STUDY SERIES (Survey Methodology #2007-5)

Final Report on an Observational Study of Census Non-Response Follow-up Interviews During the 2006 Census Test in Travis County, Texas Spring and Summer 2006

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Submitted to Eleanor Gerber Statistical Research Division U.S. Census Bureau Washington, DC 20233

Report Issued: January 30, 2007

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FINAL REPORT

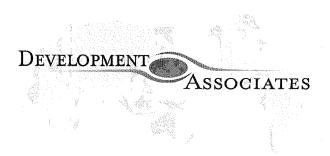
ON AN OBSERVATIONAL STUDY

OF CENSUS NON-RESPONSE FOLLOW-UP INTERVIEWS DURING THE 2006 CENSUS TEST IN TRAVIS COUNTY, TEXAS SPRING AND SUMMER 2006

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December 4, 2006

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Executive Summary

Development Associates staff observed 106 non-response follow-up (NRFU) interviews conducted during the 2006 Census Test in Travis County, Texas, during May and June 2006. Seven interviews were eliminated from data analysis as ineligible. Of the 99 remaining cases, 65 interviews were conducted entirely or "mostly" in English and 34 entirely or "mostly" in Spanish. The interviews were audio taped for further analysis. The focus of the observations was the use of the flashcard booklet. Census researchers were also interested in comparing enumerator and respondent behavior in interviews conducted in English and Spanish.

Flashcard Booklet Use

- There was some flashcard booklet use in 45 percent of interviews: the Residence Rules card was used in 25 percent, Card A (Relationship) in 28 percent, and Card B (Ancestry) in 37 percent.
- When the flashcard booklet was used to present the residence rules with the household count question ("Who To Count") it was used at least once again.
- As the interview proceeds, there is increased use of the flashcard booklet, most notably supporting the ancestry question.
- Confusion with the race, ethnicity and ancestry questions is the impetus for using the flashcard booklet later in the interview, i.e. Card B (Ancestry) is used most often. Also, it is used in some interviews where the "Who to Count" (Residence Rules) card and Card A (Relationship) were not.

Reasons for Flashcard Booklet Non-Use

- A special problem bearing on use of the flashcard booklet is the awkward physical nature of the enumerator's task. Very often the NRFU interview takes place on the doorstep and the enumerator must manage the handheld computer and the flashcard booklet, with nowhere to place the booklet when not in use. The handheld computer requires the use of both hands, making managing the flashcard booklet difficult.
- The enumerators' focus on the handheld computer may be another barrier to flashcard use. Some appeared utterly absorbed with their handheld computer, and failed to make much eye contact with the

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respondent throughout the interview. This intense concentration may be based on pleasure derived from using the handheld computer or it may be due to problems in using it.

Some enumerators attempted to use the handheld computer's screen like a flashcard, showing the screens to respondents. This method was often ineffective, as some respondents could not see the screen or could not read it because of the glare on the screen (many interviews were conducted in the doorway or on the front steps of the residence). Also, respondents may not be accustomed to reading text on a computer screen, especially a small one. Finally, this approach may confuse the respondent since in some questions there are directions on the screen for the enumerator.

<u>Use of English and Spanish Languages in Predominantly Hispanic</u> <u>Neighborhoods</u>

- The majority (62 percent) of interviews were conducted entirely in English, a few were conducted "mostly" in English (4 percent).
- About a third (31 percent) of interviews were conducted entirely in Spanish with a few conducted "mostly" in Spanish (4 percent).
- Language changed during eight percent of the interviews.
- When language changed more than once, most often the enumerator initiated the change.
- In 21 percent of the interviews where language changed (two interviews), the observers identified a translation and / or language comprehension problem as the reason for the change.
- Interviews conducted in English and Spanish follow different models. The slightly less formal approach used in Spanish interviews (often sitting inside the residence, with the enumerator making some "small talk" in addition to formal introductory remarks) appears to facilitate respondent cooperation.

Areas For Further Research

• It appears that enumerators inserted English phrases spontaneously into interviews they were conducting in Spanish more often than they inserted Spanish phrases into interviews they conducted in English. This needs to be confirmed and the reasons for it investigated.

- When the flashcard booklet is used to show the first card, the residence rules card, ("Who To Count") it is used at least once again. Research should be conducted on ways to encourage the enumerators to use the flashcards starting with the first one.
- Spanish language interviews were often difficult for respondents when the enumerator did not have enough proficiency to answer questions and give second definitions for some NRFU terms. Research should be conducted to determine the vocabulary required and this should be factored into enumerator hiring and training.

Chapter I. Introduction and Research Purpose

In this chapter we present the purpose for the study and the research questions.

A. Research Purpose

This study is part of a series in support of plans for the 2010 decennial census. The present study consists of reports on observations of non-response follow-up (NRFU) interviews conducted by Census Bureau enumerators during May and June, 2006 in Travis County Texas during the 2006 Census Test. The enumerator's use of the flashcard booklet, which supported three questions on the NRFU interview, was the focus of the observations. The three flashcards included:

- 1. "Who To Count," providing the residence rules, instructions on the intent of the household count question and the types of people to exclude and include in the count.
- 2. Card A, "Relationship," which provided the categories to be used to report the relationship of the household member to Person 1, including lists for "Related" and "Not Related" persons.
- 3. Card B, "Ancestry," which provided the text of the ancestry question.

The flashcards were bound into booklets with pages printed on both sides. The front side presented the text in English and the reverse side presented the text in Spanish.

Also of critical importance were the interactions between the enumerator and the respondent. An important aspect of the study was Census researchers' interest in how the NRFU was conducted in English and in Spanish.

B. Research Questions

The research questions guiding this study are:

- 1. Is the residence card actually given to respondents?
- 2. Do respondents provide household count answers prior to seeing this card?
- 3. Do respondents ask questions about this card or the residence instructions?
- 4. Are interviewers able to respond adequately to such questions?

- 5. What other activities and interactions concurrently occur that may compete with attention to the residence instructions?
- 6. How do interviewers handle questions from respondents on this material?
- 7. What non-verbal cues indicate use of the residence instructions?
- 8. What kinds of complex household situations presented by respondents are not covered by the answer categories in the residence rules questions?
- 9. Are Cards A (Relationship) and B (Ancestry) given to respondents?
- 10. How do respondents use Cards A and B?
- 11. Are there differences in respondent behavior based on whether the interview is conducted in English or Spanish?
- 12. Do respondents provide verbal or non-verbal signs of discomfort or reluctance to answer particular questions included in the interview?

Chapter II. Methods

The data were collected during the 2006 Census Test, conducted during May and June in Travis County, Texas. In collaboration with Census researchers, Development Associates (DA) staff developed a description of the study to explain the task to field staff, an example script for the enumerator to use when introducing the observer to respondents, and a script for the observer to use in introducing himself to the respondent. We also jointly developed the observation protocol.

A. Approach

Four bilingual (Spanish and English) observers completed six observation trips to Austin, Texas, during the non-response follow-up interviewing portion of the 2006 Census Test in May and June 2006. The goal of the observation was to accompany and observe enumerators as they attempted to complete the NRFU interview at addresses that had not returned the mailed decennial test short form. Our plan called for observing equal numbers of NRFU interviews conducted in English and Spanish. The observations were conducted under the auspices of the local field operation which assigned DA observers to Census enumerators.

The observers were male. Two were white, non-Hispanic, and two were white, Hispanic. The Hispanic observers were native Spanish speakers who have formally studied Spanish. The non-Hispanic observers have studied Spanish formally and have near-native Spanish proficiency. The 22 observed enumerators were both male and female. They all spoke English, and those who spoke Spanish had widely varying abilities.

The study protocol called for the enumerator to engage the respondent, and then introduce the observer. The observer then briefly explained the purpose for their visit and asked for permission to tape the interview. If permission was granted, they proceeded to observe, take notes and audiotape the interview. If permission was not granted, they stepped away from the enumerator and respondent, unobtrusively observed the interview and did not tape it. Notes on this unobtrusive observation were written after leaving the address.

The protocol also required that the observers not take part in the NRFU interview, or assist in any way. Further they were to stand or sit out of the line of sight of the respondent and the enumerator, if possible, to avoid influencing the interview while maintaining the ability to observe all behavior and interactions concerning:

- 1. flashcard booklet use and
- 2. language use.

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These were the two main foci of the observational study.

Observers used an observation tool entitled, "2006 NRFU Field Observation Protocol" (see Appendix A). The tool was four pages long, with an additional sheet to write final observations. There were several types of response items: Yes/No items and other forced-choice items to be circled; written fill-in's; and scales (from 1 to 4 or 1 to 7). The Flashcard booklet is included as Appendix B.

B. Sample for Analysis

The observers completed 106 observation forms. Of these, seven were excluded as ineligible since they were proxy interviews conducted with respondents who were not living at the address on the Census Test census day. Appendix C presents the cases excluded from the analysis. The resulting sample for analysis was 99 cases. Tables in this report are based on findings for the 99 interviews, or sub-sets of the 99. These include data on all interviews conducted in English (61), in Spanish (30), and those conducted in both languages (8): "mostly" in English (4) and "mostly" in Spanish (4).

C. Protocol

The protocol included nine sections to capture information on the context of flashcard use as well as a how the booklet was employed. The sections were labeled:

- 1. Obtaining the interview
- 2. Residence rules flashcard and household count questions
- 3. Household roster of names and follow-up
- 4. Flashcard A (relationship)
- 5. Flashcard B (ancestry) and race question
- 6. Overall flashcard behavior
- 7. Language behavior
- 8. Toward the end of the interview
- 9. Other notes

D. Limitations of the Data

The main limitation of the data is the unequal number of interviews observed conducted in English and Spanish. The research design called for observation of equal numbers of interviews conducted in Spanish and English. Field supervisors matched DA observers with Census enumerators, with the expectation that they would be scheduled to work with enumerators such that the planned language proportions would obtain. However, assignment by anticipated interview language proved to be more difficult than expected. First, enumerators were not required to accept an observer. Second, enumerators worked irregular schedules. Finally in addition to enumerator assignment, and thus the proportion of interviews observed in Spanish and English. These are the press of additional observers, often "VIPs from Washington" and many enumerators' reluctance to accept an observer.

The "VIPs" were given first choice of observation assignments. In one observation period, for example, they required only Spanish language observations, severely hampering field supervisors' efforts to ensure that the DA observers made their Spanish observation quotas. As the DA observers became acquainted with the enumerator staff, the enumerators explained that some enumerators believed that observers "slowed them down" and otherwise impeded their work. Other likely reasons for the preponderance of English language observations include:

- 1. Many enumerators were not very fluent in Spanish, and some were monolingual English speakers, who, nevertheless, were assigned to neighborhoods with substantial proportions of residents with Hispanic origins;
- 2. Both native Spanish speaking enumerators and respondents are under some pressure to demonstrate their knowledge of English, and therefore respondents who are most comfortable using Spanish may attempt to answer the questions in English; and
- 3. The respondents were probably more accustomed to filling out forms and responding to administrative questions in English than anticipated.

Chapter III. Findings

In this chapter we describe the findings organized to respond to the research questions presented in Chapter I. The sections below include: using the residence rules flashcard, using the relationship and ancestry flashcards, overall flashcard use, a description of interview language use (English and/or Spanish), and a description of the interview tone, and indications of respondent fatigue.

A. Using the Residence Rules Flashcard

In this section we discuss use of the residence rules flashcard, including respondent questions about the residence rules, concurrent activities and interactions competing with the residence instructions, how well the enumerator addressed respondents' concerns, and types of complex households not included in the residence rules.

After verifying that the respondent lived at the address on April 1, 2006 and whether or not "someone usually lives" at the residence, or if it is "a vacation home, seasonal residence, or held for occasional use," the enumerator is directed to show the residence rules flashcard entitled "Who To Count" and to ask the household count question. The use of this first of the three flashcards in the booklet was a key focus of the observations.

1. <u>Using the "Who To Count" Flashcard</u>: Table 1 below presents the sequence of behavior around using the residence rules flashcard. It shows that in one-quarter (25 of 99) of the interviews enumerators showed or handed the residence rules flashcard to the respondent (Table 1, first item).¹ However, over 8 of 10 respondents who were shown or given the flashcard looked at it and appeared to have time to read it. Finally, over 7 in 10 appeared to read it, and over half appeared to read it entirely. Of those who read it after answering the question (two respondents), neither changed a response because of it (Table 1, last item).

Table 1 also presents residence rules flashcard use by the language in which the interview was conducted. The residence rules flashcard was used with fewer of the respondents interviewed in Spanish (17 percent) than with those interviewed in English (28 percent) and in more of the interviews conducted in both English and Spanish (38 percent).

The "Who to Count" flashcard appears to have been used as a resource rather than as an integrated part of the NRFU interview. For example, it was rarely used with single person households, and was used more often in interviews conducted in a combination of English and Spanish.

¹ It seems reasonable to assume that this is an overcount of the number who use it unobserved, since several enumerators admitted to their observers that they "never" use or mention the flashcards, and were doing so on that day only because the observer was there and they knew they should use them.

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	English ²	Both	Spanish	All
Respondents handed or shown the residence rules flashcard	N=61	N=8	N=30	N=99
Yes	28%	38%	17%	25%
No	72%	63%	83%	75%
When handed or shown the Residence Rules flashcard the respondent looked at it	N=17	N=3	N=5	N=25
Yes	82%	100%	100%	88%
No	18%	0%	0%	12%
Those who looked at it had time to read the rules	N=14	N=3	N=5	N=22
Yes	71%	100%	100%	83%
No	29%	0%	0%	17%
Those who looked at it appeared to read them	N=14	N=3	N=5	N=22
Yes	57%	100%	100%	73%
Those who read the rules read all, or just parts	N=8	N=3	N=5	N=16
Whole	38%	100%	60%	56%
Parts	63%	0%	40%	44%
Those who read the rules read them before or after giving an answer	N=8	N=3	N=5	N=16
Before	88%	67%	100%	88%
After	13%	33%	0%	12%
Those who read the rules after answering changed the answer	N=1	N=1	N=0	N=2
No	100%	100%	N/A	100%

Table 1. Residence Rules Flashcard and Household Count Behavior Sequence
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2. <u>Respondent Questions on the Residence Rules:</u> Table 2 below, presents the proportion of respondents who asked a question about the content of the residence rules flashcard, and those who seemed satisfied with the enumerator's response. The former was small (8 percent) and the latter very high (100 percent). More questions were noted in the English language interviews (11 percent) than in those conducted in Spanish (6 percent). All respondents who asked questions about the residence rules seemed satisfied with the enumerator's answer. Table 3, below presents information on the content of the eight questions on the residence rules.

3. <u>Household Count Questions:</u> Table 3, below, provides information about the respondents' ability to provide a complete and accurate household count based on understanding and following the residence rules. Few respondents had questions about who to include or exclude from their household count. Most of the types of problems noted by the observers seem typical for decennial census household counts, e.g. whether or not to include a visiting relative. However, some questions were especially relevant to the residence

² The tables show data for all interviews, those conducted completely in English, those conducted completely in Spanish, and those (eight) where the enumerator began the interview in one language and shifted to the other at least once.

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	English	Both	Spanish	All
Respondents had a question on household count/residence rules	N=61	N=8	N=30	N=99
Yes	11%	0%	6%	8%
No	89%	100%	94%	92%
·				
Enumerator answered question to respondent's satisfaction	N=6	N=0	N=2	N=8
Yes	100%	N/A	100%	100%

Table 2. Respondent Questions about Residence Rules

rules and coverage concerns, e.g. the college student home for the summer, the former spouse not currently living there, and confusion about the census date.

	English	Both	Spanish	All
Respondents having difficulty with:	N=61	N=8	N=30	N=99
Self	0%	0%	0%	0%
Baby or foster child	0%	0%	0%	0%
College student	2%	0%	0%	1%
Visiting relative or non-relative	2%	0%	3%	2%
Relative who lives part of the time elsewhere	0%	0%	0%	0%
Someone else	2%	0%	3%	2%
Other	5%	0%	0%	3%
Total	11%	0%	6%	8%
Problems or Questions				
Respondent is in college, only here for the				
summer.	X			1%
Visiting relative stays there for extended periods			Х	1%
Former husband, who lives in the same house			X	1%
Not sure about including her ex-husband not				
currently living there	X			1%
Visiting non-relative	Х			1%
Whether to include people living there before				
April 1	X			1%
Refused to give last names; refused to give any				
names	X			2%

Table 3. Respondent Difficulties with the Residence Rules

4. <u>Other Activities/Interactions Concurrent with Household Count</u>: Two types of problems confront the enumerator at the start of the NRFU interview that can interfere with using the residence rules flashcard. These are: (1) the physical context of the interview, and (2) overcoming respondent reluctance to participate in the interview. Each of these is described below.

(a) The physical context of the interview

Table 4 shows how and where the interviews took place. The most common mode was "inside/in the doorway; standing." This has special importance in

terms of the enumerator's ability to manipulate the handheld computer and use the flashcard booklet, lacking a table or other surface on which to place the booklet when not in use. Standing prevents the enumerator and respondent from setting materials down and retrieving them easily, or placing them on or bracing them against a table or chair.

Cultural norms may be playing a role in interview location for some respondents with Hispanic origins. In one situation the (Hispanic) female respondent first telephoned her husband to discuss if she should participate in the interview, and then telephoned her mother-in-law to come to her home to be present during it. Overall, interviews conducted in Spanish were more likely to take place inside the residence than those conducted in English. However, this convenience was not associated with residence rules flashcard use. Although enumerators had an interview setting most conducive to using the residence rules flashcard in many interviews conducted in Spanish, Table 1 (first entry) shows that it was used least often in Spanish interviews (with 17 percent of 30, or 5 respondents).

	English	Spanish	All
Location and Standing/Sitting	N=61	N=30	N=99
Outside of the housing unit standing	41%	32%	37%
Inside/in the doorway standing	43%	26%	39%
Inside sitting	23%	41%	31%

Table 4. Where and How the Interview Took Place

(b) Overcoming respondent reluctance

A second activity occurring at the start of the NRFU interview that can interfere with using the residence rules flashcard is obtaining permission to conduct it. To accomplish this task, the enumerator may engage in preparatory behavior to set the respondent at ease and encourage the respondent to be as forthcoming as possible. A second important skill is answering respondent questions prior to beginning the interview.

Table 5 presents data on the preparatory, or introductory, behavior in the 99 interviews. Mentioning the Census Bureau is the most common feature of the enumerators ' introduction. This is more important than it may seem, because, as noted later in this report, a number of the respondents were concerned about "Immigration." They feared that the enumerator might be with the Immigration and Naturalization Service³.

The second most common introductory behavior is explaining confidentiality. This is important to allay all types of fears and concerns. Confidentiality appeared to be a concern in these NRFU interviews as some respondents refused to give last names, birthdates, or whether they had a mortgage.

³ Some enumerators claimed to our observers that INS agents were shadowing them during the census test, and an apartment building manager explained that many residents would not answer their doors because Immigration and Naturalization Service agents had been seen in the area during the Census Test.

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	English	Both	Spanish	All
Before the interview the enumerator	N=61	N=8	N=30	N = 99
Mentioned the U.S. Census Bureau				
Yes	100%	88%	100%	99%
No) 0%	12%	0%	1%
Explained confidentiality				
Yes	92%	88%	87%	90%
No	8%	12%	13%	10%
Explained the uses of census data				
Yes	57%	50%	50%	55%
No	43%	50%	50%	45%
Engaged in small talk				
Yes	41%	38%	57%	45%
Nc	59%	63%	43%	55%
Used other methods to persuade respondent to participate				
Yes	23%	13%	7%	17%
No	77%	88%	93%	83%

Table 5. Enumerator Introductory Behavior

The enumerators were observed explaining the uses of census data approximately half of the time, with a tendency to do so somewhat more often when conducting interviews entirely in English.

Finally, establishing a friendly atmosphere by engaging in "small talk" prior to the interview was more likely to happen when the interview was conducted in Spanish (57 percent) than when both languages were used (38 percent) or when the interview language was English (41 percent).

In some circumstances standard introductory remarks required augmentation before the interview could begin. Overall enumerators had to provide more information in some 2 of 10 interviews⁴. When the interview was conducted in English additional information was needed more often than when the interview was conducted in Spanish (23 percent vs. 7 percent). Table 6, below describes the approaches used to encourage participation.

In general, the persuasive approaches observed involved interpreting and understanding the respondent's concern, and then quickly fashioning a counterargument to reduce it. Many enumerators were considered "quick on their feet" able to use a variety of rationales to encourage respondents to cooperate. These included:

- assuring the respondent the interview could be done quickly.
- convincing the respondent that the oral interview would be easier than mailing in the form.

⁴ Fifteen of the 99 respondents refused to permit the observer to audio tape the interview. Nine who refused the taping were interviewed in English, five in Spanish.

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- giving a possible explanation for the failure of their mailed-in form to be recorded as received.
- convincing the respondent that the enumerator would continue to come back if he/she didn't cooperate this time.
- convincing the respondent that cooperation is "a duty" or "an obligation."

	T •	
Case ID	Language	The reason for not being interviewed and enumerator's response
23	English	The respondent said they had already mailed the form in. The enumerator asked her if she would do it again to help the Census understand if the interview process is working out.
28	English	The respondent wanted to mail it in. The enumerator convinced respondent that it would be faster to do it live.
29	English	The respondent said she was busy. The enumerator told her she could do the interview while she was doing whatever it was she was doing.
30	English	The respondent was busy at the time. The enumerator said she could come back. The respondent stated she could do the interview in about 30 minutes. The enumerator agreed to come back.
31	English	The respondent was on his way out to an appointment. The enumerator told the respondent that it would be done quickly. The respondent agreed to do it.
32	English	The respondent said he had mailed it in already. The enumerator told the respondent that it was possible that it was never recorded as received, and it would be best if he just did it again. The respondent agreed to do the interview.
33	English	The respondent stated that she was planning to mail it in later. The enumerator told the respondent that if she did the interview right away she didn't have to mail it in.
71	English	The enumerator had been here last week. The respondent asked the enumerator to come again today; her husband had just had surgery, and she did not want to do it inside. The respondent asked if we could do it outside. We had to wait over 5 minutes for her to come out.
73	English	The respondent didn't want to do it. He was not in a good mood. The enumerator said he was going to continue coming.
74	English	The respondent said her husband had already mailed it in. The enumerator said they probably never got it.
86 ⁵	English	The respondent said that Census was conducting another survey in area (ACS), which asked spending patterns. The respondent resented such questions, and thought they were for marketing. The enumerator tried to explain that this survey was different.
80	Spanish	The enumerator convinced the respondent it was an obligation.

Table 6. Persuading Respondent to be Interviewed

The enumerators varied in their ability to observe and interpret the respondents' initial concerns, but in the end, they did fairly well in allaying them. The

⁵ Refused to permit audio taping of the interview by the observer.

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observers found that some enumerators tried and succeeded in setting their respondents at ease. Others were judged as "wooden" or "abrupt." Observers noted that enumerators were frequently so involved with their handheld computers that they sometimes failed to make essential eye contact. Table 7 gives an overview of respondents' initial concerns. There was little concern about confidentiality and the presence of the handheld computer. There was more concern about anticipated length of the interview.

		English	Spanish	All
Respondent had questions/expressed concern about…		N=61 ⁶	N=30 ⁷	N = 99
Length of interview				
	Yes	16%	7%	12%
	No	84%	93%	88%
Confidentiality				
	Yes	8%	3%	8%
	No	92%	97%	92%
Handheld computer				
	Yes	3%	0%	2%
	No	97%	100%	98%
Other				
	Yes	26%	37%	31%
	No	74%	63%	69%

Table 7. Respondents' Initial Concerns

Finally "other" concerns comprised the largest category of questions for respondents. These are presented in Table 8 below. Table 8 provides the observers' details on the "other concerns." The most common concern was how the data would be used and by whom. Questions about the observer's audio tape recoding of the interview were the second most common concern.

The enumerators successfully responded to the respondents' concerns. According to the observers' counts, over 80 percent of concerns received an adequate response. For interviews conducted in English the success rate was 95 percent, but only 73 percent for those conducted in Spanish. This may have been due to the range of enumerator Spanish fluency. The observers reported that many enumerators observed for whom Spanish was a second language lacked fluency beyond reading the NRFU questions. Table 9, below presents the data on adequacy of enumerators' explanations.⁸

⁶Two of the nine respondents interviewed in English who refused observer audio taping had concerns about interview length, one about confidentiality, and five, other.

⁷ One of the five respondents interviewed in Spanish who refused observer audio taping had confidentiality concerns, four had other concerns.

⁸ Six of the nine respondents interviewed in English who refused to permit audio taping expressed some concern and five were satisfied with the response. Four of the five interviewed in Spanish who refused the audio taping had a concern and three were addressed adequately.

Case	Language	Respondent Concerns
ID		
		Data Use, Rationale - Initially
52	English	The respondent "just wondered what it was all about."
28	English	The respondent wanted to know if the census wanted information about
		his brother, who used to live with him in this house, in 2006.
32	English	The respondent wanted to know why there was so much emphasis on
		the pre-census.
36	English	The respondent wanted to know who had access to the data.
38	English	The respondent was concerned with immigration.
57 ⁹	English	The respondent wanted to know what it is being used for. He is going to
		move soon, and was concerned about the duplication of his residence
	· · · · · · · · · · · · · · · · · · ·	information.
13	Spanish	The respondent asked what the information was to be used for. Why do
		the census?
67	Spanish	The respondent "just wondered about who would have access to data."
10	Spanish	The respondent wanted to know what is it all about. The respondent had
		"a lack of confidence."
69	Spanish	The respondent wanted to know if this was for the elections.
		Data Use, Rationale - During Interview
9	Spanish	The respondent wanted to know why enumerator needed birth dates for
		the census. Observer reported, "The purpose of the census was not
		explained."
20	English	The respondent got upset during the interview and wanted to know why
		we wanted the information. The observer reported, "she was almost
		hostile, and refused to answer on age, and if she stayed elsewhere
]		occasionally." Observer Audio Taping
12	Spanish	The respondent concerned about taping.
50	Spanish	At first, the respondent was concerned about the tape-recording. After
00	opanish	enumerator explained confidentiality, she consented.
65	Spanish	The respondent didn't like the taping. The respondent didn't know what it
	opamon	was for, and refused permission to tape.
66	Spanish	The respondent didn't like the tape recorder. Otherwise, the respondent
••	opamon	didn't have any questions.
31	English	The respondent wanted to know what the recording was for.
83	English	The respondent said he was German, and would rather not be recorded.
86	English	The respondent forbade recording. He didn't like to give out information,
	Lightin	and he was in a hurry because of a pending long distance call.
88	English	The respondent refused to be recorded. Observer reported that the
	g	enumerator was "abrupt and did not show an attitude conducive to
		instilling trust."
		Procedures
71	English	The respondent wanted to know if it was absolutely required.
42	English	The respondent had already sent in two census forms.
54	English	She preferred to have her son answer, but he's not here.
80	Spanish	The respondent wanted to know if she had to do this. She called her
		husband and then called her mother-in-law.

Table 8. "(Other" Respondent	Concerns Before	and During the	Interview
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⁹ Bolded case numbers indicate those who refused observer audio taping.

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	English	Spanish	All
Respondents expressed some concern before the interview	N=61	N=30	N = 99
Yes	37%	34%	36%
Enumerator adequately addressed concern(s)	N=21	N=11	N=36
Yes	95%	73%	83%
No	5%	27%	17%

Table 9. Adequacy of Addressing Respondent Concerns

5. <u>Non-Verbal Cues And Using The Residence Rules</u>: The observation form item on non-verbal cues was designed to include non-verbal behavior used to convey answers to all questions, not only the residence rules question, so data on this concern is scant. The observers' notes indicate, for example, that the residence rules flashcard was often not presented to respondents who were the only member of their household. Since the enumerator has no formal way of knowing this until the household count question has been answered, this points to use of the flashcard booklet only when respondents appear to have some difficulty in answering the question. For example, in giving the relationship of residents to Person 1, one respondent gave an uncodeable answer ("boyfriend") and the enumerator gave her the relationship flashcard.

6. <u>How Enumerators Handle Residence Rules Questions</u>: The most common approach to residence rules questions was to re-read the question and hand the flashcard to the respondent.

7. <u>Complex Households Not Included In Residence Rules</u>: One relationship type and residential situation encountered during the 2006 Census Test NRFU interviews not included in the residence rules is the presence of former spouses in the household. In two situations, one conducted in English with a non-Hispanic respondent and the second in Spanish, the respondent was unsure whether to include in the household count a former spouse currently living there and a former spouse no longer living there.

B. Flashcards A and B

Flashcards A (Relationship) and B (Ancestry) supported the questions on the relationship of each household resident to Person 1 and the ancestry question asked for each resident.

Table 10 below shows observation results for flashcards A and B. Yet again, for those respondents who were shown or given the flashcards, most of them (68-71 percent) appeared to read them. This is consistent behavior when using the residence rules flashcard, where 73 percent of respondents who saw the flashcard appeared to read it (See Table 1).

		English	Both	Spanish	All
Flashcard A - Relationship					
Flashcard A handed/shown to the respondent		N=61	N=8	N=30	N = 99
Ye	S	25%	38%	33%	28%
N	0	75%	63%	67%	72%
When flashcard handed/shown respondent appeared to read it		N=15	N=3	N=10	N = 28
Ye	s	60%	100%	80%	71%
N	0	40%	0%	20%	29%
Flashcard B - Ancestry					·
Flashcard B handed/shown to the respondent		N=61	N=8	N=30	N = 99
Ye	s	38%	50%	33%	37%
N(0	62%	50%	67%	63%
When flashcard handed/shown to respondent appeared to read along with the enumerator		N=23	N=4	N=10	N =37
Yes	s	61%	100%	70%	68%
No	0	39%	0%	30%	32%
Regardless of flashcard use respondent had problems, questions or comments on race, ethnicity		NI-61	N10	N-20	N-00
and ancestry		N=61	N=8	N=30	N=99
Yes	5	49%	88%	63%	56%
N	o 🗌	51%	13%	37%	44%

Table 10. Use of Flashcards A and B

It is important to note that Table 10 shows that these flashcards were used more often than the residence rules flashcard. The enumerators used the A flashcard with about 28 percent of respondents, flashcard B with some 37 percent, and used the residence rules flashcard for 25 percent.

The flashcards were sometimes shown first after the household count was complete, and at later points in the interview, as specific issues arose. While the difference between 25 percent (residence rules flashcard) and 28 percent (relationship to Person 1 flashcard) may not necessarily reflect any true difference, the increase to 37 percent for the ancestry flashcard seems to indicate that enumerators or respondents felt a need to reinforce this question with the visual aid.

Flashcard B provides the verbatim text of the ancestry question, which follows the race and Hispanic origin questions in the interview. Table 10 shows that this card was shown to a total of 37 respondents and 25 appeared to read it. The ancestry flashcard was shown in twice as many English language interviews (38 percent of 61 or 23) as Spanish language interviews (33 percent of 30, or 10). Finally, Table 10 shows that over half of all respondents experienced some difficulty with the race, ethnicity, and ancestry questions. This includes 63 percent of those interviewed in Spanish and 49 percent of those interviewed in English.¹⁰This points to the race, ethnicity and ancestry questions as being the most problematic items in the NRFU, and that enumerators will use the flashcards at their discretion.

Concerning difficulties with the race/ethnicity/ancestry series of questions, just under six in ten (56 of 99) respondents had some question or problem with these questions (Spanish 20, Both 7, and English 32). This includes 39 respondents with Hispanic origins who had difficulty selecting a race category for at least one household member. Of these 11 mentioned "Hispanic" as their preferred selection, 14 "Mexican" and one Chilean. Three respondents selected a variety of the category "Indian" ("Indio/mestizo," another "Native American," and "Indian"), and two reported "mestizo" and "mixed." Some enumerators encouraged respondents preferring "Hispanic" or "Mexican" to choose the White/Caucasian race category and three did so reluctantly. The observers described 27 of these 39 respondents as being "confused"¹¹ about the race/ethnicity/ancestry sequence. Several respondents were unable to understand why, for the census, "Hispanic is not a race."

Among the respondents interviewed in English, who did not describe themselves as having Hispanic origins, another 17 had a question or problem with the race/ethnicity/ancestry questions. The observers reported seven of these as being in one way or another confused¹² by these questions. Among this group three preferred other categories for race: Lebanese, Syrian, and Athabascan.

C. Overall Flashcard Use

The observers noted when and how the flashcards were used and the difficulties that enumerators encountered in using them.

1. Using the Flashcard Booklet: Table 11, below, shows that the observers noted use of at least one flashcard in 45 percent of the interviews. This figure is substantially higher than rates for use of the individual flashcards presented in Table 1 (25 percent for the Residence Rules flashcard), and for the relationship flashcard (card A) in Table 10 (28 percent). The rate is also higher than for the ancestry flashcard (card B) in Table 10, (37 percent). This figure - 45 percent - is from a question placed toward the end of the observation data form, following reports on the use of the three cards separately. All opportunities for use of the three flashcards had occurred by this point in the observation¹³.

¹⁰ While we know from observer notes that some respondents interviewed in English have Hispanic origins, we lack data on Hispanic origins for all respondents.

Observers used the following terms to describe this confusion: "had trouble," "have a difficult time," "puzzled," "did not understand," "confused," "unsure," "uncomfortable" and "showed doubt."

Observers used the following terms to describe this confusion: "never knows how to respond," "difficult," "did not understand," "confused," "not sure" and "didn't know what she was." ¹³ However, in three cases the observer had forgotten that the Residence Rules flashcard had been used when marking

this observation form item, therefore flashcard use is 45 percent (42+3).

Table 11 also shows that the residence rules flashcard was never used alone. When the residence rules flashcard was used, the flashcard booklet was used again for the relationship and/or the ancestry card.

	English	Both	Spanish	All
Flashcard booklet used	N=61	N=8	N=30	N = 99
Yes	46%	50%	43%	45%
No	56%	50%	57%	56%
When the flashcard booklet was used:	N=28	N=4	N=13	N=45
it was used for more than one question				
Yes	74%	100%	58%	69%
the Residence Rules flashcard was used alone				
Yes	0%	0%	0%	0%
Card A, Relationship was used alone				
Yes	6%	0%	21%	11%
Card B, Ancestry was used alone				·····
Yes	19%	0%	21%	20%
it was passed between respondent and				
enumerator between questions	N=24	N=4	N=13	N = 41
Yes	29%	50%	23%	29%
No	71%	50%	77%	71%
the enumerator changed pages for the respondent	N=25	N=4	N=13	N = 42
Yes	52%	75%	38%	50%
No	48%	25%	62%	50%
the enumerator had trouble administering it	N=25	N=4	N=13	N = 42
Yes	48%	50%	38%	45%
No	52%	50%	62%	55%

Table 11.	Overall Flashcard	Behavior and	Flashcard	Administration

2. Enumerator Problems in using the Flashcard Booklet: A rate of some flashcard use in 45 percent of the interviews is far from universal use expected. Table 12 presents observers' comments on enumerator difficulties in administering the flashcard booklet. These emphasize the awkwardness of handling the booklet while using the handheld computer, and in reading the text on the flashcard to the respondent.

Finally, in three interviews the observer noted that the screen of the handheld was offered to the respondent in place of a flashcard, and one interview the enumerator both used the flashcard booklet and showed the respondent the screen.

Table 12. Types of Problems Found in Administering the Flashcards

Flashcard Administrative Problems Noted by Observers
The flashcard booklet and handheld combination: nine total comments of two types
The booklet is too cumbersome with use of handheld.
Difficult for the enumerator to do many things at the same time, when interview is done standing up - handheld, read information on the screen, and use flashcards.
The handheld, itself caused problems: one comment
The enumerator had trouble with handheld.
Flashcard booklet use described as awkward: three distinct comments

Project B: Observing English and Spanish NRFU Interviews in the 2006 Census Test Cognitive Testing Coverage Issues and Residence Rules Flashcard went back and forth between respondent and enumerator, but not between questions. Simply went back and forth because respondent was tired of holding it. Flashcards were used and respondent read them all. The enumerator was not sure when to use it or what pages were on it. The respondent confused on race question. The enumerator explained all the information on the flashcards, but there was way too much

information for the respondent to process it.

Using the B flashcard: one comment

Reading the information on flashcard B to the respondent was not a good strategy. The respondent seemed to understand a little better when the flashcard was shown to him instead.

Using the handheld screen as a flashcard: one comment

The enumerator showed respondent the screen on the handheld. It was hard to handle both - a major problem.

D. Language Use

In this section we present data on interview language and language use.

Table 13, below, shows the proportions of interviews conducted in Spanish and English. In general, most interviews were conducted in one language: English only in 62 percent of the interviews and Spanish only in 30 percent.

	Percent
Language used overall	N=99
All English	62%
Mostly English	4%
Half and Half	0%
Mostly Spanish	4%
All Spanish	30%
Language change during the interview	N = 99
Yes	8%
No	92%
Language changed more than once ¹⁴	N = 8
Yes	50%
No	50%
If only one change, who initiated it	N = 4
Respondent	75%
Enumerator	25%
Language in which interview was completed	N = 8
English	50%
Spanish	50%
Problems particular to interviews conducted in Spanish due to translation issues ¹⁵	N=38
Yes	21%
No	79%

Table 13. Language and Language Change

Eight additional interviews were conducted in "mostly" one language or the other: 4 percent in "mostly English" and 4 percent in "mostly Spanish."

¹⁴ In two interviews, one in English and one in Spanish, a third person attempted to help the enumerator by translating the interview into Spanish. This accounts for half of the interviews where the language changes more than once. ¹⁵ For those cases in which problems were reported, two were in "mostly Spanish" interviews and six were in "all Spanish"

interviews. None of the interviews conducted entirely or mostly in English reported these problems.

The observers noted the language went "back and forth" between Spanish and English more than once in only 8 percent of the interviews. Generally, the enumerator and the respondent used only one language. Of those that changed languages half finished in Spanish (four), and half, in English (four) (See Table 13).

The data on which person initiated the language change when it occurred only once during the interview are difficult to interpret. They suggest that the enumerators tended to initiate language change more often than did the respondents.

Most important in Table 13 is the finding that in 21 percent of the interviews involving at least some Spanish there were translation or language comprehension problems. While this only represents eight interviews in this sample of 99, it suggests that language comprehension and translation difficulties may be found in a number of census interviews that do not use English only.

Table 14 below gives additional details on the types of translation and language problems the observers identified. The general impression given by these observations is that the language problems were not terribly serious, and apparently did not strongly affect the collection of information by the enumerator.

Spanish Language Use and Problems Reported by Observers
in "Mostly Spanish" and "All Spanish" Interviews
scription of Language Use / Explanation of "Problem"
e enumerator was not very fluent in Spanish. The respondent did not understand some of the
estions. The enumerator had to repeat all the questions. e enumerator struggled a little with a few words in Spanish. The enumerator had a difficult
ne pronouncing many of the Spanish words, sometimes confusing the respondent.
e enumerator struggled with a few words, mostly just pronouncing problems. The enumerator en switched to English.
e enumerator was not very fluent in Spanish, but the respondent appeared not to have any oblems understanding the info. The enumerator read from the script, in Spanish, that appears the handheld.
oserver questioned enumerator's phrasing of question. The enumerator frequently inserted glish into the interview.
meowner, an older woman, spoke little English, so her daughter tried to translate for her as eded, or to clarify things. The enumerator speaks Spanish, but often not well enough to nvey detail or nuance.
terms of the language used in the interview, enumerator begins speaking in English and if he als that the respondent is not following, he immediately switches to Spanish.
e enumerator struggled pronouncing various questions and words. The respondent was very tient.

In various cases, either the enumerator or the respondent - or both - exercised patience and creativity, with the result that meaning was conveyed between the

Table 14. Spanish Language Use and Translation Issues

two. Finally, the observers' notes seem to suggest that English had a tendency to intrude into some interviews conducted in Spanish, but not vice versa (Spanish was not inserted in interviews conducted in English). For example, during a Spanish interview the enumerator used the English word "custody" because he did not know a Spanish equivalent. As the comments below show, English language break ins in Spanish interviews seem to be due to the enumerators' limited Spanish language skills.

E. Other Contextual Factors

Two additional factors were noted to provide more detail on the context of the NRFU interviews. These are the use of non-verbal behavior to answer survey questions and rating the "tone" of the interview.

1. <u>Nonverbal Behavior</u>: The observers attempted to identify when nonverbal behavior was used to answer survey questions. The question on their observation form was:

How much nonverbal (i.e. head nodding or shaking) was used by the respondent to convey responses to survey questions? (None 1 2 3 4 5 A Lot).

Table 15 displays the relative amount of nonverbal behavior exhibited by the respondents. By far the largest percentage of interviews had "None." In no case did an interview have "A lot" of nonverbal response behavior, or even the next level down in the scale - 5.

	English	Spanish	All
Amount of nonverbal behavior (i.e., head nodding or shaking) used by the respondent to convey responses to survey questions	N=65	N=34	N=99
Nonverbal Behavior Scale: 7 points from "None"			
to "A lot"			
None	45%	21%	37%
1	28%	24%	26%
2	17%	32%	22%
3	5%	21%	10%
4	6%	3%	5%
5	0%	0%	0%
A lot	0%	0%	0%

Table 15. Respondent Nonverbal Interview Behavior

To test the notion that observed nonverbal behavior is related to the language in which the interview was conducted, i.e. that respondents interviewed in Spanish might use nonverbal behavior more often than those interviewed in English, we constructed Table 16. Here we see that the average non-verbal behavior score is higher, signifying more non-verbal behavior observed, for the interviews conducted in Spanish (1.66) than for those conducted in English (0.93), with the

interviews conducted in both languages falling closer to the Spanish language interview score.

		Average Nonverbal Score
Interview Language	N	
Average non-verbal score for all interviews	99	1.21
Average non-verbal score by interview language		
English	61	0.93
Both	8	1.62
Spanish	30	1.66

Table 16. L	anguage	and Nonverba	l Behavior
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To reconfirm the notion that there was more nonverbal behavior in interviews conducted in Spanish than in those conducted in English, we explored inter-rater agreement. Table 17 below shows that the four observers' ratings differ considerably within interview language (score range 0.15 to 3.29 for English and 0.13 to 2.50 for Spanish). On the seven point scale, with a range of reported scores from 0 to 4, Observer #1 typically saw almost no non-verbal behavior (overall score 0.42) and Observer #4 saw a moderate amount (overall score 2.89). Given these differences in applying the non-verbal behavior rating, we believe that the non-verbal behavior indicator is too unstable to provide useful data. More research is needed to determine if respondents are using gestures to convey census information to enumerators and if this differs systematically by the interview language or the race and ethnicity of the respondent and/or the enumerator.

	English	Both	Spanish	All
Average non-verbal score				
Observer ID				
1	0.15	1.00	0.13	0.42
2	1.00	2.00	1.40	1.47
3	1.60	2.00	2.43	2.01
4	3.29	n/a	2.50	2.89

Table 17. Inter-rater Agreement on Nonverbal Behavior Scores

2. <u>Interview Tone</u>: The observers were asked to gauge the "tone" of the interview at the beginning and at the end. Since the respondents were those who had not returned the mailed census test form, there were questions about their level of cooperation and of friendliness when approached at home by a census enumerator Each interview's "tone" was recorded twice, using two scales, cooperation and friendliness. These were:

- 1. a 4-point scale from "Uncooperative" to "Cooperative," and
- 2. a 4-point scale from "Hostile" to "Friendly."

Since these measures are also subjective, tone scores are presented below by observer, to reveal similarities and differences among observers.

In general, tone varied little from one observer to the next, with the exception of observer #4, who tended to read the tone of the initial interaction as "cooler" - less cooperative and less friendly than the other three observers (Table 18).

Measurement Scale		Average Score	Measurement Scale		Average Score
<u>Tone A</u> A 5-point Scale from Uncooperative to Cooperative	All	3.68	Tone B A 5-point Scale from Hostile to Friendly	All	3.71
	Observer 1	3.76		Observer 1	3.66
·····	Observer 2	3.71		Observer 2	3.82
	Observer 3	3.75		Observer 3	3.75
	Observer 4	3.35		Observer 4	3.59

Table 18. Tone at Interview Start

There was a consistent tendency for tone to improve from the beginning to the end of interviews. This rating improvement was shared by all observers (Table 19).

Table 19. Tone at Interview Close

Measurement Scale		Average Score	Measurement Scale		Average Score
<u>Tone A</u> A 5-point Scale from Uncooperative to Cooperative	All	3.92	 <u>Tone B</u> A 5-point Scale from Hostile to Friendly	All	3.88
	Observer 1	3.90		Observer 1	3.79
	Observer 2	3.96		Observer 2	3.96
	Observer 3	4.00		Observer 3	4.00
	Observer 4	3.82		Observer 4	3.82

The observers were asked to describe and explain any "negative" tone. Eighteen interviews conducted in English were rated as having a negative tone as were eight interviews conducted in Spanish. Table 20 presents these notes.

Table 20.	Observer Notes	s Explaining	Negative	Interview Tone
 A standard to the State State State State State State 	and the second		Contraction of the second s	and the second

Case ID	Language	Observer Notes on Negative "Tone"	
l Resp	ondent Circ	umstances	
		Concern about Purpose, Suspicious	
29	English	The respondent was the apartment complex manager, who explained that "Immigration" had been knocking on doors, and that was why no one answers the door.	
36	English	The enumerator could not speak Spanish, so the respondent's had son translate. Son did not include self until the very end. Mother had concerns throughout that we were with INS (the Immigration and Naturalization Service, now U.S. Citizenship and Immigration Services).	

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38	English	Concerned about "Immigration".
57 ¹⁶	English	Older Mexican American man, very friendly and cooperative, but flatly
	Ŭ	refused to be taped; no reason given other than he didn't see the need
86	English	The respondent very politely refused to respond to questions regarding
	-	his birth date or surname. He refused to respond to property ownership
		and mortgage questions.
10	Spanish	The enumerator needs to take time at the beginning of interview to
		explain carefully what Census is about. There was considerable lack of
		confidence at the beginning, especially for an elder woman, who was
		deferred to by the daughter in the interview. Elder woman was boss.
65	Spanish	The respondent was very suspicious at the beginning, and refused to be
		taped, but warmed up to the enumerator, who put him at ease
66	Spanish	The respondent was very suspicious at the beginning - refused to be
		taped - but warmed a bit due to the enumerator's friendly attitude.
		Frustrated with Questions
30	English	Lot of noise outside, kids playing. The enumerator found it hard to handle
		the flashcards and the handheld computer when standing. Not able to
		establish eye contact. The respondent seems frustrated with repetitions
		for each person in housing unit
31	English	The enumerator explained information on the flashcard, rather than
		allowing the respondent to read information. The enumerator looking at
		the handheld. The respondent looks frustrated that the enumerator
		continues to read.
32	English	The respondent seemed frustrated that the enumerator was reading all
		the info (the options) to him. The respondent had to cut off the
		enumerator several times.
33	English	The respondent appeared a little bit frustrated with questions, felt they
		were not direct, and most of the information enumerator providing was
		irrelevant. The respondent was not happy with use of "cash" rent - she
		wanted to say paying by check. Didn't like that enumerator marked
	-	"cash" as her response.
00		anguage Differs between respondent and enumerator
28	English	Interaction difficult because the respondent was not a proficient English
		speaker; was native Turkish speaker. It was unclear he understood all
20	F a 2 - 1-	Qs. The enumerator using handheld, so it was hard to tell body language
36	English	The enumerator could not speak Spanish, so the respondent's had son
		translate. Son did not include self until the very end. Mother had
		concerns throughout that we were with INS (the Immigration and
		Naturalization Service, now U.S. Citizenship and Immigration Services).
92	English	A language issue slowed things down
69	Spanish	Even though enumerator was not very proficient in Spanish, she was
		able to complete the interview. The respondent was very cooperative and
		tried very hard to understand what enumerator was saying. The
		enumerator repeated the questions when there was a breakdown in the
		interaction, and sometimes the enumerator showed the respondent the
		information on the handheld - hard to read.
	1 1 1 1 1	Reading problems
7	English	The enumerator showed the respondent the screen on the handheld;
		hard for enumerator to handle everything; major problem; unlikely that
	On a set a ta	the respondent can read, or be able to read screen.
21	Spanish	The enumerator knew the respondent. Mentioned he was X's son. She
		recognized him and they conversed a short while. The respondent had a
		difficult time providing information on all people in house. He doesn't

¹⁶ Bolded case numbers indicate respondents who refused to permit the observer to audio tape the interview.

	r	
		know how to read, so enumerator took a while to give all the information
	<u> </u>	in the flashcards. The respondent was clueless about race question.
	· · · ·	Hostile
20	English	As noted before, she said she was Black, but refused to say anything
		more. She became quite hostile. The enumerator did not carry the
		questioning further. No taping, the respondent refused.
73	English	The respondent didn't want to do it. He was not in a good mood. The
		enumerator was going to continue coming.
		Noisy household
30	English	Lot of noise outside, kids playing. The enumerator found it hard to handle
		the flashcards and the handheld computer when standing. Not able to
		establish eye contact. The respondent seems frustrated with repetitions
		for each person in housing unit
101 ¹⁷	English	Considerable disruption from a baby present. Considerable disruption
	_	from a baby present.
		Not a good household reporter
23	English	The respondent was only 16 years old. The enumerator pointed out that
	Ū	this was the minimum age required to take part in the interview. The
		respondent did not know her parents' ages or birthdates. The enumerator
		always starts in English.
		Outside, easy to approach
24	English	The respondent outside working on the lawn. It's a lot easier to gain
2 1	Linghon	access if enumerator doesn't have to knock on door and impose. The
		enumerator did not use flashcard at all. The respondent was not a
		Spanish speaker.
ll Enun	nerator circi	
		Poor rapport
3	English	The enumerator does not establish rapport with respondents. Abrupt,
5	Linghish	
		insensitive, wooden, entirely mechanical, little natural skill for such human interaction.
4	English	
4	Chylish	The enumerator does not establish rapport with respondents. Abrupt,
		insensitive, wooden, entirely mechanical, little natural skill for such
		human interaction.
32	English	The respondent seemed frustrated that the enumerator was reading all
		the info (the options) to him. The respondent had to cut off the
		enumerator several times.
33	English	The respondent appeared a little bit frustrated with questions, felt they
		were not direct, and most of the information enumerator providing was
		irrelevant. The respondent was not happy with use of "cash" rent - she
		wanted to say paying by check. Didn't like that enumerator marked
		"cash" as her response.
78	English	Tendency for enumerator to follow script. The respondent said "I already
		addressed that question" - pushy.
88	English	The enumerator has poor interviewing skills, which clearly contributed to
		the outcome
		Poor Eye Contact
25	English	Use of the handheld doesn't allow for much eye contact, so enumerator
	J	doesn't realize when the respondent is ready to provide response.
30	English	. Lot of noise outside, kids playing. The enumerator found it hard to
		handle the flashcards and the handheld computer when standing. Not
		able to establish eye contact. The respondent seems frustrated with
		repetitions for each person in housing unit

¹⁷ Note that the case numbers in the original 106-respondent sample were retained when six incomplete interviews were excluded from the analysis database.

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31	English	The enumerator explained information on the flashcard, rather than allowing the respondent to read information. The enumerator looking at the handheld. The respondent looks frustrated that the enumerator continues to read.
88	English	The enumerator has poor interviewing skills, which clearly contributed to the outcome
		Friendly and At Ease
65	Spanish	The respondent was very suspicious at the beginning, and refused to be taped, but warmed up to the enumerator, who put him at ease
66	Spanish	The respondent was very suspicious at the beginning - refused to be taped - but warmed a bit due to the enumerator's friendly attitude.
71	English	The enumerator had been here last week; respondent had asked that enumerator come again today; husband had just had surgery, and she did not want to do it inside. The respondent asked if we could do it outside; we had to wait over 5 minutes for her to come out.
74	English	Handheld froze at the outset of the interview. The enumerator able to reboot it. The enumerator engaged in small talk while waiting for the handheld to reboot.
		Showed Handheld, Hard to See
7	English	The enumerator showed the respondent the screen on the handheld; hard for enumerator to handle everything; major problem; unlikely that the respondent can read, or be able to read screen.
25	English	Use of the handheld doesn't allow for much eye contact, so enumerator doesn't realize when the respondent is ready to provide response.
69	Spanish	Even though enumerator was not very proficient in Spanish, she was able to complete the interview. The respondent was very cooperative and tried very hard to understand what enumerator was saying. The enumerator repeated the questions when there was a breakdown in the interaction, and sometimes the enumerator showed the respondent the information on the handheld - hard to read.

F. Respondent Fatigue

The final series of observation questions included a specific item on interview fatigue or "burnout" and observers were asked to describe indicators and when this was noticed.

Three of the 99 respondents exhibited behavior towards the end of the interview indicating fatigue or burnout. Indicators included change in physical posture or movement and expressions of impatience and a desire to complete the interview rapidly, and expressions of impatience coupled with interruptions by household members. Table 21 below presents the description of the behavior indicating fatigues and burnout with the language in which the interview was conducted.

	The Three Fatigue/Burnout Cases		
Case ID	Language	Behavior	
27	English	The respondent was sitting down at the beginning of the interview. Towards the end, respondent got up and began stretching.	
30	English	There was a lot of noise outside, kids playing. The enumerator had a hard time handling flashcards and handheld when standing. The enumerator not able to establish eye contact. The respondent seems frustrated with repetitions for each person in housing unit. [Toward the end] the respondent's daughter opened door and called her mother, who said she was almost finished. This signaled to the enumerator that she needed to finish the interview quickly. The enumerator reassured her the interview was almost finished.	
50	Spanish	The telephone kept ringing throughout the interview. The respondent was in a hurry and losing patience. The respondent needed to leave at the end of interview	

Table 21. Observations on Interview Fatigue and Burnout

Project B: Observing English and Spanish NRFU Interviews in the 2006 Census Test Cognitive Testing Coverage Issues and Residence Rules

Chapter IV. Conclusions And Recommendations

In this chapter we present our conclusions and recommendations concerning the flashcard booklet, respondent difficulties with the residence rules, interview language use, differences in interviewing style by language, and physical difficulties in conducting the NRFU as planned.

A. Conclusions

1. Using the Flashcard Booklet

The 2006 Census Test field staff (enumerators) appeared to view use of the flashcard booklet as an optional adjunctive resource to the NRFU interview, rather than an integral (required and necessary) part of it. Some reported than they never use it.

When the flashcards are used, they are used appropriately, that is, the respondent has sufficient time to read it, and appears to do so.

The first card, "Who to Count," presenting the residence rules, is never used alone. Once this flashcard has been used it is shown, referred to, or handed back to the respondent for at least one of the two remaining questions it supports (reporting the relationship of household members to the reference person, Person 1, and the ancestry question)

The ancestry question, preceded by the Hispanic origin and race questions, triggers flashcard use more often than the household count and relationship questions.

2. Respondents' Difficulties with the Residence Rules

Since the enumerators seemed to use the flashcards in a problem-solving capacity, and showed or handed the residence rules flashcard ("Who To Count") more often than respondents were observed to have questions on household count, we believe that the respondents had little difficulty with the household count question.

3. Language Use

Enumerators attempting to conduct the interview in Spanish completed it in Spanish, even if they were less than completely fluent. The main difficulty respondents experienced with the enumerators' Spanish was pronunciation. Of more concern was the inability of some enumerators to give explanations or clarifications in Spanish. Occasionally enumerators injected some English into the Spanish interviews, but it is unclear why (e.g. for clarification, or out of frustration or both).

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4. Different Interviewing Styles by Language

All enumerators had full English fluency. The residence rules flashcard ("Who To Count") was used more often in English language interviews than in Spanish language ones. English language interviews were more likely than Spanish language interviews to be held outside of the house, to require more persuasion to gain the respondent's compliance, and to involve less initial "small talk."

Not all enumerators had full Spanish fluency. Respondents' initial questions about the purpose and nature of the interview were less likely to be satisfied when the interview was conducted in Spanish than in interviews conducted in English. Spanish interviews were more likely than English language interviews to be conducted indoors, to involve initial "small talk" and to require less persuasion to gain the respondent's cooperation. The residence rules flashcard ("Who To Count") was used less often in Spanish language interviews compared with those conducted in English.

In comparing the introductory behavior of the enumerators using English and Spanish¹⁸, we see the framework for differing interviewing styles. When the enumerators were using English, they mentioned the Census Bureau and explained confidentiality. A third component of their introductory remarks was an explanation of the uses of the data. When interviewing in Spanish, the Census Bureau was mentioned and confidentiality was explained, however the third most common topics was "small talk."

These two combinations of stock introductory remarks also had different outcomes. The enumerators needed to use other information to gain the interview more often when interviewing in English than in Spanish.

5. Physical Difficulties in Conducting the NRFU

Using the handheld computer to administer the NRFU interview significantly involved the enumerators' attention. Many seemed to have difficulty with one or another aspect of using it. These included following the programmed logic, being unable "to back up" after inadvertently following erroneous branches, problems reading the screens in the glare of the summer sun, and so forth. This difficulty undoubtedly interfered with remembering to use the flashcard booklet as instructed.

Use of the booklet was further complicated by the interview setting, which for about 7 in 10 interviews was standing at the door of the residence, either just outside, or just inside. Thus, there was no readily available surface on which to

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¹⁸ Many enumerators conducted interviews in both languages, albeit with differing proficiencies. Most native English speaking enumerators had some Spanish and all of the native Spanish-speaking enumerators had English.

place the flashcard booklet for easy access and use with the residence rules, relationship and ancestry questions.

B. Recommendations

1. Flashcard Booklet

Consideration should be given to finding several ways to get the enumerators to take the flashcard booklet with them to every interview and to show the first card, "Who To Count," the residence rules card, since once the flashcard booklet is used for the residence rules, it is used again. This could involve reducing its size, making it easier to put in a pocket or in some other way making it more accessible.

2. NRFU On the Doorstep

More thought should be given to the NRFU enumerator's task from an operational perspective. It appears that the enumerators will be conducting the majority of NRFU interviews while standing in doorways and out-of-doors and their operational tasks should be planned around this scenario. While the handheld computer requires both hands for data entry, this is no different from holding a clipboard and marking answers on a paper form, the fact remains that use of the flashcard booklet requires that the enumerator pause from data entry to display it or to hand it to the respondent. If flashcard use in the 2006 Census Test NRFU was substantially less than during the 1996 Census Test, more thought should be given to how the task changed from 1996 to 2006.

For example, perhaps enumerators should always wear a garment with a pocket into which they routinely stow the handheld while using the flashcard booklet. In 1996, perhaps it was easier for enumerators to tuck a clipboard under their arm when using the flashcards than the much smaller, more delicate, and more expensive handheld computer.

3. Using the Handheld Computer

Continue to improve the programming for the handheld computer. For example:

- Some enumerators could not "back up" when incorrect data had been answered, to make corrections,
- Others lost data or could not access a case ID. It was not clear if some interviews lacking case IDs, were "saved" on the handheld computer.
- When there is no response at an attempted household, the amount of data to be entered should be reviewed. Observers felt that the enumerators spent too much time entering data on a non-interview.

- Also provide enumerators more training on trouble-shooting their handheld computers so that they have fewer data entry problems during the interview.
- Finally, if enumerators are going to show the screens to respondents while they are standing on the doorstep, lighting requirements should be studied, as well as the font size and image type.

4. Enumerators' Interviewing and "Refusal Conversion" Skills

Enumerators need substantially more training in interviewing techniques, and this report should point the way toward some ways in which their training can be improved. For example, basic skills such as establishing and maintaining eye contact should be reinforced and enhanced refusal conversion skills should be practiced i.e. The enumerators could be taught several positive was of explaining the need for every household "to be counted."

Appendix A Observation Protocol

Project B: Observing English and Spanish NRFU Interviews in the 2006 Census Test Cognitive Testing Coverage Issues and Residence Rules



2006 NRFU FIELD OBSERVATION PROTOCOL

Case ID:	se ID: Observer Initia			s		Interview Date:	e: <u> / /</u>		
Obtaining the Interview									
1. Did the FR									
a. Engage in smal	ll talk p	rior to	the in	terview?	Yes	No)		
b. Explain uses of	fcensu	s dataʻ	?		Yes	No)		
c. Explain confidentiality?					Yes	No)		
d. Mention the U.S	S. Cens	us Bur	reau?		Yes	No)		
e. Use other methods to persuade R?					Yes	No)		
f. If yes, what were	e they?								
a. Length of interv b. Confidentiality c. Handheld comp d. Other concerns e. If yes, what wer	? outer? s?	Yes Yes	No						
·									
3. Did the FR adequatelya Yes No			ns/qu	uestions o	lescrit	oed a	bove (was R satisfied)?		
4. At the beginning of the	intervi	ew. wh	at wa	s the ton	e of th	e inte	eraction?		
a. Uncoop		1			3	4	Cooperative		
-			3	4	Friendly				

Permission to Tape

ASK R "We would like to tape the interview so we have a good record of your answers. Do we have your permission to tape?"

REMINDER: After getting permission to tape, you should not speak to the R, or help the FR in any way, until after the interview is over and the tape is turned off. Do not handle the flashcards.

5. Did you obtain a "yes" or "si" (or any other positive sound) on the tape? Yes No

If R refuses to be taped, tell her/him you will wait for the FR, and step aside. Observe as unobtrusively as possible, without taking notes, and record what you can recall after you leave the address.

"I'll wait for (Field Rep's Name)." Then step aside.

Residence	Rules	Flashcard	& Household	Count Question
1100100100	1(0100	i idoniouru	a nouverera	oount gaoonon

- a. Did the FR <u>hand it t</u>o the R? Yes No
- b. If not, did the FR show it without letting go? Yes No
- 7. Did R look at it? Yes No NA
 - a. If yes, did R <u>have time to read</u> the residence rules? Yes No
 - b. Did R appear to read the residence rules? Yes No
 - c. If yes, did the R read the whole thing, or just parts of it? Whole Parts
 - d. Did R read the rules before or after giving an answer? Before After
 - e. If after, did the R change his/her answer? Yes No
- 8. Did R ask a question about the household count or residence rules? Yes No

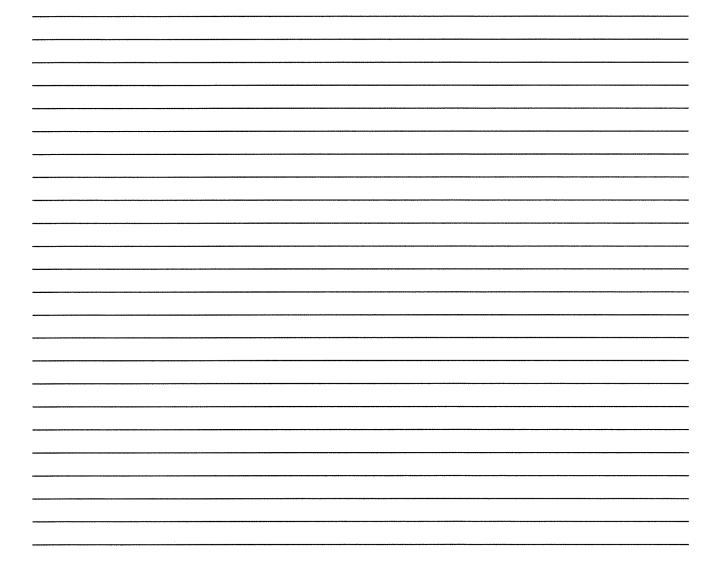
a. If yes, was FR able to adequately answer R's question (was R satisfied)? Yes No

Household Roster of Names & Follow-Up (Coverage Issue	es)							
9. Did R have a question or problem including:								
a. Self? Yes No								
b. Baby or foster child? Yes No								
c. College student? Yes No d. Visiting relative or visiting non-relative? Yes No								
								e. Relative who lives/stays part of the time somewhere else? Yes No
f. Someone else? Yes No								
If yes to any of these, describe the question(s) or problem	(s)							
Flashcard A (Relationship)								
10. Was flashcard A handed to or shown to R?	Yes	No						
a. If yes, did the R appear to read the flashcard?	Yes	No						
11. Did relationship appear to be inverted?	Yes	No						
a. IF yes, describe how this happened								
<u>Flashcard B (Ancestry) and Race Question</u> 12. Was flashcard B handed to or shown to R? a. If yes, did the R appear to read along with the FF		No No						
13. Did R have problems, questions, or comments related a. If yes, explain			•					
If flashcards were not used, circle NA and go t	to quest	ion 17.						
Overall Flashcard Behavior								
14. Did the flashcard booklet go back and forth between R	and FR	betweer	n questions? Yes	s No				
15. Did the FR change the flashcard pages for the R?	Yes	No						
16. Did the FR have trouble administering the flashcard bo a. If yes, explain		Yes	Νο					
· · · ·								

Language Behavio	<u>or</u>								
17. Looking at the	interview as a wh	nole, wh	at langı	uage wa	s used?	Circle	one		
All English	Mostly English	I	Half and	l Half	I	Mostly S	panish	1	All Spanish
18. Did the langua a. If yes, d	ge change during id the language g				No ge more	than on	ce) throu	ughout	the interview?
	Yes No								
b. If only o	ne language char	nge, who	o initiat	ed it?	Resp	ondent	Field R	Rep	
c. Which I	anguage did it en	d up wit	th?	Engli	sh	Spani	sh		
d. Describ	e the use of 2 lang	guages	during	the inter	view				
19. Were there pro a. If yes, e	blems particular kplain		-						No
<u>Toward the End of</u> 20. Where and how Outside of the hou	w did the interview	•		n the do	orway s	tanding	In	side si	tting
21. How much nor	verbal behavior (i.e hea	d nodd	ing or sl	haking)	was use	d bv the	R to c	onvev
responses to surv		None		1	2	3	4	5	A lot
22. Toward the en	d of the interview	, what w	/as the f	tone of t	he inter	action?			
a. Uncoop	erative 1	2	3	4	Соор	erative			
b. Hostile	1	2	3	4	Frier	ndly			
c. If there v	was a negative to	ne, give	your ui	nderstar	iding of	why			
23. Did R develop a. If yes, w	interview fatigue hat were the indic				s No (at wha	t questic	on) did it	happe	n?

Other Notes

24. Please describe anything that you believe contributed to the interaction. If there were issues in the interview environment related to gender, age, employment, socio-economic status, ancestry, race, disability national origin, or commotion (noise and activity) please explain.



Appendix B Flashcard Booklet

Project B: Observing English and Spanish NRFU Interviews in the 2006 Census Test Cognitive Testing Coverage Issues and Residence Rules





RESPONDENT FLASHCARD BOOKLET

DD-1(F) (8-29-2005)

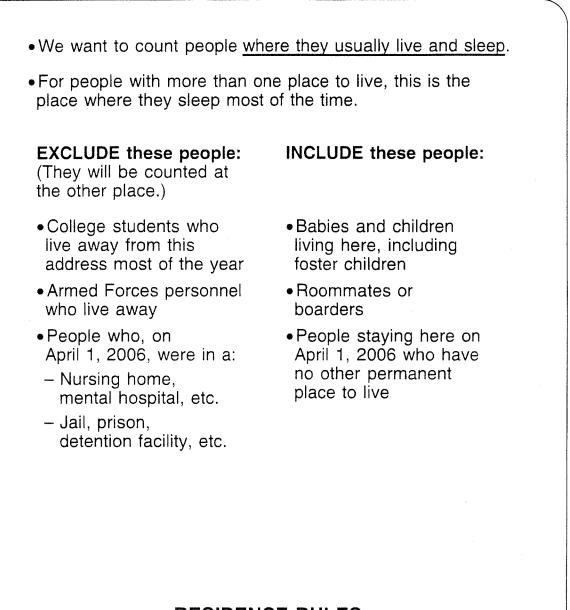
U.S. DEPARTMENT OF COMMERCE Economics and Statistics Administration U.S. CENSUS BUREAU

USCENSUSBUREAU

Page 2

DD-1(F) (8-29-2005)

WHO TO COUNT



RESIDENCE RULES

DD-1(F) (8-29-2005)

Page 3

A QUIÉN CONTAR

- Queremos contar a las personas <u>donde usualmente viven</u> <u>y duermen</u>.
- Para personas con más de una vivienda, este es el lugar donde duermen la mayor parte del tiempo.

EXCLUYA a estas personas: (Se contarán en el otro lugar.)

- Estudiantes universitarios que no viven en esta dirección la mayor parte del año
- Personal de las Fuerzas Armadas que vive fuera de aquí
- Personas que el 1 de abril de 2006 estaban en:
- un hogar de convalecencia, un hospital para enfermos mentales, etc.
- una cárcel, una prisión, un centro de detención, etc.

INCLUYA a estas personas:

- Bebés y niños que viven aquí, incluyendo a hijos de crianza
- Compañeros de cuarto o inquilinos
- Personas que se quedaban aquí el 1 de abril de 2006 y que no tienen otro lugar permanente donde vivir

REGLAS DE RESIDENCIA

Page 4

DD-1(F) (8-29-2005)

CARD A

Relationship to Person 1:

Related:

- Husband or wife
- Biological son or daughter
- Adopted son or daughter
- Stepson or stepdaughter
- Brother or sister
- Father or mother
- Grandchild
- Parent-in-law
- Son-in-law or daughter-in-law
- Other relative

Not Related:

- Roomer or boarder
- Housemate or roommate
- Unmarried partner
- Foster child or foster adult
- Other nonrelative

RELATIONSHIP

DD-1(F) (8-29-2005)

Page 5

TARJETA A

Parentesco con la Persona 1:

Emparentado:

- Esposo o esposa
- Hijo o hija biológico(a)
- Hijo o hija adoptivo(a)
- Hijastro o hijastra
- Hermano o hermana
- Padre o madre
- Nieto o nieta
- Suegro o suegra
- Yerno o nuera
- Otro pariente

No Emparentado:

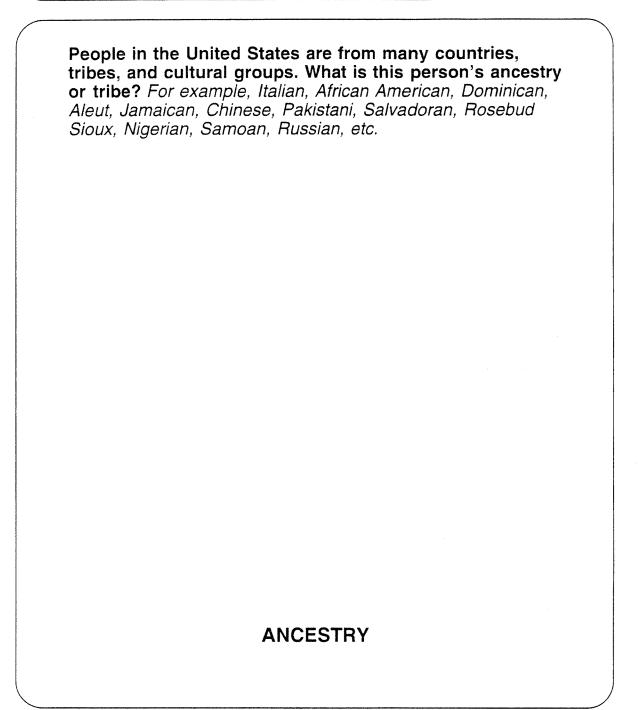
- Inquilino(a) o pupilo(a)
- Compañero(a) de casa o compañero(a) de cuarto
- Compañero(a) no casado(a)

DD-1(F) (8-29-2005)

- Hijo(a) de crianza o adulto bajo custodia
- Otro no pariente

PARENTESCO

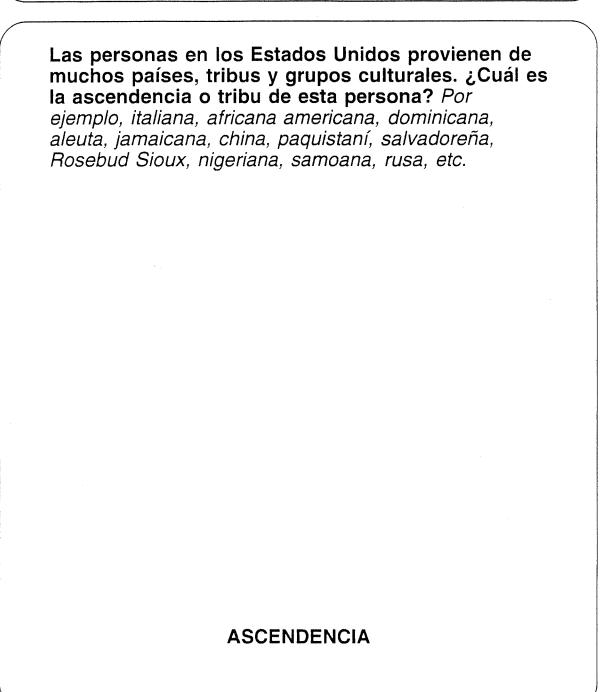
CARD B



DD-1(F) (8-29-2005)

Page 7

TARJETA B



Page 8

DD-1(F) (8-29-2005)

Appendix C Observations Excluded from the Analysis

Ineligible Interviews

Case Number	Explanation for Exclusion
1	Observer # 1 reported that the respondent did not live at the census address in question. In fact, nobody lived in the apartment on April 1, 2006. He further reported that the respondent was Mexican American, a member of the management staff of apartment complex. The observer noted that the flashcard observations ("no" for both Flashcard A and B) were "not applicable."
5	Observer #1 reported that this was a proxy interview. A member of the management of the apartment complex was interviewed. The occupants of the residence on April 1, 2006 could not be located after several visits to the apartment. There is no flashcard behavior reported on the observation form.
19	Observer #1 reported that the respondent refused to give his name. He said he came from Hawaii when his father died, and had to decide what to do with the house. The observer labels this response an "unlikely story." No taping was done because he refused. Flashcard responses are "no" for both flashcards.
26	Observer #2 reported that the interview was terminated right after the enumerator discovered that the respondent had just moved into the household in April. Furthermore, the observer notes, "This was about midway through the interview This interview will probably not count." There are no data after Q 8 on the observation protocol, so there is no flashcard behavior recorded.
34	Observer #2 reported that the interview was terminated early, just after Q 5 on the observation protocol. He reported that the enumerator discovered the respondent had moved to her current housing unit in April, and the interview ended at that point.
35	Observer #2 reported that the interview was terminated early, just after Q 5 on the observation protocol. He reported that the enumerator discovered the respondent had moved to her current housing unit in April, and the interview ended at that point.
96	Observer #1, reported that the enumerator discontinued the interview after Q 11 on the observation protocol, when he learned that the respondent did not live in the residence on April 1, 2006. The enumerator said she would return when the respondent's mother was there.