Interacting With Data Assignment Answers

Part 1

A. When analyzing the parallel categories plot, a few trends emerge. In total, the most survey responses are sporadic voters, with always voters as the second largest category and rarely/never voters as the smallest. This holds true for 'college' and 'some college' responses, but in the 'high school or less' group there are much fewer always responses, and proportionally higher rarely/never answers. Similarly, across income groups, sporadic is the most popular answer. However, as you move down the income groups the share of always responses lessens, and the share of rarely/never responses grows.

B. Focusing only on the trends between income and education responses, there is a clear trend where higher income groups are more often to have a college education, while the lower groups more often have high school or less. To see these trends, I focused on the bands on the graph that have the same color and are grouped together. For example, focusing on the blue (always voter) top band on the college education category, you can clearly see the two widest and most popular responses in this band are from the two highest income groups, and the 'less than $40k' response has a very thin and unpopular line. This trend is also clearly visible on the opposite bands; for each of the three voter categories on the 'high school or less' category, the 'less than $40k' response is by far the widest, and the '$125k or more' response is by far the thinnest.

Part 2

A. In 2020, both the overall turnout and the percentage of absentee voters are dramatically higher than in other years. This is due to a few factors: firstly, the 2020 election took place at the peak of the covid pandemic, so voters were hesitant to go to in-person polling locations and more likely to vote by mail with absentee ballots. Many counties were clustered around 50-80% absentee, where every other year on average has well below 50% absentee voting. Additionally, 2020 was a momentous presidential election with more buzz and controversy than even the 2016 election, which drove overall turnout up.

B. 2020 and 2016 were both presidential election years, and thus show higher overall turnout than the other three featured years. The potential exception is 2018 which, due to some data discrepancies, had misreported registered voter numbers and showed some turnout values of over 100%. Excluding this, 2020 and 2016 both saw turnout numbers clustering around 80%, while other years rarely saw turnout higher than 60%.

Part 3

Generally, localities in central or Northern Virginia had higher overall turnouts in 2020 than localities on the southern or western edge. There is also a group of localities in the lower Chesapeake region with notably low turnouts. Without further information to analyze, I am predicting that these higher turnout hotspots are being found closer to major VA cities.

Part 4

Web page here!

A. In the web page containing my figures, I changed and added a few key elements that I think work effectively to change it from a standard sloppy page into a simple and elegant presentation of the figures. The two biggest changes I made were to the font (going to a simple and modern sans-serif to match the figures' text) and to the centering. On the default web page, all the text and figures are awkwardly crammed into the left side of the page. I believe centering everything and adding wide margins went a long way in changing the page from a default cluttered mess into an elegant presentation. Sizing and fitting things was a bit difficult, as the size of the html objects for each figure was defined in code, and when I attempted to resize the figures within the page's html they would get cropped and add scroll bars everywhere.

B. Overall, I believe that the interactivity of these figures adds to their usefulness. For each of the figures, the interactive elements do not distract the viewer or pull their attention from the data, they simply provide additional information and add a new level of engagement between the figure and the viewer. I think that when constructing an interactive figure, it is important that the figure remains mostly understandable without any interaction or input from the viewer. All three of our figures convey most of the same information in their screenshots, perhaps with the exception of the animated bubble plot. Interactivity also allows you to add more visual dimensions or information to a plot (with pop-ups or animation frames), and gives new tools for guiding the viewer and how they interpret the plot. Again using the animated bubble plot as an example, the figure could have been made static with the years in different colors or in additional plots, but adding the animation allows the viewer to watch the voting trends change year-to-year, and makes it easy to track individual localities through the years. While powerpoint animations or similar visual flair fail to add any information or context to a presentation, the interaction added to our figures manage to provide optional additional information without wasting the viewers time or distracting their attention.