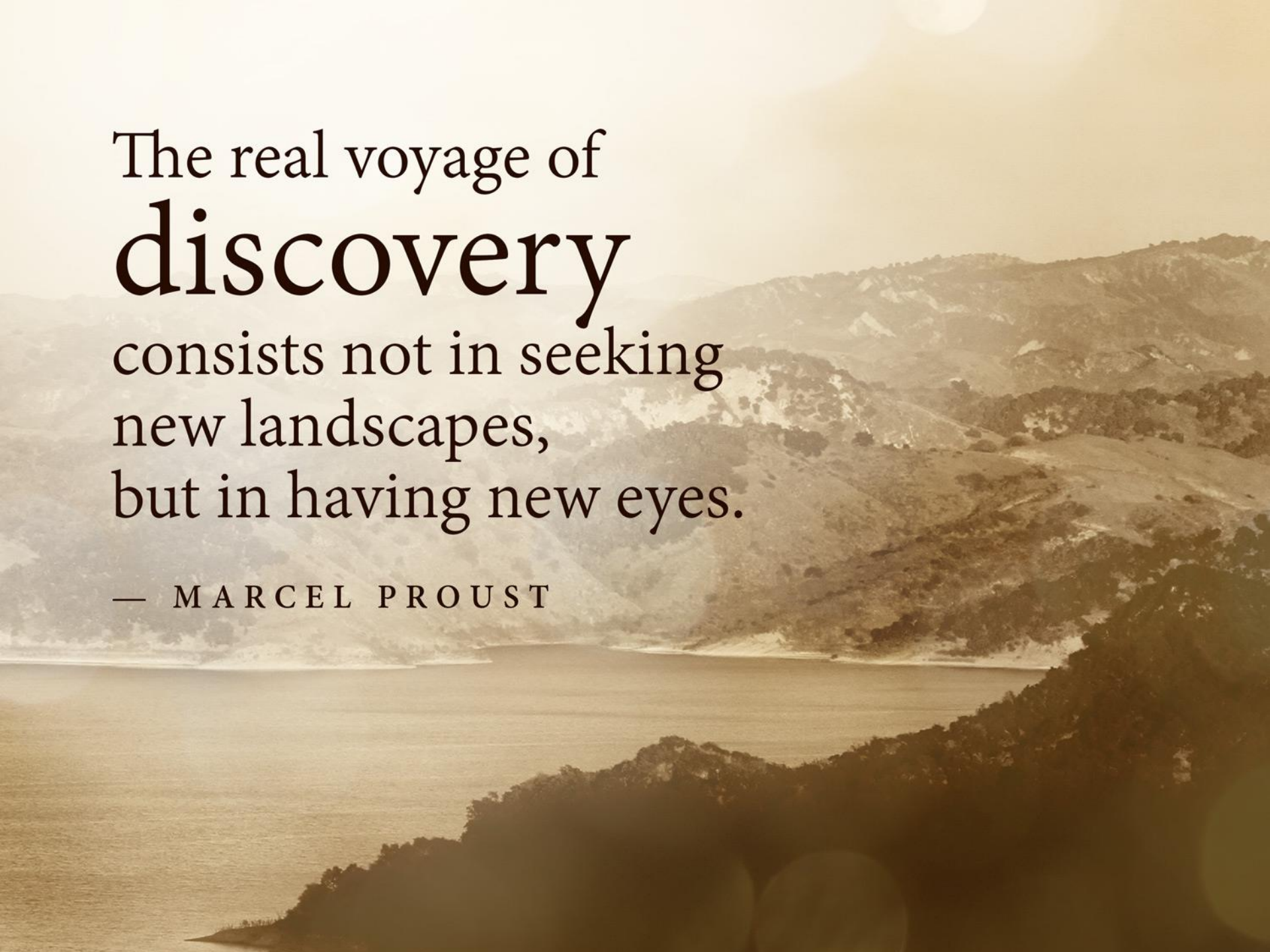


MAP PROJECTIONS & MAP SCALES

**HOW DO
WE SEE
THE
WORLD?**

**AND
WHY DO
WE SEE
IT THAT
WAY?**



A sepia-toned landscape photograph of a lake and hills. The scene is viewed from an elevated position, looking down at a calm body of water in the foreground. The water reflects the light from the sky. In the background, there are rolling hills and mountains, some with sparse vegetation. The overall atmosphere is peaceful and contemplative. The text is overlaid on the left side of the image.

The real voyage of
discovery
consists not in seeking
new landscapes,
but in having new eyes.

— MARCEL PROUST



**What would happen to
our *vision* of the world
if we looked upon it
with different eyes?**





**THE
BIG
IDEA**

ALL.

MAPS.

LIE.



**THE
BIG
IDEA**

ALL.

MAPS.

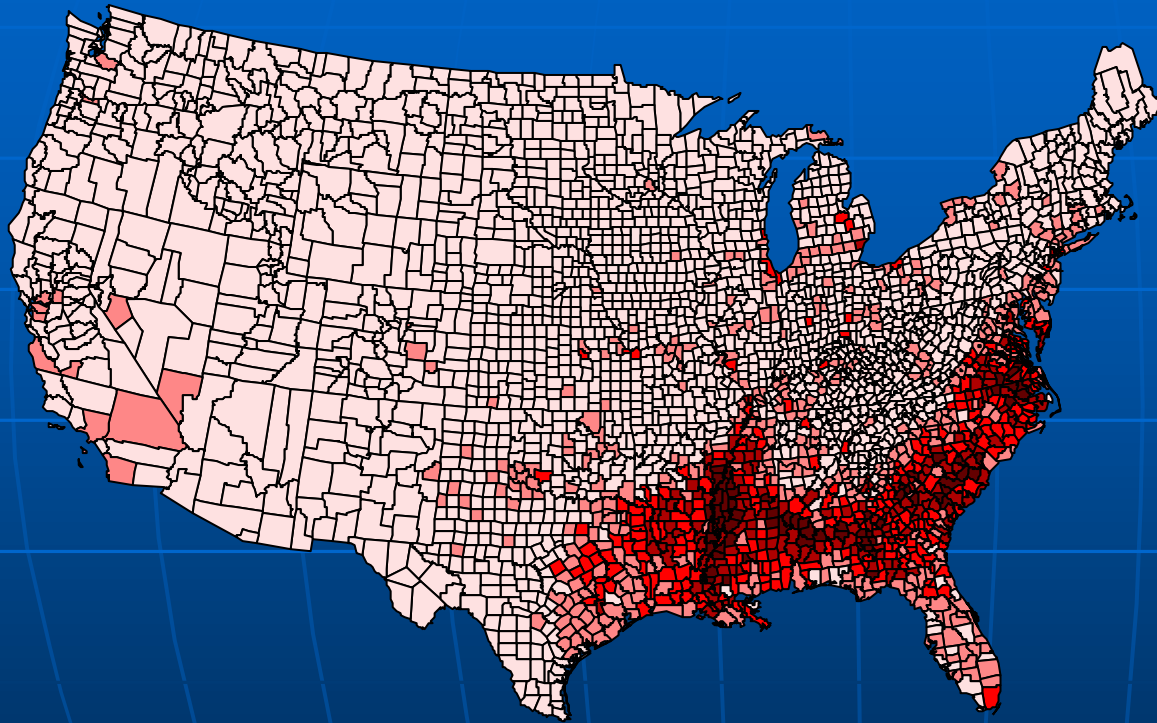
LIE.

Manipulating Data

**Data may also distort desired results.
The following slides show how population of a
particular cohort may be misleading.**

Continental United States

This map shows the **percentage** of African-Americans living within counties across the US.



Percentage of African-Americans within each County

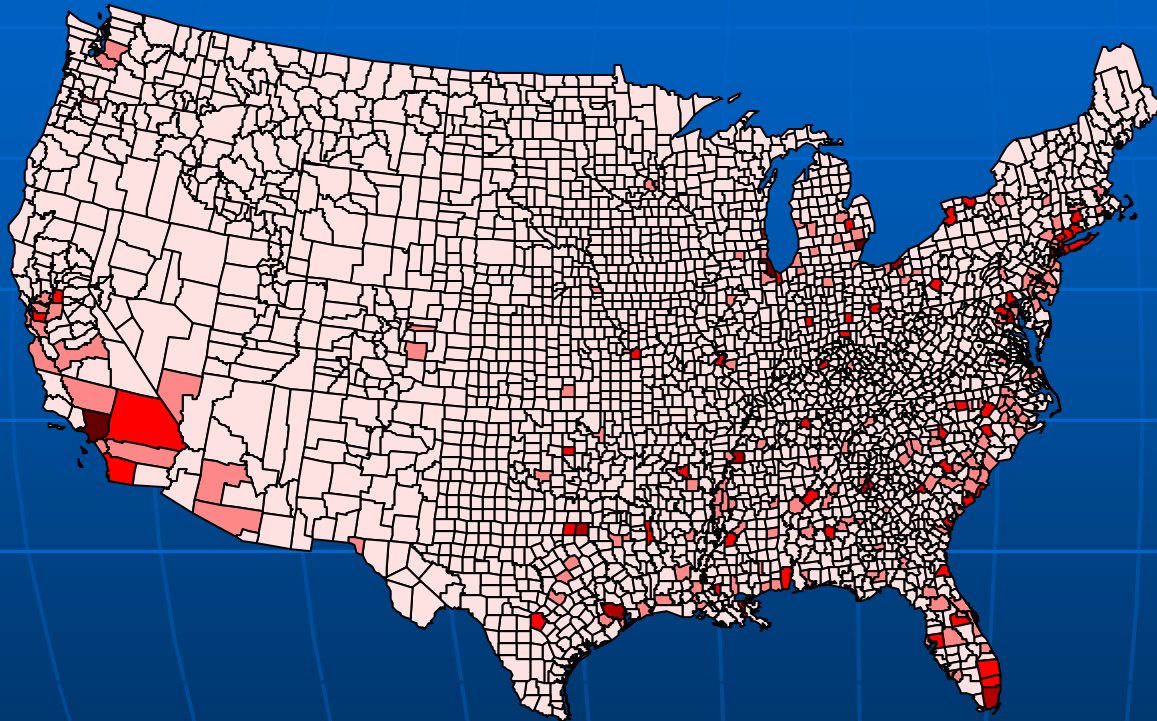
0 - 0.054
0.054 - 0.167
0.167 - 0.314
0.314 - 0.505
0.505 - 0.936

1000 0 1000 2000 Miles

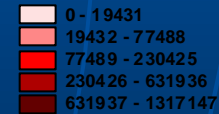


Continental United States

This map shows the ***total number*** of African-Americans living in each county across the US.

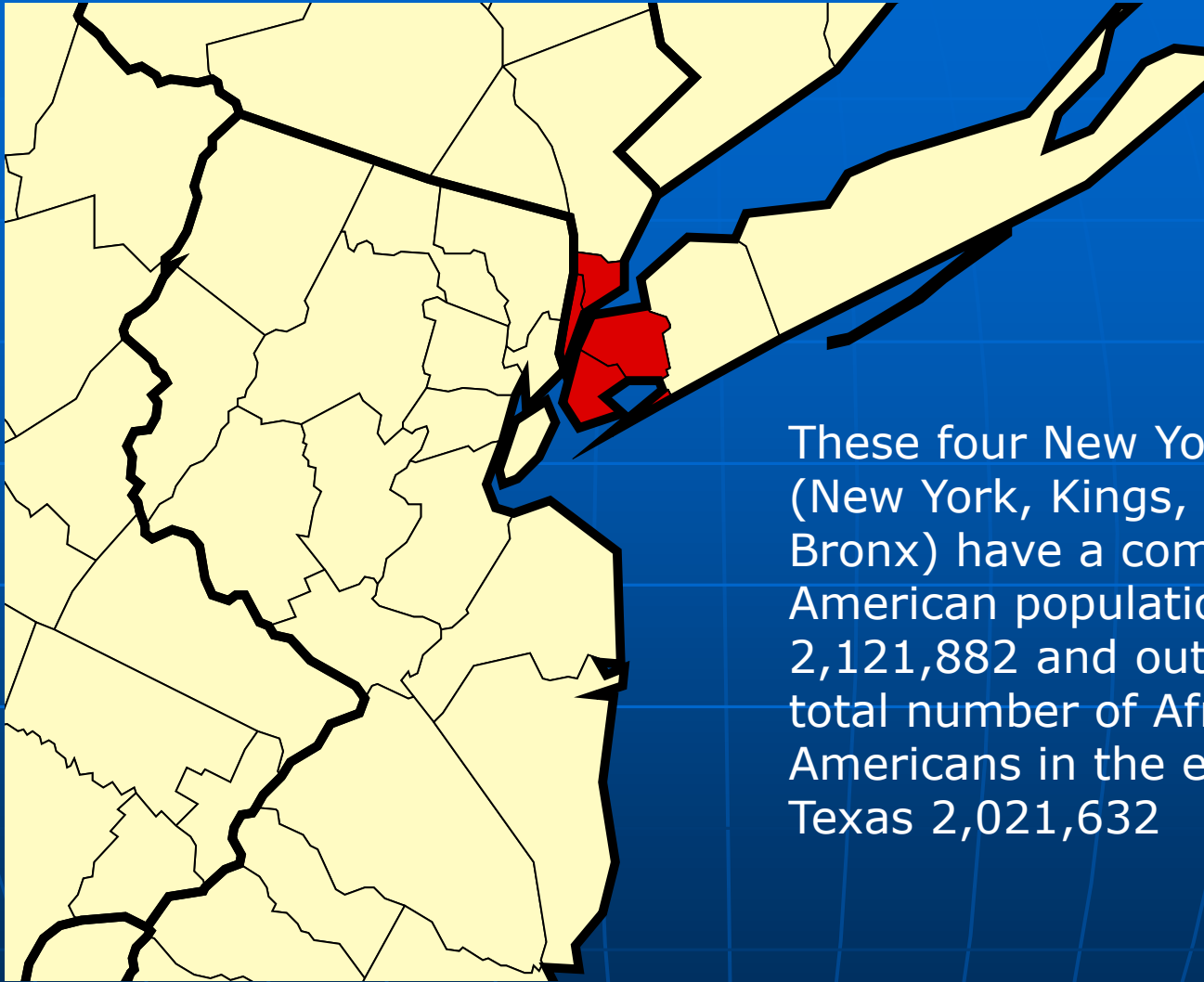


Total Number of African-Americans in each County



1000 0 1000 2000 Miles

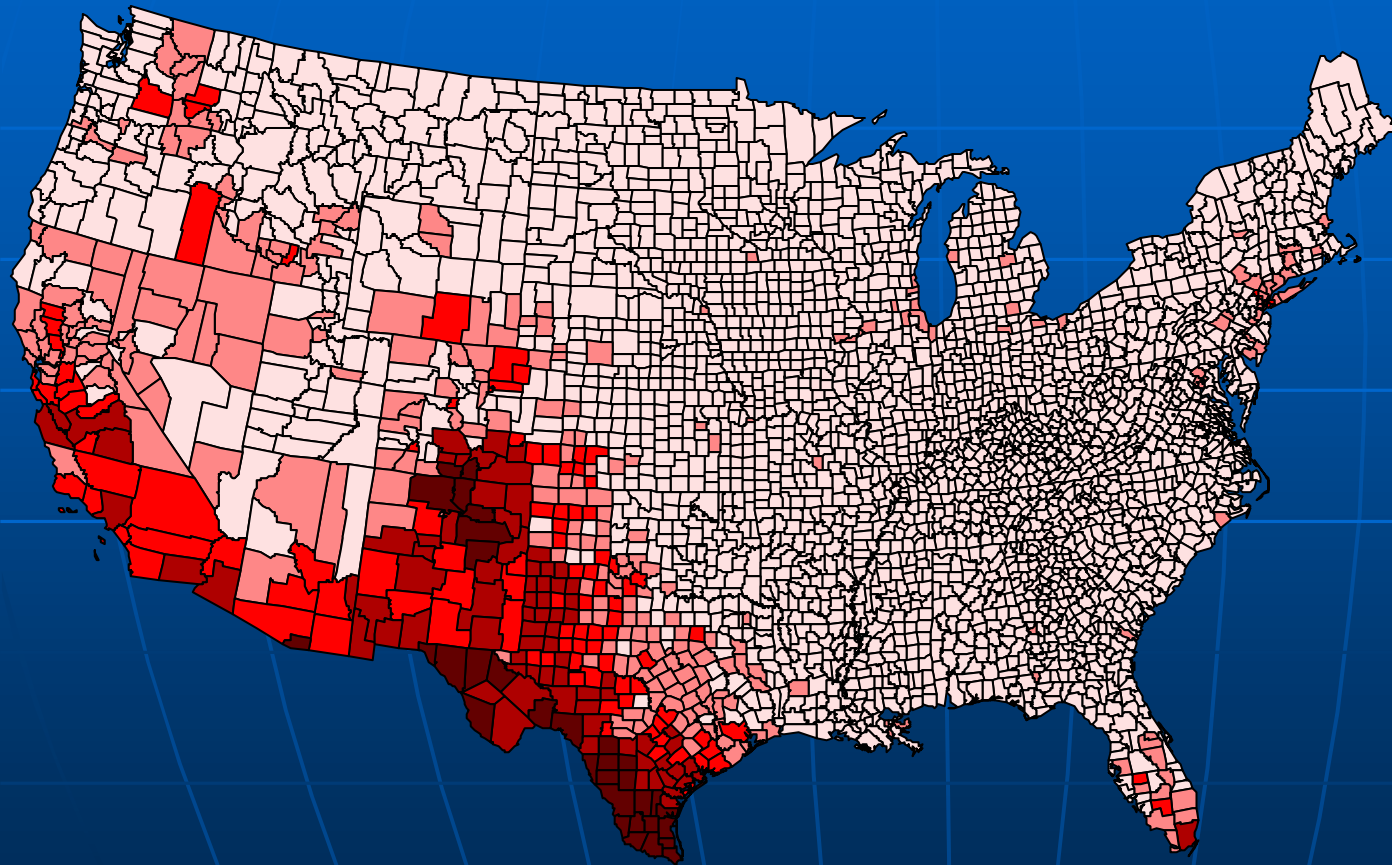




These four New York counties (New York, Kings, Queens, and Bronx) have a combined African-American population of 2,121,882 and outnumber the total number of African-Americans in the entire state of Texas 2,021,632

Percentage of Hispanics

A similar comparison can be made with Hispanics living in the US. This map shows the ***total percentage*** of Hispanics in each county.

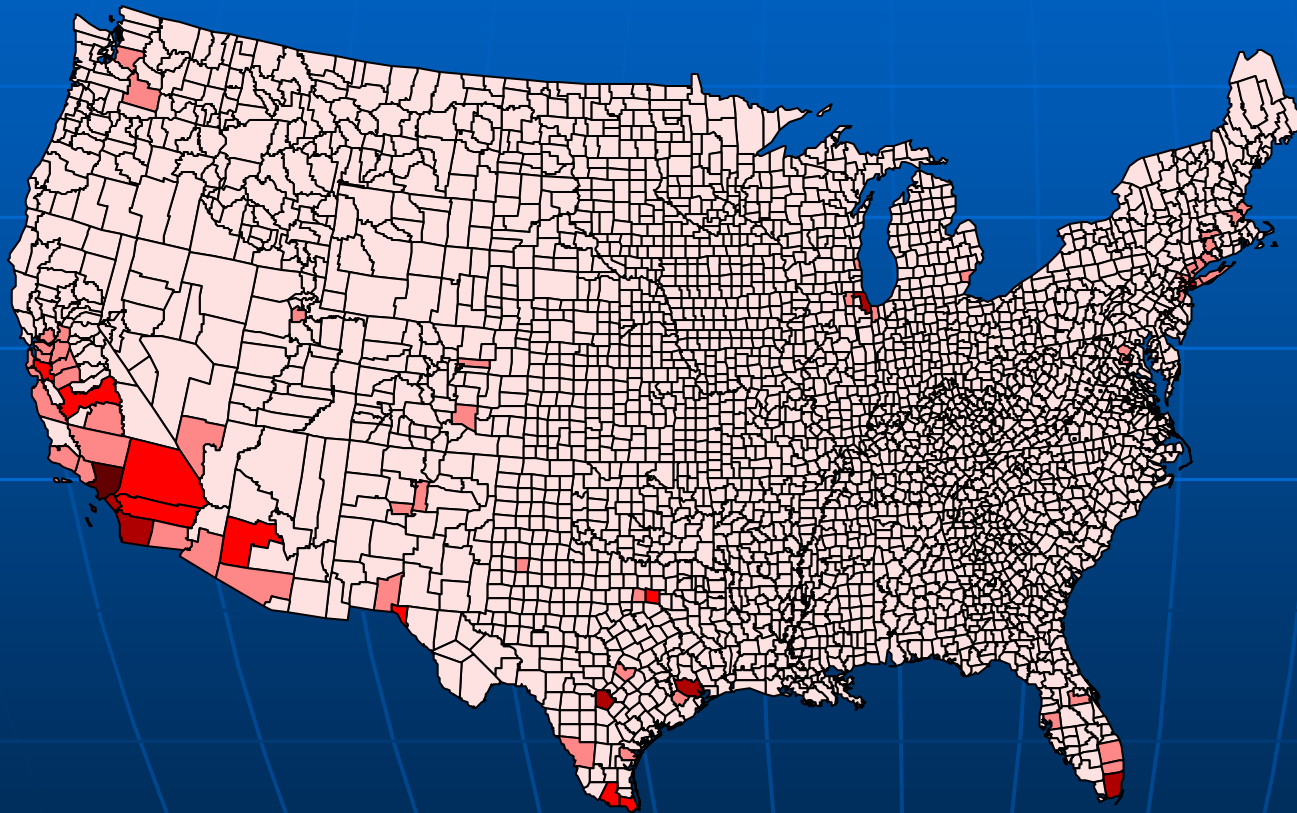


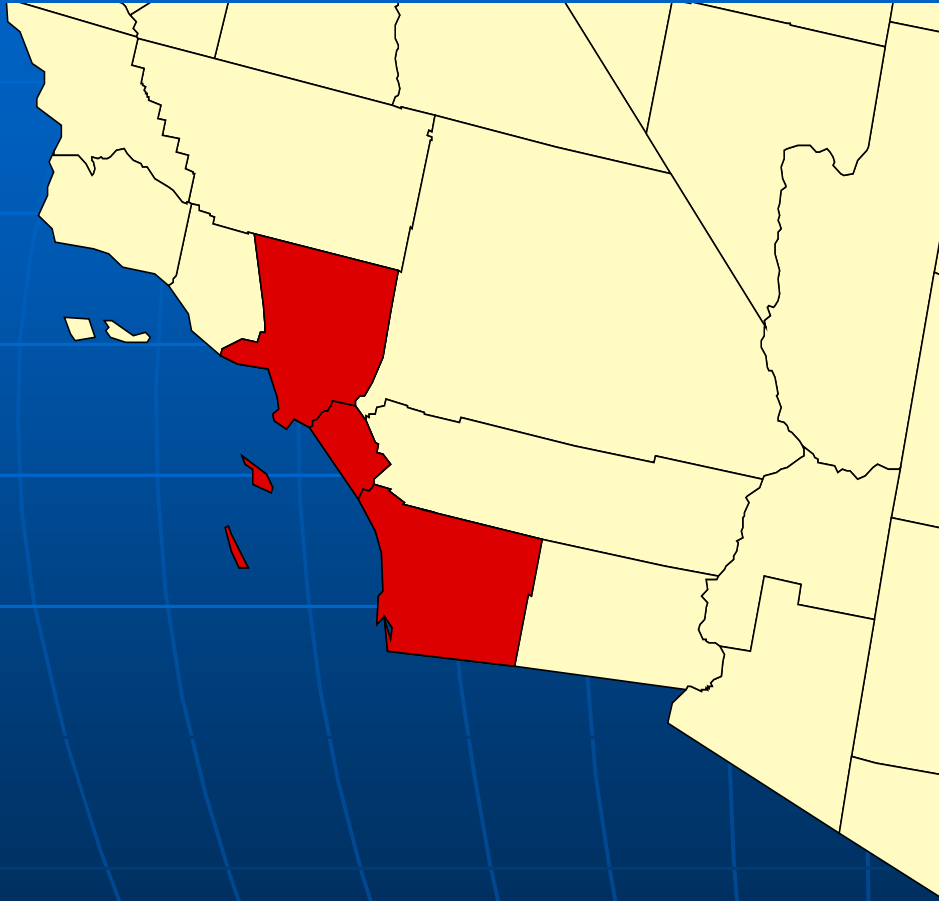
Percentage of Hispanics



Total Number of Hispanics

This map displays the ***total number*** of Hispanics in each US county.

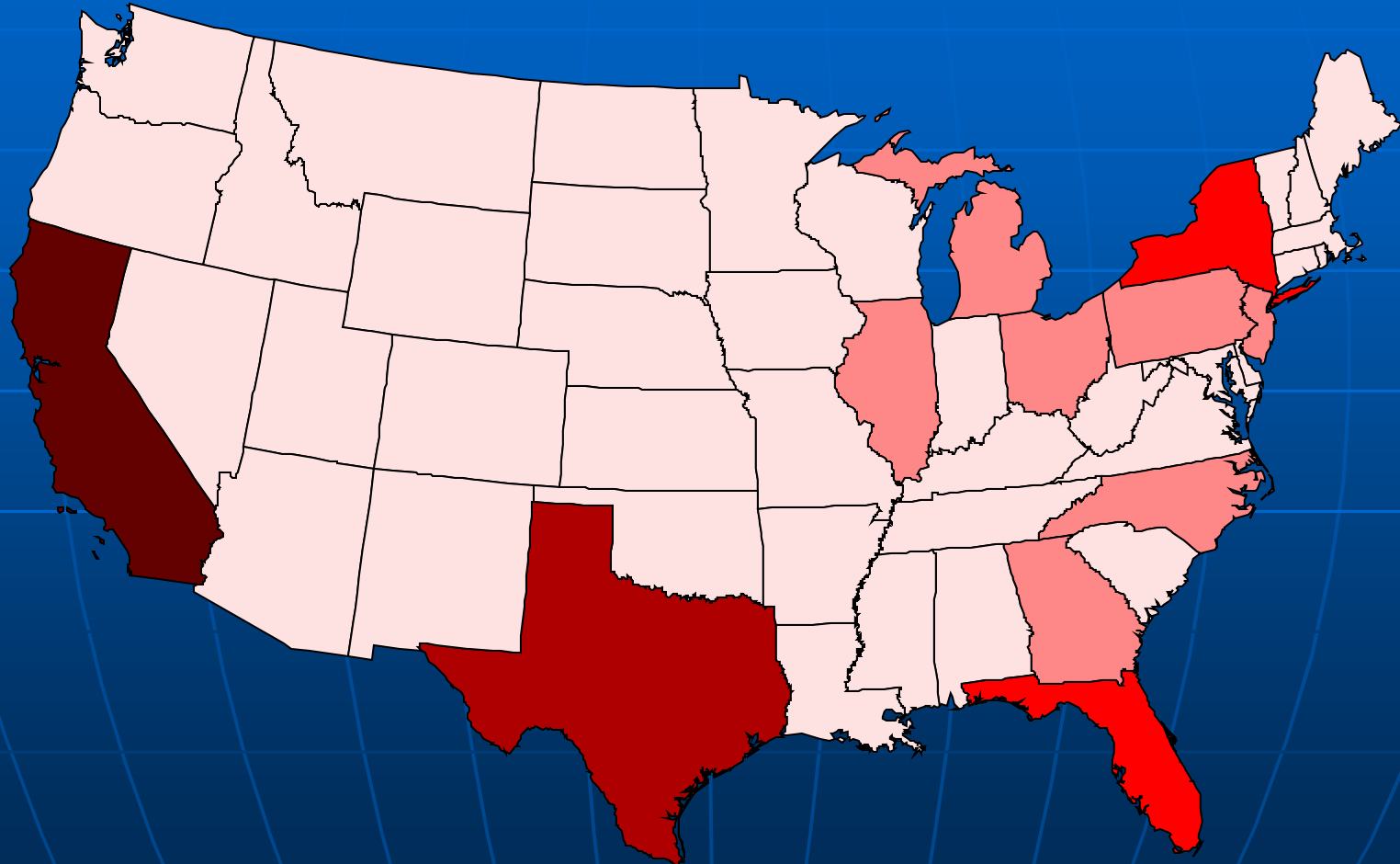


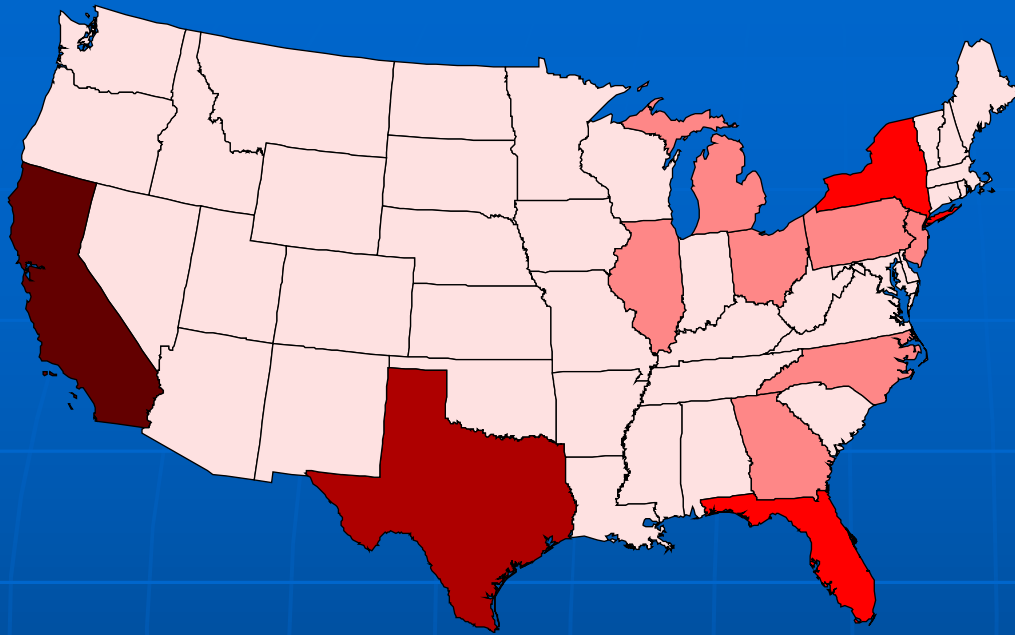


These three Southern California counties (Los Angeles, Orange, and San Diego) have a total Hispanic population of 5,045,726 which is greater than the total Hispanic population of Texas at 4,339,905. New Mexico has the greatest percentage of Hispanics (33%), it's total Hispanic population is 579,224.

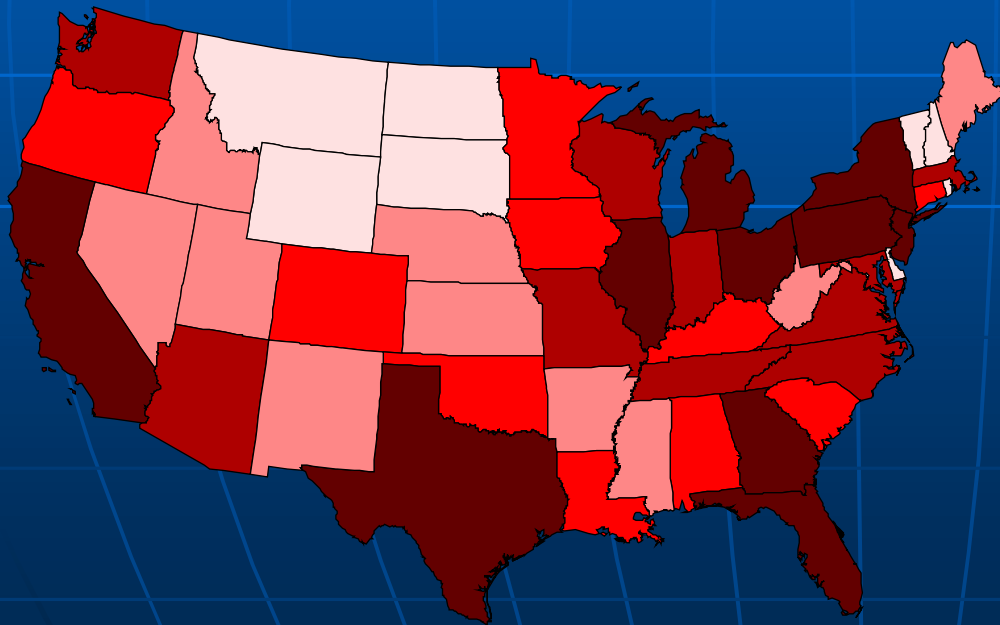
US Population

The map below shows the US population divided into *Natural Breaks*. In this case, the natural breaks are near the 7,000,000 mark.





Natural Breaks



Quintile

Scale

Displaying the same geographical features at various scales may also depict misleading results.

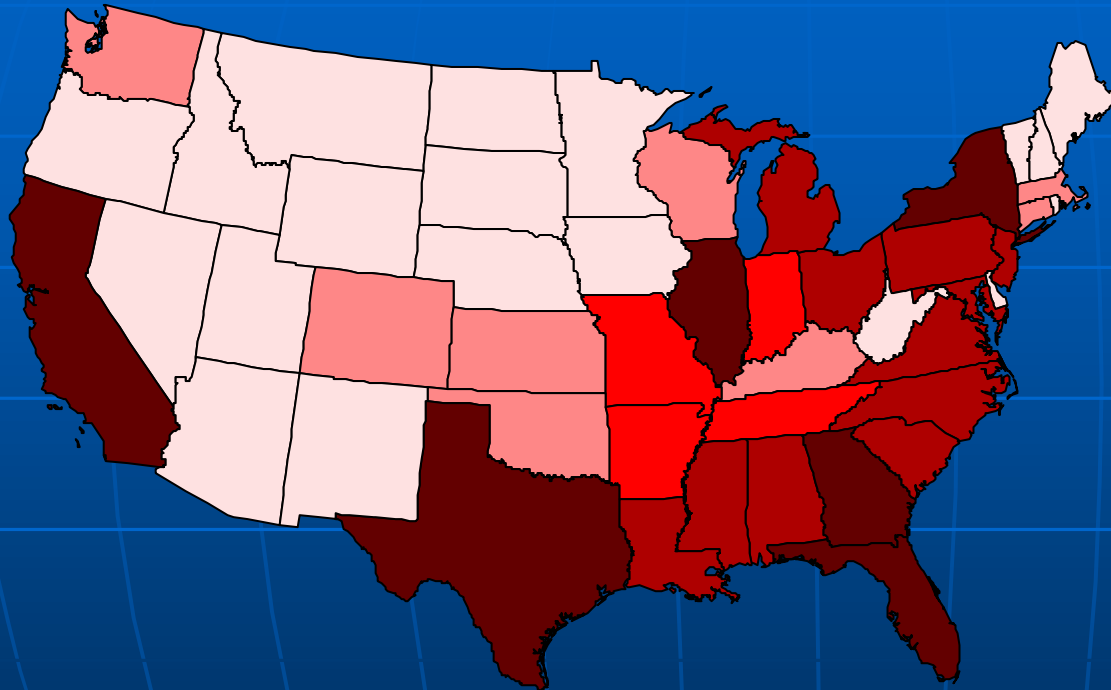
LARGER scales show LESS area per square inch/cm

SMALLER scale maps show MORE area per square inch/cm

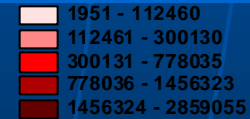
We also look at data at different levels of detail – for example, data at the national, state, and local levels. These can be done on maps of the SAME or DIFFERENT scales depending on the level of detail and readability required.

Continental United States

This map shows the total number of African-Americans per state. Examine Georgia.



Total Number of African-Americans in each State

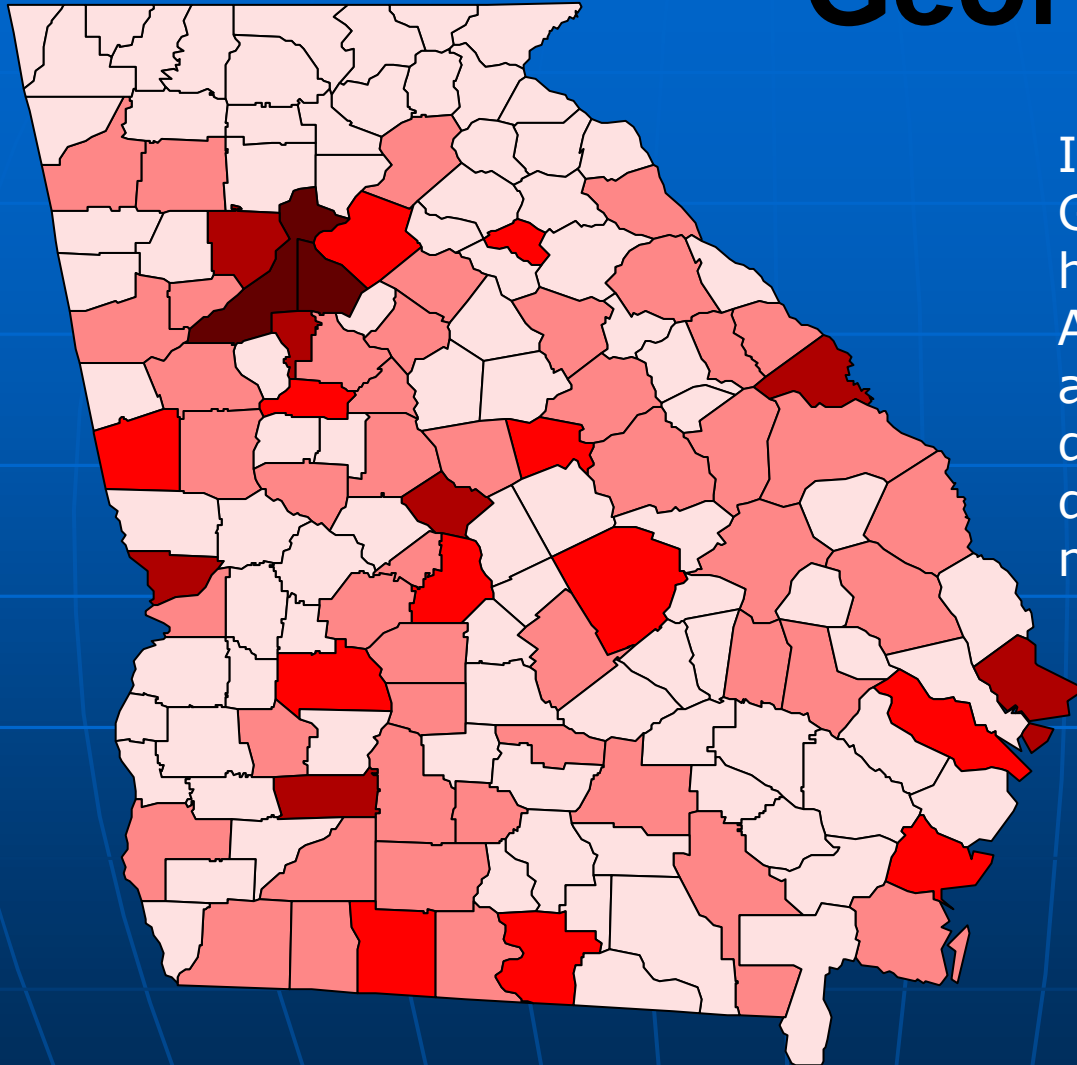


900 0 900 1800 Miles



Georgia

In the previous slide, Georgia had one of the highest number of African-Americans, but a closer look tells a different picture. The dark red is the Atlanta metropolitan area.



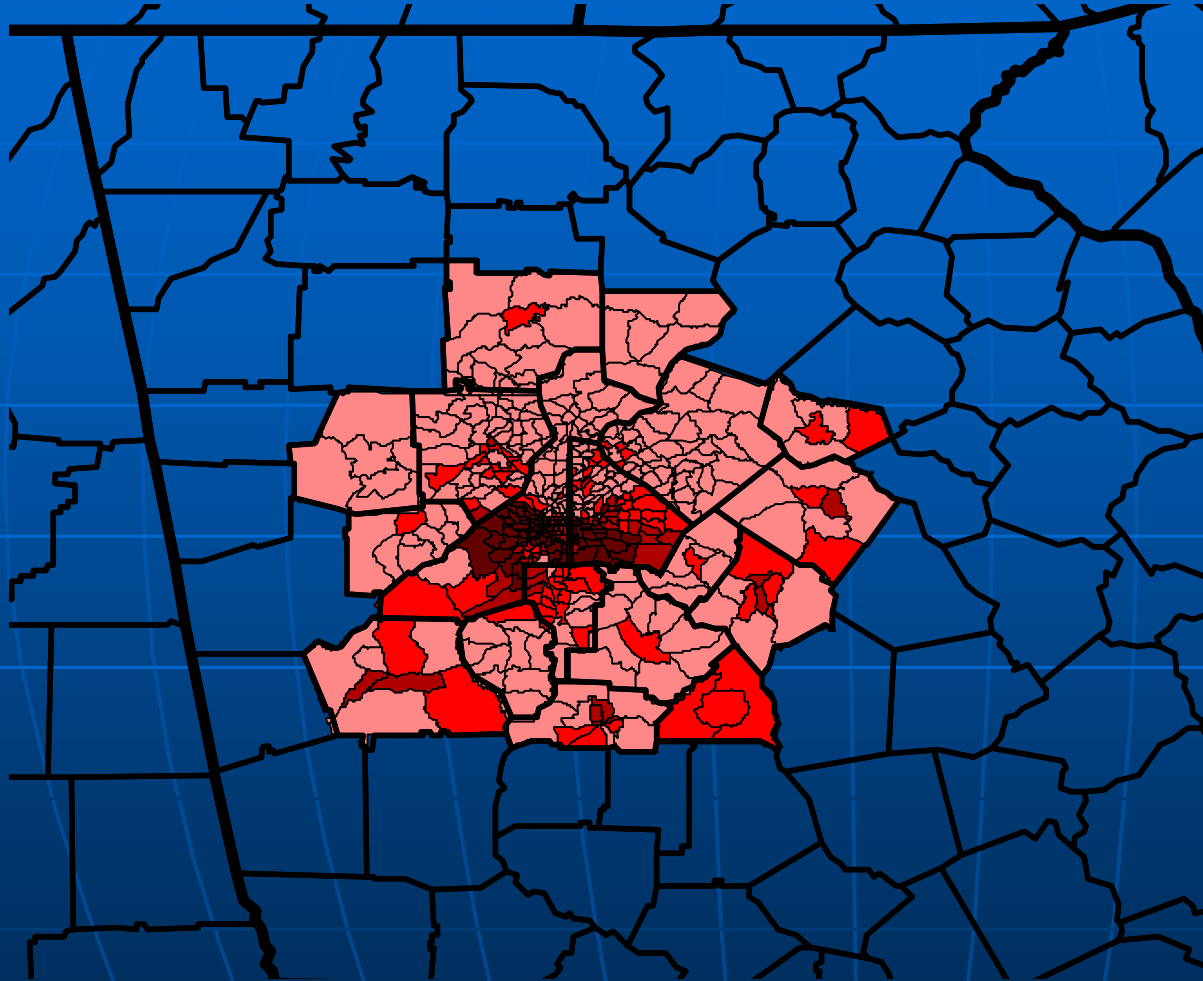
Number of African-Americans per County



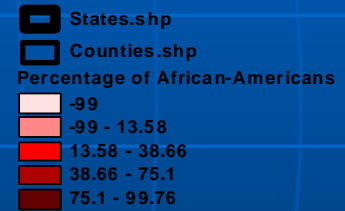
100 0 100 200 Miles



Metropolitan Counties of Atlanta



Using Census Tracts of the Atlanta Metropolitan Area, a different scale gives different results.



60 0 60 120 Miles

Atlanta Metropolitan Area Census Tracts

