90-771, Applied Econometrics II
Heinz School, Carnegie Mellon University
Spring, 2004-5

Homework #3 (counts as 2 homeworks), due Thursday, April 28

Please use the MEPS data from the website for this assignment. We are curious about the determinants of medical spending.

1. Please use a linear probability model to make an estimate of and a 95% confidence interval for the effect of having employment on the probability of having health insurance. Please use bootstrapping to calculate the standard error of the estimate and to calculate the confidence interval. In the LPM, please control for age, sex, employment and income.

2. Please use a linear regression model to estimate the effect of a $1 increase in income on health spending, controlling for age, sex, and employment. Make a 95% confidence interval.

3. Why might you want to estimate a Tobit model or a sample selection model rather than the linear regression model?

4. Please use a Tobit model to calculate the average marginal effect of income on expected medical spending in the sample. (proc qlim!)

5. Do the same using a sample selection model. On the selection equation please include age, sex, employment, insurance, and income. On the spending equation, please include age, sex, and income.