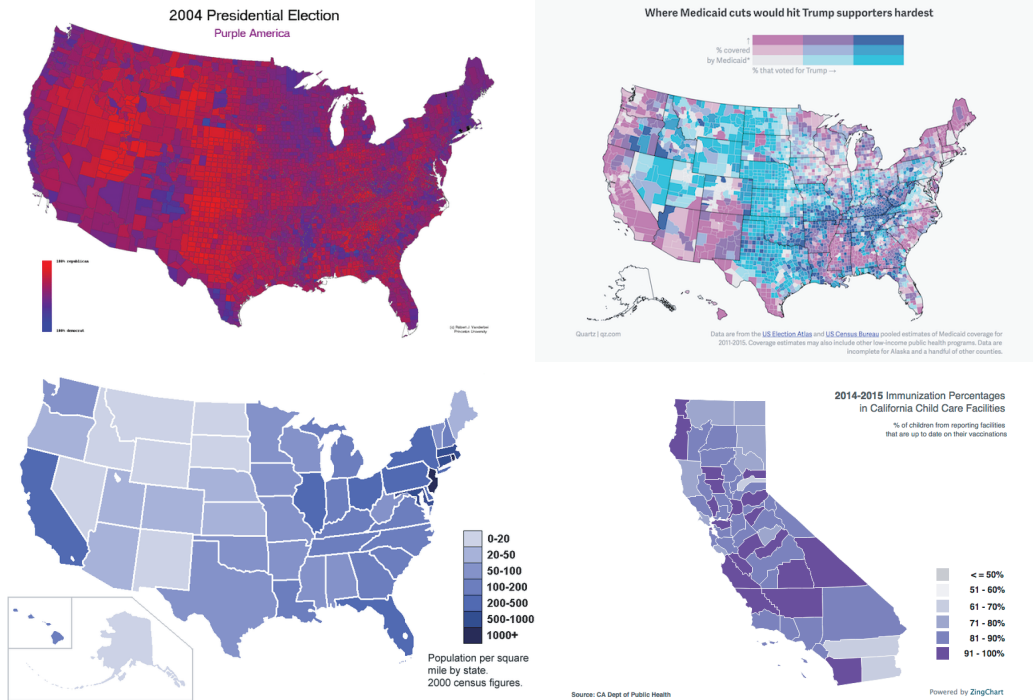# CHOROPLETH MAPPING

Choropleth maps are shaded by area in accordance to some variable, as shown in a few examples here. It is important to think about this type of map because point data is not adequate to represent area features, such as the state data that you have for Assignment 5. It is incredibly important to usean equal area projection (e.g. U.S. Albers Contiguous Equal Area) for a choropleth; this makes sense because areas are shaded, so areas should not be distorted, otherwise the viewer might get the wrong idea from the map.
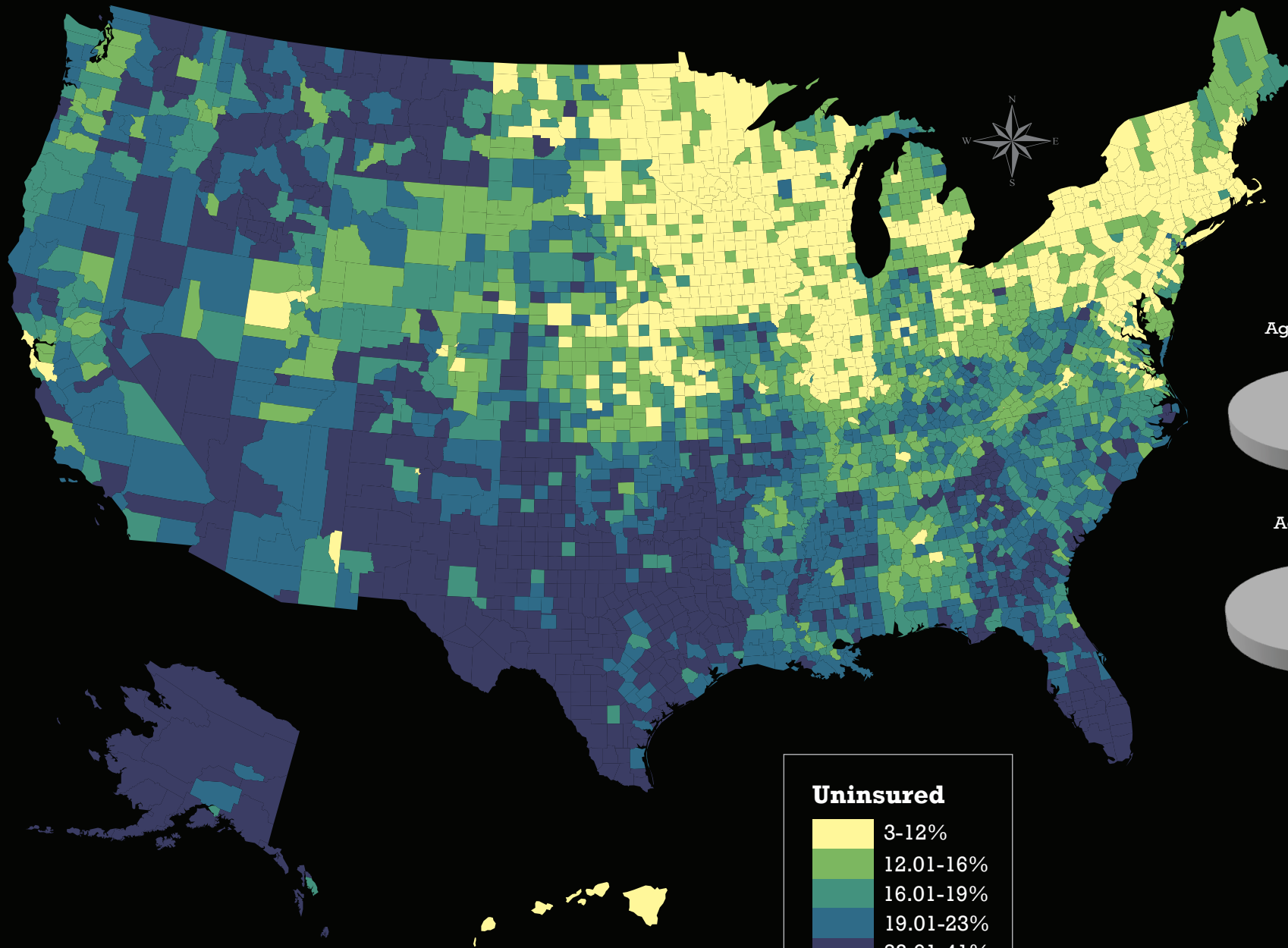
HOW TO:

First, you'll need to attach the state data from the CSV to the state data that you have from Natural Earth. To do this, you'll need to perform a data join. Right click on your state geometry layer and click "Joins and Relates". To create the join, you'll match the fields with the same values, which would be the state names. This effectively attaches the nuclear data by state to those polygons.
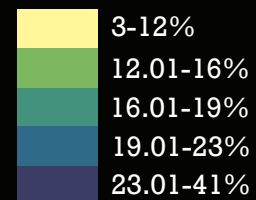
To symbolize these values by color, right click on the states layer and click Properties > Symbology > Graduated colors. You'll choose a layer (states) and a field to symbolize on (whichever column of nuclear data you want to represent). You then choose a statistical break, each of which have different pros and cons. Choose a color ramp and click "Apply". Move the window out of the way to view the results; explore what different statistical breaks do to the overall distribution of colors and the highs/lows. Remember that we are using NON-categorical data, so use color value rather than color hue to represent differences. As one final example, enjoy below the first choropleth map I ever made (2015), in all of its clunky glory.

WHO'S COVERED?

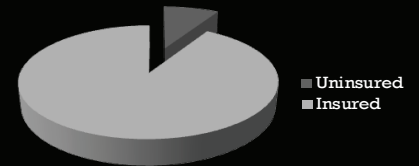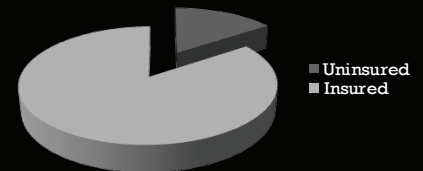**Percent of population, by county, without health insurance**

Nationwide

Age < 19 years

▪ Uninsured
▪ Insured

Ages 50-64

▪ Uninsured
▪ Insured

Uninsured

- 3-12%
- 12.01-16%
- 16.01-19%
- 19.01-23%
- 23.01-41%

1:22,000,000

NAD 1983 NSRS 2007
Contiguous USA Albers
Equal Area

Std. Parallel 1: 29.5
Std. Parallel 2: 45.5
Latitude of Origin: 23.0
Central Meridian: -96.0