

## Trends in NSW Police clear up rates

Jessie Holmes and Jackie Fitzgerald

**Aim:** To analyse the trends in crime clear up rates and methods of proceeding against offenders over the decade from 2007 to 2016 in New South Wales (NSW).

**Method:** Data on criminal incidents cleared by police within 90 days of being recorded and data on persons of interest proceeded against by police were extracted from the NSW Police Force Computerised Operational Policing System (COPS). Kendall's trend tests were run on the annual clear up rates and number of offenders proceeded against for murder, domestic and non-domestic assault, sexual assault, indecent assault, acts of indecency and other sexual offences, robbery, break and enter dwelling and non-dwelling, motor vehicle theft, steal from motor vehicle and malicious damage to property.

**Results:** Clear up rates have increased substantially across many key offence categories over the last decade. Of the offences investigated, the largest change in clear up rates was for robbery (up 16.4 percentage points) followed by malicious damage to property (up 8.1 percentage points). There were also increases in clear up rates for stealing and property crimes as well as slight increases for domestic and non-domestic assault. There was no discernible change in clear up rates for murder or sexual offences. With the exception of domestic assault and sexual offences, the prevalence of all of the offences examined declined from 2007 to 2016 and there was a corresponding but smaller decline in the absolute number of offenders proceeded against for these offences.

**Conclusion:** Clear up rates have increased and crime rates have fallen across many key offence categories over the last decade. The combined effect of these patterns is that the drop in court workload expected from associated falling crime rates appears to have been significantly reduced by the rise in the proportion of offenders being brought before the criminal courts. The increased clear up rate is likely to improve public confidence in policing and may help deter future offending due to the increased risk of apprehension.

**Keywords:** Clear up rates, clearance rates, persons of interest, persons proceeded against, 90 days, crime trends, crime statistics.

### Introduction

New South Wales (NSW) has been experiencing falling rates of crime across a number of important offence categories for close to 16 years. The incidence of reported assault started to decline about ten years ago, while reported rates of robbery and theft offences (e.g. break-ins and motor vehicle theft) have been falling for more than 15 years.

Extensive research has shown that increasing the risk of apprehension is an effective way of reducing crime, particularly where the offence involves a degree of planning or foresight. To date, however, little attention has been paid to changes in police clear up rates despite the fact that they are both

an important indicator of the risk of apprehension and a key measure of police performance. The lack of attention given to clear up rates may be due to the fact that for many years the clear up rates for robbery and most categories of property crime changed very little (cf. NSW Bureau of Crime Statistics and Research 1995; 2005). In recent years, however, the fall in crime has occurred against a backdrop of increases in the number of people charged with criminal offences. In 2002 for example, there were 123,968 finalised criminal court appearances in NSW compared with 137,991 in 2016; that is, an increase of 11.3 per cent over 15 years. It is possible that some of this growth in persons appearing in court is a consequence of increases in the crime clear up rate.

The object of this brief is to examine trends in crime clear up rates and methods of proceeding against offenders over the last decade. We examine a sub-set of the major offences that feature in the NSW Bureau of Crime Statistics and Research (BOCSAR) quarterly crime report. The subset includes murder, domestic and non-domestic assault, sexual offences (sexual assault, indecent assault, acts of indecency and other sexual offences), robbery, break and enter (dwelling and non-dwelling), motor vehicle theft, steal from motor vehicle and malicious damage to property. These offences have been selected because they are generally reported to police rather than discovered or detected by them<sup>1</sup>. In what follows we seek to answer two specific questions:

- Has the clear up rate for the above-mentioned offences increased over the past decade?
- How has that affected the number of persons proceeded against by police over the past decade?

## Method

### Data

The study is based on criminal incidents reported to or detected by police in the ten years prior to December 2016 and recorded in the NSW Police Force's Computerised Operational Policing System (COPS). For the purposes of this brief an incident is regarded as cleared when police have taken legal action (viz. proceeded) against at least one person in relation to the incident within 90 days of the incident being reported<sup>2</sup>. The legal action can take the form of a Court Attendance Notice (CAN) but can also include a formal juvenile diversion under the Young Offenders Act (cautions, youth justice conferences and warnings) and, for relevant offences, Criminal Infringement Notices.

Statistical testing of trends was performed using Kendall's rank-order correlation test. This test was applied to the monthly number of incidents and persons of interests (or percentages) over the relevant period. Where a statistically significant result was found (i.e where  $p < .05$ ), upward trends are highlighted in red and downward trends are highlighted in yellow. No shading indicates there was no significant upward or downward trend.

## Results

### (a) Has the clear up rate changed over the past decade?

Figure 1 shows the clear up rate for violent and property offences<sup>3</sup> over the ten years to 2016. The clear up rate has increased for both violent and property crimes. While the clear up rate for property crimes is low, it has increased substantially; from 7.7 per cent in 2007 to 11.2 per cent in 2016 (an increase of 45.7% or 3.5 percentage points). The clear up rate for violent offences, though higher, has actually risen by a much

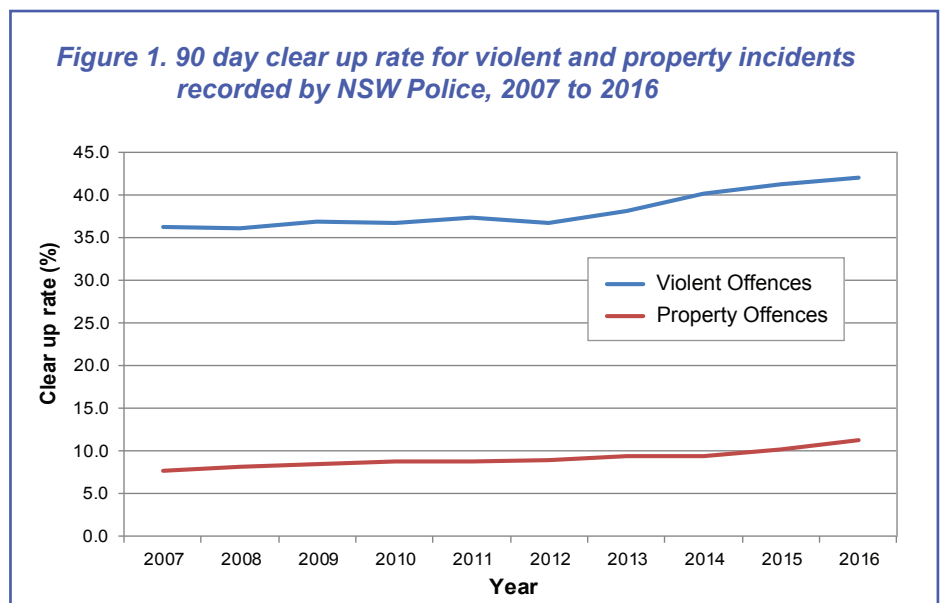
smaller proportion: up from 36.3 per cent in 2007 to 42.1 per cent in 2016 (an increase of 16.1% or 5.8 percentage points).

Table 1 shows the total number of incidents recorded and the clear up rate over the ten years to 2016 broken down by offence. The offences are ranked according to the percentage point change in clear up rates over the ten years.

Of the offences investigated, the largest change in clear up rates was for robbery (up 16.4 percentage points from a clear up rate of 16.7% in 2007 to 33.1% in 2016) followed by malicious damage to property (up 8.1 percentage points from a clear up rate of 11.6% in 2007 to 19.7% in 2016). There were also increases in the clear up rates for stealing and property crimes such as break and enter non-dwelling (up 4.2 percentage points), motor vehicle theft (up 3.7 percentage points), break and enter dwelling (up 3.3 percentage points) and steal from motor vehicle (up 1.5 percentage points). It should be noted, however, that the clear up rate for these property offences remains low and these percentage point changes are modest.

The clear up rate for domestic violence related assault also increased slightly. In 2007, 58.2 per cent of domestic assaults were cleared within 90 days, compared with 64.8 per cent in 2016; an increase of 6.5 percentage points. The clear up rate change for non-domestic assault was very slight (only 1.3 percentage points over ten years) and there was no discernible change in legal actions for murder or sexual offences over the ten years.

There is one final point about Table 1 worth mentioning. Although it is not the aim of this report to examine the impact of clear up rates on crime, all but one of the offences with a significantly increasing clear up rate showed a significant reduction in recorded incidence over the same time period. The exception is domestic violence related assault, which has increased slightly over the ten years (from 26,659 recorded incidents in 2007 to 29,108 in 2016).



**Table 1. Number of police recorded incidents and 90 day clear up rate percentages for selected offences, 2007 to 2016**

Offence	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	% point change
<b>Robbery</b>											
Incidents recorded	7454	6694	5910	5419	4869	4583	4185	3435	2701	2351	
Clear up rate (%)	16.7	19.7	20.4	22.5	24.5	25.6	27.3	28.2	32.8	33.1	16.4
<b>Malicious damage to property</b>											
Incidents recorded	107244	109467	101634	91578	87148	82770	76268	68213	64041	62796	
Clear up rate (%)	11.6	11.7	12.3	12.5	13.5	14.1	15.2	17.0	18.7	19.7	8.1
<b>Domestic violence related assault</b>											
Incidents recorded	26659	25589	26221	26154	26911	27555	28436	29203	29107	29108	
Clear up rate (%)	58.2	57.7	59.6	59.6	60.0	58.0	58.3	61.0	62.5	64.8	6.5
<b>Break and enter non-dwelling</b>											
Incidents recorded	24380	22970	19238	17067	17085	16290	14610	12797	11906	11704	
Clear up rate (%)	5.4	5.3	6.2	6.5	6.7	7.1	8.1	8.3	9.2	9.7	4.2
<b>Motor vehicle theft</b>											
Incidents recorded	26649	24489	22359	20301	19624	18314	15969	14917	14130	13118	
Clear up rate (%)	4.5	4.6	4.8	4.7	5.2	5.7	5.9	5.9	6.8	8.3	3.7
<b>Break and enter dwelling</b>											
Incidents recorded	46657	44348	41621	41252	39546	40611	35278	33988	31628	29705	
Clear up rate (%)	4.5	5.0	5.0	5.0	5.7	5.9	6.5	6.6	7.3	7.8	3.3
<b>Steal from motor vehicle</b>											
Incidents recorded	62124	57863	47058	44777	48233	47140	44816	42753	39980	40501	
Clear up rate (%)	1.8	1.8	2.2	2.1	2.2	2.4	2.4	2.6	2.8	3.4	1.5
<b>Non-domestic violence related assault</b>											
Incidents recorded	42013	42818	40635	39876	37378	35595	34097	31775	30855	31675	
Clear up rate (%)	26.9	26.8	26.9	26.2	26.5	25.7	26.7	27.2	28.4	28.1	1.3
<b>Indecent assault, act of indecency and other sexual offences</b>											
Incidents recorded	5141	5214	5356	5323	5935	5803	6469	6583	6827	6903	
Clear up rate (%)	18.9	18.5	17.9	18.0	14.8	15.8	18.0	19.4	18.0	20.2	1.2
<b>Murder *</b>											
Incidents recorded	83	82	87	79	89	69	88	89	69	63	
Clear up rate (%)	67.5	64.6	62.1	75.9	73.0	59.4	64.8	64.0	52.2	68.3	0.8
<b>Sexual assault</b>											
Incidents recorded	4059	4180	4453	4510	4489	4765	4712	4971	4933	5117	
Clear up rate (%)	11.8	12.4	10.2	9.4	9.1	9.3	9.5	11.8	10.2	11.9	0.0

\* Victims, not incidents

**(b) How has the number of persons proceeded against by police changed over the past decade?**

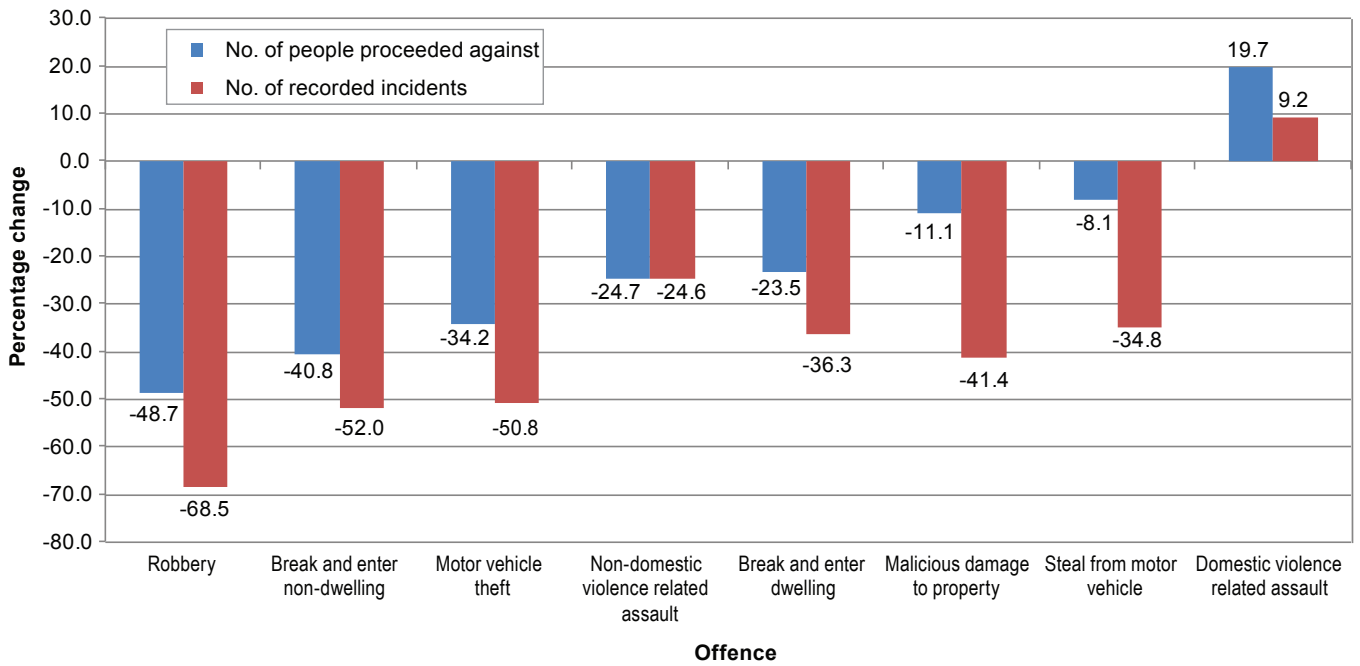
Small changes in the clear up rate for high volume offences can have a significant impact on the number of people coming before the courts.

For offences with increasing clear up rates, Figure 2 compares changes in the number of people proceeded against with changes in the number of recorded incidents from 2007 to 2016 (see Appendix 1 for data). As discussed above, most of these offences have been in decline for the past ten years. All offences that have declined in prevalence have also had a decline in the absolute number of offenders proceeded against. However,

due to the increase in clear up rates, the number of offenders proceeded against has fallen less than would be expected given the decline in the number of incidents (with the exception of non-domestic assault where the decrease in incidents mirrors the decrease in the number of offenders proceeded against). For instance, the number of recorded incidents of malicious damage to property fell by 41.4 per cent but the number of persons of interest proceeded against only fell by 11.1 per cent.

Domestic violence related assault shows a different pattern. The number of recorded incidents increased by 9.2 per cent over the ten years to 2016 however the number of legal actions rose by twice that (almost 20%) due to the increased clear up rate.

**Figure 2. Percentage change in people proceeded against by NSW Police and in recorded incidents, 2007 compared to 2016**



*\*Only offences with significantly higher clear up rates are displayed.*

Thus for most of the offences examined, the combination of falling crime rates and rising clear up rates has resulted in only a modest decline in the court workload as measured by the number of offenders being brought before the criminal courts.

## Conclusion

Clear up rates have increased substantially across many key offence categories over the last decade. In 2016 the likelihood of apprehension for robbery, malicious property damage, domestic violence assault, break and enter, motor vehicle theft, stealing from a motor vehicle and non-domestic assault was considerably higher than ten years earlier. The improvements range from less than one percentage point (in the case of murder) to more than 16 percentage points (in the case of robbery).

Some possible reasons for the improvements in clear up rates include:

- Improved forensic procedures and new technologies that offer new ways of identifying offenders;
- Establishment and growth of the National Criminal Investigation DNA database;
- An increase in the time available to investigate crime (fewer crimes but similar numbers of police); and
- Increased focus for some offences (e.g. domestic assault) on raising the clear up rate (see, for example, NSW Police 2013).

It is not clear why some offences have not seen improvements in their clear up rates. In particular, the clear up rates for sexual

assault and acts of indecency/indecent assault as well as murder have remained relatively unchanged over the last decade.

The benefits of increased clear up rates are manifold. A rise in clear up rates can be expected to strengthen public confidence in police. Victims will no doubt be comforted by the knowledge that a higher proportion of offenders are being caught and punished for their wrong-doing. Since the risk of apprehension is important in deterring offending (see for instance Wan, Moffatt, Jones and Weatherburn 2012) the increase in crime clear up rates can be expected to produce a consequential reduction in crime. The only untoward effect of rising clear up rates is that the drop in court workload that might have been expected from falling crime rates has been significantly offset by the rise in the proportion of offenders being brought before the criminal courts.

## Acknowledgements

Special thanks to Don Weatherburn for his helpful comments and feedback on earlier versions of this brief. Thank you also to Florence Sin for desktop publishing the report.

## Notes

3. The clear up rate for offences discovered by police is always 100 per cent or close to it.
4. This paper equates a legal action within 90 days of the incident report as an indication that an incident is 'cleared up'. This is different to the way police use the term 'cleared up' internally which can include incidents where a legal action is undesirable or not possible.

5. Violent offences include: murder, attempted murder, manslaughter, assault - domestic violence related, assault - non-domestic violence related, assault police, robbery without a weapon, robbery with a firearm, robbery with a weapon not a firearm, sexual assault and indecent assault / act of indecency / other sexual offences. Property offences include: break and enter dwelling, break and enter non-dwelling, motor vehicle theft, steal from motor vehicle, steal from retail store, steal from dwelling, steal from person, stock theft, other theft and fraud.

## References

NSW Police Force 2013 Code of Practice for the NSW Police Force response to Domestic and Family Violence [http://www.police.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0016/165202/domestic-and-family-violence-code-of-practice.pdf](http://www.police.nsw.gov.au/__data/assets/pdf_file/0016/165202/domestic-and-family-violence-code-of-practice.pdf)

Wan, W. Y., Moffatt, S., Jones, C., & Weatherburn, D. (2012). The Effect of Arrest and Imprisonment on Crime. Crime and Justice Bulletin 158. Sydney: NSW Bureau of Crime Statistics and Research.

## Appendix

### Appendix 1. Number of people proceeded against by NSW Police for selected offences, 2007 to 2016

Offence	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	% change in people proceeded against	% change in recorded incidents
Indecent assault, act of indecency and other sex offences	1347	1344	1299	1279	1224	1258	1613	1733	1641	1732	28.6	34.3
Domestic violence related assault	16343	15507	16427	16252	16855	16785	17398	18579	19010	19559	19.7	9.2
Steal from motor vehicle	1990	1904	1750	1534	1621	1663	1597	1640	1644	1829	-8.1	-34.8
Malicious damage to property	15567	15792	14970	13492	13618	13347	13331	13348	13714	13834	-11.1	-41.4
Sexual assault	976	1009	900	731	825	845	875	1049	840	862	-11.7	26.1
Break and enter dwelling	4495	4584	4159	4118	4022	4051	3936	3675	3730	3440	-23.5	-36.3
Non-domestic violence related assault	14527	14763	13999	13278	12490	11607	11586	10888	10938	10932	-24.7	-24.6
Motor vehicle theft	2424	2330	2109	1869	1851	1871	1679	1528	1706	1596	-34.2	-50.8
Murder	91	86	123	131	102	66	98	92	67	54	-40.7	-24.1
Break and enter non-dwelling	3187	3031	2697	2483	2368	2369	2367	2129	2029	1888	-40.8	-52.0
Robbery	2447	2557	2298	2326	2251	2154	2058	1709	1503	1255	-48.7	-68.5