

Language, Culture, and Respondent Knowledge: Findings from the Cognitive Test of the Spanish Translation of the American Housing Survey¹

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Abstract

The American Housing Survey (AHS) is the largest regularly collected longitudinal survey of housing units in the United States. In preparation for the first bilingual administration of the AHS in 2009, the U.S. Census Bureau collaborated with RTI International and Research Support Services (RSS) to cognitively pretest selected questions from the AHS questionnaire in Spanish and English. The main research goal was to identify comprehension problems respondents experienced with the Spanish translation and to disentangle whether they were due to mistranslations, lack of knowledge, or lack of experience. Where lack of knowledge or experience was a problem, we sought to provide more context and information in the question so that respondents could formulate an informed answer. We discuss our use of this approach in the study and its implications for measurement error and respondent burden.

Key Words: translation, cognitive interviewing, respondent knowledge, housing, mortgages, income

1. Introduction

In preparation for the first bilingual data collection of the American Housing Survey (AHS) in 2009, the U.S. Census Bureau pretested a selected number of survey questions in both Spanish and English from the AHS survey. A total of 128 in-depth cognitive interviews were conducted with Spanish speakers who spoke little or no English, as well as with English speakers. RTI International and Research Support Services (RSS) conducted the study in collaboration with and under the direction of the U.S. Census Bureau. The purpose of the project was to identify and correct translation issues in the selected questions at the lexical, syntactic, and pragmatic levels. Two subsets of questions were identified for testing: Phase 1 contained questions directed to homeowners and Phase 2 included questions for renters. Two rounds of cognitive interviews were conducted for each phase. In this paper, we present selected findings and recommendations from the study.

¹ Disclaimer: This paper is released to inform interested parties of research and to encourage discussion of work in progress. Any views expressed on (statistical, methodological, technical, or operational) issues are those of the authors and not necessarily those of the U.S. Census Bureau.

2. The American Housing Survey

The American Housing Survey (AHS) is the largest regularly collected longitudinal survey of housing units in the United States. The AHS is collected by the U.S. Census Bureau to provide the Department of Housing and Urban Development (HUD) with up-to-date housing statistics. The AHS collects detailed data on housing, including data on housing unit structure, housing and neighborhood quality, mortgages and rent, and household composition. AHS data are used by HUD to produce housing statistics reports, a semiannual report to Congress on Affordable Housing Needs, and policy briefs. These analyses help HUD target existing resources, identify the need for additional resources, and determine the form that housing assistance should take.

The AHS started in 1973 and has had the same sample since 1985 with updates for new construction. Between 1973 and 1981, the AHS, formerly called the Annual Housing Survey, was conducted annually. The AHS consists of two surveys: a national survey and a metropolitan area survey. Since 1983, the national survey has interviewed a nationally representative sample of approximately 55,000 housing units every two years in odd numbered years. The metropolitan area survey has interviewed between 3,000 and 15,000 housing units in selected metropolitan areas of the United States in even numbered years. In 2007, the AHS metropolitan survey was conducted in 7 metropolitan areas. Starting in 2007, data collection for the metropolitan area survey is conducted concurrently with the national survey. Both national and metropolitan area AHS surveys are longitudinal, following the same housing units over time.

The 1973 AHS through the 1983 AHS followed a sample of housing units drawn from the 1970 Census. Since 1985, the AHS has followed a sample of housing units drawn from the 1980 Census. Building permit data and data from other resources have been used to update the sample to account for new construction. Updates have also been made for housing units missed in the 1980 Census, a sample of units added to existing sample units, manufactured/mobile homes from Census 2000, and a sample of assisted living units to improve coverage of the elderly.² The 2007 AHS National sample contained 7% new cases and 93% returning cases. Returning cases are interviewed with dependent interviewing techniques on some items, confirming housing characteristics recorded in previous administrations of the AHS.³ Interviews are conducted in-person or over the telephone using a CAPI instrument.

3. Reason for Testing Spanish Translation

Between 1973 and 2007, Spanish language interviews in the AHS were conducted without the use of Spanish questionnaire. If available, an interpreter was used to communicate the questionnaire to the respondent or field representatives who spoke Spanish served as interpreters. In 2007, field representatives were provided with a Spanish items booklet to be used as an aid only. Field representatives did not have a Spanish CAPI questionnaire in 2007. The 2009 AHS marks the first time that a Spanish instrument has been fielded with an English instrument in the AHS.

² The sample frame of assisted living units was constructed by matching independent lists of assisted living units to addresses of housing units from Census 2000. While improving coverage of the elderly, this methodology may have missed assisted living housing units that were erroneously enumerated as group quarters in Census 2000.

³ Detailed information concerning the AHS sample can be found at <http://www.census.gov/hhes/www/housing/ahs/ahs01/appendixb.pdf>.

4. Goals in Developing Translated Questionnaires

Three main goals guided the translation of AHS survey questions from English into Spanish: (1) that the translated questions conveyed the meaning of the original questions; (2) that the translated questions tapped the same concepts as the original questions; and (3) that the translated questions elicited comparable information as the original questions. The AHS was translated from English into Spanish by an outside contractor retained by the U.S. Census Bureau. The translation was reviewed by a panel of experts at RTI International and RSS to identify potential translation issues. In the first round of testing, the original translation was tested as is, without modifications from the expert review. Translation of the cognitive interview protocol guide, consent forms, recruiting materials, and recommendations for translation changes were conducted through a Modified Committee Approach (Schoua-Glusberg, 1992). Recently issued Census Bureau Guidelines for Survey Translation recommended following a team or committee approach (Pan and de la Puente, 2005).

In the Modified Committee Approach, three translators worked on the translations, each working on one-third of the material. The material was divided so that no one person had an entire section. This assured that all three translators familiarized themselves with the different topics covered in the original text. After they completed their translations, the translators convened at a reconciliation meeting refereed by the Principal Investigator/Lead Researcher. At this meeting, the committee reviewed the translated items, one by one, as a group. Each translator 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 Spanish.

5. Research Objectives

The purpose of this study was to pretest the Spanish language translation of the AHS Questionnaire. The pretesting entailed conducting cognitive interviews with Spanish speaking monolingual respondents in order to ensure that the AHS translation was accurate, appropriate, and conveyed the intended meaning of the English language questions on the AHS Questionnaire. Ultimately, our goal in this study was identifying translation issues and determining if they were due to mistranslations, regional variation issues, or cultural issues. More specifically, cognitive interviews were conducted to accomplish the following objectives:

Objective #1: Ensure that the translated AHS Questionnaire is accurate, reliable, and appropriate at the following three levels:

- (a) *Lexical Level* – The level of words. Are the translated questions and instructions worded accurately? Do these questions convey the intended meaning of the English language source document? Does the meaning of the English language text accurately transferred to the target language text?
- (b) *Syntactic Level* – The level of grammar. Are the translated questions and instructions grammatically correct? Are the translated questions and instructions easily read and do they have the appropriate syntax? Are the style, tone, and function of the source text appropriately transferred into the target text?

- (c) *Pragmatic Level* – The level of culture. Are the translated questions and instructions appropriate given the cultural context associated with the target language? (Pan et. al. 2007)

Objective #2: Ensure that the translated AHS Questionnaire has the following three types of *equivalence*:

- (a) *Semantic Equivalence* –Does the information conveyed by words and terms used in the translated questions or instructions have the same intended meaning as the English language version? Does the translated text convey the same information?
- (b) *Conceptual Equivalence* - Do the concepts and ideas conveyed by the translated questions or instructions have the same intended meaning as the English language version?
- (c) *Normative Equivalence* – To what extent does the translated text successfully address differences in societal rules between the source and target culture? (Pan and de la Puente 2005)

Objective #3: What possible solutions can be identified to address deficiencies, if any, encountered in the Spanish language translation of the AHS Questionnaire?

6. Our Approach

Immigrant low-income populations, who are more likely to utilize the Spanish version of the questionnaire, may have less knowledge of specific housing concepts tapped in the AHS. It is crucial to determine if comprehension issues are due to translation choices or simply to the fact that the respondents don't have the knowledge or housing experiences needed to answer the question. Some surveys treat this type of issue with an approach that says: if respondent has x, they will know what it's called. This philosophical approach can lead to both false positives and false negatives. If a respondent is asked if they have a home equity loan, they may wrongly say "yes" because they mistake it for some other kind of loan they have, or may wrongly say "no" because they have one, but one but know it by some other name. A different philosophical approach says that providing more context or information in the question will allow the respondent to formulate an answer that is less prone to error. We took this latter approach. This approach was not an *a priori* approach. It is something we gradually moved towards in the testing process. If lack of knowledge was identified as the source of the comprehension problem, our approach was to provide more context or information in the question to address this.

7. Methodology

The goal of the two phases of cognitive interviewing was to conduct iterative testing of the selected American Housing Survey (AHS) questions through 128 cognitive interviews in Spanish and English. Testing was split into two phases. The first phase of testing tested questions asked of homeowners and the second phase of testing tested questions asked of renters. Each phase of testing consisted of two rounds of testing. The first round of testing tested the original translation developed by the outside contractor and the second round of testing tested wording variations. The cognitive interviews lasted between 60 and 90 minutes. After obtaining respondent consent, interviews were

audio recorded. Respondents received a \$40 honorarium. Ninety-six Spanish speakers who spoke little or no English were interviewed along with a comparison group of 32 English speakers. The English language cognitive interviews were conducted in order to provide an anchor point to determine whether issues identified in the cognitive interviews on the translations were translation problems or problems residing in the English original. Five sites were selected for the interviews: the greater Washington, DC area, Illinois, North Carolina, Texas, and New York. These sites were selected based on the geographic proximity of the teams of language experts and their diversity in housing and rent control programs. This approach helped to control overall costs, and these sites had sufficient concentrations of Spanish-speaking populations to represent the target language groups. This methodology employed in this study was built upon established pretesting methodology of cross-cultural survey instruments (Goerman et al., 2007; Pan et al., 2006; Pan et al., 2008).

8. Respondent Characteristics

Respondents were recruited from several sources, including through community organizations, community publications, flyers, the internet, and word of mouth. As shown in Table 1, a total of 96 Spanish-speaking respondents were recruited based on four geographic regions of origin: North, Central and South America, and the Caribbean. These geographic regions also represent the four main regional variations of Spanish spoken in this country. The majority of Spanish speakers in the U.S. are of Mexican origin; so in this study, almost 58% of the selected Spanish-speaking respondents were originally from Mexico. We interviewed people from these specific countries and territories:

- from North America: Mexico;
- from Central America: Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama;
- from the Caribbean region: Cuba, Dominican Republic and Puerto Rico; and
- from South America: Colombia, Paraguay, Peru, and Venezuela.

Table 1 also shows that among the 32 English speakers, about half were white and the other half were black, followed by Hispanics and Asians.

Characteristics	Respondents
<i>Country or Territory of Origin (Spanish Interviews)</i>	
Mexico	56
Central America	14
South America	13
Caribbean	13
Subtotal	96
<i>Race or Ethnicity (English Interviews)</i>	
White Non-Hispanic	14
Black Non-Hispanic	13
Hispanic or Latino or Asian	5
Subtotal	32

Additionally, recruitment efforts strove to achieve demographic diversity in the sample with regard to gender, age, educational attainment, and housing characteristics. Table 2 summarizes the number of respondents for each of these characteristics by language. In total, 49 men and 79 women, and only adults 18 years old or older, were interviewed. Three levels of educational attainment were used to categorize respondents. They ranged from low attainment, which included people with a few years of grammar school to some formal education but no high school diploma, to high school diploma or some college, and to college or an advanced degree. About a third of the respondents interviewed in Spanish had some formal education but did not have a high school diploma while the majority of the respondents interviewed in English had completed high school.

Comprehension of some of the AHS questions varied depending on respondents' housing situations, so the respondents' housing structure was another important inclusion criterion. Five housing structures were considered in this study: houses, townhouses, apartments, condominiums, and manufactured homes/mobile homes. Among renters, nine interviews were conducted in rent-controlled areas in New York and the greater Washington, DC area; three of those interviews were in Spanish and six in English. Subsidized rent recipients are individuals and households receiving benefits from a government housing assistance program. In the study 14 households had subsidized rent; seven of those interviews were conducted in English and seven in Spanish.

Characteristics	Spanish	English	Row Total
<i>Total Respondents per Language</i>	96	32	128
<i>Gender</i>			
Female	59	20	79
Male	37	12	49
<i>Age</i>			
18–34	21	11	32
35–54	59	14	73
55 or more	16	7	23
<i>Educational Attainment</i>			
Some formal education	36	0	36
High school or some college	46	19	65
College or advanced degree	14	13	27
<i>Housing Structure</i>			
House	38	16	54
Townhouse	4	1	5
Apartment	42	10	52
Condominium	2	5	7
Manufactured home/mobile home	10	0	10

9. Findings and Recommendations

9.1. Lot Size

Table 3: Lot Size		
	English	Spanish
Original Wording	Would you say that the lot is more than 1 acre or less than 1 acre?	¿Diría usted que el terreno tiene más de 1 acre o menos de 1 acre?
Recommended Wording	Would you say that the lot is more than 1 acre or less than 1 acre? 1 acre is roughly 1 American football field or 2/3 (two thirds) of an official soccer field.	¿Diría usted que el terreno tiene más de 1 acre o menos de 1 acre? 1 acre es más o menos el tamaño de 1 campo de fútbol americano o 2/3 (dos tercios) del tamaño de un campo de fútbol soccer de tamaño reglamentario.

In round 1, we found that although the question was interpreted as intended, many respondents did not know how large an acre was and may have answered in error. In round 2, we tested a phrase giving the approximate size of an acre, using comparisons to an American football field and a soccer field. We included references to both American football and soccer fields, because immigrant populations are more familiar with soccer than with American football. The sports field comparisons worked well and made respondents appear much more confident of their answers. Per the request of the Department of Housing and Urban Development, we recommended qualifying “soccer field” with the word “official” in English and “de tamaño reglamentario” in Spanish to indicate it is the regulation size of a field.

9.2. Regular Mortgages

	English	Spanish
Original Wording	<p>The next questions are about mortgages and other loans that are secured by the property.</p> <p>Not counting home equity loans, is there a mortgage or any loans on this [house / apartment / manufactured/mobile home / living quarters]?</p>	<p>Las siguientes preguntas son sobre hipotecas y otros préstamos garantizados por la propiedad.</p> <p>Sin contar los préstamos contra el valor líquido, ¿tiene [esta casa / este apartamento / esta casa móvil o remolque / esta vivienda] alguna hipoteca o préstamo?</p>
Recommended Wording	<p>To be consistent with the question structure changes in the Spanish recommendations, consider:</p> <p>The next questions are about mortgages and other loans that are secured by the property.</p> <p>Is there a mortgage or any loans on this [house / apartment / manufactured/mobile home / living quarters]?</p> <p>Don't count any home equity loans.</p>	<p>Las siguientes preguntas son sobre créditos o préstamos hipotecarios y otros préstamos garantizados por la propiedad.</p> <p>¿Tiene [esta casa/ este apartamento /esta casa móvil /esta vivienda] algún crédito hipotecario o algún préstamo?</p> <p>Por favor no cuente ningún préstamo que haya obtenido contra su equidad, es decir contra el valor que tenía acumulado en la vivienda.</p>

In round 1, respondents understood the core of the question, but the question began by asking them to exclude home equity loans, a type of loan that many were not familiar with and very few had. Many thought of their first mortgage as a “préstamo” (loan). While technically an “hipoteca” is a housing loan or mortgage regardless of when it is obtained, pragmatically, in this population, many do not think of the initial mortgage or loan one gets to first purchase a home as an “hipoteca,” but rather as a “préstamo.” It is only when a second or other mortgage is obtained that they call that type of loan an “hipoteca.” One respondent noted: *“To me ‘préstamo’ (loan) is directly with the bank and ‘hipoteca’ is once you refinance or get another loan. Or the bank refinances for you. I don’t know if that’s so but I see it different.”*

In round 2, we tested removing the initial clause (“Not counting home equity loans”) to a second independent sentence (“Do not count home equity loans.”). We also tested alternative terms for “mortgage” (“préstamo hipotecario” and “crédito hipotecario”—both translate back into English as “mortgage loan”) and for “home equity” (“equidad”—a borrowing from English some respondents volunteered in round 1; and a descriptive phrase “valor que tenía acumulado en la vivienda”—value you had already accrued in your dwelling). While some respondents understood “equidad,” others understood better

the longer explanation about value accrued or accumulated in the property. In general, restructuring of the question allowed respondents to provide an answer to this question, whereas in the original question structure and translation, many appeared very confused as they tried to answer.

Because the round 2 version worked much better, we recommended restructuring the question and moving the exclusion clause about home equity loans to the second sentence. In addition, we recommended using the revised translation for home equity loan and mortgage here and in subsequent questions referencing mortgages and home equity loans. We recommended generally translating “mortgage” as “préstamo o crédito hipotecario.”

9.3. Lump Sum Home Equity Loans

	English	Spanish
Original Wording	Do you have a LUMP SUM home equity loan, that is, a home equity loan that is paid out in a one-time lump-sum amount and that must be repaid over a period of time?	¿Tiene usted un préstamo DE PAGO ÚNICO contra el valor líquido? Es decir, un préstamo contra el valor líquido que recibió en un pago único, una sola vez y que debe ser pagado en un período determinado de tiempo.
Recommended Wording	Other than any mortgage you may now have, do you have a home equity loan? We are asking about a home equity loan that is paid out in a one-time lump-sum amount and that must be repaid over a period of time.	Además de cualquier préstamo o crédito hipotecario que usted tenga ahora, ¿tiene otro préstamo contra su equidad, es decir contra el valor que ya tenga acumulado en su vivienda? Nos referimos a algún préstamo que haya recibido todo junto y de una sola vez, pero que debe devolverse en un periodo determinado de tiempo. (Back Translation: Aside from any mortgage you may currently have, do you have a home equity loan? We mean a loan paid out in a one-time lump-sum amount and that must be repaid over a period of time.)

In round 1, this question was found problematic because the translation and concept of lump sum home equity loans were not understood. This was due to both translation issues and the fact that few respondents had this type of loan. Some respondents interpreted the translation for “lump sum,” “pago único” (literally meaning, single payment) as their fixed rate payments on a loan/mortgage. They answered “Yes” to this question in error because they thought they were being asked if they had a fixed rate mortgage.

In round 2, an alternative translation for “lump sum” (“suma total”) was tested to try to convey the sense of a global amount, and the explanatory text that follows the original question was also retranslated to better convey the sense that the loan is paid out all in one whole amount and at once. We tested the alternative survey question using the revised wording for home equity loan discussed in the regular mortgages question above.

We found in round 2 that the lump sum concept was not sufficiently descriptive for this population. In addition, some respondents were reporting their mortgage for the second time because they already answered “Yes” to the regular mortgages question, neglecting to exclude home equity loans. Some thought of their refinanced mortgage as a loan against their equity.

Because the lump sum concept needed to be more descriptive, a new version was crafted on the basis of round 2 findings. A more descriptive explanation of the lump sum concept is needed because this population does not have a set terminology for “lump sum” or for “home equity.” We also recommended using the revised translation for “mortgage” and “home equity loan” that was tested in the regular mortgages question and found to improve comprehension.

9.4 Subsidized Mortgages

	English	Spanish
Original Wording	Did you get the [first] mortgage through a STATE or local government program that provides lower cost mortgages?	¿Obtuvo usted la [primera] hipoteca mediante un programa gubernamental local o ESTATAL que proporciona hipotecas de bajo costo?
Recommended Wording	There are STATE and local government programs that provide low cost mortgages. Did you get the [first/second] mortgage through a program like these?	Hay programas gubernamentales locales y ESTATALES que proporcionan préstamos hipotecarios de bajo costo. ¿Obtuvo usted el [primer] préstamo o crédito hipotecario mediante un programa como éstos?

In round 1, we found that several respondents not familiar with state and local programs that provide low cost mortgages. This was more of a lack of knowledge than a translation issue. In round 2, we tested an introduction that explained to respondents the existence of the programs the question asked about. Respondents were asked to compare the two versions. When presented with the original and revised versions, they divided about evenly on their preference. Those who preferred the original version felt that the revision was unnecessary. However, the revised version aided the understanding of several respondents.

We recommended using the revised version tested in round 2 because it improved comprehension and ability to respond for several respondents. We recommended changing “o” to “y” in the Spanish version to reflect the distinct nature of state and local programs. We also recommended using the revised translation for mortgage recommended in our discussion of the regular mortgages question.

9.5 Homeowner’s Insurance

	English	Spanish
Original Wording	(Besides principal and interest, does the payment include...) Homeowner’s insurance?	(Además de capital e intereses, ¿el pago incluye . . .) Seguro de propietario?
Recommended Wording	Homeowner’s insurance protects homeowners in case of a fire, other accidental damage to the home, robberies, and third party injuries on the premises. Besides principal and interest, does the payment include... Homeowner’s insurance?	El seguro para la vivienda protege al dueño en caso de incendio, otros daños accidentales a la vivienda, robos, y daños contra terceros en la propiedad. Además de principal e intereses, ¿el pago mensual de su préstamo incluye seguro para la vivienda?

In round 1 testing, several respondents were not familiar with what is exactly covered under homeowner’s insurance. However, most knew if their monthly mortgage payment included insurance or not. In round 2, to improve comprehension among respondents, we tested an alternative version, adding an explanation of what homeowner’s insurance is and what it covers. This worked very well, making a great difference in comprehension.

We recommended adding to the question the definition of homeowner’s insurance, making it clear that it protects the homeowner. The tested definition improved comprehension significantly among respondents who did not know what it was. We recommended changing “capital” to “principal” because—although the Spanish word “principal” is not supposed to be equivalent to the English term “principal”—pragmatically, among this population, the English word has been adopted. Even in their Spanish materials for clients, financial institutions often use the term.

9.6. Private Mortgage Insurance

	English	Spanish
Original Wording	(Besides principal and interest, does the payment include...)	(Además de capital e intereses, ¿el pago incluye . . .)
Recommended Wording	Private mortgage insurance or PMI is insurance that a lender generally requires a home buyer to obtain if the down payment made by the home buyer is below a certain percentage. Besides principal and interest, does the payment include Private mortgage insurance or PMI?	Seguro Hipotecario Privado? Un seguro hipotecario privado o PMI es un tipo de seguro que un banco o agencia financiera normalmente le exige tener a la persona que compra una vivienda en casos en que el enganche o anticipo que pone el comprador está por debajo de un cierto porcentaje. Además de principal e intereses, ¿el pago incluye Seguro Hipotecario Privado o PMI?

In Round 1, most respondents were not familiar with the term “seguro hipotecario privado.” However, one of them stated: “*No, I don’t have ‘seguro hipotecario privado’. All I have is PMI.*” Nonetheless, they all knew if their monthly mortgage payment included something other than principal and interest. Two respondents had PMI. In round 2, to help respondents understand what “seguro hipotecario privado” refers to, we tested adding the acronym “PMI” and providing a definition of PMI. Adding the acronym “PMI” was helpful to some respondents who knew this insurance by its English initials only. Very few respondents had private mortgage insurance and most did not know what it covered. The explanation provided clarified what we were referring to and worked well for all respondents. In line with our recommendations for homeowner’s insurance, we recommended changing “capital” to “principal.”

9.7. Supplemental Security Income

	English	Spanish
Original Wording	Did you receive any Supplemental Security Income (SSI) payments during the past 12 months?	¿Recibió usted algún pago del Supplemental Security Income (SSI) durante los últimos 12 meses?
Recommended Wording	<p>The Supplemental Security Income (SSI) program makes monthly payments to people with low income and scarce resources who are over 65 years old, blind, or disabled.</p> <p>Did you receive any Supplemental Security Income (SSI) payments during the past 12 months, that is, since (MONTH YEAR)?</p> <p>Exclude Social Security Disability Income (SSDI). Exclude Social Security Benefits.</p>	<p>El programa de Ingreso del Seguro Suplementario (SSI) hace pagos mensuales a personas de bajos ingresos y recursos limitados y que tengan 65 años o más, o que sean ciegos o discapacitados.</p> <p>¿Recibió usted algún pago de Ingreso del Seguro Suplementario (SSI) durante los últimos 12 meses, es decir, desde (MONTH de YEAR)?</p> <p>No incluya SSDI o pagos por discapacidad del Social Security. No incluya beneficios de jubilación del Social Security.</p>

In round 1 we found that respondents had very vague knowledge of what SSI means, either as initials, spelled out in English, or in translation. Most knew they do not get any government benefits and were therefore able to answer “No.” But, upon probing, it was evident they had not understood the terminology. In Round 2, a definition of what the SSI is was provided as introduction to the question. This version tested well, as it minimized confusion with other benefit programs. The tested version also provided a translation of Supplemental Security Income. In round 1 respondents answered they did not receive SSI, explaining that they knew this because they do not receive any benefits from the Social Security Administration; however, in round 2 they specifically stated that they do not have the characteristics that make a person eligible for SSI. For example, they spoke of not being old enough or disabled. Following round 2, the language team recommended that the grammar be edited slightly in the added introduction to use the subjunctive mode as opposed to the indicative mode in the version tested. This is a style preference that improves the Spanish translation of the question. In addition, we believe that adding an exclusionary statement after the question will reduce confusion with Social Security and SSDI. Finally, we recommended having CAPI fill in the reference period to prevent respondents answering for the last calendar year, as opposed to answering for the last 12 months.

10. Discussion and Conclusions

In this paper we have presented selected findings and recommendations from the cognitive test of selected questions from the Spanish translation of the American Housing Survey. Our main research goal was to identify comprehension problems respondents experienced with the Spanish translation and to disentangle whether they were due to mistranslations, lack of knowledge, or lack of experience. Where mistranslation was identified as the source of misunderstanding, we tested alternative translations of key terms and concepts. Where lack of knowledge or experience was identified as a source of misunderstanding, we sought to provide more context and information in the question so that respondents could formulate an informed answer. Providing more context and information to the respondent serves to decrease measurement error. While this approach reduces cognitive burden, making questions easier to answer, it also makes questions longer, which increases survey length and the time respondents take to complete the survey. Depending on the overall length of the survey, longer questions may lead to greater survey nonresponse and partial interviews. Thus, survey length should be considered alongside question structure when evaluating questionnaire design data quality.

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