2.1 Relationships Between Two Categorical Variables (Part 1)

In Chapter 1, you learned how to display the distribution of a single categorical variable using a pie chart or a bar chart.
In this lesson, you will learn how to display and describe the relationship between two categorical variables.

The first step is to determine which variable is the **response variable** and which variable is the **explanatory variable**.

A **response variable** measures an outcome of a study.
An **explanatory variable** may help predict or explain changes in a response variable.

In some relationships, there isn't a clear explanatory or response variable. For example, in the relationship between eye color and hair color, either variable could be used to predict or explain the other.

Example: Identify the explanatory variable for the following relationships.

a.) Opinion about tax reform and political party membership

b.) Anger level (low, moderate, or high) and whether or not a person has coronary heart disease

c.) A recent college graduates income and how stressed they are about paying back student loans

d.) The number of hours watching TV and academic test scores