**PROJECT MILESTONE 3: DRAFTING**

**Instructions**

1. Have one member of your team submit the report or zipped interface on Canvas.

2. Write-ups must be no longer than 1000 words (not including references or figure captions).

3. Submit your code, either as a supplementary file in the Canvas submission, or as a public URL (github / box / google drive).

**Description**

The purpose of the first two milestones was to help you and your team learn more about your problem’s context and get some hands-on experience with relevant data. The next step is to make a first draft of your final submission. The final submission can have one of two formats,

* A report with visualizations integrated throughout. The goal would be to develop the core of what could one day be published in a journalistic or scientific venue.
* A standalone interactive visualization. Your goal would be to build an application that could one day be hosted on a public website exploring your project’s topic.

In either case, you should think carefully about visual design. Do the visualizations naturally support the most important queries about the data, and is the information density sufficiently rich to empower your audience to draw their own inferences? Do the visualizations flow naturally from one to the next, for example, starting with an overview and then highlighting details?

Further, for both types of submission, provide text that coherently ties together your visualizations and supports your reader’s effort in identifying the key messages, e.g., using section headers or interface tabs. Consider how to shape a story around what you have learned from the data – don’t take your reader’s interest for granted. Discuss the knowledge gap that your visualizations address and connect your findings with something that your readers will be able to relate to.

Finally, considering that this is only a first draft of the final submission, provide a discussion (in a separate section of the report or interface) of improvements you plan to make and specific points that you would like feedback on (from peer review or graders). The submission does not need to be completely refined at this stage – the purpose of this milestone is to encourage early experimentation and build a strong foundation for the final submission.

You may freely borrow text and code from previous milestones, though the submission should be able to stand on its own. We also expect you to submit reasonably documented and readable code.

A rough outline of the tasks involved in successful completion of this milestone is,

1. [60 minutes, together] Prepare an outline of the interface / report, with drawn sketches for the key visualizations and their interactivity, if applicable.
2. [3 x 60-minute sessions, per person] Initial implementation of visualizations and draft of accompanying text, with effort distributed across team members.
3. [2 x 45-minute sessions, per person] Constructively critique one another’s designs, code, and text, and revise accordingly.

**Rubric**

* Visual design (8 points): Design choices demonstrate critical thinking around (1) the relevant visual queries and (2) the information density of each view.
* Clarity of exposition (8 points): The writing is compact and not verbose, free of technical   
  errors, and divided into clearly marked sections.
* Code quality (5 points): Code is organized, readable, and documented. Even if not yet fully reproducible, there is sufficient documentation that there is no doubt about being able to rerun any parts, if the need arose.
* Creativity and style (4 points): The visualizations and text avoid cliché in both visual design and writing. Instead, they engage the reader without sacrificing clarity.