

Problem Set 1
Econometrics 410
Prof. Taber
Due: Thurs Feb. 4

Problem 1. Look for some magazine, web page, or newspaper article that discusses an empirical study for which causation/correlation is an issue. Explain what the true causal effect of interest is. That is explain what question we would ideally like to answer. Explain other possibilities that may account for the correlation that is found.

Problem 2. Please do the following exercise using data from stata. Turn in the stata log file. This is a case for which if you work with a classmate on the stata work, you may turn in copies of the same stata log file.

- a) Load the data set CPS78-85.dta
- b) Summarize the data
- c) This data set has “log wage” rather than wage. Construct the wage using “gen wage=exp(lwage)”
- d) Produce an estimate of the conditional expectation of wages conditional on year
- e) Using 1985 only, produce an estimate of the conditional expectations of wages by gender

Problem 3. This is another stata exercise. The directions for problem 2 hold.

- a) load the data set wine
- b) list the country name, the amount of wine consumed per capita, and the per capita death rate
- c) Produce a scatter plot of alcohol and deaths
- d) What is the correlation coefficient between the two? (hint: command correlate)
- e) Do you think this is causal? Give an alternative story for the results. That is, is this likely Case 1, 2 or 3. Explain why.