Our Project: GitHub Classroom

Maps

Layers (State)

1. General Covid 19 Data (new cases, death cases, deaths per 1M people)
    a. COVID-19/csse_covid_19_data at master · CSSEGISandData/COVID-19 (github.com)
2. Vaccination
    a. https://www.beckershospitalreview.com/public-health/states-ranked-by-percentage-of-covid-19-vaccines-administered.html
3. Variants
    a. US COVID-19 Cases Caused by Variants | CDC
4. Historical disease data for each state
    a. http://ghdx.healthdata.org/record/ihme-data/united-states-infectious-disease-mortality-rates-county-1980-2014
    b. United States Chronic Respiratory Disease Mortality Rates by County 1980-2014 | GHDx (healthdata.org)
5. Economy
    a. GDP: https://apps.bea.gov/itable/drilldown.cfm?reqid=70&stepnum=40&Major_Area=3&State=00000&Area=XX&TableId=532&Statistic=1&Year=-1&YearBegin=-1&Year_End=-1&Unit_Of_Measure=Levels&Rank=0&Drill=1
    b. Personal Income: https://apps.bea.gov/itable/drilldown.cfm?reqid=70&stepnum=40&Major_Area=3&State=00000&Area=XX&TableId=56&Statistic=10&Year=-1&YearBegin=-1&Year_End=-1&Unit_Of_Measure=Levels&Rank=0&Drill=1
    c.

Our Own Valuation of each state
Coronavirus Pandemic: Ranking The Best, Worst Places to Be (bloomberg.com)

Table: Covid Resilience ranking

Tutorial: how to make tables in R
https://rfortherestofus.com/2019/11/how-to-make-beautiful-tables-in-r/
Website:
https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker
Tutorial of reactable package:
https://glin.github.io/reactable/index.html
Example in github:
https://github.com/glin/reactable/blob/master/vignettes/womens-world-cup/womens-world-cup.Rmd

Analysis and Methodology:

How is the Ranking aggregated?
Each of the 11 data indicators are aggregated through the "max-min" method, which is used to convert metrics expressed in different scales into a common one, while maintaining the relative distance between values.
All the indicators are scored on a 0 to 100 scale, with 100 (blue) indicating the best performance and zero (orange) the worst. The rest fall in between, scaled by their distance from one another.**The final Resilience Score is the average of a place's performance across the 11indicators, equally weighted.**
Indicators of the residence ranking

1. 1-Month Cases Per 100K
   https://github.com/CSSEGISandData/COVID-19/tree/master/csse_covid_19_data/csse_covid_19_time_series

2. 1-Month Fatality Rate: death in that month/ total death
3. Total Deaths Per 1M --cumulative: total death
4. Positive Test Rate--cumulative: positive /total test result
   https://raw.githubusercontent.com/owid/covid-19-data/master/public/data/testing/covid-testing-all-observations.csv

5. Access to Covid Vaccines
   https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/
   (Need to scrape the table from html)
6. Doses Given Per 100
   https://ourworldindata.org/us-states-vaccinations

7. Lockdown Severity--sum

https://github.com/OxCGRT/USA-covid-policy/tree/master/data

8. Community Mobility

Google:https://www.gstatic.com/covid19/mobility/2021-02-05_US_Mobility_Report_en.pdf(take the average of the six indicators)

Apple: https://covid19.apple.com/mobility(出行方式分类)

9. 2021 GDP Growth Forecast
   https://www.usgovernmentspending.com/gdp_by_state

10. Healthcare Coverage

https://www.usnews.com/news/best-states/rankings/health-care

11. Subnational Human Development Index:
    https://globaldatalab.org/shdi/2018/indices/USA/?levels=1%2B4&interpolation=0&extrapolation=0&nearest_real=0

United States COVID-19 Pandemic Vulnerability

a. Historical disease mortality rate data across county
   i. Chronic respiratory disease
      United States Chronic Respiratory Disease Mortality Rates by County 1980-2014 | GHDx (healthdata.org)
   ii. Infectious disease
      http://ghdx.healthdata.org/record/ihme-data/united-states-infectious-disease-mortality-rates-county-1980-2014
b. Obesity prevalence data across state
   https://www.cdc.gov/obesity/data/prevalence-maps.html#race
c. Number of hospitals by state
   https://www.statista.com/statistics/710528/hospital-number-in-us-by-state/

Hospital bed capacity: https://www.kaggle.com/ikiulian/global-hospital-beds-capacity-for-covid19

2. Grades for Prevention and Control
   a. Vaccination
   b. Variants

Model:
eparker12/nCoV_tracker: Covid 2019 interactive mapping tool (github.com)
COVID-19 tracker (shinyapps.io)