Midterm
Graduate Labor Economics
10/26/98

I. Do 2 out of 3 questions (20 points each).
   1) Describe in detail how to estimate a wage equation controlling for selection bias nonparametrically.

   2) Describe why Heckman and Macurdy treat $\lambda$ as a fixed effect rather than as a random effect. What does it mean to consider a change in labor supply with a change in the wage holding $\lambda$ constant?

   3) Explain why the Slutsky substitution matrix is symmetric and negative semidefinite. How would you interpret a statistical result rejecting the Slutsky substitution matrix’s symmetry and negative semidefiniteness?

II. Do 1 out of 2 questions (35 points each).
   1) Write down a model of a couple deciding when to retire. Allow for the possibility that they retire at different times but that they are likely to retire at times close to each other. Suggest how to estimate the parameters of your model given data on retirement dates for both couples and a reasonable set of explanatory variables. Be as precise as possible.

   2) Write down a model of a woman choosing between working, marrying, or being supported by AFDC. Use the model to evaluate the effect of instituting a five year limit on the number of years one can collect AFDC. Suggest how to estimate the parameters of your model given longitudinal data on work experience, marriage histories, AFDC receipt, and a reasonable set of explanatory variables. Be as precise as possible.