

COVID-19, University Opening Policies, and Political Influence

Mallory Warhurst, Kamryn Bernstein, Nayeli Castro

Grand Challenges Initiative, Schmid College of Science and Technology, Chapman University

Abstracts

This research project aims to understand the correlation between state government's political affiliations and university opening policies, using CA, NY, TX, and FL as case studies. It was found that the red states (TX, FL) were most likely to have a variety in policies, while the blue states (CA, NY) primarily stayed online. This project also portrays how these ranging policies may have influenced COVID-19 case numbers at universities within these selected states.

Introduction

Universities across the United States closed down in the beginning of 2020 due to an outbreak of COVID-19. Universities adapted by developing ranging plans to continue educational instruction, varying between fully online instruction, opening schools completely, or a hybrid combination. It is critical to understand how these ranging policies impacted COVID-19 outcomes across the U.S.

Why there is a need for this research?

- Provide a reasoning for the spread of COVID-19, role of political influences
- Analyze University protocols in order to determine the safest for future pandemics

Our Approach

- 1. Gather and organize data from the NYT University COVID-19 tracker and College Crisis' University opening policy tracker
- 2. Select Case Study States: CA, NY, TX, FL
- 3. Create data visualizations:
 - Figure 1: Average number of COVID-19 cases per school in selected states
 - Figure 2: University opening policies by percentage in selected States
 - Figure 3: Percent of schools fully online vs. average number of cases per school

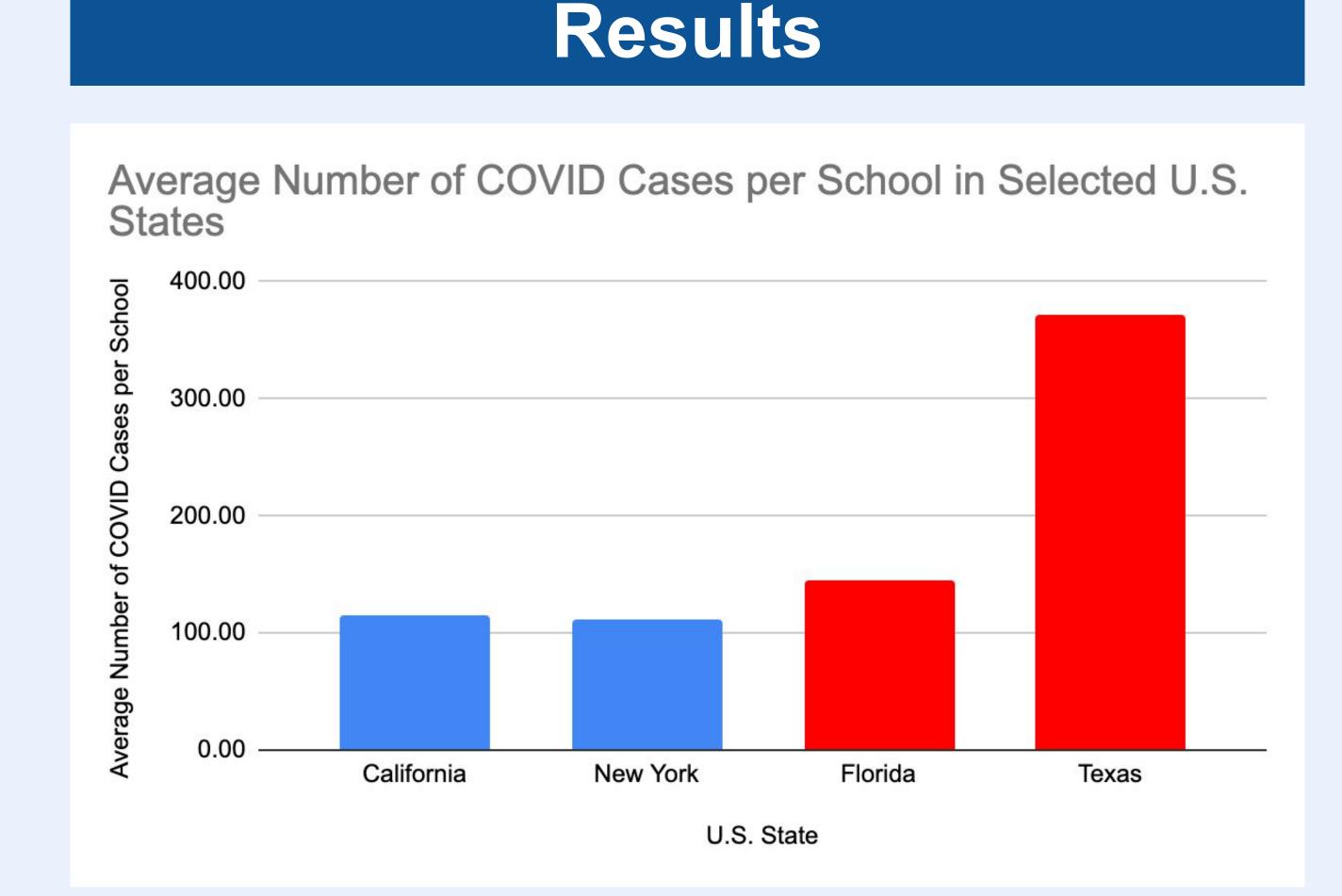


Figure 1: Average number of COVID-19 cases per school in selected states

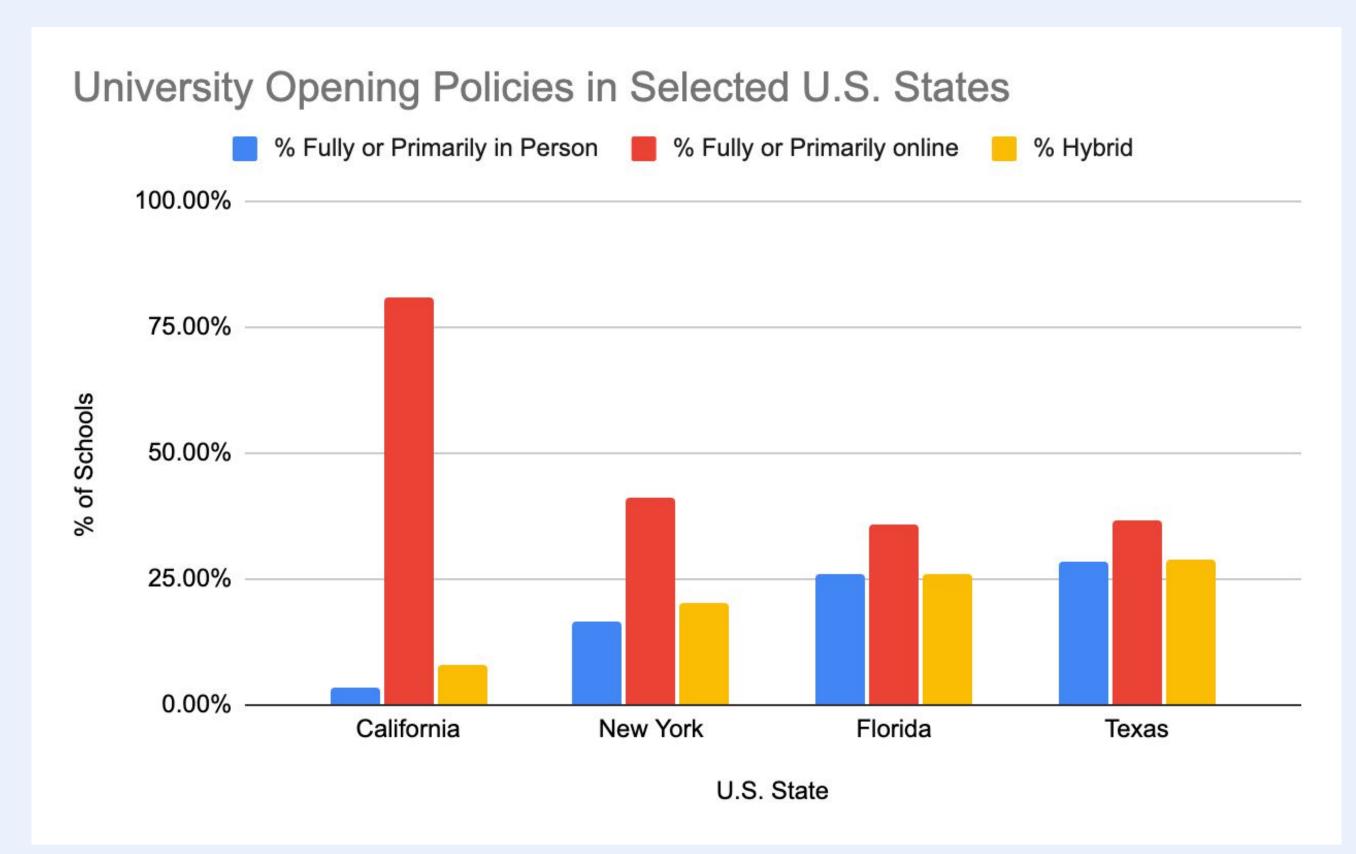
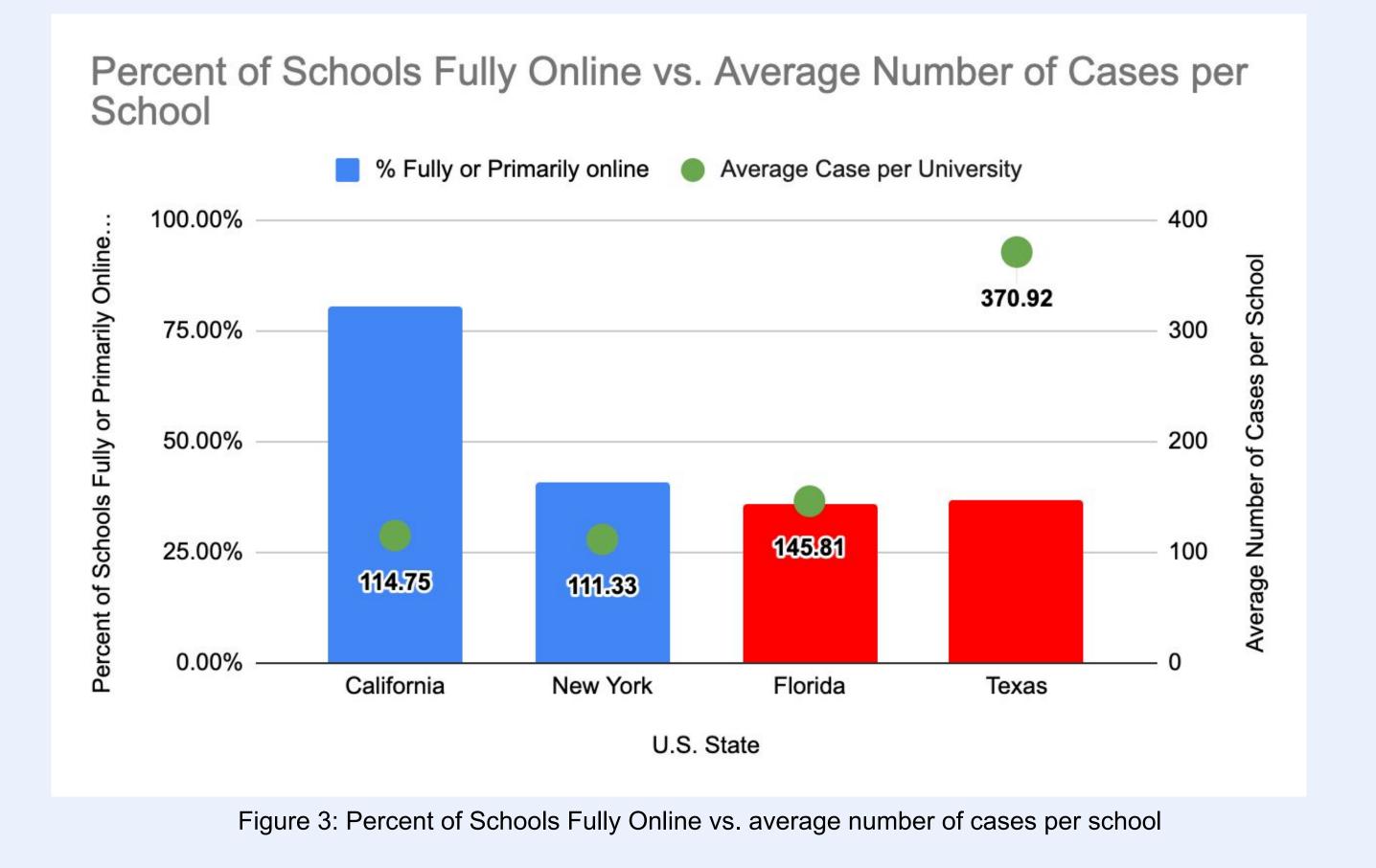


Figure 2: University opening policies by percentage in selected states



Discussion

- The results in Figure 1 portray that the average number of COVID-19 cases per school in the republican states (TX, FL) are higher than than in democratic states (CA, NY). However, FL's average is only marginally higher than CA and NY, while TX COVID-19 case average is an extreme outlier
- The results in Figure 2 portray that the democratic states have a higher percent of schools that switched to remote instruction. However, the percent of schools online in NY is only marginally higher than that in FL and TX, while the proportion is much higher in CA.
- The results in Figure 3 portray the existing correlation between the average case number and proportion of schools online. Schools with a lower percent online (FL, TX) had a higher average cases per school.

Conclusions

Our research portrays a correlation between the COVID-19 pandemic, university opening policies, and political influence. This relationship can be attributed to differences in state government policies on masks, social distancing, and other precautions. The mandated lockdown was established by Democratic governors earlier than many Republican governors. There was a larger percent of schools within California and New York that switched to fully online instruction. This likely resulted in the lower number of positive COVID-19 cases, as compared to Florida and Texas universities. The understandings gathered in this study can be useful for future emergency management policies for universities and other institutions.

Acknowledgements

This research would not have been possible without the assistance of the New York Times and their frequent updates on COVID-19 cases across universities in the United States. We would also like to thank Dr. Harrison for guiding us through the project, as well as Chapman University for hosting the project showcasing.

Citations

Tracking the Coronavirus at U.S. Colleges and Universities- The New York Times

https://www.nytimes.com/interactive/2020/us/covid-college-cases-tracker.html College Crisis University Dashboard

https://collegecrisis.shinyapps.io/dashboard/