

We have been collecting data from several sites mainly from the Ministry of Police, Stats NZ. data.govt.nz and NZ.Stat. This was not limited to researching for related data about crimes and covid-19 in NZ such journals, articles newspaper and news broadcast. The links to these sites is provided below. We have used two datasets for our analysis:

1. Victimization time and place (police website)
2. Covid_calls for services (police website)

The Victimization time and place dataset was downloaded from the information recorded in the Police dynamic operational database. (www.police.govt.nz) This dataset represents detailed information about where and at what times of the day and week crime victimization occur in NZ. It excludes victimization where meshblock level data and Area Unit is unknown. It includes time and place where the offence occurs, number and type of offence. This data frame contains 699705 number of observations and 17 variables. The dataset is dated from 2017 until March 2020. Most of the variables are characters and few are integer as some listed below and shown in the image.

1. Year.Month = Character
2. Month.Year = Character
3. ANZSOC.Group = Character
4. Area.Unit = Character
5. Location.Type = Character
6. Meshblock = Integer
7. Occurrence.Hour.Of. Day = Integer
8. Number. Records = Integer
9. Victimization = Integer

```
##{r}
df <- read.csv(file="victimisation_time_and_place_original.csv", header = TRUE)
str(df)

##{r}

'data.frame': 699705 obs. of 17 variables:
 $ ANZSOC.Division : chr "Abduction, Harassment and Other Related Offences Against a Person" "Abduction, Harassment and Other Related Offences Against a Person" "Abduction, Harassment and Other Related Offences Against a Person" ...
 $ Year.Month : chr "2017/2/1" "2017/2/1" "2017/2/1" "2017/2/1" ...
 $ Month.Year : chr "2017/2/1" "2017/2/1" "2017/2/1" "2017/2/1" ...
 $ ANZSOC.Group : chr "Abduction and Kidnapping" "Abduction and Kidnapping" "Abduction and Kidnapping" "Abduction and Kidnapping" ...
 $ ANZSOC.Subdivision : chr "Abduction and Kidnapping" "Abduction and Kidnapping" "Abduction and Kidnapping" "Abduction and Kidnapping" ...
 $ Area.Unit : chr "Avon Loop." "Maungatapu." "Green Island." "Glen Innes North." ...
 $ Location.Type : chr "." "." "." "." ...
 $ Locn.Type.Division : chr "Community Location" "Community Location" "Community Location" "Community Location" ...
 $ Meshblock : int 2657500 1179301 2959702 466101 2333800 450100 186500 774431 436402 2605400 ...
 $ Occurrence.Day.Of.Week: chr "Friday" "Monday" "Sunday" "Tuesday" ...
 $ Occurrence.Hour.Of.Day: int 18 16 17 8 10 99 1 15 0 0 ...
 $ Table.1 : chr "1 Victimization Time and Place" "1 Victimization Time and Place" "1 Victimization Time and Place" "1 Victimization Time and Place" ...
 $ Territorial.Authority : chr "Christchurch City." "Tauranga City." "Dunedin City." "Auckland." ...
 $ Weapon : chr "Not Applicable" "Not Applicable" "Not Applicable" "Not Applicable" ...
 $ Year.Month..copy.2. : chr "2月-17" "2月-17" "2月-17" "2月-17" ...
 $ Number.of.Records : int 1 1 1 1 1 1 1 1 1 1 ...
 $ Victimations : int 1 1 1 1 1 1 1 1 1 1 ...
```

The Covid_calls for services dataset was also downloaded from the police website and it contains information about crimes during the different level of lockdown during covid-19. These include districts, level of lockdown, type of crime and the number of times a specific crime has been committed. It also shows information about the demand in call for service and prevention during lockdown. The information has been recorded starting from the lockdown period in March 2020 until July. Some of the variable and type are listed below and show in the image.

1. District = Character
2. Alert.Level = Character
3. Calls.for.service.and.Prevention = Character
4. Event.Category = Character
5. Event.Type = Character

```
##{r}
covid <- read.csv(file= "Covid_calls for service.csv", header = TRUE)
str(covid)

##
'data.frame':  43782 obs. of  7 variables:
 $ district      : chr  "Auckland City" "Auckland City" "Auckland City" "Auckland City" ...
 $ Alert.Level   : int   2 2 2 2 2 2 2 2 2 ...
 $ Calls.for.Service.and.Prevention: chr  "Demand" "Demand" "Demand" "Demand" ...
 $ Crime.and.NonCrime.Demand      : chr  "Crime" "Crime" "Crime" "Crime" ...
 $ Event.Category                  : chr  "Administrative" "Administrative" "Administrative" "Administrative"
 ...
 $ Event.Type                     : chr  "Miscellaneous offences, Nec" "Resist or Hinder Police Officer or
Justice official" "Miscellaneous offences, Nec" "Miscellaneous offences, Nec" ...
 $ No                             : int   13 9 1 3 3 1 2 1 1 1 ...
```

<https://www.police.govt.nz/about-us/publications-statistics/data-and-statistics/policedatanz>

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