**R Script Table of Contents**

In this document, you will be briefly describing the .Rmd (or .R) files that you include in this folder. You need to include (1) the name of each file and (2) what each file does.

1. File Name: Goal1VariableCreation.Rmd
   1. File purpose: In this script, we select all the variables based on our clients' needs from North Carolina felony case activity reports from 2010 to 2022. Then we combine all the datasets by years and create response variables y1–Trial Conviction Rate and y2–Trial Disposition Rate.
2. File Name: Political Views Date Code.R
   1. File purpose: In this script, we load in all of the political views data to have easy access for any person interested in viewing the data in R, and then also load the updated Combine1 data set that includes the political views data.
3. File Name: Goal2VariableOrganization.Rmd
   1. File purpose: In this script, we create the explanatory variables for crime rate and ethnic makeup. We also combine them with the other explanatory variables and write them into CSV Combine1.csv. Then we combine all explanatory variables with the response variable y1 and write into CSV Combine2.csv. We combine all explanatory variables with the response variable y2 and write into CSV Combine3.csv.
4. File Name: Goal2DecisionTree.Rmd
   1. File purpose: In this script, we load the Combine2.csv and Combine3.csv data sets. Then we build decision tree models for response variables y1–Trial Conviction Rate and y2–Trial Disposition Rate. R squared is calculated for both trees.
5. File Name: Linear Models Code.R
   1. File purpose: In this script, we load the Combine2.csv and Combine3.csv data sets, make the linear models for y1 and y2, run a summary of data on each of these linear models, and then run the graphs to check if the assumptions for doing a linear model are met, which show they are not.