Econ 5/Poli 5D: Class 3

Lab 1 Instructions

1. Download "mpg.xlsx" from our section's folder on TritonEd.
2. Rename the file as "LastName_Lab1.xlsx".
3. Freeze the first column and first row (use Google if you need to).
4. Generate the following variables, one per column, starting in column M
    a. **mpg_avg** = the average between **cty** and **hwy**
       = the average MPG equally weighting city and highway mileage
    b. **high_mph** = 1 if mpg_avg > 25, 0 otherwise
5. Filter the data and sort by **mpg_avg** from highest to lowest.
6. Insert a blank column to the left of **manufacturer** and label it **mpg_rank.**
7. Generate the **mpg_rank** variable starting at 1 and ending at the number of observations, and redo the filter such that **mpg_rank** is included in the filter.

Create a new sheet and rename it "Analysis". Complete the following tasks on this new sheet.

8. Calculate the average, max, min, and median of **hwy** and label each.
9. Use COUNTIF to calculate the frequency that (label each):
    a. **high_mpg** = 0
    b. **high_mpg** = 1
10. Use AVERAGEIFS to find the average **hwy** when (label each):
    a. **year** = 1999 and **cyl** = 4
    b. **year** = 2008 and **cyl** = 4
11. Use MATCH to find the row that **mpg_avg** = min(**mpg_avg**)
12. Use VLOOKUP to find the **class** of the observation where **cty** = min(**cty**)

Save your Excel sheet. Upload "LastName_Lab1" to the correct submission area in TritonEd.