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Subject: Evaluating the Effects of a Multilingual Brochure in the American  
Community Survey

Attached is the final report for the Evaluating the Effects of a Multilingual Brochure in the American Community Survey. This report summarizes the results from evaluating a new multilingual brochure in the American Community Survey.

If you have any questions about this report, please contact Megha Joshipura (x31643).

Attachment: (Evaluating the Effects of a Multilingual Brochure in the American Community Survey)

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# **Evaluating the Effects of a Multilingual Brochure in the American Community Survey<sup>1</sup>**

## **EVALUATION REPORT**

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**U S C E N S U S B U R E A U**

*Helping You Make Informed Decisions*

Megha Joshipura  
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<sup>1</sup> This report is released to inform interested parties of ongoing 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.

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## EXECUTIVE SUMMARY

The American Community Survey (ACS) questionnaire currently includes a message on the cover that informs respondents how they can obtain assistance in English or Spanish. However, no messages currently exist on the ACS questionnaire or any other ACS mailing piece that explain how households who speak other languages can receive assistance. Therefore, the ACS telephone and personal visit follow-up operations are primarily responsible for data collection from these populations. We would like to use the mail mode to reach out to non-English-speaking households, and let them know that they can receive assistance in their languages. Secondly, we also would like to increase the number of interviews completed for non-English-speaking households prior to telephone and personal visit follow-up activities, thus providing a less expensive mode for collecting data from these households. Shifting respondents into the mail or telephone mode of data collection may also improve the reliability of ACS estimates for speakers of these languages since cases eligible for personal visit follow-up are subsampled.

In 2009, we conducted the Multilingual Brochure Test. We developed and cognitively tested multilingual brochures to be included and tested in various ACS mail packages. The brochures contain instructions on how households can obtain telephone assistance in the language they speak, and provide some additional ACS information to give context. The brochures include Spanish, Chinese, Korean, and Russian translations, with English provided as a reference. This experiment took place in ACS production during the months of April, May, June, and July of 2009. The ACS sample during these four months was evenly split into three groups: one group received a version of the brochure in their pre-notice mailing, one group received a version during the initial mailing, and the third group acted as a control and did not receive the brochure. This evaluation examines the effects of the multilingual brochure on the ACS response.

A key finding of this evaluation is that adding a brochure resulted in a statistically significant increase in the percent of Chinese/Korean/Russian-speaking households, Chinese/Korean/Russian-speaking linguistically isolated households, Spanish-speaking linguistically isolated households, and combined test-language-speaking linguistically isolated households responding by mail. We also found that there were no differences in any evaluation measures between the pre-notice and initial mailing brochure placements.

## 1.0 Background

The American Community Survey (ACS) questionnaire includes a message on the cover that informs respondents how they can obtain assistance in English or Spanish. No messages currently exist on the ACS mail questionnaire or any other ACS mailing piece that explain how households who speak languages other than English or Spanish can receive assistance. Therefore, the telephone and personal visit follow-up operations are primarily responsible for data collection from these populations. Although these operations have been shown to be successful, we would like to use the mail mode to reach out to non-English-speaking households and let them know they can receive assistance in their languages. Secondly, we are interested in trying to increase the number of completed interviews for non-English-speaking households prior to telephone and personal visit follow-up activities, thus providing a less expensive mode for collecting data from non-English-speaking households. Shifting respondents into the mail or Computer-Assisted Telephone Interviews (CATI) modes of data collection may also improve the reliability of ACS estimates since only a subsample of cases are sent to Computer-Assisted Personal Interviews (CAPI).

This is not the first time that the Census Bureau is attempting to use the mail mode to reach out to non-English-speaking households. During Census 2000, households were able to use their advance (or pre-notice) letter to request a questionnaire in Spanish, Chinese, Tagalog, Vietnamese, or Korean by simply marking their preference on the advance letter and returning it to the Census Bureau in the provided pre-paid envelope (Smith and Jones, 2003). Two percent of the households that received an advance letter requested a non-English questionnaire. Out of the 2,235,435 non-English questionnaires that were mailed out, 83.7 percent were in Spanish, 6.8 percent in Chinese, 4.5 percent in Korean, 4.1 percent in Vietnamese, and 0.9 percent in Tagalog. Approximately 45.1 percent of the non-English questionnaires requested were returned to the Census Bureau.

Additionally, the 2005 National Census Test included an experimental panel to assess the effectiveness of mailing a bilingual form (English and Spanish) on mail response. The bilingual form was mailed to a panel of 10,000 sampled housing units. The results were compared to a panel of 30,000 sampled housing units who only received an English form (Bouffard and Tancreto, 2006). The results from this assessment showed that the bilingual form significantly increased the mail response nationally, and more specifically, increased mail response in those areas with a high concentration of non-White and Hispanic populations.

The intent of the Multilingual Brochure Test was to develop and test the inclusion of a multilingual brochure in various ACS mail pieces. We developed two brochures that are essentially identical, except that the language is slightly modified to adapt to the various mail pieces.

The brochures, shown in Appendix A, include instructions on how households can obtain assistance in the language they speak, and provide some additional ACS information to give context. The brochure includes toll-free telephone numbers for our Telephone

Questionnaire Assistance (TQA) where interviewers were available to answer their questions or conduct a full interview. The callers can also leave a message for an interviewer in their language and their call will be returned within 48 hours. The brochures include Spanish, Chinese, Korean, and Russian translations, hereafter called the test languages, with English provided as a reference. These languages were selected primarily due to their prevalence in the CATI workload, but also due to the language capabilities in the telephone centers at the time the brochure was developed. It should be noted that when we looked at 2007 ACS data, we found that while Chinese, Korean, and Russian have a higher prevalence in CATI than other languages (with the exception of Spanish), the majority of households that speak Indo-European and Asian and Pacific Islander languages, which are linguistically isolated or otherwise, respond during the mail phase.<sup>2</sup> However, the majority of Spanish-speaking households respond during the CATI and CAPI phases.

One notable language that is missing from this list is Vietnamese, which is also prevalent in the CATI workload; however maintaining Vietnamese-speaking interviewers in the telephone centers during 2006 to 2007 was problematic. At the time when the brochures were created, we were confident that telephone centers would be able to support telephone assistance operations in Spanish, Chinese, Korean, and Russian. Since then, the telephone centers have added Vietnamese-speaking interviewers. Therefore, while this test only included these four languages, if the brochure is used in ACS production, it will include Vietnamese as well. We should note that the four test languages, along with Vietnamese, are the same languages that formed the top tier of language support for Census 2010.

To ensure that the ACS will always have these language capabilities, an additional study was conducted to see if the Los Angeles Regional Office could help field TQA or CATI nonresponse calls in languages that the telephone centers could not handle. This study was conducted at the same time as the Multilingual Brochure Test to guarantee that the test languages had proper coverage. While the telephone centers had enough Chinese and Russian-speaking interviewers during this test, this had not always been the case. Also, because of the demographics in Tucson, where the primary call center is located, we had difficulty finding enough Korean speakers to ensure that we could cover the amount of calls received in Korean. Using additional interviewers from the Los Angeles Regional Office helped us reduce the amount of time it took for our interviewers to respond to the voicemails received in these languages.

## **2.0 Methodology**

The Multilingual Brochure Test was designed to assess the success of including a brochure in various mail pieces by measuring:

- the effectiveness of the brochure for reaching out to non-English speaking households during the mail mode,

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<sup>2</sup> Linguistically isolated households are defined as households in which no person 14 years of age or older speaks English "very well" according to their response to the ACS question "How well does this person speak English?"

- the success of the brochure in shifting in the respondents from CATI/CAPI to mail,
- any adverse impact on mail response, and
- the placement of the brochure that was most effective at soliciting calls/interviews.

We used the following test design to answer the research objectives identified above. We tested the inclusion of the brochures over the course of four monthly ACS sample panels. For each sample panel, one-third of the sample received a brochure with the pre-notice letter; one-third received a brochure in the initial questionnaire package, and the last third acted as the control with no brochure. Any address that was considered unmailable for the initial mailing was excluded from the study. Since we have a very small target population, we computed the evaluation measures across the four production months. To maximize statistical power, the general analysis methodology was as follows: we compared the two brochure placements first, with a two tailed test, and then the placement which was determined to be statistically better on each measure was compared to no brochure (control), with a one tailed test. If there was no significant difference between the two brochure placements, the nominally better one was compared to no brochure. The data have been weighted to reflect the probabilities of selection only. If they had been fully weighted, our results might have looked differently because nonresponse is taken into account.

We identified households that spoke a test language using their ACS response data. If a respondent did not answer the language spoken at home question on the ACS, they were excluded from the analysis. In general, the research questions are answered using all of the test languages combined, but in certain cases they are also answered for Spanish separately and Chinese, Korean, and Russian combined. These cases are specified below. The questions cannot be answered in a statistically significant way for the individual languages of Chinese, Korean, and Russian due to small sample sizes for these populations. To see the unweighted number of respondents for each of these household types, refer to Appendix B.

We also asked CATI respondents that gave the interview in one of the test languages some follow-up questions after their telephone interviews in order to see whether or not these respondents even saw the brochure. To see the questions we asked, refer to Appendix C.

All comparative statements in this report have undergone statistical testing, and, unless otherwise noted, all comparisons are statistically significant at the 10 percent significance level. Multiple comparisons were accounted for using the Bonferroni Method.

### **3.0 Limitations**

Some aspects of the Multilingual Brochure Test implementation should be considered when looking at the results of this analysis and evaluating the data:



- The data on the number of calls to the language telephone lines were hand-captured, and therefore could potentially have some inaccuracies.
- We were unable to evaluate the number of calls to the Spanish line that were due to the brochure because the phone number to the Spanish TQA line is also on the questionnaire.
- Cognitive testing showed that non-English speakers potentially will not open the envelopes because there is no language on the envelope other than English (Pan et. al., 2008).
- The data in this report are subject to error arising from a variety of sources, including sampling error and nonsampling error.

## 4.0 Results

Prior to fielding the test, we identified the criteria necessary for moving forward with using a multilingual brochure in ACS production. We felt that providing these materials to non-English speakers was important to do, regardless of the specific effects on mail response. Ideally, we would like to see the brochure have a positive effect on mail response from non-English-speaking households. However, at a minimum, we wanted to ensure that there was no negative impact on overall mail response or an overwhelming number of calls to TQA from English-speaking households, confused by the brochure.

### *4.1 Do the brochures contain appropriate messages that test language-speaking households are able to clearly understand?*<sup>3</sup>

We cognitively tested the two brochures in two rounds (Pan et. al., 2008). By cognitively testing the brochures prior to the Multilingual Brochure Test, we were able to gauge how culturally appropriate and understandable the messages are for test language speakers. We asked both monolingual and bilingual (English as the second language) Spanish, Chinese, Korean, and Russian speakers if they were able to clearly understand the brochure's message. We also gauged whether the respondents understood that they could call their language-specific telephone assistance line either to get assistance completing the ACS paper questionnaire or to do the interview over the phone. We found that most respondents were able to understand the brochure's message, especially during the second round of cognitive testing. They also understood that they could call the telephone assistance lines to complete the interview over the phone or receive help filling out the form.

We also asked English-only speakers if they were able to clearly understand the brochure's message and whether or not they understood that they could call the telephone assistance line if they had any questions. We found that they were able to understand the message. We also found that, while most understood that they could call if they had any

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<sup>3</sup> The test language-speaking households are defined as households that have Spanish, Chinese, Korean, or Russian listed as their household language in ACS production. Household language is defined as a language that someone in the household, over the age of 5, reports speaking at home. Only one language is assigned as the household language per household, therefore if a household has multiple languages listed, the language is assigned by the order of a respondent's relationship to the reference person.

questions, most of our respondents during cognitive testing said that they already had all of the information they needed to complete the survey.

One interesting finding from cognitive testing was that many respondents missed the brochure completely in the initial mail package and a few respondents even missed it in the pre-notice mail package. Therefore, even though the brochure may be relaying the correct message, many respondents may not even see it in the production mailings.

#### *4.2 Can we elicit calls from test language-speaking households by sending a brochure that provides information in these languages about how to obtain assistance?*

To answer this question, we counted the number of calls received by the Telephone Centers on each of the language-specific TQA lines and analyzed the “reason for call” data recorded by the interviewer at the time of the call. Because the phone number to the Spanish TQA line is also on the questionnaire, we could not identify which calls originated from the brochure. Therefore, we only looked at the counts from the Chinese, Korean, and Russian TQA lines. We did not expect this number to be very high because the target population of linguistically isolated households is quite small.

Of the total 923,835 questionnaires that were mailed out, we received a total of 81 calls on the Chinese, Korean, and Russian TQA lines, however only 60 calls were from unique households. The other calls were from households that called more than once. Out of the 60 households that called the Chinese, Korean, and Russian lines, 25 were from the pre-notice placement, while 32 were from the initial mail placement. The remaining three were from the no brochure panel. We are not sure how the respondents from the no brochure panel received the telephone numbers for the language lines.

ACS interviews were completed for all of these households. We obtained 50 telephone interviews from these calls. They consisted of 23 from the pre-notice placement, 25 from the initial mail placement and 2 from the no brochure placement. Out of the remaining ten households that called, we received eight mail questionnaires, and obtained one interview during CATI and one interview during CAPI.

These results show that we were successful in eliciting calls from test language households but the number of calls was modest.

#### *4.3 What is the language status of the households that complete the interview by the designated phone lines: linguistically isolated in the language, the language is the main household language but not linguistically isolated, speak another language, or speak English only?*

Forty of the 60 respondents that called the Chinese, Korean, or Russian lines (66.7 percent) were linguistically isolated in those languages according to their ACS responses. Five respondents that called these lines did not speak Chinese, Korean, or Russian. Three interviews came from households that spoke a language other than Chinese, Korean, and Russian and two came from an English-only household. The respondents that lived in

English-only households could have called out of curiosity, or known the language from another experience such as school, but did not speak it at home. The other three respondents to call could have called to see if their language was available. This indicates that the people who most needed assistance were the ones who used this brochure and called the toll-free TQA lines.

*4.4 Does the addition of a brochure increase the proportion of all surveyed households that speak the test languages?*

Our expectation was that the brochure could shift households from CATI or CAPI into mail, but it was also possible that including this brochure could increase coverage of these population groups. To assess possible coverage gains, we first computed the ratio of all test language households to all households across all data collection modes by using the following formula.

$$\text{Proportion of surveyed households speaking test language} = \frac{\text{All test language households (across data collection modes)}}{\text{All households (across data collection modes)}}$$

Table 1 shows, for example, that about 11.6 percent of all ACS households in the no brochure panel were households that reported speaking one of the test languages – Spanish, Korean, Chinese, or Russian. The rates for the two experimental treatments were 11.7 percent (pre-notice) and 11.6 percent (initial mail). We found no significant difference in the percent of test language-speaking households between the two placements.

We then compared the placement with the nominally higher percent of test language-speaking households to the no brochure panel to see if there was a significant increase in the percent of these households in the presence of the brochure. For this example, no significant difference was found<sup>4</sup>.

Table 1 shows the percent of surveyed households that reported speaking a test language across all data collection modes. There were no significant differences in the percent of these language groups responding to the ACS between the brochure and no brochure treatments, meaning that the brochure did not increase the percent of test language-speaking households in the ACS. Results are also provided for linguistically isolated households with similar findings. We did not expect to increase the percent of test language households included in the ACS because the CATI/CAPI operations have been shown to be successful in capturing these households.

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<sup>4</sup> The 11.6 percent of all ACS households in the no brochure panel that reported speaking one of the test languages was also not significantly different from the 11.6 percent in the initial mail panel.

Table 1. Percent of All Surveyed ACS Households that Speak a Test Language (across all data collection modes) by Household Type and Treatment (Standard Errors in parentheses)

<b>Household Type</b>	<b>No Brochure</b>	<b>Pre-Notice</b>	<b>Initial Mail</b>	<b>Pre-Notice - Initial</b>	<b>Winner – No Brochure</b>
<b>All Test Languages</b>	11.6 (0.1)	11.7 (0.1)	11.6 (0.1)	0.1 (0.1)	0.1 (0.1)
<b>Spanish</b>	10.0 (0.1)	10.1 (0.1)	10.1 (0.1)	0.0 (0.1)	0.1 (0.1)
<b>Chinese, Korean, or Russian</b>	1.6 (<0.1)	1.6 (<0.1)	1.5 (<0.1)	0.1 (0.1)	0.0 (0.1)
<b>All Test Languages – Linguistically Isolated</b>	3.3 (0.1)	3.3 (0.1)	3.3 (<0.1)	0.0 (0.1)	0.0 (0.1)
<b>Spanish – Linguistically Isolated</b>	2.7 (0.1)	2.7 (<0.1)	2.7 (<0.1)	0.0 (0.1)	0.0 (0.1)
<b>Chinese, Korean, or Russian – Linguistically Isolated</b>	0.6 (<0.1)	0.6 (<0.1)	0.6 (<0.1)	0.0 (<0.1)	0.0 (<0.1)

Source: April 2009 – July 2009 American Community Survey  
[http://www.census.gov/acs/www/SBasics/desgn\\_meth.htm](http://www.census.gov/acs/www/SBasics/desgn_meth.htm)

*4.5 Does adding a brochure increase the proportion of mail interviewed households that speak the test languages?<sup>5</sup>*

We computed the ratio of test language households interviewed in the mail mode to all households interviewed in the mail mode, using the formula below.

$$\text{Proportion of mail interviewed households speaking test language} = \frac{\text{All mail interviewed test language households}}{\text{All mail interviewed households}}$$

Table 2 shows that about 7.7 percent of all households interviewed by mail in the no brochure panel were households that reported speaking one of the test languages. The rate for both of the experimental treatments was 7.8 percent, which was not significantly different from the 7.7 percent in the no brochure panel. We followed the same procedure as before and compared the two placements to each other to see if there is one that has a significantly higher percentage of test language-speaking households. There were no significant differences between the two placements for this example or for all other household types in Table 2.

We then compared the placement that has the nominally higher percent of mail interviewed households that reported speaking a test language to the no brochure panel to see if there was a significant increase in the percentage of these households in the presence of the brochure.

<sup>5</sup> Mail interviewed cases include cases mailed back, TQA interviews, and interviews received by the Telephone Centers on each of the language-specific assistance lines.

We found two slight, yet significant, differences between the “better” brochure placement and the control (no brochure) treatment for the linguistically isolated test language households overall and the linguistically isolated Spanish households individually. These linguistically isolated households are the households we hoped to reach with the brochure because they are the households that would have the most difficulty filling out the form. We found no other significant differences between the brochure treatments and the control treatment.

Therefore we can conclude that adding the brochure increased the proportion of linguistically isolated (Spanish and all test language) households interviewed by mail and that no specific placement was more effective.

Table 2. Percent of Mail Interviewed Households that Speak a Test Language by Household Type and Treatment (Standard Errors in parentheses) by

Household Type	No Brochure	Pre-Notice	Initial Mail	Pre-Notice - Initial	Winner – No Brochure
<b>All Test Languages</b>	7.7 (0.1)	7.8 (0.1)	7.8 (0.1)	0.0 (0.1)	0.1 (0.1)
<b>Spanish</b>	6.1 (0.1)	6.1 (0.1)	6.1 (0.1)	0.0 (0.1)	0.0 (0.1)
<b>Chinese, Korean, or Russian</b>	1.6 (<0.1)	1.7 (<0.1)	1.6 (<0.1)	0.1 (0.1)	0.1 (0.1)
<b>All Test Languages – Linguistically Isolated<sup>6</sup></b>	1.4 (<0.1)	1.5 (<0.1)	1.6 (<0.1)	-0.1 (0.1)	<b>0.2*</b> (0.1)
<b>Spanish – Linguistically Isolated</b>	0.9 (<0.1)	1.0 (<0.1)	1.0 (<0.1)	0.0 (<0.1)	<b>0.1*</b> (<0.1)
<b>Chinese, Korean, or Russian – Linguistically Isolated</b>	0.5 (<0.1)	0.5 (<0.1)	0.5 (<0.1)	0.0 (<0.1)	0.0 (<0.1)

Source: April 2009 – July 2009 American Community Survey  
([http://www.census.gov/acs/www/SBasics/desgn\\_meth.htm](http://www.census.gov/acs/www/SBasics/desgn_meth.htm))

\*Significant at the .10 alpha level. Multiple comparisons were accounted for using the Bonferroni method.

#### 4.6 Does adding a brochure increase the overall ACS mail response rate compared to no brochure?

It is important to note that in designing this test, we never expected to increase the mail response rate with the multilingual brochure. The brochure’s target population is quite small, so we did not expect to see any change at the national level. The purpose of this analysis is to ensure there was no detrimental effect from the brochure on overall mail response.

<sup>6</sup> There was no significant difference between the pre-notice and initial mail treatments for this household type. However, there was also no significant difference between the pre-notice and the control either.

We computed the overall ACS mail response rate for each placement and the no brochure panel, following the specifications for calculating the official ACS mail response rate as described by Cepietz (2009). Table 3 below shows the overall mail response rate for the no brochure panel and both of the experimental panels.

We compared the two placements to see if there is one that has a significantly higher overall mail response rate. There was no significant difference between the two placements.

Since the pre-notice placement had a nominally higher mail response rate, we then compared the pre-notice placement to the no brochure panel to see if there is a significant increase in the overall mail response rate from the no brochure panel to the pre-notice. Again, there was no significant increase. We can conclude that including the brochure had no impact on mail response.

Table 3. Overall Mail Response Rate (Standard Errors in parentheses)

<b>Treatment</b>	<b>Percentage of Households</b>
No Brochure	57.1 (0.1)
Pre-Notice	57.4 (0.1)
Initial Mail	57.1 (0.2)

Source: April 2009 – July 2009 American Community Survey  
[http://www.census.gov/acs/www/SBasics/desgn\\_meth.htm](http://www.census.gov/acs/www/SBasics/desgn_meth.htm)

#### *4.7 Does adding a brochure shift the test language-speaking respondent households from CATI or CAPI into the mail mode compared to no brochure?*

To answer this question, we identified all test language-speaking households included in the ACS for each treatment. We then calculated the relative proportion that was interviewed by mail by using the following formula.

$$\text{Proportion of mail test language households} = \frac{\text{All test language households interviewed by mail}}{\text{All test language households (across all data collection modes)}}$$

For example, Table 4 shows that of all test language households under the control treatment, 38.3 percent were interviewed by mail. The rates for the two other treatments were 38.4 percent and 38.2 percent. To conclude that we were successful in shifting these households from CATI/CAPI to mail, we needed to see an increase in the percent of test language-speaking households that responded by mail in the presence of the brochure. We first compared the two brochure placements to each other, and found that the difference of 0.3 percentage points was not significant<sup>7</sup>.

<sup>7</sup> The 38.3 percent of all test language households interviewed by mail in the control panel was also not significantly different from the 38.2 percent of test language households for the initial mail treatment.

We then compared the placement that had the nominally higher percent to the no brochure panel to see if there was a significant increase in the percentage of these households from the no brochure panel to the placement. For this example, the difference was also not significant.

Table 4 shows these rates by household type and treatment. Significant differences were found for Chinese/Korean/Russian-speaking households overall and for the linguistically isolated household types (overall and for Spanish and Chinese/Korean/Russian separately). For these household types, the percent of households that responded by mail was significantly higher for the initial mail placement treatment than the no brochure treatment. There was no difference between the initial mail placement and the pre-notice placement. Once again, the linguistically isolated households are the ones that we expected to affect most with the brochure.

We can conclude that adding a brochure was successful in shifting households from CATI and CAPI into mail for certain households. We also found that either brochure placement would be equally effective.

Table 4. Percent of all Interviewed Households that Responded by Mail by Household Type and Treatment (Standard Errors in parentheses)

<b>Household Type</b>	<b>No Brochure</b>	<b>Pre-Notice</b>	<b>Initial Mail</b>	<b>Pre-Notice - Initial</b>	<b>Winner – No Brochure</b>
<b>All Test Languages</b>	38.3 (0.4)	38.4 (0.4)	38.2 (0.4)	0.3 (0.5)	0.1 (0.5)
<b>Spanish</b>	35.2 (0.4)	34.9 (0.4)	34.7 (0.4)	0.2 (0.6)	0.3 (0.6)
<b>Chinese, Korean, or Russian<sup>8</sup></b>	58.0 (1.1)	61.1 (1.0)	61.3 (1.2)	-0.2 (1.6)	<b>3.3*</b> (1.6)
<b>All Test Languages- Linguistically Isolated<sup>9</sup></b>	25.5 (0.6)	26.1 (0.6)	27.2 (0.6)	-1.1 (0.8)	<b>1.7*</b> (0.8)
<b>Spanish – Linguistically Isolated</b>	20.1 (0.6)	20.4 (0.6)	21.6 (0.5)	-1.2 (0.8)	<b>1.5*</b> (0.8)
<b>Chinese, Korean, or Russian – Linguistically Isolated<sup>10</sup></b>	49.9 (1.7)	52.9 (1.8)	54.5 (2.0)	-1.6 (2.6)	<b>4.6*</b> (2.6)

Source: April 2009 – July 2009 American Community Survey

([http://www.census.gov/acs/www/SBasics/desgn\\_meth.htm](http://www.census.gov/acs/www/SBasics/desgn_meth.htm))

\*Significant at the .10 alpha level. Multiple comparisons were accounted for using the Bonferroni method.

<sup>8</sup> There was no significant difference between the pre-notice and initial mail treatments for this household type. In this case, the pre-notice treatment had a significantly higher percent of households that responded by mail than the no brochure panel.

<sup>9</sup> There was no significant difference between the pre-notice and initial mail treatments for this household type. But neither was there any significant difference between the pre-notice and the no brochure panel.

<sup>10</sup> There was no significant difference between the pre-notice and initial mail treatments for this household type. But neither was there any significant difference between the pre-notice and the no brochure panel.

*4.8 Does adding a brochure increase call volume to the TQA lines for all households, especially those households that receive the brochure with the pre-notice letter, compared to no brochure?*

To answer this question, we compared across the three treatments the percent of households that called the TQA lines. We were particularly interested in how the percent of TQA calls from the pre-notice placement compared with the no brochure panel because we normally do not provide the TQA number in the pre-notice letter. Since the English and Spanish assistance phone numbers are currently listed on the questionnaire, but not the pre-notice letter, a higher percent of TQA households in the pre-notice placement panel would indicate the increase was due to information provided in the brochure.

We found that neither of the brochure placements had a significantly higher percent of households that called the TQA lines than the no brochure treatment. In both the no brochure panel and the pre-notice panel, we received TQA calls from approximately 0.9 percent of our respondents. We received TQA calls from approximately 0.8 percent of our respondents in the initial mail panel, which is also not significantly different from the amount (0.9 percent) from the pre-notice panel.

*4.9 In general, how complete are the TQA interviews that were received on the language lines?*

To answer this question, we originally planned to look at the percent complete for these TQA interviews and compare them to TQA interviews we receive in production. However, with only 50 cases of TQA response through these language lines, we were unable to draw meaningful comparisons. Instead, we looked at the completeness of the interviews conducted on language assistance lines for Chinese, Korean, and Russian. To do so, we simply looked at the data to see if there were any cases with a large percentage of missing data. After examining the data from these interviews, we have no reason to believe the data collected on these lines are less complete than other interviews.

*4.10 How effective was the use of the phone lines?*

We will use tallies from the individual language phone lines to assess:

Of the calls to the language lines:

- What percent of the calls were answered live? Of those, what percent resulted in completed interviews at that time?
- What percentage resulted in a returned mail form?

Of the calls where the respondents left a callback number:

- How many calls did it take to reach a respondent?
- What percentage led to a completed interview?



Forty-eight of the 81 calls (59.3 percent) to the Chinese, Russian and Korean language assistance lines were answered live. Because some of those calls were from the same household, we only had 35 unique households out of the 48 calls from unique households that were answered live (72.9 percent). Twenty-six of the calls that were answered live from the 35 unique households resulted in an interview at that time (74.3 percent). Four more of these households resulted in interviews after the TQA interviewers called them back.

Of the 23 households that left a phone number (this is every unique household that left a voicemail), it usually only took one call to reach the household.

Of the 60 unique households that called the language assistance lines, 50 households completed the interview on the phone (83.3 percent). Eight of the households that called returned a mail form (13.3 percent). That means that 96.6 percent of the households that called responded during the mail phase. The remaining two households responded during the CATI/CAPI phases.

#### *4.11 How effective was the brochure?*

We included, as part of the CATI interviews, a supplemental set of questions to assess whether or not test language-speaking households saw the brochure and opened the envelope. We will use data from this supplement to answer the following questions about the two brochure placement panels:

- What percentage of households in each treatment saw the brochure?
- Of those who saw the brochure, what percent called the number?
- Of those who did not see the brochure, what percent opened the envelope?

Just over half of the respondents we talked to recalled seeing the brochure. This coincides with what was noted during the cognitive testing of the brochures. Only 36 percent of the respondents said they did not open the envelope. The envelope is only in English, so there is really no way that respondents would know that there is something inside the envelope in their language, which is also what we saw in cognitive testing.

## **5.0 Conclusions**

The multilingual brochure is meant to inform households that would either not be able to answer or have difficulty answering the English ACS questionnaire how they can receive in-language help. Cognitive testing showed that while the brochure correctly relayed the message, in many cases, respondents would not have seen the brochure if it was not pointed out to them.

Adding a brochure resulted in a statistically significant increase in the percent of Chinese/Korean/Russian-speaking households, Chinese/Korean/Russian-speaking linguistically isolated households, Spanish-speaking linguistically isolated households and test language-speaking linguistically isolated households responding by mail. There

were no significant differences in the two brochure placements. The addition of this brochure did not make a difference in our overall mail response rates.

One of the issues we face with placing the brochure into the initial mail package is that the sorter at the National Processing Center (NPC) used for assembly of mail packages only has six slots, all of which are filled with the five items already in the initial mail package. The sixth slot is currently being used for additional questionnaires, to make the envelope stuffing more efficient. Replacing the additional questionnaires with the multilingual brochure will slow down the efficiency of the assembly of the initial mail packages. Because of this operational concern and the fact that there was no significant difference between the pre-notice placement and initial mail placement, we recommend putting the brochure in the pre-notice mailing during ACS production. Also, based on cognitive testing results as well as our results from the supplemental CATI questions, households may be more likely to see the brochure when it is included in the pre-notice letter rather than the questionnaire.

The multilingual brochure is just one small step in assisting language needs households to respond to the ACS. For future research, we are considering other ways of reaching out to non-English speaking households, such as putting non-English messages in a more visible place to encourage non-English-speaking households to open the envelope. Additionally, we are considering a test to determine the impact on response of sending Spanish language questionnaires to some areas. We also work with the decennial census in their planning of future censuses to look for ways to improve our outreach to non-English-speaking households.

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## Appendix A

## Бюро переписи проводит Анкетирование населения США по месту жительства

К данному письму прилагается анкета Анкетирование населения США по месту жительства. Так как Вы проживаете в США, Вы обязаны в соответствии с законом дать ответы на вопросы данного исследования. Анкета составлена только на английском языке. Позвоните по бесплатному номеру 1-866-225-2297, и Вам ответит русскоговорящий сотрудник. Вы сможете получить ответы на Ваши вопросы, и Вам помогут заполнить анкету по телефону.

## Что представляет собой программа Анкетирование населения США по месту жительства?

Анкетирование населения США по месту жительства – это важнейшее исследование, проводимое Бюро переписи населения США. Его цель – обеспечить общество актуальной информацией о населении и жилищных условиях. Для принятия обоснованных решений на местах необходимо иметь точную и достоверную информацию. Отвечая на вопросы данного исследования, Вы помогаете своему району получить такую информацию.

## Будет ли сохранена конфиденциальность моих ответов?

Да. Согласно законодательству (Раздел 13, Кодекс законов США) вся информация о вас и ваших близких, собранная Бюро переписи населения США в рамках настоящего исследования, является конфиденциальной.

## 미국 인구조사국에서는 미국 지역사회조사를 실시하고 있습니다.

이 우편물에는 미국 지역사회조사 설문지가 들어있습니다. 미국에 사시는 모든 분은 법에 의해 이 설문지에 응답하셔야 합니다. 설문지는 영어로만 되어있습니다. 한국어로 설문을 작성하고 싶으시거나 질문이 있으시면, 무료전화 1-800-772-6728 로 전화를 주십시오. 한국어 담당직원과 통화하실 수 있습니다.

## 미국 지역사회조사란 무엇인가요?

미국 지역사회조사는 미국 인구조사국이 시행하는 중요한 설문조사입니다. 이 설문조사는 지역사회 주민들과 주택에 관한 최근 정보를 알려드리고자 계획되었습니다. 지역사회가 정보에 기초한 합리적인 결정을 내리기 위해서 정확하고 믿을 수 있는 정보가 필요합니다. 귀하의 설문응답은 지역사회가 이런 정보를 수집하는 데 도움을 줍니다.

## 설문조사에 대한 답변은 보호되니까?

그렇습니다. 이 설문조사를 통하여 미국 인구조사국이 얻게 되는 귀하와 귀하의 가족에 관한 모든 정보는 법에 의하여 엄격히 보호됩니다(미 연방법 13장).

## Important Information From the U.S. Census Bureau

## Información importante de la Oficina del Censo de los Estados Unidos

## 美国人口普查局重要通知

## Важная информация от Бюро переписи населения США

## 미국 인구조사국에서 전해드리는 중요한 정보



## The U.S. Census Bureau is conducting the American Community Survey

Included in this mailing is an American Community Survey questionnaire. Because you are living in the United States, you are required by law to respond to this survey. If you have questions or need help completing this survey, please call us toll-free at 1-800-354-7271.

### What is the American Community Survey?

The American Community Survey is an important survey conducted by the Census Bureau. It is designed to give communities current information about its people and housing. 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.

### Will my answers to this survey be kept confidential?

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).

## La Oficina del Censo de los Estados Unidos está realizando la Encuesta sobre la Comunidad Estadounidense.

En este envío postal se ha incluido un cuestionario de la Encuesta sobre la Comunidad Estadounidense. Como usted está viviendo en los Estados Unidos, la ley exige que usted responda a esta encuesta. El cuestionario está solamente en inglés. Llámenos al 1-877-833-5625 para hablar con uno de nuestros empleados que habla español. La llamada es gratis. El empleado podrá contestar su pregunta o usted podrá completar la encuesta por teléfono.

### ¿Qué es la Encuesta sobre la Comunidad Estadounidense?

La Encuesta sobre la Comunidad Estadounidense es una encuesta importante realizada por la Oficina del Censo de los Estados Unidos. Está diseñada para brindar información actual a las comunidades sobre las personas y las viviendas. Para poder tomar buenas decisiones, una comunidad necesita información precisa y confiable. Al responder a esta encuesta, usted está ayudando a su comunidad a obtener este tipo de información.

### ¿Serán confidenciales mis respuestas a esta encuesta?

Así es. Toda información que la Oficina del Censo de los Estados Unidos obtenga durante esta encuesta sobre usted y su vivienda es confidencial según la ley (Título 13, Código de los Estados Unidos).

## 美国人口普查局正在进行美国社区问卷调查

本邮件内含一份美国社区问卷调查。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。这个调查问卷只有英文版。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。

### 什么是美国社区问卷调查？

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。目的是为了向各个社区提供有关居民和住房方面的最新信息。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。

### 我对这次调查的回答，人口普查局是否会保密？

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。

## Бюро переписи населения проводит Анкетирование населения США по месту жительства

Через несколько дней Вы получите по почте анкету Анкетирование населения США по месту жительства. Так как Вы проживаете в США, Вы обязаны в соответствие с законом дать ответы на вопросы данного исследования. Анкета составлена только на английском языке. Позвоните по бесплатному номеру 1-866-225-2297, и Вам ответит русскоговорящий сотрудник. Вы сможете получить ответы на Ваши вопросы, и Вам помогут заполнить анкету по телефону.

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## The U.S. Census Bureau is conducting the American Community Survey

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## La Oficina del Censo de los Estados Unidos está realizando la Encuesta sobre la Comunidad Estadounidense

En unos días, recibirá por correo un cuestionario de la Encuesta sobre la Comunidad Estadounidense. Como usted está viviendo en los Estados Unidos, la ley exige que usted responda a esta encuesta. El cuestionario estará solamente en inglés. Llámenos al 1-877-833-5625 para hablar con uno de nuestros empleados que habla español. La llamada es gratis. El empleado podrá contestar su pregunta o usted podrá completar la encuesta por teléfono.

### ¿Qué es la Encuesta sobre la Comunidad Estadounidense?

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### ¿Serán confidenciales mis respuestas a esta encuesta?

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### 什么是美国社区问卷调查？

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。目的是为了向各个社区提供有关居民和住房方面的最新信息。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。

### 我对这次调查的回答，人口普查局是否会保密？

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。

## Appendix B

Appendix B. Unweighted Number of Respondent Households by Household Type and Placement

<b>Household Type</b>	<b>No Brochure</b>	<b>Pre-Notice</b>	<b>Initial Mail</b>
<b>Total</b>	192,431	191,777	191,985
<b>Test Language</b>	18,428	18,410	18,373
<b>Test Language- Linguistically Isolated</b>	4,720	4,772	4,850
<b>Spanish</b>	15,604	15,564	15,609
<b>Chinese, Korean, and Russian</b>	2,824	2,846	2,764

Source: April 2009 – July 2009 American Community Survey  
([http://www.census.gov/acs/www/SBasics/desgn\\_meth.htm](http://www.census.gov/acs/www/SBasics/desgn_meth.htm))



## Appendix C

### Multilingual Brochure Test – CATI Questions

As a measure to see how many linguistically isolated households have opened the pre-notice letter or the initial mail package, we will be asking CATI respondents who were part of either test panel and completing the interview in Spanish, Chinese, Russian, or Korean some questions after they complete their interview. We will ask this question regardless of the respondent's answer to the question asking if they received our mailings.

Interviewer Screener:

What language was spoken by the respondent during the interview?

If more than one language was used, enter all that apply, separating with commas.

- English
- Spanish (including Catalanian, Ladino, and Pachuco)
- Russian
- Chinese (including Min, Hakka, Kan, Hsiang, Cantonese, Toishan, Mandarin, Fuchow, Formosan, Fukien, Hokkien, Min Nan, Taiwanese, Wu, and Shanghainese)
- Korean
- Some other language

If the respondent spoke only English, only some other language, or English and some other language, then go to step 3.

(Note: The answer from this question will be used as the fill for [language].)

The Census Bureau is trying to make it easier for people who speak [language] to answer this survey. We mailed your household a brochure about the American Community Survey that was in several languages including [language]. The cover read, "Important Information from the U.S. Census Bureau."

1. Do you remember seeing this brochure? (Yes, No)

2. [If yes]

The brochure contained a toll-free telephone number that you could call to receive help completing the survey in [language]. Did you call the number? (Yes, No)

[If no]

What is the main reason why you decided not to call? (Open-ended)

- Did not believe the survey was official
- Brochure did not provide clear enough instruction to call
- Did not think it was required to complete the survey
- Too busy to call
- Forgot about it or didn't think it was important
- Other (please specify): \_\_\_\_\_

[If no]

We find that there are a number of reasons why people will not open envelopes they receive in the mail. Did you open any of the envelopes that the Census Bureau sent you? (Yes, No)

[If no] What is the main reason why you did not open the materials that the Census Bureau sent you? (open-ended)

- Information on the envelope was only in English
- Mail was not addressed to respondent
- Didn't realize it was important
- Other (please specify): \_\_\_\_\_

Do you think that you would have opened the envelope if a message in [language] were on the outside of the envelope? (Yes, No)

3. Go to standard Thank you screen.