LAB 1B: Get the picture?

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

Where'd we leave off ...

Variable Types

- **Is height a numerical or categorical variable? Why?**

- **Is gender a numerical or categorical variable? Why?**

- **List either the different categories or what you think the measured units are for height and gender.**

Which is which?

- **Write down 3 variables that you think are *categorical* variables and why.**

- **Write down 3 variables that you think are *numerical* variables and why.**

Data Structures

- **List all the types of info the str() function outputs**

- **Were you able to correctly guess which variables were categorical and numeric? Which ones did you mis-label?**

Visualizing data

- **Which function, either bargraph or histogram is better at visualizing categorical variables? Which is better at visualizing numerical variables?**

We have options

- **Make a graph that shows the distribution of people's weight.**

  - **Describe the distribution of weight. Make sure to describe the shape, center and spread of the distribution.**

- **How did including the nint = 3 change the histogram?**

- **Does setting nint = 3 impact how you would describe the shape, center and spread?**

- **Try other values for nint. What value produced the best graph? Why?**

How often do people text & drive?

- **What does the y-axis represent?**

- **What does the x-axis tell us?**

- **Would you say that *most* people *never* texted while driving? What does the work *most* mean?**

- **Approximately what percent of the people texted while driving for 20 or more days? (Hint: There's 13677 students in our data.)**

Does texting and driving differ by gender?

- **Write a sentence explaining how boys and girls differ when it comes to texting while driving.**

- **Would you say that most girls never text and drive? Would you say that most boys never text and drive?**

- **How did including the groups argument in your code change the graph?**

Do males/females have similar heights?

- **Can you use this graphic to answer the question at the top of the slide? Why or why not?**

- **Is grouping numeric values, such as heights, as helpful as grouping categorical variables, such as texting & driving?**

Do males/females have similar heights?

- **Why does this work for bargraphs but not for for histograms?**

- **Do you think males & females have similar heights? Use the plot you create to justify your answer.**

- **Just like we did for the histogram, is it possible to create a *split* bargraph? Try to create a bargraph of drive_text that's split by gender to find out.**

On your own:

- **What other factors do you think might affect how often people text and drive?**

  - **Choose one variable from the cdc data, make a graph, and use the graph to describe how drive_text use differs with this variable.**