Summary

Team: Savior at Home
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Introduction:
Trying to stay optimistic during this challenging time, we started our project by wondering if this COVID-19 pandemic brings us any positive change. We were inspired by one research that claims the decrease in mobility reduced carbon emission by a drastic 25 percent in China. This finding drove us to investigate the relationship between the mobility change and the air quality change in the US during the COVID-19 period.

Research Questions:
1. Is there a significant improvement in air quality level in the US before and after the outbreak of COVID-19?
2. If there is any change in air quality levels, does the change vary by states?
3. Is there a relationship between the mobility change in transit stations and air quality level?
4. What are some other possible factors that influence these trends?

Methodology:
Our study is based on data analysis from Google COVID-19 community mobility reports and outdoor air quality data from the United States Environmental Protection Agency. We used R to clean the data, implement statistical testing, and used Tableau to visualize our results in order to conduct our analysis.

Highlights:
We got very different results than what you might expect! If you want to learn more about our methodology, analysis, and results:

Check out our video and you would like it

Data Source:
Google COVID-19 Community Mobility Reports: https://www.google.com/covid19/mobility/
Outdoor Air Quality Data: https://www.epa.gov/outdoor-air-quality-data/download-daily-data

GitHub Repo:
https://github.com/Savior-at-Home/source-code