

## Long-term trends in property and violent crime in New South Wales: 1990-2004

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*This bulletin describes trends in the recorded incidence of major categories of property and violent crime between 1990 and 2004 in New South Wales. Crime statistics recorded by police show that the recorded rates of assault and sex offences have increased significantly over the past 15 years. The rates of robbery without a weapon and robbery with a weapon other than a firearm both increased throughout the 1990s but have since fallen substantially. The two other personal crimes considered, murder and robbery with a firearm, both showed consistent reductions over the 15 years. For property offences, the recorded rate of break and enter – dwelling, break and enter – non-dwelling and motor vehicle theft increased throughout the mid to late 1990s. Since 2001, however, there have been sharp declines in the rates of these offences so that they are now at their lowest levels in 15 years.*

### INTRODUCTION

The annual crime statistics report published by the NSW Bureau of Crime Statistics and Research presents monthly trends in recorded crime for all offence categories over the preceding two years. This period was chosen because most people are more interested in trends in crime in the recent past than they are in trends over a decade or more. Short-term trends in crime, however, can sometimes give a misleading picture of longer-term trends. The aim of this bulletin, therefore, is to give some insight into the longer term trends in crime in New South Wales (NSW) by examining police recorded crime data over a period of 15 years, from 1990 to 2004.

The bulletin is divided into two sections. The first section reports 15-year trends in personal crime. The offences included in this section of the report are *murder, assault, sexual assault, other sexual*

*offences and robbery.* The second section presents trend data on property crime, which includes the offences of *break and enter – dwelling, break and enter – non-dwelling and motor vehicle theft.* With the exception of murder, the data presented in this bulletin refer to the number of police recorded criminal incidents per 100,000 population. For murder, rates are calculated on the numbers of murder victims per 100,000 population. Rates per 100,000 are presented because of the need to take account of increases in the NSW population over the 15-year period examined.

### DATA SOURCES

Data from NSW Police's Computerised Operational Policing System (COPS) have been used to calculate offence rates for the period 1995-2004. COPS is the primary source of data for recorded

crime in NSW and was introduced in April 1994. When a criminal event is reported or detected, police enter information about one or many incidents associated with the event directly into COPS. The NSW Bureau of Crime Statistics and Research receives a regular download of COPS data for reporting purposes. Prior to COPS becoming operational in NSW, a different computing system (Crime Information and Intelligence System, CIIS) was used by NSW Police to record crime data. Police did not directly enter information into CIIS but instead completed paper forms reporting on the criminal event, which were then sent to a central office for processing. This change in procedure affected the recording of some criminal incidents in the months following the introduction of the new system and the change has therefore been noted in all relevant graphs. Criminal incident data for 1994 and for the years prior to the introduction of COPS have

been taken from the Bureau's recorded crime statistics report series, *NSW Recorded Crime Statistics*.<sup>1</sup>

One limitation of recorded crime data is that they necessarily include only crimes that come to the attention of the police and not all criminal acts are reported to the authorities. As such, fluctuations in the number of criminal incidents recorded by police could reflect a real change in the incidence of these types of crimes or, alternatively, a change in the level of reporting of these offences. Recorded crime may also be influenced by changes in police procedures or recording systems, rather than changes in the incidence of criminal behaviours. Where changes in recorded crime might reflect changes in public reporting or police recording of crime (e.g. *assault*, *sexual assault*), we compare recorded crime data to the results of a regular crime victim survey carried out on behalf of the NSW Bureau of Crime Statistics and Research and the NSW Police by the Australian Bureau of Statistics.<sup>2</sup>

## PERSONAL CRIME

### MURDER

Figure 1 shows the number of *murder* victims in NSW per 100,000 population from 1990 to 2004. There has been a steady downward trend in the NSW *murder* rate over this 15-year period, a trend that is statistically significant (Kendall's tau = -0.68;  $p < 0.01$ ). From 1990 through to 2004, the *murder* rate in NSW halved, with two *murders* per 100,000 population recorded in 1990 compared with just one *murder* per 100,000 population recorded in 2004. Much of the decline in the *murder* rate during this period has occurred in the last five years, with the rate per 100,000 population decreasing by 46 per cent from 1999 to 2004. Having said this, it should be noted that the *murder* rate recorded in 2004 was unusually low compared to previous years.

Figure 1: NSW murder rate, 1990-2004

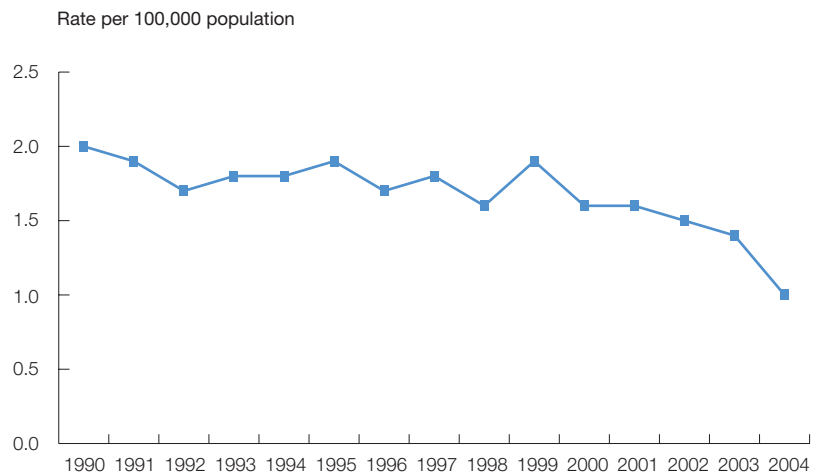
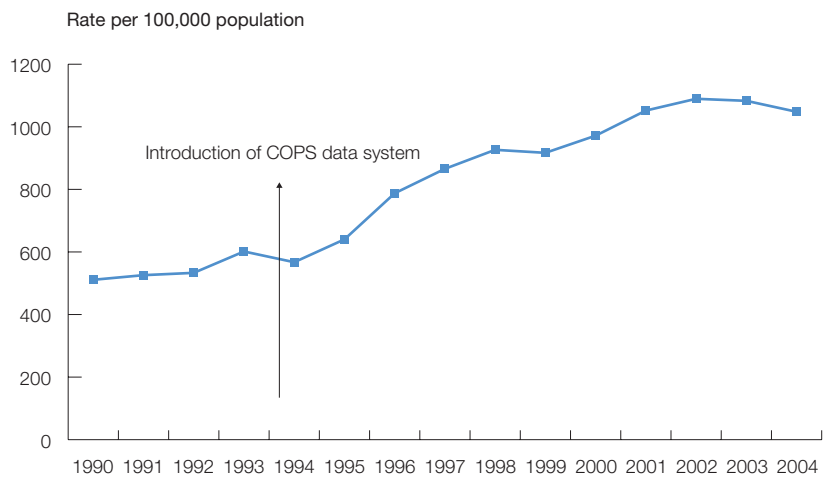


Figure 2: NSW assault rate, 1990-2004



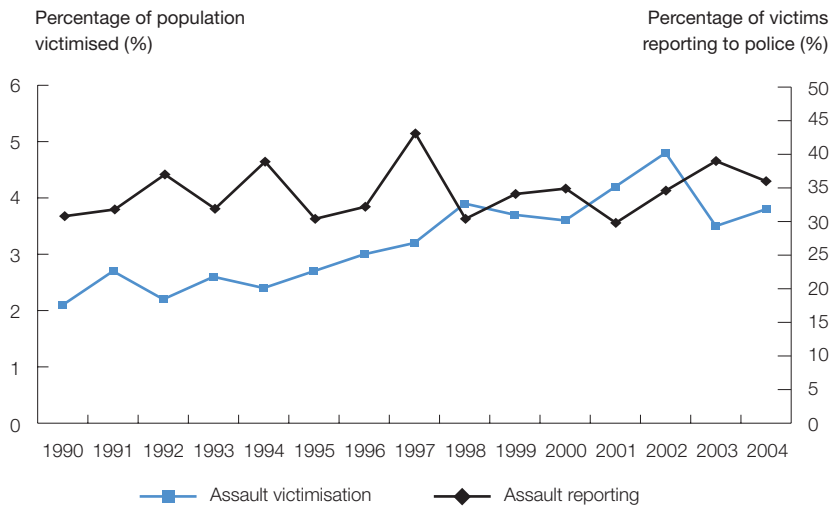
### ASSAULT

Figure 2 shows the number of recorded *assault* incidents per 100,000 population from 1990 to 2004. Unlike murder, there has been a significant upward trend in the *assault* rate in NSW over this period (Kendall's tau = 0.89;  $p < 0.01$ ). In the early 1990s the recorded *assault* rate was about 500 incidents per 100,000 population. However, by 2001 the recorded *assault* rate had climbed to over 1,000 incidents per 100,000 population. Since 2002, the *assault* rate has fallen

slightly. The net increase in recorded rates of *assault* over the entire 15-year period examined was 105 per cent.

While these data suggest that there has been a significant rise in interpersonal violence in NSW over the last 15 years, this increase in recorded criminal incidents could be due to a greater willingness of *assault* victims to report the incident to police. To assess this possibility we turn to the results of the annual crime victim survey carried out by the Australian Bureau of Statistics.

**Figure 3: Assault victimisation rates and percentage of victims reporting to police, NSW, 1990-2004**



Source: Australian Bureau of Statistics (1995, 1999a, 2000, 2004)

assaults to police has remained relatively stable over this 15-year period, at between 30 and 40 per cent (except in 1997 where the rate was slightly higher at 43 per cent). The increase in recorded rates of assault therefore appears to reflect a genuine increase in the incidence of assault.

**SEXUAL ASSAULT AND OTHER SEXUAL OFFENCES**

The trend in the recorded rate of *sexual assaults* per 100,000 population is shown in Figure 4. The trend in the recorded rate of *other sexual offences* is also shown in this figure.<sup>3</sup>

There was a statistically significant upward trend in the recorded crime rate of both offence types over the 15-year period examined (Kendall's tau (*sexual assault*) = 0.71,  $p < 0.01$ ; Kendall's tau (*other sexual offences*) = 0.49,  $p = 0.01$ ). The net increase between 1990 and 2004 in the case of *sexual assault* was 132 per cent. In the case of *other sexual offences* it was 85 per cent. In both cases, however, most of the increase occurred in the mid to late 1990s. After 1997 the recorded rate of *sexual assault* fell back from 57.4 incidents to around 50.0 incidents per 100,000, before slowly increasing to over 60 incidents per 100,000 persons. The recorded rate of *other sexual offences*, on the other hand, fell back from 98.1 to around 80 incidents per 100,000 of population, whereupon it has remained relatively stable.

These trends, however, should be treated with a great deal of caution. Only a very small proportion of sexual assaults are reported to the police. Changes in the willingness of victims of sexual offences to report them to police could easily account for the trends shown in Figure 4. It is impossible to check this by comparing police data to crime victim survey data because the survey based estimates of incidence and reporting of sexual assault are too low in NSW to be regarded as reliable (see Australian Bureau of Statistics 2004, p.5).

**Figure 4: NSW sexual offence rates, 1990-2004**

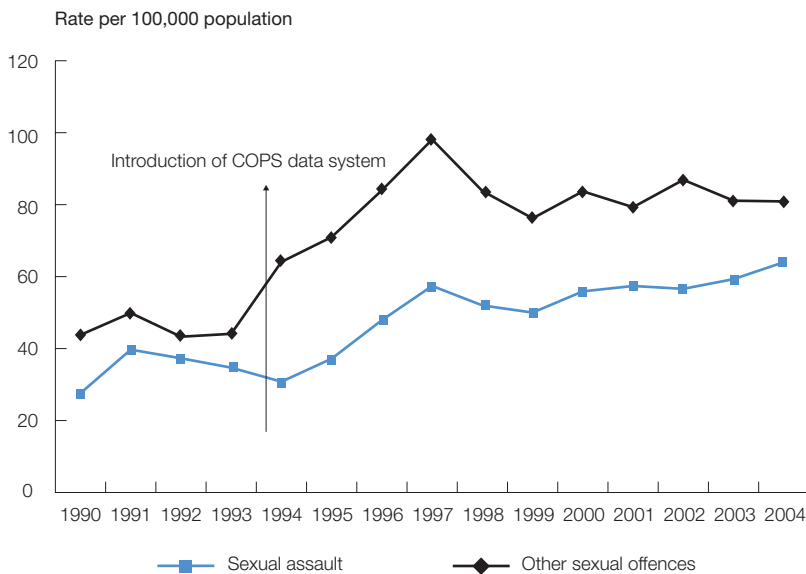


Figure 3 shows the percentage of people in NSW who were victims of an assault in a 12-month period and the percentage of these assault victims who reported the incident to police, for each year between 1990 and 2004. As can be seen from Figure 3, assault victimisation prevalence rates have generally followed the same pattern as police recorded assault

incidents over this time, increasing from around 2.5 per cent in the early 1990s to above 4.0 per cent in 2001. Moreover, after peaking at 4.8 per cent in 2002 the assault victimisation rate has fallen in recent years. The suggestion that the police data in Figure 2 reflect a real increase in assault is further supported by the fact that the level of reporting of

**ROBBERY**

Figure 5 shows trends in the recorded rates of robbery without a weapon, robbery with a weapon not a firearm and robbery with a firearm over the period 1990-2004.

Over the 15 years examined, recorded rates of robbery without a weapon increased significantly (Kendall's tau = 0.56,  $p < 0.01$ ) as did recorded rates of robbery with a weapon not a firearm (Kendall's tau = 0.43,  $p = 0.03$ ). The net changes between 1990 and 2004 were 43 per cent and 45 per cent, respectively. The upward trend, however, has been anything but uniform. The recorded rate of robbery without a weapon more than doubled between 1990 and 2001 but between 2001 and 2004 the recorded rate of this offence fell by 39 per cent, from 122.5 per 100,000 of population to 74.3 per 100,000 of population. A similar trend is also apparent for the offence of robbery with a weapon not a firearm. Between 1990 and 2001, the recorded rate of robbery with a weapon not a firearm almost tripled. Since 2001 however, the recorded rate of this offence has halved.

A quite different pattern is apparent for robbery with a firearm. The recorded rate of this offence is significantly lower now than it was in 1990 (Kendall's tau = -0.47,  $p = 0.02$ ). In fact by 2004, the recorded incident rate of this offence was a little more than half what it had been in 1990.

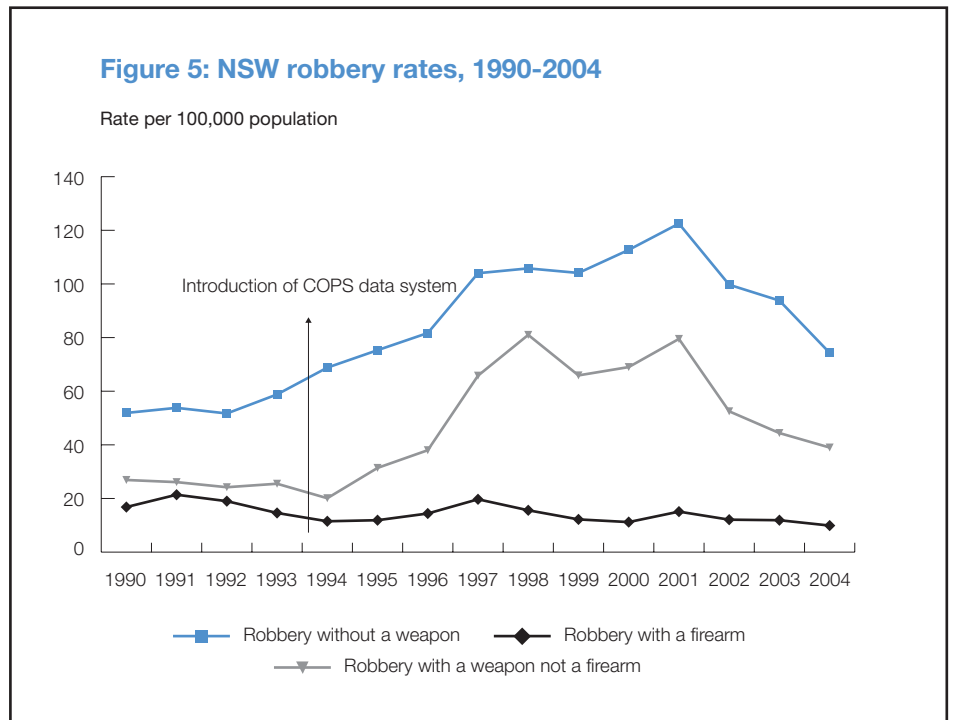
We cannot check police data for robbery against crime victim survey data over the full period 1990 to 2004 because the Australian Bureau of Statistics changed the way they defined robbery in 1997. Figure 6, however, shows the trend in robbery victimisation rates and the percentage of persons reporting robbery to police over the period 1998 to 2004. These data are consistent with recorded crime data in showing a decline in robbery offences. As can be seen from Figure 6, after peaking at 1.2 per cent in 1999, the robbery victimisation rate has declined to below 1.0 per cent of persons

in NSW. This decrease in victimisation rates is particularly noteworthy given that a slightly higher percentage of victims indicated in the 2002 and 2003 surveys that they had reported the robbery to police compared to the percentage recorded in previous years.

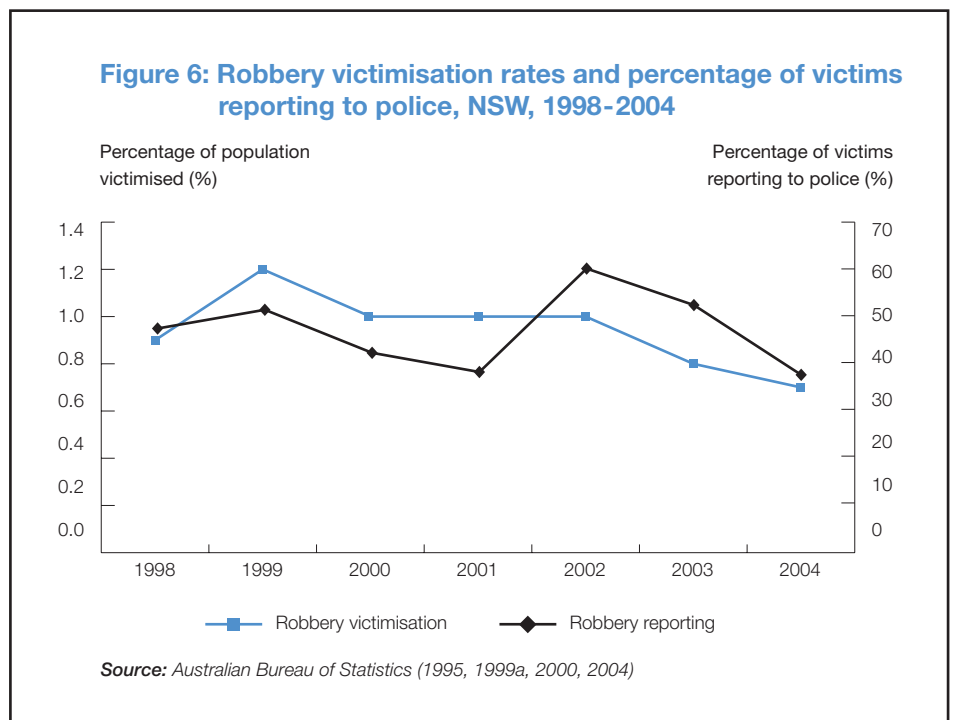
**PROPERTY CRIME**

Figure 7 shows trends in the recorded rates of three major theft categories: break and enter – dwelling, break and enter – non-dwelling and motor vehicle theft.

**Figure 5: NSW robbery rates, 1990-2004**



**Figure 6: Robbery victimisation rates and percentage of victims reporting to police, NSW, 1998-2004**



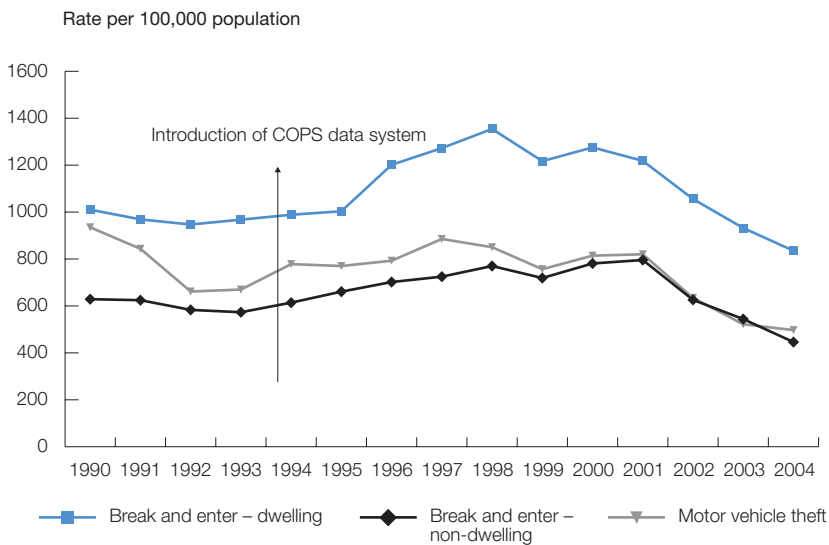
Source: Australian Bureau of Statistics (1995, 1999a, 2000, 2004)

As seen from this figure, crime rates for each of these theft categories fell slightly in the early part of last decade but from about 1993 onwards began to increase. The increase was particularly marked in the case of *break and enter – non-dwelling*, which rose by 39 per cent between 1993 and 2001. From 2001

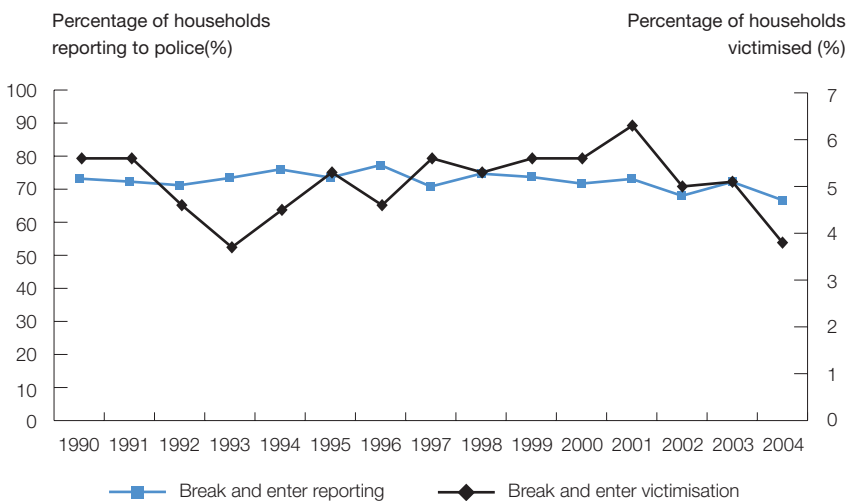
onwards, however, all three offences began to fall sharply, with *break and enter – dwelling* falling by 31 per cent, *break and enter – non-dwelling* falling by 44 per cent and *motor vehicle theft* falling by 39 per cent. Recorded rates of these offences are now at their lowest levels in 15 years.

The reliability of recorded crime data as an indication of trends in property crime is much higher than for personal crime because, as shown in Figures 8 and 9, a large proportion of burglaries and almost all motor vehicle thefts are reported to police. Reporting levels for these property crimes have also remained relatively stable during the 15-year study period, at around 70 per cent for burglary and around 95 per cent for motor vehicle theft. It is not surprising then that victim survey data are consistent with recorded crime data in showing recent declines in property theft. For break and enter offences, there was an upward trend in victimisation rates in the mid to late 1990s but since 2001 there has been a drop in offending, such that burglary victimisation rates are approaching their lowest level in 15 years. Similarly, since 2001 there has been a downward trend in motor vehicle theft victimisation rates, with the rate recorded in 2004 being half that recorded in 2001. Unlike burglary offences however, motor vehicle theft victimisation rates remained relatively stable throughout the 1990s.

**Figure 7: NSW break and enter and motor vehicle theft rates, 1990-2004**



**Figure 8: Break and enter victimisation rates and percentage of households reporting to police, NSW, 1990-2004**



Source: Australian Bureau of Statistics (1995, 1999a, 2000, 2004)

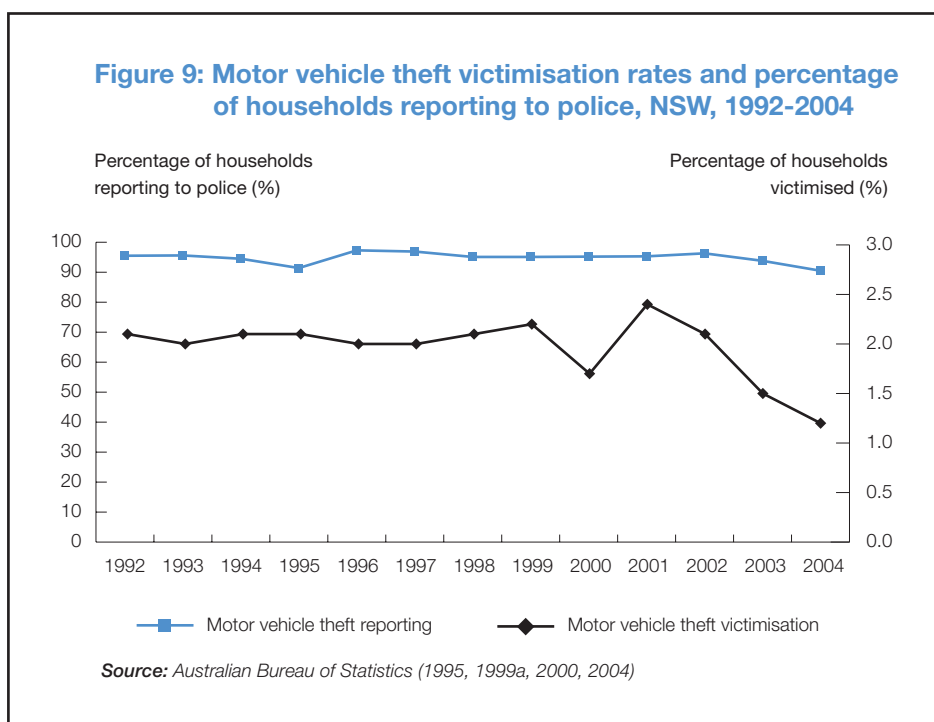
**SUMMARY**

This bulletin has examined trends in the major categories of property and personal crime recorded by NSW Police between 1990 and 2004. These data reveal that rates of personal crime increased from the mid to late 1990s in NSW. For assault, sexual assault and other sexual offences the incident rate then stabilised but for most robbery offences the rate dropped from 2001 onwards. The NSW rate of murder and robbery with a firearm were exceptions to the general trend, with both offences showing statistically significant downward trends over the 15-year period examined. As with rates of personal crime, the recorded rate of property crime in NSW increased throughout the mid to late 1990s. Since 2001 however there has been a sharp decline in the rate of property crime in NSW.

It is also important to note several similarities between the crime trends reported here for NSW and trends in other Australian States and Territories. Since 2001, for example, national figures compiled by the Australian Bureau of Statistics show that every State and Territory except the ACT has experienced decreases in recorded rates of burglary and motor vehicle theft. In fact, in 2004 the number of recorded victims of motor vehicle theft and burglary in Australia, as a whole, were at their lowest level since national reporting began in 1993 (Australian Bureau of Statistics 2005). Over the last four years, every State and Territory except Tasmania and ACT has also experienced falls in armed robbery, and Victoria, Queensland, South Australia and Tasmania have all experienced declines in unarmed robbery (Australian Bureau of Statistics 2005). The upward trend in armed robbery observed in NSW in the mid to late 1990s is also consistent with trends in all other States and Territories except Tasmania, and like NSW, Victoria, Western Australia, Tasmania and the ACT also experienced increases in unarmed robbery over this period (Australian Bureau of Statistics 1999b). Unfortunately, differences in police recording practice preclude comparisons across jurisdictions for rates of assault and sexual assault.

**NOTES**

1 Due to the introduction of the COPS system in 1994 only nine months of recorded crime data was available for this year. The number of incidents recorded in 1994 was therefore multiplied by one and one-third in order to calculate the annual rate. However, it should be noted that this calculation does not take into account the seasonality of certain crimes (e.g. more assaults in the summer months). Thus for some offences this extrapolation would underestimate the actual number of criminal incidents that occurred.



- State data on reporting rates for assault and robbery do not appear in the Australian Bureau of Statistics publication 'Crime and Safety – Australia 2002'. The reporting rates for these offences reported in the current bulletin are taken from supplementary tables supplied to BOCSAR by the Australian Bureau of Statistics.
- The offence category 'other sexual offences' includes recorded incidents of indecent assault, acts of indecency and other sexual offences (e.g. wilful and obscene exposure, peep or pry).

**REFERENCES**

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APPENDIX

Table A1: Number of criminal incidents recorded by NSW Police by year and offence type

|      | <i>Murder<sup>^</sup></i> | <i>Assault</i> | <i>Sexual assault</i> | <i>Other sexual offences</i> | <i>Robbery without a weapon</i> | <i>Robbery with a firearm</i> | <i>Robbery with a weapon not a firearm</i> | <i>Break and enter dwelling</i> | <i>Break and enter non-dwelling</i> | <i>Motor vehicle theft</i> |
|------|---------------------------|----------------|-----------------------|------------------------------|---------------------------------|-------------------------------|--|---------------------------------|-------------------------------------|----------------------------|
| 1990 | 119                       | 29,776         | 1,606                 | 2,552                        | 3,022                           | 981                           | 1,568                                      | 58,862                          | 36,639                              | 54,488                     |
| 1991 | 115                       | 31,014         | 2,343                 | 2,942                        | 3,173                           | 1,265                         | 1,542                                      | 57,155                          | 36,838                              | 49,758                     |
| 1992 | 101                       | 31,773         | 2,220                 | 2,583                        | 3,080                           | 1,132                         | 1,444                                      | 56,437                          | 34,754                              | 39,423                     |
| 1993 | 110                       | 36,076         | 2,083                 | 2,646                        | 3,525                           | 877                           | 1,528                                      | 58,036                          | 34,379                              | 40,169                     |
| 1994 | 83                        | 25,732         | 1,397                 | 2,908                        | 3,120                           | 522                           | 912  | 44,850                          | 27,858                              | 35,304                     |
| 1995 | 114                       | 39,132         | 2,272                 | 4,337                        | 4,601                           | 726                           | 1,922                                      | 61,336                          | 40,393                              | 47,078                     |
| 1996 | 106                       | 48,869         | 2,973                 | 5,211                        | 5,067                           | 892                           | 2,359                                      | 74,546                          | 43,551                              | 49,187                     |
| 1997 | 112                       | 54,304         | 3,601                 | 6,156                        | 6,526                           | 1,234                         | 4,125                                      | 79,838                          | 45,467                              | 55,539                     |
| 1998 | 100                       | 58,672         | 3,291                 | 5,310                        | 6,700                           | 987                           | 5,130                                      | 85,768                          | 48,772                              | 53,851                     |
| 1999 | 123                       | 58,646         | 3,201                 | 4,874                        | 6,658                           | 780                           | 4,213                                      | 77,852                          | 45,995                              | 48,401                     |
| 2000 | 103                       | 62,797         | 3,615                 | 5,408                        | 7,284                           | 722                           | 4,459                                      | 82,427                          | 50,470                              | 52,624                     |
| 2001 | 104                       | 69,165         | 3,771                 | 5,217                        | 8,055                           | 992                           | 5,229                                      | 80,121                          | 52,328                              | 53,932                     |
| 2002 | 97                        | 72,279         | 3,758                 | 5,763                        | 6,614                           | 805                           | 3,486                                      | 70,042                          | 41,523                              | 42,078                     |
| 2003 | 92                        | 72,419         | 3,968                 | 5,422                        | 6,270                           | 793                           | 2,971                                      | 62,327                          | 36,374                              | 34,898                     |
| 2004 | 69                        | 70,074         | 4,282                 | 5,407                        | 4,969                           | 665                           | 2,607                                      | 55,847                          | 29,828                              | 33,230                     |

<sup>^</sup> For murder, the number shown is the number of recorded victims rather than criminal incidents

Table A2: Number of criminal incidents recorded by NSW Police per 100,000 population by year and offence type

|      | <i>Murder<sup>^</sup></i> | <i>Assault</i> | <i>Sexual assault</i> | <i>Other sexual offences</i> | <i>Robbery without a weapon</i> | <i>Robbery with a firearm</i> | <i>Robbery with a weapon not a firearm</i> | <i>Break and enter dwelling</i> | <i>Break and enter non-dwelling</i> | <i>Motor vehicle theft</i> |
|------|---------------------------|----------------|-----------------------|------------------------------|---------------------------------|-------------------------------|--|---------------------------------|-------------------------------------|----------------------------|
| 1990 | 2.0                       | 511.0          | 27.6                  | 43.8                         | 51.9                            | 16.8                          | 26.9                                       | 1,010.2                         | 628.8                               | 935.1                      |
| 1991 | 1.9                       | 525.8          | 39.7                  | 49.9                         | 53.8                            | 21.4                          | 26.1                                       | 968.9                           | 624.5                               | 843.5                      |
| 1992 | 1.7                       | 533.2          | 37.3                  | 43.3                         | 51.7                            | 19.0                          | 24.2                                       | 947.1                           | 583.2                               | 661.6                      |
| 1993 | 1.8                       | 601.5          | 34.7                  | 44.1                         | 58.8                            | 14.6                          | 25.5                                       | 967.7                           | 573.2                               | 669.8                      |
| 1994 | 1.8                       | 567.2          | 30.8                  | 64.1                         | 68.8                            | 11.5                          | 20.1                                       | 988.6                           | 614.0                               | 778.2                      |
| 1995 | 1.9                       | 640.2          | 37.2                  | 71.0                         | 75.3                            | 11.9                          | 31.4                                       | 1,003.5                         | 660.9                               | 770.2                      |
| 1996 | 1.7                       | 787.6          | 47.9                  | 84.0                         | 81.7                            | 14.4                          | 38.0                                       | 1,201.4                         | 701.9                               | 792.7                      |
| 1997 | 1.8                       | 865.7          | 57.4                  | 98.1                         | 104.0                           | 19.7                          | 65.8                                       | 1,272.8                         | 724.8                               | 885.4                      |
| 1998 | 1.6                       | 926.4          | 52.0                  | 83.8                         | 105.8                           | 15.6                          | 81.0                                       | 1,354.2                         | 770.1                               | 850.3                      |
| 1999 | 1.9                       | 916.8          | 50.0                  | 76.2                         | 104.1                           | 12.2                          | 65.9                                       | 1,217.1                         | 719.0                               | 756.7                      |
| 2000 | 1.6                       | 971.7          | 55.9                  | 83.7                         | 112.7                           | 11.2                          | 69.0                                       | 1,275.5                         | 781.0                               | 814.3                      |
| 2001 | 1.6                       | 1,051.9        | 57.4                  | 79.3                         | 122.5                           | 15.1                          | 79.5                                       | 1,218.5                         | 795.8                               | 820.2                      |
| 2002 | 1.5                       | 1,089.5        | 56.6                  | 86.9                         | 99.7                            | 12.1                          | 52.5                                       | 1,055.8                         | 625.9                               | 634.3                      |
| 2003 | 1.4                       | 1,083.0        | 59.3                  | 81.1                         | 93.8                            | 11.9                          | 44.4                                       | 932.1                           | 544.0                               | 521.9                      |
| 2004 | 1.0                       | 1,048.0        | 64.0                  | 80.9                         | 74.3                            | 9.9                           | 39.0                                       | 835.2                           | 446.1                               | 497.0                      |

<sup>^</sup> For murder, the rate is the number of recorded victims per 100,000 population

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