

Ania Shaheed, Ben Frechette, Daniel Foley, Naser Salas, Jason Huang

Professor Seferlis

DS310

20 Dec, 2023

Group 1 Research Paper

This project aims to find the best two policies for combating COVID-19. Our group was assigned two policies, recommending the closing of schools and setting international travel bans for arrivals from some regions. We use these two assigned policies to help explain our selection of the best two policies. Through statistical analysis, our group concluded that the best two policies are stay-at-home requirements, where individuals can only leave with exceptions, and international travel controls, where a country bans arrivals from all regions. We found that both policies strongly correlate negatively with deaths and confirmed cases. Deaths and cases often stabilize or decrease during the month after these two policies are enacted or initialized from a similar policy. This differs from other policies where the data lacks sufficient evidence to prove it significantly affected combating COVID-19. For example, some policies like public information campaigns maintained one “degree” throughout the data period. Our ten countries had coordinated public information campaigns from early 2020 to the middle of 2021. This resulted in difficulty in determining whether any degree of public information campaigns were effective in combating COVID-19.

Stay-at-home Requirements 2 and Workplace Closing 2 were the most effective policies because of how level two stay-at-home policy correlates with maximizing the total decline change in death and level one workplace closings also correlate with maximizing the total decline change in end, which were out metrics for determining which policy was most effective.

Our PowerBI report used the stacked bar chart to show that our stay-at-home policy has one of the most meaningful effects on the change in deaths. Similarly, this idea can be observed in our side-by-side line charts of policy changes with depth and number of case changes. Canada, Germany, and the United Kingdom all received fewer cases and deaths in February, which all correspond with the month after each country enacted stay-at-home requirements with exceptions. Furthermore, both Stay-at-home Requirements 2 and Workplace Closing 2 followed the trend lines of confirmed changes in cases.