# Climate Change Data Analysis based on World Bank Data

An analysis was conducted on 12 countries from different regions, investigating the interrelation between population growth and unemployment %. The study found that there is a significant relationship between population growth and unemployment, as a larger population can lead to a higher unemployment rate if there aren't enough job opportunities to keep up with growth. It can also create higher competition for jobs, negatively impacting the overall economy and causing a strain on resources such as housing, transportation, and healthcare, leading to economic challenges.

The population growth annual % dataset covers 261 countries and reveals how the world's population has changed from 1961 to 2021. The data shows a decline in the mean population from 2.2 in 1961 to 0.9 in 2020. By plotting a line chart of the population growth rates over time for a selection of countries, the analysis reveals that some countries, such as Pakistan and the Arab World, have experienced explosive population growth, while others like Russia have had declining rates.

World Population Growth in 1980

World Population Growth in 2020
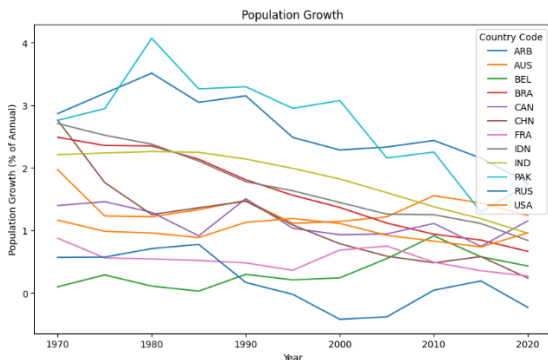
Population Growth

Using a choropleth map, we can visualize the population growth rate across different countries. The map can highlight the countries with the highest and lowest population growth rates. For example, countries such as Syria, Niger, and Angola have had high population growth rates, while countries like Japan and Russia have had low population growth rates. Two years are selected for comparison like 1980 and the year 2020. The data reveal that the growth rate is increases over the time that impact on all countries.
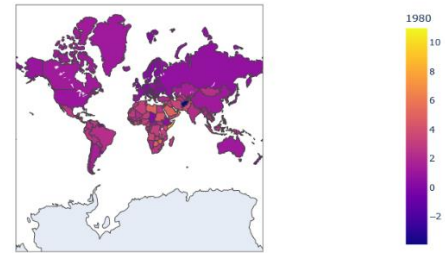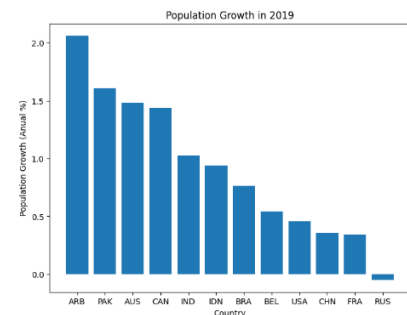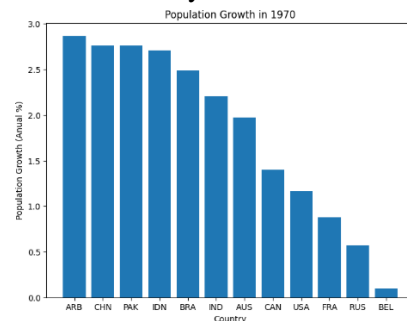
Another interesting insight that can be gleaned from this dataset is the distribution of population growth rates across different selected countries. By creating a bar chart that shows the average population growth rate for each selected country. For the comparison the bar chart of year 1970 and 2019.

Population Growth in 1970
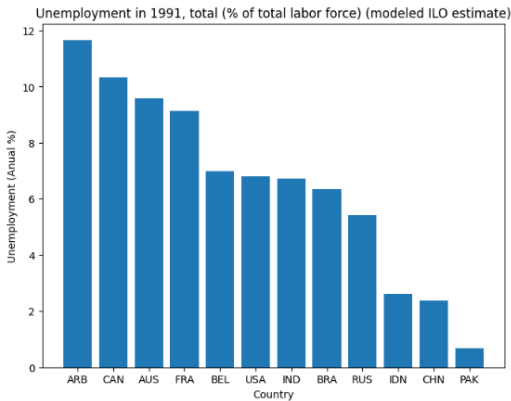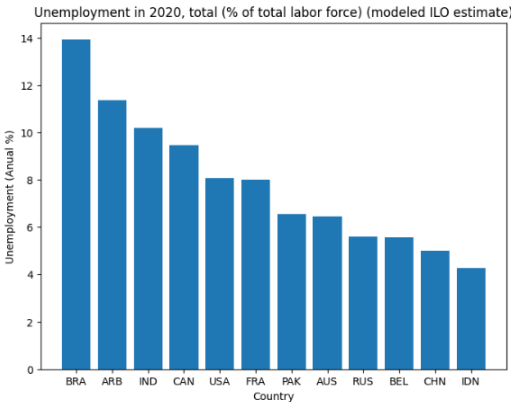

Population Growth in 2019

Results reveals that the population growth of decreases from 1970 to 2019 and Australia population growth is increases while the other countries shows normal trends in this era. The corelation metrics decribe the corelation of the population growth %.
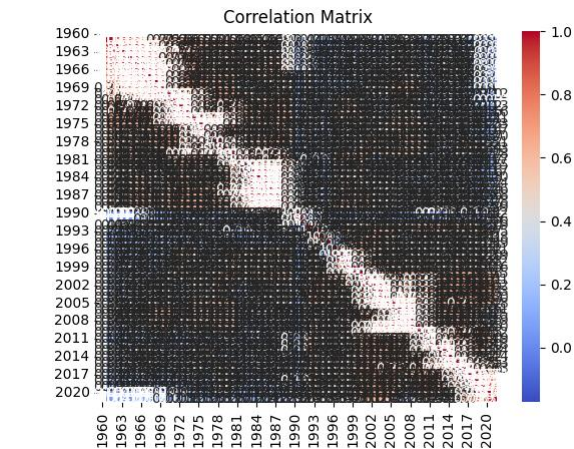
The dataset covers unemployment rates for 235 countries from 1991 to 2021 and reveals that the global unemployment rate increased from 7.2% in 1991 to a peak of 8.6% in 2009 following the 2008 global financial crisis before gradually declining to 7.8% in 2021. The data also shows significant variation in unemployment rates between countries, with some having consistently low rates and others consistently high. Major events like the global financial crisis and COVID-19 pandemic had a significant impact on global unemployment rates, highlighting the importance of addressing unemployment as a global issue. The data is displayed in a line chart.
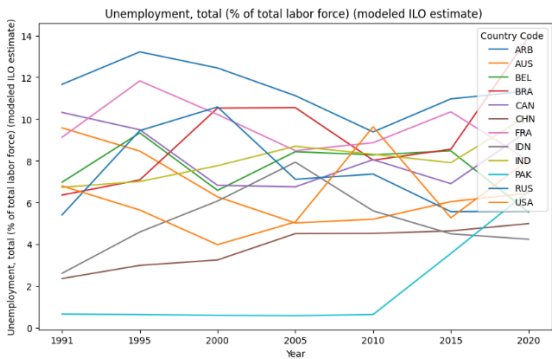
The bar chart shows the unemployment rate of the selected countries in the bellow figure. The data presented in the bar chart for the year 1991 and 2020, that reveals that unemployment increase in the Asian countries like Pakistan and India due to their economic condition and their higher growth rate while China shows the consistent behavior from 1991 to 2020. There is also increase in unemployment rate in the Australia considering the fact that their population growth is also increases.

Overall, population growth can have a significant impact on unemployment, and policymakers need to take into account the potential economic and social consequences of population growth when designing policies and programs aimed at promoting job growth and reducing unemployment.