Final Exam
Labor Economics
Econ 816
December 1998

The whole exam is about Heckman’s model of human capital accumulation. Start with his model and add:

a) Uncertainty about future wages;
b) The potential for corner solutions; and
c) The potential for different types of education (i.e., some people become Ph.D. economists, and some become plumbers).

Also put the model in discrete time so that it will be easier to apply it to data.

Using your model, show how people decide how much education and what type of education to get. Also use your model to explain why people switch jobs frequently early in their career and then settle down to a long-term job.

Describe how to estimate the structural parameters of your model. Be explicit about what parameters you are estimating, what estimation method you are using, what your objective function is (e.g., write the log likelihood function or the orthogonality conditions), and what (reasonable) data you are assuming you have. Keep in mind that observed wages are a) subject to selection bias and b) reflect both productivity and on-the-job training expenses.

Describe how you could add features to both your theoretical and empirical model to handle:

a) Marital decisions and fertility decisions;
b) Nonlinear budget spaces; and
c) Joint household decision-making.

You do not have to be as precise for this part; it is only necessary to discuss an approach to the problem, issues that need to be addressed, and possible solutions.

Really big important hint: I am going to be very sympathetic to creative, thoughtful, rigorous thought and very unsympathetic to attempts to fit the problem into inappropriate models we discussed in class. There is no model that we discussed in class that will fit the problem.

Another really big important hint: I am looking for crisp, thoughtful arguments. I am not looking for long, irrelevant discourses.