Quiz 15: Project ideas

Read the guidelines for our course project, available from a link on our course webpage. Then consider five research questions that could be proposed for class projects:

A. Are people more likely to insert L rather than R for the missing letter in F A I __ if they are given a red pen rather than a blue pen?

B. Do baseball games in the National League differ from games in the American League with regard to average runs scored for the two teams combined, average margin of victory, average time to play the game, or proportion of games won by the home team, or average time to play the game?

C. Do statistics textbooks differ from mathematics textbooks with regard to average number of words per sentence or average number of letters per word?

D. Do male and female Cal Poly students differ with regard to the likeliness of wearing clothing that displays the words “Cal Poly”?

E. Do people tend to predict a higher population value for the city of Milwaukee if they are first told the population value for the nearby city of Chicago than if they are first told the population value for the nearby city of Green Bay?

1. Which two of these projects would entail using random assignment rather than random sampling? (Identify them by letter, here and with all questions on this quiz.)

2. Which two of these projects do not have people as the observational units?

3. Which one of these projects has at least one quantitative variable and at least one categorical variable as response variables?

4. Do all of these projects have a binary explanatory variable?

5. Which one of these projects violates one of the rules about explanatory variables for STAT 301 course projects?