

*Problem set is due Tuesday, Dec. 2nd in class.*

1. Using your data, estimate a sensible regression (using R) that includes an interaction term. Fully interpret the results and include any relevant graphs. Does anything else change? Standard errors? Fit statistics?
2. Using your data, estimate a sensible regression (using R) that includes a squared term. Fully interpret the results and include any relevant graphs. Does anything else change? Standard errors? Fit statistics?
3. Using your data, estimate a sensible regression (using R) where you have taken the log of a continuous variable (either an independent variable or a dependent variable or both). Fully interpret the results. Does anything else change? Standard errors? Fit statistics?
4. Using your data, estimate a sensible regression (using R) with at least three independent variables, and designate one variable as the “variable of interest.” Estimate a second regression where you omit one variable that is not the “variable of interest.” Estimate a third regression where you omit two variables, neither of which is the “variable of interest.” Comment on the results. Does the bias in models two and three conform to expectations? What are the relationships between the omitted variables in the different models?