

# Hate Crimes in Toronto : Analyzing Trends and Impacts\*

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In this paper, Hate Crimes Open Data of Toronto is being discussed. Since Canada is a country of immigrants and Toronto has more and more diversified citizens, the occurrence of hate crimes becomes an unavoidable problem. The following discussion includes several aspects, trends along time, location distribution, and bias-type breakdown of hate crimes in Toronto from 2018-2023. It show that the trend is associated with global socio-political events and specific locations exhibit a higher probability of hate crimes, and race and religion biases are the most common motivators.

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\*Code and data are available at: [https://github.com/zzq20010617/hatecrimes\\_in\\_toronto.git](https://github.com/zzq20010617/hatecrimes_in_toronto.git)

# 1 Introduction

Hate crimes represent a serious threat to societal cohesion and individual safety, driven by prejudice against characteristics such as race, religion, ethnicity, gender, and other identity markers. These crimes not only inflict harm on their immediate victims but also foster fear and division within entire communities. Understanding the dynamics of hate crimes is crucial for developing effective interventions and policies aimed at reducing their prevalence.

According to the deputy police chief of Toronto, the number of incidents determined to be hate-motivated in 2024 has increased by 55% compared to the same period in 2023. The conflict in the Middle East that began on October 2023, is considered a contributing factor according to a reporter from the Toronto Star.

In this paper, we use data from Open Data Toronto (Gelfand (2022)) that records hate crimes reported in Toronto from 2018 to 2023 to look at how hate crimes increased over time and discuss what factors may cause the change. Also, we will compare what type of area has a higher potential for hate crimes so that law enforcement and policymakers can allocate resources more effectively and prioritize community engagement in high-risk areas. Finally, the paper delves into the breakdown of bias types involved in hate crimes, analyzing the prevalence of various forms of prejudice, mainly on race, religion, and ethnicity bias. This analysis seeks to uncover which biases are most frequently targeted.

## 2 Data

### 2.1 Data Tools

The R programming language (R Core Team (2023)) were used to simulate and test the dataset comes from Open Data Toronto (Gelfand (2022)). Then tidyverse (Wickham et al. (2019)), dplyr(Wickham et al. (2023)), and ggplot2 Wickham (2016) were used for processing the data and generate plots for this paper.

### 2.2 Overview

The “Hate Crimes Open Data” data set is provided to Open Data Toronto (Gelfand 2022) by Toronto Police (Policy, Planning, Finance & Administration 2024). The data set contains 1,350 observations that each entry is a reported hate crime in Toronto from the year 2018. The original variables include detailed information like when and where the hate crime happened and was reported, as well as which type the crime is counted and if an arrest was made.

The variables we choose for this dataset include the year and month of ‘OCCURRENCE\_DATE’ to count occurrences in a month, all the hate crime type variables

like 'RELIGION\_BIAS', and 'LOCATION\_TYPE' which record the place the hate crime happened. The results can be find in below section [Section 2.3](#)

## 2.3 Result

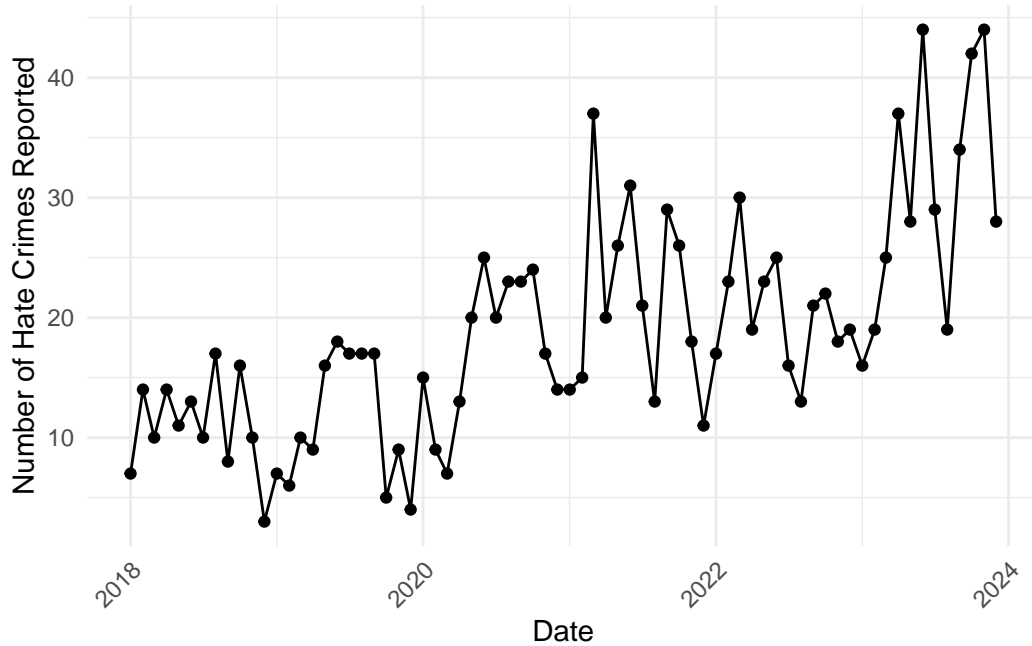


Figure 1: Monthly Number of Hate Crimes in Toronto from 2018 to 2023

Figure 1 suggests the number of hate crimes appears to have an upward trend over the years. Starting from 2018, when monthly hate crimes were relatively low (often under 15 incidents), the number gradually increased, especially from 2020 onwards. Take a closer look, the number shows regular fluctuations with frequent rises and falls, suggesting there may be a seasonal pattern influencing these numbers. There are also some notable peaks between 2020 and 2023 which may correspond to certain events.

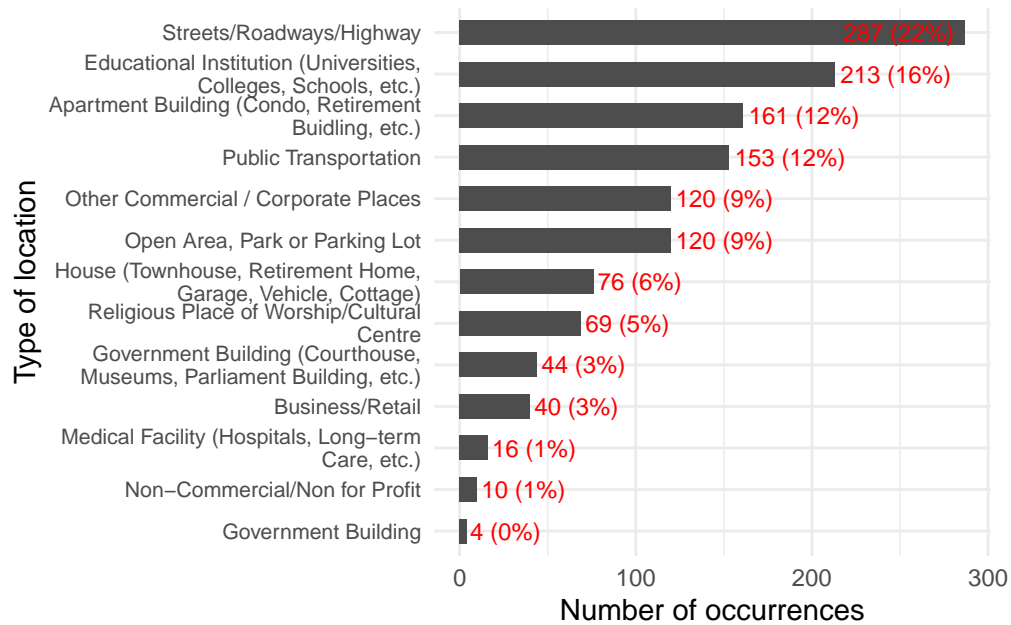


Figure 2: Hate Crime Incidents by Location Type in Toronto from 2018 to 2023

Figure 2 illustrates that streets have a higher chance of hate crime incidents (approximately 22%) This was followed by education institutions (approximately 16%), apartment and public transport have similar rates (approximately 12%), commercial places and open areas each takes 9% of incidents. Other places like houses and religious places appear to have lower chances. Note that some incidents (37 cases) that has no location type recorded were ignored from the plot, and the percentages do not add up to 100% because they were rounded to the nearest integer.

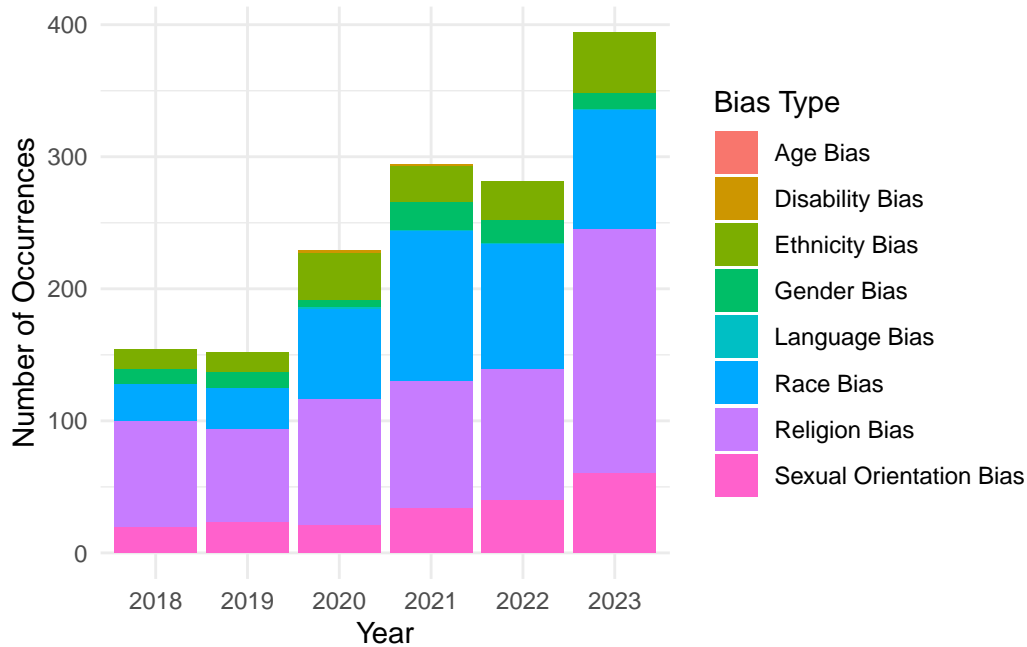


Figure 3: Distribution of Hate Crime Types in Toronto from 2018 to 2023

Figure 3 shows that Race Bias (blue) and Religion Bias (purple) appear to be the dominant bias types throughout most of the years and takes more than half of total occurrences. Sexual Orientation Bias (pink) and Ethnicity Bias (dark green) also seems to be consistently present across all years, with an increase in 2023 but not as much as two previous bias type. Other types like Gender has fewer cases, while Language, Age, and Disability Bias only has several or no cases reported in each year. Note that if an incidents relate to multiple bias, it is counted in both types.

## 3 Discussion

### 3.1 Trend Analysis of Hate Crimes

In section Section 2.3, an upward trend of hate crimes reported in Toronto is observed, suggesting that hate crimes remain a growing issue. The data indicates that more hate crimes are being reported now compared to 2018, which could reflect both an increase in incidents or improved awareness and reporting mechanisms. There are some sharp peaks, particularly around 2020 and 2023, where the number of hate crimes reported reaches around 30-40 incidents per month, which is notably higher than earlier periods.

A factor that caused the increase in 2020 was believed to be outbreaks of COVID-19, it leads to an increase in social tensions or prejudice specifically against Asian/Chinese and South Asian/Indian communities, because of the false allegations the virus was unleashed by China according to Perkel (2021). This effect continues to 2021, in the report published by Toronto Police, out of the 29 hate occurrences targeting the East and Southeast Asian community, four suspects expressed blame on China for the COVID-19 pandemic (Toronto Police Service (2023)). This can also be proved by the graph in Appendix Figure 4 that counts incidents of race bias of different races for each year, as we can see there's a jump increase for hate crime that targets Asians from 2020 to 2021. While in 2023 the last peak on graph is believed to be associated with the conflict in Middle-East, according to the deputy chief of Toronto Police, since the start of the Israel-Hamas war on October 2023, antisemitism takes 45% of 221 alleged hate crimes for year 2024 (Press (2024)). These events indicate that during the general trends of increasing of number of incidents reported, the most significant rises seem to coincide with global or national events and the general increase in social tensions.

### 3.2 Location-Based Distribution of Hate Crimes

One unexpected observation from Figure 2 is that educational institutions rank as the second most common location for hate crimes, accounting for 16% of total incidents. While it's understandable that public places like streets and public transportation would have a higher likelihood of hate crimes, it's surprising that institutions of higher learning, where students typically have higher levels of education, would not exhibit lower instances of such behavior.

Several factors may explain this trend. First, the diverse environments of universities, where students from different races, ethnicities, religions, and backgrounds converge, can sometimes lead to tensions, misunderstandings, and prejudices that students may not have encountered previously. Secondly, universities promote freedom of speech, which, while essential, can also be exploited as a platform for hate speech or the expression of extreme viewpoints. Furthermore, educational institutions, especially universities, often have better reporting systems. In October 2023, 3 suspects had attended the Tanenbaum Community Hebrew Academy of Toronto (CHAT) in North York and made threats to students who were walking in the area, "We are grateful that security staff at TanenbaumCHAT quickly called 911 as per protocols and police responded rapidly." according to UJA. (Tsekouras (2023))

According to an article from Pagliaro (2024), the increase in hate crimes at schools can also be attributed to external events, such as the ongoing conflict in Gaza. The number of hate-motivated incidents at educational institutions surged from 248 in 2022 to 365 in 2023, reaching a 10-year high. This reflects that educational institutions are not immune to societal issues. In fact, their diversity, intellectual freedom, and predominantly youthful demographic can make them especially vulnerable to such incidents.

### 3.3 Weaknesses and next steps

As shown in Figure 3, Religion Bias and Race Bias account for the majority of total incidents. The next step in our analysis would be to take a closer look at these two bias types, identifying which specific religions or races are most frequently targeted. The paper only discussed potential reasons for the increase in incidents targeting Asians, but the sharp increase in hate crimes targeting the black community is also worth discussion. Additionally, we can investigate potential reasons behind the prevalence of these biases, exploring socio-political, cultural, or historical factors that may contribute to these patterns of hate.

## Appendix

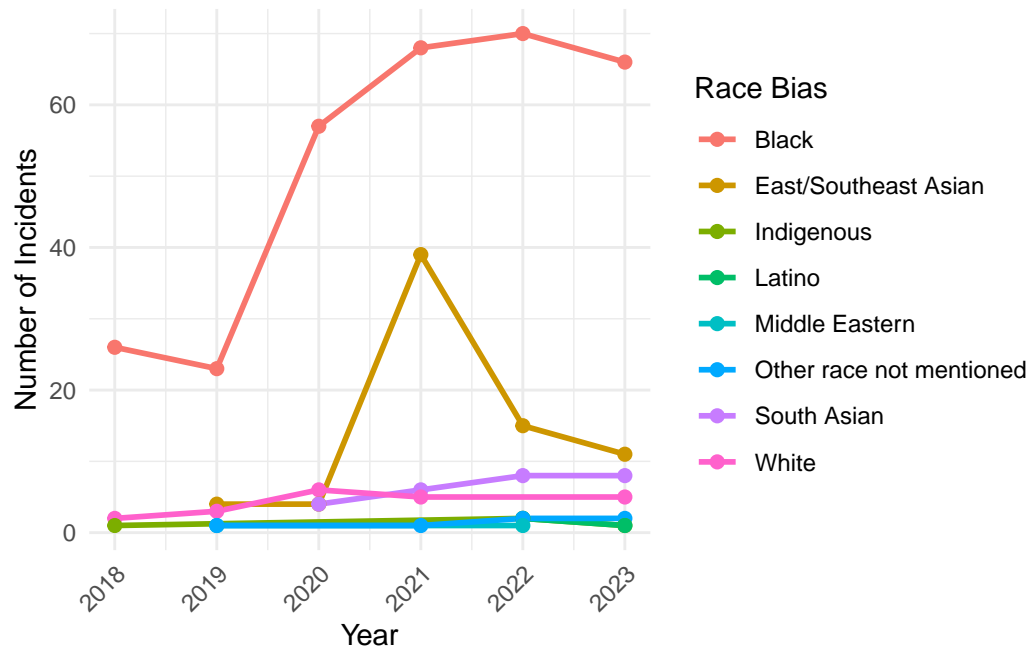


Figure 4: Hate Crimes by Race Bias Over Time



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