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2015 AMERICAN COMMUNITY SURVEY RESEARCH AND EVALUATION REPORT MEMORANDUM  
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MEMORANDUM FOR ACS Research and Evaluation Advisory Group

From: Deborah Stempowski (signed on November 12, 2015)  
Chief, American Community Survey Office

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Subject: 2015 Replacement Mail Questionnaire Package Test

Attached is the final American Community Survey (ACS) Research and Evaluation report, "2015 Replacement Mail Questionnaire Package Test". We conducted this experiment to test modifications to some of the materials in the replacement mail questionnaire package. Our goals were to reduce the complexity of the paper questionnaire package by removing some of the inserts, and to soften the response mode choice (paper or Internet) in the messages included in the package. We evaluated return rates, section completion rates, item nonresponse rates, and response distributions to assess the impact of the changes on respondent behavior. Our findings are documented in this report. If you have any questions, please contact Sandra Clark at 301-763-5884.

Attachment

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# **ACS RESEARCH & EVALUATION REPORT**

## **2015 Replacement Mail Questionnaire Package Test**

**ACS15-RER-18**

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## Executive Summary

To increase self-administered response to the American Community Survey (ACS), the Census Bureau worked with Dr. Don Dillman (an expert in the survey methodology field) to develop ideas for improving the materials mailed to respondents. He suggested some modifications to the materials in the paper questionnaire package mailing of the ACS. This is the largest of the mail-outs (in terms of the size and bulk of the package), and the one sent to respondents who do not respond through the Internet mode after receiving the initial mailing and a reminder postcard asking for their participation. The modifications tested in this experiment included:

- Reducing the complexity of the paper questionnaire package by removing some of the inserts.
- Downplaying the response mode choice (paper or Internet) in the paper questionnaire mailing and instead, presenting the mode options so that respondents understand that the Internet is the preferred mode, but the paper form is available, if the respondent cannot or does not want to complete the ACS on the Internet.

To test these ideas, we conducted the 2015 Replacement Mail Questionnaire Package Test. The experiment used roughly 48,000 addresses in the March 2015 ACS sample panel to construct four test treatments. We used the remaining addresses (approximately 238,000) in the March 2015 sample panel as our control. For the experiment, we removed the question instruction guide (which provides help for answering specific survey items) and the choice card (an insert that explicitly tells respondents that they can respond by either the Internet or mail). We also modified the messaging used in the letter included in the paper questionnaire package to de-emphasize a choice of response mode.

We compared return rates, section completion rates, item nonresponse rates, and response distributions to assess the impact of the changes on respondent behavior. Our key findings are:

- Removing both the choice card and instruction guide simultaneously appeared to have no significant effect on self-response return rates.
- Removing just the instruction guide, with or without the modification to the messaging in the letter, appeared to have no significant impact on self-response return rates.
- Revising the language in the letter to de-emphasize the choice of response mode appeared to have no significant impact on self-response return rates.
- Removing only the choice card appeared to have no significant effect on self-response return rates.
- Removing the instruction guide did not appear to have a significant impact on section completion rates, item nonresponse rates, or item response distributions. However, we did find a pattern in the item nonresponse rates for the mail mode. For most items, the rates were nominally higher for the treatment without the instruction guide.
- We did not find evidence showing that removing the instruction guide would impact the number of calls to the Telephone Questionnaire Assistance line.
- Removing the instruction guide and/or choice card would result in cost savings.

## 1. Introduction

The American Community Survey (ACS) data provide a wealth of information. Government officials rely on the data to inform decisions on matters of public interest such as access to emergency services, public transportation, education, medical needs, and much more. Moreover, businesses in the private sector use the data to determine business risks and opportunities.

However, the data are only as good as the information we collect from sampled addresses. Most people are unaware of the ACS (Hageldorn, Green, and Rosenblatt, 2014). As such, when asked to participate, they are often reluctant, citing the intrusiveness of the questions, wariness about the security of their information, or the time commitment to participate (Zelenak and Davis, 2013). As a result, we expend more resources to get information from these housing units, often resorting to personal visits to try to collect information from the most reluctant units.

We recently collaborated with Reingold, Inc., a communications and marketing firm, and Dr. Don Dillman, a survey methodologist with expertise on mail contact strategies, to conduct a comprehensive set of research aimed at enhancing the materials we send to help address these concerns. The goal of this research was to increase public awareness of the ACS, communicate the value of ACS data, and improve the design of the mail materials in hopes of increasing the self-administered response rate. Reingold and Dr. Dillman provided several suggestions for improving our paper questionnaire mailing. This report documents the results from our testing of some of Dr. Dillman's suggestions (Dillman, 2014) to improve the materials in the replacement questionnaire mailing package. Future reports will explore Reingold's recommendations.

Dr. Dillman conceived "The Tailored Design Method," which emphasizes attention to all aspects of questionnaires and survey implementation procedures. This method focuses on reducing costs, while increasing benefits and trust from respondents (Dillman et al., 2014). With this method in mind, we asked Dr. Dillman to conduct a thorough review of the materials in our replacement mail questionnaire package. He provided several recommendations.

Among his feedback, Dillman suggested:

- Reducing the complexity of the paper questionnaire package by removing some of the inserts. He believes that having so many materials in the mailing makes the response tasks appear difficult.
- Softening the response mode choice (paper or Internet) messages in the paper questionnaire mailing. He thinks allowing respondents to choose a response method adds complexity and could lead people to choose none of the modes and become a non-respondent.

Based on Dillman's feedback, we conducted the 2015 Replacement Mail Questionnaire Package Test to test modifications to our replacement mail package. The Census Bureau mails a paper questionnaire package to the sampled addresses that did not respond online after several

weeks. Currently, this package contains a letter, questionnaire, card highlighting the choice between responding via Internet or mail (choice card), a guide to help respondents answer specific questions on the survey (instruction guide), a Frequently Asked Questions (FAQ) brochure, and a return envelope.

To reduce the number of materials in the package, we tested removing the instruction guide (ACS-30, shown in Appendix A). The instruction guide is a lengthy brochure that provides definitions of response categories and reasons why we ask some of the questions on the survey. We conjecture that the length and complexity of the guide may make survey participation feel daunting at first glance. For those with Internet access, most of the information in this guide is available through the “help” feature of the online survey and is also available on the Census Bureau’s website. We have no empirical evidence as to how often respondents use the instruction guide. Nichols (2012) found that respondents were less inclined to recall the guide compared to other pieces of the mailing package when asked in a followup survey which materials they recalled seeing in the envelope.

We also tested removing the choice card (ACS-34RM, shown in Appendix B). The choice card displays the choice between using the paper questionnaire or the Internet to respond. For our purposes, removing the card addresses both of Dillman’s suggestions, as it reduces the number of inserts while simultaneously reducing the emphasis on mode choice. This card was included as part of the package in the 2011 ACS Internet tests (Tancreto et al., 2012 and Matthews et al., 2012), but the test was not designed to analyze the effect of this card.

The other change we tested involves changing the focus of the messaging in the letter accompanying the paper questionnaire. The letter we currently use is shown in Appendix C and the letter with the modified message is shown in Appendix D. Dillman suggested modifying the current letter by reducing the emphasis on choice to avoid the phenomenon of mode paralysis (when choosing between modes thwarts action). To address this concern the letter was modified to state the following: “...You may also find the questionnaire helpful for reviewing the survey questions in preparation for responding online. If you are unable or reluctant to respond online, please fill out and mail back the questionnaire in the enclosed return envelope.” The resulting message encourages respondents to respond via the Internet but provides a paper option if they are unable or reluctant to do so.

The purpose of this test was to study the impact of these changes on self-response behavior.

## **2. Methodology**

### **2.1 Research Questions**

To study the success of testing Dillman’s suggestions, we answered the following research questions:

1. What is the impact on self-response of removing both the choice card and instruction guide from the paper questionnaire mailing package?

2. What is the impact on self-response of removing only the instruction guide from the paper questionnaire mailing package?
3. What is the impact on self-response of removing only the choice card from the paper questionnaire mailing package?
4. When the choice card and instruction guide are excluded from the paper questionnaire mailing package, what is the impact on self-response when we de-emphasize the choice messaging in the letter?
5. What is the impact on form completeness and response distributions when removing the instruction guide from the paper questionnaire mailing package?
6. What is the impact on the number of calls to Telephone Questionnaire Assistance (TQA) when removing the instruction guide from the paper questionnaire mailing package?
7. What would be the impact on the cost of data collection if each test treatment were implemented into ACS production operations?

## 2.2 Experimental Design

The ACS sample includes the division of the monthly sample into 24 Methods Panel Groups of approximately 12,000 addresses each. Each Methods Panel Group within a monthly sample is representative of the entire monthly sample panel, and each monthly sample is representative of the country. We tested four treatments in the March 2015 ACS production sample, using four Methods Panel Groups (one per treatment) while the balance of the sample (~238,000 addresses) was the control. Thus, each treatment used a mailout sample of roughly 12,000 addresses. The experimental treatment panels are shown in Table 1.

**Table 1. Experimental Design**

Paper Questionnaire Package Contents	Message: Emphasis on Choice	Message: Reduced Emphasis on Choice
<b>Control Contents</b>	<u>Control</u> <ul style="list-style-type: none"> <li>• Includes choice card and instruction guide</li> <li>• No revisions to messages</li> </ul>	Not tested
<b>Remove Choice Card and Instruction Guide</b>	<u>Treatment 1</u> <ul style="list-style-type: none"> <li>• Excludes choice card and instruction guide</li> <li>• No revisions to messages</li> </ul>	<u>Treatment 2</u> <ul style="list-style-type: none"> <li>• Excludes choice card and instruction guide</li> <li>• Messages reduce emphasis on choice and provide clear instructions on how to respond</li> </ul>
<b>Remove Instruction Guide Only</b>	<u>Treatment 3</u> <ul style="list-style-type: none"> <li>• Package includes choice card but excludes instruction guide</li> <li>• No revisions to messages</li> </ul>	Not Tested
<b>Remove Choice Card Only</b>	Not Tested	<u>Treatment 4</u> <ul style="list-style-type: none"> <li>• Excludes choice card but does include instruction guide</li> <li>• Messages reduce emphasis on choice, and provide clear instructions on how to respond</li> </ul>



## 2.3 Analysis Methodology

### 2.3.1 Self-Response Return Rates

We calculated self-response return rates to answer research questions 1 through 4. All self-response comparisons include looking at the self-response return rate, the Internet return rate, and the mail return rate. To calculate the rates for this test, we limited the universe to only those sample addresses that were mailed a paper questionnaire. This allowed for a clean comparison of the impacts of changes for the segment of the mailout universe exposed to the treatments. Since the test involved materials in the self-response mailings, we expected differences in treatments during the self-response phase of the data collection cycle. Therefore, we calculated the return rates at the end of the self-response phase (March 31, 2015). We calculated the rates using the formulas below. All estimates were weighted using the sampling weight (inverse of the probability of selection).

$$\text{Total Self-Response Return Rate (for paper questionnaire universe)} = \frac{\text{\# of sample addresses mailed a paper questionnaire that provided a non-blank}^1 \text{ mail return, TQA interview}^2, \text{ or a complete or sufficient partial Internet response}}{\text{Total \# of sample addresses mailed a paper questionnaire}^3} * 100$$

In addition to the total self-response return rate, we are also interested in the self-response return rate by mode:

$$\text{Internet Return Rate (for paper questionnaire universe)} = \frac{\text{\# of sample addresses mailed a paper questionnaire that provided a complete or sufficient partial Internet response}}{\text{Total \# of sample addresses mailed a paper questionnaire}^3} * 100$$

$$\text{Mail Return Rate (for paper questionnaire universe)} = \frac{\text{\# of sample addresses mailed a paper questionnaire that provided a non-blank mail return or TQA interview}}{\text{Total \# of sample addresses mailed a paper questionnaire}^3} * 100$$

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<sup>1</sup> A blank form is a form in which there are no data defined persons and the telephone number listed on the form by respondents is blank.

<sup>2</sup> TQA allows respondents to call a toll-free number to receive help completing the survey. Respondents can either complete the mail or Internet form or complete the survey over the phone with an interviewer. TQA responses are included with mail responses since they usually occur during the mail data collection month.

<sup>3</sup> We excluded UAAs (see section 2.3.2 for more information). For the second set of rates, the universe only includes nonresponding addresses eligible for CATI.

## 2.3.2 Universe Eligibility and Response Criteria

### Universe Eligibility for Total Self-Response Return Rate, Internet Return Rate, and Mail Return Rate

Only those addresses that were mailed a paper questionnaire package were eligible to be included in the universe. Furthermore, we only include housing units that could receive mail and therefore have a chance to respond in the Internet or Mail modes. We excluded addresses designated as “unmailable” (meaning we do not have a valid mailing address) and addresses for which our mailing was returned because the post office determined the address was “undeliverable as addressed” (UAA).<sup>4</sup> All addresses not excluded by one of these criteria we counted as eligible for both the Internet and Mail modes.<sup>5</sup> If a housing unit responded via the Internet before they could possibly have received the paper questionnaire and had an acceptable completion status (complete interview, suspected vacant, or business) they were not included in this universe. We did, however, include in the universe addresses with a sufficient partial Internet survey since they often return to the survey and provide a more complete Internet response or end up completing a paper questionnaire. If we received a response in more than one mode (Internet, TQA, or Mail) we accepted the earliest response. If the earliest response was received before the Paper Questionnaire mailing was sent, the sample case was excluded from the universe. Table 2 shows the unweighted universe counts used for the self-response calculations by treatment.

**Table 2. Unweighted Counts of Sampled Addresses That Received the Paper Questionnaire Package by Treatment**

Control	Treatment 1	Treatment 2	Treatment 3	Treatment 4
160,043	7,998	7,889	8,032	7,959

Source: U.S. Census Bureau, American Community Survey, 2015 Replacement Mail Questionnaire Package Test

### Response Criteria for Internet Return

We counted a case as an Internet mode response if the housing unit was in the self-response universe and one of the following conditions was satisfied:

- There was a completed Internet response.
- There was a sufficient partial Internet response. That is, not all items were answered, but the respondent got through the basic person and housing sections and to at least one of the questions in the detailed person section.

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<sup>4</sup> Note that there are situations where the first or second mailing is designated UAA, yet there is a valid Internet or Mail response from the other mailing. In these cases, we do NOT consider the case UAA, so we count it in both the self-response denominator and the appropriate numerator.

<sup>5</sup> When calculating final response rates, we exclude cases where a telephone contact via Failed-Edit-Follow-Up (FEFU) or TQA determined that an address was out of scope for ACS (often a business). We do not exclude them when calculating return rates.

- The unit is suspected to be vacant, based on the Internet response received. Vacancy is not confirmed, but at the point in time for which we are calculating the Internet return rate, this is considered a valid and complete Internet response.
- The unit is suspected to be a business based on the Internet response received – which would make it out of scope for the survey – but this has not been confirmed. The unit could still be found to be in scope via follow-up, and someone did submit a response; so for the point in time at which we are calculating the rate we consider this a valid Internet response.

### Response Criteria for Mail Return

We counted a case as a mail mode response if the housing unit was in the self-response universe and one of the following conditions was satisfied:

- There was a completed Mail response.
- There was a completed response via TQA.

If more than one response was received from a single housing unit, the response that was received first was considered the mode of response for this test.

### **2.3.3 Completion Rates, Item Nonresponse Rates, and Response Distributions**

To study the impact of removing the instruction guide (and answer research question 5), we computed completion rates. The completion rates tell us how complete respondents are when they fill out the items on the survey. The ACS is organized into three main sections, and the instruction guide covers items in all three sections. It is possible that the instruction guide is more useful when answering a particular section; therefore, we calculated completion rates for each section of the questionnaire (basic demographic section, housing section, and detailed person section). We did this by aggregating all the complete data (within a particular section) for each household or person in the housing unit and tabulating it as a proportion of the total items (within the particular section) that were required to be answered. The denominator is the number of questions that should have been completed (after adjusting for skip patterns based on responses or removing cases that did not provide a response to an earlier dependent question). The numerator is the number of these items that were actually completed. We only included data from occupied housing units that were mailed the paper questionnaire and provided an Internet or mail response starting the day after the paper questionnaire was mailed. We did not include data from housing units that completed an Internet or TQA interview prior to the date of the questionnaire mailing because these housing units would not have had the opportunity to see the instruction guide prior to responding to the survey.

We compared these rates separately by mode. We know from past studies that Internet break-offs can bias the level of form completion as these cases are removed from the universe of respondents for questions that occur after they break-off, making the rate seem lower than it actually is. This is not an issue for this study as we compared average form completeness between Internet responses and paper responses separately (not compared across modes). Table 3 shows the unweighted occupied housing unit and total person counts from sample addresses providing mail or Internet returns after the paper questionnaire package was mailed.

**Table 3. Unweighted Counts of Occupied Housing Units/Total Population Providing Response Data After the Paper Questionnaire Package Was Mailed by Mode and Treatment**

***Mail Mode***

	<b>Control</b>	<b>Treatment 1</b>	<b>Treatment 2</b>	<b>Treatment 3</b>	<b>Treatment 4</b>
Occupied Housing Units	46,895	2,361	2,359	2,318	2,395
Total Population	101,427	5,202	5,100	5,058	5,219

***Internet Mode***

	<b>Control</b>	<b>Treatment 1</b>	<b>Treatment 2</b>	<b>Treatment 3</b>	<b>Treatment 4</b>
Occupied Housing Units	22,139	1,071	1,115	1,164	1,079
Total Population	61,345	2,945	3,114	3,212	3,022

Source: U.S. Census Bureau, American Community Survey, 2015 Replacement Mail Questionnaire Package Test

To help analyze the omission of the instruction guide, we picked a few key items to see if there was any impact to item nonresponse and response distributions. We chose items where help is selected most often on the Internet (Horwitz et al., 2012) as well as items that take up a larger portion of the instruction guide. We used response data from occupied housing units that were mailed the paper questionnaire and provided an Internet or mail response starting the day after the paper questionnaire was mailed. To be included in our calculation of item nonresponse rates, the person/housing unit had to be in universe for the item (not all people/housing units are in universe for every item on the survey). To be included in the universe for the item response distribution, the person/housing unit had to have been in universe for the item and have provided a response. We used chi-square tests of independence ( $\alpha=0.1$ ) to see if removing the guide influences survey responses. Here are the items we studied by the section in which they appear in the survey:

Basic demographic section: Race, Hispanic origin;

Housing section: Building type, electricity amount, water amount, tenure, property value, property tax, property insurance, presence of a mortgage;

Detailed person section: Citizenship, educational attainment, residence one year ago, work last week, transportation to work, and wages.

### **2.3.4 Telephone Questionnaire Assistance Calls**

In addition to studying completion rates and response distributions, we reviewed the number of calls to our telephone questionnaire assistance line to see if respondents who received the treatment without the instruction guide were more likely to reach out for assistance than those who did not receive the instruction guide (research question 6).

### 2.3.5 Calculation of Margin of Error

We estimated variances using the Successive Differences Replication (SDR) method with replicate weights.<sup>6</sup> Since we are calculating return rates, we use the replicate base weights that account only for sampling probabilities. For each type of rate and treatment, we calculated the return rate for the 80 half-sample replicates. Then, for each replicate, we calculated the difference between the treatments. The variance for each rate and group, and each difference, was calculated using the formula:

$$Var(RR_0) = \frac{4}{80} \sum_{r=1}^{80} (RR_r - RR_0)^2$$

where

$RR_r$  = the return rate or difference estimate calculated for replicater.

$RR_0$  = the return rate or difference estimate calculated using the full sample base weights,

Next, we calculated the standard error (se) for an estimate by taking the square root of the variance.

Finally, we calculated the margins of error (MOEs) based on a 90 percent confidence level, using the following formula:

$$\text{Margin of error} = \text{se} \times 1.645$$

We used the MOEs to conduct statistical testing to identify differences between the return rate comparisons shown in the report. The report tables showing the return rates include the MOEs of the estimates, the MOEs for the differences, and indicate whether the differences are statistically significant.

We analyzed differences in item nonresponse rates and response distributions between treatments for several survey items. The more items in the study, the higher the probability for a Type 1 error (false positive). To account for this, we adjusted for multiple comparisons using the Holm-Bonferroni method (Holm, 1979).

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<sup>6</sup> Chapter 12 of the ACS Design and Methodology document (U.S. Census Bureau, 2014) has details and references regarding the SDR method for variance estimation.

## 2.3.6 Cost Analysis

We also reviewed the effect of the test treatments on the operational cost of data collection. Many variables feed into the overall cost of data collection. For each experimental treatment, we calculated the potential annual cost savings in printing and postage for each treatment assuming standard production check-in rates<sup>7</sup>.

Check-in rates from the field test are used to refine printing and postage costs, as well as evaluate cost differences from the control for data capture, mail package assembly, and nonresponse follow-up operations. Combining cost impacts from each of these areas allows us to predict the annual cost difference for each experimental treatment compared to the control treatment.

## 2.4 Assumptions and Limitations

### 2.4.1 Assumptions

This research assumes that a single ACS monthly sample panel is representative of an entire survey year (12 panels) with respect to both return rates and costs. It also assumes that a single Methods Panel Group (1/24 of the full monthly sample) is representative of the full annual sample. Both of those assumptions are part of the ACS sample design methodology. In addition, the same denominator is used for all three self-response rate calculations: Internet, Mail, and total self-response (Internet and Mail combined).

### 2.4.2 Limitations

1. Throughout the data collection process, we monitored daily response patterns for each experimental panel. In doing this, we learned that there was a delay in response times for the experimental panels compared to the control panel. We researched the issue and found differences in the mail sort procedures that affect mail delivery timing. When the Census Bureau's National Processing Center (NPC) processes mail for delivery, only materials that are identical are printed, labeled, and sorted together. Any difference in the materials requires separate handling.

Mail is sorted, based on address, into five-digit ZIP code, three-digit ZIP code prefix, Automated Area Distribution Center (AADC), and mixed-AADC groups. If there are enough pieces going to one five-digit ZIP code, the mail is delivered directly to that ZIP code's post office for delivery. Mail not meeting this degree of specificity is sorted at the three-digit level, which will be delivered to an intermediate facility for distribution with other mail to five-digit ZIP code post

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<sup>7</sup> The denominator used to calculate check-in rates include UAAs. This is important for cost analysis because there is a cost associated with the mailing, even though it was determined undeliverable by the Post Office. UAAs are not included in the calculation of return rates because returns cannot be received from sample addresses that never receive mailings.

offices. The next level is AADC, which covers a wider area, and finally mixed-AADC, which is the widest range. These would likely go to the local (Louisville) post office first to be combined with other mail.

Given the national sample for ACS in any given month, it is unlikely that there is enough mail to go to many of the five-digit ZIP code post offices directly, but it would be possible for there to be enough mail for the three-digit intermediate facility. Because we used a small number of methods panel groups for the experiment, it is unlikely that there was enough mail for the three-digit sort in many areas, thus more mail for the addresses in the experimental treatments probably went through the Louisville post office first, adding additional delivery time and delays in response for the experimental treatments (compared to the control panel).

To account for this limitation we chose to adjust the response dates for the addresses in our experimental treatments. We did this using postal tracking data from the U.S. Postal Service. These data allow us to determine the amount of time it takes the post office to deliver mail once they receive it from NPC. First, we calculated median delivery durations by 3-digit ZIP codes for the test treatments (grouping all test treatments together) and for the control group. Next, we calculated the differences in median delivery durations between the control and test treatments for each 3-digit ZIP code. Then, we used these differences to adjust the response date for each experimental treatment case.

2. When designing the message used for the modified letter the focus was to downplay the response mode choice (paper or Internet) and instead, present the mode options so that respondents understand that the Internet is the preferred mode, but the paper form is available if the respondent cannot or does not want to complete the ACS on the Internet. However, it is important to point out that there were other changes to the text in the letter. For example, the mandatory message in the modified letter is in bold font, while the control letter shows the mandatory message in regular font. Because of the multiple modifications, it is impossible to say for certain exactly which change contributed to differences, if any, shown in the analysis.

3. The sample sizes of the test treatments were roughly 12,000 sample addresses. The universes used to calculate the estimates in this report were subsets of the total sample (shown in tables 2 and 3 in sections 2.3.2 and 2.3.3). In many cases these universes were small. This affects our power when performing hypothesis tests. Therefore, it is possible that the small sample sizes may have posed a limitation when we measured differences between treatments.

4. To answer research question 6, we compared the number of calls to TQA to see if the treatment without the instruction guide called TQA more often than the treatment with the instruction guide. To calculate the estimates, we used datasets with records containing calls to our TQA line. However, these datasets are limited, as we do not record all TQA calls. We only track calls that reach a telephone agent. Some callers do not reach a live person; instead, their questions are answered through Interactive Voice Recognition (IVR). This automated system provides answers to frequently asked questions. In addition, some callers do not provide their ID and thus their call cannot be tracked. Not having complete records of all TQA calls is a

limitation that could affect our analysis if there were more non-recorded calls for one of the treatments in our comparison.

5. The cost analysis assumes that the costs of various operations are fluid; however, in reality, many costs tend to be “sticky”—that is, they take time to adjust to changes in workloads and methodology. For example, we might not see an immediate decrease in the cost of data capture even if we reduce the workloads for this operation. This is especially true for operations that rely heavily on staff to complete work (as opposed to operations like printing or postage that are charged by unit). In the long run, we assume staffing plans will adjust to the new workloads.

6. Finally, it is important to understand that the return rates documented in this analysis reflect only the mailable and deliverable universe for this test and are therefore different from the published ACS production response rates.

### 3. Results

#### 3.1 What is the impact on self-response of removing both the choice card and instruction guide from the paper questionnaire mailing package?

To answer this question, we compared return rates between the Control and Treatment 1 to study the effect of dropping both the choice card and instruction guide simultaneously. Table 4 shows Self-Response, Internet, and Mail return rates for the Control (C) and Treatment 1 (T1) at the end of the self-response phase.

**Table 4. Return Rates by Data Collection Mode – Control (C) versus Treatment 1 (T1)**

	C	T1	Difference*	Significant? **
<b>Self-Response*</b>	<b>28.9 (0.2)</b>	<b>28.9 (0.9)</b>	<b>0.0 (0.9)</b>	<b>No</b>
<b>Internet</b>	9.9 (0.1)	9.5 (0.6)	0.4 (0.6)	No
<b>Mail</b>	19.0 (0.2)	19.4 (0.8)	-0.4 (0.8)	No

Source: U.S. Census Bureau, American Community Survey, 2015 Replacement Mail Questionnaire Package Test  
Margin of error shown in parenthesis \*Totals and differences may differ due to rounding \*\* Significant at  $\alpha=0.1$  level

Control (C): **Includes Choice Card; Includes Instruction Guide**; Old Messaging in Letter

Treatment 1 (T1): **Excludes Choice Card; Excludes Instruction Guide**; Old Messaging in Letter

Unlike the Control, Treatment 1 does not include the choice card or the instruction guide (these materials are shown in Appendix A and Appendix B). While there are nominal differences in the rates, the differences are not statistically significant. This suggests that removing both the choice card and instruction guide did not appear to have an effect on self-response return rates<sup>8</sup>.

<sup>8</sup> Small sample sizes could limit the power of our hypothesis test, making it more difficult to measure differences between treatments (see limitation number 3 in section 2.4.2).



The remaining research questions tease out the effects of dropping the individual components on self-response.

### 3.2 What is the impact on self-response of removing only the instruction guide from the paper questionnaire mailing package?

We compared return rates between the Control and Treatment 3 to determine the impact of removing the instruction guide on self-response while maintaining all other current messaging. Table 5 shows Self-Response, Internet, and Mail return rates for the Control (C) and Treatment 3 (T3) at the end of the self-response phase.

**Table 5. Return Rates by Data Collection Mode – Control (C) versus Treatment 3 (T3)**

	C	T3	Difference*	Significant?***
<b>Self-Response*</b>	<b>28.9 (0.2)</b>	<b>29.0 (0.8)</b>	<b>-0.1 (0.8)</b>	<b>No</b>
<b>Internet</b>	9.9 (0.1)	10.2 (0.6)	-0.3 (0.6)	No
<b>Mail</b>	19.0 (0.2)	18.8 (0.7)	0.2 (0.7)	No

Source: U.S. Census Bureau, American Community Survey, 2015 Replacement Mail Questionnaire Package Test  
Margin of error shown in parenthesis \*Totals and differences may differ due to rounding \*\* Significant at  $\alpha=0.1$  level

Control (C): Includes Choice Card; **Includes Instruction Guide**; Old Messaging in Letter

Treatment 3 (T3): Includes Choice Card; **Excludes Instruction Guide**; Old Messaging in Letter

The main difference in the treatments here is that Treatment 3 removes only the instruction guide. Like the rate differences in the previous table, the differences in this table are also not statistically significant<sup>8</sup>.

After we de-emphasized the choice messaging and materials in the paper questionnaire mailing, we compared Treatments 2 and 4 to measure the impact on self-response of dropping the instruction guide under these conditions. Table 6 shows Self-Response, Internet, and Mail return rates for Treatment 4 (T4) and Treatment 2 (T2) at the end of the self-response phase.

**Table 6. Return Rates by Data Collection Mode – Treatment 2 (T2) versus Treatment 4 (T4)**

	T2	T4	Difference*	Significant?***
<b>Self-Response*</b>	<b>29.9 (0.9)</b>	<b>29.7 (1.0)</b>	<b>0.1 (1.3)</b>	<b>No</b>
<b>Internet</b>	10.1 (0.6)	9.8 (0.6)	0.3 (0.9)	No
<b>Mail</b>	19.8 (0.8)	20.0 (0.8)	-0.2 (1.1)	No

Source: U.S. Census Bureau, American Community Survey, 2015 Replacement Mail Questionnaire Package Test

\*Totals and differences may differ due to rounding \*\* Significant at  $\alpha=0.1$  level

Margin of error shown in parenthesis

Treatment 2 (T2): Excludes Choice Card; **Excludes Instruction Guide**; Revised Messaging in Letter

Treatment 4 (T4): Excludes Choice Card; **Includes Instruction Guide**; Revised Messaging in Letter

Both Treatments 2 and 4 have the revised message in the letter included in the mail package (see Appendix D). The difference is that Treatment 4 includes the instruction guide. The rate differences between treatments shown in Table 6 are not statistically significant. Removing the instruction guide does not appear to have had a significant effect on self-response return rates<sup>8</sup>.

### 3.3 What is the impact on self-response of removing only the choice card from the paper questionnaire mailing package?

To study the impact of removing only the choice card, we compared self-response return rates overall and by mode between Treatments 1 and 3. This comparison tells us the incremental impact of removing the card when the instruction guide is already removed. Table 7 shows Self-Response, Internet, and Mail return rates for Treatment 1 (T1) and Treatment 3 (T3) at the end of the self-response phase.

**Table 7. Return Rates by Data Collection Mode – Treatment 1 (T1) versus Treatment 3 (T3)**

	T1	T3	Difference*	Significant?***
<b>Self-Response*</b>	<b>28.9 (0.9)</b>	<b>29.0 (0.8)</b>	<b>-0.1 (1.3)</b>	<b>No</b>
<b>Internet</b>	9.5 (0.6)	10.2 (0.6)	-0.7 (0.8)	No
<b>Mail</b>	19.4 (0.8)	18.8 (0.7)	0.7 (1.1)	No

Source: U.S. Census Bureau, American Community Survey, 2015 Replacement Mail Questionnaire Package Test  
 Margin of error shown in parenthesis \*Totals and differences may differ due to rounding \*\* Significant at  $\alpha=0.1$  level  
 Treatment 1 (T1): **Excludes Choice Card**; Excludes Instruction Guide; Old Messaging in Letter  
 Treatment 3 (T3): **Includes Choice Card**; Excludes Instruction Guide; Old Messaging in Letter

Neither Treatment 1 nor Treatment 3 included the instruction guide. The difference between treatments is that Treatment 3 includes the choice card. The rates are not statistically different. These results show that we do not have sufficient evidence to conclude that the return rates between the two treatments are different when we remove the choice card from one of them<sup>8</sup>.

### 3.4 When the choice card and instruction guide are excluded from the paper questionnaire mailing package, what is the impact on self-response when we de-emphasize the choice messaging in the letter?

We compared the self-response return rates overall and by mode between Treatments 1 and 2 to determine whether downplaying the choice of modes in the paper questionnaire mailing had an impact on self-response. Table 8 shows Self-Response, Internet, and Mail return rates for Treatment 1 (T1) and Treatment 2 (T2) at the end of the self-response phase.

**Table 8. Return Rates by Data Collection Mode – Treatment 1 (T1) versus Treatment 2 (T2)**

	T1	T2	Difference*	Significant?***
<b>Self-Response*</b>	<b>28.9 (0.9)</b>	<b>29.9 (0.9)</b>	<b>-0.9 (1.2)</b>	<b>No</b>
<b>Internet</b>	9.5 (0.6)	10.1 (0.6)	-0.6 (0.8)	No
<b>Mail</b>	19.4 (0.8)	19.8 (0.8)	-0.3 (1.1)	No

Source: U.S. Census Bureau, American Community Survey, 2015 Replacement Mail Questionnaire Package Test  
 Margin of error shown in parenthesis \*Totals and differences may differ due to rounding \*\* Significant at  $\alpha=0.1$  level  
 Treatment 1 (T1): Excludes Choice Card; Excludes Instruction Guide; **Old Messaging in Letter**  
 Treatment 2 (T2): Excludes Choice Card; Excludes Instruction Guide; **Revised Messaging in Letter**

The choice card and instruction guide were excluded from Treatments 1 and 2. Treatment 2 included the revised message (de-emphasizing a choice of modes) in the mail package letter (see Appendix D), while Treatment 1 included the same message as production materials. The

message included in Treatment 1 provides respondents two options, as shown in Appendix C. At the end of the self-response phase, the differences in rates between treatments were not significantly different<sup>8</sup>.

### 3.5 What is the impact on form completeness and response distributions when removing the instruction guide from the paper questionnaire mailing package?

To study the impact of the instruction guide on form completeness, item nonresponse, and response distributions, we isolated a set of treatments for comparison based on which showed the most promise from the previous research questions. There are two sets of treatments that isolate the impact of removing the instruction guide -- one has the control emphasis on choice, and the other de-emphasizes choice. While we did not find significant differences in the return rates between treatments, we decided to focus on the comparison between Treatments 2 and 4 since research question 4 showed that the revised messaging, de-emphasizing choice, resulted in nominally higher self-response return rates than the treatment with the control emphasis on choice.

Table 9 shows completion rates for Treatment 2 (T2) and Treatment 4 (T4) by section of the survey – basic demographic section, housing section, and detailed person section. Rates for the Internet mode are shown first, followed by rates for the mail mode.

**Table 9. Completion Rates – Treatment 2 (T2) versus Treatment 4 (T4)**

***Internet Mode***

	T2	T4	Difference*	Significant?***
<b>Basic Demographic Section</b>	99.8 (0.1)	99.5 (0.3)	0.3 (0.4)	No
<b>Housing Section</b>	98.9 (0.2)	98.9 (0.2)	0.0 (0.3)	No
<b>Detailed Person Section</b>	92.6 (0.9)	93.1 (1.0)	-0.5 (1.3)	No

***Mail Mode***

	T2	T4	Difference*	Significant?***
<b>Basic Demographic Section</b>	96.0 (0.5)	96.0 (0.5)	0.0 (0.6)	No
<b>Housing Section</b>	93.4 (0.5)	94.0 (0.4)	-0.6 (0.7)	No
<b>Detailed Person Section</b>	88.3 (0.6)	89.2 (0.7)	-0.9 (1.0)	No

Source: U.S. Census Bureau, American Community Survey, 2015 Replacement Mail Questionnaire Package Test  
 Margin of error shown in parenthesis \*Differences may differ due to rounding \*\* Significant at  $\alpha=0.1$  level  
 Treatment 2 (T2): Excludes Choice Card; **Excludes Instruction Guide**; Revised Messaging in Letter  
 Treatment 4 (T4): Excludes Choice Card; **Includes Instruction Guide**; Revised Messaging in Letter

The differences in rates between Treatments 2 and 4 shown in Table 9 above are not statistically significant. The results show that we do not have sufficient evidence to conclude that the completion rates between these two treatment groups are different when one of the treatments excludes the instruction guide<sup>8</sup>.

In addition to looking at completion rates, we compared item nonresponse rates and response distributions for several items. Table 10 shows item nonresponse rates (proportion of eligible

respondents not responding to the item) for the Internet mode and Table 11 shows the estimates for the mail mode. The response distributions for the survey items included in Tables 10 and 11 are shown in Appendix E and Appendix F.

**Table 10. Item Nonresponse Rates, Internet Mode – Treatment 2 (T2) versus Treatment 4 (T4)**

	T2 Rate	T4 Rate	Difference*	Significant? **
Race	0.5 (0.4)	0.7 (0.5)	-0.3 (0.6)	No
Hispanic Origin	0.2 (0.2)	0.4 (0.4)	-0.2 (0.4)	No
Building Type	0.0 (0.0)	0.2 (0.2)	-0.2 (0.2)	No
Electricity Amount	2.2 (0.8)	2.3 (0.7)	-0.0 (1.1)	No
Water Amount	2.5 (0.9)	2.4 (0.7)	0.1 (1.1)	No
Tenure	0.2 (0.2)	0.4 (0.3)	-0.2 (0.3)	No
Property Value	2.9 (1.1)	3.0 (1.3)	-0.1 (1.7)	No
Presence of a Mortgage	0.3 (0.4)	0.2 (0.4)	0.1 (0.5)	No
Property Insurance	6.4 (1.6)	5.9 (1.6)	0.5 (2.1)	No
Citizenship	7.1 (1.3)	7.3 (1.5)	-0.3 (1.8)	No
Educational Attainment	6.6 (1.2)	7.2 (1.5)	-0.6 (1.8)	No
Mobility Status	7.2 (1.3)	7.6 (1.5)	-0.4 (1.9)	No
Work Last Week	7.1 (1.4)	6.7 (1.3)	0.4 (1.8)	No
Transportation to Work	2.0 (0.7)	1.2 (0.7)	0.8 (1.0)	No
Wages	3.4 (0.8)	2.6 (0.8)	0.8 (1.0)	No

Source: U.S. Census Bureau, American Community Survey, 2015 Replacement Mail Questionnaire Package Test

\*Differences may differ due to rounding \*\* Significant at  $\alpha=0.1$  level, adjusted using Holm-Bonferroni method  
Margin of error shown in parenthesis

Treatment 2 (T2): Excludes Choice Card; **Excludes Instruction Guide**; Revised Messaging in Letter

Treatment 4 (T4): Excludes Choice Card; **Includes Instruction Guide**; Revised Messaging in Letter

We conducted chi-square tests, performed at a significance level of 0.1, to reject or fail to reject the null hypothesis that the item nonresponse rates and response distributions are equal between treatments. The p-values (adjusted for multiple comparisons) failed to reject the null hypothesis for all items. The hypotheses tests performed on the difference in the response distributions (shown in Appendix E) also failed to produce significant results. The item nonresponse rates and response distributions for Treatment 2 (excludes the guide) are not statistically different from the item nonresponse rates and response distributions for Treatment 4 (includes the guide)<sup>8</sup>.

Next, we looked at response data for mail responders (shown in Table 11).

**Table 11. Item Nonresponse Rates, Mail Mode – Treatment 2 (T2) versus Treatment 4 (T4)**

	T2 Rate	T4 Rate	Difference*	Significant?***
Race	5.1 (0.9)	4.5 (0.7)	0.6 (1.1)	No
Hispanic Origin	7.9 (1.0)	7.8 (0.9)	0.1 (1.2)	No
Building Type	2.5 (0.6)	2.6 (0.6)	-0.0 (0.9)	No
Electricity Amount	6.6 (0.9)	5.1 (0.9)	1.5 (1.3)	No
Water Amount	9.8 (1.1)	8.3 (1.0)	1.5 (1.6)	No
Tenure	6.2 (0.9)	4.7 (0.8)	1.5 (1.2)	No
Property Value	11.9 (1.2)	10.9 (1.3)	1.0 (1.8)	No
Presence of a Mortgage	5.3 (1.0)	5.5 (1.0)	-0.1 (1.5)	No
Property Insurance	16.0 (1.8)	13.1 (1.5)	2.9 (2.3)	No
Citizenship	8.1 (1.1)	7.1 (0.7)	1.0 (1.3)	No
Educational Attainment	8.9 (1.1)	8.1 (0.8)	0.8 (1.5)	No
Mobility Status	13.4 (1.1)	11.5 (1.0)	1.9 (1.6)	No
Work Last Week	8.3 (1.0)	6.7 (0.9)	1.6 (1.6)	No
Transportation to Work	3.0 (0.7)	3.5 (0.8)	-0.5 (1.1)	No
Wages	12.6 (1.3)	10.9 (1.5)	1.7 (1.9)	No

Source: U.S. Census Bureau, American Community Survey, 2015 Replacement Mail Questionnaire Package Test

\*Differences may differ due to rounding \*\* Significant at  $\alpha=0.1$  level, adjusted using Holm-Bonferroni method

Margin of error shown in parenthesis

Treatment 2 (T2): Excludes Choice Card; **Excludes Instruction Guide**; Revised Messaging in Letter

Treatment 4 (T4): Excludes Choice Card; **Includes Instruction Guide**; Revised Messaging in Letter

Table 11 shows that the item nonresponse rates for Treatment 2 are not statistically different from the item nonresponse rates for Treatment 4. While not statistically different, there is a pattern in the differences. Most of the item nonresponse rates for Treatment 2 are nominally higher than the rates for Treatment 4. In addition, none of the hypotheses test produced significant results between treatments for the response distributions shown in Appendix F. The chi-square test, performed at a significance level of 0.1 failed to reject the null hypothesis for all items included in the study. The presence of the instruction guide appeared to have no significant effects on item nonresponse rates or response distributions for the items included in the study<sup>8</sup>.

### **3.6 What is the impact of removing the instruction guide from the paper questionnaire mailing package on the number of calls to Telephone Questionnaire Assistance (TQA)?**

Using the same set of treatments as above (Treatments 2 and 4), we compared the number of calls to TQA to see if the absence of the instruction guide prompts more calls for help completing the questionnaire. We only counted calls from sample units who were in sample for test treatments 2 or 4, sent a replacement mailing package, and called TQA after we sent the replacement package. We excluded other calls since the presence or exclusion of the instruction guide could not have prompted their calls. We tracked calls from 300 sampled units in Treatment 2 and 282 sampled units in Treatment 4. We reviewed the reasons for calling TQA

provided by the callers and did not see any evidence showing that removing the instruction guide would influence the number of calls to TQA.

### **3.7 What would be the impact on the cost of data collection if each test treatment were implemented into ACS production operations?**

We compared each test treatment to the control to determine if any treatment would result in meaningful cost savings for the ACS program. Prior to fielding the test, we performed an analysis to determine projected cost savings if the test treatment performed equally as well as the current ACS production mailing strategies. In such a scenario, removing only the choice card (Treatment 4) would result in relatively small savings for printing costs, while removing only the instruction guide (Treatment 3)—which is more expensive to print and adds weight to the mail package, increasing postage costs—would result in more savings in both printing and postage costs, representing approximately 2.5 percent of the total cost of the ACS self-response operation. Removing both the choice card and the instruction guide (Treatments 1 and 2) would result in savings of approximately 2.7 percent.

Because none of the treatments resulted in significantly different self-response return rates at the end of the self-response phase of the data collection cycle, any cost savings in the subsequent nonresponse follow-up operations cannot be considered significant. Thus, we can only conclude with confidence the savings resulting directly from the change in the materials used in the mail packages.

## **4. Conclusions**

The test did not find significant differences in self-response return rates between the treatments compared in the study. Appendix G shows a summary of the return rates and their MOEs by treatment.

At the end of the self-response phase of data collection, the total self-response return rates for the treatment with the choice card and instruction guide (Control) and the treatment excluding the choice card and instruction guide (Treatment 1) were both 28.9 percent. We found similar results when comparing the Control to Treatment 3 to test the impact of removing only the instruction guide (28.9 percent and 29.0 percent, respectively). We also studied the effects of excluding the instruction guide after de-emphasizing the choice messaging (both treatments excluded the choice card and had the revised messaging in their letters), and did not find significant differences in self-response return rates. The return rates were also not statistically different when comparing Treatment 1 and Treatment 3, indicating that removing only the choice card did not appear to have an effect on self-response return rates. While not statistically significant, we found the largest nominal difference when comparing Treatment 1 and Treatment 2 (28.9 percent and 29.9 percent, respectively). Both of these treatments excluded the choice card and instruction guide, however Treatment 1 used the control messaging in the letter, while Treatment 2 used the revised messaging de-emphasizing a choice of modes.

We continued our analysis of the impact of removing the instruction guide by comparing form completion rates, item nonresponse rates, and response distributions. We used response data from Treatment 2 (excludes instruction guide) and Treatment 4 (includes instruction guide). We did not find statistically significant differences in the estimates between treatments. However, most of the item nonresponse rates for the mail mode were nominally higher for the treatment excluding the guide (Treatment 2).

We compared the number of TQA calls between Treatment 2 (excludes instruction guide) and Treatment 4 (includes instruction guide) and did not find any evidence suggesting that removing the instruction guide would increase calls to TQA.

In terms of response measures, the research concluded that there were no statistically significant differences between the treatments compared in the study<sup>8</sup>. However, there are costs associated with printing and mailing the choice card and instruction guide. The cost of the choice card is relatively small, however the instruction guide is very expensive to include in the mailing package. We found that removing the instruction guide would save approximately 2.5 percent of the total cost of the ACS self-response operation, while removing both the choice card and the instruction guide would result in savings of approximately 2.7 percent.

After performing a thorough cost analysis and risk assessment, the Census Bureau may consider removing the instruction guide and/or the choice card from the ACS replacement questionnaire mailing package. It should also be noted that we are currently testing other informational materials that may be suitable replacements for the instruction guide. We will share the results of these tests once they are available.

The results of this test could have been affected by the mail sort issue documented in the limitations section of the report. We modified the design for future tests to account for this limitation.

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## Appendix A. Instruction Guide (Control and Treatment 4)



### Your Guide for

# THE American Community Survey

This guide gives helpful information on completing your survey form. If you need more help, call 1-800-354-7271. The telephone call is free. After you have completed your survey form, **please return it in the postage-paid envelope** we have provided.

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#### **Your Answers are Confidential and Required by Law**

The law, Title 13, Sections 9, 141, 193, and 221 of the U.S. Code, authorizing the American Community Survey, also provides that your answers are confidential. No one except Census Bureau employees may see your completed form and they can be fined and/or imprisoned for any disclosure of your answers.

The same law that protects the confidentiality of your answers **requires** that you provide the information asked in this survey to the best of your knowledge.

U.S. DEPARTMENT OF COMMERCE  
Economics and Statistics Administration  
U.S. CENSUS BUREAU

ACS-30(2015)  
(7-2014)

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## How to Fill Out the American Community Survey Form

Use blue or black ink to complete the form. Please mark the category or categories as they apply to your household. Some questions ask you to print the information. See **examples** below.

Make sure you answer questions for each person in this household. If anyone in the household, such as a roomer or boarder, does not want to give you his or her personal information, print at least the person's name and answer questions 2 and 3. **An interviewer may telephone to get the information from that person.**

There may be a question you cannot answer exactly. For example, you may not know the age of an older person or the price for which your house would sell. Ask someone else in your household; if no one knows, give your best estimate.

Read these instructions and also follow the instructions provided throughout the questionnaire. These instructions will help you understand the questions and to answer them correctly. If you need assistance, call 1-800-354-7271. The telephone call is free.

### Examples of Printed and Marked Entries

**14** a. Does this person speak a language other than English at home?

Yes

No → SKIP to question 15a

b. What is this language?

Korean

*For example: Korean, Italian, Spanish, Vietnamese*

**23** In what year did this person last get married?

Year

2 0 0 8

### Instructions for Completing the Survey Questions

List the name of each person who lives at this address. If you are not sure if you should list a person, see the guidelines on the front page of the form. If you are still not sure, call 1-800-354-7271 for help.

In the space labeled **Person 1**, print the name of the household member living or staying here in whose name the house or apartment is owned, being bought, or rented.

If there is no such person, any adult household member can be **Person 1**.

If there are more than 5 people in your household, please provide the name of each additional person on page 4. For each additional person listed on page 4, you should also provide this person's sex and age. Complete this form for the first five people listed on pages 2, 3, and 4, and mail it back in the enclosed envelope as soon as possible. An interviewer may telephone to obtain information for the additional persons.

If no one is living or staying at this address for more than 2 months, complete questions 1, 2, 4, 6, 7, and 8 on page 5. If the home is for rent or rented, but not yet occupied, also complete question 18 on page 7. If the home is for sale only or sold, but not yet occupied, also complete question 19 on page 7.

### Answer person questions 1 through 6 for the first five people listed on pages 2, 3, and 4 of the questionnaire.

1. Print the person's Last Name, First Name, and Middle Initial (MI) in the spaces provided.
2. If the person is related to Person 1 by birth, marriage, or adoption, but is not the "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," of Person 1, mark the "Other relative" box. Therefore, a niece or nephew of Person 1 would be categorized as "Other relative."

If a person is **not** related to Person 1, mark the applicable box. A "Roomer or boarder" is someone who occupies room(s) and makes cash or non-cash payment(s). A "Housemate or roommate" is someone sharing the house/apartment (but who is not romantically involved) with Person 1. A "Housemate or roommate" is also 15 years old or over and shares living quarters primarily to share expenses. An "Unmarried partner," also known as a domestic partner, is a person who shares a close personal relationship with Person 1. A "Foster child" is someone under the age of 21 who is involved in the formal foster care system. For all other people who are not related to person 1, mark the "Other nonrelative" box.

3. Mark one box to indicate this person's biological sex.
4. For each person, print this person's age and month, day, and year of birth. Print the age at the last birthday. Do not round the age up if this person is close to having a birthday. If the exact age is not known, provide an estimate. Print "0" for babies less than 1 year old.

Please answer **BOTH** question 5 about Hispanic origin and question 6 about race. For this survey, Hispanic origins are not races.

5. A person is of Hispanic, Latino, or Spanish origin if the person's origin (ancestry) is Mexican, Mexican American, Chicano, Puerto Rican, Cuban, Argentinean, Colombian, Costa Rican, Dominican, Ecuadorian, Guatemalan, Honduran, Nicaraguan, Peruvian, Salvadoran, from other Spanish-speaking countries of Central or South America or from Spain.

The term *Mexican Am.* refers to persons of Mexican-American origin or ancestry.

If you mark the "Yes, another Hispanic, Latino, or Spanish origin" box, print the name of the specific origin.

If a person is not of Hispanic, Latino, or Spanish origin, answer this question by marking the "No, not of Hispanic, Latino, or Spanish origin" box.

This question should be answered for **all** persons.

6. Mark all boxes for the appropriate races.

The concept of race, as used by the Census Bureau, reflects self-identification by individuals according to the race or races with which they identify.

The instruction before question 5, *For this survey, Hispanic origins are not races*, reflects the federal government's treatment of Hispanic origin and race as separate and distinct concepts. People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

People may choose to provide two or more races either by marking two or more race response boxes, by providing multiple write-in responses, or by some combination of marking boxes and writing in responses.

If you mark the "American Indian or Alaska Native" box, print the name of the person's enrolled or principal tribe(s) in the space provided (for example, Navajo Nation, Blackfeet Tribe, Muscogee (Creek) Nation, Mayan, Doyon, Native Village of Barrow Inupiat Traditional Government, and so on).

If you mark the "Other Asian" box, print the name of the specific Asian group(s) in the space provided (for example, Pakistani, Cambodian, Hmong, Thai, Laotian, Bangladeshi, and so on).

If you mark the "Other Pacific Islander" box, print the name of the specific Pacific Islander group(s) in the space provided (for example, Tongan, Fijian, Marshallese, Palauan, Tahitian, Papua New Guinean, and so on).

If you mark the "Some other race" box, print the specific group(s) in the space provided.

This question should be answered for all persons.

**Answer housing questions 1 through 24 for the house, apartment, or mobile home at the address on the mailing label.**

**1. Mark only one category.**

Count both occupied and vacant apartments in the house or building. Do not count stores or office space.

*Detached* means there is open space on all sides, or the house is joined only to a shed or garage. *Attached* means that the house is joined to another house or building by at least one wall that goes from ground to roof. An example of "A one-family house attached to one or more houses" is a house in a row of houses attached to one another, sometimes referred to as a townhouse.

A mobile home that has had one or more rooms added or built onto it should be considered as "A one-family house detached from any other house." If only a porch or shed has been added to a mobile home, it should be considered as a mobile home.

Towable RVs, such as travel trailers or fifth-wheel trailers, should be considered as "A mobile home." Self-propelling RVs or motorhomes should be considered as a "Boat, RV, van, etc."

**2. Mark the box that corresponds to the year in which the original construction was completed, not the time of any later remodeling, additions, or conversions.**

If the building was first built in 2000 or later, enter the exact year it was built.

If you live on a boat or in a mobile home, enter the year corresponding to the model year in which it was manufactured.

If you do not know the year the building was first built, give your best estimate.

**3. Enter the month and year that Person 1 listed on page 2 last moved into this house, apartment, or mobile home.**

**4. Complete this question if you live in a one-family house or in a mobile home; include only land that you own or rent.**

The number of acres is the acreage on which the house or mobile home is located; include adjoining land you rent for your use.

**6. Complete this question if you live in a one-family house or mobile home. A business, such as a grocery store or barber shop, is easily recognized from the outside and usually has a separate entrance. A medical office is a doctor's or dentist's office regularly visited by patients.**

**7b. Include all rooms intended to be used as bedrooms in this house, apartment, or mobile home, even if they are currently being used for other purposes.**

Enter "0" for an efficiency or studio apartment that does not have a separate bedroom. Your response to question 7b should be smaller than the number of rooms reported in question 7a.

**8a. Mark "Yes" to "hot and cold running water" even if the unit has hot water only part of the time.**

**8d. Mark "Yes" to "sink with a faucet" if the sink is inside the house, apartment or mobile home and the water can be turned on and off with a faucet.**

**8e. Mark "Yes" to "a stove or range" if the stove or range is inside the house, apartment or mobile home. Portable cooking equipment is not considered a stove or range.**

**8g. Mark "Yes" to "telephone service ..." if (1) there is a telephone in working order, and someone receives service at this house, apartment, or mobile home; or (2) if someone has a cell phone from which you can both make and receive calls. If service has been discontinued because of nonpayment or any other reason, mark the "No" box.**

**9. Mark the "Yes" or "No" box for each part of question 9.**

**DO NOT** include devices such as portable book readers, Internet movie players, portable gaming devices, and other devices with limited computing capabilities.

"Desktop, laptop, netbook, or notebook computer" are types of computers that operate primarily with a keyboard.

"Handheld computer, smart mobile phone, or other handheld wireless computer" are types of computers that can be used by holding in one hand. Some handheld computers, such as smartphones, are able to make phone calls while others cannot.

"Some other type of computer" are devices with advanced capabilities, such as tablet computers. These devices often feature "touch screen" operations and have applications that allow them to function like a desktop or a laptop computer.

**10. Mark only one box.**

Access to the Internet **with a subscription to an Internet service** includes any service that any member of the household obtains directly through a contract agreement with an Internet service provider, or through payments to a landlord, the government, or someone else. Access to the Internet **without a subscription to an Internet service** includes services that do not require an account or contract agreement.

**11. Mark the "Yes" or "No" box for each part of question 11.**

"Dial-up service" is a type of Internet service that uses a regular telephone line to connect to the Internet. "DSL service" is a broadband Internet service that uses a regular telephone line and, unlike dial-up, allows users to be online and use the phone at the same time. "Cable modem service" is a broadband Internet service that uses a cable TV line. "Fiber-optic service" is a broadband Internet service that uses a fiber-optic line. "Mobile broadband plan for a computer or a cell phone" include wireless broadband Internet service that can be accessed through a portable modem in a computer or cell phone. "Satellite Internet service" is a broadband Internet service that uses a satellite dish.

**12. Include company cars, vans or SUVs (including police cars and taxicabs) and company trucks of one-ton (2,000 pounds) capacity or less that are regularly kept at home and are used by household members for nonbusiness purposes. DO NOT count (1) cars or trucks permanently out of working order, or (2) motorcycles or other recreational vehicles.**

**13. Mark one category for the fuel used MOST to heat this house, apartment, or mobile home. In buildings containing more than one apartment, you may obtain this information from the owner, manager, or janitor.**

"Solar energy" is provided by a system that collects, stores, and distributes heat from the sun. "Other fuel" includes any fuel not listed separately, such as purchased steam, fuel briquettes, and waste material.

**14a-14d.**

If your house, apartment, or mobile home is rented, enter the costs for utilities and fuels **only if you pay for them in addition to the monthly rent.**

If you live in a condominium, enter the costs for utilities and fuels **only if you pay for them in addition to your condominium fee.**

If your fuel and utility costs are included in your rent or condominium fee, mark the **"Included in rent or condominium fee"** box. **DO NOT** enter any dollar amounts.

For items **14a** and **14b**, report **LAST MONTH'S costs.** For items **14c** and **14d**, report total costs for the **PAST 12 MONTHS.**

Estimate as closely as possible if you do not know exact costs. If you have lived in this house, apartment, or mobile home less than one year, estimate the costs for the **PAST 12 MONTHS** in **14c** and **14d.**

Report amounts even if your bills are unpaid or paid by someone else. If the bills include utilities or fuel used also by another apartment or a business establishment, estimate the amounts for your house or apartment only. If gas and electricity are billed together, enter the combined amount in **14a** and mark the **"Included in electricity payment entered above"** box in **14b.**

- 15.** On October 1, 2008, the federal Food Stamp Program was renamed SNAP (Supplemental Nutrition Assistance Program). Some states may have their own specific name for this program. If you or any member of this household received benefits from the government to buy food for your family using a benefit card, mark the **"Yes"** box.

- 16.** A *condominium* is housing in which the apartments, houses, or mobile homes in a building or development are individually owned, but the common areas, such as lobbies and halls, are jointly owned. Occupants of a cooperative should mark the **"No"** box.

A *condominium* fee is normally assessed by the condominium owners' association for the purpose of improving and maintaining the common areas. Enter a monthly amount even if it is unpaid or paid by someone else. If the amount is paid on some other periodic basis, see the instruction for question **18a** on how to change it to a monthly amount.

- 17.** Housing is owned if the owner or co-owner lives in it.

If the house, apartment, or mobile home is mortgaged or there is a contract to purchase, mark the **"Owned by you or someone in this household with a mortgage or loan? Include home equity loans."** box. If there is no mortgage or other debt, mark the **"Owned by you or someone in this household free and clear (without a mortgage or loan)?"** box. If the house, apartment, or mobile home is owned but the land is rented, mark one of the *owned* categories. If the mobile home is owned without an installment loan, but there is a mortgage on the land, mark the **"Owned by you or someone in this household with a mortgage or loan? Include home equity loans."** box.

If any money rent is paid, even if the rent is paid by people who are not members of your household, or paid by a federal, state, or local government agency, mark the **"Rented?"** box.

If the unit is **not** owned or being bought by a member of this household and if money rent is **not** paid or contracted, mark the **"Occupied without payment of rent?"** box. The unit may be owned by friends or relatives who live elsewhere and who allow you to occupy this house, apartment, or mobile home without charge. A house or apartment may be provided as part of wages or salary. Examples are: caretaker's or janitor's house or apartment; parsonages; tenant farmer or sharecropper houses for which the occupants do not pay rent; or military housing.

- 18a.** Report the rent agreed to or contracted for, even if the rent for your house, apartment, or mobile home is unpaid or paid by someone else.

If rent is paid:	Multiply rent by:	If rent is paid:	Divide rent by:
By the day . . . . .	30	4 times a year . . . . .	3
By the week . . . . .	4	2 times a year . . . . .	6
Every other week . . . . .	2	Once a year . . . . .	12

- 18b.** If meals are included in the monthly rent payment, or you must contract for meals or a meal plan in order to live in this house, apartment, or mobile home, mark the **"Yes"** box.

**Answer Housing questions 19 through 23 if you or any member of this household owns or is buying this house, apartment, or mobile home.**

- 19.** Enter your best estimate of the value of the property; that is, how much you think the property would sell for if it were on the market. If this is a house, include the value of the house, the land it is on, and any other structures on the same property. If the house is owned but the land is rented, estimate the combined value of the house and the land. If this is a condominium unit, estimate the value for the condominium, including your share of the common elements. If this is a mobile home, include the value of the mobile home **and the value of the land only if you own the land.**

- 20.** Report taxes for all taxing jurisdictions (city or town, county, state, school district, etc.) even if they are included in your mortgage payment, not yet paid or paid by someone else, or are delinquent. **DO NOT** include taxes past due from previous years.

- 21.** When preliums are paid other than on a yearly basis, convert to a yearly basis. Enter the yearly amount even if no payment was made during the past year.

- 22a.** *Mortgages* includes all types of loans secured by real estate, including reverse mortgages.

- 22b.** Enter a monthly amount even if it is unpaid or paid by someone else. If the amount is paid on some other periodic basis, see the instructions for **18a** to change it to a monthly amount.

Include payments on first mortgages and contracts to purchase only. Report payments for second or junior mortgages and home equity loans in **23b.**

If there is a reverse mortgage, mark the **"No regular payment required"** box.

If this is a mobile home, report payments on installment loans but **do not** include personal property taxes, site rent, registration fees, and license fees on the mobile home and site. Report these fees in item **24.**

- 23a.** A *second mortgage or home equity loan* is also secured by real estate. You must have a first mortgage in order to have a second mortgage. You may have a home equity loan and other mortgages on the property or the home equity loan may be the only mortgage.

- 23b.** Enter the monthly amount even if it is unpaid or paid by someone else. If the amount is paid on some other periodic basis, see instructions for **18a** to change it to a monthly amount. Include payments on all second or junior mortgages or home equity loans.

**Answer Housing question 24 if this is a mobile home that you own or are buying.**

- 24.** Report an amount even if your bills are unpaid or are paid by someone else.

Include payments for personal property taxes, land or site rent, registration fees and license fees. **DO NOT** include real estate taxes already reported in **20.** Report the total annual amount even if you make payments in two or more installments. Estimate as closely as possible if you don't know exact costs.

**Answer Person questions 7 through 17 for all persons on pages 2, 3, and 4.**

Questions 7 – 48 are a continuation of the questions for each person. (Questions 1 – 6 appear on pages 2, 3, and 4 of the questionnaire.)

**7. For people born in the United States:**

Mark the **"In the United States"** box and then print the name of the state in which the person was born. If the person was born in Washington, D.C., print "District of Columbia."

*For people born outside the United States:*

Mark the **"Outside the United States"** box, and then print the name of the foreign country or Puerto Rico, Guam, etc. where the person was born. Use current boundaries, not boundaries at the time of the person's birth. For example, specify Czech Republic or Slovakia, not Czechoslovakia; North or South Korea, not Korea. Specify the particular country, not region. For example, specify Jamaica, not West Indies; Kenya, not East Africa.

- 8.** If the person was born in the United States (50 states and the District of Columbia), mark the **"Yes, born in the United States"** box. If the person was born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas, mark the **"Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas"** box. Although not listed, if the person was born in American Samoa, mark **"Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas"** box. If the person was born outside the United States (50 states and the District of Columbia) or at sea and had at least one parent who was a U.S. citizen at the time of the person's birth, mark the **"Yes, born abroad of U.S. citizen parent or parents"** box. Mark the **"Yes, U.S. citizen by naturalization"** box only if this person was born outside the United States (50 states and the District of Columbia) and has completed the naturalization process and is now a United States citizen. In the box below *"Print year of naturalization,"* enter the four-digit year this person completed the formal naturalization process. If this person is not a U.S. citizen, mark the **"No, not a U.S. citizen"** box. Legal Permanent Residents (LPRs) or "green card" holders, or other non-naturalized immigrants or visitors to the U.S. are not citizens of the United States and therefore should mark the **"No, not a U.S. citizen"** box.

- 10a.** A *public school* is any school or college that is supported and controlled primarily by a local, county, state, or federal government. Schools are *private* if supported and controlled primarily by religious organizations or other private groups. *Home school* applies to parental guided education outside of a public or private school for grades 1–12.

- 10b.** Only record grades that the person attended in the **LAST 3 MONTHS**. If this is currently a summer month, do not record grades the person will attend in the future.

- 11. Mark only ONE box** to indicate the highest grade or level of schooling the person has **COMPLETED** or the **highest degree** the person received.

Report schooling completed in foreign or ungraded schools as the equivalent level of schooling in the regular American school system.

Mark the **"GED or alternative credential"** box for persons who did not receive a regular high school diploma but completed high school by receiving a GED or other formal recognition of high school completion from a school or governmental authority.

If the person has not completed any college courses for credit, mark the highest level completed below the college level. If the person has not completed enough credit to be counted as a sophomore, mark the **"Some college credit, but less than 1 year of college credit"** box.

For the **"Professional degree beyond a bachelor's degree"** category, **do not** include certificates or diplomas for training in specific trades or occupations such as computer and electronics technology, medical assistant, or cosmetology. **DO NOT** include post-bachelor's certificates that are related to occupational training in such fields as teaching, accounting, or engineering.

- 12.** Answer this question only if the person has a bachelor's degree or higher and print the specific major of this person's **BACHELOR'S DEGREE**. If this person has more than one bachelor's degree or more than one major, print the names of the specific majors for all of this person's bachelor's degree(s).

- 13.** Print the ancestry group(s). *Ancestry* refers to the person's ethnic origin or descent, "roots," or heritage. *Ancestry* may also refer to the country of birth of the person or the person's parents or ancestors before their arrival in the United States. Answer this question for **all** persons, regardless of race, Hispanic origin, or place of birth.

Do not report a religious group as a person's ancestry.

A person may report two ancestry groups (for example: German, Irish).

- 14a.** Mark the **"Yes"** box if the person sometimes or always speaks a language other than English at home.

Mark the **"No"** box if the person speaks only English, or if a non-English language is spoken only at school or is limited to a few expressions or slang.

- 14b.** If this person speaks more than one non-English language and cannot determine which is spoken more often, report the one the person first learned to speak.

- 15a.** If the person did not live in the United States or Puerto Rico one year ago, mark the **"No, outside the United States and Puerto Rico"** box and print the name of the foreign country, or U.S. Virgin Islands, Guam, etc., where the person lived. Be specific when printing the name of the foreign country; for example, specify Czech Republic or Slovakia, not Czechoslovakia; North or South Korea, not Korea. Specify the particular country, not region. For example, specify Jamaica, not West Indies; Kenya, not East Africa. Then **SKIP** to question 16.

If the person lived somewhere else in the United States or Puerto Rico one year ago, mark the **"No, different house in the United States or Puerto Rico"** box.

- 15b.** Include the house or structure number; street name; street type (for example, St., Road, Ave.); and the street direction (if a direction such as "North" is part of the address). For example, print 1239 N. Main St. or 1239 Main St., N.W., not just 1239 Main. If the person lived in Puerto Rico, the address should also include the name of the development or condominium.

*If the only known address* is a post office box, give a description of the residence location. For example, print the name of the building where the person lived, the nearest intersection, the name of a military base or installation, or the nearest street where the residence was located, etc. **DO NOT** give a post office box number.

Print the name of the U.S. county or the name of the municipio in Puerto Rico. If the person lived in Louisiana, print the parish name in the **"Name of U.S. county or municipio in Puerto Rico"** space. If the person lived in Alaska, print the borough or census area name, if known. If the person lived in New York City and the county name is not known, print the borough name. If the person lived in an independent city (not in any county) or in Washington, D.C., leave the **"Name of U.S. county or municipio in Puerto Rico"** space blank.

- 16.** Mark the **"Yes"** or **"No"** box for each part of question 16.

If the person reports any other type of coverage plan in 16h, specify the type of coverage or name of the plan in the write-in box. **DO NOT** include plans that cover only one type of health care (such as dental plans) or plans that only cover a person in case of an accident or disability.

**Answer Person questions 18a through 18c if this person is 5 years old or over.**

**18a–18c.**

Mark the **"Yes"** or **"No"** box to indicate if the person has serious difficulty with any of the activities listed in parts a, b, and c because of a physical, mental, or emotional condition.

**Answer Person questions 19 through 48 if this person is 15 years old or over.**

20. Mark the **"Now married"** box for a married person regardless of whether his or her spouse is living in the household unless they are separated. If the person's only marriage was annulled, mark the **"Never married"** box. Mark the **"Divorced"** box only if the person has received a divorce decree.
- 21c. Mark the **"Yes"** box only if the person has received a divorce decree in the **PAST 12 MONTHS**.
22. Do not count marriages that ended in annulment.
23. Enter the four-digit year when the person last got married, even if the person is now widowed, divorced, or separated.

**Answer question 24 if this person is female and is 15–50 years old.**

24. Mark the **"Yes"** box if the person has given birth to at least one child born alive in the **past 12 months**, even if the child died or no longer lives with the mother. Do not consider miscarriages, or stillborn children, or any adopted, foster, or stepchildren.
26. **Active duty** means full-time service, other than active duty for training as a member of the Army, Navy, Air Force, Marine Corps, Coast Guard, or as a commissioned officer of the Public Health Service or the National Oceanic and Atmospheric Administration, or its predecessors, the Coast and Geodetic Survey or Environmental Science Service Administration. **Active duty** also applies to a person who is a cadet attending one of the five United States Military Service Academies. For a person with service in the military Reserves or National Guard, mark the **"Only on active duty for training in the Reserves or National Guard"** box if the person has never been called up for active duty, mobilized, or deployed. For a person whose only service was as a civilian employee or civilian volunteer for the Red Cross, USO, Public Health Service, or War or Defense Department, mark the **"Never served in the military"** box. For Merchant Marine service, count only the service during World War II as active duty and no other period of service.
27. Mark as many responses as apply.
- 28a. Mark the **"Yes"** box if the person has a Department of Veterans Affairs (VA) service-connected disability rating.
- 28b. Mark the **"0 percent"** box if the person has received a service-connected disability rating of zero. **DO NOT** mark the box showing **"0 percent"** to indicate no rating.

**29a–29b.**

*Count as work – Mark the "Yes" box if this person performed:*

- Work for someone else for wages, salary, piece rate, commission, tips, or payments "in kind" (for example, food or lodging received as payment for work performed).
- Work in own business, professional practice, or farm.
- Any work in a family business or farm, paid or not.
- Any part-time work including babysitting, paper routes, etc.
- Active duty in the Armed Forces.

*Do not count as work – Mark the "No" box if this person's activities were limited to the following:*

- Housework or yard work at home.
- Unpaid volunteer work.
- School work done as a student.
- Work done as a resident or inmate of an institution facility (like a nursing facility or correctional facility).

30. Include the building or structure number; street name; street type (for example, St., Road, Ave.); and the street direction (if a direction such as "North" is part of the address). For example, print 1239 N. Main St. or 1239 Main St., N.W., not just 1239 Main.

*If the only known address is a post office box, give a description of the work location. For example, print the name of the building or shopping center where the person works, the nearest intersection, or the nearest street where the workplace is located, etc. **DO NOT** give a post office box number.*

*If the person worked at a military installation or military base that has no street address, report the name of the military installation or base, and a description of the work location (such as building number, building name, nearest street or intersection).*

*If the person worked at several locations, but reported to the same location each day to begin work, print the street address of the location where he or she reported. If the person did not report to the same location each day to begin work, print the address of the location where he or she worked most of the time last week.*

*If the person's employer operates in more than one location (such as a grocery store chain or public school system), print the street address of the location or branch where the person worked. If the street address of a school is not known, print the name of the school, and a description of the location (such as nearest street or intersection).*

*If the person worked on a college or university campus and the street address of the workplace is not known, print the name of the building where he or she worked, and a description of the location (such as nearest street or intersection).*

*If the person worked in a foreign country or Puerto Rico, Guam, etc., print the name of the country on the state or foreign country line.*

31. Mark only one box to indicate the method of transportation used to travel the **longest distance** to work **LAST WEEK**.

• Mark the **"Car, truck, or van"** box if the person drove a station wagon, company car, light truck of 1-ton capacity or less, truck cab, mini bus, or private limousine (NOT for hire).

• Mark the **"Streetcar or trolley car"** box if the person took light rail or other vehicle that operates on tracks or rails with overhead electrical wires.

• Mark the **"Subway or elevated"** box if the person took a subway, or other vehicle that operates on tracks or rails with complete separation from other vehicle and pedestrian traffic.

• Mark the **"Railroad"** box if the person took Amtrak, or any other commuter train with occasional railroad crossings for vehicle and pedestrian traffic.

• Mark the **"Taxicab"** box if the person took a limousine such as an airport limousine for which a fare is charged.

• Mark the **"Motorcycle"** box if the person rode a motorbike, moped, motor scooter, or similar vehicle that is motor driven.

• Mark the **"Bicycle"** box if the person rode a bicycle or other vehicle that is pedaled.

• Mark the **"Walked"** box ONLY if the person walked all the way to work and used no other means of transportation.

• Mark the **"Worked at home"** box if the person worked on a farm where he/she lives, or an office or shop in the person's own home.

• Mark the **"Other method"** box if the person took an airplane, helicopter, horse, horse and buggy, boat (other than public ferries), large motor home, dog sled, large truck or truck rig, All-Terrain Vehicle (ATV), snow machine/snowmobile, Segway® or other self-balancing electric vehicle, skateboard, inline skates, or motorized chair.

**Answer Person question 32 if you marked "Car, truck, or van" in question 31.**

32. If the person was driven to work by someone who then drove back home or to a non-work destination, enter "1" in the box labeled "Person(s)".  
**DO NOT** Include persons who rode to school or some other non-work destination in the count of persons who rode in the vehicle.
33. Give the time of day the person usually **left home to go to work**. **DO NOT** give the time that the person usually began his or her work.  
If the person usually left home to go to work sometime *between 12:00 o'clock midnight and 12:00 o'clock noon*, mark "**a.m.**"  
If the person usually left home to go to work sometime *between 12:00 o'clock noon and 12:00 o'clock midnight*, mark "**p.m.**"
34. Travel time is from door to door. Enter a one-way commute time for this person's usual daily commute from home to work **LAST WEEK**. Include time waiting for public transportation or picking up passengers in a carpool.

**Answer Person questions 35a through 38 if the person did not work last week.**

- 35a. Persons are *on layoff* if they are waiting to be recalled to a job from which they were temporarily separated for business-related reasons.
- 35b. If the person works only during certain seasons or on a day-by-day basis when work is available, mark the "**No**" box.
- 35c. If the person was informed by his or her employer, either formally or informally, that they will be recalled within the next 6 months, mark the "**Yes**" box. Also mark the "**Yes**" box if the person has been given, formally or informally, a specific date to return to work, even if that date is more than 6 months away.
36. Mark the "**Yes**" box if the person tried to get a job or start a business or professional practice at any time in the **LAST 4 WEEKS**; for example, registered at a public or private employment office, went to a job interview, placed or answered employment ads, or did anything toward starting a business or professional practice.
37. If the person was expecting to report to a job within 30 days, mark the "**Yes, could have gone to work**" box.  
Mark the "**No, because of own temporary illness**" box only if the person expects to be able to work within 30 days.  
If the person could not have gone to work because he or she was going to school, taking care of children, etc., mark the "**No, because of all other reasons (in school, etc.)**" box.
38. Refer to the instructions for questions 29a–29b to determine what to count as work. Mark the "**Over 5 years ago or never worked**" box if the person: (1) never worked at any kind of job or business, either full or part time, (2) never worked, with or without pay, in a family business or farm, and (3) never served on active duty in the Armed Forces.
- 39a–39b. Refer to the instructions for questions 29a–29b to determine what to count as work. Include paid vacation, paid sick leave, and military service. Count every week in which the person worked at all, even for an hour.
40. If the hours worked each week varied considerably in the **PAST 12 MONTHS**, give an approximate average of the hours worked each week.

**Answer Person questions 41 through 46 if the person worked in the past 5 years.**

41. If the person worked for a cooperative, credit union, mutual insurance company, or similar organization, mark the "**an employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization?**" box.  
If the person worked at a public school, college or university, mark the appropriate government category. For example, mark the "**a local GOVERNMENT employee (city, county, etc.)?**" box for a county-run community college or a city-run public school. Mark the "**a state GOVERNMENT employee?**" box for a state university.  
Employees of foreign governments, the United Nations, and other international organizations should mark the "**a Federal GOVERNMENT employee?**" box for a state university.
42. If the person worked for a company, business, or government agency, print the name of the company, not the name of the person's supervisor. If the person worked for an individual or a business that had no company name, print the name of the individual this person worked for. If the person worked in his or her own un-named business, print "self-employed." If the person is currently in active duty military, please mark the checkbox and then print the name of the Armed Forces branch.
43. Describe the business, industry, or individual employer named in question 42. If there is more than one activity, describe only the major activity at the place where the person worked. Describe what is made, what is sold, or what service is given.  
**Enter descriptions like the following:** newspaper publishing, mail order house, auto engine manufacturing.
44. Mark one box to indicate the main type of business or industry where this person works or worked.
45. Describe the kind of work the person did. If the person was a trainee, apprentice, or helper, include that in the description.  
**Enter descriptions like the following:** registered nurse, personnel manager, supervisor of order department, and high school teacher.  
If possible, avoid single words such as: nurse, manager, and teacher.
46. Describe the most important activities or duties the person performed for his or her job.  
**Enter descriptions like the following:** patient care, directing hiring policies, supervising order clerks, typing and filing, reconciling financial records.

**Answer Person questions 47 through 48 if this person is 15 years old or over.**

Mark the "**Yes**" or "**No**" box for each type of income, and enter the amount received **IN THE PAST 12 MONTHS** for each "Yes" response.  
If income from any source was received jointly by household members, report, if possible, the appropriate share for each person; otherwise, report the whole amount for only one person and mark the "**No**" box for the other person.  
When reporting income received jointly, **DO NOT** include the amount for a person not listed on pages 2, 3, or 4.

**DO NOT include the following as income in any item:**

- Refunds or rebates of any kind
- Withdrawals from savings of any kind
- Capital gains or losses from the sale of homes, shares of stock, etc.
- Inheritances or insurance settlements
- Any type of loan
- Pay in-kind such as food, free rent

- 47a.** Include wages and salaries before deductions from **all** jobs. Be sure to include any tips, commissions, or bonuses. Owners of incorporated businesses should enter their salary here. Military personnel should include base pay plus cash housing and/or subsistence allowance, flight pay, uniform allotments, reenlistment bonuses.
- 47b.** Include **nonfarm** profit (or loss) from self-employment in sole proprietorships and partnerships. Mark the "Loss" box if there is a loss. Exclude profit (or loss) of incorporated businesses the person owns.  
Include **farm** profit (or loss) from self-employment in sole proprietorships and partnerships. Mark the "Loss" box if there is a loss. Exclude profit (or loss) of incorporated farm businesses the person owns. Also exclude amounts from land rented for cash but include amounts from land rented for shares.
- 47c.** Include interest received or credited to checking and saving accounts, money market funds, certificates of deposit (CDs), IRAs, KEOGHs, and government bonds.  
Include dividends received, credited, or reinvested from ownership of stocks or mutual funds.  
Include profit (or loss) from royalties and the rental of land, buildings or real estate, or from roomers or boarders. Mark the "Loss" box if there is a loss. Income received by self-employed persons whose primary source of income is from renting property or from royalties should be included in **47b**. Include regular payments from an estate or trust fund.
- 47d.** Include amounts, before Medicare deductions, of Social Security and/or Railroad Retirement payments to retired persons, to dependents of deceased insured workers, and to disabled workers.
- 47e.** Include Supplemental Security Income (SSI) received by elderly, blind, or disabled persons.
- 47f.** Include any public assistance or welfare payments received by check or electronic transfer from the state or local welfare office, even if received for only one month or less than a year. Include benefits received on behalf of children. These payments are sometimes referred to as Temporary Assistance for Needy Families (TANF), Aid to Families with Dependent Children (AFDC), Aid to Dependent Children (ADC), Welfare or welfare to work, General Assistance, General Relief, Emergency Assistance, and Diversion Payments. **Do not** include assistance received from private charities.  
**Do not** include Supplemental Security Income (SSI), food assistance (such as food stamps and benefits from the Supplemental Nutrition Assistance Program, or SNAP), rental assistance, education assistance, child care assistance, transportation assistance, or assistance with heating or cooling costs or **any other** energy assistance (such as Low Income Home Energy Assistance Program, or LIHEAP).
- 47g.** Include retirement, survivor or disability benefits received from companies and unions, federal, state, and local governments, and the U.S. military. Include regular income from annuities and IRA or KEOGH retirement plans.
- 47h.** Include Veterans' (VA) disability compensation and educational assistance payments (VEAP); unemployment compensation, worker's compensation, child support or alimony; and all other regular payments such as Armed Forces transfer payments, assistance from private charities, regular contributions from persons not living in the household.
- 48.** Add the total entries (subtracting losses) for **47a** through **47h** for the **PAST 12 MONTHS** and enter that number in the space provided. Mark the "Loss" box if there is a loss. Print the total amount in dollars.

## What the Survey Is About --

### Some Questions and Answers

#### Why are we taking a survey?

The Census Bureau is conducting the American Community Survey to provide more timely data than data we typically collect only once every 10 years during the decennial census.

#### What does the Census Bureau do with the information you provide?

The American Community Survey will be the source of summarized data that we make available to federal, state, and local governments, and also to the public. The data will enable your community leaders from government, business, and non-profit organizations to plan more effectively.

#### How was this address selected?

Your address was scientifically selected to represent a cross section of other households in your community. Households in the sample are required to complete the survey form. Please return it in the postage-paid envelope as soon as possible.

## Why the Census Bureau Asks Certain Questions --

Here are reasons we ask some of the questions on the survey.

#### Name

Names help make sure that everyone in a household is included, and that no one is listed twice.

#### Value or rent

Government and planning agencies use answers to these questions in combination with other information to develop housing programs to meet the needs of people at different economic levels.

#### Plumbing and Kitchen facilities

This question helps provide information on the quality of housing. The data are used with other statistics to show how the "level of living" compares in various areas and how it changes over time.

#### Place of birth

This question provides information used to study long-term trends about where people move and to study migration patterns and differences in growth patterns.

#### Job

Answers to the questions about the jobs people hold provide information on the extent and types of employment in different areas of the country. From this information, communities can develop training programs, and business and local governments can determine the need for new employment opportunities.

#### Income

Income helps determine how well families or persons live. Income information makes it possible to compare the economic levels of different areas, and how economic levels for a community change over time. Funding for many government programs is based on the answers to these questions.

#### Education

Responses to the education questions in the survey help to determine the number of new public schools, education programs, and daycare services required in a community.

#### Disability

Questions about disability provide the means to allocate federal funding for healthcare services and new hospitals in many communities.

#### Journey to work

Answers to these questions help communities plan road improvements, develop public transportation services, and design programs to ease traffic problems.



## Appendix B. Choice Card (Control and Treatment 3)



U.S. Department of Commerce | Economics and Statistics Administration

### Two Ways to Complete the American Community Survey:

 **Option 1** – Go to <https://respond.census.gov/acs> to complete the survey online. **IMPORTANT:** You will need information from the address label on the enclosed questionnaire to log in.

 **Option 2** – Fill out the enclosed questionnaire and mail it back in the postage-paid envelope.

Please choose **ONLY** one way to respond. If you need help or have questions about the American Community Survey, call the toll-free number 1-800-354-7271.

*Vea el otro lado para español.*

ACS-34RM (04/04/2013)

## Appendix C. Letter With Current Message (Control, Treatment 1 and Treatment 3)

ACS-14(L)SM (2013)  
(6-2012)



UNITED STATES DEPARTMENT OF COMMERCE  
Economics and Statistics Administration  
U.S. Census Bureau  
Washington, DC 20233-0001  
OFFICE OF THE DIRECTOR

A message from the Director, U.S. Census Bureau...

About two weeks ago, the U.S. Census Bureau sent instructions for completing the American Community Survey to your address. We asked you to help us with this very important survey by completing it online. But we have not received your response yet.

If you have already completed the survey, thank you very much. If you have not, please complete the survey soon using ONE of the following two options.

**Option 1:** Go to <https://respond.census.gov/acs> to complete the survey online.

**Option 2:** Fill out and mail back the enclosed questionnaire.

This survey is so important that a Census Bureau representative may attempt to contact you by telephone or personal visit if we do not receive your response.

The information collected in this survey will help decide where new schools, hospitals, and fire stations are needed. The information also is used to develop programs to reduce traffic congestion, provide job training, and plan for the health care needs of the elderly.

The Census Bureau chose your address, not you personally, as part of a randomly selected sample. You are required by U.S. law to respond to this survey. The Census Bureau is required by U.S. law to keep your answers confidential. The enclosed brochure answers frequently asked questions about the survey.

If you need help completing the survey, please use the enclosed guide or call our toll-free number (1-800-354-7271).

Thank you.

Enclosures

[census.gov](http://census.gov)

## Appendix D. Letter With Revised Message (Treatment 2 and Treatment 4)

ACS-14(LX)RPT  
(1-2015)



**UNITED STATES DEPARTMENT OF COMMERCE**  
Economics and Statistics Administration  
**U.S. Census Bureau**  
Washington, DC 20233-0001  
OFFICE OF THE DIRECTOR

A message from the Director, U.S. Census Bureau ...

About two weeks ago, the U.S. Census Bureau sent instructions to your address for completing the **American Community Survey**. We asked you to help us with this very important survey by completing it online, but we have not received your response yet. If you have recently completed the survey online, thank you very much.

If you have not yet completed the survey, please **RESPOND NOW** at <https://respond.census.gov/acs>. You will need information in the mailing label of the enclosed questionnaire to log in. You may also find the questionnaire helpful for reviewing the survey questions in preparation for responding online.

If you are unable or reluctant to respond online, please fill out and mail back the questionnaire in the enclosed return envelope.

**You are required by U.S. law to respond to this survey.** The Census Bureau is required by U.S. law to keep your answers confidential. The Census Bureau chose your address, not you personally, as part of a randomly selected sample.

The American Community Survey is so important that a Census Bureau representative may attempt to contact you by telephone or personal visit if we do not receive your response.

The information collected in this survey will help decide where new schools, hospitals, and fire stations are needed. The information also is used to develop programs to reduce traffic congestion, provide job training, and plan for the health care needs of the elderly. The enclosed brochure answers frequently asked questions about the survey. If you need help completing the survey, please call our toll-free number (1-800-354-7271).

Thank you.

A handwritten signature in black ink, appearing to read "John H. Thompson".

John H. Thompson  
Director, U.S. Census Bureau

Enclosures

census.gov

## Appendix E. Response Distributions, Internet Mode – Treatment 2 (T2) and Treatment 4 (T4)

Internet Response Distributions*		
	T2	T4
<b>Race</b>		
White alone	78.8 (2.2)	75.2 (2.5)
Black alone	7.3 (1.5)	7.9 (1.4)
Some other race alone	5.0 (1.3)	6.3 (1.9)
Two or more races	8.3 (1.6)	9.5 (1.5)
Provided write-in	0.6 (0.4)	1.2 (0.7)
<b>Hispanic Origin</b>		
Hispanic	13.6 (2.1)	11.6 (2.1)
Not Hispanic	86.4 (2.1)	88.4 (2.1)
<b>Building Type</b>		
One-family, detached	68.6 (2.9)	67.7 (2.6)
One-family, attached	6.9 (1.3)	5.8 (1.3)
2 apartments	2.2 (0.8)	1.7 (0.5)
3 or 4 apartments	4.6 (1.1)	5.0 (1.1)
5 to 9 apartments	2.7 (0.7)	4.6 (1.3)
10 to 19 apartments	3.8 (1.2)	4.5 (1.3)
20 to 49 apartments	3.7 (1.2)	3.8 (1.2)
50 or more apartments	4.6 (1.1)	4.7 (1.4)
Other	3.0 (0.9)	2.1 (0.7)
<b>Electricity Amount</b>		
Included in rent or condominium fees	2.7 (1.0)	2.0 (0.7)
No charge or electricity not used	1.2 (0.6)	1.4 (0.7)
\$0	0.6 (0.4)	0.1 (0.2)
\$1 to \$99	33.9 (2.5)	31.9 (2.8)
\$100 to \$199	33.3 (2.6)	35.5 (2.7)
\$200 to \$299	17.0 (1.8)	17.0 (2.2)
\$300 to \$399	6.5 (1.4)	7.8 (1.5)
\$400 to \$999	4.4 (1.0)	3.7 (1.0)
\$1,000 or more	0.6 (0.4)	0.5 (0.4)
<b>Water Amount</b>		
Included in rent or condominium fees	15.4 (2.0)	15.2 (2.3)
No charge	12.1 (1.6)	13.4 (1.5)
\$0	0.1 (0.2)	0.1 (0.2)
\$1 to \$199	17.3 (2.2)	20.6 (2.5)
\$200 to \$399	10.2 (1.6)	9.7 (1.5)
\$400 to \$599	11.9 (1.9)	9.7 (1.5)
\$600 to \$799	8.9 (1.6)	12.2 (1.8)
\$800 to \$999	7.1 (1.4)	6.5 (1.4)
\$1,000 to \$1,199	4.6 (1.0)	2.8 (0.8)
\$1,200 to \$1,399	6.3 (1.3)	5.0 (1.2)
\$1,400 to \$1,599	2.3 (0.7)	1.4 (0.7)
\$1,600 or more	3.7 (1.1)	3.3 (1.4)

**Continued... Internet Response Distributions\***

	<b>T2</b>	<b>T4</b>
<b>Tenure</b>		
Owned with a mortgage	56.1 (2.7)	55.9 (2.6)
Owned free and clear	14.0 (1.9)	12.1 (1.6)
Rented	28.7 (2.4)	29.8 (2.6)
Rented without payment of rent	1.2 (0.6)	2.1 (0.7)
<b>Property Value</b>		
\$0	0.1 (0.2)	0.6 (0.5)
\$1 to \$9,999	3.4 (1.3)	3.8 (1.4)
\$10,000 to \$29,999	2.4 (1.0)	1.4 (0.7)
\$30,000 to \$49,999	2.1 (0.9)	1.5 (0.7)
\$50,000 to \$74,999	3.9 (1.3)	3.3 (1.1)
\$75,000 to \$99,999	4.7 (1.5)	6.0 (1.4)
\$100,000 to \$124,999	6.4 (1.6)	5.8 (1.3)
\$125,000 to \$149,999	6.9 (1.6)	7.8 (1.8)
\$150,000 to \$174,999	8.3 (2.1)	8.3 (1.9)
\$175,000 to \$199,999	6.8 (1.9)	6.1 (1.7)
\$200,000 to \$249,999	10.4 (1.9)	11.2 (2.0)
\$250,000 to \$299,999	10.4 (2.2)	9.3 (2.4)
\$300,000 to \$399,999	11.3 (2.1)	14.7 (2.5)
\$400,000 to \$499,999	7.6 (1.8)	7.1 (1.9)
\$500,000 to \$749,999	8.9 (1.7)	7.9 (1.8)
\$750,000 to \$999,999	3.8 (1.2)	2.9 (1.2)
\$1,000,000 or more	2.4 (0.9)	2.2 (1.0)
<b>Presence of a Mortgage</b>		
Mortgage, deed of trust, or similar debt	70.1 (3.0)	75.4 (2.9)
Contract to purchase	1.2 (0.7)	0.5 (0.4)
No mortgage	28.7 (3.0)	24.1 (3.0)
<b>Property Insurance</b>		
None	7.9 (1.8)	5.6 (1.5)
\$0	0.3 (0.5)	0.6 (0.5)
\$1 to \$99	0.9 (0.6)	0.6 (0.7)
\$100 to \$399	5.4 (1.6)	6.6 (1.6)
\$400 to \$499	3.6 (1.2)	3.0 (1.0)
\$500 to \$599	7.5 (1.7)	7.0 (1.9)
\$600 to \$699	8.3 (1.9)	6.8 (1.8)
\$700 to \$799	5.2 (1.6)	5.7 (1.6)
\$800 to \$899	5.6 (1.7)	6.5 (1.5)
\$900 to \$999	5.4 (1.7)	5.7 (1.8)
\$1,000 to \$1,199	11.2 (2.1)	10.7 (2.0)
\$1,200 to \$1,399	11.5 (2.1)	14.7 (2.2)
\$1,400 to \$1,599	5.4 (1.5)	8.8 (2.5)
\$1,600 or more	21.8 (2.7)	17.7 (2.5)

**Continued... Internet Response Distributions\***

	<b>T2</b>	<b>T4</b>
<b>Citizenship</b>		
Yes, born in U.S.	86.7 (1.6)	86.2 (1.5)
Yes, born in Puerto Rico, Guam, U.S. Virgin Islands, or Northern Marianas	0.6 (0.5)	0.3 (0.2)
Yes, born abroad but U.S. parent	0.9 (0.3)	0.9 (0.3)
Yes, by naturalization	6.9 (1.1)	7.1 (1.1)
No, Foreign born	5.0 (1.0)	5.5 (1.1)
<b>Educational Attainment</b>		
No schooling completed	3.8 (0.6)	5.0 (0.9)
Nursery to 11th grade	21.9 (1.5)	21.5 (1.6)
12th grade no diploma	1.7 (0.4)	1.2 (0.4)
High school diploma	12.7 (1.3)	11.8 (1.2)
General Educational Development (GED)	2.5 (0.5)	2.2 (0.6)
Some college	16.9 (1.4)	16.5 (1.7)
Associate's	7.3 (1.0)	7.1 (1.0)
Bachelor's degree	20.8 (1.7)	21.4 (1.5)
Advanced degree	12.6 (1.3)	13.3 (1.4)
<b>Mobility Status</b>		
Nonmover	87.3 (1.7)	85.7 (2.3)
Moved from abroad	0.3 (0.2)	0.4 (0.4)
Moved within the U.S. and Puerto Rico	12.5 (1.8)	13.9 (2.2)
<b>Work Last Week</b>		
Yes	68.2 (1.7)	69.5 (1.8)
No	31.8 (1.7)	30.5 (1.8)
<b>Transportation to Work</b>		
Car, truck, or van	87.0 (1.8)	84.1 (1.8)
Public transportation	5.2 (1.0)	5.3 (1.4)
Walked	1.9 (0.8)	1.8 (0.6)
Bike, Motorcycle, Taxi, Other	1.1 (0.5)	1.9 (0.7)
Worked at home	4.9 (1.1)	6.9 (1.3)
<b>Wages</b>		
No wages	15.1 (1.6)	11.3 (1.4)
\$0	1.0 (0.5)	0.9 (0.5)
\$1-\$9,999	13.2 (1.4)	15.1 (1.5)
\$10,000-\$24,999	13.2 (1.6)	13.9 (1.5)
\$25,000-\$49,999	22.0 (1.9)	23.2 (2.0)
\$50,000-\$99,999	24.4 (1.9)	25.0 (2.0)
\$100,000-\$199,999	9.2 (1.2)	8.3 (1.2)
\$200,000 or more	1.9 (0.6)	2.3 (0.7)

Source: U.S. Census Bureau, American Community Survey, 2015 Replacement Mail Questionnaire Package Test

\*Estimates are not statistically different between treatments at  $\alpha=0.1$  level, adjusted using Holm-Bonferroni method  
Margin of error shown in parenthesis

## Appendix F. Response Distributions, Mail Mode – Treatment 2 (T2) and Treatment 4 (T4)

Mail Response Distributions*		
	T2	T4
<b>Race</b>		
White alone	83.1 (1.8)	83.5 (1.5)
Black alone	8.7 (1.2)	7.4 (1.0)
Some other race alone	2.0 (0.5)	2.9 (0.7)
Two or more races	4.9 (1.0)	5.0 (0.8)
Provided write-in	1.3 (0.6)	1.2 (0.4)
<b>Hispanic Origin</b>		
Hispanic	11.0 (1.6)	10.1 (1.2)
Not Hispanic	89.0 (1.6)	89.9 (1.2)
<b>Building Type</b>		
One-family, detached	68.4 (1.7)	66.6 (1.8)
One-family, attached	4.9 (0.7)	6.0 (0.8)
2 apartments	2.6 (0.6)	2.5 (0.6)
3 or 4 apartments	4.4 (0.7)	3.8 (0.7)
5 to 9 apartments	3.2 (0.7)	3.6 (0.8)
10 to 19 apartments	3.0 (0.7)	2.5 (0.5)
20 to 49 apartments	3.3 (0.8)	2.5 (0.6)
50 or more apartments	3.7 (0.7)	5.4 (0.9)
Other	6.5 (0.9)	7.2 (0.8)
<b>Electricity Amount</b>		
Included in rent or condominium fees	3.6 (0.7)	4.5 (0.9)
No charge or electricity not used	0.7 (0.3)	0.9 (0.3)
\$0	0.1 (0.1)	0.2 (0.2)
\$1 to \$99	35.6 (1.9)	35.5 (1.8)
\$100 to \$199	36.5 (2.1)	33.8 (2.1)
\$200 to \$299	14.0 (1.3)	14.3 (1.4)
\$300 to \$399	5.0 (0.8)	4.9 (0.9)
\$400 to \$999	3.6 (0.7)	4.4 (0.9)
\$1,000 or more	0.9 (0.4)	1.3 (0.5)
<b>Water Amount</b>		
Included in rent or condominium fees	15.5 (1.5)	16.2 (1.5)
No charge	15.3 (1.3)	14.5 (1.4)
\$0	1.4 (0.5)	1.7 (0.4)
\$1 to \$199	22.5 (1.6)	20.5 (1.7)
\$200 to \$399	11.4 (1.4)	10.2 (1.2)
\$400 to \$599	9.1 (1.1)	11.2 (1.2)
\$600 to \$799	8.0 (1.0)	10.3 (1.1)
\$800 to \$999	5.5 (1.1)	5.2 (0.8)
\$1,000 to \$1,199	4.2 (0.9)	3.1 (0.6)
\$1,200 to \$1,399	3.0 (0.7)	2.8 (0.6)
\$1,400 to \$1,599	1.2 (0.5)	1.2 (0.4)
\$1,600 or more	2.9 (0.6)	3.2 (0.7)

**Continued... Mail Response Distributions\***

	<b>T2</b>	<b>T4</b>
<b>Tenure</b>		
Owned with a mortgage	43.4 (2.1)	43.4 (1.7)
Owned free and clear	30.5 (2.0)	30.1 (1.6)
Rented	24.1 (1.8)	24.0 (1.7)
Rented without payment of rent	2.0 (0.5)	2.4 (0.6)
<b>Property Value</b>		
\$0	0.1 (0.1)	0.3 (0.3)
\$1 to \$9,999	2.7 (0.8)	2.9 (0.7)
\$10,000 to \$29,999	2.7 (0.7)	3.4 (0.8)
\$30,000 to \$49,999	4.5 (1.0)	4.0 (0.8)
\$50,000 to \$74,999	7.5 (1.2)	6.1 (1.2)
\$75,000 to \$99,999	8.4 (1.4)	9.5 (1.3)
\$100,000 to \$124,999	7.0 (1.2)	9.9 (1.4)
\$125,000 to \$149,999	7.6 (1.3)	8.8 (1.4)
\$150,000 to \$174,999	10.7 (1.7)	8.8 (1.3)
\$175,000 to \$199,999	5.3 (1.2)	6.5 (1.3)
\$200,000 to \$249,999	10.8 (1.6)	8.9 (1.4)
\$250,000 to \$299,999	6.9 (1.1)	6.4 (1.3)
\$300,000 to \$399,999	9.7 (1.5)	8.5 (1.5)
\$400,000 to \$499,999	4.5 (1.1)	5.4 (1.0)
\$500,000 to \$749,999	6.8 (1.4)	6.2 (1.2)
\$750,000 to \$999,999	3.0 (0.8)	1.8 (0.6)
\$1,000,000 or more	1.9 (0.6)	2.7 (0.8)
<b>Presence of a Mortgage</b>		
Mortgage, deed of trust, or similar debt	50.0 (2.4)	48.7 (1.9)
Contract to purchase	0.5 (0.4)	0.8 (0.4)
No mortgage	49.5 (2.5)	50.5 (1.9)
<b>Property Insurance</b>		
None	15.1 (1.7)	16.8 (1.7)
\$0	0.5 (0.2)	0.8 (0.4)
\$1 to \$99	1.0 (0.5)	1.3 (0.5)
\$100 to \$399	7.5 (1.3)	7.6 (1.2)
\$400 to \$499	6.3 (1.2)	5.6 (1.2)
\$500 to \$599	7.4 (1.5)	6.0 (1.0)
\$600 to \$699	6.5 (1.4)	6.8 (1.1)
\$700 to \$799	5.9 (1.2)	6.3 (1.2)
\$800 to \$899	7.8 (1.5)	7.3 (1.4)
\$900 to \$999	4.9 (1.2)	5.3 (1.4)
\$1,000 to \$1,199	9.5 (1.6)	8.9 (1.1)
\$1,200 to \$1,399	8.6 (1.4)	9.9 (1.4)
\$1,400 to \$1,599	4.7 (1.1)	3.9 (0.9)
\$1,600 or more	14.2 (1.7)	13.4 (1.6)



**Continued... Mail Response Distributions\***

	<b>T2</b>	<b>T4</b>
<b>Citizenship</b>		
Yes, born in U.S.	90.9 (1.1)	89.5 (1.2)
Yes, born in Puerto Rico, Guam, U.S. Virgin Islands, or Northern Marianas	0.3 (0.2)	0.6 (0.3)
Yes, born abroad but U.S. parent	0.6 (0.2)	0.5 (0.2)
Yes, by naturalization	5.5 (0.7)	6.1 (0.8)
No, Foreign born	2.6 (0.5)	3.2 (0.6)
<b>Educational Attainment</b>		
No schooling completed	3.5 (0.5)	3.8 (0.6)
Nursery to 11th grade	17.9 (1.3)	18.0 (1.2)
12th no diploma	2.3 (0.4)	2.2 (0.4)
High school diploma	23.7 (1.2)	24.1 (1.4)
GED	4.3 (0.5)	3.4 (0.5)
Some college	20.2 (1.4)	20.1 (1.1)
Associate's degree	6.5 (0.7)	7.2 (0.6)
Bachelor's degree	12.3 (1.1)	13.1 (1.0)
Advanced degree	9.3 (0.8)	8.2 (0.7)
<b>Mobility Status</b>		
Nonmover	91.2 (1.2)	90.1 (1.4)
Moved from abroad	0.4 (0.2)	1.2 (0.3)
Moved within the U.S. and Puerto Rico	8.4 (1.2)	8.7 (1.3)
<b>Work Last Week</b>		
Yes	49.0 (1.5)	48.2 (1.7)
No	51.0 (1.5)	51.8 (1.7)
<b>Transportation to Work</b>		
Car, truck, or van	91.0 (1.2)	89.7 (1.3)
Public transportation	2.8 (0.8)	2.8 (0.8)
Walked	1.8 (0.6)	2.3 (0.7)
Bike, Motorcycle, Taxi, Other	0.9 (0.4)	1.3 (0.5)
Worked at home	3.4 (0.9)	3.9 (0.9)
<b>Wages</b>		
No wages	17.9 (1.7)	16.1 (1.3)
\$0	1.2 (0.5)	1.2 (0.4)
\$1-\$9,999	12.2 (1.3)	13.9 (1.4)
\$10,000-\$24,999	17.8 (1.6)	18.1 (1.6)
\$25,000-\$49,999	23.1 (1.6)	24.3 (1.7)
\$50,000-\$99,999	20.1 (1.8)	18.9 (1.4)
\$100,000-\$199,999	5.8 (0.9)	6.0 (0.9)
\$200,000 or more	1.9 (0.7)	1.5 (0.5)

Source: U.S. Census Bureau, American Community Survey, 2015 Replacement Mail Questionnaire Package Test

\*Estimates are not statistically different between treatments at  $\alpha=0.1$  level, adjusted using Holm-Bonferroni method

Margin of error shown in parenthesis

## Appendix G. Summary of Return Rates and Margins of Error by Treatment

Return Rates														
Total Self-Response					Internet					Mail				
C	T1	T2	T3	T4	C	T1	T2	T3	T4	C	T1	T2	T3	T4
28.9	28.9	29.9	29.0	29.7	9.9	9.5	10.1	10.2	9.8	19.0	19.4	19.8	18.8	20.0

  

MOEs														
Total Self-Response					Internet					Mail				
C	T1	T2	T3	T4	C	T1	T2	T3	T4	C	T1	T2	T3	T4
0.2	0.9	0.9	0.8	1.0	0.1	0.6	0.6	0.6	0.6	0.2	0.8	0.8	0.7	0.8

Source: U.S. Census Bureau, American Community Survey, 2015 Replacement Mail Questionnaire Package Test