

Problem Set 1
Labor Economics
Prof. Taber
Due: Wed Sept. 23 in class

Problem 1. Generate data from the Roy model in which the log of the skills are joint normally distributed. Simulate the model for several different specifications of the parameter values. Graph the data and also show whether there is positive or negative selection into occupations (by looking at the conditional and unconditional means).

Now for one of these cases use the formulas in class to predict the Expected log wage for fisherman and the expected log wage for hunters. Simulate this from your model and verify that you get the same answer.

Problem 2. In some statistical package generate a parametric version of the Roy model. Next pretend you have data from this simulated model (and like the labor supply model only observe wages for the fisherman). Using the four steps described in class, show that you can recover good estimates of the parameters you used to simulate the data.