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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 

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Module 1: The Basics of R and Introduction to the Course > Module 1: Homework > Questions 1-3

Dell (2010) studies the long-run impacts of the *mita*, an extensive forced mining labor system that was in effect in Peru and Bolivia between 1573 and 1812. The *mita* required over 200 indigenous communities to send one-seventh of their adult male population to work in silver and mercury mines. The *mita* took place within the boundary shown in the figure below (take a close look at the figure and be sure you understand it). It also graphs the altitude of the area with respect to the Earth's sea level (browner areas are at higher levels).

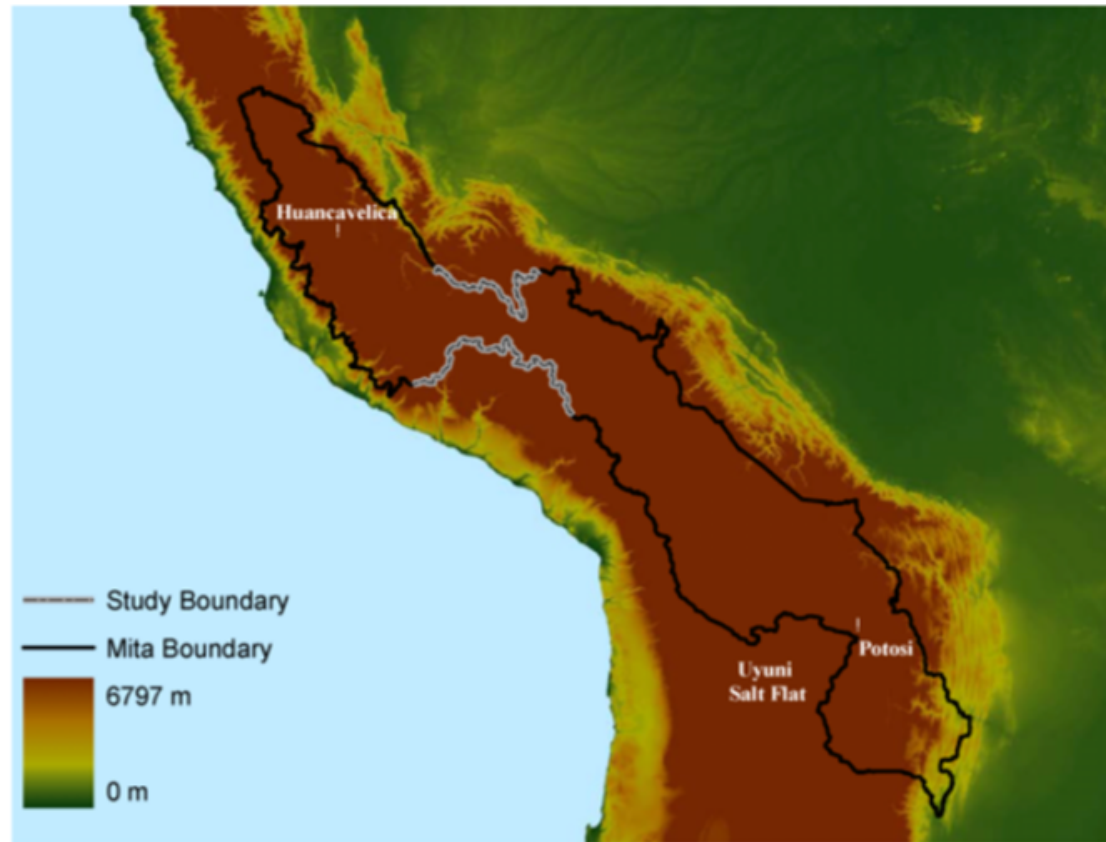


FIGURE 1.—The *mita* boundary is in black and the study boundary in light gray. Districts falling inside the contiguous area formed by the *mita* boundary contributed to the *mita*. Elevation is shown in the background.

Based on this map answer the following questions:

Question 1

(1/1 point)

Which of the following statements are true? (Select all that apply)

- ☐ a. The region where the mita took place has lower altitude levels than the region where it did not.
- ☐ b. The region outside the boundary has higher altitude levels than the region inside.
- ☒ c. The region inside the boundary has higher altitude levels than the region outside. ✓
- ☒ d. The region where the mita did not take place has lower altitude levels than the region where it did. ✓
- ☐ e. The region where the mita took place has lower altitude levels than the region where it did not.
- ☐ f. The mita took place in Argentina and Chile.



EXPLANATION

From the information given, you can conclude that the region inside the boundary is the one where the mita took place. Since it is browner than the rest of the map, it is true that it has higher altitude levels than the region outside. Therefore, it is also true that the region where the mita did not take place is lower compared to the region where it did.

You have used 1 of 2 submissions

Question 2

(1/1 point)

Looking at the figure, and how the color of the area changes within and outside the boundary, what can you conclude?

- ☐ a. Across both, the black and grey boundaries, there is a sharp change in the altitude of the area.
- ☒ b. There is a sharp change in the altitude of the area across most of the black boundary, but not across the grey one. ✓
- ☐ c. There is a sharp change in the altitude of the area across the grey boundary, but not across most of the black one.
- ☐ d. There is no sharp change in the altitude of neither the area across the grey or that of most of the black boundary.

EXPLANATION

Looking at the map you can see that while the area outside the boundary is more yellow (which implies lower altitude levels), this is not the case across the grey boundary, since it is also brown.

You have used 1 of 2 submissions

Question 3

(1/1 point)

In the lecture we discuss the differences between causation and correlation, and the potential risks of confounding the two. If you were interested in studying the causal effect of the mita on long-run development, would you prefer to compare regions within and outside the **grey** or the **black** boundary?

☒ a. Grey ✓

☐ b. Black

EXPLANATION

Ideally to identify the causal effect of the mita, we would compare two equal regions that only differ on the presence of this labor institution. Given the large changes in the altitude across the black boundary, it is likely that other variables that affect development could also change. Therefore, comparing regions within and outside the grey boundary is a better idea since it is expected that they are more similar and that the main differences in long-run development variables are more attributable to the presence of the mita.

You have used 1 of 1 submissions



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