90-907, PhD Econometrics II
Heinz School, Carnegie Mellon University
Fall, 2006

Homework #4, due Friday, December 2

1. Please use the hospital county data from the website. We are interested
   in modelling the demand for hospital beds. Our data is at the county
   level. The problem is, some counties have no hospitals. Please estimate
   the change in the number of demanded hospital beds for each increase of
   1000 in population (and a confidence interval). Also, please estimate the
   expected increase in the number of hospital beds with an increase of 1000
   in population (with confidence interval).

2. Please estimate the effect of a 1000 increase in population on the prob-
   ability of there being a hospital in the county. Do this for the average
   county *without a hospital.* Also, a 95% confidence interval.

3. Please do the above questions again, using bootstrapping to calculate
   standard errors and confidence intervals.