

November 10, 2004

DSSD 2010 CENSUS COVERAGE MEASUREMENT MEMORANDUM SERIES #2006-D7-02

MEMORANDUM FOR Rajendra P. Singh
 Chief, Decennial Statistical Studies Division

Through: Donna Kostanich and David Whitford (*Signed*)
 Co-Chairs, DSSD 2010 CCM Planning Group

From: Jenny Hunter and Beth Nichols
 2010 CCM Questionnaire Wording and Automation Team

Subject: FINAL REPORT FROM WESTAT: “Cognitive Testing of the
 Proposed 2006 Census Coverage Measurement Person Interview”

While under contract with the Census Bureau, Westat conducted cognitive interviews of three versions of the Census Coverage Measurement Person Interview (CCM PI). Among the findings from Westat were: 1) A person-based approach to collecting other possible residences was more burdensome than a topic-based approach, with no evidence to suggest that either approach yields greater accuracy, 2) Additional questions on military stays away were needed, 3) Explicitly asking about “shared custody” limits cases respondents report to formal custody arrangements, 4) There was some difficulty attempting to determine the “usual residence” for the day of the interview, 5) The roster questions seemed to work well, and 6) Given a four to five month time lag, there were respondent recall problems associated with dates of moves and stays around March and April. Attached is the final report from Westat.

The Questionnaire Wording and Automation Team has reviewed Westat’s recommendations along with recommendations from the cognitive testing conducted by SRD and NPC staff and has revised the questionnaire on the basis of these recommendations as well as subject matter expertise. Not all recommendations contained in this report were accepted for the 2006 CCM PI.

cc:

DSSD CCM Contacts List

DSSD CCM Questionnaire List

Ellen Baker Wilson	HHES
Len Norry	HHES
Jeanne Woodward	HHES
Elizabeth Ann Martin	DIR
Claudette E Bennett	POP
Karen Humes	POP
Edwin R Byerly	POP
Janice Valdisera	POP
Louisa Miller	POP
Denise Smith	POP
Miles Ryan	POL
Eleanor Gerber	SRD
Manuel de la Puente	SRD
Laurie Schwede	SRD
David W Sheppard	DSSD
Elizabeth A Krejsa	DSSD
Leanne Karl	DSSD
Kyra Linse	DSSD
Douglas M Lee	DMD
Graham DeJong	DMD
Lisa Knight	DMD
Jane Ingold	DMD
Danny R Childers	DSSD
Sharon Boyer,	ACS

Cognitive Testing of the Proposed 2006 Census Coverage Measurement Person Interview

Final Report

Authors:

Jeffrey Kerwin
Martha Franklin
Terry Koenig
Dawn Nelson
Dan Strickland

November 5, 2004

Prepared for:

U.S. Census Bureau
4700 Silver Hill Road
Washington, DC 20548

Prepared by:

WESTAT
1650 Research Boulevard
Rockville, Maryland 20850

Table of Contents

		<u>Page</u>
	Executive Summary	iii
1	Introduction	1
	1.1 Background.....	1
	1.2 Task Objectives.....	1
	1.3. Organization of Report.....	2
2	Methods	3
	2.1 Recruitment.....	3
	2.2 Interview Logistics and Procedures.....	4
	2.3. Draft CCM PI Instruments Tested.....	5
	2.4 Description of Participants.....	13
3	Findings and Recommendations	15
	3.1 Performance of the Household Enumeration Items.....	15
	3.1.1 Failing to Capture Current Residents.....	15
	3.1.2 Enumerating Nonresidents.....	15
	3.2 Accuracy of CCM PI Residency Determinations.....	17
	3.2.1 Determining Current Residents of the Sampled Address.....	18
	3.2.2 Determining Residents of the Sampled Address as of Census Day...	19
	3.2.3 Determining Other Addresses Where Persons Should be Counted on Census Day.....	20
	3.2.4 Reporting Dates for Move-ins and Move-Outs.....	21
	3.3. Respondent Burden.....	22
	3.4. Other CCM PI Issues: Findings and Recommendations.....	24
	3.4.1 Living or Staying / Living and Sleeping.....	24
	3.4.2 Reference Periods—Around April 1 st , During March or April, and During March, April, or May.....	27
	3.4.3. Group Quarters Questions.....	30
	3.4. 4 “Back and Forth” Questions.....	32
	3.4.5 Child in Shared Custody Arrangement / Lived Part of Time at Another Place.....	33
	3.4.6 Job-Away Questions.....	34
	3.4.7 Military Questions.....	36
	3.4.8 Seasonal / Second Home.....	37
	3.4.9 “Other Place Stayed Often”.....	38
	3.4.10. Detailed Address Questions.....	38

	3.4.11 Other Name / Nicknames.....	40
	3.4.12 “Affiliated With a College or University”	41
	3.4.13 Don’t Knows.....	42
	3.4.14 Refusals to Answer.....	43
	3.4.15 Foreign Addresses.....	43
	3.4.16 Whole Household Inmovers.....	44
	3.4.17 Ethnicity and Race Items.....	44
	3.4.18 Questions on Tenure.....	44
4	Conclusions.....	47
	4.1 Performance of the CCM PI.....	47
	4.2 Accuracy and Burden Trade-off.....	47
	4.3 Recall Issues.....	48

APPENDIX

A	Recruitment Ad.....	49
---	---------------------	----

Cognitive Testing of the Proposed 2006 Census Coverage Measurement Person Interview

Executive Summary

In 2006, the Census Bureau plans to test its proposed census coverage measurement (CCM) operation for the 2010 Census. One component of this operation is the Person Interview, or PI. The CCM PI collects an independent roster of all persons living at the sample address on interview day, the demographic characteristics of those persons, and any other potential addresses where they might have been counted on census day. The PI also collects information on persons who have moved into or out of the household since census day, and seeks to determine where those persons should have been counted on that day.

This study was undertaken to cognitively test proposed survey questions for the 2006 site test of the CCM PI. Our primary objectives were to examine the following questions:

- How well do respondents' understanding of the questions and response categories match the Census Bureau's intent?
- How well does the proposed CCM PI obtain information needed to determine who should be counted at the sampled address on Census day and currently?
- How well does the proposed CCM PI obtain information needed to determine who on the household roster should be counted at alternative addresses on Census day and currently?
- How can respondent burden be minimized while maximizing accuracy?
- What cognitive difficulties exist because of language, knowledge, and recall issues, as well as question ordering?

We tested three versions of the CCM PI with 45 participants recruited from households with high mobility. The versions differed in several important ways, including strategies for initially enumerating potential household residents and "topic-based" versus "person-based" approaches to gathering information on alternative residences. In each interview, Westat staff administered a version of the CCM PI instrument and probed regarding respondents' interpretations of key items. We also followed up on any apparent difficulties respondents had in responding to the instrument.

Key Findings and Conclusions:

- Each of the three sets of initial enumeration items performed well with respect to capturing household residents. In only two interviews did the enumeration fail to capture residents, and both problems were unrelated to question wording (one case was due to lack of respondent knowledge, the other due to momentary inattention on the part of the respondent).
- It was very common for the initial enumeration items to yield nonresidents of the household (i.e., persons with stronger attachments elsewhere). One version tested appeared to result in these persons being rostered for the interview to a greater extent than did the other two versions. Adding nonresidents to the initial household roster substantially increases the burden of responding to the interview. However, almost all of the nonresidents initially enumerated had at least some attachment to the household. Furthermore, the subsequent items in the CCM PI instrument almost always identified these persons as being nonresidents, thus “removing” them from the household roster.
- One version tested used a much shorter set of initial enumeration items, compared to the other two versions. This shortened version arose out of a desire to minimize respondent burden. While this version appeared to work very well in our interviews, we believe additional, more rigorous research should be done to evaluate it. Our interview includes few (if any) persons with no attachment to any place, and it is not clear how effective the shortened version would be at enumerating these persons.
- The full CCM PI instrument failed to correctly establish the list of current residents for the sampled address in nine cases. The errors were unrelated to the version of the CMM PI administered. Perhaps the most notable errors occurred when attempting to determine the “usual residence” for the day of the interview. When asked to indicate where someone is “*living and sleeping most of the time now,*” several respondents reported addresses where residents were visiting on short-term stays. The lack of a clear reference period in this question easily results in misinterpretation.
- We observed that a person-based approach to collecting information on other possible residences is more burdensome than a topic-based approach, and saw no evidence to suggest that either approach yields greater accuracy. Westat recommended that a topic-based approach be followed, but that the names of rostered persons be specified in many of the items—this version was tested in the final 15 interviews and appeared to work well.

- Many of the errors observed in determining current residency for the sampled address also affected the accuracy of establishing residency for census day. But not surprisingly, more errors stemmed from lack of knowledge and inability to recall when trying to answer for census day. Some respondents struggled with recalling whether someone moved in or out of their households before April 1st, or after this date. There is reason to believe that extensive use of a calendar as a visual aid may help respondents in the CMM PI report more easily and accurately.
- When asked to state an address where persons might be counted elsewhere on census day, respondents were usually able to report a specific street address. This was highly dependent on relationship, however. They could generally report it (or could if they were at home) for related others. Frequently, they were unable to report more than a city and state for unrelated others (housemates). Also, respondents often perceived questions asking for these addresses to be rather intrusive.

Cognitive Testing of the Proposed 2006 Census Coverage Measurement Person Interview

1. Introduction

1.1 Background

In 2006, the Census Bureau plans to test its proposed census coverage measurement (CCM) operation for the 2010 Census. One component of that operation is the Person Interview, or PI, which is conducted at sampled addresses either by CAPI or CATI after most census data have been collected. The CCM PI collects an independent roster of all persons living at the sample address on interview day, the demographic characteristics of those persons, and any other potential addresses where they might have been counted on census day. The PI also collects information on persons who have moved into or out of the household since census day, and seeks to determine where those persons should have been counted on that day. The collected data are used to determine the proper residency status of persons according to census residency rules and to calculate estimates of enumeration errors and misses in the census day count.

1.2 Task Objectives

This cognitive research study was undertaken to test proposed survey questions for the 2006 site test of the CCM PI. Our primary objectives were to examine the following questions:

- How well do respondents' understanding of the questions and response categories match the Census Bureau's intent?
- How well does the proposed CCM PI obtain information needed to determine who should be counted at the sampled address on Census day and currently?
- How well does the proposed CCM PI obtain information needed to determine who on the household roster should be counted at alternative addresses on Census day and currently?
- How can respondent burden be minimized while maximizing accuracy?
- What cognitive difficulties exist because of language, knowledge, and recall issues, as well as question ordering?

In Round 1 of the study, we tested two proposed versions of the CCM PI, each with 15 participants. On the basis of Round 1 findings and other input from the Census

Bureau, we developed a third version for testing during Round 2 with another 15 participants. In addition to the objectives listed earlier, we compared the three versions of the CCM PI with respect to the following issues:

- Effectiveness in developing a household roster with minimal burden
- Use of person-based versus topic-based versus household questions
- Order of questions / sections
- Alternative question wording

1.3 Organization of Report

In this document we first describe our methods for conducting the cognitive testing of the 2006 CCM PI, including our recruiting of participants, major differences among the test versions, and interview procedures. Then we discuss the findings and implications of the study, and offer our recommendations where appropriate. We discuss the apparent accuracy with which the draft CCM PI instruments established residency at the “sampled address” (i.e., wherever the study participant is currently living) for both interview day and census day, as well as how effectively they identified other addresses where persons should be counted. We also discuss the perceived burden of the instrument, along with a variety of other observations regarding cognitive aspects of the interview.

2. Methods

We conducted two rounds of cognitive interviews with a total of 45 individuals. In this chapter we discuss the process for recruiting study participants, provide information on the persons participating in each round, and describe the general procedures for conducting the interviews.

2.1 Recruitment

The Census Bureau requested that the CCM PI instrument be tested with persons in households with members who are mobile. Specifically, the following groups were targeted:

- A. Households where some or all members have moved since Spring, 2004
- B. Households where someone currently lives in (or recently lived in) a group quarters facility (e.g., military barracks, prison or jail, drug rehab center, nursing home)
- C. Households where someone has more than one place to stay (e.g., due to a job away, a vacation home, with a romantic partner)
- D. Households where children sometime stay with another parent/relative
- E. Households where children are away at college, or were away in the Spring

We recruited participants for this project through a variety of means. We placed an ad (see Appendix A) for research volunteers in the *Gazette*, a weekly newspaper serving Montgomery, Prince George's, and Frederick counties of Maryland. We also placed an ad in the *Washington City Paper*. Additional recruiting was done over the Internet through ads posted to neighborhood emails lists (at www.yahoogroups.com) and www.craigslist.com. Each of the ads specifically requested persons belonging to the above categories. Approximately 250 persons contacted Westat in response to these ads, and this group largely served as our pool of potential study participants. However, a small number of persons were recruited by "word of mouth" referrals from Westat staff (Westat employees were not eligible for participation).

Volunteers were screened for eligibility on an "as needed" basis prior to being scheduled for interviews. Screening was conducted by telephone, and its purpose was to ensure that participants were in at least one of the target groups of interest. The key screening item was designed to get potential participants to describe in their own words why they thought they might qualify for the study, with careful probing on the recruiter's part, so as to minimize potential influence of the recruitment screening on the participants' reactions to the CCM PI.

2.2 Interview Logistics and Procedures

The first round of 30 cognitive interviews, in which two draft versions of the CCM PI were examined, was conducted July 26th to August 16th, 2004. A second round of 15 interviews for testing a third version of the instrument was held from August 31st to September 14th. The majority of interviews were conducted in a focus group suite at Westat's headquarters in Rockville, MD. Approximately one-third of the interviews were conducted in a hotel conference room in downtown Washington, D.C. All participants were paid an incentive of \$40. Each interview was conducted by two Westat staff members.

Although details of the cognitive interviews varied to some degree based on the unique living situations presented across respondents and time constraints, all interviews adhered to a semi-structured protocol (designed prior to the interviews) and consisted of the following three elements:

- **Interview introduction:** Here we explained the purpose of the project and assured participants that all information they shared would be treated as confidential. Participants were also informed that the interview would be audio-taped, and (if applicable) that Census Bureau staff were observing behind a one-way mirror. Participants were asked to sign consent forms and grant permission for both audio-taping and video-taping. Everyone agreed to be audio-taped, and only a very small number of persons declined to be video-taped (the downtown Washington, D.C., interviews were not video-taped);
- **Administration of the CCM PI:** A Westat staff member administered one of three paper-and-pencil versions of the CCM PI instrument. The three versions are described below in section 2.3.
- **Cognitive debriefing:** Another Westat staff member probed the respondent as to how he or she interpreted key questions and phrases in the CCM PI interview, followed up on any observed difficulties or apparent confusion the respondent had experienced, and inquired about other reactions the participant may have had, such as perceived intrusiveness. Although cognitive probing is more often done concurrently with administration of a questionnaire, Westat and Census Bureau staff agreed that it would be best to conduct most of the probing after administration of the full CCM PI. The only exception to this applied to the initial set of questions designed to determine the roster of household members. After completing this part of the interview, we immediately probed very briefly as to how participants perceived certain issues of interest.

2.3 Draft CCM PI Instruments Tested

The Census Bureau provided Westat with two versions of the CCM PI instrument for testing in the first round of interviews. These two versions differed in important ways. One difference was with respect to the strategies for enumerating an initial household roster to be used as a basis for the rest of the interview. Version 1 sought to:

- First, identify people who live or stay at the sampled address most of the time;
- Next, identify people who may be staying at the sampled address, but not all of the time (those who stay often, are looking for another place to live, or have no other place to stay).

Version 2 took the following approach:

- First identify people who live at the sampled address, and ONLY there;
- Next, identify persons who stay at the sampled address but also have another place to stay;
- Then identify persons staying at the sampled address now, who have no other usual place.

The introductions and question wordings of both versions of the initial enumeration methods are shown in the table on page 7.

The Version 1 and Version 2 draft CCM PI instruments are further outlined on pages 8 and 9. After the initial household enumeration, major differences between Versions 1 and 2 included:

- Ordering of sections – Version 1 began by identifying all persons moving in or out of the sampled address since census day, then obtaining their previous/subsequent address and type of place. Next, it reviewed names and gathered information on home tenure and demographics before asking the set of residency questions. In contrast, Version 2 began by identifying households where all persons had moved in since census day, then it identified individual persons who had moved out since that time (along with their subsequent address and type of place). Those sections were followed by the set of residency questions. Household tenure and demographics were collected later in the instrument, which precluded screening any of the residency items based on characteristics such as age.
- Version 1 took a global “topic-based” approach when attempting to identify other possible residences where a person could be counted. That is, each residency question was asked once about all household members (e.g., “*During March or April, was anyone you mentioned attending college?*”). Version 2 consisted of a smaller set of residency items while taking a “person-based” approach: The set of residency items were first

asked about the respondent only (e.g., “*During March, April, or May, were you attending college?*”). Then the same set of residency items was repeated for the next household member (e.g., “*During March, April, or May, was [NAME] attending college?*”), and again for each successive household member;

- As can be seen from the above examples, the two versions differed with respect to the reference periods for many items (“*March or April*” versus “*March, April, or May*”).
- The items for determining census day usual residence in Version 1 included a set of questions designed to help respondents choose census day usual address for household members with multiple addresses during March and April. These items asked how often those persons go back and forth between the addresses, and then for the address where they spent the most nights (or weeks/months, as applicable) during March or April. Version 2 did not include these items.
- The language in questions seeking to determine usual residency differed between the two versions. For example, Version 1 asked “*Where were you living or staying most of the time...?*” while Version 2 asked “*...where were you living and sleeping most of the time?*”

Versions 1 and 2
Initial Household Enumeration Items

Version 1	Version 2
<p>We need to count everyone in the census in the place where they usually live or stay. Although for most people this is easy to figure out, we need to ask additional questions to make sure no one is missed or counted twice. Some of these questions may not apply to you or your household.</p>	<p>We are visiting households to make sure we counted everyone correctly. We'll start by making a list of people who should be counted here. That includes people who live here all the time and people who stay here often, even if you don't think of them as members of your household.</p>
<p>Q1. First, please tell me the names of everyone who lives or stays here most of the time. Let's start with you. What is your name? (Anyone else?)</p>	<p>Q1. First, please give me the names of all the people who live here and only here. Let's start with you, is this the only place where you live? (What is {your/that person's} name? (Anyone else?)</p>
<p>Q2. Are there any babies, foster children, or other children living here now that you didn't mention yet?</p>	<p>Q2. Next, are there any (other) people who stay here but also have another place where they stay, for example, someone who lives away from home part of the time to work?</p>
<p>Q3. Have I missed any distant relatives or people not related to you who live here?</p>	<p>Q3. Are there any babies, foster children, or other children who stay here that you didn't mention yet?</p>
<p>Q4 [INTRO]. We are also interested in people who may be staying here now, but who don't live or stay here most of the time.</p>	<p>Q4. Have I missed any distant relatives or people not related to you who live here?</p>
<p>Q4a. Is there anyone who has another place to live, but who stays here OFTEN?</p>	<p>Q5. Is there anyone else staying here now who doesn't have another place that they usually stay?</p>
<p>Q4b. (Is there) Anyone else who is staying here until they find a place to live?</p>	
<p>Q4c. (Is there) Anyone who sometimes stays here and has no other place where they usually stay?</p>	

VERSION 1

(After initial enumeration of current household)

Identify persons moving IN since census day, previous address, and type of place

Identify persons moving OUT since census day, subsequent address, and type of place

Review names entered, and obtain nicknames

Identify home tenure, relationship, demographics

Identify other possible residences *[more topic questions than in Version 2, but asked globally about household roster ("Does anyone....?") rather than each person individually]*

seasonal/second home

attending college away

children sometimes stay elsewhere

living away for a job

any place else, such as friends and relatives

Determine usual residence for census day, and usual residence where they live now.

Asked where "living or staying."

If necessary to determine census day usual residence, this version asked how often persons went back and forth between addresses, and which address they stayed at the most.

Determine group quarter stays for on or around April 1st for each person individually.

Asked if persons were staying there around April 1st

This version did NOT ask specifically about census day.

Gather previous address information for those who moved in since census day, including names and ages of persons living there, relationship, home tenure, nearby cross-streets, neighbors' names.

If entire household moved in since census day, ask for names and ages of those who lived at sampled address on census day, where they moved to, the date they moved, phone number, home tenure, etc.

VERSION 2

(After initial enumeration of current household)

1. Determine movers
 - Identify households where all persons moved in since census day
 - Identify persons who moved out since census day
 - Get subsequent address for persons who moved out and type of place.
2. Identify other potential census day addresses for household members [*fewer topic questions than in Version 1, but asked about each person individually, rather than globally about household roster*]
 - attending college away
 - living or staying away for any other reason
 - *Note: Instrument continued with #3 below for each person, and returned to #2 for next person, as appropriate*
3. Determine usual residence for census day, and usual residence where they live now.
 - Asked where "living and sleeping."
4. Obtain group quarter stays for around April 1st for each person individually
 - Asked if persons "spent even one night" around April 1st.
 - Then specifically asked about census day.
5. Review names entered, and obtain nicknames
6. Identify home tenure, relationship, demographics
7. Gather previous address information for those who moved in since census day, including names and ages of persons living there, relationship, home tenure, nearby cross-streets, neighbors' names.
8. If entire household moved in since census day, ask for names and ages of those who lived at sampled address on census day, where they moved to, the date they moved, phone number, home tenure, etc.

Version 3 of the draft CCM PI that we tested was developed by Westat and Census Bureau staff, largely at a day-long working meeting held shortly after the first round of 30 interviews. This version resulted from the findings of the initial interviews, as well as discussions that occurred among staff at this meeting.

The overall structure of Version 3 was very similar to Version 1. However, three major differences should be noted:

- The initial set of household enumeration questions was made much shorter. Census Bureau staff have reported that asking more than two or three questions to determine the initial roster list is very tedious and burdensome to respondents. Thus, we decided to test a much shortened version in the final 15 interviews. The follow-up questions were also made more explicit that only persons not already mentioned were being sought. In Version 1, respondents had frequently reported the same person more than once (especially at the item asking “*Is there anyone who has another place to live but who stays here often?*”). This new set of enumeration items can be seen in the table below on page 11.
- Also, a “compromise” approach between the topic and person-based approaches of Versions 1 and 2 was tested. This approach developed out of Westat’s observation that the Version 2 instrument seemed to be far more burdensome than necessary, while Version 1 perhaps did not encourage respondents to think carefully enough about the recent living situations and alternative residences of each household member. The approach for the residency items of Version 3 was generally topic-based, but the item wording included the first names of all relevant individuals on the roster (e.g., “*During March or April, were you [or NAMES] attending college?*”). Thus, the set of residency items was asked only once, though each item specified the household members the respondent should consider when generating an answer.
- Version 3 incorporated the group quarters questions from Version 2, with some modifications, rather than from Version 1 (see section 3.4.3 for a full description of the differences among the two versions). This series of questions was designed to determine, first, if any household members had stayed in a group quarters around census day. If the participant said yes for a household member, a subsequent question asked specifically about the person’s residence on census day (as in Version 1).

Version 3 of the instrument is summarized on page 12.

Version 3
Initial Household Enumeration Items

As part of the census, we are contacting households to make sure we counted everyone correctly. I have some questions about this address Do you currently live here?

We'll start by making a list of people. We want to include people who live here all the time and people who stay here often, even if you don't think of them as members of your household.

- Q1. First, please tell me the names of everyone who lives here now. Let's start with you. What is your full name? (Anyone else?)
- Q2. Is there anyone else who has another place to live, but who stays here OFTEN?
- Q3. Is there anyone else who is staying here until they find a place to live?

VERSION 3

(After initial enumeration of current household)

1. Identify persons moving IN since census day, previous address, and type of place
2. Identify persons moving OUT since census day, subsequent address, and type of place
3. Review names entered, and obtain nicknames
4. Identify home tenure, relationship, demographics
5. Identify other possible residences: [*In this version, generally asked globally about household roster but specified names ("Do you or {NAME} or {NAME} . . .?")*]:
 - attending college away
 - children sometimes stay elsewhere
 - *away for military service [added to this version]*
 - living away for a job
 - seasonal/second home
 - any place else, such as friends and relatives
6. Determine usual residence for census day, and usual residence where they live now.
 - Asked where "living and sleeping."
 - If necessary to determine census day usual residence, this version asked how often persons went back and forth between addresses, and which address they stayed at the most.
7. Determine group quarter stays for on or around April 1st for each person individually.
 - Asked if persons "spent even one night" around April 1st (*from Version 2*)
 - then specifically for census day
8. Gather previous address information for those who moved in since census day, including names and ages of persons living there, relationship, home tenure, nearby cross-streets, neighbors' names.
9. If entire household moved in since Census day, ask for names and ages of those who lived at sampled address on Census day, where they moved to, the date they moved, phone number,

2.4 Description of Participants

We were successful in recruiting participants whose households included persons with mobility in the targeted categories, such as households in which one or more persons moved recently or stay at multiple addresses. Some participants were eligible in multiple mobility categories or in more than one type of situation within a category. The data in the following table indicate how many participants reported at least once about a mobility category.

Number of Participants Reporting a Category at Least Once				
Category	Round 1		Round 2	Total
	Version 1	Version 2		
A. Households where some or all members have moved since Spring 2004	8	5	9	22
B. Households where someone currently lives in (or recently lived in) a group quarters facility (e.g., military barracks, prison or jail, drug rehab center, nursing home)	7	4	4	15
C. Households where someone has more than one place to stay (e.g., because of job away, a vacation home, with a romantic partner)	7	5	4	16
D. Households where children sometimes stay with another parent/relative	3	4	6	13
E. Households where children are away at college, or were away in the Spring	2	5	4	11

Participants' demographic characteristics (sex, age, education level, and ethnicity/race) are presented in the following table. As the data indicate, we were able to recruit participants reflecting a range of these characteristics.

CCM PI: Demographic Characteristics of Participants			
Characteristic	Round 1	Round 2	Total
Sex			
Male	9	11	20
Female	21	4	25
Age (yr)			
18–29	6	0	6
30–39	9	5	14
40–49	9	5	14
50–59	4	4	8
60 and over	2	1	3
Race/Ethnicity			
White	13*	8*	21
Black / African American	17	5	22
Hispanic White/Black	0	1	1
Native American	2*	1*	3
Asian	0	1	1
Education			
12th grade or less	4	1	5
Some college	10	6	16
BA	10	2	12
Grad school	6	6	12

*Three participants reported race as White and Native American.

Because general language was used in the advertisements (e.g., “recently” instead of “since April 1st”), not all participants actually reflected the mobility characteristics desired. Some of them interpreted the word *recently* to mean one or two years ago. Some participants, however, qualified on characteristics that were not reflected in the screening results.

3. Findings and Recommendations

3.1 Performance of the Household Enumeration Items

As discussed above, the CCM PI interview begins with a set of questions designed to build an initial roster of persons potentially living at the sampled address on the day of the interview. This initial household enumeration establishes the structure for the rest of the interview and provides a basis of comparison in determining census day residents of the sampled address. We administered three different sets of these enumeration items across the 45 interviews. In this section we discuss the extent to which the initial household enumeration items (a) failed to capture persons who are currently residing in the household and (b) yielded persons who are not residents of the household (i.e., persons who have stronger attachments to some other place that they stay). Both are important—the first will likely result in an omission for the sampled address. The latter increases the likelihood that a person will be counted in the wrong place, or perhaps be double-counted at more than one address, while also resulting in a more burdensome interview. The Census Bureau obviously wants to minimize the possibility of each type of error, while also minimizing the burden of the instrument for respondents.

3.1.1 Failing to Capture Current Residents

We observed only two instances across the interviews where residents were not captured at the initial household enumeration. Neither instance was in any way related to question wording or version of the instrument administered. One participant had recently moved into a group house and had not yet learned the names of all seven of his housemates. He could report the names of only three persons at the initial enumeration. Another respondent forgot to mention his wife initially, even though he reported his adult daughter and granddaughter who often stay in the household. This respondent realized his mistake almost immediately after we administered the initial set of enumeration items (and began probing on them), so presumably he would have also realized the error anyway before the CCM PI had proceeded much further. In a few cases, respondents wondered if and when they should mention certain types of persons (people staying in the household temporarily), but almost inevitably they did. Most respondents seemed to grasp that this part of the interview was meant to list all persons who might live or stay at the sampled address, even if only part of the time. Thus, we see no evidence from our interviews to believe that any version of the household enumeration items we tested would not be effective in enumerating residents of the sampled address.

3.1.2 Enumerating Nonresidents

It was quite common for the household enumeration items to yield persons for the roster who were not residents of the sampled address—persons who clearly had a stronger attachment to some other address. Altogether, nonresidents were enumerated in

16 of the 45 interviews. Nine of these cases were administered the Version 2 instrument, while the other seven cases were almost evenly split between Versions 1 and 3. The reason Version 2 stood apart from the other versions on this characteristic was quite clear. Many nonresidents were enumerated at the following item:

Next, are there any (other) people who stay here but also have another place where they stay, for example, someone who lives away from home part of the time to work?

This version is noticeably different from a similar item included in both Versions 1 and 3:

Is there anyone who has another place to live, but who stays here OFTEN?

The Version 2 item, besides including an example, simply asks for persons “who stay here,” whereas the question in Versions 1 and 3 specifies an interest in only those who “stay here often.” Thus, Version 2 enumerated more nonresidents than did Versions 1 and 3. This is despite the fact that respondents were often confused by the Version 2 item in that it made them wonder if only persons described by the example (i.e., those living away from home part of the time because of a job) were being sought.

Given the objectives of the full CCM PI, however, one should not necessarily conclude that Version 2 appeared inferior to the other two versions just because it resulted in more nonresidents being placed on the roster at the start of the interview. The potential advantage of Version 2 is that it may be more likely to identify people living at the sampled address temporarily, or only on an interim basis. We do not know whether this is true, however, and we certainly did not observe this advantage in our small sample of interviews. An important additional dimension to consider is the extent to which nonresidents with no real attachment to the sampled address were enumerated. It turned out that among the 16 cases where nonresidents were enumerated at the start of the interview, virtually all of them (15) had at least some attachment to the sampled address. For example, college students away were sometimes reported by parents to be living in the household, as were children who stay only on weekends, spouses living away because of a job, and so on. There was only one interview where the initial household enumeration yielded persons with no attachment to the sampled address: a respondent misinterpreted the question “*Is there anyone who has another place to live, but who stays here OFTEN?*” and reported two friends who simply visit the address a lot, coming over “to hang out.” In no sense did these friends live at the sampled address, and they clearly had homes elsewhere.

It is also important to note that subsequent CCM PI items almost always performed as intended and correctly identified the nonresidents initially placed on the roster. Fifteen of the 16 nonresidents were identified as such, and were successfully “removed” from the list of interview day residents for the sampled address with subsequent questions. The one nonresident who was not successfully identified and removed by the CCM PI is discussed below in section 3.2.

Recommendation: From our interviews we saw no disadvantage to administering a much shortened set (Version 3) of the initial enumeration items. But we are not confident that the current cognitive interview study provides a solid basis for concluding that the shortened version will yield household rosters as accurate as the two longer versions. The types of persons that the additional questions are designed to detect are rather rare, and we observed very few examples of such persons in our interviews. While the Version 3 set of enumeration items is worth considering for the 2006 site test, we strongly recommend that it be more rigorously evaluated in the field by comparing its results with those from a larger set of enumeration items.

Also, it would be worth considering ways to minimize the reporting of casual visitors and others who truly do not live at the sampled address for the initial roster. The question *“Is there anyone else who has another place to live, but who stays here often?”* could be revised to more clearly suggest that only persons with some living arrangement with the sampled address are of interest. Perhaps the phrasing *“lives or stays”* would be more effective than the word *“stays”* alone, so consider:

Is there anyone else who has another place to live, but who lives or stays here some of the time?

3.2 Accuracy of CCM PI Residency Determinations

We recruited persons from households whose members have high mobility and other characteristics known to pose difficulties for census enumeration. Thus, it could be expected that a fair number of our interviews would result in inaccurate residency classifications, and a major objective of this study was to detect cognitive difficulties associated with the CCM PI that resulted in these inaccurate classifications.

In this section, we look at accuracy and the associated cognitive issues of the CCM PI for determining:

- Current residents of the sampled address (as of interview day)
- Residents of the sampled address as of census day (April 1st)
- Residency of persons living elsewhere on census day (e.g., previous addresses of those who moved to the sampled address since April 1st)

We also discuss issues observed with regard to the reporting of dates for persons recently moving into or out of the sampled address.

3.2.1 Determining Current Residents of the Sampled Address

Across the 45 interviews, the CCM PI instrument failed to correctly determine the current occupants of the sampled address in nine cases. These errors were unrelated to version of the CCM PI instrument administered. Based on our understanding of the Census Bureau’s residency rules, we observed five cases where the CCM PI failed to capture all residents of the sampled household, three cases of counting persons as living in the sampled household when they should be counted elsewhere, and one case that remained unresolved.

The five cases of not capturing all residents of the sampled household were as follows:

- One respondent (discussed previously as a case where known residents were not enumerated) lacked the necessary knowledge to provide the correct list of residents for the CCM PI. While he knew that he had seven housemates, he could provide the names of only three of them.
- The remaining four cases were due to misunderstanding of the key “usual residence” question for a rostered individual, and it appeared to be independent of the version asked. These errors seemed to be related to the ambiguity associated with asking where someone is living, sleeping, or staying *most of the time now*:
 - A respondent reported that her son is currently staying at summer camp (in response to the question “*Where is [NAME] staying most of the time now?*”)
 - In response to the same question, a parent reported her son to be currently staying away at college, even though he was living at home for the summer. She explained she was assuming that the question was asking about the year, and not merely this point in time.
 - Another parent answered that his stepson (also a college student home for the summer) was “living and sleeping most of the time now” at his biological father’s home, when he was actually only visiting the father for two weeks. What may have compounded the difficulty for this respondent was the fact that the stepson also often stayed elsewhere with friends while home for the summer.
 - A respondent reported his parents to be “living and sleeping most of the time now” in Spain. Actually, they are on an extended visit to Spain (more than two months) and do plan to return.

The three cases where persons were counted as living in the sampled household when they should be counted elsewhere stemmed from the following observations:

- One respondent (the one noted above where a nonrespondent was placed on the initial roster and never corrected for by the CCM PI) reported that her son was “living and sleeping most of the time now” with her at the

sampled address. Later she acknowledged that he sleeps most nights somewhere else (a girlfriend’s apartment, the address of which had been captured at another question).

- In two cases, a landlord was reported to be the person who rents the sampled address because respondents misinterpreted the questions on housing tenure (discussed in more detail below). While noteworthy because of the respondents’ confusion about the item’s intent, this error would perhaps not occur in a real CCM PI interview, since CAPI would presumably not allow interviewers to list new persons on the household roster at this point in the interview.

In the one unresolved case with respect to determination of current residency, a respondent could not report a single address at which her daughter “lives and sleeps most of the time now.” She explained that the custody agreement with her former husband is a 50–50 shared custody agreement. We understand that in these situations the Census Bureau would count a child at the address where he or she stays on the particular day—however, there was no item in Versions 1 and 2 of the CCM PI that determines this, either for interview day or for census day.

3.2.2 Determining Residents of the Sampled Address as of Census Day

The CCM PI failed to clearly establish residency at the sampled address for census day in 11 cases. In five of the cases it appeared that persons were counted as living in the sampled household when they should be counted elsewhere, and in two cases household residents were incorrectly counted as living elsewhere. Four cases were unresolved. Again, the errors were entirely unrelated to version of the CCM PI instrument.

Several of the respondents discussed above made the same or very similar errors with respect to persons living or not living in their homes on census day. But errors stemming from a lack of knowledge or inability to recall were noticeably more frequent when trying to report for census day. Three cases in particular are notable:

- One respondent had a sister who moved in briefly during the Spring while she was waiting for her new apartment to become ready to move into. The respondent could not remember the exact date she moved out of the sampled address, and could not report whether it was before or after April 1st.
- Another respondent had moved frequently and changed jobs during the Spring, giving inconsistent answers across questions as to where he was and when. The interviewer later reported that this respondent simply did not seem to devote much thought to generating his answers to the questions.

- In contrast to the two cases above, in another case something occurred during the debriefing that suggests a way to increase the accuracy of reporting. The participant had reported that his mother was in a nursing home on April 1st, and thus the mother was classified as a nonresident for purposes of the CCM PI. But during the debriefing he began closely examining the calendar (the visual aid currently provided on the back of a letter handed to the respondent) and remembered that she had not moved into the nursing home until the middle of April.

Recommendation: One thing clearly observed in these interviews is that the usual residence items could benefit from some way of minimizing the likelihood of respondents reporting that someone is (or was) living elsewhere, when it was actually a temporary or short-term stay away. One possibility would be to add clarification to the questions with something like: “Please do not include any temporary stays away.” However, this could be distracting for many other respondents, for whom the clarification will not even apply. Another possibility would be a parenthetical statement for interviewers to use only when needed—we observed that participants often pointed out the nature of short-term stays away when reporting the usual address for someone, since they were unsure of what was intended by the question. On the other hand, if the “temporary stay away” is in a relevant group quarters such as a nursing home, we understand this attempt at clarifying the question would perhaps increase enumeration error, rather than reduce it. Perhaps the best approach would be to enable and train interviewers to quickly flag these situations as they occur, so that more in-depth follow-up can be accomplished by Census Bureau staff.

3.2.3 Determining Other Addresses Where Persons Should be Counted on Census Day

Because of the various types of households targeted for recruiting in this study, in the vast majority of interviews there was at least one rostered individual or previous household member who would be considered a resident at some place other than the sampled address on census day. The CCM PI attempts to obtain these additional addresses so that census staff can subsequently check to determine if in fact the persons of interest were counted at the proper location. Our interviews suggest that a lack of adequate knowledge on the part of the respondent frequently results in incomplete reporting of this information.

There were approximately 40 persons across the 45 interviews who, in our judgment, should have been counted elsewhere on census day according to the Census Bureau residence rules. While respondents could virtually always report a city and state for the alternative address, a specific street address could be reported only about two-

thirds of the time (zip codes could be reported even less frequently). We observed that the ability to report this information was highly dependent on relationship. Specifically, when respondents themselves were identified as someone to be counted elsewhere on census day, they could always report that address, and quite easily, since it was usually the address they had moved from in the previous two to three months. When respondents were asked to report this information for a close relative, such as a child, parent, or sibling, they could usually report this information as well. Even if they could not report it during the interview, they frequently indicated having the address at home, either written down or on a personal computer, and thus said it would be relatively easy to provide the address in an actual CCM PI interview. This was true regardless of whether the address was said to be a private home or a group quarters facility. However, when the person of interest was an unrelated housemate, respondents generally could not report anything more than a city and state for the other address. These respondents said they would have to ask the other person to provide this information for the interview.

3.2.4 Reporting Dates for Move-ins and Move-outs

Generally speaking, respondents could easily report the date that someone had moved in or moved out of the sampled address, or estimate the date within a three to four day period. This should not be surprising since moving is a major life event, is often stressful and time-consuming, and thus very salient to people. Also, respondents often associate their move with signing a lease, starting a job, and so forth. Sometimes moves occurred in a gradual fashion (e.g., over the course of several days, or even a month). In those situations the date provided in response to the CCM PI item almost always reflected when the person began staying (i.e., sleeping) at the address, rather than the day this person began transferring his or her belongings. But as noted above, a couple of persons did have difficulty reporting dates such that it affected the accuracy of determining residency for the sampled address. Interestingly in one case, using the calendar as a visual aid for assisting in recall helped one of these respondents detect his mistake in reporting whether or not his mother had been in a nursing home on census day. But this occurred during the debriefing, not during the CCM PI itself.

We also observed occasional confusion with respect to reporting dates for when persons came to live at the sampled address (e.g., “*What date did {you/NAME} come here to stay?*”). The prior questions establish the address and type of place that each of these “inmovers” came from, before asking for the date on which they moved to the sampled address. The date question begins again with the first inmover. We observed that respondents sometimes experience difficulty reorienting themselves back to the inmover of interest, especially when there are multiple inmovers from different places. Though it was not a major problem, we think this part of the interview may have flowed more smoothly if the questions seeking address information and date of moves were asked as a series about each inmover, before continuing with the next inmover. There was also occasional confusion as to which address is being referred to when asked “*What date did [NAME] come here to stay?*” At least one respondent thought “here” might mean the inmover’s previous address. These question should perhaps specify the sampled address, to make it clear the question is asking for when the inmover came to the sampled address.

Recommendation: Currently, the CCM PI has the interviewer make explicit reference to the calendar as a potential aid to recall very early in the interview, when asking if rostered persons were also living at the sampled address on April 1st. But there are several other places in the CCM PI that require respondents to consider dates, such as in the group quarters series of questions and even, in some cases, the critical usual residence items (determining where a person was living or sleeping “most of the time” around April 1st). There is much anecdotal evidence from other surveys (e.g., the National Survey of Family Growth) that calendars can be an effective visual aid for helping survey respondents to accurately date events. So consider creating the calendar as an interview aid that the respondent holds onto (or keeps nearby) throughout the interview. This might be facilitated by separating it entirely from the letter that it is currently combined with—the letter will be handed to the respondent when initially greeted by the interviewer, but the interview may be conducted on a return visit and that is when the calendar will need to be readily available. Interviewers should be trained to encourage respondents to examine the calendar in situations where there is any possibility it may be helpful.

Also, ask questions seeking address information and date of moves as a series about each in-mover, before continuing with the next in-mover. Specify the street address of the sampled address when seeking to determine the date of someone’s move.

3.3 Respondent Burden

From the first round of our interviews, it was clear that Version 1 of the CCM PI had a significant advantage over Version 2 in terms of respondent burden. There were a number of aspects about Version 2 that served to make it especially burdensome:

- Version 2 relied almost entirely on questions asked about each individual person entered on the household roster, rather than the roster as a group. For example, one question asked for the address of each individual “whole household in-mover” on April 1st. This meant that a married couple with three children who had recently moved into the sampled address was asked to give their census day address five times.
- As discussed above, the initial household enumeration questions (in particular, the question: “...are there any other people who stay here but also have another place where they stay, for example, someone who lives away from home part of the time to work?”) encouraged respondents to report persons that clearly had strong attachments to other places, while having less attachment to the sampled address. The potential advantage is that this may help to detect persons who were counted in multiple places,

or not counted at all, in the census. But in our interviews this advantage seemed to be heavily outweighed by the disadvantage of adding unnecessary persons to the roster, for whom the respondent then has to answer many questions.

- The demographics of individuals entered on the roster were not obtained in Version 2 until rather late in the questionnaire. This made it impossible to filter questions based on age, resulting in instances of asking the questions about persons on the household roster that clearly do not apply or have very little value. For example, we observed parents being asked if each of their young children was attending college on April 1st.

Of course, there may be something of a trade-off with respect to accuracy and respondent burden. Indeed, when responding to the question “*Was everyone you mentioned also living here on April 1’?*” (in Version 1), a small number of respondents did not think this through carefully before answering and thus failed to mention someone that had actually been staying elsewhere on April 1st. Although it was not obvious from our small sample of interviews, the *potential* advantage of Version 2 is that it encourages the respondent to repeatedly consider each individual person on the roster, for each topic, and that may increase the likelihood of detecting persons counted at the wrong place. But note this advantage can easily be lost if the respondent finds the questioning too tedious and becomes fatigued—which we suspect will be quite common with households of more than two to three persons. While administering Version 2, there were many instances where it seemed (to both the respondent and the interviewer) that we were asking unnecessary questions, simply because it was obvious that the answers for a married couple, or for different children, would be the same. Participants often interrupted questions by answering “the same for _____,” and so forth. It is important to also note that interviewers may be tempted to alter the approach (e.g., by asking “Does anyone....” rather than asking individual-level items) if they perceive it to be redundant and overly burdensome for respondents—in fact, in a few interviews we gave in to that temptation ourselves.

Recommendation: As discussed above in the Methods section, Version 3 of the draft CCM PI was designed to be a “compromise” between Versions 1 and 2. In our judgment, Version 3 was somewhat less tedious and redundant for respondents, while also encouraging them to think at least a bit more carefully about the questions and whether or not they apply to persons on the roster. We cannot provide any real evidence of this from our small sample of interviews. This is an issue that could benefit from further research in a field setting. We recommend continuing with Version 3’s approach in the 2006 site test and evaluating it at that time.

3.4 Other CCM PI Issues: Findings and Recommendations

In addition to asking us to assess whether the CCM PI, without undue burden, can be used to develop a roster of persons residing at the sample address currently and on

census day and determine other addresses where rostered persons might have stayed during March or April, the Census Bureau asked us to assess cognitive problems with individual questions, participants' ability and willingness to answer questions, and participants' interpretations of various key phrases appearing in the questionnaire. In this section, we report findings and, where appropriate, recommendations regarding those issues.

3.4.1 Living or Staying / Living and Sleeping

During the administration of Versions 1 and 2 of the CCM PI in Round 1, most participants did not seem to have trouble answering questions with the phrases “living or staying” and “living and sleeping,” however they were presented. During debriefings, participants who were asked to compare the two phrases had varying reactions. Most reactions seemed to be directly related to the participants' own household situations—if most members were at the sampled address night and day, the phrases seemed similar; if household members were staying or sleeping somewhere other than the sampled address, then participants tended to voice stronger opinions about differences in the phrases or particular words in the phrases, and their opinions varied.

Enumeration errors seemed most likely to occur in situations where household members have belongings in one place and receive their mail there, but stay and sleep somewhere else most of the time.

Given the variety of interpretations for these residency phrases in Versions 1 and 2 of the CCM PI, there was no overwhelming evidence to support use of either “living or staying” or “living and sleeping” in Version 3 of the CCM PI. However, during the interim meeting at the Census Bureau, the group decided to use the Version 2 phrase “living and sleeping” for two important Version 3 residency questions: (1) the question designed to establish census day usual residency for persons with possible census day alternative addresses and (2) the question asking about NAME's current residence. The rationale for choosing “living and sleeping” was that it might help participants to understand that we are asking about the residence where people were physically staying most of the time for the stated reference period. Thus, in Version 3, the question asked of persons with alternative addresses was:

“Around April 1st, where {were you/was name} living and sleeping most of the time?”

Use of the phrase “living and sleeping” seemed to work well. All but one participant answered the question as intended—that is, most participants reported the address where the person was physically present most of the time around April 1st. For example, during a debriefing, one participant said he interpreted the question to be asking, “Where are the bodies?” The sole participant who answered the question inaccurately said he guessed at that question and was not really paying attention to the reference period.

We revised the question asking about current residence as follows:

“Where {are you/is NAME} living and sleeping most of the time now?”

This question wording worked less well for two participants. Problems seemed to occur because the reference period was interpreted very narrowly—for example, the two participants focused on the words “sleeping” and “now” and seemed to overlook the words “most of the time.” Consequently, they reported where household members were physically at the time of the interview: vacationing at a son’s home in Spain and on a two-week visit to a relative’s home. They clearly did not interpret the question to be asking about current “usual residence.”

Earlier in the interview, the participant who reported the household members as being in Spain asked, for two separate questions, if “living” was intended to mean one’s usual residence or where one was physically at the specified time. In both cases, he decided correctly that the questions were asking about usual residence. During his debriefing, he said that adding the word “sleeping” to “living” in the current residence question caused him to focus on “sleeping” because it has more immediacy and is more specific than “living.”

The participant who reported a household member as living and sleeping most of the time now at a relative’s house even though the person was there for only a two-week visit was the same participant who reported during the debriefing that he interpreted “living and sleeping” to mean “Where are the bodies?” Again, “most of the time now” does not seem to be as effective as “Around April 1st . . . most of the time?” in conveying the sense of “usual residence.” Given that the CCM PI interview day is likely to occur during the summer when people are often temporarily away from their usual residence, it is probable that misinterpretations of the question will be more frequent than during seasons when fewer people are temporarily away.

We did not have any Version 3 participants who were in the situation of having most of their belongings at one residence but sleeping at another residence, so we are unable to comment on difficulties they might have with the revised wording for those two residence questions. When Version 2 of the CCM PI was administered, a few participants reported that their answer would be one address for “living” and another address for “sleeping” for household members in that situation.

There are several possible ways to address participants’ problems with the current residence question, but each way tends to have cognitive disadvantages. We present three recommendations, but stress that further testing is highly recommended for any of them.

Recommendation 1: Add an introductory phrase when the question is asked for the first person on the roster and then let it appear in parentheses (to be read at the interviewer’s discretion) for subsequent persons on the roster:

Not counting temporary stays away, where {are you/is NAME} living and sleeping most of the time now?

(Not counting temporary stays away) Where is (NAME) living and sleeping most of the time now?

Disadvantages: In some situations the word *temporary* may be interpreted as covering a lengthy period—for example, a spouse of a military member assigned overseas for nine months may consider that “temporary” and report the military member as living and sleeping most of the time now at the sampled address. Also, the question may be perceived as a double-barreled question for persons “living” in one place but “sleeping” in another.

Recommendation 2: Revise the question so that the word order is similar to that in the question asking about current residence around April 1st for persons with alternative addresses—that is, separate the words “most of the time” from the reference period and have “most of the time” appearing at the end of the sentence. However, this revision does not work well with the word “now” and thus we suggest using “currently.”

Currently, where {are you/is NAME} living and sleeping most of the time?

Disadvantage: “Now” is simpler than “currently” and may be understood better by population members with limited English language skills. Again, the question may be perceived as a double-barreled question for persons “living” in one place but “sleeping” in another.

Recommendation 3: Delete the words “and sleeping”:

Where {are you/is NAME} living most of the time now?

Disadvantage: The standard approach in developing questions is to use consistent wording whenever possible to lessen burden for respondents. For many persons on the CCM PI household roster with alternative census day addresses, the question about current residency immediately follows the usual census day residency question. Asking about “living and sleeping” for the first question but just “living” for the next question might be confusing for respondents.

We think interview training about the intent of the question will be especially important, however this question is worded. We expect respondents reporting about people in this situation will ask the interviewer whether persons should be counted at locations where they are staying only temporarily.

3.4.2 Reference Periods—Around April 1st, During March or April, and During March, April, or May

Several time periods were used as reference periods for questions in Versions 1 and 2 of the CCM PI: around April 1st, during March or April, and during March, April, or May. The participants generally did not voice problems with the time periods when answering the CCM PI questions. Also, a clear majority said their answers would not have changed if one of the other reference periods had been presented, even though most of this majority considered “around April 1st” to be a shorter time period than either “during March or April” or “during March, April, or May.” However, a few participants said that when they were thinking about household members who were moving around during March, April, and May, they focused on only one of the months and indicated that they would have different answers for individual months. Other participants expressed a preference for more specific time periods, particularly those who had been asked about the three-month period, because it is less burdensome.

We felt that asking about a three-month time period (or even a two-month time period) is somewhat burdensome and probably not as productive as a shorter reference period, since living situations can change dramatically over two to three months. We suggested that the Census Bureau consider focusing most or all relevant questions on April 1st and having follow-up questions (e.g., “*Where was XXX staying most of the time around April 1st?*” and “*Was it before, on, or after April 1st?*”) for cases where respondents are unable to answer specifically for April 1st (as a result of further discussion with the Census Bureau at the interim meeting, we modified this recommendation).

Also, we noted that the group quarters question series, in particular, needs to have a question specifically asking about April 1st (under the assumption that the Census count is done for April 1st). Version 2 included such a question, but Version 1 did not, and it was not clear to us why the versions differed in that respect. We recommended that Version 3 include the question specifically asking about April 1st. That recommendation was adopted, and it seemed to work effectively in Round 2.

As a result of the Round 1 findings with Versions 1 and 2, the reference period selected for the residency questions in Version 3 was “during March or April,” rather than “during March, April, or May.” Also, our recommendation to change the residency question (for persons with alternative addresses) about where household members were living and staying most of the time during March and April to where they were living and sleeping most of the time around April 1st was adopted. Our rationale for that change in reference period was to ease burden by focusing more narrowly on April 1st, census day.

Findings from Version 3 in Round 2, however, have prompted us to rethink the recommendation about using “around April 1st” for the living and sleeping most of the time question for persons with alternative addresses. During one interview, a person was identified as an in-mover on April 1st (when she was only visiting), but she was not identified during the residency questions as someone who was away from the sampled address at another address during March or April. (Elsewhere, we suggest changes that

might help to identify this type of household member in the residency questions as having an address other than the sampled address during March or April.)

As a safety net, we now recommend changes to the instructions to the usual census day residency question for persons with alternative addresses and the question itself so that anyone on a household roster with a reported address other than the sampled address (excepting for a college address) will be asked about where they were living and sleeping most of the time during March and April (Recommendation 1). We also recommend adding a follow-up probe asking about “around April 1st” for participants who indicate they cannot choose a single address for the March–April period. If participants still cannot choose for that shorter period, we recommend that they be asked the back and forth questions (see Recommendation 2).

Recommendation 1: We recommend the following changes in the instructions to the question designed to establish census day usual residency for persons with alternative addresses: Instead of filling either sample or in-mover address, we suggest using only sample address (some reported in-mover addresses and dates are incorrectly reported and some are actually “other” addresses—individuals are reported as not living at the sample address on April 1st earlier in the questionnaire, but that is because they are away at college, away for a job, on vacation, and so forth, not because they have moved into a new permanent residence [the sample address] since April 1st). Although this change may result in asking this question of in-movers without alternative March/April addresses, it may prevent problems occurring with misreported in-mover dates or addresses earlier in the questionnaire. The instructions would now read:

IN ADDITION TO THE SAMPLE ADDRESS, DOES THE PERSON HAVE:

NO OTHER ADDRESS?

YES [skip to the question asking about current usual residence]

ONLY A COLLEGE ADDRESS?

YES [skip to the question asking about current usual residence]

ANY OTHER ADDRESS(ES)?

YES [ask the following question]

[DISPLAY ADDRESS FORM] **During March and April, where {were you/was NAME} living and sleeping most of the time?**

[ALLOW CHOICE OF ANY ADDRESSES SHOWN OR NEW ADDRESS]

Recommendation 2: In line with our earlier comments about reference period, we

recommend the following changes to the census day usual residency question and response options for persons with reported addresses other than the sample address:

[DISPLAY ADDRESS FORM] **During March and April, where {were you/was NAME} living and sleeping most of the time?**

[ALLOW CHOICE OF ANY ADDRESSES SHOWN OR NEW ADDRESS]

DID R CHOOSE AN ADDRESS ON THE FORM?

YES [record address and skip to question asking about current usual residence]

DID R REPORT A NEW ADDRESS?

YES [record address and skip to question asking about current usual residence]

DID R SAY {HE/SHE/NAME} SPENT EQUAL TIME AT TWO ADDRESSES?

YES [ask next question: How often did {you/NAME} go back and forth between

these addresses—each day, each week, each month, once a year, or a few times a year?]

COULD/WOULD R NOT CHOOSE AN ADDRESS?

YES [ASK: **Around April 1st, where {were you/was NAME} living and sleeping most of the time?**]

DID R CHOOSE AN ADDRESS?

YES [record address and skip to question asking about current usual residence]

NO [ask next question: How often did {you/NAME} go back and forth between these addresses—each day, each week, each month, once a year, or a few times a year?]

3.4.3 Group Quarters Questions

Three versions of the group quarters items were tested in the interviews. During Round 1, we tested and compared two versions of the group quarters question series. The first group quarters question in Version 1 was:

On April 1st, the Census Bureau does a special count at some places where groups of people stay. {Were you/Was NAME} staying at any of these types of places on or around April 1st?

[READ LIST AND SHOW CARD C]

CARD C (USED WITH EACH VERSION):

NURSING HOME

ASSISTED LIVING FACILITY

MILITARY BARRACKS OR SHIP

CORRECTIONAL FACILITY, SUCH AS A JAIL OR JUVENILE CENTER

HOME FOR PHYSICALLY OR MENTALLY DISTURBED PERSONS

OTHER TYPE OF FACILITY WHERE GROUPS OF PEOPLE STAY

In Version 2, the first question was:

The census does special counts of people in places that house groups of people, such as (nursing homes, military barracks), jails and prisons, and homeless shelters. Even if {you weren't/NAME wasn't} living there, did {you/he/she} spend even one night in any of these types of places around April 1st? This card lists the kinds of places I'm interested in.

On the basis of participant responses to debriefing probes during Round 1, we agreed at the interim meeting that the Version 2 question series should be used in Version 3, with some modifications (see discussion below). In Version 3, the first group quarters question was:

The Census Bureau does a special count of people in places that house groups of people, such as nursing homes, military barracks, jails and prisons, and homeless shelters. Even if {you weren't/NAME wasn't} living there, did {you/he/she} spend even one night in any of these types of places around April 1st? This card lists the kinds of places I'm interested in.

All versions seemed to work well, probably because of the use of a show card listing examples. Several participants commented that until they saw the show card, they were not sure of, or were mistaken about, the types of group quarters the Census Bureau had in mind. Several participants who answered yes to the initial question in the series selected the response category "other type of facility" and reported facilities such as a recovery facility, a rehabilitation center, a homeless shelter, a college dorm, and a residential after-care facility. Two participants asked if hospitals were supposed to be

included as a group quarters residence. A few participants answered the question incorrectly. One said yes and reported that his wife had stayed in a hotel around April 1st. Another said yes and reported that the person was in a nursing home. During the debriefing, however, it became clear that the person was actually in an assisted living facility.

The question was somewhat problematic for participants whose households included members of the military. Several of these participants tended to interpret “military barracks” very broadly. For example, one participant said that yes the household members were staying in a group quarters and chose military barracks as the type of facility. However, her comments during the interview and the debriefing made it clear that her household was not living in a barracks, but in a house owned by the military that was located in a fenced-in military installation. Another participant reported that her friend had stayed in a military barracks when she went to California for three days (April 1st– 3rd) for Reserve training. However, when the participant was asked if her friend spent more time at the barracks or some other residence, she said some other residence and described it as an apartment, but could not say anything more about it. Another participant said his sister had lived in a group quarters facility around April 1st and selected military barracks. However, his sister was actually living in an apartment issued to her by the military, and it did not sound as if the apartment was located on a military base. One participant reported that her husband, who had been deployed to Kuwait last spring, did not live in a military barracks. Rather, he lived in a tent on a military installation. That participant suggested adding military encampment or military installation to the response categories.

During the Round 1 debriefings we asked many of the participants to compare the Version 1 phrase “places where groups of people stay” with the Version 2 phrase “places that house groups of people.” Most of them said that the Version 2 phrase seemed to fit the group quarters examples on the show card better; they said the Version 2 phrase seemed to suggest institutional types of facilities. A couple of participants, however, said that the phrase “places that house groups of people” has a negative connotation; one said it sounds like “warehousing.” Many of those favoring Version 2 interpreted the Version 1 phrase “places where groups of people stay” more broadly than intended. For example, they said it might include hotels, cruise ships, and youth hostels or other temporary places where people choose to stay. All of the participants who were asked if they would have answered the two questions differently said “no.”

Only a few participants commented on the differences in phrasing regarding reference period—*Were you/Was NAME} staying at any of these types of places **on or around April 1st**?* and *“Even if {you weren’t/NAME wasn’t} living there, did {you/he/she} **spend even one night in any of these types of places around April 1st**?”*—and their comments differed. One participant preferred the phrase “Where were you staying on or around April 1st” because it motivated her to think about dates before and after April 1st. Another participant commented that answers could be different for “April 1st” and “around April 1st.” One participant said he was distracted by the phrase “for even one night”; he said he was trying to think about someone in jail for just one night. It became clear that most participants were unaware of the census rule for counting people living in group quarters on April 1st.

As noted above, on the basis of participants’ interpretations of the initial group quarters question in Version 1 and Version 2 (particularly the broad interpretations of the Version 1 question), we recommended using the Version 2 question series in Version 3. We strongly recommended also, though, that the series question in Version 1 asking specifically about April 1st be added to Version 3 in order to determine with certainty if the person was staying in a group quarters on April 1st. That suggestion was adopted.

Recommendation: Use the group quarters questions in Version 3 in the 2006 field test.

3.4.4 “Back and Forth” Questions

A series of questions were asked in Version 1 and Version 3 of the CCM PI about all persons on the roster for whom the participant could not select the census day usual residence for someone. These questions were designed to determine the extent to which a person “goes back and forth” among multiple addresses—for example: “*How often did you go back and forth between these places—each week, each month, once a year, or a few times a year?*” and “*During a typical week in March and April of this year, did you spend more nights at [ADDRESS] or the other place?*” These questions, fully or in part, were also asked during the debriefing whenever it seemed appropriate.

These questions were asked only in five of the CCM PI administrations. In this small sample of interviews, the series appeared to successfully achieve its intended purpose. Participants in those five interviews were able to answer the questions, and the census day usual residence was identified. The initial question in the series asks: “*How often ... {(do/did you) / (does/did NAME)} go back and forth between these places—each week, each month, once a year, or a few times a year?*” One participant initially responded “each day” before the interviewer had completed the question. That response option was added in Version 3. A Version 3 participant commented that the words “going back and forth between these places” to mean “going to and fro” but not necessarily staying the night someplace.

The questions were also helpful but not always sufficient in identifying census day usual residences during debriefings in 11 other interviews. During some of those interviews, the interviewers had to ask more open-ended questions such as “Please describe this person’s movements during March and April,” with follow-up questions to pinpoint the census day usual residence. In one instance, even the follow-up questions failed to identify with certainty whether the person would be counted at a military barracks on April 1st or would be counted at her usual residence, an apartment in Virginia. That was because the participant did not know enough about the address where the military member stayed for the first three days of April while attending Reserve training. The participant thought it was an apartment but could not say anything more about it.

For another participant, the question series did not work as intended because the participant said her daughter's custody agreement specified that she spend exactly 50 percent of her time at her mother's home and her father's home. Only by asking additional questions during the debriefing was the interviewer able to establish the daughter's census day usual residence for 2004. For a third participant, the back and forth questions helped, we thought, to clarify movements during March and April; however, the participant changed his story later during the debriefing—he did not seem to be focusing carefully on dates when answering questions. This situation does not reflect problems with the CCM PI so much as lack of effort by the participant to report accurately. The person corrected his answer when he looked at the calendar.

To address the issue of spending equal time at two or more addresses and the need for more information about a particular person's situation, Census staff asked us to make the following changes to Version 3 of the CCM PI: We added (1) a follow-up question asking where the person was on April 1st if he or she spent equal time at alternative addresses and (2) an open-ended question asking the participant to describe the person's situation if the participant responded "depends," "varies," "none of these," or "don't know" to the question about how often the person goes back and forth between addresses. None of the Version 3 interviews, however, included those situations, and we were unable to test their effectiveness.

One of the Version 3 participants said that it was difficult to answer a question about how often someone went back and forth because there was no specific reference period and the situation of the person she was reporting about had changed over time. The change, however, consisted of coming to the sampled address every weekend rather than one weekend a month and thus did not influence determination of census day usual residence.

In summary, the back and forth questions do appear useful, and sometimes essential, in identifying or clarifying census day usual residence for people going back and forth between addresses during March and April.

3.4.5 Child in Shared Custody Arrangement / Lived Part of Time at Another Place

The residency sections in Versions 1 and 3 of the CCM PI include a set of questions to determine if any children on the household roster were in a shared custody arrangement or lived or stayed someplace else during March or April and, if so, where and with whom they stayed. Several participants voiced concern or had difficulties with this question series. The initial question was worded slightly differently in Version 1 and Version 3, but the cognitive problems that were encountered with this question were similar for both. For example, in Version 3 the question reads:

During March or April of this year, was {NAME/NAME or NAMES/NAMES or NAME} in a shared custody arrangement or did {he/she/they} live part of the time at another place?

One participant treated that question as a double-barreled question and said yes for shared custody arrangement but no for lived at another place: “Half yes, half no.” He said the children only “stay” at the other place, not **live** there (they visit their father only one to three weekends a month), and emphasized the strong affective component of the question.

Another participant described this residency question as “confusing” because it clearly did not apply to her custody situation. She explained that she has full custody of her nephew and he lives with her at the sample address, but she allows him to stay overnight occasionally with his father.

A third participant answered the question wrong. Although the child stays away at his Dad’s every other weekend, she said no here. Findings from the debriefing indicated that the phrase “including any shared custody arrangements” was distracting. The participant reported that there is no formal custody arrangement regarding the children.

Recommendation: We suggest dropping the words “shared custody arrangement” and change “live” to “live or stay.” Those distracted by “shared custody arrangement” or upset by the word “live” will no longer be confused or concerned. And if a child is in a shared custody arrangement that requires the child to stay elsewhere at certain times, the participant should answer yes to the revised question:

During March or April of this year, did {NAME, NAME OR NAME, NAMES OR NAME} live or stay part of the time at another place?

3.4.6 Job-Away Questions

The residency question asking if someone was away during March or April because of a job posed several problems. The age filter for this question is 17 years or older. One person on a household roster was an 11-year-old child actor who was filtered out of this question. This child *was* identified with having another March/April address at the residency question asking about someplace else children stay. Still, it may be appropriate to reconsider the age range for the filter.

The question has more fundamental problems, however. It reads:

During March or April of this year, did {you/you or NAME/you or NAMES} have a job that involved living or staying someplace else?

The intent of the question, as we understand it, is that someplace else means someplace other than the person’s usual address during March and April. For most people, the usual address is probably either the sample address or the April 1st in-mover

address. One participant, however, said: “This [the SA] is the someplace else. This participant interpreted the question to mean someplace other than the address he considers his primary residence, which is in another state, so he “incorrectly” answered yes. (He has been living and working in this area for more than a year but considers it a second home, with his principal residence in another state). When an incorrect yes answer is given because the participant’s referent address for the question is not the intended address, the next question is problematic. It asks if the person stayed at one place or more than place while working away from the {inmover address/sample address}. The question is programmed for either the sample address or the inmover address to be the referent address. The participant mentioned above did not understand the question at all. The two questions clearly did not work as intended for this participant, and we assume other persons who are sampled at their job away address may have similar difficulties with the question.

Another participant also had problems with this question. He has been living and working in Spain for some time but is currently house-sitting for his parents in Maryland. His plans for the immediate future are uncertain. When the job away question was read, he asked for an interpretation of “someplace else”: “Someplace else, meaning someplace other than [the sample address] or including the address in Spain?” He decided “incorrectly” that it meant the sample address and said yes. Again, the participant was confused by the follow-up question. Clearly, when participants misinterpret the job away question and incorrectly say yes, the follow-up question is problematic.

Recommendation: We think the initial job away question needs to be revised to make the referent address clear. Our recommendation for doing that requires that the question be asked separately for each set of people at the sample address and each set of people at each unique inmover address that has been reported:

During March or April of this year, {were (you/you or NAME/you or NAMES)/was (NAME)/were NAMES} living or staying away from <sample address> because of a job?

During March or April of this year, {were (you/you or NAME/you or NAMES)/was (NAME)/were NAMES} living or staying away from <inmover address 1> because of a job?

During March or April of this year, {were (you/you or NAME/you or NAMES)/was (NAME)/were NAMES} living or staying away from <inmover address 2> because of a job?

In other words, we recommend asking the job away series questions person by person at each address. First ask the initial question with the sample address as the filler; then ask the job-away question series person by person for those with a yes.

(continues)

Next, ask the initial question with the (first) inmover address as the filler, and ask appropriate follow-up questions person by person for anyone with a yes at that address, and so forth. This sounds very cumbersome, but it is unlikely that there will be many yeses.

3.4.7 Military Questions

We recommended adding a question about military service in Version 3 of the CCM PI immediately before the job-away question series. We suggested asking the question for all household members who are 17 to 65 years of age. We thought this question would help (a) to cue respondents to think about military service for everyone 17 to 65 years on the household roster and (b) to identify military members who also have other jobs when not activated for military service or called away for Reserve/Guard training and who might stay at more than one address because of those other jobs. The recommendation was accepted and the following question was added to Version 3:

During March or April of this year, {were you/were you or NAME/ were you or NAMES} away from {sample address/inmover address x} because of military service?

One Version 3 participant in Round 2 did report that her husband was away because of military service. When she was subsequently asked the initial job-away question, she said her husband's military service is his job. She added that she thought all service members' families would agree with that statement. We were aware that this might happen, but the participant appeared to be a little upset that military service seemingly was not considered a person's job.

Recommendation: To avoid such feelings and to reduce possible redundancy, we recommend exploring if it is possible to do the following: If someone is identified as being away for military service, add a follow-up question asking if the person is a Guard or Reserve member. If the answer is no (indicating that the person is career military or an enlistee), the person's name could be filtered out for the job-away question. We are not sure if the instrument can be programmed in that way.

We also recommend that the same "person by person BY address" instructions suggested for the job-away questions be used with this question series.

3.4.8 Seasonal / Second Home

The residency sections in Versions 1 and 3 include a question asking if the participant or anyone mentioned by the participant has a seasonal or second home. There were no noticeable problems with asking this question in a global way, in either version. There was a context effect, however, in one Version 3 interview that is somewhat related to the global wording of the question. The participant had answered yes to a previous question asking whether his stepchildren stay part of the time at another address. He was then asked the names of the persons they stay with at the address. The participant said no to the next two residency questions, so it was only a moment or so before the seasonal/second home question was asked:

{Do you/Do you or does anyone you mentioned} have a seasonal or second home?

The participant hesitated before answering no. During the debriefing, he said he wasn't sure if "anyone you mentioned" applied to the persons he said the children stayed with at the other address. Those persons do have a second home, he said. He decided the question probably did not apply to them.

Recommendation: It is difficult to assess how serious a problem this might be. It might be resolved by moving the question to another location in the residency section or by replacing "anyone you mentioned" with "anyone you mentioned as living or staying in this household."

The Census Bureau asked us to probe participants on their interpretations of seasonal/second homes. Most participants interpreted "seasonal" home to mean a vacation home at the beach, in the mountains, and so forth. One said it applies to his parents-in-law, who are snowbirds. "Second home" was interpreted in various ways by participants:

- When the question was read, two participants wondered if it applied to rental property they owned but did not live in. Both decided it did not.
- A few participants said yes and reported (1) a farm that the participant visits once or twice a month, (2) a husband's primary address in Africa, (3) the job away address for one participant (it was the SA), (4) the addresses for a participant's stepfather and father (this participant is a college student who has all her belongings with her wherever she is, including at college), (5) a parent's address, and (6) a relative's address.
- During the debriefing, some participants interpreted second home to mean a job away residence, a girlfriend's or boyfriend's house, a parent's house, anyplace you can "live if you please or if worse comes to worse," and places where people might be missed—such as military residences and where people stay while on sabbatical or on extended business trips.

3.4.9 “Other Place Stayed Often”

As we understand it, the residency question asking if there was any other place that a household roster member stayed often during March or April (see below) was serving in part as a “catchall” question. However, we think it poses cognitive problems. For example, one participant said it is ambiguous: He asked if it meant (1) stayed often during March or April or (2) during March or April stayed somewhere that they often stay during a longer time period. Also, the question did not succeed in Round 2 in identifying one person who was living away in March and April from the sample address (the mother who stayed with the child actor while he was working in New York). Other participants seemed to focus on the examples provided in the question: “...stayed often, like with friends or relatives.”

Recommendations: Revise this question to focus on staying with friends and relatives and add a new catchall question.

Did {you/you or NAME/you or NAMES} live or stay often with friends or relatives during March or April?

New Catchall Question: **Other than the place(s) you have already mentioned, was there any other place {you/you or NAME/you or NAMES} lived or stayed often during March or April?**

3.4.10 Detailed Address Questions

The CCM PI collects detailed address information about certain addresses other than the sampled address that are reported during the interview. The information includes names and ages of other persons living at the address, whether the rostered household member was related to them, whether the residence is owned or rented, neighbors’ names, and, in Versions 1 and 2, nearby cross-streets or other landmarks. The Census Bureau uses the information to clarify and investigate a nonmatch in census records. In Versions 1 and 2 of the CCM PI, participants were asked for detailed address information only for census usual residence addresses that were not the sample address and not a group quarters address. Those questions were not applicable in 14 interviews. Among the participants who were asked the detailed address questions, most could report nearly all the information when the address was their in-mover address and when the address was a relative’s residence but not when the address was reported for other household members. Sometimes participants did not know exact ages of people living at the address but they could make a good guess. One participant did not know the street address of the apartment her daughter lived in while attending college, nor did she know neighbors’ names. One person was reluctant to provide names, but did report initials. Two addresses were in foreign countries, and participants could not provide all of the information for those addresses.

In Version 3 the instructions about which addresses to ask about in the Detailed Address section of the questionnaire were changed. Instead of asking only about census day usual addresses other than the sample address and group quarters, participants were asked the detailed address questions about any unique inmover address and any address other than the sample address and group quarters addresses that had been reported during the interview. Despite the change in instructions, the question wording remained the same:

Earlier you told me that {you/NAME} lived at (ADDRESS). ...Was there anyone who lived with {you/NAMES OF ALL HH MEMBERS AT THAT ADDRESS) at {INMOVER/ALTERNATIVE ADDRESS} on April 1st of this year?

Note that the question assumes the person(s) “lived” at the address, and that they were living there on April 1st—the latter is true only of accurately reported unique inmover addresses and some other addresses determined during the interview to be census usual residence addresses.

Note also that the paper-and-pencil instrument was not adjusted to allow for responses about more than one address for a person. That modification can be handled easily in CAPI.

For four Version 3 cases in Round 2, the questions were not applicable (addresses were for group quarters). For five cases, the questions were asked about census day usual residence addresses. For another five cases, the addresses were not census day usual residence addresses. The final case included other addresses that were not reported about accurately, but the detailed address questions were asked about one during the interview and another during the debriefing. Additional observations include:

- Despite the inaccurate assumptions in the question, only one participant objected to the question wording. He said his stepchildren did not “live” at the other address, they only stayed there. He said there are strong affective aspects to saying they lived there and the question should be qualified. No one objected to the April 1st date, even when the participant or NAME was not living at the address on April 1st (in one instance, the interviewer did not read the date).
- As noted, when participants were reporting about relatives at other addresses and about their own inmover address, they could usually answer most of the detailed address information questions. However, when participants reported about nonrelatives at addresses the participant had not lived at (such as current housemate’s former housemates), there were more don’t knows about names, ages, relationship, tenure, and neighbors’ names. There was at least one exception, however, in each of these two groups about ability to report this information. Most of those who said they did not know something said they could find the information at home or could get it from other household members.
- Two participants objected strongly to being asked about the names of neighbors. One said he did not like the idea that someone from the Census Bureau might approach the neighbors and say that he had given the Census Bureau their names—he said they might wonder what else he had told the Census Bureau about

them. The other said he thought the question was intrusive and he was not sure he would have provided the information in a real CCM PI interview—he said although he knows census information is confidential, he thought others might interpret it to mean that the Census Bureau wants to pass information on taxes to other government agencies.

Recommendation: If the Version 3 instructions for the initial detailed address question are adopted for the 2006 field test, the question should be modified so that it does not assume that R or NAME was living there on April 1st. If the instructions used in Versions 1 and 2 are adopted for the field test, the current wording should be fine.

3.4.11 Other Name / Nicknames

The following question appeared in Versions 1 and 2 of the CCM PI:

“Do {you/any of these people} ever go by another name or a nickname?”

The types of names reported most often were nicknames that were usually shortened versions of first names. One participant said she sometimes goes by her middle name, another reported using a Muslim name but not for signing official documents, and one participant said she goes by no other name but remembered during the debriefing that she sometimes uses both her maiden and married names on bank accounts and tax forms. During the debriefing, a few participants said when they heard the question they focused on nicknames, but two participants said they decided the question was *not* asking about nicknames. One household included a large number of children, and the reports of family nicknames were time-consuming.

The Census Bureau is interested in capturing nicknames that household members are known by as well as possible use of other names, such as maiden names. Thus, the question was revised in Version 3 as follows:

“Do you ever go by a name other than (FULL ROSTER NAME), like a nickname (or maiden name)?”

[FOR ALL PERSONS 2+, ASK]: “How about (FULL ROSTER NAME)?”

Despite the addition of the phrase “like a nickname,” three participants did not report nicknames that household members go by because they thought the question was asking only about nicknames that are used on official documents. One participant reported she is also known by her maiden name. Another participant said his wife goes by her middle name.

Recommendation: To capture more reports of other names, we suggest shifting the emphasis from “goes by” (which seems to have a connotation of “officially goes by”) to “is known by”:

Do others know (FULL ROSTER NAME) by any other name, like a nickname or middle name (or maiden name)?

3.4.12 “Affiliated With a College or University”

The Census Bureau asked us to probe participants about the meaning of “affiliated with a college or university” during the debriefing for households containing college students and for other households if there was time to do so. In all, we asked about 20 participants for their interpretation of this phrase (including 7 participants who did not report that persons on the roster were in college). One participant said she was not familiar with the word *affiliated* and could not answer. Another said she did not understand the probe. Not all participants were asked the same probes, so the following counts are just the number of participants who mentioned something about the topic:

- Eight participants interpreted the phrase to mean the college or university owned the housing.
- Seven participants said the college or university did not necessarily own the housing. One of these said fraternities are affiliated with colleges or universities because, hypothetically, the university could shut them down.
- Four participants said you could be paying rent for the housing to someone other than the university.

- Several participants described the phrase as meaning “college approved”—for example, the college may have inspected the housing and put it on a list of housing available to students, or the college may have had a special contract to supply students to the housing unit.
- Only a few participants thought “affiliated” housing had to be on campus.

Clearly, not all participants interpret the phrase in the same way. We understand that the Census Bureau is currently redefining college housing. It may be appropriate to wait for more progress on that effort before settling on a term to use in the field test. We cannot think of any useful recommendations at this time.

3.4.13 Don’t Knows

Many participants were not able to answer all the questions they were asked because they could not recall the information or had never needed to use it:

Addresses. Reporting full addresses for facilities as well as reported addresses that were neither the sample address nor an April 1st inmover address for participants was the most frequent reporting problem in terms of recall. Participants often knew parts of addresses, but not street numbers or zip codes. They knew cross-streets or landmarks for places they had visited but usually not for other addresses. Several participants said they knew how to get someplace, but could not provide a complete address.

Ages and dates of birth. Participants also had problems reporting exact dates of birth and exact ages for nonrelatives, particularly for persons living with rostered persons at inmover addresses and other addresses. However, most participants were able to offer a guess at those ages.

Names. Reporting names of neighbors at inmover and other addresses was also a problem when participants had never been to that address or had only visited it. Middle names posed some problems as well for a handful of participants.

Hispanic origin. Two participants said they did not know Hispanic origin of household members.

Dates. Providing exact move-in dates was a problem for some participants, but not at all for others. Participants were able to recall many of those dates because they associated them with other “landmark” events, such as birthdays, anniversaries, and new jobs.

During several interviews, participants found it helpful to use the calendar to report or verify dates. We recommend that the sentence in the questionnaire about using the calendar be expanded: *Here is a calendar to help you. Please feel free to use it whenever we ask you about any dates.* As discussed earlier, interviewers could be trained to remind respondents to use it.

Although many participants reported they did not know some information, nearly all of them said they could find the information at home or could ask other household members for it.

3.4.14 Refusals to Answer

It is unusual for participants to refuse to answer questions during cognitive interviews, but several did so in this series of interviews or said they would in certain situations. One person said he did not know the names of neighbors at his wife's other address (detailed address information questions) but would refuse to provide the names anyway—he did not want the Census Bureau to go around saying he had given their names; they might wonder what else he had told the Census Bureau about them. Another person did provide names of neighbors but said he would be likely to refuse to do that in a real CCM PI interview—he considered it intrusive. Another person refused to provide the name and address for the VA rehab facility her brother is in. She said it was “personal” and would not disclose that information without her brother's permission. One participant refused to name the person her daughter stayed with for a couple of weekends. Another participant (who seemed somewhat inebriated) refused to provide his job away address, the address for another place he stayed often, and the names of people he stayed with (he did provide initials for them). Also, a participant was reluctant to provide the names of the persons she lived with at her previous address without first asking their permission to do so. She said that she had asked her current housemates for permission to report their names during the interview.

3.4.15 Foreign Addresses

During Rounds 1 and 2, a total of six foreign addresses were reported (two were for military members). (Also, an address in Guam was reported.) One participant, who reported two addresses in Spain for various household members, did not understand the usefulness of collecting information about foreign addresses, cross-streets, and names of neighbors.

Recommendation: If the Census Bureau does not intend to use collected address information for foreign addresses, we recommend lessening the burden by skipping the cross-streets question and detailed address questions for foreign addresses.

3.4.16 Whole Household Inmovers

In both Rounds, we had whole household inmover situations (all persons on the roster had moved into the sample address after April 1st). In four cases, however, the participants reported that the apartments / houses were vacant on April 1st. And in the fifth case, the participant said she did not know if the house was vacant on April 1st. Thus, we did not get to ask questions about April 1st residents of the sample addresses. One Version 3 participant said the house was vacant and under renovation on April 1st (that reason was not listed as a response option), another said she took possession of the apartment on April 1st but did not move in until April 10th, and another participant was pretty sure the house had been vacant for three years. The fourth participant (Version 1) was not probed about how he knew the apartment was vacant. The fifth participant said she did not know when the previous occupants moved out; she signed a lease on May 27th.

3.4.17 Ethnicity and Race Items

There were a number of cases in which a respondent reported another household member as being of Hispanic or Latino origin and expected to be able to answer the race question with something like “Hispanic.” In those instances we used the probe that the Census Bureau provided (“*Is he/she Hispanic White, Hispanic Black, Hispanic American Indian or Alaska Native, Hispanic Asian, or Hispanic Native Hawaiian or Other Pacific Islander?*”). Although not successful in every single instance, respondents did generally place the person into a race category upon receiving this probe. One respondent insisted that her husband (from El Salvador) did not belong in, or identify with, any of the race categories.

We caution that the present study was not designed to study these issues in depth. While the probe may often succeed in placing persons into a race category, we strongly suggest studying the effect of the probe in a more realistic setting, and the 2006 field test of the CCM PI would be a good place to begin. The probe will be viewed as sensitive, and perhaps even insulting, to some persons. This was not observed in our cognitive interviews, but cognitive interviews are not a good context for judging the sensitivity of a question, since the interviews are done with paid volunteers and participants understand that one is only testing questions—it is rare for people to even refuse to answer a question asked in a cognitive interview.

3.4.18 Questions on Tenure

The single most frequent problem observed across the first 30 interviews was confusion at the following questions:

- a. *Is (sample address) owned by (you or) someone in this household?*
- b. *IF NO: Is it rented or is it occupied without payment of rent?*

- c. *What is the name of the person who (owns/rents) this (house/apartment/mobile home)?*

Items (a) and (b) were frequently misunderstood and had to be repeated by the interviewer. Respondents commonly failed to realize that item (a) is a simple yes/no question. For example, participants who rent their homes often did not initially realize they should just answer no. Once they understood that it was a simple yes/no question, it led them to believe that item (b) was one as well (which it is not). Some respondents thought item (b) was simply asking if the place is rented. Others thought it was asking if their places are occupied without payment of rent. Finally, item (c) was misinterpreted by a few people to be asking them to name the person that they rent *from*—as a result, the landlord was placed on the roster as if he/she were a household member, and the CCM PI contained no subsequent questions to identify this person as a nonresident. Although this error could generally be avoided through interviewer training and CAPI programming, the interview would no doubt flow more smoothly if those wording issues were rectified.

We initially recommended handling the series with a single question and a showcard, such as:

- a. *Which of the following best applies to (sampled address)?*

[SHOW CARD]

1. *This home is owned by me*
2. *This home is owned only by someone else living here*
3. *This home is rented only by me*
4. *This home is rented only by someone else living here*
5. *This home is occupied only by persons not paying rent*

- b. *IF NECESSARY: Who owns/rents this home?*

At the interim meeting with Census Bureau staff, a number of other possible solutions were considered as well. For example, one idea was to change item (c) to a wording known to be used in other instruments:

“Who (owns/rents) this home, that is, what name or names are on the (deed/lease)?”

However, we felt there were clear weaknesses with this alternative—namely, that not everyone who rents is on a formal lease, and some home-owners (co-op unit owners) are not on a deed. Ultimately, a different revision was agreed upon and inserted into Version 3 for testing:

- a. *Is [SA] owned by {you/you or someone in this household?}*
[IF NO ASK ITEM b., ELSE SKIP TO ITEM c.]
- b. *Is it rented?*
- c. *In whose name is this {house/apartment} {owned/rented}?*

In general, the revised versions of these items worked fine, although respondents often answered the initial question (“*Is SA owned by someone in this household?*”) and immediately gave the name of the person who owns or rents it, making any follow-up question unnecessary. One respondent did report someone outside the home as being the owner, but the interviewer clarified that the question is asking only if someone in the household owns it. Overall, we believe the new versions of these items that were developed at the interim meeting to be a vast improvement over the versions asked in Round 1, and that they should remain as they are now.

4. Conclusions

In this chapter we discuss the major conclusions we think can be drawn from this study. Of course, the usual cautions for interpreting cognitive interview results apply here. The participants were recruited because they lived in households of high mobility. They were volunteers paid an incentive to share their reactions to the draft CCM PI interviews. Thus, our group of participants may have taken a greater interest in listening to the questions and generating accurate answers than would actual respondents in sampled households. Furthermore, we had few (if any) persons discussed in our interviews who lacked a strong attachment to any place—it is known that such persons have a high likelihood of being incorrectly enumerated (or not enumerated at all). Although this research setting is artificial, the interview findings described in this report provide useful insights into potential respondent concerns, sources of confusion, and questions for further study.

4.1 Performance of the CCM PI.

Overall, the CCM PI appeared to perform quite well with respect to determining residency within the sampled addresses (i.e., the addresses at which our recruited respondents lived). The biggest obstacle seemed to be the ambiguity associated with asking where a person is living and sleeping “*most of the time now.*” Although we understand why the Census Bureau does not attach an explicit reference period to this question, the lack of one (other than “now”) makes it a potentially misleading and confusing question when asked about persons who happen to be away on temporary visits elsewhere on interview day. A straightforward solution to this problem is not readily clear, since the point at which “staying elsewhere” becomes “living elsewhere” is not easily defined. We expect that many respondents will briefly describe the situation and seek guidance from the interviewer as to where to place such persons. Thus, training interviewers to be aware of this problem and how to deal with it should be effective in addressing the problem in many cases.

4.2 Accuracy and Burden Trade-off.

At least two issues explored in this study deserve further investigation. Both are related to the potential trade-off between burden and accuracy. The first issue concerns the number of items necessary to ensure adequate enumeration of the household at the start of the interview. The simplified version of the initial enumeration items we used in Version 3 posed very little burden, and appeared to work as well as (or better than) those used in Versions 1 and 2. But we remain somewhat concerned about its effectiveness in a field setting in detecting rare populations that often do not get enumerated—namely, persons with very little attachment to any particular household. For this reason, we strongly recommend that the initial enumeration items in Version 3 be compared more rigorously with a more detailed version before it is widely adopted.

The second issue deserving more study concerns the topic-based versus person-based approach of the residency items. Our suggestion (tested in Version 3) of adopting

a topic-based approach while still specifying the names of all relevant persons appeared to work fine and holds a lot of promise. But we recommend additional evaluation, preferably in a field study where the Version 3 items can be compared with those in one (or both) of the other versions tested in this study.

4.3 Recall Issues.

The difficulty that respondents in high-mobility households occasionally experience in recalling information necessary for determining census day residency was also apparent in our interviews. Our recommendation that more extensive use of a calendar as a visual aid for dating events should be helpful in this regard. Observations from other studies suggest that calendars assist respondents by first triggering memories of personally salient events in their lives (e.g., first day of a new job, a family member's wedding). These events then serve as "landmarks" that help to place other events. Given the importance placed on respondents' recall of moves and stays occurring around census day, it would be worthwhile (and relatively easy) to train interviewers to encourage greater use of the calendar while administering the CCM PI.

Appendix
Recruitment Ad

Recruitment Ad

- **GAZETTE (Montgomery, Prince Georges, and Frederick Counties)**
- **Washington City Paper**

Week of July 12, 2004

Earn \$40 for Participating in a Research Study

Westat, a social science research company, is helping the U.S. Census Bureau with a research project. We are conducting interviews with people who meet any of the following criteria:

- You (or someone else) has recently moved into or out of your household.
- A child sometimes lives with you and sometimes lives with someone else, such as another parent or grandparent.
- You (or someone else you consider to be part of your household) has recently lived or currently lives in an institution such as a nursing home, halfway house, correctional facility, or a drug rehab facility.
- You (or someone else you consider to be part of your household) is in the military and is stationed or deployed elsewhere, or recently returned from being stationed or deployed elsewhere.
- You have children living away at college now or this past spring.
- You (or someone you live with) lives in more than one place or stays away from home often due to a job, relationship, caregiving, etc.
- You have more than one home (such as a vacation home).

The interviews will take place at Westat's offices in Rockville, Maryland and a downtown DC location, and \$40 cash incentive will be paid. Day and evening times will be available. Call **(301) 251-2284** and leave a message.