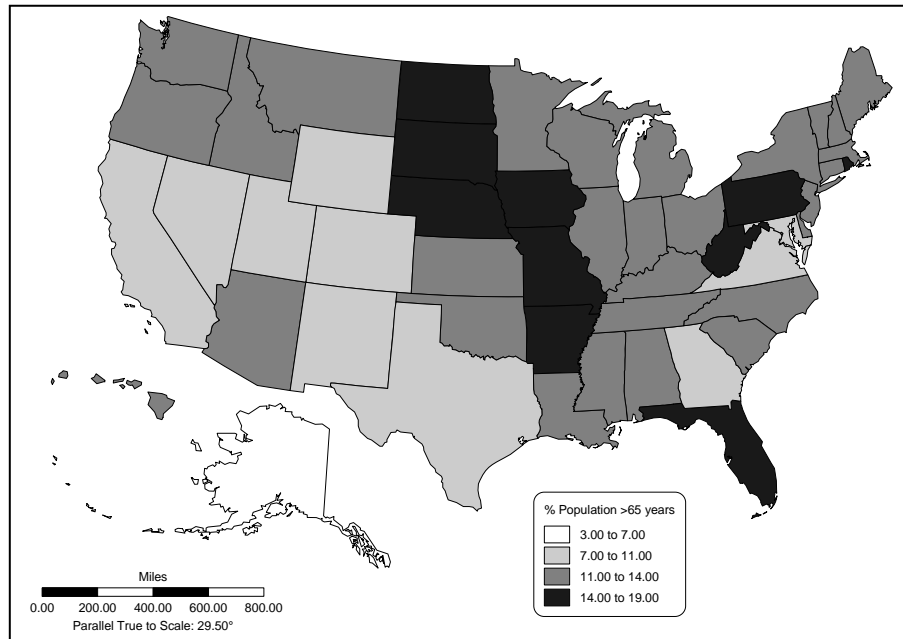


## Reading a Choropleth Map

A **choropleth map** (sometimes referred to as an area-value map) reveals patterns within data by showing the distribution of the chosen phenomenon within the selected area. For example, a choropleth map might show variations in the percent of population above 65 years by state within the United States (see below).



In order to construct a choropleth map, data is aggregated or generalized into classes or categories that are represented on the map by grades of color or shading. The greater the density of color or shading, the greater the density or value represented. For example, states with the greatest percent of total population above 65 years are shaded in the darkest tone; those with the lowest percent above 65 years are shaded in the lightest tone. From the map above, we can quickly see that ten states have more than 14% of their total population in this age group. While such generalization may mask detail, it allows quick observation of patterns and variation, and provides a basis for posing analytical questions.

## Constructing a Choropleth Map

The first step in constructing a choropleth map is determining the range of data. Examine the data to be mapped. Determine the highest and lowest values for the data. Subtract these two numbers in order to calculate the range of the data. Then divide the range by the number of mapping categories you plan to use (3, 4, or 5 categories is recommended, depending on the size of the range). Note: After dividing, it may be necessary to adjust the limits of the categories to avoid fractions.

Assign a color or shade to each category. Keep in mind that colors or shades should be scaled from darkest to lightest, from highest to lowest values. Complete the Key on the map you are using. Then sort the data according to categories. Follow the Key to shade each area according to the data values being mapped. Title the map and include a data source note and cartographers mark in the lower margin.

Your map is now ready for analysis.