

Problem Set #5

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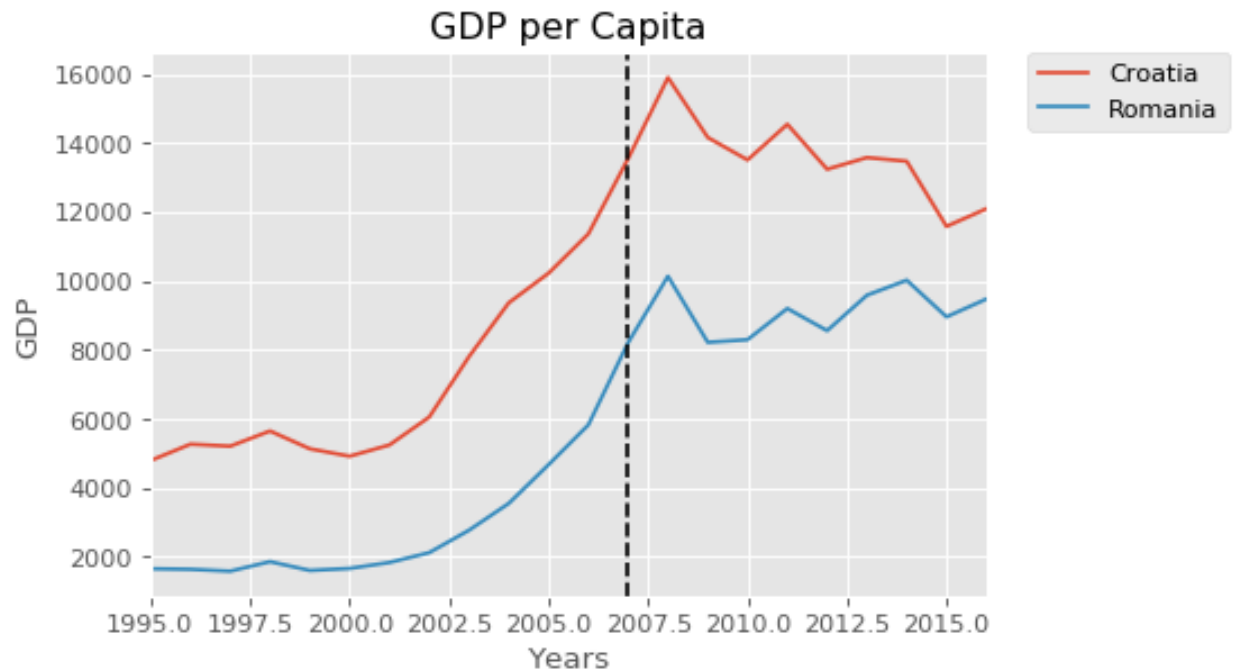
1 Research Question

A more recent research question that I have been exploring looks at how European Union membership has impacted the migration rates of highly skilled Romanians. This is an interesting question as highly skilled migration has been a problem for Romania since the fall of communism in 1989. Additionally, this is a relevant question as more countries are waiting to join the European Union. The next countries that are waiting to join are Albania, Montenegro, Serbia, Kosovo, Bosnia and Herzegovina, and the former Yugoslav Republic of Macedonia which all have similar historical and political backgrounds as Romania (Nikolova 2016). Understanding the impact of openness and institutions on migration can guide policy makers as these countries join the EU in the future.

The year 2007 marked monumental changes for Romania as it marked the year of integration into the European Union. Romanians were hopeful this change would allow them to benefit from closer cohesion and union with their Western neighbors while also providing the potential for economic growth and increased opportunities. While joining the European Union should have brought greater prosperity, how did it actually affect the rate of Romanian emigration? Has emigration to other European member countries increased, has it stayed the same, or has it decreased as European Union membership brought increased opportunities to Romania? These questions fit into a broader literature that examines the impact that the European Union has had on its member states, however, it also fits into a literature that examines the brain drain phenomenon in Eastern European countries.

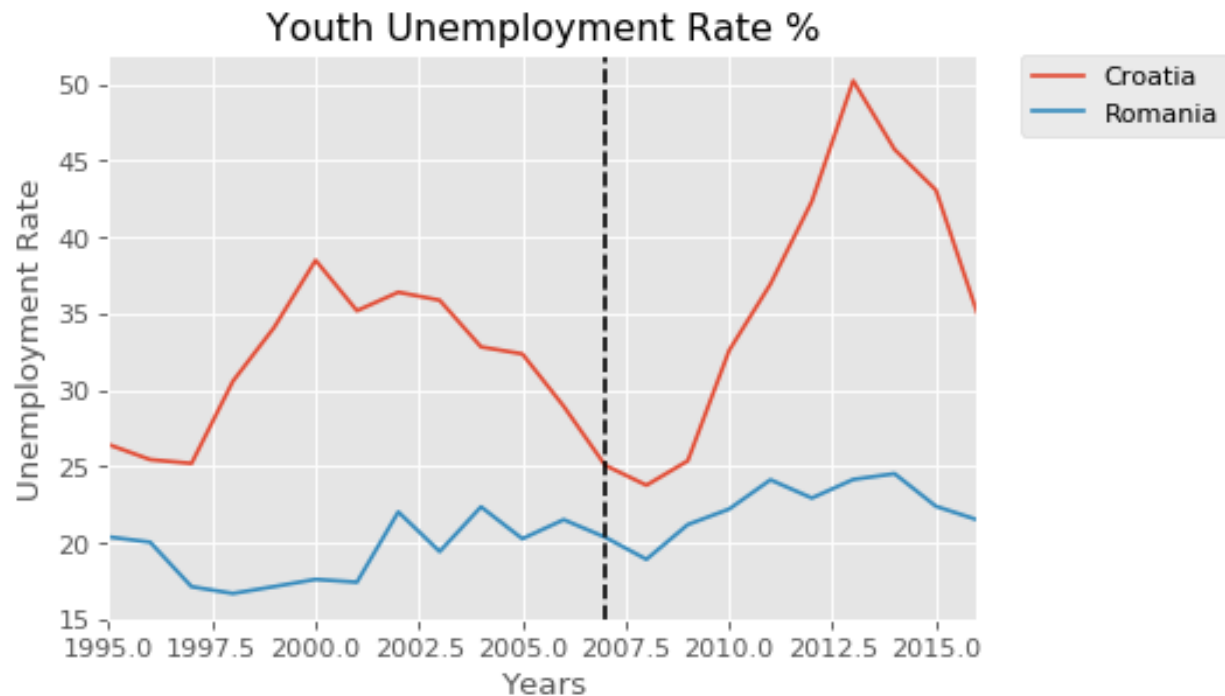
To answer these questions, I propose utilizing a difference in difference analysis to estimate the effect of European Union membership on the migration rates of highly skilled workers. I will examine a time period ranging from 1995 to 2010 to analyze whether Romanias accession into the EU sped up migration or slowed it down. The treatment will be European membership which occurred in 2007 for Romania. I suggest that the control group in this study be Croatia. As Nikolova 2016, stated in their difference in difference analysis of the impact of the European Union on happiness, Croatia should be a good fit for Romania as it is a former Soviet Republic and has had similar historical trends. In addition to this, what I show next is that it has exhibited similar trends in various characteristics pre-treatment. Comparing the pre and post migration trends in Romania and Croatia will reveal what the migration trends would have been in Romania had they not been able to join the European Union in 2007. In the next sections I will present various graphs showing the trends of Croatia and Romania in GDP per capita, youth unemployment, and of course highly skilled migration.

1.1 GDP Per Capita



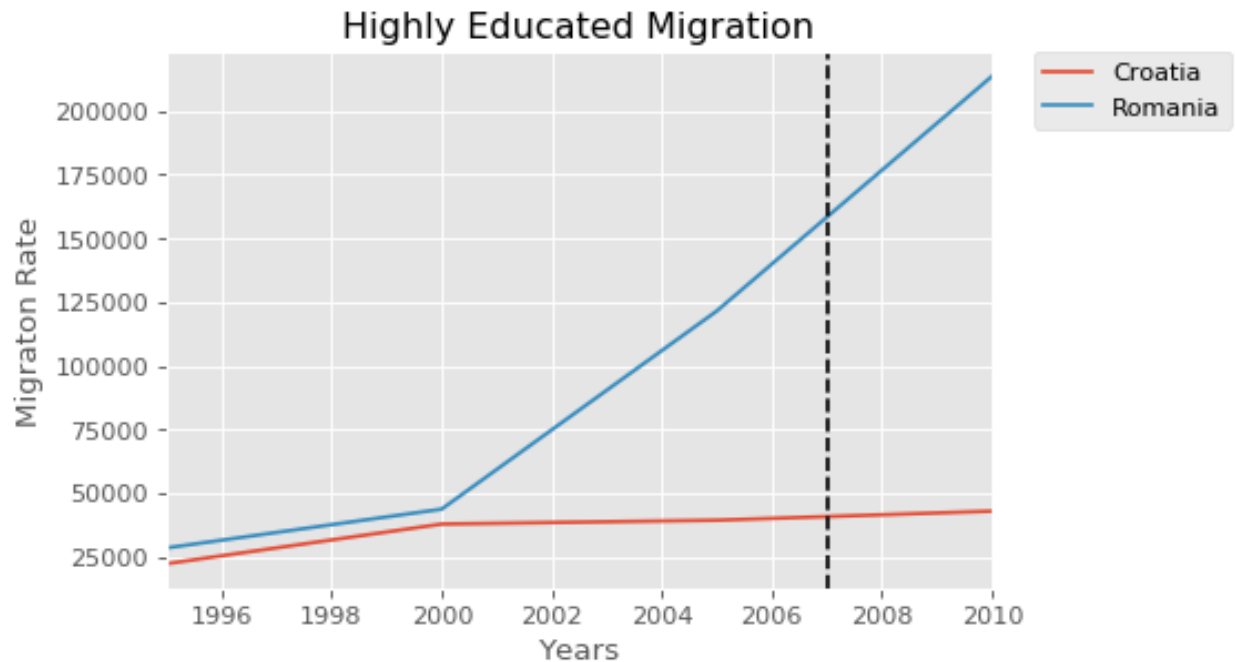
The data on GDP per capita comes from the World Bank for Romania and Croatia. The following graph makes it very clear that in terms of GDP per capita Croatia and Romania were exhibiting very close trends pre-treatment. They are so close in fact, that the lines are almost perfectly parallel. Croatia's GDP per capita started much higher than Romania's and continues to be higher post treatment. After 2007 it would appear that Romania's GDP per capita is increasing while Croatia's is starting to decrease and it appears they are slowly converging. I am choosing to include GDP per capita in my analysis as it is possible that this will have an effect on a worker's decision to emigrate. If the GDP per capita in the home country is significantly lower than the GDP in an alternate EU member country, it could make sense for workers to migrate in order to take advantage of higher earnings. GDP per capita should be negatively correlated with highly skilled migration.

1.2 Youth Unemployment Rate



The data on youth unemployment also comes from the World Bank. This measure looks at the percent of the labor force between the ages of 15-24 that are unemployed. Croatia has historically had much higher youth unemployment than Romania which seemed to spike around 1997 after which it started declining in the year 2000. While Romania's youth unemployment remained lower than Croatia's, it seems to have followed a similar trend after the year 2000. After 2007, Croatia's youth unemployment spikes dramatically, most likely due to the Great Recession, after which it start to decline around the year 201r which also corresponds to the year Croatia joined the European Union. While Romania's youth unemployment does seem to also increase during the Great Recession, it does so at a much lower rate which could be contributed to EU membership. I am including this measure as I believe that it could also be one of the factors that could increase the probability of a highly skilled worker leaving his or her home country. This measure should also be negatively correlated with highly skilled migration rates. If the youth population has relatively high unemployment rates, younger workers may believe that they do not have enough good opportunities at home so this should increase their desire to leave.

1.3 Highly Skilled Migration



Finally I present the highly skilled migration rates of Romanians and Croatians. The data on migration rates are available from the IAB-brain drain dataset. This dataset has information on migration to 20 OECD countries by country of origin, gender, and skill level. It is only available at 5 year intervals from 1980 to 2010. The numbers presented in the graph are totals of highly skilled Romanians and Croatians emigrating to OECD European Union countries. The countries that are included are Austria, Germany, Denmark, Spain, Finland, France, Great Britain, Greece, Ireland, Luxembourg, Netherlands, Norway, Portugal, and Sweden. While this is not representative of all EU member countries in 2007, it does include the probable top destinations for highly skilled workers. The only country that is missing from this list is Italy, which does see a large influx of Romanian immigrants. However, typically Italy sees more low skilled Romanian migrants than highly skilled ones. As shown in the graph, Romania's emigration rates have been much higher than Croatia's. These rates were parallel until the year 2000. In 2000, many developed countries experienced a recession. This would explain why Romania's emigration rates spiked. However, this was not the case for Romania after the year 2000, Romania's economy prospered and was characterized by very high growth and low inflation so this large increase is surprising. While Romania's emigration spiked tremendously pre EU, Croatia's emigration rates were still increasing during this time. As such, they still exhibited similar trends pre treatment. The emigration rates after EU membership continue to increase for both countries.