

Project Proposal

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Project Title: Detail analysis of criminal incidents in Victoria by regions

Introduction and Motivation

Although Melbourne is rated as the most liveable city in Australia and also ranked 3rd in the world in the Global Liveability Index 2023, as stated by Gortan(2023), I myself have come across a lot of criminal incidents from petty cases like thefts or robbery to serious cases like assaults or murders. More importantly, international students are more exposed to these incidents due to their vulnerability. Therefore, as an international student myself, I am keen of analysing the criminal rates and incidents varied by different categories by regions, local government area and postcode in this project to raise awareness for newly-came international students of potential harm before choosing a suburb to rent. Moreover, I will investigate whether some socio-economic factors, affect the criminal rates. However, due to the limitations of data source, as some datasets only collected in 5-year period or have not updated for year 2023, a snapshot of the relationship will be captured rather than an analysis over time.

Questions

1. Are there some areas in Victoria more dangerous than the other?
2. Are there any socio-economic indicators associated with the highly dangerous areas?

Data sources:

A. Crime data by Area, since 2014, which have been reported by the Police or the Government.

B. 2021 Regional Wellbeing survey data tables, which have been reported by University of Canberra and Health Research Institute

C. Socio-Economic Indexes for Australia (SEIFA) 2016, which have been reported by the ABS.

The data source A will allow me to answer question 1, while the combination of data sources A, B and C will allow me to answer question 2.

Description of data sources:

- Tabular data (A): 5 different tables with row number varies from 870 to 330934 and number varies from 5 to 10
 - Table 1: Criminal incidents and rate per 100,000 population by police region and local government area - April 2013 to March 2023
 - Table 2: Criminal incidents and rate per 100,000 population by principal offence, local government area and police service area - April 2013 to March 2023
 - Table 3: Criminal incidents by principal offence, local government area and postcode or suburb/town - April 2013 to March 2023
 - Table 4: Criminal incidents by location type and local government area - April 2013 to March 2023
 - Table 5: Criminal incidents by charge status and local government area - April 2013 to March 2023

([https://files.crimestatistics.vic.gov.au/2023-06/Data Tables LGA Criminal Incidents Year Ending March 2023.xlsx](https://files.crimestatistics.vic.gov.au/2023-06/Data%20Tables%20LGA%20Criminal%20Incidents%20Year%20Ending%20March%202023.xlsx))

- Tabular data (B) : 346 rows and 16 columns (by state and local government area)
 - Table 1: Satisfaction with your standard of living ranked from 0-100 (very dissatisfied to very satisfied)

(https://www.canberra.edu.au/content/dam/uc/documents/research/hri/regional-wellbeing-survey/2021/RWS2021_DataTables_v1.0.xlsx)

- Tabular data (C): ~546 rows and 14 columns (by local government area)

- Table 1: Index of relative socio-economic disadvantage ranked within state
- Table 2: Index of education and occupation ranked within state

(<https://www.abs.gov.au/ausstats/subscriber.nsf/log?openagent&2033055001%20-%20lga%20indexes.xls&2033.0.55.001&Data%20Cubes%5604C75C214CD3D0CA25825D000F91AE&0&2016&27.03.2018&Latest>)

References:

Gortan, R. (2023, June 23). Melbourne named third most liveable city in the world. *Delicious*.

<https://www.delicious.com.au/travel/travel-news/article/melbourne-named-third-most-liveable-city-world/gz3d224q>