Chapter 6. Econometrics

1. You are given a data set containing information on 1,000 individuals. The data set contains a variable coded as “1” if the individual is in the labor force and “0” if the person is out of the labor force. Given the information in Table 6.1, Table 6.2, and found in the various tables at the Bureau of Labor Statistics (http://www.bls.gov/news.release/empsit.toc.htm), what variables do you hope are also included in the data set if you are trying to understand labor force participation? Write down the model you wish to estimate.

2. Suppose you collect data on the average labor force participation rate by age among U.S. males between 16 and 55 in 2011. The scatter plot obtained looks like:

![Labor Force Participation Rate vs. Age](image)

You use the data to estimate the econometric model: \( LFP_i = \alpha_0 + \alpha_1 AGE_i + \epsilon_i \), obtaining the following results: \( LFP_i = 0.733 - 0.001AGE_i \)  

(0.041) (0.001)

where the numbers in parentheses are standard errors. What seems wrong or misleading about these results?

3. In a study by Joulfaian and Wilhelm (1994) on the effect of inheritances on labor supply, two of the models the authors estimate can be summarized as follows:

\[
L_i = \alpha_0 + \alpha_1 INH_i + \epsilon_i \tag{1}
\]

\[
L_i = \alpha_0' + \alpha_1' INH_i + \alpha_2' \omega_i + \epsilon_i \tag{2}
\]
where $L_i$ is the labor supply of person $i$, $INH_i$ is the level of the inheritance received by person $i$, $\omega_i$ is the market wage earned by person $i$. The authors find $\alpha'_0 < \alpha'_i < 0$. Why do you suppose that is?