

Checkpoint 4

Sources Required

You can answer all questions in this checkpoint by consulting Chapter 2 of Causal Inference: The Mixtape.

Due Date

This checkpoint is due at the beginning of lecture on Friday, 9/17

Questions

For all questions, make sure to answer all parts of the question. Checkpoints are not eligible for a redo if an answer is left blank.

1. State the CEF decomposition property mathematically. Below your mathematical statement, explain what the CEF decomposition means in words.
2. State the ANOVA Theorem mathematically. Below the mathematical statement, explain what the ANOVA theorem means in words.
3. The Conditional Expectation Function is often non-linear. Provide at least one argument for why using linear regression is useful, even if this is true.
4. What are the four assumptions required for OLS to give an unbiased estimator of the parameters of interest? Explain for each assumption what it means substantively for a research project.

Grading Policy

P/NP. A passing grade is given when every answer is correct.

Makeup Policy

Assignments are eligible for re-takes provided that they are turned in by the original deadline, and a good faith effort is made to answer every question. If a question is left blank, the assignment is not eligible for a redo.