**HOMEWORK 4: SOCIAL DATA VISUALIZATION**

**Instructions**

1. Upload your write-up as a PDF or HTML document on Canvas. If not all source code is visible in this document, then make sure to separately upload it.
2. Write-ups should not exceed 750 words.

**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**

*Discussion Quality* [4 pts]: The write-up is precise, well-developed, and engagingly written. Paragraphs and/or headers are used to organize the text, and superfluous code outputs are suppressed.

*Design Choices* [6 points]: The visualizations use appropriate graphical encodings, are well-annotated, and address essential questions about the data. Data are not unnecessarily summarized, and the views have high information density. The design does not rely on visualization defaults and demonstrates attention-to-detail. Though it may build from or synthesize course examples, the submission demonstrates independent and creative thinking.

*Problem Formulation* [4 points]: The focus of the application is on a broader, independently interesting problem domain. All data are reported within context, rather than assuming prior familiarity (with specific variable names or data collection methods, for example). The questions asked do not have obvious answers, and the visualization could potentially find an audience beyond the course.

*Code Useability* [4 points]: The code to generate the figures is readable and can be run easily.

*Format* [2 points]: The report is shared in a format that is easy for readers to review. Navigating across sections and linking to associated code is easy.