Week 6 Discussion Section Questions

Either 6.3 and 6.22 or 5.7 and 5.15

Ryan Martin

August 10, 2018

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Question 1

5.7 i

Question Statement

$Q_{1^s} = \bar{p}_{1^s}\ \Delta CS_2\ 2^s$

a For each sample partition, obtain the summary statistics of *WAGE*

b A variable's *coefficient of variation* is 100 times the ratio of its sample standard deviation to its sample mean. That is, for a variable y it is

$$CV(y) := 100 \times \frac{s_y}{\bar{y}}$$

where s_y is y's standard deviation and $\bar{y}$ is y's average. What is the coefficient of variation for *WAGE* within each sample partition?

5.7 ii

c For each sample partition, estimate hte log-linear model

$$\log(WAGE) = \beta_1 + \beta_2 EDUC + e$$

What is the approximate percentage return to another year of education for each group?

d Does the model fit the data equally well for each sample partition?

e For each sample partition, test the null hypothesis that the rate of return to education is 10% against the alternative that it is not, using a two-tail test at the 5% level of significance.

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