Economics 113 Fall 2007 Problem Set #1

(Courtesy of Martha Olney)

Your Name_____

GSI's Name _____

Source: Joan Underhill Hannon (1984) "Poverty in the Antebellum Northeast," *Journal of Economic History* 44 (December). Table 3.

Determinants of Extent of Pauperism, 1823		
independent variable	coefficient	t-statistic
constant	2.51	2.4
% Non-Agricultural L.F.	0.7	2.2
1820 population	0.03	1.05
population growth rate	0.2	0.28
% foreign born	-1.23	-0.81
% nonwhite	1.49	0.76
employment rate	0.03	0.14

Use the regression results summarized in the table above to answer the questions below.

1. **Suppose there are two towns that are alike in all regards with one exception: in A-town 50% of the population is foreign born, but in B-town only 30% of the population is foreign born.**

   a. In which town, A-town or B-town, will the predicted 1823 pauperism rate be higher? Why?

   b. What will be the predicted difference between the 1823 pauperism rates in A-town & B-town? (You will have to go back to the original Hannon article and read the notes to Table 3 in the article in order to correctly answer this question.)

   c. Is the difference in the expected 1823 pauperism rates of A-town & B-town *statistically* significant?

   d. Is the difference in the 1823 expected pauperism rates of A-town and B-town is *economically* significant?

   e. What is the difference between statistical significance and economic significance?

2. **Suppose there are two towns that are alike in all regards with one exception: in C-town 40% of the labor force is non-agricultural, but in D-town fully 80% of the labor force is non-agricultural.**

   a. In which town, C-town or D-town, will the predicted 1823 pauperism rate be higher? Why?

   b. What will be the predicted difference between the 1823 pauperism rates in C-town & D-town?

   c. Is the difference in the expected 1823 pauperism rates of C-town & D-town statistically significant?

   d. Is the difference in the 1823 expected pauperism rates of C-town and D-town is economically significant?

3. **Why do you think that pauperism is higher where population growth is higher?**