POLS 6481, Spring 2021

Professor Scott Basinger

Reading Assignment week 09

Distributed Friday, March 26

Due Thursday, April 1

Required reading: Wooldridge 7.5 + 8.5 + 17.1 (+ Appx 17A)

Aldrich & Nelson *Linear Probability, Logit, and Probit Models*, p. 1–66

1. According to Wooldridge, what are three likely shortcomings of the linear probability model (LPM)?

2. Why do we use weighted least squares (or FGLS) with linear probability models? i.e., what problem is it meant to address and how does it fix the problem?

3. What are the steps for using Feasible Generalized Least Squares with a linear probability model?

4. How does an LPM translate fitted values from a linear equation into predicted probabilities?

4½. Suppose you estimate an LPM and it yields = –1 and = 1.5. Suppose *xi* = 1; what is the predicted probability that *yi* = 1?

5. How does logit translate fitted values from a linear equation into predicted probabilities?

5½. Suppose you estimate a logit and it yields = –1 and = 1.5. Suppose *xi* = 1; what is the predicted probability that *yi* = 1?

6. How does probit translate fitted values from a linear equation into predicted probabilities?

6½. Suppose you estimate a probit and it yields = –1 and = 1.5. Suppose *xi* = 1; what is the predicted probability that *yi* = 1?

7. Each variable’s marginal effect on the predicted probabilities depends on the values of all other variables when you are using logit or probit. However, every variable’s marginal effect is greatest at a particular location; at what point is this? Why?