**Reflection**

Taking my Sociology Statics class, I have learned multiple new things that I have never learned before. I was never taught statistics, so this class was a huge eye opener. I have learned the importance of having things organized in regard to when we built our statics manual to help with step by step ways to work in RStudio and SPSS. Learning RStudio was very different and it took some time learning the steps and how critical the steps are when placing data in the system. We learned by hand on a regular calculator not a T-94 calculator the steps for calculating percentage, ration, rate of change, frequency distribution, inter quartile range, variance, standard deviation, z scores, T-test, and many more.

 The class taught me how to understand and read data from different types of tests like T-test, Chi-square, and Regressions that we did in RStudio. Being able to read these types of tests has helped with determining if we can support our hypothesis or if we can retain or reject the null hypothesis, which when there is no significance between the independent variable and dependent variable. When reading information in scholarly articles I never knew what authors meant when they said there were significant differences at the .001 level, but now I can interpret this with ease now. I also learned that when running certain tests that only certain variables such as ordinal, nominal and ratio can be used. For example, when running an ANOVA, the dependent variable must be continuous or known as ratio and the Independent variable but contain 3 or more groups.

In the class we also were taught the concept that there can be errors. We always expect some difference between a sample and a population, and we were taught to learn the characteristics of the two. Knowing the difference between the two tells us what type of formula we should use by hand. I learned that when running T-test in RStudio you want to focus on using two independent variables than for a two-way Chi-Square test you want to test the significance of differences between observed and expected frequencies. Testing Chi-Squares in RStudio I learned the steps to re-code if needed. Most importantly I learned in this class how to make a correct APA table that can help my audience read my findings easily and explain what each part is showing.

The reason that this class matters in general is because it can help students understand and correctly interpret different scholarly articles that have a data section. It is important as well because it keeps individuals informed about what is happening in societies and even the criminal justice system. Understanding the importance of statics can help with decision making towards maybe laws or opening a state back up after a virus has spread.

Other reasons for learning statistics is important for individuals is because statistics can be critical when having to send out correct information. Many times, we have seen where readers can not read the findings properly and therefore a false judgement is made. For example, the flu shot causes autism. Having the skills of knowing how to work RStudio can be beneficial for jobs and place me over someone that is running for the same position and does not know how to use it.

In the future I will be able to use the knowledge and skills that I have learned to identify data that shows the importance if the findings are significant to what the author is trying to prove. Having background knowledge in statistics will allow me present research that I may find when dealing with human trafficking. In the future I am hoping that I can work with the prevention of human trafficking and collecting data can be useful to gather information. Having the skills of RStudio I will be able to present the data to my co-workers. With the skills I have learned from this class I plan on using them for when I go to graduate school to get my masters because more than likely I will have to take another statics class.