Serial Killer Trends in the United States Design Review

**Progress**

Since submitting my proposal last week, I have scraped 90% of the necessary data from the PDFs provided and put them into csv files. I am currently in the middle of the weeklong period I gave myself to create the visualizations. I have created about 70% of them, all using Tableau. I have submitted my Tableau Workbook of the worksheets and dashboards I have made so far for reference. I have yet to make the pictogram chart of victim races and genders because I am still looking for the best way create it. I also still have to create the visualizations for IQ , criminal history, and history of mental illness. I also still need to create a story with all the visualizations, which I have scheduled to do between April 29th and May 10th.

**Data**

I have used mainly the data sources from the PDFs I submitted last week. I have submitted a zip file of them converted into excel files. I am having trouble finding the five number summary (or all data) of killer IQs. I have only found a source that mentions only the mean, median, maximum, and minimum values. I will continue to look for a full data source, but may have to switch from a boxplot to another type of visualization (see below).

**Visualization Choices**

In order to best show the change in number of serial killers over the years, I created a line graph with a tooltip providing exact numbers for each year. I think this was the best choice because line graphs are straightforward, easy to read, and great at depicting trends over time. In order to show the states with the most serial killers, I created a choropleth of the United States, which is effective because the reader can easily see which states have had higher/lower numbers of victims of serial killers. This map includes a tooltip that shows the state name, exact number of victims, the states rank by number of victims, and rank by population.

I want to create several visualizations to show the traits of serial killers. To show the racial makeup and genders of serial killers and how they have changed over time, I made a stacked bar chart of the proportions for each. I think this is effective because it allows me to show the trends of so many different groups at the same time and is easy for the reader to understand. As always, I included a tooltip to show exact values on hovering. In order to show the diagnoses of mental disorders and the criminal histories of serial killers, I want to use bar charts because they effectively convey data for multiple categories at the same time. In order to show the IQs of serial killers, I want to use a box plot because the median is much lower than the average, meaning the data is skewed, so a box plot is the best choice to represent the spread of IQs of serial killers. As described above, I am having trouble find the Q1 and Q3 values for this, so if this is not possible, I think that a chart displaying the values would be an adequate substitute.

To show the traits of the victims, I also want to have several visualizations. For starters, I want to show the racial and gender makeup of victims in a pictogram chart. I think using people (male and female to represent the two genders) and different colors to represent races shows the reader instantly the proportions of the different demographics. I have created a histogram of the ages of victims, which I think is effective because it easy to read and the fact that those under 1 year are killed at a surprisingly high rate stands out from the overall bell curve. Lastly, I also want to include bar charts that show the relationship between the killer and victim, the methods, and the motivations of the murders. I think a bar chart is necessary in all three cases because each has a lot of categories and a bar chart is an easy way to spread them out and make them readable. Also, bar charts are easy for people to compare groups and read proportions off of.