

Data-Oriented Programming Paradigms

Group 13:

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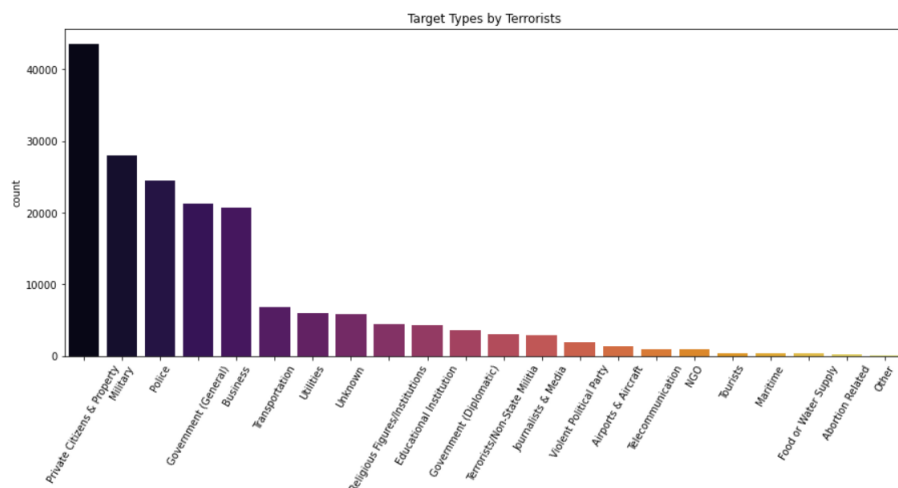
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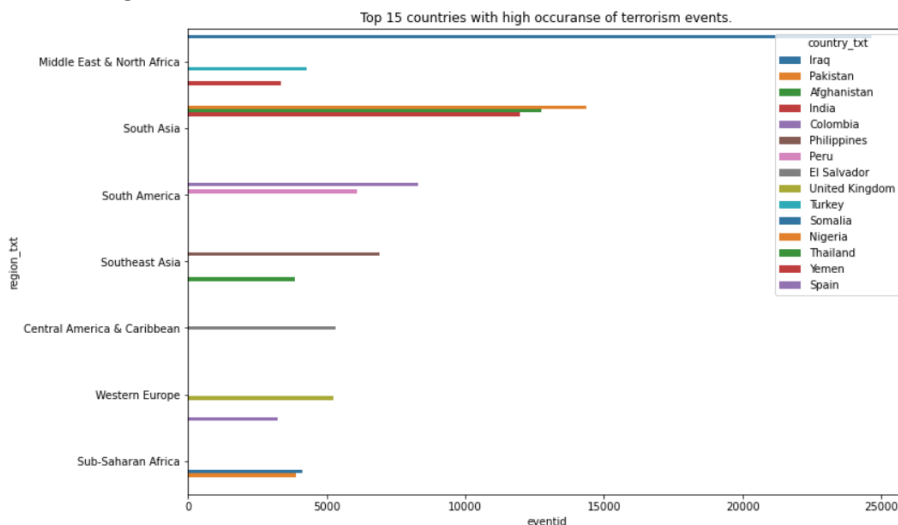
Gathered insights

Based on the maps we plotted in the notebook now we can see the majority of terrorist events occure in Middle East, South Asia, South America, Sub-Saharan Africa and Western Europe.



The majority of the attacks aims for citizens, property, military, police, government and business rather than transportation, religion institutions, journalists or major transportation hubs like airports or docks. Besides private property and citizens, the rest targets are usually because of the oppositon of the current governmet.

In order to investigate by country what are the main causes of terrorism, we had to investigate the followings:



For each region, most frequent targeted countries.

The **bombing and explosions** are the most common type of terrorist attack and the second most common is armed assault. It makes sense for countries from Central America to have more in comparison with bombing, since they struggle with cartel attacks. On

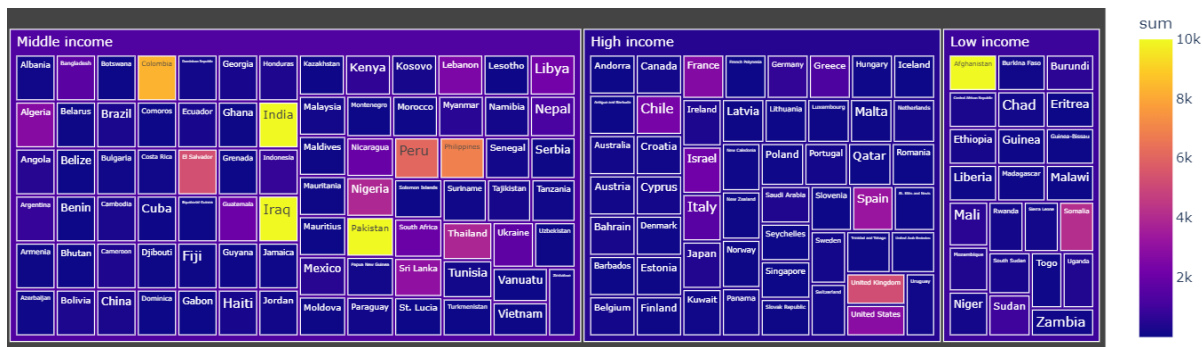
other hand we can see that in Europe we have bombing but there is also big difference between East and West Europe. On the eastern contries terrorist attacks are far less.

The majority of the attacks aimed for Citizens and properties. Only in Europe and South America the military dont take part. In South Asia we have all different targets. In Europe the most commont target is business, government and private cititens and property.

Here we can see that Talibans are active in South Asia as well as Wester Europe. The second place is the ISIL which is active in South Asia nad Middle East and North Africa.

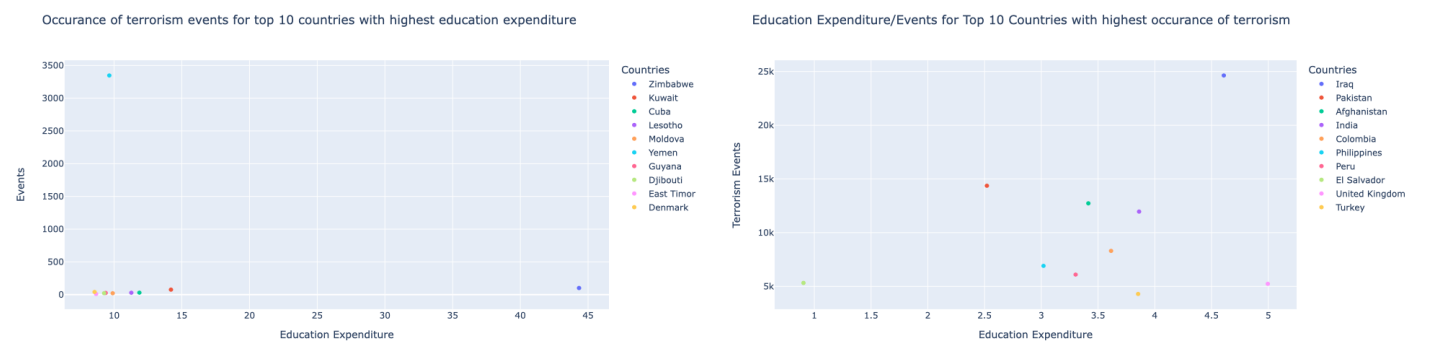
Terrorism and GDP

In the given plot the countries are divided by their income group and the color shows the number of terrorist attacks. From here we can see that the countries with middle income have the most terrorist attacks and the ones with high income have the least.



Terrorism and Education

The left plot shows that countries with less occurance of terrorism spend between 10% and 45%. The highest value of terrorism events is 3500.



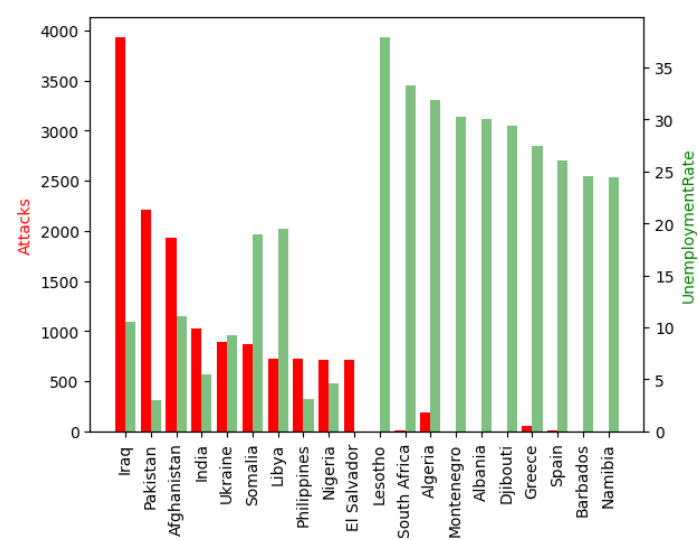
The right plot shows that countries with high occurance of terrorism spend between 0% and 5% of their GDP on education expenditure. The values of terrorism events go up until 25K.

Based on those two plots we can answer the question: “How education affects the terrorism level in a country” to some extend. Countries, which invest more money in education have less occurance of terrorism.

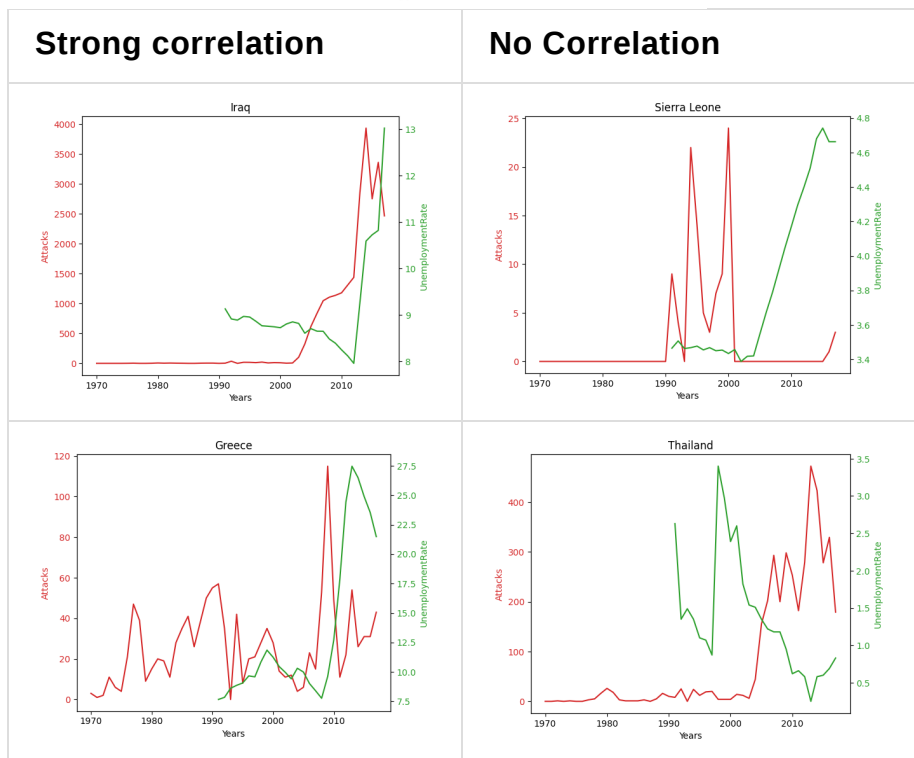
Terrorism and Unemployment Rate

The following plot shows the ten countries that had the highest number of attacks and the ten countries that at one point had the highest unemployment rates. For each country the data from their “worst” year is plotted. It can be seen that for these extreme values of both variables, there

isn't a correlation between them. An extremely high number of terrorism attacks doesn't translate to an extremely high unemployment rate, or the other way around.



However, when viewing the data of each country individually over the years it can be seen that a correlation can infact be present. The country with the highest number of attacks in one year is Iraq, which in the above graph can be seen doesn't have a high unemployment rate at the same time. But when looking at it's individual plot below, the rise in the unemployment rate seems to correlate with the extreme number of terrorism attacks.



The plot for Greece shows a similar behaviour. But at the same time there are countries where there clearly isn't any correlation between the variables, like Sierra Leone. Interestingly for Thailand one could almost assume an inverse correlation between terrorist attacks and the unemployment rate, which logically wouldn't make much sense.

So it stands to reason, that while there is a possible correlation between the two variables, the argument for it isn't a strong one.