

# **Sociolinguistics and U.S. Census Bureau Language Research**

Yuling Pan  
*U.S. Census Bureau*

Interagency Language Roundtable Meeting  
September 10, 2010

# Roadmap of Today's Talk

## + Background

- + Census Bureau and language use in the U.S.
- + Census Bureau language-related research and programs

## + New directions in language research

## + Issues and challenges

## + Three on-going projects

## + Looking into the future

# U.S. Census Bureau

- ✚ One of the world's largest and most comprehensive data-gathering organizations
- ✚ Mission:
  - ✚ To collect and provide timely, relevant, and quality data about the people and economy of the United States
- ✚ Conducts:
  - ✚ Population Census (taken every 10 years)
  - ✚ Economic Census (taken every 5 years)
  - ✚ Over 100 sample surveys
- ✚ Provides information that mirrors the concerns of the country

# Need for Language Research

- + Increasing level of immigration and growing diversity in the U.S. population
- + Respondents' inability to speak or read English inhibits accurate data collection and affects data quality
- + Research is needed on:
  - + How to overcome language and cultural barriers in data collection
  - + How to encourage diverse populations to participate in the Census and other surveys

# Language Use in the United States: 2007

- + American Community Survey data (Shin & Kominski, 2010)
  - + 20% of U.S. population age 5 and over spoke a language other than English at home
  - + 44% of them did not speak English very well
  - + About 9% of U.S. population age 5 and over did not speak English very well
- + Spanish, Chinese, Russian and Vietnamese speakers
  - + Higher proportion speaking English less than very well

# American Community Survey (ACS)

- + A monthly, nationally-representative household survey
- + Collects information on household characteristics
- + Replacement of the decennial Census long form
- + Three sequential modes of data collection:
  - 1) Mail, 2) Phone, 3) Personal Interview
- + Sample size:
  - + 250,000 households per month
  - + 3 million households annually

# Language Question on the ACS

**14**

**a. Does this person speak a language other than English at home?**

☐

Yes

☐

No → *SKIP to question 15a*

**b. What is this language?**

*For example: Korean, Italian, Spanish, Vietnamese*

**c. How well does this person speak English?**

☐

Very well

☐

Well

☐

Not well

☐

Not at all

# Census Bureau

## Language-related Research

- ✦ Identification of languages to translate the Census questionnaire and Census Bureau surveys
- ✦ Identification of number of languages to provide language assistance
- ✦ Areas to target mailing and partnership programs
- ✦ Focus on translation



# Census Bureau Language Programs

## + 2010 Decennial Census

- + Census questionnaire in five languages

- + Spanish (English-Spanish bilingual form), Chinese, Korean, Russian, and Vietnamese

- + Language assistance guides in 59 languages

- + Advance letters and online materials in multiple languages

## + The American Community Survey (ACS)

- + ACS questionnaire in three languages

- + Spanish, Chinese, and Korean

- + ACS survey letters and brochures in 10 languages

- + Spanish, Chinese, Korean, Russian, Vietnamese, Arabic, French, Haitian Creole, Polish, and Portuguese

# New Directions in Language Research

## + Motivation

- + Language barrier does not reside in language itself
- + Need for a sociolinguistic paradigm

## + Interaction between language, culture, and society

## + Functional or pragmatic approach to translation

## + Strategies in reaching out to non-English speaking populations

# Three Specific Research Projects

- ✚ 2010 Census form in five languages
- ✚ Chinese communication style and implications for their survey behavior
- ✚ Observing census enumeration of non-English speaking households in the 2010 U.S. Census

# Challenges in Survey Translation

- ✚ “Asks the same questions and offers the same response options” (Harkness & Schoua-Glusberg, 1998, p. 92)
- ✚ Previous studies focus on word meaning and complex mappings between words in different languages

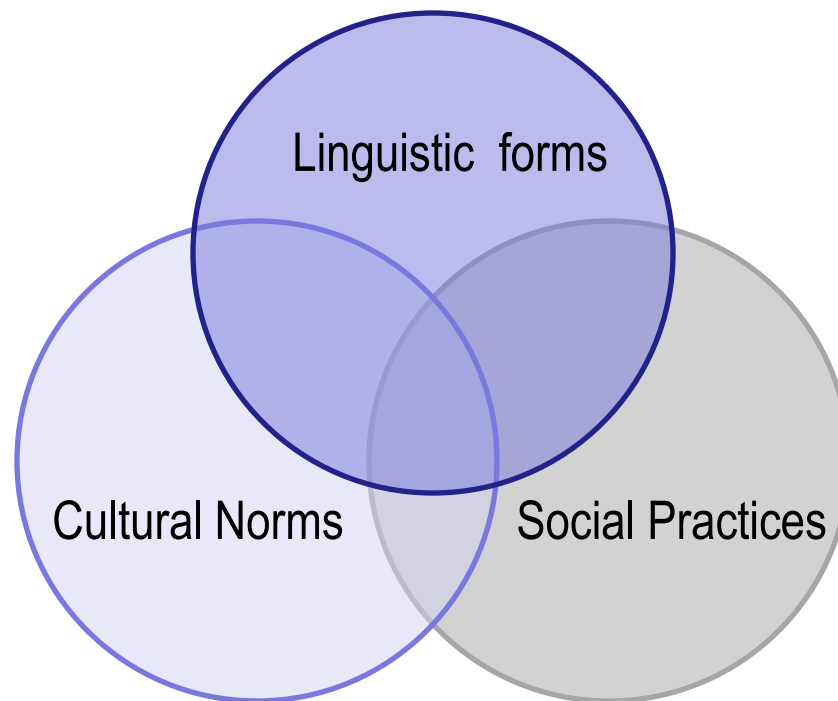
# Traditional Translation Process

- ✚ Translation → Review → Revision → Finalizing
- ✚ Conducted by bilinguals (translators and reviewers)
- ✚ Usually resolve translation issues at the *lexical and syntactic* levels
- ✚ Issues at the *pragmatic* level are more subtle and difficult to overcome
- ✚ These issues will affect data quality and will hinder survey participation

# Census Bureau Translation Guidelines

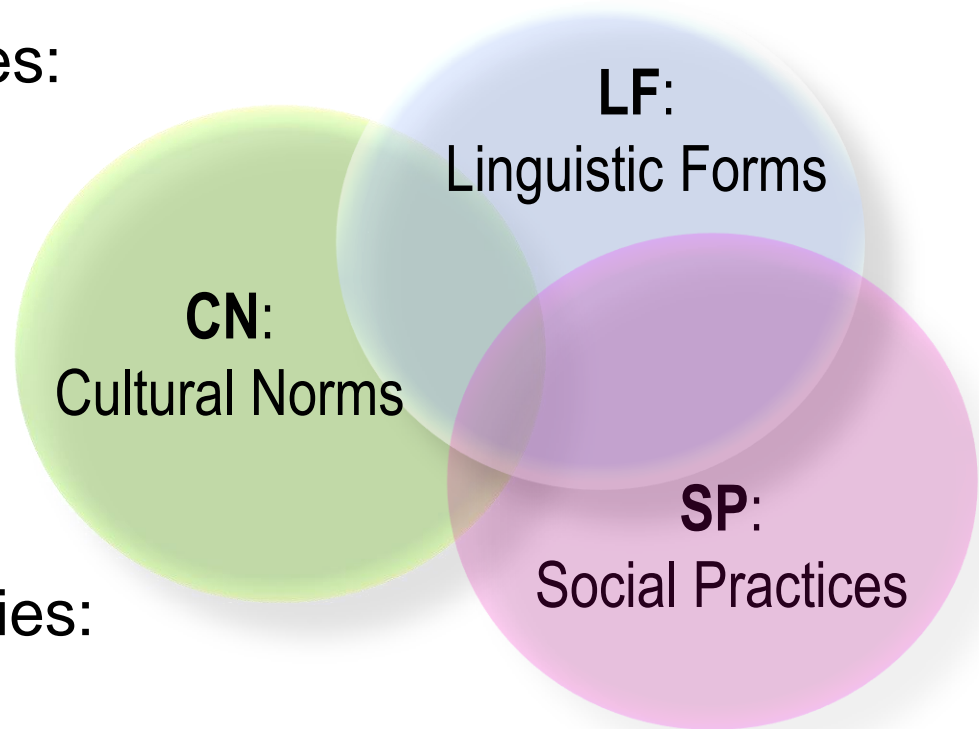
- + Census Bureau developed its translation guidelines (Pan and de la Puente 2005)
- + Committee approach to translation
  - + Translators, reviewers, subject matter experts, survey methodologists
- + Pretesting of translations with target populations
  - + Cognitive interviewing with monolingual speakers
  - + A team (3-4) of language and cultural experts in each target language
  - + Revision based on evidence from pretesting
- + Sociolinguistic perspective of survey translation

# The Sociolinguistics of Survey Translation



# Coding Scheme for Translation Problems (Pan and Fond, 2010)

- 3 categories of codes:



- 2 additional categories:
  - UE: User Error
  - TE: Translation Error



# Category 1: Linguistic Forms

**LF:**  
Linguistic Forms

- **Linguistic Forms:** classifies issues in the translation that are due to
  - Vocabulary
  - Grammar
  - Usage conventions, etc.

## Category 2: Cultural Norms



**CN:**  
Cultural Norms

- **Cultural Norms:** classifies issues in which concepts expressed one way in English are expressed differently in the target language
  - Address conventions
  - Numbering
  - Kinship terms
  - Conversational norms, etc.

## Category 3: Social Practices



**SP:**  
Social Practices

- **Social Practices:** classifies concepts that can be described in English but cannot be translated into the target language because
  - The concept does not exist in that culture
  - Respondents have no experience with the concept

# Additional Categories



**UE:**  
User Error

**TE:**  
Translation Error

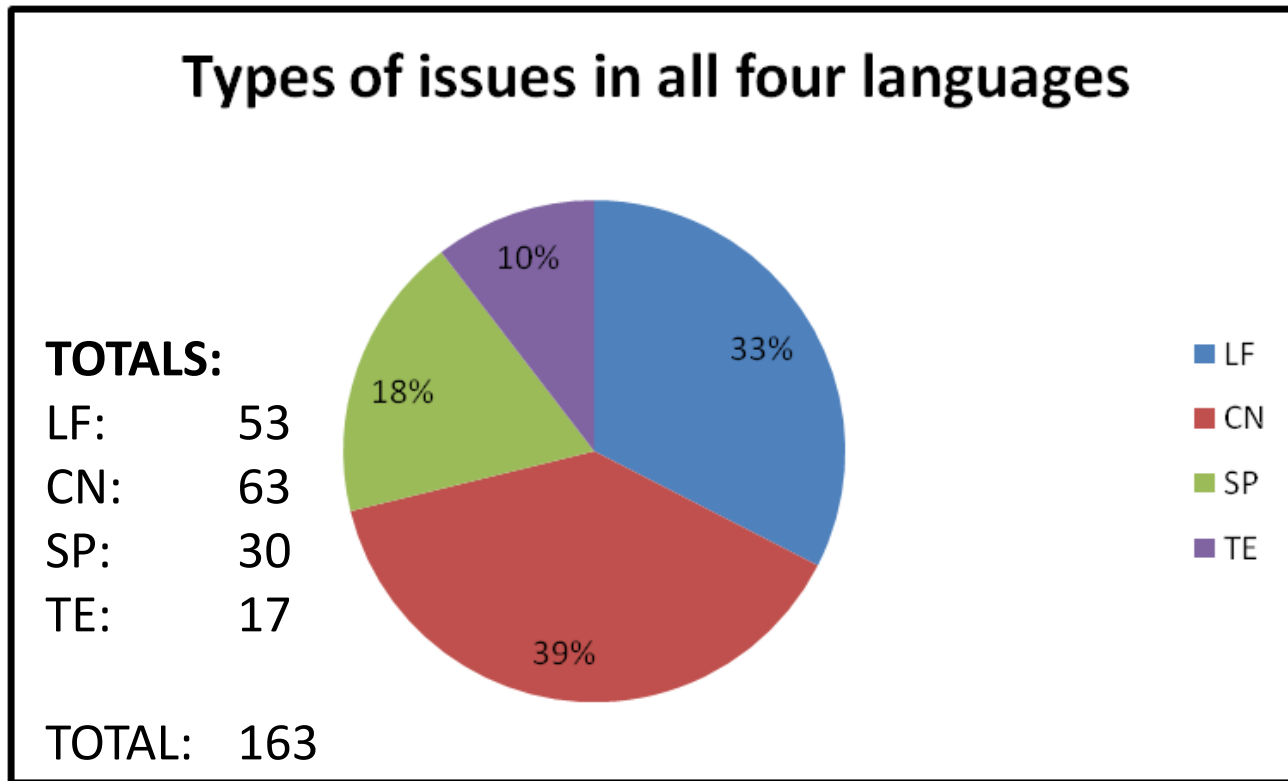
- **2 additional categories:**
  - **User Errors:** actions by respondents that are easily corrected
    - Mistakes
    - Distractions, etc.
  - **Translation Errors:** translation problems that are easily corrected
    - Omissions
    - Typos, etc.

# 2010 Census Questionnaire in Five Languages

- 2010 Census questionnaire
  - 10 demographic questions and instructions
  - Self-administered questionnaire
- Languages
  - Chinese, Korean, Russian, Vietnamese, and English
- 112 cognitive interviews with monolingual speakers of the 5 languages
- To evaluate the translations based on respondents' reaction and interpretation

[illegible]

# 2010 Census Questionnaire – Results



# Issues with Linguistic Forms

- + Word-for-word translation
- + Complex sentence structure
- + Difficult wording
- + Phonetic translation
- + Not natural in target languages

# Example of Cultural Norms: Korean Age Counting

7. What Is Person 1's age and what Is Person 1's date of birth?  
*Please report babies as age 0 when the child is less than 1 year old.  
Print numbers in boxes.*

Age on April 1, 2010	Month	Day	Year of birth
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- Issues:
  - More than two thirds of the Korean respondents had difficulty writing their age
  - Korean's age counting convention is different
- Revised version
  - Clarify that this question is asking for the American way of counting age



# Examples of Social Practices

10. Does Person 1 sometimes live or stay somewhere else?

☐ No ☐ Yes — Mark ☒ all that apply.

- |  |   |
|--|---|
| <input type="checkbox"/> In college housing                | <input type="checkbox"/> For child custody  |
| <input type="checkbox"/> In the military                   | <input type="checkbox"/> In jail or prison  |
| <input type="checkbox"/> At a seasonal or second residence | <input type="checkbox"/> In a nursing home  |
|  | <input type="checkbox"/> For another reason |

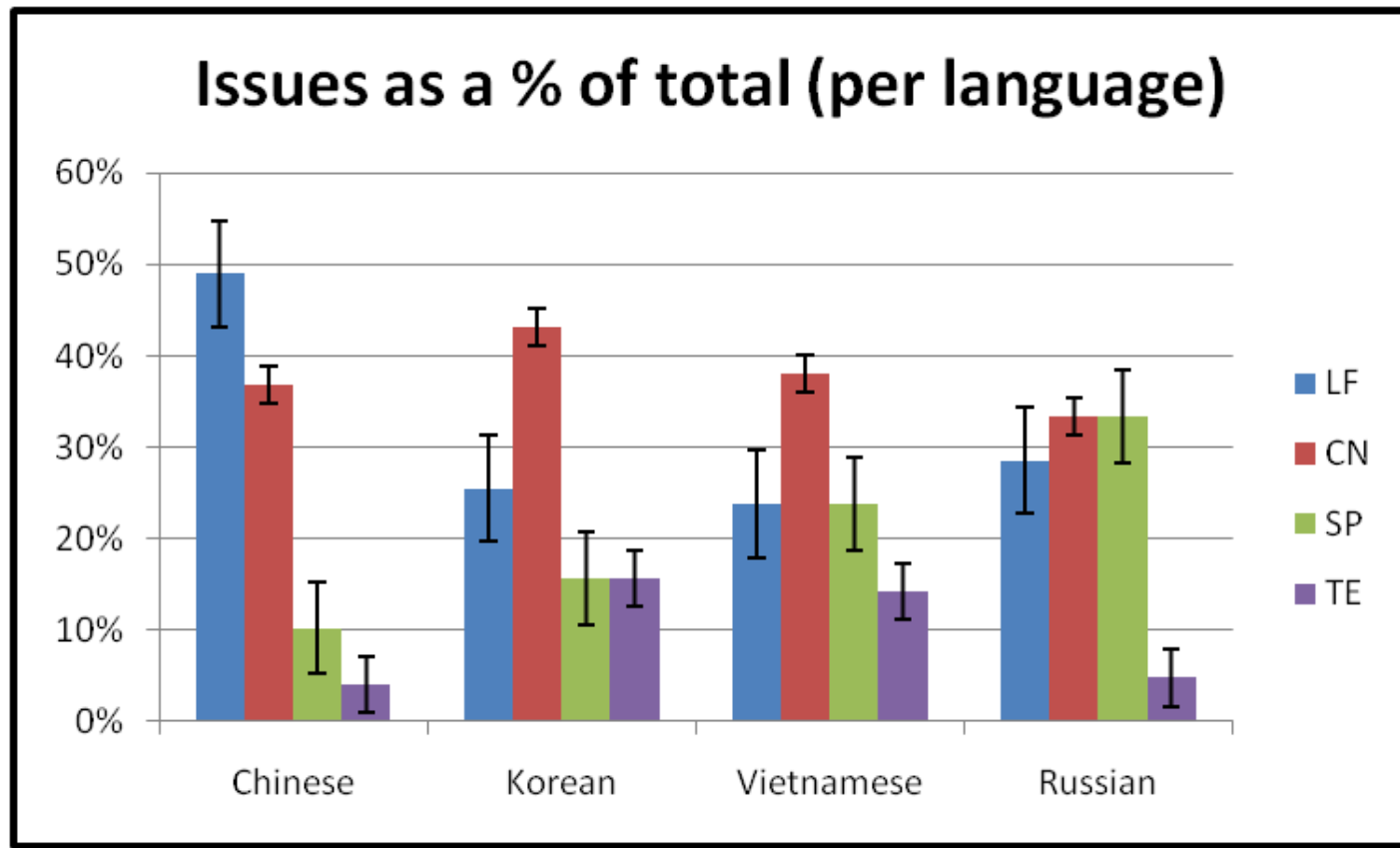
2. Were there any additional people staying here April 1, 2010 that you did not include in Question 1? Mark ☒ all that apply.

☐ Children, such as newborn babies or foster children

3. Is this house, apartment, or mobile home — Mark ☒ ONE box.

- “Nursing home”
  - Chinese: mental hospital, recreational resort
  - Korean: resting place
  - Russian: medical establishment
  - Vietnamese: luxurious resort
- “Foster children”
  - Children under the temporary care of relatives or friends
- “Mobile home”
  - No clue at all

# 2010 Census Form – Results



# Communication Styles of Chinese Speakers: Implications on their Survey Response Behavior

Anna Yukyee Chan, Ph.D. 陳玉儀

Yuling Pan, Ph.D. 潘予翎

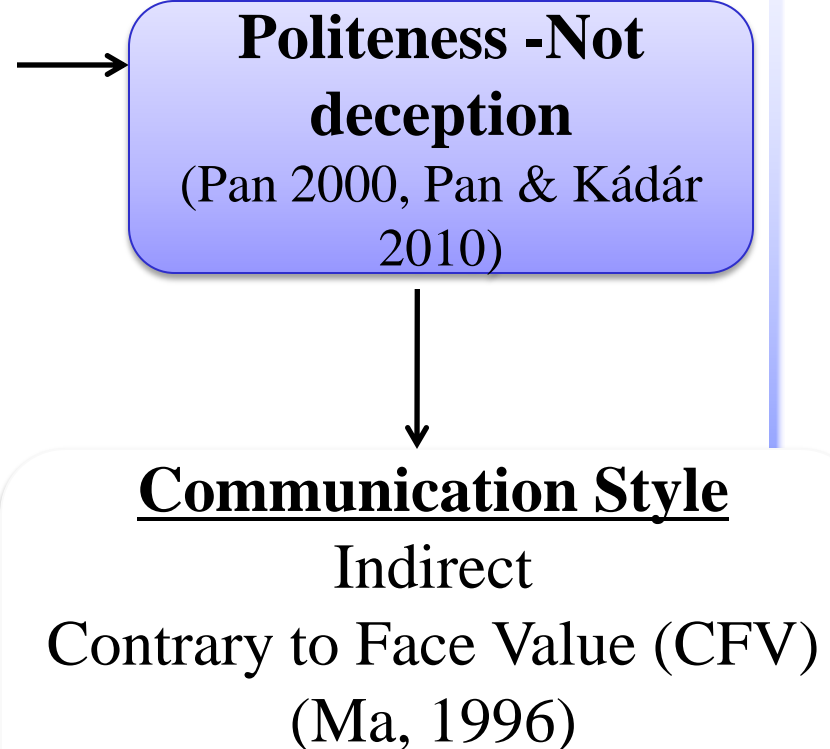
*U.S. Census Bureau*

Presentation for the  
Annual Joint Statistical Meetings  
July 31 to August 5<sup>th</sup>, 2010  
Vancouver, Canada

# Towards an Understanding on Response Behavior of Chinese Speakers

## Cultural Norms & Schemata

Harmony Oriented  
Face Concern  
Others Oriented  
Hierarchical



# Data

- + Cognitive interviews with monolingual Chinese and English
  - + Sites: Washington D.C. Metro, Chicago, IL & NC areas
- + Non-random Sample: selected 79 cases
  - + 46 Monolingual Chinese speakers
  - + 33 with native English speakers

# Personal Opinion Question

- Survey-like question asking about respondents' intention to participate in the American Community Survey.

- Question:

- “If you were selected, would you participate in the ACS?”

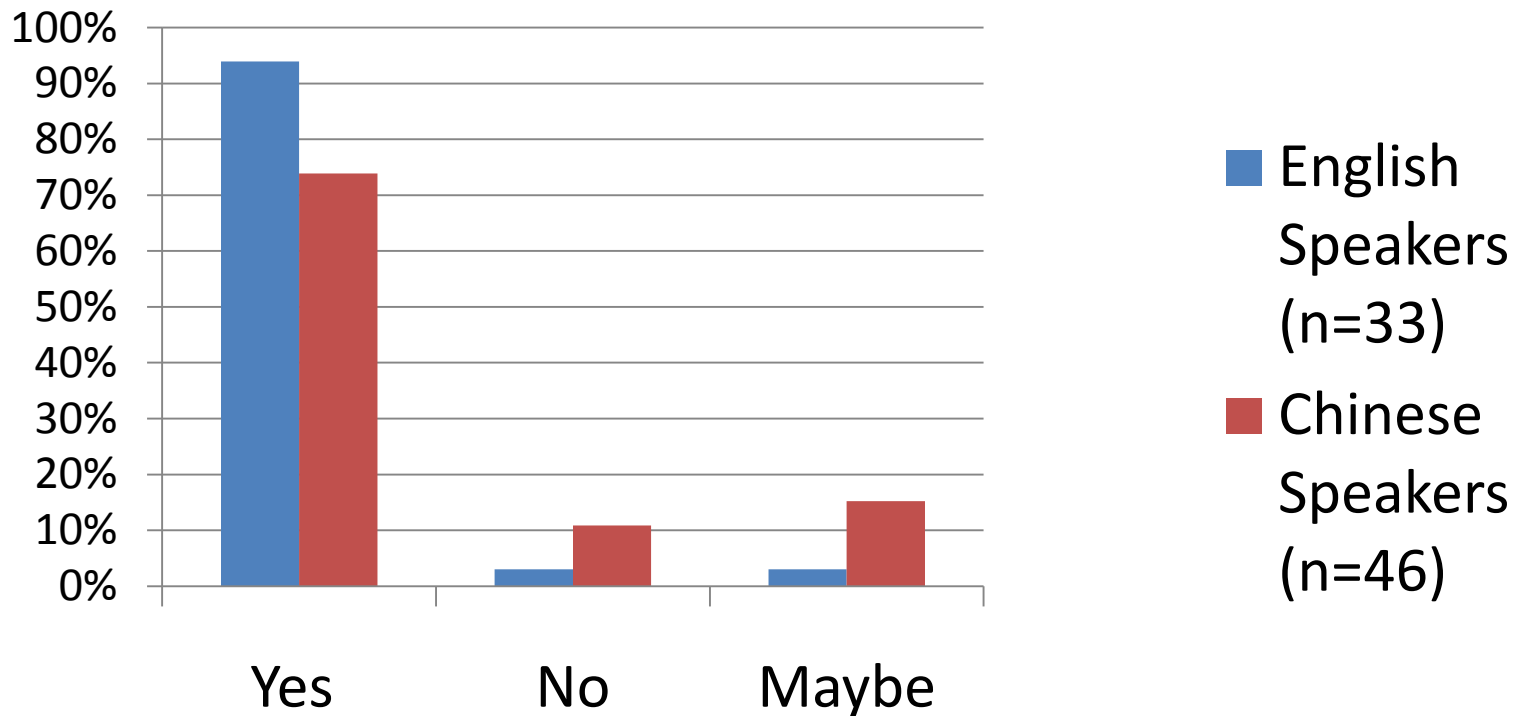
- Response:

- Yes

- No

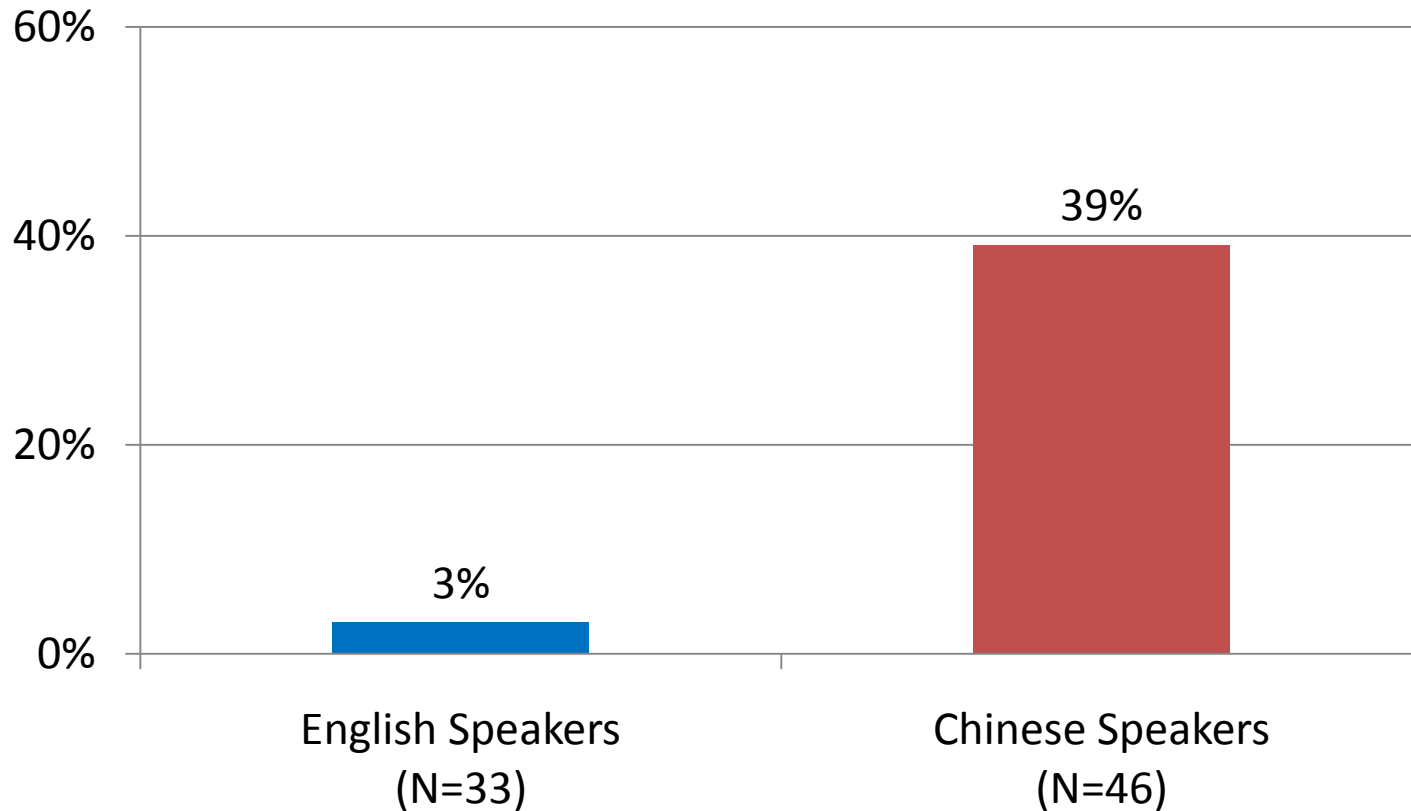
- Maybe

# Chart 1. Response Distribution: Will you participate in the ACS?



**Face value responses** Significant  $\chi^2=5.91$ ,  
 $p<.05$

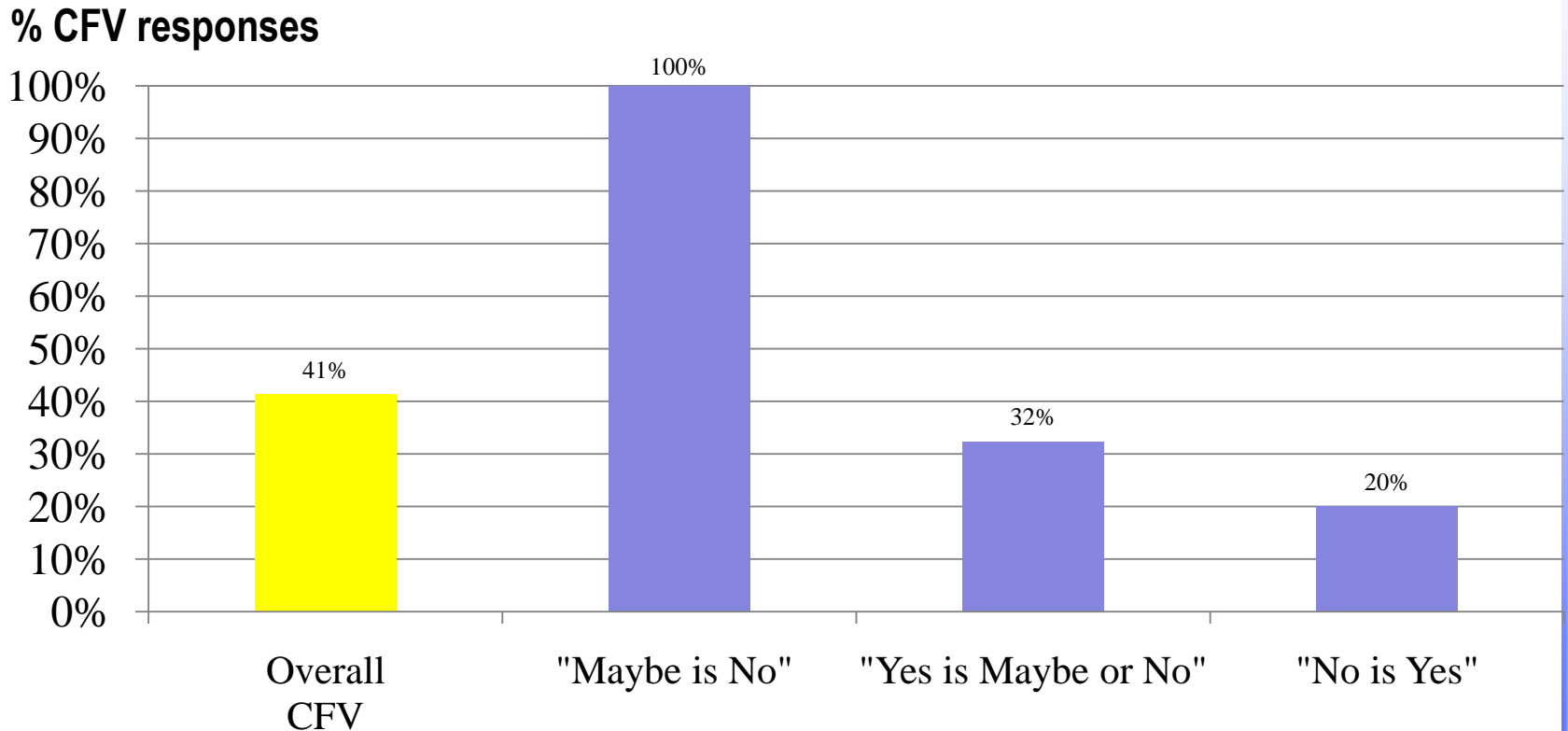
## Chart 2. Overall Indirect Responses



**Significant:  $\chi^2=16.6$ ,  $p<.001$**



# Chart 3. Contrary to Face Value Responses for Chinese



Face value and true intention

# Conclusions

- + Need to recognize the cultural differences in communication and response styles among different language speakers
- + Indirect responses to survey questions may pose a threat to the validity of the constructs being measured by the questions.
- + Need to train interviewers on how to elicit and obtain appropriate and relevant responses from these speakers.

# Observing Census Enumeration of Non-English-Speaking Households



# Study Design

- # Ethnographic study of observing Census interviews in the field
- # Multilingual research teams in multiple sites
  - # Spanish, Chinese, Korean, Russian, and Vietnamese, Arabic, Portuguese
  - # English as a comparison group
- # Research sites:
  - # California, Illinois, Ohio, Michigan, Massachusetts, New York City, Greater Washington DC area

# Research Goals

- ✦ To conduct systematic observation of Census interviews
- ✦ To investigate the challenges in field interviews with speakers of languages other than English
- ✦ To examine the interaction of language and sociocultural factors in this communicative event

# Methodology

- ✦ A team of three bilingual ethnographers in each target language
- ✦ Each ethnographer observed census interviews in target locations for two weeks
- ✦ Each team observed 70 – 170 interviews
- ✦ Debriefing with respondents and enumerators
- ✦ Taking notes and taping interviews
- ✦ Analyze field notes and transcripts of census interviews and debriefings

# Preliminary Results (1)

- + Unfamiliarity with the purpose of U.S. Census
- + No equivalent practice of Census taking in home country
- + Fear/distrust of government
- + Language barriers
  - + No translation of census questions
  - + Language variety and dialects
  - + Literacy issue

# Preliminary Results (2)

- ✚ Social and cultural barriers

- ✚ Gender

- ✚ Ethnicity

- ✚ Identity

- ✚ Immigration status

- ✚ More challenging!



# Summary

- ✚ Census Bureau language research:
  - ✚ Departing from a heavy focus on translation
  - ✚ Adopting a sociolinguistic perspective
  - ✚ Investigating the interaction of language, culture, and society and its impact on data collection and data quality
  - ✚ Utilizing research methods from multiple disciplines

# Future Research

- ✦ Effective messages to diverse populations
- ✦ Discourse approach to translation of survey letters
- ✦ Appropriate questionnaires for the multi-cultural/multi-language environment
- ✦ Guidelines for the use of interpreters in field interviews
- ✦ Language proficiency assessment tool

# References

- ✚ Chan, Anna & Pan, Yuling. (2010). Communication Styles of Chinese Speakers: Implications on their Survey Response Behavior . Paper presented at the Annual Joint Statistical Meetings July 31 to August 5<sup>th</sup>, 2010, Vancouver, Canada.
- ✚ Harkness, Janet. A., & Schoua-Glusberg, Alisu. (1998). Questionnaires in translation. *Cross-Cultural Survey Equivalence.ZUMA-Nachrichten Spezial*, 3, 87-128.
- ✚ Ma, Ringo. (1996). Saying “yes” for “no” and “no” for “yes”: A Chinese rule. *Journal of Pragmatics*, 25, 257-266.
- ✚ Pan, Yuling. (2000). *Politeness in Chinese face-to-face Interaction*. Stamford, CT: Ablex.
- ✚ Pan, Yuling & Kádár, Daniel. Z. (2010). *Politeness in Historical and Contemporary China*. London/New York: Continuum.
- ✚ Pan, Yuling & de la Puente, Manuel. (2005). Census Bureau Guideline for the Translation of Data Collection Instruments and Supporting Materials: Documentation on How the Guideline Was Developed. In *Statistical Research Division's Research Report Series (Survey Methodology #2005-06)*. Washington, DC: U.S. Census Bureau.  
[<http://www.census.gov/srd/www/byname.html#panyuling>]
- ✚ Pan, Yuling & Fond, Marissa. (2010). Developing Multilingual Questionnaires: A Sociolinguistic Perspective. Paper presented at the Annual Joint Statistical Meetings July 31 to August 5<sup>th</sup>, 2010, Vancouver, Canada. Will appear in *Joint Statistical Meeting Proceedings*, Alexandria, VA: American Statistical Association.
- ✚ Shin, Hyon B. and Robert A. Kominski. (2010). *Language Use in the United States: 2007 American Community Survey Reports, ACS-12*. U.S. Census Bureau, Washington, D.C.  
[[<http://www.census.gov/prod/2010pubs/acs-12.pdf>]]

# Contact Information

*Thank you!*

Email: [yuling.pan@census.gov](mailto:yuling.pan@census.gov)