

J. Ian Stewart
Professor Majid Zamani
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Project Proposal

COVID-19 was a major pandemic that ravaged the world just a few years ago and is still endemic with cases even today. COVID-19 spread so fast because people could spread the virus before they even showed symptoms, meaning that people continued their lives without realizing they were infecting everyone around them. To stop the spread, the government called for a quarantine and the use of masks and eventually distributed a vaccine. The requirement of masks became a political issue in America, with people believing that their rights were being infringed upon and thus they protested by not wearing them. Additionally, many decided on alternative preventative treatments besides vaccines. My question is how did politics affect the spread and abatement of COVID-19?

The datasets I will be using are the COVID-19 Reported Patient Impact and Hospital Capacity by State Timeseries (RAW) provided by the U.S. Department of Health & Human Services and the U.S. House 1976–2022 dataset provided by MIT Election Data and Science Lab. The COVID-19 dataset contains data on hospital beds, confirmed COVID-19 cases at different age ranges, suspected COVID-19 cases, and deaths due to COVID-19, updated throughout the COVID-19 pandemic. The U.S. House dataset has each state's candidates' number of votes and their political association. I am using House Votes because they host elections every 2 years, which allows me to see how the different states recovered.

With these datasets, I want to create multiple plots where one axis is the number of COVID-19 cases in a state and the other axis is the number of votes for a political party (Democrat, Republican, and Other) in the House of a state. I plan on doing this for combined 2020 and 2022 data, along with the data separated by year. From here I will use the k-means algorithm to cluster the points and see if there is any meaning to the clusters. I hypothesize a positive correlation between the number of Republican votes and the number of COVID-19 cases, as the Republican party pushed the hardest against masks and vaccines.