## Final Project Rubric

## PPOL670 – Introduction to Data Science

Fall 2020

Student:
Project Name:
Total Score: / 50
Project Materials
$\ell$ points
<ul> <li>Report was posted to Canvas as a .zip containing the following items: <ul> <li>Report was rendered using RMarkdown as any one of the following file types: .pdf</li> <li>.html, .docx. File was titled lastname_firstname_final_report.pdf. (/1 point)</li> <li>.Rmd file containing all the code used to generate the analytics in the report. File was titled lastname_firstname_final_report.Rmd. (/1 point)</li> <li>Student included the data used in a Data/ folder. (/1 point)</li> <li>Student included an .Rproj. (/1 point)</li> </ul> </li> </ul>
Document Presentation
16 points
<ul> <li>Student used professional looking visualizations in the report: <ul> <li>Figures were easy to understand? (/1 point)</li> <li>Figures made sense within the context of the report? (/1 point)</li> <li>Student described the purpose and the insight drawn from the figure in the text? (/1 point)</li> <li>Figures referenced in the t ext are labeled, i.e. references to "figure 1" correspond to the figure title (e.g. "Figure 1: Title")? (/1 point)</li> <li>Figures labels/aves/text are readable? (/1 point)</li> </ul> </li> </ul>
<ul> <li>Figures labels/axes/text are readable? (/1 point)</li> <li>Color scheme made sense; easy to differentiate between colored items (/1 point)</li> <li>Figures were appropriately proportioned to the document? (/1 point)</li> </ul>
<ul> <li>Student used R Markdown for a professional looking report: <ul> <li>Report was rendered without errors or warnings. (/1 point)</li> <li>No code was visible in the report. (/1 point)</li> <li>No raw output was visible in the report. (/1 point)</li> </ul> </li> </ul>

<ul> <li>Report includes a title, author byline, and word count. (/1 point)</li> <li>Report is 12 pages in length (double-spaced; 12 pt font; if rendered as .pdf/.docx) or 3000 words.¹ (/1 point)</li> <li>Report contained no (or few) grammatical/spelling errors. (/1 point)</li> <li>Report reads as a single cohesive document. (/1 point)</li> <li>Student cited academic, data, and package sources. (/1 point)</li> <li>* To cite a package, use citation("package_name") to get a the citation information for a package, e.g. citation("ggplot2") will yield "H. Wickham. ggplot2: Elegan</li> </ul>
Graphics for Data Analysis. Springer-Verlag New York, 2016."
Content
Points 30
The student's project sufficiently addressed these general areas.
• Introduction (/5 point)
<ul> <li>Student clearly established the aim of the project.</li> </ul>
<ul> <li>Student offered a clear roadmap of the report (i.e what is covered in the report).</li> </ul>
• Problem Statement and Background (/5 point)
<ul> <li>Student offered a clear and complete statement of the problem and/or aim of their analysis.</li> </ul>
- Student included a brief summary of any related work (i.e. a $light$ literature review)
• <b>Data</b> (/5 point)
<ul> <li>Student outlined where their data came from.</li> </ul>
- Student clearly specified:
<ul> <li>* the unit of observation;</li> <li>* variables of interest;</li> <li>* potential issues in the data (e.g. missingness, coverage, etc.)</li> </ul>
<ul> <li>Student articulate the steps they took to wrangle the data.</li> </ul>
• <b>Analysis</b> (/5 point)
<ul> <li>Student described the methods/tools they explored in their project.</li> <li>* Justified the tools/methods that they used.</li> <li>* Adequately described what the tools/methods are doing.</li> <li>* Note: Assume the reader is smart but doesn't know R/Machine Learning well. That is, be crystal clear about what you're doing and why.</li> </ul>
• <b>Results</b> (/5 point)
<ul> <li>Student gave a detailed summary of their results.</li> </ul>

– Student presented their results clearly and concisely.

<sup>&</sup>lt;sup>1</sup>Note that your citations do not count against your word/page count.

- Student used visualizations (and tables) whenever possible/appropriate.

## • **Discussion** (\_\_\_\_/5 point)

- Student spoke on the "success" of their project (as defined in their proposal).
  \* "Did you achieve what you set out to do? If not why?"
- Student articulate how they would expand the analysis if given more time.