

# Visualizing the Relation Between Mobility and Opinion Towards Governors in the US

## Summary

Since the COVID-19 outbreak, United States governors' ratings within their states have increased, indicating that Americans trust their governor's response to the crisis. However, with news of reopening states and recent protests, people are increasingly going outdoors. To that extent, we posed the following question: is there a visual relationship between peoples' opinions of their governors and their observance of stay-at-home recommendations? To analyze peoples' opinions towards their governors, we acquired tweets from all fifty states that mention that state's governor and performed sentiment analysis on the tweets. To capture peoples' observance of stay-at-home recommendations, we utilized [Google's COVID-19 Community Mobility Reports](#), which indicates the percent change in visits to and length of stay at different locations.

The first step of our process was to gather tweets from all fifty states since February 15, 2020 that referenced the governor of that state. Next, we used VADER sentiment analysis to establish the sentiment of each of our tweets. We then switched over to the mobility data and computed the mean percent change in mobility from the baseline across all time points. From here, for each state, we plotted the mean change in mobility from the baseline in that state as well as the sentiment of tweets that mention that state's governor. Additionally, we generated a final plot that displays the mean change in mobility from the baseline across all states in the union and the sentiment of tweets that mention any of the state governors.

## Conclusion

Before states began enforcing stay-at-home orders towards the middle of March 2020, Twitter sentiment towards governors is normally varying tremendously from one day to another, which we noticed visually through the larger oscillations in the average sentiment of tweets in the period of time before March 15, 2020 compared to the period of time after March 15, 2020. Furthermore, average percent change in mobility relative to the baseline began declining after March 15, 2020, which aligns with increased public awareness about the spread of COVID-19 and stay-at-home orders. At about the same time, the average sentiment of tweets began to oscillate less and remained at a steady positive sentiment, agreeing with increased public trust towards governors. However, the average sentiment of tweets has been steadily declining since, which is coupled with a rise in the average percent change in mobility relative to the baseline. When the average sentiment of tweets began varying less and remained positive, more people stayed home; however, as the average sentiment of tweets began declining, the average percent change in mobility relative to the baseline began increasing. Therefore, our project has led us to conclude that there is a visual relationship between peoples' opinions of their governors and people's adherence to stay-at-home recommendations.

## Data Source

[Google's COVID-19 Community Mobility Reports](#)