Analyzing Toronto Police Statistics between 2014 to 2022*

arrested-and-charged-person

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According to police statistics, as a branch of crime statistics, Toronto Police statistics comprehensively depict the gender/age groups/crime types of individuals arrested in Toronto from 2014 to 2022. Second sentence. Third sentence. Fourth sentence.

1 Introduction

Criminal statistics, particularly within the domain of policing, serve as a vital instrument in comprehending and addressing patterns of criminal behavior within society. Toronto Police statistics, as an exemplar in this context, offer a meticulous portrayal of the demographic dynamics and criminal typologies characterizing arrests within the city from the temporal span of 2014 to 2022. Such statistical analyses provide a nuanced understanding of the intricate interplay between law enforcement efforts and the evolving landscape of criminal activities.

The field of criminal statistics functions as a branch of criminology, offering empirical insights into the prevalence, distribution, and trends of criminal incidents. Policing agencies, including the Toronto Police, routinely engage in the systematic collection, analysis, and interpretation of data derived from their law enforcement activities. These statistics encapsulate a multifaceted depiction of criminal occurrences, spanning diverse facets such as the demographics of apprehended individuals, the temporal distribution of criminal incidents, and the categorization of offenses according to their nature and severity.

Toronto Police statistics, with their temporal range extending from 2014 to 2022, encapsulate an extensive period characterized by shifts in societal dynamics, legislative alterations, and advancements in law enforcement strategies. The juxtaposition of gender, age cohorts, and crime types in these statistics elucidates the differential impact of law enforcement efforts across various demographic groups and crime categories. Such granularity facilitates a more nuanced

*Code and data are available at: https://github.com/siru1366/starter-folder.git.

understanding of the socio-criminological landscape, enabling policymakers, researchers, and law enforcement agencies to tailor interventions effectively.

You can and should cross-reference sections and sub-sections.

The remainder of this paper is structured as follows. Section 2….

2 Data

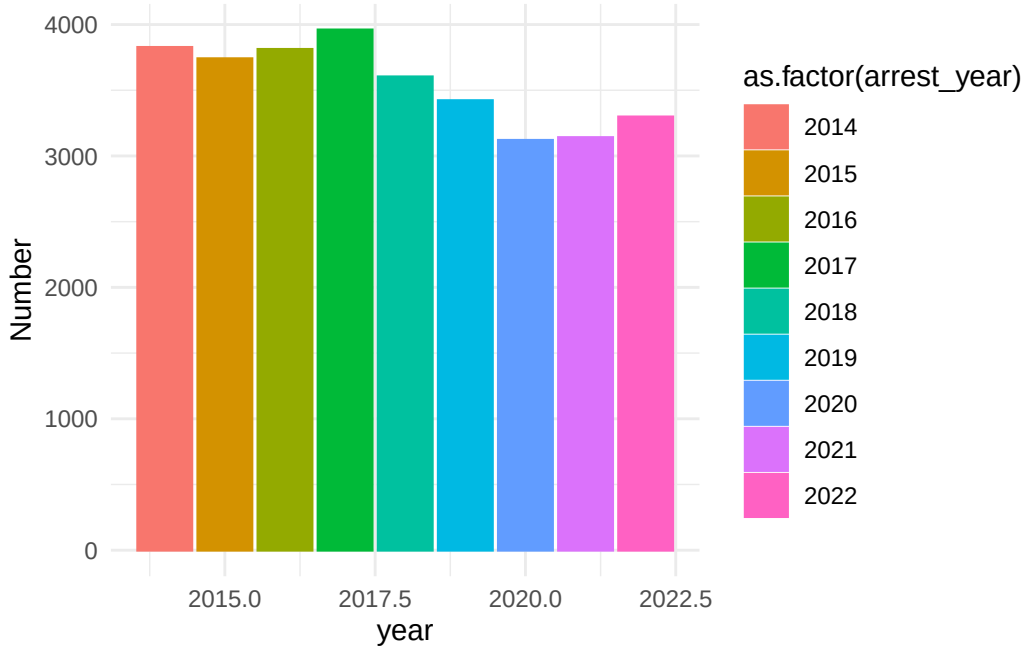

Figure 1: Relationship between crimes and year

Firstli,upon analyzing the planes Figure 1 representation, discernible fluctuations in Toronto's crime rate over the years are apparent, resembling the characteristic curve of a quadratic function with an upward orientation. The nadir in 2020 coincides notably with the implementation of a city-wide closure policy in response to the COVID-19 outbreak. This correlation suggests a nuanced relationship between public health measures and the dynamics of criminal activity, warranting further exploration into the interplay of societal and environmental factors influencing urban safety trends.

An examination solely focused on the aggregate count of criminal incidents per annum yields a somewhat overarching perspective. To cultivate a more nuanced understanding, it becomes imperative to conduct a more granular analysis that delves into the intricate details and specific categories of criminal activities. The analysis of criminal conduct in Toronto reveals a discernible classification into five distinct categories. Drawing upon data Figure 2 spanning

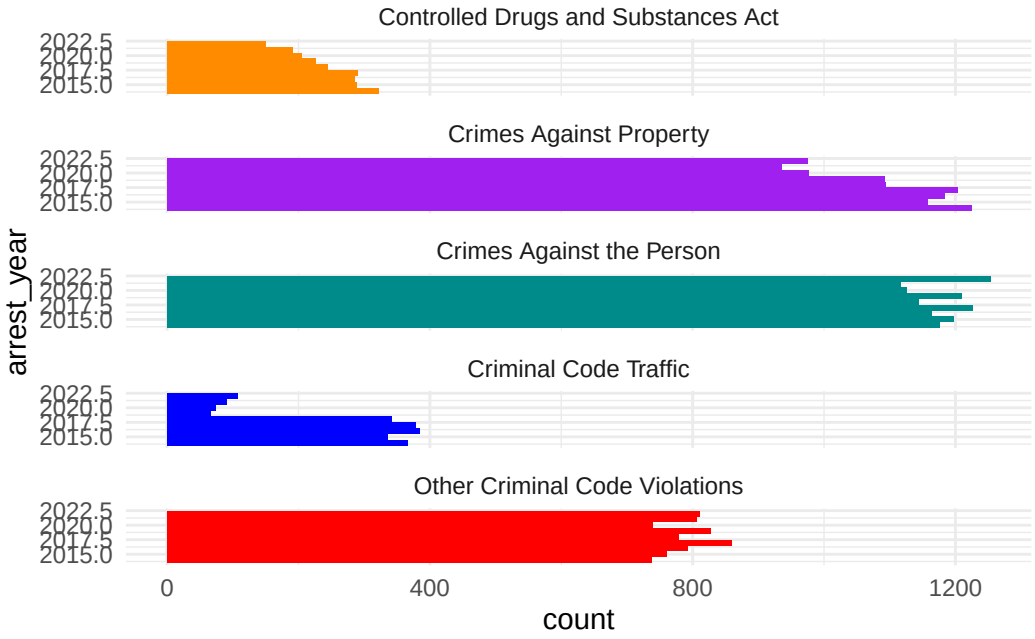

Figure 2: Relationship between crimes category and year

the preceding nine years, a prominent pattern emerges, underscoring that the primary forms of criminality center around property infringement and threats to personal safety. This nuanced observation underscores the significance of addressing these specific dimensions within the context of Toronto's criminal landscape.

Significantly, an observable downward trajectory characterizes the incidence of offenses falling within the purview of the Controlled Drugs and Substances Act. This noteworthy trend underscores a discernible reduction in such infractions, prompting a consideration of potential contributing factors or policy implications within the framework of legislative oversight and societal dynamics.

Beyond the classification based on the nature of the crime, the geographical context of criminal incidents also holds paramount significance in crime analysis. The primary dataset encompasses an extensive list of 158 distinct streets in Toronto, rendering it operationally unwieldy for presentation purposes. In the interest of visual clarity and expediency, a pragmatic approach is adopted, focusing specifically on the six blocks that emerge as the most frequent locations for criminal activities. This judicious selection facilitates a more focused and manageable exploration of spatial patterns within the broader landscape of criminal occurrences. Figure 3 The neighborhood known as NSA (Neighborhood Security Analysis) in Toronto registers the highest incidence of criminal activities, exhibiting a prevalence that is nearly twofold compared to the area occupying the second position in the ranking. This noteworthy observation underscores the pronounced concentration of criminal incidents within the NSA region, necessitating a comprehensive examination to discern underlying factors contributing to such

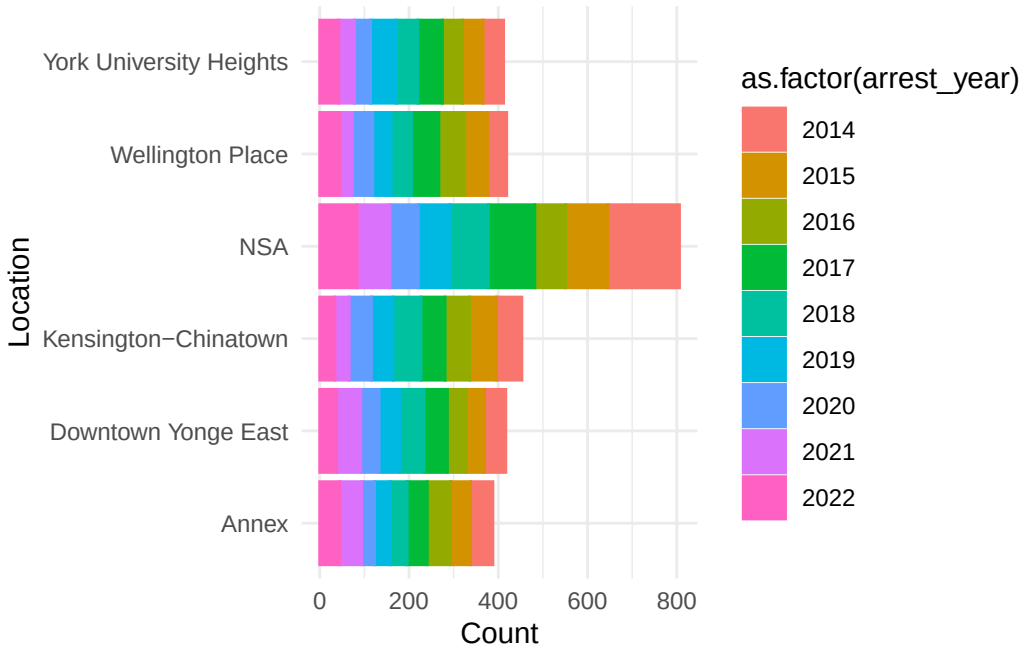

Figure 3: Relationship between crimes category and width

a discernable disparity in crime rates across different locales in Toronto.

we

Talk more about it.

We run the model in R (R Core Team 2022) using the `rstanarm` package of Goodrich et al. (2022). We use the default priors from `rstanarm`.

Reference

Goodrich, Ben, Jonah Gabry, Imad Ali, and Sam Brilleman. 2022. "Rstanarm: Bayesian Applied Regression Modeling via Stan." https://mc-stan.org/rstanarm/.

R Core Team. 2022. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. https://www.R-project.org/.

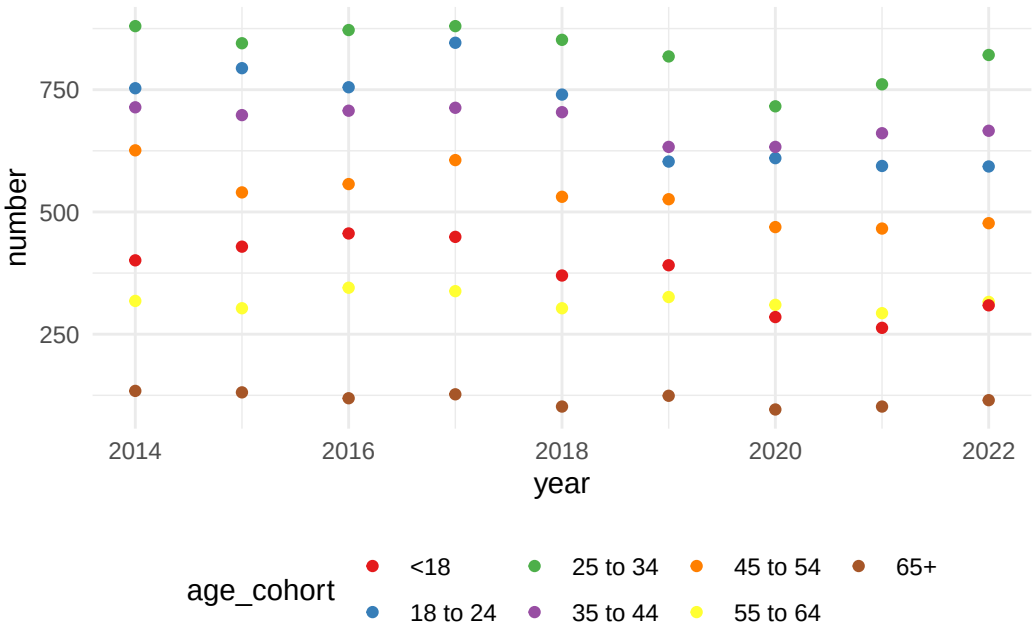

Figure 4: Relationship between age and year

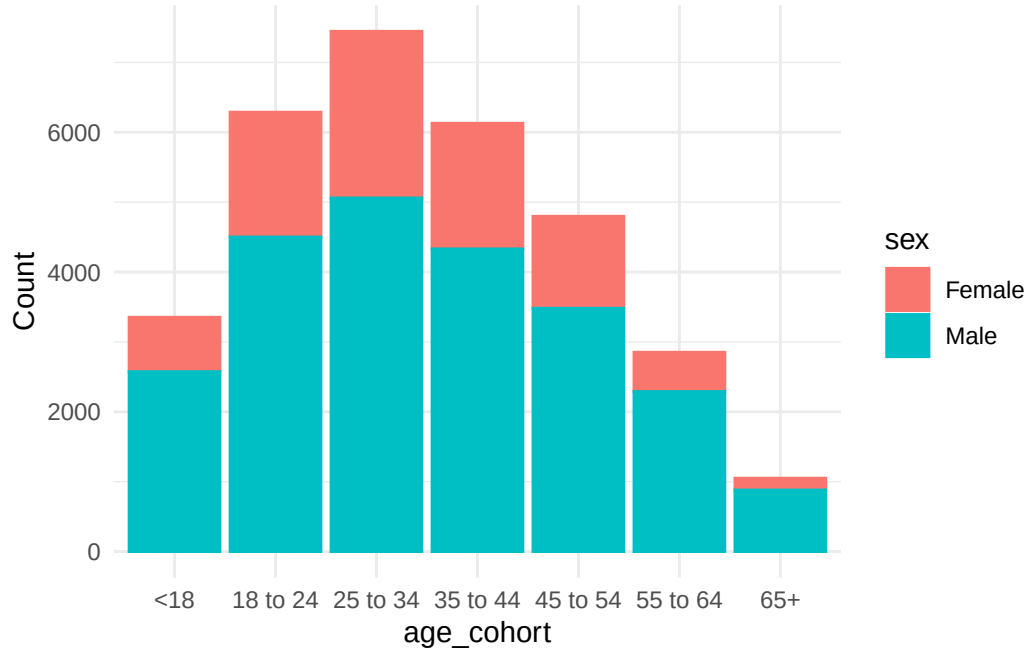

Figure 5: Relationship between crimes category and width

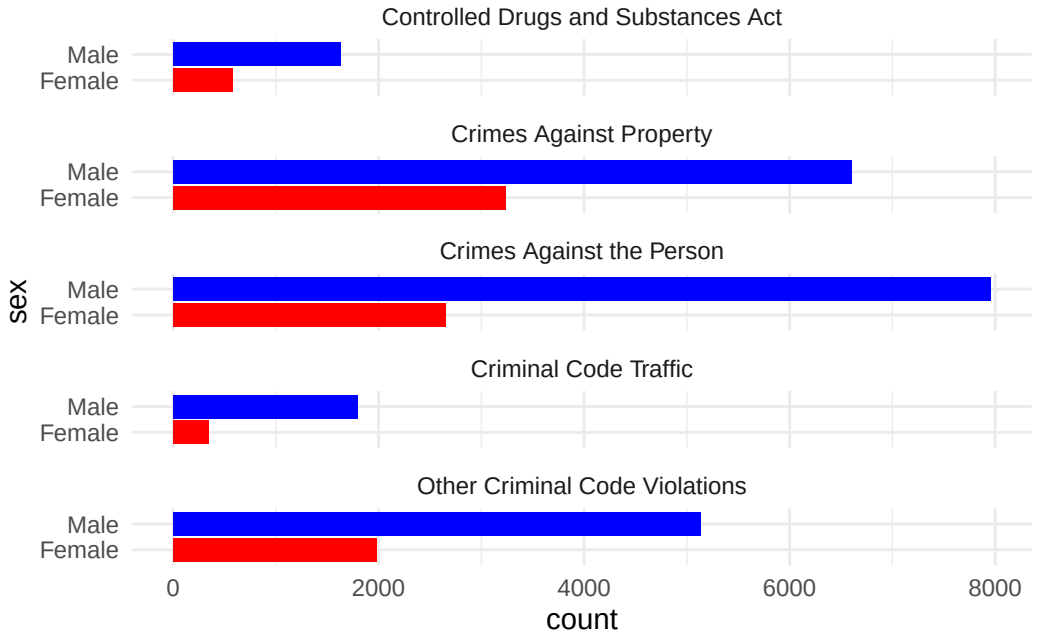

Figure 6: Relationship between crimes category and width

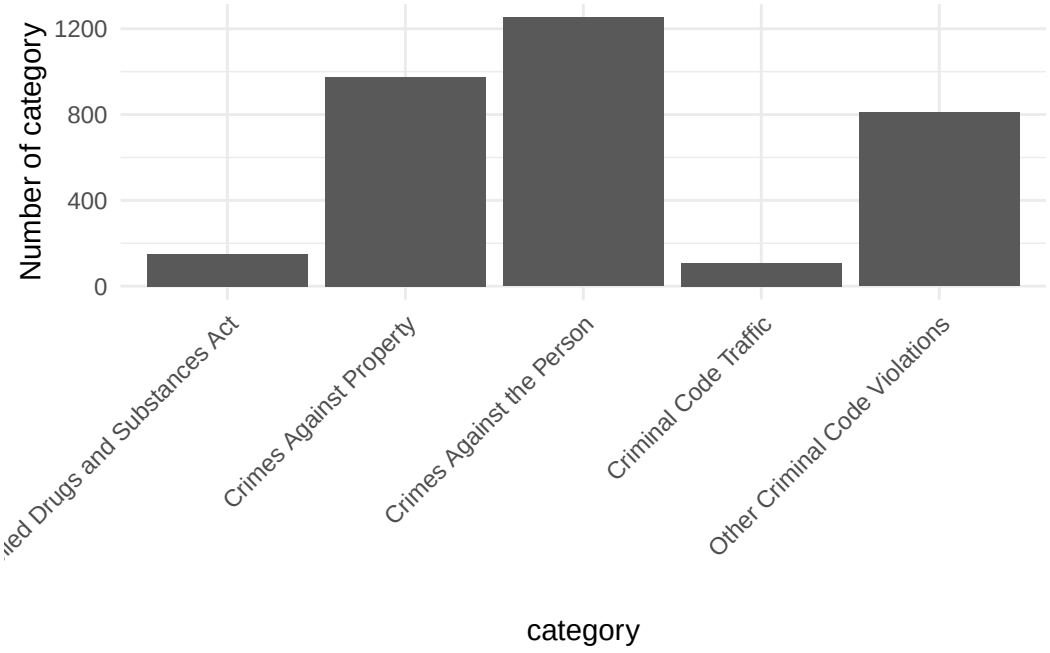

Figure 7: Relationship between crimes category and width