



Bookmarks



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▼ Module 1: The Basics of R and Introduction to the Course

Welcome to the Course

Introduction to R

Introductory Lecture

Finger Exercises due Oct 03, 2016
at 05:00 IST

Module 1: Homework

Homework due Sep 26, 2016 at
05:00 IST

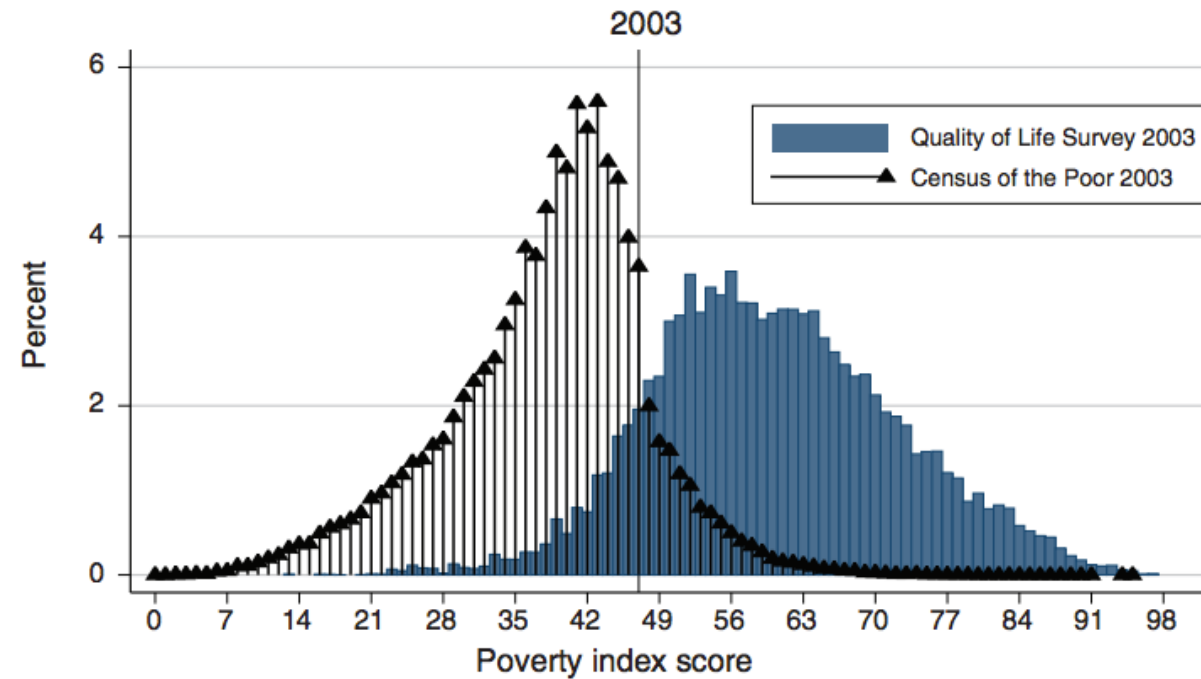
► Entrance Survey

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Module 1: The Basics of R and Introduction to the Course > Module 1: Homework > Questions 9-11

Camacho & Conover (2011) document manipulation of a targeting system for social welfare programs in Colombia. Take a look at the following figure, which shows two histograms: the black arrows present the histogram for a poverty score (lower numbers mean being poorer) that was calculated using the same data the Government collected to target social welfare programs – where only individuals with a poverty score below 48 were eligible to receive most of these programs. The blue bars correspond to the histogram reconstructing this poverty score using other data sources that were not used by the Government for this purpose.

Figure 3:



Question 9

(1 point possible)

What can you conclude from the graph? (Select all that apply)

- ☐ a. People were determined to be poorer in the data set used by the Government to target social welfare programs than in the alternative data sources. ✓
- ☒ b. Due to differences in the way the data is collected it would be expected to see these differences between the histogram represented by the black arrows, and the one shown by the blue bars.

- ☒ c. Since a lot of people apply and look for the benefits of social programs, it is not surprising to see the bunching in the poverty score at 48. It is likely that rational individuals answer surveys in order to have poverty scores that make them barely eligible for social welfare.
- ☐ d. Since a histogram shows how the poverty score varies across different values, it is indeed surprising the bunching at 48. It should be a continuous variable in both, the black arrows and the blue bars.
- ☐ e. The black arrows show a discontinuity in the mass of the population exactly at a poverty score of 48 (the eligibility score used by the government). Since this is not shown with the blue bars, this suggest some sort of manipulation of social welfare targeting. ✓



EXPLANATION

The first statement is true since the histogram with the black arrows is to the left of the one with the blue bars. In addition, the plot shows bunching exactly in 48 (the social welfare eligibility score used by the government) which is not there looking in the blue histogram. Since the data set that was used by the Government to determine social program eligibility is shown with the black arrows, and this pattern is not found in alternative data sources, this suggests some sort of manipulation of social welfare targeting.

You have used 2 of 2 submissions

Continuing with Colombia, *www.laramaciudadana.com* is a blog that publishes quantitative information about different topics of national interest. Their objective is to inform public policy debate by collecting data on these controversial topics and displaying it to a general audience. Their most recent project uses satellite photos to map deforestation and evaluate industrial reforestation efforts in the country. The map is presented in Figure 4: the red dots show the locations where satellites detected deforestation activities, and the yellow dots give an overview of the industrial reforestation efforts made by the Government in recent years. Take a close look at the map.

Figure 4:



Question 10

(1/1 point)

Based on this visualization of the data (see Figure 4, above), would you conclude that the efforts made by the Government are located in the areas where deforestation has taken place?

☐ a. Yes☒ b. No ✓☐ c. From the map this is impossible to conclude

You have used 1 of 1 submissions

Question 11

(1/1 point)

During the introductory lecture, Professor Duflo discussed that human capital externalities are one potential explanation for the fact that the relationship between schooling and output at the country level is larger than the relationship between an additional year of schooling and income at the individual level. She also argued that some of these externalities could stem from teaching or exchanging ideas within a city. A researcher decides to test this idea formally and she correlates the average schooling level in the city with the individual wage of a sample of individuals. She finds a strong positive correlation! From this statistical evidence, could she conclude that there are human capital externalities?

☐ a. Yes☒ b. No ✓

You have used 1 of 1 submissions

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