Introduction:
We all know 2020 was a (turbulent / tumultuous) crazy and wild year due to the pandemic. Restaurants had to close, schools had to move to virtual learning, and life itself was turned upside down for most of us, among many other things. We were told by health officials to wear masks to stop the spread of COVID and the governor of California implemented a mask mandate on June 18th, 2020. The public, for the most part, followed these mandates, but did they have any quantifiable data to back them up. That is what we sought out to ascertain - We wanted to see if there was a drop in COVID cases and deaths after the mask mandate was implemented. Logic would lead us to believe that there would be a significant drop in cases and deaths; however, the data told a slightly different story.

Here is what we attempted to answer with this project: Did the mask mandate help control COVID-19 cases? Did the mandated stay-at-home orders slow the spread? What is the percentage of deaths vs. cases in California? Did Northern California have lower cases than Southern California?

Histogram Chart:

The mask mandate was implemented on June 18th which should help us slow the spread of COVID cases but this Histogram Chart shows it did the opposite. COVID cases just kept increasing and increasing until California became the state with the most COVID cases. It is very alarming and raises a lot of questions if we should really wear face masks but there are many factors that aren't taken into consideration for example: how often do people clean or use a new face mask, do people wear the face mask properly, or etc. To have a perfect Histogram Chart that will show if Face Masks are effective or not, we would have to interview a large portion of the population and ask them these kinds of questions. What we do know is COVID could easily spread and we should really take care of ourselves so we don't become another number in the data.

Bubble Chart:

What we learned from the Bubble Chart is, there seems to be a higher concentration of cases around the Bay Area compared to other parts of California but in reality, LA became the epicenter of cases. The Bubble Chart might not reflect it clearly because we divided the radius of the circle by 100,000. If we didn't do this, there would be a very large circle around LA that would overlap with a good amount of the other circles.

Scatter Plot:

The scatter plot gives us a better visualization of total numbers of cases between counties in California. This shows LA county had and probably still has a large amount of cases by far compared to the other counties. LA county also had their own mandate which should have helped bring down COVID cases but it didn't have any effect. The plot doesn't give us a clear picture because we don't know if everyone in LA actually wore face masks. One factor could be the population size of LA compared to the other counties. There are more people close together in LA.

Conclusion:

We were not able to succeed what our original plan was for the project but what we learned is when the governor issued the masked mandate on June 18th cases and death rates started to rise during the fall and winter season months. During the summer the visualizations demonstrate that the cases have gone down but not by much. It's surprising that the data reflected the opposite of what we thought originally, because we would have thought cases and death rates would either be stable or go down. All in all, we now have many questions and thoughts about the Mask Mandates. Furthermore, as our graphs illustrate, to truly get a handle on this devastating pandemic, it is going to require more than just the government mandates and societal lockdowns; it is going to require the seamless unification of the human race, working in tandem with science while acknowledging the diversity that is inherent in each of our cultural beliefs and norms. Because if we want the various plots and linear relationships to begin bending and expanding in our favor we have to remember, it is us against the virus, not us versus our neighbor, a scenario in which the virus thrives.

Lessons Learned from this Project:

In this project, we learned that we needed to thoroughly clean the data and set it up exactly how we wanted and needed to use it for each visualization. Many times, we had to go back because we learned it would be easier to set the data up on how we want it exactly than trying to edit the data in the logic.js. We learned the hard way that it is not easy trying to update the date to make it become a timestamp. Our plan was a great idea, but we were faced with many challenges and even though we did not get the outcome we wanted. We did learn so many new things that we did not know before while searching for our answers in google and going through other various realms of obtaining help and new knowledge.

Resources:

New York Times. (2020–2021, January). *COVID-19-Data-2020* (Version 2020) [The New York Times is releasing a series of data files with cumulative counts of coronavirus cases in the United States, at the state and county level, over time. We are compiling this time series data from state and local governments and health departments in an attempt to provide a complete record of the ongoing outbreak. Since late January, The Times has tracked cases of coronavirus in real time as they were identified after testing. Because of the widespread shortage of testing, however, the data is necessarily limited in the picture it presents of the outbreak.]. https://github.com/nytimes/covid-19-data