

Toronto's continuously growth reported crime cases in past years.*

An Analysis of Toronto's reported crime from 2014 to 2022

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This study presents a comprehensive analysis of reported crime data in Toronto, as sourced from Open Data Toronto, to explore the trend of urban criminal patterns in Toronto over the past years. By examining reported incidents from 2014 to 2022, this paper identifies key trends in crime cases across different years and police divisions, highlighting possible key factors that may caused such results. In a word, the paper seeks to provide actionable insights for city planners, law enforcement, and community advocates, aiming to build a safer, more enjoyable urban living environment.

1 Introduction

Public safety, as one of the most important factors to ensure a high quality life for people, is an important aspect that requires continuous evaluation and enforcement. The city of Toronto, as one of the place with most population in Canada, is not an exception to the challenges posed by crimes. This paper takes a deep dive into the extensive reported crime data provided by Open Data Toronto(Gelfand 2020), covering the period from 2014 to 2022. The analysis is grounded in a methodical approach to identify and interpret crime trends across the past years, also within the city's diverse police divisions, offering a detailed chronicle of criminal activity over selected time span. To be more specific, this research analyzed and visualized how crime spreads out across different divisions and how it changes over the years. By dissecting the data year by year, division by division, this study uncovers patterns that could inform future urban planning and law enforcement strategies. The role of population growth, natural diseases and urban development, are considered as potential catalysts influencing these patterns.

*Code and data are available at: https://github.com/iJustinn/Totonto_Reported_Crimes.git

Moreover, the paper aims to a little beyond simply displaying statistics. It endeavors to contextualize the numerical findings within the broader spectrum of Toronto’s urban structure. The motivation for this discussion is that changes in crime rates are often associated with changes in other indicators of the city, such as education level(Bell, Costa, and Machin 2022), unemployment rate(Phillips and Land 2012), economic level(Machin and Meghir 2004), and so on. By doing this, the study aims to offer useful advice that can help city officials and the police create plans to make the city safer and better for all residents. Through these ways, the paper is not just an exposition of data, but a roadmap towards a better living environment.

The subsequent sections of this paper are organized to facilitate a comprehensive understanding of the study and its implications. Following this introduction, Section 2 outlines the methodology employed in the analysis, ensuring transparency and replicability. Section 3 presents the findings in detail, charting the trends in reported crimes over time and across Toronto’s police divisions. also discusses these findings in other aspects such as: infrastructure construction, structure of the city, etc. Finally, Section 4 concludes the paper, summarizing the key insights and finding in this research.

2 Data

2.1 Source of Data

2.2 Methods

Some of our data is of

3 Discussion

3.1 Across years

3.2 Across divisions

4 Conclusion

4.1 General

Other aspects

Bell, Brian, Rui Costa, and Stephen Machin. 2022. “Why Does Education Reduce Crime?” *Journal of Political Economy* 130 (3): 732–65.

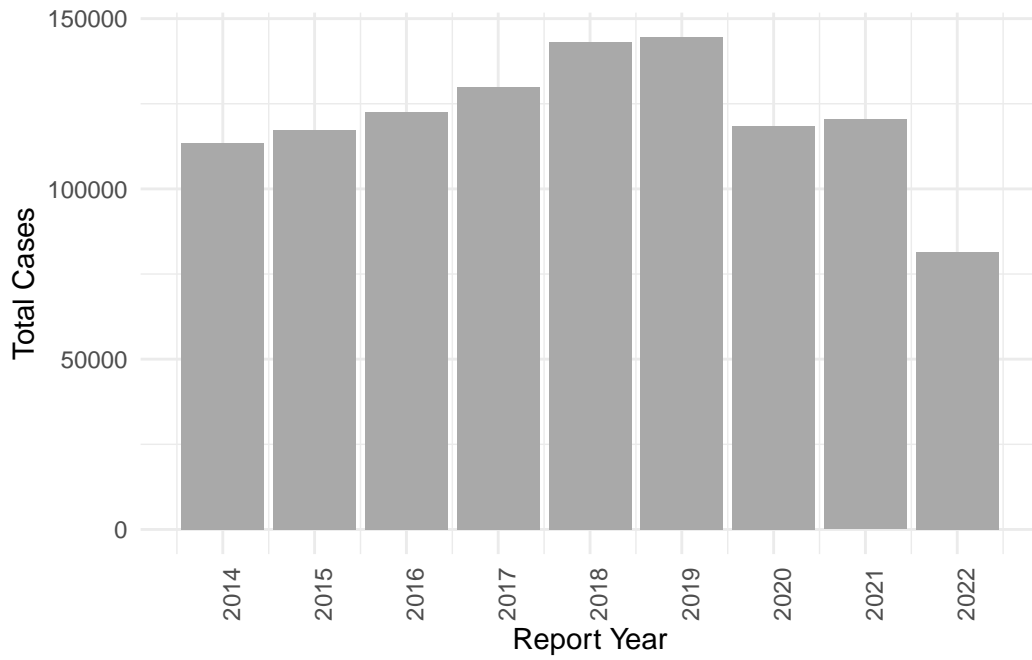


Figure 1: 2014 to 2022 Toronto Total Reported Crime Cases by Year

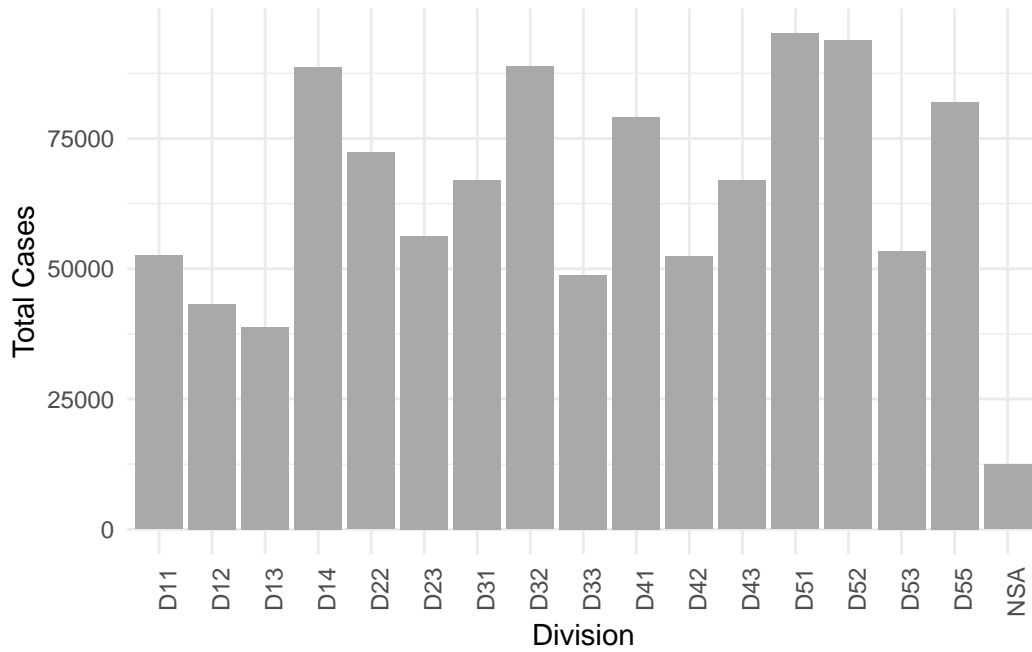


Figure 2: 2014 to 2022 Toronto Total Reported Crime Cases by Division

- Gelfand, Sharla. 2020. *Opendatatoronto: Access the City of Toronto Open Data Portal*.
<https://cran.r-project.org/package=opendatatoronto>.
- Machin, Stephen, and Costas Meghir. 2004. "Crime and Economic Incentives." *Journal of Human Resources* 39 (4): 958–79.
- Phillips, Julie, and Kenneth C Land. 2012. "The Link Between Unemployment and Crime Rate Fluctuations: An Analysis at the County, State, and National Levels." *Social Science Research* 41 (3): 681–94.