JLC-445-003

Project 5 Analysis

Emily Williams

**Part I: Series Analysis**

1. My first analytic finding within the “Interval” column in my data was that the most recent crimes have followed a pattern one crime very quickly after another one (0-5 days), then waiting a while for the next (~15-20 days). He has committed two crimes on the same day twice, and often doesn’t wait much longer than two weeks before his next crime. His most recent longer intervals are all under 17 days, while his most recent shorter interval is 0. As you can see on the interval graph (in the Excel Workbook), there is a pattern of little hills where the interval keeps spiking, showing what I have been describing here.
2. My second analytic finding within the “Day of Week” column was that he has never committed a crime on a Monday or a Friday, but about half of his crimes were committed either on a Sunday or Tuesday. He also has had two crimes on Wednesday’s and Saturday’s, and three crimes on Thursday’s, so there is a fair amount of variability here with the days of the week. There is not a clear pattern of weekends, or every other day, or specific days of the week.
3. My third analytic finding within the “Age” column was that he alternates between victim age being around 30 and around 60 years old. He will commit a crime against a couple that is in their late twenties/early thirties, then commit a crime against a couple in their sixties, before he returns to younger victims. There isn’t a straight pattern, he alternates between doing two young couples, then an older, or vice versa as seen in the graph that has many spikes, like the age graph showcases.

**Part II: See Excel Workbook tabs.**

**Part III: Temporal Prediction**

My prediction of when the next event in this series is most likely to occur is August 19th, or August 21st. I based my interval on the previous, most recent crimes, and with the last interval being higher with ten days in between crimes, my prediction would be somewhere between 0-5 days. I looked at the interval percent change, predicting the next change to be around 90-70%, and when I calculated that percent change, I ended up with 1- and 3-day intervals for the next crime. These dates land on a Monday (1-day) and Wednesday (3-day), neither of which are prominent days of the week for his crimes in the previous data. I think the interval makes a more accurate prediction, though, because he has been speeding up the period between crimes in the recent events (I don’t think days of the week matters as much). His victim’s age, however, has two ways it could go: either another older couple in their sixties, or a switch to a younger couple around the age of 30. Like I said before, he has alternated between two older couples, then a younger couple, or two younger couples, and then an older couple, both of which are shown in my predictions.

\*I don’t have time of day data, so no analysis available there.