

Toronto's Uptick in Hate Crime: Time and Group Trends*

An Exploratory Analysis of Hate Crime in Toronto

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Using data from Open Data Toronto, this paper tracks the evolution of hate crime in Toronto from 2018 to the end of 2023. The uptick of hate crime began during the start of COVID-19, remained at elevated levels since then, and has continued to rise in 2023 where there are now 3 times as many hate crimes than in 2018. The data also shows that during the COVID period of 2020, 2021, and 2022, race and ethnicity made up much larger levels of the share of hate crimes in comparison to 2018, 2019 and 2023. Religion generally makes up the largest reason for hate crime, although in some COVID years it was tied with race. Other reasons such as sexual orientation, ethnicity, also are large victim groups. The most targeted religious group were Jewish people, whereas the most targeted race was Black people, although in 2021 East/Southeast Asian people made up a significant share of race related hate crimes as well.

1 Introduction

In 1988 the Canadian Parliament passed the Canadian Multiculturalism Act, an act that served to recognize and preserve Canada's multicultural heritage (Canada 2024). Toronto serves as a shining example of Canada's multiculturalism, with over half of the population of Toronto being foreign-born (McNeil 2023). Yet, despite Toronto's reputation as an international city with large widespread cultural heterogeneity, hate crimes have seen an uptick in recent times. Hate crimes in Toronto have increased nearly 55% in 2024 in comparison to 2023. A hate crime is defined as a "criminal act done by a person who is motivated by an extreme bias or hatred towards a particular social group" (Government of Canada 2023). Acts like these are fundamentally at odds with the sentiment expressed by the Canadian Multiculturalism Act and raise questions about Toronto's history with hate crimes and its multicultural status. In

*Code and data are available at: https://github.com/justinklip/hate_crime_toronto_paper.

this paper, I explore the dynamics of Toronto’s Hate Crimes from 2018 to 2023, before the current uptick. In particular, I describe how the types of hate crimes, the types of victims, and the quantity of victims have changed over time.

The rest of the paper is split into three main parts Section 2, Section 3, and Section 4. The Section 2 section describes how the data is generated in the Section 2.1 section. It then moves to the Section 2.3 which describes the data cleaning process and libraries used. The `?@sec-observations` section demonstrates what a typical observation in the data set looks like, and the `?@sec-datanalysis` section displays the data via graphs to describe how it has varied over time and group.

2 Data

2.1 Measurement

To run my analysis, data was collected from Open Data Toronto’s Open Data Portal, through the R library `opendatatoronto` (Gelfand 2022). The data source used is their Hate Crimes Open Data data set (`open-data-set?`). This data of about 1400 observations has every crime that has been classified as a ‘hate crime’ by Toronto Police from the beginning of 2018 to the end of 2023. The data is generated as follows: a crime is committed in Toronto, and generally within a month that crime is reported by the victim. If a hate-motivated offence is suspected, the investigation is then led by a divisional investigator of the Hate Crime Unit (HCU) or by the HCU itself (Toronto Police Service). If hate-motivated offences are found, then this case will be added next year to the data set. Details of the crime are documented – including what social group they were biased against – these bias variables include ethnicity, race, gender, age, language, religion, and sexual orientation. Date and time (of both the crime and the reporting of it), offence committed, neighborhood, and place (such as apartments, malls, parks) were also recorded. Every unique case number was also attributed to each observation in the data set. There were almost no empty observations, except for a few cases where place data was missing. (`cleaning-packages?`) discusses this missing data further.

2.2 Data and Variable Selection:

Only one other data set documenting these hate crimes come directly from miscellaneous police data, and since this data set is based off of that one and cleaner, the decision was made to use this specific data set. Variables were dropped (or not explored) in this paper for one of two reasons. The first reason is lack of observations: some bias variables included such as age bias and language bias were dropped because they did not have any cases associated with them, or just 1 or 2. This rationale also dropped the mental and physical disability category. The second reason was scope: some data such as neighbourhood data, time of incidence, and reported time and date, although interesting, were not analyzed in this paper. Questions

like whether certain neighborhoods get more crimes and it's connection with socioeconomic factors would require further information not readily available. For example, did the victim of the hate crime live outside the neighborhood they became a victim of hate crime? Does the perpetrator? For these reasons this paper focuses more on victim breakdown and quantity of crimes.

2.3 Cleaning and Packages

To download, clean, and analyze the data, the statistical software R was used (R Core Team 2023). Other packages such as lubridate (Grolemund and Wickham 2011), tidyverse (Wickham et al. 2019), dplyr (Wickham et al. 2023), janitor (Firke 2023) aided in this process. In the data cleaning process, about 30 missing observations were found. These 30 observations were all under the variable of location type, demonstrating the report writer had a hard time describing the location of the incident. To deal with this, all the location was set to unspecified which can still be interpreted in the graphs.

2.4 Observations

A sample observation of the cleaned data is shown in (table-1a?) and (table-1b?) This table plots the variables of interest for our analysis. It can be seen that most observations are generally not biased to more than one group. Also, due to the categorical nature of the data, this is the best 'summary statistic' that can be shown, although other displays of the data that show all observations are plotted in the Section 2.5 section. This shows us that every variable of interest is documented rather nicely for analysis.

Table 1: Random Sample of 5 Hate Crime Observations - Part 1

Occurence Date	Location Type	Hood 158	Race Bias	Ethnicity Bias
2022-03-11	Public Transportation	159	None	None
2023-08-26	House (Townhouse, Retirement Home, Garage, Vehicle, Cottage)	148	None	None
2020-08-25	Streets/Roadways/Highway	018	None	None
2020-10-25	House (Townhouse, Retirement Home, Garage, Vehicle, Cottage)	040	None	None
2021-09-26	Other Commercial / Corporate Places	098	South Asian	None

Table 2: Random Sample of 5 Hate Crime Observations - Part 2

Language Bias	Religion Bias	Sexual Orientation Bias	Primary Offence	Multiple Bias
None	Jewish	None	Mischief Under \$5000	NO
None	None	Gay	Assault With a Weapon	NO
None	Sikh	None	Assault	NO
None	Jewish	None	Mischief Under \$5000	NO
None	None	None	Harassing Communications	NO

2.5 Data Analysis and Plots

Figure 1 documents the evolution of hate crimes in Toronto over time. It plots the monthly quantity of hate crimes committed for all months from January 2018 to December 2023. It also plots the 12 month moving average to demonstrate the trend over time. As seen, the number of hate crimes goes from averaging 12 a month in a given year, to nearly 30 by the end of the data set. The catalyst for this upward trend seems to start during the early Covid-19 period in 2020, demonstrating that COVID-19 could be a possible explanatory factor for this uptick. Interestingly, hate crimes still remained rather elevated post lockdown, and in 2023 climbed to even higher levels in comparison to the 2020 period. May 2023 had the highest amount of hate crimes committed in Toronto since the start of this data, with 44 being committed.

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Figure 2 plots the number of people targeted for each crime bias type. It can be seen that most hate crimes target a specific characteristic of an individual, the most common of which are religion and race. The least common biases were age bias and language bias, where age bias didn't have a single observation and language likely only had one. Here we also see the same trend outlined in Figure 1, that is, hate crimes increased in 2020, and have remained at high levels since, and in 2023 have seen even more increases. This increase in 2023 is generally fueled by increases in hate crime against religion, whereas the increase in 2020 and 2021 are generally fueled by race. This suggests that the reasons for the increases in the hate crimes are possibly different.

Figure 3 provides the year breakdown of race-motivated hate crimes. As seen, Black people are clearly the most targeted group for hate crimes in Toronto. They made up the largest proportion of hate crime victims in every single year, and were almost the only victims of race-targeted hate crimes in 2018. Another significant subgroup were East/Southeast Asians. They

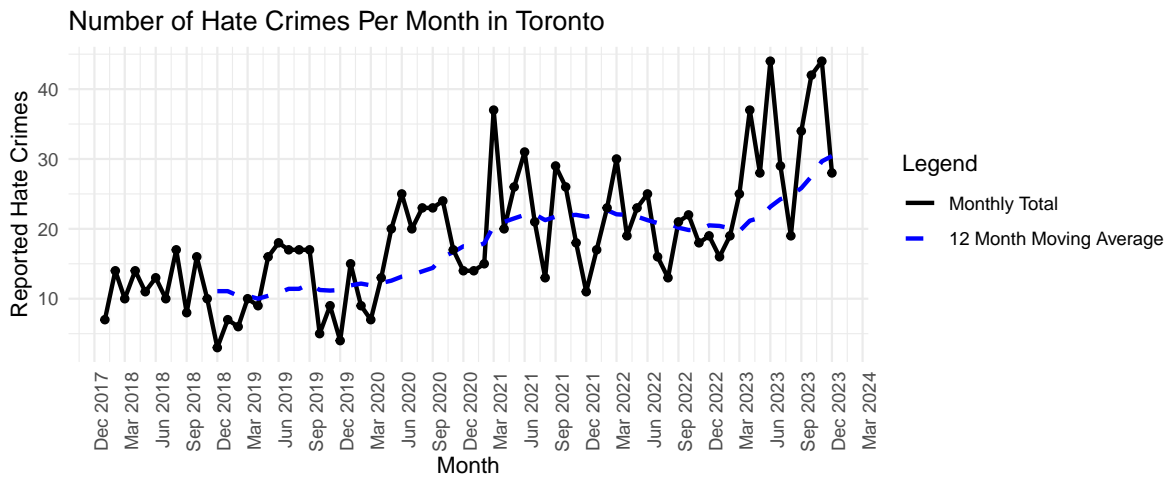


Figure 1: Monthly Hate Crime Counts from 2018 to 2024

Figure 1: Dots plot the monthly number of hate crimes, but x-axis is only every 3 months for space. Blue line plots 12 month moving average starting to show trend from 2019 January onward.

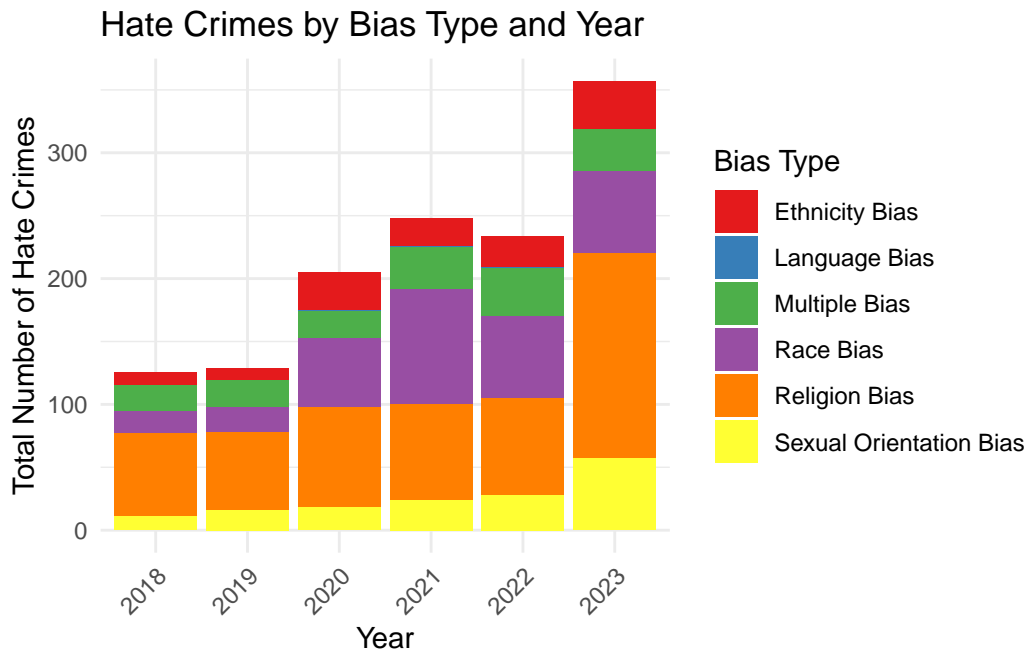


Figure 2: Groups targeted by hate crime.

are particularly notable in 2021 onward, suggesting that COVID may have played a role in East/Southeast Asians becoming victims of hate crimes; this particularly makes sense given the rhetoric at the time. Although we can't argue that this is a causal effect of COVID.

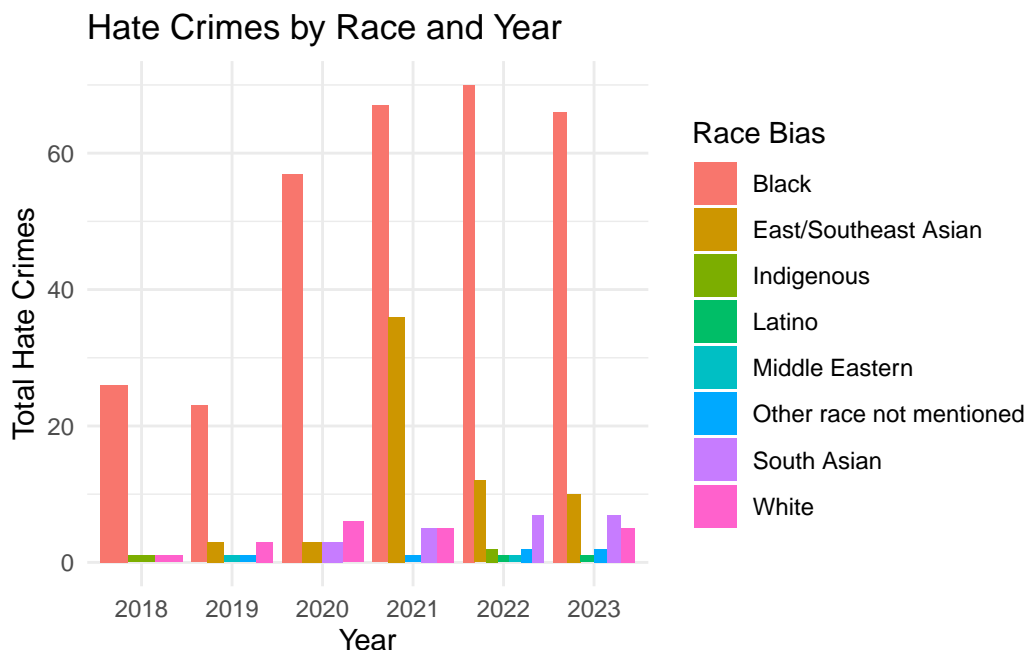


Figure 3: Yearly Breakdown of Race-Motivated Hate Crimes

Figure 4 provides the year breakdown of religion motivated hate crimes. Consistently throughout 2018 to 2023, Jewish Torontonians have faced the largest number of religion-motivated hate crimes, taking up at least 80 percent of the crimes. The only other group that faced significant hate crimes were Muslims, who faced most of the remaining crimes. Up until 2022, the number of religion motivated hate crimes stayed largely the same, but 2023 saw an approximate 75% upswing in religion based hate crimes. This paper is not unfortunately able to point to the causal effects for these upswings, which will be discussed in Section 4 .

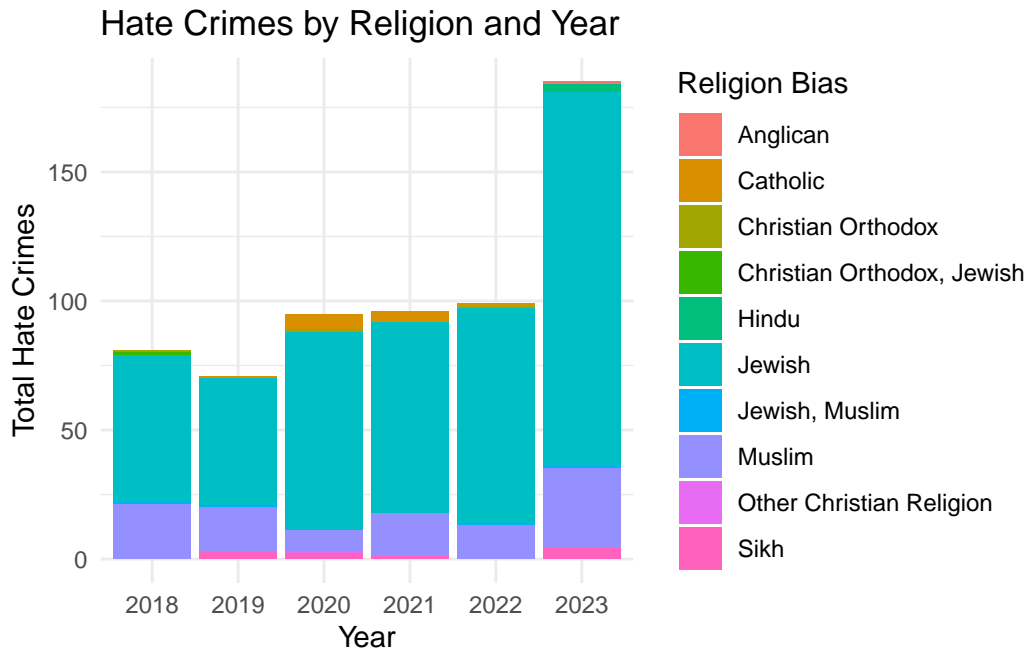


Figure 4: Yearly Breakdown of Religion-Motivated Hate Crimes

3 Discussion

3.1 First discussion point

3.2 Second discussion point

4 Limitations

While the paper does observe changes in the types of hate crimes and the quantity of hate crimes experienced over time, what it lacks is some causal analysis. I cannot determine what are the reasons for the the large upswings in Toronto in specific in 2020, 2021, and 2023, or why the ‘average victim’ changes over time. While due to the timing one may be able to guess that COVID played a role, nothing can be said for sure until a causal research design is conducted for Toronto in specific. These could be broken up into a few different studies – what are the determinants of the rise in East/Southeast Asian in 2021, but it’s subsequent dissipation post 2021.

Other areas of research could focus on why the breakdowns of hate crimes are the way they are, even if there were not huge changes over time. For example, are Jewish Torontonians the largest victims of hate crime because they are the most targeted, or because they report

the most hate crimes compared to other groups? Similar questions could be asked for Black Torontonians.

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