# Region Comparison Tool

## Data Sources

The Region Comparison Tool displays data at differing level of granularity ranging from local (county-level) to National (country-level). The data for this application is drawn from various sources: COVID-19 case and death counts are taken from county-level data reported by USAFacts. Mobility data is provided by Descartes Labs. Test Positivity rates are collected from state-level health agencies and reported by covidtracking.com. Hospitalization data is provided by the Health & Human Services’ Coronavirus Data Hub.

## Visualization

To use the Region Comparison Tool, select a country, state, county, or metro area by typing the name of the area into the appropriate text box. This will allow you to filter and then select the appropriate region. You may select as many areas as desired in any combination. As you do so, a graph of deaths will appear on top and confirmed cases below. To facilitate comparisons between regions, you may change select different options in the **Align Regions** box in the left-hand side of the tool, which will adjust the x-axis and data to either be chronological or the number of days since passing various milestones.

To change the visualized data, you may select other options in the **Data to Graph** box on the left-hand side of the tool. Note that for metrics not related to cases or deaths, only one graph will be displayed. Also, note that not all datasets support comparisons at each level of granularity.

If more than three regions are selected, the color scheme of the plot will change to grayscale. To focus on one region, simply use your mouse to hover over a line in any of the plots which will change the color of that line in all visible plots and the legend.

# Model Comparison Tool

## Data Sources

The Model Comparison Tool collects and visualizes different forecast models that are developed by research organizations and universities. This information is collected from these institutions, cleaned, and published by the Reich Lab at the University of Massachusetts-Amherst via their publicly available GitHub account.

## Visualization

To use the Model Comparison Tool, first select a state using the dropdown selector on the left-hand side of the application. Then, select which data you would like to graph, choosing from either hospitalizations or deaths at the cumulative or daily level. Note that some models do not forecast all of these metrics, so these model options will not be eligible for selection in the **Forecast Models** box. All other models that are eligible can be selected for visualization and descriptions of each of the selected models will appear in a table beneath the graph noting any assumptions and limitations of the model, along with the date on which the data was updated. For more information on any of the specific models, click the blue information circle that appears next to the model’s name in the **Forecast Models** box.