



Identifying Causes for Verification Refusals on a Large Nation-Wide Field Study

Presented by

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Presentation Overview

- NSDUH Background
- NSDUH Verification
- Research Question
- Variables
 - Interviewer Performance
 - Community Characteristics/Segment Demographics
- Methods
- Results
- Conclusions

Study Background

- The National Survey on Drug Use and Health (NSDUH) is an annual field survey sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA).
- First conducted in 1971, the NSDUH provides national, state and substate data on substance use and mental health in the civilian, noninstitutionalized population age 12 and older.
- Approximately 140,000 household screenings and 67,500 NSDUH interviews are completed annually.
- Approximately 700 field interviewers (FIs) are employed on the project.

NSDUH Verification Process

- Verification of the quality of data collected is an essential part of any scientific survey.
- NSDUH respondents are asked to provide a telephone number for verification purposes
 - Screening
 - Interview
- A percentage of each FI's work is selected for telephone verification.

Verification Refusals and No Phones

- Respondents may:
 - Refuse to provide verification information
 - Report they have no phone
- Possible explanations for verification refusals and no phones:
 - Interviewer performance
 - Community characteristics/Segment Demographics
 - Privacy concerns among respondents

Research Question

- Can verification refusals and no phones be attributed to interviewer performance and community characteristics?

Data

- NSDUH data from Quarter 1 2009 – Quarter 4 2009
 - 7,183 segments
 - 185,904 cases
 - 68,768 interviews
 - 117,136 screenings
- A total of 5,764 verification refusals were recorded for a national refusal rate of 3.10%.
- A total of 3,648 respondents reported not having a phone number for a national no phone rate of 1.96%.
- We compared segment demographics and quarterly interviewer performance with these refusal/no phone rates.

Community Characteristics

- The NSDUH sample is determined using US Census and population data to select specific geographic areas, called segments.
- We analyzed the following information for each segment:
 - The size of the segment (in square miles)
 - The percent of dwelling units that are Group Quarters Units (any single structure in which 10 or more unrelated persons reside)
 - The percent of the segment that is Hispanic
 - The percent of the segment that is African-American
 - The Census region

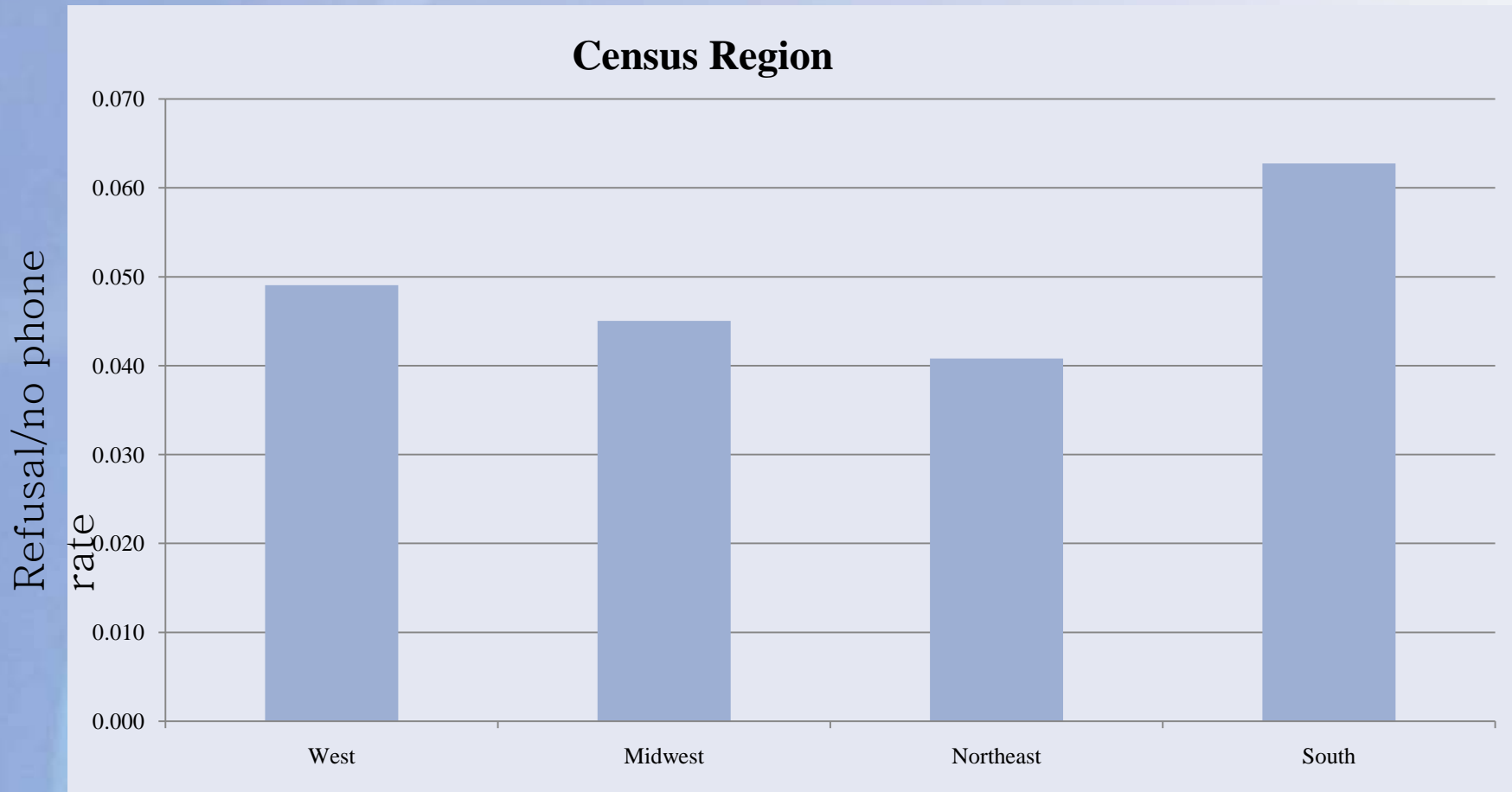
Field Interviewer Performance

- FI performance was measured quarterly according to 7 variables:
 - Screening Response Rate
 - Interviewing Response Rate
 - Data Quality Errors (Screening)
 - Data Quality Errors (Interviewing)
 - Costs
 - Hours/interview
 - Miles/interview
 - Miscellaneous Expenses per interview
- FIs were assigned a score for each variable based on percentile ranking (25%, 50%, 75%, above 75%)
- The seven percentile ranking scores were averaged to create an overall FI performance score, ranging from 1 – 4.

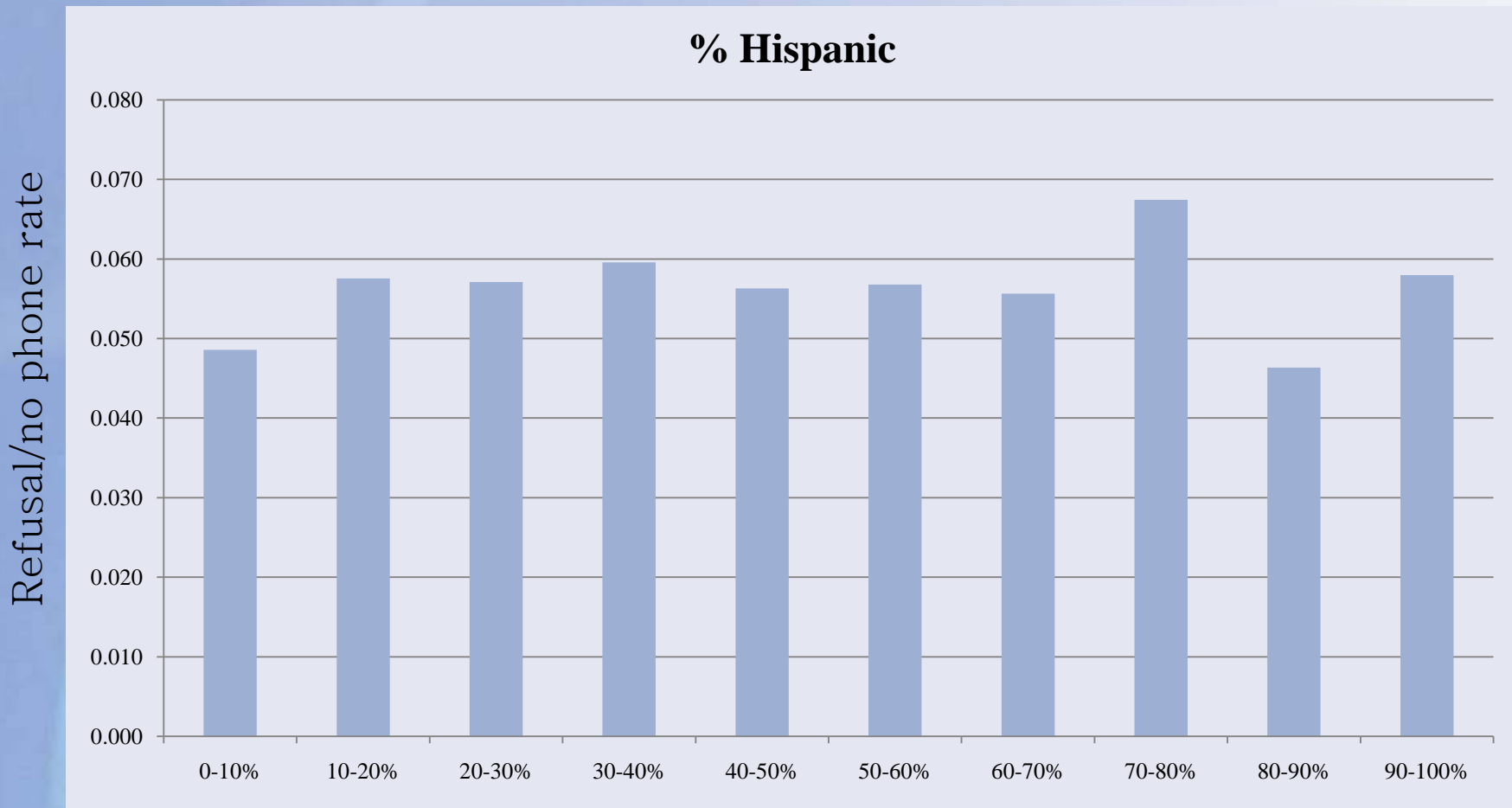
Methods

- First we used bivariate results to look at how each individual variable impacted verification refusal/no phone rates.
- Then we used logistic regression to determine the relationship of interviewer performance and segment characteristics to verification refusal/no phone rates.

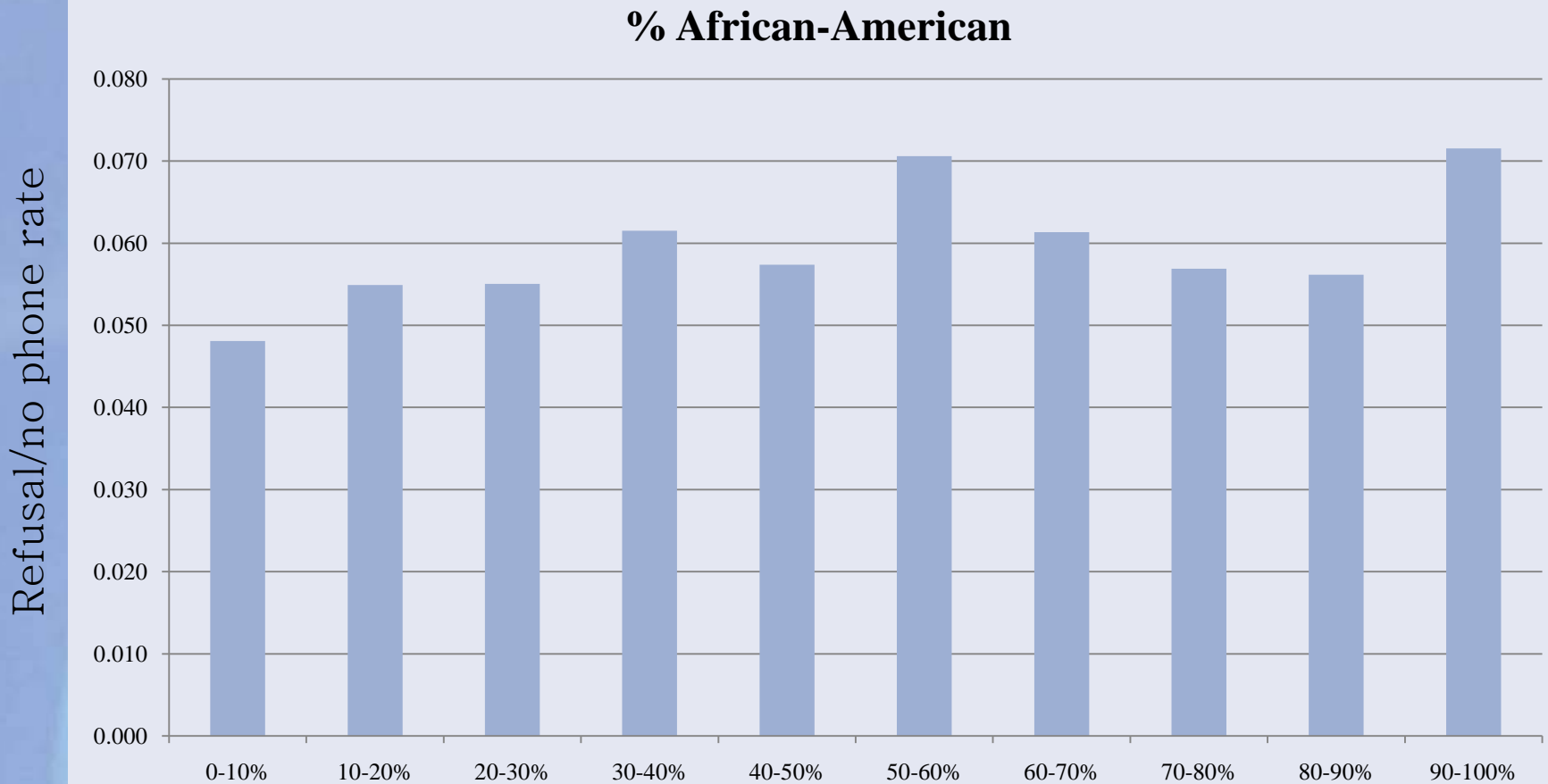
Results, Census Region



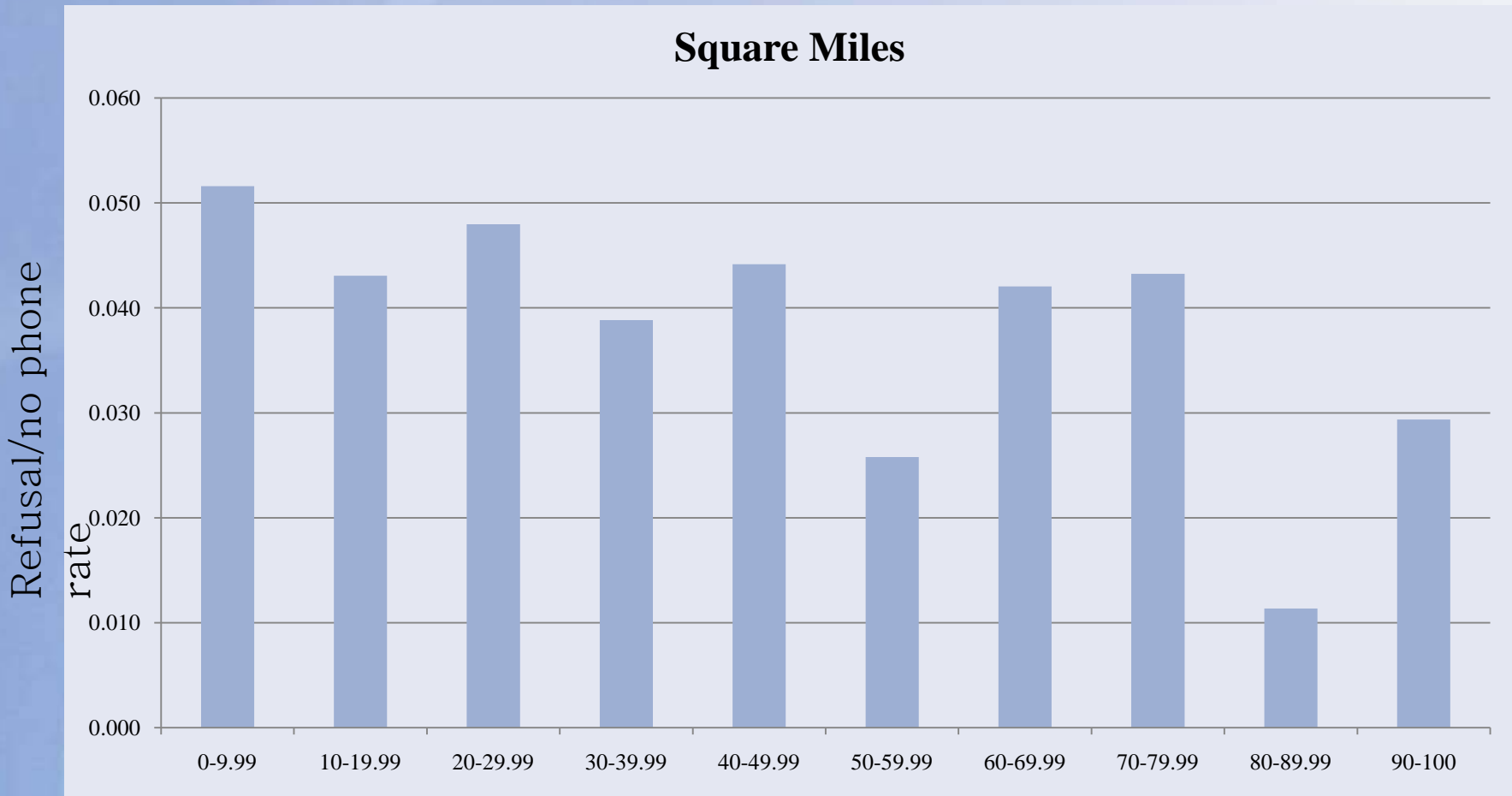
Results, Hispanic



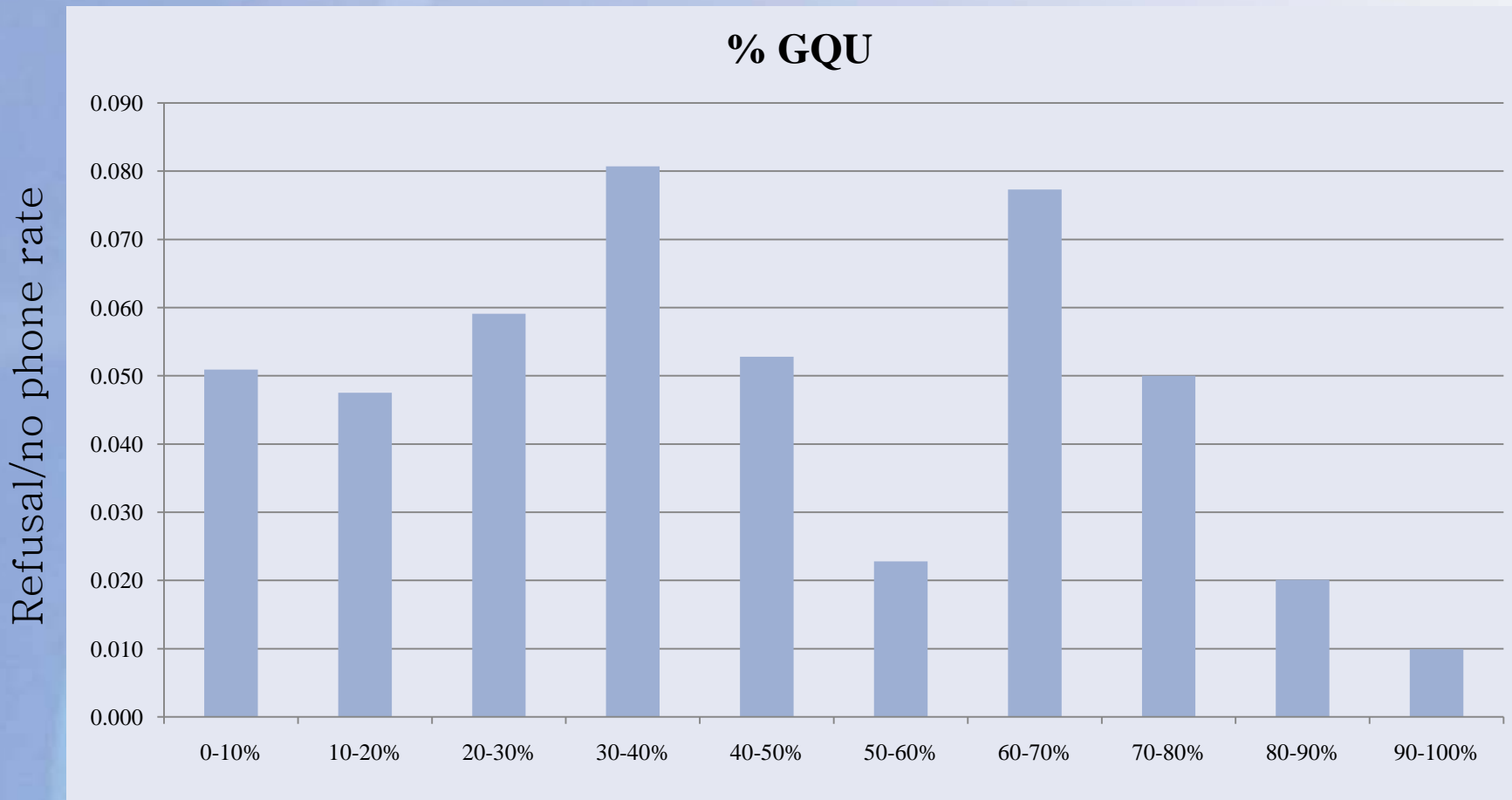
Results, African American



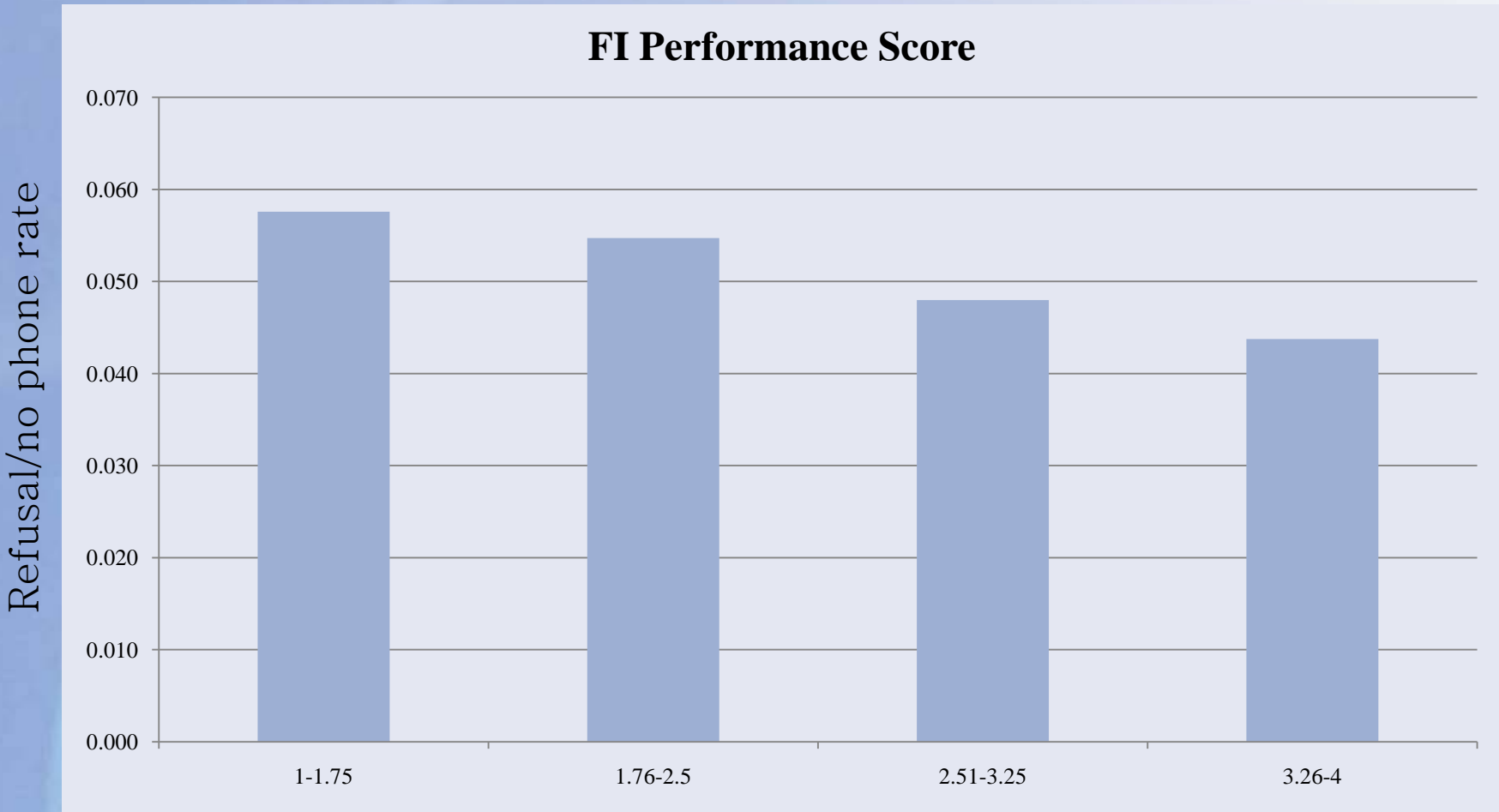
Results, Square Miles



Results, Group Quarters Unit



Results, FI Performance



Regression Results

Effect of Community Characteristics and FI Performance on Verification Refusal Rates

	Unstandardized Regression Coefficient	Standardized Regression Coefficient	Z Value	Significance (<i>P</i> Value)
(Intercept)	-2.4787502	0.0552895	-44.832	< 2e-16***
Midwest Census Region	-0.0733931	0.0333023	-2.204	0.027535*
South Census Region	0.2329668	0.0309292	7.532	4.99e-14***
Northeast Census Region	-0.2200344	0.0360394	-6.105	1.03e-09***
% Hispanic	0.0022057	0.0005669	3.891	9.98e-05***
% African American	0.0027869	0.0004522	6.163	7.12e-10***
% Group Quarter Units	-0.0076092	0.0013183	-5.772	7.84e-09***
FI Performance Score	-0.2009211	0.0189507	-10.602	< 2e-16***
Size of Segment (in square miles)	-0.0010535	0.0002876	-3.663	0.000250***

* = Significance at 0.05

** = Significance at 0.01

*** = Significance at 0.001

Conclusions

- Respondents in the South are more likely to refuse to give a phone number for verification or report not having a phone number than respondents in the West.
- Respondents in the Midwest and Northeast are less likely to refuse to give a phone number for verification or not have a phone number for verification than respondents in the West.
- Segments with a higher percentage of African-American or Hispanic residents are more likely to have higher verification refusal/no phone rates.
- Segments that have a higher percentage of Group Quarters Units are more likely to have lower verification refusal/no phone rates.
- Field interviewers with a higher performance score are more likely to successfully collect verification information.

Implications

- Each of these conclusions should be considered when evaluating no phones and refusals on data quality reports.
- Methods to counter problems collecting verification information in segments in the South and in segments with a higher percentage of African Americans and Hispanics should be developed.
- Attention should be given to FIs with higher performance scores, to understand their success in collecting verification information.

Limitations and Future Research

- Limitations
 - Not all possible variables included, such as individual characteristics of respondents.
 - We do not explore differences between screening refusals/no phones and interview refusals/no phones.
 - We do not explore differences between no phones and refusals.
- Future research should:
 - Account for respondent characteristics
 - Examine differences between no phones and refusals and screening vs. interview data
 - Further examine differences in Census regions
 - Further examine differences in race/ethnicity.

Questions/Contact

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