Name:_____ Date:_____

Lab 1B: Get the Picture?
Response Sheet

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

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?

Name:_____ Date:_____

Lab 1B: Get the Picture?
Response Sheet

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 word *most* mean?

- Approximately what percent of the people texted while driving for 20 or more days? (Hint: There's `15624` students in our data.)

Does texting and driving differ based by gender?

- Fill in the blanks with the correct variables to create a side-by-side bargraph:

```
bargraph (~ _____, data = _____, groups = _____)
```

- Write a sentence explaining how boys and girls differ in their 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?

Name:_____ Date:_____

Lab 1B: Get the Picture?
Response Sheet

- 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 histograms?

- Fill in the blanks with the correct variables to create a split histogram (The " | " symbol is usually between the delete and enter keys on a keyboard) to answer the questions below:

```
histogram (~ _____ | _____ , data = _____ )
```

- 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?

Name:_____ Date:_____

Lab 1B: Get the Picture?
Response Sheet

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