

Assignment 5**Due Monday October 23, 6 pm****Both Assignment and Project Description should be handed in during class, put under Prof. Kahn's door (518C) or put in her mailbox (531)****This Assignment will be needed for the midterm**

(Worth ½ point if completed and handed in on time; late assignments lose per day)

Multiple Regression

1. What possibly confounding factors that you have or can get data on should you include in a multiple regression, to more accurately measure the direct effect of your key explanatory variable on your dependent variable?
2. For any one of these confounding factors, explain exactly why leaving that variable from the regression is likely to bias the coefficient of your key explanatory variable. In your explanation, predict the sign of the omitted variable bias (when you do not control for that factor) and explain exactly why you expect that sign, using methods and formulas learned from Chapter 13.
3. Run a multiple regression that answers (or begins to answer) your main research question (and includes all possibly confounding factors that you can measure.) **Copy and paste** the related command line and Stata regression output from the Results panel (formatting as Courier New 9 point). Be sure all the variables are named in a way that tells readers what they are, and that you have defined these variables in Project Description).
4. Using this actual coefficient in this multiple regression, was the sign of bias that you predicted in Q2 correct? If not, explain why not. (1-3 sentences)
5. Explain what you learn from this regression that addresses your main research question, making sure to explain the precise meaning of important coefficients. This text can be written informally. It should include enough detail so the prof/TA can read it and see if you understand the meaning of the regression results and are correctly interpreting it. (1/2 to 3 pages).
6. Finally, update the Project Description (Questions 1-6) if you have changed or added any part of it. Also, answer Project Description Questions 7 and 8 in your (which involve summarizing and/or making a tab of all variables you are using.)