

PART A

Viz 1:

Problem Statement:

Explore trend of number of female “Laboratory-confirmed” COVID-19 cases per month (x-axis) to number of male “Laboratory-confirmed” COVID-19 cases per month (y-axis) for every county in Missouri (each x,y pair represents a county) => Scatterplot

This viz includes interactivity using Animation to show changes over time with slider, this will be the interactive event that we did not cover in class. Slide the blue dot anywhere on the gray box to get data for different months

This viz includes interactivity using Tooltips (Display data on Hover) as you pass over each point of the Scatterplot.

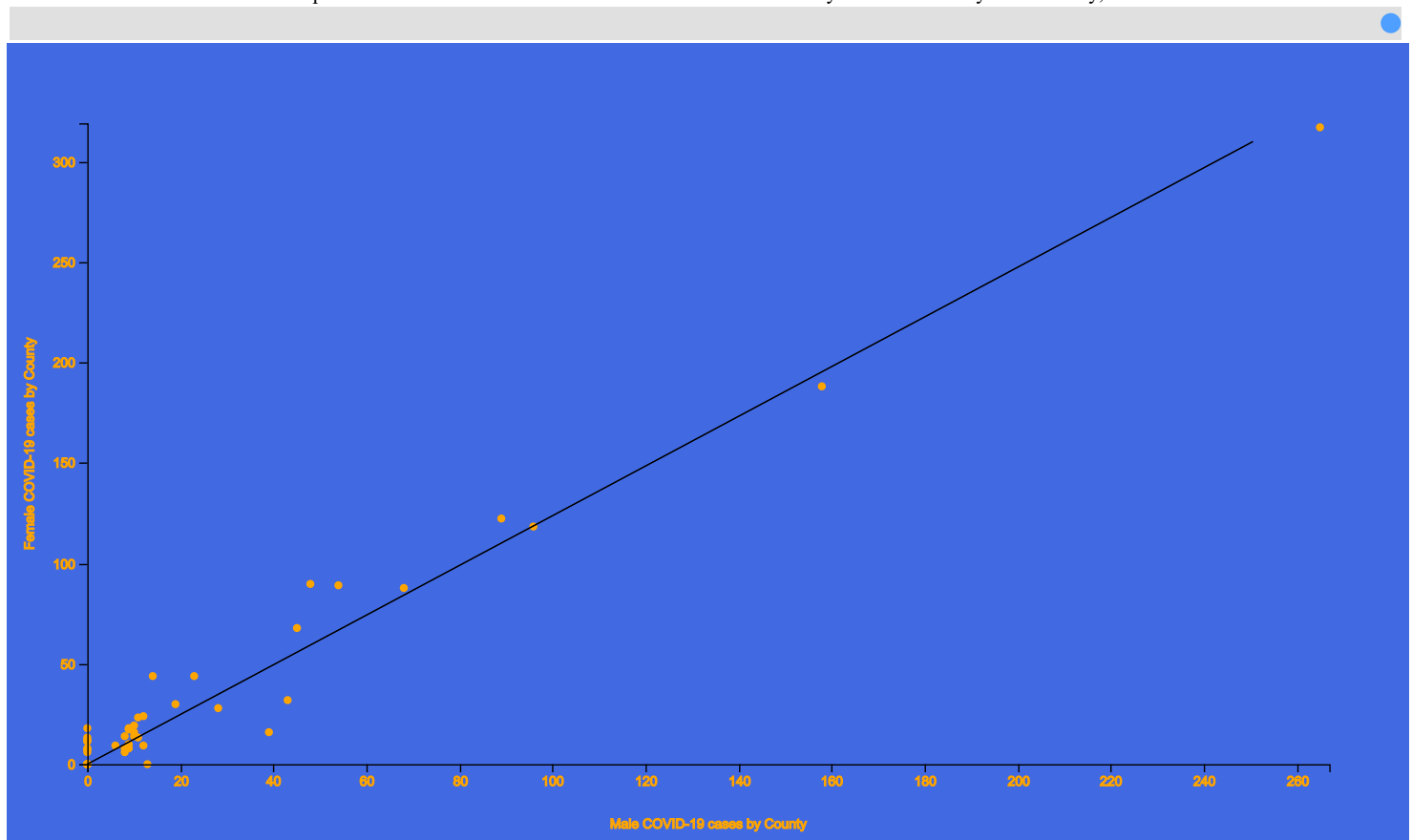
Color Scheme: I used a blue, low-saturated, color for the background and highly-saturated orange points to represent each point and axes for the scatterplot. Therefore, there is high contrast between the 2 which allows it to be easily seen. I used a light blue color for the slider on a gray background, so it seems more intuitive to slide the blue point across the background of the slider.

Marks: Points representing each county, Line representing the expected 1:1 relationship between the 2 axes, point representing the month.

Channels: both horizontal and vertical positioning. horizontal positioning for the slider

Plot:

Scatterplot of Number of COVID-19 Positive Males vs. Females By Missouri County for February, 2022



Viz 2:

Problem Statement:

Explore trend of number of “Laboratory-confirmed” COVID-19 cases per month between 2020-2022 in Missouri => Line plot

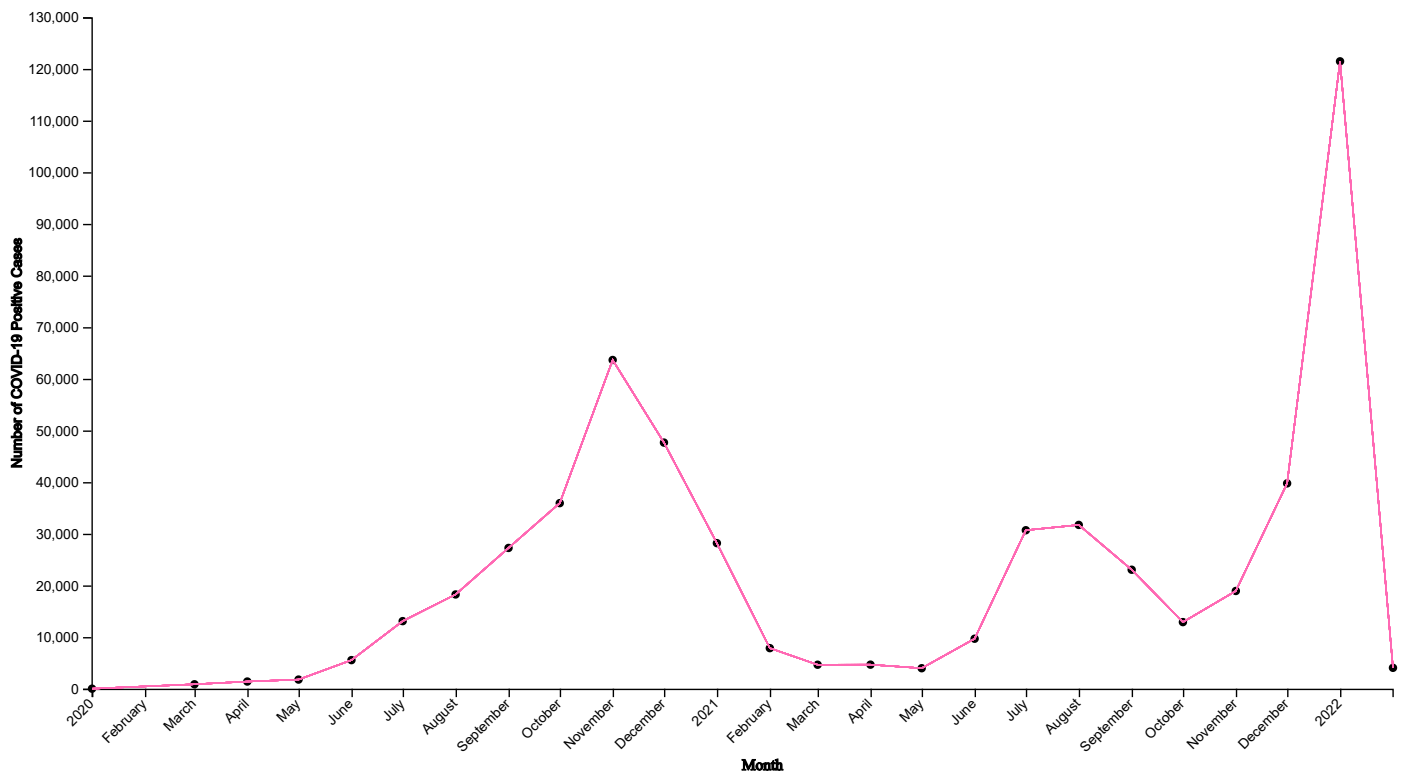
Color Scheme: For the lines I used a highly saturated pink because I wanted it to pop out to the viewer.

Marks: points and lines

Channels: vertical/horizontal positioning for both

Plot:

Line Plot of Total Number of COVID-19 Cases in Missouri Over Time



Viz 3:

Problem Statement:

Explore trend of one time series for each age group in Missouri with the number of “Laboratory-confirmed” COVID-19 cases per month => Streamgraph
 This viz incorporates interactivity using Animation to include “Zoom in” and “Zoom out” capabilities when viewing the data. Click and drag on the graph to update the x-axis! Double click to return to the original graph.

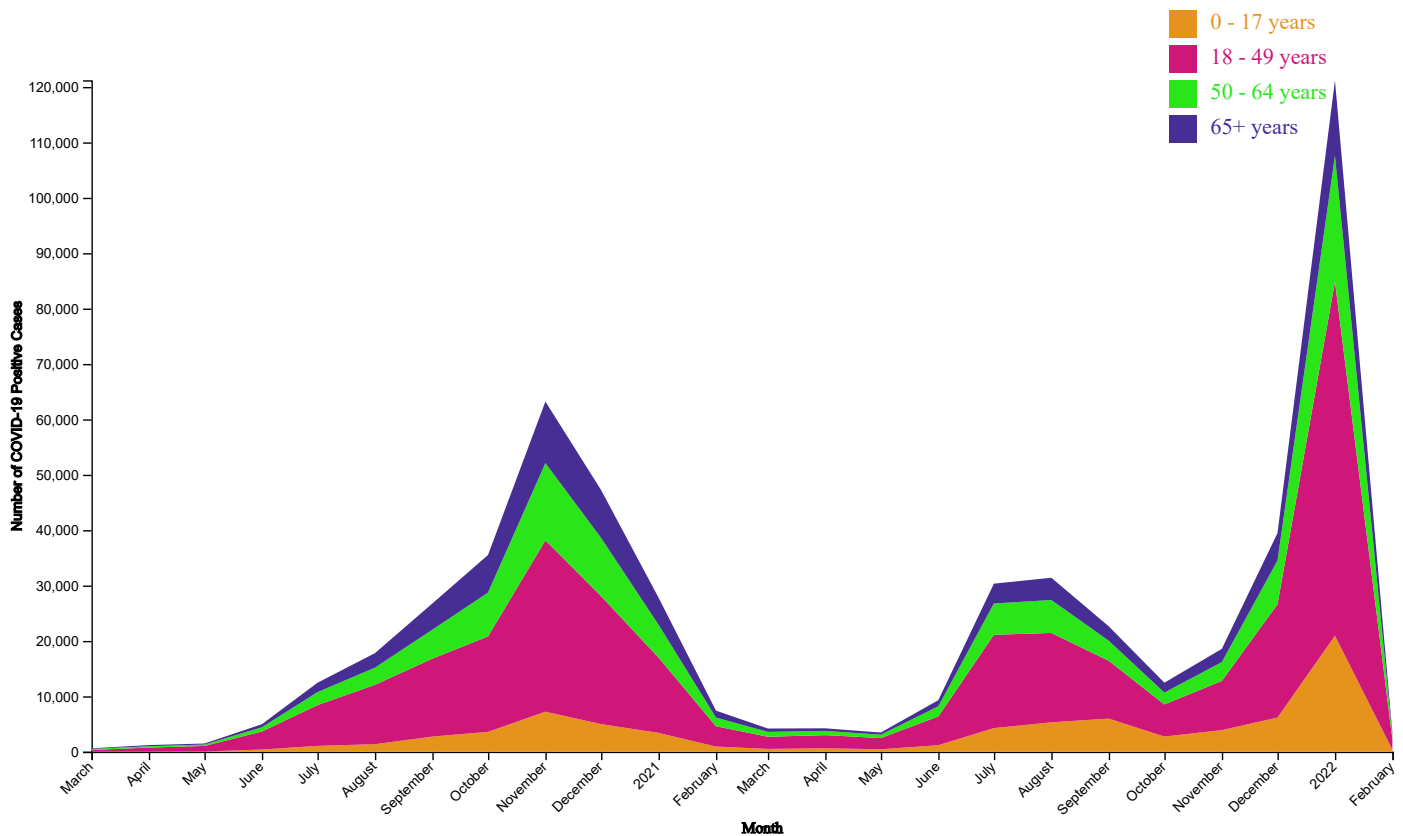
Color Scheme: I used 4 different colors to represent the age groups; all of which were low-saturated because they take up large areas. In addition, I made sure that the different colors could be distinguished next to one another. Lastly, I used more reddish hues to represent younger age groups, and bluish hues to represent older age groups in a sequential manner. Lastly, I steered clear from red and green because of color blindness.

Marks: areas which represent the different age groups

Channels: the vertical/horizontal positioning of the edges of each area representing the monthly value of COVID cases, the color of the area representing the age group, the size of the area showing the value for a particular group during a particular month.

Plot:

Stacked Area Chart (Streamgraph) of Total Number of COVID-19 Cases in Missouri Over Time for Different Age Groups.



Viz 4:

Problem Statement:

Explore trend of number of COVID-19 cases per month (y-axis) for the 5 counties in Missouri with the highest COVID-19 numbers (x-axis) by race (Counties: Jefferson, Greene, Clay, Jackson, Boone) => Stacked Bar Chart

This viz includes interactivity using a Button, which determines if the bars will be normalized (shown as percentage) or shown as frequency.

Color Scheme: For the areas I chose colors that were colorblind friendly and could be distinguished next to one another. There is no inherent ordering of the races, so I did not choose a particular ordering for the colors. I used low-saturated colors so they would not be an eye sore.

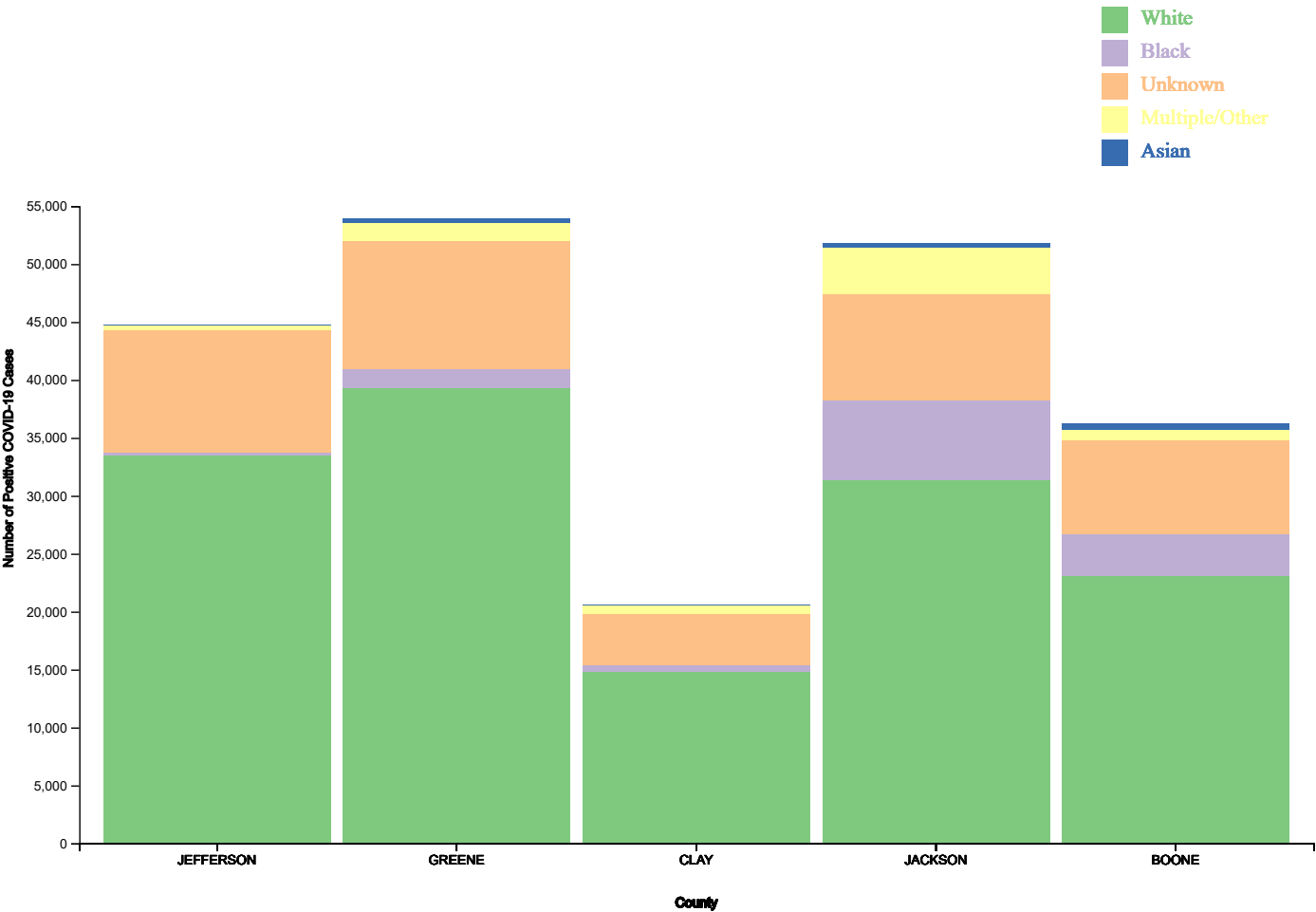
Marks: areas

Channels: vertical/horizontal positioning for both, height, color

Plot:

Stacked Bar Chart of Number of COVID-19 Cases in 5 Missouri Counties (with most COVID cases) By Race

☒ Frequency ☐ Normalized



Viz 5:

Problem Statement:
Explore distribution of number of “Laboratory-confirmed” COVID-19 cases per month for 2020, 2021, 2022 => 3 boxplots side by side (one for each year)

Color Scheme: For the boxplot areas, I chose a low-saturated teal so it was not an eye sore. For the individual points I used a saturated blue color because I wanted them to stand out.

Marks: points (the underlying data for the boxplots), areas (Q1-Q3), lines (median line, 1.5*IQR)

Channels: vertical/horizontal positioning for both, height, color

Plot:

Boxplot for Distribution of Number of COVID-19 Cases in Missouri by Year

