COVID-19 Modeling Project Part 2

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US States
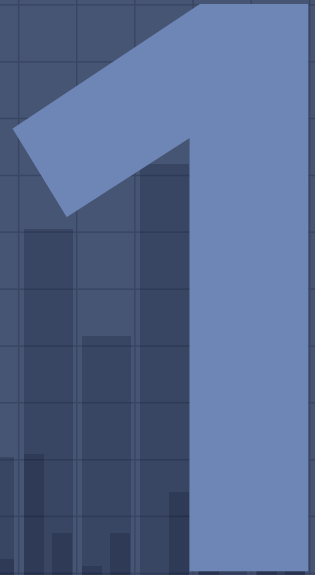Preconditions & Responses

How have we responded to the COVID-19 pandemic?

What factors, pre-existing or reactionary, have most impacted our current situation?

PRECONDITIONS

ECONOMIC STATUS
FAMILY SITUATION
HEALTHCARE STATUS

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Factors Analyzed

Economic Status

- Financial Well-Being Index
- Household Income
- Unemployment Index
- Population to Payroll
- Money Worries
- Current Economic Conditions

Family Situation

- Feel Safe and Secure
- Relative Standard of Living
- Care for Elderly or Disabled

Healthcare Status

- Not Enough Money for Healthcare
- Health Rating
- Primary Health Coverage
- Smoke
- Diabetes

Factors Analyzed

Economic Status

Financial Well-Being Index

Household Income

Unemployment Index

Population to Payroll

Money Worries

Enough Money

Current Economic Conditions

Family Situation

Feel Safe and Secure

Relative Standard of Living

Care for Elderly or Disabled

Healthcare Status
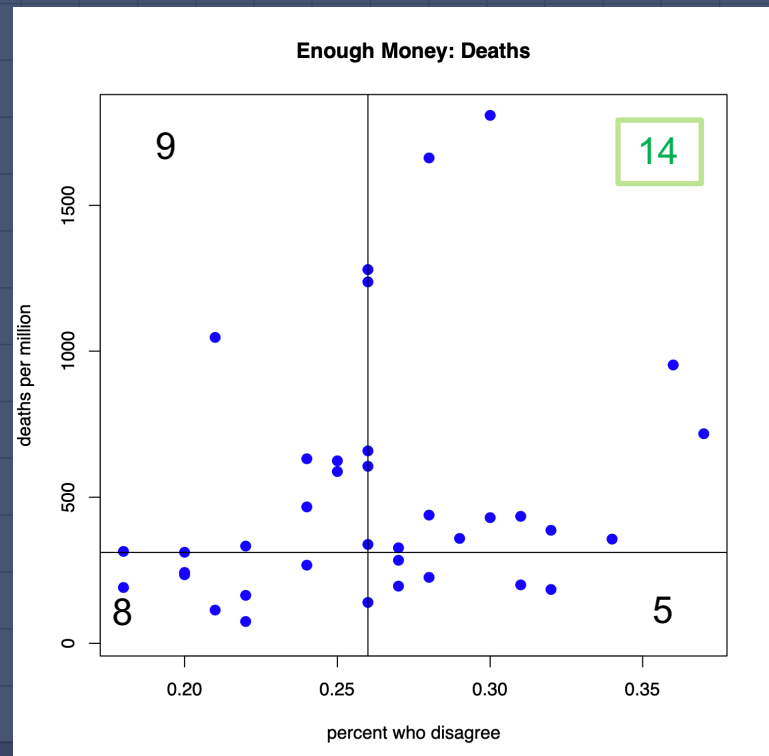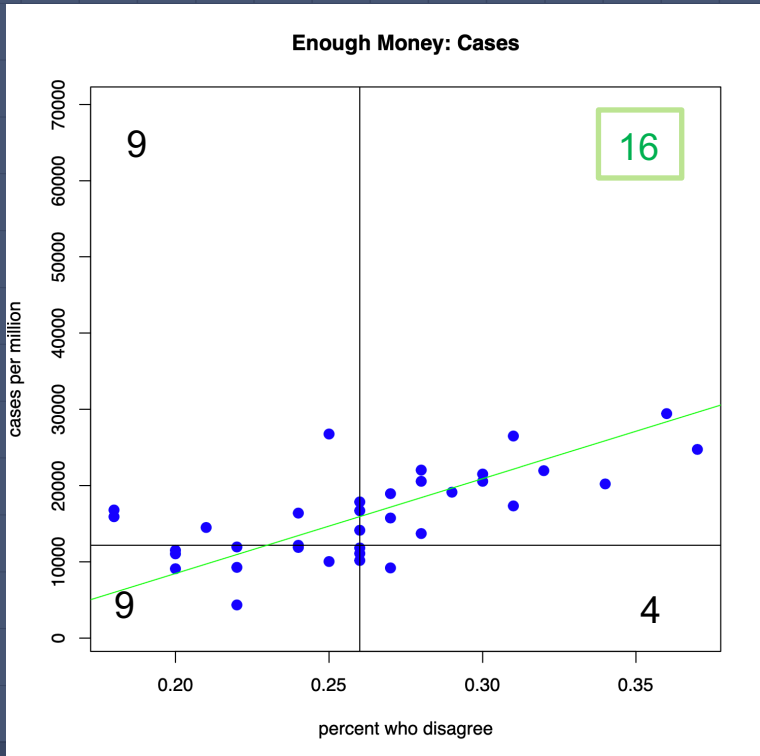
Not Enough Money for Healthcare
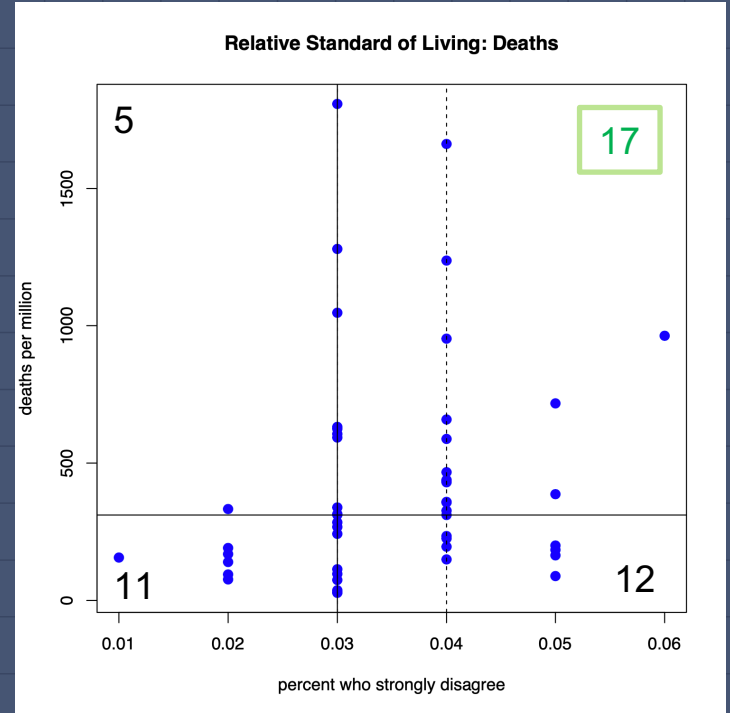
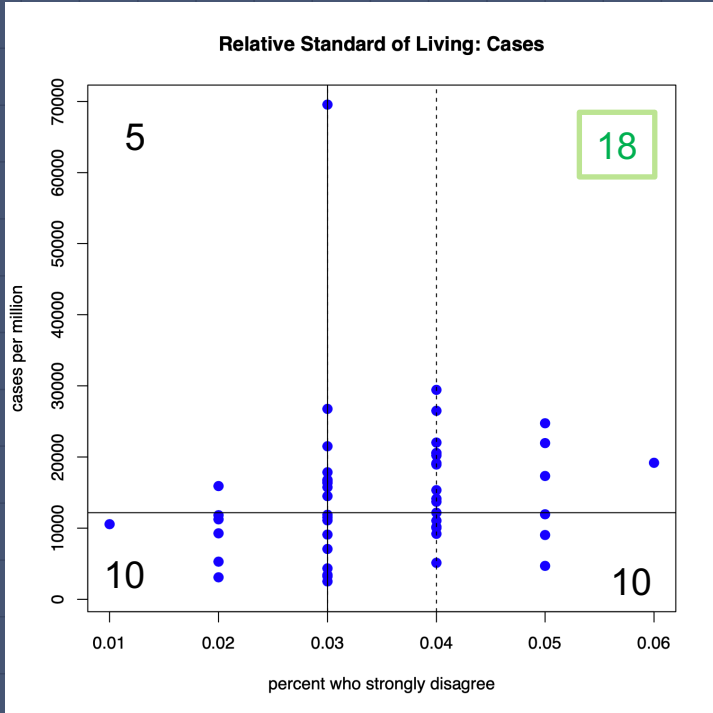Health Rating

Primary Health Coverage

Smoke

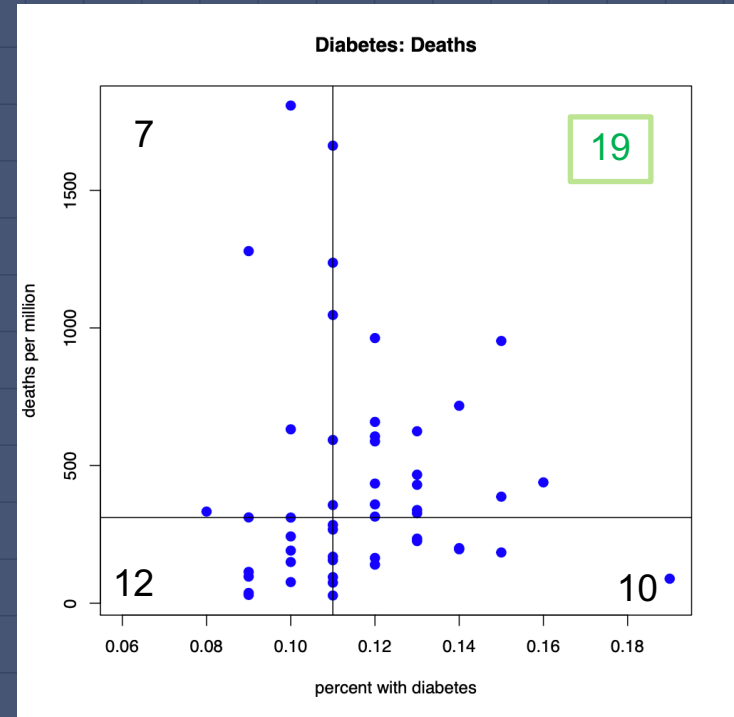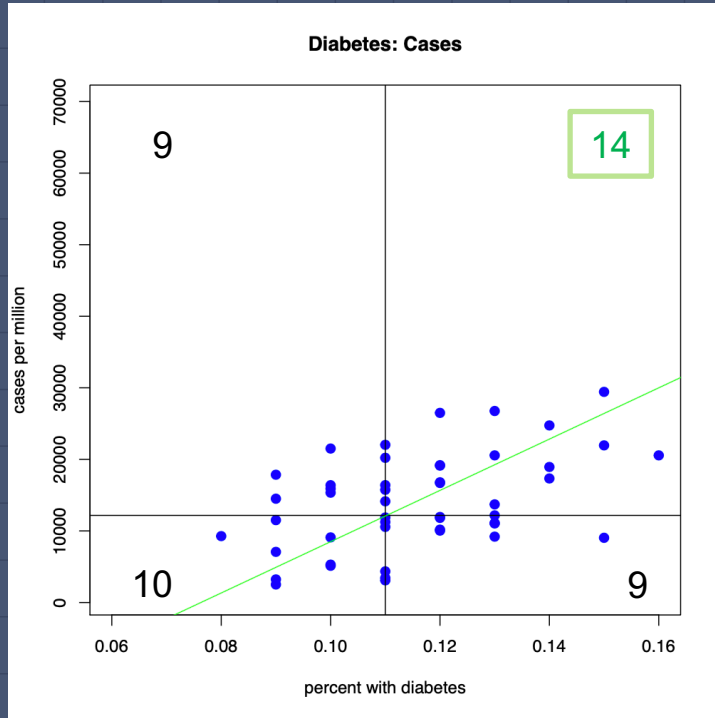**Diabetes**

Enough Money (2016)

States with greater populations of people who feel as if they do not have enough money appear to have greater cases and deaths per million

Relative Standard of Living (2016)

Relative Standard of Living: Cases

**Relative Standard of Living: Deaths**

States with greater populations of people who strongly disagree that they are satisfied with their standard of living compared to others appear to have greater cases and deaths per million

Diabetes (2016)

States with larger populations of people who have diabetes appear to have greater deaths and cases per million

Primary Health Coverage (2016)

Primary Health Coverage Cases

Primary Health Coverage Deaths
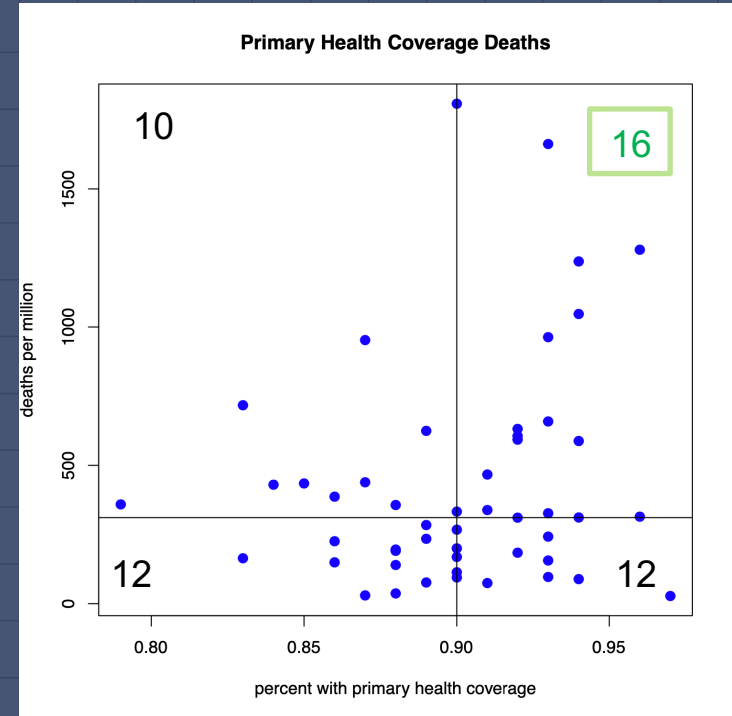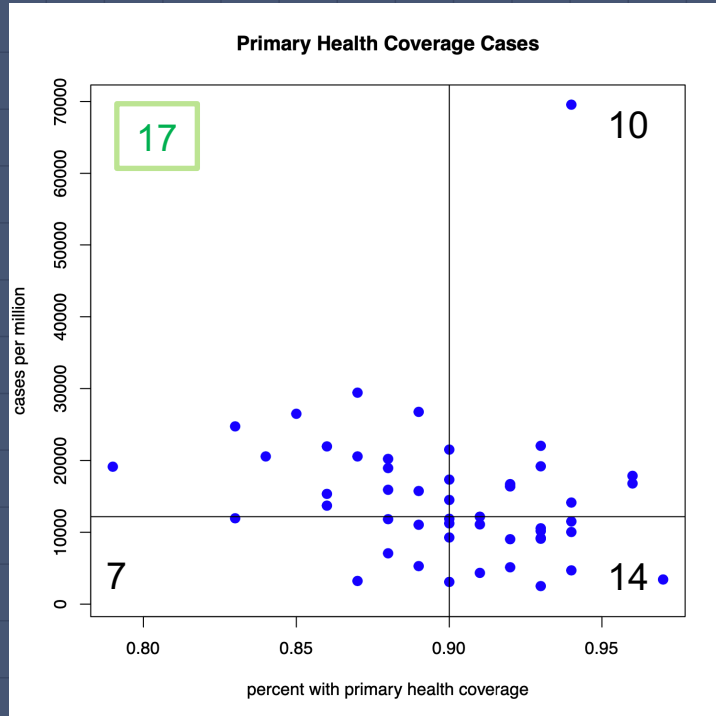
Primary health coverage may have a minute effect on decreasing cases per million but may potentially be correlated with increasing deaths per million

Household Income (2016)
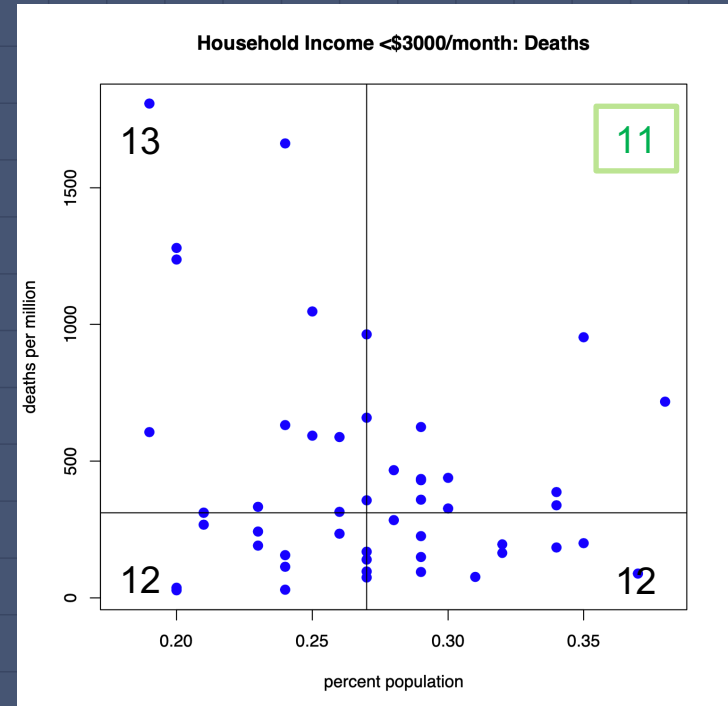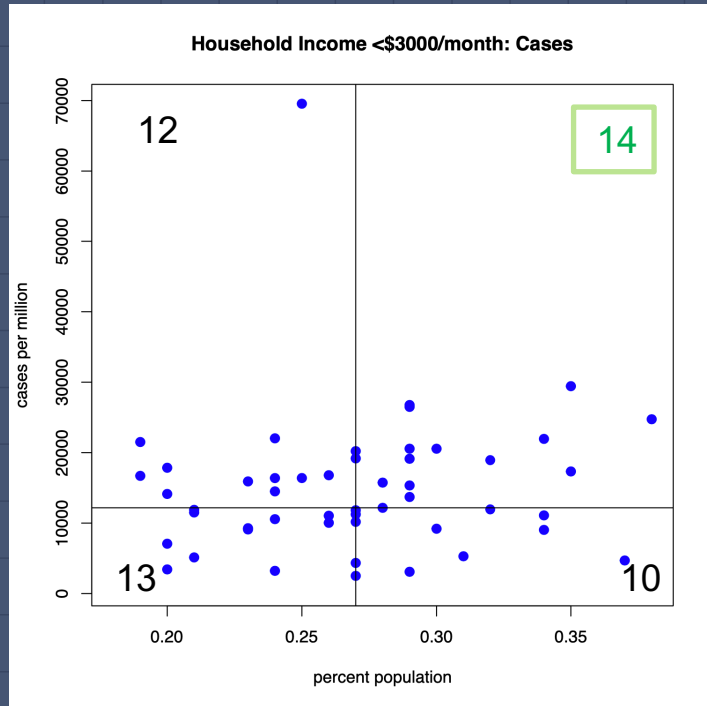
Looking at the quadrants, there does not appear to be a dominant group showing that household income affects cases or deaths per million
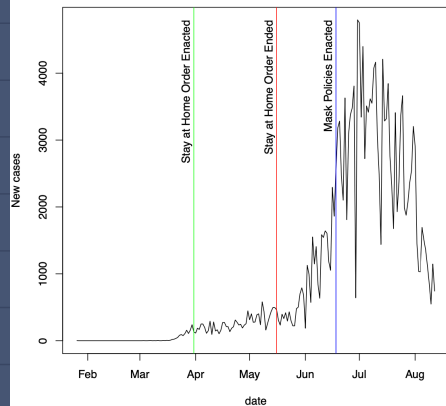
RESPONSES

STAY AT HOME ORDERS
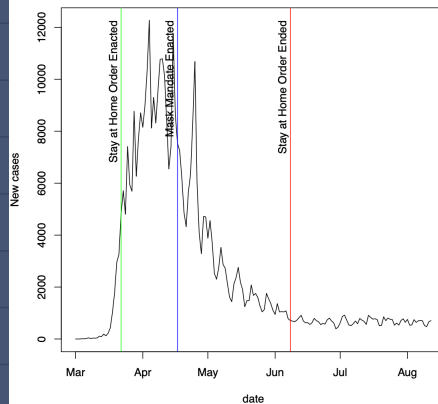MASK MANDATES/RECOMMENDATIONS
FREQUENCY OF MASK WEARING

2

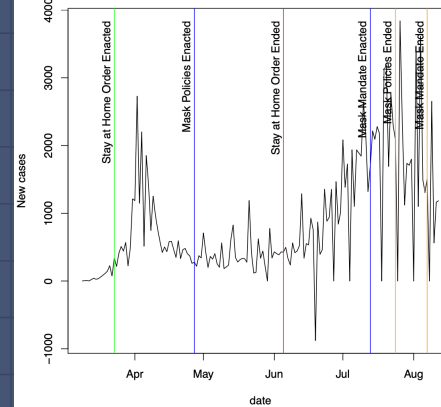# Daily Cases with Policy Responses
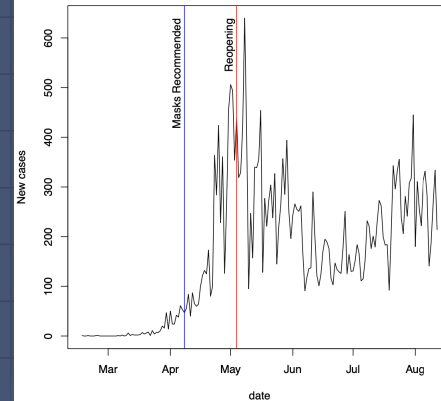
Frequency of Mask Wearing (7/17/2020)
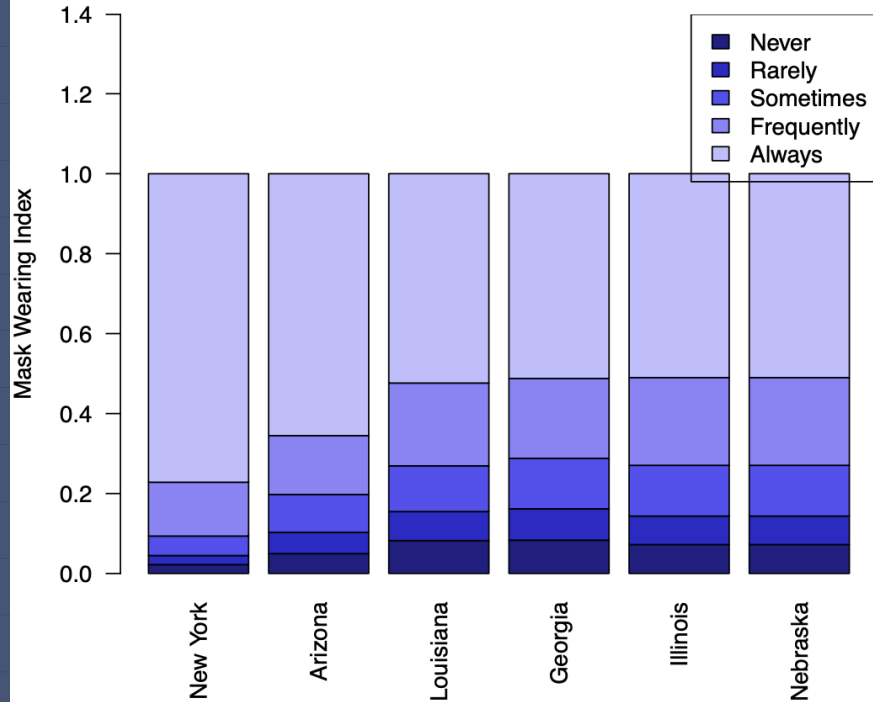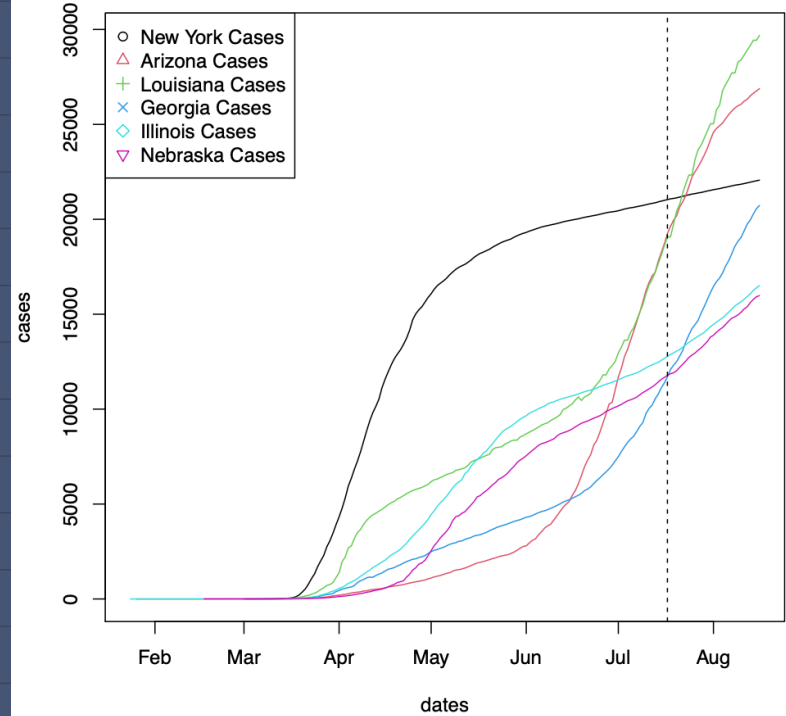
Importance

To determine how existing inequalities and conditions have affected our response to COVID-19

To analyze policy responses to identify the best ways to stop the spread of COVID-19

Takeaways

States with greater reported dissatisfaction with money and safety and greater populations with diabetes appear to have greater deaths and cases

Primary Health Coverage and Household Income appear to have little impact

Strict, sustained policy responses and increased frequency of mask wearing appear to be more effective at halting the spread of the virus

Future Directions

Perform more analysis to determine whether results are statistically significant

Identify the similarities and discrepancies among different states and how they affect this analysis

Investigate how income inequality may affect cases and deaths per million

Create models to examine effects of policy responses on disease spread