

NSW Crime Analysis

Group 10

OUR TEAM



Anand Palaniappan Annamalai
490512753

Anand Palaniappam



Anshu Kumar
490517666

Anshu Kumar



Mohammed Saif
490278701

Mohammed Saif



Mukul Jaggi
490248379

Mukul Jaggi



Nidhi Shetty
490266030

Nidhi Shetty



Sen Yang
500032763

Sen Yang



Sunhao Zhou
490289187

Sunhao Zhou



Yeseul Yoon
490241543

Yeseul Yoon

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Based on Predictive Analysis

BACKGROUND

- Analysis conducted on crime observed in New South Wales (NSW), Australia from 1995 to 2019. Data explored here contains various offences based on local government areas (LGA) and is further classified into offence category and subcategory throughout the timeline.
- This collection of consequential crime and custody datasets is collated by the Bureau of Crime Statistics and Research on 17 major offence categories include the most serious personal violence and property offences such as assault, robbery, burglary and malicious damage and is mostly updated annually or quarterly.
- BOCSAR is a statistical and research agency within Department of Communities and Justice which develops and maintains databases on crime on NSW, researches on issues and problems and monitors trend in crimes.

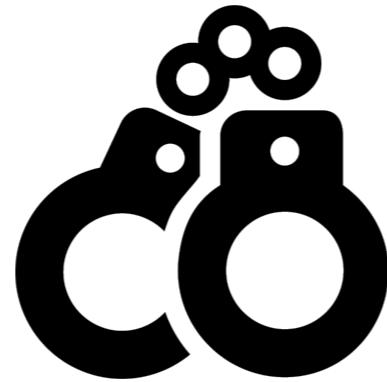


NSW Bureau of Crime Statistics and Research: Detailed Description https://www.bocsar.nsw.gov.au/Pages/bocsar_datasets/Datasets-.aspx

VALUES AND BENEFITS



Crime rates in Local Government Areas



Frequency of crime offences



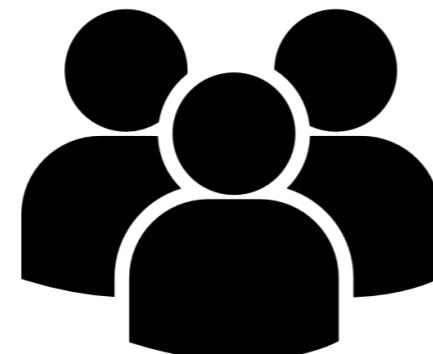
Number of people charged with criminal offences each year



Range of penalties imposed for various offences



Predictive Policing



Improve community Relations

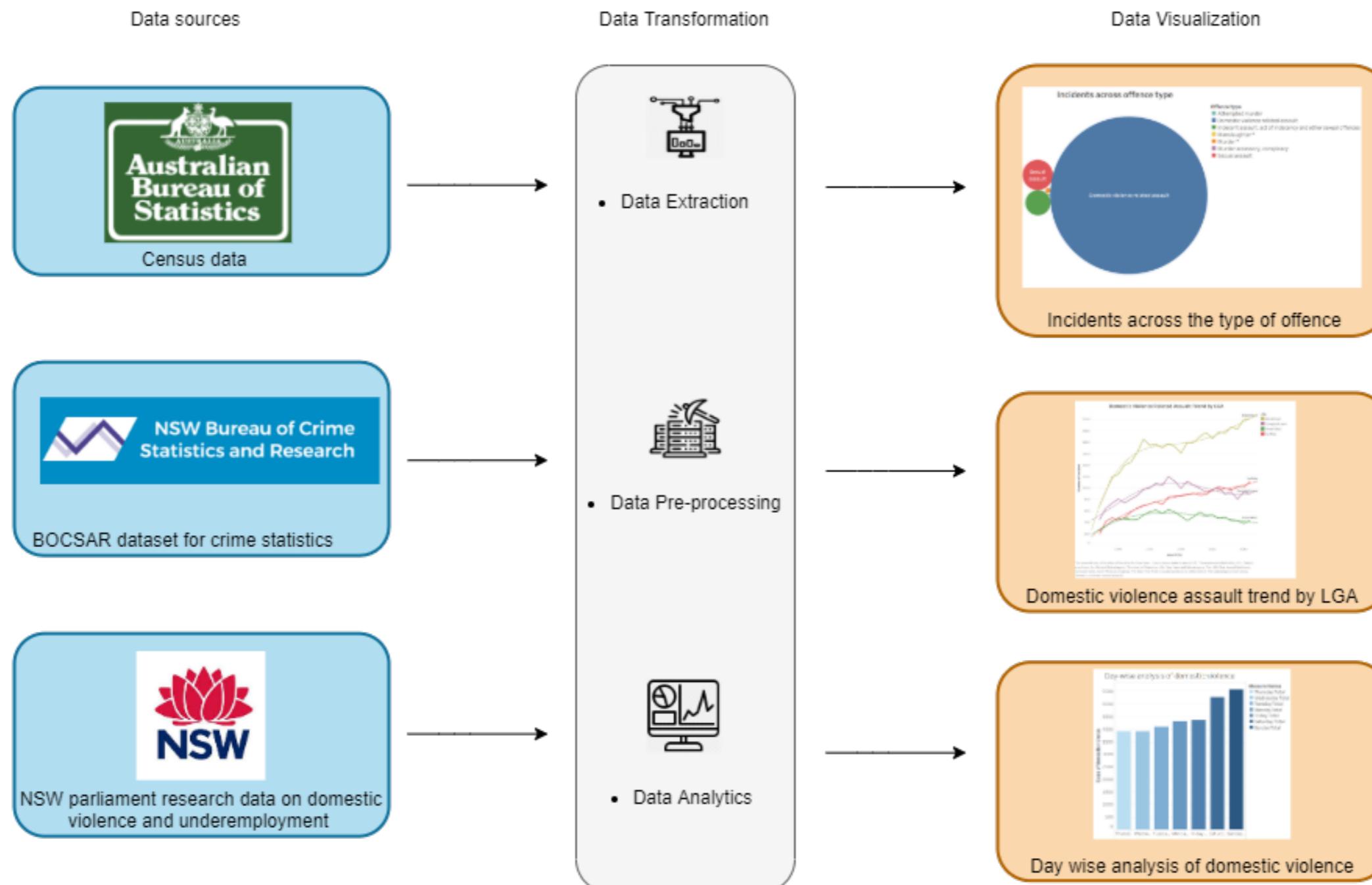


Budget and Resource Allocation

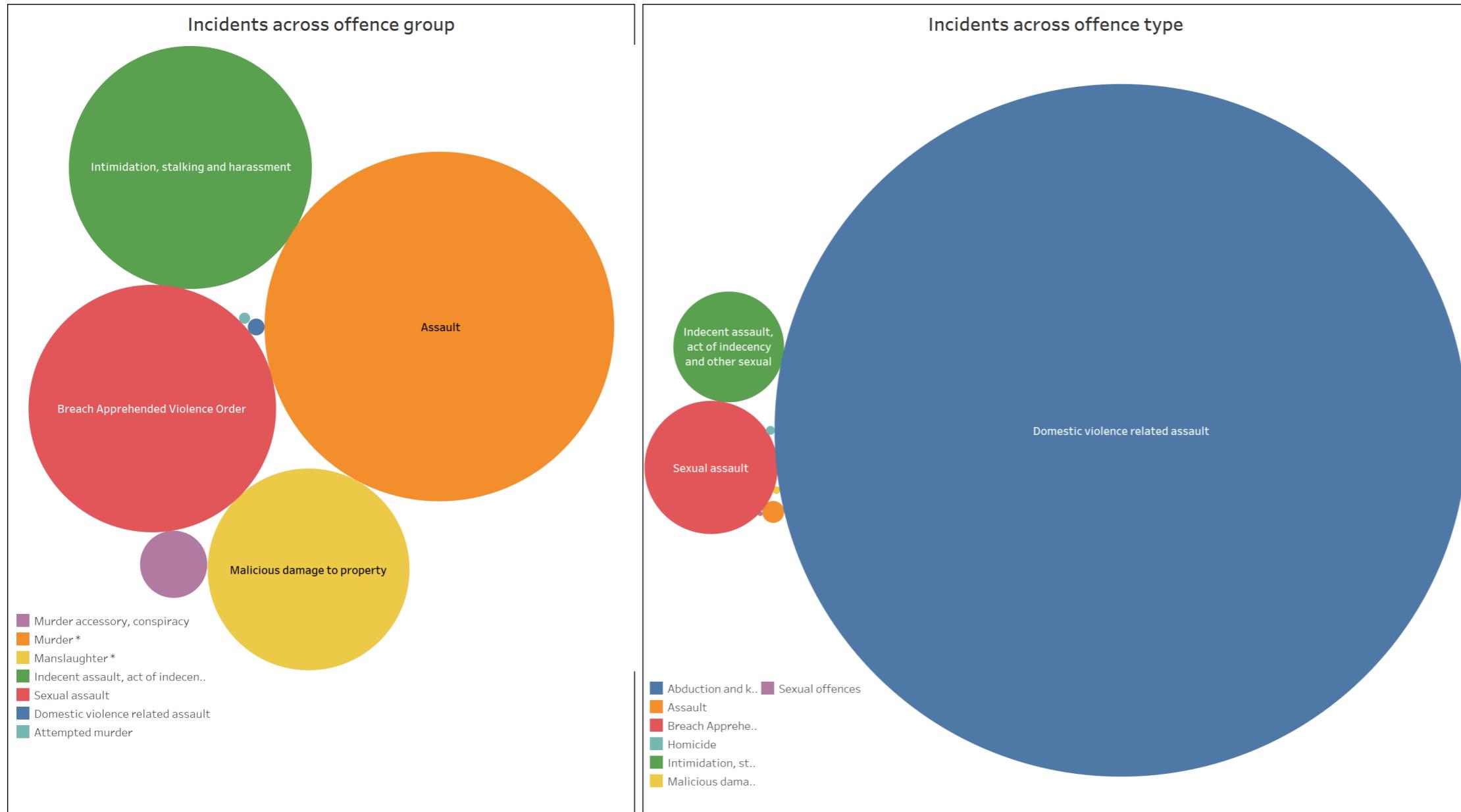


Law enforcement initiatives

Dataset review and Diagram



Categories of Crimes



- Visualizing the different Categories and Sub-Categories of Crime.
- **Assault** is the highest recorded Offence Group.
- **Domestic Violence** is the highest recorded subgroup in Assault.

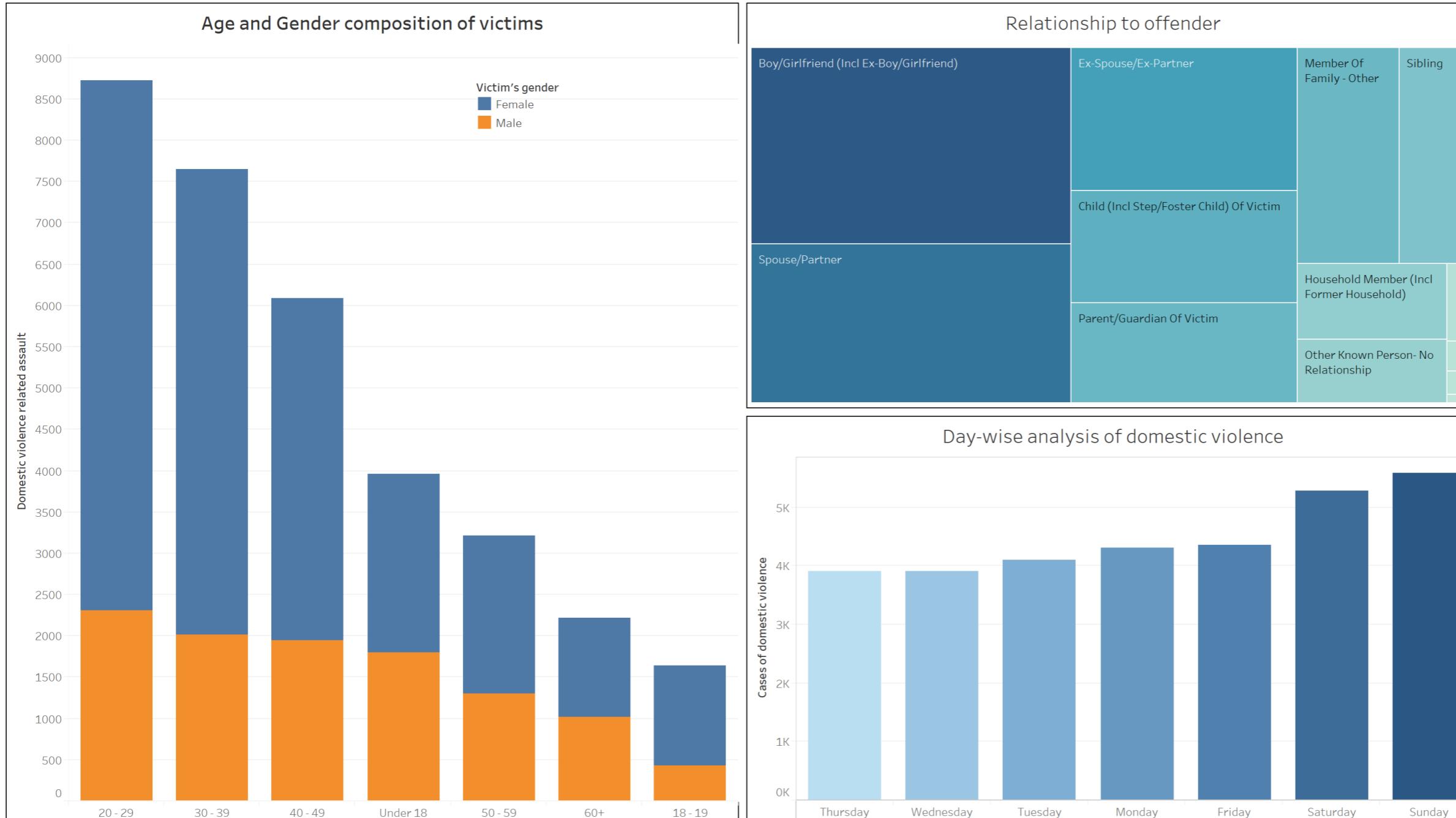
Regions of Crimes



- **Residential** Premises has significant amount of Domestic Violence recorded.

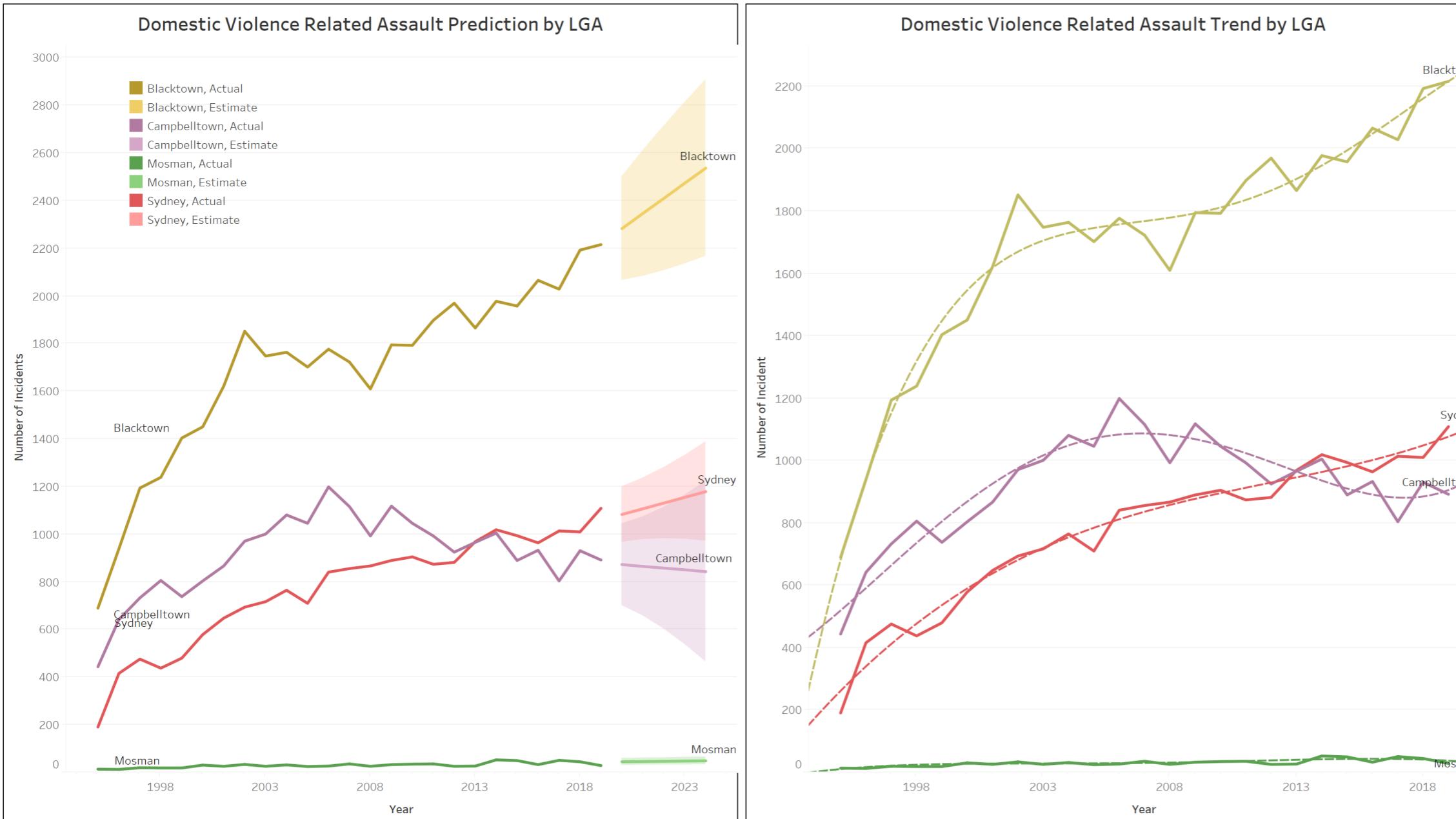
- **Blacktown** has significant amount of Domestic Violence recorded in the Residential Premises.

Attributes of Domestic Violence



- Findings – Majority of the Domestic Violence victims are **FEMALE** in **20 – 29** age group.
- Data suggests that the Individuals in **Relationship** are affected.
- **Weekends** experiences the most No. of Incidents

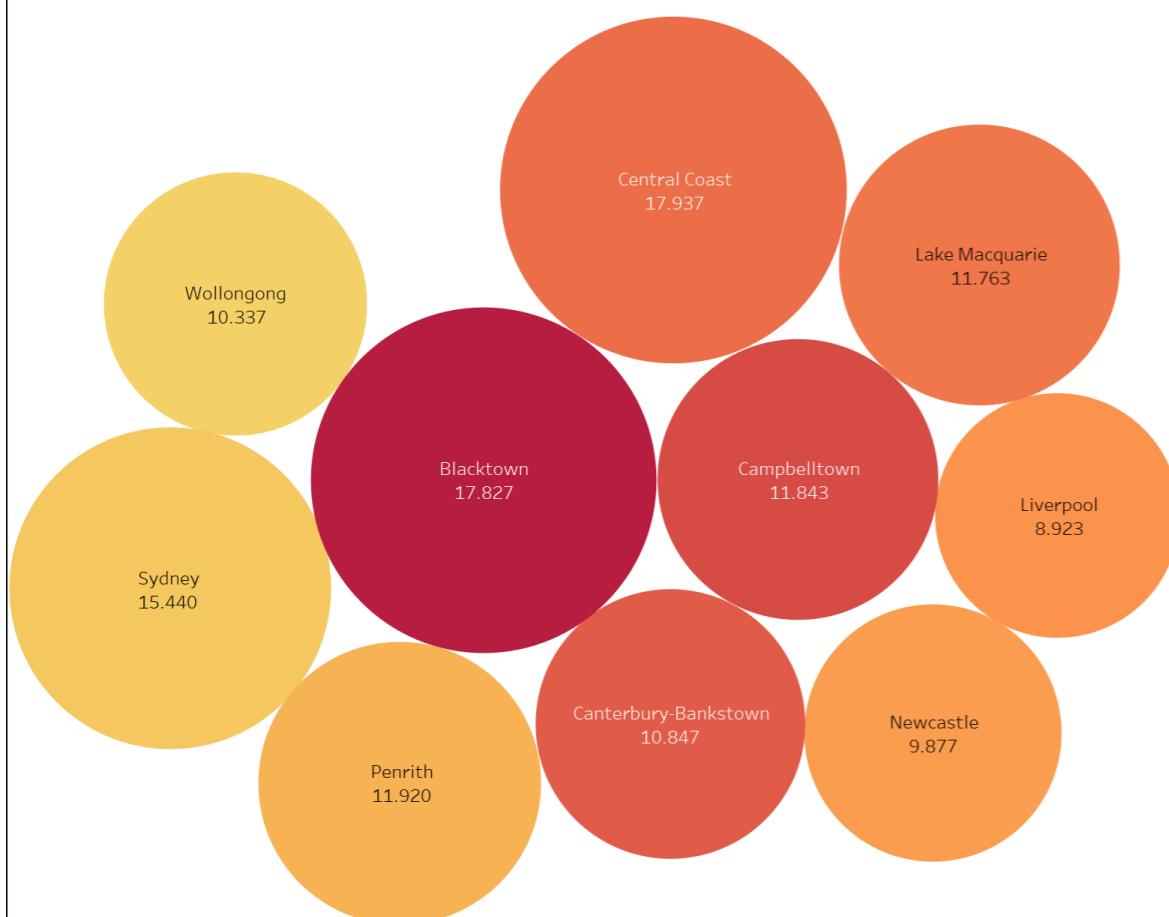
Trend and Forecast Analysis



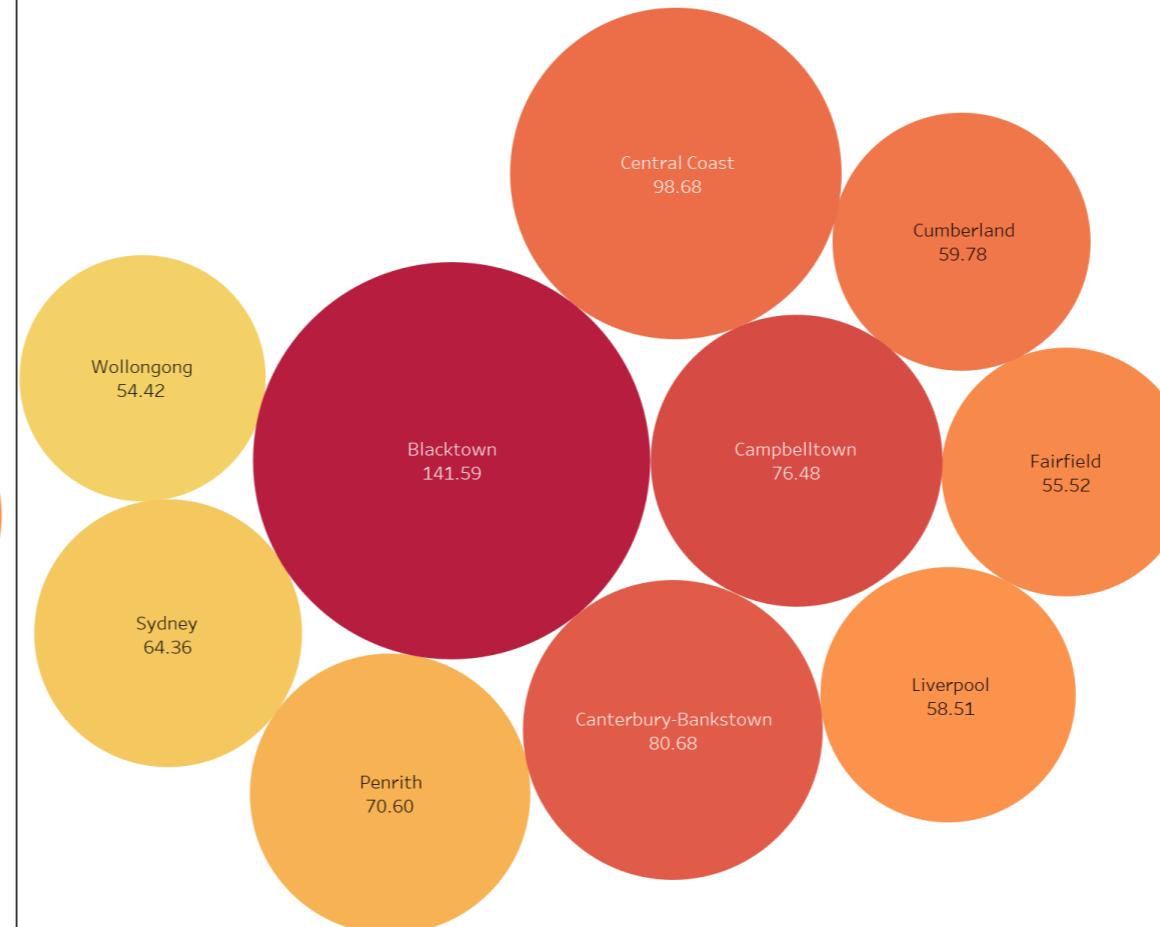
- **Blacktown** has the most No. of Domestic Violence incidents recorded.
- **Mosman** has the least No. of Domestic Violence incidents recorded.

Regions of Assaults

Average Number of Sexual Assault by LGA (1995-2019)



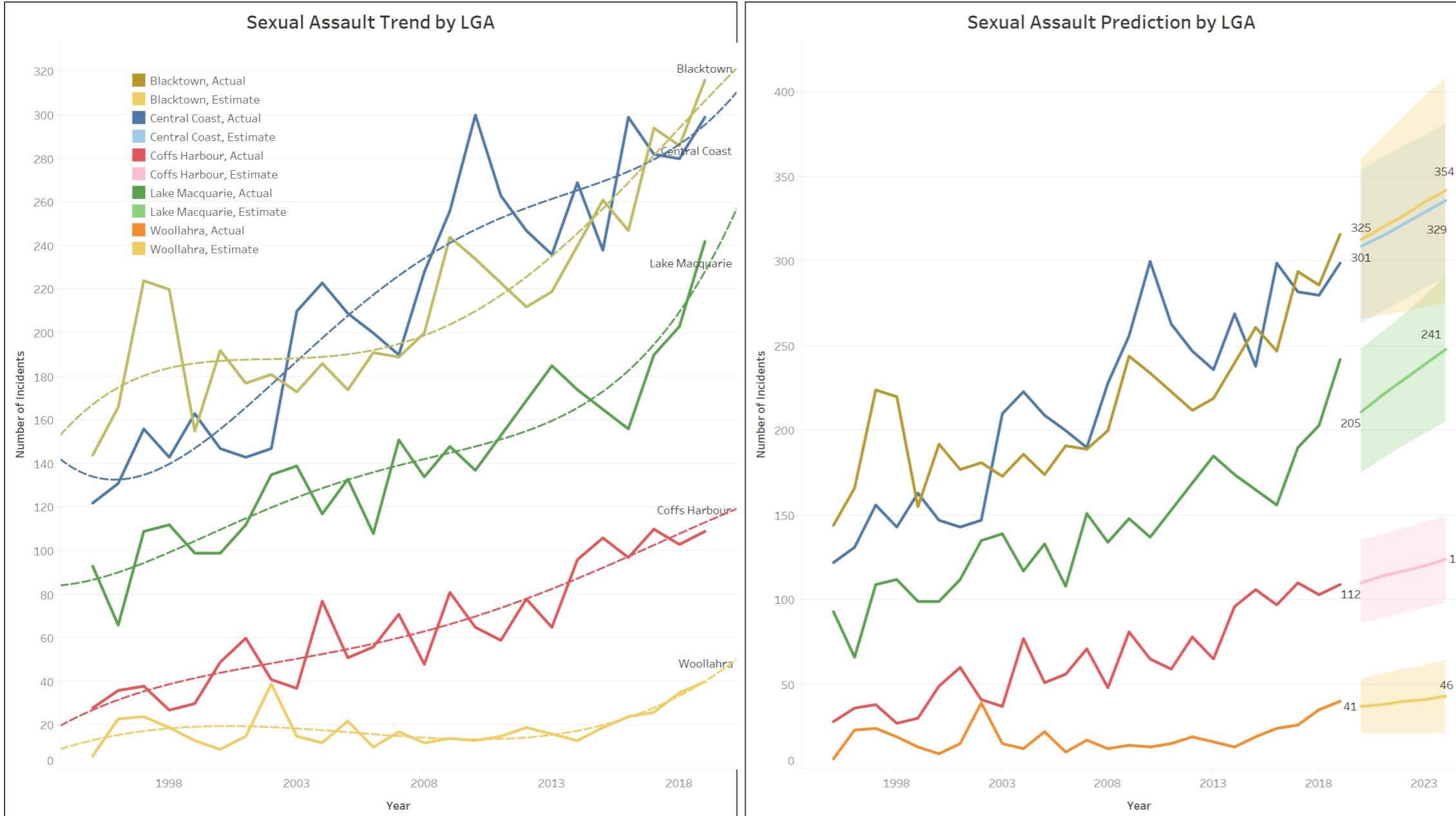
Average Number of Domestic Violence Related Assault by LGA (1995-2019)



- **Blacktown** remains in the top for the No. of Sexual Assaults as well as No. of Domestic Violence recorded.

- Same suburbs experience high levels of both the sub-categories of crime.

Trend and Forecast Analysis



- **Forecasting** suggests that the number of incidents of Sexual Assaults are expected to increase by **9%**

4 Hypothesis

Higher Crime rate

Higher Population

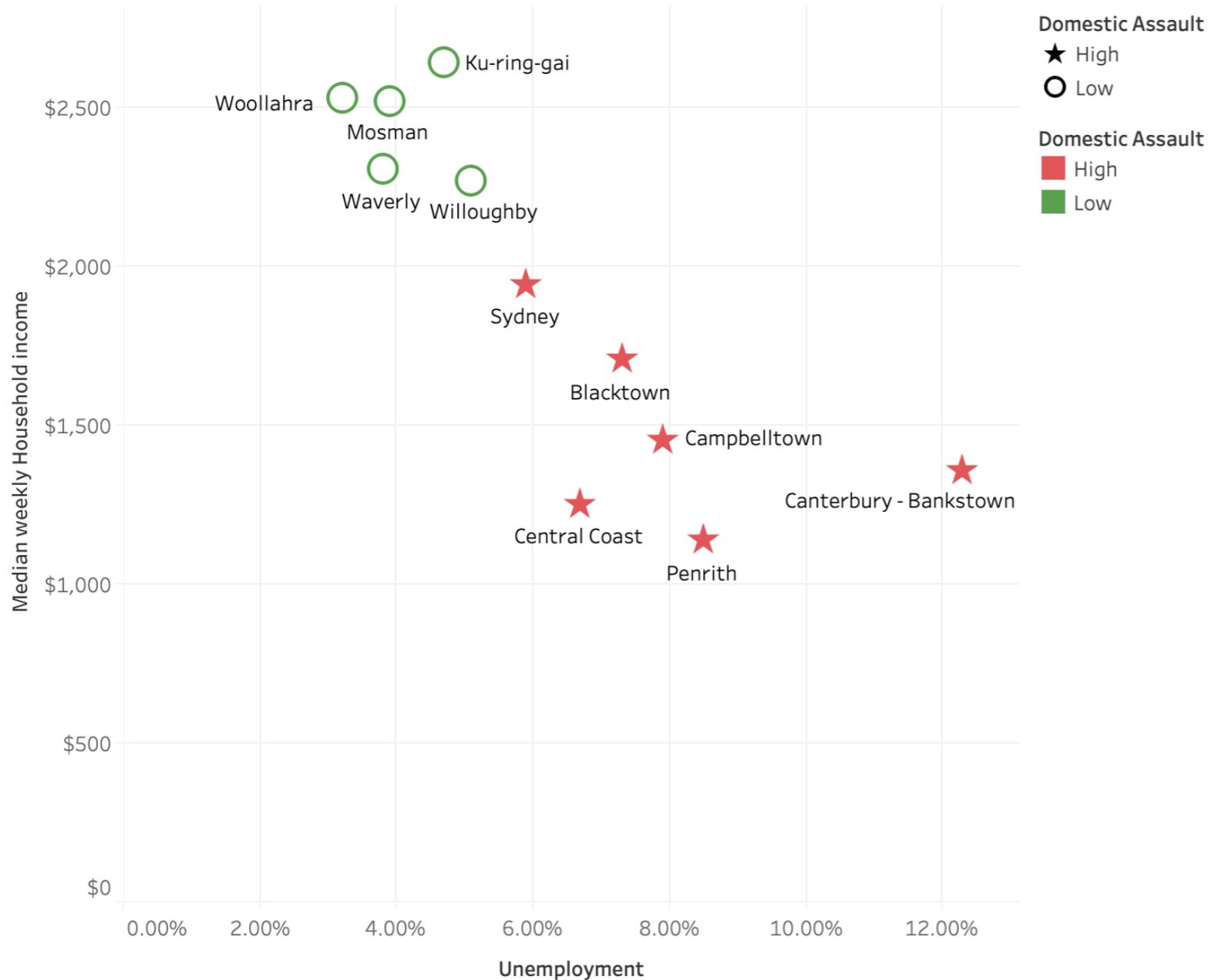
Higher Unemployment Percent

Low police resources



Comparison of Locality

Locality Comparison by Assault Frequency

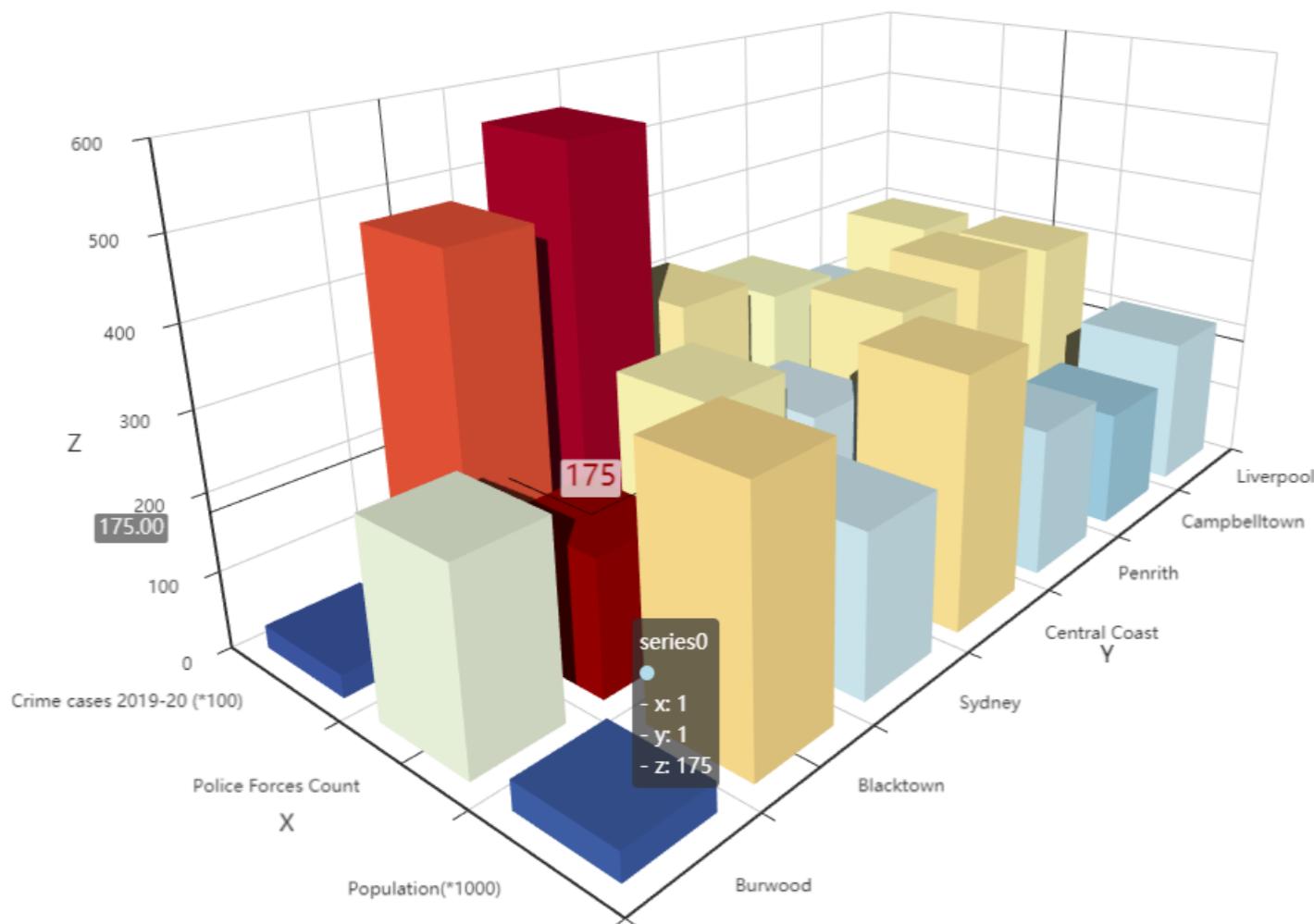


- Comparing the Income and Unemployment Dataset with Crime rate Dataset.

Supporting Our Hypothesis

Locality	Population	Median weekly Household income	Unemployment
Localities with high domestic assault			
Blacktown	336,962	\$1,712	7.30%
Central Coast	327,736	\$1,258	6.70%
Penrith	196,066	\$1,142	8.50%
Canterbury -			
Bankstown	346,302	\$1,363	12.30%
Sydney	208,374	\$1,949	5.90%
Campbelltown	157,006	\$1,459	7.90%
Localities with low domestic assault			
Mosman	28,475	\$2,522	3.90%
Woollahra	7,405	\$2,529	3.20%
Willoughby	74,302	\$2,271	5.10%
Waverly	66,812	\$2,308	3.80%
Ku-ring-gai	118,053	\$2,640	4.70%

Police Forces in LGA



Blacktown!

- High Crime rate
- High Unemployment
- High Population
- Low Police Resources

The number of police officers in Blacktown is only 175, which is relatively lower than other LGAs in terms of population and crime cases.

Comparison between different suburbs in terms of Crime cases, Population and Police Force Count.

Source: NSW Police Force 2018-19 Annual Report

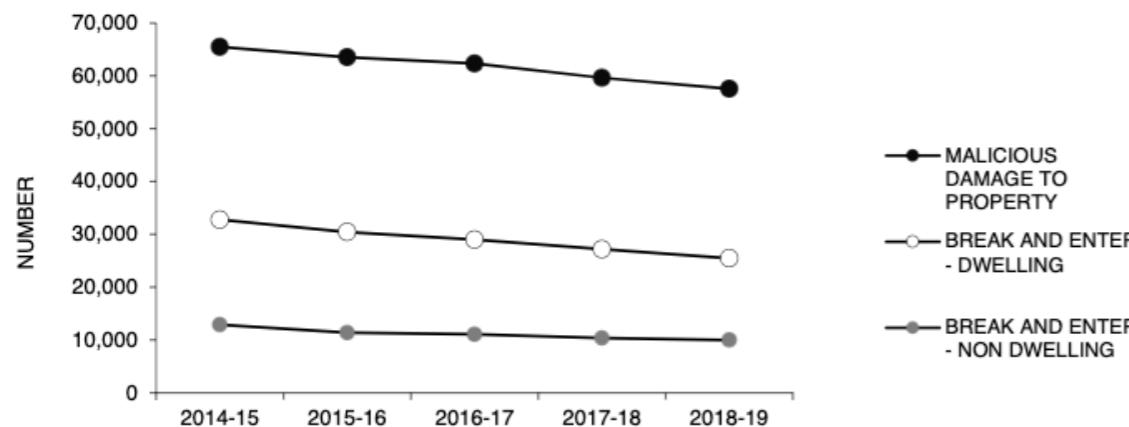
More than Police

TABLE 1: NUMBER OF INCIDENTS RECORDED FOR CRIMES AGAINST PROPERTY

Break and enter – dwelling	32,795	30,469	29,014	27,185	25,508
Break and enter – non-dwelling	12,927	11,412	11,063	10,392	9,991
Malicious damage to property	65,521	63,552	62,382	59,627	57,564
Steal from motor vehicle	42,302	39,875	40,080	38,344	38,063
Motor vehicle theft	15,099	13,230	13,423	12,947	13,244
Steal from dwelling	22,374	20,936	20,816	19,393	18,788
Steal from person	5,936	5,354	4,705	4,436	3,892
Steal from retail store	21,386	22,827	24,136	24,438	26,033

Source: NSW Bureau of Crime Statistics & Research

CHART 1: NUMBER OF INCIDENTS RECORDED FOR BREAK AND ENTER, AND PROPERTY DAMAGE



Source: NSW Bureau of Crime Statistics & Research

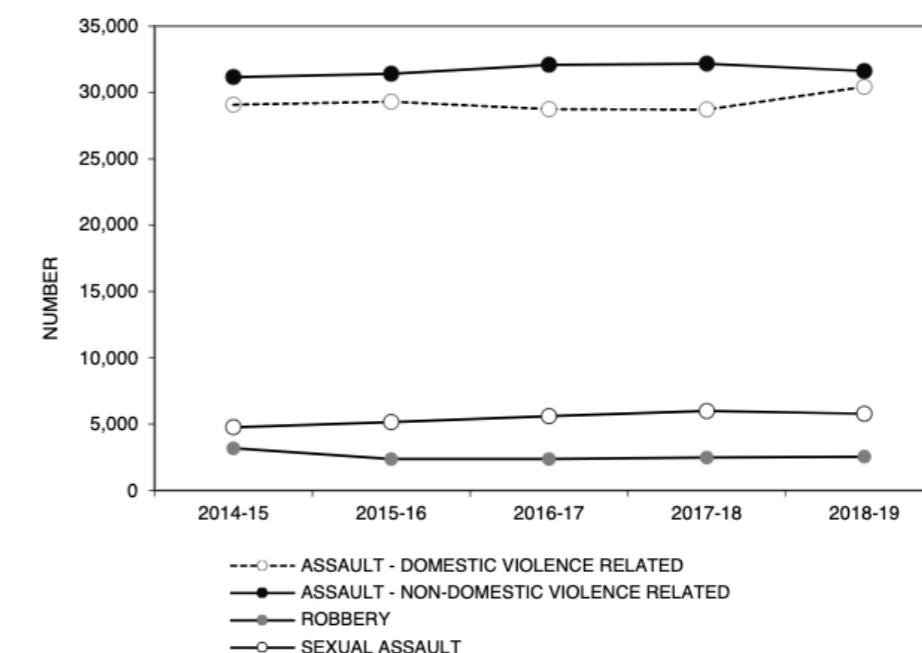
TABLE 2: NUMBER OF INCIDENTS RECORDED FOR CRIMES AGAINST PERSONS

Assault – domestic violence related	29,084	29,305	28,741	28,712	30,434
Assault – non-domestic violence related	31,163	31,425	32,089	32,171	31,614
Robbery	3,190	2,375	2,369	2,486	2,556
Sexual assault	4,765	5,159	5,615	5,989	5,778

Source: NSW Bureau of Crime Statistics & Research

Note: A non-domestic violence assault is any assault that does not have an associated factor of domestic violence.

CHART 4: NUMBER OF INCIDENTS RECORDED FOR CRIMES AGAINST PERSONS

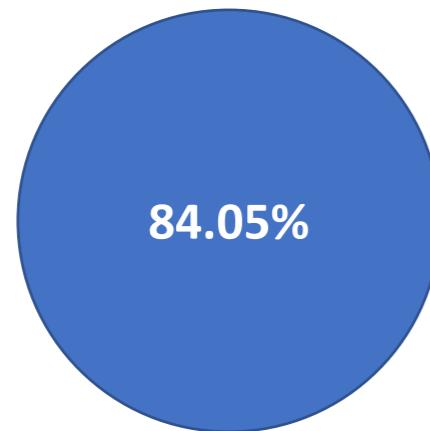


Source: NSW Bureau of Crime Statistics & Research

More than Police



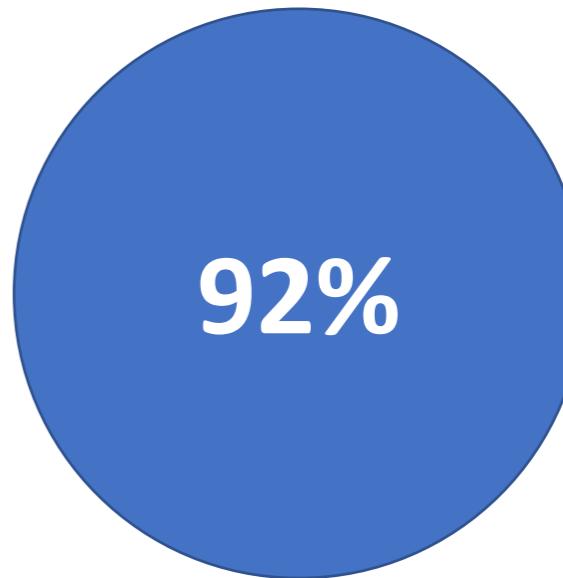
NSW Police solved 263,465 cases in 2019
with the expense of \$3,775 million



Satisfaction with most recent
contact with police



Mission Australia solved 161,595 cases in
2019 with the expense of \$291 million



Reported being very or somewhat satisfied
with the support DVNSW has given them or
their organisation



[1] Dean, K. and Toomey, J. (2019). *Mission Australia Annual Report 2019*. [online] Mission Australia. Available at: <https://www.missionaustralia.com.au/publications/annual-reports/annual-report-2019/1320-annual-report-2019/file> [Accessed 24 Jul. 2020].
[2] McDonald, J. (2017). *Domestic Violence NSW Annual Report 2016-2017*. [online] DVNSW. Available at: <http://dvnsw.org.au/wp-content/uploads/2017/12/DVNSW-2017-Annual-Report-web.pdf> [Accessed 24 Jul. 2020].
[3] Fuller APM, M. (2019). *NSW Police Force Annual Report 2018-2019*. [online] NSW Police. Available at: https://www.police.nsw.gov.au/__data/assets/pdf_file/0010/658513/NSWPF_2018-19_Annual_Report.pdf [Accessed 24 Jul. 2020].

Future Advice

- Reallocate more police resources to Blacktown
- Add more high technology devices(CCTV, drone) to the suburb
- Improve police responding speed
- Introduce more NGO/NPO on solving domestic violence
- Give more financial aids to NGO/NPO
- Learn advanced practice from other countries



Source: NSW Police Facebook page



Source: NT Police Force

Thank You