Problem Set Sample

BUAN 6356

Due: Never

This is a sample problem set. I will complete this as if it were a problem set. You can find my results stored in the ps1 folder. YOU SHOULD **NOT** COMPLETE THIS ASSIGNMENT.

Deliverable: (what you turn in) an R source-code file named ps-sample.r

Question 1

Data (a description of the data set) The data for this question comes from the file Wage1.csv. This data is for various workers at the employee-level in the U.S. We have data on their average hourly wage along with information about their years of education, experience, tenure (years at the same firm), and some job/industry characteristics.

Analysis (steps for you to complete in your code

- Read the data Meap93.csv into a new variable using the data.table package (use a data.frame if you still can't install data.table): context1
- Use summary statistics to familiarize yourself with the data.
- Generate a new variable that is the sum of salary and benefits. Name it: totcomp
- Generate a new variable representing the natural logarithm of enrollment. Name it: lenroll
- Run the following linear model using the 'lm' function. Store the result in: model1

$$\text{math10}_i = \beta_0 + \beta_1 \text{totcomp}_i + \beta_2 \text{lenroll}_i + e_i \tag{1}$$

- Run the following linear model using the 'lm' function. Store the result in: model2

$$\text{sci11}_i = \beta_0 + \beta_1 \text{totcomp}_i + \beta_2 \text{lenroll}_i + e_i \tag{2}$$

Interpretations(add these as comments in your code)

a. Interpret the estimated coefficient on totcomp from model1 (eq 1).

b. Interpret the estimated coefficient on lenroll from model1 (eq 1).

c. Interpret the estimated coefficient on totcomp from model2 (eq 2).

d. Interpret the estimated coefficient on lenroll from model2 (eq 2).

e. Interpret the estimated intercept from model2 (eq 2).