Phase 4

# Q1: Depending on when different government policies were put in place during the pandemic, was there a corresponding political unrest event?

To begin investigating this question, we first thought about finding all political unrest events that occurred on the same day and in the same country where a government policy was put in place (1 a) SameDayEvents). After performing this query, we were able to quickly realize there were many results that fit these criteria. We decided to dive deeper into this result and investigate the results where during these political unrest events there was one or more fatality (1 b) FatalEvents). Once again, there were many results for this case. So, we decided to proceed by breaking the results into the political unrest events that occurred on the same day as a mandatory government policy was put into place (1 c) UnrestAfterMandatoryPolicies) and those that occurred on the same day as a voluntary government policy was put into place (1 d) UnrestAfterVoluntaryPolicies). Before looking at the results, we believed that voluntary policies would probably have a lower likelihood of push back, since they were not fully required to be followed. From this, we predicted that since there would be less push back, the political unrest events during voluntary government policies might not escalate to the same degree that events during mandatory government policies would, therefore having a lower number of fatalities. When looking at the results, we can see that this is the case, where the number of fatalities during mandatory political events was at maximum of 23, and for events during voluntary political events the maximum number of fatalities was 4. We cannot automatically assume that these are causal events (where the policy directly caused the political unrest), but we found these results to be an interesting association.

Next, we considered that political unrest events may occur a few days before a policy is put in place or a few days after, in attempt to either prevent the policy from being put in place or in hopes of having the policy revoked, so we decided to also look at political unrest events that occurred either 7 days before or after a policy was put in place in a country (1 e) BeforeOrAfterEvents). We performed similar analysis as we did previously for events that occurred on the day of the policy (1 f) FatalEventsDiffDates, 1 g) UnrestAfterMandatoryPoliciesDiffDates, 1 h) UnrestAfterVoluntaryPoliciesDiffDates) and found that political unrest events near the times of mandatory and voluntary political policies being put in place both had a maximum number of 125 fatalities 7 days before or after a policy was put in place, which may indicate that the association we saw before may not be a valid association. More data is required for further investigation into this association.

Lastly, we wanted to see if there were any countries that did not have any political unrest events in the timelines for government policies being put in place during COVID (1 i) PeacefulCountries). We found that there were 31 countries who fit these criteria, including but not limited to Aruba, Greenland, Hong Kong and Puerto Rico.

# Q2: Did countries with certain country specifics create airline restrictions earlier?

To investigate this question, we first looked into if countries with larger population densities put airline restrictions in place earlier than countries with lower population densities (2 a) AirlineRestrictionByPopDensity). When performing this query, it was apparent that there was no trend or association between the population density and airline restriction date.

We decided to push this idea further and see if there was any relation between life expectancy and airline restriction date (2 b) AirlineRestrictionByLifeExpectancy), or population size and airline restriction date (2 c) AirlineRestrictionByPopulation), or GPD per capita and airline restriction date (2 d) AirlineRestrictionByGDP), or medium age and airline restriction date (2 e) AirlineRestrictionByMediumAge). After looking at all these possible associations, we were unable to find any trends between any country information and when they put in place their airline restrictions.

# Q3: What type of financial response is there for countries with more COVID cases? Are they more likely to be given grants?

To begin investigating this question we first had to get the most recent date for which statistics for COVID-19 cases were recorded, for each country (3 a) LatestCovidDate). Evidently, at this stage in the query, there is no trend to see between countries and last recorded date. As an extension to this query, we decided to the amount of total cases recorded in each country, as of the last day noted(3 b) LatestCovidCases). After this query, it was apparent that more secluded countries, or countries with very low populations, clearly had a lower number of total cases of COVID-19. We decided to push this idea further and see, for each country, we decided to retrieve the number of relevant financial grants that each country has received during the pandemic, and put them in direct comparison with the total number of COVID19 cases in that country(3 c) NumFinancialAids), (3 d) CovidCasesAndAids). For every country recorded, the number of financial aids granted was very low (number of grants for every country was between 1 and 4) while the number of COVID-19 cases was at a much higher scale. Therefore, we were unable to draw any strong correlations between the number of current COVID10 cases and the number of financial response acts for each country.