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2010 Nonresponse Followup Enumerator Questionnaire Cognitive Test Findings and Recommendations

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2010 Nonresponse Followup Enumerator Questionnaire Cognitive Test Findings and Recommendations

As a part of the decennial census operations, the U.S. Census Bureau creates an address list of housing units in the United States, and mails out census forms to most of those housing units. People who do not mail back their census forms are visited by a census interviewer who comes to record their data during a personal interview. This visit is a part of the Nonresponse Followup (NRFU) operation. Bates and Mulry (2007) studied characteristics of initial non-responders in Census 2000 and found that they were disproportionately economically disadvantaged (characterized by, for example, poverty, public assistance, and unemployment), unattached and/or mobile singles (characterized by, for example, non-spousal households, renters, and residential mobility) and found in high-density areas with ethnic enclaves (characterized by, for example, crowded housing, and less than high school education).

In several areas of the country where either the address list contains many units that do not have a city-style mailing address or very rural areas where it is cost-prohibitive to visit each house twice (once for address listing and once to follow-up with non-respondents), an operation called Update Enumerate (UE) is conducted, whereby the interviewer updates the address list and immediately conducts the census enumerations for that area. This methodology requires more face-to-face interviews (which are more expensive than self-administered mailout/mailback forms), but also prevents the necessity of two visits to these often very remote areas. This is the methodology used in many parts of Alaska, as well as on Indian Reservations in the contiguous United States.

Originally, the Census Bureau planned to conduct these two operations with different forms (the NRFU on a computerized instrument, and the UE using a paper form). When the decision was made to use a paper form for NRFU, the Census Bureau decided to use a single form for both of these personal visit operations¹. The Decennial Management Division (DMD) contracted with the Statistical Research Division (SRD) to conduct pretesting on the *Enumerator² Questionnaire* that will be used in the 2010 Census for the NRFU and UE operations. This report documents findings of cognitive testing of the questionnaire with respondents who were meant to simulate NRFU respondents. The goals of this cognitive test were to examine respondent understanding of the question wording on the paper form, as well as their use of the visual aid in responding to the census questions.

Past tests have demonstrated a need for a visual aid to assist the respondent in answering some of the questions in this interview (for further discussion, see Childs, 2008). These questions include one that presents the rules for who should be counted in the household according to the Census Bureau, and the questions on relationship, origin, and race. During the development of this questionnaire, Census Bureau staff used a flashcard booklet to visually present the additional information for those questions (Childs, 2008). During the 2006 Census Test, SRD testing demonstrated that interviewers did not show respondents the flashcard booklet in the majority of observed cases (Rappaport, Davis & Allen, 2006). Because it is important to convey this

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¹ For a more detailed history of the development of the NRFU instrument prior to this test, see Childs (2008).

² The term *enumerator* is used for Census Bureau census interviewers. Thus, the title of the form is the *Enumerator Questionnaire*. However, for ease of reading, this report will refer to *enumerators* as *interviewers*.

information consistently, the Census Bureau followed SRD's recommendations to change the format of the flashcard booklet from a visual aid (that the interviewer kept) to a handout (that the respondent was allowed to keep). SRD researchers observed, informally, during the 2004 and 2006 Census Tests, that interviewers provided respondents with the mandatory *Privacy Notice*, which conveys legally required information. Thus, the researchers recommended taking advantage of this and creating an Information Sheet that contained the privacy notice as well as the key information presented in the former flashcard booklet. In this report, we present test results of using the revised format. See Appendix B for the *Information Sheet* used in this study.

Concurrent with this testing, cognitive testing was conducted with UE respondents and usability testing was conducted with the NRFU instrument. Results of these two tests are available (in Schwede, 2009, and Romano, Murphy, Olmsted-Hawala & Childs, 2008, respectively). The results and recommendations from all three of these studies were presented together to the Content Integrated Products Team (referred to hereafter as "the Team"). The resolutions, based on Team decisions, are reported here following the recommendations.

This paper documents the results, recommendations and resolutions for the questions that will appear on the *2010 Census Enumerator Questionnaire*. Appendix E includes further recommendations made for NRFU interviewer training based on these and the usability test findings.

Methods

In July 2008, SRD staff conducted 30 interviews using an interviewer-administered paper-and-pencil NRFU instrument. See Appendix A for the form that was tested. See Appendix B for the respondent Information Sheet that was provided to respondents to assist them in answering particular questions.

Participants

Thirty people living in Maryland, Virginia, and the District of Columbia participated as respondents in this cognitive test. Respondents were recruited for this study primarily to represent the NRFU population, which includes traditionally hard-to-count populations (for example, highly mobile household members). Respondents were interviewed either in the Census Bureau's Cognitive Lab, or in a place more convenient for the respondent, such as a community center.

Respondents had a variety of living situations, including living with non-relatives, living only with nuclear family members, and living with extended family members. Households ranged in size from two to nine persons. We specifically recruited households that had complex or mobile living situations, including having college students, foster children, current active military personnel, and household members with more than one place to live. We recruited these types of respondents to provide a good test of the residence rules (see List A in Appendix B) and the questions that address census coverage (see questions 7 and H1 in Appendix A).

Table 1 shows the racial composition of our respondents, who were mostly Black or African American, White, or Asian. The one respondent who reported *Some Other Race* was Bolivian and reported race as "Hispanic."

Although we did not recruit for a specific distribution of ages, Table 2 shows that most age groups were represented. We did not specifically recruit for sex either, and our respondents were predominantly female (about 2/3).

Table 1: Racial Composition of Test Respondents

Race	Count
White	9
Black or African American	14
American Indian or Alaska Native	0
Asian	6
Some Other Race	1
Total	30

Table 2: Age of Respondents

Age	Count
< 20	2
20-29	8
30-39	2
40-49	9
50-59	6
60-69	2
> 70	1
Total	30

Cognitive Techniques

During the cognitive interviews, first, an SRD Researcher administered the NRFU questionnaire, playing the part of a field interviewer. During this interview, the researchers asked the respondents to report any difficulty they were having while answering or understanding any of the questions, but otherwise, the interview proceeded without interruption as if it were happening in the field. Researchers asked respondents to pretend they were in their own homes and the interviewer stood in front of the respondent – to simulate a doorstep interview. Following the NRFU interview, a second SRD researcher conducted a retrospective cognitive interview. The retrospective debriefing probes walked the respondent through each of the previously administered NRFU questions, exploring the meaning of key questions and terms and probed about potentially difficult or sensitive questions³.

Results

The results presented here are almost exclusively the cognitive test results of this form with the NRFU population. The recommendations, however, are based on findings from this and the two other studies with this form (Romano et al., 2008; Schwede, 2009). For several questions, interviewer (or user) accuracy in recording given information was tested during the usability portion of the test (Romano et al., 2008). Results from testing this form in an UE area are also presented separately (Schwede, 2009).

Question S1: Introduction/Address Verification

Hello, I'm [NAME] from the U.S. Census Bureau. [Show ID.] Is this [ADDRESS]?

³ Researchers identified potentially difficult or sensitive items for probing based on prior experience with these questions (see Childs, 2008 for a summary of recent experience with this questionnaire).

Findings

We did not identify any problems with this question. All NRFU respondents correctly answered affirmatively. However, the UE test identified problems with reported addresses (Schwede, 2009).

Recommendations

No changes

Question S2: Did Anyone Live Here on Census Day?

I'm here to complete a Census questionnaire for this address. It should take about 10 minutes. [Hand respondent Information Sheet.] The first part explains that your answers are confidential. We will be referring to this handout through the interview. Did you or anyone in this household live here on April 1, 2008?

Findings

Twenty-nine respondents correctly answered "yes" to this question. However, one respondent who answered "yes" reported thinking about April 1, 2007 instead of 2008.

We identified two problems with this question. First, two respondents reported initially thinking that the question was asking about the previous year. One of these respondents answered the entire questionnaire about the previous year. In her case, the number of people in the household was the same, but one of the people listed in the household differed between the 2007 and 2008 dates. We suspect that these two respondents may have been confused by referring to the reference year by number (as 2008) rather than as *this year*. In normal speech, it is not common to list a specific year unless one is referring to a year other than the present one. By using a number like 2008, respondents may assume that we are asking about the past rather the present year.

Second, some respondents had difficulty understanding the question. Two of them asked that the question be repeated. One of these respondents initially answered incorrectly by saying "no" but then changed her answer to "yes" after realizing the question referred to the current year. Another respondent incorrectly answered "no," but asked to have the question repeated twice, and then spontaneously changed her answer to "yes" without further clarification. The third respondent who asked for the question to be repeated seemed busy reading List A, which apparently caused her to not hear the question. Additionally, some respondents interpreted this question to be double-barreled. First, it asked if the respondent was living in the household on April 1 and second if anyone else was living in the household on April 1. For example, one respondent said that she did not live in that house on April 1, but that others in the household did. Another respondent said, "Me? No. Anyone? Yes." In both cases, the interviewer was able to extract the correct answer from the respondent without further probing.

The end of this question was intended to read *live or stay here on April 1*. However, in an oversight, this question was not initially drafted including the word *stay*. In past Census Coverage Measurement respondent debriefings, we found that a very similar question caused respondents to incorrectly say "no" to this question because it did not include the term *stay*

(Nichols and Childs, 2009). Cognitive testing revealed that this was not the cause of respondent confusion during this study. However, we do want to point out that the exclusion of the word *stay* on the test form was inadvertent.

Interviewers noted that after they handed the respondent the information sheet, the sentences (*The first part explains that your answers are confidential. We will be referring to this handout through the interview.*) that followed sounded very out of context, especially if the interviewer did not point to the information sheet when reading the sentences. We recommended rewording these sentences to make them sound more conversational.

Recommendations

We recommend modifying the question to include the word *stay*, as in "Did you or anyone in this household live or stay here..." This was inadvertently omitted from the tested form and has been shown in previous pretesting to be an important concept in this question (Nichols and Childs, 2009).

Because some respondents had difficulty realizing that the year they were supposed to report on was this year (and one respondent reported incorrectly), we recommend using the phrase *of this year* instead of 2010. This brings the language in the question more close to the language that respondents use conversationally.

Based on awkwardness experienced by the interviewers, we recommend rewording the middle sentences to read, "The first part of this sheet explains that your answers are confidential. I'll refer to the other parts later."

Thus, the recommended wording is as follows:

I'm here to complete a Census questionnaire for this address. It should take about 10 minutes. [Hand respondent Information Sheet.] The first part of this sheet explains that your answers are confidential. I'll refer to the other parts later. Did you or anyone in this household live or stay here on April 1 of this year?

Resolution

The Team accepted the addition of the words *or stay* because they are used in other places on this as well as other census forms. The Team did not accept the recommendation to change 2010 to *of this year* because all other census forms use the full date: *April 1, 2010*. The Team agreed to reword the middle sentences to make them more conversational.

Thus, the final 2010 question wording is as follows:

I'm here to complete a Census questionnaire for this address. It should take about 10 minutes. (Hand respondent Information Sheet.) The first part of this sheet explains that your answers are confidential. I'll refer to the other parts later. Did you or anyone in this household live or stay here on April 1, 2008?

Question S3: Usual Residence

Is this (house/apartment/mobile home) a vacation or seasonal home, or does someone in this household usually live here?

Findings

Twenty-eight respondents correctly answered that their address is their usual residence. Of the two respondents who did not immediately answer correctly, one requested clarification ("What do you mean by a vacation home? It is a house.") and then answered "yes" when the interviewer repeated the question (even though it is not a yes/no question). The interviewer interpreted "yes" to mean "someone usually lives there" but noted that the response was ambiguous. Another respondent incorrectly answered "seasonal home" because she was a college student and college students often stay in one housing unit during the school year and return to their parents' home during the summer season. Therefore, she reported thinking that college housing was seasonal housing. This particular respondent was also confused by the part of the question that asks "does someone in this household usually live here," because she lives in college housing so "there is always someone [occupying] the apartment," but the specific tenants may be different between each semester and the summer season. Therefore, she did not know if the question applied just to her or to her household.

Additionally, although many respondents demonstrated that they understood the intention of the question, two respondents misinterpreted the question to be asking about ownership of the housing unit. One respondent reported as if this question was asking "who the owner is." Another respondent reported that the question was asking whose name was on the (sublet) lease or if "someone else lived there other than [him]."

Three respondents were confused by the question structure. Two respondents reported that initially they thought this question was yes/no and did not realize that they were supposed to pick between two options. Another respondent reported feeling confused and said that she would have understood the question better if she had known in advance that she had to pick between two options. At least two respondents had to have the question repeated to them because they were unable to understand it the first time they heard it. In fact, one of them had to hear the question three times before she could provide an answer.

Terminology

The version of this question in the 2006 Census Test had the term *usual residence* rather than *usually live here* (see Childs, 2008). Whereas only three respondents actually answered with the term *usual residence* in the 2006 cognitive testing, 16 respondents used the term *usually* in their response during the 2010 test reported here. As a result, we conclude that *usually live here* is phrased in more common terms for respondents than *usual residence*.

In this test, four respondents seemed initially confused by the concept of *usually live here*, but ultimately chose the correct response:

• One reported using the process of elimination to pick his answer because he said he knew he was not in a vacation or seasonal home but he was not sure what the Census Bureau meant by *usually live here*.

- Another was reportedly confused by the term usually because she lives in her home yearround and reported waiting for a third option for people who stayed in their residence more frequently than usually, like "always."
- The last respondent debated aloud whether *usually live here* applied to her because she is planning to move in the next year and would no longer be at the same address.

Recommendations

In 2006, the most common option (*usually live here*) was moved to the end of the question in order to take advantage of recency effects (i.e., given a long list of response options, people are more likely to remember ones that come later in the list; see Childs, 2009; Murdock, 1962). However, since the question was shortened by omitting the phrase "held for occasional use," the question is easier to hold in working memory. Therefore, we recommend rearranging the question to put the most likely option (*usually live here*) first. The new version would read:

Does someone usually live at this [house/apartment/mobile home], or is this a vacation or seasonal home?

- Someone usually lives here
- [] Vacation, seasonal home or held for occasional use

This change may help the respondents who exhibited confusion about the question intent by offering the most likely option first. It should not damage response in any way, since there are only two response options to remember.

Resolution

The Team accepted this recommendation.

Question S4: Occupied or Vacant

[ONLY ASK IF NO HOUSEHOLD MEMBER LIVED HERE ON APRIL 1.] On April 1, was this unit vacant, or occupied by a different household?

Findings

This question was not tested during this cognitive testing because it was not relevant for any of the respondents situations. Skip patterns for this question were tested during the usability portion of the NRFU test (Romano et al., 2008).

Recommendations

No changes

Question S5: Household Count

We need to count people where they live and sleep most of the time.

Please look at List A. It contains examples of people who should and should not be counted at this place.

Based on these examples, how many people were living or staying in this (house/apartment/mobile home) on April 1?

____ = Number of people

List A WHO TO COUNT ON APRIL 1st We need to count people where they live and sleep most of the time. Do NOT INCLUDE INCLUDE these people: these people: (They will be counted at the other place) College students who Babies and children living here, including live away from this foster children address most of the year Armed forces personnel Roommates who live away Boarders · People who, on · People staying here April 1, 2008, were in a: on April 1, 2008 - Nursing home, who have no other mental hospital, etc. permanent place Jail, prison, to live detention center, etc.

Figure 1. List A as tested.

Findings

The purpose of this question is to collect a household count. It refers the respondent to List A on the information sheet, which provides the core census residence rule "We need to count people where they live and sleep most of the time" and provides some additional rules for common situations. This question is also referred to when the interviewer makes a roster of household members in the next question. The reported household sizes in this study ranged from two to nine.

Much of the probing in the cognitive test focused on List A (see Figure 1). Respondents were instructed to refer to List A while determining their household count. For the most part,

respondents looked at the list, but in varying levels of detail. Some respondents clearly read the list carefully, moving their fingers down the page as they read. Some looked only at the first column, which was the list of who not to include. One respondent read the first line of every bullet. Another respondent scanned the list but did not read it. A few respondents said they did not refer to the list at all. One respondent said she could not find the list on the information sheet. Very few respondents reported noticing the introductory material at the top of the list, which includes the April 1st reference date and the instruction to count people where they live and sleep most of the time.

Several respondents reported not being able to process all of List A because they felt like they needed to respond to the interviewer's question immediately. However, an overwhelming majority of respondents said the list was helpful. Some gave specific reasons – one would have left off the boarders at his house; two others realized they should not include their children in college. Three respondents said the list was not helpful to them personally but thought it would be helpful to others. Many respondents said that none of the examples on the list applied to people in their households. Others listed the following as being relevant: roommates, college students, children, foster children, and people in jail.

We probed respondents about the fourth bullet in the INCLUDE list: "People staying here on April 1, 2008 who have no other permanent place to live." A majority of them interpreted this phrase the way it is intended, as referring to people who are homeless, "freeloaders," people who fell on hard times, or people who got evicted and are staying someplace else temporarily.

The word *other* caused confusion for some respondents. Seven respondents gave interpretations that suggested everyone in their household would fit into this category since most people have one home and therefore have no *other* place to live. One respondent said "this home is the only place they could go back to." Another respondent said it referred to people who paid rent, and this was their sole address. One respondent captured the ambiguity of this phrase: she said that it could have two meanings: (1) people were not there by choice, but because they had no other place to go; or (2) people were there by choice, because this was their permanent residence. The intended meaning was the first, not the second definition. For most people, this ambiguity may not make a difference in who they listed on the roster. People who fit the second definition should be included on the form. One respondent interpreted the question in a way that resulted in two or three people being omitted from the count who should have been included. This error was not detected until the undercount question (H1) was asked. Reportedly, the respondent's two children stay with him at least four days a week and stay down the street with their mother the rest of the time; his grandchild is in the same situation but it was not clear how many days the grandchild stays at his house. He reported that since they have another place where they can live, the instruction on List A indicated to him that he should not include them at his address. The 4th bullet says to "include people... who have no other permanent place to live." We suspect he interpreted no other place to live as another place to live and decided not to include them. The word other may have contributed to this confusion.

Another problem with this question involved the time frame respondents reported thinking about when they answered this question. Although we want respondents to think about the reference date, April 1, most respondents reported thinking about the present time. That said, most reported

no difference between the people living there on April 1 and the people living there now. Several respondents reported thinking specifically about April 1; some reported thinking about the month of April or the spring semester, and some respondents reported thinking about the entire time they were living in their current residence. One respondent suggested if the day of the week on which April 1 occurred was included in the question, it would have helped him decide how many people were at his residence.

Terminology

Two respondents were unfamiliar with the term *boarders*. Another respondent apparently did not distinguish between *border* and *boarder* and reported that it was a negative term for people coming across the border illegally. He warned that this might make some people upset.

We also probed respondents about specific phrases and alternate wording of these phrases.

Live and sleep most of the time. The first line of this question and the text on List A states that "We need to count people where they *live and sleep most of the time.*" Most respondents described "live and sleep most of the time" to mean almost all of the time. For example:

- "Residence that they sleep and do most of their activity at"
- "Primary location where you live and sleep, always come back to, sleep every night"
- "99 percent of the time"

Other respondents described a less strict interpretation. For example:

- "5 out of 7 days of the week"
- "Stay there on weekdays, but not necessarily on weekends"
- "Sometimes—2 times a week or 6 times a month"
- "Where you stay for the most part of the year"

Live and sleep most of the time vs. usually live and sleep. We probed respondents about whether live and sleep most of the time is the same as or different than usually live and sleep. Slightly more than half of the respondents reported that these two phrases mean the same thing, while the other half felt they mean different things. Interestingly, respondents who reported that they mean different things had varying ideas of how they were different. For example:

- Some respondents said that *usually* is more strict than *most of the time* (e.g., "*usually* sounds like a habit"; "*most of the time* is 50 percent of more").
- Other respondents said the opposite (e.g., "most of the time is permanent"; "usually could be sporadically, for certain periods of time").
- One respondent felt that *most of the time* is quantitative and specific, while *usually* is more vague.
- Another respondent said that *usually* is more direct, while *most of the time* is "kind of broad."

Respondents did not form a consensus about which one of these phrases would be preferable to use on the census form.

Live or stay vs. *live and sleep*. We also asked whether *live or stay* means the same thing as *live and sleep*. Here the pattern was more consistent among respondents:

• About two-thirds of respondents reported that the two phrases mean the same thing, and a couple more said there was a very slight difference between the phrases.

- Most respondents who said that they were different mentioned that *stay* refers more to daytime activities: *sleep* is more descriptive—a person could spend time elsewhere but go home to sleep.
- One respondent had the opposite interpretation of what the researchers expected—*sleep* restricts it to sleeping; *staying* has a permanent connotation, like a home.
- One respondent said they were different because *live or stay* is not intrusive, but *live and sleep* is none of the Census Bureau's business.

Only two respondents reported thinking that *stay* refers to temporary places: "you can stay at places that are not your permanent residence," and one "might stay at a relative's, but lives and sleeps at home."

Recommendations

We made one recommendation for List A, and no recommendations for changes to the question itself. The word *other* on the last bullet in the INCLUDE list caused confusion for several respondents. We noted that the last question in the undercount question (H1) focuses on the same population as intended by the last bullet on the INCLUDE list, but it does not contain the word *other*. No problems were observed with that wording—in fact it elicited information about the missing children mentioned above. We recommend that the word *other* be deleted from the bullet in List A. Thus, the recommended bullet wording is:

• People staying here on April 1, 2010 who have no permanent place to live

Resolution

The Team accepted this recommendation.

Question 1: Roster

Let's make a list of all those people. Please start with the name of an owner or renter who was living here on April 1. Otherwise, start with any adult living here.

Findings

The roster collects the names of all the people living or staying at the census address, and should match the count reported in question S5, the household count. In most cases, the numbers matched. However, three of these cases masked errors:

- In one case, the respondent did not include herself and incorrectly listed someone who no longer lives at the address.
- In another case, the respondent incorrectly omitted himself from both the count and the roster.
- In the third case, the undercount question (H1) revealed that two of the respondent's children stay with him four or more nights a week, and therefore should have been included in the count and on the roster. He also mentioned a grandchild but did not say how many nights a week she stays with him. He mentioned List A as the reason he did not include them. (See earlier discussion.)

In four cases, the numbers did not match:

- The respondent initially answered correctly that 2 people were living at the address; then she changed her answer to three, which included a daughter who moved in to the residence in June. In this case, the smaller number was correct.
- The respondent listed 5 people in the household count and 6 people on the roster. Language difficulties prevented probing to discover the source of the error. In this case, the correct answer is unknown.
- The respondent listed himself on the roster, but did not include himself in the household count. In this case, the larger number was correct.
- The respondent answered "seven" in the household count, but listed six people on the roster. She could not explain the difference, and when probed said (incorrectly) that she had said "six" initially. In this case, the smaller number was correct.

We probed to see how well respondents adhered to the instruction about who to list as Person 1. In all cases but two, a person on the lease or mortgage was listed as Person 1. In these two cases, the respondents said that no one had signed a lease. In one case, a respondent living in a group house said the owner does not have the tenants sign a lease. In the other case, four roommates had signed contracts with the program they worked for, and the program had leased the house they were living in. Therefore, there were no problems listing an appropriate person as Person 1.

We probed respondents about how they decided who to list as Person 1 on the roster. Many listed themselves first; one person listed a spouse; some younger respondents listed their mother or father; others said they listed the owner of the house, the renter, the breadwinner, the oldest person, or the most social person in the house. No one reported having difficulty in deciding who to list as Person 1.

A couple of respondents provided fake names or initials for confidentiality reasons, although they reported that they would give real names in the census or if they had their roommates' permission. All of the respondents who gave real names said they provided full names. Some names sounded like nicknames, but when probed, respondents said they were full names. (It is possible that in roommate situations, respondents might not know whether a name was a nickname or full name.)

Several respondents listed incorrect people in the roster or omitted people who should have been on the roster. One respondent reported the household as it was on April 1, 2007 instead of April 1, 2008. This was likely due to confusion at an earlier question (S2), as previously noted. Another respondent omitted himself from the roster. A third omitted two children who have another permanent place to live. This was likely due to confusion about List A in the household count question (S5), as previously noted.

Recommendations

No changes

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⁴ This has been a consistent finding from cognitive testing –a very small number of respondents inadvertently omit themselves from the roster (CITE?). At this point, we have not been able to determine whether it is an artifact of the cognitive interview setting or a *real* error. Because the respondent introduces him or herself and signs a consent form at the beginning, it is possible that they omit themselves because they have done some "reporting" on themselves already.

Question 2: Relationship

Please look at List B on the Information sheet. How is (NAME) related to (PERSON 1)?

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

Figure 2. List B as tested.

Findings

We identified three problems with this question during cognitive testing. First, it was very common for respondents to report a relationship as simply "son" or "daughter," requiring the interviewer to probe to further clarify whether that person was a biological, adopted, or stepson or daughter.

Second, several respondents made factual errors when answering the relationship question. Several respondents who were not listed as Person 1 listed other household members' relationships to themselves instead of their relationships to Person 1. One respondent inverted the relationship by, for example, reporting that Person 1 was the father of Person 2, rather than saying Person 2 was the son of Person 1 (see Nichols, Childs and Rodriguez, 2008 for a more detailed description of this problem).

Third, several respondents had trouble finding a category from List B that fit their situations (See Figure 2). Two respondents struggled to find a category that would represent the relationship between a boyfriend/fiancé and the girl's father; one finally settled on *son-in-law* and the other on *other nonrelative*. Another respondent had difficulty categorizing a foster child living with her who had aged out of the foster system. She finally chose *housemate or roommate*. For her other foster children (under 18), she selected *other non-relative* but said that she "wanted to see foster child" on List B. One respondent who lived in a multi-generational household said that one person was a "step-great-great-grandchild" and she chose *grandchild* to describe the relationship. She said that it did not occur to her to select *other relative*.

Most respondents said they looked at List B, although a few admitted to only "skimming" it. A few respondents only looked at List B when probed by the interviewer. Only two respondents said that List B was not helpful.

Terminology

Only one respondent seemed to be confused by the distinction between a biological, adopted or stepchild, and was unsure of the meaning of the term *biological*. Two respondents remarked that someone unfamiliar with the American naming system for relatives might find it hard to select a label to describe a relationship.

Recommendations

- Since many respondents reported only "son" or "daughter" and had to be probed by the interviewer (see Childs, 2008 for evidence that this also happens in the field), we could include an "ask if necessary" probe for interviewers, "Biological, adopted, or step-son/daughter?" at the top of the relationship column. In some of our interviews, the interviewer used this tactic and it seemed to work. Other interviewers used the (also successful) tactic of asking to respondent to "Please provide an answer from List B."
- For the son/daughter, as well as the foster child usability issue described in Romano et al. (2008), reinforce in training that the interviewer should ask the respondent to pick something off of List B if they provide a non-codable answer.

Resolution

No changes were made to the form. Changes were made to interviewer training to emphasize how to probe respondents correctly.

Question 3: Sex

Is (NAME) male or female?

Findings

Interviewers were permitted to ask or verify the answer to this question. Interviewers tended to verify when the sex of the respondent was known from previously reported information (e.g., "she's my daughter") and when asking about the respondent. They were more likely to actually ask the question when inquiring about household members other than the respondent. Asking and verifying this question did not cause any problems.

Recommendations

We recommend adding an instruction to the form to "Ask or Verify."

Resolution

No change was made to the form, but interviewer training will inform interviewers that verification for this item is acceptable as long as previously stated information clearly indicates the sex of the person.

Question 4: Date of Birth and Age

What was (NAME)'s age on April 1, 2008? What is this person's date of birth?

Fourteen (almost half) of our respondents had problems answering this question satisfactorily⁵. Six were unable to provide any component (month, date, or year) of the dates of birth of one or more household members. Eight respondents were only able to give a partial date of birth for at least one household member.

For respondents in complex households, this question was especially difficult to answer, either in part or whole. One woman who lived with several roommates said that if an interviewer actually showed up at her door, she would use a popular internet social-networking site to check her roommates' dates of birth.

Lack of knowledge or recall problems led to 13 respondents estimating either age (eight respondents) or date of birth (five respondents) for at least one household member, including one respondent who had no idea about a birth year and made one up. Fourteen respondents reported being more certain about the accuracy of the ages they reported than the dates of birth, while only five said they felt more certain about dates of birth. Methods of estimation varied. Some respondents reported thinking about ages in relation to their own, years between the births of children, how long has elapsed since they graduated college, or how old they appear. Many respondents commented on the difficulty of performing the necessary mathematical calculations in their heads; one respondent said to the interviewer, "You add it up. I don't feel like calculating it." A few respondents who estimated ages of household members exhibited "age heaping," that is, they provided estimates with numbers ending in 5 or 0 (e.g., 25 or 40; West, Robinson and Bentley 2004). According to the Population Division, estimation of age is permissible. However, estimation of any part of date of birth is not acceptable, as a complete date of birth is used as a more accurate data point than age.

Three respondents miscalculated the age of household members who had birthdays after April 1 as they tried to subtract birth year from 2008. There were three additional instances of age initially being misreported, then corrected by the respondent after they noticed the April 1 instruction.

The wording of this question has the potential to cause confusion. Most questions on this form use the text *Name*, which allows the interviewer to put in the person's name, or fill with *you* as appropriate. However, in this question it asks: "What is *this person's* date of birth?" This question text, exactly as worded, sounds awkward to refer to the person you are talking to as *this person*. In one interview, a respondent expressed confusion at hearing *this person*. "My age?" she asked. In some interviews, the interviewer changed the wording to ask, "What is *your* date of birth?"

Finally, asking the two questions (age and date of birth) back-to-back, without pausing in between, may explain some of the above errors. It is difficult to keep both requests in working

⁵Note that we did recruit for complex households, so we would expect respondents to have less complete date of birth information than if we had recruited for nuclear family households.

memory while trying to calculate birthdate as of April 1. Many respondents either did not attend to, or did not remember, that interviewers were asking them to report age as of April 1. This testing occurred in July, which would be late in the NRFU field period, and may have exacerbated the problem.

Recommendations

We recommend changing *this person* to *his/her*. The recommended question reads: "What was (Name's) age on April 1, 2010? What is (*his/her*) date of birth?"

The remaining problems are addressed in recommendations for interviewer training (see Appendix E).

Resolution

The question text was changed to "What is (Name's) date of birth?" instead of his/her. This is consistent with the other questions on the form and does not cause difficulty if the interviewer cannot remember the sex of particular household member (which could be a problem if the person's name does not indicate a sex).

Question 5: Hispanic Origin

Please look at List C. Is (NAME) of Hispanic, Latino, or Spanish origin?

Findings

This question was problematic for the four Hispanics interviewed. In contrast, only two non-Hispanics (out of 36) had difficulty answering it.

The initial response of each of the Hispanics interviewed was not codeable, and in each case the interviewer had to ask the respondent to select a category from List C. Hispanic respondents eventually gave an answer when their country was listed among the examples (e.g., Colombia) or as a response category (e.g., Puerto Rico), but it took considerable time and effort to obtain an answer when the country of origin was not among the examples (e.g., Peru, Bolivia).

This question did not elicit a Yes/No response from any of the four Hispanics interviewed:

- A Peruvian Chinese respondent read aloud, "No, not of Hispanic, Latino, or Spanish origin," and since he did not see his country of origin, he said, "I'm a Chinese American, Peruvian Chinese...I am Hispanic." It took several exchanges with the interviewer for him to select "Yes, of another Hispanic, Latino or Spanish origin" and "Asian Hispanic."
- A Puerto Rican respondent first said "Latino" (picking the word from the first bullet without noticing the "No, not of ..." in front of it).
- A Bolivian with low English proficiency understood the question, but first said "Latin," and since she did not see her country listed, she was unable to pick a choice from the list.
- A Colombian also understood the question, first answered "Spanish," and when asked to pick from the list, found and underlined his country of origin with a pen.

Hispanic respondents were unsure about how to report their U.S.-born children, and reported "Another Hispanic, USA" and "American." One respondent wondered whether having a Hispanic father means that the child is also Hispanic.

Out of the 36 non-Hispanic respondents, three reported one Hispanic household member; and two of them were somewhat uncertain or confused about how to report them. Specifically, one respondent said that the household member was "mixed" but was troubled because she was not sure whether to report her as Hispanic or as Black and said, "I didn't know which one to say." Another respondent incorrectly listed a household member as "Another Hispanic" from Brazil.

Finally, another respondent from one of the 33 completely non-Hispanic households was confused by this question.

• One respondent corrected the interviewer, as if she had directed her to the wrong list: "I'm none of those...You gotta go to [List] D. I'm a Black, African-America [sic], or what you would say Negro."

Interpretation of the meaning of this question varied depending on whether the respondent was Hispanic or not. Non-Hispanic respondents mentioned that the question was about self-identification or background, language, and the way a person looks. For Hispanics, in contrast, this question was about place of birth. Not finding their country of origin was confusing, and more so because the general terms *Hispanic or Latino* appeared only in a sentence that said "No, not of Hispanic, Latino…" The Peruvian respondent said that it would have been helpful to see his own country of origin included on List C.

User accuracy for this question was tested during the usability portion of the NRFU test, and additional results are available from the UE test. Results are detailed in Romano et al. (2008) and Schwede (2009), respectively.

Recommendations

We have no particular recommendations for tweaking this question on this form at this time, as this question is modeled closely after other 2010 Census forms. We made some suggestions for interviewer training, which are presented in Appendix E. We recommend a more focused research agenda on this question in English and in Spanish prior to the 2020 Census.

Question 6: Race

Please look at List D and choose one or more races. For this census, Hispanic origins are not races. What is (NAME)'s race?

Findings

We identified four problems with this question during cognitive testing. First, at least ten respondents reported that they did not know they could choose more than one race. Three respondents who had biracial household members reported only one race for the biracial person and a fourth respondent had difficulty reporting for biracial household members. Two respondents with biracial household members reported that person as *Some Other Race*. One specified that person's other race as "mixed" and the other wrote in "Black and White." During

probing, another respondent said that one household member, whom she has reported as "African-American," was actually biracial, and noted, "I don't know if I should have said mixed race, or. . . that's why I just said African American, because they're half Caucasian." She said that this person would self-report as "mixed" but she considers her African American and "doesn't feel right saying mixed." A fourth respondent with biracial children initially responded that they were "African American...maybe 'mixed," but after the interviewer repeated three times that he could choose more than one race, he reported them as "African American and American Indian."

The second problem was caused by the sentence "For this census, Hispanic origins are not races." This sentence caused confusion for 21 of the 30 respondents, and offended three respondents. Additionally, several respondents misheard the last word to be "racists." We consider this a fatal flaw. During the debriefing, when the statement was re-read, one respondent noted that he "would have probably got upset if I understood that [during the interview]. Why I'm not considered a race?" For him this meant that "we do not exist. If you say that Hispanics are not a race, then who are we? And to be honest to you, that could be in some cases the end of the conversation. In some cases I would tell you, you know what...if I'm not on the list, then you don't need to talk to me. Go away." Another confused respondent understood this to mean that Hispanics are a mix rather than a pure race ("They are Creole"). After he reconsidered the statement, he said that if "Hispanic is not a race, there is no way to consider a Hispanic in [List D]."

Third, two respondents spontaneously objected to the term *Negro*, mentioning that it is offensive and outdated.

Fourth, some respondents, including three of four Hispanic respondents, had trouble finding a category on List D that they fit into. For example, one respondent considered herself "Taiwanese" but reported "Chinese" for herself, because that was the closest category she could find, and her family was originally from China. Below, we provide a summary of responses given by the five households with Hispanic members:

- The Peruvian Chinese respondent identified himself as "Chinese" and his family as "Some other race, Creole." Later, this respondent said that he could not select "American Indian" to represent his household's Native Peruvian heritage because he reported that he thinks that category is only for North American Indians.⁶
- The Puerto Rican respondent identified himself as African American and had difficulty finding a category for his family. Finally he said "Some other race, Latinos." This respondent said he had difficulty choosing a race for his son and wife "because they don't show as much African as I do. But they don't have blue eyes or green eyes, and they are not like really pale or whatever to consider them white." In Puerto Rico, however, the respondent reported that his wife and son are considered white.
- The Bolivian respondent read List D and did not find a category that fit herself ("He is no white; he is no black; he is no American"). She picked "Some other race, Hispanic or Latino." She first said "American" for the U.S.-born child, but chose "White" when the interviewer asked her to pick from the list.

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⁶ In fact, according to OMB the "American Indian" category applies to natives of all of the Americas. (CITE)??

- The Colombian respondent pointed to his skin and said "White" for all. He did not seem to have any difficulty. Later, he said he chose "White" based on skin color. He said that the most typical Hispanic skin colors would be considered white, because anything other than that would be offensive where he's from (Colombia).
- A non-Hispanic respondent had difficulty deciding how to report race for her Hispanic household member. She said, "you said Hispanic origin is not a race, is that what you said?...
 I would say that she's Latin American, but I don't know if that's a race." She listed her as "Other race Latin American."

Terminology

In general, respondents used a particular set of descriptors to describe *race*, *origin*, *ethnic origin*, and *ethnic group*. However, these descriptors were not applied consistently to the questions on the form. For example, some respondents described *race* as having to do with self-identification while others applied this descriptor to *ethnic group*. Other respondents described *race* as a biological or genetic category while others said the same about *ethnic origin*. Other descriptors used included physical attributes, such as eye color, culture, and the people with whom one associates.

An exception was *origin* and *ethnic origin*, for which geographical and ancestral descriptors involving place of birth, ancestry, and background were often used more than for *race* or *ethnic group* (although there was some overlap).

Race vs. origin. Of 30 respondents, only nine respondents, all of whom were black, believed the terms meant the same thing while 21 respondents believed they meant different things. Respondents' descriptions of the meaning of *race* were diverse, and included biology and genetics, self-identification, heritage, skin color, and other physical attributes, while they described *origin* more consistently by focusing on geographical descriptors, such as birthplace, where one grows up or comes from, as well as heritage, background, ethnic descent, and skin color.

Ethnic origin vs. ethnic group. In general, there was little agreement on whether these terms were the same or different and on what they meant. Of the 23 respondents for whom this probe was asked, 12 respondents (nine of whom were black) believed the terms meant the same thing, six (four of whom were Asian) believed they were different, and five were unsure about what the terms meant. Ethnic group was described diversely in terms of self-identification, cultural background, heritage, birthplace and people with whom one associates. Ethnic origin was more consistently described as being about family ancestry or background but was also described in terms of one's birthplace, culture, or biology.

Some Other Race vs. Other Race vs. Other. Only five respondents were asked about these terms. There was no consensus. Two said that Other Race sounds more positive than either Other or Some Other Race. One said that Some Other Race is clearer than Other. The other two respondents did not have an opinion either way although one mentioned that he usually sees Other on forms like this.

Recommendations

Eliminate the sentence "For this Census, Hispanic origins are not races" from the question text and present it as an interviewer note, like it was in Census 2000 (see Figure 3). This note offends some respondents who cannot understand what it would mean in a non-offensive way. In this as well as past cognitive tests, some respondents have misheard the last word to be "racist." This is a fatal flaw. The majority of respondents in the cognitive test DID NOT understand what this statement meant. This is consistent with findings of past cognitive tests (CITE). It is not presented in the same place or the same format as the self-administered mailout form. On that form, it appears prior to the Hispanic origin question after an instruction to answer both questions. We suspect that it is read far less often because of the placement in the self-administered form and thus may be less likely to offend. We believe it would actually be more similar to the self-administered form to make this text an interviewer note on the interviewer-administered form, as it was in Census 2000 (see Figure 1). We suspect this sentence interferes with respondents being able to process the "choose one or more" instruction as well, because of the quantity, as well as the complexity, of text that is read accompanying this question.

ENUMERATOR NOTE: It is important to ask BOTH questions 5 and 6 and show Cards B and C.

5. Are any of the persons that I have listed Mexican, Puerto Rican, Cuban, or of another Hispanic or Latino group? 6. Now choose one or more races for each person. Which race or races does each person consider himself/herself to be?

Figure 3. Image of Census 2000 Enumerator Form: Hispanic origin and Race note.

We also reiterate the recommendation to drop the term *Negro* from the form because it offends some respondents and is seen as outdated.

Resolution

The Team decided that the Hispanic origin phrase will stay where it is and modified to change the plural word *races* to singular - *a race* - to correct the problem of misunderstanding the word as "racist." The Team did not want to make drastic changes to the question and expressed the importance of conveying this information to all respondents equally. In a similar vein, the term *Negro* will remain on the form because it is on other finalized census forms and because there is evidence from other studies that a segment of the population only identifies with that term (CITE).

Question 7: Overcount

Does (*Name*) sometimes live or stay somewhere else for any of these reasons? In college housing; In the military; At a seasonal or second residence; In jail or prison; In a nursing home; For another reason.

Findings

Most responses (136 of 143 household members) to this question were "no." Across the whole study, seven household members were reported as living or staying somewhere else as follows:

 $^{^{7}}$ There were an additional six household members (all in one household) for whom language barriers prevented the respondent from answering the question.

two in college housing, three at a seasonal or second residence, and two for other reasons: staying temporarily at boyfriend's house, and staying in the U.S. six months at a time to fulfill legal requirements necessary to get his permanent residence here (he stays overseas with family the rest of the time).

We identified three problems with this question. First, the question missed the following other places where people in the NRFU cases could likely be duplicated: a woman who stays half the time at her significant other's residence⁸, a summer intern who is a temporary resident, and six or seven students who spend summers, vacations and/or holidays with their parents.

Second, several respondents became confused when the interviewer read the response list for Question 7. They turned over the information sheet and looked at List A, apparently in an attempt to find these categories on the list. They became confused when only a few categories, such as college student and nursing home, overlapped. One respondent remarked, "Seasonal or vacation home. That was on there, wasn't it?" Several respondents asked for the question to be repeated or clarified, and one pondered aloud whether this meant she should have included a college student on the roster (whom she had correctly excluded based on List A). One respondent stated, "That is kind of strange because you are asking about if there is someone in college dorms...and List A said do not include them. But now you are asking me if they are in a dorm for part of the year. So to me that's confusing." If respondents are spending mental energy reading and comparing a list that is irrelevant to the question the interviewer reads, they can not devote their full attention to the question or to recall. This could result in errors.

Third, one respondent initially answered "no" to this question before the interviewer finished reading it. As the interviewer continued to read the question, the respondent answered "yes" for two of her seven household members. This highlights the importance of the interviewer reading all categories and asking specifically about each person.

Respondents typically chose their answers along two themes: 1) time spent at a residence, and 2) legal or financial obligations to a residence. Respondents' ideas of what reference period this question encompassed differed greatly. This is consistent with past cognitive testing of this question (CITE), and ranged from the time around Census Day (April 1, 2008) to a year's time (July 2007 to July 2008) to only the present day.

Regarding the second theme, respondents noted that they would not report a person as sometimes "living or staying somewhere else" unless they had legal or financial obligations, such as a mortgage or lease, to that residence. Respondents used phrases such as "ownership," "financial commitment," and "legally whether or not you live someplace else." This was especially prevalent for people who lived some of the time in college housing or who regularly stayed at the home of a significant other. For example, one respondent noted that she would not categorize herself and her roommates, all college students, as having a second residence at their parents' homes, even though they spent several months there each year because "I don't think of your parents' house as a vacation home. I think of it as a summer place...but I don't own either of them, so to me I don't really think of them as residences...[O]ur names aren't on the mortgage or on the leases."

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⁸ She should not have been on the roster anyway, because she moved in during June 2008.

Recommendations

Based on findings from the Schwede (2009) study, we recommend putting a visual break between the "For another reason" category and the checkbox for "No" to emphasize that "No" is not to be read aloud.

Resolution

The Team accepted this recommendation.

We also provided some ideas for future research:

- If it is feasible, we recommend adding a List E with the list of response categories for this question. Respondents seemed to be looking on the information sheet for the long list they had become accustomed to seeing the long lists on the card. However, there may be placement issues on the Information Sheet, which is already filled with information.
- Add a reference period to the question.
- Include a category for *Primary Residence Elsewhere* for instances where the place a person is enumerated is their second residence (e.g., a second home or college address).

Question H1: Undercount

We do not want to miss any people who might have been staying here on April 1. Were there any additional people that you didn't mention, for example: Babies? Foster children? Any other relatives? Roommates? Any other nonrelatives? How about anyone else staying here on April 1 who had no permanent place to live?

Findings

This question functioned well during cognitive testing. Although 26 of 30 respondents answered "no" to this question, four respondents reported "yes" to at least one category and listed between one and three household members, for a total of six household members mentioned in response to this question. Of these six, four should probably have been added to the roster.

Retrospective probes revealed that this question did not miss anyone who should have been picked up by the probe. It reminded respondents of the categories of people they need to consider in the question, and respondents did not seem to be overly burdened by the task.

Those people picked up by this question that likely should have been on the roster were:

- A baby who lives at the address year-round who was originally omitted from roster because, "I was...just thinking about the older ones in the house...[S]he doesn't contribute...She's just there. She's being taken care of."
- An adult who has another place to stay but lives at the address four days of the week who was originally omitted from the roster because he had another place to live.
- Two young children who live at the sample address five days of the week who were originally omitted from the roster because they have another permanent place to live.

The two people who were mentioned here but should probably not be counted at that address were a roommate's friend who stayed at the sample address for a few days, but not on April 1, and a college student who should not be included at the address.

We found only one problem with this question. Just as with Question 7, several respondents looked at List A to find the list of categories being read by the interviewer. One respondent noted that this led to a lack of clarity regarding the time frame for the question: Were they to consider April 1 or most of the time?

In general, most respondents considered April 1 when answering this question. However, some respondents reported thinking of specific other months such as June 2007 or October 2007, or more general time frames such as September 2007 to the present, spring, or all year. Two respondents reported confusion as to whether the question referenced April 1 or "most of the time." Of the few respondents who were probed specifically on whether they would have answered differently if they thought specifically about April 1, 2008, all said they would not have answered differently.

Respondents varied greatly in their reports of the length of stay necessary in order to be listed in response to this question. Seven respondents reported considering a one to three month stay as the minimum amount of time to report someone in response to this question. Another five used a "halfway" marker, such as six months, "more than 50% of the time," or being "there more than they're away" to report the minimum amount of time. Two respondents noted that someone would have to live at the address all the time in order for them to report them in this question.

Recommendations

No changes

Question H2: Tenure

Is this (house/apartment/mobile home) – Owned by you or someone else in this household with a mortgage or loan (including home equity loans), Owned free and clear (without a mortgage or loan), Rented, or Occupied without payment of rent?

Findings

Eight of 30 respondents initially gave inadequate answers or requested clarification at this question. The sources of these errors involved respondent misinterpretation of the question, and almost always occurred after a respondent interruption. First, several respondents gave a *yes/no* response instead of choosing the appropriate option. Four respondents initially answered "no" (often after a respondent interruption of the interviewer). One respondent answered "no," then asked "I have to pick one of the choices?" while another noted, "Rented, but [other household member] pays, so I guess that's no."

Second, several respondents reported as if the question requested the name of an owner or renter, or that it was asking specifically about whether the respondent himself or herself owned the home.

Third, respondents were sometimes confused as to where one response option ended and another began. Two respondents mentioned that the last two response options (rented or occupied without payment of rent) blended into one another, making it sound like this was one option and noted that adding the letters A, B, C and D, to be read just before each response option, would help alert them that one category has ended and another has begun.

Interruptions played a major role in respondents giving inadequate answers. Five of the eight inadequate answers occurred after the respondent interrupted the interviewer, and five of the six respondent interruptions led to a response error. In contrast, only one of the ten respondents who did not interrupt offered an inadequate response. Respondents interrupted just after the interviewer said "with a mortgage or loan" or "owned free and clear."

Terminology

Several terms in the response options were difficult to understand. For example, one respondent interpreted *free and clear* to mean that no rent was paid. Another respondent was confused by the phrase *occupied without payment of rent*, noting that "You can't stay somewhere without paying rent." One respondent reported not knowing what a *home equity loan* was.

Recommendations

- Add an introductory sentence that lets the respondent know right away that they will hear four categories. This may reduce the likelihood of interruptions.
- Add letters A, B, C and D to be read just before each response option to alert the respondent when one category has ended and another has begun. This will help clarify the nature of the response options for the respondent. Both changes will help the respondent distinguish between response options.

Such recommendations could be implemented as follows:

I am going to read four categories to you. Please pick the one that fits best. Is this (house/apartment/mobile home) – A. Owned by you or someone else in this household with a mortgage or loan (including home equity loans); B. Owned free and clear (without a mortgage or loan); C. Rented; or D. Occupied without payment of rent?

Resolution

The Team decided to maintain the question wording consistent with other forms which have already been finalized, including the American Community Survey. Thus, the final wording is:

Do you or does someone in this household own this (house/apartment/mobile home) with a mortgage or loan, including home equity loans; own it free and clear; rent it; or occupy it without having to pay rent?

Conclusions

Based on findings from the cognitive testing presented here and in Schwede (2009) and from the usability testing (Romano et al., 2008), the Enumerator Questionnaire was revised for the 2010 Census. Appendix C shows the final 2010 form and Appendix D shows the final corresponding

Information Sheet. In addition, recommendations were made to improve interviewer training related to these forms. Appendix E shows the recommendations that were given to Field Division by SRD as a result of this testing and the usability testing conducted by Romano et al. (2008). Many of these recommendations were accepted by Field Division and incorporated into training.

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Appendix A: Tested Enumerator Questionnaire form

Appendix B: Tested Information Sheet

Appendix C: Final 2010 Enumerator Questionnaire form

Appendix D: Final 2010 Information Sheet

Appendix E: Training Recommendations

Were there any additional people that you did Babies?	□ Ye	es 🗌 No				
Foster children?	☐ Ye					
Any other relatives?	☐ Ye	_				
Roommates?	☐ Ye					
Any other nonrelatives? How about anyone else staying here on April	☐ Ye	es No				
who had no permanent place to live?	☐ Ye	es 🗌 No				
If yes to any category, ask: What is that person'						
First Name	Last Name				_	
Anyone else?						
First Name	Last Name					
Do not list any people recorded for this question of	on the inside	pages or on a	continuation f	orm.		
Is this (house/apartment/mobile home) -						
Owned by you or someone else in this hou	usehold with	a mortgage o	r Ioan			
(including home equity loans),						
Owned free and clear (without a mortgage	or loan),					
Rented, or						
☐ Rented, or ☐ Occupied without payment of rent?						
and the second s	address label	includes only a	location desc	ription, as	k –	
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Occupied without payment of rent? If there is not an address label affixed, or if the adwing the address of this unit? House number Apartment number City	[Street name or	rural route ad		k –	
Occupied without payment of rent? If there is not an address label affixed, or if the adwing the address of this unit? House number Apartment number City		Street name or	rural route ad		K –	
Occupied without payment of rent? If there is not an address label affixed, or if the adwing the address of this unit? House number Apartment number City		Street name or	rural route ad		k –	
Occupied without payment of rent? If there is not an address label affixed, or if the adwing the address of this unit? House number Apartment number City		Street name or	rural route ad		k –	
Occupied without payment of rent? If there is not an address label affixed, or if the adwing what is the address of this unit? House number Apartment number City		Street name or	rural route ad		k –	
Occupied without payment of rent? If there is not an address label affixed, or if the adwing what is the address of this unit? House number Apartment number City		Street name or	rural route ad		k -	
Occupied without payment of rent? If there is not an address label affixed, or if the adwing what is the address of this unit? House number Apartment number City		Street name or	rural route ad		k –	
Occupied without payment of rent? If there is not an address label affixed, or if the adwing what is the address of this unit? House number Apartment number City		Street name or	rural route ad		k –	
Occupied without payment of rent? If there is not an address label affixed, or if the adwing what is the address of this unit? House number Apartment number City		Street name or	rural route ad		k -	

RESE	PONDENT INFORMATION
R1. (Ask or verify) What is your name? First Name Last Name Address of proxy	R2. What is your phone number and best time to call? Area Code Number Day Evening Either R3. Respondent Type – Household member – Lived here on April 1, 2010 Household member – Moved in after April 1, 2010 Neighbor or other proxy
A. Unit Status on April 1, 2010 Occupied Vacant - regular Vacant - usual home elsewhere Demolished/burned out/cannot locate Nonresidential Empty mobile home/trailer site Uninhabitable (open to elements, condemned, under construction) B. If vacadesc April For approximately	CO REP VDC
	CERTIFICATION
I certify that the entries I have made on this questionnaire true and correct to the best of my knowledge. Enumerator's signature En	c are Crew Leader's initials mployee ID CLD number
Month Day	Month Day

PID Barcode

OMB No. 0607-0725: Approval Expires 8/30/2010

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

Census

2010 ENUMERATOR Q	DUESTIONNAIRE			
Unit ID	LCO State County			
◆ APPLY LABEL HERE	Tract Block AA Map Spot Are there any continuation forms for this address? Yes → Number of forms No			
RECORD OF	FCONTACT			
Type Mo Day Time Outcome Personal	Type Mo Day Time Outcome Personal a.m. Day Time Outcome A.m. Day Time Outcome Personal a.m. Day Time Outcome A.m. Day Time Outcome A.m. Day Time Outcome Personal a.m. Day Time Outcome Personal p.m. Refusal CI=Conducted Interview OT = Other			
Hello, I'm (name) from the U.S. Census Bureau. (show ID). Is this (Address)? Yes - Continue with question S2 No - Ask: Can you tell me where to find (Address)? END INTERVIEW I'm here to complete a Census questionnaire for this address. It should take about 10 minutes. (Hand respondent Information Sheet.) The first part explains	S4. (Only ask if no household member lived here on April 1.) On April 1, was this unit vacant, or occupied by a different household? Vacant - Skip to "Respondent Information" on back page Occupied by a different household - Using a knowledgeable respondent, complete this questionnaire for the Census Day household. Not a housing unit - Skip to "Respondent Information" on back page.			
that your answers are confidential. We will be referring to this handout throughout the interview. Did you or anyone in this household live here on April 1, 2010? Yes - Continue with question S3 No - Skip to question S4 Is this (house/apartment/mobile home) a vacation or seasonal home, or does someone in this household	S5. We need to count people where they live and sleep most of the time. Please look at list A. It contains examples of people who should and should not be counted at this place. Based on these examples, how many people were			
usually live here? ☐ Vacation or seasonal home or held for occasional use - Skip to "Respondent Information" on back page ☐ Usually lives here - Skip to question S5	living or staying in this (house/apartment/mobile home) on April 1? = Number of People			

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Form DY-1(E)(6-12-2008)

1. Let's make a list of all those people. Please start with the name of an owner or renter who was living here on April 1. Otherwise, start with any adult living here.	2. Please look at list B on the Information Sheet. How is (Name) related to (Read name of Person 1)? Mark X ONE box.	3. Is (Name) male or female? Mark X ONE box.	4. What was (Name's) age on April 1, 2010? What is this person's date of birth? Please report babies as age 0 when the child is less than 1 year old. Print numbers in boxes.	5. Please look at List C. Is (Name) of Hispanic, Latino, or Spanish origin? Read if necessary: Examples of another Hispanic, Latino, or Spanish origin include Argentinean, Columbian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.	6. Please look at List D and choose one or more races. For this census, Hispanic origins are not races. What is (Name's) race? Read if necessary: Examples of other Asian groups include Hmong, Laotian, Thai, Pakistani, Cambodian, and so on. Examples of other Pacific Islander groups include Fijian, Tongan, and so on.	7. Does (Name) sometimes live or stay somewhere else for any of these reasons? — Read response categories. Mark X all reasons that apply.
First Name MI Last Name	X Person 1	☐ Male ☐ Female	Age on April 1, 2010 DATE OF BIRTH Month Day Year of birth	No, not of Hispanic, Latino, or Spanish origin Yes, Mexican, Mexican American, Chicano Yes, Puerto Rican Yes, Cuban Yes, another Hispanic, Latino, or Spanish origin — What is that origin? What is that origin?	White Black, African American, or Negro Alaska Native	In college housing In the military At a seasonal or second residence For child custody In jail or prison In a nursing home For another reason No
First Name MI Last Name	Husband or wife Biological son or daughter Adopted son or daughter Stepson or stepdaughter Brother or sister Father or mother Grandchild Parent-in-law Son-in-law or daughter-in-law Other relative Roomer or boarder Housemate or roommate Unmarried partner Other nonrelative	☐ Male ☐ Female	Age on April 1, 2010 DATE OF BIRTH Month Day Year of birth	No, not of Hispanic, Latino, or Spanish origin Yes, Mexican, Mexican American, Chicano Yes, Puerto Rican Yes, Cuban Yes, another Hispanic, Latino, or Spanish origin — What is that origin? What is that origin?	White Black, African American, or Negro American Indian or Alaska Native Asian Indian Chinese Filipino Japanese Korean Other Asian — What is that group?	In college housing In the military At a seasonal or second residence For child custody In jail or prison In a nursing home For another reason No
First Name MI Last Name	Husband or wife Biological son or daughter Adopted son or daughter Stepson or stepdaughter Brother or sister Father or mother Grandchild Parent-in-law Son-in-law or daughter-in-law Other relative Roomer or boarder Housemate or roommate Unmarried partner Other nonrelative	☐ Male ☐ Female	Age on April 1, 2010 DATE OF BIRTH Month Day Year of birth	No, not of Hispanic, Latino, or Spanish origin Yes, Mexican, Mexican American, Chicano Yes, Puerto Rican Yes, Cuban Yes, another Hispanic, Latino, or Spanish origin — What is that origin? What is that origin?	White Black, African American, or Negro	In college housing In the military At a seasonal or second residence For child custody In jail or prison In a nursing home For another reason No
Person 4 First Name MI Last Name	Husband or wife Biological son or daughter Adopted son or daughter Stepson or stepdaughter Brother or sister Father or mother Grandchild Parent-in-law Son-in-law or daughter-in-law Other relative Roomer or boarder Housemate or roommate Unmarried partner Other nonrelative	☐ Male ☐ Female	Age on April 1, 2010 DATE OF BIRTH Month Day Year of birth	No, not of Hispanic, Latino, or Spanish origin Yes, Mexican, Mexican American, Chicano Yes, Puerto Rican Yes, Cuban Yes, another Hispanic, Latino, or Spanish origin — What is that origin? What is that origin?	White Black, African American, or Negro	In college housing In the military At a seasonal or second residence For child custody In jail or prison In a nursing home For another reason No
First Name MI Last Name	Husband or wife Biological son or daughter Adopted son or daughter Stepson or stepdaughter Brother or sister Father or mother Grandchild Parent-in-law Son-in-law or daughter-in-law Other relative Roomer or boarder Housemate or roommate Unmarried partner Other nonrelative	☐ Male ☐ Female	Age on April 1, 2010 DATE OF BIRTH Month Day Year of birth	No, not of Hispanic, Latino, or Spanish origin Yes, Mexican, Mexican American, Chicano Yes, Puerto Rican Yes, Cuban Yes, another Hispanic, Latino, or Spanish origin — What is that origin? What is that origin?	White Black, African American, or Negro American Indian or Alaska Native Asian Indian Chinese Filipino Japanese Korean What is the name of the enrolled or principal tribe? ▼	In college housing In the military At a seasonal or second residence For child custody In jail or prison In a nursing home For another reason No
FORM DY-1(E) (6-12-2008)				PID Barcode	770	102



Your Answers Are Confidential

Your answers are confidential and protected by law. All U.S. Census Bureau employees have taken an oath and are subject to a jail term, a fine, or both if they disclose ANY information that could identify you or your household. Your answers will only be used for statistical purposes, and for no other purpose. As allowed by law, your census data become public after 72 years. This information can be used for family history and other types of historical research.

You are required by law to provide the information requested. These federal laws are found in the United States Code, Title 13, (Sections 9, 141, 193, 214, and 221) and Title 44, (Section 2108). Please visit our Web site at <www.census.gov/privacy/> for additional information.

Thank you for your cooperation. The U.S. Census Bureau appreciates your help.

If you have any comments concerning the time it takes to complete this form or any other aspect of the collection, send it to: Paperwork Reduction Project 0607-0919-C, U.S. Census Bureau, AMSD-3K138, 4600 Silver Hill Road, Washington, DC 20233. You may e-mail comments to <Paperwork@census.gov>; use "Paperwork Project 0607-0919-C" as the subject.

Respondents are not required to respond to any information collection unless a valid approval number has been assigned by the Office of Management and Budget. The approval number for the 2010 Census is: OMB No. 0607-0919-C; Approval Expires 12/31/2011.

D-1(F) (6-17-2008)

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List A

WHO TO COUNT ON APRIL 1st

We need to count people where they live and sleep most of the time.

Do NOT INCLUDE these people: (They will be counted at the other place)

INCLUDE these people:

- College students who live away from this address most of the year
- Armed forces personnel who live away
- People who, on April 1, 2008, were in a:
 - Nursing home, mental hospital, etc.
 - Jail, prison, detention center, etc.

- Babies and children living here, including foster children
- Roommates
- Boarders
- People staying here on April 1, 2008 who have no other permanent place to live

List B

List C

List D

RELATIONSHIP

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

HISPANIC, LATINO, OR SPANISH ORIGIN

- No, not of Hispanic, Latino, or Spanish origin
- □ Yes, Mexican, Mexican American, or Chicano
- □ Yes, Puerto Rican
- □ Yes, Cuban
- □ Yes, of another Hispanic, Latino, or Spanish origin − For example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.

RACE (Choose one or more races)

- White
- □ Black, African American, or Negro
- □ American Indian or Alaska Native
- □ Asian Indian
- □ Chinese
- □ Filipino
- Japanese
- □ Korean
- Vietnamese
- □ Other Asian For example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.
- □ Native Hawaiian
- □ Guamanian or Chamorro
- □ Samoan
- □ Other Pacific Islander For example, Fijian, Tongan, and so on.
- □ Some other race

D-1(F) (6-17-2008)

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Appendix	C:	Final	2010	Enumerator	Ouesti	onnaire	Forn
Appendix	<u> </u>	rilai	2 O T O	HII AIIICE ACCE	Oucber		LOTI

	RESPONDENT IN	IFORMATION
H1. We do not want to miss any people who might have been staying here on April 1. Were there any additional people that you didn't mention, for example: Babies? Yes No Foster children? Any other relatives? Poster children? Yes No Any other nonrelatives? Yes No How about anyone else staying here on April 1 who had no permanent place to live? What is that person's name? First Name Last Name	First Name MI Last Name	R2. What is your phone number and best time to call? Area Code Number Day Evening Either R3. Respondent Type – Household member – Lived here on April 1, 2010 Household member – Moved in after April 1, 2010 Neighbor or other proxy
Anyone else? First Name Last Name Do not list any people recorded for this question on the inside pages or on a continuation form. H2. Do you or does someone in this household own this (house/apartment/mobile home) with a mortgage or loan, including home equity loans; own it free and clear; rent it; or occupy it without having to pay rent? Own with a mortgage or loan (including home equity loans) Own free and clear (without a mortgage or loan) Rent Occupy without payment of rent H3. If there is not an address label affixed, or if the address label includes only a location description, ask—What is the address of this unit? House number Street name or rural route address Apartment number	A. Unit Status on April 1, 2010 Occupied Vacant - regular Vacant - usual home elsewhere Demolished/burned out/cannot locate Nonresidential Empty mobile home/trailer site Uninhabitable (open to elements, condemned, under construction) Duplicate − record ID of Dup. Duplicate − record ID of Dup. English Spanish Other − Specify language number from flashcard →	category best t unit as of categories.) C. Number of people listed on form(s) = 01 - 49 = Total people 00 = Vacant 98 = Delete 99 = POP unknown
City State ZIP Code Go to Respondent Information on back page. NOTES	CERTIFICA I certify that the entries I have made on this questionnaire are true and correct to the best of my knowledge. Enumerator's signature Employee ID Month Day	JIC1 JIC2 L. M.

OMB No. 0607-0919-C: Approval Expires 12/31/2011

U	nited Sta PNSU 2010	ates JS)		ENU	MERA'	FOR C	QUES	U.S. DEPARTMENT OF COM Economics and Statistics Ad U.S. CENSUS STIONNAIRE	dministration
	Uni	t ID						LCO State County	
	•		— <i>AP</i>	PLY LABEL H	ERE		→	Tract Block AA Map Spot Are there any continuation forms for this address? ☐ Yes → Number of forms ☐ No	
					RE	CORD O	F CON	TACT	
Pe Pe	/pe ersonal ersonal elephone ersonal elephone COME CO	Mo Mo Mo DDES: N	Day Day Day V = Left	Time Time Time Notice of Visit	a.m. p.m. a.m. p.m. a.m. p.m. NC = No Co	Outcome Outcome Outcome Outcome	Per Tele	sonal a.m. p.m. Or sonal a.m. p.m. or sonal a.m. p.m. p.m.	utcome utcome utcome
51.	Hello, I'n (Show ID Yes - No - A END I'm here address. responde that your	n (Name). Is this Continu Ask: Cai INTERV to comp It shou ent an In r answe er. Did y	r) from the (Address of you tell (IEW.) Diete a Cold take a formation rs are corou or all	ne U.S. Census ss)? uestion S2. I me where to sensus question about 10 minut or Sheet.) The file pontidential. I'll myone in this h	find (Address nnaire for thes. (Handrest part explored)	es)? nis ains other	S4. S5.	(Only ask if no household member lived here on April 1., On April 1, was this unit vacant, or occupied by a different household? Vacant - Skip to "Respondent Information" on back posterior of the Census Day household. Not a housing unit – Skip to "Respondent Information on back page. We need to count people where they live and sleep most of the time.	page.
	Yes -	Continu	e with qu	uestion S3.					

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or seasonal home?

☐ No - Skip to question S4.

S3. Does someone usually live at this

(house/apartment/mobile home), or is this a vacation

■ Vacation or seasonal home or held for occasional use –

Skip to "Respondent Information" on back page.

Usually lives here - Skip to question S5.

FOLD



Please look at list A. It contains examples of

this place.

people who should and should not be counted at

Based on these examples, how many people were

living or staying in this (house/apartment/mobile home) on April 1?

= Number of people



1. Let's make a list of all those people. Please start with the name of an owner or renter who was living here on April 1. Otherwise, start with any adult living here.	2. Please look at list B on the Information Sheet. How is (Name) related to (Read name of Person 1)? Mark X ONE box. 3. Is (Name) male or female? Mark X ONE box.	4. What was (Name's) age on April 1, 2010? What is (Name's) date of birth? Please report babies as age of when the child is less than 1 year old. Print numbers in boxes.	5. Please look at List C. Is (Name) of Hispanic, Latino, or Spanish origin? Read if necessary: Examples of another Hispanic, Latino, or Spanish origin include Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.	6. Please look at List D and choose one or more races. For this census, Hispanic origin is not a race. What is (Name's) race? Read if necessary: Examples of other Asian groups include Hmong, Laotian, Thai, Pakistani, Cambodian, and so on. Examples of other Pacific Islander groups include Fijian, Tongan, and so on.	7. Does (Name) sometimes live or stay somewhere else for any of these reasons? – Read response categories. Mark X all reasons that apply.
First Name MI Last Name	▼ Person 1	Age on April 1, 2010 DATE OF BIRTH Month Day Year of birth	No, not of Hispanic, Latino, or Spanish origin Yes, Mexican, Mexican American, Chicano Yes, Puerto Rican Yes, Cuban Yes, another Hispanic, Latino, or Spanish origin − What is that origin? ✓	White Black, African American, or Negro	In college housing In the military At a seasonal or second residence For child custody In jail or prison In a nursing home For another reason
First Name MI Last Name	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 Caughter-in-law Other relative Roomer or boarder Housemate or roommate Unmarried partner Other nonrelative	Age on April 1, 2010 DATE OF BIRTH Month Day Year of birth	 No, not of Hispanic, Latino, or Spanish origin Yes, Mexican, Mexican American, Chicano Yes, Puerto Rican Yes, Cuban Yes, another Hispanic, Latino, or Spanish origin – What is that origin? 	White Black, African American, or Negro	In college housing In the military At a seasonal or second residence For child custody In jail or prison In a nursing home For another reason No
First Name MI Last Name	☐ Husband or wife ☐ Son-in-law or daughter in-law ☐ Male ☐ Biological son or daughter ☐ Other relative ☐ Female ☐ Adopted son or daughter ☐ Roomer or boarder ☐ Housemate or roommate ☐ Father or mother ☐ Unmarried partner ☐ Parent-in-law ☐ Other nonrelative	Age on April 1, 2010 DATE OF BIRTH Month Day Year of birth	No, not of Hispanic, Latino, or Spanish origin Yes, Mexican, Mexican American, Chicano Yes, Puerto Rican Yes, Cuban Yes, another Hispanic, Latino, or Spanish origin − What is that origin?	White Black, African American, or Negro	In college housing In the military At a seasonal or second residence For child custody In jail or prison In a nursing home For another reason No
Person 4 First Name Last Name	☐ Husband or wife ☐ Son-in-law or daughter ☐ Male ☐ Biological son or daughter ☐ Other relative ☐ Adopted son or daughter ☐ Roomer or boarder ☐ Brother or sister ☐ Housemate or roommate ☐ Father or mother ☐ Unmarried partner ☐ Grandchild ☐ Unmarried partner ☐ Parent-in-law ☐ Other nonrelative	Age on April 1, 2010 DATE OF BIRTH Month Day Year of birth	■ No, not of Hispanic, Latino, or Spanish origin Yes, Mexican, Mexican American, Chicano Yes, Puerto Rican Yes, Cuban Yes, another Hispanic, Latino, or Spanish origin – What is that origin?	White Black, African American, or Negro	In college housing In the military At a seasonal or second residence For child custody In jail or prison In a nursing home For another reason No
Person 5 First Name Last Name	☐ Husband or wife ☐ Son-in-law or daughter ☐ Male ☐ Biological son or daughter ☐ Other relative ☐ Stepson or stepdaughter ☐ Roomer or boarder ☐ Brother or sister ☐ Housemate or roommate ☐ Father or mother ☐ Unmarried partner ☐ Parent-in-law ☐ Other nonrelative	Age on April 1, 2010 DATE OF BIRTH Month Day Year of birth	 No, not of Hispanic, Latino, or Spanish origin Yes, Mexican, Mexican American, Chicano Yes, Puerto Rican Yes, Cuban Yes, another Hispanic, Latino, or Spanish origin – What is that origin? 	White Black, African American, or Negro American Indian or Alaska Native Other Asian — What is the name of the enrolled or principal tribe? Asian Indian Chinese Filipino Other Asian — What is that group? Japanese Korean Vietnamese Other Pacific Islander — What is that group? Native Guamanian or Chamorro Other Pacific Islander — What is that group? Some other race — What is that group? Some other race — What is that group? Other Pacific Islander — What is that group? Other Pacific Islander — What is that group? Chamorro Chamo	In college housing In the military At a seasonal or second residence For child custody In jail or prison In a nursing home For another reason No
Form D-1(E) (12-3-2008)					140102

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

INFORMATION SHEET

Your Answers Are Confidential

Your answers are confidential and protected by law. All U.S. Census Bureau employees have taken an oath and are subject to a jail term, a fine, or both if they disclose ANY information that could identify you or your household. Your answers will only be used for statistical purposes, and no other purpose. As allowed by law, your census data becomes public after 72 years. This information can be used for family history and other types of historical research.

You are required by law to provide the information requested. These federal laws are found in the United States Code, Title 13 (Sections 9, 141, 193, 214, and 221) and Title 44 (Section 2108). Please visit our Web site at <www.census.gov/2010census> and click on "Protecting Your Answers" to learn more about our privacy policy and data protection.

Thank you for your cooperation. The U.S. Census Bureau appreciates your help.

If you have any comments concerning the time it takes to complete this form or any other aspect of the collection, send it to: Paperwork Reduction Project 0607-0919-C, U.S. Census Bureau, AMSD-3K138, 4600 Silver Hill Road, Washington, DC 20233. You may e-mail comments to <Paperwork@census.gov>; use "Paperwork Project 0607-0919-C" as the subject.

Respondents are not required to respond to any information collection unless a valid approval number has been assigned by the Office of Management and Budget. The approval number for the 2010 Census is: OMB No. 0607-0919-C; Approval Expires 12/31/2011.

D-1(F) (3-20-2009)

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List A

WHO TO COUNT ON APRIL 1st

We need to count people where they live and sleep most of the time.

Do NOT include:

- College students who live away from this address most of the year
- Armed Forces personnel who live away
- People in a nursing home, mental hospital, etc. on April 1, 2010
- People in jail, prison, detention facility, etc. on April 1, 2010

Do include:

- Babies and children living here, including foster children
- Roommates
- Boarders
- People staying here on April 1, 2010 who have no permanent place to live

List B

HISPANIC, LATINO, OR SPANISH ORIGIN

□ **No,** not of Hispanic, Latino, or

□ Yes, Mexican, Mexican American,

□ Yes, another Hispanic, Latino, or

Spanish origin – For example,

Salvadoran, Spaniard, and so on.

Argentinean, Colombian,

Dominican, Nicaraguan,

Spanish origin

□ Yes, Puerto Rican

or Chicano

□ Yes. Cuban

List C

RACE (Choose one or more races.)

List D

- White
- □ Black, African American, or Negro
- □ American Indian or Alaska Native
- □ Asian Indian
- Chinese
- □ Filipino
- Japanese
- □ Korean
- Vietnamese
- □ Other Asian For example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.
- Native Hawaiian
- □ Guamanian or Chamorro
- □ Samoan
- Other Pacific Islander For example, Fijian, Tongan, and so on.
- □ Some other race

RELATIONSHIP

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

D-1(F) (3-20-2009)

Appendix E: Training Recommendations submitted directly to Field Division

Note: These recommendations are related to findings from the cognitive and usability portions of the testing. To have the appropriate context, you need to refer to the Romano et al (2008) report as well as this one to understand these recommendations.

September 16, 2008

To: Hilda Dimmock and Ellen Cafarella, Field Division cc: Janice Valdisera, Denise Flanagan Doyle and Sherry Pollock, POP Division

From: Jennifer Hunter Childs and Dawn Norris, SRD

Summary of Training Recommendations for NRFU Based on Cognitive and Usability Testing DRAFT 2

QS5 - POP count

- Problem: Several respondents reported not being able to process all of List A during the question because of having to answer immediately.
 - Recommendation: Give respondents a chance to read through List A before the interviewer reads the question, rather than trying to read the card and listen at the same time.

Q1 - Roster

- Problem: Interviewers are uncertain about aspects of the reference person concept. For example, one participant asked about the fact that the training states that the reference person must be 15 or older but it also says that they must be an adult, which would be 18 or older. Another asked how it could be possible for there to be no reference person.
 - o Recommendation: Spend additional time explaining the nature and purpose of the reference person concept. In the text where it says if the respondent cannot chose a reference person, pick any adult 15 years and over to be listed.

Q2 – Relationship

• Problems: It was very common for respondents to list a relationship as simply 'son' or 'daughter' and then have to be probed by the interviewer to further clarify that person as being a biological child, adopted, or a stepchild. Additionally, one respondent who had a foster child living with her who had aged out of the system puzzled over which category to pick; she finally chose 'housemate or roommate.' For her other foster children (under 18), she selected 'other non-relatives' but said that she "wanted to see foster child" on List B.

Additionally, during usability testing, only 21% of cases were correctly coded by interviewers when the respondent answered "foster daughter."

 Recommendation: For the son/daughter, as well as the foster child usability issue, reinforce in training that the interviewer should ask the respondent to pick something off of List B if they provide a non-codable answer. In the training, go over the relative and non-relative categories to help interviewers understand how we want to classify relationships. It might help to use the "help text" to teach interviewers how the classifications work. For example, Table A-1 below shows an excerpt from the Questionnaire Reference Book that might be useful to go over in training.

Husband or Wife	For people legally married and for people in common-law marriages, mark the "Husband or wife" box. For people in domestic unions or partnerships, mark the "Unmarried partner" box.
Adopted Son or Daughter	Mark the "Adopted son or daughter" box for a child who is both a stepchild of the reference person and who subsequently has been adopted.
Roomer or Boarder	Mark the "Roomer or boarder" box if the person is not related to Person 1 and lives in a room in the house of the Person 1. Some sort of cash or noncash payment (e.g., chores) is usually made for living accommodations.
Housemate or Roommate	Mark the "Housemate or roommate" box if the person is not related to Person 1 and shares living quarters primarily to share expenses.
Unmarried Partner	Mark the "Unmarried partner" box if the person is not related to Person 1, shares living quarters, and who has a close personal relationship with Person 1. This includes people in domestic unions or partnerships.
Foster Child	This category was deleted in 2010. For responses of "Foster child," mark the "Other nonrelative" box.
Other Nonrelative	For a person just reporting that they are a friend, mark the "Other nonrelative" box. A person reporting that they are living together with Person 1 as a boyfriend or girlfriend should mark "Unmarried partner."
Other Relative	For other relatives not included in the categories provided (e.g., aunts, nephews, cousins, sisters-in-law), mark the "Other relative" box. Table A-1. Relationship Help Text.

- Table A-1. Relationship Help Text.
- Problem: During usability testing and during interviewer training, the short explanation for the relationship question was very confusing to interviewers. Very few people seemed to pick up on the fact that we were trying to teach them how to avoid inverting the relationships. Most of the participants did not master this concept until they tried the practice question, which they often answered incorrectly, placing the burden on the instructor to verbalize the problem with inverting relationships.
 - Recommendation: Devote more time to explaining this concept, or rewrite this section in the training manual, to emphasize on the importance of avoiding inverted relationships.
 - Example 1. There are instances where the 30-year old respondent, who is Person 1, reports that he is the father of John, his 3 year old biological son. The interiviewer incorrectly marks off the 3-year old John as the "Father" of the reference person instead of marking John as the "Son" of the reference person.

• Example 2. The respondent lists herself as Person 1. She then lists her brother Sam and his wife Susan. Refering to Susan as the wife of Sam, the interviewer marks the relatinoship category for Susan as being the "Wife" of the reference person instead of being an "Other relative" of the reference person.

O3 - Sex

• Recommendation: Based on cognitive and usability testing, we recommend allowing sex to be an "ask or verify" question. Pop Division agrees with this.

However, though we instructed interviewers during training that the Sex question was "ask or verify," several interviewers asked whether or not they must ask the sex question if they could tell the sex of the person, indicating they did not understand our definition of "verify." Thus we also recommend that additional time be spent in training on what is meant by verification.

POP Division also requests a few other comments about the Sex question be added to training:

- Ask or verify sex question of verify sex of <u>every person</u>. Never record sex without verifying it.
- o The Census sex question aims to collect a person's biological sex (not their gender).

Q4 – Date of Birth and Age

• Problems: Three respondents miscalculated the age of household members who had birthdays after April 1 as they tried to subtract birth year from 2008. There were three additional instances of age initially being misreported, then corrected by the respondent after they noticed the April 1 instruction.

Asking the two questions back-to-back ("What was (NAME)'s age on April 1, 2008? What is this person's date of birth?") without pausing in between, may explain these errors. It is difficult to keep both requests in working memory while trying to calculate birthdate as of April 1 when it is already July. Many respondents either didn't hear, or couldn't remember, that we were asking them to figure age as of April 1. At least one interviewer was unclear about whether they needed to pause between the two sentences.

- Recommendation: Train interviewers to pause between these two questions, allowing the respondent to answer with age before asking for date of birth. It is important to get as accurate information on age and full birthdate as possible, because these variables are used for matching and unduplication.
- Problems: Of 29 respondents who answered the question, encoding and recall problems led to 5 respondents estimating date of birth for at least one household member, including one respondent who had no idea about birth year and made one up. Although estimation of age is permissible, estimation of any part of date of birth is not, and may lead to serious errors.

Additionally, during usability testing, interviewers were unsure as to which

values (age or date of birth) they could estimate and which values had to be exact, as well as the admissibility of partial information. Only 47% of cases were correctly coded (interviewer wrote what was known about date of birth) by interviewers when the respondent was unsure about it.

o Recommendation: In training, we recommend expanding the explanation about estimation and partial date of birth information, and adding a practice question to test their comprehension. Below is added detail from POP division:

If parts of date of birth (month, day, or year) are known, we want them to fill in any and all pieces respondent provides.

If a date of birth item is not filled because uncertain, just don't probe for an estimate on it. Good to probe them a little to fill known pieces. If an age is uncertain, do probe for an estimate (that's our last ditch effort to get some kind of age info).

And, if a few estimated dates of birth slip in, that's fine (none of this is going to be exact). The difference is that we just won't probe for an estimate on date of birth items, but we WILL probe for an estimate on age, when exact age is not known.

Background for why they're different: Currently in our post-collection edits, date of birth (calculated age from date of birth) gets used pretty strongly. The edits assume that date of birth is more accurate/precise than reported age. So, with that, we'd rather the date of birth be a little more certain and the age (though best if exact) can be an estimate, when it's not known (we'd rather have an age of some kind than none at all). So, it's okay to estimate age.

POP Division also provided a list of content items to train on:

- 1. **EMPHASIZE AGE AS OF CENSUS DAY:** Instruct interviewers to <u>not</u> omit reference date when asking the age question. Instead, instruct them to EMPHASIZE it. In Census 2000, research showed that there was a tendency to answer age as of TODAY'S date instead of the census reference date, April 1, 2000. So in this training section, include some explanation and a scenario. Some possible instruction wording: Enter the person's age as of April 1, 2010. April 1, 2010 is the census reference date (or Census Day). The census collects the person's age as of this date and not the interview date." Please include in the training a scenario where an adult has a birthday after Census Day but before the NRFU collection date. Verify that interviewers are accurately recording age as of the reference date and not today's date.
- 2. **DO NOT ROUND AGES UP:** There is a tendency to round up to next age (especially if close to having a birthday (OR ESPECIALLY IF RESPONDENT IS ANSWERING AS OF TODAY'S DATE AND NOT AS OF CENSUS DAY). Some text I am seeing on TQA emails that may be helpful here: Do not round the age up if the person is close to having a birthday. If you do not know the exact age, an estimate will do (or please provide an estimate). For babies who are not yet one year old, enter '0."' At a minimum, add "Do not round ages up."

- 3. **DO NOT ENTER FRACTIONS OR DECIMALS**. Record age in <u>completed</u> years as of Census Day (April 1, 2010). No fractions, no decimals. For 70.6, enter 70 as the age. For $70^{1/2}$, enter 70 as the age.
- 4. **ENTER MONTHS AS NUMERICS**. Include chart (you can find this in 2010 keying specs) to help with interviewer conversion from month name to numerical equivalent on the form. (For example, May = 05, November = 11.... see keying specs). Some possible instructive text: "Enter the month, day, and four-digit year of birth in the spaces provided. For month, do not enter names of months. Use the two-digit identification for each month. For example, "06" for June "12" for December, etc. If you do not know the month, leave the month field blank. (and it goes on....) For day, if you do not know the day, leave the day field blank. For year, enter all four digits of the year. If you do not know the year, leave the year field blank." (source: TQA help text emails)
- 5. **DO NOT TRUNCATE RESPONSES TO AGE AND DATE OF BIRTH:** We do not want age or date of birth responses truncated (month of birth, day of birth, year of birth). This truncation led to false centenarians in Census 2000 (as a result of a truncation keying spec in Census 2000). We do not want this happening in 2010. So, please remove the truncation instruction for this training. It is better to blank a response than to truncate (at least for age and date of birth).
- 6. For Year of Birth, remember to enter a **FOUR-DIGIT YEAR OF BIRTH**. So, the instruction is: "Record month, day and four-digit year of birth in the spaces provided."
- 7. **DO NOT ENTER BABIES' AGES IN MONTHS, WEEKS, OR DAYS**: "Enter "0" when age is less than 12 months. "1" when age is 12 to 23 months and "2" when age is 24 months.]

Q5- Hispanic, Latino or Spanish Origin

• Problems: This question did not elicit a Yes/No response from any of the four Hispanics interviewed, and so was not initially codeable. When asked by the interviewer to select a category from List C, Hispanic respondents eventually gave an answer when their country was listed among the examples (e.g., Colombia) or as a response category (e.g., Puerto Rico), but it took considerable time and effort to obtain an answer when the country of origin was not among the examples (e.g., Peru, Bolivia). Three of the four Hispanic respondents initially named one of the choices in the question (e.g., "Latino" or "Spanish").

Hispanic respondents were unsure about how to report their U.S.-born children, and reported "Another Hispanic, USA" and "American." One respondent wondered whether having a Hispanic father means that the child is also Hispanic.

Two non-Hispanic respondents were confused about how to answer this question for Hispanic household members. For example, one respondent said that another household member was "mixed," but was not sure whether to report her as Hispanic or as Black, noting "I didn't know which one to say."

Despite the trouble that respondents had understanding this question, usability testing showed that 95-100% of cases (depending on country of origin that respondents mentioned) were correctly coded by interviewers.

• Recommendation: Train interviewers on how to help respondents navigate this question.

Q6 - Race

- Problem: Of 26 respondents for whom information is available, 10 did not know they could respond with more than one race, and several respondents had difficulty correctly reporting people of mixed race. For example, one respondent reported "black and white" as "some other race mixed," and another respondent reported "black" only, but noted at the probe that that person was actually of mixed race.
 - o Recommendation: Use practice cases where the respondent reports more than one race to teach interviewers that more than one race is acceptable.
- Problem: Of 30 respondents, 21 reported being confused by the phrase "For this census, Hispanic origins are not races."
- Problem: During usability testing, interviewers only successfully coded this question for Hispanic respondent scenarios between 11% and 84% of the time (depending on the specific race/origin combination). Interviewers did not mark anything or marked "some other race" when an appropriate category (e.g., "white," "some other Asian") was available.
 - Recommendation: Use practice cases with Hispanic respondents to teach interviewers how to probe the race question with Hispanics. The training should also explicitly state that every question on the inside cover must be asked of every person in the household.

Q7 – Overcount

- Problem: During usability testing, interviewers only successfully coded this question between 37% and 89% of the time in the following scenarios: a daughter who stays with her father in another home sometimes (37% coded correctly); a son who lives at college during semesters (84% coded correctly); a mother-in-law who lives at a nursing home during the week (89% coded correctly); and a housemate who only lives at the sample address during semesters (47% coded correctly). Interviewers incorrectly marked "for another reason" when an appropriate category was available, marked "no," or did not mark anything.
 - o Recommendation: Training should cover marking "yes" whenever the respondent reports another place at this question. Many participants marked "no" when they felt the person lived at the present residence *most of the time*.

QH1 – Undercount

• Problems: The explanation of who to list on H1 was confusing, particularly the part about not double-counting people from H1 on Q1-7 or the continuation form. Participants wondered when they should add people to the roster and when they should just mark them in H1.

During usability testing, interviewers only successfully coded this question between 47% and 89% of the time. When the respondent mentioned a partner's brother at this question, only 47% of interviewers marked the correct check box, while 89% of interviewers correctly wrote his name in the box. When the respondent mentioned a baby they had already listed on the roster, only 79% of interviewers correctly did not mark a box.

 Recommendation: Training should cover how to handle cases like these. More scenarios should be used in training in which show interviewers how to handle people who are already mentioned on the roster and people who have not yet been mentioned. Clarify that no name should be written in H1 if it is already on the roster.

QH2 – Tenure

One respondent was unclear about the training instruction on how to handle the apartment manager situation (classify as "occupied without payment of rent").

Recommendation: Use text similar to that of the American Community Survey to describe the categories of tenure:

TENURE

Enter <1> if the unit is:

- Owner occupied with a mortgage or loan including home equity loans
- Being bought on land contract or contract to purchase, deed of trust, trust deed, or purchase agreement
- Built on leased land if the unit is mortgaged
- Owned outright, but the land is mortgaged
- A mobile home with an installment loan

Enter <2> if the unit is:

- Owner occupied and there is no mortgage or other debt on the property
- Built on leased land if the unit is owned outright

Enter <3> if the following apply:

- Rent is paid or contracted for, even if the rent is paid by people who are not members of the household, or paid by a Federal, state, or local government agency.
- Unit is a rented condominium
- "Continuing care," sometimes called life care, is a contract between an individual and a housing services provider. The contract requires that shelter, usually a house or apartment, and services such as meals or transportation to shopping or recreation be provided.

Enter <4> if the following apply:

- Unit is not owned or being bought by a member of the household. For example, the unit may be owned by friends or relatives who live elsewhere and who allow the respondent to occupy the unit without charge.
- Rent is not paid or contracted for.

Note: 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.

<u>Interview Summary – Item A – Unit Status</u>

Comment on Vacant Status from HHES

There is a concern about the possibility of too many units being classified as vacant in disaster areas – like areas hit by hurricanes or fires. The American Community Survey has dealt with this by issuing special guidance on how to classify units that are either vacant, demolished or uninhabitable. We recommend adding this guidance into NRFU training materials. I will forward these materials to Field Division.

General Problems Unrelated to a Specific Question

Reading the Questions

Bold and **Italic** Fonts

Some participants read aloud questions in the Interview Summary that they should have completed silently. They did not hear or comprehend the instructions to only read aloud questions that are bolded, and that comments in italics or comments that are not bolded do not need to be read aloud. For example, one respondent was unsure whether or not to read QR3 (respondent type – not to be read aloud) out loud.

Reading the Question Exactly as Worded

Many participants were confused about when they had to read questions exactly as they are written and when they could improvise. The training did not emphasize that the question wording in bold must not be altered in any way, with the exception of when the interviewer is speaking to the person that he/she is asking about (and so may use the second person (you/yours) instead of the third person).

• Recommendations: We recommend that the interviewers should be directed to look at a specific question, such as Q4, and asked to notice which types of comments appear in italics and that these comments should not be read aloud. They should note which segments of the question appear in bold and be reminded that they cannot change any of the wording in the bolded segments. Finally, they should practice administering the question first to a third party, and then as though they were speaking to the person about which they were asking.

How about...?

Several participants did not pick up on the fact that they could ask "How about..." for subsequent people after reading the question for the first time in full. Other participants tried to do this on the relationship question, which is incorrect.

• Recommendation: Expand the explanation, with an emphasis on when interviewers can use this strategy and when they must repeat the question for each person.

Reading All Questions for Every Household Member

At least one respondent thought that if someone was of Hispanic origin, they did not need to answer the race question.

• Recommendation: Training should also explicitly state that every question on the inside cover must be asked of every person in the household.

Form Navigation

Person-Based vs. Topic-Based Administration

Participants were confused by the order in which questions should be answered when they are using a continuation form. When the continuation sheet was used, 75% of the time people wrote all names, asked each topic-based question, going back and forth between the original form and continuation form. Additionally, at least one respondent was confused about whether to navigate the entire form in a topic-based or person-based manner.

• Recommendation: Training should include scenarios in which interviewers use the continuation form, and a practice question to test their comprehension. For instance, you could ask them, "Let's say a household has seven members. After marking the first 5 members on Q1 on the DY-1(E), what would you do next?" [Mark the last two members on Q1 of the continuation form.] "Then which question would you answer?" [Q2 on DY-1(E) for Persons 1-5.]

Inadequate Training on Skip Instructions

The concept of skip instructions is introduced in QS1 but never defined. The training manual only states, "note the skip instructions after the question." Some participants did not correctly follow the skip instructions or even seem to notice that they were there. One participant was confused about the training instructions to skip to the back page if the respondent answers "vacation or seasonal home" to QS2.

• Recommendation: Training should include more information on what skip instructions are, where they appear in questions, and how they are used.

Respondent Information Section

The respondent information section is actually introduced in QS3, when the interviewers are told to skip to this question if the respondent answers "vacation or seasonal home." However, the interviewers are only told briefly to go to the Interview Summary and mark Item A and Item B. Since the entire back page of the questionnaire has not yet been introduced to the interviewers, it confuses them to send them to the Respondent Information section when they are discussing QS3. Several participants flipped through the questionnaire trying to find this section and then seemed bewildered when the training moved abruptly to QS4 without further elaborating on what they there supposed to do with the Respondent Information Section.

Recommendation: Allude to this section without providing explicit instructions about it
in QS3. For example, the training could read "If the respondent answers 'vacation or
seasonal home' to this question, you will skip the rest of the questionnaire and go directly
to the back page, where you will fill out the 'Respondent Information' section. We will
deal more with that section later. For now, let's move on to QS4."

Continuing on to the Next Page from the Introduction Section

Several interviewers were confused by the instruction, "After you enter the number of people in S5, continue with Question 1 on the next page of the questionnaire." Although this instruction is not innately confusing, it was placed in the middle of a paragraph about the purpose of QS5 and then followed by a paragraph on what do to if people had trouble answer question S5. Participants flipped to the next page of the questionnaire before they had received all the instructions about how to administer QS5.

• Recommendation: Wait to tell the interviewers how and when to navigate to the next page of the questionnaire until it is actually time for them to do so.

Questionnaire Completion

Although completion of the Interview Summary section (Questions A-D) was addressed in training, several interviewers were unsure about whether or not they needed to answer them. Another respondent was not sure how to use the "vacant – regular" category in Question A. In particular, interviewers were confused about whether or not to ask Question B, mark it themselves without asking it, or ignore it.

• Recommendation: Be more explicit about how to navigate the Interview Summary section, with special attention to determining when to mark a "vacant" category in Question A, and the importance of asking Question B out loud and only asking it when a "vacant" category was marked in Question A.

Category Selection – Respondent Must Select Categories

The interviewers are also never explicitly told not to choose categories for the respondent. For instance, in the first practice scenario many interviewers chose "other relative" when the respondent said that one household member was her nephew. The interviewers did not realize that they were supposed to direct the respondent to pick a category. This misunderstanding was widespread and could have a serious impact on the data that they collect.

Awkward Transitions throughout the Training

The training seems to jump from one topic to the next in several places without clear transitions to guide the listener. For instance, this occurs between the instructions for QS1 and QS2 or between QS3 and QS4. Another awkward transition occurs between the introduction to using the inside of the questionnaire and the beginning of the instructions for Q1.

The Information Sheet

The Information Sheet is mentioned in QS2 before the interviewers ever see what it looks like. It confuses interviewers to hear the sheet mentioned in a question before they even know that it exists.

• Recommendation: This sheet should be shown to the interviewers before they hear QS2, even if it is not fully explained until later.

The Usage of House/Apartment/Mobile Home

Many participants did not notice the instructions to choose either "house," "apartment," or "mobile home." Some of the participants read all three options rather than choosing one.

• Recommendation: This concept should be emphasized in training, perhaps with a question to test their knowledge. For instance, interviewers could be asked, "How do you know whether to say 'house,' 'apartment,' or 'mobile home' when you are administering the questionnaire?"