

MITx: 14.310x Data Analysis for Social Scientists

Heli



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- Module 1: The Basics of R and Introduction to the Course
- **▼** Entrance Survey

## **Entrance Survey**

- Module 2:
   Fundamentals of
   Probability, Random
   Variables, Distributions,
   and Joint Distributions
- Exit Survey

Module 1: The Basics of R and Introduction to the Course > Introductory Lecture > Data is Powerful, Part II - Quiz

**■** Bookmark

## Question 1

(1/1 point)

Out of the pool of audit-eligible firms, one portion of firms was assigned to the treatment group (where firms would pay into a central pool and auditors would be assigned from that pool to firms) and one portion was assigned to the control group (business as usual). How was this assignment done, and why?

- a. Randomly, to make the experiment less complicated
- b. Randomly, to ensure that there was (in expectation) no systematic differences in the characteristics of firms in treatment and firms in the control groups ✓
- c. Firms were allowed to choose, with the idea being that firms would be more likely to comply with the researchers if they were allowed to choose
- d. Researchers chose which would be in the treatment and which would be in the control, based on which firms were most likely to benefit from the treatment

#### **EXPLANATION**

Firms were **randomly** assigned to either the treatment or control groups, which was a crucial element of the research design. Random assignment was important to ensure that there were no systematic differences between the firms that were assigned to either the control or treatment groups, so that any difference in outcomes among firms in the treatment versus control group can be attributed to the treatment itself. Randomization is an important topic which we will revisit as the course goes on.

You have used 1 of 2 submissions

# Question 2

(1/1 point)

In general, what information does a histogram depict?

- a. A histogram depicts a treatment effect
- b. A histogram depicts changes in an outcome measurement over time
- c. A histogram depicts the number (or fraction) of observations that falls within certain ranges of a particular outcome measurement
- d. A histogram compares original measurements to back check measurements

### **EXPLANATION**

Generally speaking, histograms depict the number of observations that falls within certain ranges, or "bins," of a particular outcome measurement. They are a helpful way for visually describing data. We will discuss histograms further in the coming lectures and provide tools for creating your own histograms using R.

You have used 2 of 2 submissions

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