IC25005

6 March 2025

Team Abstract

Working with WMATA ridership data, our team sought to find a clear correlation between crime in the DC area and Metro non-taps. We sourced our data on crime from an open-source government website. The non-tap data we used came directly from WMATA's database. Our initial intuition led us to believe a general trend between crime and non-tap ridership could be extracted from these two data sets. Our main focus surrounded how to accurately map the proximity of crime to non-tap ridership at each metro station. We also considered the nature of the crimes included in our analysis. Although the percentage of non-tap ridership for the more than eighty stations surprised us, we formulated an interesting hypothesis potentially shedding light on psychological factors enabling non-tap ridership. Nonetheless, we developed an interesting correlation between how crime, non-tap, and tap ridership all interact. Our team also probed the most popular days and times for crimes to occur. We then finished our analysis with a proposal for time-based allocation of Metro Police resources to curtail the prevalence of non-tap ridership and promote the general safety of the metro system.