

MITx: 14.310x Data Analysis for Social Scientists

<u>Help</u>



- 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

Gathering and Collecting Data

Finger Exercises due Oct 17, 2016 05:00 IST

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Module 3: Gathering and Collecting Data, Ethics, and Kernel Density Estimates > Summarizing and Describing Data > Cumulative Histograms - Quiz

Cumulative Histograms - Quiz

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Question 1

1 point possible (graded)
A cumulative histogram is to the _____ what the _____ is to the _____.

- a. CDF, probability density function, histogram
- b. probability density function, histogram, CDF
- c. histogram, probability density function, CDF
- d. CDF, histogram, probability density function

Explanation

A histogram contains information about the frequency of observations within each interval. Dividing the frequency by the total number of observations gives us the density. On the other hand, a cumulative histogram conveys information on the "cumulative" frequency / density and

you move across bins, whereas a normal histogram resets the count for each bin.

Summarizing and Describing Data

Finger Exercises due Oct 17, 2016 05:00 IST

(A)

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Module 3: Homework

<u>Homework due Oct 10, 2016</u> 05:00 IST

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You have used 0 of 2 attempts

- Module 4: Joint,
 Marginal, and
 Conditional
 Distributions &
 Functions of Random
 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

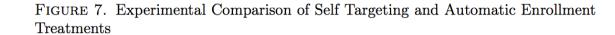
Question 2

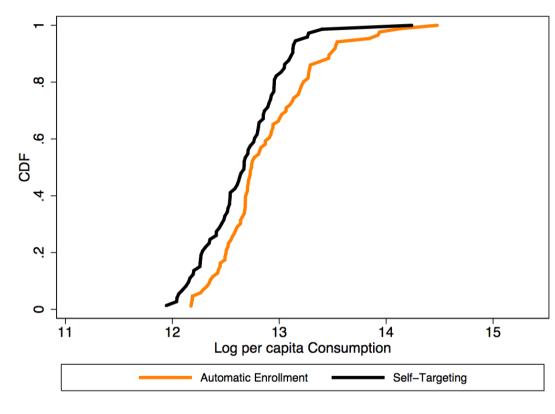
1 point possible (graded)

True or False: The figure below plots the CDF of log per capita consumption for different subsidy scheme targeting methods. The CDF of consumption under automatic enrollment first-order stochastically dominates that under selection.

hence provides an idea of what the CDF would look like. You can think of it as a running count as

- 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** Models
- Module 10: Practical **Issues in Running** Regressions, and **Omitted Variable Bias**
- Module 11: Intro to Machine Learning and **Data Visualization**
- Module 12: Endogeneity,





(A) CDF of log per capita consumption of beneficiaries

True

Instrumental Variables, and Experimental Design

False

- Exit Survey
- Final Exam

Explanation

True. As Professor Duflo explained in class, since The figure shows that the "Automatic Enrollment" curve is to the right of the "Selection" curve. From that, we can see that for any given consumption level, there are more people who consume less than than amount under the "Selection" scheme. So by definition, the automatic enrollment curve first order stochastically dominates the selection curve.

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You have used 0 of 1 attempt

Discussion

Topic: Module 3 / Cumulative Histograms - Quiz

Show Discussion

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