

## **Designing Survey Materials to Target the Hispanic Population**

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### **Abstract**

Targeting hard-to-reach demographics has become a standard in survey research. The growth of the Hispanic US population has an ever-increasing impact on national and regional survey estimates, as sometimes estimates cannot accurately represent the Hispanic population in a survey universe. Often we target hard-to-reach demographics like the Hispanic population in the US by providing higher incentives. However, what if there was a way that we could target the Hispanic demographic by customizing our bilingual materials to target Spanish-dominant Hispanics specifically and therefore increasing response rates for this demographic without increasing incentives?

In order to test the hypothesis that improving bilingual materials to target the Hispanic population could increase response rates, The Nielsen Company collaborated with a Hispanic Marketing Firm to improve the bilingual materials for the Radio diary pre-recruitment survey. The pre-recruitment survey is the process Nielsen uses to collect phone numbers from the unlisted portion of the Address Based Sample. Aspects of the Hispanic culture were incorporated into the text, graphics, and images of the materials; these changes included focusing on the family and community and enjoying music. Instead of simply translating English text into Spanish, the decentering translation technique was used to ensure the verbiage for both English and Spanish was culturally appropriate.

To prove or disprove the hypothesis, response rates for the questionnaire pre and post re-design will be analyzed. This will include the response rates and the percentage of returning households that are Spanish-speaking Hispanics. If successful, in the future, this could lead to higher response rates allowing for a decrease in the additional sample needed for the Hispanic population and possibly even reducing the amount of the incentive that is currently used to target this population. Both of these options would reduce the cost of the survey.

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### 1.0 Introduction

The US population is an ever-fluctuating entity. As researchers, we compare our samples to Universe Estimates and Census Bureau statistics to ensure that our samples are accurate. No group proves to be a moving target more than the Hispanic population in the US. According to the US Census Bureau, the Hispanic population is expected to increase to 24.4% of the US population by 2050; this is up from 12.5% in 2000 and 4.7% in 1970 (Owens, 2009). As the Hispanic population is increasing, researchers must include more and more Hispanic households in their samples in order to achieve proportional representation. In addition, this group has also been identified as a hard-to-reach demographic due to cultural, language, and immigration issues (Evans et al., 2008) and may not be as likely to respond to surveys as other demographic groups.

In 2009, The Nielsen Company decided to see if it was possible to increase Hispanic return and accept rates to a pre-recruitment survey by enhancing Bilingual materials in order to specifically target the Hispanic demographic. The goal was to increase the returns and accepts from Hispanics and Spanish-speakers without increasing incentives or decreasing the returns of other demographic groups in the study. Translation techniques, material design, and bringing the Hispanic culture into the materials were all utilized in order to change the materials for this purpose.

### 2.0 Background

As described by Marin and Marin (1991) there are some specific barriers that researchers face when attempting to survey the Hispanic population. Some of these barriers include:

- 1) Language
- 2) Compensation
- 3) Instrument Format
- 4) Legitimacy

In order to address the language barrier, it is important to provide accurate translations that use culturally appropriate language. Respondents are not likely to participate if the translation is unprofessional, culturally inappropriate, or difficult to understand. Good translations can be costly and are often a barrier for survey researchers.

While compensation is usually a focal point to increase participation for hard-to-reach demographics, it was not a research component of this study.

Providing a friendly format for individuals of all educational levels is an important component to achieving cooperation from Hispanics and Spanish-speakers. It is important that all education levels can understand what is being asked and respond to the questions appropriately.

Ensuring the respondent that the research project is not a hoax but a genuine research project is a major concern for Hispanics and Spanish-speakers. This is especially true for foreign-born Hispanics. Details including the way the data collected will be used, the confidentiality of the survey, and the legitimacy of the company are important in gaining trust.

Research on the Census points to the fact that Hispanics are more likely than non-Hispanics to not know what the Census is, making them less likely to participate. Hispanics are also more likely to question the impact of the Census than non-Hispanics (Mulry and Olson, 2010). These barriers are also true for other research studies and organizations. In Nielsen's case, non-Hispanics would be more likely to know who Nielsen is and more likely to participate.

### 3.0 The Radio Diary Approach

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### 3.1 Redesigning the Materials

Traditionally, The Nielsen Company oversamples for Hispanic households and provides higher non-contingent incentives to households with a Hispanic surname in an attempt to reach a proportionate sample for the population. These practices were continued for this study and were implemented the same as in previous cycles. Therefore, in addition to continuing to oversample for Hispanic households a \$5 non-contingent amount, instead of the \$2 non-contingent amount offered to most households, was mailed along with the bilingual pre-recruitment survey for households identified as having a Hispanic surname.

Nielsen's Pre-Recruitment Survey is the process Nielsen uses to collect phone numbers from the unlisted portion of the Address Based Sample. These phone-numbers are eventually called for recruitment into the larger Diary panel. The pre-recruitment survey includes the following:

- An Advanced Postcard sent four days in advance of the Pre-Recruitment Survey
- The Pre-Recruitment Survey Packet, which includes the non-contingent incentive amount and a business reply envelope along with the following materials:
  - Cover Letter
  - Pre-Recruitment Survey
  - FAQ brochure
- A Reminder Letter sent one week after the pre-recruitment survey packet mailing

For households with a Hispanic surname we mail Bilingual (Spanish and English) materials instead of English only materials. For this study, each of these materials were re-designed in the hopes of targeting Hispanics to return and complete the Pre-Recruitment Survey. To do so, we incorporated the Hispanic culture into the text, graphics, and images of the materials. Huerta and Macario (1999) expressed this need by noting, "Whereas a danger of stereotyping exists, knowledge of an ethnic group's core values is an excellent starting point. . . it plays an important role in how we communicate – our communication depends in part on how we characterize the recipients of our messages." (p. 23) For this study, three main aspects of the Hispanic culture were focused on in the materials.

- 1) The Hispanic culture has an emphasis on the larger group/community and is known as an allocentric culture (Marin & Marin, 1991; Huerta & Macario, 1999).
- 2) The Hispanic culture is also a culture that values familialism or a strong identification and attachment to family (Marin & Marin, 1991; Huerta & Macario, 1999).
- 3) A Hispanic marketing group hired by the Nielsen company also suggested to include enjoying music as another way to bring the Hispanic culture into the materials.

These three cultural values were introduced to the materials in the following ways:

- 1) The text was modified to include a focus on their participation representing the Hispanic community.
- 2) The text was modified to include references to family. In addition, graphics and images were added with Hispanic families spending time together (see Figure 1).
- 3) An icon/spokesperson of a Hispanic woman enjoying music was added to the Advanced Postcard, the Pre-Recruitment Survey, and the FAQ in order to tie the pieces together and show someone enjoying music (see Figure 2).

In addition to adding characteristics of the Hispanic culture to the materials, the materials were re-formatted in order to provide a friendlier format and reach all educational levels. One of the ways the materials were reformatted was by putting the Spanish language first in all of the mailed materials with the exception of the survey itself. The survey itself was not reformatted to

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put Spanish first in order to avoid changing the instrument itself and ensure data quality and continuity with the previous study.

While including these new elements the materials retained a focus on company legitimacy. The materials included a tag-line expressing how long The Nielsen Company has been in the television and radio ratings as well as information on the company and the company policies to keep data provided by the respondents confidential in the FAQ brochure.

### *3.2 Language and Translation*

Instead of simply translating English text into Spanish, the decentering translation technique was used to ensure the verbiage for both English and Spanish was culturally appropriate. Decentering is a translation process in which both languages are considered of equal importance. In decentering the original text is provided to translators who translate the text into the target language. Both the original and the target text are then in draft form and are both modified through second translation until both versions are grammatically and culturally appropriate (Marin and Marin, 1991).

The FAQ brochure was sent to another research survey organization, Research Triangle Institute (RTI), for re-evaluation of the Spanish text by their linguistic experts and survey methodologists. It was determined that the full decentering translation technique was not necessary on this material as the text has been translated and re-evaluated numerous times in the past. Although this material was not retranslated through the decentering translation technique, it was reformatted including new pictures and design.

The Pre-Recruitment Survey itself was not re-translated. It was decided that the full decentering model was not necessary for this material as much of the text for survey has been translated numerous times and was taken from best practices within survey research; many of the demographic questions in the Pre-Recruitment Survey are fashioned after either the American Community Survey or the Census. However, the questionnaire was modified so that the placement of the phone number question was moved to a more prominent location from the back panel to the inside of the questionnaire. Also, the front cover and the return instructions were redesigned for continuity and simplicity.

The decentering technique was used for the remaining materials including: the Advanced Postcard, the Cover Letter, and the Reminder Letter. These materials already had both English and Spanish text from previous tests. This text was originally translated through double translation techniques. This original English and Spanish text were provided to a Hispanic Marketing firm, Republica, who then provided new Spanish text incorporating the cultural items listed above in the text and a computerized back-translation into English. The new English and Spanish text was then provided to RTI so that linguistic experts/survey methodologists could re-evaluate and edit the Spanish text. The English text was then given to English-speaking methodologists within The Nielsen Company for re-evaluation and edits.

The decentering translation technique used for the majority of these materials is an expensive and time-consuming process; however, it was determined a necessary step for this process as both English and Spanish languages have equal value for this study and for these households. It was important that the content remained consistent with both languages while maintaining cultural and grammatical correctness.

## **4.0 Results**

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Analysis was conducted by using Spring 2009 Radio Diary Pre-Recruitment Survey data in comparison with the Spring 2010 data to examine whether the new design of bilingual materials improved the overall return rate among Hispanics and Spanish-speakers.

Both Spring 2009 and Spring 2010 the Pre-Recruitment survey included questions regarding Hispanic identity and Spanish language use that was utilized in order to identify the accept and returns for Hispanics and Spanish-speakers. These questions were as follows:

Are there any persons in this household, 12 years of age or older, who are Spanish / Hispanic / Latino? *¿Hay alguna persona en este hogar, de 12 años o más, que sea de origen español / hispano / latino?*

Yes *Sí*

No *No*

Do any persons in this household, 12 years of age or older, speak Spanish? *¿Alguna de las personas en este hogar, de 12 años o más, habla español?*

Yes *Sí*

No *No*

The two main rates of comparison between Spring 2009 and Spring 2010 are the return rate and the accept rate. The return rate is the number of returned Pre-Recruitment Surveys divided by the number of mailed Pre-Recruitment surveys. The accept rate is the number of returned surveys excluding Media Employee, Refusals, Out of Samples, and Place of Business divided by the number of mailed surveys. Both the return rate and the accept rate only include returns received by the cut-off date and do not include any surveys that were returned after the cut off date. This cut-off date is 28 days after the mailing date (including weekends). In Spring 2009 another 5,128 surveys were returned after the cut-off date increasing the total returns by 1.3 percentage points. All surveys returned after the cut-off date in both Spring 2009 and Spring 2010 were excluded from this analysis.

The overall bilingual Pre-Recruitment survey return rate decreased by one percentage point from 20.9% in Spring 2009 to 19.9% in Spring 2010. However, the overall bilingual accept rates increased by 1.6 percentage points from 14.5% in Spring 2009 to 16.1% in Spring 2010. On the whole, the number of households returning the Pre-Recruitment Surveys with enough information to be counted as an accept increased, if only minimally.

#### *4.1 Hispanic Origin and Spanish-speaking*

The most significant difference between Spring 2009 and Spring 2010 is in the demographics. The accept rates for households that identified themselves as Spanish-speaking and households that identified themselves as Hispanic increased between Spring 2009 and Spring 2010. The percent of accepts for bilingual Pre-Recruitment Surveys for households that identified themselves as Spanish-speaking increased by 9.2 percentage points from 66.9% in Spring 2009 to 76.1% in Spring 2010 (see Table 1). Conversely, the accepts for households that identified themselves as not speaking Spanish decreased from Spring 2009 to Spring 2010. The percent of accepts for bilingual Pre-Recruitment Surveys for households that identified themselves as Hispanic increased by 9.1 percentage points from 75.1% in Spring 2009 to 84.2% in Spring 2010. As a result, the accepts for non-Hispanic households decreased.

The goal of the test was to increase the returns and accepts by Hispanics and Spanish-speakers without reducing the returns and accepts by non-Hispanics and non-Spanish-speakers thus increasing the overall returns and accepts. While the returns and accepts for Hispanics and

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Spanish-speakers did increase as desired, the returns and accepts for the non-Hispanics and non-Spanish-speakers decreased. One possible reason for this could be the result of positioning the Spanish language first in the materials, this could be off-putting to respondents or respondents may not look further to see that there is English text as English is expected first in the United States.

### *4.2 Hispanic Penetration Markets*

Sometimes we are able to base treatments for demographic groups based on market penetration. For Hispanic penetration we have three types of markets, Regular Markets where there is less than 10% Hispanic penetration, Hispanic Penetration Markets where there is a 10% or more Hispanic penetration, and High Hispanic Penetration Markets where there is a 25% or more Hispanic penetration.

In comparing the bilingual accept rates for these three market types we saw a slight decrease in accepts in the regular markets and an increase in accepts in the Hispanic Penetration and High Hispanic Penetration Markets. In Spring 2009, Regular Markets had a 15.9% accept rate; in Spring 2010, these markets had a 15.6% accept rate, a decline of 0.3%. Hispanic Penetration markets had accept rates of 15.2% in Spring 2009 and 16.4% in Spring 2010, an increase of 1.2%. The greatest difference was seen in High Hispanic Penetration markets where accept rates increased from 13.2% in Spring 2009 to 16.5% in Spring 2010, an increase of 3.3%.

This is congruent with the findings in section 4.1 above. The Hispanic and High Hispanic Penetration markets have a higher likelihood of having Hispanics and Spanish-speakers in them. The newly designed bilingual materials are performing better with Hispanic and Spanish-speaking households than the previous materials. While this is great news, we need to determine how to balance this with bringing the non-Hispanic and non-Spanish-speaking households back up to the same levels as they had previously, resulting in a net gain for the bilingual material return and accept rates.

Further research into the data was conducted with the hopes of combining Hispanic Surname indicators with the Hispanic Penetration flags in order to more accurately identify Hispanics and Spanish-speakers thus providing only those records assumed to be either Hispanic or Spanish-speaking with the Bilingual materials and therefore reducing the impact on the non-Hispanic and non-Spanish-speaking households. However, even with looking at the Hispanic Penetration, the Census Block Group indicators, and the Hispanic Surname Indicator, it was not possible to combine indicators in order to reduce the impact to non-Hispanics and non-Spanish-speakers without also reducing the numbers of Hispanics and Spanish-speakers that would be receiving the Bilingual materials. Therefore, it is our conclusion that these materials must be more neutral for both Hispanics and non-Hispanics as well as Spanish-speakers and non-Spanish-speakers. While we were successful in increasing the returns of Hispanics and Spanish-speakers, it is important to proceed without decreasing the returns of non-Hispanics and non-Spanish-speakers.

### *4.3 Bilingual Materials and Age*

The bilingual Pre-Recruitment Survey accept rates improved among households with household members between the ages of 12-17, 35-54 and 55 and over between Spring 2009 and Spring 2010. The percent of accepts and returns for households with a household member age 12-17 increased by 5.1 and 2.4 percentage points for Spring 2009 and Spring 2010 respectively. The percent of accepts and returns for households with a household member age 35-54 increased

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by 6.0 and 3.3 percentage points respectively. The percent of accepts and returns for households with a household member age 55 increased by 4.9 and 4.0 percentage points respectively. Conversely, households with 18-24 year olds and 25-34 year olds decreased accept rates by 9.8 and 4.4 percentage points and decrease return rates by 0.8 and 1.9 percentage points (see chart 1 for return rates).

Much of this decrease in respondents with households members between the ages of 18-34, a key demographic for radio, can be attributed to an over-delivery on the sample for these age groups in Spring 2009. The sample was corrected in Spring 2010 and the delivery in these age groups was expected to decrease.

That said, the 18-24 year old demographic is a demographic of great importance to the Radio Diary. Going forward we need to continue to monitor this demographic to ensure that it continues to perform where expected and that the return and accept rates do not drop any further especially regarding the bilingual materials.

### *4.4 Returned Pre-Recruitment Surveys with a Phone Number*

One major change to the survey format was in the placement of the phone number data collection. The phone number is the primary purpose of the Pre-Recruitment Survey. These phone numbers are then used to recruit households into the larger Radio Diary panel. Without the phone number, we will mail the Radio Diary materials to the household, but the likelihood of return is not as great as when the household is recruited through phoning.

In Spring 2009, the phone number was collected on the back of the tri-fold survey under the address change (see Figure 3). This was in alignment of the placement of the phone number data collection in Nielsen's TV ratings Pre-Recruitment Survey. The main reason for the placement of this question is that the phone number is considered the most sensitive piece of information to collect on the survey and should therefore come last.

During the re-design of the survey materials, the phone number data collection was moved to the inside last panel of the survey so that it was still asked last but was included with the main questions in the survey. One theory was that respondents were not seeing the phone number data collection at all in the Spring 2009 survey. Another theory was that respondents erroneously thought that the phone number data collection should only be completed in the event of an address change. Therefore, in an attempt to provide a friendly format for individuals of all educational levels, the phone number data collection was moved.

This was a successful move. Of the returned bilingual Pre-Recruitment Surveys there was a 5.0 percentage point increase in returns including a phone number. In Spring 2009 50% of bilingual returns included a phone number while in Spring 2010 55% of bilingual returns included a phone number.

## **5.0 Conclusions**

Return and accept rates remained relatively constant between Spring 2009 and Spring 2010. However, there was an increase in the percentage of respondents that were Hispanic and the percentage of respondents that were Spanish-speaking. Conversely, there was a decrease in the percentage of non-Hispanic and non-Spanish-speaking households that returned or accepted the Pre-Recruitment Survey. In order to maintain the increase in Hispanic and Spanish-speaking households without also seeing a decrease in the non-Hispanic and non-Spanish-speaking households more research needs to be done. The impact of having the Spanish language first and having the icon/spokesperson of the Hispanic woman enjoying music are unknown and should

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be tested further. Specifically, the suggestion is to have the English language first in the next round of testing as Spanish first could be off-putting to respondents or respondents may not look further to see that there is an English text as English is expected first in the United States.

The 18-34 year old demographic needs continued monitoring for accept and return rates. In Spring 2010 a decrease in returns for this demographic was expected due to over-delivery of sample previously. However, any additional or continued decrease could become a major concern for the Radio Diary project.

The change in the placement of the phone number question from the back of the questionnaire to the inside of the questionnaire proves to be a positive change. It did not decrease return or accept rates, yet it increased the number of phone numbers received. In the future, this change should be continued.



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Figure 1



Figure 2



Table 1

*Spanish-Speaking Accepts*

	Spring 2009		Spring 2010	
	N	%	N	%
Yes	1883	67.0%	2376	76.1%
No	929	33.0%	746	23.9%

Table 2

*Hispanic Accepts*

	Spring 2009		Spring 2010	
	N	%	N	%
Yes	2112	75.1%	2630	84.2%
No	700	24.9%	492	15.8%

Table 3

*Markets with Hispanic Penetration*

	Spring 09	Spring 10
Regular Markets	15.90%	15.60%
Hispanic Penetration Markets	15.20%	16.40%
High Hispanic Penetration Markets	13.20%	16.50%

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Chart 1

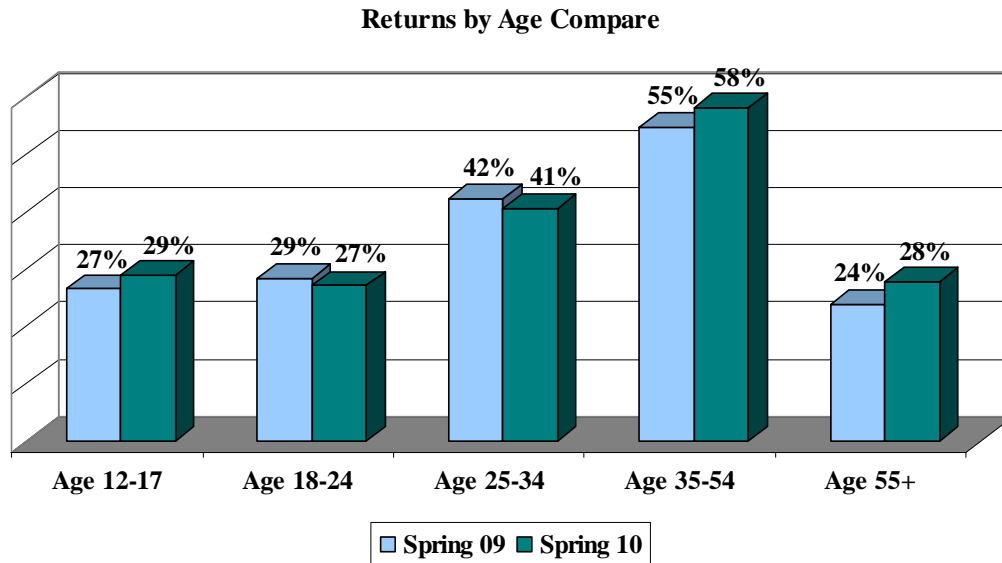


Figure 3

Outside middle panel—Spring 2009 design

We would like to verify the contact information we have listed for you below. If needed, please make any corrections. Queremos verificar que la siguiente información de contacto sea correcta. De ser necesario, haga cualquier corrección.

a. Is the information shown above correct?  
 ¿La información que se muestra arriba es correcta?  
 Yes Sí  
 No (Please write the correct and complete information below) No (Por favor, escriba la información correcta a continuación)

Name Nombre: \_\_\_\_\_  
 Street Address Dirección: \_\_\_\_\_  
 City and State Ciudad y Estado: \_\_\_\_\_  
 ZIP Code Código postal: \_\_\_\_\_

b. Nielsen performs other media ratings studies, including by telephone and Internet. In case you are selected for future media ratings research, please provide the following additional contact information below. Please be assured that this information will be kept strictly confidential and that we will not reveal or sell your information to anyone. Nielsen realiza otros estudios sobre los índices de los medios, incluyendo los realizados por teléfono y por internet. En caso de que sea seleccionado para futuros estudios de índices de medios, por favor, proporcione la siguiente información adicional a continuación, para poder comunicarnos con usted. Por favor, síntase seguro que la información se mantendrá estrictamente confidencial y que no compartiremos ni venderemos su información a nadie.

Phone Teléfono #: ( ) - -  
 Email Address Dirección de correo electrónico: \_\_\_\_\_

Inside right panel—Spring 2010 design

9. In the past 12 months, has anyone in your family (including yourself) or a close friend been an employee of: En los últimos 12 meses, ¿alguna persona de su familia (incluyéndose a usted mismo(a)) o una amistad cercana ha trabajado para:

- a radio or television station or network, una estación de radio o cadena de televisión,
- an advertising agency, una agencia de publicidad,
- a newspaper or un periódico o
- a market research company? una compañía de estudios de mercado?

Yes Sí  
 No No

10. We've produced the TV and radio ratings for more than 50 years. Before today, had you ever heard of Nielsen ratings? Nielsen ha producido los índices de televisión y radio durante más de 50 años. ¿Había escuchado antes acerca de los índices de Nielsen?  
 Yes Sí  
 No No

11. Does your household have at least one working cell phone? ¿Tiene su hogar al menos un teléfono celular en funcionamiento?  
 Yes Sí  
 No No

12. Does your household have a landline telephone that is used to make and receive calls? ¿Tiene su hogar una línea telefónica corriente que se utiliza para hacer y recibir llamadas?  
 Yes Sí  
 No No

Phone Teléfono #: ( ) - -

Nielsen performs other media ratings studies, including by telephone and Internet. In case you are selected for future media ratings research, please provide the additional contact information above. Please be assured that this information will be kept strictly confidential and that we will not reveal or sell your information to anyone. Nielsen realiza otros estudios sobre los índices de los medios, incluyendo los realizados por teléfono y por internet. En caso de que sea seleccionado para futuros estudios de índices de medios, por favor, proporcione la siguiente información adicional arriba, para poder comunicarnos con usted. Por favor, síntase seguro que la información se mantendrá estrictamente confidencial y que no compartiremos ni venderemos su información a nadie.