

MITx: 14.310x Data Analysis for Social Scientists

Help



#### **Bookmarks**

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   Probability, Random

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# Instrument Validity: Charter Schools in the US - Quiz

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# **Question 1**

1/1 point (graded)

What would make the lottery outcome or being offered to attend a charter school an invalid instrument for the effect of charter schools on test scores for the pool of applicants?

- ullet a. The pool of applicants is smarter than the general population
- b. It is a perfect instrument
- ullet c. Winning the lottery gave the winners psychological benefits relative to the losers ullet
- d. Some who win the lottery choose not to go to the charter school

## **Explanation**

The pool of applicants being smarter could affect generalizability but not internal validity. If the lottery gave psychological benefits to winners (for example, some people may think winning the lottery signals that they are destined to do well in school) this could increase their test scores independently, rather than through the effect of attending a charter school, which would bias the

<u>Functions of Random</u> Variable

- Module 5: Moments of a Random Variable,
   Applications to
   Auctions, & Intro to
   Regression
- Module 6: Special
   Distributions, the
   Sample Mean, the
   Central Limit Theorem,
   and Estimation
- Module 7: Assessing and Deriving Estimators
   Confidence Intervals, and Hypothesis Testing
- Module 8: Causality,
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   Experiments, &
   Nonparametric
   Regression
- Module 9: Single and Multivariate Linear

results. Some people not choosing to go to charter school would only affect the strength of the first stage regression, though that would not necessarily imply your instrument is invalid (unless a huge number of people do so, or your sample size is tiny). **Submit** You have used 1 of 2 attempts Correct (1/1 point) Discussion **Show Discussion Topic:** Module 12 / Instrument Validity: Charter Schools in the US - Quiz

#### Models

- Module 10: Practical
   Issues in Running
   Regressions, and
   Omitted Variable Bias
- Module 11: Intro to
   Machine Learning and
   Data Visualization
- ▼ Module 12:
   Endogeneity,
   Instrumental
   Variables, and
   Experimental Design

# **Endogeneity and Instrumental Variables**

Finger Exercises due Dec 14, 2016
05:00 IST

## **Experimental Design**

Finger Exercises due Dec 14, 2016
05:00 IST

#### Module 12: Homework

<u>Homework due Dec 12, 2016</u> 05:00 IST

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# Exit Survey

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