Poster Title: Qualtrics, R and Data Visualization: the importance of tidyverse and ggplot2 to portray meaningful results

Abstract: With R becoming ever so popular among evaluators, it is important to recognize two of its important aspects: the importing and cleaning up the data for the desired statistics or graphs, and to plot it using the best suiting visualization. Data collection forms are designed to collect relevant information keeping ease of use in mind. While the collected data can be ported easily in text, csv, or a database format, it is hardly ever in the right format for statistical or data visualization work. One of the popluar set of packages in R, tidyverse, has many functions for importing and formatting data. Once the data is ready for graphing, the selection of right kind of visualization deserves a lot of attention, and ultimately ggplot2 offers a myriad of functions designed to create multi-layered visualizations.

As a requirement for my Ed. D. coursework at the University of North Carolina Wilmington, I had my internship with Aligned Impact, an evaluation firm based in Greensboro, North Carolina. The internship gave me the opportunity to work on an annual report that the evaluation firm produces for the stakeholders. I was pleasantly surprised to find that the report was generated using R, while the underlying data was collected using the Qualtrics system.

The data cleanup aspect of R for me has been the understanding of how the Qualtrics data first needs to be imported, cleaned up, and formatted for the desired statistical analysis or graphing purposes. In my internship, we used tidyverse, one of the popular R set of packages for such work. On the other hand, the data visualization aspect of R introduced me to ggplot2. While it is important to understand how the myriad of ggplot2 functions work, it is even more important to decide which kind of visualization is best suited for the results that matter the most to the stakeholders. My internship not only gave me the opportunity to work with professional statistical analysis and data visualization tools but also to build my own tool set that will stay with me beyond my graduation.