CONCEPT MAP

KANSAS CITY PUBLIC SCHOOLS

As part of a non-profit business analytics initiative, in collaboration with the Kansas City, Missouri (KC) Public School System and Local Law Enforcement, the objective is to analyze crime data in the surrounding areas and provide actionable insights and strategies to enhance campus safety for students and staff.

DATA WRANGLING & MANAGEMENT

WRANGLING

Goal is collect data & clean data

- Need to find or create a dataset of KC public schools locations
- Some data is missing locational coordinates which is needed for spatial analysis. Thus, a plan will need to be created to fill this missing data

MANAGEMENT

Goal is to organize all datasets in an affective way to perform analysis easier

- Create relational database in R Studio
- Several issues may arise as trying to integrate data files if yearly files are not consistent or relationships are properly identified

DATA & STATISTICAL ANALYSIS

CRIME RATE ANALYSIS

SCHOOL SPECIFIC INSIGHTS

Goal is to identify statistical trends & create geospatial visualizations

- Work with law enforcement to see how crime is typically studied
- Identify schools where there is an increase of surrounding crime
- Creating spatial visualizations by year is first goal but end goal will be to create interactive map is end goal

REGRESSION ANALSIS

Goal is to conduct regression analysis on time series data.

- According to experts regression is not typical affective on time series data.
- This is where the BI team will start & if found ineffective further development will be conducted next quarter.

OUTCOME

DASHBOARD

Goal create some dashboard or illustration to display all results.

- Start with simple PowerPoint displaying results & work towards implementing a R-Shiny, Power BI, or flexdashboard like interactive dashboard

INTERPRETATION

Goal is to work with KC Public Schools Board, School Law Enforcement, & KC Local Law Enforcement to use results to make data & statistical informed solutions

- BI team conduct on personal research on solutions
- Making technical conclusions easily understandable for non-technical audience