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**BEHAVIOR CODING ANALYSIS REPORT:
Evaluating the Coverage Research Follow-Up (CRFU)
Survey for the 2004 Census Test Administered
Using Telephone and Personal Visit Survey Modes**

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Evaluating the Coverage Research Follow-Up
(CRFU) Survey for the 2004 Census Test
Administered Using Telephone and Personal Visit
Survey Modes



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EXECUTIVE SUMMARY

A. INTRODUCTION

As part of the 2004 Census Test, the Coverage Research Follow-Up (CRFU) interview was conducted. In order to pretest and refine the CRFU instrument a behavior-coding project was undertaken by staff from the Statistical Research Division (SRD) in conjunction with the Decennial Statistical Studies Division (DSSD). The behavior coding method was used to evaluate the CRFU to explore the extent to which interviewers delivered the survey questions as worded and whether any response issues were present.

Field and telephone staff collected over 200 audio-taped interviews, with respondents' permission, in the summer and fall of 2004—209 of which were used for this analysis.¹ The identical paper-and-pencil instrument (PAPI) was used for both personal visit and telephone survey modes. Telephone interviewers from the Hagerstown Telephone Center applied a set of behavioral codes to interviewer/respondent interactions for each question.

The following section describes several facets of the results: general observations; logistic regression by survey mode; and particular questions deemed either high or medium priority for question redesign due to signs of administrative and response difficulties.

B. RESULTS

General Observations

Of the 57 CRFU questions, only 29 generated enough observations to be included in the analysis (i.e., 15 observations or more). Ideal interviewer behavior—asking the question exactly as worded or with slight changes that do not change the meaning of the question—occurred less frequently than we would have liked. On average, interviewers asked these 29 questions correctly only 51 percent of the time. Not even one individual question was asked as worded at least 85 percent of the time. Ideal interviewer behavior ranged from a high of 76 percent for two questions (Question 2. Reached Address and Question 6. Another Address) and hit a low at 7 percent (Question 25. Introduction F, which was placed in a non-salient location).

For a majority of the questions where interviewers made major changes to question wording, the types of changes they tended to make seem unlikely to change question intent or the measurement objective of the question. They often dropped portions of the question that could be considered conversationally superfluous; however, sometimes the reference period was omitted, which could be problematic since the questionnaire's reference period changes from section to section (and occasionally by question). In addition to reference period omissions, interviewers occasionally dropped entire conceptual phrases from compound questions in an effort to shorten them.

¹ Slightly more personal visit interviews (N=135) were collected compared to telephone interviews (N=74).

Comparatively speaking, far fewer problems were evident in respondents' behavior. Excluding the four introductions, across 25 questions analyzed, on average respondents provided acceptable answers to survey questions 80 percent of the time during the first-level exchange. There was only one question (Question 8. Describe Building) that seemed to generate persistent data quality issues (see next section for discussion).

Effect of Survey Mode: Logistic Regression Results

Logistic regression was used to identify differences in the behavioral data produced during telephone and personal visit interviews. "Good" interviewer behavior was consistently higher for telephone interviewers compared to the personal visit interviewers. Main effects of survey mode on good interviewer behavior were found in 19 of the 29 questions of interest to this study.

Main effects of survey mode on ideal respondent behavior (i.e., adequate answers) were absent, except for one question (Question 8 had a greater percentage of break-ins for the telephone mode compared to personal visit). This may be the only effect attributable to survey mode.

Interviewer behavior results are confounded since the characteristics of the two groups of interviewers were vastly different in terms of tenure, cumulative amounts of training received, and supervision. We, therefore, cannot conclude that survey mode completely explains the differences in interviewer behavior.

Questions at Risk

There exists, however, a smaller set of questions that were deemed high- or medium-priority for question redesign. Based on the following factors, this set of questions should be seriously considered for revision: the magnitude of the non-ideal behavioral issue; whether question intent may have been altered (e.g., the extent to which or the way in which wording was changed); whether data quality issues may be present, due to non-ideal interviewer or respondent behavior (e.g., failing to probe for an adequate answer when one is not initially given). The six questions listed below were all the CRFU questions judged to be a high or medium priority for question redesign. These questions are accompanied by bulleted summaries of major findings associated with each problematic question:

Question 8. Describe the Building (high priority)

"How would you describe this building? Is it a: Mobile home? One-family house detached from any other house? One-family house attached to one or more houses? A building with 2 apartments? A building with 3 or 4 apartments? A building with 5 to 9 apartments? A building with 10 or more apartments? A boat, RV, van, etc.?"

- Question intent probably was not harmed, but interviewers often made major changes to question wording (73%); wording structure resembles a self-administered question, causing question administration difficulties

- Interviewers often truncated the question, creating an impromptu “screener” (e.g., “Is this a single family house or apartment?”)
- Respondents interrupted interviewers as they read the question 30 percent of the time and they were only able to give an adequate response in the first-level exchange 51 percent of the time
- Data quality is an issue; a small portion of responses (9%) cannot be reasonably assigned a response option because interviewers did not probe for the “attached” versus “detached” distinction in the first two single family home response options

Question 17. Section E Introduction (high priority)
“Sometimes people are left out of the census. I’d like to make sure that we are not missing anyone who lived or stayed at [ADDRESS] on April 1, 2004. Other than the names I read to you, were there...”

- Data quality for related questions following this introduction (Questions 18-24) might have been compromised when interviewers omitted the introduction (22%) and made major changes to the introduction wording (35%)
- Of those major changes, omission of the reference period accounted for about 39 percent of the changes
- Attendance to the reference period of April 1 is critical at this point in the survey, because the preceding section (Section D) uses a different reference period (“around April 1”)
- A significant effect of survey mode on “good” interviewer behavior was found; there was a higher percentage of exact readings for telephone interviews compared to personal visit interviews

Question 19. Foster Children (medium priority)
“Any foster children or other children not related to you?”

- In cases where interviewers made major changes to question wording (33%) question intent may have been altered; coders’ notes suggest the most common change was the omission of the last phrase (i.e., “...or other children not related to you?”)
- Interviewers may perceive the omitted phrase as redundant, even though it represents a new construct that is conceptually separate from “foster children”
- A significant effect of survey mode on “good” interviewer behavior was found; telephone interviewers had higher percentages of exact readings/slight changes compared to personal visit interviewers

Question 24. Temporary (medium priority)

“Other people who stayed here temporarily on April 1 and had no other place to live?”

- Major changes to question wording occurred 26 percent of the time, some of which may have altered question meaning; in many of these cases, the reference period and the phrase “...and had no other place to live” were omitted (66%)
- A significant effect of survey mode on “good” interviewer behavior was found; telephone interviewers made fewer major changes to question wording than personal visit interviewers, and at times personal visit interviewers omitted the question completely

Question 26. Shared Custody (high priority)

“Was any child in a shared custody arrangement or did [he / she] live part of the time at another residence?”

- Quite a few major changes were made to question wording (65%), though most half of these cases were harmless (e.g., interviewers tailored the question by substituting children’s names for “any child”)
- Of the major change cases, however, interviewers stopped reading the question after the word “arrangement” (16%), i.e., omitting the last phrase/concept, “or did he/she live part of the time at another residence,” which may cause data quality issues if respondents think they should only report formal/legal custody situations

Question 39. Group Quarters/Medical Care – question stem (high priority)

“Was [NAME] staying in any of the following places on April 1: A long-term medical care facility? (Telephone only: Such as a nursing home or mental hospital?)”

- Interviewers made major changes to question wording (64%)
- A significant effect of survey mode on “good” interviewer behavior was found. Telephone interviewers did a better job of reading the questions as worded than personal visit interviewers, and personal visit interviewers omitted this question more often
- When major changes were made to question wording, interviewers were shortening this question: instead of reading it for each household member they only asked it once by saying, “Was anyone in your household...” (51%); and personal visit interviewers handed respondents the flashcard instead of reading the question (13%)
- In major changes cases, a small percentage of interviewers omitted the reference period (4%) and changed it from “April 1” to “March or April” (4%), which happens to be the reference period in Question 37. In these cases, it appears interviewers are confusing the reference periods from previous questions, and not actually reading the question off the page (but instead from memory)

Based upon the behavior coding results, it is apparent interviewers had difficulty administering quite a few questions as they were originally worded. Many of these questions seem to be good candidates for rewording, and recommendations are included in the body of the report.

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Part I INTRODUCTION

This report documents the results from a behavior coding project undertaken by staff from the Statistical Research Division (SRD) and the Decennial Statistical Studies Division (DSSD) conducted to evaluate the Coverage Research Follow-Up (CRFU) interview, which was conducted as part of the 2004 Census Test.²

This project was designed to build upon the results of previous pretesting research with cognitive interviews, also conducted to improve the survey's question wording.³ The current behavior coding study was conducted to gain a better understanding of question administration and response difficulties, and the magnitude of such issues, generated by the CRFU questions. The behavior coding method accomplishes this by systematically coding interviewer and respondent behaviors, question-by-question, that tend to indicate question administration and response problems are present.

From the many interviews conducted for the test, 209 interviews—audio-taped with respondents' permission—were used for this behavior-coding project.⁴ A mix of personal visit and telephone interviews were conducted with respondents from the 2004 Census Test sites located in Georgia and New York. The same paper-and-pencil instrument (PAPI) was used to conduct both types of interviews. The audio tapes were coded by telephone interviewers who were given project-specific behavior coding training, and were also experienced behavior coders.

A question-by-question analysis was conducted with the resulting behavior coding data; 29 out of 57 questions generated enough observations for analysis.⁵ The analysis intended to identify questions that generated higher-than-expected percentages of non-ideal interviewer and respondent behavior. Verbatim notes regarding problematic interviewer/respondent interactions, as documented by the coders, were used to further explore question issues that were first exposed in the behavior coding data. From the outset of this research, we knew we must be sensitive to the possibility of questionnaire issues due to mode differences in the data collection. In an effort to evaluate the results for mode effects, we ran a logistic regression on the behavior coding data.

The next section of this report, the background section, provides information about the CRFU's analytical goals, the structure of the instrument, the main findings from previous pretesting efforts (i.e., cognitive interviewing), and speculation regarding mode use for future CRFU operations. Following that is the methods section, which describes the behavior coding method used for this pretesting study, the limitations of the study, and the statistical tests used to analyze

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³ For cognitive interview results, see Davis, D., and Pendzick, M. (2003) "Final Report: Coverage Research Follow-Up (CRFU) Questionnaire Cognitive Testing," U.S. Census Bureau internal report prepared by Development Associates, Inc., Arlington, VA.

⁴ These interviews represent a convenience sample taken during the field period from in-person and telephone interviews. Our goal was to collect enough interviews from each survey mode to facilitate analysis within and across modes. A greater number of in-person interviews were collected compared to the telephone interviews (135 and 74, respectively).

⁵ Questions with as few as 15 observations were included in this analysis.

portions of the behavior coding data. The results section describes general findings, general recommendations that affect the CRFU questionnaire overall, in addition to detailed question-by-question findings and recommendations.

Part II BACKGROUND

This behavior-coding research project was undertaken as part of a larger, ongoing pretesting regimen to improve the Coverage Research Follow-Up (CRFU) survey, scheduled for implementation during the 2010 decennial census.⁶ Prior to the current behavior-coding project, results from cognitive interviews and interviewer debriefings were used to revise previous versions of the CRFU (i.e., particular questions, introductions, and question order). The following section (Section A) describes the CRFU operation in greater detail. Section B outlines the plans for future field tests of the CRFU and how the use of particular data collection methods may affect the instrument.

A. Description, Goals, and Structure of the CRFU Instrument

In preparation for the 2010 census, the U.S. Census Bureau conducts many small-scale tests to ensure the next decennial operation will run smoothly. This includes conducting several “test” censuses, along with many of the other operations necessary to execute the full decennial survey design. One of the goals of the 2004 Census Test was to improve coverage of people. To address this goal the Census Bureau developed coverage questions to include on the census return form. The coverage questions were designed to identify households in which a person was missed (undercount) or a person was counted in error (overcount). These households were then re-interviewed during the Coverage Research Follow-Up (CRFU) operation. In addition, a sample of households who did not indicate an undercount or overcount problem were also re-interviewed.

This test was designed to collect data from households who provided certain types of responses to two particular coverage questions on the original 2004 Census Test form. The form contains two questions, an “overcount” and an “undercount” question. Depending on whether a respondent answered “yes” or “no” to these questions determined whether they were sampled for the CRFU. The data from the 2004 CRFU were used for several purposes; they were used to assess the effectiveness of the census coverage questions and to repair within-household coverage identified as problematic (based upon responses to the overcount/undercount census questions). Coverage problems may have occurred in the 2004 Census Test due to respondents misexecuting the residence rules as they built their household’s roster, in addition to census operations resulting in duplicates.

From June to November of 2004, the Census Bureau conducted the CRFU field test. The data collection operation occurred at two test sites; counties in Georgia (i.e., Tift, Colquitt, and Thomas) and portions of Queens, New York were selected for the test in order to include populations that are typically difficult to enumerate (e.g., rural populations and recent immigration populations). Interviews were conducted using two survey modes, telephone and personal visit at both test sites. Both survey modes utilized paper-and-pencil survey instruments. The telephone interviews were conducted at the Census Bureau’s National Processing Center in Jeffersonville, Indiana and the Tucson Telephone Center in Tucson, Arizona, by permanent staff trained to administer a variety of surveys. In contrast, field interviewers were mainly novice

⁶ Since the 2004 implementation of the CRFU test, its name has been changed to the Coverage Follow-Up, or CFU.

interviewers who were hired and trained specifically for this particular field test. Many field interviewers, however, also worked as interviewers during previous census test efforts (e.g., the 2004 Non-Response Follow-Up Test) and a few were involved in the 2000 Decennial Census.

The paper-and-pencil CRFU instrument asks a variety of questions verifying whether individuals listed on the household's roster created from the 2004 Census Test, conducted shortly before the CRFU, were correctly or incorrectly enumerated according to the rules for residency. It also attempts to identify persons who may have been missed altogether. The reference period for the CRFU's questions relate to "Census Day" (April 1st). Thus, all reference periods refer back to April 1st, March and April, and "spring semester" of 2004 (when asking about college students). The CRFU is used to identify the following types of people:

1. Those that lived in the household on Census Day, but were somehow missed by the census—referred to as the "undercount." Results from the CRFU determine if these "undercounted" people should be added to the household count and, if so, the CRFU collects information about their demographic characteristics and living situations;
2. Those who were counted incorrectly in the Census (e.g., at more than one household). This includes people counted at the wrong address and people counted more than once. For example, people with more than one residence, college students, and children in shared custody are often counted more than once in the census. The Census Bureau refers to duplicate person enumerations as "overcount." The CRFU determines where the overcounted person should have been counted on Census Day. The CRFU will assess whether potential duplicates were actually counted twice in the census and, if so, determine the reasons for the duplication; and
3. Those who were listed more than once on the household's roster on Census Day.

The interviews begin with the interviewer attempting to contact the household at the listed address. The interviewer then attempts an interview with the person listed first on the survey's roster. In general, the CRFU includes questions about the following:

- Housing-unit type questions (e.g., whether the housing unit is known by a different address and type of building)
- Reading the people listed on the roster
- People on the roster who are listed twice
- People on the roster who moved out around April 1st
- People missing from the roster, of which there are seven types: babies/newborns; foster children or unrelated children; children away in boarding school; relatives tenuously attached to the household; roommates or boarders; other unrelated individuals (such as live-in employees); and anyone else who stayed at the home temporarily and had no other place to live
- People who could be counted at multiple addresses for Census Day due to living patterns, of which there are six types: children in shared custody arrangements or those who live part of the time somewhere else; college students; people living away from home to work a job or business; people with vacation or seasonal homes; people who stayed for an

extended time with friends or relatives; and people who live in group quarters (i.e., long term medical care facility, military barracks, correctional facility, or any other place where groups of people stay)

- Where people with more than one residence lived most of the time around Census Day

Once the interviewer begins asking about people who could be counted at multiple addresses for Census Day, interviewers then asked several follow-up questions to gathering additional information (e.g., address of other place). At this point, interviewers were given the choice whether to administer the questions following a person- or topic-based interviewing approach.⁷ The questions and their response sets were organized into a matrix on the paper instrument, making either type of question administration possible. Interviews tended to be relatively short (between 10 and 18 minutes per household), depending on the number of household members.

B. The Future of the CRFU (Renamed the “CFU”)

DSSD staff plan to continue using field tests to evaluate and refine the CFU operation and instrument between now and the next decennial census. Ultimately, when the CFU “goes live,” both telephone and personal visit survey modes will be used to collect data. Currently, DSSD staff face uncertainty about whether both modes will be automated, due to budgetary limitations.

The next scheduled field test in 2005, however, will only be conducted over the telephone with an automated instrument. Personal interviews will not be conducted in 2005; the 2005 CFU test is not limited to a few test sites, it is designed as a national test. Thus, question wording for the 2005 CFU—which is already available in draft form—is designed for a computer assisted telephone instrument (CATI) environment and does not necessarily account for alterations to question wording that may need to be incorporated for an in-person survey using a paper-and-pencil instrument (PAPI).

The 2006 CFU field test will be conducted both in person and by telephone, and will focus more on the operational aspects of the survey than previous field tests, which focused on more on content. The two test sites selected are Austin, TX and the Cheyenne Indian Reservation in South Dakota. In 2008, a similar CFU design will be implemented, using different test sites. In-person interviews will continue to use a PAPI, unless automation is approved for this operation, and telephone interviews will be conducted with a CATI.

⁷ Person-based interviewing asks a series of question about one member of the household, then repeats the same series of questions for the next member of the household. In contrast, topic-based interviewing asks one substantive question and then collects that information for all persons in the household before moving onto the next question (e.g., What is your data of birth? And what about Suzy? How about Bernard?).

A. STUDY DESIGN

Our goal was to capture at least 200 personal visit and telephone Coverage Research Follow-Up (CRFU) interviews onto audio-tape from the Queens, New York and Georgia county (i.e., Tift, Colquitt, and Thomas) test sites. Personal visit and telephone interviews were conducted at both test sites, but for budgetary reasons audio-tapes of personal visit interviews were only collected at the New York test site. Audio-taped telephone interviews were collected from both test sites. The sample of audio-taped interviews collected was not a representative sample; rather, it was a sample of convenience.

Interviews were taped throughout the CRFU field period, from June to November of 2004. Of the 220 audio-tapes collected in the field and by telephone, a total of 209 audio-tapes were usable;⁸ of these, 135 were conducted in person and 74 were conducted over the telephone. Thus, sufficient sample was achieved to analyze the questions of interest.⁹ Additionally, a single telephone or personal visit interviewer contributed no more than 10 interviews to the total number of cases used in this study.

This analysis was limited to personal visit and telephone interviews with a member of the household; proxy interviews were not conducted when a member of the household was not available or the household no longer lived at the housing unit.

With respondents' consent, each telephone interviewer was responsible for audio-taping their own interviews. Audio-taping the personal visit interviews, however, required additional staff to assist with the recording equipment and consent procedures. Trained assistants, called Enumerator Taping Assistants (ETAs), accompanied field interviewers on their assignments and were tasked with gaining respondents' consent to be recorded and operating the recording equipment. One ETA typically accompanied an interviewer for the day, perhaps taping a few interviews for the same interviewer.¹⁰ Each day the ETA was instructed to go out with a different interviewer.

Six telephone interviewers from the U.S. Census Bureau's Hagerstown Telephone Center in Hagerstown, Maryland were selected to complete a two-day behavior coding training session in November of 2004. This particular set of telephone interviewers were selected because they had previous behavior coding training and experience with similar types of research, and they possessed high-quality interviewing skills.

⁸ Tapes were deemed unusable when they did not contain respondents' consent, were inaudible, were conducted with non-household members, or contained an interview in a language other than English.

⁹ We achieved a sample that was beyond the minimum number of interviews used for other behavior coding projects undertaken by SRD (Zukerberg, Von Thurn, and Moore, 1995).

¹⁰ We analyzed interviews from approximately 46 interviewers. Among the taped interviews, the average number of interviews per interviewer was five. No single interviewer conducted more than 10 percent of the interviews.

Randomized coding assignments were created for each coder, and each coder had an approximately equal number of interviews. Each coder was responsible for behavior coding approximately 45 interviews.¹¹ The coders applied the prescribed framework of behavioral codes to interviewer and respondent behaviors by listening to the audiotapes and following the interview's progress by reading a written version of the questionnaire, called a "Question Guide" (See Appendix B). By comparing the written document to the interviewers' recitation of the questions, coders made assessments about the interviewers' ability to read questions as they were worded. Coders also made assessments regarding whether or not responses to the questions met the objective of the measurement goal, but they did so based upon the audio-tapes only; coders did not have access to data generated by each interview so they did not know how interviewers ultimately recorded a respondent's answers.

B. LIMITATIONS

Aspects of the research design present limitations to this study and necessitate some caution in interpreting and understanding the results. The use of audio recordings to capture personal visit interviews is the main source of these limitations, in that the audio recording limits the interactions we can code to verbal communication only. This is not, however, a problem for the interviews captured through telephone interviews, which accounts for less than half of all the interviews collected (74 out of 209). Both survey modes, though, are subject to the effects of the mere process of audio-taping; taping an interview in itself may have unintended effects on interviewer and respondent behavior.

For personal visit interviews, audio recording restricts observable behavior to verbal communication, which misses nonverbal behavior and communication that occur naturally as part of the interviewing process. For instance, a respondent might nod his or her head to a yes/no question indicating affirmative agreement, but this silent behavior goes undetected on an audiotape and thus cannot be adequately captured and represented by the behavior codes. Essentially, the respondent's behavior in this situation is recorded as "inaudible" (which is in contrast to adequate), and therefore the number of adequate and codeable answers provided by respondents for a given question may be artificially decreased in the analysis. Furthermore, the inability of the audiotapes to document respondents' nonverbal behavior may affect interviewer behavior; an interviewer may offer a paraphrased version of the question after receiving nonverbal feedback, such as an inquisitive look, from a respondent. This may happen so seamlessly at times that it may sound as if interviewers have altered the question the first time it is administered (i.e., first-level interaction or exchange) without provocation from respondents, causing coders to make negative assessments of an interviewer's ability to read the question exactly as worded.

Furthermore, the act of taping the interview may introduce unknown effects into the interview process. For instance, interviewers may be more vigilant in reading questions exactly as worded and administering the survey in the prescribed manner in circumstances when they know their behavior is being recorded and evaluated. Additionally, the mere presence of an ETA in the personal visit interviews may have an effect on interviewers' or respondents' behaviors (e.g., respondents may be less willing to inquire about vague terms or complex questions in the

¹¹ The coders' caseloads included duplicates of tapes used for reliability purposes.

presence of two Census Bureau employees versus a one-on-one interview). Additionally, it was noted in some cases that the ETA was heard on the tape interacting during the interview. In these cases, the ETA was not a passive observer, but rather a third party during the interview. This behavior coding project does not capture or account for this type of interaction.

C. BEHAVIOR CODING

The behavior coding method is used in survey research to analyze the interactions between interviewers and respondents during the administration of survey questions (Cannell, Fowler, and Marquis, 1968). The method involves the systematic application of codes to behaviors (in this case, verbal behavior) that interviewers and respondents display during the question/answer process, and is often used to identify problematic questions (Oksenberg, Cannell, and Kalton, 1991; Sykes and Morton-Williams, 1987). Behavior coding is a useful method for gathering information about the quality of the survey instrument and the data it collects. If questions and response options are worded and structured in ways that respondents can easily understand and respond to, then our confidence grows regarding the ability of the survey instrument to meet the measurement objectives. In an ideal interaction between an interviewer and a respondent, the interviewer asks the question exactly as worded and the respondent immediately provides feedback that is easily classified into one of the existing response categories associated with the question. When the interaction deviates from this ideal, however, we begin to suspect there may be problems with the question and/or response options that may be causing comprehension/response difficulties. The application and analysis of behavior codes for these types of interactions allows researchers to pinpoint where such issues are occurring in the survey instrument.

A framework of behavior codes is designed to account for and capture instances of ideal and non-ideal interactions, and to indicate particular types of cognitive issues that can occur (Fowler and Cannell, 1996). Codes assigned to interviewer behavior illustrate whether questions were asked as worded; when they are not, this may indicate that questions are awkwardly worded (Fowler and Cannell, 1996) or overly complex. In addition, skipping questions that should be read might indicate interviewers judge the information to be redundant or the question to be sensitive. Codes assigned to respondent behavior document when feedback from respondents met the measurement objective of the questions and when responding to a survey question became more complicated. For instance, when terms are unclear, respondents may ask for clarification (Fowler and Cannell, 1996), or when a question is lengthy or complex, respondents may ask interviewers to reread the entire question. Additionally, refusals to answer questions may indicate that respondents perceive a request for information to be too sensitive, whereas “don’t know” responses may indicate certain types of information are simply unavailable to the respondent.

Behavior coding can be as complex or as simple as the researcher deems necessary. Coding can be implemented at the first-level of interaction only, i.e., when an interviewer asks the question and the respondent provides feedback before the interviewer speaks again, or several interactional levels may be analyzed. Typically, when research intends to identify problem questions, coding the first-level of interaction is sufficient because major question problems are often evident either when the question is first read or during the initial response from a

respondent (Burgess and Paton, 1993; Esposito, Rothgeb, and Campanelli, 1994; Oksenberg et al., 1991; Smiley and Keeley, 1997). This approach, however, lacks the ability to demonstrate whether the interviewer and respondent were ultimately successful in resolving difficulties with the question-and-answer process before moving on to the next survey item. Therefore, in addition to the first-level interaction—also sometimes referred to as the first-level exchange—the “final response outcome” was also coded to determine whether an acceptable resolution was reached. Outcome codes are used to identify whether some type of acceptable or codeable answer was negotiated or whether undesirable respondent behavior persisted as the interviewer exited the question and continued with the interview. In addition, when non-ideal interactions occurred anywhere during the question administration, coders were instructed to transcribe the conversation for later qualitative analysis.

The framework of behavioral codes used for this project and an explanation of their analytical function is listed in Appendix A. The behavioral codes were designed to capture four main aspects of behavior that occur for each question: 1) question-asking behavior for interviewers; 2) response behavior for respondents during the first-level exchange; 3) interruptions by respondents (i.e., “break-ins”); and 4) final response outcome.

D. INTER-CODER RELIABILITY

To assess reliability for the behavior coding results in general, we must determine whether the coders were sufficiently trained to apply the same codes to the same observable behaviors. The coders independently coded the same four interviews and agreement statistics were generated with the resulting data. For this project, inter-coder reliability was assessed using the Kappa statistic. The Kappa statistic provides a conservative measure of agreement among coders in their application of the behavior codes, because it accounts for the possibility of agreement by chance (Fleiss, 1981). According to Fleiss, Kappa scores greater than .75 indicate an excellent level of agreement across coders, while scores ranging from .40 to .75 indicate a good to fair level of agreement; scores below .40 represent poor agreement.

The average Kappa score was .72, which reflects the coders’ agreement on four behavioral variables captured by the framework of behavioral codes.¹² Kappa scores for individual behavioral variables are as follows: interviewer behavior, .76; first-level response behavior, .68; break-in behavior, .70; final response outcome behavior, .75. Thus, these Kappa scores reflect a good to excellent level of agreement among coders.

E. LOGISTIC REGRESSION USING PERSONAL VISIT AND TELEPHONE INTERVIEW SURVEY MODES

A logistic regression was used to examine the effect of survey mode (i.e., personal visit and telephone) on “good” behavior by the interviewer and the respondent for each question.¹³ The

¹² The average Kappa score, based on 29 questions included in this analysis, was derived by calculating the arithmetic average of the four individual kappa scores for interviewer behavior, first-level response behavior, break-in behavior, and final response outcome behavior.

¹³ Exact wording/slight change (Code E/S) and positive verification (Code V+) were considered “good” interviewer behavior. The only behavior that was considered good respondent behavior was an adequate answer (Code AA) and

effect of survey mode was explored in interviewer's question-asking behavior, respondent's first-level exchange behavior, and respondent's interruption behavior during the first exchange (break-ins). Even though the same paper-and-pencil survey instrument was used for personal visit and telephone interviews, we were interested in assessing whether these survey modes might cause differential interviewer and respondent behavior.

the absence of break-in behavior. Observations coded as "inaudible/other" (Code I/O) were excluded from the analysis.

Part IV RESULTS

A. INTRODUCTION

Twenty-nine CRFU questions were analyzed for this behavior-coding project. The full set of behavior coding results is available in Tables 1, 2, and 3 at the end of this report.

This portion of the report is segmented into four sections: *Section A. Introduction*; *Section B. General Observations*; *Section C. General Recommendations*; and *Section D. Question-Level Analysis and Recommendations*. Within the general observations section, logistic regression results are presented that reveal significant differences in the performance of the questions under personal visit and telephone interviewing conditions (reflected in Table 3). Next, some general recommendations are offered that attempt to address overarching issues within the questionnaire.

Finally, in *Section D. Question-Level Analysis and Recommendations*, the behavior coding results are analyzed in detail and recommendations are offered. Since the bulk of this report is largely comprised of the question-by-question analysis found here, it is necessary to describe how the questions were analyzed, and upon which particularly problematic questions this part of the report attempts to focus.

The behavior coding data were analyzed on two dimensions: 1) individual interviewer and respondent behaviors were evaluated using a commonly accepted error threshold (discussed at the end of this introduction) to assess the magnitude of undesirable or non-ideal behaviors; and 2) coders' notes were analyzed to determine the exact nature of the behavior. Knowing more about the nature of the changes made to question wording and respondents' replies helped to determine the priority with which questions should be seriously considered for redesign. These decisions were based on the magnitude of the behavior, the extent to which the question was changed, the potential damage to question intent, and the possibility that data quality was affected. This process identified six high- and medium-priority questions that should be redesigned for future versions of the CRFU. These questions are as follows:

- Question 8. "Describe the Building" – high priority
- Question 17. "Section E Introduction" – high priority
- Question 19. "Foster Children" (adding foster or unrelated children) – medium priority
- Question 24. "Temporary" (adding people to the roster who stayed temporarily – medium priority
- Question 26. "Shared Custody" – (shared custody situations) – high priority
- Question 39. "Group Quarters/Medical Care" (question stem) – high priority

There was one additional question (Question 29. College Address) that, although it had too few observations to generate considerable evidence for an existing problem, we thought perhaps merited the assignment of a medium priority for redesign. Since this question only generated 15 observations (and only 13 of those observations were accompanied by coder's notes), we cannot

be completely confident about the results, so it was not included in the list of six at-risk questions above. It is, however, a candidate for rewording.

Because these questions were deemed to be at higher risk for data quality issues (due to interviewer/respondent behavior), they receive a more thorough analysis and discussion. Coders' notes for the remaining questions, although they may also have exceeded the error threshold, did not seem to indicate question intent or data quality was harmed in any significant way, and therefore, these questions are discussed at a more general level than the six questions listed above.

The structure of *Section D. Question-Level Analysis and Recommendations* is organized sequentially, much as the questions would appear in the actual survey. To simplify the behavior coding analysis process, complex questions with multiple response options (that were read to respondents) were coded as if they were separate questions to facilitate analysis of these portions of particular questions. Thus, the sequential format of this report will help keep individual questions within the context of their place in the overall questionnaire.

Before this report moves beyond the introduction, into the general results (Section B, below), two main tables to which this report refers (Tables 1 and 2) are briefly explained, as well as a commonly used metric in behavior coding that helps determine when a question is causing administration and response issues:

Reading the Behavior Coding Results Tables

The aggregate results of the behavior coding for interviewer and respondent behaviors are contained in Tables 1 and 2.¹⁴ Table 1 contains interviewer behavior parsed across six variables per question, accounts for approximately 100 percent of interviewers' behavior, and includes:

- Exact or slight changes to question wording (E/S);
- Major change (MC);
- Correct verification (V+);
- Incorrect verification (V-);
- Inaudible or "other" (I/O); and
- Question omitted incorrectly (OQ).

¹⁴ Due to insufficient Ns, either because certain questionnaire paths were never or infrequently administered, some questions (28 questions in total) are not represented in these tables. Questions with fewer than 15 observations were omitted from the tables and were generally (except where noted) follow-up questions (e.g., "What is the address of that place?"). Questions omitted were: 4, 5, 7, 12-16 (questions about those who moved out), 27, 30-31 (address and college name), 33-34, 36, 38, 43-45 (follow-up questions to group quarters questions), 47-56 (amount of time spent at other address, typical living patterns, where more time spent, primary/permanent/legal residence, where/why respondent would like to be counted). Moreover, certain sections of the questionnaire were eliminated from behavior coding analysis altogether, since they were not the focus of this research. Those sections were Section A (Contacting the Household) and Section B (New Respondent).

Similarly, the percentage of respondent behaviors at the first-level exchange is parsed across eight variables per question, which include the following:

- Adequate answer (AA);
- Inadequate answer (IA);
- Uncertain answer (UA);
- Clarification requested (CL);
- Request to re-read question (RR);
- Don't know (DK);
- Refused (REF); and
- Inaudible or "other" (I/O).

The percent of respondent interruptions (i.e., "break-ins") to the initial question administration is also provided in this table. The break-in percentages were calculated using a denominator that reflects the number of interviewer-behavior observations per question, since some "questions" are merely introductions and require no respondent feedback. Break-ins were calculated separately from the eight first-level exchange respondent behaviors mentioned above because, for most questions, when a respondent break-in occurs we are typically interested in knowing more about the nature of the reply (e.g., the respondent could break in with an answer that may be codeable or uncodeable or they may interrupt for clarification).

Table 2 contains percentages for the respondents' final response outcome and contains the same variables included for the first-level respondent behavior, excluding question re-read (RR) and clarification request (CL).

These tables represent approximately 209 households interviewed for the CRFU survey. Responses for some questions are only collected once, for the entire household, but some questions may be administered for several household members. The analysis in this report only evaluates each question the first time it was asked. Thus, the total N for most questions is somewhere around 200. Because interviewers were given a great deal of latitude in administering questions that are asked of multiple householders, that is, they were allowed to administer questions in a person- or topic-based manner,¹⁵ we decided to analyze interviewer/respondent interactions for only the first time each question was read. For this analysis it was more important to understand how the questions were administered the first time around, than to possibly complicate the coding process for the coders by requiring them to code interactions involving question repeated for other members in the household.

¹⁵ Person-based interviewing requires the interviewer to pose a series of questions to the respondent before moving on to the next person in the household and administering the same set of questions. Topic-based interviewing, on the other hand, requires the interviewer to collect data for one question from multiple persons in the household before moving on to the next question (or topic).

Interpreting Behavior Coding Results: A Commonly Used Metric

In analyzing behavior coding data, the standard practice for identifying flawed survey questions is to flag questions for which non-ideal interviewer and respondent behaviors exceed 15 percent for each type of behavior (e.g., major change or inadequate answer). Though this is an arbitrary cut-point, this level of non-ideal behavior suggests a question has a “high level” of the problem that merits some attention (Oksenberg, et. al, 1991; Fowler, 1992).

B. GENERAL OBSERVATIONS

According to the standard for interpreting behavior coding data, results for interviewers’ behavior are quite striking. Ideal interviewer behavior—asking the question exactly as worded or with slight changes that do not change the meaning of the question—occurred less frequently than we would have liked to see. On average, interviewers correctly asked the 29 questions analyzed only 51 percent of the time (results derived from Table 1). Not even one individual question was asked as worded at least 85 percent of the time. Ideal interviewer behavior ranged from a high of 76 percent for two questions (Question 2. Reached Address and Question 6. Another Address) and hit a low at 7% (Question 25. Introduction F, which was placed in a non-salient location for interviewers).

For a majority of the questions where interviewers made major changes to question wording, the types of changes they tended to make seem unlikely to change question intent or the measurement objective of the question. They often dropped portions of the question that could be considered conversationally superfluous; however, sometimes the reference period was omitted, which could be problematic since the questionnaire’s reference period changes from section to section (and occasionally by question). Better organization of reference periods throughout the survey could help sidestep potential response issues due to their omission; reference periods could be used sparingly inside of related question sets if they were emphasized in the introductions (i.e., Section E “People missing from the roster”). In addition to reference period omissions, interviewers occasionally dropped entire conceptual phrases from compound questions in an effort to shorten them (e.g., interviewers asked, “Any foster children?” in Question 19, “Any foster children or other children not related to you?”).

Additionally, when interviewers took short cuts with question wording, the structure of the question was often complex or long, or the question and/or the response set resulted in a compound question, or the question contained embedded examples. Lengthy or complex question structure tended to cause interviewers to shorten or paraphrase questions, which seemed to happen frequently during portions of the survey that may be perceived as redundant by interviewers and respondents alike (e.g., when respondents must keep insisting that no one in the household was living elsewhere).

Based upon the behavior coding results, it is apparent interviewers had difficulty administering quite a few questions as they were originally worded. Many of these questions seem to be good candidates for rewording. For the most part, these changes would simply reduce conversational

and reference period redundancy (see *Section C. General Recommendations* and *Section D. Question Analysis and Recommendations* below).

Comparatively speaking, far fewer problems were evident in respondents' behavior. Across 25 questions analyzed (excludes the four introductions), on average respondents provided acceptable answers to survey questions 80 percent of the time during the first-level exchange (derived from Table 1).¹⁶ More than half of the questions (14 questions, or 56%) generated adequate answers at levels that met or exceeded 85 percent at this level of exchange. While this number may at first seem low, these results are primarily due to the percentages of inaudible responses (Code I/O), which do not necessarily indicate problematic responses. Inaudible responses are common when interviews are audio taped, and are simply a bi-product of nonverbal behavior that we were unable to code (e.g., respondent nods instead of verbalizing a response). This was the case for all but two questions that did not generate a minimum level of 85 percent adequate answers. For these questions (Question 8. Describe Building and Question 6. Another Address) there were actual response or comprehension problems (i.e., 38% inadequate answers and 13% clarification requests for Questions 8 and 6, respectively, during the first-level exchange).¹⁷ By the time interviewers and respondents spent additional time negotiating a better answer, 20 questions (or 80%) achieved adequate answers at or above the 85 percent threshold (derived from Table 2).

Logistic Regression Results: Personal Visit and Telephone Survey Modes

The findings from the logistic regression analysis are included in Table 3 for personal visit and telephone interview survey modes at the end of this report.

“Good” interviewer and respondent behavior was measured across three variables: interviewer question-asking behavior (“good” = reading the question exactly or with a slight change that does not affect question meaning, or verifying information previously provided); respondent first-level exchange behavior (“good” = providing a response that can reasonably be classified into one existing response option); and respondent break-ins (“good” = the absence of an interruption while the interviewer reads the question). For the purpose of this analysis, inaudible or “other” behavior for both interviewers and respondents were omitted.¹⁸

Based on the logistic regression analysis, the trend for 26 of the 27 questions indicates that interviewer behavior was better during telephone interviews than personal visit interviews; in only one question (Question 1) did the percentage of personal visit

¹⁶ The calculations for average of respondent behavior during the first-level exchange and final response outcome exclude data from the survey's four embedded introductions, since they do not require any type of response (Questions 1, 9, 17, and 25).

¹⁷ Though we did not have access to the data file generated by CRFU at the time this report was written, it would be worthwhile to explore how interviewers field coded/recorded these responses.

¹⁸ The logistic regression analysis was conducted on the 27 questions, across the previously mentioned dependent variables, for a total of 81 tests. Two questions were omitted from the analysis (Questions 29 and 46) because they had too few observations (15 each). To ensure a study-wide significance level of .05, we recommend using a Bonferroni adjustment, which sets the significance level at $p < .00061$. We used this as a guideline for interpreting the results.

interviewers “good” behavior exceed that of telephone interviewers. For the most part, though, personal visit interviewers tended to engage more frequently in non-ideal question-asking behavior (i.e., changing question wording in ways that may have altered the meaning, verifying information that was not previously provided by the respondent, and omitting the question) compared to telephone interviewers. Significant effects of survey mode on “good” interviewer behavior were detected in 19 questions, which are as follows: questions 6, 8, 9, 11, 17, 18, 19, 20, 21, 22, 23, 24, 32, 35, 37, 39, 40, 42, and 57.

Furthermore, “good” respondent behavior seemed to be unaffected by survey mode, with the exception of one question; question 8 suffered a significantly higher number of interruptions by respondents in the telephone mode. The percentage of good respondent behavior during the first-level exchange (i.e., providing an adequate answer) for 15 of the questions was higher in the telephone mode, but not significantly (includes questions 6, 10, 18, 19, 20, 21, 22, 23, 24, 28, 32, 35, 39, 40, and 42) (data not shown). For eight additional questions, respondent behavior seemed to be roughly equal—that is, the differences tended to be separated by no more than 10 percent (includes questions 2, 3, 8, 11, 26, 37, 41, and 57) (data not shown).

Significant results will be discussed further at the question level in Section D below.

The most notable logistic regression result is that, overall, personal visit interviewers engaged in non-ideal behavior to a greater extent than telephone interviewers, and in almost two-thirds of the questions these differences were significant. Because the characteristics of the interviewing staff differ to such a large extent, results regarding survey mode differences are confounded. While there may be aspects of survey mode driving these differences, we cannot ignore the effect of experience and supervisory monitoring on good interviewer behavior for the Census Bureau’s telephone interviewers. Telephone interviewers typically have a longer tenure and are much likelier than inexperienced, largely unmonitored personal visit interviewers used solely for the 2004 CRFU Census Test to produce behaviors that are more consistent with standardized interviewing practices. Therefore, these results cannot be solely attributed to the survey mode, although, differences in respondent break-in behavior for question 8 certainly seems to merit a closer inspection of the design of that question.

To further investigate mode effects on survey data, further analysis with response distributions should be conducted.

C. GENERAL RECOMMENDATIONS

A review of the behavior coding data, coders’ notes, and the CRFU instrument itself point to a few general recommendations that may alleviate some of the question administration difficulties that are evident as a result of this pretesting project. First, and most obviously, a respondents’ path through this instrument can be complex due to conditional skip instructions and “fills.” Automation is recommended for future versions of the CRFU to exploit the ability to tailor a survey instrument to particular respondents, reduce interviewer burden (which can be significant

in portions of this interview), and encourage standardized interviewing (i.e., reading questions as worded and reading required questions).

Second, whether the CRFU is ultimately automated or not, the creation of two separate instruments is necessary for personal visit and telephone interview modes. Embedded instructions for two separate types of interviews (personal visit and telephone) into one instrument must be avoided. In field observations, it was clear the embedded instructions that applied to different types of interviews caused navigation issues during the interview (e.g., the formatting conventions causing telephone interviewers to skip required text and personal visit interviewers were confused over skip patterns caused by instructions meant for telephone interviewers only).

Third, some thought should be given to how reference periods are introduced; for example, perhaps they should be embedded in the section introductions rather than introduced repeatedly item-by-item. This would be feasible where the reference periods remain constant for an entire series of questions, but would need to be carefully considered where there are significant transitions in reference periods. This strategy may prevent interviewers from omitting or paraphrasing reference periods they perceive as redundant at their discretion.

Fourth, where verbs are concerned in survey questions the sentence structure should be reevaluated. The verbs often used in these questions (e.g., “living” and “staying”) are present tense, and although they are modified by verbs that are past tense (e.g., “was” and “were”), it creates a complex sentence structure and message that may cause confusion over question intent. The goal of the survey is complex as it is (i.e., establishing living patterns at a distant reference period). Add to that novice interviewers delivering these questions, sometimes taking liberties with question wording (e.g., dropping perceived superfluous text and reference periods), and respondents may erroneously include time elapsed since the intended reference period in their reporting. A simplified sentence structure containing only past tense verbs, wherever possible throughout the survey, has a better chance of conveying the intended message.

And finally, previous and recent coverage measurement research identified a slightly different approach to conveying the ubiquitous “live and stay” concept that should perhaps be considered for future versions of particular questions in the CFU. Cognitive interviews with the Census Coverage Measurement Person Interview 2006 (CCMPI) exposed respondents to the concepts “live or stay” and “live and sleep” in certain portions of the interview and debriefed them afterward regarding their interpretations (Kerwin, Franklin, Koenig, Nelson, and Strickland, 2004).¹⁹ Results suggest respondents were better able to accurately and reliably interpret the intended concept (i.e., where you were physically at a particular time) when “living and sleeping” was used in the survey. For this reason, it was decided that this alternative phrase would be used for particular questions determining usual residency for individuals with multiple addresses (appearing later in the survey). In the CCMPI cognitive research, the new phrase seemed to come closer to the intended concept, and it may be worth surveying the CFU for

¹⁹ Approximately 59 cognitive interviews were conducted. Forty-five interviews were carried out by WESTAT. Staff from the Statistical Research Division (SRD) (i.e., Elizabeth Nichols and Jennifer Hunter) and the National Processing Center (NPC) conducted another 24 interviews containing the “live and sleep” concept with identical results.

similar situations where the alternative phrase could be used in the future (e.g., later in the survey, in Question 46, for example). The use of this phrase may be most useful in situations where respondents have reported staying at multiple residences around census day, and interviewers must determine where they were physically located most of the time.

D. QUESTION-LEVEL ANALYSIS AND RECOMMENDATIONS

Four sections of the CRFU survey were analyzed: Section C (Housing Unit Questions); Section D (Review the Census Roster); Section E (People Missing from the Roster); and Section F (Was Anyone Listed Who has Another Place to Live or Stay?).²⁰ Question text in this section of the report is formatted to reflect the protocol interviewers were to follow in administering the questions. Generally, question text appearing in bold was to be read by the interviewer, bold text in brackets was to be “filled” correctly by the interviewer (i.e., either selecting the appropriate term from the choices given or inserting the appropriate name, address, etc.), and bold text within parenthetical statements were optional reading (at the discretion of the interviewer).

The recommendations that follow the analysis of individual questions take into consideration two factors: 1) it is not yet known whether future versions of the CRFU will be conducted in an automated or PAPI survey environment; and 2) will likely be conducted in person and over the telephone. The recommendations are organized thusly.

Survey Section C **“Housing Unit”**

Questions 1 – 3, 6, 8

Question 1. Introduction C

Introduction C follows two previous survey sections designed to establish contact with the listed household, locate an appropriate respondent within that household, and capture information about “new” respondents in cases where the original household members enumerated in the 2004 Census Test moved away. The first paragraph is required reading for both personal visit and telephone interviewers, whereas the following two paragraphs are mode-specific. The last paragraph is only for use by personal visit interviewers, when needed, to address issues of multiple visits to the same housing unit by field staff for various census operations.

Q1. Introduction C Wording

Required reading for both personal visit and telephone interviewers: **The purpose of my [call / visit] is to help the Census Bureau take the most accurate census. We need to be sure that no one has been left out or counted at more than one place.**

Required reading for telephone interviewers only: **I am required by law to tell you that this survey is authorized by Title 13, Section 182, of the United States Code. This survey is mandatory and your cooperation is very important. All the information you provide will remain completely confidential. Our approval number from the**

²⁰ Section A (Contacting the Household) and Section B (New Respondent) were not part of the analysis, but are sections that precede Sections C-F.

Office of Management and Budget is 0607-0910. The interview will take approximately 18 minutes and may be monitored to evaluate my performance.

Optional reading for personal visit interviewers only; telephone interviewers do not read: **(We try to visit each household just once for evaluation purposes. But there are several evaluations of the 2004 Census Test, and your household may have been selected for more than one of them. In one evaluation, we ask about people, and in another, we ask about addresses. When a household is chosen for more than one evaluation, we try to get all the information we need with only one interview, but sometimes we don't have enough information to do this.)**

Of the 118 times this introduction was administered, it was read with major changes about 43 percent of the time (Table 1). Results did not differ significantly by mode (Table 3), but telephone interviewers changed the introduction more often (51%) than personal visit interviewers (33%) (data not shown). Telephone interviewers tended to downplay the stated estimated response burden (i.e., "18 minutes") by suggesting that these interviews usually "take a lot less time," and at times they even omitted the last sentence entirely. Personal visit interviewers mainly seemed to be paraphrasing the survey purpose statement in the first paragraph, by saying things like "We need to make sure we've counted everyone at the right place." Though the behavior exhibited by these interviewers was not ideal, it is doubtful that these changes caused respondents to become confused over the survey's purpose.

Though the last paragraph is optional wording for personal visit interviewers, and the behavior coding data does not capture the frequency of its reading, it is doubtful that this passage was used frequently. Coders were trained to assign an "exact reading" when questions were read as worded, even if interviewers did not read optional text in parentheses. If an interviewer read even a portion of the parenthetical text, however, coders were trained only to assign an "exact reading" in cases where interviewers read the passage correctly and in its entirety. The coders' notes associated with the major changes to this question did not mention partial or incorrect readings for this passage, and it seems unlikely interviewers would get through the entire passage without incident 100 percent of the time.

Because survey section introductions, like this one, do not require responses there will generally be little data to report in the way of respondent behavior. In this introduction, however, there were very few respondent interruptions (3%), or "break-ins," which all occurred during telephone interviews (Table 1).

Recommendation(s) for Question 1. Introduction C: Given the frequency with which personal visit interviewers shortened the introduction to one main concept, instead of the two that were scripted, it might be worth considering using an abbreviated, more general, concept here. Also, the optional parenthetical text might be made more useful to interviewers and respondents if it was shortened and less vague (reconsider and streamline the main message/s).

Automated Survey: See general recommendation above.

Paper Survey: See general recommendation above.

Personal Visit and Telephone Survey Modes: See general recommendation above.

Question 2. Reached Address

This question is required reading and merely helps the interviewer to make certain they have arrived (in person or over the telephone) at the address listed on the CRFU form.

<u>Q2.</u>	<u>Question Wording</u>
Personal Visit: [Is this / Have I reached] ADDRESS?	
Telephone: Have I reached ADDRESS?	

Interviewers read this question exactly as worded, or with slight changes, 76 percent of the time (See Table 1). No single interviewer behavior exceeded the error threshold for non-ideal behavior, but interviewers sometimes verified they had reached the correct address (9%). Interviewers also sometimes omitted this question (8%) during the interview. Respondents had little difficulty providing an adequate response to this question during the first-level interaction (92%).

Results did not differ significantly by mode (Table 3).

Recommendation(s) for Question 2. Reached Address: This question seems to be functioning as intended.

Automated Survey: None.

Paper Survey: None.

Personal Visit and Telephone Survey Modes: None.

Question 3. Live Here Then

This question is required reading and attempts to verify whether the family(ies) enumerated at the listed address did, in fact, live there on the census test day (April 1, 2004).

<u>Q3.</u>	<u>Question Wording</u>
The [LAST NAME/S] household was reported in the census as living at [ADDRESS] on April 1, 2004. Did they live here then?	

This question was administered 206 times, and interviewers read this question with major changes 45 percent of the time (Table1). In reality, question intent may not have been harmed due to many of the changes interviewers made, but they were substantial enough to warrant a code of “major change.” For instance, interviewers read the first statement, but paraphrased the question (e.g., “Did you live here then?” or “Did you live here April 1?”). The substitution of “you” for “they” is not particularly problematic if interviewers read the phrase “[LAST NAME/S] household” correctly, since the word “you” can in this context represent the household. But, at other times interviewers substituted “you” or “you all” for “[NAME] household,” which is problematic because the respondent may think this question only intends to ask about a single person’s living pattern, and not the

entire household. In addition, interviewers substituted the word “here” for “[ADDRESS]” and they also occasionally omitted the reference year, “2004.”

Respondents had little difficulty providing answers for this question; during the first-level interaction 84 percent of the answers provided were adequate (Table 1). By the time a final response was provided, adequate answers were even higher (96%).

Results did not differ significantly by mode (Table 3).

Recommendation(s) for Question 3. Live Here Then: This question can become quite complex and lengthy, especially when multiple last names must be read as part of the “(LAST NAME/S)” fill. This is probably exacerbated by requiring interviewers to read the full address fill, which probably could be substituted with the term “here,” since interviewers verify whether they have reached the listed address in the previous question.

Automated Survey: Omit the “(ADDRESS)” fill and substitute “here” for personal visit interviews and “there” for telephone interviews. See below for telephone mode caveat.

Paper Survey: See general recommendation above and personal visit/telephone recommendation below.

Personal Visit and Telephone Survey Modes: Any references made to “here” would only be applicable in the personal visit survey instrument; conversely, “there” would be applicable to the telephone survey instrument. CAVEAT: Applying the recommendation that substitutes “here” for “[ADDRESS]” may be more complicated to implement in telephone mode, since respondents may move and keep the same telephone number (so “here” wouldn’t be a good substitute for the actual address). In an automated survey, it would be easy to author/specify an automatic fill for “here/ADDRESS” based on respondents’ answers to Question 2. Reached Address. If respondents say “no” the interviewer has not reached the correct address, but it is determined the correct respondent has been reached, then Question 3 would be filled “ADDRESS.” If respondents agree that “ADDRESS” in Question 2 has been reached, then the automated instrument would fill “there.”

Question 6. Another Address

This question is required reading and attempts to determine whether the same physical location is referred to by more than one address (e.g., 123 Apple Street, Apt. B and 123 ½ Apple Street, Basement).

Q6. Question Wording
Is there another address that people might use to refer to this place?

This question was administered 209 times, and overall, interviewers made major changes to question wording only 14 percent of the time (Table 1). There was, however, a

significant effect of survey mode on “good” interviewer behavior, which is most likely due to a higher rate of positive interviewer behavior for telephone mode compared to personal visit. Exact wording or slight changes were made to this question by telephone interviewers 93 percent of the time, with very few major changes to question wording (5%) (data not shown). Conversely, personal visit interviewers read the question exactly as worded or with slight changes only 67 percent of the time, with a higher rate of major changes to question wording (19%) (data not shown). In addition, personal visit interviewers sometimes omitted this question (11%), while telephone interviewers did not (data not shown).

According to coders’ notes, when interviewers made changes to question wording, they often shortened the question by asking, “Is there another address for this place?” Interviewers also seemed to be changing the question into a verification, probably without enough evidence to do so (e.g., “There’s no other address for this place, right?”).

Although most respondents were able to provide adequate answers during the first-level exchange (77%), some respondents asked for clarification (13%) (Table 1). Coders’ notes indicate this was due to general confusion and not confusion over any particular term or concept within the question (e.g., “What do you mean?” and “I don’t understand.”).

Recommendation(s) for Question 6. Another Address: This question was deemed low priority for question rewording; however, some respondents did find the present wording confusing. It could be rewritten for greater clarity (e.g. “Is there more than one address for this place, or is there only one address?”). Whatever language is proposed should be cognitively pretested for comprehension.

[NOTE: The 2005 CFU uses the following wording, “Is there another address that people might use to refer to this place such as a different street name, apartment number of a 911 address?”]

Automated Survey: See general recommendation above.

Paper Survey: See general recommendation above.

Personal Visit and Telephone Survey Modes: See general recommendation above.

Question 8. Describe Building

This question is required reading and attempts to document the building type to which the CRFU address refers. In addition, this question requires interviewers to read the entire response set, regardless of respondent behavior, to ensure every response category is delivered. The response set is comprised of four main dwelling types: mobile home, single family home, apartment, and a catchall category (boat, RV, van, etc.). Personal visit interviewers were provided with a flash card containing the response set for use in the field.

How would you describe this building? Is it a:

- 1. Mobile home?**
- 2. One-family house detached from any other house?**
- 3. One-family house attached to one or more houses?**
- 4. A building with 2 apartments?**
- 5. A building with 3 or 4 apartments?**
- 6. A building with 5 to 9 apartments?**
- 7. A building with 10 or more apartments?**
- 8. A boat, RV, van, etc.?**

Of the 207 administrations of this question interviewers found it difficult to read the question exactly as worded, or with slight changes (11%) (Table 1). Across interview modes, major changes occurred 73 percent of the time this question was read. Additionally, interviewers attempted to verify housing type without first receiving information from the respondent (negative verification—10%), and they omitted the question altogether (5%) even though this question was required reading.

There was a significant effect of survey mode on “good” interviewer behavior (Table 3), which may be due to the fact that exact readings only happened during telephone interviews (32%), never during personal visit interviews (data not shown). Personal visit interviewers also generated a greater number of negative verifications (15%), whereas telephone interviewers had none (data not shown). Personal visit interviewers most likely had ample opportunity to assess the building type (e.g., house or large apartment complex/building) and attempted to verify the information before respondents provided any structural information.

Table 4 below illustrates themes in major changes made to question wording. This table combines the data for major change (MC) and negative verification (V-) because a nontrivial portion of the interactions coded as major change could technically also qualify as a negative verification (N=173). The data in this table shows much of the time interviewers were verifying housing type with respondents (29% when combining those that read the question stem and those that did not), and according to the coder’s notes, interviewers more often dropped the question stem during the verification. Since more than half of the cases were personal visit, it stands to reason that these interviewers used visual cues to help them shorten the question-answer process in this way. Personal visit interviewers mainly changed question wording by verifying the number of units in an apartment—usually asking whether the respondent’s building contained 10 units or more. In these instances, interviewers probably observed the size of particular apartment buildings they entered in order to interview respondents, and used this information at this point in the interview. Interviewers’ verification behavior, however, was only successful about half of the time, meaning, respondents accepted the verification 53 percent of the time (data not shown). In the remaining portion of those cases, further interviewer/respondent negotiation was required before an acceptable response was achieved.

Table 4. Themes in Major Change and Negative Verification for “Describe Building” (Question 8), as Documented by Coders’ Notes¹

Question Stem Read	
1. Response options omitted	9%
2. Read partial response set:	
a. Until break-in	26%
b. Offered mixed-type partial response set ²	13%
c. Limited options to either single family or apartment	12%
3. Asked “house, apartment, or mobile home?”	3%
4. Verified building type	5%
Question Stem Omitted	
1. Offered mixed-type partial response set ²	2%
2. Verified building type	24%
Other	<u>6%</u>
Total	100%

¹ N=173 (“MC” plus “V-“: “MC” n=153; “V-“ n=20); major change and negative verification cases for which coders’ notes were available.

² Typically “single family home” and a few apartment options were offered.

The data in Table 4 reveal interviewers employed various methods, in addition to the two already mentioned, to streamline this question. Personal visit interviewers simply handed the flashcard to respondents and read none of the response options aloud (9%). At other times these interviewers offered a smaller set of mixed housing-types (15%), which was more often preceded by the question stem. Possibly guessing from cues taken from the physical environment or CRFU form, interviewers sometimes only read response options that would apply to a particular respondent; they would either read the single-family home options or the apartment options, not both types (12%). A few times interviewers modified the question by creating an impromptu “screener” question, “Is this a home, apartment, or mobile home?” To a great extent interviewers merely ceased reading the set of response options once respondents interrupted (called “break-ins”) with a response (26%), even though they were required to read them all.

Many times interviewers combined the first two response options and omitted superfluous text from each (i.e., “from any other house”), and simply read, “one-family home attached or detached.” Additionally, there is evidence from coders’ notes that the last response option was omitted, and the first response option “mobile home” was omitted a great deal—probably during personal visit interviews in cases where building type was clearly a single-family home or an apartment building.

In terms of response issues, respondents had a difficult time providing an adequate answer during the first-level interaction (51%) and respondents interrupted 30 percent of the time the question was read (Table 1). The “break-ins” tended to occur near the beginning of the set of response options, rather than toward the end, which may indicate respondents recognize the form of response the question expects upon hearing the first few options and so they interrupt in order to provide an answer. For the most part, interviewers and respondents were able to negotiate an adequate answer before moving on to the next question, but 9 percent of responses still did not meet the measurement objective of the question. This seemed mostly due to interviewers failing to probe for whether respondents’ homes were detached or attached.

Furthermore, there was a significant effect of survey mode on “good” respondent behavior when it comes to the absence of interruptions during question reading (see Table 3). This finding is due to higher levels of respondent interruptions during question reading for telephone interviews (48%) than for personal visit interviews (19%) (data not shown). This question’s lengthy set of response options seem to be at greater risk for interruption by respondents in the telephone mode, probably because the faster pace of a telephone survey encourages more immediate feedback once respondents either hear the response option they’d like to select or simply understand the parameters of the response options and are anticipating the upcoming categories by interrupting and offering a reasonable response.

Recommendation(s) for Question 8. Describe Building: This question was deemed a high priority for question rewording; data quality is at risk for the small percentage of single-family home responses. The question is formatted as if it was self-administered, which caused administration problems for interviewers. They avoided reading the entire response set to reduce administration and possibly response burden. Interviewers are probably more likely to engage in this behavior when there are environmental cues suggesting the unit is a one-family home or a large apartment building. An even greater issue here is data quality; interviewers failed to probe for responses that could be field-coded when respondents indicated they live in a one-family home. They did not determine whether the structure was attached or detached in 9 percent of the responses. Interviewer-administered versions of this question are used in other Census Bureau surveys (e.g., the American Housing Survey), where the question is unfolded to reduce burden. It would be beneficial to adopt a similar strategy for this question.²¹

Automated Survey: The flow of an unfolded question would ask for housing type more generally (e.g., single-family house, apartment, mobile/manufactured home, something else) followed by unit-specific questions (e.g., attached versus detached, number of apartments, etc.).

Paper Survey: Even in a paper environment, this question might still be unfolded, but the larger issue would be making certain to obtain the

²¹ The telephone (automated) version of this question for the 2006 CFU Test does, in fact, unfold this question to reduce administration and respondent burden.

‘attached’ versus ‘detached’ distinction for single-family homes. This concept should be taken out of the main question and used in a follow-up question instead to force interviewers to collect this data. The main question suggested for the automated instrument above could be used, and the response categories could be organized underneath the question by type as follow-up questions. For a single-family home, interviewers would collect the attached/detached data (e.g., “*Is it detached from any other house?*”) or the number of apartments (e.g., “*About how many apartments are here/there?*”) For other types of housing interviewers would field code based upon feedback from interviewers (i.e., mobile home, boat, RV, van, other).

Personal Visit and Telephone Survey Modes: Any references made to “here” would only be applicable in the personal visit survey instrument; conversely, “there” would be applicable to the telephone survey instrument.

Survey Section D

“Reviewing the Census Roster”

Question 9 - 11

Question 9. Introduction D

This introduction is required reading, and its main goals are to restate the intent of the questionnaire and to introduce the task of reviewing the list of household members enumerated previously in the 2004 Census Test.

Q9. Introduction D Wording
Before I ask you about anyone who might have been left out or counted twice in the census, I’d like to read you a list of the people we counted here on April 1, 2004:

[NAMES APPEARING ON ROSTER]

Of the 204 administrations for this introduction, interviewers read it with major changes 40 percent of the time (Table 1). In addition, a significant effect of survey mode on “good” interviewer behavior was found. This result is likely due to a greater percentage of major changes to question wording in personal visit interviews (50%) compared to telephone interviews (22%) (data not shown).

According to coders’ notes, when interviewers altered question wording they sometimes omitted the first half of the statement (i.e., “Before I ask...twice in the census”), probably in an effort to make the task at hand more salient for respondents (i.e., reviewing the roster). They also reworded this portion of the introduction to more accurately reflect the upcoming questions (Questions 11-16) regarding moving in and out of the residence, and they also switched the order of the first and last half of the statement (i.e., “I’d like to read you a list of the people we counted here on April 1, 2004—before we talk about anyone moving in or out.”). At other times personal visit interviewers changed this

introduction by simply showed the entire roster page to the respondent and asked them to verify the information, or they verified in single-person households by asking, “You’re still the only person in this residence?”

Because this is a survey introduction, no response was required from respondents and no response issues (e.g., break-ins) were noted here.

Recommendation(s) for Question 9. Introduction D: This question was deemed low priority for question wording. Interviewers changed this introduction to focus on the next task in the questionnaire—reviewing the roster. It is possible that the purpose of the survey, conveyed in the first statement of this introduction, has already been adequately communicated to respondents and may detract from orienting respondents to the task at hand. An introduction that prepared respondents to review the roster would suffice here, and the remaining questions in Section D are natural follow-ups that tend to explain themselves without any further introduction (e.g., is anyone on this list twice? Did anyone move out or in around census day?). Consider the following wording: “I’d like to go over a list of people who were counted here on April 1, 2004.”

Automated Survey: See general recommendation above.

Paper Survey: See general recommendation above.

Personal Visit and Telephone Survey Modes: See general recommendation above.

Question 10. More Than Once

This question is required reading and asks respondents to identify potential duplicate listings on the household roster reviewed in the previous question/introduction. For example, one household member may have accidentally been listed twice in the Census Test under two slightly different names—“Robert Smith” and “Bob Smith.”

Q10. Question Wording
Is someone on the list more than once? (If “yes:” Who?)

Of the 204 times this question was administered, interviewers read it with major changes (16%) and also verified—when they should not have (19% negative verification)—that no one was listed more than once (Table 1). According to coders’ notes, major changes to question wording resulted from interviewers paraphrasing the question as “Is someone listed/counted more than once?” Evidence in the coders’ notes also indicates verifying occurred quite a bit in single-person households (e.g., “So, no one’s listed/on the list/counted more than once?”).

With regard to response issues, although there were no outstanding problems respondents did ask interviewers for clarification 9 percent of the time (Table 1). Coders’ notes reveal respondents mainly had trouble understanding the meaning of the phrase “more than once.”

Results did not differ significantly by mode (Table 3).

Recommendation(s) for Question 10. More Than Once: This question was deemed low priority for question rewording. The major changes and verification behavior on the part of interviewers did not seem to alter the question's intent. Revising question wording for such a low occurrence of major changes seems unnecessary; however, this question could be skipped for single-person households.

[NOTE: The 2005 CFU instrument reworded this question, adding another concept and making it more complex for respondents (i.e., "Is there anyone on this list more than once or anyone you don't know?"), which is not recommended. Additionally, the novice interviewers used for this survey operation are probably less inhibited in shortening questions, so the added phrase/question is at risk for being omitted. Consider splitting the 2005 question into two separate questions.]

Automated Survey: Program the survey instrument to skip this question for single-person households.

Paper Survey: None; inserting additional skip instructions would further complicate the PAPI survey for the interviewers.

Personal Visit and Telephone Survey Modes: Same as general and automated survey recommendations above.

Question 11. Move Out April 1

This question is required reading and attempts to learn whether any household members listed on the CRFU roster may have moved around the census test day (April 1).

Q11. Question Wording
Did any of the people on the list move out around April 1?

During 203 administrations of this question, interviewers made major changes to question wording 25 percent of the time (Table 1). According to coder's notes, interviewers were omitting the phrase "on the list" completely and/or changing the reference period by either saying, "on or about/around April 1" or "on April 1."

A significant effect of survey mode on "good" interviewer behavior was found; telephone interviewers read the question as worded more often than personal visit interviewers (70% and 47%, respectively).

Recommendation(s) for Question 11. Move Out April 1: This question was deemed low priority for question rewording. This reference period is unique in the survey; it is the first and only time the reference "window" pairs the vague term "around" with a reference date of one day. The most troublesome aspect of non-ideal interviewer behavior in this question is the change to the reference period from "around" to "on." Other changes prevalent in coders' notes regarding this question's reference period are less problematic because they probably have

equivalent meanings (i.e., “on or around” and “on or about”). So, perhaps this question doesn’t merit changes to question wording; however, some thought should be given to the location of reference periods within the sentence structure across the entire survey. Locating the reference period at the beginning of the question will help respondents attend to the correct time frame, and may also prevent interviewers from altering it. Consider the following wording: “*Around April 1, did anyone on the list move out?*”

Automated Survey: See general recommendation above.

Paper Survey: See general recommendation above.

Personal Visit and Telephone Survey Modes: To reduce redundancy for single-person households, this question could be skipped in personal visit interviews. The questionnaire path should remain the same for telephone surveys, however, because the respondent may have moved yet still have the same telephone number.

Survey Section E**“People Missing from the Roster”****Questions 17 – 24**

This question set (i.e., questions 17-24) is required reading. The intent of these questions is to determine whether anyone staying or living at a CRFU address on the census test day (April 1, 2004) was missed. Question 17 begins with an introduction/question stem to the question set, and is followed by a series of probes designed to elicit new person listings for types of people frequently omitted from the household roster, namely children and non-relatives who may be tenuously attached to the household.

The follow-up questions following the introduction/question stem (Q17. Introduction E) are as follows:

- Q18. Newborns/Babies
- Q19. Foster Children
- Q20. Boarding School
- Q21. Relatives
- Q22. Roommates/Boarders
- Q23. Live-In Employees
- Q24. Temporary

Question 17. Introduction E

This introduction is designed to remind respondents the survey intends to collect information about people who lived in the home, but who are not already listed on the roster. It also reminds respondents of the reference date and the household in question (i.e., the CRFU address is restated). Interviewers were required to read this introduction once during each interview; no response was required from respondents for this introduction.

Q17.

Introduction E Wording

Sometimes people are left out of the census. I'd like to make sure that we are not missing anyone who lived or stayed at [ADDRESS] on April 1, 2004. Other than the names I read to you, were there...

Of the 205 times this question was administered, interviewers read the introduction exactly as worded or with a slight changes less than half the time (42%). This introduction suffered from major changes (35%) and complete omission (22%) by interviewers, even though they were required to read it once during every interview (Table 1).

Table 3 shows there was a significant effect of survey mode on “good” interviewer behavior, which is due to a higher percentage of exact readings during the telephone interviews (64%) compared to the personal visit interviews (30%) (data not shown).

Table 5 below illustrates themes in major changes made to question wording by interviewers. Coders’ notes indicated a great deal of the major changes were due to paraphrasing (45%) (e.g., “We just want to make sure that no one was missed on April 1st”). In about a third of the paraphrasing cases interviewers also omitted the reference period. Perhaps in anticipation of response difficulties, interviewers also sometimes instructed respondents on the acceptable forms of response (e.g., “I’m going to read off a bunch of questions and you just say ‘yes’ or ‘no’.”). Even when they tended to read the question as worded, interviewers changed the introduction by omitting key phrases like the reference period, reference year, address, and sometimes even the introduction’s last statement (i.e., “Other than the names that I read to you, were there:”). Unfortunately, this happened quite a bit (69%). Interviewers seemed to take shortcuts with this introduction, possibly because they felt it was longer than it needed to be; however, omitted portions of this introduction are important concepts the respondent needs to hear in order to answer the questions in this series accurately.

Table 5. Themes in Major Changes for “Introduction E” (Question 17), as Documented by Coders’ Notes¹

Paraphrasing		
1. Complete paraphrase, with reference period		30%
2. Complete paraphrase, omitting reference period		15%
Omissions		
1. Reference period or year		24%
2. Address		25%
3. Last sentence		<u>20%</u>
	Total	114% ²

¹ N=71; major change cases for which coders’ notes were available.

² Total is greater than 100 since a few interviewer behaviors were classified under more than one category (e.g., interviewer omitted address and last sentence).

Although this introduction requires no response, respondents interrupted interviewers as they read this question about 6 percent of the time. In these few cases, respondents tended to break in while the address, reference year, or last sentence were being read.

Recommendation(s) for Question 17. Introduction E: This question is deemed a high priority for rewording. If respondents are not given a chance to attend to the reference period, then data quality may be at risk for related questions (Questions 18-24). Up to this point in the survey, the reference period (April 1) has yet to be established; the preceding survey section (Section D) uses a different reference period (i.e., “around April 1”). More concise wording might encourage interviewers to read crucial aspects of this introduction (i.e., reference date of April 1). Because the reference period was omitted by interviewers here (and in subsequent and related questions—see results in questions below), consider making it more salient in the introduction by eliminating some superfluous text (i.e., first statement and reference year, “2004”) and removing the reference period from other related questions in this section (18, 21 and 24). The sentiment of the first statement is reiterated in the second, so omitting it will not change meaning, and omitting the reference year (2004) should not present a problem since it has been established through the interview to this point. Consider the following wording: “*I’d like to make sure we are not missing anyone who lived or stayed [here / there] on April 1. Other than the people we’ve already mentioned were there...*”

Automated Survey: See general recommendation above and personal visit/telephone recommendation below.

Paper Survey: See general recommendation above and personal visit/telephone recommendation below.

Personal Visit and Telephone Survey Modes: Any references made to “here” would only be applicable in the personal visit survey instrument; conversely, “there” would be applicable to the telephone survey instrument.

Question 18. Newborns/Babies

This question was required reading during each interview.

<u>Q18.</u>	<u>Question Wording</u>
Any newborns or babies living or staying here on April 1?	

This question was administered 207 times, and interviewers made major changes to question wording over one-third of the time (38%) (Table 1). Interviewers paraphrased and shortened the question in a variety of ways; they omitted the reference period, read only “newborns” or “babies,” combined the two terms into one (“newborn-babies”), read either “living” or “staying” but not both, and cut the question short by only asking, “Any newborns or babies?”

A significant effect of survey mode on “good” interviewer behavior was found (Table 3). Telephone interviewers made fewer major changes (22%) and never omitted the question, whereas personal visit interviewers made major changes about half the time (47%) and occasionally omitted the question (10%) (data not shown).

Respondents did not generally have a difficult time providing an adequate answer (85%), but they occasionally interrupted the interviewer after the word “babies” (12%) (Table 1).

Recommendation(s) for Question 18. Newborns/Babies: This question was deemed a low priority for question wording. If the reference date is made more salient in the introduction (Question 17, the introduction to this question series), then perhaps this question could be shortened to “*Any newborns or babies?*” If not, the reference date should appear at the beginning of the question and the verb tense should be changed to the past, to signal to respondents that the reference date is in the past and does not include the present. A longer version would read: “*On April 1st, were there any newborns or babies that lived or stayed [here / there]?*” The only real argument for keeping the reference period in this question (the first in the series) is to reinforce it, which may be helpful if interviewers sometimes omit it in the introduction. Otherwise, the reference period is unnecessary and redundant for the remaining questions in this series (i.e., Questions 19-24). Additionally, the birth date of any babies added to the roster should be double-checked if the infant was born before April 1 to make certain babies are not added in error.

Automated Survey: See general recommendation above and personal visit/telephone recommendation below.

Paper Survey: See general recommendation above and personal visit/telephone recommendation below.

Personal Visit and Telephone Survey Modes: Any references made to “here” would only be applicable in the personal visit survey instrument; conversely, “there” would be applicable to the telephone survey instrument.

Question 19. Foster Children

This question is asked in an attempt to add children to the household who are not already listed that may or may not be related to adults in the house. This question is required reading during each interview.

<u>Q19.</u>	<u>Question Wording</u>
Any foster children or other children not related to you?	

Of the 207 times this question was administered, interviewers made major changes 33 percent of the time (Table 1). Coders’ notes suggest the most common change to question wording was the omission of the last portion of the question, i.e., “...or other children not related to you?” In these cases, interviewers merely read, “Any foster children?” It is possible they may perceive the second part of the question as redundant, even though it represents new material that is conceptually separate from “foster children.”

There was a significant effect of survey mode on “good” interviewer behavior. This result is probably due to telephone interviewers making major changes to question wording less often (22%) than personal visit interviewers (44%) (data not shown). The “good” behavior of the telephone interviewers is due to the high percentage of exact readings/slight changes (77%) versus that of personal visit interviewers (44%) (data not shown). In both survey modes, interviewers omitted this question, but the differences seem small—11 and 7 percent for personal visit and telephone interviewers, respectively (data not shown).

Respondents seemed to have little trouble answering this question adequately (86%). They also interrupted interviewers as they read the question about 11 percent of the time.

Recommendation(s) for Question 19. Foster Children: This question was deemed a medium priority for question rewording; data quality may suffer if respondents are never exposed to the omitted concept. Interviewers may be omitting material that they perceive as redundant, and/or they may be looking for a way to streamline a question placed in a sometimes repetitive and redundant question series (for those respondents whose living situations are stable and straightforward). To ensure interviewers convey both concepts, each concept should be asked separately—creating two questions.

[NOTE: In the 2005 CFU instrument, inquiries regarding the presence of foster children and other children unrelated to the respondent are now included with the

question on newborn babies: “*Any newborn babies, foster children or other children who lived or stayed here on [SURVEY DATE]?*” This approach seems as if it may still suffer from interviewers perceiving the “other children” clause as a redundant concept, which means it remains at risk for omission].

Automated Survey: See general recommendation above.

Paper Survey: See general recommendation above.

Personal Visit and Telephone Survey Modes: See general recommendation above.

Question 20. Boarding School

This question was required reading during each interview.

<u>Q20.</u>	<u>Question Wording</u>
Any other children who were away at boarding school in kindergarten through the 12th grade?	

Of the 207 administrations for this question, interviewers made major changes to question wording about a third of the time (33%) (Table 1). As evidenced by coders’ notes, when interviewers made changes to question wording they omitted the phrase “in kindergarten through the 12th grade,” and they also sometimes omitted the words “other” and “away,” changing the question to “Any children at boarding school?”

A significant effect of survey mode on “good” interviewer behavior was found (Table 3). Telephone interviewers changed the question less often (12%) than personal visit interviewers (37%) (data not shown).

Respondents generally did not have trouble providing an adequate response (88%), but they did interrupt the interviewer as they read the question (14%) after they determined what the question was asking (Table 1). Generally this occurred after the words “away” and “boarding school.”

Recommendation(s) for Question 20. Boarding School: This question was deemed low priority for question rewording; however, the phrase “in kindergarten through the 12th grade” is probably redundant for most respondents. So, consider placing it in parentheses, allowing interviewers to offer this clarification only when respondents indicate they need it: “*Any other children who were away at boarding school? (Include children in kindergarten through the 12th grade)*”

Automated Survey: See general recommendation above.

Paper Survey: See general recommendation above.

Personal Visit and Telephone Survey Modes: See general recommendation above.

Question 21. Relatives

This question was required reading during each interview.

<u>Q21.</u>	<u>Question Wording</u>
Any relatives who were living or staying here on April 1 who were not listed?	

This question was administered 207 times, and interviewers made major changes to question wording almost one-third of the time (29%) (Table 1). According to coders' notes, when interviewers made major changes they were using a number of strategies to shorten this question, many of which resulted in the reference period being omitted (i.e., omitting the phrase "who were not listed here" and simply reading "Any relatives?" or "Any relatives not listed?"). At other times they merely omitted either the word "live" or "stay," but read the rest of the question.

A significant effect of survey mode on "good" interviewer behavior was found (Table 3). Telephone interviewers made fewer major changes to question wording (15%) and never omitted this question, whereas personal visit interviewers changed the question more often (36%) and sometimes omitted the question (13%) (data not shown).

Again, respondents in this question series had no trouble providing an adequate response (90%), but they did interrupt the interviewer at various places as they read the question (12%) (Table 1).

Recommendation(s) for Question 21. Relatives: This question was deemed low priority for question rewording. If the recommendation is taken in Question 17 (Introduction E), then the reference period can be removed here without changing the question's intent. Verb tense should also be changed to the past, in order to cut down on the number of words interviewers have to read, and to signal to respondents that the reference date is in the past and does not include the present. For example, "*Any other relatives?*" or "*Any relatives not listed?*" (two really short versions) or "*Any relatives who lived or stayed [here / there] who were not listed?*" (a longer version).

Automated Survey: See general recommendation above and personal visit/telephone recommendation below.

Paper Survey: See general recommendation above and personal visit/telephone recommendation below.

Personal Visit and Telephone Survey Modes: Any references made to "here" would only be applicable in the personal visit survey instrument; conversely, "there" would be applicable to the telephone survey instrument.

Question 22. Roommates/Boarders

This question was required reading during each interview. In this question, "roommates" are those people who live together in a place that is not owned by them and "boarders" are people who rent a room from the owner who lives in the house.

Q22.
Any roommates or boarders you haven't mentioned?

Question Wording

Of the 207 administrations of this question, interviewers made major changes to question wording 18 percent of the time (Table 1), and in all of these cases they omitted the phrase “that you haven’t mentioned.” In addition, a significant effect of survey mode on “good” interviewer behavior was found (Table 3). This was due to telephone interviewers asking questions as worded more often (92%) and never omitting the question, whereas personal visit interviewers only read this question as worded 59 percent of the time and occasionally omitted it altogether (14%) (data not shown).

Respondents were able to provide adequate answers (87%) a good deal of the time (Table 1).

Recommendation(s) for Question 22. Roommates/Boarders: This question was deemed low priority for question rewording, but consider streamlining the question by omitting the conversational phrase “you haven’t mentioned,” since this is implied by the question series.

Automated Survey: See general recommendation above.

Paper Survey: See general recommendation above.

Personal Visit and Telephone Survey Modes: See general recommendation above.

Question 23. Live-in Employees

This question was required reading during each interview.

Q23.
Any other people you might not consider to be members of your household, such as live-in employees?

Question Wording

This question was administered 207 times, and interviewers made major changes to question wording 27 percent of the time (Table 1). Coder’s notes indicate they omitted the phrase “such as live-in employees” and substituted the phrase “live-in employees” with their own examples, such as “maid/butler,” “healthcare worker,” and “nanny.”

A significant effect of survey mode on “good” interviewer behavior was found (Table 3). This was due to telephone interviewers asking questions as worded more often (81%) and never omitting the question, whereas personal visit interviewers only read this question as worded half the time (52%) and occasionally omitted it altogether (17%) (data not shown).

Respondents had little difficulty providing adequate answers (87%) for this question (Table 1).

Recommendation(s) for Question 23. Live-in Employees: This question was deemed low priority for question rewording. On the other hand, there does seem to be an awkwardness expressed by interviewers and respondents alike during this question, and when they are not omitting it, they may be trying to insert (social) class appropriate examples (e.g., healthcare worker). Using only one example here helps avoid respondent interruptions, so it is not advisable to generate illustrative lists at the end of a question (even if it is part of the question, near the end). Rewording for this question could be handled two ways: 1) if the intent really is to capture live-in employees, and the broader concept of non-household members has been adequately captured by previous or subsequent probes, then make “live-in employees” the main focus of the question with the following wording: “*Were there any live-in employees living or staying here/there? (Read examples if needed: INSERT EXAMPLES)*”—examples used should be carefully considered (e.g., those used by the CRFU interviewers included “nanny,” “maid/butler,” and “home healthcare worker”); and 2) if the intent is really to capture non-household members then perhaps “live-in employee” could be substituted somehow with a more specific example. If no better substitute for “live-in employee” is acceptable, leave the question worded as-is.

Automated Survey: See general recommendation above.

Paper Survey: See general recommendation above.

Personal Visit and Telephone Survey Modes: See general recommendation above.

Question 24. Temporary

This question is the last of the list of questions in this series. It is designed to try to capture those types of people who have tenuous attachments to the household, and who have not yet been captured by the previous six questions.

Q24. _____ Question Wording
Other people who stayed here temporarily on April 1 and had no other place to live?

Of the 203 administrations of this question, major changes occurred 26 percent of the time and omissions occurred 12 percent of the time (Table 1). In addition, a significant effect of survey mode on “good” interviewer behavior was found (Table 3). This result is likely due to telephone interviewers making fewer major changes to question wording (14%) than personal visit interviewers (32%). Plus, only personal visit interviewers omitted the question (17%) (data not shown).

The data in Table 6 below illustrates the themes in major changes made to this question, according to coders’ notes. About half of the time (52%) interviewers stopped reading this question after the word “temporarily”—omitting the reference period and the phrase “...and had no other place to live.” An additional 11 percent of the time, interviewers omitted the reference period only. The “other” category represents a miscellaneous group of question paraphrases (24%) that did not follow any particular pattern, but like

interviewers who stopped at “temporarily” these interviewers also tended to omit the reference period and the concept of “no other place to live” (e.g., “And no one else?” and “No one living here temporarily?”). With the break-in rate being on the low side (9%) it seems likely the interviewers were merely taking shortcuts with the question. The omission of this question’s last phrase (“and had no other place to live”) is problematic because question intent is changed, and the version read to respondents might pick up householders who live there temporarily but also have another place to live.

Table 6. Themes in Major Changes for “Temporary” (Question 24), as Documented by Coders’ Notes¹

Alterations to Question Wording	
1. Substituting “lived” with “stayed”	5%
2. Substituting “because they had no other place to live” for “and they had no other...”	8%
Omissions	
1. Reference period & “and had no other place to live”	52%
2. Reference period only	11%
Other/Paraphrase	<u>24%</u>
Total	100%

¹ N=51; major change cases for which coders’ notes were available.

Interviewers made other changes to question wording (Table 6 above), but these cases seem less harmful to question intent and they occurred less frequently (e.g., substituting “lived” for “stayed”).

Respondents did not seem to have trouble providing adequate responses during the first-level of exchange (92%).

Recommendation(s) for Question 24. Temporary: This question was deemed a medium priority for question rewording. Question intent and data quality may be compromised when interviewers cease reading the question prematurely, or paraphrase, causing the reference period and the phrase “...and they had no other place to live” to be omitted. Omission of the reference period may be less critical if the recommendation in Question 17 is accepted. Under these conditions (i.e., streamline Question 17’s introduction and make the reference period more salient), this question could be shortened by removing the reference period without adversely affecting respondents’ understanding of the intended time frame. This would remove one dimension from the question and might encourage interviewers to read it in its entirety. Verb tense should also be changed to the

past, in order to cut down on the number of words interviewers have to read, and to signal to respondents that the reference date is in the past and does not include the present. It may also be helpful eliminate one of the question's clauses to encourage interviewers to read the "and had no other place to live" concept, which itself suggests a temporary living situation, making the inclusion of the "temporary" concept redundant. Consider the following wording: "*Other people who stayed [here / there] and had no other place to live?*"

Automated Survey: See general recommendation above and personal visit/telephone recommendation below.

Paper Survey: See general recommendation above and personal visit/telephone recommendation below.

Personal Visit and Telephone Survey Modes: Any references made to "here" would only be applicable in the personal visit survey instrument; conversely, "there" would be applicable to the telephone survey instrument.

Survey Section F

"Was Anyone Listed Who Has Another Place To Live/Stay?"

Questions 25– 57

The CRFU's Survey Section F attempts to learn whether anyone listed on, or added to, the roster may have lived or stayed somewhere else around the time of the census test. Various scenarios are presented to respondents as explanations for this behavior, including asking about the living situations of children, college students, those who have jobs some distances from the CRFU address, and those who have vacation or seasonal homes. This question series also asks whether anyone was living in a group quarter (e.g., college housing, long-term medical care facility, military barracks, correctional facility, etc.).

The latter portion of Section F contains a series of questions that determines where household members should be counted (e.g., where they lived most of the time) if they reported having stayed at the CRFU address and another place in this question series. Respondents in this study, however, did not travel this question path. Therefore, there is no information with which to assess these questions (i.e., questions 47-56) and they are not included in this report.

Question 25. Introduction F

This introduction was required reading; however, the first few questions directly following the introduction (i.e., questions 26-29) were only asked if respondents listed on the roster met certain age requirements (i.e., children or individuals aged 18 through 24 who might be attending college). The objective of this introduction is to explain to respondents that the survey intends to capture more information about individuals who may also live at another address.

Some people have more than one place to live or stay and could be counted at more than one place. The Census Bureau would like to make sure everyone in your household (including anyone you just mentioned) was only counted once.

The omission rate for this introduction was extremely high (91%), due to its formatting/placement within the questionnaire (Table 1). It was located in the questionnaire page's header and not numbered as if it was a question, making it far less salient to interviewers. All other introductions are visually incorporated into the survey flow; they are numbered sequentially and embedded among their related survey questions, resulting in far fewer omissions by interviewers.

Results did not differ significantly by mode (Table 3).

Recommendation(s) for Question 25. Introduction F: This question was deemed low priority for question rewording. Judging by the frequency of major changes to other introductions of similar length, consider simplifying/streamlining the wording to encourage interviewers to read it in its entirety. One possibility for rewording is: *“Some people live or stay in more than one place and we would like to make sure everyone was only counted once.”*

Although the omission rate for this introduction is extremely problematic, the solution is self-evident and quite easy to implement. Simply number this introduction as if it was an actual question (as all the other introductions are throughout this survey) and embed it in the survey questions to which it relates.

Automated Survey: See general recommendations above.

Paper Survey: See general recommendations above.

Personal Visit and Telephone Survey Modes: See general recommendations above.

Question 26. Shared Custody

This question was not required reading; it was only to be read if children 18 years and younger were present in the household. The goal of this question is to identify whether any children live somewhere else, in addition to the CRFU address.

Was any child in a shared custody arrangement or did [he / she] live part of the time at another residence? (Prompt: Who?)

Of the 96 times that the question was administered major changes were made to the question 65 percent of the time (Table 1). There were no mode effects found for this question.

Table 7 below outlines the common themes in major changes to question wording. The largest percentage of major changes (41%) occurred when interviewers tailored the subject of the question instead of reading “any child” (e.g., “Was Suzie...” or “Were

Bobby and/or Suzie...”). Interviewers also offered unsolicited clarifications for the concept “shared custody” (6%).

The interviewer behavior mentioned above is generally unproblematic in terms of question intent, but there was evidence of major change behavior that could affect data quality. There were times when interviewers ceased reading the question after the word “arrangement” (i.e., omitting the last phrase/concept, “or did he/she live part of the time at another residence”) (16%, Table 7). This is an important concept to convey to respondents, especially if the guardians/parents do not have a legal arrangement with another household but the child/children still spend time elsewhere. Omission of this phrase might lead respondents to think the question only refers to a legal arrangement, potentially causing the exclusion of informal ones. Occasionally, interviewers substituted “joint custody” for “shared custody,” possibly confusing question intent even further.

Table 7. Themes in Major Changes for “Shared Custody” (Question 26), as Documented by Coders’ Notes¹

Alterations to Wording	
1. Tailoring subject of question (e.g. read “your child,” “NAME,” or “either of your children” instead of “any child”)	41%
2. Offered clarification for “shared custody arrangement” (e.g., “live with someone else or another relative”)	6%
3. Substituted “joint” for “shared”	4%
Omissions	
1. Stopped reading after “arrangement”	16%
2. Omitted “arrangement” (only read “child custody”)	6%
3. Omitted “...or did he/she”	6%
Confusion about age-appropriateness of question (interviewers read in error)	11%
Other	<u>11%</u>
Total	100%

¹ N=62; major change cases for which coders’ notes were available.

Respondents provided an adequate answer at the first-level of exchange about 82 percent of the time, but they also asked interviewers to clarify some portion of the question (9%) (Table 1). There were very few observations (11) regarding the requests for clarifications, but even so, according to coders’ notes respondents without children under age 18 may have been confused when asked this question. Interviewers probably had trouble determining when the question should be administered, even though the survey

form was formatted to alert interviewers to age-appropriate householders. Some interviewers did not attend to the formatting conventions, and instead relied on their own recollection about whether there were children present in the household from interview to interview. At other times clarification requests were generated by respondents confused about the meaning of “custody.”

Recommendation(s) for Question 26. Shared Custody: This question was deemed a high priority for question rewording, since question intent is altered if respondents think they should only report formal/legal custody arrangements—a situation that probably becomes muddled when interviewers omit the last half of the question. Previous cognitive pretesting research with the CRFU (Davis and Pendzick, 2003), in addition to research with the Census Coverage Measurement Person Interview 2006 (CCMPI) (Kerwin, Franklin, Koenig, Nelson, and Strickland, 2004), found that respondents interpreted “shared custody” much too narrowly; they tended to limit their reporting to legal custody arrangements. This question, however, intends to capture children who spend time with others who may not have a legal/formal custody arrangement. If both concepts are meant to be captured, then this question should be split into two separate questions because interviewers will continue to think the two concepts are equivalent and omit one when attempting to shorten the question themselves. If the intent is really to capture whether children live/stay elsewhere regardless of legal agreements, consider making the phrase that the interviewers are omitting the central portion of the question. In addition, this question should begin with a reference period, since the previous question (Question 24) mentions a different reference period (April 1). Consider the following wording: *“In March or April, did any child live part of the time at another residence for any reason?”* Finally, some thought should be given to the reference period used for this question—consider aligning it with the reference periods of preceding questions if possible (see “note” below).

[NOTE: The issue of legal custody arrangements seem to be addressed in the 2005 CFU instrument; it only asks *“Was any child living or staying part of the time with someone else?”* This should solve questions about the inclusion of children living elsewhere who are not part of a legal/formal custody arrangement, but a reference period is still needed, especially if the question is collocated with questions containing different reference periods (e.g., “...in the spring of 2004”).]

Automated Survey: Use a blind filter/check item to skip this question when there are no age-appropriate householders, to relieve interviewers from having to recall age data from the roster page at this point in the survey. [NOTE: The 2005 CFU instrument contains a filter for this purpose.]

Paper Survey: This will continue to be an awkward question for interviewers in a PAPI environment, because some interviewers will still overlook the formatting convention that should cue them for the presence of age-appropriate householders. Perhaps the formatting convention should be redesigned to make this aspect of the form more salient for them.

Personal Visit and Telephone Survey Modes: See general, automated, and paper recommendations above.

Question 28. Attend College

This question was not required reading; interviewers were trained to ask this question only if household members between the ages of 18 and 24 were present.

Q28. Question Wording
Was anyone attending college in the spring of 2004? (Prompt: Who?)

This question was administered 62 times, and interviewers made major changes to question wording 36 percent of the time (Table 1). According to coders' notes, interviewers were omitting the reference period, and substituting householder's names instead of reading "was anyone..." Of the two types of major change behavior observed, only the omission of the reference period seems problematic, especially since the previous question intends to convey the "March and April" reference period.

Results did not differ significantly by mode (Table 3).

Recommendation(s) for Question 28. Attend College: This question was deemed low priority for question rewording. Consider placing the reference period at the beginning of the question to discourage its omission by interviewers: *"In the spring of 2004, was anyone attending college?"*

Automated Survey: Use a blind filter/check item to skip this question when there are no age-appropriate household members, to relieve interviewers from having to recall age data from the roster page at this point in the survey. [NOTE: this was done during the printing stage of the paper instrument for the 2004 CRFU instrument].

Paper Survey: Since this question is asked for the entire household at once ("Was anyone...") then it is not necessary to alert/cue interviewers to age-appropriate household members (i.e., those between the ages of 18 and 24). See general, automated, and paper recommendations above.

Personal Visit and Telephone Survey Modes: See general, automated, and paper recommendations above.

Question 29. College Address

This question was not required reading; it would only have been administered if respondents indicated that someone in the household did attend college in the spring of 2004.

Q29. Question Wording
Did [NAME] stay at [ADDRESS] while attending college, stay in a dorm or campus housing, or stay elsewhere at college such as in off-campus housing?

Though this question was only administered 15 times, an a priori evaluation of this lengthy question might lead one to expect interviewers may take short cuts during its administration. This may be especially likely to happen if respondents and interviewers

perceive this line of questioning as redundant. Interviewers made major changes to question wording 87 percent of the time. Only 13 of the 15 observations for this question contained coders' notes, and the analysis suggests interviewers did not read the entire question. They were omitting parts of the question after "attending college" and "elsewhere." A few times interviewers attempted to verify this information when they should not have.

Recommendation(s) for Question 29. College Address: Although the number of observations were few, and the evidence for an existing problem weak, this question was still considered a medium priority for question redesign because interviewers were not conveying the "off-campus housing" concept—a critical portion of the question. In looking at the general trend across this survey for questions containing multiple concepts and/or clauses, interviewers tended to paraphrase questions in an effort to shorten them (sometimes omitting important aspects of the question). Given this general observation, it is not surprising that in the few cases this question was administered, interviewers dropped significant phrases. The length of this question was probably challenging for interviewers speaking with respondents who have already indicated they might have attended college, but lived at the CRFU address.

Automated Survey: In an automated environment, unfolding this question would ensure the appropriate respondents were exposed to all portions of the question. This could be accomplished by first asking whether the person stayed anywhere besides ADDRESS while attending college (get yes/no answer). If yes, then ask whether the other place was on-campus housing (e.g., dorm or some other housing) or off-campus housing. A few additional strategies may also help ease administration difficulties in an automated environment: implement topic-based interviewing if age-appropriate household members are present; and allow for tailored "fills" to be used for NAME and ADDRESS.

Paper Survey: Even in a PAPI environment, it may be possible to make this question into two, simpler questions (see suggestion under automated survey above).

Personal Visit and Telephone Survey Modes: See general, automated, and paper recommendations above.

Question 32. Job/Business

This question was required reading and intends to capture household members who may have lived at another address, aside from the CRFU address, for work purposes. This question applies only to household members who are 16 years of age and older.

<u>Q32.</u>	<u>Question Wording</u>
Did anyone have a job or business that involved living or staying away from here in March or April, 2004? (Prompt: Who?)	

This question was administered 207 times, and interviewers made major changes to question wording almost half the time (47%) (Table 1). According to coders' notes, interviewers changed question wording in quite a few ways: 1) they tailored the question to individual household members (e.g., read "you" or "NAME" instead of "did anyone"); 2) omitted the reference year or entire reference period; 3) substituted "home/this address" for "here"; 4) replaced "involved" with "required you to"; and 5) omitted the term "living."

A significant effect of survey mode on "good" interviewer behavior was found (Table 3). Here, telephone interviewers made fewer major changes to question wording (27%) than personal visit interviewers (58%) (data not shown).

Respondents had a little trouble providing an adequate answer during the first-level exchange (only 79% adequate answers) (Table 1). This was partially due to 5 percent inadequate answers, but larger issues were due to requests for clarification (8%) and question re-reads (4%). In addition, respondents interrupted question-reading 11 percent of the time, typically after the word "here" and during reference months "March or April."

Recommendation(s) for Question 32. Job/Business: This question was deemed low priority for question rewording; however, the omission of the reference period is extremely problematic because this question follows a question series using an entirely different reference period for college students (i.e., spring 2004). The reference year probably is redundant at this point in the survey (respondents should know which year we are now asking about), so it is probably not needed in this question. Place the reference period first in the sentence to discourage its omission. In addition, consider simplifying question wording overall: "*During March or April, did anyone live or stay away from [here / there] [for / because of] a job or business?*" If it is important to keep the "job/business" concept near the beginning of the question, then consider the following wording: "*During March or April, did anyone have a job or business that caused them to live or stay away from [here / there]?*"

Automated Survey: See general recommendation above.

Paper Survey: See general recommendation above.

Personal Visit and Telephone Survey Modes: See general recommendation above. Any references made to "here" would only be applicable in the personal visit survey instrument; conversely, "there" would be applicable to the telephone survey instrument.

Question 35. Vacation/Seasonal

This question was required reading and asks whether any household member has a vacation or seasonal home.

Q35. Question Wording
Did anyone have a vacation home or seasonal home? (Prompt: **Who?**)

Interviewers made major changes to question wording 20 percent of the 205 times it was administered (Table 1). Interviewers made various changes to question wording, including altering the verb tense from past to present (i.e., “Do you have..” instead of “Did anyone have...”), paraphrasing “Did anyone” (i.e., “Do you have,” “Do you or your wife have”), dropping the phrase “Did anyone have a...” and just asked “Vacation or seasonal home?”, and omitting the word “seasonal.”

A significant effect of survey mode on “good” interviewer behavior was found (Table 3). Telephone interviewers made fewer major changes to question wording (11%) than personal visit interviewers (24%), and personal visit interviewers sometimes omitted the question entirely (8%) (data not shown).

For the most part, respondents were able to provide adequate answers (86%), but occasionally asked the interviewer to clarify part of the question (6%) (Table 1). Although there were very few observations for the cases in which clarification requests occurred (11), respondents seemed to be confused about question intent due to the use of the term “vacation” (e.g., “a vacation—what do you mean?” or “yes, we go on vacation”).

Recommendation(s) for Question 35. Vacation/Seasonal: This question was deemed low priority for question rewording. Unless the question wording is changed to “second home” instead of “vacation home” there do not seem to be many options for improving the performance of this question. Since this question does not include a reference period, from an analytical standpoint it is not quite clear what period is intended. If interviewers successfully read the reference period in the preceding question (i.e., “March or April”), respondents may continue to use the same timeframe here.

Automated Survey: See general recommendation above.

Paper Survey: See general recommendation above.

Personal Visit and Telephone Survey Modes: See general recommendation above.

Question 37. Extended Time

This question was required reading, and intends to capture householders who may have been living somewhere else during March or April, either full- or part-time.

Q37. _____ Question Wording
Did anyone stay anywhere else for an extended time, during March or April, with friends or relatives or live part of the time at another residence? (Prompt: Who?)

Interviewers made major changes to question wording 41 percent of the time (202 administrations) and omitted it 10 percent of the time (Table 1). Most of the time question wording was changed, interviewers stopped reading after the reference period—omitting “...with friends or relatives or live part of the time at another residence?”

Interviewers also substituted respondents' names instead of reading "anyone," but to a lesser extent in this question than in previous questions. Sometimes interviewers added the phrase "period of time" after the word "extended," and a few times they paraphrased the entire question (e.g., "You weren't staying anywhere else?").

A significant effect of survey mode on "good" interviewer behavior was found (Table 3). Again, this was due to telephone interviewers making fewer major changes to question wording (25%) compared to personal visit interviewers (50%). In addition, personal visit interviewers omitted this question entirely (15%), whereas telephone interviewers did not (data not shown).

Respondents interrupting question reading (16%, Table 1) probably encouraged interviewers to stop reading the question; they broke-in after the phrases "extended time," "friends or relatives," and during the reference period. Even though they sometimes interrupted, respondents seemed to have little trouble providing adequate answers for this question (86%).

Recommendation(s) for Question 37. Extended Time: This question was deemed low priority for question rewording. The length and complexity could be reduced in this question. Since Question 32 contains the same reference period and no intervening questions have different reference periods, it could be excluded in this question to simplify the question. Also, the phrase "friends or relatives" could be removed and placed in an optional parenthetical statement at the end of the question: "*Did anyone stay anywhere else for an extended time or live part of the time at another residence? (For example, at a friend's or relative's home).*" This may increase the likelihood that interviewers would read both of the question's main concepts.

Automated Survey: See general recommendation above.

Paper Survey: See general recommendation above.

Personal Visit and Telephone Survey Modes: See general recommendation above.

Question 39. Group Quarters/Medical Care (Question Stem)

This question was required reading and serves as the question stem for a series of questions that intends to capture household members who were living in group quarters on April 1 (Questions 39-42). The question was to be administered to each household member individually. The residence rules indicate that a group quarter resident on census day is to be counted there and not at the CRFU address.

Q39. _____ Question Wording

Was [NAME] staying in any of the following places on April 1:

A long-term medical care facility? (Telephone only: Such as a nursing home or mental hospital?)

Because Questions 39-42 hang together as a series, it is important to give a brief summary of results that describe how these questions performed together, before discussing specific findings for Question 39. This question set is located near the end of the survey, so for respondents reporting on stable, relatively uninteresting household members the survey may be quite redundant by this point. This hypothesis is supported by the high incidence of interviewers' question omission behavior, which climbs steadily from 6 percent in Question 39 to 24 percent in Question 42 (Table 1). Likewise, inaudible or "other" respondent behavior is highest for this question set compared to any other set of questions in the rest of the survey (e.g., 51% in Question 40, Table 1), which likely reflects nonverbal responses (e.g., nodding the head) and quite possibly, respondent fatigue.

Question 39 was administered 206 times, and interviewers made major changes to question wording in over half of these cases (64%, Table 1). There was also a significant effect of survey mode on "good" interviewer behavior. Telephone interviewers did a better job of reading the questions as worded (51%) than personal visit interviewers (18%), and personal visit interviewers omitted this question more often (9% for personal visit and 1% for telephone) (data not shown).

Table 8 below reflects the major changes made to question wording for Question 39. Most of these changes (51%) were due to the replacement of a household member's name with "was anyone" or "was anyone in your household." Interviewers probably changed the question in this way to avoid having to ask it for each household member. Changing the question in this way allowed them to ask it once, for the entire household. Personal visit interviewers found another way to shorten this question; they showed the flashcard to respondents and did not read the question (13%). In addition, sometimes interviewers were anticipating that respondents might not understand the type of answer expected of them, so they coached them in appropriate responses just before or after reading the question (14%). Interviewers were also observed changing this question in a smattering of other ways (i.e., substituting "long term medical care facility" with more concrete and optional examples provided in the question itself, and telephone interviewers omitting a statement they were required to read).

Table 8 also indicates problems with reference periods continue to surface. In a small number of cases interviewers omitted the reference period (4%) and changed it from "April 1" to "March or April" (4%), which happens to be the reference period in Question 37. In these cases, it appears interviewers are confusing the reference periods from previous questions, and not actually reading the question off the page (but instead from memory). Omitting the reference period or changing it at this point is critical. The goal of this question is to pinpoint where a household member was on April 1. If any household member was staying in any of the facilities in Questions 39-42 on this date, it changes where they should be counted in the census.

Table 8. Themes in Major Changes for “Group Quarters/Medical Care” (Question 39), as Documented by Coders’ Notes¹

Alterations to Wording	
1. Replacing “NAME” with “was anyone (in your household)...”	51%
2. Changing reference period to “March or April”	4%
3. Substituting “long term medical care facility” with “hospital” or “nursing home”	3%
4. Putting response task into context (e.g. “I’m going to read you this list, you just say yes or no if you’ve stayed in any of these places.”)	14%
Omissions	
1. Reliance on flashcard, question omitted completely	13%
2. Reference period	4%
3. Telephone interviewers omitting parenthetical statement	2%
Other	<u>9%</u>
Total	100%

¹ N=128; major change cases for which coders’ notes were available.

Although respondents seem to provide a lower than expected amount of adequate answers (57%), we suspect this is unproblematic (Table 1). Most of the remaining responses fell into the “inaudible/other” category (39%), which typically indicates nonverbal responses to the question, not inadequate answers.

Recommendation(s) for Question 39. Group Quarters/Medical Care

(Question Stem): This question was deemed a high priority for question rewording, because question meaning is altered if interviewers do not read the reference period correctly. To combat the omission of the reference period by interviewers and make the change more salient to respondents (since it changes from “March or April” in Question 37 to “April 1” in this question), consider placing it at the beginning of the question stem: “*On April 1, was [NAME] staying in any of the following places...*” It is unlikely, however, that this suggestion will prevent interviewers from shortening the question by asking it once for the entire household instead of asking it of each household member. If the goal is to ask this question for everyone individually, then a topic-based

interviewing approach would be needed, along with a much different question structure. This may be more easily accomplished in an automated survey environment (see below).

Automated Survey: If topic-based interviewing is desired then the current question structure would change dramatically. A separate introduction would be needed (e.g., “I need to ask if someone in your household might have stayed in any of the following places:”) and the question set would unfold like so: “On April 1, was Suzy staying in a long term medical care facility? How about Steve? Was Suzy staying in a military barracks or ship? How about Steve?” etc.

Paper Survey: See general recommendation above.

Personal Visit and Telephone Survey Modes: Formatting conventions used in the CRFU affected telephone interviewers’ behavior regarding the text they thought was optional (i.e., embedded instructions/text for telephone interviewers); parenthetical text is considered “optional” reading, instead of required, which could explain why telephone interviewers omitted the parenthetical text. Whether this survey is ultimately automated or not, separate survey instruments should be developed and formatted for personal visit and telephone interviewers in order to avoid confusion over the interview script.

Question 40. Military Barracks

This question was required reading, and is part of a series of questions (Question 39-42).

<u>Q40.</u>	<u>Question Wording</u>
<hr/>	
Military barracks or ship?	

Interviewers made major changes to this question about a third of the time (33%), and they sometimes omitted it (16%, 206 administrations) (Table 1). According to coders’ notes, interviewers mainly seemed to be omitting the phrase “or ship” when they read this question. Sometimes, interviewers also omitted the question entirely (16%).

A significant effect of survey mode on “good” interviewer behavior was found. Telephone interviewers made major changes to question wording less often (7%) than personal visit interviewers (47%), and personal visit interviewers tended to omit this question (23%) (data not shown).

The percentage of adequate answers for this question seems low (48%), but there are a large percentage of “inaudible/other” responses (51%) that most likely represent adequate answers provided through nonverbal communication (Table 1).

Recommendation(s) for Question 40. Military Barracks: This question was deemed low priority for question rewording, although its revision in the 2005 CFU instrument handles the topic a little better by adding a more general screener question on military enrollment. [NOTE: This question has been moved from

this location in the 2005 CFU instrument, which seems to handle question construction in a more logical manner. It asks whether anyone was in the military and then provides follow-up probes for types of military housing. In addition, these questions now appear prior to the job/business question.]

Automated Survey: None, given the new strategy used in the 2005 CFU.

Paper Survey: None, given the new strategy used in the 2005 CFU.

Personal Visit and Telephone Survey Modes: None.

Question 41. Correctional Facility

This question was required reading, and is part of a series of questions (Question 39-42).

Q41. _____ Question Wording
A correctional facility? (Telephone only: **Such as a jail, juvenile center, or prison?**)

Out of the 206 administrations for this question, interviewers made major changes 16 percent of the time, and sometimes omitted it altogether (19%) (Table 1). According to coders' notes for non-ideal interactions, telephone interviewers tended to drop the entire parenthetical statement (required reading for them), and only a few times did they drop the word "prison." Personal visit interviewers, on the other hand, added "like jail" to the question, but didn't continue reading the entire parenthetical statement. Coders were trained to code interviewer behavior as a major change if they only read part of the parenthetical (optional for personal visit) statement.

Results did not differ significantly by mode (Table 3),.

Here again, the percentage of adequate answers for this question seems low (55%), but there are a large percentage of "inaudible/other" responses (43%) that most likely represent adequate answers provided through nonverbal communication (Table 1).

Recommendation(s) for Question 41. Correctional Facility: This question was deemed low priority for question rewording; major changes probably did not cause issues with question intent. But, just as in Q39, formatting conventions used in the CRFU affected telephone interviewers' behavior regarding the text they thought was optional (i.e., embedded instructions/text for telephone interviewers only). Telephone interviewers typically receive training that teaches them parenthetical text is "optional" instead of required reading, which could explain why telephone interviewers omitted the parenthetical text. Whether this survey is ultimately automated or not, separate survey instruments should be developed and formatted specifically for personal visit and telephone interviewers in order to avoid confusion over the interview script.

Automated Survey: See general recommendation above.

Paper Survey: See general recommendation above.

Personal Visit and Telephone Survey Modes: See general recommendation above.

Question 42. Some Other Place

This question was required reading, and is part of a series of questions (Question 39-42).

Q42. _____ Question Wording
Some other facility where groups of people stay?

This question was administered 204 times, and interviewers made some major changes (18%) and omitted the question (24%) (Table 1). According to coders' notes, interviewers were omitting the phrase "where groups of people stay."

A significant effect of survey mode on "good" interviewer behavior was found. Telephone interviewers had higher percentages of exact reading/slight changes (88%) compared to personal visit interviewers (42%) (data not shown). Telephone interviewers also omitted the question far less often (4%) than personal visit interviewers did (34%) (data not shown).

Finally, at the end of this question series we see verbalized adequate answers at acceptable levels (90%) during the first-level of exchange (Table 1).

Recommendation(s) for Question 42. Some Other Place: This question was deemed low priority for question rewording; major changes probably do not affect question intent. The rate of omission in this question is slightly higher than the rate of major changes to question wording, which is troublesome and might reflect interviewers' perception that the question is redundant. Respondents in this study may have indicated throughout this question series that the household members have not stayed anywhere else, causing interviewers to opt out, or even shorten, this question. Interviewers' behavior, in this case, has probably not altered question meaning or jeopardized data quality. In addition, the rate of major changes to question wording is fairly low compared to other questions, so when the question is read it seems interviewers are reading it exactly as worded or with slight changes most of the time. Thus, no recommendations are offered.

Automated Survey: None.

Paper Survey: None.

Personal Visit and Telephone Survey Modes: None.

Question 46. Where Most

This question was not required reading; it was only to be read if someone in the household indicated they stayed or lived at another address, in addition to the CRFU address, around the time of the census test.

Q46. _____ Question Wording
Considering all of the places [you / NAME] stayed, where [were you / was he,she] living or staying most of March and April 2004?

This question was administered very few times (15), but we thought it was worth looking at the results. Interviewers made major changes to question wording 33 percent of the time (Table 1). The number of coders' notes available for analysis was even smaller (5); however, in these cases interviewers appear to be paraphrasing (e.g., "Considering all the places you've been/stayed, where were you staying most of the time?"). In addition, the omission of the reference period made the question's intent unclear in terms of the recall period.

Recommendation(s) for Question 46. Where Most: This question was deemed low priority for question rewording, but rewording is suggested. Since previous questions use the April 1 reference period, the omission of this question's "March and April" reference period could negatively affect data quality. At the very least, the question should be rewritten so the reference period appears at the beginning to discourage its omission by interviewers. A slightly different reference period could also be considered. The previous question set (i.e., group quarters questions, 39-42) use on April 1, and using the same or a similar reference period would be less confusing for respondents. In addition, previous and recent research with the Census Coverage Measurement Person Interview 2006 (CCMPI) uses a similar question, but employs the reference period "around April 1."²²

The CCMPI also replaced the phrase "living or staying" with "living and sleeping." Cognitive interview results suggest respondents were better able to accurately and reliably interpret the intended concept (i.e., where you were physically at a particular time) when "living and sleeping" was used in the survey. For this reason, it was decided that this alternative phrase would be used for questions determining usual residency for individuals with multiple addresses. Although it would require question-wording changes in particular places within the CRFU, it is worth considering using this wording for questions (such as this one).

At the very least, however, consider rewording this question so it leads with the reference period, but omit the reference year (it is not necessary at this point in the survey, since the instrument has sufficiently reinforced this concept at this point in the interview). It may also not be necessary to include the phrase "considering all of the places," since the interviewer would have recently discussed/captured information regarding living behavior in the previous questions, so this information will probably remain in respondents' working memory. One approach to question wording would be: "*[During March and April / Around April 1], where [did you / did he, she] live [or stay / and sleep] most of the time?*"

Automated Survey: The "fills" in this question could be automatically generated, and if the instrument is interested in asking this question for each household member, consider a topic-based interviewing approach.

Paper Survey: See general recommendations above.

²² Kerwin, Franklin, Koenig, Nelson, and Strickland (2004)

Personal Visit and Telephone Survey Modes: See general and automated recommendations above.

Question 57. Actually April 1

This question was required reading. It was a research question and was not used to determine residence. It attempted to determine where each household member was staying on census test day (i.e., April 1), regardless of his or her previous survey responses (that reflect their “usual” residence on census day, which may not have been the place they physically stayed on that day).

Q57. Question Wording
Where [was / were you/ NAME] actually staying on April 1?

Of the 206 administrations, interviewers made major changes to question wording about half the time (52%, Table 1). Interviewers tended to change this question in two distinct ways. Sometimes they asked the question as worded, but attempted to elicit an answer for the entire household at once, instead of asking it for each person separately (e.g., “Where was everyone staying April 1?”). At other times, interviewers changed the wording which resulted in more of a verification question, that is they asked if the respondent was staying at the CRFU address on census day (e.g., “You were staying here on April 1?”).

A significant effect of survey mode on “good” interviewer behavior was found. Telephone interviewers made fewer major changes to question wording compared to personal visit interviewers (34% and 60%, respectively) (data not shown). In addition, personal visit interviewers verified this information more often when they should not have compared to telephone interviewers (14% and 4%) (data not shown).

Recommendation(s) for Question 57. Actually April 1: This question was deemed low priority for question wording.

Automated Survey: None.

Paper Survey: None.

Personal Visit and Telephone Survey Modes: None.

Part V CONCLUSION

These behavior coding results suggest personal visit interviewers did not perform as well as the telephone interviewers, in terms of reading the survey questions as worded (or at all). The characteristics of the interviewers used for the in-person and telephone portions of the 2004 CRFU operation were vastly different from one another. The telephone interviewers probably had a much longer tenure with the Census Bureau, which would have allowed them to accumulate far greater training hours than personal visit interviewers. In addition, telephone interviewers typically work a number of Census Bureau surveys, allowing them to sharpen their interviewing skills. Lastly, telephone interviewers receive a great deal of supervision and receive constant or periodic feedback regarding their performance. The personal visit interviewers, on the other hand, are largely novice interviewers hired specifically for these types of short-term, one-time, follow-up surveys. They receive minimal training (compared to telephone interviewers, over time) and they receive little to no direct supervision throughout most of the data collection period.

The CFU survey will continue to grapple with the performance of novice interviewers used for the personal visit portion of the operation. Because novice interviewers will tend to be a permanent feature of follow-up operations like this, special care should be taken in crafting brief, easy-to-read survey questions and introductions/transitions. Future versions of the CFU should avoid using compound questions, and pay special attention to reference period changes across the questionnaire and verb tense use that could reinforce or confuse respondents about the intended reference period.

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Table 1. Percent Interviewer/Respondent Behavior for Personal Visit and Telephone Survey Modes, by Question

Question	Interviewer Behavior ¹							Respondent Behavior ²									Break In ³
	N	E/S	MC	V+	V-	I/O	OQ	N	AA	IA	UA	CL	RR	DK	REF	I/O	
*1 Introduction C	118	55.1%	43.2%	0%	0%	1.7%	0%	4	0%	0%	0%	0%	0%	0%	0%	100.0%	2.5%
*2 Reached Address	209	76.1	6.2	2.9	6.2	0.5	8.1	182	92.3	1.7	0	0	2.2	0	0	3.9	2.9
*3 Live Here Then	206	44.7	45.1	1.5	1.9	0	6.8	189	83.6	3.7	0.5	4.8	3.7	0	0	3.7	8.3
*6 Another Address	209	76.1	14.4	0	2.4	0	7.2	192	76.6	5.2	0	12.5	1.0	0.5	0	4.2	0.0
*8 Describe Building	207	11.1	73.4	1.0	9.7	0	4.8	191	50.8	37.7	2.6	2.1	0.5	0.5	0	5.8	27.5
*9 Introduction D	204	52.5	39.7	0.5	2.5	0.5	4.4	10	0	20.0	0	20.0	0	0	0	60.0	2.0
*10 More Than Once	204	48.0	16.2	5.4	18.6	0.5	11.3	161	59.6	1.9	0	9.3	1.9	0	0	27.3	1.0
*11 Move Out April 1	203	55.7	24.6	1.0	8.9	0.5	9.4	179	83.2	3.9	0.6	5.0	0.6	0	0	6.7	2.5
*17 Introduction E	205	42.4	34.6	0	0	0.5	22.4	4	0	0	0	0	0	0	0	100.0	5.9
*18 Newborns/Babies	207	55.1	38.2	0.5	0	0	6.3	190	85.3	3.2	0	4.7	0	0	0	6.8	11.6
*19 Foster Children	207	60.0	32.9	0	0.5	0	6.8	189	85.7	3.2	0	1.6	1.1	0	0	8.5	10.6
*20 Boarding School	207	61.8	28.0	0.5	0	0	9.7	184	88.0	3.3	0	1.6	1.1	0	0	6.0	14.0
*21 Relatives	207	62.8	28.5	0.5	0	0	8.2	188	89.9	1.6	0	0.5	1.6	0	0	6.4	12.1
*22 Roommate/Boarder	207	71.0	18.4	0.5	1.0	0	9.2	183	87.4	2.7	0	2.2	1.6	0	0	6.0	6.8
*23 Live-in Employee	207	62.3	26.6	0.5	0	0	10.6	179	87.2	1.7	0	2.8	1.1	0	0	7.3	9.2
*24 Temporary	203	60.6	25.6	0.5	0.5	0.5	12.3	178	92.1	3.4	1.1	0.6	0	0	0	2.8	9.4
*25 *Introduction F	190	7.4	1.1	0	0	0.5	91.1	0	0	0	0	0	0	0	0	0	0
26 Shared Custody	96	34.4	64.6	1.0	0	0	0	94	81.9	4.3	0	8.5	1.1	0	0	4.3	7.3
28 Attend College	62	59.7	35.5	1.6	3.2	0	0	61	83.6	1.6	1.6	3.3	0	0	0	9.8	0
29 College Address	15	13.3	86.7	0	0	0	0	14	85.7	0	0	0	7.1	0	0	7.1	20.0
*32 Job/Business	207	47.3	46.9	0	0	0	5.8	195	79.0	4.6	0	7.7	3.6	0	0	5.1	10.6
*35 Vacation/Seasonal	205	73.7	19.5	0	1.5	0	5.4	194	85.6	4.6	0	5.7	0	0	0	4.1	1.5
*37 Extended Time	202	48.5	41.1	0	0	0.5	10.0	182	85.7	5.5	0	3.9	0	0	0	5.0	15.8
*39 Group Qtrs, Stem	206	29.6	63.6	0	0.5	0	6.3	136	56.6	2.2	0	1.5	0.7	0	0	39.0	5.8
*40 Military Barracks	206	51.0	33.0	0	0.5	0	15.5	120	48.3	0.8	0	0	0	0	0	50.8	3.4
*41 Correctional Facility	206	63.6	16.0	0	1.0	0.5	18.9	125	55.2	0.8	0	0.8	0	0	0	43.2	6.3
*42 Some Other Place	204	58.3	17.7	0	0.5	0	23.5	155	89.7	1.9	0	1.9	1.3	0	0	5.2	7.8
46 Where Most	15	66.7	33.3	0	0	0	0	15	100	0	0	0	0	0	0	0	6.7
*57 Actually April 1	206	30.1	51.9	1.5	10.7	0.5	5.3	189	82	3.2	0.5	4.8	0.5	1.1	0	7.9	2.9

¹ E/S = exact/slight change to question wording; MC = major change; V+ = correct verification; V- = incorrect verification; I/O = inaudible or other; and OQ = omitted question.

² AA = adequate answer; IA = inadequate answer; UA = uncertain answer; CL = clarification requested; RR = question reread; DK = don't know; REF = refusal; and I/O = inaudible or other.

³ Break-In = respondent interrupted the interviewer during the administration of the question. Denominator taken from the Interviewer Behavior N, and calculated separately from Respondent Behavior.

* Interviewers were trained to read these questions during each interview; they were required reading and interviewers were not to omit them.

Table 2. Percent Final Response Outcome for Personal Visit and Telephone Survey Modes, by Question

Question	Final Response Outcome ¹						
	N	AA	IA	UA	DK	REF	I/O
*1 Introduction C	2	0%	0%	0%	0%	0%	100.0%
*2 Reached Address	182	95.6	0.6	0	0	0	3.9
*3 Live Here Then	188	95.7	1.6	0	0	0	2.7
*6 Another Address	192	94.8	2.6	0	0	0	2.6
*8 Describe Building	193	86.5	8.8	0.5	0	0	4.2
*9 Introduction D	5	0	20.0	0	0	0	80.0
*10 More Than Once	161	73.3	0.6	0	0	0	26.1
*11 Move Out April 1	179	93.3	1.1	0	0	0	5.6
*17 Introduction E	3	0	0	0	0	0	100.0
*18 Newborns/Babies	191	94.2	2.1	0	0	0	3.7
*19 Foster Children	190	92.1	1.6	0	0	0	6.3
*20 Boarding School	183	94.0	1.6	0	0	0	4.4
*21 Relatives	186	94.6	0	0	0	0	5.4
*22 Roommate/Boarder	183	92.9	1.1	0	0	0	6.0
*23 Live-in Employee	179	92.7	0	0.6	0	0	6.7
*24 Temporary	177	97.2	0	0	0	0	2.8
*25 *Introduction F	0	0	0	0	0	0	0
26 Shared Custody	93	95.7	2.2	0	0	0	2.2
28 Attend College	61	91.8	0	0	0	0	8.2
29 College Address	14	92.9	0	0	0	0	7.1
*32 Job/Business	195	93.3	2.1	0.5	0	0	4.1
*35 Vacation/Seasonal	194	96.9	1.0	0	0	0	2.1
*37 Extended Time	183	94.5	2.7	0	0	0.6	2.2
*39 Group Quarters, Stem	134	61.2	0	0	0	0	38.8
*40 Military Barracks	120	49.2	0.8	0	0	0	50.0
*41 Correctional Facility	124	59.7	0	0	0	0	40.3
*42 Some Other Place	157	94.3	0	0	0.6	0	5.1
46 Where Most	15	93.3	0	0	6.7	0	0
*57 Actually April 1	190	93.2	1.1	0	0.5	0	5.3

¹ AA = adequate answer; IA = inadequate answer; UA = uncertain answer; DK = don't know; REF = refusal; I/O = inaudible or other.

* Interviewers were trained to read these questions during each interview; they were required reading and interviewers were not to omit them.

Table 3. Percent “Good” Interviewer & Respondent Behavior¹ for Questions that Differed by Interview Mode²

Question	Interviewer Behavior		Respondent Behavior		Absence of Break-In	
	PV ³	Telephone	PV	Telephone	PV	Telephone
1 Introduction C	65.3%	49.3%	-	-	100.0%	57.1%
2 Reached Address	76.3	84.9	96.3%	95.5%	96.5	97.1
3 Live Here Then	41.0	55.6	87.8	85.1	89.8	92.5
6 Another Address	66.7*	93.2*	77.0	84.5	100.0	100.0
8 Describe Building	0.8*	32.9*	56.1	50.7	81.5*	52.7*
9 Introduction D	39.2*	78.1*	-	-	85.7	100.0
10 More Than Once	46.5	66.2	81.3	83.0	97.9	100.0
11 Move Out April 1	47.7*	73.0*	92.8	84.3	96.3	98.6
17 Introduction E	30.3*	65.3*	-	-	33.3	50.0
18 Newborns/Babies	42.9*	78.4*	89.6	94.4	89.7	83.6
19 Foster Children	44.4*	87.8*	92.2	95.7	88.1	89.0
20 Boarding School	48.9*	86.5*	94.1	93.0	81.4	88.9
21 Relatives	51.1*	85.1*	95.2	97.2	83.3	91.8
22 Roommate/Boarder	60.2*	91.9*	92.2	94.3	91.0	94.4
23 Live-in Employee	51.9*	82.4*	93.8	94.2	90.7	91.7
24 Temporary	48.9*	84.5*	93.1	97.2	87.7	91.7
25 Introduction F	3.2	15.4	-	-	100.0	100.0
26 Shared Custody	33.9	38.7	85.0	86.7	90.5	96.8
28 Attend College	60.0	64.7	89.7	100.0	100.0	100.0
32 Job/Business	33.8*	71.6*	83.2	83.3	85.3	94.5
35 Vacation/Seasonal	65.2*	89.0*	88.6	90.3	98.3	98.6
37 Extended Time	34.1*	75.0*	91.4	88.2	81.1	84.7
39 Group Quarters, Stem	18.1*	50.7*	89.6	97.1	93.7	87.7
40 Military Barracks	28.6*	91.8*	96.4	100.0	90.5	98.3
41 Correctional Facility	58.7	73.6	97.1	97.2	93.8	85.3
42 Some Other Place	42.0*	87.7*	90.9	98.6	86.2	94.3
57 Actually April 1	18.9*	54.8*	90.7	86.6	98.3	94.2

* Significant difference at $p < .00061^2$

¹ Exact wording/slight change (Code E/S) and positive verification (Code V+) were considered “good” interviewer behavior. The only behavior that was considered good respondent behavior was an adequate answer (Code AA).

² A total of 81 tests were conducted (27 questions and 3 dependent measures). To ensure a study-wide significance level of .05, we recommend using a Bonferroni adjustment, which lead to a significance level of $p < .00061$, which is what we used as a guideline for interpreting results. Questions 29 and 46 were omitted from the analysis, since they had very few observations (15 each).

³ PV = personal visit

Framework of Behavioral Codes and an Explanation of their Analytical Function

Interviewer Behavior Codes (first-level interaction)

- Code E/S: Exact Wording/Slight Change, interviewers read question exactly as worded or with slight change that did not affect question meaning or omit/change terms representing main concepts.
- Code MC: Major Change in Question Wording, interviewer changes to the question that either did or possibly could have changed the meaning of the question (e.g., altered verb tense, omission of reference period, paraphrasing text or substituting similar words for main concepts).
- Code V+: Correct Verification, respondent provided information earlier that interviewer correctly verified and respondent accepts.
- Code V-: Incorrect Verification, interviewer assumes or guesses at information not previously provided (even if correct) or misremembers information when verifying and respondent disagrees.
- Code I/O: Inaudible Interviewer/Other, interviewer exhibits some other behavior not captured under established codes or is impossible to hear.
- Code OQ: Particular questions and introductions were required reading during each administration of the survey (no skip patterns present that would cause it to be omitted), and were recorded when interviewers omitted them during the interview.

Respondent Behavior Codes (first-level interaction)

- Code AA: Adequate Answer, respondent provides response that meets the objective of the question and/or can be easily classified into one of the existing precodes.
- Code IA: Inadequate Answer, respondent provides a response that does not meet the objective of the question, or cannot easily be classified into one of the existing precodes—often requiring interviewer to probe for more information.
- Code UA: Uncertain Answer, respondent expresses uncertainty about the response provided and may be unsure about the accuracy of the information.
- Code CL: Clarification, respondent requests that a concept or entire question be stated more clearly (expressing uncertainty about meaning).
- Code RR: Question Re-Read, respondent asks interviewer to reread the question.
- Code DK: Don't Know, respondent states they do not have the information.
- Code REF: Refusal, respondent refuses to provide a response.

Code I/O: Inaudible Respondent/Other, respondent exhibits some other behavior not captured under established codes or is impossible to hear.

The following code for respondent interruptions, or “break-ins” (Code BI), was also used to capture respondent behavior, but this aspect of the interaction was coded separately, and in addition to, the actual nature of the response/feedback. This was done to ensure the actual nature of the response was captured, along with the interruption:

Code BI: Break-In, respondent interrupts the reading of a question or introduction (during the first-level interaction only, in other words, during the initial question-asking behavior).

Final Response Outcome Codes (ultimate answer)

The set of final response outcome codes are the same as the respondent codes used for the first-level interaction, with the exception that the following codes were omitted: question reread (Code RR) and clarification (CL). These codes were excluded from the “outcome” possibilities because we suspected these behaviors would only surface during the initial question reading and any persistent problems would center around the type of answer respondents ultimately provided. Thus, the possible “outcome” codes include: AA (adequate answer), IA (inadequate answer), UA (uncertain answer), DK (don’t know), REF (refusal), and I/O (inaudible/other).

Question Guide

Coverage Research Follow-Up Test (CRFU)

2004

GENERAL INSTRUCTIONS FOR CORRECT ADMINISTRATION

Some of the questions in the CRFU are administered for each person in the household, or people added to the household. This means that certain questions may be asked more than once for different people. For the purpose of this coding project, you (the coder) will only code these questions the first time they are read.

Although you may hear the interviewer return to certain questions and ask them for different household members, do not recode any question you've already coded. Simply listen to the interview until the interviewer moves on to a new question that you have not yet coded, and continue coding.

The following formatting conventions are used throughout the CRFU Question Guide to indicate procedures interviewers should have used in order to administer the questions correctly.

TEXT FORMATTING & CORRECT ADMINISTRATION

1. Interviewers are required to read text in **bold** (e.g., the question, and sometimes the response categories);
2. The reading of text in parentheses is at the discretion of the interviewers; and
3. Text in brackets must be filled correctly (e.g., [NAME] filled with "Robert," [ADDRESS] filled with "123 Apple Street," the correct word from [you / him / her] must be appropriately selected to agree with the rest of the sentence).

BLIND "DON'T KNOW" & "REFUSED"

1. Not every question contains an explicit "don't know" and "refusal" response option, but respondents may answer in these ways. In these cases you should circle either the "DK" or "REF" code for the Respondent Code;
2. Some questions contain an explicit "don't know" and "refusal" response option, because these types of answers will affect the path each respondent takes through the instrument. The accompanying skip instruction will guide you to the next appropriate question (e.g., SKIP TO Q45); and
3. When a response set contains "don't know" and "refusal" options and a respondent answers in this way, do not code this type of response as "adequate answer." Code it as a "DK" or an "REF."

SKIP INSTRUCTIONS & ASSUMPTIONS

1. Skip instructions are included with and located next to the response options, in order to guide coders in finding the next appropriate question and determining when and interviewer omitted a question in error;
2. Skip instructions are only provided when a particular response requires interviewers to “skip” over one or more questions. Therefore, not all questions—nor all response options—have skip instructions; and
3. When skip instructions are absent for a question, or a particular response option, then coders are to assume that the interview should proceed the very next question.

QUESTIONS INTERVIEWERS MUST ADMINISTER

1. There are a handful of questions in the Question Guide that interviewers must administer/ask in each interview;
2. Coders need to keep track of which questions must be asked, in order to determine if these questions were omitted in error; and
3. Questions that must be asked contain the following message just below the question number (e.g., See Q2):

* * * * *

MUST
READ

* * * * *

Q 1	Introduction (C)
	<p>The purpose of my [call / visit] is to help the Census Bureau take the most accurate census. We need to make sure that no one has been left out or counted at more than one place.</p> <p><u>FOR TELEPHONE INTERVIEWS</u></p> <p>I am required by law to tell you that this survey is authorized by Title 13, Section 182, of the United States Code. This survey is mandatory and your cooperation is very important. All the information you provide will remain completely confidential. Our approval number from the Office of Management and Budget is [0607-0910]. The interview will take approximately 18 minutes and may be monitored to evaluate my performance.</p> <p>(When a household is chosen for more than one evaluation, we try to get all the information we need with only one interview, but sometimes we don't have enough information to do this.)</p> <p><u>FOR PERSONAL VISIT INTERVIEWS</u></p> <p>(We try to visit each household just once for evaluation purposes. But there are several evaluations of the 2004 Census Test, and your household may have been selected for more than one of them. In one evaluation, we ask about people, and in another we ask about addresses.)</p> <p>(When a household is chosen for more than one evaluation, we try to get all the information we need with only one interview, but sometimes we don't have enough information to do this.)</p>
Acceptable Responses	No response needed; this is an introduction.
Comments	Text in parentheses is optional.

Q 2	Reached Address (C1)
<p>***** MUST READ *****</p>	<p><u>FOR TELEPHONE INTERVIEWS</u> Have I reached [ADDRESS]?</p> <p><u>FOR PERSONAL VISIT INTERVIEWS</u> [Is this / Have I reached] [ADDRESS]?</p>
Acceptable Responses	Yes No
Comments	

Q 3	Live Here Then (C2)
<p>***** MUST READ *****</p>	<p>The [LAST NAME] household was reported in the census as living at [ADDRESS] on April 1, 2004. Did they live here then?</p>
Acceptable Responses	<ol style="list-style-type: none"> 1. Yes - SKIP TO Q6 2. No 3. Don't Know - SKIP TO Q6 4. Refused - SKIP TO Q6
Comments	There may be multiple last names read/inserted for “[LAST NAME]”

Q 4	Living on April 1 (C3)
	Where was the [LAST NAME] household living on April 1, 2004?
Acceptable Responses	Partial addresses are acceptable.
Comments	

Q 5	When was the move (C4)
	When did the [LAST NAME] household moved to [ADDRESS]?
Acceptable Responses	MONTH , DAY (partial date is acceptable)
Comments	

Q 6	Another address (C5a)
***** MUST READ *****	Is there another address that people might use to refer to this place?
Acceptable Responses	1. Yes 2. No - SKIP TO Q8 3. Don't know/Refused - SKIP TO Q8
Comments	

Q 7	Address collection (C5b)
	What is that address?
Acceptable Responses	Partial addresses are acceptable.
Comments	

Q 8	Describe the building (C6)
<p>***** MUST READ *****</p>	<p>How would you describe the building? Is it a:</p> <p>Mobile home One-family house detached from any other house One-family house attached to one or more houses A building with 2 apartments A building with 3 or 4 apartments A building with 5 to 9 apartments A building with 10 or more apartments</p>
<p>Acceptable Responses</p>	<ol style="list-style-type: none"> 1. Mobile home 2. One-family house detached from any other house 3. One-family house attached to one or more houses 4. A building with 2 apartments 5. A building with 3 or 4 apartments 6. A building with 5 to 9 apartments 7. A building with 10 or more apartments 8. A boat, RV, van, etc.
<p>Comments</p>	<p>The interviewer <u>must</u> read each category.</p>

Q 9	Introduction (D1)
<p>***** MUST READ *****</p>	<p>Before I ask you about anyone who might have been left out or counted twice in the census, I'd like to read you a list of people we counted here on April 1, 2004:</p> <p>[READ NAMES ON ROSTER]</p>
<p>Acceptable Responses</p>	<p>No response needed; this is an introduction.</p>
<p>Comments</p>	<p>The interviewer <u>must</u> read the introduction and roster of names.</p>

Q 10	On the list twice (D2)
***** MUST READ *****	Is someone on the list more than once?
Acceptable Responses	1. Yes 2. No
Comments	If the answer is yes, other info is be collected but will not be coded.

Q 11	Move out around April 1 (D3a)
***** MUST READ *****	Did any of the people on the list move out around April 1?
Acceptable Responses	1. Yes 2. No - SKIP TO Q17
Comments	

Q 12	Who moved (D3b)
	Who moved out?
Acceptable Responses	Name of any person who moved out—partial name acceptable.
Comments	

Q 13	Move date (D3c)
	What date did [NAME] move out?
Acceptable Responses	MONTH, DAY, YEAR (partial date is acceptable). - SKIP TO Q15
Comments	

Q 14	Before/On/After (D3d)
	Did [NAME] move out before, on, or after April 1, 2004?
Acceptable Responses	<ol style="list-style-type: none"> 1. Before April 1 - SKIP TO Q16 2. On April 1 - SKIP TO Q16 3. After April 1 - SKIP TO Q16 4. Don't know - SKIP TO Q16
Comments	

Q 15	Certain of move (D3e)
	<p>How certain are you about the date of the move?</p> <p>Very certain, Somewhat certain, Somewhat uncertain, Very uncertain</p>
Acceptable Responses	<ol style="list-style-type: none"> 1. Very certain 2. Somewhat certain 3. Somewhat uncertain 4. Very uncertain
Comments	The interviewer <u>must</u> read all response categories to respondent.

Q 16	Move back (D3f)
	Do you expect [NAME] to move back here?
Acceptable Responses	<ol style="list-style-type: none"> 1. Yes 2. No
Comments	

Q 17	Introduction (E4)
***** MUST READ *****	Sometimes people are left out of the census. I'd like to make sure that we are not missing anyone who lived or stayed at [ADDRESS] on April 1, 2004. Other than the names I read to you, were there:
Acceptable Responses	No response needed; this is an introduction.
Comments	The interviewer <u>must</u> read the introduction, which leads into the next question.

Q 18	Newborns or Babies (E4a)
***** MUST READ *****	Any newborns or babies living or staying here on April 1?
Acceptable Responses	1. Yes 2. No
Comments	If the answer is Yes the interviewer will ask for information about the person: name, age, date of birth, and sex (but this will not be coded).

Q 19	Foster Children (E4b)
***** MUST READ *****	Any foster children or other children not related to you?
Acceptable Responses	1. Yes 2. No
Comments	If the answer is Yes the interviewer will ask for information about the person: name, age, date of birth, and sex (but this will not be coded).

Q 20	Boarding School (E4c)
<p>***** MUST READ *****</p>	<p>Any other children who were away at boarding school in kindergarten through the 12th grade?</p>
<p>Acceptable Responses</p>	<p>1. Yes 2. No</p>
<p>Comments</p>	<p>If the answer is Yes the interviewer will ask for information about the person: name, age, date of birth, and sex (but this will not be coded).</p>

Q 21	Relatives (E4d)
<p>***** MUST READ *****</p>	<p>Any relatives who were living or staying here on April 1 who were not listed?</p>
<p>Acceptable Responses</p>	<p>1. Yes 2. No</p>
<p>Comments</p>	<p>If the answer is Yes the interviewer will ask for information about the person: name, age, date of birth, and sex (but this will not be coded).</p>

Q 22	Roommates or Boarders (E4e)
<p>***** MUST READ *****</p>	<p>Any roommates or boarders you haven't mentioned?</p>
<p>Acceptable Responses</p>	<p>1. Yes 2. No</p>
<p>Comments</p>	<p>If the answer is Yes the interviewer will ask for information about the person: name, age, date of birth, and sex (but this will not be coded).</p>

Q 23	Live-in Employees (E4f)
***** MUST READ *****	Any other people you might not consider to be members of your household, such as live-in employees?
Acceptable Responses	1. Yes 2. No
Comments	If the answer is Yes the interviewer will ask for information about the person: name, age, date of birth, and sex (but this will not be coded).

Q 24	Temporary (E4g)
***** MUST READ *****	Other people who stayed here temporarily on April 1 and had no other place to live?
Acceptable Responses	1. Yes 2. No
Comments	If the answer is Yes the interviewer will ask for information about the person: name, age, date of birth, and sex (but this will not be coded).

Q 25	Introduction (F)
***** MUST READ *****	Some people have more than one place to live or stay and could be counted at more than one place. The Census Bureau would like to make sure everyone in your household (including anyone you just mentioned) was only counted once.
Acceptable Responses	No response needed; this is an introduction.
Comments	The interviewer <u>must</u> read the introduction.

Q 26	Shared Custody (F5a)
	Was any child in a shared custody arrangement or did [he / she] live part of the time at another residence?
Acceptable Responses	1. Yes 2. No - SKIP TO Q28 3. Don't know - SKIP TO Q28
Comments	If "Yes," interviewer will ask "Who?" Consider any new information generated by this probe when you code the "Outcome."

Q 27	Address collection (F5b)
	What is the address where [he / she] stayed?
Acceptable Responses	A partial address is acceptable.
Comments	

Q 28	Attending College (F6)
	Was anyone attending college in the spring of 2004?
Acceptable Responses	1. Yes 2. No/Don't know – SKIP TO Q32
Comments	If "Yes," interviewer will ask "Who?" Consider any new information generated by this probe when you code the "Outcome."

Q 29	College Address (F6b)
	Did [NAME] stay at [ADDRESS] while attending college, stay in a dorm or campus housing, or stay elsewhere at college such as in off-campus housing?
Acceptable Responses	<ol style="list-style-type: none"> 1. At [ADDRESS] - SKIP TO Q32 2. In a dorm or campus housing 3. Stayed elsewhere at college 4. Don't know – SKIP TO Q32
Comments	
Q 30	Address collection at college (F6c)
	What is the address where [he / she] was staying while attending college?
Acceptable Responses	A partial address is acceptable.
Comments	

Q 31	University (F6d)
	What college or university does [he / she] attend?
Acceptable Responses	Any answer acceptable (e.g., name/acronym of college or university).
Comments	

Q 32	Job or Business (F7a)
***** MUST READ *****	Did anyone have a job or business that involved living or staying away from here in March or April, 2004?
Acceptable Responses	1. Yes 2. No - SKIP TO Q35 3. Don't know - SKIP TO Q35
Comments	If "Yes," interviewer will ask "Who?" Consider any new information generated by this probe when you code the "Outcome."

Q 33	Another place (F7b)
	Did [you / he / she] have another place where [you / he / she] stayed regularly while working away from [ADDRESS]?
Acceptable Responses	1. Yes 2. No - SKIP TO Q35 3. Don't know - SKIP TO Q35
Comments	

Q 34	Address collection (F7c)
	What is the address of that place?
Acceptable Responses	A partial address is acceptable.
Comments	

Q 35	Vacation or Seasonal home (F8a)
***** MUST READ *****	Did anyone have a vacation or seasonal home?
Acceptable Responses	1. Yes 2. No - SKIP TO Q37 3. Don't know - SKIP TO Q37
Comments	If "Yes," interviewer will ask "Who?" Consider any new information generated by this probe when you code the "Outcome."

Q 36	Address collection (F8b)
	What is the address of that place?
Acceptable Responses	A partial address is acceptable.
Comments	

Q 37	Extended time elsewhere (F9a)
***** MUST READ *****	Did anyone stay anywhere else for an extended time, during March or April, with friends or relatives or live part of the time at another residence?
Acceptable Responses	1. Yes 2. No - SKIP TO Q39 3. Don't know - SKIP TO Q39
Comments	If "Yes," interviewer will ask "Who?" Consider any new information generated by this probe when you code the "Outcome."

Q 38	Address collection (F9b)
	What is the address of that place?
Acceptable Responses	A partial address is acceptable.
Comments	

Q 39	Group Quarters/Medical Care – Question Stem (F10a1)
<p>***** MUST READ *****</p>	<p><u>FOR TELEPHONE INTERVIEWS</u> Was [NAME] staying in any of the following places on April 1: A long-term medical care facility, such as a nursing home or mental hospital?</p> <p><u>FOR PERSONAL VISIT INTERVIEWS</u> Was [NAME] staying in any of the following places on April 1: A long-term medical care facility (such as a nursing home or mental hospital)?</p>
Acceptable Responses	1. Yes – I MIGHT SKIP TO Q44, OR I MIGHT GO TO Q40 2. No
Comments	Interviewer may read Qs 39-42 at once, as if they were reading a list. Or, they may read Qs 39-42 and wait for a response after each. Both strategies are okay.

Q 40	Military Barracks (F10a2)
<p>***** MUST READ *****</p>	Military barracks or ship?
Acceptable Responses	1. Yes - I MIGHT SKIP TO Q44, OR I MIGHT GO TO Q41 2. No
Comments	

Q 41	Correctional Facility (F10a3)
***** MUST READ *****	<u>FOR TELEPHONE INTERVIEWS</u> A correctional facility, such as a jail, juvenile center, or prison? <u>FOR PERSONAL VISIT INTERVIEWS</u> A correctional facility (such as a jail, juvenile center, or prison)?
Acceptable Responses	1. Yes - I MIGHT SKIP TO Q44, OR I MIGHT GO TO Q42 2. No
Comments	

Q 42	Some Other Place (F10a4)
***** MUST READ *****	Some other facility where groups of people stay?
Acceptable Responses	1. Yes 2. No - SKIP TO Q46 or Q57 3. Don't know - SKIP TO Q46 or Q57
Comments	

Q 43	Kind of place (F10b)
	What kind of place is it?
Acceptable Responses	Accept any reasonable answer (e.g., type of place)
Comments	This Q could be asked multiple times. Only code it the first time it's asked.

Q 44	Name of place (F10c)
	What is the name of that place?
Acceptable Responses	Accept any reasonable answer (e.g., name of place)
Comments	

Q 45	Address collection of facility (F10d)
	What is the address of that place?
Acceptable Responses	A partial address is acceptable.
Comments	

Q 46	Where were you staying the most (F11)
	Considering all of the places [you / NAME] stayed, where [were you / was [he / she]] living or staying most of March and April 2004?
Acceptable Responses	<ol style="list-style-type: none"> 1. Census address - SKIP TO Q52 2. Other place - SKIP TO Q52 3. Both places equally 4. Don't know
Comments	Accept any reasonable answer (e.g., "here," meaning the census address; "there," meaning the 'other place;' etc.).

Q 47	Amount of time (F12a)
	<p>Which of the following categories most accurately describes the amount of time [you / NAME] stay(s) at the other place?</p> <p>A few days each week Entire weeks of each month Months at a time Some other period of time</p>
Acceptable Responses	<ol style="list-style-type: none"> 1. A few days each week 2. Entire weeks of each month - SKIP TO Q49 3. Months at a time - SKIP TO Q50 4. Some other period of time - SKIP TO Q51 5. Don't know
Comments	The interviewer <u>must</u> read all categories.

Q 48	Typical week (F12b)
	<p>During a typical week, did [you / NAME] spend more days at [ADDRESS] or at the other place?</p>
Acceptable Responses	<ol style="list-style-type: none"> 1. Census address - SKIP TO Q52 2. Other place - SKIP TO Q52 3. Don't know - SKIP TO Q51
Comments	Accept any reasonable answer (e.g., "here," meaning the census address; "there," meaning the 'other place;' etc.).

Q 49	Typical month (F12c)
	<p>During a typical month, did [you / NAME] spend more weeks at [ADDRESS] or at the other place?</p>
Acceptable Responses	<ol style="list-style-type: none"> 1. Census address - SKIP TO Q52 2. Other place - SKIP TO Q52 3. Don't know - SKIP TO Q51
Comments	Accept any reasonable answer (e.g., "here," meaning the census address; "there," meaning the 'other place;' etc.).

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Q 50	Last year (F12d)
	Last year did [you / NAME] spend more months at [ADDRESS] or at the other place?
Acceptable Responses	1. Census address - SKIP TO Q52 2. Other place - SKIP TO Q52 3. Don't know
Comments	Accept any reasonable answer (e.g., "here," meaning the census address; "there," meaning the 'other place;' etc.).

Q 51	April 1, 2004 (F12e)
	[Were you / was NAME] staying at [ADDRESS] or at the other place on April 1, 2004?
Acceptable Responses	1. Census address 2. Other place 3. Don't know
Comments	Accept any reasonable answer (e.g., "here," meaning the census address; "there," meaning the 'other place;' etc.).

Q 52	Primary (F13a1)
	Which place do you consider to be [your / his / her]: Primary residence?
Acceptable Responses	1. Census address 2. Other place
Comments	Accept any reasonable answer (e.g., "here," meaning the census address; "there," meaning the 'other place;' etc.).

Q 53	Permanent (F13a2)
	Permanent residence?
Acceptable Responses	1. Census address 2. Other place
Comments	Accept any reasonable answer (e.g., “here,” meaning the census address; “there,” meaning the ‘other place;’ etc.).

Q 54	Legal (F13a3)
	Legal residence?
Acceptable Responses	1. Census address 2. Other place
Comments	Accept any reasonable answer (e.g., “here,” meaning the census address; “there,” meaning the ‘other place;’ etc.).

Q 55	Preference (F13b)
	Where would you prefer [NAME] to be counted in the census?
Acceptable Responses	1. Census address 2. Other place 3. No preference
Comments	Accept any reasonable answer (e.g., “here,” meaning the census address; “there,” meaning the ‘other place;’ etc.).

Q 56	Why preference (F13c)
	Why would you prefer [NAME] to be counted there in the census?
Acceptable Responses	Accept any reasonable answer.
Comments	

Q 57	Actually April 1 (F13d)
<p>*****</p> <p>MUST</p> <p>READ</p> <p>*****</p>	<p>Where [were you / was NAME] actually staying on April 1?</p>
<p>Acceptable Responses</p>	<ol style="list-style-type: none"> 1. Census address 2. Other place 3. Don't know
<p>Comments</p>	<p>Accept any reasonable answer (e.g., “here,” meaning the census address; “there,” meaning the ‘other place;’ etc.).</p>