Indiscriminate Violence and Insurgency

In this exercise, we analyze the relationship between indiscriminate violence and insurgent attacks using data about Russian artillery fire in Chechnya from 2000 to 2005.

This exercise is based on: Lyall, J. 2009. "Does Indiscriminate Violence Incite Insurgent Attacks?: Evidence from Chechnya." *Journal of Conflict Resolution* 53(3): 331–62.

Some believe that indiscriminate violence increases insurgent attacks by creating more cooperative relationships between citizens and insurgents. Others believe that indiscriminate violence can be effective in suppressing insurgent activities.

This dataset was constructed around 159 events in which Russian artillery shelled a village. For each such event we record the village where the shelling took place and whether it was in Groznyy, how many people were killed, and the number of insurgent attacks 90 days before and 90 days after the date of the event. We then augment this data by observing the same information for a set of demographically and geographically similar villages that were not shelled during the same time periods.

The names and descriptions of variables in the data file `chechen.csv` are

Name	Description
`village`	Name of village
`groznyy`	Variable indicating whether a village is in Groznyy (1) or not (0)
`fire`	Whether Russians struck a village with artillery fire (1) or not (0)
`deaths`	Estimated number of individuals killed during Russian artillery fire or NA if not fired on
`preattack`	The number of insurgent attacks in the 90 days before being fired on
`postattack`	The number of insurgent attacks in the 90 days after being fired on

Note that the same village may appear in the dataset several times as shelled and/or not shelled because Russian attacks occurred at different times and locations.

Question 1

How many villages were shelled by Russians? How many were not?

Question 2

Were artillery attacks on Groznyy more lethal than attacks on villages outside of Groznyy?
Conduct the comparison in terms of the mean and median.

Question 3

Compare the average number of insurgent attacks for observations describing a shelled village and the others. Also, compare the quartiles. Would you conclude that indiscriminate violence reduces insurgent attacks? Why or why not?

Question 4

Considering only the pre-shelling periods, what is the difference between the average number of insurgent attacks for observations describing a shelled village and observations that do not? What does this suggest to you about the validity of comparison used for the previous question?

Question 5

Create a new variable called `diffattack` by calculating the difference in the number of insurgent attacks in the before and after periods. Among observations describing villages that were shelled did the number of insurgent attacks increase after being fired on?
Give a substantive interpretation of the result.

Question 6

Compute the mean difference in the `diffattack` variable between observations where villages were shelled and those where they were not. Does this analysis support the claim that indiscriminate violence reduces insurgency attacks? Is the validity of this analysis improved over the analyses you conducted in the previous questions? Why or why not? Specifically, explain what additional factor this analysis addresses when compared to the analyses conducted in the previous questions.