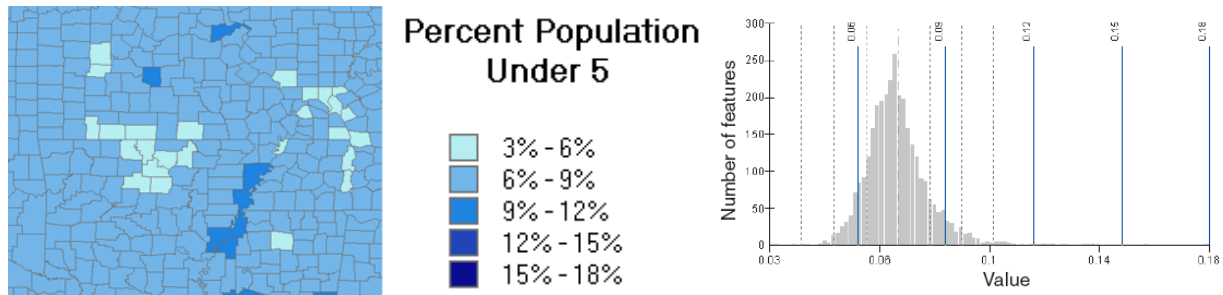


# DATA CLASSIFICATION METHODS

## EQUAL INTERVAL

This classification scheme divides the range of attribute values into equal-sized subranges, allowing you to specify the number of intervals while ArcMap determines where the breaks should be. For example, if features have attribute values ranging from 0 to 300 and you have three classes, each class represents a range of 100 with class ranges of 0–100, 101–200, and 201–300. This method emphasizes the amount of an attribute value relative to other values, for example, to show that a store is part of the group of stores that made up the top one-third of all sales. It's best applied to familiar data ranges, such as percentages and temperature.



### Good for:

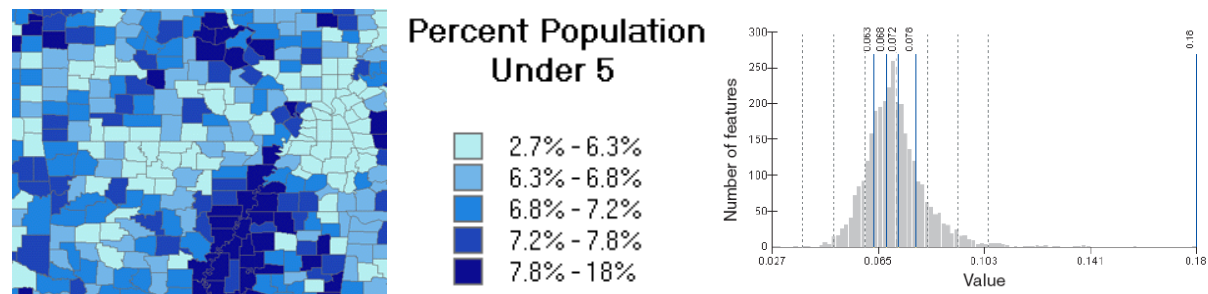
- Presenting information to a non-technical audience
- Easier to interpret, especially if familiar values, like percentages

### Disadvantages:

- If values clustered on histogram, may have many features in one class and none in another

## QUANTILE

Each class contains an equal number of features. A quantile classification is well suited to linearly (i.e., evenly) distributed data. Because features are grouped by the number in each class, the resulting map can be misleading. Similar features can be placed in adjacent classes, or features with widely different values can be put in the same class. You can minimize this distortion by increasing the number of classes.



### Good for:

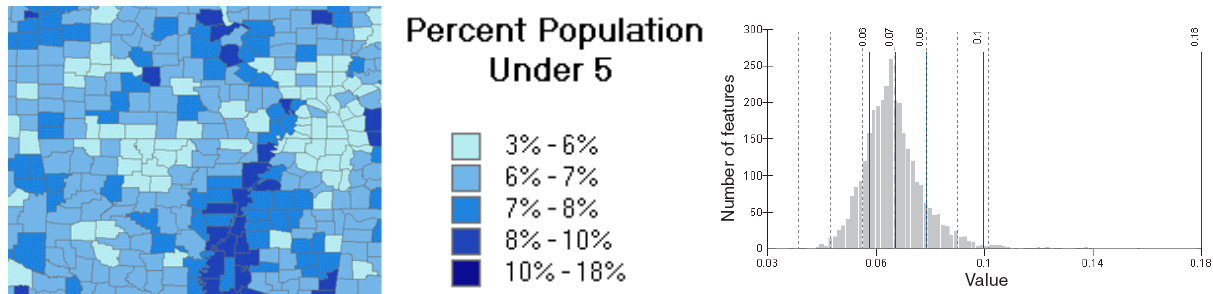
- Emphasizing relative position e.g. which counties are in the top 20% for income (those in the highest of 5 categories)

### Disadvantages:

- Features with similar values may end up in different classes, exaggerating their differences
- Reverse can also happen: wide range of values can end up in same class, minimizing differences

## NATURAL BREAKS (JENKS)

Classes are based on natural groupings inherent in the data. ArcMap identifies break points by picking the class breaks that best group similar values and maximize the differences between classes. The features are divided into classes whose boundaries are set where there are relatively big jumps in the data values.



### Good for:

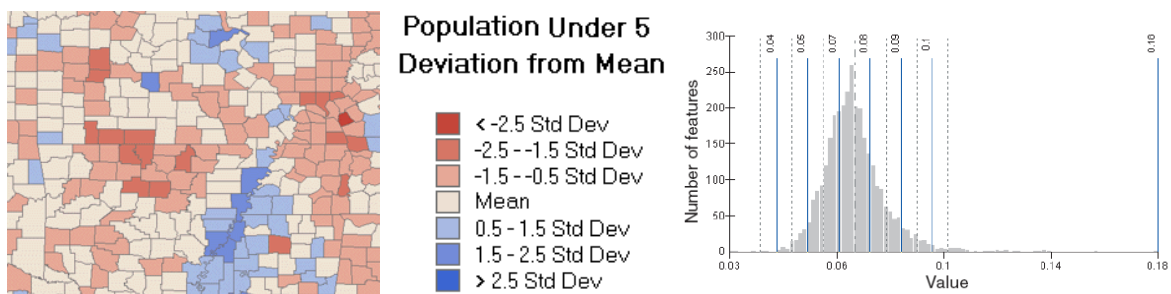
- Mapping values that are not evenly distributed on histogram

### Disadvantages:

- Class ranges are tailored to one data set, so difficult to compare maps for different data sets
- Can be difficult to choose optimum number of classes, especially if data are evenly distributed

## STANDARD DEVIATION

This classification scheme shows you how much a feature's attribute value varies from the mean. ArcMap calculates the mean values and the standard deviations from the mean. Class breaks are then created using these values. A two-color ramp helps emphasize values above (shown in blue) and below (shown in red) the mean.



### Good for:

- Seeing which features are above or below an average value
- Data that has a normal distribution

### Disadvantages

- Map doesn't show actual values, only how far values are from the mean
- Very high or low values can skew the mean

From: ArcGIS 9.1 Help topic "Standard Classification Schemes", ESRI Inc., 2006