Economics 311 — Fall 2017
Daily Problem #14 — October 23

Suppose that you have strong but not perfect multicollinearity in your regression with two regressors, X_1 and X_2.

a. What does "strong but not perfect" multicollinearity mean about X_1 and X_2?

b. Are your coefficient estimates biased or unbiased? Why?

c. Are the standard errors of the coefficient estimators biased or unbiased estimators of the true standard deviation of your coefficient estimates? Why?

d. If the variables actually have an effect on Y, what result are you likely to get for the t statistics that test individually whether each coefficient is zero? Why?

e. If the variables actually have an effect on Y, what result are you likely to get for the regression F statistic that tests the hypothesis that *both* coefficients are zero? Why?

f. In what way, if at all, is your Stata output misleading you?