Lab 2A: All About Distributions

Directions: Record your responses to the lab questions in the spaces provided.

In the beginning ...

How to talk about data

Let's begin!
- **Write down the names of the 4 variables that contain the point-totals, or *scores*, for each personality color.**

- **Write down the names of the variables that tell us an observation's *introvert/extrovert* designation and whether they are involved in *sports*.**

- **How many variables are in the data set?**

- **How many observations are in the data set?**

Estimating centers
- **Which values came up the most frequently? About how many people in your class had a score similar to yours?**

- **What, would you say, was a *typical* score for a person in your class for your predominant color? How does your own score for this color compare?**

Means and medians
- **Use a similar line of code to calculate the median value of *your* predominant color.**

  - **Are the mean and median roughly the same? If not, use the dotPlot you made in the last slide to describe why.**

Estimating Spread

- **Look at the spread of the scores from the mean score then complete the sentence below:**
  - *Data points in my plot usually fall within _____units of the center.*

Mean Absolute Deviation

- **How close was your estimate of the spread for your predominant color (from the previous slide) to the actual value?**

Comparing introverts/extroverts

- **Describe the shape of the distribution of scores for the extroverts. Do the same for the introverts.**

- **Do introverts and extroverts differ in their typical scores for your predominant color?**

- **Based on the MAD, which group (introverts or extroverts) has more variability for your predominant color's scores?**

On your own

- **Perform an analysis that produces** *numerical summaries* **and** *graphs***.**

- **Then, write a few sentence interpretations that addresses this statistical question and considers the** *shape*, *center* **and** *spread* **of the distributions of the graphs your create.**