Thought Experiment Consider the following two variables:

- The `height` of all adults in the United States

- The annual `income` of all working adults in the United States

Think about the distribution of each variable, and discuss the following questions with a neighbor.

1. Sketch a density plot for the distribution. What features does it have? Is it symmetric? Is it normal? It is unimodal?

2. Label the axes on your density plot. What is the range of each variable?

3. How would you summarize each distribution numerically? Which measures are most appropriate?

4. Suppose that the government issued a tax rebate in the amount of $2000 to each American taxpayer. How would the distribution of `income` change? What would happen to your measures of center and spread?

Using a similar approach to the above, sketch out the expected distribution for the following variables:

- number of piercings

- scores on an exam

- IQ scores