

# Using Self-Reported County, Self-Reported Zip Code, and Assigned County to Get a Valid County Code for Respondents – Texas, 2006

Michelle L. Cook, MPH

Rebecca A. Wood, MSHP



# Outline

- Background
- Methods
- Results
- Recommendations

# Background

# Data Quality Warning Flags

# Data Quality Warning Flags

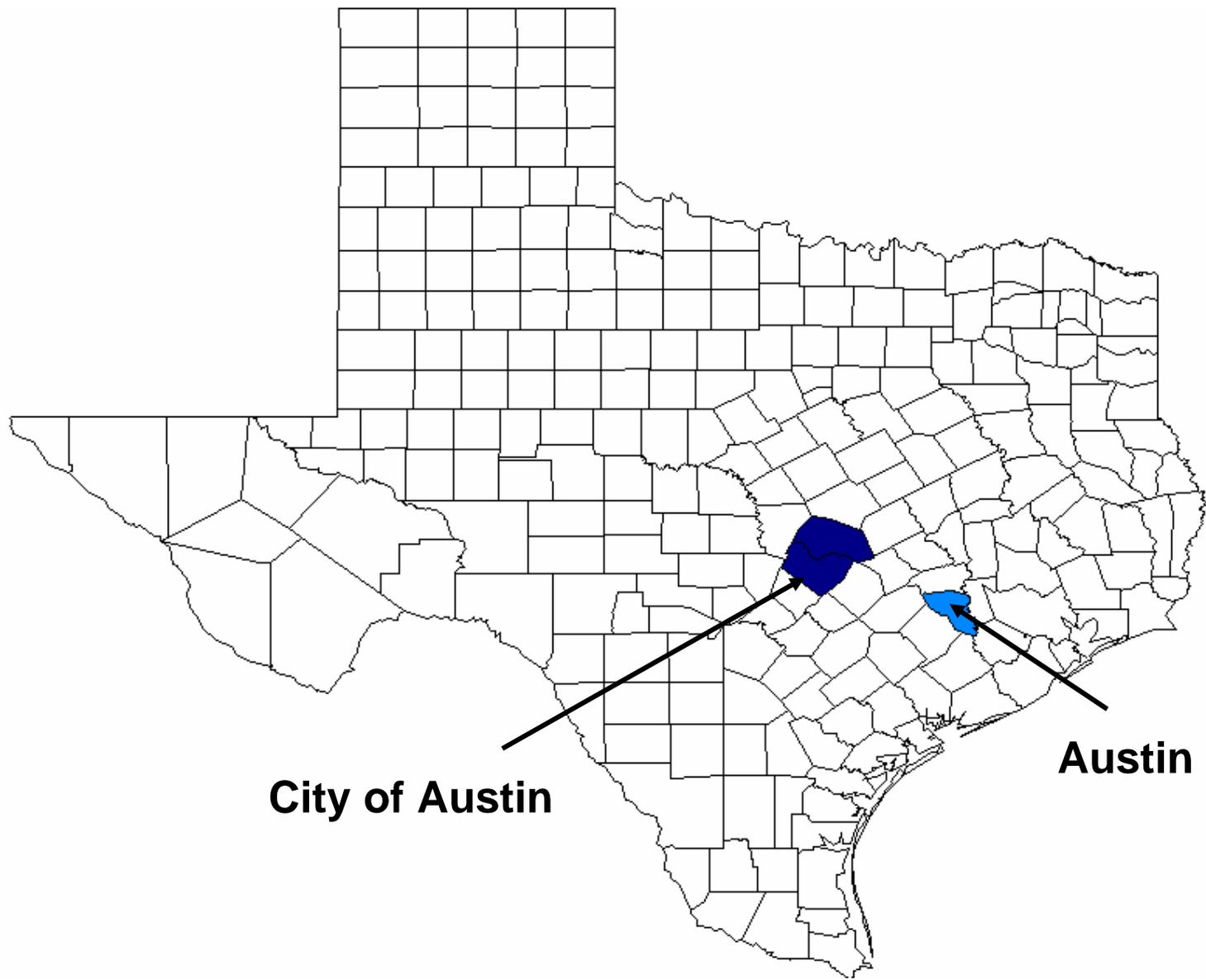
- An estimated 54 adults live in Loving County; nine were interviewed in 2006.

# Data Quality Warning Flags

- An estimated 54 adults live in Loving County; nine were interviewed in 2006.
- Anderson County is the first of 254 counties in our drop-down list. Twenty-three adults were interviewed in 2004, 57 in 2005 (new contractor), and 95 in 2006.

# The Problem

- At least 54 counties are also the name of a Texas city which is geographically different than where the county is.
  - City of Austin
  - City of Houston

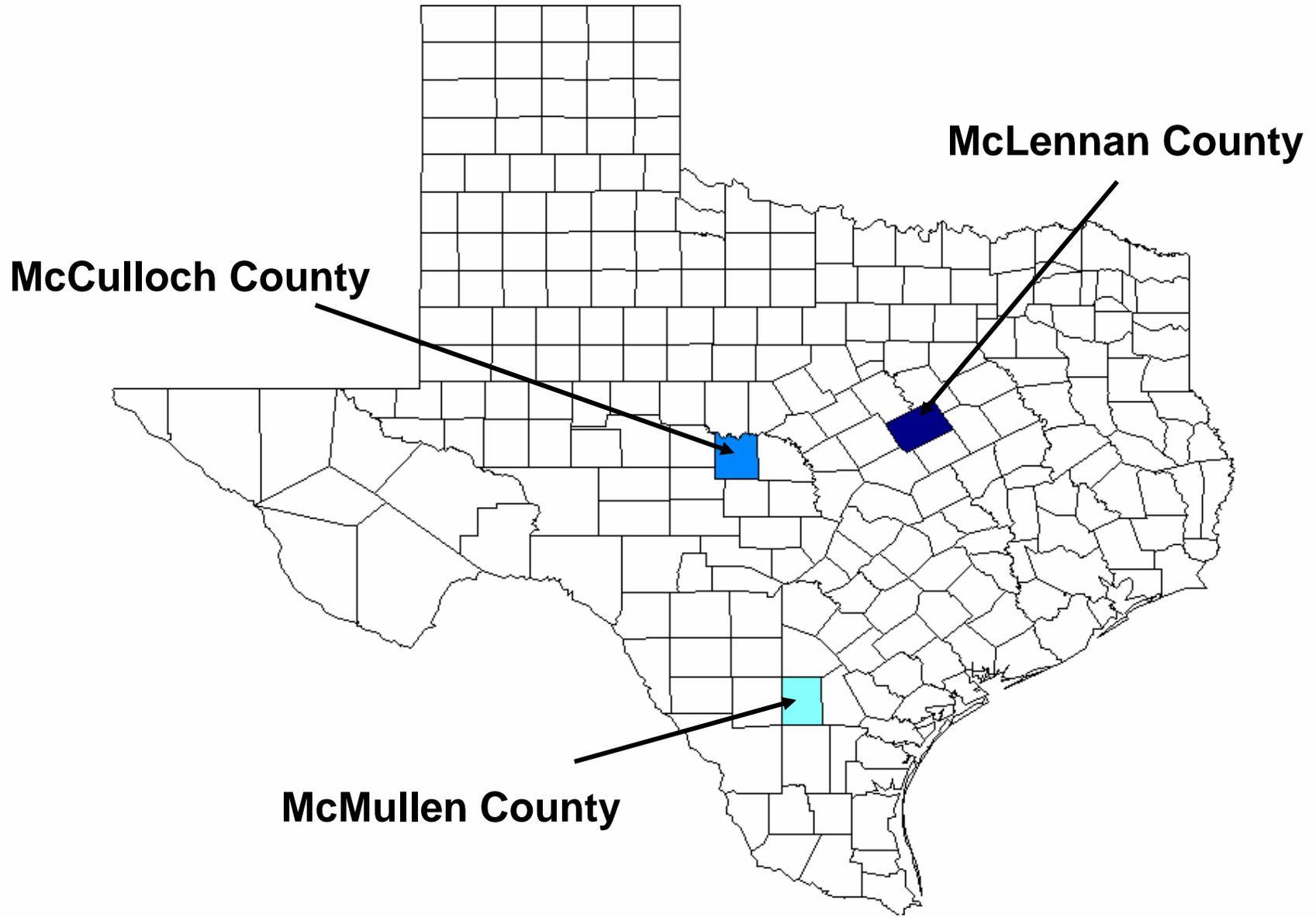


**City of Austin**

**Austin County**

# The Problem

- At least 54 counties are also the name of a Texas city which is geographically different than where the county is.
  - City of Austin
  - City of Houston
- Like-sounding county names



# The Problem

- At least 54 counties are also the name of a Texas city which is geographically different than where the county is.
  - City of Austin
  - City of Houston
- Like-sounding county names
- Texas accents

# The Problem

- At least 54 counties are also the name of a Texas city which is geographically different than where the county is.
  - City of Austin
  - City of Houston
- Like-sounding county names
- Texas accents
- Data entry

# Methods

# Variables Used

- Assigned County
  - Assigned based on the incidence of the area code/prefix of the respondent's phone number.
- Self-Reported County
- Self-Reported Zip Code
  - Linked to a quarterly-updated GIS data file which contained all zip codes and associated counties.
  - Some zip codes had up to 4 different county codes.

# Logic...

- At least two of the three county-related variables had to match to be considered a “correct” county code.
- Adjacent counties to assigned county were considered if self-reported county/zip code did not match the assigned county (since more than one county is usually associated with an area code/prefix).

# Results

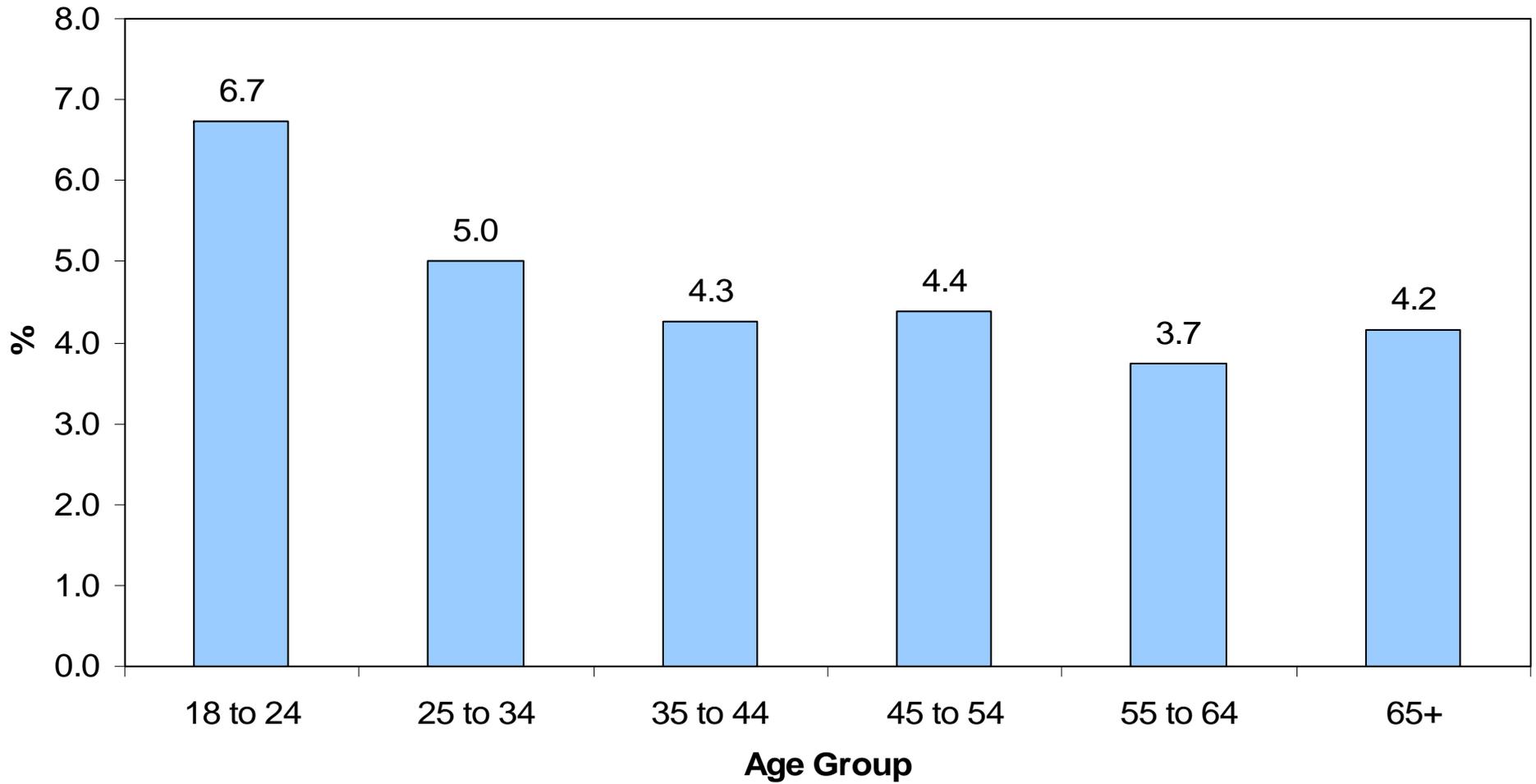
# Results Overview

- 4.3% of respondents had their county codes recoded.
- Missing county data dropped from 4.0% to 2.6%.
- 2.6% county codes were added based on zip code.

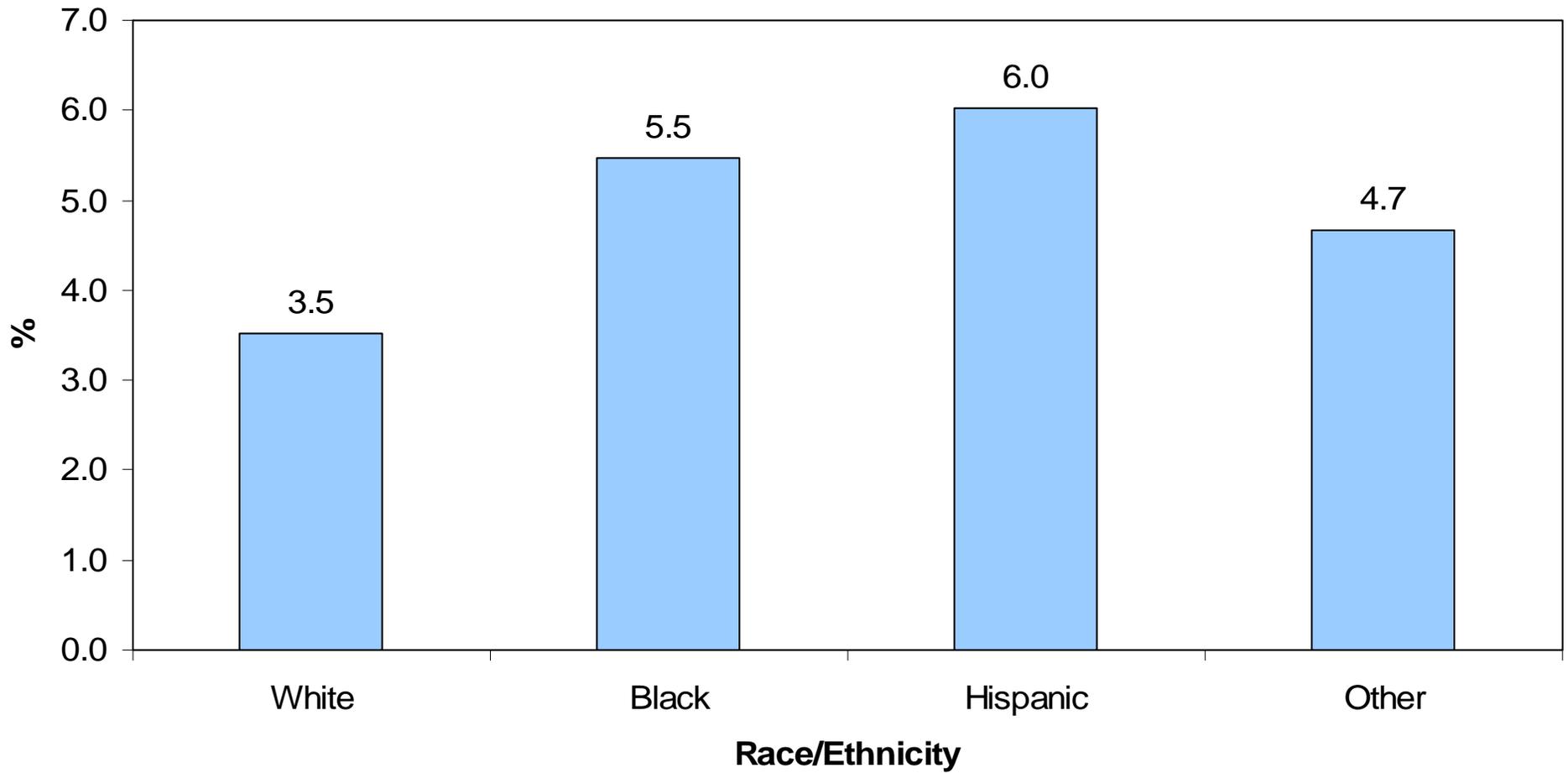
# County Recodes

A demographic look at who had to be recoded...

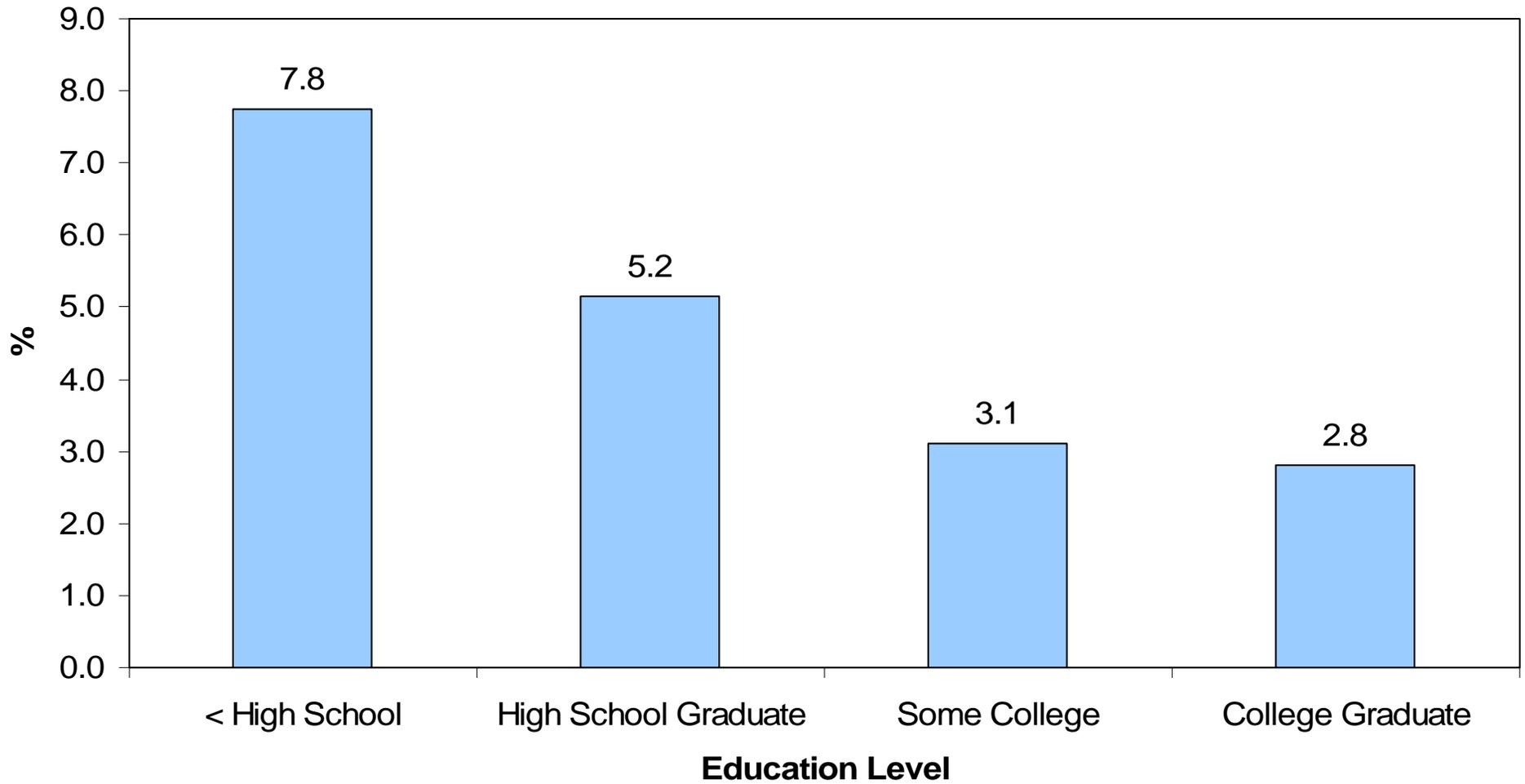
### Percentage of Respondents Whose County Was Recoded by Age 2006 Texas BRFSS



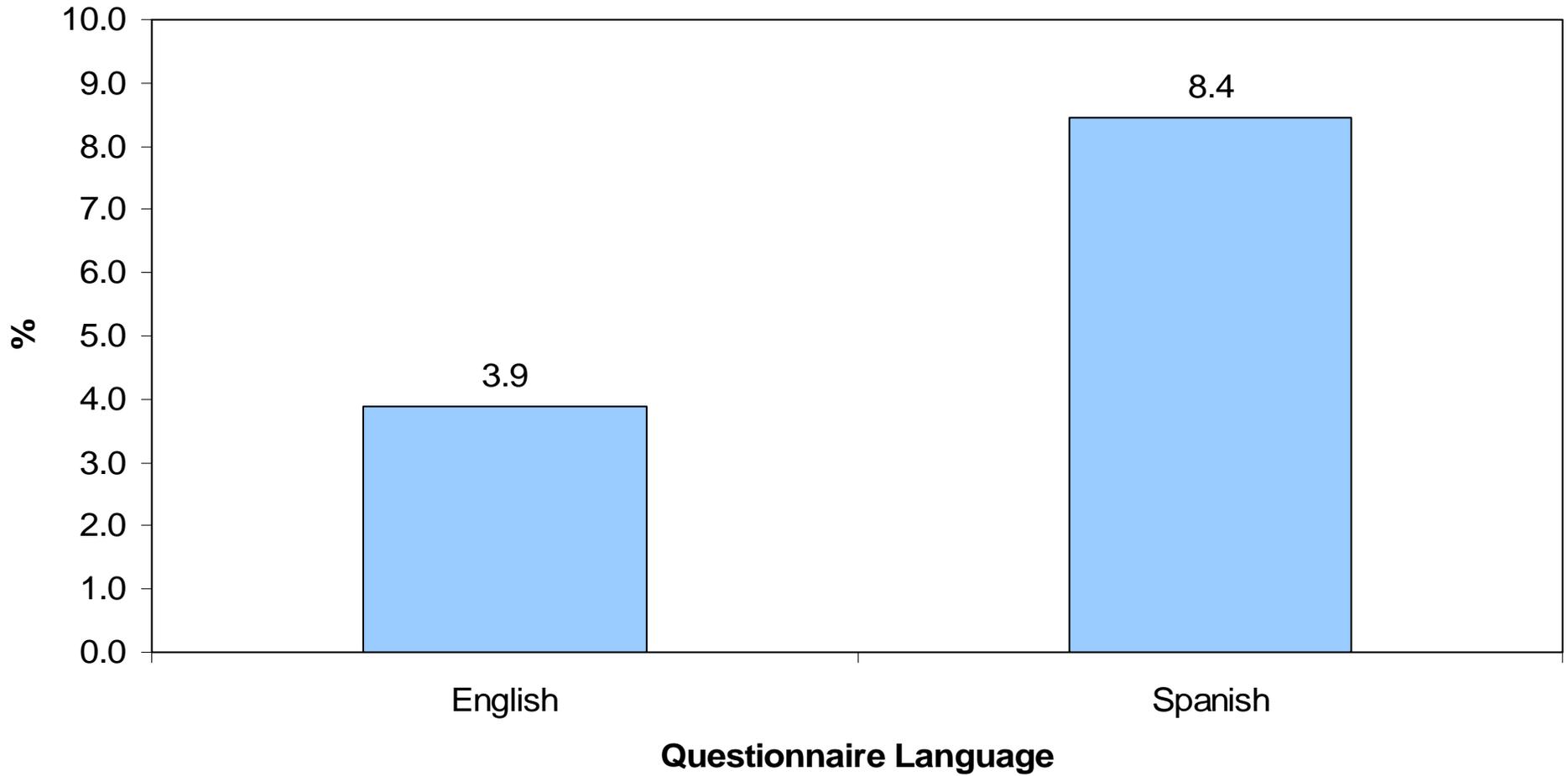
**Percentage of Respondents Whose County Was Recoded by  
Race/Ethnicity  
2006 Texas BRFSS**



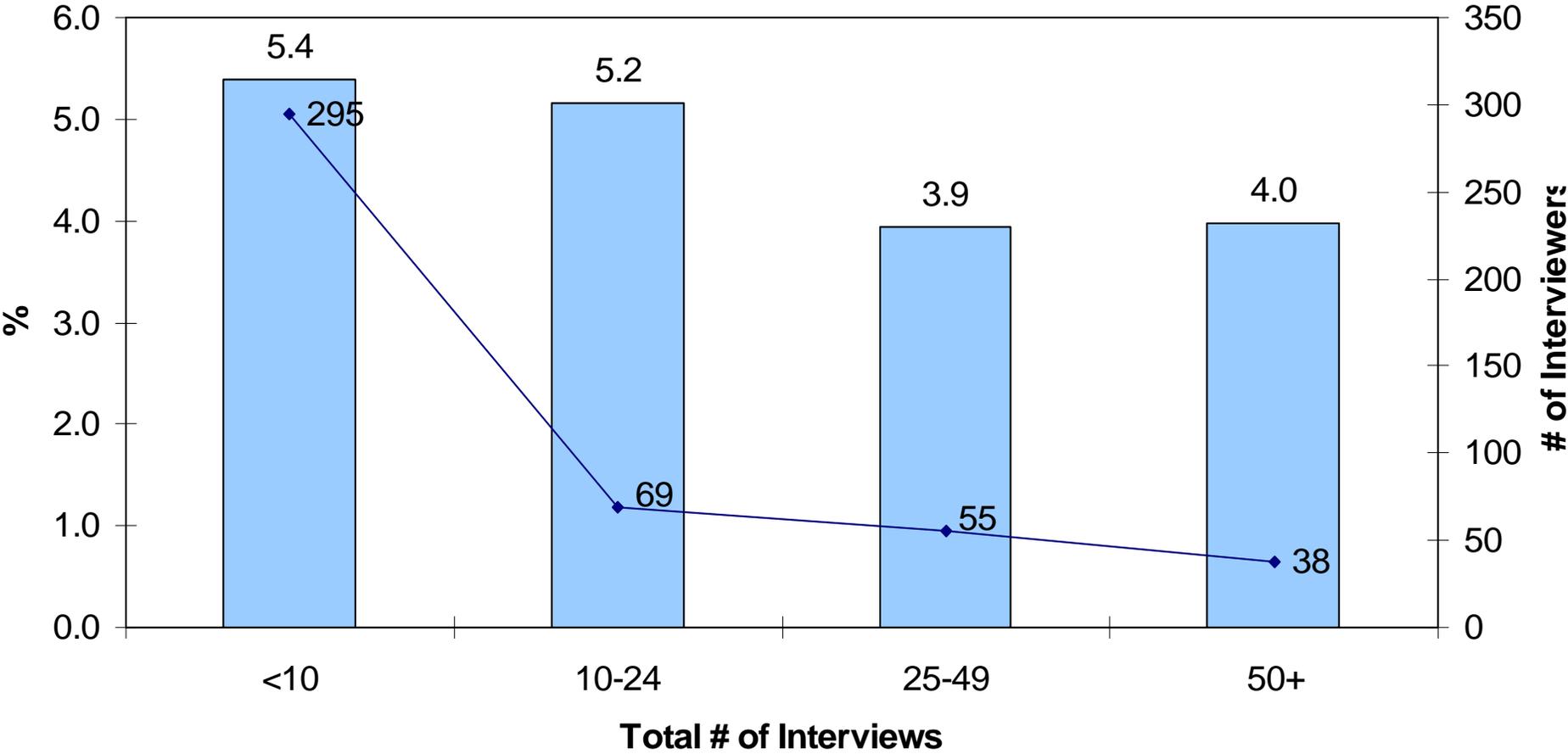
### Percentage of Respondents Whose County Was Recoded by Education 2006 Texas BRFSS



**Percentage of Respondents Whose County Was Recoded by  
Questionnaire Language  
2006 Texas BRFSS**



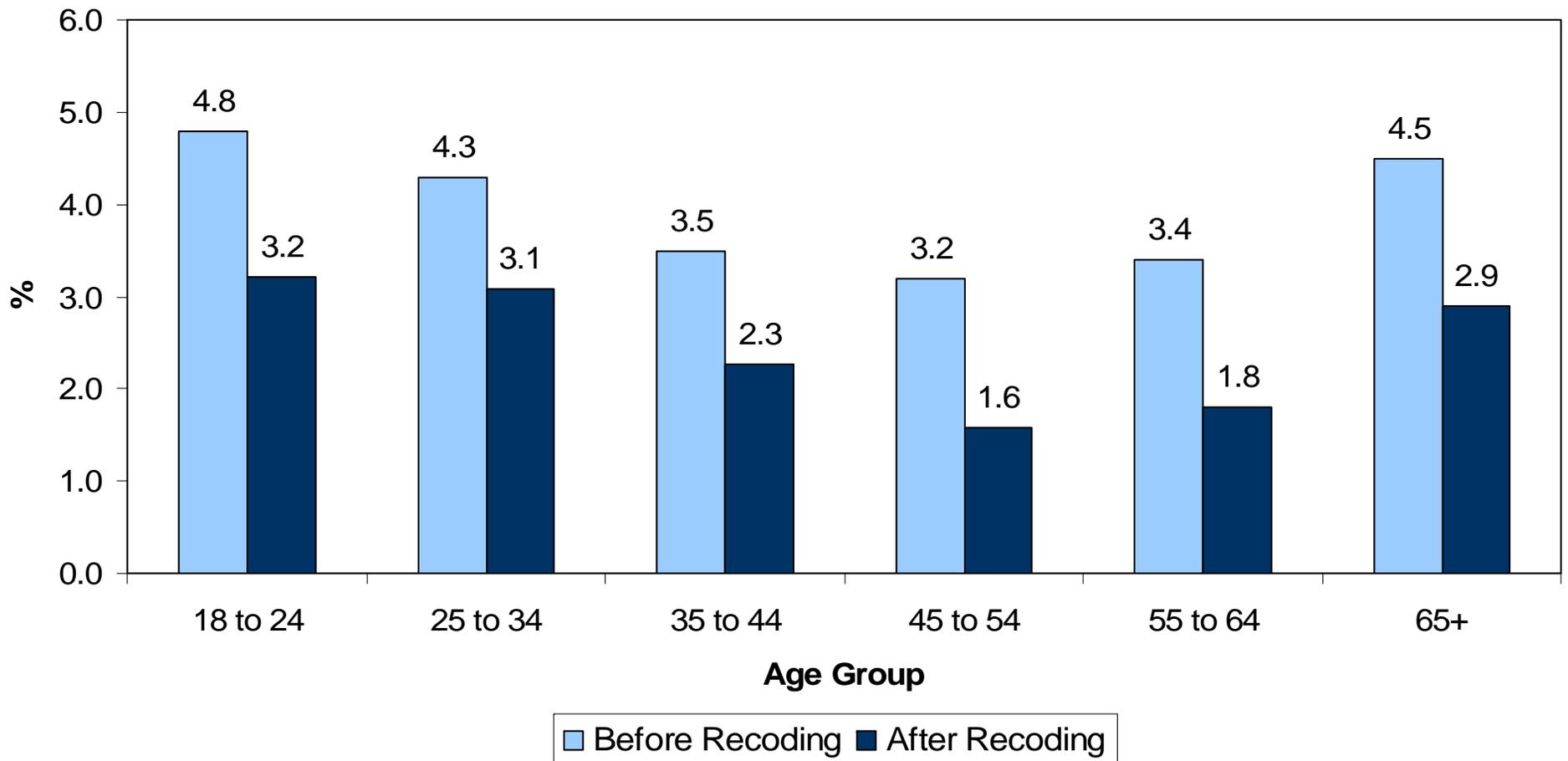
**Percent County Recodes Based on # of Completed Interviews by Interviewers**  
**2006 Texas BRFSS**



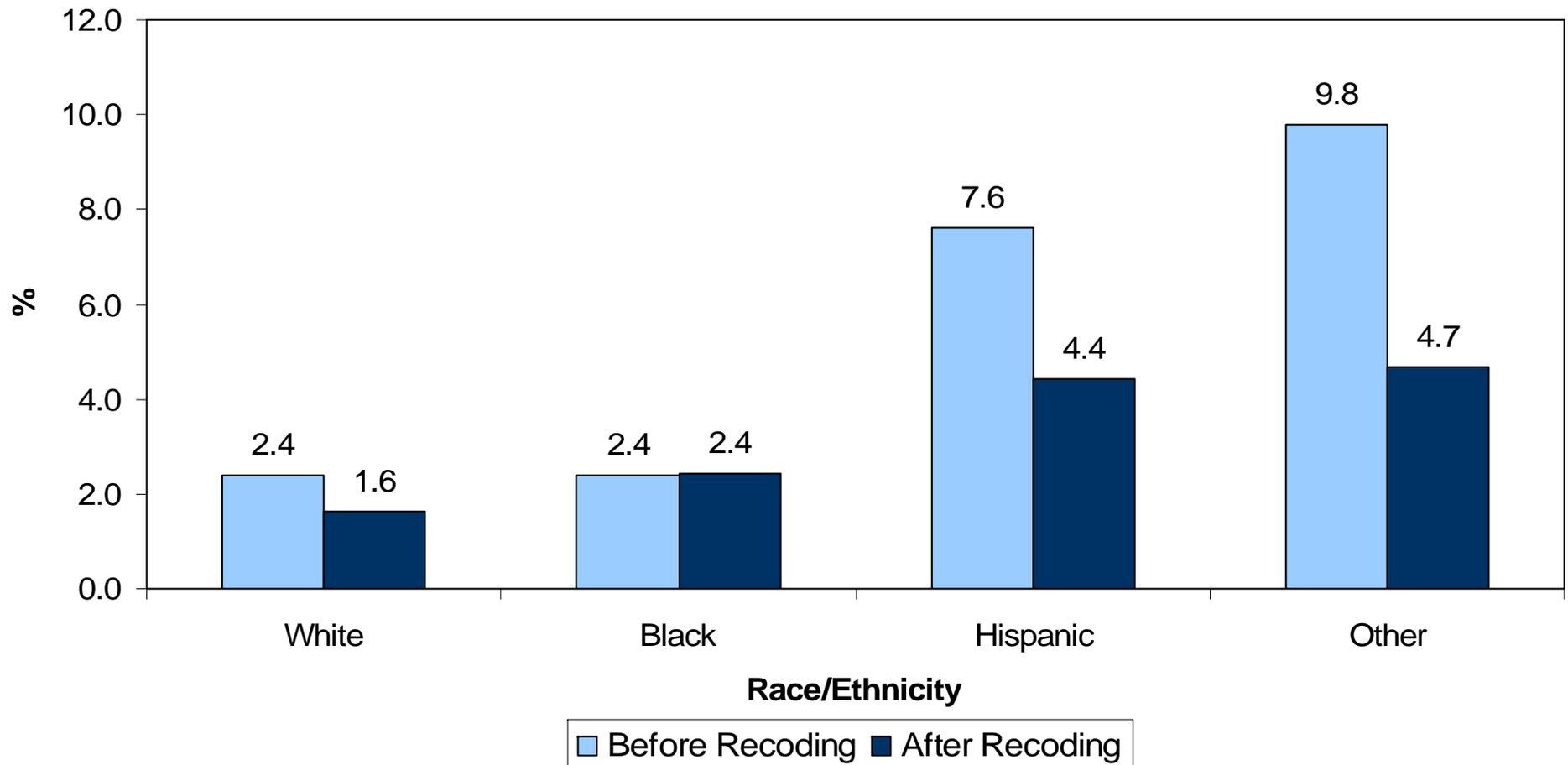
# Missing County Data

Before and after data  
manipulation...

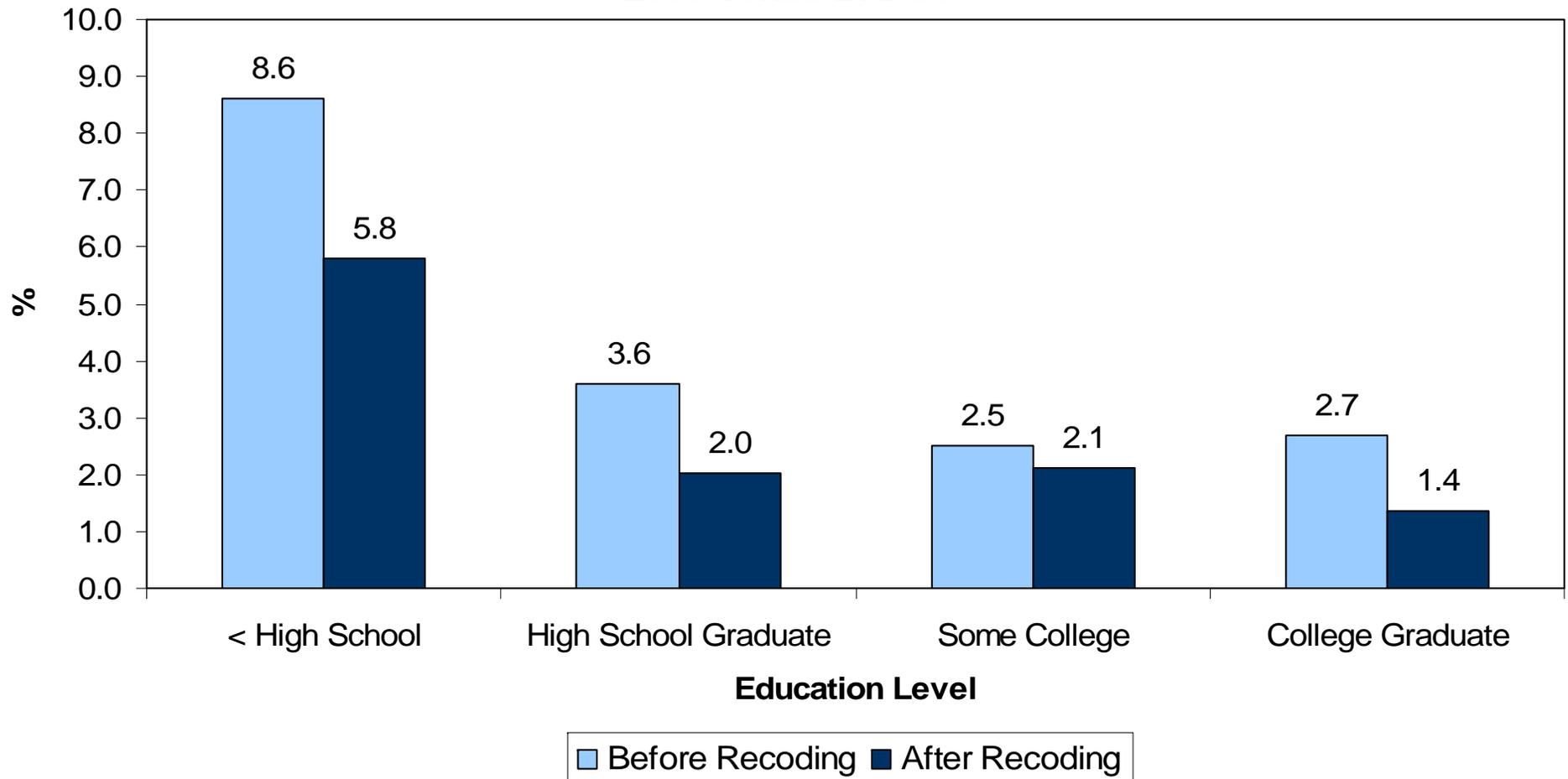
**Percentage of Respondents Missing County Before and After Recoding  
by Age  
2006 Texas BRFSS**



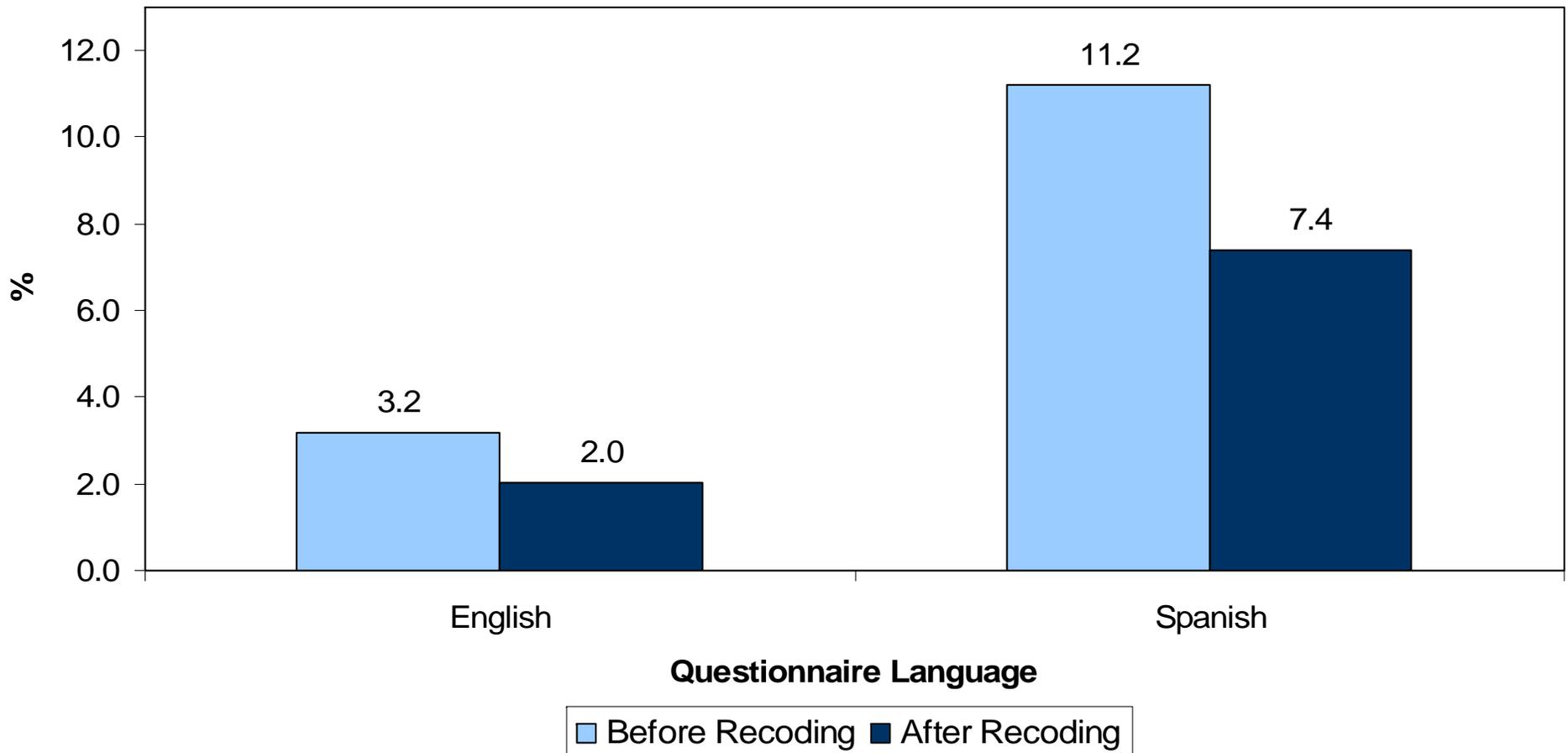
**Percentage of Respondents Missing County Before and After Recoding  
by Race/Ethnicity  
2006 Texas BRFSS**



### Percentage of Respondents Missing County Before and After Recoding by Education 2006 Texas BRFSS



**Percentage of Respondents Missing County Before and After Recoding  
by Questionnaire Language  
2006 Texas BRFSS**



# Recommendations

- Fewer interviewers with a higher volume of interviews = lower number of recodes for county variable.
- Computerized data checks during the interview
  - Additional check on county
  - Interviewers need to input county code rather than scroll and select
  - Zip code range
- Interviewer training
  - Pronunciation guide
  - Guide for cities/counties with same name but in different areas of the state

# Thanks

- Machell Town - CDC
- Macro International, Inc

Questions???