**HOMEWORK 3: SOCIAL DATA VISUALIZATION**

**Instructions**

Please submit an .html file and the R Markdown code used to generate it. Failure to submit both files will lead to deductions to your score.

**Description**

Perhaps the best way to learn data visualization is to (a) study the work of those who are more experienced and (b) practice. One neat way to go about this is to participate in social data visualization activities, like TidyTuesday or the 30DayChartChallenge. This exercise will ask you to study examples of/prepare your own submission to one of these activities.

1. Pick any prompt from either TidyTuesday or 30DayChartChallenge that interests you. Without writing any code or searching online, briefly brainstorm some submission ideas. What do you think would be most interesting to show from the data? What obstacles do you anticipate and how could they be resolved? Summarize your thoughts.
2. Search for some publicly posted submissions for your prompt. Pick two and comment their designs. Compare and contrast their choices of graphical encodings. What effective design decisions did the authors make that you could potential imitate? What might you have done differently?
3. Prepare your own response to the prompt. You may use either static or interactive visualization techniques. Your visualization and commentary should be complete enough that you could hypothetically use it as a blog post/social media thread if you were participating in the challenge publicly.

**Rubric**

**Visualization [12 points]**

Design Choices [8 points]: The visual interface should support meaningful interactive queries and be appropriately annotated. Your design choices should go above and beyond defaults, and show critical thinking as well as attention to detail towards aiding the viewer in understanding the takeaway(s) of the visualization. Strive to make your graphs as polished as possible; especially with choices such as layout, labels, sizes, themes, and colors. Though it may build from course examples, the submission demonstrates independent and creative thinking.

Code Useability [2 points]: Techniques to improve the conciseness and readability of code are used, such as using reactive expressions to avoid unnecessary duplication, and extracting graphing or other helper functions outside of render\* commands.

Problem Formulation [2 points]: The context of the visualization is appropriately communicated, and all data are reported within context, rather than assuming prior familiarity with specific variable names or data collection methods, for example. (*You can still use field-specific terminology if your intended audience would know what it means, but any such terms should be explained in your write-up.*) The problem or question the visualization investigates should not have an obvious answer, and the visualization could have an audience beyond the course.

**Write-up [8 points]**

Discussion Quality [6 points]: The write-up is thorough with respect to each prompt but not overly wordy and avoids technical jargon. Writing demonstrates critical thinking about the author’s own workflows, decisions, and what information needs to be communicated to the viewer.

Discussion Formatting [2 points]: The write-up is free of grammatical errors and logically organizes the text into clear sections (e.g., with headers or other formatting devices).