Towards Data Visualization

We know that data frames and tables are a powerful way of organizing and displaying summary data. However, large tables of numbers can be difficult to interpret, no matter how organized they are. Sometimes it is much easier to interpret graphs than numbers.

Before we start looking at different ways to visualize data, let's talk about the two main types of data that we will analyze in this class:

TYPES OF VARIABLES

At the beginning of any statistical analysis, it is important for you to identify the types of data that you are working with. One key distinction is the difference between *quantitative* and *qualitative* data.

_____ data are naturally measured numerically. Many of the variables that data scientists study are *quantitative* or *numeric*. Their values are numbers on which you can perform arithmetic. Quantitative data can be further divided into two types:

_____ Variables:	_____ Variables:

Qualitative (categorical) data are not numerically measured. Instead, the data fall into descriptive categories. List a few qualitative variables:

Examples: What type of variables are the following?

a) Occupation:

b) Number of Illini wins in football against Purdue:

c) Type of Phone You Have:

d) Height:

e) Zip Code: