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**Cognitive Testing of ACS Multilingual Brochures
in Multiple Languages**

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Cognitive Testing of ACS Multilingual Brochures in Multiple Languages

Final Research Report

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1. INTRODUCTION

In a continued effort to ensure high-quality data from the increasingly multi-lingual and multi-ethnic universe of respondents, the ACS language team at the Census Bureau took the initiative to develop translations of ACS supporting documents into multiple languages including Spanish, Chinese, Korean, and Russian. The Cognitive Testing of Translations of ACS Supporting Materials in Multiple Languages, Project A, was designed to evaluate two versions of a multilingual brochure that are included in a Pre-Notice mailing packet and an initial questionnaire mailing. Through cognitive interviews, the Census Bureau, RTI International, and Research Support Services (RSS) will determine whether these materials meet the Census Bureau Pretesting Standard (U.S. Census Bureau, 2003) and the Census Bureau Guideline for Translation (U.S. Census Bureau, 2004). This research will also help the Census Bureau determine if the respondents who see the translated documents have a similar understanding of the intended communication as the English-speaking respondents, and will identify what types of messages are conceptually difficult to translate effectively and what can be done to overcome this difficulty. The languages tested for this task include Spanish, Chinese, Korean, and Russian, as well as English, for comparative purposes.

This undertaking is in response to increasing challenges in ensuring high-quality data from linguistically isolated populations included in the ACS survey sample. The multilingual brochures being tested are important documents because they inform households how they can obtain telephone assistance in their own language, as well as give general background information on the ACS. As a result, cooperation with the ACS relies to a large extent on the quality and effectiveness of the translations of these documents into the target languages.

This project included forming an expert panel to review the translated materials, developing protocols, recruiting appropriate participants, performing cognitive testing, conducting analysis, and reporting recommendations for changes to the multilingual brochures. An important byproduct of this research is the continued investigation and documentation of best practices for conducting cognitive interviews in languages other than English and Spanish. Documentation on techniques and probes that proved to be culturally appropriate and fruitful for each language will expand on the existing experience with techniques for English and Spanish, and will benefit the field of cognitive interviewing.

This report documents all aspects of this research, from recruitment through protocol development, to results of qualitative research. The specific research activities are listed below:

- Organizing a panel of experts to conduct the initial committee review of the translated documents
- Preparing a recruitment plan, including consent forms and incentive receipts
- Preparing and testing interview protocols for two rounds of interviews
- Translating interview protocols, consent forms, and incentive receipts into target languages
- Conducting cognitive interview training for language experts
- Recruiting participants

- Conducting two rounds of cognitive interviews in English as well as the target languages and preparing interview summaries
- Reviewing findings after the first round of cognitive interviews were completed, and offering alternative translations as needed
- Testing alternative translations in Round 2 interviews
- Conducting language expert committee reviews of interview findings and making recommendations for alternative translations
- Preparing the research reports, interview summaries, and this final research report.

Materials to be tested in cognitive interviews. Two versions of a multilingual brochure inserted in the ACS mailing packets were tested. Each version of the multilingual brochure was reviewed as part of the mailing packet of materials that are sent to sample households selected for the ACS. For each round of interviews, a separate protocol guide was developed for each version of the multilingual brochure and associated materials in the mailing packet. Descriptions of each packet are provided below.

- **Pre-Notice Materials.** Mailing envelope with letter and multilingual brochure. (See Appendix 1.)
- **Initial Questionnaire Materials.** Mailing envelope with introductory letter, questionnaire, instructional booklet (guide), FAQ brochure, multilingual brochure, and reply envelope. (See Appendix 2.)

Schedule. Protocol development took place in October and November 2007. Language teams met to complete the modified committee review of the protocol translations and other translated documents on November 17, 2007. Interviewers were trained on November 17-18, 2007. The first round of interviews took place from November 28 through December 26, 2007. The interim meeting was held at the Census Bureau Offices on January 7, 2008. Round 2 interviews were conducted from January 17 to February 28, 2008.

2. METHODOLOGY

The goal of the Cognitive Testing of Translations of ACS Supporting Materials in Multiple Languages was to conduct 112 cognitive interviews in the four target languages, as well as English. Three sites were selected for the interviews: Washington, D.C. (and surrounding communities), Chicago, Illinois (and surrounding communities), and Raleigh, North Carolina. Sites were selected specifically because they are close to the research teams geographically, which helped control overall costs, and these sites have sufficient concentrations of Hispanic, Chinese, Korean, and Russian populations to represent the target language groups.

This chapter outlines the protocol followed by the researchers in order to accomplish this goal. Because all steps in the protocol required extensive knowledge of the target languages, the first step was to organize a panel of experts for each language group.

Panel of Language Experts. The qualifications and experience considered in assembling the language teams included native-speaker language competence, education and work experience in the target culture, and knowledge of and experience with translation work. Preference was also given to individuals who had prior direct experience on similar projects, then to those with translation experience – either through translations of survey materials or with other translations for community organizations. Each language team was comprised of one lead language expert and two other language experts. A total of 13 language experts were identified and engaged in the research from start to completion of the last round of cognitive interviews and reporting. Ten of the positions were staffed with individuals who had also worked on the 2006 ACS cognitive interviewing task order. Five of the positions were filled by staff from RTI, Research Support Services (RSS), and the Census Bureau. The remaining eight experts were hired by RTI and RSS as consultants for this research. Two additional RTI staff worked to develop training materials, protocols, and to manage the overall schedule and project. All staff completed the security clearance application and Title 13 training.

The language experts are listed below with their language team affiliations.

Spanish Team

- Dr. Alisú Schoua-Glusberg, Spanish Language Lead from RSS
- Ms. Rosanna Quiroz, Spanish Language Expert from RTI
- Ms. Liliana Aguayo, Spanish Language Expert from RSS
- Mr. Manuel Borobia, Spanish Language Expert from RSS

Chinese Team

- Dr. Yuling Pan, Chinese Language Lead, U.S. Census Bureau
- Dr. Virginia Wake, Chinese Language Expert consultant to RTI
- Ms. Yu Yuan, Chinese Language Expert from RTI (recruiting and transcriptions)

Korean Team

- Ms. Hyunjoo Park, Korean Language Lead from RTI
- Dr. Hyunjung Bae, Korean Language Expert consultant to RTI
- Ms. Jiyoung Son, Korean Language Expert consultant to RTI

Russian Team

- Ms. Evguenia Haps, Russian Language Lead consultant to RSS
- Ms. Olga Bezzubov, Russian Language Expert consultant to RSS
- Ms. Sophia Kholodenko, Russian Language Expert consultant to RSS
- Dr. Alisú Schoua-Glusberg, Russian Language team member (RSS)

The cognitive interview protocols were translated to the target languages using a modified committee approach. (This is described in detail later in this section.) In addition to participating in committee reviews of the translations, the panel members also participated in the conducting of the cognitive interviews, preparation of interview summaries, and review of the cognitive findings and identification of alternative wording of translations. They also made changes to translated materials after Round 1, and made contributions to the interim and final report recommendations.

Development of cognitive interview protocols and forms. Scripted cognitive interview protocols were developed in English and reviewed by staff at the U.S. Census Bureau, including members of the ACS language team. (See Appendices 3 through 6, English versions of protocol guides for Rounds 1 and 2.)

The cognitive interview protocol documented the administration details, consent forms, and materials required for the cognitive interviewing, including a list of standard probes and special instructions to be used, and a guide for the interviewers to follow during interviews and reporting. The protocol was designed to test the translated materials to ensure that they met the Census Bureau's translation requirements for reliability, fluency, and appropriateness. Because the protocol included scripted instructions to be read to the respondent, it also served as a guide for the administration of consent forms and to confirm the point in time when the tape recording was to begin.

The protocol was designed to uniformly facilitate the two rounds of cognitive interviews in English as well as the four target languages. Each of the multilingual brochures was assessed by having respondents go through two readings. Respondents were first asked to read an entire document silently. They were then asked to read specified segments aloud in the second reading. Bilingual respondents (who also spoke English) were asked to review the additional materials included in the packets. Scripted cognitive interview probes were developed to determine general impression and comprehension after the initial reading. Following the second reading, probes focused on the reaction to the information and message as well as understanding of specific terms and phrases. A debriefing section at the end asked about overall impressions.

The English interview protocols were tested and timed before they were submitted to the language teams for translation. As part of the protocol guide development, language teams contemplated the impact of the statements included in the ACS materials and the possible impact of such statements for each target ethnic/cultural population. If any specific issues needed to be addressed for a particular language, additional protocol guide questions were added. The Korean team corrected a typographical error that appeared in the Pre-Notice version of the multilingual brochure before completing any interviews.

Once finalized, all documentation was submitted to RTI's Human Subjects Institutional Review Board (IRB) for approval. The Census Bureau obtained a waiver from the Office of Management and Budget (OMB) for this work.

Translation Methodology for the Cognitive Interview Protocols. The two versions of the ACS multilingual brochure were translated through another Census Bureau contract. The translation task for this contract was to translate the cognitive interview protocols and interview materials including the consent form and respondent incentive receipt. To translate the cognitive interview protocols into each of the four target languages, a committee approach

was followed. The four language teams were engaged in committee review of the translated materials before the testing began, and then engaged in translating the cognitive interview protocols and forms.

Team or committee approaches to translation have been used since the 1960s (Nida 1964), and more recently in the translation of data collection instruments (Brislin, 1976; Schoua-Glusberg, 1993; Guillemin, Bombardier and Beaton, 1993; Acquadro, Jambon, Ellis and Marquis, 1996). In recent years, survey researchers' and survey translators' dissatisfaction with traditional translation and assessment methods (such as back translation) has led to the wider adoption of team approaches. The U.S. Census Bureau Expert Panel on Translation and the Translation Task Force for the European Social Survey has indicated that back translation is not a satisfactory approach. Recently issued Census Bureau Guidelines for Survey Translation recommend following a team or committee approach (Pan and de la Puente, 2005).

For the translation of the cognitive interview protocol, we followed a Committee Review approach. Due to serious time constraints on this project schedule, we did not have time to allow each language expert to individually translate part of the protocol guides and other materials before the committee met. Therefore, and in light of the fact that parts of the protocol were very similar to those translated by Modified Committee Approach in 2005, we had one language expert translate the materials in advance using much of the old committee translations as basis. During interviewer training a committee meeting was held for each language to discuss the translated items, one by one, as a group, in the same fashion as is usually done in the committee meeting when using any of the variations of the Committee Approach. In addition to reviewing the cognitive interview protocols, the language teams also reviewed the interview consent forms and incentive receipts into the target languages. Each team member contributed to the discussion with the aim of improving and refining the first translation, making sure that it reflected the intent of the English original and flowed well in the target language. Team discussions were generally held in English, and each member had to articulate the reasons for suggesting changes or improvements to the original translation.

The strength of the committee approach lies in the fact that consensus among bilinguals produces more accurate text than the subjective opinion of a single translator. Additionally, by striving for consensus, problems of personal idiosyncrasies, culture, and uneven skill in either language are overcome. The group process in the reconciliation meeting is somewhat akin to a brainstorming session in which the team looks together for alternative translations and selects by consensus.

Cognitive Interview Training. After finalizing the cognitive testing protocols with the Census Bureau, a comprehensive cognitive interviewing training session was held with all of the language team members. The language experts trained to be cognitive interviewers were also experienced social scientists with graduate degrees. As mentioned previously, ten of the thirteen language experts had worked with the Census Bureau before on similar language-related projects. The training session was held at RTI's office in Washington, DC on November 17-18, 2007.

This training session consisted of both methodological and substantive issues and provided the basic context on the specific cognitive interviewing methodologies to be used in this research. The following topics were covered in sequence during the one-day training:

Day 1:

- Welcome and introductions
- Background of ACS and the specific task order
- General cognitive interviewing training
- Review of protocol guide #1
- Review of protocol guide #2
- Administering culturally appropriate probes
- Committee Review of translated protocol guides and other materials

Day 2:

- Demonstration of probing (good and bad examples)
- Paired Mock interviews using Protocol Guide #1
- Break-out into groups for practice with mock interviews and language-specific discussions
- Q & A Session following Mocks
- Recruiting and screening
- Data Security
- Review of Interview Summary Reports
- Final gathering/questions and answers

(*See Appendix 7* for detailed schedule.)

The training was designed to outline the research goals and objectives, to review the correct administration of the prepared probes as documented in the protocol guides, as well as to cover the specific language wording and translations to the target languages. An important part of the training for the language experts involved negotiating appropriate questions and probes for each language and culture. Team members with direct experience conducting cognitive interviews specifically targeted toward translation issues were critical members of each language team. Throughout the training, discussions of specific questions and probes were raised as language experts contemplated possible difficulties or concerns that respondents might raise or have. Recommended solutions were discussed during the training.

During the language team break-out sessions, each team member practiced administering the protocol guides in the target language. Teams also had an opportunity to discuss the impact of culturally-driven perceptions of surveys and topics in the ACS materials for their particular ethnic or cultural population. This was a critical step in the process and had to be completed by the language teams individually because presenting the messages in culturally appropriate ways facilitated the communication of the intended message in different languages.

Following the two-day training, the language teams reviewed and finalized the translated protocols and then kept in contact (via conference call) as needed to review or confirm plans for final modifications to the materials.

Conducting the cognitive interviews. Cognitive testing of the English version of the ACS multilingual brochure was undertaken in order to help determine if problems found in the translated versions were simply problems already present in the original English version.

Only one set of documents was tested in each cognitive interview. The interviews for Round 1 included 12 interviews for the target languages and 8 interviews for English. **Table 2-1** provides the distribution of interviews by language.

Table 2-1 Number of Interviews and ACS Materials Tested by Round

Cognitive Interview Round 1	Cognitive Interview Round 2
Materials Set 1: Pre-Notice Materials 4 English Interviews 6 Spanish Interviews 6 Russian Interviews 8 Korean Interviews 7 Chinese Interviews	Materials Set 1: Pre-Notice Materials 4 English Interviews 6 Spanish Interviews 6 Russian Interviews 6 Korean Interviews 6 Chinese Interviews
Materials Set 2: Initial Questionnaire Materials 4 English Interviews 6 Spanish Interviews 6 Russian Interviews 5 Korean Interviews 5 Chinese Interviews	Materials Set 2: Initial Questionnaire Materials 4 English Interviews 6 Spanish Interviews 6 Russian Interviews 6 Korean Interviews 6 Chinese Interviews

Prior to beginning the interview, each participant was assigned to one of the protocols. The protocol began by providing the participant with an explanation of the research and having the participant review and sign the informed consent document. (See **Appendix 8** for Consent Forms.) If the participant agreed, the interviewer tape recorded the interview. As described previously, the interview protocols involved both silent reading and the reading aloud of specified statements in the multilingual brochure. Interviewers observed the participants while they read, noting any specific signs of difficulty, confusion, hesitation, or annoyance. Interviewers asked probing questions to determine the cause of any observed or spoken confusion or concern on the part of the participants. For some sections, interviewers followed scripted probes to discuss meanings of specific statements or terms.

Following the discussion, the interviewer concluded the interview and provided the incentive payment to the participant.

Reviewing findings. After all first round cognitive interviews were completed and documented in summary reports, the language teams met to reassess the language used for problematic statements in the letters and brochures. They developed alternative translations, as needed, to be included in the second round of interviewing. In order to meet the targeted one-hour time period for the interview, the teams reviewed the probing questions in the interview protocol that elicited universally consistent responses among Round 1 participants and determined which of those questions could be deleted for Round 2 interviews. Based on the decision from the Census Bureau on alternative translations, the teams finalized plans for protocol guides for Round 2. The language teams also drafted additional debriefing questions appropriate to the target language to test the alternative translations. All the proposed alternative translations were tested in the second round of interviews.

After the completion of two rounds of interviews, the language teams met one more time to review the results and to make recommendations to improve the translations in the

target languages. Sections 5-8 of this report contain detailed discussion on the recommendations for modifications to ACS supporting materials

Reporting results. Interview summary reports for each interview were prepared and delivered on a flow basis. An Interim Report for each language, which included recruiting and interview outcomes as well as aggregate data of all summaries for that language, was submitted at the end of Round 1 interviewing. These interim reports also included a discussion of any problematic wording or concepts in the materials found in the course of the cognitive interviews, as well as suggestions for debriefing questions for Round 2 interviews. An Interim Meeting was held on January 7, 2008 at the Census Bureau offices in Suitland, Maryland. Representatives from RTI, RSS, and the Census Bureau presented the findings from Round 1 as well as recommendations for modifications to Round 2 protocol guides. In addition to Census Bureau staff from the Statistical Research Division, there were members of the ACS team present at the meeting.

3. PARTICIPANT RECRUITMENT

Participant recruitment for target language interviews was carried out under the responsibility and direction of RTI International, Research Support Services, and the Census Bureau as specified in the language-specific sections described in this section. For each target language, the recruitment process followed the same general process for screening participants. All recruitment information was maintained in a consistent manner for each language group, and all team members followed the security protocol developed to protect potential participants. In order to reach the targeted number of participants, however, each team utilized a cadre of recruiting techniques in order to determine what was most effective for the targeted demographics. This section details both the consistently applied as well as the unique protocols for recruiting each language group.

Recruiting Targets. As an initial step in the planning process, a Staffing and Recruiting Plan was developed and approved. (*See Appendix 9.*) This plan outlined the recruiting targets for specific demographics for each language population. These target numbers were based on the demographics of respondents to the 2004 ACS. Specific targets by language group are identified in the language-specific sections below. As part of the Staffing and Recruiting Plan, the screening form that was developed for the 2006 Cognitive Testing of Translations of ACS CAPI Materials in Multiple Languages contract was used as the model. This screening form was revised as needed for the current project in English then translated into each of the target languages. Documentation of the screening questions used to determine eligibility for each language groups were included in the Staffing and Recruiting Plan. The screening questions for the English group were slightly different, since language was not an issue for the cognitive interview recruiting.

Once an interview candidate expressed interest in participating in the cognitive interview, one of the language experts used the scripted questions to complete the screening form in that target language. The eligibility criteria embedded in the screening questions allowed us to target a mix of age groups and various education levels. In addition to the demographic requirements, participants were screened for language dominance so that they would resemble as closely as possible the ACS respondents who request materials in the target languages. Candidates for cognitive interviews were screened for language competency

and only those who spoke and read the target language as a native speaker and could read or speak English less than well were eligible for the cognitive recruiting.

All language teams utilized a paper document to record recruiting information. This document was designed to track basic demographics of the respondents asked during the screening interview. Each respondent was given an ID number, which was then used in the interview summaries for identification purposes.

3.1 Recruiting of English Respondents

Recruiting of the English cognitive interview participants was conducted by the Census Bureau for the interviews in the Washington, D.C. Metro area, and by RSS in Chicago. The Census Bureau recruiter used typical methods for recruitment, such as posting flyers and inviting respondents to identify others who might be eligible and willing to participate. RSS recruited in Chicago by posting flyers in a social service organization, in a non-profit job center, and in a township general assistance office.

Recruiting targets were based on ACS demographic statistics from the Census Bureau’s Website and from feedback from the ACS language team. Special effort was made to recruit participants with no more than a high school education. Also, a higher proportion of white participants were recruited. Table 3-1 displays the recruiting targets for the English language group for each round of interviews. The actual number of recruits for each cell is displayed in parenthesis in the last column of the table.

Table 3-1. English Recruiting Targets for Each Round Based on ACS Data

Characteristic	Target Percentage to Recruit	Target Number to Recruit	Range of Recruits/ (Actuals)
Educational attainment Completed level of school or degree that is...			
Less than high school graduate	16.1%	1.6	1-2 (3)
High school graduate, less than college graduate	56.9%	5.7	5-7 (10)
College graduate	27.1%	2.7	2-4 (6)
Race			
White	77.1%	7.7	7-9 (14)
African American	12.4%	1.2	1-2 (4)
Other	10.5%	1.1	1-2 (1)
Language Abilities			
Monolingual	100%	10.0	10 (19)
Bilingual	0%	0.0	0 (0)
Gender			
Male	48.9%	4.9	4-6 (8)

Characteristic	Target Percentage to Recruit	Target Number to Recruit	Range of Recruits/ (Actuals)
Female	51.1%	5.1	4-6 (11)
Age			
34 or younger	22.7%	2.3	2-3 (6)
35 – 54	29.7%	3.0	2-4 (8)
55 or older	22.1%	2.2	1-3 (5)
Total Number of Participants			10

3.2 Recruiting for Chinese Respondents

The Chinese team for the ACS translation pretesting project recruited Chinese monolingual and Chinese-English bilingual speakers in the Greater Washington, D.C. Metro area and Raleigh-Durham-Chapel Hill area. The recruitment was conducted through diverse methods including posting ads in five local Chinese newspapers¹, making calls and sending electronic posters to three Chinese schools², having acquaintances distributing information in three Chinese grocery stores, one Chinese church and other Chinese communities in person, posting flyers on these sites, posting ads through three Chinese internet web-communities, word-of-mouth, and snowball recruiting.

We followed the general guidelines in the narrative in our Recruiting Plan: “Chinese-speaking subjects’ characteristics suggest the need to include high school and college graduates as well as people who have not graduated from high school. People who lived in the United States at least one year ago should be over sampled relative to recent immigrants. The population over 55 should be included. Recruiting will target Mandarin and Cantonese dialects.”

The following table displays the recruiting targets for this language group for each round of interviews annotated with challenges we found along the way with recruiting for Chinese respondents. The target number to recruit is for each round and the actual numbers are for both rounds.

Table 3-2. Chinese Recruiting Targets for Each Round Based on ACS Data

Characteristic	Target Percentage to Recruit	Target Percentage to Recruit	Target Number to Recruit	Range of Recruits/ (Actuals)
Educational attainment Completed level of school or degree that is...				
Less than high school graduate	40%-50%	45%	5.4	5-6 (10)
High school graduate, less than college graduate	30%-40%	40%	4.8	4-6 (11)

¹ 《大紀元時報》 《华星报》 《新世界時報》 《多維時報》 《美華商報》

² Hope Chinese Schools in D.C. Metro: College Park Campus, Herndon Campus, and Fairfax Campus

Characteristic	Target Percentage to Recruit	Target Percentage to Recruit	Target Number to Recruit	Range of Recruits/ (Actuals)
College graduate	Less than 20%	15%	1.8	1-2 (3)
Place of Birth				
Born in China	70%-80%	75%	9.0	8-10 (18)
Born in Taiwan	Attempt to recruit	10%	1.2	1-2 (3)
Born in US or Other	Less than 20%	15%	1.8	1-2 (3)
Year of Entry				
Living in US 1 year ago	Nearly all	100%	12.0	11-12 (21)
Not living in US 1 year ago	Minimum	0%	0.0	0-1 (3)
Language Abilities				
Monolingual	N/A	66.6%	8.0	7-9 (15)
Bilingual	N/A	33.3%	4.0	3-5 (9)
Gender				
Male	N/A	50%	6.0	4-8 (11)
Female	N/A	50%	6.0	4-8 (13)
Age				
34 or younger	10%-20%	15%	1.8	1-2 (3)
35 – 54	30%-40%	40%	4.8	4-6 (10)
55 or older	40%-50%	45%	5.4	5-6 (11)
Dialect				
Mandarin	N/A	50%	6.0	4-8 (17)
Cantonese (Difficult to recruit)	N/A	50%	6.0	4-8 (7)
Total Number of Participants*				12

For nine weeks (November 26, 2007 – January 28, 2008), we screened 106 individuals and found 98 persons who met the basic criteria (above age 18, able to read simplified Chinese, and didn't participate in cognitive interviews for the 2006 ACS project³). Based on their other characteristics such as educational attainment, place of birth, year of entry, language ability and preferred dialect, we recruited 24 persons for the cognitive interviews.

³ One Round 2 respondent reported, at the end of the interview, that he had participated in a similar ACS cognitive interview in 2006. In order to avoid bias, since then we added a screening question to exclude individuals who had participated before.

Detailed demographic profiles of the 24 respondents are summarized in the table 5-1. The 24 participants show a wide range in demographics of age, education level, place of birth, year of entry, language ability, gender, and dialect preference, and the recruiting has reflected a representative mix of these characteristics.

While our recruiting has met most demographic requirements, we encountered difficulties to strictly fill all target quotas for each round of the interviews. Specifically, while recruiting respondents for Round 1 interviews, we had difficulty finding enough Chinese-speaking persons with less than a high school education. We also had difficulty finding people from Taiwan who were able to read simplified Chinese. In the recruiting for Round 2, our recruiting efforts gave high priority to these hard-to-get characteristics (i.e. educational attainment: less than high school graduate, and place of birth: Taiwan). While we found individuals who met both criteria, we faced new challenge of finding enough people who were primarily Cantonese speakers. However, if we took into account those Mandarin-Cantonese bilinguals who preferred Mandarin in the interview, we have met the target.

Among the recruiting methods, word-of-mouth and Chinese newspaper approaches turned out to be most effective in reaching our interview target population. Based on our experience and the frequent questions we received, we felt that interested people were mostly motivated by the interview incentive or by utilizing their Chinese language skills. Some people also showed strong interest in expressing opinions on the Chinese translation materials. Our recruiting difficulties indicate that Chinese immigrants with less than high school education tend to be most skeptical about the study and cautious of participating. There are three candidates with less than high school education who first agreed to participate but later broke the interview appointment. Another indication is that people who grew up in Taiwan or Hong Kong, regardless of year of entry, are likely to have limited ability to read simplified Chinese.

3.3 Recruiting of Korean Respondents

Recruitment

The ACS Korean team recruited Korean monolingual or limited bilingual population in two regions: the D.C. Metro and Chicago Metro areas for three weeks beginning on December 1, 2007. We used diverse methods for recruitment such as placing ads in local ethnic daily newspaper ad for a week (Joongang USA DC/MD/VA beginning December 4, 2007 and Joongang USA Chicago Metro beginning December 6, 2007), placing Internet ads on the Korean Internet Community website, posting flyers on sites where Koreans usually visit and asking for help from Korean community leaders⁴. This study was also aired on the local Korean TV news channel in the Greater Chicago area. Snowball recruiting (word-of-mouth) through the actual respondents was done after the interview as well. Since the Korean team could obtain enough eligible respondents during the first round recruitment period, all of the active recruitment activities were done in December 2007.

⁴ This includes Korean internet community (i.e. www.mizville.org, www.missyusa.com, etc), Korean Community Center and Korean association (i.e. Korean Community Service Center, Korean Senior Citizen Association of Greater Washington, Korean American Senior Center of Chicago, etc), Korean business (i.e., Hanahreum Asian Market branches, Grandmart branches, Korean Korner, etc), Korean church (i.e., Global Mission Church, St. Andrew Kim Korean Catholic Church, Lakeview Presbyterian Church at Chicago, etc), ESL programs (i.e. The Great Love Vocational School, etc), Korean senior apartment (Garden apartment, Mugunghwa apartment, etc)

We followed the general guidelines outlined in the Recruiting Plan. Korean-speaking people showed the highest education levels, and most were born in Korea, according to the 2006 ACS. For that reason, we prioritized recruiting people with a high level of education and people who were born in Korea. The year of entry data and age data parallel the Chinese patterns and suggest similar recruiting efforts. Nearly all respondents lived in the U.S. one year ago, and people over 55 were over-represented relative to the other groups.

The following table displays the recruiting targets for Korean group for each round of interviews. These targets were based on ACS interviews conducted in 2006 and include all people (age 15 and older) who reported speaking a language other than English at home and also reported that they speak English “less than well” or “not at all.” The target number to recruit is for each round and the actual numbers are for both rounds.

Table 3-3. Korean Recruiting Targets for Each Round Based on ACS Data

Characteristic	Recommended Percentage Range	Target Percentage to Recruit	Target Number to Recruit	Range of Recruits(actuals)
Educational attainment				
Less than high school graduate	10%-20%	15%	1.8	1-2 (3)
High school graduate, less than college graduate	40%-50%	50%	6.0	5-7 (13)
College graduate	30%-40%	35%	4.2	4-5 (9)
Place of Birth				
Born in Korea	Nearly all	100%	12.0	11-12 (25)
Born in US or Non-Other	Minimum	0%	0.0	0-1(0)
Year of Entry				
Living in US 1 year ago	Nearly all	100%	12.0	11-12 (23)
Not living in US 1 year ago	Minimum	0%	0.0	0-1 (2)
Language Abilities				
Monolingual	N/A	66.6%	8.0	7-9 (18)
Bilingual	N/A	33.3%	4.0	3-5 (7)
Gender				
Male	N/A	50%	6.0	4-8 (10)
Female	N/A	50%	6.0	4-8 (15)
Age				
34 or younger	10%-20%	15%	1.8	1-2 (4)
35 – 54	40%-50%	40%	4.8	4-6 (11)
55 or older	40%-50%	45%	5.4	5-6 (10)

Characteristic	Recommended Percentage Range	Target Percentage to Recruit	Target Number to Recruit	Range of Recruits(actuals)
Total Number of Participants				12 (25)

The Korean team screened 162 calls and found 128 people who met the selection criterion (Korean monolingual or limited bilingual). In the beginning, those who answered “do not speak English well” or “do not speak English at all” to the speaking ability evaluation question qualified as “monolingual.” They were not asked further questions about their reading ability. However, during the recruitment process we discovered that many Koreans who do not speak English well do read English well. Many language learners find that they learn to understand what they read faster than they feel they have mastered speaking the second language. In addition, Korean English education emphasizes reading comprehension rather than listening and speaking. Therefore, we modified the screener to find the true bilinguals by asking both speaking and reading questions together for all except the ones who answered they speak English “very well.” Classification of monolingual and bilingual was changed accordingly. That is, those who read English “well” and speak English less than “very well” are classified as bilinguals⁵. This decision to prioritize “reading ability” was based on ACS project characteristics which require people to read materials such as questionnaires and brochures. Detailed demographic profiles of the 25 respondents are summarized in the table 6-1.

While our recruiting has met most demographic requirements, we encountered difficulties in strictly filling all target quotas for each round of the interviews. The Korean team had difficulty finding enough Korean-speaking persons with less than a high school education. From the previous ACS project, we were aware of this difficulty and we did our best to set up an interview schedule with members of the target group of respondents as soon as we heard from them.

Among the recruiting methods, Korean newspaper approaches turned out to be most effective in reaching mass Korean population. However, this mass advertisement was not very successful for elderly people with less than a high school graduate level of education. Our recruiting difficulties indicate that Korean immigrants with less than a high school education tend to be skeptical about the study and cautious about participating. For these people, word-of-mouth or referral from some trustworthy persons such as Korean church pastors or Korean community center staff was more effective compared to mass advertisement. For example, two elderly (aged 55 years old or older) monolingual candidates who first agreed to participate later broke the interview appointments because they felt they could not trust the legitimacy of the study. It is highly discouraged to say “no” to somebody’s request in Korean culture (especially if the request comes from a figure in high authority--in this case a church pastor) and this tendency of acquiescence most strongly appears in the elderly with a low level of education. Thus, they may have wanted to refuse the interview from the beginning, but they could not express their thoughts until the last moment, when their action was required.

⁵ Those who self-evaluated their speaking or their reading as “very well” were screened out.

3.4 Recruiting for Spanish Respondents

The Spanish team for the ACS translation pretesting project recruited Spanish monolingual and bilingual speakers in the Chicago metropolitan area and in North Carolina through a series of approaches. Research Support Services utilized its contacts with a city and a suburban organization that serve Latin American immigrants, Centro Romero and the Community Resource Center of Hoffman Estates, respectively. Staff at these organizations contacted Hispanic immigrants and let them know of the interviews and the number to call to be screened. In addition, the cognitive interviewers themselves through their own networks distributed the RSS toll-free number for participants to call and be screened. A few candidates were screened directly by the interviewers, and their screening information was relayed to RSS for decisions on selection. RTI recruited in North Carolina by posting flyers in supermarkets and other stores catering to the Hispanic immigrant community.

We followed the general guidelines in the narrative in our Recruiting Plan: “Recruiting of Spanish-speaking subjects should over sample people with less than a high school education, and people who lived in the United States at least one year ago. All age groups should be included with most subjects under 55. Recruiting of Spanish-speaking respondents should reflect this diversity of Hispanic Origin by including Mexicans, Salvadorans, Guatemalans, Puerto Ricans, and Cubans. The greatest number of recruits should be Mexican.”

The following table displays the recruiting targets for this language group for each round of interviews annotated with challenges we found along the way for recruiting Spanish-speaking respondents. The target number to recruit is for each round and the actual numbers are for both rounds.

Table 3-4. Spanish Recruiting Targets for Each Round Based on ACS Data

Characteristic	Recommended Percentage Range	Target Percentage to Recruit	Target Number to Recruit	Range of Recruits per Round (Actuals)
Educational attainment Completed level of school or degree that is...				
Less than high school graduate	60%-70%	70%	8.4	8-9 (13)
High school graduate, less than college graduate	20%-30%	30%	3.6	3-4 (11)
College graduate	Not needed	0%	0.0	0-1 (0)
Place of Birth				
Born in Mexico	60%-70%	65%	7.8	7-9 (17)
Born in Other Country*	Attempt to recruit	20%	2.4	2-3 (7)
Born in US or Non-Other	Less than 20%	15%	1.8	1-2 (0)
Year of Entry				
Living in US 1 year ago	Nearly all	100%	12.0	11-12 (22)

Characteristic	Recommended Percentage Range	Target Percentage to Recruit	Target Number to Recruit	Range of Recruits per Round (Actuals)
Not living in US 1 year ago	Minimum	0%	0.0	0-1 (2)
Language Abilities				
Monolingual	N/A	66.6%	8.0	7-9 (19)
Bilingual	N/A	33.3%	4.0	3-5 (5)
Gender				
Male	N/A	50%	6.0	4-8 (10)
Female	N/A	50%	6.0	4-8 (14)
Age				
34 or younger	40%-50%	40%	4.8	4-6 (11)
35 – 54	30%-40%	35%	4.2	4-5 (10)
55 or older	20%-30%	25%	3.0	2-4 (3)
Total Number of Participants				12 (24)

*Other countries include: El Salvador, Guatemala, Cuba, Honduras, and Puerto Rico.

While our recruiting met most demographic requirements across rounds, in Round 1 we fell short on a few dimensions to fill the quotas exactly. Specifically, we had candidates responding to the recruiting efforts who were overwhelmingly female and mostly younger monolinguals. In light of the tight schedule for Round 1, and based on the objective of this research, we proceeded with the interviews knowing that in Round 2 we would need to try to increase the number of males, people over 35, bilinguals, non-Mexicans, and people with less than a high school degree.

For Round 2 we redoubled our recruiting efforts to attract a more varied pool of candidates. Of the recruiting methods employed, working through community organizations led to the highest number of screeners in Round 1, but word of mouth gave us more success looking for specific profiles. We screened a total of 34 interested candidates. Four were screened out on the basis of their English language skills because they read English very well. All others were found to be eligible. Detailed demographic profiles of the 24 respondents are summarized in the table 7-1

3.5 Recruiting Russian Respondents

The Russian team for the ACS translation pretesting project recruited Russian monolingual and bilingual speakers in the Chicago metropolitan area through a series of approaches. Research Support Services utilized its contacts with a city and a suburban organization that serve Russian immigrants, the Council for Jewish Elderly in Chicago and the Palatine Opportunities Center in Palatine, Illinois. Staff at CJE contacted Russian immigrants and let them know of the interviews and the number to call to be screened. A teacher at the beginning ESL class at the Palatine Opportunities Center did the same. In

addition, we placed flyers in Russian language bookstores, video stores, Russian delis and grocery stores in Rogers Park in Chicago. One team member also screened potential participants in a senior building where Russian immigrants live. The three interviewers also recruited through word of mouth.

We followed the general guidelines in the narrative in our Recruiting Plan: “Recruiting of Russian-speakers should over sample high school and college graduates and people who lived in the United States at least one year ago. People over the age of 55 should also be over sampled.”

The following table displays the recruiting targets for this language group for each round of interviews annotated with challenges we found along the way for recruiting Russian-speaking respondents. The target number to recruit is for each round and the actual numbers are for both rounds.

Table 3-5. Russian Recruiting Targets for Each Round Based on ACS Data

Characteristic	Recommended Percentage Range	Target Percentage to Recruit	Target Number to Recruit	Range of Recruits / (Actuals)
Educational attainment Completed level of school or degree that is...				
Less than high school graduate	10%-20%	15%	1.8	1-2 (3)
High school graduate, less than college graduate	40%-50%	50%	6.0	5-7 (7)
College graduate	30%-40%	35%	4.2	4-5 (14)
Place of Birth				
Born in Russia	30%-40%	40%	4.8	4-6 (7)
Born in Ukraine	30%-40%	40%	4.8	4-6 (7)
Born in Uzbekistan or Belarus	Attempt to recruit	5%	0.6	0-1 (4)
Born in US or Other	Less than 20%	15%	1.8	1-2 (6)
Year of Entry				
Living in US 1 year ago	Nearly all	100%	12.0	11-12 (22)
Not living in US 1 year ago	Minimum	0%	0.0	0-1 (2)
Language Abilities				
Monolingual	N/A	66.6%	8.0	7-9 (17)
Bilingual	N/A	33.3%	4.0	3-5 (7)
Gender				
Male	N/A	50%	6.0	4-8 (9)
Female	N/A	50%	6.0	4-8 (15)

Characteristic	Recommended Percentage Range	Target Percentage to Recruit	Target Number to Recruit	Range of Recruits / (Actuals)
Age				
34 or younger	Less than 10%	5%	0.6	0-1 (1)
35 – 54	20%-30%	30%	3.6	3-4 (7)
55 or older	60%-70%	65%	7.8	7-9 (16)
Total Number of Participants				12 (24)

While our recruiting efforts resulted in our meeting most demographic requirements, we encountered a couple of difficulties in filling the quota exactly. In Round 1 we had difficulty finding enough Russian-speaking persons with less than a college education, and we also experienced difficulty finding less than fully bilingual respondents younger than 55. In light of the tight schedule for Round 1, and based on the objectives of this research, we prioritized the language skills requirements and ended up with an older group than desired, and with one extra college graduate than the target numbers. In Round 2, we were able to better balance the age groups, and include some younger participants to meet targets. We ended up, however, with a relative under representation of Russians and Ukrainians vis a vis other nationalities, and more college graduates than we had targeted.

We understand, from anecdotal information among the language expert team and from a conversation one of the interviewers had with a highly educated respondent following his interview, that some immigrants tend to over report their level of education given the high value that higher education has in their culture.

All the recruiting methods utilized seemed to be successful to some degree. We screened 53 interested candidates, exclusively motivated by the participant compensation. In Round 1, due to a screener error in the Russian version, some candidates were screened out on the basis of their English language skills because they all read English well or very well. For Round 2 the screener was corrected and candidates erroneously misclassified were classified as bilinguals and accepted for scheduling if they met all other requirements. All other screened candidates were found to be eligible, although most reported having completed a college education (n=35).

4. ENGLISH INTERVIEWS: SUMMARY OF FINDINGS

4.1. Introduction

English-language interviews were carried out under the responsibility and direction of Research Support Services. Two of the Round 1 interviews were conducted by the Census Bureau Technical Manager, Dr. Yuling Pan, and the remaining 17 interviews (8 in Round 1 and 9 in Round 2) were carried out by Dr. Alisú Schoua-Glusberg of RSS.⁶

All interviews in Round 1 were conducted between December 6, 2007 and December 26, 2007. Round 2 interviewing took place between January 24 and February 28, 2008. Following informed consent procedures, the protocols were followed in each case. All interviews were audio taped after obtaining respondents' consent to do so. The Protocol 1 interviews were shorter, lasting 30-45 minutes. The Protocol 2 interviews averaged about 50 minutes.

4.2. Respondent Characteristics

Of the nineteen interviews conducted in English, ten used Protocol 1, which tested the ACS multilingual brochure with the pre-notice letter, and nine used Protocol 2, which tested the ACS multilingual brochure with initial questionnaire materials. Two interviews were conducted at the U.S. Census Bureau Lab in Suitland, MD, while the remaining seventeen were conducted in a coffee shop, at a restaurant and in participants' homes in the Chicago metropolitan area.

Table 4-1 shows the demographics of the 19 participants interviewed across rounds.

⁶ The original design called for 20 interviews across rounds, three of them done by the Census Bureau Technical Manager. However, Dr. Pan's schedule only allowed her to complete two interviews, for a total of 19 English interviews.

Table 4-1 Demographic Characteristics of English-Speaking Participants

ID #	Age	Education	Race	Gender
1	35-54	High school graduate	Afr-Amer	male
2	<34	High school graduate	Afr-Amer	male
3	55+	Less than high school	White	female
4	35-54	College graduate	Afr-Amer	female
5	<34	College graduate	Hisp White	male
6	<34	High school graduate	White	male
7	55+	College graduate	White	female
8	55+	High school graduate	White	female
9	35-54	High school graduate	White	female
10	35-54	College graduate	White	female
11	55+	College graduate	White	male
12	55+	College graduate	White	female
13	35-54	High school graduate	Afr-Amer	female
14	<34	High school graduate	White	female
15	35-54	High school graduate	White	female
16	35-54	High school graduate	White	female
17	<34	Less than high school	White	male
18	35-54	High school graduate	White	male
19	<34	Less than high school	White	male

4.3. Summary of Findings from the Two Rounds of Cognitive Interviews

The summary of findings reported in this section is centered on issues critical to the project, including respondents' reactions to the multilingual brochure, their interpretation of key messages contained in the multilingual brochure, and their survey participation motivation and decision.

4.3.1 Reaction to the multilingual brochure in the two mailing packets

- *General Reactions to the Multilingual Brochure:*

Most respondents had generally positive feelings about the multilingual brochure and liked the fact that it included different languages. However, in Round 1 three respondents were not as positive. One was outright displeased with the use of several languages. As a Romanian immigrant herself who had to master English, she felt the government should not be “pampering” immigrant groups by providing them with materials in their native language. She felt that the choice of what languages to include was arbitrary and that since not all languages can be accommodated, none should. Another respondent mentioned how her grandparents were immigrants and had to learn English, and that she expects the same of other immigrants. A third person, while not objecting to the use of different languages, hoped different brochures could be done so that not more than two languages would appear per brochure. Only one Round 2 respondent had less than positive feelings to the multiple languages; he hoped there could be an English-only brochure and a multilingual brochure that did not include English. In his view, the tested brochure was really just for people who cannot speak English.

Some respondents felt that the letter and the brochure essentially said the same things: that they introduced the survey and asked for cooperation. However, some thought that including the brochure in the mailing was particularly important because it contained some information that the letter did not--the mandatory nature of the survey and the telephone number. They generally thought it would be a good idea to include the brochure in the mailing and that it might enhance cooperation.

Respondents suggested improving the brochure by moving the telephone number out of the text, perhaps to the top or bottom of the panel to highlight it. Also, two participants recommended highlighting the message about the survey being required by law or displaying it more prominently.

- *Reaction to the layout and design:*

No negative reactions to the layout and design were elicited. Two Round 1 respondents wished the brochure title (Important Information from the U.S. Census Bureau) were in larger font or somehow separate from the other languages, in order to stand out. In Round 2, two respondents suggested changing the order of the paragraphs. One wanted the last paragraph in second place, because it addresses confidentiality. Another would move the first paragraph to the third place, to soften the threatening effect of the mandatory message, and deliver it after the reader understands what the ACS is and why it's being conducted.

The position of the English text was questioned by a couple of Round 1 respondents who hoped it could appear on the first inside panel or at least somewhere on the inside of the brochure instead of on the back cover. In Round 2 one person volunteered that she particularly liked the fact that the English text came first, before the other languages.

In Round 2, where we asked respondents to compare two versions of the multilingual brochure, almost all (eight out of nine) preferred Version 1 (the brochure tested in Round 2) because of the placement of the English text on the first panel on the left as the brochure was opened. Although most had not objected to the placement of the English text in Round 1, they much preferred it to be in the first panel.

- *Reaction to the pictures:*

There were overall positive reactions to the pictures on the front cover. Respondents mentioned they represented everyday life, or the American Dream. They liked the picture of the Statue of Liberty. Two suggestions were to include a picture of people, perhaps neighbors sitting on a stoop, and of less affluent housing.

One respondent in Round 1 and one in Round 2 thought the pictures were meant to represent different geographic areas--the Statue of Liberty for New York, and the traffic congestion for California.

- *Handling the multilingual brochure in the two mailing packets*

The mailing packet of pre-notice materials:

Most participants read the letter first, and then the brochure to greater or lesser degree. A couple of participants missed the brochure entirely and did not look at it until the interviewer prompted them to do so. Generally, at first glance, respondents felt that the brochure restated most of what the letter said in a more visually appealing way.

The mailing packet of initial questionnaire materials:

Because of the way the packets are put together, participants tended to pull materials out with the ACS questionnaire on top and examine the ACS form before they ever saw the cover letter or multilingual brochure. Several respondents looked at the ACS form first, and spent more time on it than on other things in the packet. The multilingual brochure either went unnoticed or did not draw much attention. It is a small document amid a number of bulkier ones.

4.3.2 Interpretation of key messages

The testing of the understanding of key elements during the two rounds of interviews included asking participants who they thought was sponsoring the survey, how they thought they would receive the questionnaire, whether or not they understood that they had the opportunity to do the telephone survey in the target language, if they could explain the purpose of the ACS, and whether or not they comprehended confidentiality assurance. Both the letter and multilingual brochure in the mailing packets contain these messages. Only the brochure contains the message about the mandatory nature of the ACS.

(a) Mandatory nature:

All but one respondent understood the literal meaning of “required by law to respond to the survey.” However, they were skeptical about this message, either wondering aloud if it could possibly be true, and what the consequences could be of not responding. Generally the message was not taken seriously. Two respondents thought it probably was not truly mandatory but that the message was intended to get a higher response rate.

Only one person mentioned the mandatory nature as something that raised concerns when reading the brochure.

When respondents were asked if they would have participated in the survey, had they been selected to do so, several cited civic duty as the reason why they would participate. Half of them indicated they would do the survey because the law requires it. One person said they would not do it because of lack of interest.

When asked if they would call the toll-free number offered, three Round 1 respondents said they would, mostly to find out if it is really mandatory, or to know how long it will take or other details. The majority said they would not need to call because they would already clearly understand what was expected of them. In Round 2, seven of the nine respondents

said they would not call for help, most of them (n=5) because they felt they could answer the ACS questions without asking for assistance.

It is important to note that at least a couple of participants missed noticing the mandatory message in the brochure, even though they read the English text in its entirety. It was only when asked to read aloud that they noticed the message, and were surprised to see they had missed it in their first reading.

(b) Questionnaire by mail:

This message informed respondents that the ACS questionnaire would be sent in the mail or that it was included in the packet, depending on which protocol they were responding to. English speakers in Round one had no problems with this message. They all understood how they would get the ACS questionnaire. In Round 2 the question was not asked.

(c) Survey sponsor:

Thirteen respondents remembered that the survey is conducted by the Census Bureau, while the other six referred to the government, the Dept. of Commerce, “Consumer,” or did not remember or even venture a guess.

(d) What’s the ACS:

Virtually all respondents interpreted the ACS as a survey designed to find out information the Census Bureau needs so the government can improve living conditions in communities.

(e) Confidentiality message:

All respondents across rounds generally understood the message that the information ACS respondents provide would be kept confidential, not released to others, and not associated with respondents’ identity. They made references to the fact that the information would not be shared with other agencies, would not be sold to anyone, and would not be used against the person. They were unfamiliar with Title 13, but they all understood this was a reference to a law that protected confidentiality. They were generally positive about seeing such information referred to in the brochure, as they felt it would reassure some people who are afraid of giving out personal information, that it would lead others to search for more information on Title 13, and would also give them recourse in case the confidentiality was broken.

4.3.3 Survey participation decision

(a) Motivation and decision to participate in the ACS

All ten of the Round 1 and eight of the nine Round 2 cognitive interview participants said that they would participate in the survey. One person (mentally unstable, as was discovered in the course of the interview) thought she was committed to participate in the

ACS because of having done the cognitive interview and receiving the \$40. The others – with the exception of the person who expressed lack of interest -- felt they would participate, most out of civic duty, and some because of its mandatory nature.

As indicated above, several were skeptical about the “required by law” statement.

Of all the reasons given for participation, the mandatory nature of the survey seems to be the primary reason for half of the respondents. The respondents were lukewarm about the effect on participation that including the multilingual brochure would have on recipients. They expressed lack of certainty about how helpful it would be in promoting participation.

4.3.4 Wording issues

No wording issues were identified in the letter or brochure that would suggest making changes to improve clarity or delivery of the intended messages.

4.4. Recommendations and suggested changes for interview protocols for Round 2 interviews

4.4.1 Recommendations

The language used in the letter and brochure is clear, natural sounding, and well understood by all. No changes to the language are recommended based on this testing.

4.4.2 Round 2 Results from Changes to Protocol

Although the Round 1 recommendations were minimal, other changes were made to the Round 2 protocols to be consistent with all language versions. A revised version of the brochure was prepared, with changes to the cover to move the English title to a more prominent position, and to change the location of the English text panel from the inside flap to the inside cover or left inside panel. Results show that the revised version of the brochure was well received.

Seven of the nine Round 2 participants preferred Version 1 of the brochure because the English panel appears first. It is important to note that Round 1 participants had not strongly objected to the placement of the English; however, when offered an option, Round 2 participants clearly preferred the redesigned brochure. It was simply a matter of preference of seeing the English in the first place, not a matter of ease of finding the English text in Version 2, as they all reported they easily found the English text.

4.4.3 Suggested Changes

The only change recommended after Round 1 testing was to make the brochure English title more noticeable for English speakers, which was actually done for and tested in Round 2. The only change recommended after Round 2 testing is to highlight in some way

(such as underlining) the mandatory nature message, or even including it in the pre-notice package letter to maximize its effect.

5. CHINESE INTERVIEWS: SUMMARY OF FINDINGS

5.1. Introduction

Chinese-language interviews were carried out under the responsibility and direction of the Census Bureau and RTI. All interviews were conducted by the Census Bureau Technical Manager (Yuling Pan) and two cognitive interviewers from RTI (Michelle Yuan and Virginia Wake).

All interviews in Round 1 were conducted between November 26, 2007 and December 20, 2007. Following informed consent procedures, the protocols were followed in each case. All interviews in Round 2 were conducted between January 23 and February 1, 2008. Revised protocols with added showcard comparisons were used in Round 2 to test alternative wordings in translation. All interviews were audio taped after obtaining respondents' consent to do so. The Round 1 interviews lasted from 45 minutes to one hour and 15 minutes, and the average time was one hour. The Round 2 interviews lasted from 50 minutes to one hour and 45 minutes, and the average time was one hour and 20 minutes.

The Chinese language expert team met after the completion of each round of interviews to review findings. Based on the findings, we recommended alternative wordings for translation of the ACS brochure. A list of recommendations is attached at the end of this chapter.

5.2. Respondent Characteristics

Twelve interviews were conducted in each round of the interviews. In Round 1, seven interviews were conducted with Protocol 1, which tested the ACS multilingual brochure with the pre-notice letter, and five with Protocol 2, which tested the ACS multilingual brochure with initial questionnaire materials. In Round 2, five were conducted with Protocol 1 and seven were conducted with Protocol 2. Altogether twenty-four interviews were conducted in both rounds. Most interviews were conducted in participants' homes and some were conducted in local public libraries in the Greater Washington, D.C. area and in Raleigh-Durham-Chapel Hill of North Carolina. Nineteen interviews were conducted in Mandarin Chinese and five interviews were conducted in Cantonese Chinese⁷. Of the 24 respondents recruited for cognitive interviewing, fifteen were monolingual speakers of Chinese, and nine were bilingual speakers of Chinese and English.

Table 5-1 shows the demographics of the 24 participants interviewed across rounds.

⁷ Of the nineteen respondents who were interviewed in Mandarin, three were mandarin-Cantonese bilinguals.

Table 5-1 Demographic Characteristics of Chinese-Speaking Participants

ID #	Age	Education	Place of Birth	Year of Entry	Language Abilities	Gender	Dialect
3	35-54	HS graduate	CH	2000-2005	monolingual	F	M
4	35-54	less than HS	CH	1990-1999	monolingual	F	M
8	55 or older	less than HS	US or others (HK)	1980-1989	monolingual	F	C
9	55 or older	less than HS	US or others (HK)	1980-1989	Bilingual	M	C
10	55 or older	college grad	CH	since 2006	monolingual	F	M
11	35-45	less than HS	CH	1990-1999	monolingual	M	M
13	55 or older	HS graduate	CH	since 2006	monolingual	M	M
16	35-54	HS graduate	CH	2000-2005	monolingual	F	M
28	55 or older	HS graduate	CH	2000-2005	monolingual	F	M
34	18-34	HS graduate	US (Grew up in TW)	2000-2005	Bilingual	M	M
36	35-54	college grad	CH	1990-1999	Bilingual	M	C
39	55 or older	HS graduate	US or others (HK)	1990-1999	Bilingual	M	C
35	18-34	HS graduate	CH	1990-1999	Bilingual	F	M
41	18-34	college grad	CH	1990-1999	Bilingual	F	C
43	35-44	HS graduate	CH	2000-2005	monolingual	M	C
49	55 or older	HS graduate	CH	1980-1989	monolingual	M	M
63	35-44	HS graduate	CH	2000-2005	Bilingual	F	C
67	45-54	Less than HS	CH	1990-1999	monolingual	F	M
71	55 or older	Less than HS	CH	1990-1999	monolingual	F	M
86 ⁸	55 or older	Less than HS	CH	2000-2005	monolingual	M	M
87	35-54	Less than HS	CH	1990-1999	Bilingual	F	Prefers M (Speaks C too)
119	45-54	Less than HS	TW	Before 1980	Bilingual	M	M
120	55 or older	less than HS	TW	1980-1989	monolingual	M	M
121	55 or older	HS graduate	CH	Since 2007	monolingual	F	M

⁸ R reported that he had participated in a similar ACS cognitive interview in 2006.

5.3. Summary of findings from the first round of cognitive interviews

The summary of findings reported in this section is centered on issues critical to the project, including respondents' reactions to the multilingual brochure, their interpretation of key messages contained in the multilingual brochure, their survey participation motivation and decision, and translation issues. The section concludes with recommendations for changes to be made for the design and layout of the multilingual brochure and alternative wordings for the Chinese translation.

5.3.1 Reaction to the multilingual brochure in the two mailing packets

- *General reaction to the multilingual brochure:*

The majority of our Chinese respondents in two rounds of interviews liked the fact that the brochure contained multiple languages, especially, Chinese language. They reacted favorably to the positive impact of the Chinese text in the brochure. They said that the multilingual brochure made a difference in their survey participation because the Chinese version helped them understand the importance of the survey and survey sponsorship. They felt that the Chinese text gave them an impression that the U.S. government cared about Chinese communities and was helpful to them. Both monolingual and bilingual Chinese respondents had similar reactions. However, most monolinguals wanted to see more information explaining what the ACS was about and, particularly, wanted to know more about the impact and benefits for their community. They commented that the brochure was generally clear and easy to understand. Most respondents liked the message on confidentiality, and the message on helping communities meet their needs and other positive impact of ACS on the community.

- *Reaction to the layout and design:*

In the first round of interviews, we identified several issues concerning the layout and design of the multilingual brochure. These issues include:

- (1) The Chinese text on the front cover was not eye-catching. The color of the Chinese line was too light. Many respondents missed the Chinese line.
- (2) The font size is too small and the text is in white color against blue background. The color combination obscures the text.
- (3) The front cover was too plain and didn't give the impression that it was from the U.S. government. The seal watermark on the front cover was not obvious.
- (4) The paper of the brochure was not of professional quality. Compared the FAQ (green brochure), the multilingual brochure was not so impressive. Some respondents recommended adding the U.S. flag to the front cover to make it look official.
- (5) Inside page: there was a lot of empty space for the Chinese panel. The font size was too small for people to read. The blue text against white color background didn't give enough contrast for easy reading.

In Round 2 interviews, we tested a revised version of the brochure with a different layout for the front cover and with a different order of language placement inside the brochure. The Chinese text in the inside page used a different font.

Round 2 interview respondents reacted very positively to the revised version. The Chinese text on the front cover was easy to see. They clearly understood the Chinese title of the brochure. They liked the darker color on the front cover in this new version. The placement of the Chinese title looked better to them because the Chinese text is not right on top of the Korean text as in the old version. This placement makes the Chinese text stand out. They also liked the new font style in the inside page with a darker color.

- *Reaction to pictures:*

There were mixed reactions to pictures on the front cover. Some respondents showed positive reaction to the pictures on the front cover. They liked the picture of the Statue of Liberty, which is a symbol of the U.S. They felt that these pictures were related to the ACS, representing U.S. and gave the impression that this was a U.S. document. They also liked the picture of school bus and public transportation.

But for some respondents, the pictures didn't make any difference. Some respondents commented that the pictures made the brochure look like a tourism advertisement, or that the brochure looked like pamphlets from commercial entities, such as banks or credit card companies. Some commented that it was better to add pictures of people. Some respondents felt that it would be better to replace the single house by many houses to give the feeling of community.

- *Handling the multilingual brochure in the two mailing packets*

The mailing packet of pre-notice materials: While a few respondents in both rounds of interviews missed the multilingual brochure, most respondents noticed the brochure and reviewed it carefully. For those who missed the brochure, they commented that they missed it because they either thought that all materials were in English after reviewing the letter or they didn't open the brochure until being prompted.

The mailing packet of initial questionnaire materials: We noticed the tendency for respondents to totally miss the multilingual brochure in the initial mailing packet. This tendency was observed in both rounds of interviews. Most of our respondents only paid attention to the questionnaire and focused on reading it. Some read other materials in the packet. They commented that the multilingual brochure didn't look that impressive compared with other documents in the packet. The brochure was small in size and the front cover didn't have the official look as the FAQ brochure, which has a U.S. flag on the front cover. The colorful look of the multilingual brochure made it look like a commercial. It lacked an official appearance and the paper quality was not good. The placement of the brochure also made it buried in the multiple documents contained in the envelope. Overall, the multilingual brochure in the initial questionnaire mailing was not eye-catching and was easily missed because of its placement and size.

- *Reaction to the organization of information in the brochure*

Most respondents support the current organization of information. Some respondents mentioned that confidentiality message should be the first because it would give them the assurance right away. A few mentioned it would be better to move Section 2 (What is the ACS?) to be the first section because that would provide necessary background information for the ACS. Although there is evidence from the 2006 project that the Chinese respondents preferred to see the main point at the end of a letter, the Chinese language experts feel that there is no strong evidence to change the order of presentation for the brochure. The purpose of the brochure is very clear in current presentation. Most respondents wanted to know what is expected of them in the brochure and what actions to be taken. Another reason for not recommending a change in the order is that the brochure is in Q&A format, which is different from a letter writing style.

- *Other reactions to the packets:*

Most respondents said they would open the packet and read what was inside because it was from the government, or because they wanted to know what was inside. Others said that they have an interest in reading the mail. Some respondents commented that they would check with friends who understand English to verify authenticity of the mail. One bilingual respondent said that he would go online to check the authenticity.

5.3.2 Interpretation of key messages

The testing of the understanding of key elements during the two rounds of interviews included asking participants who they thought was sponsoring the survey, how they thought they would receive the questionnaire, whether or not they understood that they had the opportunity to do the telephone survey in the target language, if they could explain the purpose of the ACS, and whether or not they comprehended confidentiality assurance. Both the letter and multilingual brochure in the mailing packets contain these messages. The monolingual respondents in this project only got the information of these messages from the brochure, while the bilingual respondents looked at the letter and the brochure to get this information. Overall, the bilingual respondents' interpretation of the key messages and reactions are similar to those of the monolingual respondents. We will list their interpretation of these key messages in this sub-section.

1. Monolinguals' interpretation and reaction to key messages

(a) Mandatory nature:

Most respondents, except one with a low education level, understood the literal meaning of "required by law to respond to the survey." However, in spite of respondents' perfect interpretation of "required by law," most of them believed that they had an option to opt out. There is clearly a disconnection or distance between their literal understanding of the mandatory nature of the ACS and their actual understanding of "required by law." Respondents tended to provide various reasons for not participating and thought that there

were options of not participating. Respondents were going back and forth between the two interpretations of the message during the cognitive interview.

Some respondents equated the phrase “required by law” with law enforcement investigation and thought that if they didn’t do anything against law, the legal requirement of participation in the ACS didn’t apply to them. Another issue with this statement is that most respondents had the interpretation that the ACS was for U.S. citizens. So the “required by law” statement only applied to U.S. citizens, and did not apply to visitors, or people in other legal status, or illegal immigrants. Another misinterpretation was that they didn’t have much of an idea about what questions were asked in the ACS and thought the ACS was a kind of community or social investigation. They also wanted to verify if the survey or the requirement was really from the U.S. government.

The Chinese language experts believed this is typical Chinese socio-cultural understanding of surveys due to the respondents’ lack of survey experience or survey practice in their home culture, and the lack of legal requirements in China. We recommend revising the translation of this statement to make it clearer, but this is more a pragmatic and socio-cultural issue than a translation issue.

(b) Questionnaire by mail, and telephone survey in the target language:

This message informed respondents that the ACS questionnaire was being sent in mail and it was in English only. If they wanted to complete the ACS in their language, they could call the toll free number provided in the brochure.

The findings suggest that the message about telephone assistance in Chinese is not clearly understood by Chinese respondents. Two issues are identified. One is that the combination of a mail survey in English and the possibility of answering the survey via telephone in Chinese is too complex for respondents to parse. The wording of ‘provided in English’ is not clear. Some respondents think there could be a Chinese questionnaire. This problem is compounded by the fact that the Chinese translation of this message contains a grammatical error. (The sentence subject is missing from the statement of “The questionnaire is provided in English.”)

About half of the Chinese respondents in two rounds of interviews failed to get the message that the paper questionnaire was in English and that they could complete the survey in Chinese via phone. For the other half of the Chinese respondents who understood that the paper questionnaire was in English, they had mixed interpretation of the possibility of answering the survey via phone and asking questions via phone. It is particularly unclear to monolinguals whether the 1-800 number is for asking questions or for answering the survey. Some thought they could call to request a Chinese questionnaire. Some understood what the number was for, but they thought it would be a long wait and inconvenient. Most respondents interpreted that the toll free number was for questions only, not for completing the survey. They believed that the toll free number was operated by an English-speaking person or by a computer. They also commented that it was difficult to get through a toll free number and that they were not likely to call in.

Based on findings from the first round of interview, we recommended that the translation be revised to reflect the fact that the paper questionnaire coming through the mail is in English only and that Chinese-speaking people can call the 1-800 number to ask questions or to complete the survey. We also highly recommended a new statement be added in the English original to indicate that people who answer the phone can provide help in the target language. This statement should come after the toll free number to make it clear that there are Chinese-speaking people who can provide help to those call the toll free number.

As a result, we developed a new statement of “Please call our Chinese toll-free number 1-800-638-5945. We have Chinese-speaking staff to answer your questions. Or you can complete the survey in Chinese over the phone,” to be tested in Round 2 interviews. This new statement was tested with twelve respondents in Round 2 interviews and received a very positive reaction. Respondents showed a much better understanding of the message.

(b) *Survey sponsor:*

About half of the respondents in both rounds of interviews understood that the ACS was conducted by the U.S. Census Bureau. Those who failed to get the survey sponsor message said that the ACS was conducted by the government or by the Department of Commerce. Some didn’t know or didn’t remember.

(d) *What’s the ACS:*

There are multiple interpretations of what the ACS was. Most respondents interpreted the ACS as a population survey or census, or population count. Some respondents interpreted it as community opinion survey to provide feedback to the community and help community improve living conditions for its residents. Some respondents interpreted it as a program for the government to provide benefits (based on the wording of residents and housing information), and as a result, they could have some benefits from the survey. Some thought it was an opinion survey or social investigation to collect some information or opinions from them.

Only one or two bilingual respondents who had lived in U.S. for a long time showed a good understanding of what the ACS was.

This shows that the main problem for misinterpretation comes from Chinese respondents’ lack of survey experience, knowledge, or frame of reference to process the message contained in the brochure. They had to interpret the message based on their previous knowledge and experience of China’s census.

(e) *Confidentiality message:*

Findings from two rounds of interviews show that most respondents understood the confidentiality message and they showed positive reaction to this message. But there were mixed reactions to the mention of Title 13. Some showed positive reaction to the reference of Title 13, but they were not sure about it. They commented that it was better to explain what Title 13 was, which type of law (e.g., civil law, or criminal law, or tax law) it represented, or what the content of Title 13 was. Some had a negative reaction to the reference of Title 13, saying, “How do I know if it is real or not?” and remarking, “Quoting a number here doesn’t

mean anything to me.” Some commented that it would be better to include penalty terms for violating the law.

2. Bilinguals’ interpretation and reaction to key messages

Most bilingual respondents read the letter when they opened the mailing packet. Overall, the bilingual respondents had similar reactions to the monolingual respondents regarding the interpretation of key messages in the multilingual brochure. In terms of how to handle the materials in the mailing packets, bilinguals’ reaction to the brochure was related to their level of English proficiency. Those with a low level of English proficiency preferred Chinese and reacted positively to the Chinese text in the brochure. They commented that the brochure helped them. They preferred reading the materials in Chinese. They felt that Chinese population was valued when seeing the multilingual brochure. They wanted to see that Chinese was valued in U.S. society too.

Those with a high level of English proficiency preferred reading the materials in English, or answering the survey in English. They didn’t want to call the toll-free number to request assistance because it would be troublesome to call. They commented that it was easier to fill out the English form, and they could be frank and open about their answers.

Respondents’ reactions to the brochure or ACS materials are, to some degree, shaped by their personal experience in the U.S. For example, one bilingual respondent with a low education level was very skeptical about the survey because he had a bad experience being cheated in his restaurant business. His whole perspective was biased by his experience. But another bilingual respondent had very good reaction to brochure, and had good understanding of key messages. One bilingual respondent had international experience, and he was skeptical about the mandatory nature of the ACS and said, “What if I don’t answer? What would happen if I don’t do it?”

5.3.3 Survey participation decision

(a) Motivation and decision to participate in the ACS

Cognitive interview results show that the majority of Chinese respondents said that they would participate in the survey. Only a few clearly indicated that they were not going to participate. The other respondents said that it all depended on other factors (e.g., time, type of questions asked, and ways of doing the survey).

Most of those who reported that they would participate in the ACS understood the mandatory nature of the ACS. Some respondents were motivated by the benefits for housing, residence and education. (They misunderstood the message and thought that they would receive some benefits by responding to the survey.) Some respondents were also motivated by helping community and helping U.S. government to respond to the survey. Some were motivated by the provision of Chinese assistance contained in the brochure.

Those who reported that they were not likely to participate cited various reasons. Two respondents said that they were skeptical about the letter and the “required by law” statement.

Some respondents commented that they were not U.S. citizens and were not supposed to participate in the ACS. Some thought that the survey was in English and they couldn't understand it. Some respondents didn't want to participate because they thought the survey was optional, time-consuming, or they failed to understand the materials.

Of all the reasons given for participation, the mandatory nature of the survey seems to be the primary reason. Overall, the respondents thought that the multilingual brochure was helpful to them, and it made a difference in their decision to participate.

(b) Language preference

It is clear that monolingual respondents can only do the survey in Chinese. The language preference of the bilinguals who were interviewed is related to their English proficiency. Respondents whose English is not very strong prefer to respond to the survey in Chinese. The other bilinguals who are strong in English prefer to complete the survey in English. They commented that it is too long to answer the survey via phone in Chinese, and Chinese translation is too hard to understand. One bilingual respondent strongly preferred to complete the survey online in English.

5.3.4 Translation issues

- (a) The two Chinese versions of the multilingual brochure are not identical. Changes need to be made to make them consistent. In several places, the wordings of the prenotice letter version and the initial questionnaire package version are different even though the English wordings are the same.
- (b) There is a general feeling that the Chinese version sounds very much like a translation. That is, it doesn't flow well and doesn't sound natural in Chinese. Most of the individual sentences were correctly translated from the English original. But respondents just had a vague idea of what the Chinese text said in the brochure. They all showed difficulty understanding the intended communication.
- (c) The two biggest problems that respondents pointed out are the long sentences and the use of difficult words. The Chinese translation follows the English sentence structure too closely. Respondents found it hard to parse these long sentences and difficult words. These two problems show up in all three sections of the Chinese version of the brochure.

5.4. Recommendations and suggested changes for interview protocols for Round 2 interviews

5.4.1 Recommendations

The Chinese team made two types of recommendations. One concerns the design and layout of the multilingual brochure, and the other addresses alternative wordings for the Chinese translation. All the recommendations for changes in translation aim to restructure the long sentences and rephrase difficult wordings throughout three sections of the Chinese version. Almost all sentences need to be revised to some degree. These recommendations are documented in Appendix A.

5.4.2 Suggested changes for Round 2 interview protocols

We tested the above mentioned suggested changes in the second round of cognitive interviews by adding debriefing questions to compare the alternative translation with the original. We also added probes to elicit respondents' feedback and reaction to the changes that we recommended based on findings from Round 1 interviews. We used show cards for respondents to compare the original wording and the changed wording during the second round of interviews. Results from Round 2 interviews confirmed our recommendation. All suggested changes were well received by respondents. They commented that the alternative wording in translation was clearer and easier to understand. After Round 2 interviews, we only needed to make two very minor changes to improve our recommended translations.

In addition, in Round 2 interviews we tested a revised version of the brochure and three different versions of the mandatory nature statement in the brochure. Results show that the revised version of the brochure was well received. All respondents liked the darker color on the front cover, the placement of the Chinese line on the front cover, and the placement of the Chinese text in the inside panel. They also liked the font style of the Chinese text in the revised version. We highly recommend using the revised version.

For the message on the mandatory nature of the ACS, we identified a major issue in in the interpretation of the original statement, "Your response to this survey is required by law." Most respondents interpreted it as applying to U.S. citizens only. After Round 1 interviews, we drafted two additional statements and then tested the Chinese translation of the following three versions in Round 2 interviews:

Version A: "Your response to this survey is required by law, regardless of citizenship status"

Version B: "Because you are living in the U.S., you are required by law to respond to this survey."

Version C: "Your response to this survey is required by law." (Original statement in the brochure.)

Round 2 interviews results showed that Version B was better understood and well received. Respondents knew that they should participate in the ACS regardless of their visa or citizenship status. Therefore, we recommend using Version B for the mandatory nature message.

For the message on the availability of the questionnaire in English only, two versions were tested in Round 2, with differences across protocols.

Protocol 1:

Version A: "In a few days you will receive an American Community Survey questionnaire in the mail. The questionnaire will be in English."

Version B: "In a few days you will receive an American Community Survey questionnaire in the mail. The questionnaire will be in English only."

Protocol 2:

Version A: "Included in this mailing is an American Community Survey questionnaire. The questionnaire is in English."

Version B: "Included in this mailing is an American Community Survey questionnaire. The questionnaire is in English only."

Respondents unequivocally felt that Version B in both protocols left no room for readers wondering if perhaps there might be a Chinese version of the ACS questionnaire available. The word 'only' made it completely clear. This message was well received by Round 2 respondents.

Finally, the following alternative messages were tested regarding the toll-free line.

Version A:

"If you prefer to complete the survey by telephone in <LANGUAGE>, call us toll-free at 1-[LANGUAGE#]."

Version B:

"Call us toll-free at 1-[LANGUAGE#] to speak with our <LANGUAGE> speaking staff. They will be able to answer your questions or you could complete the survey by phone."

This new statement was tested with twelve respondents in Round 2 interviews and received a very positive reaction. Respondents showed a much better understanding of the message. It was clear to them that there would be Chinese-speaking staff who can answer callers' questions or people can call to complete the survey in Chinese. This new statement has a very polite and sincere tone and carries more pragmatic weight to encourage people to call in.

A summary table of recommended changes to the materials is provided below. *See Appendix 11* for documentation on Chinese Interview Summaries from Round 1 Interviews (12 respondents) and Round 2 Interviews (12 respondents).

Summary of Suggested Changes

1. Recommendations for design and layout changes

Issues	Proposed changes
The Chinese line on the front cover is easy to miss	<ul style="list-style-type: none">• Use the revised version of the brochure, which provides more space between each language. The placement of the Chinese text is better in the revised version.
The front cover lacks an official look. Pictures make it look like a tourist ad.	<ul style="list-style-type: none">• Consider adding the U.S flag on the front cover.• Consider using an official seal instead of the

	watermark seal on the cover.
The Chinese text in the inside page is not easy to read	<ul style="list-style-type: none"> Use the font style in the revised version for the Chinese text.

2. Recommendations for alternative wordings in the Chinese translation

English original	Current translation	Proposed Translation
Your response to this survey is required by law	根据法律您必须答复此调查。	<p>由于您目前居住在美国, 因此根据法律规定, 您必须答复此问卷调查。</p> <p>Because you currently live in the U.S., your response to this survey is required by law.</p>
	<p>Comment: The current translation doesn't clarify that everyone living in the U.S., regardless of citizenship or immigration status, must respond to the survey. The proposed change adds "Because you currently live in the U.S.," which serves as a clarification. Also, in the current translation, the collocation of the verb and the object is not right. The proposed change adds one comma, and one word "questionnaire." In this way, the collocation is correct and the word "you" is more prominent.</p>	
The questionnaire is in English.	<p>本问卷是以英语提供。(in pre-notice packet)</p> <p>是以英语提供。(in initial questionnaire packet)</p>	<p>这个调查问卷只有英文版。</p> <p>This survey questionnaire only has an English version.</p>
	<p>Comment: The current translation uses difficult wording (本, 以, 提供). The translated sentence in the initial questionnaire packet has a grammatical error. It is an incomplete sentence and lacks the sentence subject. It is recommended to use the revised sentence stating that the survey questionnaire only has an English version.</p>	
If you want to complete the survey in Chinese via telephone, please call our toll free number: 1-800-638-5945.	如果您希望使用中文通过电话完成本调查, 请致电我们的免费电话 1-800-638-5945。	<p>请拨打我们的免费电话: 1-800-638-5945, 我们将有会说中文的工作人员回答您的问题, 或者您能够在电话上用中文回答调查的问题。</p> <p>Please call our toll free number: 1-800-638-5945. There will be Chinese-speaking professional staff to answer any questions you might have. You can also complete the survey in Chinese on the phone.</p>
	<p>Comment: The current translation uses very formal wording (使用, 本, 致电). It doesn't clarify whether the toll-free number can be used to ask questions about the ACS. The proposed translation re-organizes the sentences. Two sentences have been added to make it clear that there are Chinese-speaking staffs who can answer callers' questions or people can call to complete the survey in Chinese. This new statement has a very polite and sincere tone and carries more pragmatic weight to encourage people to call in.</p>	
The American Community Survey is an important survey conducted by the Census Bureau	美国社区问卷调查是由美国人口普查局主持的一项重要调查。	<p>美国社区问卷调查由美国人口普查局主持, 是一项重要的调查。</p> <p>The American Community Survey is conducted by the Census Bureau, and it is an important survey.</p>
	<p>Comment: The current translation follows the English sentence structure and is too long and difficult to parse.</p>	
It is designed to give	其目的是为各社区提供关于其	目的是为了向各个社区提供有关居民和住房方

communities current information about their people and housing.	居民和住房的最新信息。	面的最新信息。 The purpose is to provide all communities current information on residents and housing.
	Comment: The current translation uses difficult wording (e.g., 其). It is used in two places within one sentence. It is difficult to read through the sentence.	
By responding to the survey, you are helping your community get the information it needs to make well-informed decisions.	通过答复本调查，您将帮助贵社区取得其做出明智决策所需的信息。(in pre-notice packet) 您响应本调查，就是在帮助您社区取得其做出明智决策所需的信息。(in the initial questionnaire packet)	一个社区要做出明智的决策，需要真实准确的信息。您答复此问卷调查，就是在帮助您所在社区获取这样的信息。 In order to make well-informed decisions, a community needs accurate and reliable information. By responding to this survey, you are helping your community to get this kind of information.
	Comment: The current translation sticks closely to the English sentence structure. It is very condense. It also uses difficult wording (e.g., 其). It doesn't sound natural in Chinese. The proposed translation re-organizes the long sentences by making them into two sentences, and adds needed wording to link the two sentences.	
Will my answers to this survey be kept confidential?	我对本调查的回答是否会保密？	我对这次调查的回答，人口普查局是否会保密？ As for my answers to this survey, will the Census Bureau keep them confidential?
	Comment: The current translation is confusing as to who is protecting the answers.	
Yes. All of the information the Census Bureau collects for this survey about you and your household is confidential by law (Title 13, United States Code).	是的。根据法律（美国法典第 13 章）的规定，美国人口普查局会对本次调查收集的有关您及您住户的所有信息保密。	会保密。根据法律的规定（美国法典第 13 章），对于这次问卷调查收集的有关您个人和住户的信息，人口普查局都必须保密。 Yes. According to the law (Title 13, United States Code), regarding the information collected in this survey about yourself and your household, the Census Bureau must keep it confidential.
	Comment: The current translation of “yes” is literal translation, which doesn't sound natural in Chinese. For Chinese, a “yes/no” answer needs to correspond to the verb in the question, not just a simple “yes/no”. Another issue is that the current follows the English sentence structure and it sounds odd. The proposed change breaks the long sentence to two smaller ones and makes it clear and easy to understand.	

6. KOREAN INTERVIEWS: SUMMARY OF FINDINGS

6.1. Introduction

Korean-language interviews were carried out under the responsibility and direction of RTI. Interviews were conducted by three cognitive interviewers. The breakdown of interviews is as follows: eight interviews in the D.C. metro area were conducted by Hyunjoo Park, eight interviews in the Chicago Metro area were conducted by Jiyoung Son, and another nine interviews in the Chicago Metro area were conducted by Hyunjung Bae.

Following informed consent procedures, the protocols were followed in each case. Revised protocols with added showcard comparisons were used in Round 2 to test alternative wordings in translation. All interviews were audio-taped⁹ after obtaining respondents' consent to do so. The Round 1 interviews lasted from 35 minutes to one hour and 20 minutes. The average time was 57 minutes. The Round 2 interviews lasted from 60 minutes to two hours fifteen minutes. The average time was 80 minutes.

All interviews were conducted between Dec 13 and Dec 22, 2007 in Round 1 and between Jan 17 and Jan 25, 2008 in Round 2. The Korean language expert team met after the completion of each round of interviews to review findings. Based on the findings, we recommended alternative wordings for translation of the ACS brochure. A list of recommendations is attached at the end of this chapter.

6.2. Respondent Characteristics

Thirteen interviews were conducted in Round 1, eight with Protocol 1, which tested the ACS multilingual brochure with the pre-notice letter, and five with Protocol 2, which tested the ACS multilingual brochure with initial questionnaire materials¹⁰. Another twelve interviews were conducted in Round 2, five with Protocol 1 and seven with Protocol 2 to compensate for the fewer use of protocol 2 in the previous round. The total of twenty five interviews was conducted in both rounds. Most interviews were conducted in respondents' homes and some were conducted in local public libraries or coffee shops in the Greater Washington, D.C. area and in the Chicago Metro area.

Table 6-1 shows the demographics of the 24 participants interviewed across rounds.

⁹ There was partial loss (about 10 minutes) of audio-recording of 1 interview due to the interviewer's mistake to re-press the recording button after silent reading part. The summary report was written based on the notes taken during the interview.

¹⁰ On completion of twelve interviews in the first round, the Korean team realized that protocol #1 was used more often than planned by oversight. To compensate for this, the Korean team conducted one extra interview with protocol #2.

Table 6-1: Demographic Characteristics of Korean-Speaking Participants

ID	Age	Education	Place of Birth	Year of Entry	Language	Gender
D4	55-64	HS graduate	Korea	2000-2005	Monolingual	Female
CS3*	65+	HS graduate	Korea	1990-1999	Monolingual	Male
CB20	45-54	HS graduate	Korea	2000-2005	Monolingual	Female
CS7	65+	Less than HS	Korea	1990-1999	Monolingual	Female
D42	25-34	College graduate	Korea	2000-2005	Bilingual	Male
CB7	35-44	HS graduate	Korea	1990-1999	Monolingual	Female
CB16	55-64	College graduate	Korea	1979-	Bilingual	Female
CB1	35-44	College graduate	Korea	1990-1999	Monolingual	Female
D15	55-64	College graduate	Korea	1980-1989	Monolingual	Female
D49	18-24	HS graduate	Korea	Since 2006	Bilingual	Male
CS46	35-44	HS graduate	Korea	1990-1999	Monolingual	Female
CS1*	45-54	College graduate	Korea	1990-1999	Monolingual	Male
CB6*	35-44	College graduate	Korea	1990-1999	Monolingual	Female
CB26	65+	Less than HS school	Korea	1990-1999	Monolingual	Male
CS47	55-64	HS graduate	Korea	1990-1999	Bilingual	Male
CS2	45-54	HS graduate	Korea	2000-2005	Monolingual	Female
D60	18-24	HS graduate	Korea	Since 2006	Bilingual	Male
D70	35-44	College graduate	Korea	2000-2005	Monolingual	Female
CS55	65+	Less than HS school	Korea	1990-1999	Monolingual	Female
CB22*	55-64	HS graduate	Korea	-1979	Monolingual	Female
D39	35-44	College graduate	Korea	2000-2005	Bilingual	Male
D53	25-34	HS graduate	Korea	1990-1999	Bilingual	Male
CS23*	45-54	College graduate	Korea	2000-2005	Monolingual	Male
CB30	45-54	HS graduate	Korea	1980-1989	Monolingual	Female
CB24	65+	HS graduate	Korea	1990-1999	Monolingual	Female

* This person was recruited as monolingual but behaved as bilingual during the interview.

6.3. Summary of findings from the first round of cognitive interviews

The summary of findings reported in this section is centered on issues critical to the project, including respondents' reactions to the multilingual brochure, their interpretation of key messages contained in the multilingual brochure, their survey participation motivation and decision, and translation issues. The section concludes with recommendations for changes to be made for the design and layout of the multilingual brochure and alternative wordings for the Korean translation.

6.3.1 Reaction to the multilingual brochure

- *Reaction to the multilingual brochure:*

Most of our Korean respondents in two rounds of interviews liked the fact that the brochure contained the Korean texts. They said that Korean texts caught their eyes easily and they could read the text more comfortably because it was their native language. They also thought this indicated the government's care about Korean in the U.S. They also liked the benefit that this survey could bring to their local community and appreciated the government's effort to let people know about what the government was doing. However, several respondents said some words were confusing and difficult to understanding. For example, "Title 13" was written in English without detailed explanation about what that was. Because all of the texts were written in Korean other than this, this exceptional English part looked strange. In addition, several respondents thought the information included in the multilingual brochure was too short to rely on. Both monolingual and bilingual Korean respondents had similar reactions. One monolingual respondent said the multilingual brochure was the only material she actually could understand. However, due to its deficient content, this multilingual brochure would not help her to complete the thick questionnaire.

- *Delivery of the main message in the brochure:*

Although most respondents thought the main message of the multilingual brochure was related to some study (population study/survey, survey about housing, education, community, etc), almost half of them could not give the accurate answer. The common answers included, "The brochure is to introduce/explain a survey." The bilingual respondents tended to have better understanding of the purpose of brochure and could articulate that the brochure was intended to encourage people's participation in the ACS. The Korean respondents' unclear understanding of this message was well demonstrated through the question asking what she or he would do next after she or he received the pre-notice letter. Only few respondents who evaluated the pre-notice mailing packet understood that this brochure was asking people to participate in the study. Their reactions were as follows: "I would keep the multilingual brochure and read it more carefully later," "I would call the number listed to ask what I should do," and, "I would ask more knowledgeable persons who can read English to ask questions such as its legitimacy." Due to the Korean respondents' lack of background knowledge about a survey, especially about the concept of pre-notice mailing, they seemed to think that the purpose of the brochure was to introduce and explain the survey. The respondents who received the initial questionnaire mailing packet showed better understanding, probably because the questionnaire was enclosed in the mailing packet.

- *Evaluation of the content of the brochure:*

Most of the Korean respondents thought that the multilingual brochure contained useful information. They liked the message on confidentiality, and the message on helping community to meet their needs and other positive impact of ACS on the community. However, some of the respondents also thought that the information collected by the ACS could be only beneficial for the government, but not for them personally.

- *Reactions to the pictures and the layout:*

A third of the respondents liked the pictures on the cover and said they liked the pictures since each picture seemed to represent the main items that the ACS aimed to collect (transportation, housing, education, etc). Another third of the respondents said it looked okay and did not provide specific reasons. Another third of the respondents did not like it, saying that the pictures were old-fashioned or boring. Comments included that the size of pictures were too small to see.

In the first round, most of the Korean respondents were satisfied with the layout of the brochure and did not have significant complaints, although there were minor suggestions, such as putting the Korean panel first or using some quality paper and nicer colors. In Round 2 interviews, due to several issues identified from the other languages such as small font size and a lot of empty space for the Chinese panel, the brochure was revised to handle these issues. As a result, the Korean panel was moved to the back and the Korean title location was moved accordingly. Also, the font has been changed from “Gulim” to bold “Myoungjo.” Nine out of twelve respondents in the second round who evaluated the original brochure and the revised one thought the revised brochure was easier to find the Korean texts. Those who preferred the revised one said the location of the Korean panel (on the back) was easy to find. The Korean texts and the bold Korean title caught their eyes. Two respondents specifically mentioned that the font (Gulim) used in Round 1 was better, though they liked the print in boldface.

- *Handling the multilingual brochure in the two mailing packets:*

The mailing packet of pre-notice materials: All of those who had the mailing packet of pre-notice materials noticed the Korean texts in the brochure easily and tended to read the texts carefully. In the first round, there was one respondent who missed the Korean text at first glance, but found the Korean texts later. Respondents said it was easy to find the Korean texts because the title was written in Korean, their native language. Most bilingual respondents read the letter when they opened the mailing packet. In terms of how to handle the materials in the mailing packets, bilinguals’ reaction to the brochure was related to their level of English proficiency. Those with a relatively high level of English reading ability tended to read through the entire letter and they told the interviewer that the letter had the similar content, but contained more details. Those with limited English proficiency tended to skim through the letter or read only parts.

The mailing packet of initial questionnaire materials: For those who had the mailing packet of initial questionnaire materials, the Korean text in the brochure did not seem to stand out. This seemed due to the large amount of materials enclosed in the packet. Also, those who

received this packet tended to think that the most essential part of this packet was the survey questionnaire.

The bilingual respondents' reaction was not different from those of the monolingual respondents. Commonly, they spent the most time reading the questionnaire. Thus, there is a slight chance that Korean texts in the multilingual brochure could be missed. However, only one out of twelve respondents in both rounds actually missed the Korean title on the cover and did not notice the Korean text inside of the brochure either. This happened in the first round and several respondents in the first round also commented about the possibility of missing the Korean texts. They recommended changing the title to something interesting, and enlarging the font size. After the change of layout (Korean title with bold face and Korean panel on the back) in Round 2, no one missed the Korean texts. There were three respondents who said it would be better if the Korean part could be inside. However, four respondents said it was great to see the Korean text on the back because they did not have to open the brochure to find the Korean text. Based on this finding, the revised Korean panel location on the back seems to work better, or at least equally well.

- *Reaction to the organization of information in the brochure:*

In the first round, only one respondent thought the order of the sections presented in the multilingual brochure made sense. In the second round, seven out of twelve respondents thought the current order was okay. Although the suggested order was not unanimous, seventeen out of twenty five respondents thought the second paragraph (What is the American Community Survey?) should be read first. They thought this was more natural because most Koreans were likely to be ignorant of the ACS. By having this introductory paragraph first, they could have background information to help them easily process the further information. There were mixed opinions about what should be read last.

This shows the same evidence from the 2006 project—Korean respondents wanted to see the background information first and did not expect to see the main message at the beginning. The inconsistent preference to what should come last may be because of different writing styles or different respondent characteristics. That is, the current brochure is Q&A format while the material used in 2006 ACS is a letter. In addition, a third of the respondents on this project were bilingual, while only monolingual Korean respondents were interviewed in the 2006 ACS project. The Korean team does not recommend changing the order of this section to be consistent with the other languages because a third of the respondents said it was acceptable as was, and there was no unanimous opinion about the suggested order.

6.3.2 Interpretation and reactions to key messages

The testing of the understanding of key elements during the two rounds of interviews included asking participants who they thought was sponsoring the survey, how they thought they would receive the questionnaire, whether or not they understood that they had the opportunity to do the telephone survey in the target language, if they could explain the purpose of the ACS, and whether or not they comprehended confidentiality assurance. The monolingual respondents in this project only got the information of these messages from the brochure, while the bilingual respondents looked at the letter and the brochure to get this information. Overall, the bilingual respondents' interpretation of the key messages and reactions were similar to those of the monolingual respondents, but the bilingual respondents

tended to give more detailed information related to the benefit of the ACS. This may be not only because of relatively short description of the ACS and the benefit in the multilingual brochure but also because of the different levels of articulation ability between the monolingual and the bilingual respondents.

(a) *Mandatory nature:*

Almost all respondents (twenty-three out of twenty-five respondents) understood the literal meaning of “required by law to respond to the survey.” Despite this almost perfect understanding, nearly half of the respondents tended to think that they had an option not to participate in the survey. Four respondents who believed they must respond to the survey either mentioned the benefit of the survey or couldn’t point out the mandatory nature of survey description in the brochure when asked to point out why they thought it was so. Some wondered whether the participation in the ACS was really obligatory and wanted to confirm the fact with the interviewer. One bilingual respondent thought it might be required by law to respond to this survey but thought he did not have to do so because there would be no penalty of not participating in it. His logic was that the letter should include the date for legal enforcement, but that information was currently missing in the letter.

Although the majority of the respondents did not mention any concerns after reading the brochure, several of them thought the tone informing them of the survey’s mandatory nature was too heavy and burdensome. The current sentence comes across too strongly in the Korean culture and language where the direct way of communication is unfamiliar. One respondent commented that the Korean text in the brochure looked like direct translation from English and it seemed too formal and did not seem accessible to people with a low-level of education. That respondent suggested changing the sentence about mandatory nature of the ACS such as, “It would be appreciated if you...”(~해 주시면 감사하겠습니다)”.

(b) *Questionnaire by mail, and telephone survey in the target language*

This message informed the respondents that the ACS questionnaire was being sent in mail and it was in English only. However, if they wanted to complete the ACS in Korean, they could call the toll-free number.

The findings suggest that the message about telephone assistance in Korean is somewhat understood, but not very clearly. Most of the Korean respondents understood that the purpose of telephone number inclusion was to encourage monolingual Koreans’ survey participation by having them call the listed number. However, they were unsure of how they could complete the survey by calling the number. This may be partly because they are not familiar with the concept of a telephone survey. They tended to think that the Korean representative would give some instructions about how to fill out the enclosed English questionnaire for example, through simultaneous interpretation. Some of them thought that they could request the Korean questionnaire by calling the number. Four respondents thought the toll-free number was only for asking questions in Korean, not for completing the ACS.

To reduce this confusion, we recommended revising this statement to clarify that the questionnaire is available in English only and they can complete the survey in Korean over

the phone. We developed the two statements: “한국어로 설문을 작성하고 싶으시거나 질문이 있으시면, 무료전화 1-800-772-6728 으로 전화를 주십시오. 한국어 담당직원과 통화하실 수 있습니다 (Call us toll-free at 1-800-772-6728 to speak with our Korean speaking staff. They will be able to answer your questions or you could complete the survey by phone)” and “설문지는 영어로만 되어있습니다 (The questionnaire is in English only).” These new statements were tested with twelve respondents in Round 2 interviews and received a very positive reaction. The respondents showed a much better understanding of the message. Nine out of twelve respondents preferred these two revised statements.

(c) Survey sponsor:

Around one third of the respondents specifically answered that the U.S. Census Bureau conducted the ACS. Those who failed to get the survey sponsor message said that the ACS was conducted by the government, private company, American community, or didn't know. Since the U.S. Census Bureau is one of the government agencies, Koreans may have answered “U.S. Government,” implying the U.S. Census Bureau.

(d) What's the ACS:

Most respondents understood that the ACS was a survey to help local communities. However, only a couple of respondents could explain what the ACS was accurately. A third of the Korean respondents thought the ACS was a survey about housing. Another third of the respondents interpreted the ACS as a population survey or census to count people. This seems to be based on the current translation of “residents and housing information” in the multilingual brochure.

(e) Confidentiality message:

Most of the Korean respondents understood the message. Only two out of twenty five respondents did not understand the confidentiality message. Although there was nobody who knew or heard about Title 13, most of the respondents guessed that Title 13 was something related to laws to protect the personal information. Most respondents who understood or guessed the meaning of Title 13 correctly liked the statement and believed this information would increase the credibility of confidentiality and would encourage survey participation. However, some respondents felt that the sentence was too short and superficial to make people completely assured. Including a short explanation on the content of the law or type of the law (for example, statistical laws) would be helpful. Several respondents pointed out the fact that the Title 13 was written in English in the parentheses in the Korean texts and commented that it looked strange.

6.3.3 Survey participation decision

(a) Motivation and decision to participate in the ACS

About two thirds of the respondents said they would participate, while the rest said they were not going to do the ACS. Those who would participate in the ACS gave various reasons for their participation. These included Korean language service over the phone, the mandatory nature of the survey, the benefit to the local community, society development through the ACS, their contribution to more accurate statistics, etc. They tended to answer multiple answers for their motivations and all of these answers seemed to have equal importance to them without one dominant factor. The reasons of non-participation included time consumption and the fact that there was no reward that they would receive. Several respondents doubted whether the ACS was really required by law and said, "If it is a real duty to the government, I should do it. But these days there is always a choice." One respondent said it was unlikely that she would complete the questionnaire, but that she might do the survey depending on her availability, her mood on the day, etc. One respondent disliked the fact that the survey would be conducted in Korean only over the phone. Compared to those who had pre-notice letter package, those who actually saw the questionnaire tended to say "no," more often and this might be the effect of the thick English questionnaire enclosed in the packet. Ten out of thirteen respondents who received the pre-notice packet said they would participate, while six out of twelve respondents who received the initial questionnaire packet said so.

Overall, the respondents thought that the multilingual brochure was helpful to them, and it made a difference in their decision to participate. Fifteen respondents said the brochure was helpful and mentioned the benefit of the ACS, mandatory nature of the survey and the toll-free Korean service as encouraging factors. The Korean translated brochure itself seems to play an important role for them to make them realize the importance of ACS. They commented that this benefit message could not be communicated without this translated brochure. For those who said the material did not make a difference in their participation decision, several respondents said that the information was too little to encourage their participation decision. Two monolingual respondents said that if the translated Korean questionnaire were available, they would participate, but the short brochure would not help because they did not want to do it over the phone. As a reason for paper questionnaire preferences, one respondent said that she could stop and resume the paper questionnaire, but it would be impossible to do so over the phone.

For the hypothetical question asking whether the multilingual material could help monolingual Koreans' participation, all of the respondents agreed that this could help them read the materials and understand the social benefits of the ACS. However, there were mixed opinions about this communicated message could directly increase Korean's participation. The reasons for participation or non-participation were repeated again as given to the question asking for their self-participation decision described earlier.

(b) Language preference

It is clear that monolingual respondents can only do the survey in Korean. Bilinguals' language preference was mixed. (Seven respondents preferred Korean vs. five respondents preferred English¹¹.) However, the reason for an English preference was closely related to the

¹¹ As indicated earlier, additional respondents recruited as monolinguals could actually read English a little bit. As a result, we asked them these questions.

mode of data collection. Respondents thought that making a phone call was bothersome and that it would be better to fill out the questionnaire via mail. One respondent even said he would rather complete the English questionnaire by himself after spending some time to study the questionnaire with the help of an English dictionary because of the hassle of answering the questions over the phone. They strongly hoped to have the Korean translated questionnaire.

In answer to the hypothetical question asking what their behavior would be if the questionnaire were only available in English, six of them said they would do it with difficulty, four said they would do it without difficulty, and two said they would not be able to complete the survey at all.

6.2.4 Translation issues

- (a) The two Korean versions of the multilingual brochure are not identical. Changes need to be made to make them consistent. In several places, the wordings of the pre-notice letter version and the initial questionnaire package version are different even though the English wordings are the same. Even in the one document, the translation lacks consistency. In the pre-notice package, the Census Bureau is translated to “the Census Bureau” in the first paragraph, but to “the U.S. Statistics Department” in the second paragraph.
- (b) “Title 13 U.S. Code” is not currently translated and just written in English. The current translation of “confidentiality” is back-translated to “security,” which has a somewhat different connotation. This translation issue was also pointed out during the cognitive interviews, although this is difficult to identify without knowing the original English word.
- (c) Toll-free call is currently translated to “receiver paying call(수신자(受信者)부담.” This Korean word is originated from Chinese word “受(receive)” but in Korean there is a homonym meaning the opposite thing “授(give).” Several respondents did not know what this meant and were confused.
- (d) There is a general feeling that the Korean version sounds very much like a translation. That is, it doesn’t flow well and doesn’t sound natural in Korean. Korean respondents said that they could know that this is a translated material from the stiff sentence ending such as “습니다”. Also, they said that the strong tone of the statements such as “귀하는 법에 의하여 이 설문지에 답할 의무가 있습니다” (Your survey participation is required by law) bothered them.
- (e) A sentence describing the benefit of the ACS “설문조사에 답하심으로서 지역사회가 정보에 기초한 정확한 결정을 내리는데 도움을 주실 수 있습니다(By responding to the survey, you are helping your community get the information it needs to make well-informed decisions)” was pointed out as confusing because of the long complicated structure and lack of content. It also contained a typographical error. So, the Korean team revised the statement to “귀하의 설문응답은 지역사회가 정확한 정보에 기초한 결정을 하는데 도움을 줍니다(Your survey participation could help your local communities make decisions based on accurate information)” and tested with eleven respondents in the second round. The first statement and the revised one were liked by almost an equal number of respondents (although two of the respondents who preferred the old one were in a hurry or were very tired of at the end of the interview when this question

was asked). When only one interview was left, the decision was made to change the English statement to, “In order to make well-informed decisions our community needs accurate and reliable information. By responding this survey, you are helping your community to get this kind of information (지역사회가 정보에 기초한 정확한 결정을 내리기 위해서 정확하고 믿을 수 있는 정보가 필요합니다. 귀하의 설문응답은 지역사회가 이런 정보를 수집하는 데 도움을 줍니다).” This alternative translation was tested with one respondent, and that respondent preferred the revised statement. The reason for confusion about the previous statement was partly because the Korean respondents lacked survey experience that would help them understand how their survey answers could contribute to the community. Thus, the Korean team thinks this new English statement could address the confusion of the previous sentence, even though this translation was not tested with many Korean respondents.

6.4. Recommendations and suggested changes for interview protocols for round 2 interviews

6.4.1 Recommendations

The Korean team has two types of recommendations regarding the design and the layout of the brochure and the translation. To help Korean respondents to find the Korean texts of the brochure easily, we recommend using a larger font size and boldface for the Korean line on the front cover. We also recommend using “Gulim” font for the title which was used on the Round 1 because “Myoungjo” font (one used in the 2nd round) is usually used when writing a lot of texts in letters or books. Placing the Korean panel on the back is also recommended. Detailed recommendations related to translation are documented in table 2.

6.4.2 Suggested changes for round 2 interview protocols

We tested the above-mentioned suggested changes in the second round of cognitive interviews by adding debriefing questions to compare the alternative translation with the original. We also added probes to elicit respondents’ feedback and reaction to the changes that we recommended based on findings from Round 1 interviews. We used show cards for respondents to compare the original wording and the changed wording during the second round of interviews. Results from Round 2 interviews confirmed most of our recommendations, except for the revised statement of benefit description.

In addition, in Round 2 interviews we tested a revised version of the brochure and three different versions of the mandatory nature statement in the brochure. Results showed that the revised version of the brochure was well received. Nine out of twelve respondents liked the revised version for the Korean panel location on the back and the bold face of the Korean title on the cover page.

Regarding the message concerning the mandatory nature of the ACS, we identified that the statement including “law enforcement” gave the wrong impression that only U.S. citizens or permanent residents were subject to this, excluding visitors or illegal immigrants from the target population. After the first round of the interviews, we drafted two additional statements and then tested the three statements in the Round 2 interviews. The different versions that we tested are as follows:

Version A: "Your response to this survey is required by law, regardless of citizenship status(시민권여부에 상관없이, 법에 따라 귀하는 이 설문에 응답하셔야 합니다)"

Version B: "Because you are living in the U.S., you are required by law to respond to this survey(미국에 사시는 모든 분은 법에 의해 이 설문에 응답하셔야 합니다)"

Version C: "Your response to this survey is required by law(귀하는 법에 의하여 본 설문지에 답할 의무가 있습니다)" (original statement in the brochure)

The Round 2 interview results showed that Version B was better understood and well received. Eight out of twelve respondents thought this version better communicated the fact that people should participate in the ACS regardless of their visa or citizenship status. Therefore, we recommend using Version B for the mandatory nature message.

Regarding the message on the availability of the questionnaire in English only, two versions were tested in Round 2, with differences across protocols.

Protocol 1:

Version A: "In a few days you will receive an American Community Survey questionnaire in the mail. The questionnaire will be in English."

Version B: "In a few days you will receive an American Community Survey questionnaire in the mail. The questionnaire will be in English only."

Protocol 2:

Version A: "Included in this mailing is an American Community Survey questionnaire. The questionnaire is in English."

Version B: "Included in this mailing is an American Community Survey questionnaire. The questionnaire is in English only."

There were a few respondents who felt that Version A and Version B did not have any significant difference. However, the majority of the respondents (nine out of twelve) preferred Version B because the statement more clearly delivered the message that the questionnaire is available in English only.

Finally, the following alternative messages were tested regarding the toll-free line.

Version A:

"If you prefer to complete the survey by telephone in <LANGUAGE>, call us toll-free at 1-[LANGUAGE#]."

Version B:

"Call us toll-free at 1-[LANGUAGE#] to speak with our <LANGUAGE> speaking staff. They will be able to answer your questions or you could complete the survey by phone."

Respondents overwhelmingly preferred Version B. They felt it was more complete and alluded to two-way communication— not only could one answer the questions by phone, but the caller could also ask questions. These new statements were tested with twelve respondents in Round 2 interviews and received a very positive reaction. The respondents showed a much better understanding of the message. Nine out of twelve respondents preferred Version B.

A summary table of recommended changes to the materials is provided below. *See Appendix 12* for documentation on Korean Interview Summaries from Round 1 Interviews (13 respondents) and Round 2 Interviews (12 respondents).

Summary of suggested changes

1. Recommendations for design and layout changes

Issues	Proposed changes
The Korean line on the front cover is easy to miss	<ul style="list-style-type: none"> • Use a larger “Gulim” font and boldface for the Korean line on the front cover. • Move the Korean panel on the back

2. Recommendations for alternative wordings in the Korean translation

English original	Current translation	Proposed Translation
The American Community Survey	미국 사회에 대한 설문조사 (in 1st paragraph title) 미국 사회에 대한 설문지 (1st paragraph) 미국 사회조사 (2nd paragraph)	미국 지역사회조사 (The American Community Survey)
	Comment: The American Community Survey is translated in three different ways. We recommend using “미국 지역사회조사” consistently throughout material. This translation was also used for the previous ACS Korean materials.	
The US Census Bureau	미국 인구조사소 미국 통계국	미국 인구조사국(The US Census Bureau)
	Comment: The U.S. Census Bureau is translated in two different ways. We recommend using “미국 인구조사국” consistently throughout material. This translation was also used for the previous ACS Korean materials.	
The questionnaire is in English	설문지는 영어로 되어있습니다	설문지는 영어로만 되어있습니다(The questionnaire is in English only).
	Comment: To eliminate confusion that Korean questionnaire may be available, we recommend adding “only” in Korean to make it clearer.	
Your response to this survey is required by law	귀하는 법에 의하여 이 설문지에 답할 의무가 있습니다.	미국에 사시는 모든 분은 법에 의해 이 설문에 응답하셔야 합니다(To conform to the laws, those who are living in the U.S. must answer this survey)
	Comment: The current translation arouses some negative feeling because of strong tone and direct expression. Also the “law enforcement” gave wrong impressions that only U.S. citizens or permanent residents are subject to this, excluding visitors or illegal immigrants from the target population. We developed the new softer translation based on the alternative English wording version B (Because you are living in the U.S., you are	

	required by law to respond to this survey) and tested this wording and it was well received)	
If you have questions or need help completing this survey, please call us toll-free at 1-800-354-7271.	설문에 한국어로 전화 답변하시고 싶으신 분은 수신자 부담 번호인 1-800-772-6728로 전화 주시기 바랍니다. (If you want to answer the survey over the phone, please call us a receiver paying phone number, 1-800-772-6728.)	한국어로 설문을 작성하고 싶으시거나 질문이 있으시면, 무료전화 1-800-772-6728 로 전화를 주십시오. 한국어 담당직원과 통화하실 수 있습니다(Call us toll-free at 1-800-772-6728 to speak with our Korean speaking staff. They will be able to answer your questions or you could complete the survey by phone)
	Comments: There was confusion that the respondents thought the toll-free number was only for asking questions in Korean, not for completing the ACS. To eliminate this problem, we recommend rewriting it more specifically. Toll-free was translated to “receiver paying” and has unnecessary meaning that cost is actually paid by someone else. Also, several respondents did not know the meaning of the current translation correctly. To eliminate this problem, we recommend using 무료전화(toll-free) instead. This new wording was tested and was very well received.	
Housing	주택 (in the pre-notice packet)	주택
	Comment: This is a typographical error and should be corrected.	
By responding to the survey, you are helping your community get the information it needs to make well-informed decisions.	설문조사에 답하심으로서 지역사회가 정보에 기초한 정확한 결정을 내리는데 도움을 주실 수 있습니다.	지역사회가 정보에 기초한 정확한 결정을 내리기 위해서 정확하고 믿을 수 있는 정보가 필요합니다. 귀하의 설문응답은 지역사회가 이런 정보를 수집하는 데 도움을 줍니다 (In order to make well-informed decision our community needs accurate and reliable information. By responding this survey, you are helping your community to get this kind of information)
	Comment: The current translation has typo. “답하심으로서” should be corrected to “답하심으로써”. This sentence is also somewhat long to parse. The English original statement was changed and we recommend using it. We think the revised statement with two short sentences can fill the lack of survey knowledge of Korean respondents, and help people parse the information better.	
Will my answers to this survey be kept confidential?	설문조사에 대한 답변은 안전을 보장받습니까?	설문조사에 대한 답변은 보호됩니까? (Will my answers to this survey be protected?)
	Comments: The current translation of “confidentiality” is back-translated to “security,” which has somewhat different connotation. To correct this problem, we recommend rewriting it.	
All of the information the Census Bureau collects for this survey about you and your household is confidential by law.	이 설문조사를 통하여 미국 인구조사소가 얻게 되는 귀하와 귀하의 가족에 관한 모든 정보는 법에 의하여 안전을 보장 받습니다.	이 설문조사를 통하여 미국 인구조사소가 얻게 되는 귀하와 귀하의 가족에 관한 모든 정보는 법에 의하여 엄격히 보호됩니다(All of the information the Census Bureau collects for this survey about you and your household is protected strictly by law)
	Comments: The current translation of “confidentiality” is back-translated to “security,” which has somewhat different connotation. To correct this problem, we recommend rewriting it.	
(Title 13, United States Code).	(Title 13, United States Code).	(미 연방법 13 ▪)
	Comment: This is not translated and written in English. Thus, it should be fully	

	translated.
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7. SPANISH INTERVIEWS: SUMMARY OF FINDINGS

7.1. Introduction

Spanish-language interviews were carried out under the responsibility and direction of Research Support Services. The interviews were conducted by the team of RTI-RSS Spanish language experts, Manuel Borobia, Rosanna Quiroz, and Liliana Aguayo.

All interviews in Round 1 were conducted between December 7, 2007 and December 29, 2007. Round 2 interviews took place between January 20 and February 12, 2008. Following informed consent procedures, the protocols were followed in each case. Revised protocols with added showcard comparisons were used in Round 2 to test alternative presentation of messages. All interviews were audio taped after obtaining respondents' consent to do so.¹² In Round 1 the Protocol 1 interviews were shorter, lasting 40-55 minutes, while the Protocol 2 interviews averaged about 1 hour. In Round 2 the interviews ranged from 45-55 minutes for Protocol 1, and from 50 minutes to 1 hour and 10 for Protocol 2.

Based on Round 1 findings, a number of changes were made to the protocols. No alternative wording was recommended by the Spanish language expert team.

7.2. Respondent Characteristics

Twelve interviews were conducted in each round of interviews, six with Protocol 1 which tested the ACS multilingual brochure with the pre-notice letter, and six with Protocol 2 which tested the ACS multilingual brochure with initial questionnaire materials. Five interviews were conducted in participants' homes in the metropolitan Chicago area, three at respondents' place of employment, and four at the RTI Call Center in Raleigh, North Carolina. Of the 24 respondents recruited for cognitive interviewing, seven were screened as bilingual speakers of Spanish. However, in the actual interviews only five were found to fit the project's definition for bilinguals.

Table 7-1 shows the demographics of the 24 participants interviewed across rounds.

¹²Round 1 tapes are only available for 11 cases, as in one case a respondent's young child pulled the microphone cord without the interviewer noticing, which stopped the recorder from working. The interviewer had taken copious notes from which she was able. For Round 2 there are recordings of all interviews.

Table 7-1 Demographic Characteristics of Spanish-Speaking Participants

ID #	Age	Education	Place of Birth	Year of Entry	Language Abilities	Gender
1	25-34	HS graduate	Mexico	1990-99	monolingual	M
2	35-44	Less than HS	Mexico	2000-05	monolingual	F
3	25-34	Less than HS	Mexico	2000-05	monolingual	F
4	35-44	Less than HS	Honduras	2000-05	monolingual	M
5	25-34	Less than HS	Mexico	1990-99	monolingual	F
6	45-54	HS graduate	El Salvador	1980-89	bilingual	F
7	35-44	HS graduate	Mexico	2000-05	monolingual	F
8	25-34	HS graduate	Mexico	2000-05	monolingual	F
9	25-34	Less than HS	Mexico	2000-05	monolingual	F
10	35-44	HS graduate	Mexico	1990-99	monolingual	F
11	25-34	HS graduate	Mexico	2000-05	monolingual	F
12	25-34	Less than HS	Mexico	2000-05	monolingual	F
13	35-44	HS graduate	Mexico	1980-89	bilingual	M
14	35-44	HS graduate	El Salvador	1990-99	bilingual	M
15	65+	HS graduate	Cuba	before1980	bilingual	F
16	55-64	HS graduate	El Salvador	1980-89	bilingual	M
17	65+	HS graduate	Cuba	before80	monolingual	F
18	35-44	Less than HS	Mexico	1980-89	monolingual	M
19	25-34	Less than HS	Mexico	2000-05	monolingual	M
20	45-54	Less than HS	Mexico	1980-89	monolingual	M
21	25-34	Less than HS	Mexico	since 2006	monolingual	M
22	25-34	Less than HS	El Salvador	2000-05	monolingual	M
23	45-54	Less than HS	Mexico	1980-89	monolingual	F
24	18-24	Less than HS	Mexico	since 2006	monolingual	M

7.3. Summary of Findings from the Two Rounds of Cognitive Interviews

The summary of findings reported in this section is centered on issues critical to the project, including respondents' reactions to the multilingual brochure, their interpretation of key messages contained in the multilingual brochure, and their survey participation motivation and decision.

7.3.1 Reaction to the multilingual brochure in the two mailing packets

- *General Reactions to the Multilingual Brochure:*

Respondents were positive about the brochure. They found it well written and clear. They commented positively on the fact that it included several languages, and particularly that it included Spanish. However, one Round 2 respondent wished it had been exclusively in Spanish.

Virtually without exception they felt that participation among Spanish speakers would be enhanced by including the multilingual brochure, because upon finding something in Spanish that provided the necessary information, recipients would be well predisposed to respond to the ACS.

- *Reaction to the layout and design:*

Respondents were positive about the layout and design of the multilingual brochure. They felt it was eye catching. In Round 1, they particularly liked the placement of the Spanish text. They had no strong reactions to the colors or the pictures. They felt the material was well organized.

In Round 2, where we asked respondents to compare two versions of the multilingual brochure, two-thirds preferred Version 2 (the brochure used in Round 1) because of the placement of the Spanish text on the first panel on the left as the brochure was opened. Ten found it easier to find the Spanish text in Version 2. Of those, two still believed that the appropriate thing to do was to have English as the first language offered.

- *Reaction to the pictures:*

Across rounds, respondents were very positive about the pictures. In particular, most commented positively on the picture of the Statue of Liberty. They felt the pictures symbolize the issues the Census Bureau is interested in, such as education, housing, traffic, and the life of the community. One person would have liked to see a picture of people; another would have liked to see flags of different countries. Another one discounted the importance of the pictures, saying, “Generally, a person looks more to the information than to the front cover.”

One Round 2 (Protocol 2) respondent discarded the brochure upon opening the envelope because he thought, by looking at the pictures on the cover, that it was some sort of advertisement.

- *Handling the multilingual brochure in the two mailing packets*

The mailing packet of pre-notice materials: None of the respondents in Round 1 or Round 2 missed finding the Spanish text in the multilingual brochure. While some reviewed or read the contents carefully, even in English if bilingual or had some basic knowledge of English, they all found the blue brochure, and quickly identified the Spanish language panel.

The mailing packet of initial questionnaire materials: None of the respondents in Round 1 missed finding the Spanish text in the multilingual brochure. In Round 2, however, three persons missed realizing the multilingual brochure was, indeed, multilingual, and included Spanish. One did so because he saw it first from the back and discarded it upon seeing the Korean characters. Two others, one interviewed with Protocol 1 and one with Protocol 2, thought all materials were in English at first review. Three more did not look at the brochure at all in their first review of the materials.

- *Reaction to the organization of information in the brochure*

In the first round, none of the respondents felt that the organization or layout of the brochure could be improved. They liked both the order in which the languages were presented and the internal order of the paragraphs in the Spanish version.

In the second round, where the brochure presented the languages in a different order, only one respondent suggested moving the Spanish to the first leftmost panel, unprompted. All others were happy both with the order of the languages and the internal organization of the Spanish text.

7.3.2 Interpretation of key messages

The testing of the understanding of key elements during the two rounds of interviews included asking participants who they thought was sponsoring the survey, how they thought they would receive the questionnaire, whether or not they understood that they had the opportunity to do the telephone survey in the target language, if they could explain the purpose of the ACS, and whether or not they comprehended confidentiality assurance. Both the letter and multilingual brochure in the mailing packets contain these messages. Only the brochure contains the message about the mandatory nature of the ACS. The monolingual respondents in this project only got the information of these messages from the brochure, while the bilingual respondents looked at the letter and the brochure to get this information. No particular patterns emerged that distinguished the interpretation of these messages by the bilingual respondents from those of the monolinguals.

1. Monolinguals' interpretation and reaction to key messages

(a) Mandatory nature:

Eight of the twelve respondents in the first round clearly understood the meaning of “required by law to respond to the survey.” The other four felt that responding to the survey was important and one’s duty, but not that it was actually mandatory. In Round 2 we found a similar pattern, with seven respondents clearly believing the ACS to be mandatory, and five feeling it was voluntary. This failure to understand the message may come from the lack of experience with a mandatory survey or more generally with the government demanding that people do a specific task.

Two respondents raised a concern about the use of the word require (‘exigir’); one stated that it might make people afraid that there may be penalties for not complying, and the other found it to be too strong a message, and suggested that better outcomes might be obtained by requesting rather than commanding. However, this was not an issue of wording or translation—just discomfort with the mandatory nature of the survey. Another respondent felt that mention of the law was scary to her, as a Hispanic.

When respondents were asked if they would have participated in the survey, had they been selected to do so, only one in each round cited the mandatory nature of the ACS as the reason

why they would participate. All others cited civic duty, wanting to help the government, or wanting to help their community as their reasons to participate. Others offered caveats for their participation; they would only do the survey if they could get it in Spanish, or they would only do the survey if assured the information would not be shared with immigration authorities.

When asked if they would call the toll-free number offered, all respondents said they would do so, either to get help in Spanish or to ask any questions they may have about the survey. Only one respondent said he would not call and would be unlikely to participate because he has literacy issues and does not like to talk on the phone either.

(b) Questionnaire by mail, and telephone survey in the target language:

This message informed respondents that the ACS questionnaire was being sent in mail and it was in English only. If they wanted to complete the ACS in Spanish by phone, they could call the toll-free number provided in the brochure.

Several respondents alluded to the fact that by calling the toll-free number they would be able to be interviewed by phone in Spanish, while others mentioned the number was provided for them to call and get answers in Spanish to any questions they may have about the survey. Only one respondent in Round 1 and three in Round 2 mentioned it would be possible to call the toll-free number and request a Spanish version of the ACS.

Generally, respondents were confident that calling the toll-free number provided would let them reach a Spanish speaker who would be able to help them.

Based on findings from the first round of interviews across languages, a new statement was tested in Round 2. This new statement that would be added to the English original and translated versions would indicate that people who answer the toll-free line can provide help in the target language. This statement would come after the toll free number to make it clear that there are Spanish speakers who can provide help to callers.

As a result, we developed a new statement, “Please call our toll-free number 1-877-833-5625 to speak with our SPANISH speaking staff. They will be able to answer your questions or you can answer the survey over the phone,” to be tested in Round 2 interviews. This new statement was tested with the twelve Round 2 respondents who were equally split between the old statement and the new one. They felt both were clear, and some liked 3B because it seemed more complete, while the same number of respondents preferred 3A because it was short and to the point.

(e) Survey sponsor:

The U.S. Census Bureau apparently has no name recognition among this population of primarily monolingual Hispanics. In Round 1 most respondents remembered the survey was conducted by the government, and three gave names that included the word ‘census,’ although only one of them actually gave the Census Bureau’s name. All others either did not remember who conducts the ACS or gave answers such as the State Department, the U.S. Statistics Department, etc. In Round 2, five respondents remembered the Census Bureau was

conducting the ACS, while the remaining seven simply said they did not remember (although one mentioned “the United States”).

(f) *What’s the ACS:*

It was very clear to all respondents that the ACS is a request for information about community conditions, information the government needs to make important decisions that affect the future of those communities. However, several Round 2 interviewers evidenced confusion between the ACS and the decennial Census in their answers, and answered this question as though it were about the decennial census.

(e) *Confidentiality message:*

All respondents understood the message that the information ACS respondents provide will be kept confidential, not divulged to others, and not associated with respondents’ identity. Although unfamiliar with Title 13 or the U.S. Code generally, all respondents understood this was a reference to some sort of law, article or part of the Constitution that protects confidentiality. A majority of respondents indicated that giving information about legal protection of the confidential information is a good thing because it will promote cooperation from persons who are scared of their information being disclosed. They alluded to undocumented immigrants specifically. They felt the assurance of confidentiality meant that the information would stay within the Census Bureau. Mentions of Title 13 in the context of the confidentiality message did not arouse concerns.

2. Bilinguals’ interpretation and reaction to key messages

Although three (25%) of the screened candidates for Round 1 were defined as bilingual, in reality only one could be interviewed as such because the others did not have sufficient English reading skills. This bilingual respondent scanned the letter, spent quite some time examining the ACS form, and read the Spanish panel of the multilingual brochure. She preferred reading materials in Spanish.

Overall, the bilingual respondent had similar reactions to the monolingual respondents regarding the interpretation of key messages in the multilingual brochure.

In terms of their handling of the materials in the mailing packets, the five bilinguals were able to read and comprehend the letter. They reacted positively to the brochure in ways indistinguishable from monolinguals. They felt the brochure would help others in their community who do not speak English. They liked to see it was multilingual. They preferred reading the materials in Spanish. They maintained they would want to call the toll-free number to request assistance if they needed it.

Despite their language skills, the bilingual respondents interviewed did not appear through their answers to be significantly more acculturated than monolinguals.

7.3.3 Survey participation decision

(a) Motivation and decision to participate in the ACS

Cognitive interview results show that all respondents across rounds said that they would participate in the survey, although a few stressed that they would so only if they could do it in Spanish. The only exception was the above-mentioned respondent who has literacy issues and dislikes talking on the phone.

Only five of the twenty-three respondents reported that they would participate in the ACS cited duty and obligation as the primary reasons. The rest talked about their willingness to help the government and the community by providing their information.

Of all the materials the respondents saw, the multilingual brochure that had text in Spanish that “explained everything” most influenced respondents to participate. In Round 2, several bilinguals also mentioned the letter and how it provided full information. The assurances of confidentiality were motivators for several as well.

(b) Language preference

It is clear that monolingual respondents can only do the survey in Spanish. Of the five bilingual respondents, four indicated they would be able to do the survey in English only with difficulty. They would prefer to do it in Spanish. The fifth bilingual had no preference.

7.3.4 Translation issues

- (a) The Spanish version sounded very natural and “normal” to respondents.
- (b) There was only one word that caused difficulty to three respondents: “decisiones fundamentadas” (‘well-informed decisions’). They read this as “decisiones fundamentals.” ‘Fundamentales’ is a more common word, although the meaning is different.
- (c) A bilingual respondent challenged the translation of the survey title, saying that the use of the word “estadounidense” (of the U.S.) made immigrants feel excluded, like Hispanics are not included in the survey. This finding is consistent with earlier findings in the cognitive evaluation of ACS materials in 2005-06.

7.4. Recommendations and suggested changes for interview protocols for Round 2 interviews

7.4.1 Recommendations from Round 1

The Spanish text in the brochure, both in the cover and the inside panel, is clear, well translated, and worked well in the cognitive interviews. In Round 1, a couple of participants objected to the fact that the toll-free number offered appears to be only used if someone wants to be interviewed in Spanish, whereas a person with questions or doubts would not know where to call. A couple of respondents mentioned they would like to see a picture of the population that included Hispanics. Other than that, no further recommendations for changes to the brochure were made.

7.4.2 Suggested changes for Round 2 interview protocols

No suggested changes were made, other than providing a toll-free number for questions or indicating the one provided can be used for that. If changes were made to the pictures, the recommendation was to include one of people.

7.4.3 Round 2 Results from Changes to Protocol

Although the Round 1 recommendations were minimal, other changes were made to the Round 2 protocols to be consistent with other language versions and the changes to the English original. In addition to the toll-free number alternative messages discussed above, we tested a revised version of the brochure and three different versions of the mandatory nature statement in the brochure. Results show that the revised version of the brochure was well received. Although the Spanish slightly lost prominence in moving from the first flap to the inside cover, this did not generate negative feelings among Spanish speakers.

For the message on the mandatory nature of the ACS, the following three versions were tested in Round 2 interviews:

Version A: "Your response to this survey is required by law, regardless of citizenship status"

Version B: "Because you are living in the U.S., you are required by law to respond to this survey."

Version C: "Your response to this survey is required by law." (Original statement in the brochure.)

Round 2 interviews results show that Version A and Version B were equally liked. (Six respondents chose each.) Those who selected Version A focused on the fact that it states specifically that legal status is irrelevant. Those who preferred Version B liked better how it was worded, and understood it to include all undocumented as well. As long as the English version is modified to include either version (but not Version C) it should work well with this population. We feel that Version B is more explicit and would recommend it over Version A.

See Appendix 13 for documentation on Spanish Interview Summaries from Round 1 Interviews (12 respondents) and Round 2 Interviews (12 respondents).

Summary of Suggested Changes

1. Alternative versions of mandatory message tested: Use Version A or B.
2. Alternative versions of telephone language assistance message tested: Use Version A or B.
3. Alternative versions of well-informed decisions message: use Version B worded as follows:

"Para tomar decisiones basadas en datos concretos, una comunidad necesita información precisa y confiable. Al responder a esta encuesta, usted está ayudando a que su comunidad obtenga información de ese tipo."

(‘To make decisions based on concrete data, a community needs accurate and reliable information. By responding to this survey you are helping your community get this type of information.’)

4. For consistency with ACS Introductory Brochure, use “Así es.” instead of “Sí.” in the beginning of the answer about confidentiality of the responses.
5. There is a typographical error in both versions in the brochure that needs to be corrected. In the answer to the second question (¿Qué es la Encuesta sobre la Comunidad Estadounidense?), in the second sentence the word ‘la’ that precedes ‘personas’ should be ‘las.’

8. RUSSIAN INTERVIEWS: SUMMARY OF FINDINGS

8.1. Introduction

Russian-language interviews were carried out under the responsibility and direction of Research Support Services. Round 1 and 2 interviews were conducted by the team of Russian language experts, Evguenia (Jenya) Haps, Sophia Kholodenko and Olga Bezzubov.

Twelve interviews were conducted each round of interviews, six with Protocol 1 which tested the ACS multilingual brochure with the pre-notice letter, and six with Protocol 2 which tested the ACS multilingual brochure with initial questionnaire materials. All interviews were conducted in participants' homes, and some were conducted in local venues in the Chicago metropolitan area. Of the twenty-four respondents recruited for cognitive interviewing, seventeen were monolingual speakers of Russian, and seven were bilingual speakers of Russian and English.

All interviews in Round 1 were conducted between December 13, 2007 and December 23, 2007. Round 2 interviews took place between January 19 and February 7, 2008. Following informed consent procedures, the protocols were followed in each case. Revised protocols with added showcard comparisons were used in Round 2 to test alternative presentation of messages. All interviews were audio taped after obtaining respondents' consent to do so. In Round 1 the Protocol 1 interviews were shorter, lasting an average of 50 minutes. The Protocol 2 interviews averaged about 1 hour. In Round 2 the Protocol 1 interviews averaged one hour, and the Protocol 2 interviews 75 minutes.

Based on Round 1 findings, a number of changes were made to the protocols.

8.2. Respondent Characteristics

Twelve interviews were conducted each round of interviews, six with Protocol 1 which tested the ACS multilingual brochure with the pre-notice letter, and six with Protocol 2 which tested the ACS multilingual brochure with initial questionnaire materials. All interviews were conducted in participants' homes and some were conducted in local venues in the Chicago metropolitan area. Of the twenty-four respondents recruited for cognitive interviewing, seventeen were monolingual speakers of Russian, and seven were bilingual speakers of Russian and English.

Table 8-1 shows the demographics of the twenty-four participants interviewed across rounds.

Table 8-1 Demographic Characteristics of Russian-Speaking Participants

ID	Age	Education	Place of Birth	Year of Entry	Language	Gender
1	35-44	College grad	Lithuania	2000-05	Monolingual	F
6	65+	College grad	Russia	2000-2005	Monolingual	F
9	65+	College grad	Russia	2000-05	Bilingual	F
12	65+	College grad	Russia	2000-05	Bilingual	M
13	65+	College grad	Moldova	1990-99	Monolingual	M
21	65+	Less than HS	Belarus	1990-99	Monolingual	M
23	55-64	College grad	Ukraine	1990-99	Monolingual	F
24	65+	HS graduate	Russia	1990-99	Monolingual	M
28	65+	College grad	Russia	2000-05	Monolingual	M
29	35-44	College grad	Belarus	2000-05	Monolingual	F
30	65+	Less than HS	Ukraine	1990-99	Monolingual	F
31	65+	College grad	Ukraine	1990-99	Monolingual	M
32	65+	HS graduate	Ukraine	1990-99	Monolingual	F
34	45-54	College grad	Ukraine	since 2006	Monolingual	F
35	55-64	HS graduate	Belarus	1980-89	Monolingual	F
36	65+	College grad	Russia	1990-99	Bilingual	F
37	55-64	HS graduate	Latvia	1990-99	Bilingual	F
38	55-64	HS graduate	Ukraine	1980-89	Bilingual	F
39	45-54	College grad	Belarus	2000-05	Monolingual	M
41	45-54	College grad	Ukraine	1990-99	Monolingual	F
43	18-24	HS graduate	Russia	since 2006	Bilingual	M
44	45-54	HS graduate	Latvia	2000-05	Monolingual	M
45	45-54	College grad	Tadzhikistan	2000-05	Bilingual	F
46	65+	Less than HS	Moldova	before 1980	Monolingual	F
1	35-44	College grad	Lithuania	2000-05	Monolingual	F

8.3. Summary of findings from the first round of cognitive interviews

The summary of findings reported in this section is centered on issues critical to the project, including respondents' reactions to the multilingual brochure, their interpretation of key messages contained in the multilingual brochure, their survey participation motivation and decision, and translation issues.

8.3.1 Reaction to the multilingual brochure in the two mailing packets

- *General Reactions to the Multilingual Brochure:*

Respondents found the brochure to their liking. They described it in positive terms as clear and easy to understand, informative, and brief. A few liked the fact that the brochure includes several languages, and a few others liked the fact that it offers a phone number to call where they can ask questions in Russian.

Virtually without exceptions, respondents felt that the inclusion of the multilingual brochure in the mailings would enhance participation among Russian speaking immigrants. The ability to understand the material in addition to the feeling of being included would motivate people who otherwise would not be inclined to participate.

- *Reaction to the layout and design:*

In Round 1, several issues were identified concerning the layout and design of the multilingual brochure:

- Generally the respondents indicated that the font of the Russian text in the cover was too small. They said it should be larger, at least as large as the font for the Spanish text.
- Respondents wished the Russian text appeared in the inside of the brochure, not on the back where it can be missed more easily.
- As for the appearance of the brochure, one participant felt the color scheme was not colorful enough to attract attention.
- One participant felt that fewer but larger pictures would be better.

In Round 2, we asked respondents to compare two versions of the multilingual brochure. Version 1 was a new version redesigned after Round 1 and Version 2 was the original Round 1 version. In Version 1, the panel with Russian text appears inside the brochure, whereas in Version 2 it appears on the back. Although several Round 1 respondents had wished to see the Russian text more centrally located, Round 2 respondents did not clearly favor one brochure layout over the other. Four preferred Version 1, three preferred Version 2, and the remaining five felt it made no difference where exactly the text appeared. They did not think it was particularly easier to find the text in either version.

- *Reaction to pictures:*

Across rounds there were mixed reactions to the pictures on the front cover. About one third of the respondents in Round 1 and half of those in Round 2 expressed a positive feeling toward the pictures, indicating it represented life in America, or the American Dream. Most participants particularly liked the picture of the Statue of Liberty. For the remaining respondents, however, the pictures didn't make any difference or were even perceived somewhat negatively. A few commented that the pictures made the brochure look like an advertisement, one said they seemed to be there to fill out empty space, and the others were lukewarm saying they were "OK" or "normal." No one objected to any of the pictures specifically in Round 1, but in Round 2 there were a few negative comments; one respondent disliked the picture of traffic congestion, another could not understand why there was a picture of row houses, another did not like the school bus, and another one felt the pictures were just too small.

- *Handling the multilingual brochure in the two mailing packets*

At first review of the packet, some respondents did not realize that the blue brochure had text in Russian. They seemed to process their packets with the assumption that the materials

contained would be in English. They generally looked at the letter first, which they said was their normal approach, since cover letters usually explain everything. However, upon finding it was in English, they seemed to assume the rest of the packet was as well.

The mailing packet of pre-notice materials: Three out of twelve respondents missed the Russian in the multilingual brochure, at least initially.

The mailing packet of initial questionnaire materials: Four out of twelve respondents missed the fact that the brochure included text in their language. Overall, the multilingual brochure in the initial questionnaire mailing is not eye-catching and is easily missed among so many other bulkier or larger materials. Because of the way the packets were put together, participants tended to pull materials out with the ACS questionnaire on top. That placement and the larger size of the questionnaire made several participants focus first on the ACS questionnaire.

- *Reaction to the organization of information in the brochure*

Most respondents liked the presentation of the material, but three suggested moving the confidentiality paragraph to the top, and two indicated the telephone number should be bolded or somehow highlighted.

8.3.2 Interpretation of key messages

The testing of the understanding of key elements during the two rounds of interviews included asking participants who they thought was sponsoring the survey, how they thought they would receive the questionnaire, whether or not they understood that they had the opportunity to do the telephone survey in the target language, if they could explain the purpose of the ACS, and whether or not they comprehended confidentiality assurance. Both the letter and multilingual brochure in the mailing packets contain these messages. Only the brochure contains the message about the mandatory nature of the ACS. The monolingual respondents in this project only got the information of these messages from the brochure, while the bilingual respondents looked at the letter and the brochure to get this information. No particular patterns emerged that distinguished the interpretation of these messages by the bilingual respondents from those of the monolinguals.

1. Monolinguals' interpretation and reaction to key messages

(a) Mandatory nature:

Twenty respondents understood the literal meaning of “required by law to respond to the survey.” Some, however, had questions about the penalties for not complying, or about what specific law required participation. While the responses to the direct questions (after reading aloud) about the mandatory nature of the survey seem to indicate that the message was clearly conveyed, later answers suggest it was not as clearly understood.

Several respondents objected to the tone of this message, which sounded somewhat threatening to them. But this was not an issue of wording or translation, just their discomfort

with the mandatory nature of the survey. They commented on the fact that immigrants from the former Soviet Union don't like to be told that they must do something.

When asked if they would call the toll-free number offered, the vast majority said they would. It reassured them to know that they could call with questions or doubts, or to respond to the questions in Russian.

(b) Questionnaire by mail, and telephone survey in the target language:

This message informed respondents that the ACS questionnaire was being sent in mail and that it was in English only. If they wanted to complete the ACS in Russian, they could call the toll free number provided in the brochure.

Half of the respondents in Round 1 and just about all respondents in Round 2 missed the fact that the intent of the paragraph is to communicate that a Russian interview would be conducted by phone. They understood that by calling the toll-free number they might get help in Russian to complete the English form, or that an ACS form in Russian would be mailed to them at their request if they called the toll-free number. The others thought that they would be interviewed in Russian on the phone.

Generally respondents were confident that calling the toll-free number provided would let them reach a Russian speaker.

(g) Survey sponsor:

Most respondents remembered the survey was conducted by the organization that carries out the population census, and a few of them remembered the Census Bureau's name. Those who failed to understand the survey sponsor message said that the ACS was conducted by the government, by the Department of Commerce, by the "Community Survey," or simply didn't know.

(h) What's the ACS:

Virtually all respondents interpreted the ACS as a survey to find out the living conditions and needs (with some emphasis on housing) of different population and ethnic groups in America. Two respondents thought ACS was an organization or a government program or service.

(e) Confidentiality message:

Respondents generally understood the message that the information ACS respondents provide will be kept confidential, not released to others, and not associated with respondents' identity. They were unfamiliar with Title 13 or the U.S. Code generally, but they all understood this was a reference to a law that protected confidentiality. They were overwhelmingly positive about seeing such information referred to in the brochure, as they felt it would reassure some people who are afraid of giving out personal information. They brought up the confidentiality assurance as a positive message at different points in the interview, unsolicited.

One of the participants, an elderly female with less than a high school education, was not familiar with the word ‘confidentiality’ (конфиденциальность), but other than this exception, the term did not pose problems for anyone.

2. Bilinguals’ interpretation and reaction to key messages

Five out of the seven bilingual respondents read the letter as they initially processed and reviewed their packets.

Overall, the bilingual respondents have similar reactions to the monolingual respondents regarding the interpretation of key messages in the multilingual brochure.

8.3.3 Survey participation decision

(a) Motivation and decision to participate in the ACS

Overall, the respondents felt positive about the multilingual brochure in helping them understand the purpose of the survey in their own language, with the corresponding positive effect in their willingness to participate.

When respondents were asked if they would participate in the survey if selected, several cited civic duty as the reason why they would participate. Only three persons indicated they would do the survey because the law requires it. One respondent said she would first contact a lawyer to make sure it was mandatory. Another said that although the survey was mandatory, people would not feel a strong incentive to participate and could always claim not having received anything in the mail, if asked why they did not comply with the mandatory request to fill out the survey. Five persons who had understood the survey is mandatory indicated they would probably not participate (one because she is not interested, two because it would take too much time, one would have to think about it and one would only do it if not too busy). A few indicated they would only participate if they could do the survey in Russian.

(b) Language preference

It is clear that monolingual respondents can only do the survey in Russian. Of the seven bilinguals interviewed, one indicated he would prefer to complete the survey in English if he understood all the questions. All remaining bilinguals expressed preference for answering the questions in Russian.

8.3.4 Translation issues

- (a) The two Russian versions of the multilingual brochure are not identical. Changes need to be made to make them consistent. In two places, the wording in the pre-notice letter version and the initial questionnaire package version are different even though the English wording is the same.

- (b) The Russian version sounded very natural and “normal” to respondents. They felt it sounded very much like an official document.
- (c) There was only one word that several respondents took issue with, seemingly for different reasons. It was the word used to translate ‘informed decisions’ (взвешенных решений). Two participants had difficulty reading it. Another said this did not convey any information, another misread it, and one said it “hurt his ears.” A fifth respondent felt it was unclear.

8.4. Recommendations and suggested changes for interview protocols for Round 2 interviews

8.4.1 Recommendations from Round 1

The Russian text in the brochure, both in the cover and the inside panel, is generally clear, well translated, and worked well in the cognitive interviews. Nonetheless, a few recommendations for changes were suggested at the conclusion of Round 1, based on the cognitive interviews. The font of the Russian text on the front cover needed be larger to stand out, and perhaps a parenthetical note could be added indicating more text in Russian appeared on the back of the brochure.

Round 1 findings suggested that the message about telephone assistance in Russian was not clearly understood by a majority of Russian-speaking respondents. While the text in Russian was clear on the point that the toll-free number was to be used if the respondent preferred to answer in Russian, it did not clearly convey the notion that such response in Russian would be by phone. Thus, it was logical for readers to think that by calling the number they might be able to request a form in Russian. Consequently, the main recommendation was to test an alternative version of the first paragraph in the brochure where the message about the phone interview in Russian needed to be clearly conveyed as an option to respondents. We recommended that the translation be revised to reflect the fact that a paper questionnaire is only available in English, and responding to the questions in Russian is only possible on the phone by calling the 1-800 number.

The only additional change recommended was to test an alternative translation for ‘well informed decisions.’

8.4.2 Suggested changes for Round 2 interview protocols

We recommend testing the above mentioned suggested changes in the second round of cognitive interviews by adding debriefing questions to compare the alternative translation with the original. We added probes to elicit respondents’ feedback and reaction to the changes recommended in Section 4.1.

Worth note is that a little knowledge of English may lead to misunderstandings. One monolingual respondent saw the letter was addressed to “Dear Resident” and assumed it was a letter for the residents of her building.

8.4.3 Round 2 Results from Changes to Protocol

Although the Round 1 recommendations were minimal, other changes were made to the Round 2 protocols to be consistent with other language versions and the changes to the English original. In addition to the toll-free number alternative message mentioned above, we tested a revised version of the brochure, two versions of the statement about the questionnaire availability in English only, and three different versions of the mandatory nature statement in the brochure. As mentioned above, the revised version of the brochure did not have much impact on the Russian speaking respondents. Although the Round 1 respondents had suggested that placement of the Russian text in the back of the brochure did not make them feel very positive, moving the text to the inside of the brochure did not make Round 2 respondents strongly preferred the revised version.

For conveying the message about the mandatory nature of the ACS, the following three versions were tested in Round 2 interviews:

Version A: "Your response to this survey is required by law, regardless of citizenship status"

Version B: "Because you are living in the U.S., you are required by law to respond to this survey."

Version C: "Your response to this survey is required by law." (Original statement in the brochure.)

Round 2 interviews results show that Version A was preferred by six respondents, and Version B by three respondents. Two persons preferred Version C—one because it was the shortest and the other one because it did not give room to speculate who was or was not to respond. Those who selected Version A focused on the fact that it states specifically that legal status is irrelevant and that everyone must respond. Version B was seen as conveying the message clearly that it is the fact of residing in the U.S. that makes it mandatory for a person to respond to the survey.

There were no strong views about A and B, and although there was a preference for Version A, we feel that as long as the English version is modified to include either version (but not Version C) it should work well with this population.

For the message on the availability of the questionnaire in English only, two versions were tested in Round 2, with differences across protocols.

Protocol 1:

Version A: "In a few days you will receive an American Community Survey questionnaire in the mail. The questionnaire will be in English."

Version B: "In a few days you will receive an American Community Survey questionnaire in the mail. The questionnaire will be in English only."

Protocol 2:

Version A: "Included in this mailing is an American Community Survey questionnaire. The questionnaire is in English."

Version B: "Included in this mailing is an American Community Survey questionnaire. The questionnaire is in English only."

Respondents unequivocally felt that Version B in both protocols left no room for readers wondering if perhaps there might be a Russian version of the ACS questionnaire available. The word 'only' made it completely clear. A few felt it was unnecessary, but most felt it added clarity.

Finally, the following alternative messages were tested regarding the toll-free line.

Version A:

"If you prefer to complete the survey by telephone in <LANGUAGE>, call us toll-free at 1-[LANGUAGE#]."

Version B:

"Call us toll-free at 1-[LANGUAGE#] to speak with our <LANGUAGE> speaking staff. They will be able to answer your questions or you could complete the survey by phone."

Respondents overwhelmingly preferred Version B. They felt it was more complete and alluded to two-way communication: not only could one answer the questions by phone but the caller could also ask questions. Neither version completely eliminated for everyone the possibility that a Russian printed version of the questionnaire might exist and be mailed to callers who request it. We believe this is wishful thinking on the part of a handful of respondents: generally Russian speaking respondents expressed worries about answering questions by phone, and indicated a strong preference for seeing the questions and being able to consider their answers carefully.

See Appendix 14 for documentation on Russian Interview Summaries from Round 1 Interviews (12 respondents) and Round 2 Interviews (12 respondents).

Summary of Recommendations

1. Alternative versions of mandatory message tested: Use Version A or B
2. Alternative versions of questionnaire in English only message: Use Version B
3. Alternative versions of telephone language assistance message tested: Use Version B
4. Alternative versions of well-informed decisions message: use Version B worded as follows:

“Для принятия обоснованных решений на местах необходимо иметь точную и достоверную информацию. Отвечая на вопросы данного исследования, Вы помогаете своему району получить такую информацию.”

(‘To make fundamented decisions in different places, it is necessary to have precise and reliable information. By responding to the questions in this survey you are helping your community receive this type of information.’)

4. There are inconsistencies across the two versions of the brochure (pre-notice and initial mailing package versions). For internal consistency, and to be consistent with other translated ACS materials,

a) the name of the Census Bureau should always appear as: Бюро переписи населения.

b) the name of the ACS should always appear as: Анкетирование населения США по месту жительства

9. SUMMARY AND RECOMMENDATIONS FOR FUTURE RESEARCH

Overall, the research efforts met the desired goals set out at the beginning of the contract, which were to evaluate the translated materials in four languages (Chinese, Korean, Spanish, and Russian) as well as English. Through the cognitive interviews, we evaluated the materials to ensure that they met the Census Bureau Pretesting Standard (U.S. Census Bureau, 2003) and the Census Bureau Guideline for Translation (U.S. Census Bureau, 2004). We also determined to what extent the respondents understood the intended communication in the same manner as the English-speaking respondents. Finally, we identified messages that were conceptually difficult to translate effectively and made recommendations for modifications.

The following are possible topics for future research related to the ACS:

- As the Census Bureau expands the number of languages for which it produces translated materials, there is a continuing need to review the translations to ensure that they meet the standards and guidelines for cultural appropriateness as well as accuracy.
- Additional research that targets a better understanding of which ACS materials are most useful for these linguistically isolated populations.
- Development and testing of on-line Question and Answer documents that may be adapted for spoken languages if available to ACS telephone interviewers.
- Research into effective communication protocols used with translation contractors in order to better understand how to facilitate two-way communication with Census Bureau methodologists and translators in order to improve the cognitive equivalence of the intended messages. Need to better understand how constraints of matching English in both sentence structure and format can impact the cultural sensitivity of the messages.
- An investigation of how these non-English speakers are motivated to complete the ACS forms and how they actually complete the forms. For example, do they complete the forms themselves or do they have an English-speaking family member or friend complete the forms for them?
- An investigation that will provide insight on reasons for response/non-response to the ACS.

In addition to these topics related to the ACS, future research is needed in two general areas. One area is methodological research that will help refine and tailor the cognitive interview method to non-English-speaking populations. Cognitive interviewing in non-English languages presents new challenges in terms of methodology and application of widely used cognitive interview techniques. The Census Bureau has been at the forefront of this research—conducting exploratory research on cognitive interviews in Spanish (Goerman, 2005) and in Chinese (Pan, 2004). Additional systematic research is still needed in terms of conducting cognitive interviews as well as providing cognitive interview training in non-English languages.

The other area for future research concerns the methodology for preparing survey supporting materials in languages other than English. In order to understand how best to

convey survey letter messages to respondents in other languages, we recommend that future research explore and identify linguistic elements (communicative strategies) that might run counter to the communicative style commonly asserted in documents written in English. Researchers must also understand more about cultural assumptions affecting respondents' perceptions about various topics covered in the survey letter. There is a need for additional research that goes beyond effective and accurate translations and explores the need for adaptation to communication styles as well.

Once the communicative strategies and culturally-driven perceptions of surveys and survey letter topics are identified for particular ethnic or cultural populations, researchers must provide systematic guidance to translators in tailoring survey letter messages. Cultural variations in the presentation of the messages should be allowed to ensure they convey the intended message in different languages.

References Cited

- Acquadro, C., Jambon, B., Ellis, D., and Marquis, P. 1996, "Language and Translation Issues," in B. Spilker (eds.), *Quality Life and Pharmacoeconomics in Clinical Trials*, 2nd edition, Philadelphia: Lippincott-Raven.
- Brislin, R. 1976, "Introduction," in R. Brislin (eds.), *Translation: Applications and Research*, New York: Gardner.
- Goerman, P. 2005. "An Examination of Pretesting Methods for Multicultural, Multilingual Surveys." Paper presented at the Third International Workshop on Comparative Survey Design and Implementation. Madrid, Spain. March 10-12.
- Guillemin, F., Bombardier, C. and Beaton, D. 1993, "Cross-Cultural Adaptation of Health-Related Quality of Life Measures: Literature Review and Proposed Guidelines," *Journal of Clinical Epidemiology* 46: 1417–1432.
- Nida, E. A. 1964, *Toward a science of translating*, Leiden: E.J. Brill.
- Pan, Y. 2004. "Cognitive Interviews in Languages Other Than English: Methodological and Research Issues" In *The 2004 American Statistical Association Proceedings of the Joint Statistical Meetings*.
- Pan, Y., Craig, B., and Scollon, S. 2005. "Results from Chinese Cognitive Interviews on the Census 2000 Long Form: Language, Literacy, and Cultural Issues." In *Statistical Research Division's Research Report Series (Survey Methodology #2005-09)*. Washington, DC: U.S. Census Bureau.
- Pan, Y., and de la Puente, M. 2005. "Census Bureau Guideline for the Translation of Data Collection Instruments and Supporting Materials: Documentation on how the Guideline Was Developed." *Statistical Research Division's Research Report Series (Survey Methodology #2005-06)*. Washington, DC: U.S. Census Bureau. <http://www.census.gov/srd/www/byname.html#panyuling>.
- Schoua-Glusberg, A. 1992, Report on the Translation of the Questionnaire for the National Treatment Improvement Evaluation Study, Chicago: National Opinion Research Center.
- U.S. Census Bureau. 2003. "Meeting 21st Century Demographic Data Needs – Implementing the American Community Survey: Report 3: Testing the Use of Voluntary Methods." Retrieved on August 8, 2006. <http://www.census.gov/acs/www/Downloads/Report03.pdf>.
- U.S. Census Bureau. 2003. "Meeting 21st Century Demographic Data Needs – Implementing the American Community Survey: Report 11: Testing Voluntary Methods – Additional Result." Retrieved on August 8, 2006. <http://www.census.gov/acs/www/Downloads/Report11.pdf>.
- U.S. Census Bureau. 2004. "Census Bureau Guideline: Language Translation of Data Collection Instruments and Supporting Materials". Issued April 5, 2004.