CRIME AND JUSTICE

Bulletin



Contemporary Issues in Crime and Justice

Number 103

October 2006

Reoffending among young people cautioned by police or who participated in a youth justice conference

Sumitra Vignaendra and Jacqueline Fitzgerald

Since 1998 a significant proportion of young offenders in New South Wales have been dealt with by warning, caution or youth justice conference under the Young Offenders Act 1997 rather than proceeding through the traditional court system. This study investigates the rate of reoffending among young people who were cautioned by police or who participated in a conference for the first time in 1999. The report describes the likelihood and frequency of reoffending, the time it takes to reoffend and the likelihood of receiving a penalty of imprisonment all within five years of the caution or conference. The results show that 42 per cent of the caution cohort and 58 per cent for the conference cohort reoffended within five years. This is not as high as the reoffending rate for young people who proceeded straight to court prior to the availability of diversionary options (Chen et al. 2005). Reoffending patterns were found to vary according to the offender's sex, age, Indigenous status and, to some extent, the nature of the intial offence.

INTRODUCTION

In 1994, Coumarelos tracked a cohort of 33,900 juveniles who first appeared in a New South Wales Children's Court between 1982 and 1986. Coumarelos found that nearly 70 per cent of the offenders she studied had no further appearance in the Children's Court. This finding of apparent desistence suggested that it was neither necessary nor desirable to respond harshly or intrusively to young offenders who have not committed serious offences or shown any tendency to persist in crime.

Consistent with this, the *Young*Offenders Act 1997 established a
graded system of alternative processes
to court proceedings which begins
with a police warning, progresses to a
formal police caution then to a youth
justice conference.¹ Commencement of
proceedings against a young person in
the Children's Court is the option of last

resort. In the ordinary course of events one would expect to find more serious crimes, and potentially higher rates of recidivism, the higher one moves up this hierarchy of alternative processes. No studies have been conducted, however, into the reoffending rates of those dealt with at each level of the hierarchy.

In 2005 Chen et al. conducted an investigation into reoffending by children and young people designed to extend the analysis conducted by Coumarelos. Instead of drawing a large sample of children and young people who had appeared in the Children's Court over a period of several years, she and her colleagues followed a sample of 5,476 children and young people from their first appearance in the Children's Court in 1995 to the end of 2003. Contrary to Coumarelos' results, they found that 68 per cent of the cohort reappeared at least once in a criminal court within the eight-year period. Fifty-seven per cent

had appeared in an adult court by 2003. These figures are much higher than those obtained by Coumarelos.

The difference between the Chen and Coumarelos results seems to have stemmed from two factors. Firstly, Chen, unlike Coumarelos, was able to track young offenders into the adult criminal justice system. Secondly, Coumarelos was forced to exclude a small percentage of offenders who were relatively young when they made their first court appearance. These offenders, it turned out, had very high rates of reoffending (Chen et al. 2005, p. 2). Their exclusion resulted in an underestimate of the true rate of reoffending.

Some sections of the media (e.g. Pearlman 2005) have interpreted the high reoffending rate observed by Chen et al. (2005) as calling the Young Offenders Act into question. The critical issue, however, is not whether young offenders against whom court proceedings are commenced

are likely to reoffend but whether the reoffending rates for those who are processed in the alternative ways are lower than for those who appear in court. The study by Chen et al. (1995) did not address this question.

The research reported here builds on the work by Coumarelos (1994) and Chen et al. (2005) and reports rates of reoffending amongst those given a police caution and those who participated in a youth justice conference. As with the Chen, study, the present research also seeks to identify some of the key correlates of reoffending.

YOUNG OFFENDERS ACT 1997

The Young Offenders Act commenced in 1998 in New South Wales and mandated the formal diversion of many juveniles away from the formal court system (police have issued informal warnings and cautions since the 1930s, see Bargen, Clancey & Chan 2005). The reform has led to a significant drop in the number of young people appearing before the Children's Court; from 16,113 persons in 1996/97 to 8,428 in 2005 (Bureau of Crime Statistics and Research 1998, 2006).

The Young Offenders Act requires police to consider, for all relevant offences, whether a young person is eligible to be dealt by way of a warning, caution or youth justice conference before they can commence court proceedings. The conference is the most intrusive of the three alternative processes, followed by cautions then warnings.

In 2004/05, 1,244 young people completed a youth justice conference (NSW Department of Juvenile Justice 2005), 9,129 young people were cautioned by police and 18,741 received a warning (unpublished Bureau of Crime Statistics and Research data).²

The Young Offenders Act also allows the Children's Court to caution young people or refer them to a youth justice conference.

The current study investigates the reoffending behaviour of children and young people who were either cautioned by police or who completed a youth justice conference for the first time in

1999. Young people who received a caution from the Children's Court are not included in this study. The purpose of the study was not to measure the effectiveness of each alternative process in reducing recidivism but to provide a better understanding of the outcomes experienced by the children and young people who receive them.

PRIOR RESEARCH ON REOFFENDING AFTER PRE-COURT DIVERSION

Polk at al. (2003) conducted a comprehensive review of the diversion processes available to young people across Australia. They found that, while there is a considerable body of data assessing the process and outcomes of youth justice conferences, there is a lack of research into the outcomes for young people who receive a caution.

Cautions

Dennison, Stewart and Hurren (2006) recently investigated reoffending among young people cautioned in Queensland. They found that 31 per cent of young people born in 1984 who received a police caution between the ages of 10 and 17 years inclusive, had a further caution or a court appearance before the age of 17. The average follow up period in the Dennison et al. study was about two and a half years. Dennison et al. found higher rates of reoffending among males and people who were in the youngest age group at the time of their caution. The latter finding, however, could well be a result of the longer follow-up period for younger offenders compared with that for older offenders.

Youth Justice Conferences

In 2002, Luke and Lind calculated reoffending rates among young, first-time offenders who were conferenced in New South Wales.³ The study followed conference participants for between 27 and 39 months. Approximately 40 per cent of young people were found to have had a subsequent conference or court appearance in that period. Luke and Lind also found that certain factors were

strongly associated with reoffending.

Males and younger offenders were more likely to reoffend and tended to reoffend more frequently. Young people who committed a theft offence, or what Luke and Lind called a 'less serious personal' offence, were also more likely to reoffend.

In a study of 89 conference participants in South Australia, Hayes and Daly (2003) found that 40 per cent of their cohort were arrested or apprehended by police⁴ in the eight to 12 months after their conference. Among the 43 per cent of the sample who were first time offenders, 21 per cent were arrested or apprehended by police within the reference period. Hayes and Daly found reoffending rates were higher among males, Aboriginal people, offenders with a prior criminal record and offenders who showed evidence of residential instability.⁵

More recently, Hayes and Daly (2004) studied a cohort of 200 conference participants in Queensland to calculate the frequency of reoffending and identify reoffender characteristics. Sixty-six per cent of conference participants in this sample had a further offence6 three to five years after their conference. Just under half of the sample came to their conference with no detected prior offending (49%). Forty per cent of this subset appeared in court for another offence after their conference. Reoffending was more prevalent among male offenders, offenders who began offending at an early age and offenders with a prior history of offending.

THE PRESENT STUDY

The present study describes reoffending patterns among two cohorts of young people; one of which was cautioned by NSW Police in 1999, while the other completed a youth justice conference in New South Wales in 1999. The conference group comprised referrals from police and from the Children's Court. The aim of the study was to find out whether, how quickly and how often each cohort appeared in court for a proven offence and what proportion ended up at some stage receiving a custodial penalty.

The caution cohort included young people who had been cautioned by police but who had no prior proven offences in the Children's Court and who had not been previously cautioned or conferenced, although they might have previously received a police warning. The conference cohort included young people who had no prior proven offences in the Children's Court and who had not previously been conferenced, although they may have previously received a police warning or caution. Only young people who completed their conference plan were included. Both police and Court referred conferences were included in the study.

Reoffending for both cohorts was defined as an appearance in the Children's, Local and District Courts for a proven offence.⁷ Proven court appearances were included if they related to an offence which occurred within five years of the caution or conference. (The court appearance could have actually been finalised more than five years after the caution or conference.) Thus, each young person had a follow up period of exactly five years from their first legal process. Time to reoffend was considered to be the time between the date of the caution or conference and the date of the first proven court appearance. Only court appearances that led to full-time incarceration in a juvenile justice centre or an adult prison were recorded as custodial penalties.

The present study also examined the relationship between reoffending and certain covariates that previous studies found to be associated with reoffending. For both cohorts these were the offender's age and sex and the offence for which he or she was either cautioned or conferenced. For young people who participated in a conference, we also examined the effect of Indigenous status and source of the conference referral (police or Children's Court). Indigenous status was not considered for the caution cohort as it was missing for an unacceptably high number of subjects. Note that prior proven offences were not included as a covariate because, quite deliberately, only young people who had

no prior court appearances for proven offences at the time of their caution or conference were included in the study. Information on other potentially important covariates, such as the young person's family circumstances or education level, were not available.

The methods of analysis adopted for this study are similar to those used by Chen et al. (2005). For each cohort, logistic regression was used to identify the factors associated with reoffending and the imposition of a custodial order. Negative binomial regression was used to determine the risk factors associated with multiple court appearances. Survival analysis was used to determine how quickly young people appeared in court after their caution or conference.

RESULTS

REOFFENDING AFTER A POLICE CAUTION

Characteristics of the cohort

The 5,981 young people cautioned in 1999 who met the study criteria comprised 69.7 per cent males and 29.9 per cent females (the sex of 24 people was not recorded). At the time of their caution, 22.7 per cent were aged between 10 and 13 years, 38.9 per cent were 14 or 15 years, and 38.3 per cent were 16 years of age or older. Because Indigenous status was not known for 62 per cent of the caution group, this covariate was excluded from the analysis.8

Offences that led to the caution were categorised into four groups. In cases where an offender was cautioned for multiple offences, their principal offence was chosen. Theft offences formed 57.6 per cent of the offences that led to a caution, offences against the person 12.9 per cent, destruction or damage of property 10.5 per cent and all other offences 19.0 per cent. Offences that fell into the 'other' category included drug offences, offensive language, trespass and traffic offences.

What proportion reoffended within five years?

Forty-two per cent of young people who were cautioned for the first time in 1999 reoffended within five years of their caution; 20.3 per cent had at least one proven Children's Court appearance and 33.1 per cent at least one proven appearance in an adult court. Unfortunately little can be made of this latter statistic because a sizeable subgroup of the cohort were not yet adults by the end of the five-year follow up period. Children's Court and adult court appearances will therefore be reported jointly in the remainder of this bulletin.

Risk factors associated with the likelihood of reoffending: A bivariate analysis

Table 1 shows the proportion of cautioned young people who reoffended, according to the offender's age, gender and offence type. The table shows that the likelihood of reoffending varied according to the sex and age of the offender and the type of offence that resulted in the caution. Male offenders, offenders who were 16 years of age or over at the time of their caution and offenders who were cautioned for property damage were more likely than their respective counterparts to reoffend.

Risk factors associated with the likelihood of reoffending: A multivariate analysis

Table 2 shows the outcome of a logistic regression analysis in which the likelihood of reoffending was regressed jointly against the sex and age of the offender and the type of offence that resulted in the caution. There were significant effects for all three covariates, although the effect of the age of the offender and the offence type was relatively weak.

The odds ratios indicate that male offenders were much more likely to reoffend than female offenders. Offenders who were in the oldest age group at their time of their caution were more likely to reoffend than those aged between 10 and 13 years.

Offenders cautioned for damaging or destroying property were more likely to

Table 1: Young people cautioned for the first time in 1999: Proportion with a proven court appearance within five years

Juvenile characteristics	Number of juveniles	Proportion with proven court appearance
Sex*	·	
Male	4168	49.7
Female	1789	23.8
Chi square test: p-value <0.0001		
Age at caution		
10-13 years	1360	40.4
14-15 years	2329	40.4
16 years or over	2292	44.4
Chi square test: p-value = 0.01		
Principal offence at caution		
Theft	3444	40.0
Offences against the person	772	43.4
Property damage	629	49.3
Other	1136	43.0
Chi square test: p-value <0.0001		
Total	5981	41.9

^{*} The sex of 24 young people was not recorded

Table 2: Logistic regression model for the probability of a young person cautioned for the first time in 1999 having a proven court appearance within five years

		95% Confid	95% Confidence Interval	
Juvenile Characteristics	Odds Ratio	Lower	Upper	Significance
Intercept	0.292			<0.0001
Male v. female	3.267	2.875	3.713	<0.0001
16 years or over v. 10-13 years	1.165	1.012	1.342	0.034
14-15 years v. 10-13 years	1.052	0.914	1.212	0.480
Theft v. average	0.961	0.885	1.044	0.349
Offences against person v. average	0.854	0.756	0.966	0.012
Property damage v. average	1.396	1.222	1.594	<0.0001

reoffend, and offenders who committed an offence against the person were less likely to reoffend, than all other offenders. Given the small size of both these offence groups, and the fact that no significant result was found in relation to the largest offence group (theft), the logistic regression analysis was repeated without offence type.

The parameter estimates from this second logistic regression analysis were then used to calculate the effect of various regressors on the probability

of reoffending. The results are shown in Figure 1. Regardless of their age when cautioned, male offenders were about twice as likely as female offenders to reoffend following the caution. The probability of reoffending was slightly higher for older members of the cohort, a finding that appears inconsistent with other evidence on age of first contact with the criminal justice system (e.g. Chen et al. 2005). It should be noted, however, that the effect was quite small.

What proportion received a custodial penalty within five years?

Only 5.2 per cent of the cohort received a custodial penalty from the Children's Court or a prison sentence from an adult court in the five years following their caution.

Risk factors associated with receiving a custodial penalty: A bivariate analysis

Table 3 shows the proportion of young people who received a custodial penalty

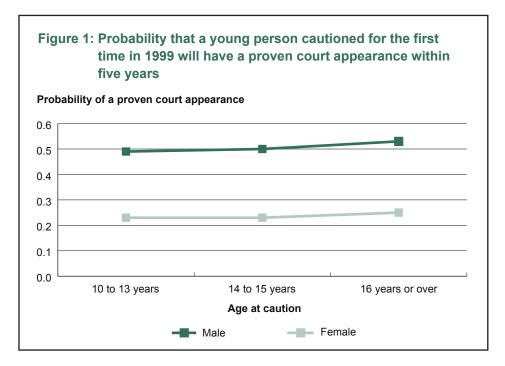


Table 3: Young people cautioned for the first time in 1999:

Proportion who received a custodial penalty within five years

	Number	Proportion receiving a
Juvenile characteristics	of juveniles	custodial penalty
Sex*		
Male	4168	6.6
Female	1789	1.7
Chi square test: p-value <0.0001		
Age at caution		
10-13 years	1360	8.7
14-15 years	2329	4.6
16 years or over	2292	3.7
Chi square test: p-value <0.0001		
Principal offence at caution		
Theft	3444	5.7
Offences against the person	772	5.7
Property damage	629	5.1
Other	1136	3.3
Chi square test: p-value = 0.012		
Total	5981	5.2

^{*} The sex of 24 young people was not recorded

in the five years subsequent to their caution, cross-classified by sex, age and offence type. Male offenders, offenders in the youngest age group at the time of the caution and offenders who were cautioned for either a theft offence or

for an offence against the person were more likely than female offenders, older offenders and offenders cautioned for property damage or 'other' offences to receive a custodial penalty within five years of their caution.

Risk factors associated with receiving a custodial penalty: A multivariate analysis

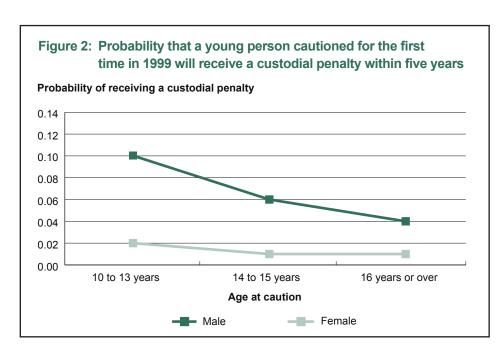
The likelihood of receiving a custodial order in the five years after being cautioned was regressed against the sex and age of the offender and the type of offence that led to the caution. The outcome of this analysis is shown in Table 4. Male offenders were much more likely to receive a custodial order in the five years after their caution than female offenders. Those in the youngest age group (10 to 13 years) were more likely to receive a custodial penalty than those in the older two age groups (14 to 15 years and 16 years or over).

Offenders who were cautioned for a theft offence or property damage were more likely to receive a custodial penalty five years after their caution. However the effects of offence type on the likelihood of receiving a custodial order at a later date were small at best. For this reason, the regression analysis was repeated without the offence type. As before, the parameter estimates were then converted into predicted probabilities (see Figure 2).

There are three points worth noting about Figure 2. The first is that only a small proportion of offenders end up receiving a custodial penalty within five years of being cautioned. Only 10 per cent of males aged 10 to 13 years at the time of their caution received a custodial penalty within five years. Only four percent of males aged 16 years or over, and one per cent of females aged 16 years or over, received a custodial penalty within five years of their caution. The second point to note is that, regardless of age, males were more likely to receive a custodial penalty within five years of being cautioned than female offenders. The third point is that, while the likelihood of receiving a custodial penalty declined with the age of the offender at the time of the caution, this decline was more pronounced for males than for females. Thus, males aged 10 to 13 years at the time of their caution were 2.5 times more likely than males aged 16 years or over to end up with a custodial penalty within five years of receiving a caution. Female

Table 4: Logistic regression model for the probability of young people cautioned for the first time in 1999 receiving a custodial penalty within five years

		95% confide	ence interval	
Juvenile characteristics	Odds ratio	Lower	Upper	Significance
Intercept	0.024			<0.0001
Male v. female	4.512	3.087	6.595	<0.0001
16 years or over v. 10-13 years	0.409	0.306	0.548	<0.0001
14-15 years v. 10-13 years	0.532	0.404	0.699	<0.0001
Theft v. average	1.317	1.098	1.579	0.003
Offences against person v. average	0.882	0.671	1.160	0.369
Property damage v. average	1.332	1.003	1.767	0.047



offenders aged 10 to13 years at the time of their caution, however, were only twice as likely as females aged 16 years or over to end up with a custodial penalty within five years of their caution.

How quickly did the cohort reoffend?

Figure 3 shows survival time for the caution cohort. This is the proportion of the cohort who have not reoffended, or 'survived', at monthly intervals after their caution. It can be seen that a quarter of the caution cohort had a proven court appearance within 30 months (two and a half years) of their caution. Sixty percent of the cohort had no proven court appearances 62 months (five years and two months) after their caution.

How often did the cohort reoffend?

On average young people in the caution cohort accumulated 1.3 proven court appearances in the five years after their caution. Recidivists in the cohort, however, appeared in court 3.2 times on average in the five years after their caution.

Risk factors associated with repeated reoffending: A bivariate analysis

Table 5 shows the average number of proven court appearances according to the offender's sex and age and the offence type that led to the caution.

There are statistically significant variations in the average number of proven court appearances within each of the three covariates. Male offenders

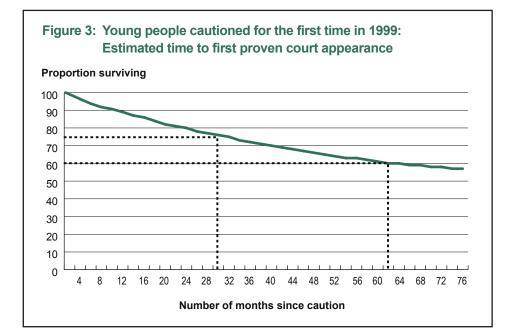


Table 5: Young people cautioned for the first time in 1999:

Average number of proven court appearances within five years

Juvenile characteristics	Number of juveniles	Average number of proven court appearances
Sex*		
Male	4168	1.64
Female	1789	0.59
Chi Square: p-value <0.0001		
Age at caution		
10-13 years	1360	1.71
14-15 years	2329	1.22
16 years or over	2292	1.21
Chi Square: p-value = 0.01		
Principal offence at caution		
Theft	3444	1.34
Offences against the person	772	1.23
Property damage	629	1.56
Other	1136	1.20
Chi Square: p-value = 0.019		
Total	5981	1.30

^{*} The sex of 24 young people was not recorded

appeared in court much more frequently than female offenders (1.6 average proven court appearances compared to 0.6). Those aged 10 to 13 years at the time of their caution appeared in court more frequently than their older two counterparts (1.7 versus 1.2 for both 14 to 15 year olds and those aged 16 or over).

Offenders cautioned for property damage accumulated more proven court appearances than those cautioned for theft offences, offences against the person or 'other' offences.

Risk factors associated with repeated reoffending: A multivariate analysis

Table 6 shows the results of fitting a negative binomial regression model to the frequency of court appearances, using as covariates the offender's sex and age, and the type of offence that led to the caution.

The sex of the offender had the largest effect on the frequency of reoffending.

The only age effect found was in relation

Table 6: Young people cautioned for the first time in 1999: Negative binomial regression model for number of proven court appearances within five years

		95% confidence interval		
Juvenile characteristics	Incident Rate Ratio	Lower	Upper	Significance
Intercept	0.511			<0.0001
Male v. female	2.870	2.568	3.209	< 0.0001
10-13 years v. 16 years or over	1.398	1.237	1.582	< 0.0001
14-15 years v. 16 years or over	1.032	0.927	1.150	0.563
Theft v. average	0.963	0.939	1.149	0.077
Offences against person v. average	0.837	0.750	0.934	0.001
Property damage v. average	1.280	1.140	1.438	<0.0001

to the difference between the youngest age group (10 to 13 years) and the oldest age group (16 years or over); younger offenders reoffended more frequently than their older counterparts.

In terms of the types of offences that resulted in the initial caution, no significant result was found in relation to the largest offence group, theft.

Damaging property was associated with more frequent offending than all other offences, while offences against the person were associated with less frequent offending than all other offences.

REOFFENDING AFTER A YOUTH JUSTICE CONFERENCE

Characteristics of the cohort

The 1711 young people conferenced in 1999 who met the study criteria comprised 82.6 per cent males and 17.4 per cent females. At the time of their conference, 14.7 per cent were aged 10 to 13 years, 35.4 per cent were 14 or 15 years and 49.9 per cent were 16 years or older.9 Young people who identified as Aboriginal or Torres Strait Islander made up 16.5 per cent of the cohort. About 74 per cent did not identify as Indigenous. The Indigenous status was not known for 9.8 per cent of the cohort. Young people with an unknown Indigenous status were excluded from the remainder of the analyses.

More than half (54.5%) of the cohort was conferenced for a theft offence, 17.6 per cent for an offence against the person and 16.9 per cent for property damage. The remaining 10.2 per cent were conferenced for an offence that fell in the 'other' category, such as trespass, offensive language or unlicensed driving.

Half the cohort was referred to their conference by the police (50.6%) and half by the Children's Court (49.4%).

What proportion reoffended within five years?

Fifty-eight per cent of young people conferenced for the first time in 1999 reoffended at least once in the five years after their conference.¹⁰

Table 7: Young people who completed a conference for the first time in 1999: Proportion with a proven court appearance within five years

Juvenile characteristics	Number of juveniles	Proportion with proven court appearance
Sex		
Male	1414	61.1
Female	297	40.1
Chi square test: p-value <0.0001		
Age at conference		
10-13 years	251	60.6
14-15 years	606	64.0
16 years or over	854	51.9
Chi square test: p-value <0.0001		
Indigenous status*		
Indigenous	283	80.9
Non-Indigenous	1261	55.5
Chi square test: p-value <0.0001		
Principal offence at conference		
Theft	932	57.2
Offences against the person	301	63.8
Property damage	289	46.7
Other	175	65.7
Chi square test: p-value <0.0001		
Source of conference referral		
Police	866	46.5
Children's court	845	68.6
Chi square test: p-value <0.0001		
Total	1711	57.5

^{*} Note 167 young people with an 'unknown' Indigenous status were excluded

Table 8: Logistic regression model for the probability of a young person who completed a conference for the first time in 1999 having a proven court appearance within five years

		95% confidence interval			
Juvenile characteristics	Odds ratio	Lower	Upper	Significance	
Intercept	0.388			<0.0001	
Male v. female	3.787	2.800	5.121	<0.0001	
Indigenous v. non-Indigenous	2.969	2.121	4.156	<0.0001	
Court referral v police referral	2.418	1.910	3.063	<0.0001	
16 years or over v. 10-13 years	0.573	0.407	0.808	0.001	
14-15 years v. 10-13 years	1.083	0.757	1.548	0.663	
Theft v. average	0.930	0.784	1.103	0.404	
Offences against person v average	1.198	0.942	1.523	0.141	
Damage property v average	0.746	0.591	0.943	0.014	

Risk factors associated with the likelihood of reoffending: A bivariate analysis

Table 7 shows the proportion of the conference cohort who reoffended in the five years after their conference, according to offender's age, sex and Indigenous status, the type of offence conferenced and the conference referral source. The likelihood of conference participants reoffending varied according to each of these characteristics.

Male offenders, Indigenous offenders and offenders who were in the youngest two age groups at the time of their conference were more likely than females, non-Indigenous offenders and older offenders to reoffend. Offenders conferenced for an offence against the person or an offence that fell in the 'other' category were more likely to reoffend than offenders conferenced for a theft offence or property damage. Young people referred to a conference by the Children's Court were more likely to reoffend than young people who were referred to their conference by the police.

Risk factors associated with the likelihood of reoffending: A multivariate analysis

Table 8 shows the outcome of a logistic regression analysis in which the likelihood of reoffending subsequent to a conference was regressed jointly against the offender's sex, age and Indigenous status, the type of offence that led to the conference and the source of the conference referral.

The odds ratios were particularly high for gender, Indigenous status and the source of the conference referral and followed the same direction as in the bivariate analysis.

No difference was found between the youngest two age groups, however offenders in the youngest age group at the time of their conference (10 to 13 years) were more likely to reoffend than offenders who were 16 years or over at the time of their conference.

While offenders who were conferenced for property damage were more likely

Table 9. Probability that young people who completed a conference for the first time in 1999 will have a proven court appearance within five years

Sex	Age at conference	Indigenous status	Source of conference referral	Probability of a proven court appearance	
Male	16 years or over	Non-Indigenous	Police referral	0.46	BASE CASE
Female	16 years or over	Non-Indigenous	Police referral	0.18	
Male	10 to 13 years	Non-Indigenous	Police referral	0.59	
Male	16 years or over	Indigenous	Police referral	0.71	
Male	16 years or over	Non-Indigenous	Court referral	0.67	

to reoffend than offenders overall, no other offence-related effects were found. For this reason, the logistic regression was repeated without the inclusion of offence type. Once again, the parameter estimates were used to generate predicted probabilities of reoffending for different classes of offender.

Table 9 shows some of the outcomes of this analysis. Due to the large number of covariates, we have only shown predicted probabilities for selected offender characteristics. Appendix 1 contains predicted probabilities for all covariates. Table 9 shows the relative influence of each covariate in reference to a base case: a non-Indigenous male, aged 16 years or over at the time of the conference and referred by the police to the conference. The probability that this young person will reoffend within five years of his conference is 46 per cent.

By varying characteristics of the base case we can see the relative impact of each covariate. For instance, the likelihood of a young person with otherwise the same characteristics as the base case, but aged between 10 and 13 years at the conference, reoffending is 59 per cent; higher than that of the base case. If our young person were female instead of male, the likelihood of reoffending would be only 18 per cent. If the individual in our base case was an Indigenous male, the probability of reoffending would be 71 per cent. Finally, if the base case involved a male who had been referred to a conference by the court rather than by the police, the probability of reoffending would be 67 per cent.

What proportion received a custodial penalty within five years?

Only 10.8 per cent of the conference cohort had received a custodial penalty in either the Children's or adult courts in the five years after completing a conference.¹¹

Risk factors associated with receiving a custodial penalty: A bivariate analysis

Table 10 shows the proportion of conference participants who received a custodial penalty in the five years after their conference, according to the

Table 10: Young people who completed a conference for the first time in 1999: Proportion who received a custodial penalty within five years

Juvenile characteristics	Number of juveniles	Proportion who received custodial penalty
Sex		
Male	1414	12.9
Female	297	1.0
Chi square test: p-value <0.0001		
Indigenous status *		
Indigenous	283	30.0
Non-Indigenous	1261	8.6
Chi square test: p-value <0.0001		
Age at time of conference		
10-13 years	251	18.7
14-15 years	606	13.2
16 years or over	854	6.8
Chi square test: p-value <0.0001		
Principal offence at conference		
Theft	932	11.4
Offences against the person	301	9.6
Property damage	289	7.6
Other	175	14.3
Chi square test: p-value <0.0001		
Source of conference referral		
Police	866	8.7
Children's court	845	13.0
Chi square test: p-value <0.0001		
Total	1711	10.8

^{*} Note 167 young people with an 'unknown' Indigenous status were excluded

offender's sex, Indigenous status, age at the time of the conference, the type of offence that led to the conference and the conference referral source.

Male offenders were much more likely than female offenders to have received a custodial penalty in the five years after their conference (12.9% versus 1.0% respectively). In fact, male offenders represented 98.4 per cent of the cohort who went on to receive a custodial penalty. Offenders who were aged 10 to 13 years at their conference were more likely to have received a custodial penalty than older offenders. Indigenous offenders and offenders referred to a conference by the Children's Court were also more likely to have received a custodial penalty than non-Indigenous offenders or offenders referred to a conference by the police. Offenders who completed a conference for an offence against the person or for property damage were less likely to end up with a custodial penalty than those who completed a conference for a theft offence or an offence that fell in the 'other' category.

Risk factors associated with receiving a custodial penalty: A multivariate analysis

Table 11 shows the outcome of a logistic regression analysis in which the likelihood of receiving a custodial penalty was regressed jointly against the offender's sex, Indigenous status and age at the time of the conference, the type of offence that led to the conference and the conference referral source. All contrasts

Table 11: Logistic regression model for the probability of young people who completed a conference for the first time in 1999 receiving a custodial penalty within five years

		95% confidence interval			
Juvenile characteristics	Odds ratio	Lower	Upper	Significance	
Intercept	0.009			<0.0001	
Male v. female	18.399	5.742	58.951	<0.0001	
Indigenous v. non-Indigenous	3.893	2.747	5.516	<0.0001	
Court referral v police referral	2.081	1.471	2.944	<0.0001	
16 years or over v. 10-13 years	0.311	0.197	0.490	<0.0001	
14-15 years v. 10-13 years	0.571	0.369	0.884	0.012	
Theft v. average	1.030	0.803	1.322	0.816	
Offences against person v. average	0.935	0.661	1.324	0.707	
Property damage v. average	0.786	0.535	1.156	0.221	

in the model were found to be significant, with the exception of those involving offence type.

The most powerful predictor of future imprisonment was the sex of the offender, although Indigenous status, age at the time of the conference and the referral source were also strongly predictive of future incarceration. The odds ratios in each case followed the same direction as indicated in the bivariate analyses.

The logistic regression analysis was repeated without offence type and parameter estimates used to determine the likelihood of a proven court appearance for different groups of offenders. The results for some of these groups are shown in Table 12 (results for all groups are presented in Appendix 2).

As with the previous analysis, the relative influence of each covariate is

demonstrated by comparing its effect on the likelihood of a court appearance for a proven offence with that of a base case. The base case is a non-Indigenous male, aged 16 or over at the time of the conference and referred to his conference by police. A male offender with these characteristics has a 5 per cent chance of receiving a custodial penalty within five years. The corresponding risk for a female offender is zero. By contrast, an Indigenous male offender aged 16 years or over at the time of the conference and referred by the police faces a 17 per cent chance of being sentenced to prison within five years. The corresponding risk for a female Indigenous offender is one per cent. Finally, whereas non-Indigenous males aged 16 years or over who were referred to a conference by police faced a five per cent risk of later imprisonment, non-Indigenous male offenders aged 16

Table 12: Probability that young people who completed a conference for the first time in 1999 will receive a custodial penalty within five years

Sex	Age at conference	Indigenous status	Source of conference referral	Probability of a custodial penalty	
Male	16 years or over	Non-Indigenous	Police referral	0.05	BASE CASE
Female	16 years or over	Non-Indigenous	Police referral	0.00	
Male	10 to 13 years	Non-Indigenous	Police referral	0.14	
Male	16 years or over	Indigenous	Police referral	0.17	
Female	16 years or over	Indigenous	Police referral	0.01	
Male	16 years or over	Non-Indigenous	Court referral	0.10	

years or over referred to their conference by the Children's Court had a 10 per cent probability of incarceration within the follow-up period.

How quickly did the cohort reoffend?

The number of months between the date of the conference and the date of the first subsequent proven court appearance is shown in Figure 4. It can be seen that a quarter of the cohort had reoffended within 12 months of their conference. Half the cohort had reoffended within 46 months (3 years and 10 months) of their conference.

How often did the cohort reoffend?

The average number of subsequent court appearances for proven offence accumulated by the conference cohort was 2.5. Recidivists in the cohort, however, appeared in court 4.3 times, on average, over the five year follow-up period.

Risk factors associated with repeated reoffending: A bivariate analysis

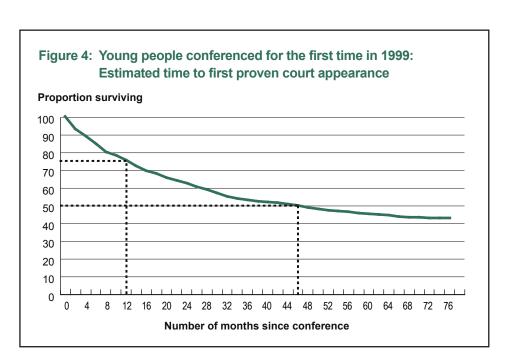
Table 13 shows the average number of proven court appearances accrued by young people who were conferenced, according to the offender's sex, Indigenous status and age at the time of the conference, the type of offence for which they were conferenced and the conference referral source. There were statistically significant variations in the average number of subsequent court appearances for each of the five covariates. Males, Indigenous offenders, offenders in the youngest age group (10 to 13 years at the time of their conference) and young people referred to their conference by the Children's Court appeared in court more often than their respective counterparts.

Young people who were conferenced for an offence that fell within the 'other' category appeared in court more frequently than young people conferenced for a theft offence or an offence against the person, who in turn,

Table 13: Young people who completed a conference for the first time in 1999: Average number of proven court appearances within five years

Juvenile characteristics	Number of juveniles	Average number of proven court appearances
Sex		
Male	1414	2.7
Female	297	1.0
Chi Square: p-value <0.0001		
Indigenous status*		
Indigenous	283	5.5
non-Indigenous	1261	2.0
Chi Square: p-value <0.0001		
Age at conference		
10-13 years	251	3.5
14-15 years	606	2.6
16 years or over	854	1.9
Chi Square: p-value <0.0001		
Principal offence at conference		
Theft	932	2.5
Offences against the person	301	2.3
Property damage	289	1.8
Other	175	3.1
Chi Square: p-value = 0.001		
Source of conference referral		
Police	866	1.9
Children's court	845	2.9
Chi Square: p-value <0.0001		
Total	1711	2.5

^{*} Note: 167 young people with an 'unknown' Indigenous status were excluded.



appeared in court more frequently than offenders who were conferenced for property damage.

Risk factors associated with repeated reoffending: A multivariate analysis

Table 14 shows the outcome of fitting a negative binomial regression model to the frequency of appearing in court against each of the following covariates: offender's sex, Indigenous status and age at the time of the conference, type of offence that resulted in the initial conference and conference referral source.

As can be seen, the offender's sex, Indigenous status and age at the time of the conference and the conference referral source all had a significant effect on the frequency of court appearances. The incident rate ratios support the pattern of findings uncovered by the bivariate analysis in relation to all four covariates.

The only offence that was found to be significantly associated with the frequency of reoffending was property damage; young people conferenced for this offence had a lower than average number of proven court appearances than all other young people in the cohort.

DISCUSSION

The present study examined two cohorts of young offenders with no prior convictions, one of which had received a police caution in 1999 and the other of which had participated in a youth justice conference in 1999. Both cohorts were tracked over a five year period with a view to determining:

- what proportion reoffended after his or her caution or conference
- what proportion was given a custodial penalty within this five-year period
- how quickly members of each cohort reoffended after their caution or conference
- how often members of each cohort reoffended following their caution or conference

Table 14: Young people who completed a conference for the first time in 1999: Negative binomial regression model for the number of proven court appearances within five years

		95% confidence interval			
Juvenile characteristics	Incident Rate Ratio	Lower	Upper	Significance	
Intercept	0.496			<0.0001	
Male v. female	2.940	2.412	3.583	< 0.0001	
Indigenous v. non-Indigenous	2.421	2.054	2.853	< 0.0001	
Court referral v. police referral	1.567	1.366	1.798	< 0.0001	
10-13 years v. 16 years or over	1.782	1.462	2.171	< 0.0001	
14-15 years v. 16 years or over	1.478	1.273	1.715	< 0.0001	
Theft v. average	1.031	0.933	1.140	0.543	
Offences against person v. average	0.993	0.866	1.139	0.923	
Property damage v. average	0.769	0.666	0.887	< 0.0001	

Further to this, the study also considered whether each of these reoffending behaviours was influenced by the offender's sex and age at the time of their caution or conference, the type of offence for which they were cautioned or conferenced, and for the conference cohort, the offender's Indigenous status and whether the court or police made the conference referral.

REOFFENDING RATES

Of the young people who received a police caution for the first time in 1999, 42 per cent reoffended within five years. The proportion of conference participants who reoffended was 58 per cent. The rates of reoffending for young people cautioned or conference for the first time in 1999 appear to be lower than those for young people who appeared in the Children's court for the first time prior to the availability of these diversionary options. In the Chen et al. (2005) study, 63 per cent of young people appearing in court for the first time in 1995 had a subsequent court appearance within five vears (note that measurement units in the two studies are not identical).12

The results of the present study, however, compare less favourably with those reported by Dennison et al. (2006) in Queensland. They found that 31 per cent of young people born in 1984 who were

cautioned had appeared in court before the age of 17. Dennison et al., however, did not track subjects into adulthood and the study had a shorter average follow up period than in the present study.

The reoffending rate for the conference cohort in the present study is approximately 20 percentage points higher than the rate for young people referred to a conference in the Luke and Lind study (who found approximately 35 to 37 per cent of young people conferenced between April 1998 and April 1999 appeared in court at a later date). However, the Luke and Lind study had at best a three year follow up and, more significantly, their measure of reoffending was limited to Children's Court appearances. In the present study, we have considered proven court appearances in any jurisdiction over a longer period.

The rate of reoffending among the conference cohort in the present study is higher than, but not necessarily inconsistent (due to the longer follow-up period) with, that reported in South Australia, where 21 per cent of conference participants without priors were found to reoffend within eight to twelve months (Hayes & Daly 2003). Similarly in Queensland 40 per cent of conference participants had reoffended within three to five years (Hayes & Daly 2004). Admittedly there are differences in the nature of the interventions in each State.

CUSTODIAL PENALTIES

The present study found that 5 per cent of the caution cohort received a full-time custodial penalty in the five years following their caution. The corresponding figure for the conference cohort was 11 per cent.

Chen et al. (2005) reported that 13 per cent of young people who appeared in the Children's Court for the first time in 1995 had received a custodial penalty in the *adult* court within *eight* years of their first court appearance. Chen et al. (2005) did not report the proportion receiving a custodial penalty in either the Children's or adult courts (however, it could not have been less than the 13 per cent who received a custodial penalty just in the adult courts).

RISK FACTORS ASSOCIATED WITH REOFFENDING

Consistent with both the Luke and Lind (2002) and the Chen et al. (2005) studies, the present study found that male offenders, Indigenous offenders and younger offenders were all more likely to reoffend than female, non-Indigenous and older offenders. In the present study, being male was the characteristic that was most closely linked to reoffending.

Among the conference cohort, Indigenous status was associated with reoffending independently of other factors.

However, unlike the Chen et al. study, Indigenous status was not found to be the characteristic most closely linked to reoffending. It is impossible to make comparisons with those given a caution because information on Indigenous status was incomplete for many of the offenders in the caution cohort.

When all other factors were held constant, offenders in the youngest age group (10 to 13 years) at the time of their caution or conference were more likely than older offenders to reoffend, receive a custodial order at a later date and to reoffend more often. However there was one exception to this pattern. Among offenders who were cautioned, those in the oldest age group (16 years or over)

showed the highest rates of reoffending. This effect, however, was quite small.

For the conference cohort additional information was also available in the form of the conference referral agency. Independent of other factors, people referred to a conference by the Children's Court were more likely to appear in court at a later date, incur a custodial penalty at a later date and reappear in court more frequently than people referred to a conference by the police. The criteria for conference eligibility outlined in the Young Offenders Act are the same regardless of the referral source. However, police might be inclined to apply the criteria more conservatively, preferring to refer only the most obvious candidates (i.e. those with the best prospects) to a conference while continuing to direct more serious candidates to the Children's Court. If Children's Courts take a broader view of conference eligibility, one would expect court appearance rates for those referred to a conference by the Children's Court to be higher than those referred to a conference by the police.

Unlike Chen et al. (2005), but similar to Luke and Lind (2002), the present study found that the principal offence that led to the criminal justice intervention (caution or conference) was related to some reoffending behaviour independently of all other factors. The impact of the principal offence when all other factors were considered simultaneously, however, was negligible in most instances and tended to be significant for smaller offence groups only. Furthermore, the pattern of the relationship between the principal offence and reoffending behaviour was ambiguous at best.

CONCLUSION

Chen et al. 2004 showed that, prior to the introduction of the Young Offenders Act, a significant proportion (68%) of young people appearing in the Children's Court reappeared within eight years. The present study shows that continued contact with the criminal justice system also occurs among those participating in diversionary alternatives to court;

however, this contact seems less common. This is particularly true for offenders who are older at their first caution or conference, female offenders and non-Indigenous offenders.

Options for reducing the risk of reoffending were discussed in detail in Chen et al. (2005), so that discussion will not be repeated here. There is, however, one important cautionary note to sound in conclusion. Although the present study shows a clear difference in the rate of appearance in court for those given a caution versus a conference. this difference should not be taken as an indication of the relative efficacy of cautions versus conferences in reducing juvenile reoffending. It is likely that some, and possibly all, of the difference between the two groups in their likelihood of appearance in court reflects the fact that low-risk offenders are more likely to be given a caution instead of a conference

ACKNOWLEDGEMENTS

The authors would like to thank
Jenny Bargen and Professor Janet Chan
for their very helpful review comments.
Thanks also to our colleagues at the
Bureau of Crime Statistics and Research
including Dr Don Weatherburn,
Dr Neil Donnelly, Jiuzhao Hua,
Craig Jones and Lucy Snowball for
their advice.

NOTES

- 1. Chan (2005) provides a comprehensive discussion of the operation of the Act.
- 2. These figures come from person of interest records held by NSW Police on their Computerised Operational Policing System (COPS). A person of interest is a person suspected by police of being involved in a criminal incident. The caution and warning figures shown here represent persons of interest aged 10-17 years who had the status on COPS of either 'Caution Young Offenders Act' or 'Warning'. Cautions under the Young Offenders Act issued by courts are not included in the figures reported in this study.

- The young offenders in the Luke and Lind study had no prior conference or court appearances for proven offences.
- In this study a young person was considered to have been apprehended if they were dealt with by a caution, conference or the court for the incident.
- A young person was considered to be residentially unstable if he or she had three or more changes of address on file with the police.
- In this study, further offending was measured by subsequent cautions, conference referrals or referrals to court.
- Local and District Courts will collectively be referred to as 'adult courts' from here on.
- Of the young people whose Indigenous status was recorded, 19% were identified as Indigenous and 81% as not Indigenous.
- Eighty-six young people were aged
 18 at the time of the conference and
 four were aged 19. These young
 people were juveniles at the time they
 committed the offence for which they
 were conferenced.
- 10. The proportion of the cohort found guilty in an adult court was 39.4 per cent. As explained earlier, little can be made of this statistic because a sizeable sub-group of the cohort had not attained adulthood within five years of their conference.
- 11. Within five years of their conference, 6.6 per cent of the conference cohort had received a sentence of full-time imprisonment in an adult correctional institution. As mentioned above, however, not everyone in the conference sample had attained adulthood in the five years after his or her conference.
- 12. Figures equivalent to those in the present study cannot be obtained directly from the Chen et al. (2005) publication, in part, because the publication considers a follow up period of eight years (compared

to five years in the present study). Additional analysis of the Chen et al. dataset undertaken for the present study shows that 63 per cent of the Chen et al. cohort had a subsequent court appearance within five years of their first court appearance. It should be noted that in the Chen et al. study any subsequent court appearance was considered to be an episode of reoffending while in the present study reoffending was measured by proven court appearances. Another difference in the studies is that the Chen et al. cohort included young people whose first court appearance was not necessarily for a proven offence (for instance where the charges were withdrawn or where the young person found not guilty. In contrast, all the young people in the present study were required to have admitted the offence for which they were cautioned or conferenced.

REFERENCES

Bureau of Crime Statistics and Research 1998, *Criminal Courts Statistics* 1997, NSW Bureau of Crime Statistics and Research, Sydney.

Bureau of Crime Statistics and Research 2006, *Criminal Courts Statistics 2005*, NSW Bureau of Crime Statistics and Research, Sydney.

Bargen, J, Clancey, G & Chan, J 2005 'Development of the Young Offenders Act', in J Chan (ed), *Reshaping Juvenile Justice: The NSW Young Offenders Act* 1997, Institute of Criminology, Sydney.

Chan, J 2005, Reshaping Juvenile Justice: The NSW Young Offenders Act 1997, Institute of Criminology, Sydney.

Chen, S, Matruglio, T, Weatherburn, D & Hua, J 2005, *The transition from juvenile to adult criminal careers*, Crime and Justice Bulletin No. 86, NSW Bureau of Crime Statistics and Research, Sydney.

Coumarebs, C 1994, Juvenile Offending: Predicting persistence and determining the cost effectiveness of interventions, NSW Bureau of Crime Statistics and Research, Sydney.

Dennison, S, Stewart, A & Hurren, E 2006, *Police Cautioning in Queensland:* the impact on juvenile offending pathways, Trends and Issues in Crime and Criminal Justice, No 306, Australian Institute of Criminology, Canberra.

Hayes, H & Daly, K 2003, 'Youth Justice Conferencing and Reoffending', *Justice Quarterly*, 20(4), pp. 725-764.

Hayes, H & Daly, K 2004, 'Conferencing and Re-offending in Queensland', Australian and New Zealand Journal of Criminology, 37(2), pp. 167-191.

Luke, G & Lind, B 2002, Reducing Juvenile Crime: Conferencing versus Court, Crime and Justice Bulletin No. 69, NSW Bureau of Crime Statistics and Research, Sydney.

NSW Department of Juvenile Justice 2005, *Annual Report 2004-2005*, NSW Department of Juvenile Justice, Sydney.

Pearlman, J 2005, 'Youth Crime Tactics Not Working Study Reveals', *Sydney Morning Herald*, 27 May, p. 4.

Polk, K, Adler, C, Muller, D & Rechtman, K 2003, *Early Intervention: Diversion and Youth Conferencing: A national profile and review of current approaches to diverting juveniles from the criminal justice system*, Australian Government, Attorney General's Department, Canberra.

APPENDIX 1

Probability that young people who completed a conference for the first time in 1999 will have a proven court appearance within five years

	Age at conference	Non-Indigenous		Indigenous	
Referral source		Male	Female	Male	Female
Police referral	10 to 13 years	0.59	0.28	0.81	0.53
Court referral	14 to 15 years	0.61	0.30	0.82	0.55
	16 years or over	0.46	0.18	0.71	0.40
	10 to 13 years	0.78	0.48	0.91	0.74
	14 to 15 years	0.79	0.50	0.92	0.75
	16 years or over	0.67	0.35	0.86	0.61

APPENDIX 2

Probability that young people who completed a conference for the first time in 1999 will receive a custodial penalty within five years

	Age at conference	Non-Indigenous		Indigenous	
Referral source		Male	Female	Male	Female
Police referral	10 to 13 years	0.14	0.01	0.39	0.03
	14 to 15 years	0.09	0.01	0.27	0.02
	16 years or over	0.05	0.00	0.17	0.01
Court referral	10 to 13 years	0.26	0.02	0.58	0.07
	14 to 15 years	0.17	0.01	0.44	0.04
	16 years or over	0.10	0.01	0.30	0.02

Other titles in this series

No.104	The economic and social factors underpinning Indigenous contact with the justice system: Results from the 2002 NATSISS survey
No.103	Reoffending among young people cautioned by police or who participated in a Youth Justice Conference
No.102	Child sexual assault trials: A survey of juror perceptions
No.101	The relationship between petrol theft and petrol prices
No.100	Malicious Damage to Property Offences in New South Wales
No.99	Indigenous over-representation in prision: The role of offender characteristics
No.98	Firearms and violent crime in New South Wales, 1995-2005
No.97	The relationship between methamphetamine use and violent behaviour
No.96	Generation Y and Crime: A longitudinal study of contact with NSW criminal courts before the age of 21
No.95	Matching Court Records to Measure Reoffending
No.94	Victims of Abduction: Patterns and Case Studies
No.93	How much crime does prison stop? The incapacitation effect of prison on burglary
No.92	The attrition of sexual offences from the New South Wales criminal justice system
No.91	Risk of re-offending among parolees
No.90	Long-term trends in property and violent crime in NSW: 1990-2004
No.89	Trends and patterns in domestic violence
No.88	Early-phase predictors of subsequent program compliance and offending among NSW Adult Drug Court participants
No.87	Driving under the influence of cannabis: The problem and potential countermeasures
No.86	The transition from juvenile to adult criminal careers
No.85	What caused the recent drop in property crime?
No.84	The deterrent effect of capital punishment: A review of the research evidence
No.83	Evaluation of the Bail Amendment (Repeat Offenders) Act 2002
No.82	Long-term trends in trial case processing in NSW
No.81	Sentencing drink-drivers: The use of dismissals and conditional discharges
No.80	Public perceptions of crime trends in New South Wales and Western Australia
No.79	The impact of heroin dependence on long-term robbery trends
No.78	Contact with the New South Wales court and prison systems: The influence of age, Indigenous status and gender
No.77	Sentencing high-range PCA drink-drivers in NSW
No.76	The New South Wales Criminal Justice System Simulation Model: Further Developments
No.75	Driving under the influence of cannabis in a New South Wales rural area
No.74	Unemployment duration, schooling and property crime
No.73	The impact of abolishing short prison sentences
No.72	Drug use monitoring of police detainees in New South Wales: The first two years
No.71	What lies behind the growth in fraud?
No.70	Recent trends in recorded crime and police activity in Cabramatta