Project 1 - Crimes in Victoria

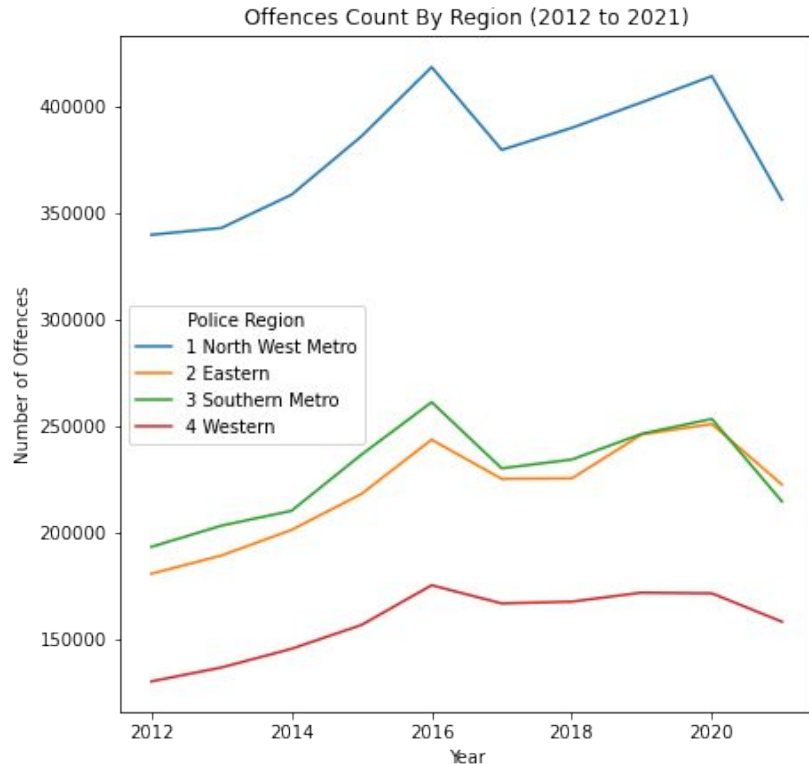Patsiri Boonprasop, Christian Adiputra, Navid Motlagh & Wei Wen Tan

Introduction & Aim

This project is conducted to analyse crime offences occurred in Victoria based on the following:

1. Geographical area
2. Age group
3. Setting of crimes
4. Drug related offence

Key stakeholders: General Public, Victorian Police, Victoria State Government, Education authority

Findings 1 - Trends across regions

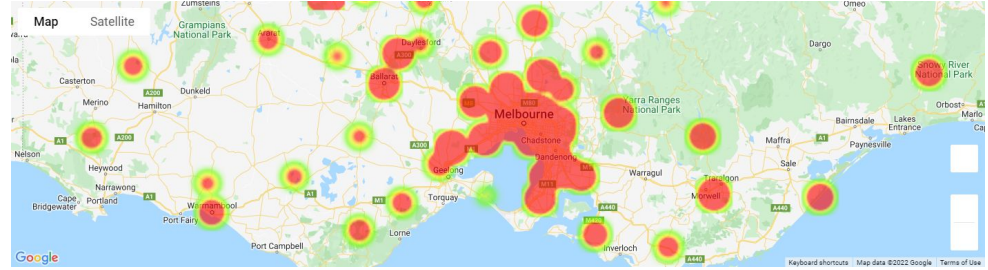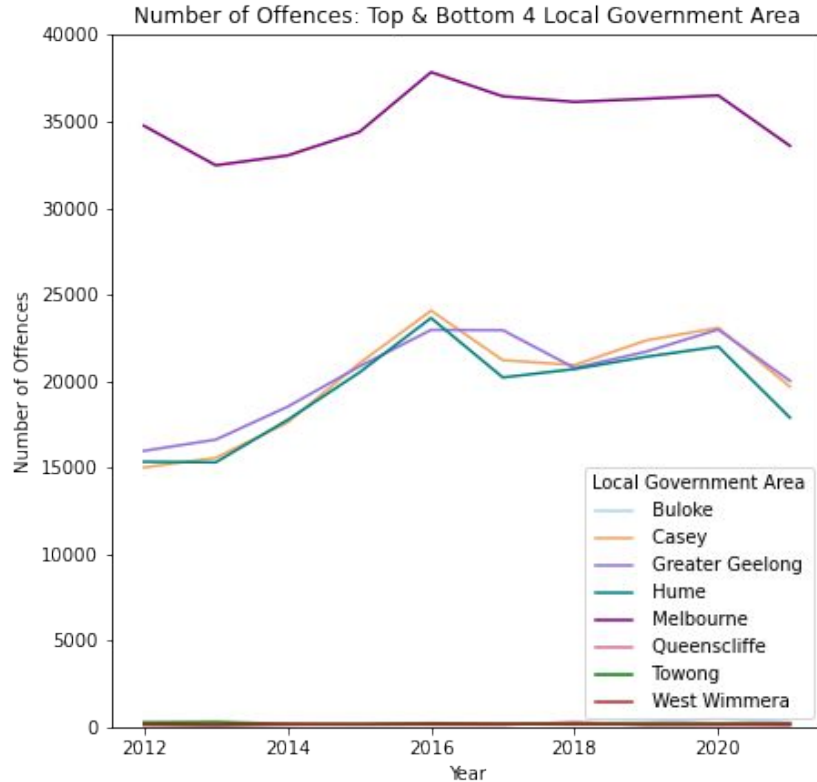Offences Count By Region (2012 to 2021)

Similar pattern across different regions in Victoria:

- Number of offences peaked in 2016 and 2020
- Increasing trend from 2017 to 2020
- Significant higher number of offences in North West Metro region, compared to other regions

Finding: increasing trend from 2012 to 2021 in all regions

Findings 1 - Geographical Tendencies

Number of Offences: Top & Bottom 4 Local Government Area

Local Government Area
- Buloke
- Casey
- Greater Geelong
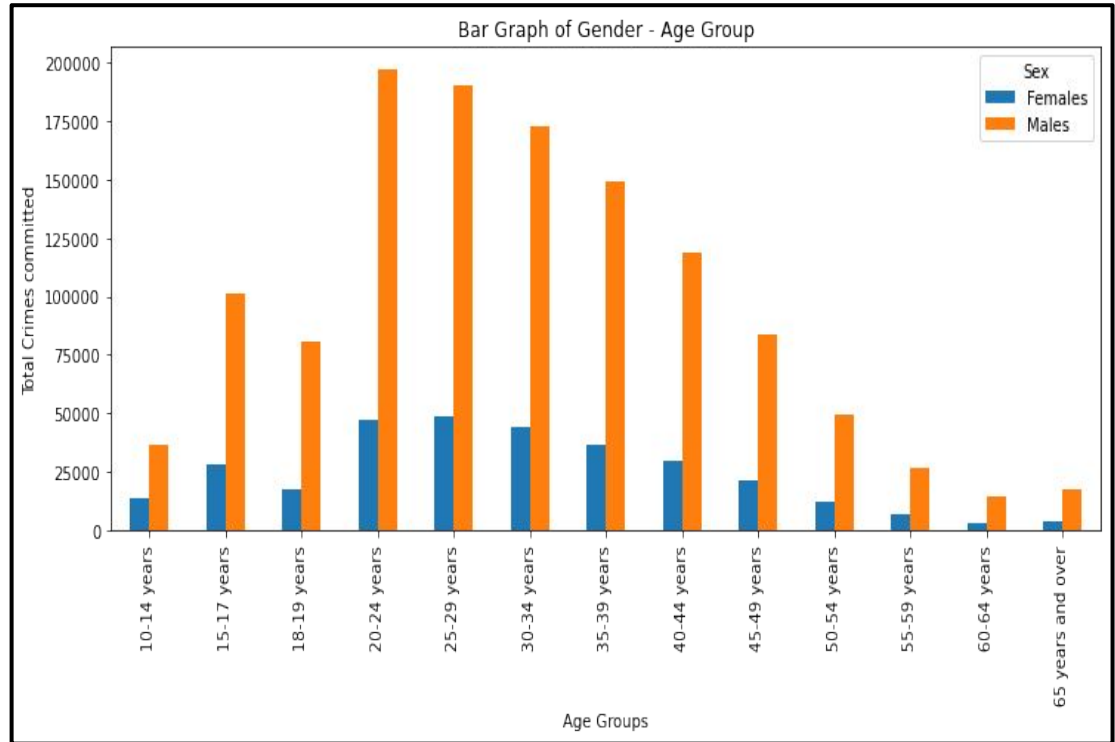- Hume
- Melbourne
- Queenscliffe
- Towong
- West Wimmera

- Two North West region LGAs in top 4: Melbourne and Hume
- Three Western region LGA in bottom 4: Buloke, Queenscliffe, and West Wimmera

Finding: concentration of offences in the metropolitan area (north west, CBD, and eastern)
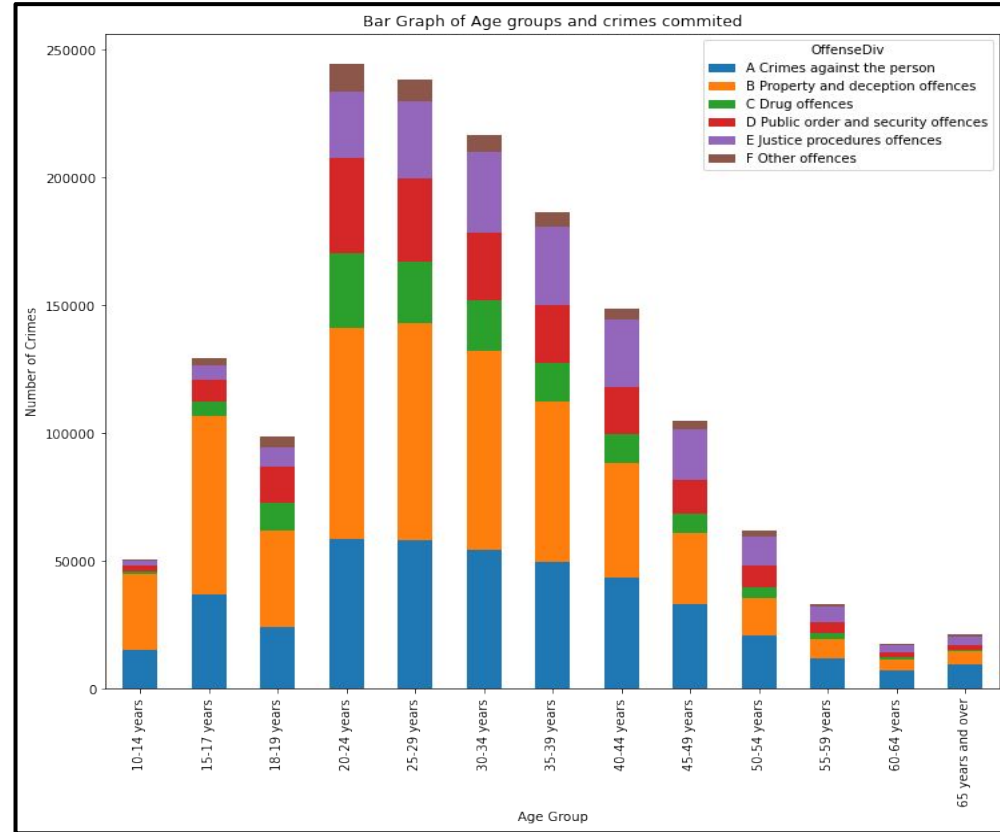
Findings 2 - Age Group

Graph 1:

- Most crimes committed by males among all the age group - 196700
- Most female offences in 25-29 group whereas most male offences in 20-24 group
- Females far less involved in crimes than males

Bar Graph of Gender - Age Group
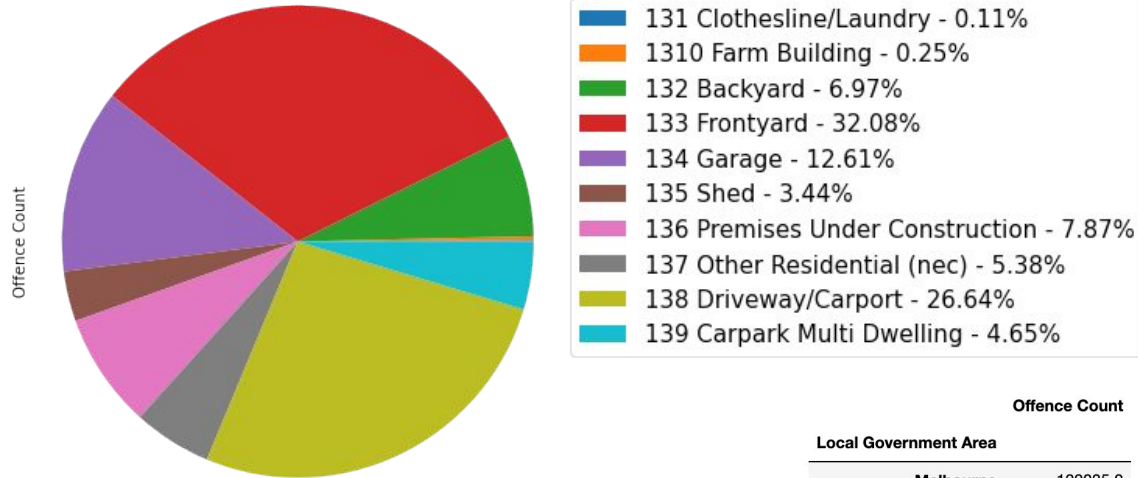
Findings 2 - Age Group

Graph 2:

- Most crimes committed were Property and Deception offences followed by Crimes Against Person
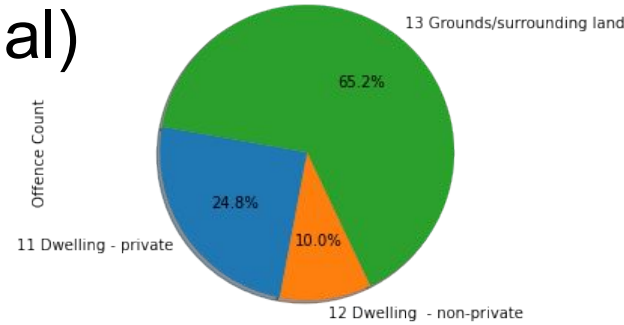- Less crime over the age of 55
- Unusually higher crime in 15-17

Bar Graph of Age groups and crimes commited

Findings 3 - Settings of Crime (Residential)

Analysing the grounds and surrounding lands

- 131 Clothesline/Laundry - 0.11%
- 1310 Farm Building - 0.25%
- 132 Backyard - 6.97%
- 133 Frontyard - 32.08%
- 134 Garage - 12.61%
- 135 Shed - 3.44%
- 136 Premises Under Construction - 7.87%
- 137 Other Residential (nec) - 5.38%
- 138 Driveway/Carport - 26.64%
- 139 Carpark Multi Dwelling - 4.65%

Comparison between residential local subdivisions

13 Grounds/surrounding land 65.2%
11 Dwelling - private 24.8%
12 Dwelling - non-private 10.0%

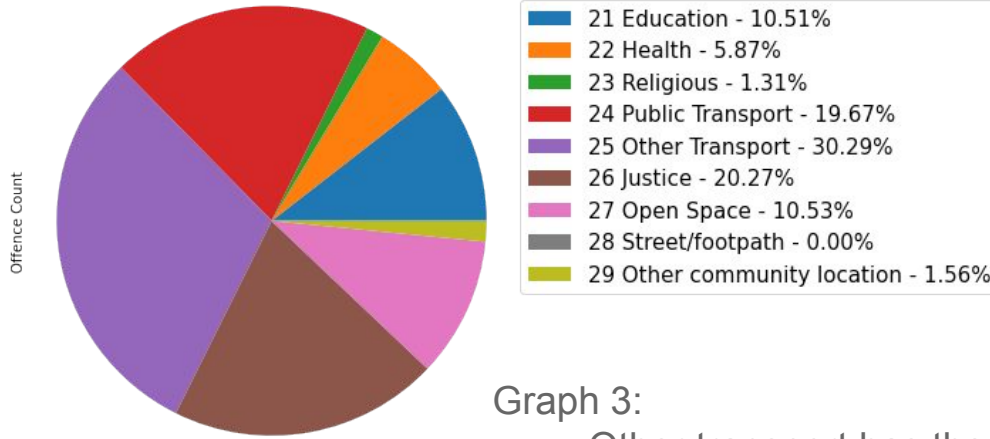|	Offence Count
Local Government Area	
Melbourne	122035.0
Greater Geelong	89354.0
Hume	88567.0
Greater Dandenong	85218.0
Brimbank	82973.0
Casey	72900.0
Frankston	69949.0
Darebin	69286.0
Wyndham	65099.0
Whittlesea	64196.0

Graphs 1 & 2:
- Focus on grounds/surrounding lands
- The offence counts are the highest at the front yards and driveways/carports.
- Grounds and surrounding lands are the highest in the residential location division
- Private dwellings have a higher offence count than non-private dwellings

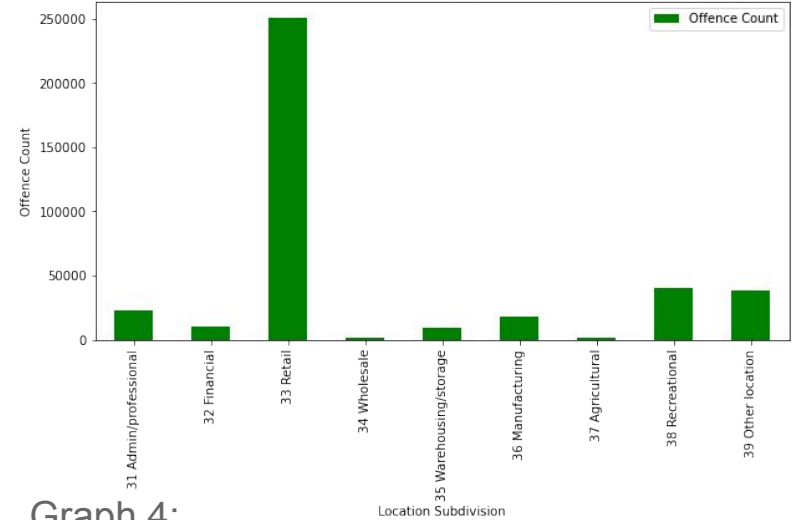# Findings 3 - Settings of Crime (Community & Others)

Comparing between community location subdivisions

- 21 Education - 10.51%
- 22 Health - 5.87%
- 23 Religious - 1.31%
- 24 Public Transport - 19.67%
- 25 Other Transport - 30.29%
- 26 Justice - 20.27%
- 27 Open Space - 10.53%
- 28 Street/footpath - 0.00%
- 29 Other community location - 1.56%

Comparison of Offence Counts of location subdivision between the top 10 LGAs excluding resdential and community

Graph 3:
- Other transport has the highest offence counts compared to the other categories in the community division.
- Street/footpath has zero offence counts.
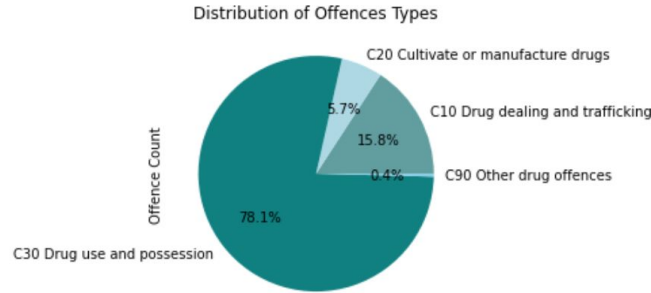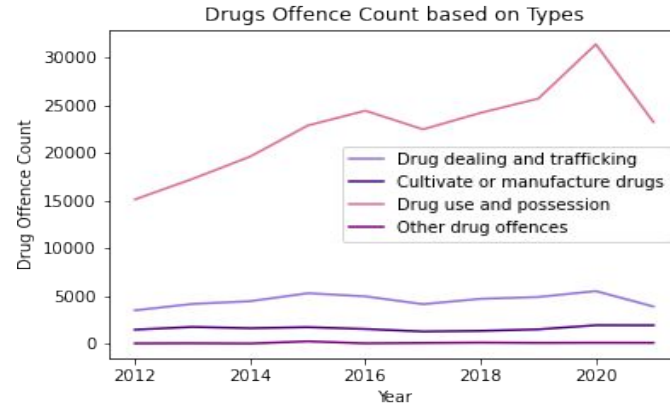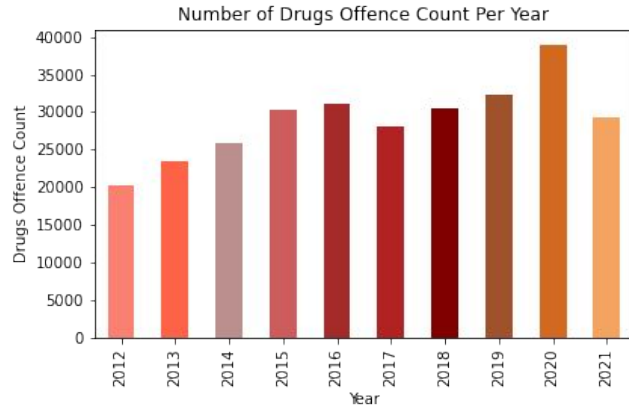- Public transport and justice are also areas to look out for.

Graph 4:
- Majority of the offence counts are in the retail sector.
- These are due to:
  - Panic buying
  - Shoplifting
  - Violence against retail staff
- Recreational sector (i.e. sports centre and gaming venues) can also be considered
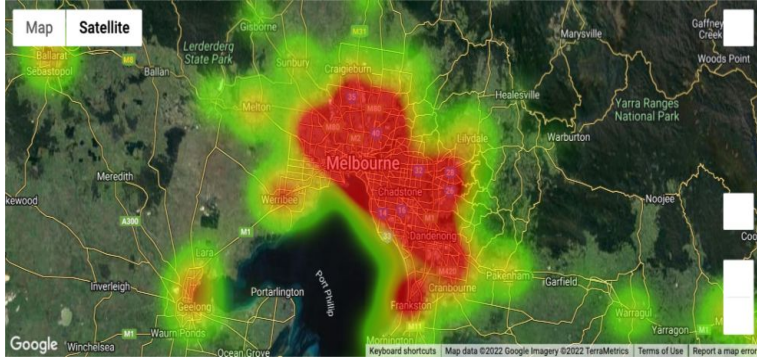
Findings 4 - Drug-related offence

Distribution of Offences Types

- There's a spike in drugs offence in 2020
- Drugs use and possession makes up of 78.1% of the offences
- Overall, across the years, there has been an large jump in drug use and possession in comparison to other types of drug related offence

Number of Drugs Offence Count Per Year

Drugs Offence Count based on Types

Findings 4 - Drug-related offence (Continue)

- There're are more drugs offence in Melbourne metropolitan area
- The top 10 suburbs with most offence counts are generally within the Melbourne metropolitan area.

	Suburbs	Offence Count
872	Melbourne	8885.0
372	Dandenong	5157.0
502	Frankston	4909.0
1152	Richmond	4502.0
1255	St Kilda	3919.0
1216	Shepparton	3554.0
901	Mildura	3521.0
1250	St Albans	3475.0
1149	Reservoir	3061.0
1242	Southbank	2722.0

Limitations

- The data may exclude recorded offences where the geographic location is unknown.
- Based on the offence that occurred in the area/suburbs and does not provide insights based on the offender's nationality or location of residence.
- Biased from higher police force in Metro area = higher offence count
- Higher offence count due to higher number of population, further examinations comparing with number of population is recommended
- There may be inaccuracy in terms of collecting data from a variety of police reports in the local government areas.

Suggestions

- A series of hard and soft approaches are suggested to help prevent and reduce crime.

  Soft approaches

  - Setting up mental health sessions in schools and community centers
  - Education session about harms, addiction and safe usage of illicit drugs
  - Eliminating the crime means i.e. weapons controls and limiting alcohol consumption
  - Using surveillance, increasing property security and residence access control using fences, CCTV cameras, and secure locks and doors
  - Making environmental changes (improving street lighting, incorporating urban planning policies in urban design, facilities architecture and combining residential, workplace and commercial spaces)

  Hard approaches

  - Updating laws and regulations and strictly enforcing them.
  - Police patrols in crime hotspots and increasing police presence in area with high crime counts.

Q&A

Thank you for listening!