Lab 2E - The Horror Movie Shuffle

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

How many variables and observations are contained in the data and what are the possible values of the variables?

Which gender had more survivors? Write down a few sentences as to how you came to your conclusion. Be sure to look at both the *counts* and *proportion* of survivors before deciding.

Calculate the difference between the proportion of females who survived and the proportion of males who survived. Is the difference large enough to conclude that women tend to survive more often than men?

The last question on the previous slide can be answered using the 2nd line of code. Why?

How many people survived, in total, the slasher film before shuffling? How many people survived after shuffling?

How has shuffling our data changed the proportion of women who survived compared to men who survived?

Is the difference in proportions from your shuffled data larger or smaller than the difference from the original data? Interpret what this means.

Explain why shuffling our data one time is not enough to decide if the difference seen in our *actual* data occurs by chance or not.

View your shuffled data and explain what the rows and each column represents.

For the first row of shuffled data in the shuffles, what is the difference between proportion of females who survived and the proportion of males who survived?

What was the typical difference in proportions between men and women survivors?

Locate the value of the *actual* difference in the plot. Does the actual difference occur very often by chance alone?

Does gender play a role in whether or not a character will survive in a horror film? Explain your reasoning.

If you wanted to survive in a horror film, would you want to play a female character or a male character?

Does shuffling the gender variable instead of the survival variable change your answer to the question *Does gender play a role in whether or not a character will survive in a horror film?*

Why or why not?