

TBD*

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TBD

26 January 2021

Abstract

First sentence. Second sentence. Third sentence. Fourth sentence.

1 Introduction

2 Data

2.1 Data Source

This paper utilizes data on reported crimes in Toronto obtained from the Toronto Police Service Annual Statistical Report (ASR). The ASR is an annual overview of police related datasets covering a range of topics such as crime statistics, budget, traffic reports, and communications (cite). Since 2019, datasets from the ASR have been openly available to the public and can be accessed through the Toronto Police Service Public Safety Data Portal or the City of Toronto Open Data Portal. The Reported Crimes dataset analyzed in this paper was obtained in csv format from the City of Toronto Open Data Portal (R Core Team 2020) on R using the package `opendatatoronto` (???)

2.2 Methodology and Data Collection

```
## # A tibble: 6 x 6
##   ReportedYear GeoDivision Category      Subtype      Count_ CountCleared
##   <fct>         <fct>         <fct>         <fct>         <dbl>         <dbl>
## 1 2014          D11          Controlled Drugs a~ Other          200          195
## 2 2014          D11          Crimes Against Pro~ Auto Theft      119           42
## 3 2014          D11          Crimes Against Pro~ Break & Ente~     85           37
## 4 2014          D11          Crimes Against Pro~ Break & Ente~     58           18
## 5 2014          D11          Crimes Against Pro~ Break & Ente~     89           34
## 6 2014          D11          Crimes Against Pro~ Break & Ente~     23            7
```

Our data is of penguins Figure 1

```
##
## Attaching package: 'reshape2'
```

*Code and data are available at: [LINK](#).

```
## The following object is masked from 'package:tidyr':  
##  
## smiths  
  
## Using ReportedYear as id variables
```

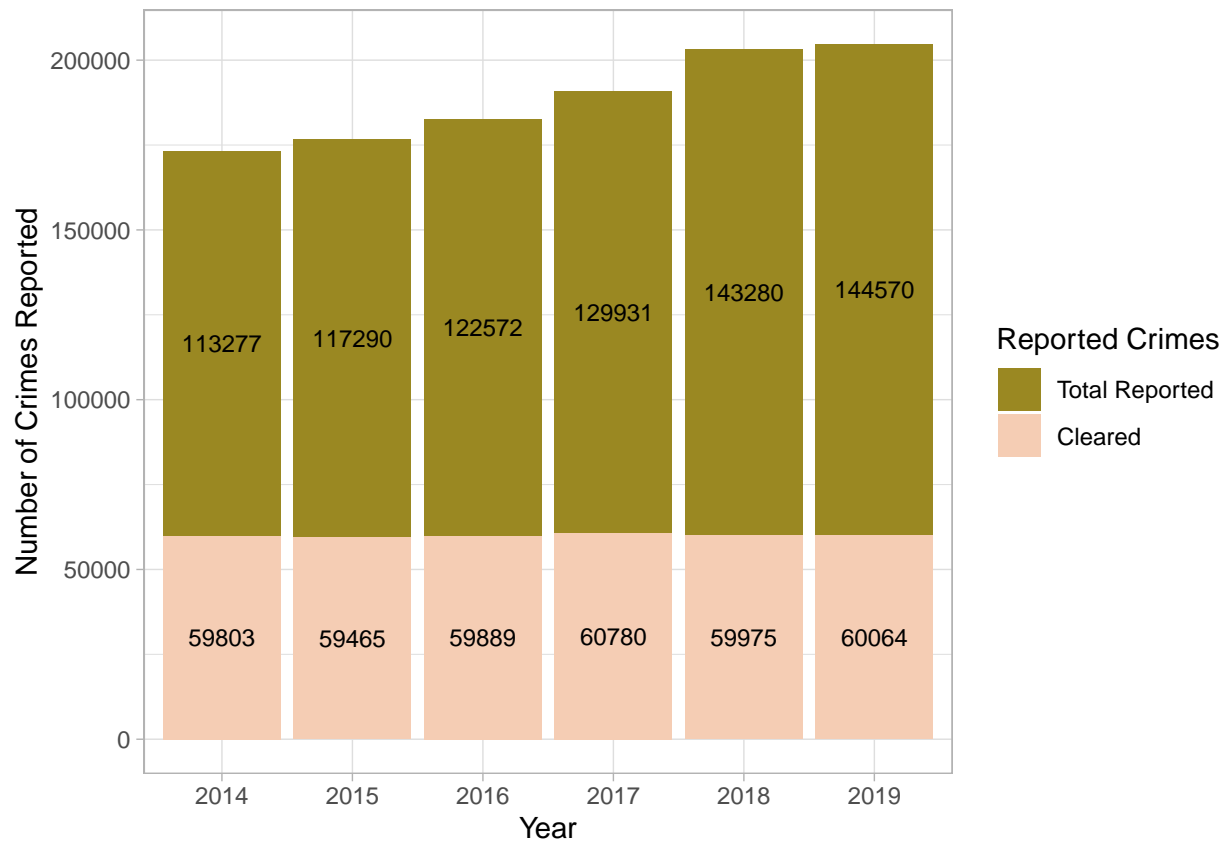
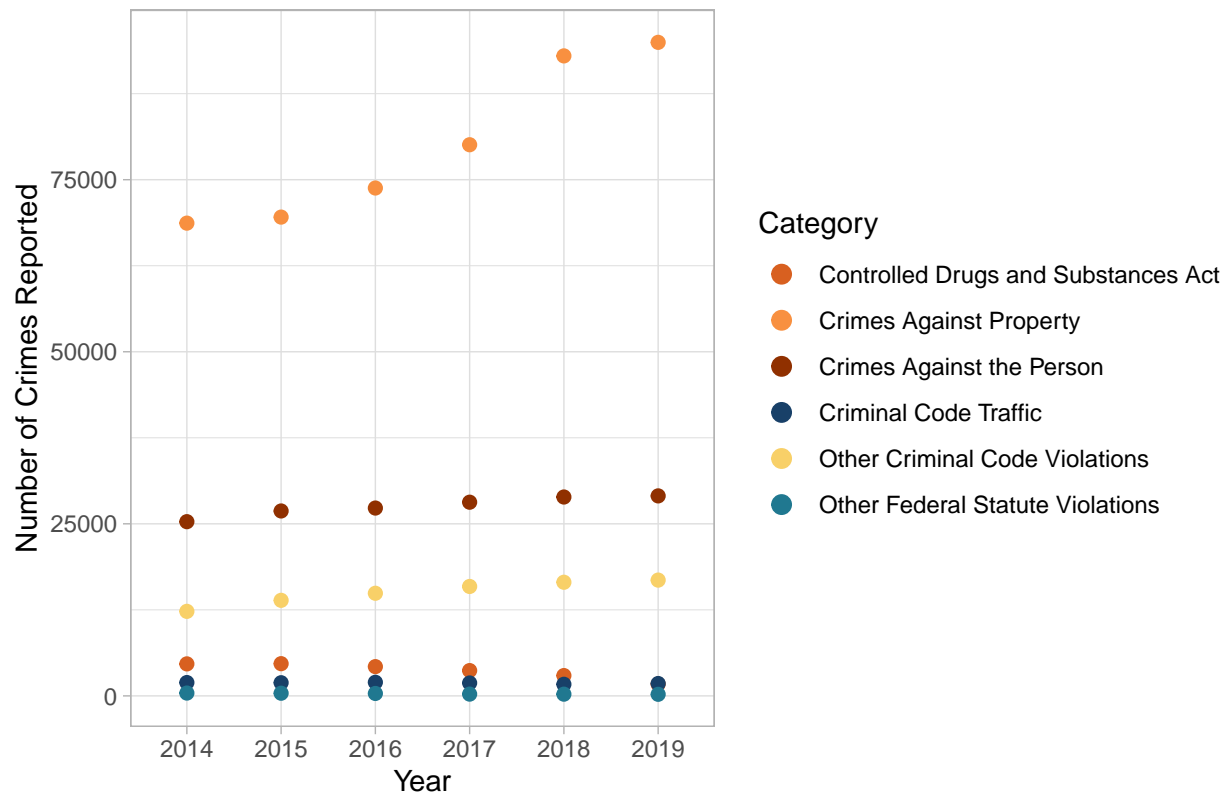


Figure 1: Frequencies of Crimes Reported and Crimes Cleared by Year (2014-2019)

Number of Crimes Reported in Toronto by Category and Year



```
## <ggproto object: Class ScaleDiscrete, Scale, gg>
##   aesthetics: colour
##   axis_order: function
##   break_info: function
##   break_positions: function
##   breaks: waiver
##   call: call
##   clone: function
##   dimension: function
##   drop: TRUE
##   expand: waiver
##   get_breaks: function
##   get_breaks_minor: function
##   get_labels: function
##   get_limits: function
##   guide: legend
##   is_discrete: function
##   is_empty: function
##   labels: waiver
##   limits: NULL
##   make_sec_title: function
##   make_title: function
##   map: function
##   map_df: function
##   n.breaks.cache: NULL
##   na.translate: TRUE
```

Table 1: Offense Subtypes of Crimes Reported to TPS by Year (2014-2019)

Subtype	2014	2015	2016	2017	2018	2019
Controlled Drugs and Substances Act						
Other	4648	4678	4251	3678	2953	1706
Crimes Against Property						
Auto Theft	3608	3517	3475	3714	4932	5443
Break & Enter-Apartment	1884	2002	1622	1835	2003	2454
Break & Enter-Commercial	1933	1950	1914	2140	2592	3343
Break & Enter-House	2950	2653	2508	2591	2523	2202
Break & Enter-Other	462	354	409	377	518	569
Fraud	6729	8007	9625	10164	11729	13377
Other	11884	12739	13645	14230	14622	14026
Theft Over \$5000	1025	1061	1073	1206	1268	1405
Theft Under \$5000	38214	37282	39522	43822	52803	52140
Crimes Against the Person						
Assault	15140	15892	16563	17125	17833	18885
Attempt Murder	86	119	132	126	186	147
Other	4626	5487	4941	4862	4798	4031
Robbery-Financial	93	86	110	125	123	104
Robbery-Other	3275	3113	3341	3561	3192	3154
Sexual Violation	2092	2170	2205	2342	2764	2737
Criminal Code Traffic						
Other	1936	1911	1975	1876	1683	1796
Other Criminal Code Violations						
Other	11083	12271	13176	14135	14614	14972
Other Criminal Violations - Offensive Weapons	1199	1612	1734	1763	1896	1850
Other Federal Statute Violations						
Other	410	386	351	259	248	229

```
## na.value: NA
## name: waiver
## palette: function
## palette.cache: NULL
## position: left
## range: <ggproto object: Class RangeDiscrete, Range, gg>
##   range: NULL
##   reset: function
##   train: function
##   super: <ggproto object: Class RangeDiscrete, Range, gg>
## rescale: function
## reset: function
## scale_name: manual
## train: function
## train_df: function
## transform: function
## transform_df: function
## super: <ggproto object: Class ScaleDiscrete, Scale, gg>

##
```

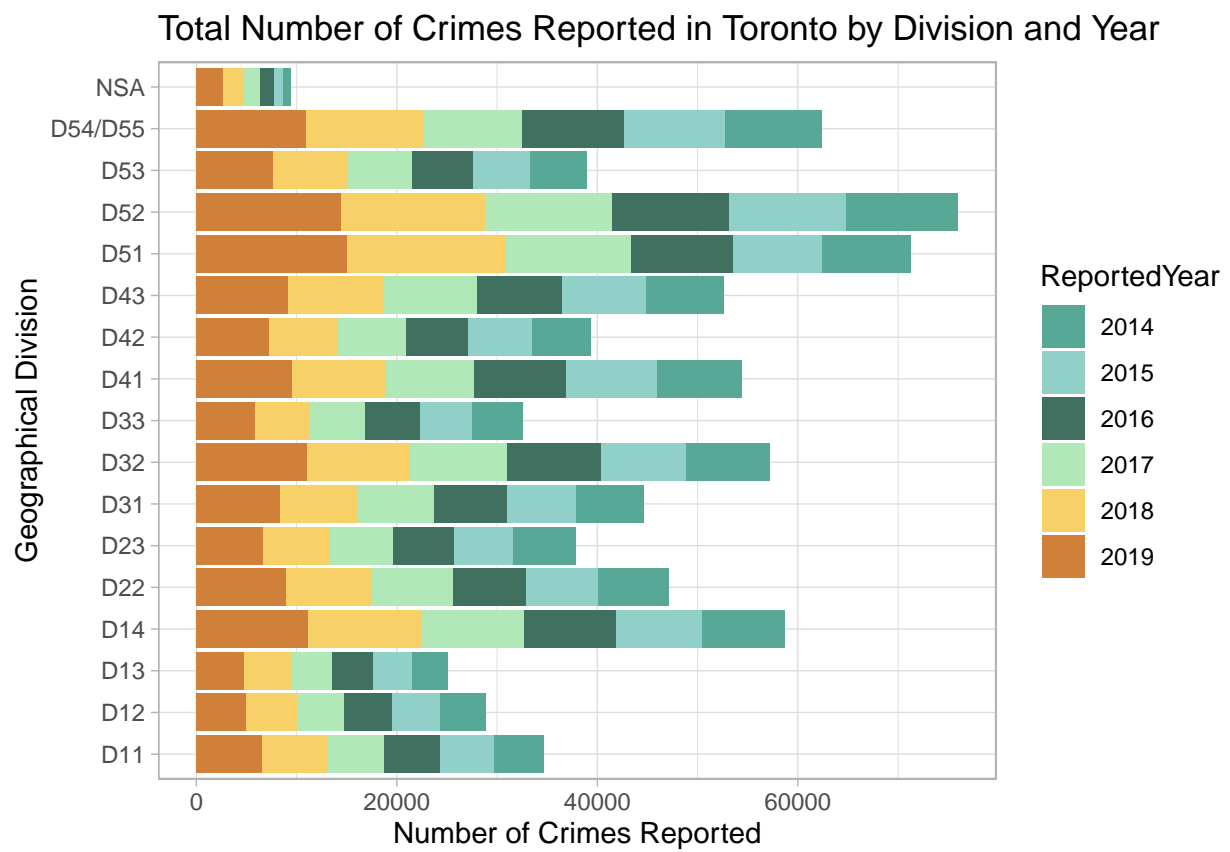


Figure 2: Bills of penguins

```
## To cite package 'palettetown' in publications use:
##
##   Tim Lucas (2016). palettetown: Use Pokemon Inspired Colour Palettes.
##   R package version 0.1.1.
##   https://CRAN.R-project.org/package=palettetown
##
## A BibTeX entry for LaTeX users is
##
##   @Manual{,
##     title = {palettetown: Use Pokemon Inspired Colour Palettes},
##     author = {Tim Lucas},
##     year = {2016},
##     note = {R package version 0.1.1},
##     url = {https://CRAN.R-project.org/package=palettetown},
##   }
##
## ATTENTION: This citation information has been auto-generated from the
## package DESCRIPTION file and may need manual editing, see
## 'help("citation")'.
```

corb corb corb¹

Our data is of penguins (Figure ??). analyzed with R (R Core Team 2020).

Talk more about it.

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

R Core Team. 2020. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.

¹corb?