Top 10 safest neighborhoods in Toronto (2014-2019)*

Based on police reports for six major crimes

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Abstract

Crime rate statistics in Toronto neighbourhoods can be interesting for anyone who is currently living or planning to move to Toronto. In this paper I have compared six types of crime data including Assault, Auto Theft, Break & Enter, Robbery, Theft Over, and Homicide, by 140 neighbourhoods in Toronto during 2014 to 2019. To be more exact, I also used the 2016 Census Population to demonstrate the crime rates for 2019 per 100,000 people. *#The results show that ..... is improving and ..... the .... neigbourhood is reporting the highest rate of ..... #*

1 Introduction

Getting information about the neighborhoods in Toronto has always been a top concern for a newcomer parent like me, having two curious early teenagers who prefer not to stick at home with parents, but explore the neighborhood with their pals. Tough I personally like to let them find themselves on their own feet and I should always take some provisions on background like choosing a safer environments for them to flourish. This report briefly compares the crime rates between different areas in Toronto and also check their trends to see how crime rates hvae changed during past five years in Toronto neighborhoods.

Although the conclusion is prone to initiate some biases, I am just providing information to grab your attention to the fact that what numbers are saying about the different crime rates in each Toronto neighborhood. I am not concerned with the reasons behind these numbers nor am I pointing to any specific ward. Nevertheless, the different densities considering each individual neighborhood area and its population may result in different subjective conclusions. Other demographic factors may also raise this subjectivity, prejudice and partiality. In this report I will also elaborate more on selecting different types of variables which initiates biases among people, leading to the same issues when they are chosen for the machine learning practices.

For this report, I used the Toronto Police Reports data from the Open Data Toronto Portal (Toronto 2019). Further information and analyses are performed using R (R Core Team 2019) and some related libraries including *Tidyverse* , *torontoopendata* (Gelfand 2020). ggplot2 (Wickham 2016), #Latex#, ((download it in a reproducible way using the R package)) opendatatoronto (Gelfand 2020), and *boom*. This report was then compiled using *R markdown*.

The last paragraph should set out the remainder of the paper.

2 Babak

1. Add an abstract. This should be three or four sentences. And then add a descriptive title (Hint: 'Paper 1' is not descriptive.)

*Code and data are available at: https://github.com/datababak/2178-A1

2. Add a link to your GitHub repo via a footnote.
3. Check that your GitHub repo is well-organized, and add an informative README. (Hint: Comment. Your. Code.). Make sure that you've got at least one R script in there, in addition, to your R Markdown file.

3 Data

Toronto

Our data is of penguins (Figure 1).

AND WE ARE USING RRRRR

SO CITING R (R Core Team 2019, (10))

SO CITING R (Wickham 2016, (11))

```
library(kableExtra)

dt <- readr::read_csv(here("inputs/data/a3.csv"))
```

```
##
## -- Column specification --------------------------------------------------------
## cols(
##   raw_data_AVG.Neighbourhood = col_character(),
##   total_AVG_crimes = col_double()
## )
```

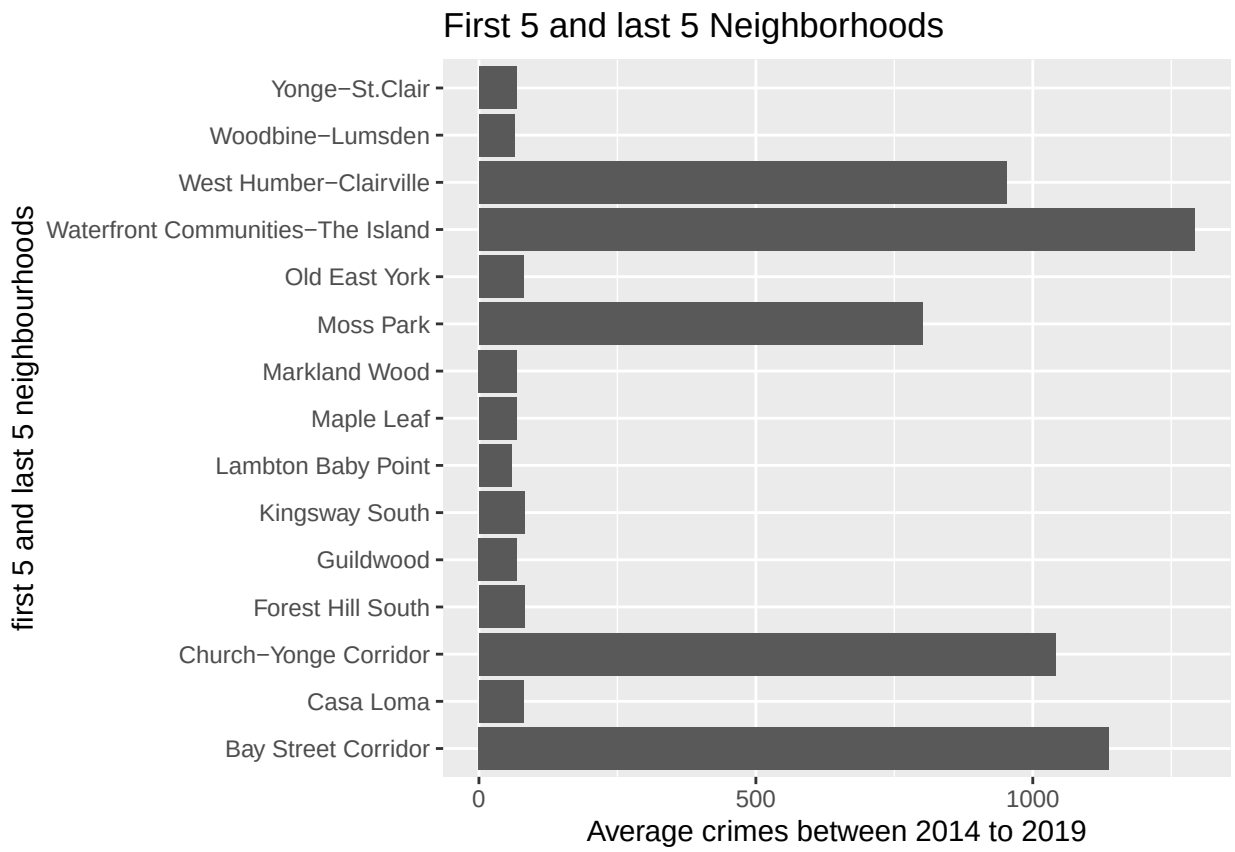
```
dt <- dt[-c(11:135),]

kbl(dt) %>%
  kable_paper("striped", full_width = F) %>%
  column_spec(1:2 , bold = T) %>%
  row_spec(11:15, bold = T, color = "white", background = "#D7261E")
```

raw_data_AVG.Neighbourhood	total_AVG_crimes
Lambton Baby Point	**58.8**
Woodbine-Lumsden	**63.4**
Maple Leaf	**68.4**
Yonge-St.Clair	**68.6**
Markland Wood	**68.8**
Guildwood	**68.8**
Casa Loma	**79.9**
Old East York	**80.1**
Forest Hill South	**82.4**
Kingsway South	**82.6**
Moss Park	**800.2**
West Humber-Clairville	**951.8**
Church-Yonge Corridor	**1040.6**
Bay Street Corridor	**1137.6**
Waterfront Communities-The Island	**1292.2**

```
nbr <- dt$raw_data_AVG.Neighbourhood
avg_crm <- dt$total_AVG_crimes

ggplot(data = dt, aes(x = avg_crm, y = nbr)) +
  geom_bar(stat = 'identity') +
  xlab("Average crimes between 2014 to 2019") +
  ylab("first 5 and last 5 neighbourhoods") +
  ggtitle("First 5 and last 5 Neighborhoods")
```




```
#plot1
```

```
library(kableExtra)
kbl(dt) %>%
  kable_paper("striped", full_width = F) %>%
  column_spec(1:2 , bold = T) %>%
  row_spec(6:10, bold = T, color = "white", background = "#D7261E")
```

raw_data_AVG.Neighbourhood	total_AVG_crimes
Lambton Baby Point	**58.8**
Woodbine-Lumsden	**63.4**
Maple Leaf	**68.4**
Yonge-St.Clair	**68.6**
Markland Wood	**68.8**
Guildwood	**68.8**
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Moss Park	**800.2**
West Humber-Clairville	**951.8**
Church-Yonge Corridor	**1040.6**
Bay Street Corridor	**1137.6**
Waterfront Communities-The Island	**1292.2**

3.0.1 Others

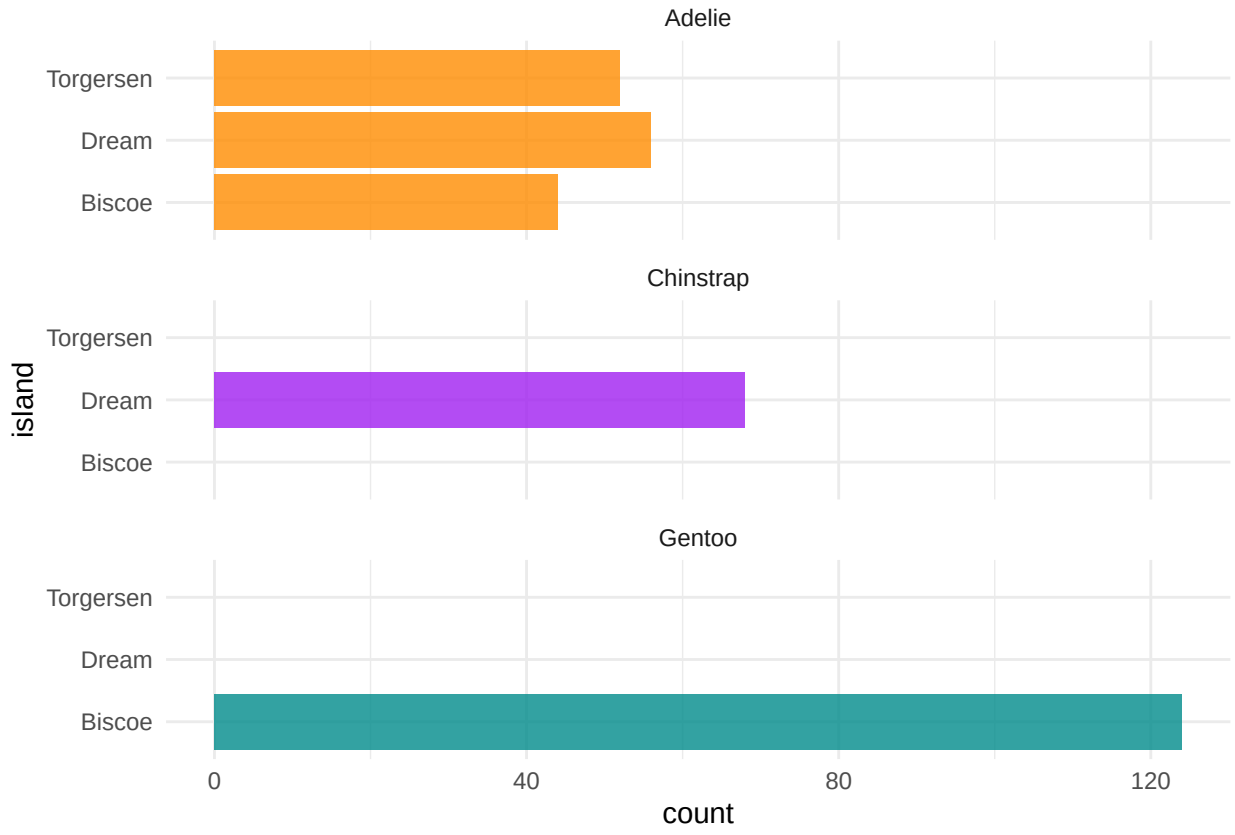

Figure 1: Bills of penguinshh

Talk more about itjjjjjjjjj.

Also bills and their average (Figure 2). (Notice how you can change the height and width so they don't take the whole page?)

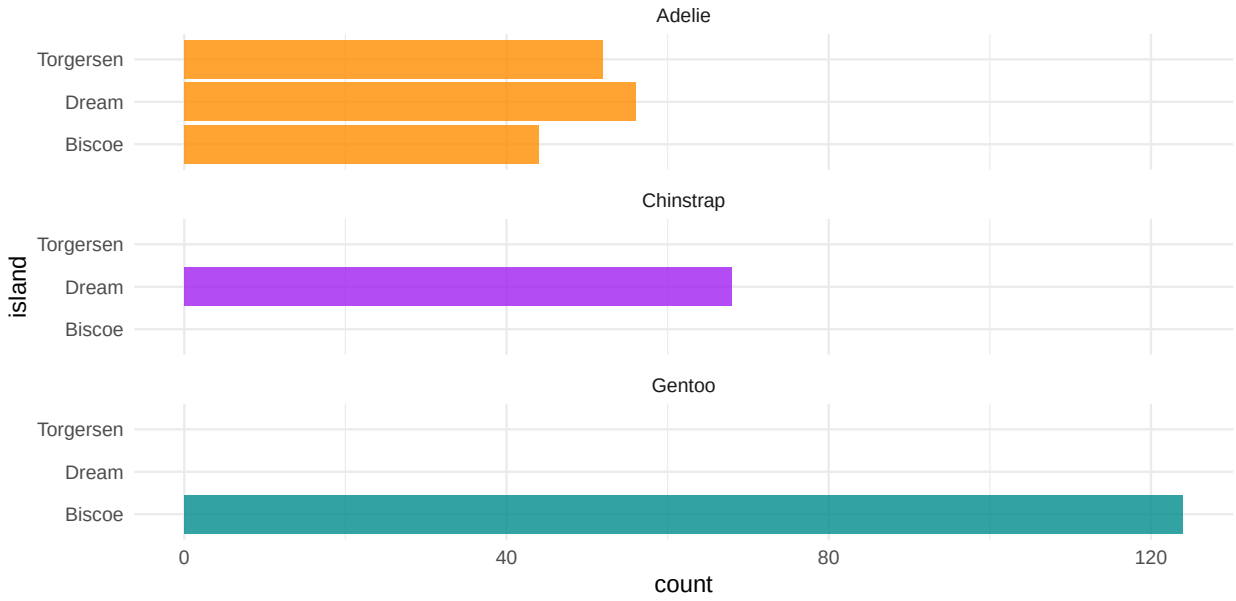

Figure 2: More bills of penguins

Talk way more about ittttttt.

Talk way more about ittttttt.

Appendixxxxx

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References

Gelfand, Sharla. 2020. *Opendatatoronto: Access the City of Toronto Open Data Portal.* https://CRAN.R-project.org/package=opendatatoronto.

R Core Team. 2019. *R: A Language and Environment for Statistical Computing.* Vienna, Austria: R Foundation for Statistical Computing. https://www.R-project.org/.

Toronto, City of. 2019. "Open Data." *City of Toronto.* https://www.toronto.ca/city-government/data-research-maps/open-data/.

Wickham, Hadley. 2016. *Ggplot2: Elegant Graphics for Data Analysis.* Springer-Verlag New York. https://ggplot2.tidyverse.org.