PIN, they were also asked to select and respond to a verification question.



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## 2012 National Census Test

[Instructions](#) [FAQs](#) [Logout](#)

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: 9886**

Please enter a verification question for your PIN. If you forget your PIN, you will be asked to provide this response to enter the survey.

Verification Question:

Response:

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

# Accessing the survey (Cont.)

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2012 National Census Test

Please Log In

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

Access Code:  -

Enter the 4-digit PIN we gave you the last time you entered the survey.

PIN:

[Click here if you do not know your PIN.](#)

Login

Example Access Code

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

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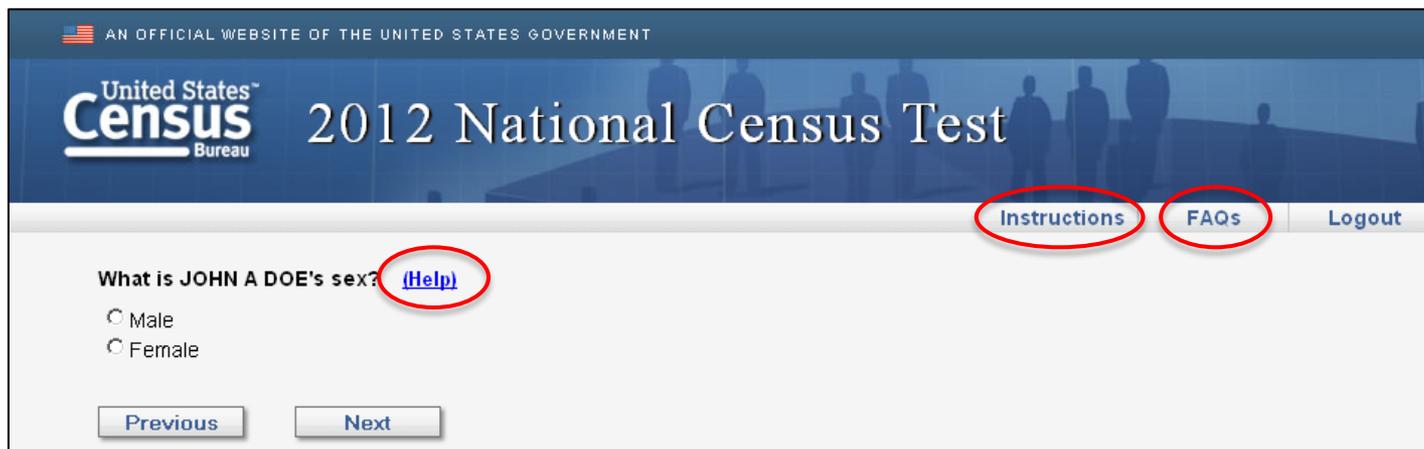
Form Number: DA-1 OMB No.: 0607-0970 Approval Expires: 3/31/13

Accessibility Privacy Security

- Respondents seem to recall their PINs. 92.8% entered the PIN correctly on the first attempt.
- Approximately 7% required multiple login attempts to enter their PIN.

# Did you need help?

- Throughout the survey respondents were provided item-specific help, instructions, and FAQs links.



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## 2012 National Census Test

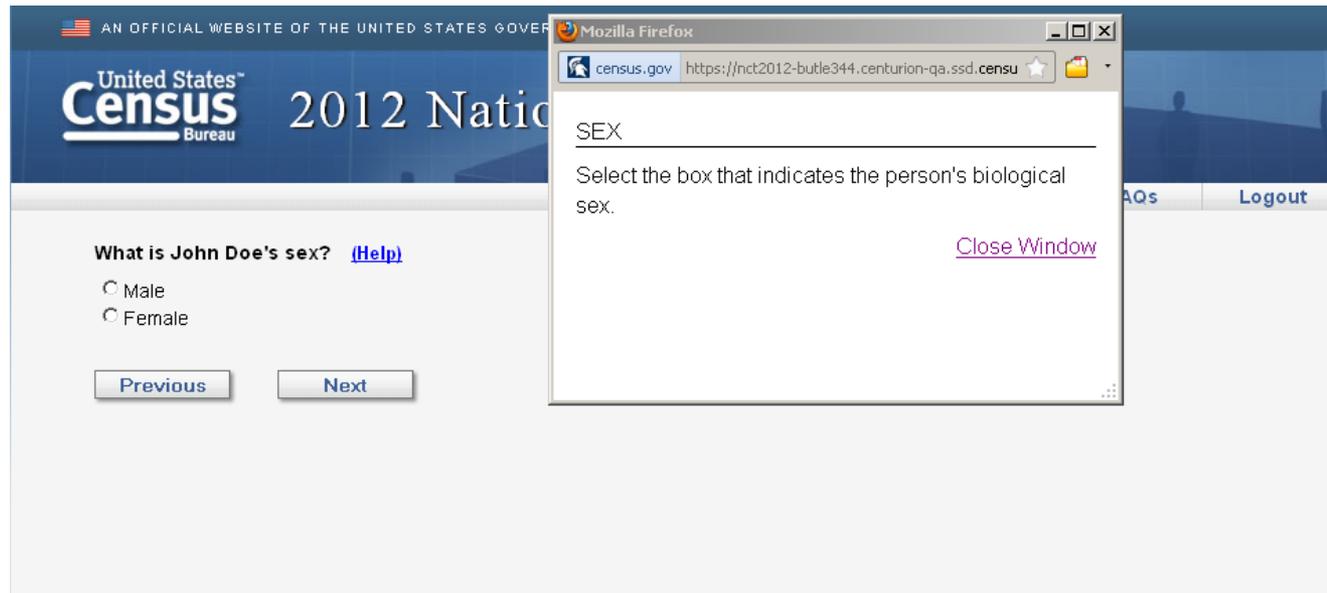
[Instructions](#) [FAQs](#) [Logout](#)

What is JOHN A DOE's sex? [\(Help\)](#)

Male  
 Female

[Previous](#) [Next](#)

# Did you need help (Cont.)



\*An example of the pop up help window.

- The Help, Instructions, and FAQ windows were not susceptible to pop-up blockers

# Did you need help (Cont.)

- Overall, 16.5% of respondents requested a help link.

Item Specific <u>Help</u> Links	Frequency	Percent
<b>Household-Level</b>	<b>2,101</b>	<b>33.2</b>
<b>Person-Level Demographics</b>	<b>3,043</b>	<b>48.1</b>
Relationship	297	4.7
Sex	78	1.2
DOB/Age	408	6.5
Race/Origin	2,260	35.7
<b>Person-Level Coverage</b>	<b>1,183</b>	<b>18.7</b>
<b>Total</b>	<b>6,327</b>	<b>100.0</b>

- Household-Level: Address verification, roster collection, and undercount questions
- Person-Level Coverage: Overcount questions

# Did you get an edit message?

Edit messages help reduce item nonresponse and can lead to more complete data.

- Red edit messages were displayed on screens for incomplete or invalid items.



- Green edit messages requested additional information.

 Please provide a complete date of birth. If you do not know it, provide what you know or leave it blank. Then enter or confirm age in the age box and press the "Next" button to continue.

 If you would like to provide more detail, please enter the specific race(s), origin(s), or tribe(s) in the space(s) below. If not, use the "Next" button to continue.

# Did you get an edit message? (Cont.)

- Overall, 73.1% of respondents received a message.

Item Edit Messages	Frequency	Percent
<b>Household-Level</b>	<b>3,159</b>	<b>6.6</b>
<b>Person-Level Demographics</b>	<b>42,143</b>	<b>88.2</b>
Relationship	141	0.3
Sex	389	0.8
DOB/Age	2,866	6.0
Race/Origin	38,747	81.1
<b>Person-Level Coverage</b>	<b>2,473</b>	<b>5.2</b>
<b>Total</b>	<b>47,775</b>	<b>100.0</b>

- Over 98% of the edits on the DOB/Age and Race/Origin items were green informational edits and not item nonresponse edits.

# Race/Origin Edit Message Breakdown

What is JOHN A DOE's race or origin? Select one or more boxes **AND** enter the specific race(s) or origin(s). [\(Help\)](#)

White — Enter origin(s), for example, German, Irish, Lebanese, Egyptian, and so on.

Black or African Am. — Enter origin(s), for example, African American, Haitian, Nigerian, and so on.

Hispanic, Latino, or Spanish origin — Enter origin(s), for example Mexican, Mexican Am., Puerto Rican, Cuban, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.

American Indian or Alaska Native — Enter name of enrolled or principal tribe(s), for example, Navajo, Mayan, Tlingit, and so on.

Asian — Enter origin(s), for example, Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.

Native Hawaiian or Other Pacific Islander — Enter origin(s), for example, Native Hawaiian, Guamanian or Chamorro, Samoan, Fijian, Tongan, and so on.

Some other race or origin — Enter race(s) or origin(s).

Please answer BOTH questions on race and origin.

What is JOHN A DOE's race or origin? Select one or more boxes. [\(Help\)](#)

White  
 Black or African Am.  
 Hispanic, Latino, or Spanish origin  
 American Indian or Alaska Native  
 Asian  
 Native Hawaiian or Other Pacific Islander  
 Some other race or origin

Enter JOHN A DOE's specific race, origin, or enrolled or principal tribe - For example, African Am., Argentinean, Chinese, Egyptian, German, Marshallese, Mexican, Mexican Am., Mongolian, Native Hawaiian, Navajo, Nigerian, Tlingit, and so on. [\(Help\)](#)

Enter the specific race(s), origin(s), or tribe(s).

## Streamlined Race/Origin

- Page views = 72,453
- Overall Edit Message Rate = 33.7%
- **Red** Edit Message Rate = 0.4%
- **Green** Edit Message Rate = 33.3%

## Very Streamlined Race/Origin

- Page views = 47,316
- Overall Edit Message Rate = 30.2%
- **Red** Edit Message Rate = 1.1%
- **Green** Edit Message Rate = 29.1%

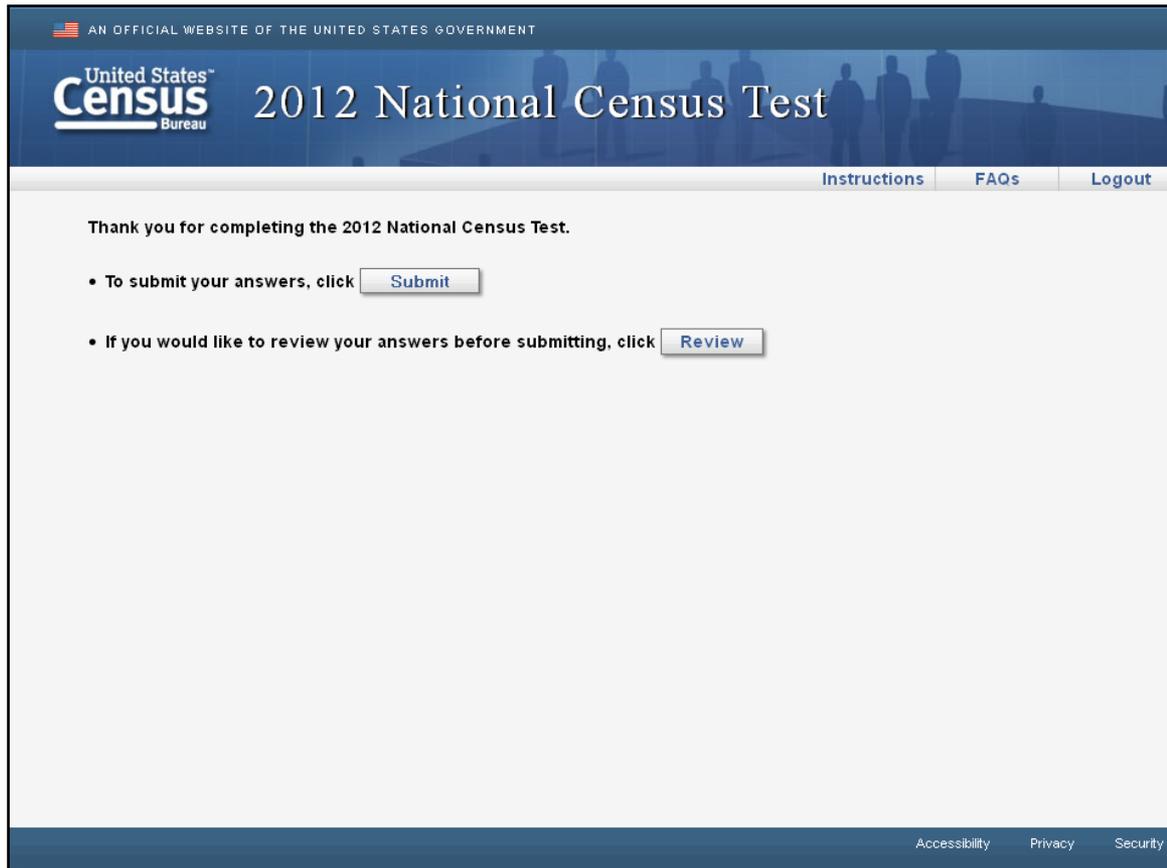


# Where did you go?

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- Break-offs were defined as: any respondent who started a case (had a successful login) but never completed their survey. **Break-off rate = 3.8%**
- Two different types of break-offs were examined:
  - Finalized Logout: used the logout link found in the upper right of each screen.
    - Majority occurred early in the survey (i.e. while asking respondents name and undercount questions.)
  - Other Reason Logout: simply left the survey without any logout recorded.
    - Observed throughout the survey.
    - Occurred on the email and summary/submit screens.

# Where did you go? (Cont.)



It was hypothesized that the wording of the summary screen may have caused respondents to be unaware of the option to submit or review their survey responses.

# What is your email address?

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## 2012 National Census Test

[Instructions](#) [FAQs](#) [Logout](#)

**Please provide your email address.**

Enter email address:

Confirm email address:

Why are we asking for your email address? In the past, the Census Bureau has mailed most households in the United States a paper census form and visited people who did not respond. In an effort to reduce the cost of the census, we are considering alternative ways of contacting people, such as email. The information you provide here will assist us in that research.

[Previous](#) [Next](#)

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

- 92.3% of respondents provided an email address.
- 1.1% of emails collected were reported as a mismatch between the two strings.

# Are you ready to submit?

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United States Census Bureau 2012 National Census Test

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

JOHN A DOE:	
Relationship to JOHN A DOE	<u>Not Applicable</u>
Sex	<u>Male</u>
Date of Birth	<u>[NO ANSWER]</u>
Age (on 9/5/2012)	<u>[NO ANSWER]</u>
Race or Origin	<u>White</u> <u>German, Irish, Italian, and Polish</u>

JANE B DOE:	
Relationship to JOHN A DOE	<u>Husband or Wife</u>
Sex	<u>Female</u>
Date of Birth	<u>[NO ANSWER]</u>
Age (on 9/5/2012)	<u>43</u>
Race or Origin	<u>Black or African Am.</u> <u>American Indian or Alaska Native</u> <u>Asian</u> <u>Nigerian</u> <u>Tlingit</u> <u>Japanese</u>

Submit

The instrument provided respondents an opportunity to review their answers to census data items prior to submitting.

Only 3% of respondent chose to review.

- 18.3% of those respondents clicked a link indicating a desire to review or edit a response.
  - Half of respondents who clicked a link, actually changed an answer.
- The majority of changes occurred on the DOB/Age and Race/Origin screens.

# What browser and OS were you using?

- Paradata also collected a user agent string from each respondent who accessed the survey.
- The user agent string can tell you what browser, operating system, and device a respondent used when accessing your survey.

Browser	Count	Percent
Internet Explorer	15,730	52.1
Firefox	4,757	15.8
Chrome	4,302	14.3
Safari	2,780	9.2
Mobile Safari	1,622	5.4
Android Webkit	487	1.6
AOL Browser	458	1.5
Other	56	0.2
<b>TOTAL</b>	<b>30,192</b>	<b>100.00</b>

- Operating System Breakdown: Windows = 79.5%, Mac OSX = 13%, and iOS & Android = 7%

# What device were you using?

Device	Count	Percent
<b>Computer</b>	<b>28,052</b>	<b>92.9</b>
<b>Tablets</b>	<b>1,409</b>	<b>4.7</b>
iPad	1,301	92.3
Android	99	7.0
Other	9	0.6
<b>Smartphones</b>	<b>730</b>	<b>2.4</b>
Android	397	54.4
iPhone	321	44.0
Other	12	1.7
<b>TOTAL</b>	<b>30,191</b>	<b>100.0</b>

- 8.2 minutes median completion time
- 4.5% break-off rate

- 8.9 minutes median completion time
- 7.8% break-off rate

- 13.9 minutes median completion time
- 12.3% break-off rate

- A separate instrument optimized for mobile devices was not created for the 2012 NCT but we are researching this for 2020.



# What did we learn?

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- Majority of respondents completed and submitted the interview in one session.
- Only a small percentage of respondents were unable to login on their first attempt.
- A small percentage of respondents required help while completing the survey. Mostly while answering demographic questions.
- Edit message prompts occurred primarily while respondents were completing the demographic section.
- Respondents were okay with providing their email address for research purposes.
- Very few wished to review their answers and even fewer needed to change an answer.

# What did we learn continued?

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- Computers were the most common way respondents accessed the survey and accounted for the fastest completion times.
- Respondents were accessing instrument via tablets and smartphones.
- Optimized web pages for mobile devices may generate fewer break offs and quicker completion times.
- Paradata is messy. Many unexpected and unexplainable paradata output results occurred which required time and effort to resolve.
  - Plan accordingly

# Questions?

# Thank you!

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