**UMGC Data 620 Assignment 9.1: Summary and Link to Presentation**

Crime is affected by rates of unemployment and the education level of the working force. How? I looked at three different datasets and compared them together based on the year. Unemployment varies depending on the economic climate and it was interesting to note that male employees generally get hit harder than female employees by unemployment but once the pandemic hit in 2019, we can see that the unemployment rates hit women harder than men. Most of the crimes listed, assaults, homicides, and rapes did not correspond to the unemployment rate but robberies do. You can see that the graph has spikes and valleys that are very similar to the unemployment rates. On the other hand, when I compared the education level of the workforce to the rate of violent crimes over the years, you can an inverse relationship where as more and more of the workforce had obtained at least a bachelors, there were less crimes committed overall. This crime data is before the presidential election in 2016 where unemployment was going down as businesses were optimistic about business regulations and restrictions. On the other hand, crime rates went up as the political atmosphere became charged. These clear correlations show that crime is affected by the education of the workforce as well as employment status. According to this data, if more people are employed with better education, the rate of crime should decrease. Below is a video that explores the graphs mentioned above.

[https://www.youtube.com/watch?v=CR5nxREGgsM&ab](https://www.youtube.com/watch?v=CR5nxREGgsM&ab_channel=TianiaChan)

Grading Rubric:

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| Score | Definition |
| 90 – 100 | Exceeds Expectations. These types of presentations are really exceptional and a pleasure to watch. They meet all the criteria of the “meets expectations” presentation, and go beyond in some meaningful way. The “beyond” may be in using graphs carefully tailored to the data (stacked bar charts, or Pareto charts, for example), or it may be in the additional background research to provide informative multidimensional aspects to the time series (for example, adding population research data to a time series showing demand for electricity over time). It may also cover significantly more than 20 time periods. Storyline is clear and easy to follow. Demonstrates mastery of the visualization techniques we have covered in class. |
| 80 – 89 | Meets Expectations. The average score at UMGC is 85%, and a presentation which meets expectations will earn this score. This type of presentation will typically be easy to follow, with good audio and visual quality. It will contain between 2 and 4 time series graphs of the data, with a clear story outlined. It will also contain some graphs of other aspects of the time series, such as bubble or other plots, which illuminate a more interesting back story in the data. Interactions or background factors will be noted and explained. Each graph is labeled with a Figure number, and all APA formatting is met. A listener will come away from the presentation able to summarize the story over time. |
| 0 – 79 | Does Not Meet Expectations. Time series is weakly researched or not really a time series. This type of presentation may contain only 1 time series graph, and the balance of the graphs will be very basic (such as bar charts). The graphs may not be the best way to display the data. There is not a strong storyline, and at the end, the listener may not have a clear idea what the presentation was about.  These types of presentations also may have significant technical difficulties with sound or visual quality, or have difficulty conforming to the time limits. Figures may not be labeled, and there is divergence from APA formatting. |