

MITx: 14.310x Data Analysis for Social Scientists

Help



- Module 1: The Basics of R and Introduction to the Course
- ▶ Entrance Survey
- Module 2:

 Fundamentals of
 Probability, Random

 Variables, Distributions, and Joint Distributions
- Module 3: Gathering and Collecting Data, Ethics, and Kernel Density Estimates
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Examples of Tufte's Principles - Quiz

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Question 1

1/1 point (graded)

True or False: The ability to easily interpret a graph can be relaxed at the expense of a higher data-ink ratio and following Tufte's principles.

a. True

b. False

Explanation

False. One should always make sure that graphs are interpretable standing alone. Application of Tufte's principles, such as higher data-ink ratio, aim to improve the ability of your graph or chart to convey your results, and therefore it would be counterproductive to apply Tufte's principles in a way that makes your graph or chart difficult to read. Additionally, even if applying Tufte's principles improves the overall look of the graph, as mentioned in the previous segment, it is also important that the graphs are conventional enough so that they can be interpreted easily by your target audience.

<u>Functions of Random</u> Variable

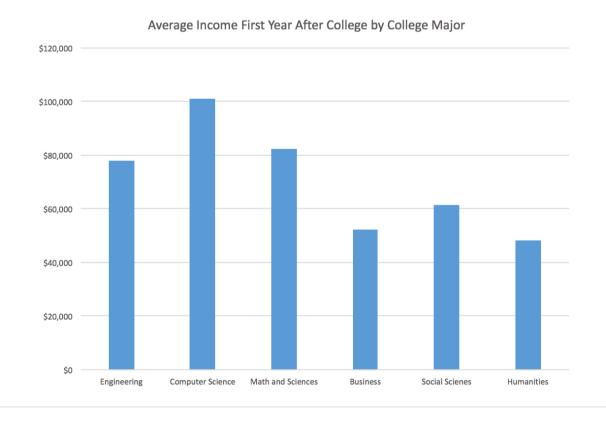
- Module 5: Moments of a Random Variable,
 Applications to
 Auctions, & Intro to
 Regression
- Module 6: Special
 <u>Distributions, the</u>

 <u>Sample Mean, the</u>
 <u>Central Limit Theorem,</u>
 and Estimation
- Module 7: Assessing and Deriving Estimators
 Confidence Intervals, and Hypothesis Testing
- Module 8: Causality,
 Analyzing Randomized
 Experiments, &
 Nonparametric
 Regression
- Module 9: Single and Multivariate Linear

Submit You have used 1 of 1 attempt

✓ Correct (1/1 point)

After receiving your feedback, we have made some improvements to the bar graph that displays the average income during the first year after college by college major. The improved version is below:



Models

- Module 10: Practical Issues in Running Regressions, and Omitted Variable Bias
- Module 11: Intro to
 Machine Learning and
 Data Visualization

Machine Learning I

Finger Exercises due Dec 12, 2016 05:00 IST

Machine Learning II

Finger Exercises due Dec 12, 2016 05:00 IST

Visualizing Data

Finger Exercises due Dec 12, 2016 05:00 IST

- Module 12: Endogeneity, Instrumental Variables, and Experimental Design
- Exit Survey

Ouestion 2

1/1 point (graded)

Based on Tufte's principles, what are some additional edits that can be made to improve the overall look of the chart? (Select all that apply)

- a. Remove the labels underneath each of the bars
- b. Remove gridlines
- c. Remove the dollar signs (\$) from the labels on the y-axis
- d. Flip the bar graph so that it is displayed horizontally



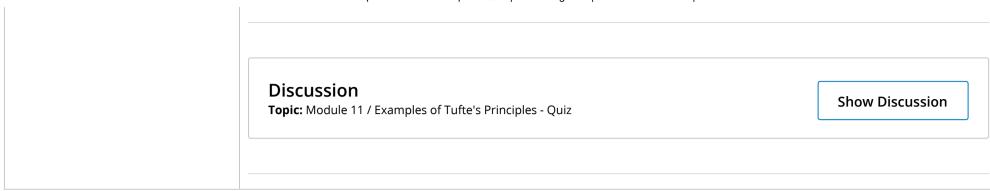
Explanation

B and C both increase the data-ink ratio by getting rid of unnecessary information (gridlines) and repetitive information (dollar signs in the labels). While A reduces the "ink" in the chart, it also would make the chart unable to stand on its own, and therefore is not an edit that we would want to make. Another one of Tufte's principals is that graphics should tend to be horizontal, making D also a correct choice.

Submit

You have used 2 of 2 attempts

Correct (1/1 point)



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