

Project 1:

Melbourne \ Victorian Crime Analysis

Analysis by:

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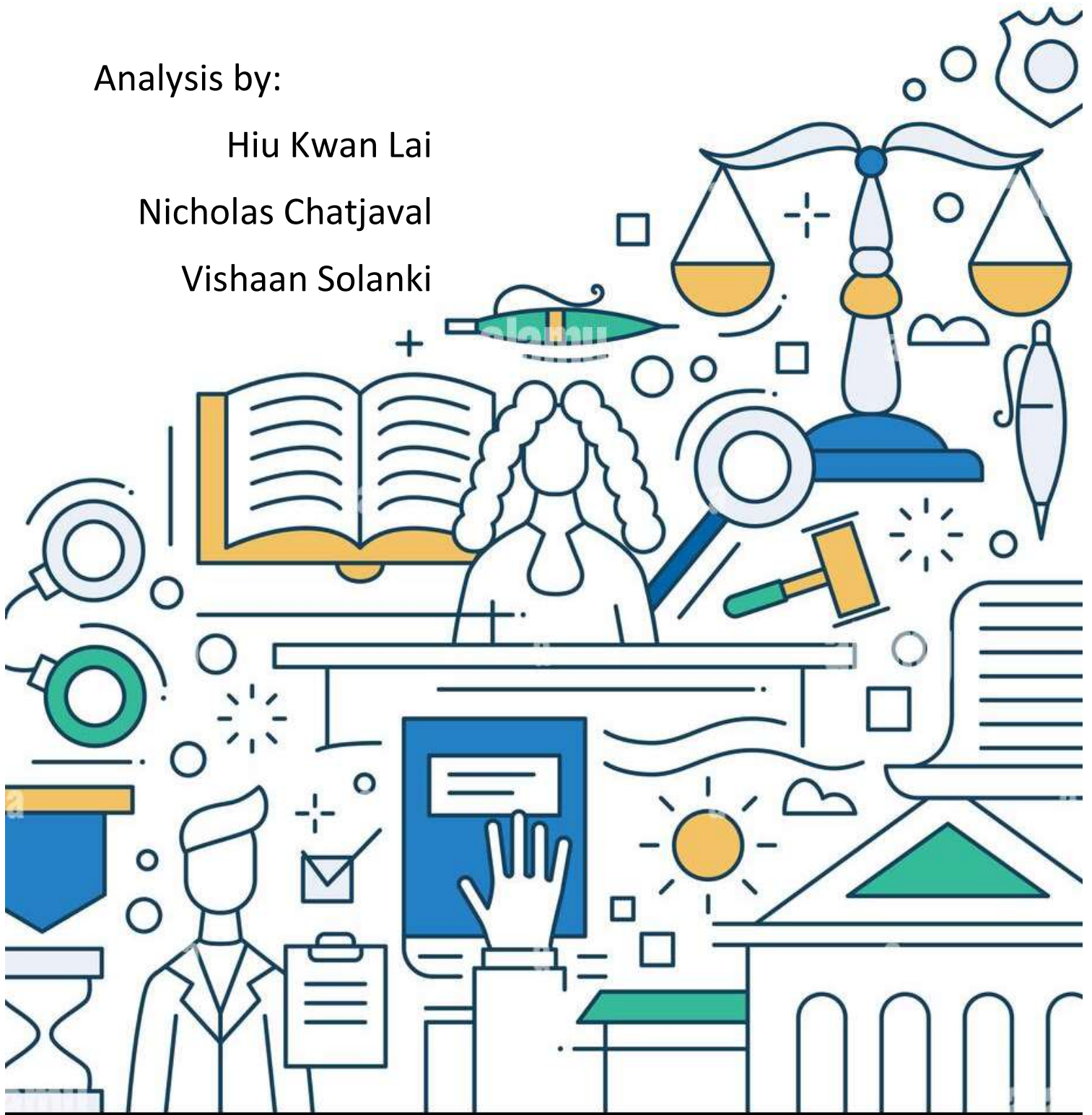


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Introduction

Using data available from [Australian Bureau of Statistic](#) (ABS) and [Crime Statistics Agency](#), we will highlight the top offences in Victoria for the last 5 years ending December 2021, focusing on Local government Areas/Suburbs, gender and age group to identify the key areas of concerns. This information will further assist our education sector, parents/guardians on what to educate the younger youth before they grow into a youth offender.

Aim

Our aim is to identify:

- 1) Top offences by:
 - a. Local Government Areas
 - b. Suburbs
 - c. Gender
 - d. Youth Offenders
 - e. Age Group
- 2) Trends by year with;
 - a. Suburbs
 - b. Gender
 - c. Youth Offenders

Problem/Questions asked

Which localities and suburbs are more dangerous to reside in due to crime rate?

What impact did the COVID-19 pandemic have on crime rates?

What type of crimes are being committed based on gender?

How has youth offence trended over the years? What is the most common youth offence?

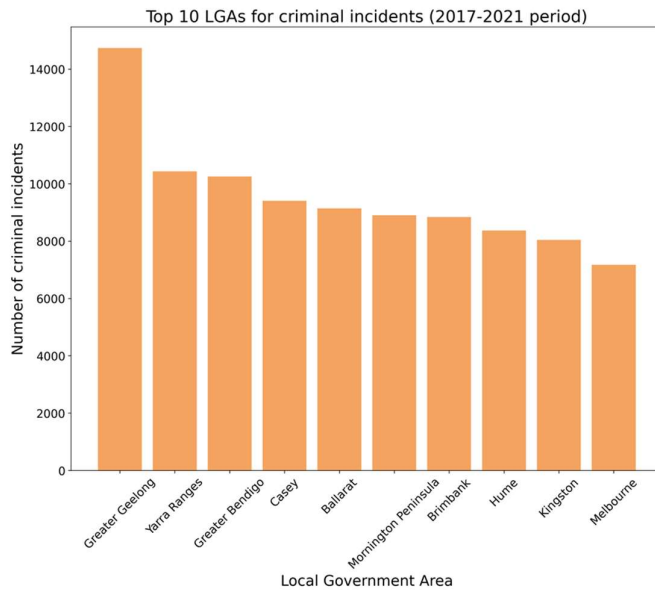
Stakeholders

- Parents
- Schools
- Residents across Victoria
- Local councils and policy makers
- State governments implementing restrictions during pandemic
- People thinking about moving to/within Victoria

Top offences by Local Government Areas

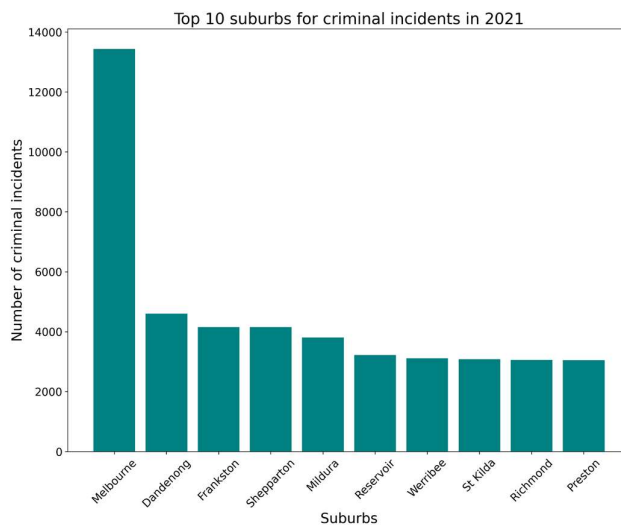
5 year data from 2017 - 2021

Each LGA population would vary in demographics and size, plus we are not accounting for any socioeconomic reasons, just only looking at the total number of crimes recorded.



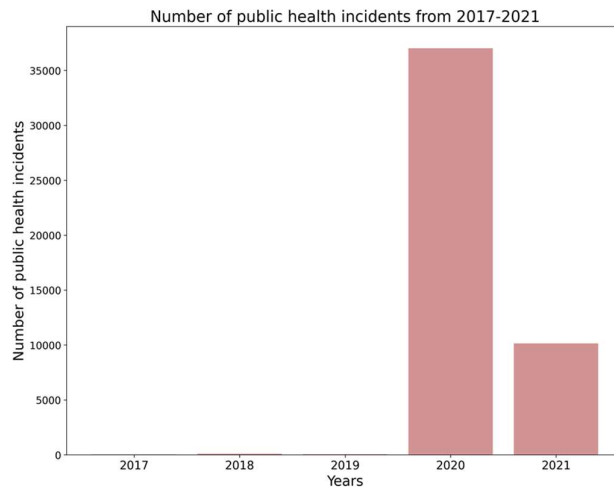
Top offences by Suburbs

Melbourne, Dandenong, Frankston, Shepparton, Preston, Mildura, St Kilda, Morwell, Reservoir, Richmond are seen across 2017-18 years for the total number of criminal incidents, the top 3 suburbs remain the same. Whereas the following two years of 2019-2020 were similar, with Werribee coming into the top 10 of 2019 year and St Kilda suburb dropping out:



Public Health (COVID-19 Pandemic)

Our analysis also included information related to public health data, as we were interested to see the impact of the COVID-19 pandemic and subsequent government policies implementing restrictions and public health orders. The bar graph shows the impact of pandemic and the increase in breaches to public health orders over 2020 and 2021:



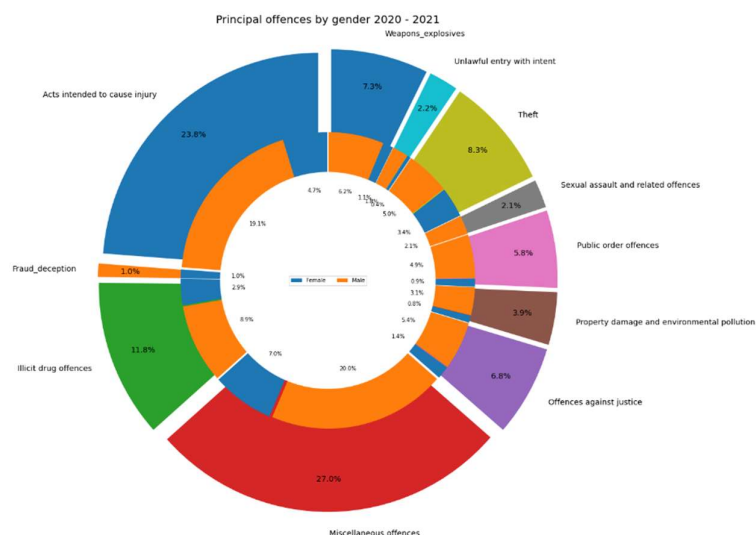
Gender

As at December 2021, there were 78,554 offenders in Victoria which is made up by 75% male and 25% female, and 8.3% of youth offenders.

The top 10 between both genders are very similar except for ‘Sexual assault and related offences’ being more common for males while “Fraud & Deception” more common amongst females.

Below graph show percentage representation of the Principal Offences by Gender in 2020 – 2021.

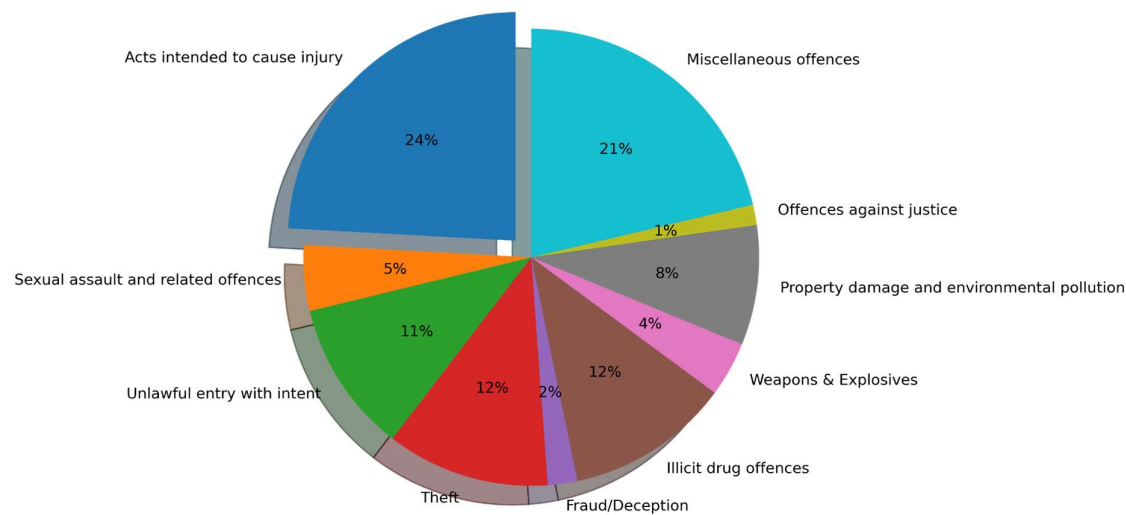
“Acts intended to cause injury” is the second top offence after Miscellaneous (covid-related offences), comprising 19.1% male offenders and 4.7% totalling 23.8% of all the offenders in Victoria.



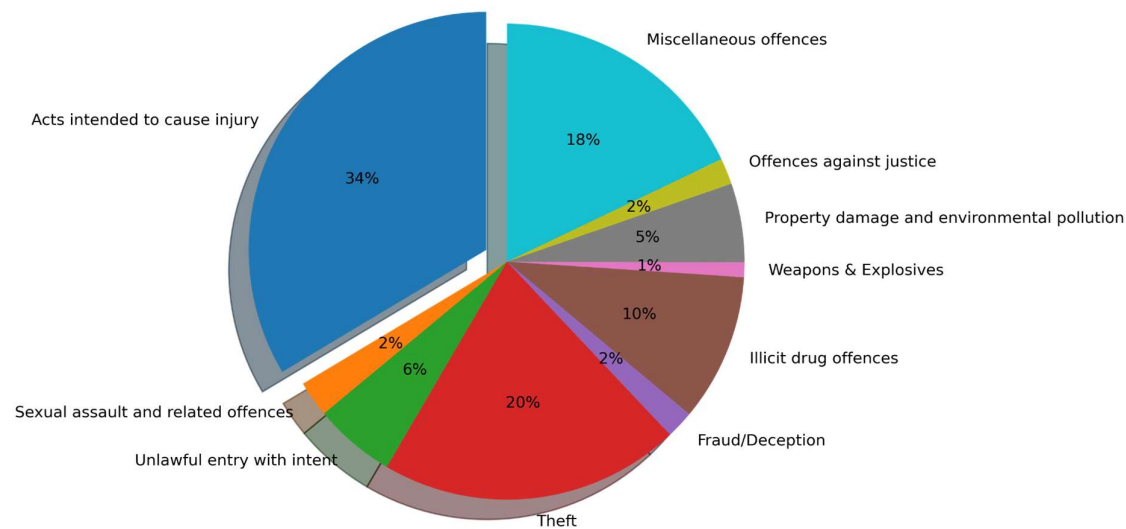
Youth Offenders

As can be seen from the pie charts showing offence distribution by youth males and youth females in 2020-2021 below, 'acts intended to cause injury' was the leading offence for both gender groups. For youth males, this is followed closely by 'miscellaneous offences' then 'theft'. For youth females, 'acts intended to cause injury' was followed closely by 'theft' then 'miscellaneous offences'. 'Acts intended to cause injury', in terms of distribution of total offences, was higher for youth females (34%) when compared to youth males (24%). However, youth male offenders have a higher total 'acts intended to cause injury' count.

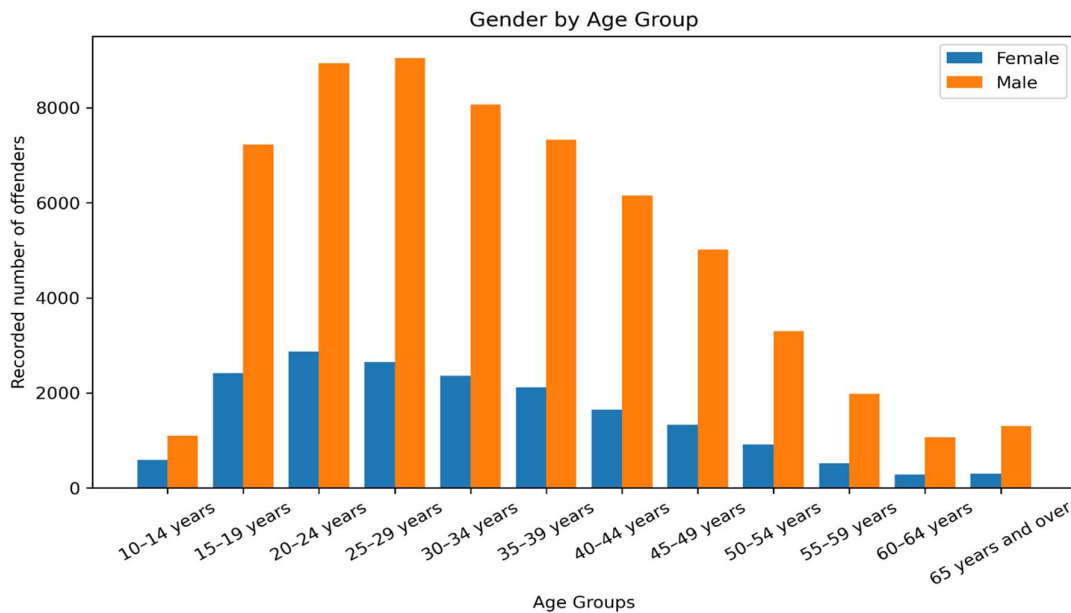
Offence Distribution by Youth Males in 2020-21



Offence Distribution by Youth Females in 2020-21

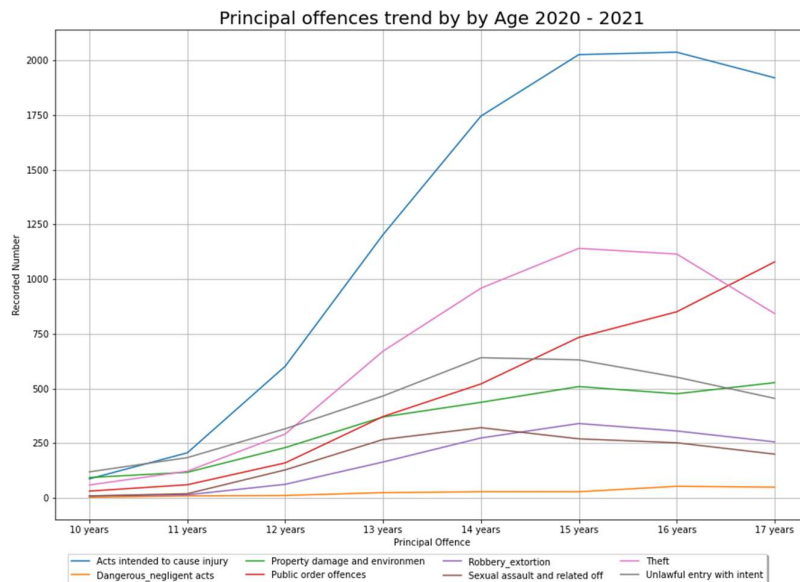


Age Group



As shown by the graph above, majority of the offenders are males aged between 20 – 39 years old while alarmingly majority of the female offenders are late teens, young adults aged between 15 -24.

Further breakdown into the youth offenders’ age and offences shows, offenders peak at age 15 and 16 years old. While a steady decline is noticeable in most offences at age 17.

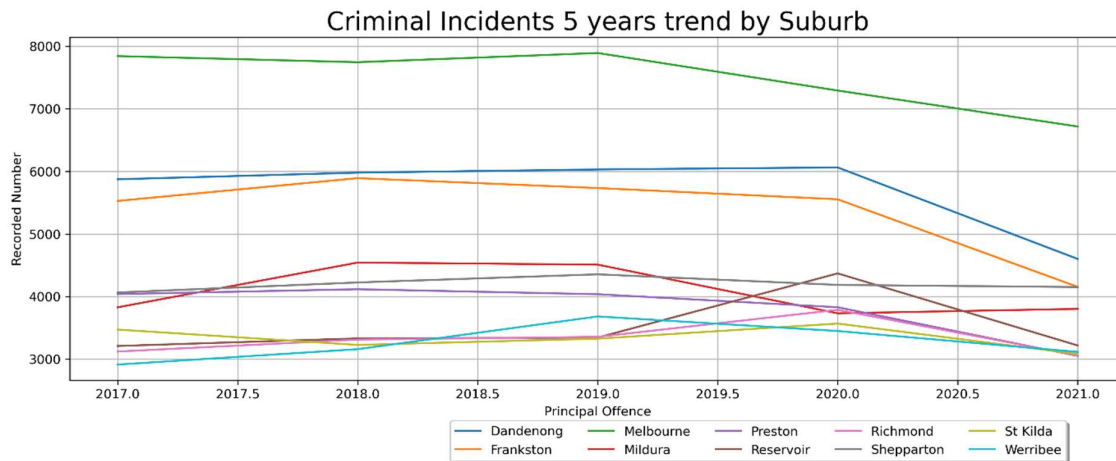


“Acts intended to cause injury”, the number 1 offence for both adults and youth show a steep climb starting from age 11.

Trends by years

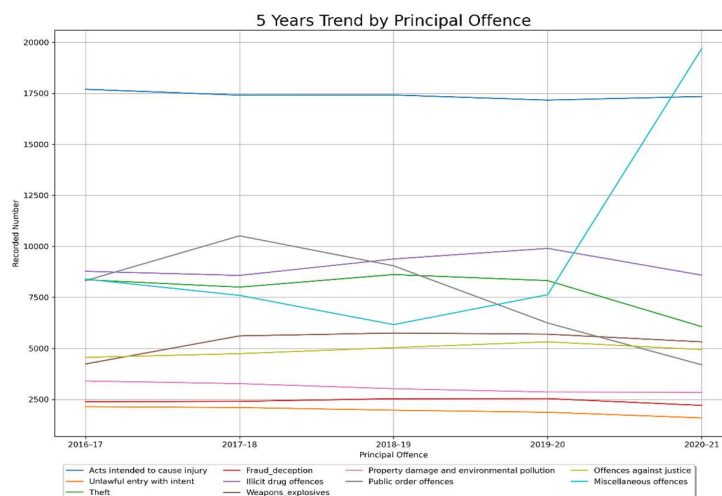
Suburbs

From the Criminal Incidents 5 years trend by Suburb below, we can see the criminal incidents of our top 3 suburbs are significantly greater than the other suburbs. The top 3 suburbs surprisingly show a slight decline even before the pandemic in 2020. Even this the increase in covid related offence, all our top 10 suburbs criminal incidents are lower than pre-pandemic level.



Offences

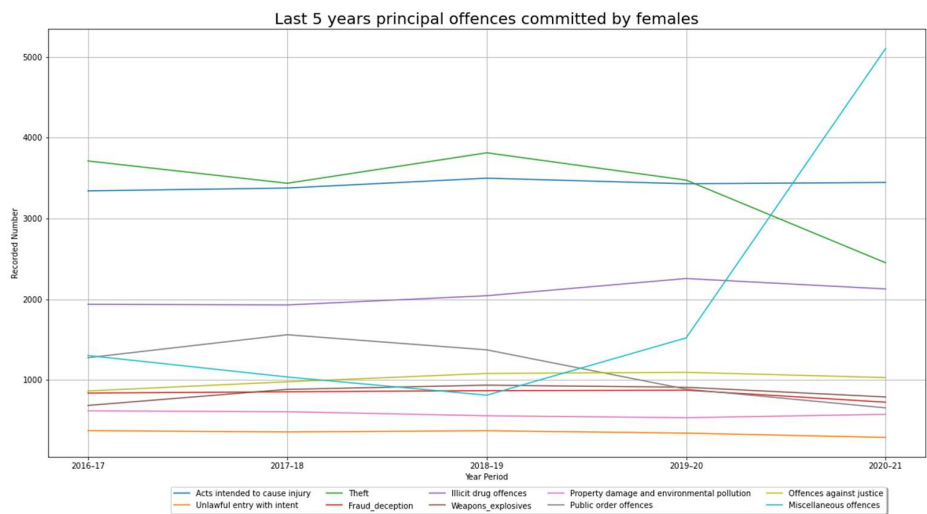
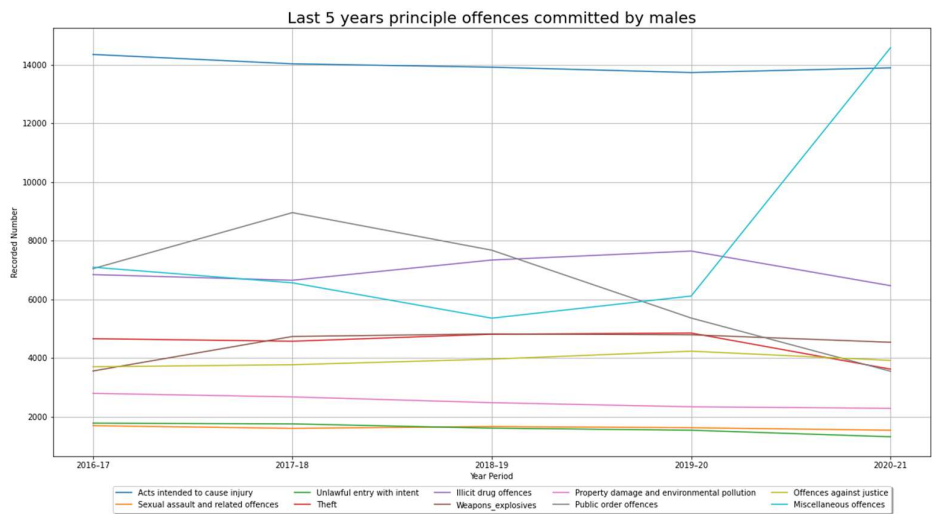
Analyses into the 5 years trend by principal offence based on offenders, shows a significant increase in miscellaneous offences that comprised of covid related offences.



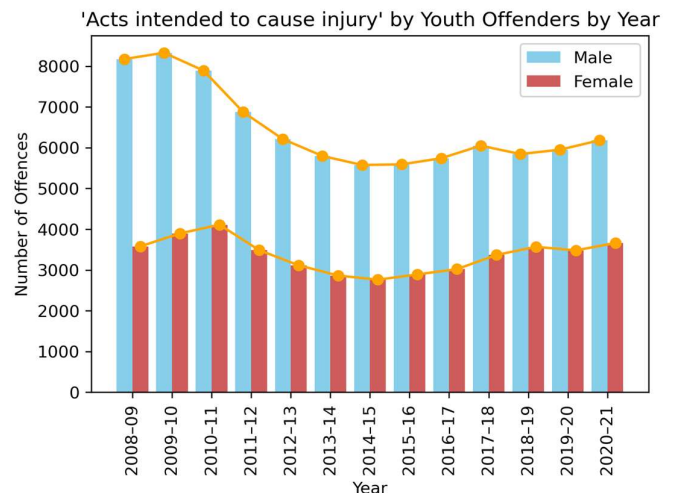
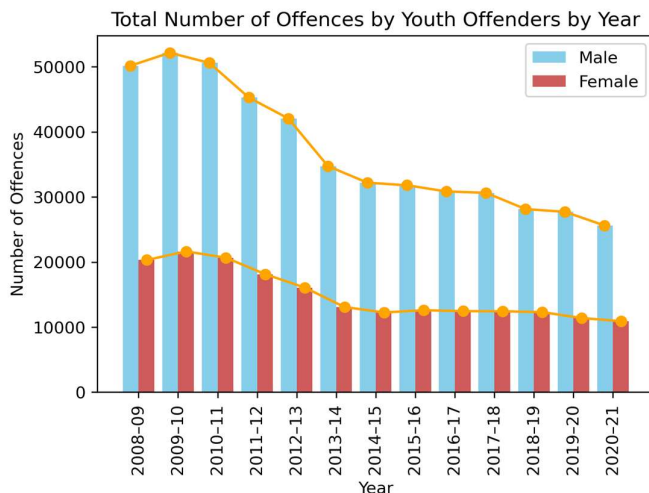
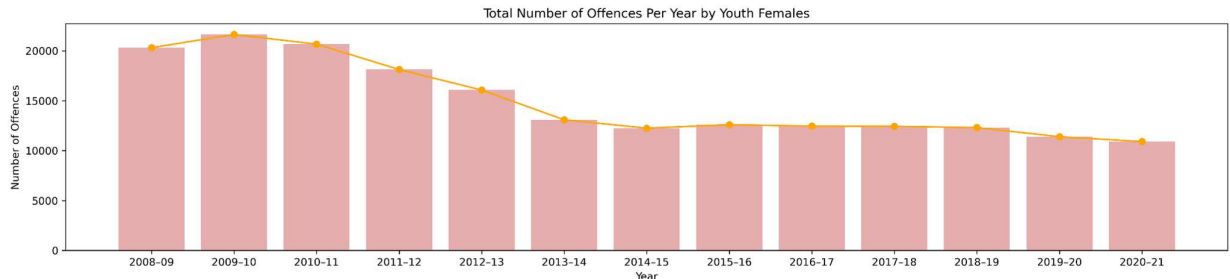
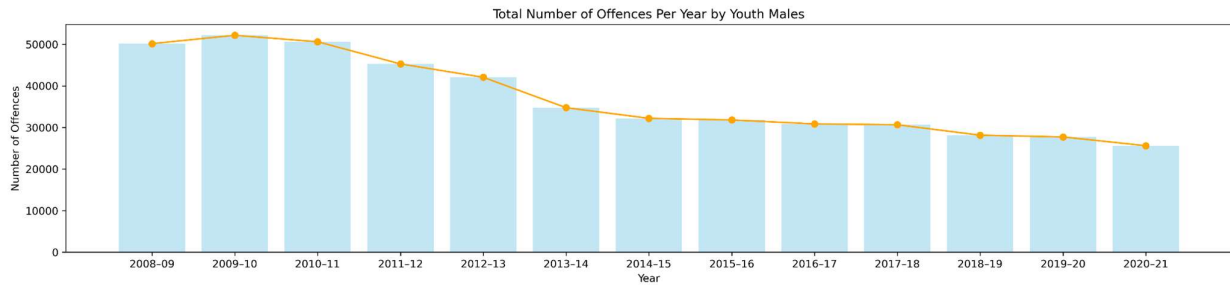
Setting miscellaneous offences aside, 'Acts intended to cause injury' showed a slight increase while all other offences declined between 2019 – 2021.

Gender

Analysis on the trends in principal offences for the last 5 years aside from Miscellaneous offence, shows are decline in the top 10 offence in the last 2 years for both genders. The decline could be the result of lockdowns causing limited mobility and increased in government support. Due to time constraint, this was not analysed.



Youth Offenders



Analysis on youth offender trends saw an overall decline in youth offences over the 13 year time period (2008-2021). Male youth offenders had a higher number of offences, in comparison to female youth offenders, for each yearly time period. Both groups saw a steady decline over the 13 year time period. However, male youth offenders saw a sharper decline from the years 2009-2013 than their female counterparts.

For the 'acts intended to cause injury' offence type, male youth offenders saw a decline in number of offences from 2008 to 2015 and has remained relatively steady from there. The number of 'acts intended to cause injury' offences in females youth offenders, on the other hand, has not seen a decline in the number of offences over the 13 year time period investigated.

Data Source

| Source Location | Source filename | Sheet Name | Resource filename |
|---|---|------------|------------------------------|
| Crime Statistics Agency | Data_Tables_LGA_Criminal_Incidents_Year_Ending_December_2021.xlsx | Table03 | LGA Criminal Incidents.csv |
| ABS | 2. Offenders, states and territories.xlsx | Table08 | Offenders.csv |
| | 1. Offenders, Australia.xlsx | Table03 | Offenders_Gender_and_Age.csv |
| | 3. Youth Offenders.xlsx | Table19 | Youth_Offender.csv |
| | 3. Youth Offenders.xlsx | Table21 | Youth_offender_age.csv |

Data Limitations

LGA breakdown obtained is skewed towards population size.

Data provided by ABS does not include;

- Proceedings initiated by the Australia Federal Police
- Organisation crimes
- Persons less than 10 years of age
- Indigenous status data
- Family Violence

Due to time constraint and free data availabilities for the same period, this analysis does not examine socioeconomic link, government support grant and school initiatives.

Actionable Insights

The 2020 to 2021 time period saw a large spike in public health crime as the result of the COVID-19 pandemic.

The most common type of crime recorded across Victoria was property and deception (including property damage, arson, burglary, deception, bribery). Youths from the age of 15-16 makeup a staggering 42.77% of offenders for Robbery & Extortion in Victoria, while 'acts intended to cause injury' has remained the highest count and growth for youth and adult offence type. School, community centre and education sector in suburbs such as Melbourne CBD, Frankston and Dandenong should further educate youths as young as 10 on the consequences of their actions.

With the rise of popularity in social media platforms such TikTok, Instagram, snapchat etc, many of the youths and young adults partake in 'harmless' pranks for likes and followers. Many of them are unaware of the consequences of their actions or simply ignore or misunderstood the seriousness if and when the prank goes wrong. A lot of these video encourages kids to record how they 'outsmart the law', to steal or to pranks people they know. All kids should be educated on the relationship between their actions and possible punishable consequences.

Home owners in top criminal incidents suburbs are encouraged to install security system and CCTV as a deterrent.

Glossary

Spreadsheet provided by ABS (Australia Bureau of Statistics) contains information of the number of offenders allegedly committing principal offences in Victoria between 2008 – 2021.

Name/Principal Offences with descriptions retrieved from Australian Bureau of Statistics:

| Name\Principal Offences | Description |
|-------------------------------------|---|
| Homicide and related offences | Unlawfully kill, attempt to unlawfully kill or conspiracy to kill another person. Sub-categories; <ul style="list-style-type: none"> • Murder • Attempted Murder • Manslaughter and driving causing death |
| Acts intended to cause injury | Acts, excluding attempted murder and those resulting in death, which are intended to cause non-fatal injury or harm to another person and where there is no sexual or acquisitive element Sub-categories; <ul style="list-style-type: none"> • Assault • Other acts intended to cause injury |
| Sexual assault and related offences | Sub-categories; <ul style="list-style-type: none"> • Sexual assault • Non-assaultive sexual offences |
| Dangerous_negligent acts | Acts which, though not intended to cause harm, actually or potentially result in injury to oneself or another person. |
| Abduction_harassment | Acts intended to threaten or harass, or acts that unlawfully deprive another person of their freedom of movement, that are against that person's will or against the will of any parent, guardian or other person having lawful custody or care of that person. |
| Robbery_extortion | Acts intended to unlawfully gain money, property or any other thing of value from, or to cause detriment to, another person by using the threat of force or any other coercive measure. |
| Unlawful entry with intent | The unlawful entry of a structure with the intent to commit an offence, where the entry is either forced or unforced. |
| Theft | The unlawful taking or obtaining of money or goods, not involving the use of force, threat of force or violence, coercion or deception, with the intent to permanently or temporarily deprive the owner or possessor of the use of the money or goods, or the receiving or handling of money or goods obtained unlawfully. Sub-categories; <ul style="list-style-type: none"> • Motor Vehicle theft |

| | |
|---|---|
| | <ul style="list-style-type: none"> ● Receive or handle proceeds of crime |
| Fare evasion | The act of travelling on public transport without a valid ticket for the specified journey in disregard of the relevant laws and/or regulations. |
| Fraud_deception | <p>Offences involving a dishonest act or omission carried out with the purpose of deceiving to obtain a benefit.</p> <p>Sub-Categories;</p> <ul style="list-style-type: none"> ● Obtain benefit by deception ● Forgery and counterfeiting ● Deceptive business/government practices ● Other fraud and deception offences |
| Illicit drug offences | <p>The supply or purchase of an illicit drug or controlled substance of any quantity, or the possession of an illicit drug or controlled substance where the amount involved is deemed to be of a quantity for commercial activity.</p> <p>Sub-Categories;</p> <ul style="list-style-type: none"> ● Deal or traffic in illicit drugs ● Manufacture or cultivate illicit drugs ● Possess and/or use illicit drugs |
| Weapons_explosives | Offences involving prohibited or regulated weapons and explosives. |
| Property damage and environmental pollution | The wilful and unlawful destruction, damage or defacement of public or private property, or the pollution of property or a definable entity held in common by the community. |
| Public order offences | <p>Offences involving personal conduct that involves, or may lead to, a breach of public order or decency, or that is indicative of criminal intent, or that is otherwise regulated or prohibited on moral or ethical grounds. In general these offences do not involve a specific victim or victims; however, some offences, such as offensive language and offensive behaviour, may be directed towards a single victim.</p> <p>Sub-categories;</p> <ul style="list-style-type: none"> ● Breach of violence and non-violence orders ● Offences against justice procedures |
| Offences against justice | An act or omission that is deemed to be prejudicial to the effective carrying out of justice procedures or any government operations. This includes general government operations as well as those specifically concerned with maintaining government security. |
| Miscellaneous offences | <p>Offences involving the breach of statutory rules or regulations governing activities that are prima facie legal.</p> <p>Sub-Categories;</p> <ul style="list-style-type: none"> ● Public health and safety offences ie. Covid related offences |

| | |
|--|--|
| | <ul style="list-style-type: none"> • Defamation • Libel and privacy offences |
|--|--|

Offence division and sub grouping of crimes from Crime Statistics Agency (Victoria):

| Offence Division | Offence Subdivision |
|---------------------------------|---|
| A crimes against the person | <ul style="list-style-type: none"> - Assault and related offences - Robbery - Stalking, harassment and threatening behaviour. - Dangerous and negligent acts endangering people. - Other crimes against the person |
| Property and deception offences | <ul style="list-style-type: none"> - Arson - Property damage - Burglary /Break and enter - Theft - Deception - Bribery |
| Drug offences | <ul style="list-style-type: none"> - Drug dealing and trafficking - Cultivate or manufacture drugs - Drug use and possession - Other drug offences |
| Justice procedures offences | <ul style="list-style-type: none"> - Justice procedures - Breaches of orders |
| Other Offences | <ul style="list-style-type: none"> - Regulatory driving offences - Transport regulation offences - Other government regulatory offences, including public health act breaches during COVID-19 pandemic - Miscellaneous offences |