

BASIC ISSUES IN CARTOGRAPHY

Part2

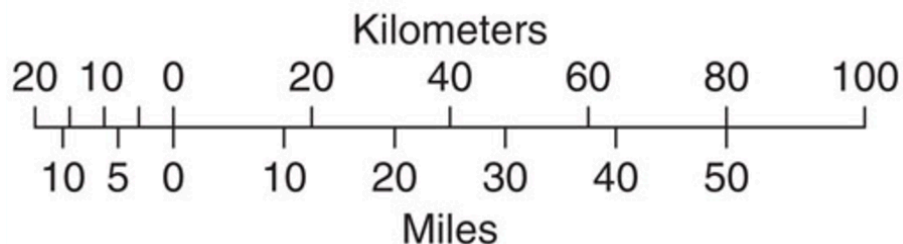
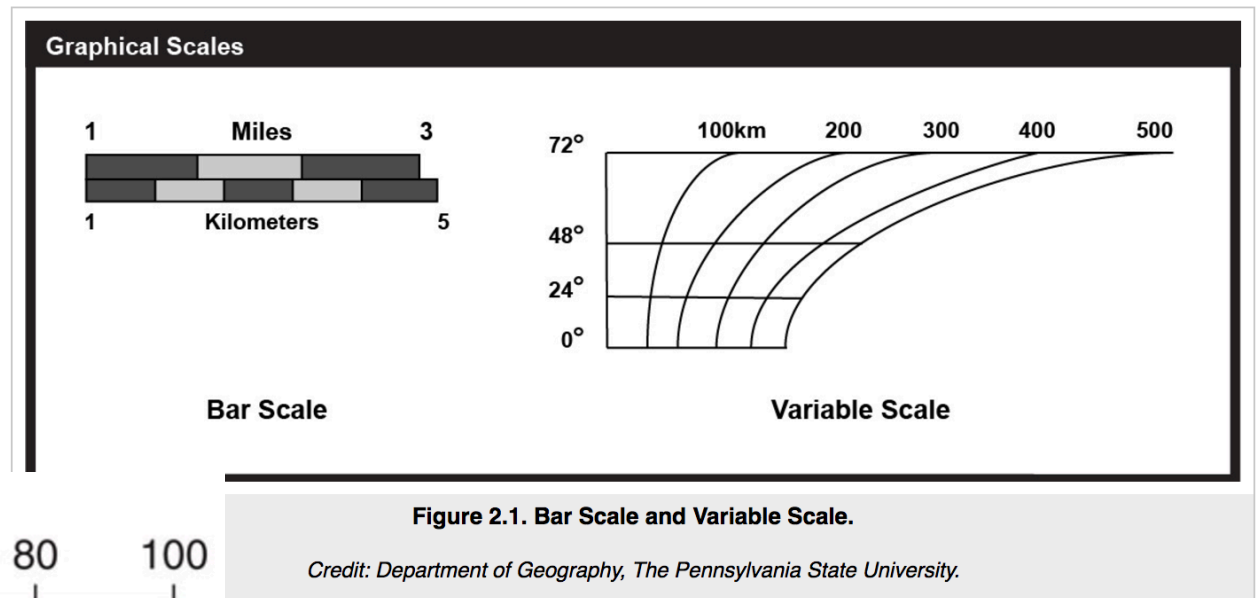
GEOG370 Arce-Nazario

Scale

- Most natural and social science questions depend on the scale of analysis.
- Our interpretation of processes is shaped by the scale of our study.

Types of scale

- Representative Fraction (RF)
example: 1 : 2,000
- Verbal
example: 1 inch = 50 miles
- Bar Scales
- Variable Scales



Representative Fraction

Expressed as:

“1 to 2,000 ” or “1:2,000”

= $1/2,000$ (representative fraction - RF)

Hence a 1:2,000 scale is larger scale than 1:100,000

This is a major cause of confusion, for this reason landscape ecologists call:

- large scale = fine scale
- small scale = coarse scale

General Scale Classification

Large scale

- 1:400 to 1:50,000

Intermediate scale

- 1:50,000 to 1:250,000

Small scale

- 1:250,000 and beyond



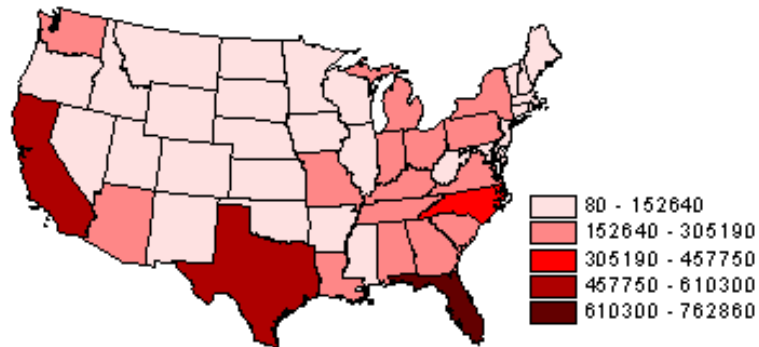
When is scale not needed?



When is scale definitely needed?

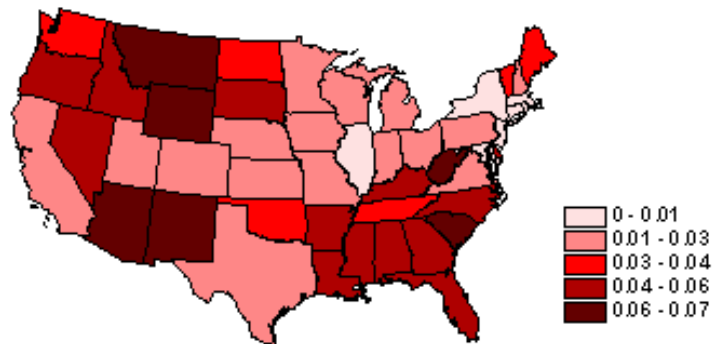
Counts vs. ratios issues

Number of Mobile Homes, By State



raw count (absolute) values may present a misleading picture

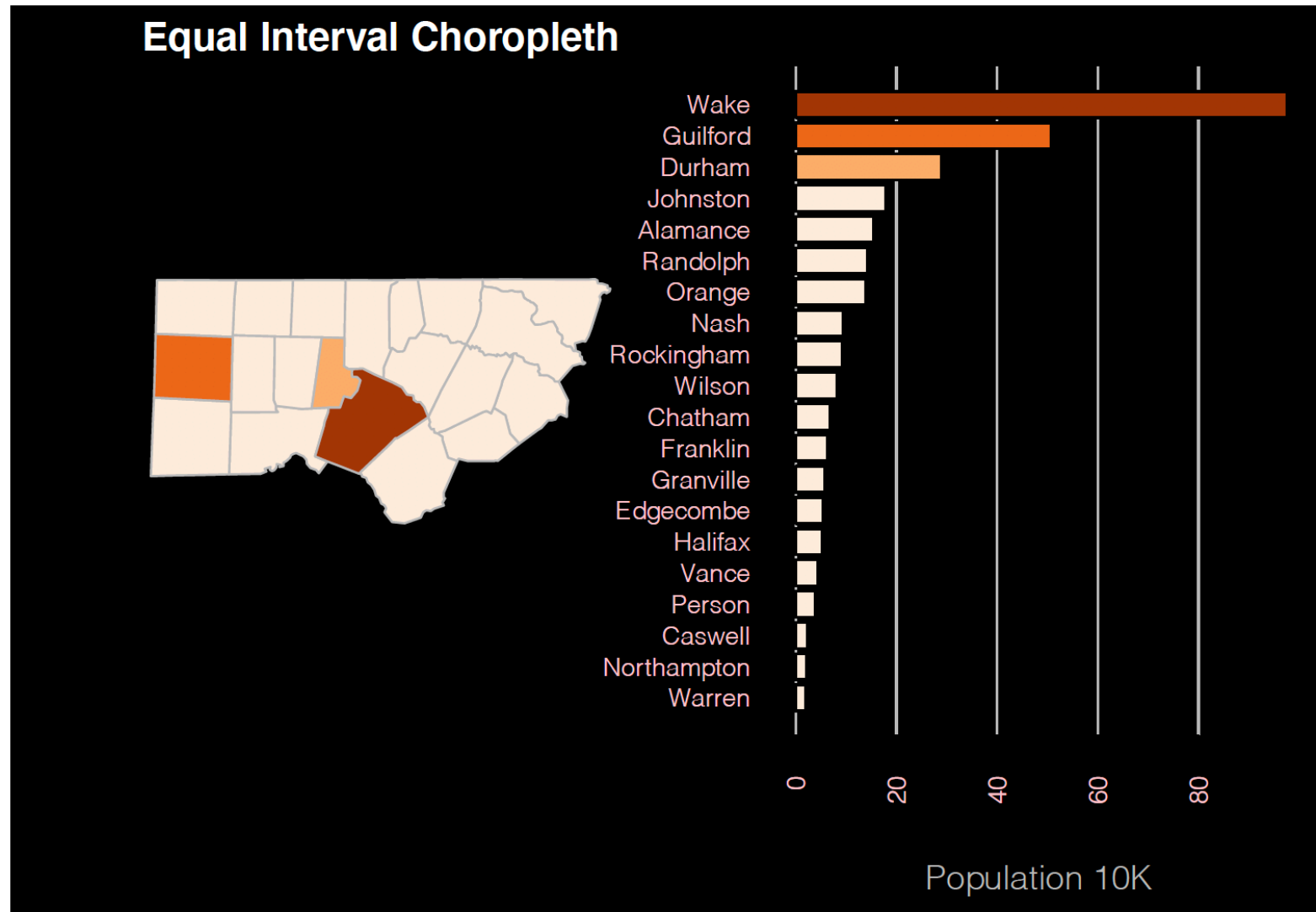
Ratio of Mobile Homes to State Population



Solution:

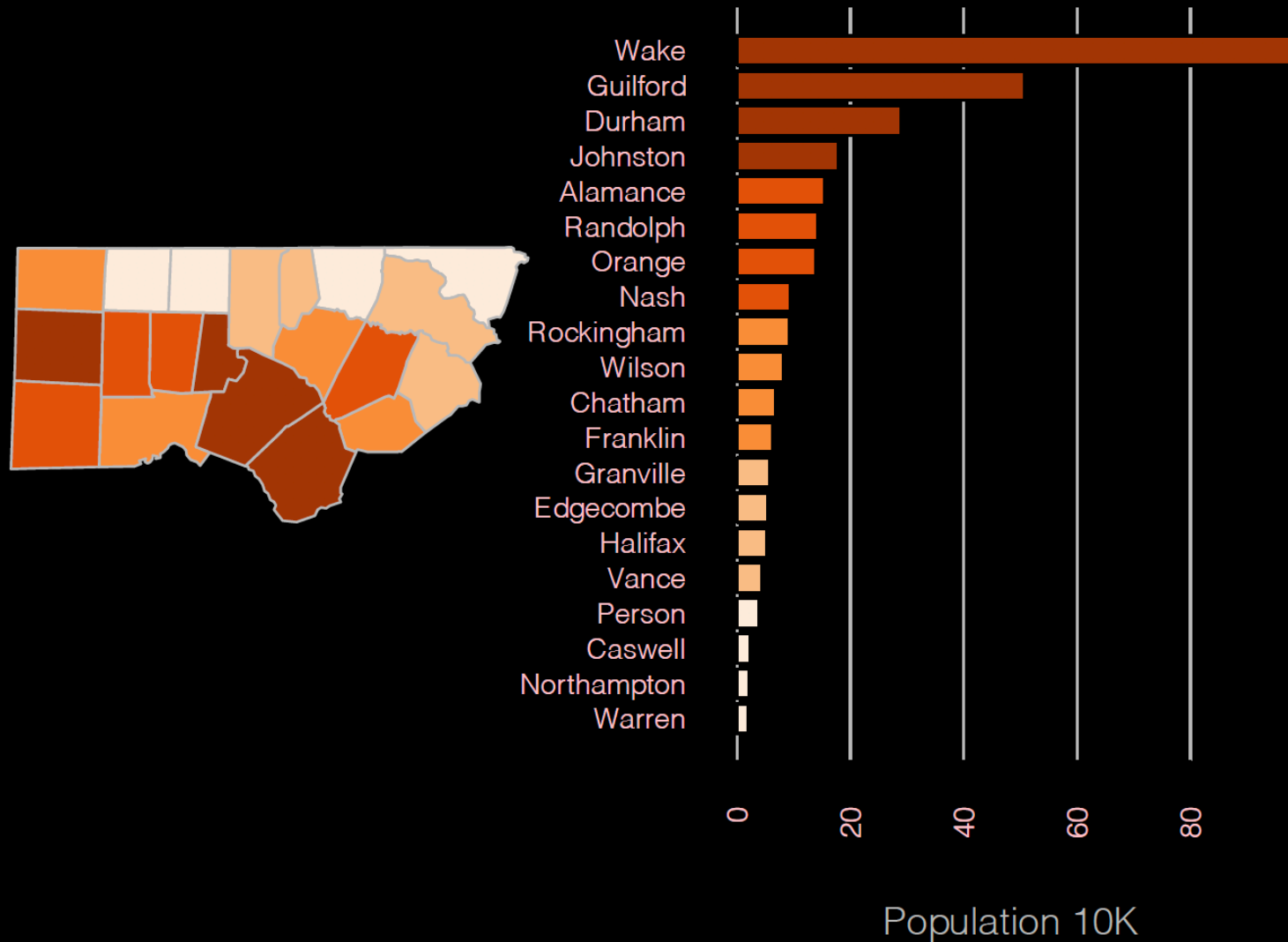
- normalize the data
- use ratio values

How do we categorize our data?



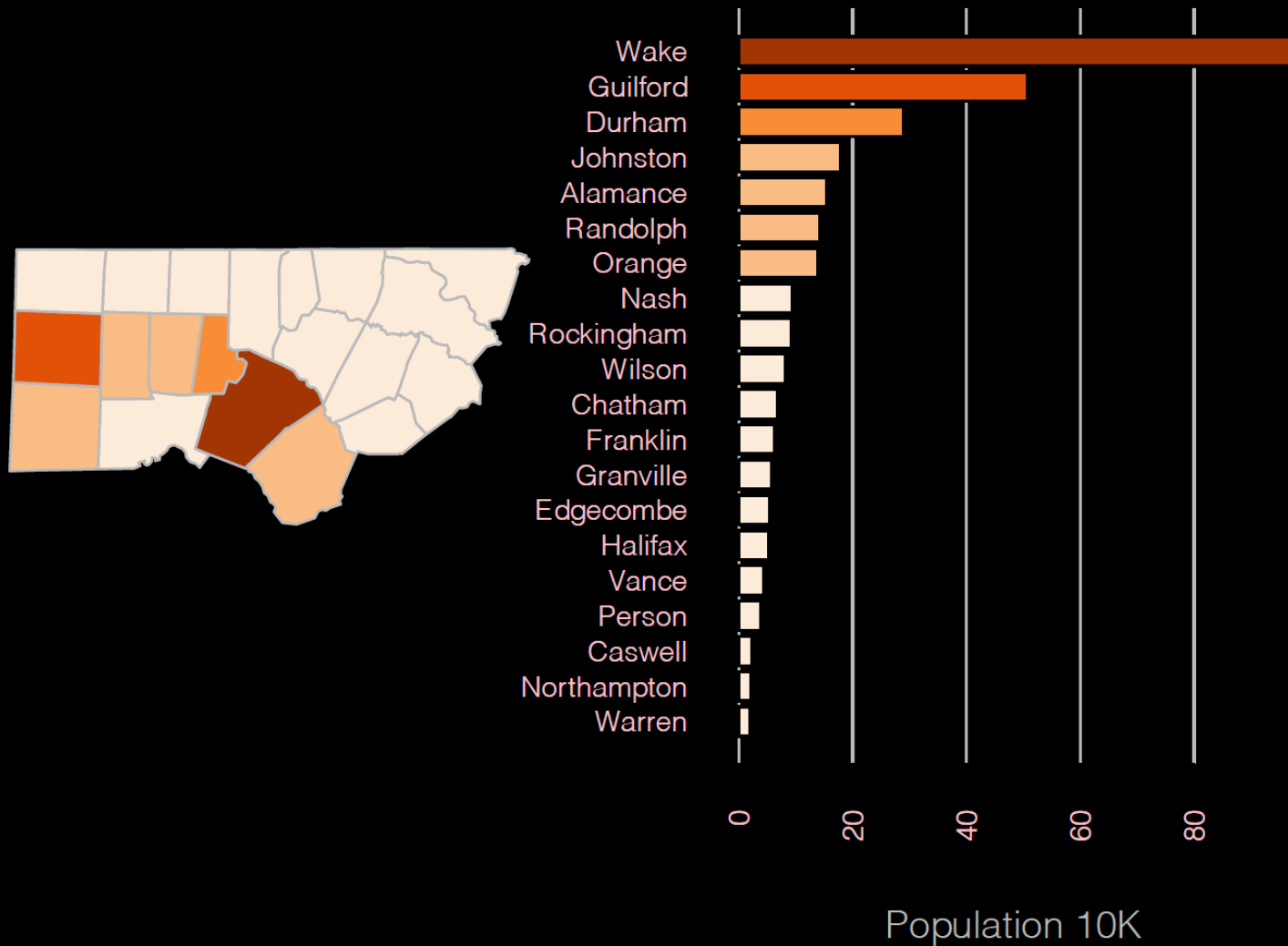
How do we categorize our data?

Quantiles Choropleth



How do we categorize our data?

Natural Breaks Choropleth



Colors

- ColorBrewer: <https://colorbrewer2.org>