

MITx: 14.310x Data Analysis for Social Scientists

Heli



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Alternative Functional Forms & Fixed Effects - Quiz

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Consider the following model:

$$log(Y_i) = eta_0 + eta_1 S_i + eta_2 log(P_i) + \epsilon_i$$

where Y_i denotes the mean hourly wage for individual i, S_i denotes the number of years of education individual i has completed, and P_i denotes mother's education.

Question 1

0/1 point (graded)

Which of the following statements are true? (Select all that apply)

- $extcolor{black}{ extcolor{black}{\square}}$ a. eta_1 is the elasticity of wage with respect to education.
- $exttt{ iny b. Each additional year of education leads to a } (eta_1*100)\%$ change in wages.
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- \square d. A 1% change in education leads to a $eta_1\%$ change in wages.

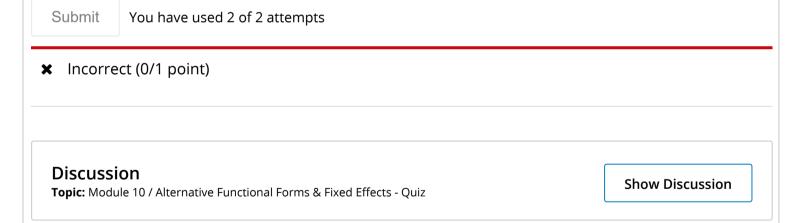
- Module 5: Moments of a Random Variable,
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Explanation

When your outcome is in logs and your regressor is in logs, the coefficients represent elasticities: your coefficients measure the % change in your outcome as a result of a 1% change in your regressor. If your outcome is in logs, but your regressor is not, the coefficient represents the % in your outcome resulting from a **unit increase in your regressor.** So in this example, since the model includes S_i and $\log(P_i)$ - the correct interpretations of β_1 and β_2 are given by B, C and E. The remaining options are incorrect.



Regressions, and
<u>Omitted Variable Bias</u>

Practical Issues in Running

Regressions

due Dec 5, 2016 05:00 IST

Omitted Variable Bias

due Dec 5, 2016 05:00 IST

Module 10: Homework

due Nov 28, 2016 05:00 IST

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