Western Australia Crime Statistics

2007 – 2023

**Scope of Work**

**WA : 2008 to 2023 - 17 Years of Crime Data**

Team: Crime Watchers

**Team Members:**

* **Tyson Horeswell**
  + Role: Merge Master / Git commander
    - Analysing
* **Drishti Patel**
  + Role: Collating Powerpoint Presentation
    - Merging cleaning and analysing
* **Hail Nijo**
  + Role: Plotting and Incorporating API
    - Analysing
* **Mel Burge**
  + Role: Scope of Work – Template Design
    - Analysing
    - Presentation Template

**Trends and questions:**

* Type of crimes in each Region of WA
* Is population growth affecting the increase in crime? -
* Top 10 Crime locations and bottom 10 Crime locations in WA
* Top 10 Crimes in WA
* Relationship between weather and crime rates
* Relationship between immigration trends and Crime trends
* Pattern of crime rates annually – is there a certain time of the year that is higher than others?
* Year with the most crime? Why?

**API’s and Data Fetching for research:**

* <https://www.police.wa.gov.au/Crime/CrimeStatistics>
* <https://population.gov.au/data-and-forecasts/key-data-releases/national-state-and-territory-population-march-2023>

**Break Down of Tasks:**

* **Find data sets**
  + WA Crime data set
  + Immigration data set
* **Define the strategies** 
  + Source the data
  + Is the data reliable and has the right information to work with
  + Assemble and clean the data
* **Analys the trends**
  + *Population and immigration growth in relation to crime – Tyson*
    - Line Graph – population and crime over time
    - Line Graph – immigration growth and crime over time
  + *Types of crimes –highest and lowest types of crimes – locations / time – Drish*
    - Layered graph over types and locations
    - Pie charts – top types of crime
    - Pie chart – least types of crime
  + *Top 10 crime locations and bottom 10 crime locations WA – Hail*
    - Mapping – plot locations – circle size to represent number of crimes
    - Layered graph over times and locations
  + *Pattern of crime rates monthly/annually – is there a certain time of the year that crime is at a higher rate than others? Top year with the most crime and why – Mel*
    - Monthly data collated over 17 years
    - Yearly data collated over 17 years
* **Acknowledge the limitations**
  + Possibly only one source of accurate crime data
  + Bias for political means
  + What is actually reported as apposed to reality
  + Location data may be irrespective of crime location data
* **Tell the story**
  + Crime rate increase and decrease over locations and time. Is the population and immigration grow affecting the crime rates. Is there a pattern with the time of the year.

**Analysis data sets:**

* *Branch Names*
  + population-immigration-analysis - Tyson
  + Hail\_branch - Hail
  + Types\_of\_crime - Drish
  + Crime\_Patterns\_Time – Mel
* *Data sets*
  + Crime
  + Immigration Growth
  + Geoapify API