Assignment - ECON 7800 **Dr. Haimanti Bhattacharya**

1. Use "HPRICE1.dta"

i. Regress price on square-foot and number of bedrooms.

ii. Add the interaction of square-foot and number of bedrooms, square-foot square, bedroom square to model *i*.

If you had to choose between these two models, which model would you choose and why? Interpret the coefficients of the model of your choice. [5 points]

2. Use "HPRICE3.dta"

i. Regress selling price of house on number of rooms, number of baths, square footage of the house, square footage of the land lot, age of house and square of age. Interpret the results.

ii. Test for heteroskedasticity in the above regression. What do you conclude? If there is evidence of heteroskedasticity, correct the problem and compare the results with those obtained in part *i*. [5 points]

3. Use "LAWSCH85.dta"

i. Regress ln(salary) on LSAT, GPA, ln(libvol), ln(cost), studfac, age, rank, and region indicators. Interpret the results.

ii. In the above regression, are the law school attributes jointly significant? Are the individual student attributes jointly significant?

iii. Is there a problem of heteroskedasticity in the model? If yes, correct that problem and compare the results with those obtained in part *i*.

[5 points]