

#### 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
- Module 4: Joint, Marginal, and Conditional Distributions &

Module 11: Intro to Machine Learning and Data Visualization > Visualizing Data > An Example from Economics, Part II - Quiz

# An Example from Economics, Part II - Quiz

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# **Question 1**

1/1 point (graded)

Which of the following are findings of the Chetty et al. (2016) study discussed in this lecture segment? (Select all that apply)

- a. There is significant geographic variation in life expectancy across the United States
- lacksquare b. Within the same city, residents in the top 1% income bracket have the same life expectancy as those in the bottom 1%.
- c. Life expectancy is linear in income percentile
- lacksquare d. On average, the top 1% live only a few years longer (< 5 years) than those in the bottom 1%.

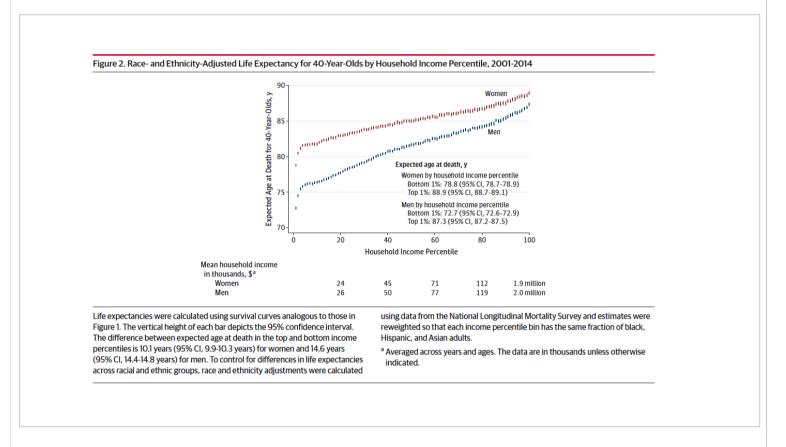


# **Explanation**

<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,
   Analyzing Randomized
   Experiments, &
   Nonparametric
   Regression
- Module 9: Single and Multivariate Linear

The graph below shows that on average, those in the top 1% income bracket live 10 years longer than those in the bottom 1%. As Prof. Duflo mentions during this segment, while the fact that the rich live longer than the poor was not particularly striking, the fact that it was of this magnitude was a bit surprising.



Additionally, the same study found that within the same city, there are significant differences in life expectancy based on income, with the rich outliving the poor, as shown in the below graph. These two findings directly contradict statements B and D, and therefore statements B and D are incorrect. Both A and C were mentioned during this segment and the previous one as key findings of this study.

## **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

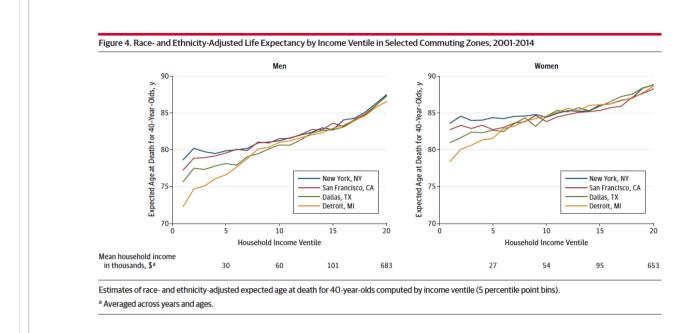
## **Machine Learning II**

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



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You have used 2 of 2 attempts

Correct (1/1 point)

#### Discussion

Topic: Module 11 / An Example from Economics, Part II - Quiz

**Show Discussion** 

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