



Sub-National Coverage Profile of U.S. Housing Units Using an Address-Based Sampling Frame

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Introduction

- What do I mean by coverage?

How well an ABS frame covers the household population in the lower 48+DC. (Sorry Alaska and Hawaii)

- For now let's assume a multi-mode design where every address type can be sampled.
 - Un-locatable addresses are reached by mail.
 - Locatable Drop Units can be reached in-person.

We will worry about in-person only survey later...

How we estimate coverage

- CDS File, April 2010 - Licensed from Valassis
 - Residential address counts at the tract level
 - Includes locatable addresses and unlocatable address
- Census 2010 housing unit counts
- Ratio of address counts to census counts.
 - Numerator: All unique addresses
 - Denominator: HU or HH?

$$\text{Coverage} = \frac{\text{Address Count (ABS)}}{\text{Housing Count (Census)}}$$

How we estimate coverage

- Assumptions:
 - Mailing address = Housing Unit
 - Mostly true
 - OWTGM PO Boxes are what they say they are
 - More research is needed here
 - Data sources are accurate
 - Enumeration
 - Valid Addresses
 - Temporal Differences
 - Small Geocoding Error at the Tract Level

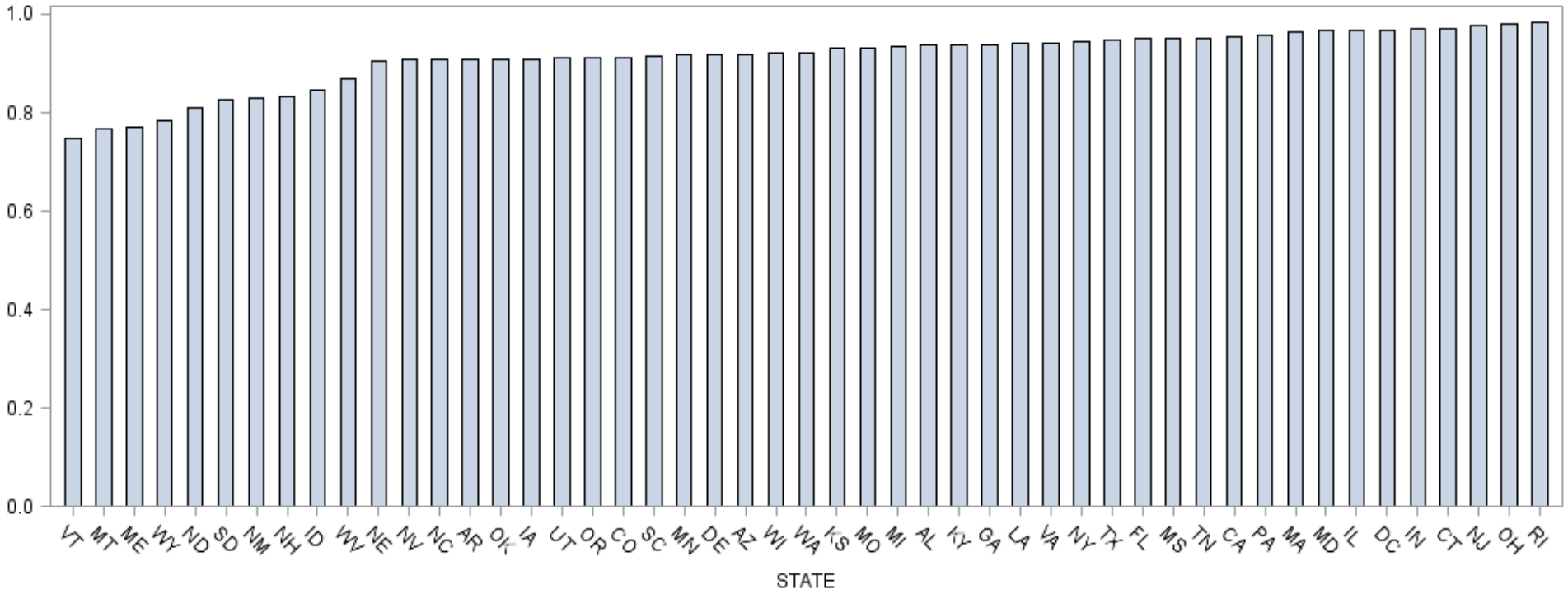
National Coverage

$$\text{Coverage} = \frac{\text{Address Count (ABS)}}{\text{Housing Count (Census)}}$$

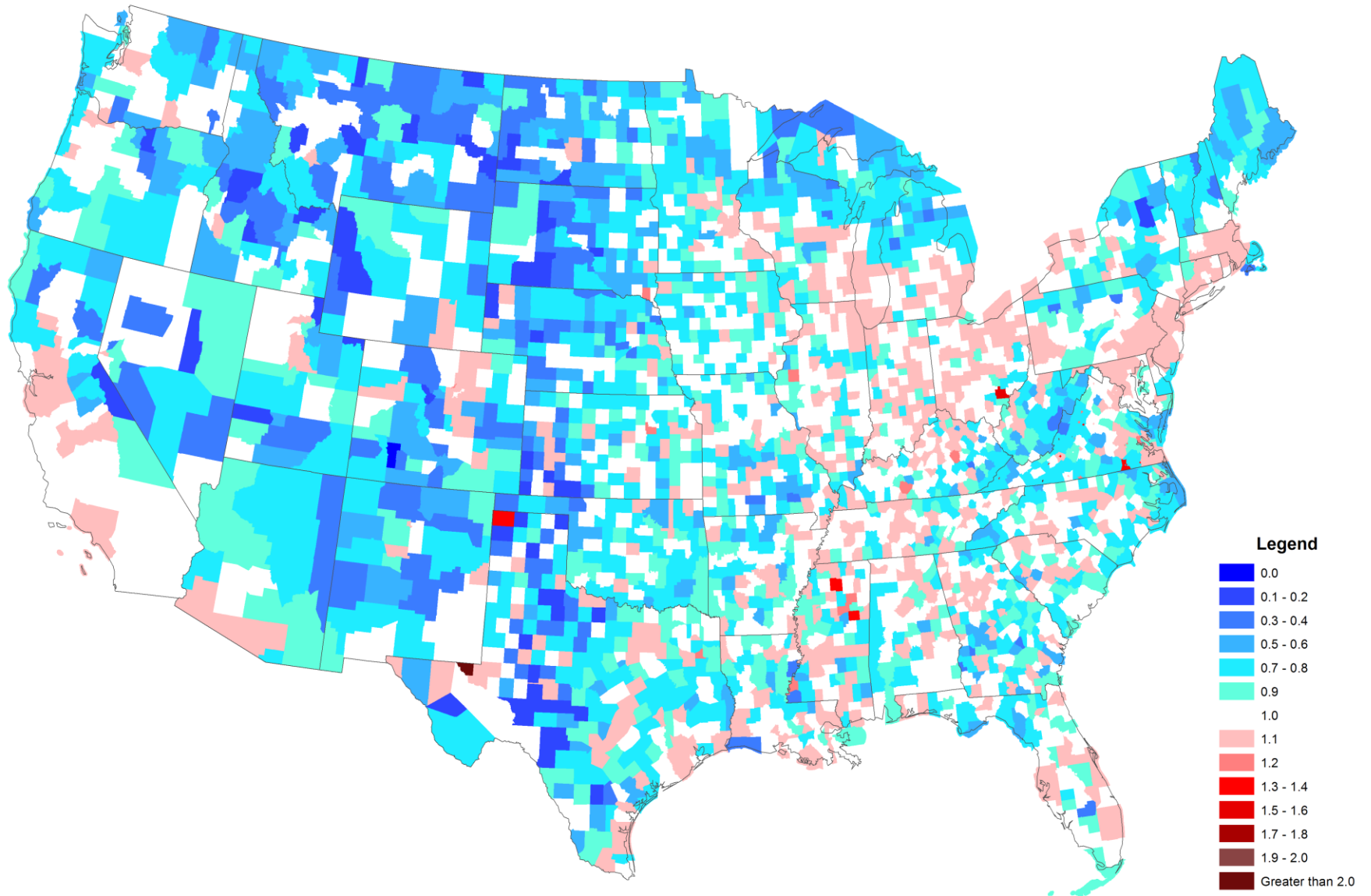
- Why not use Vacancy Indicators for address count?
- HU or HH?
- Using HH: Coverage = 106%
- Using HU: Coverage = 94%

What's the coverage of occupied HHs?

State Level Coverage

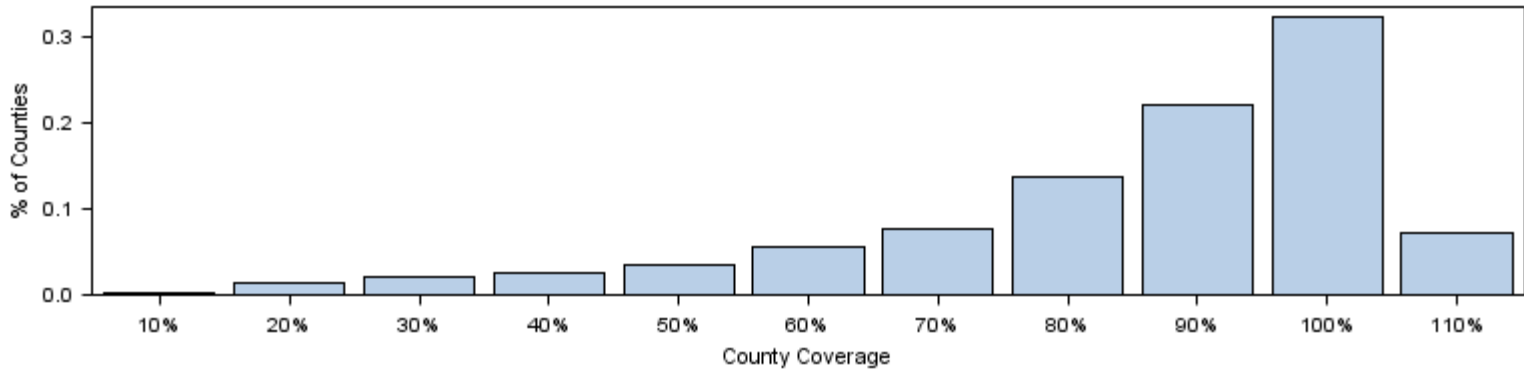


County Coverage Map

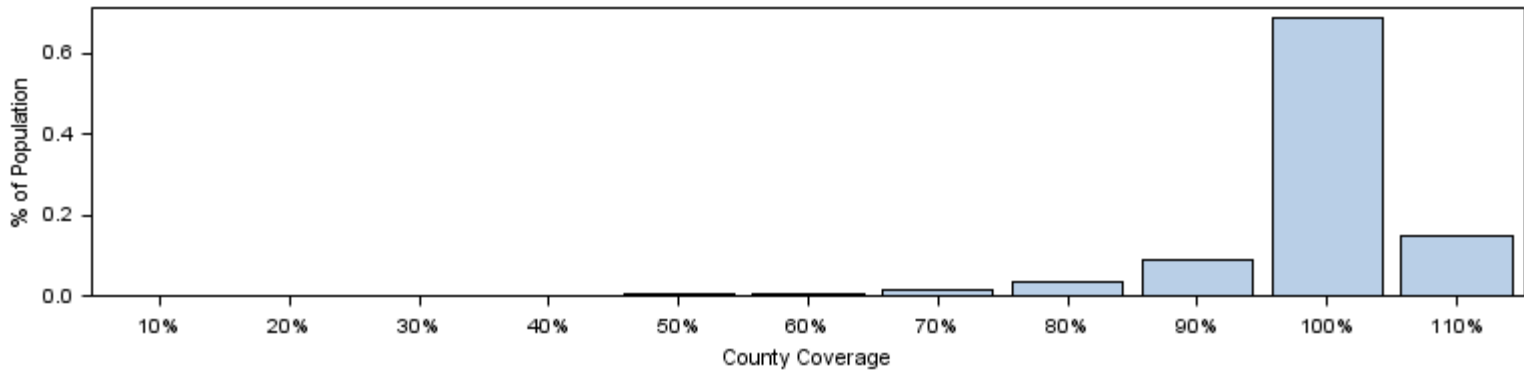


County Coverage

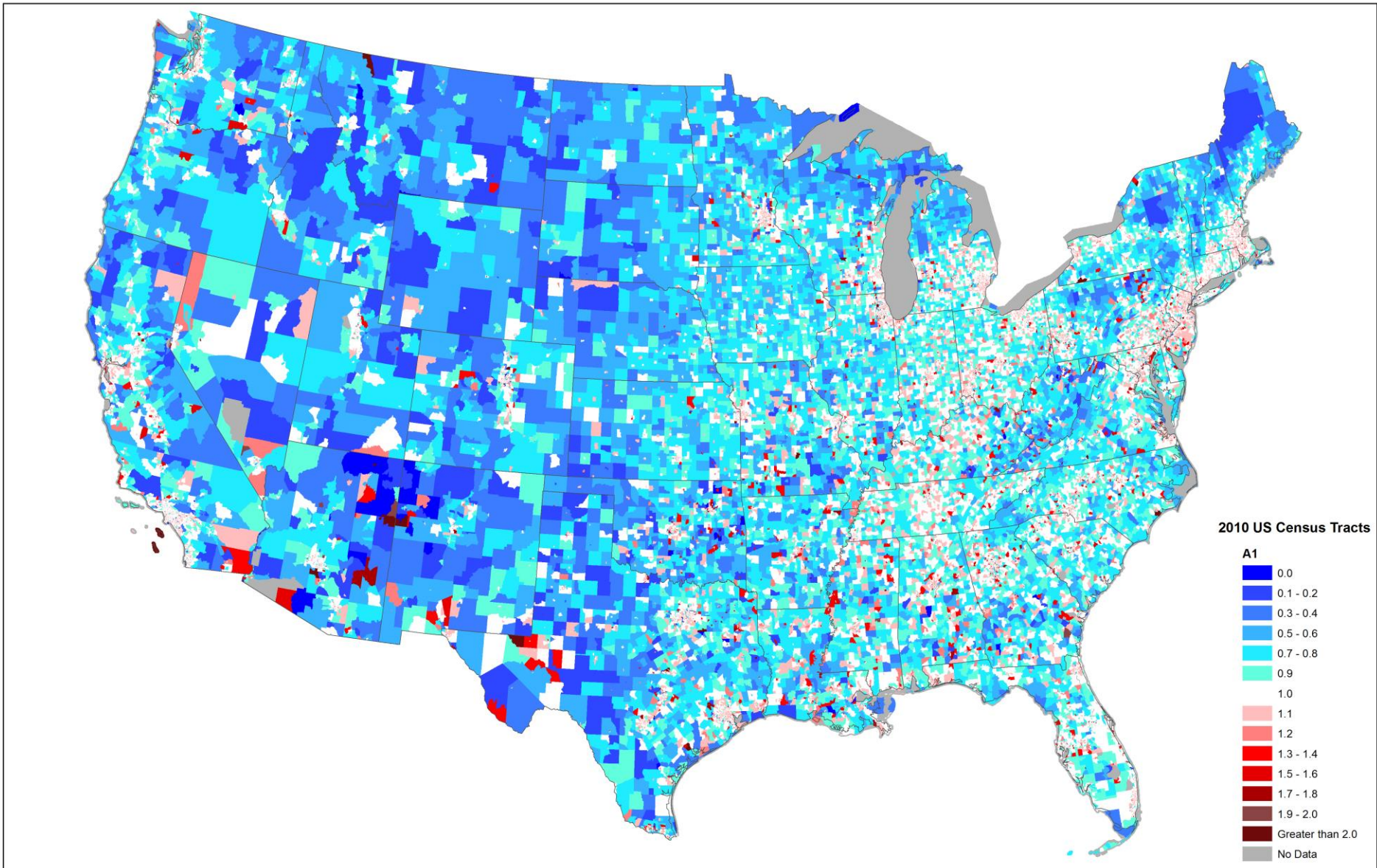
Percent Counties by County Coverage



Percent Population by County Coverage

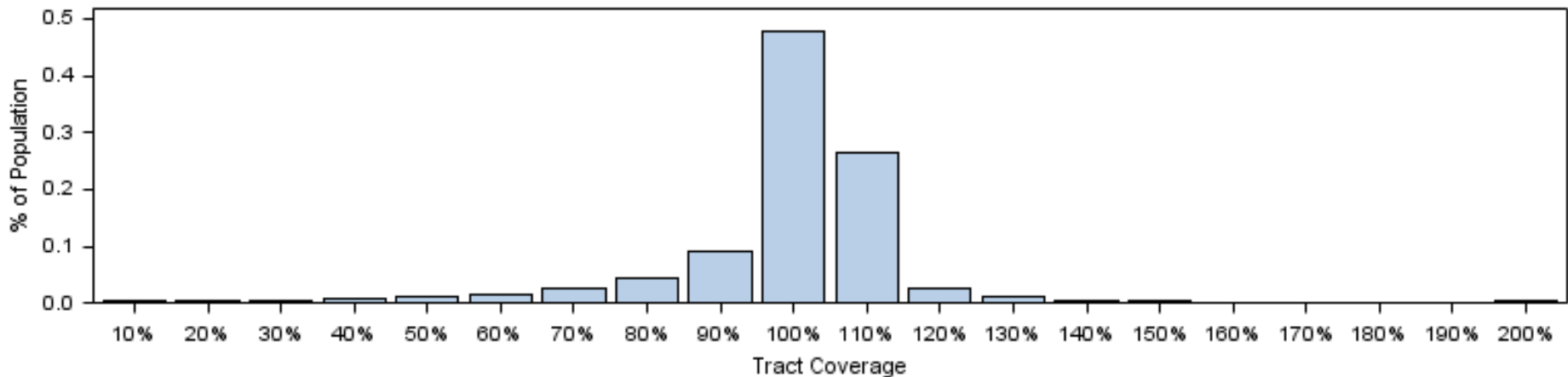


Tract Level Coverage Map

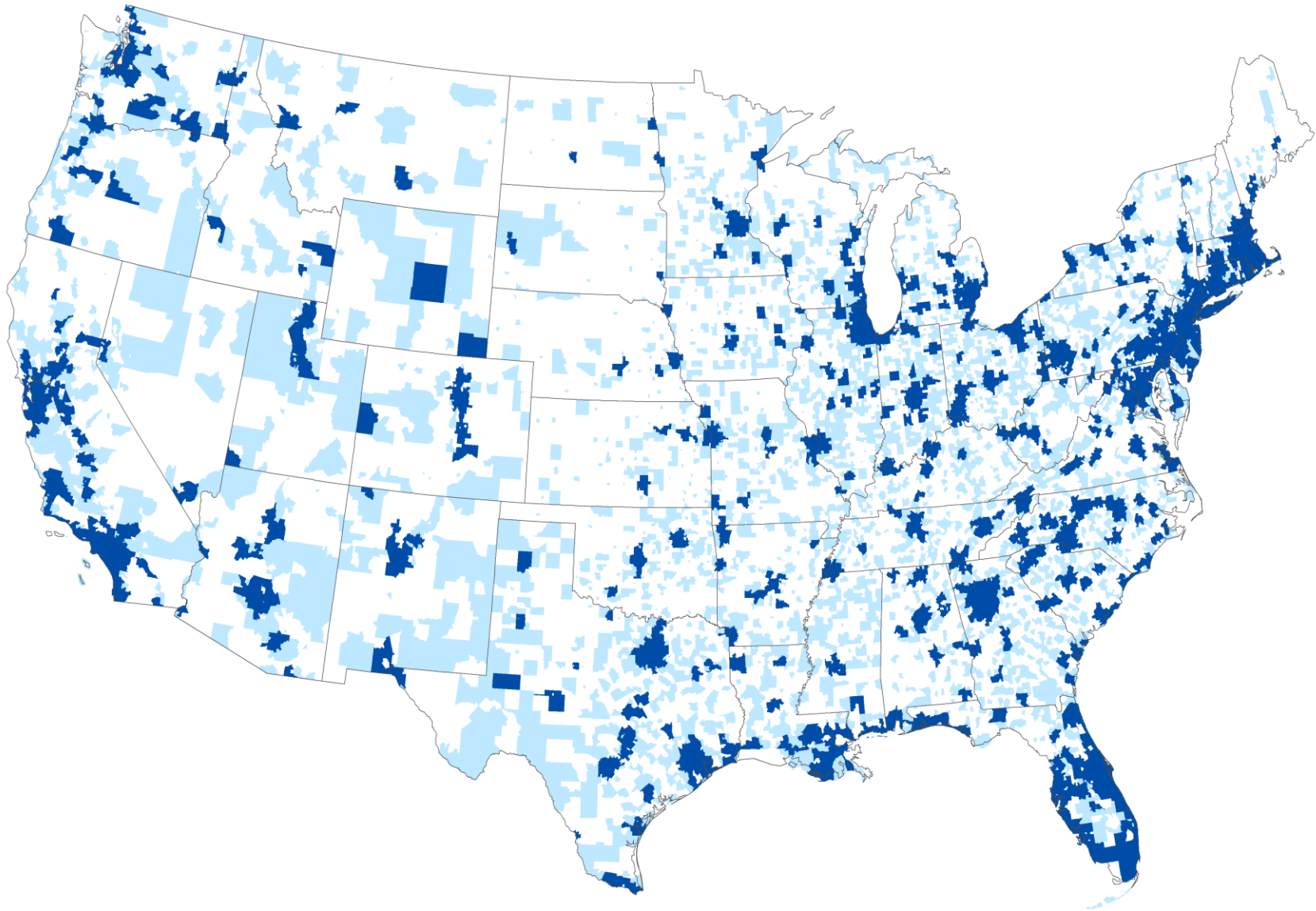


National Tract Coverage by % Population

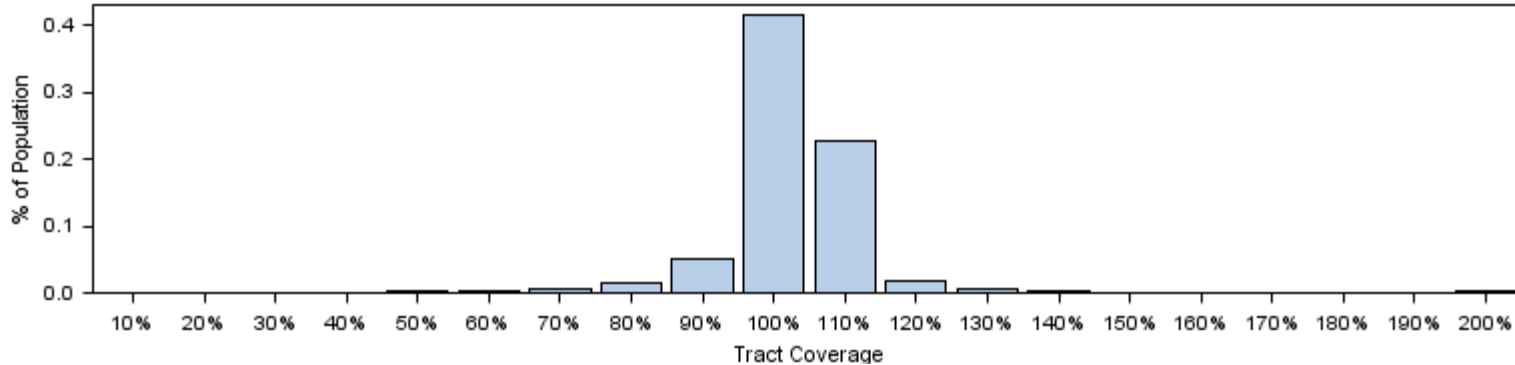
- 90% of population lives in tracts with 90-110% coverage



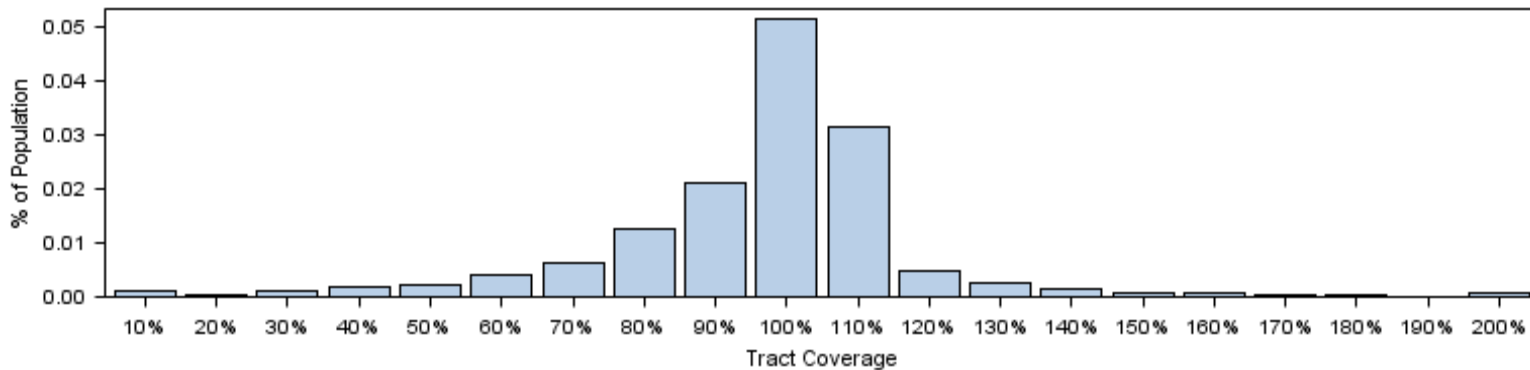
Urban / Some Urban / Rural Tracts



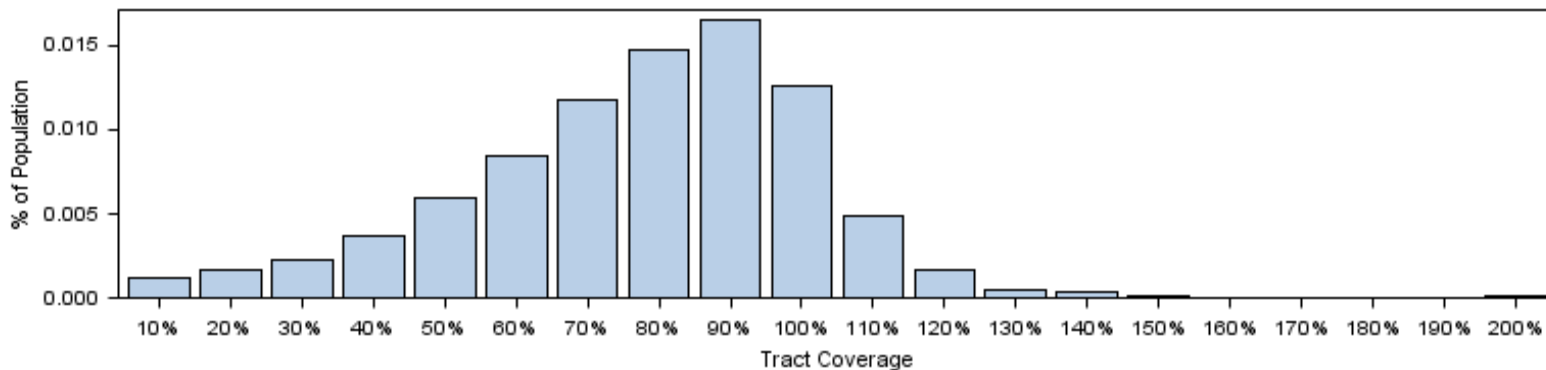
Urbanicity – Tract Coverage by % Population



Urban
78%
population



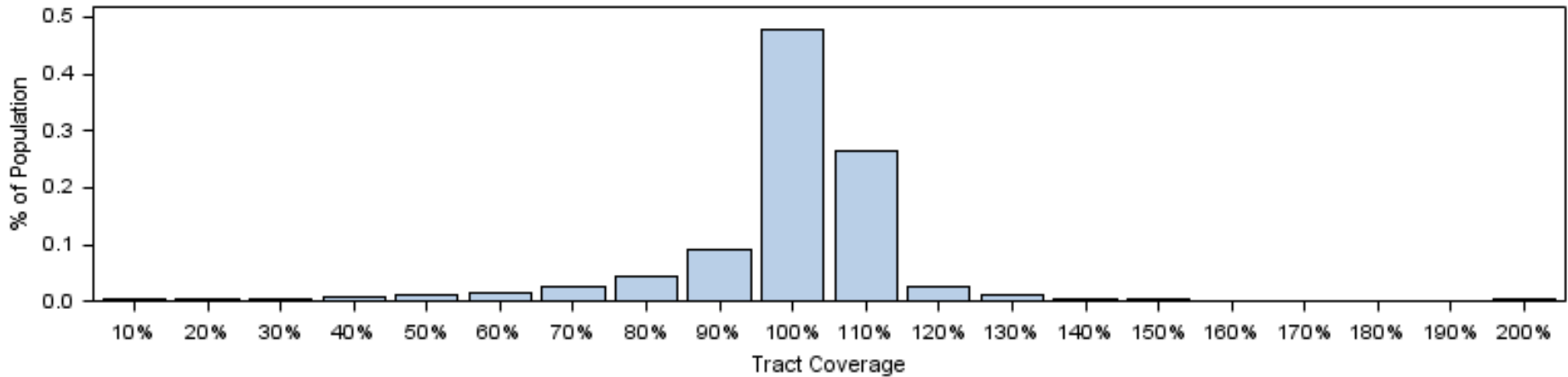
Some Urban
15%
population



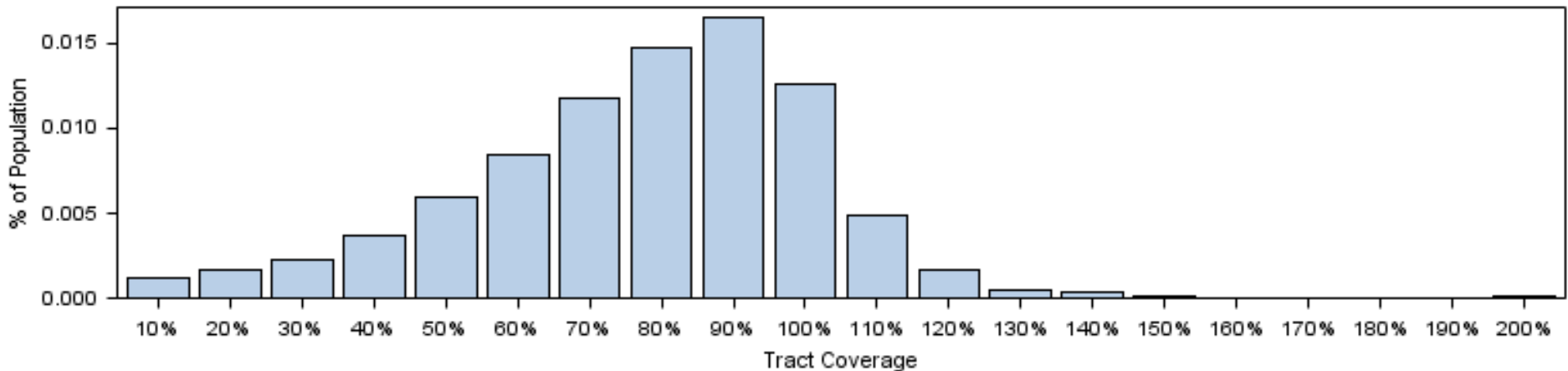
Rural
8.6%
population

National vs. Rural

National

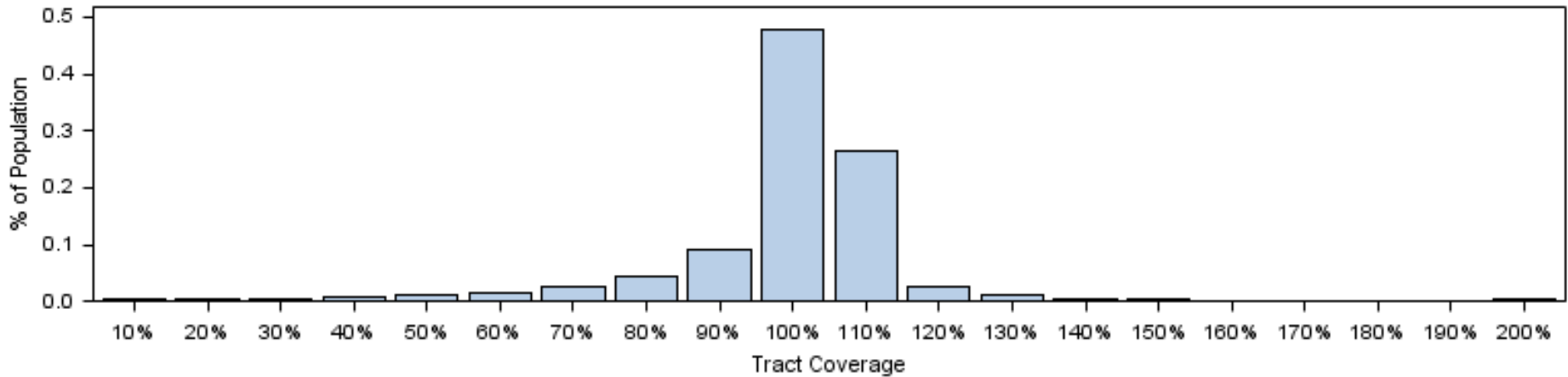


Rural Tracts

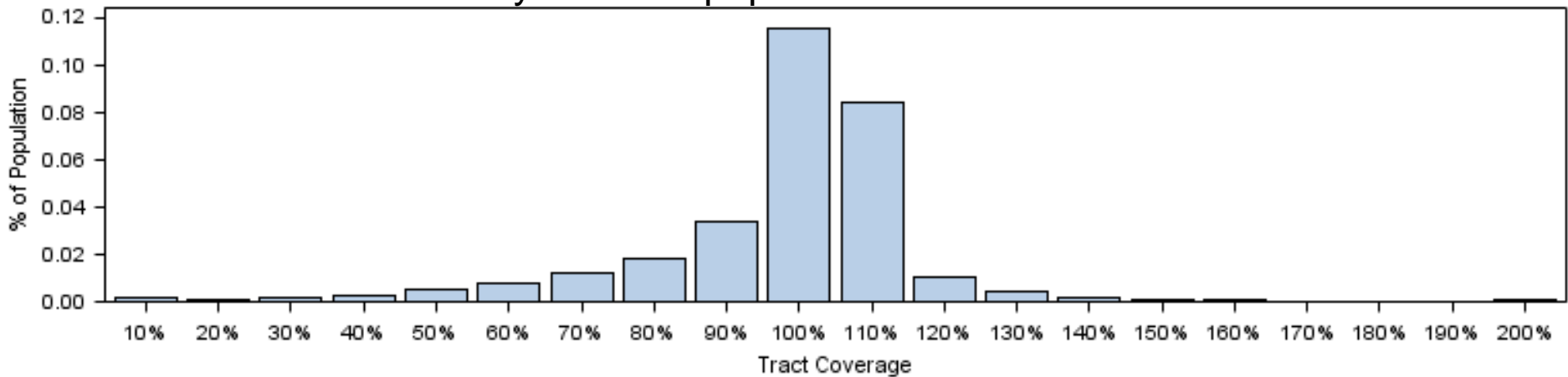


Obesity (Counties with >30%)

National



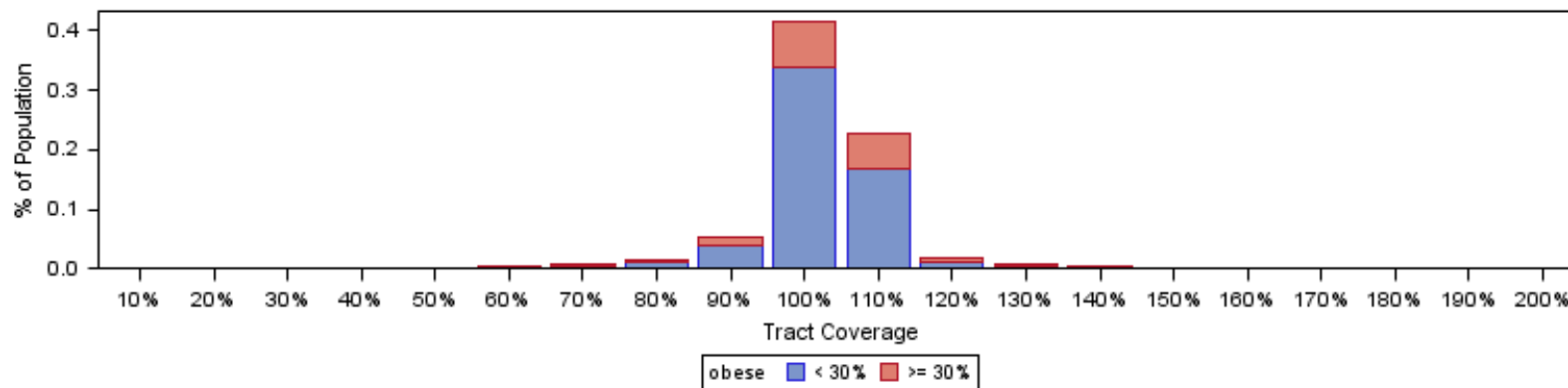
Counties with Obesity >30% of population



Obesity and Urbanicity

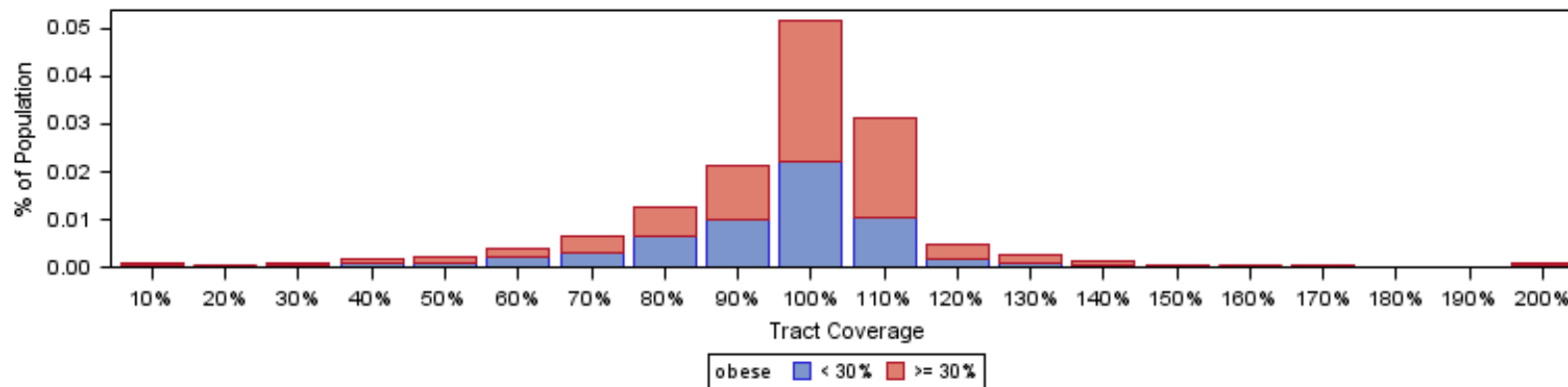
Urban

78%
population



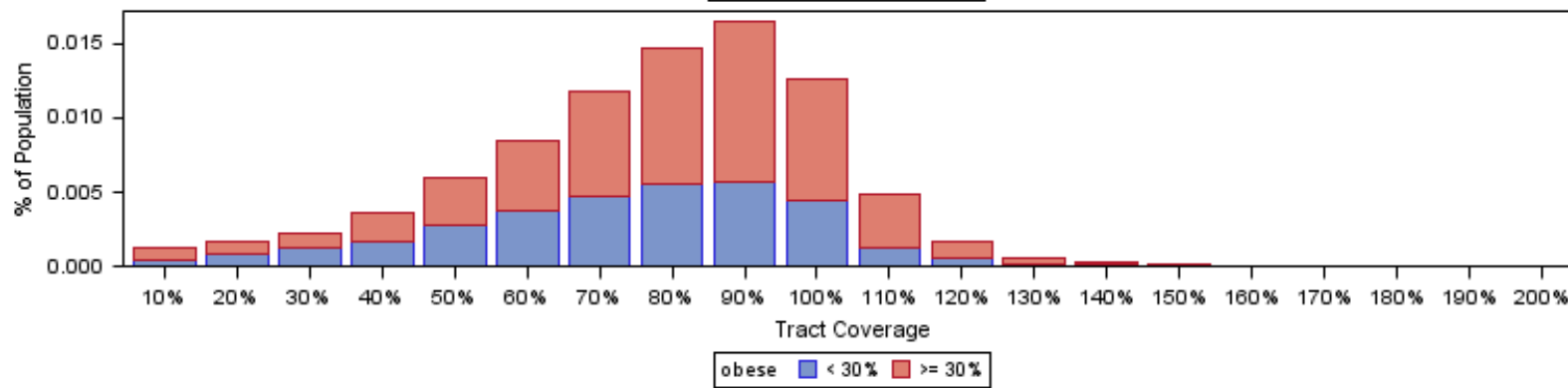
Some Urban

15%
population



Rural

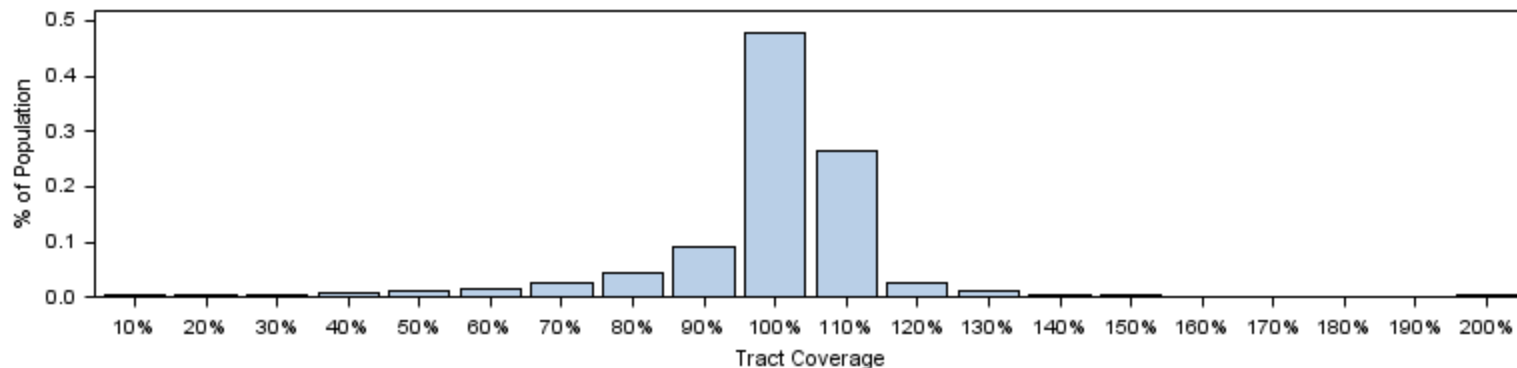
8.6%
population



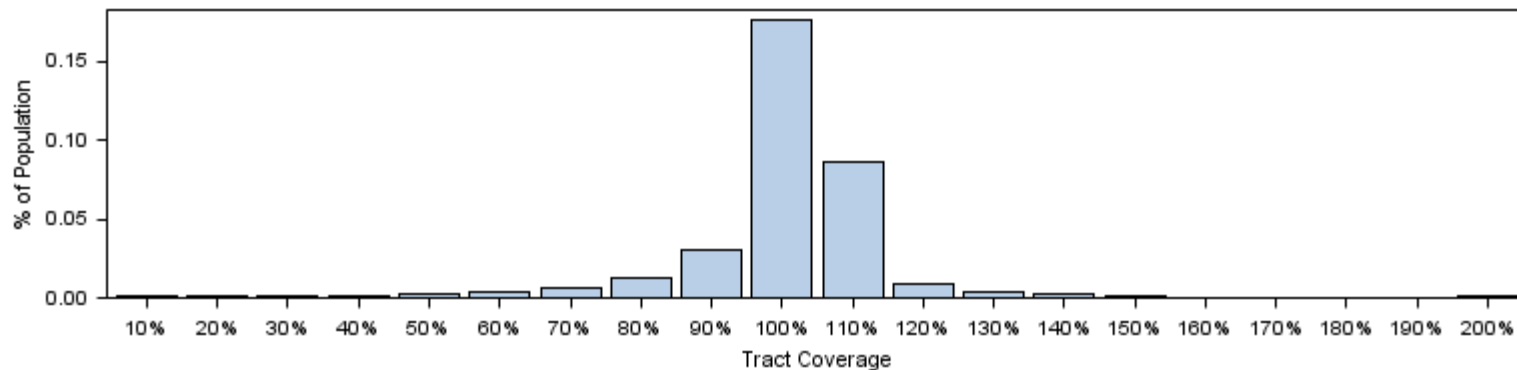
County Health Rankings

- The County Health Rankings is a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.
- Health Factors represent what influences the health of a county. Measures include, clinical care, social and economic, and physical environment factors.

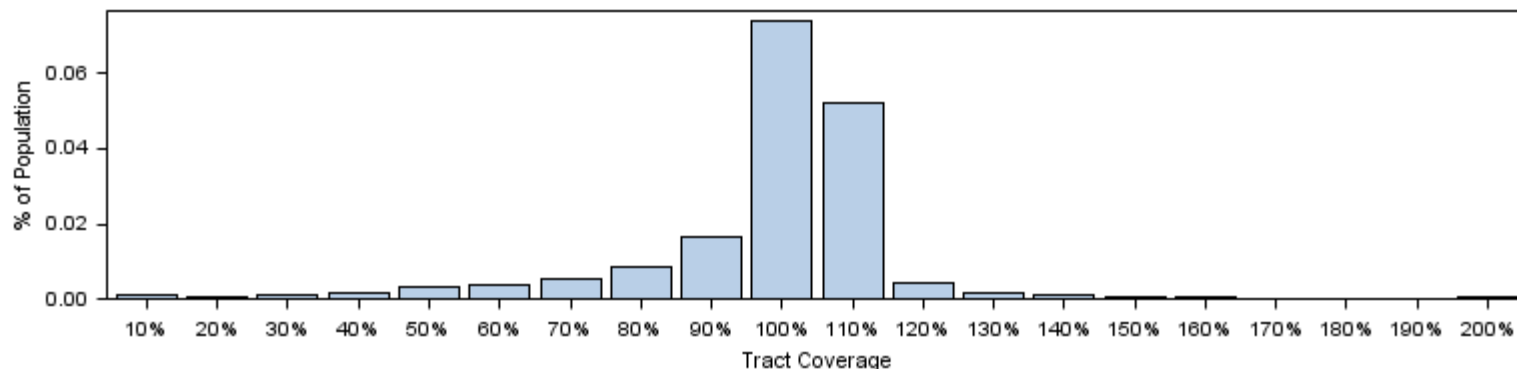
Health Factors - County Health Rankings



National
100%
population



**Top
Quartile**
34%
population



**Bottom
Quartile**
18%
population

Summary & Next Steps

- Looked for large differences in under covered populations.
 - Rural the only obvious one.
 - Doesn't mean other population are covered though.
- Under/over coverage estimate.
 - At least one of my assumptions are not holding up.
- Clustered designs may need to use caution.
- There are a thousands of way to cut this data.
 - Keep cutting...

Contact Information

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