

Final Project – Hypothesis

The first step in the final project is to come up with a hypothesis which must be approved by the instructor. Do not complete the project without an instructor approved hypothesis. Your hypothesis should meet the criteria below:

- If you have decided on a college major, please select a hypothesis that would be relevant in your program of study. Otherwise, select a hypothesis from an area of interest.
- You cannot use any of the examples given in the class notes, homework, or the book for your hypothesis.
- Your hypothesis should be different than other students in the class. If you submit a hypothesis that has already been selected by another student, you will be asked to submit a new one.
- Your hypothesis must be based on a single quantitative (continuous) variable. You will not actually collect data, but will simulate a data set in StatCrunch. Try to pick a variable that can reasonably be simulated with a normal distribution (does not need to be perfect, but should not have any obvious issues).
- Your hypothesis must require a two tailed test for the population mean. Therefore, it will be written as follow:

I want to prove that the population mean (variable) is not equal to (some numerical quantity).

Examples

- 1) I want to prove that the population mean height of adult males is not equal to 72 inches.
- 2) I want to prove that the population mean composite ACT score is not equal to 22.
- 3) I want to prove that the population mean attendance at college basketball games is not equal to 10,000.

You will submit your hypothesis in Blackboard and I will look at them as they are submitted. In addition to your hypothesis, you should submit the following: a sample size (recommend between 1000 and 1500), an estimate for the population mean of your variable, and an estimate for the population standard deviation of your variable (do a quick search if you are not sure about the mean and standard deviation). **If you receive the 10 points for the hypothesis assignment, your hypothesis has been approved. Make sure to check for feedback as I will make suggestions sometimes even when I approve your hypothesis.** If I see an issue with your hypothesis (or other submitted information), then I will not give you the points and will provide you with feedback. You will then need to submit your hypothesis again taking into account the feedback. This process will be repeated until you submit a hypothesis that is approved.