



Indigenous over-representation in prison: The role of offender characteristics

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Fifteen years ago the Royal Commission into Aboriginal Deaths in Custody drew attention to the fact that the rate of imprisonment of Indigenous Australians was 13 times higher than the corresponding rate for non-Indigenous Australians. Efforts to reduce Indigenous imprisonment rates over the intervening period have met with little success. Indeed, over the last few years, the rate of Indigenous imprisonment has increased. The research reported here had two main objectives. The first was to determine whether there is any evidence of racial bias in the sentencing of Indigenous offenders. The second was to determine what other factors account for the higher proportion of Indigenous offenders sentenced to terms of imprisonment. The research revealed no evidence of racial bias in sentencing. The higher rate at which Indigenous offenders are sent to prison stems mainly from (a) a higher rate of conviction for violent crime and (b) a higher rate of re-offending, particularly following the imposition of sanctions intended as alternatives to full-time imprisonment. The implications of these findings for policy are discussed.

INTRODUCTION

When the Royal Commission into Aboriginal Deaths in Custody (hereafter referred to as the Royal Commission) delivered its final report, it concluded that the high rate of Aboriginal deaths in prison stemmed from Aboriginal over-representation in prison (Commonwealth of Australia 1991). Following this report, Commonwealth, State and Territory Governments made a concerted effort to reduce the rate of Indigenous imprisonment. The Commonwealth Government devoted \$400 million to a range of programs and initiatives designed to reduce various possible sources of discrimination against Indigenous defendants in the criminal justice system and the overall level of Indigenous economic and social disadvantage. In addition, State and Territory Governments embarked on a

range of reforms to reduce Indigenous contact with the justice system: many decriminalised public drunkenness, most passed laws requiring prison to be used as a sanction of last resort and most also expanded the range of alternatives to custody (Cunneen and McDonald 1996).

The collective efforts of Australian Governments to reduce Indigenous contact with the justice system have not met with much success. In New South Wales (NSW), Indigenous defendants still appear in court on criminal charges at a rate which is 13 times higher than that of non-Indigenous defendants (21,342 per 100,000 population compared with 1,642 per 100,000 population). Not surprisingly, the rate of Indigenous imprisonment remains very high. In 1991, the rate of Indigenous imprisonment across Australia was 13 times higher than the rate of non-Indigenous imprisonment. Last year (i.e. fourteen years later) it was 12 times

higher. Over the last six years the rate of Indigenous imprisonment in Australia has risen by 23 per cent, while the ratio of Indigenous to non-Indigenous imprisonment has increased from 9.9 to 12.1 (Australian Bureau of Statistics 2005a, pp. 32). This is much larger than the disparity between African-American and white imprisonment rates in the United States (US Bureau of Justice Statistics 2006).²

The cause or causes of Australia's high Indigenous imprisonment rate remain a matter of some dispute. Some researchers have highlighted the issue of systemic or institutional bias in the response of the criminal justice system to Indigenous offending (e.g. Blagg et al. 2005). Others have drawn attention to the high rate of Indigenous involvement in violent crime and the high rate of Indigenous re-offending (e.g. Harding et al. 1995; Weatherburn, Fitzgerald and

Hua 2003). Empirical research into the causes of Indigenous imprisonment is surprisingly scant.

This bulletin presents the results of research bearing on two questions regarding Indigenous imprisonment:

1. Are Indigenous adult offenders more likely than non-Indigenous adult offenders to receive a sentence of full-time imprisonment, once factors legally relevant to the sentencing decision have been taken into account?
2. If not, which factors account for most of the difference in the rate at which Indigenous and non-Indigenous offenders are sent to prison?

The next section of this bulletin discusses a number of background issues relevant to these two questions. We then present and discuss the results of a study designed to address them.

BACKGROUND

Table 1 shows the trend in NSW in the proportions of adult Indigenous and non-Indigenous offenders receiving a prison sentence between 1997 and 2004. The left hand side of the table gives the percentage sentenced to prison

regardless of their prior prison history. The right hand side focuses only on those offenders who received their first prison sentence.

Table 1 indicates that Indigenous offenders are approximately three times more likely than non-Indigenous offenders to receive a sentence of imprisonment, regardless of their prior prison history. Indigenous offenders who have not previously been imprisoned are approximately 2.5 times more likely than non-Indigenous offenders to be imprisoned.

The differences shown in Table 1 do not necessarily mean that Indigenous offenders are treated more harshly by the courts than non-Indigenous offenders. Indigenous offenders may more frequently commit violent offences, for example, or have longer criminal records. Suggestions of racial bias in the criminal justice system, however, are a recurring theme in the literature on Indigenous imprisonment. According to Cunneen (1992, p. 1), there is a 'widespread and long-held view that judicial racism is a problem'. Craigie (1992, p. 1) has criticised the Royal Commission for failing to address what he called 'the whole question of judicial bias'. Gale et al. (1990, p. 7) attributed Indigenous over-representation in South

Australian custodial institutions to 'the compounding effect of discrimination suffered at earlier steps in the criminal justice process'. Blagg et al. (2005) have argued that 'systemic racism is a factor of established significance' to Indigenous over-representation in the criminal justice system. Most recently, Cunneen (2006, p. 340) has questioned whether Indigenous young people are being treated equitably in relation to diversion from the juvenile criminal justice system.

Claims of systemic or institutional racism in the criminal justice system are apt to create the impression that Indigenous defendants are being deliberately and systematically discriminated against by police, judicial officers and/or other officials within the system. Whether these claims are correct is an important empirical question. It is as well to note, however, that the terms 'systemic racism' and 'institutional racism', though clearly pejorative, are sometimes used in ways that do not necessarily entail any deliberate unfairness at all. According to Blagg et al. (2005, p. 12), for example:

'Systemic racism...is not about whether individuals hold racist views but about the uneven impact of laws, policies or practices. Put another way, systemic racism can to some extent be measured by outcomes and results rather than intentions.'

If this notion were accepted, the sentencing process would have to be considered systemically racist whenever one ethnic group is imprisoned at a higher rate than another ethnic group, regardless of the reason for the difference in outcomes. This would effectively rob the term 'systemic racism' of much of its pejorative force. According to the Australian Human Rights and Equal Opportunity Commission 'racial discrimination happens when someone is treated *less fairly* [our emphasis] because of their race, colour, descent, national origin or ethnic origin than someone of a different 'race' would be treated in a similar situation'.³ It would be more consonant with this definition to say that systemic racism refers to any

Table 1: Percentage of offenders given a prison sentence by Indigenous status, from 1997-2004

Year	Percentage of offenders sentenced to prison		Percentage of offenders sentenced to prison for the first time	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
1997	17.6	6.1	8.6	3.5
1998	17.5	6.5	8.1	3.8
1999	16.9	6.3	7.3	3.5
2000	16.3	6.4	6.6	3.4
2001	16.6	6.6	6.2	3.3
2002	18.6	6.8	6.7	3.3
2003	18.6	6.7	7.1	3.2
2004	20.1	6.5	7.6	3.0

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

set of arrangements, procedures or rules that results in *systematic unfairness* to a particular ethnic or racial group.

The research reported here, therefore, is not concerned with systemic or institutional bias as Blagg et al. (2005) and others define these terms. There is no doubt that Indigenous Australians are more frequently imprisoned than non-Indigenous Australians. Whether this is properly described as institutional or systemic racism depends entirely on whether the difference in imprisonment rates arises from systematic unfairness in the way the justice system responds to Indigenous defendants. We assume in this bulletin that the justice system shows evidence of systemic racism toward Indigenous defendants only when, by reason solely of their Indigenous status, Indigenous defendants are treated more harshly than non-Indigenous defendants. On this definition, a higher rate of imprisonment among Indigenous offenders can only be regarded as evidence of systemic racial bias if it (a) cannot be explained in terms of factors which the courts can legitimately take into account when sentencing an offender particularly to full time prison or (b) can be shown to result from discriminatory treatment of Indigenous people at earlier points in the criminal justice process. The first of these possibilities we will refer to as direct discrimination, the second as indirect discrimination.

There is very little Australian research that looks specifically at the issue of racial discrimination in sentencing but the research that exists does not provide much support for the claim that sentencing courts treat Indigenous offenders unfairly. In one of the earliest Australian studies, Eggleston (1976) claimed to have found evidence of racial bias in sentencing in a sample of cases drawn from courts in 10 Western Australian towns. Her claim rested on two main arguments. The first was that Indigenous offenders were more likely to receive a prison sentence than non-Indigenous offenders and this difference persisted even after (separately) controlling for offence type and prior

criminal record. The second was that criminal proceedings were more often initiated against Indigenous Australians than against non-Indigenous Australians. This, she argued, increased the proportion of Indigenous defendants with a prior criminal record, thereby increasing the proportion given a prison sentence.

Both of these arguments are open to challenge. The problem with the first argument is that Eggleston (1976) did not control for the joint effects of offence and prior criminal record, nor did she control for a range of other factors that courts can legitimately take into account when sentencing an offender (e.g. plea, age, whether the offence occurred while the accused was on bail or parole). The second argument, on the other hand, rests on two contestable assumptions. The first is that Indigenous convictions for minor offences play a significant role in shaping the sentencing decisions of judges and magistrates when it comes to serious offences. Eggleston presented no evidence to support this claim. The second is that the higher Indigenous prosecution rate is largely a product of police bias. Eggleston presented some evidence of racial bias in the policing of minor offences but no evidence that the differential in rates of prosecution is substantially a product of racial bias in the exercise of police discretion.

More rigorous studies have generally found little evidence of racial bias in sentencing. After comparing sentencing patterns for Indigenous and non-Indigenous offenders, Walker (1987) concluded that '...the courts cannot be held to blame for the high rates of Aboriginal imprisonment. On the contrary, they appear to be particularly lenient to Aboriginal offenders'. Luke and Cunneen (1995) did not find any evidence of racial bias in the imposition of custodial sentences on juvenile offenders once factors such as prior imprisonment, prior criminal record, offence, age and gender were taken into account. Similarly, Gallagher and Poletti (2000) found no difference between 'Anglo' and 'ATSI' juvenile defendants in the percentage or length of control (i.e. custody) orders

received after comparing groups of juvenile defendants who were carefully matched on a range of characteristics, including bail status, number and type of offences dealt with, gender, level of education, living arrangements, employment status and prior criminal record.

Studies like these, which attempt to determine whether country of birth or ethnic background is predictive of sentence severity after controlling for sentence-relevant factors, have been criticised (Davies 2003, cited in Blagg et al. 2005) on the following grounds:

1. Studying a 'single point' (e.g. sentencing) masks the cumulative but substantial effect of discriminatory decision making by agents within the criminal justice system.
2. It is wrong to assume that 'legal' variables, such as an offender's prior criminal record, are objective and race-neutral because an offender's race, gender or class may taint them.
3. Legal variables, such as the length and character of a person's prior criminal record, may be influenced by racial bias in the way others (e.g. the police) respond to suspected offenders.
4. Some legal variables may be acting as proxies for racial bias. Indigenous offenders placed on community-based sentencing orders, for example, may be subjected to greater scrutiny than non-Indigenous offenders placed on similar orders.

The common thread running through all these criticisms is that racial discrimination at points earlier than the sentencing process might influence the factors that sentencing courts take into account or, to put the point more simply, racial discrimination in sentencing is indirect rather than direct. What evidence is there to support this claim? Because an offender's prior criminality has a powerful influence in sentencing, much of the focus in this area has been on the way in which policing policy might influence the length of an offender's criminal record.

It has been suggested, for example, that Indigenous Australians are ‘over-policed’ (Blagg et al. 2005) or, in other words, that Indigenous Australians are more likely than non-Indigenous Australians to be arrested for minor public offences, such as swearing at police. The historical evidence does indeed show a high rate of Indigenous arrest for minor public order offences (Ronalds, Chapman & Kitchener 1983; Commonwealth of Australia 1991; Luke & Cunneen 1995; Australian Bureau of Statistics 1995; Jochelson 1997; Cunneen 2001). Yet there is no evidence that prior convictions for minor offences play an important role in shaping the risk of imprisonment. As can be seen from Table 2 below, less than five per cent of Indigenous offenders currently in a NSW prison are serving time for public order offences, such as offensive behaviour or offensive language. If courts do not often imprison offenders for minor offences, it is hard to see why they would give much weight to past convictions for minor offences when deciding whether or not to imprison an offender for a serious offence. They are certainly not obliged to give equal weight to every feature of a person’s prior criminal record when deciding whether to imprison them (Fox & Freiberg 1999, p. 272). An offender’s prior record can only be used adversely in the circumstances set out by the High Court.⁴ A prior record for summary offences may be ignored completely. On the other hand, where prior convictions involve violence, they must be attributed substantial weight.

Another finding sometimes put forward in support of the claim that there is indirect discrimination is that police are more likely to charge Indigenous offenders than to caution them or refer them to a diversion scheme, such as Youth Justice Conferencing (Gale et al. 1990; Luke & Cunneen 1995). Indigenous offenders, however, may be less frequently cautioned because they commit more serious offences or because they are less inclined to admit the offence and/or have longer criminal records (Weatherburn, Fitzgerald & Hua 2003). These are considerations which, regardless of Indigenous status, would render anyone more likely to be charged rather than cautioned, more likely to be refused bail than granted it and more likely to be given a custodial sentence if convicted. It is interesting to note that Luke and Cunneen (1995) did not find any evidence of racial bias in the granting of bail once factors such as prior imprisonment, prior criminal record, offence, age and gender were taken into account.⁵ Gale et al. (1990), on the other hand, found that, except in the category of motor vehicle theft, the predicted probability of arrest was actually lower for Indigenous defendants than for their non-Indigenous counterparts, once relevant legal variables had been taken into account.

Similar problems afflict other claims that have been made about the interaction between law enforcement and prior criminal record. It has been noted, for example, that Indigenous offenders are more likely to be convicted for breaching

community orders (Blagg et al. 2005). This is of some relevance to sentencing because, as we shall see later, offenders who breach community service orders are highly likely to be sent to prison. There is no evidence, however, that the higher breach rate for community service orders among Indigenous offenders is the result of discriminatory or biased decision making on the part of police or parole authorities. And if the higher breach rate is not a result of discriminatory action on the part of enforcement authorities, it cannot fairly be said that sentencing courts, which take breaches of community orders into account, are vehicles for indirect racial discrimination. The same arguments apply, *mutatis mutandis*, where courts, by reason of mandatory sentencing laws, are obliged to impose a sentence of imprisonment or a minimum prison term on offenders who commit certain types of offences or whose prior criminal record has certain characteristics.⁶

In summary, then, past research provides little support for the hypothesis that Indigenous imprisonment rates are a reflection of racial discrimination within the criminal justice system. Most Australian studies have found little or no difference in the likelihood of imprisonment between Indigenous and non-Indigenous offenders, once relevant legal factors have been taken into account. The evidence adduced in support of claims of indirect discrimination, on the other hand, is at best little more than unsupported speculation. No one has yet shown that racial bias in the way in which police and/or prosecuting authorities choose to exercise their discretion is a significant contributor to Indigenous over-representation in prison.

THE CURRENT STUDY

STUDY AIMS

It does not follow, of course, that the possibility of racial bias in sentencing Indigenous offenders can be laid to rest. Although there has been extensive

Table 2: Offence type by Indigenous status for inmates in NSW prisons, 2005

Offence type	Indigenous	Non-Indigenous
	%	%
Homicide	5.8	7.4
Major assault, sexual assault and robbery	32.0	22.7
Other assault and robbery	14.6	8.5
Property	21.1	22.2
Driving	5.4	9.4
Order offences	4.5	4.0

Source: NSW Department of Corrective Services 2005 Inmate Census.

discussion of indirect racism within the criminal justice system, strangely enough no study so far has sought to determine whether there is any evidence of *direct* racial bias in the sentencing of Indigenous adult offenders. Research of this kind is obviously important for the light it would shed on Indigenous over-representation in prison, but it is important for other reasons as well. One of the most common ways in which Australian State and Territory Governments have sought to reduce rates of Indigenous imprisonment is through the use of diversionary sentencing options and programs, such as community service orders, suspended sentences, Youth Justice Conferencing and Circle Sentencing. Weatherburn, Fitzgerald and Hua (2003) have argued that past diversionary programs have been ineffective in reducing rates of Indigenous imprisonment because a high proportion of Indigenous offenders re-offend after being placed on such programs and this puts them at a heightened risk of being sent to prison. Although this is a plausible conjecture, it has not so far been tested empirically.

The current study therefore had two broad objectives. The first was to see whether there is any difference in the rate at which Indigenous and non-Indigenous offenders are sentenced to imprisonment, once controls have been introduced for the main legal factors that courts are permitted to take into account when sentencing offenders. The second was to see which factors account for the difference in the rate at which Indigenous and non-Indigenous offenders are sent to prison.

SELECTION OF VARIABLES

The law prescribes a very large range of factors that the courts may take into account when sentencing an offender. It is impossible to measure and control for them all. Fortunately, some considerations in sentencing are much more important than others. The selection of variables in the current study was guided both by legal considerations and preliminary empirical research into the

factors that seemed most closely related to the outcome of interest (imprisonment).

The most important consideration in legal terms is offence seriousness, because it is a basic principle of sentencing that sentences must be proportionate to the gravity of the crime.⁷ The primary indicator of offence seriousness from a legal standpoint is the maximum penalty established by statute. However, both the common law and section 21A(2)(b) of the *Crimes (Sentencing Procedure) Act 1999* treat violence as a serious aggravating factor in any offence. Preliminary empirical research indicated that offences involving serious violence and offenders convicted of multiple offences are generally dealt with more harshly.⁸ The present study therefore measured offence seriousness using two dummy variables. The first took the value 1 when the offender's principal offence involved a serious violent crime,⁹ and zero otherwise. The second measured whether or not concurrent offences were involved, that is, whether or not the defendant, at the index court appearance, had been convicted of any offences in addition to the principal offence.

The prior record of an offender is of fundamental importance in sentencing because the history of an offender can operate to deprive him or her of any leniency. It can also provide justification for giving more weight to factors such as retribution, deterrence or community protection.¹⁰ According to Fox and Freiberg (1999), the nature of an offender's response to previous court orders, particularly those involving conditional liberty (e.g. bail, parole, community service orders, periodic detention) is an important component of an offender's prior criminal record. Fox and Freiberg put the law in these terms:

'Failure to respond to unsupervised and supervised release, to fines, or to short custodial sentences, allows a court to conclude that the offender's prospects for rehabilitation are poor and that the deterrent effect of more moderate sanctions is negligible. The offender's record is used as a predictor of how the person will react to similar circumstances in the future. Past failures lead inexorably to more

severe penalties....as a further step in the search for a measure that will have some effect in bringing about law abiding behaviour.' (Fox and Freiberg 1999, p. 270)

Preliminary investigations indicated that the risk of imprisonment was significantly higher for: offenders who had appeared in court several times previously; offenders who had a breach of a previous court order as one of their concurrent offences; offenders who had previously received a suspended sentence for some offence; and offenders who had previously received a sentence of periodic detention.

To measure the influence of an offender's prior criminal record we constructed a variable that measured the number of prior convictions at which the offender was convicted of at least one offence. To measure the offender's response to previous court orders, on the other hand, we constructed three dummy variables measuring whether or not the concurrent offences included a conviction for breaching a previous court order, whether or not the offender had previously been given a suspended sentence, and whether or not the offender had previously been given a sentence of periodic detention. We tested two other variables (whether the offender had been convicted of a prior serious violent offence or convicted of a prior breach offence) to see whether they were predictive of imprisonment. Neither proved significant when included in the regression model described below.

Several other factors associated with the offender are relevant considerations in sentencing. Age is a relevant consideration because rehabilitation has been held to play a more important role and general deterrence a lesser role in the case of young offenders.¹¹ Gender is sometimes a relevant consideration, not in its own right, but because lesser penalties are sometimes appropriate where the defendant is pregnant or a particular penalty might cause special hardship to dependent children.¹² The defendant's plea is a relevant consideration because it can be taken into account as a mitigating factor.¹³

In summary, the study sought to establish whether Indigenous status is predictive of whether or not an offender receives a prison sentence, controlling for:

- The seriousness of the principal offence and, in particular, whether it involves violence;
- Whether the offender has been convicted of concurrent offences in the current case;
- The prior criminal record of the offender;
- Whether an offender has previously been given a community-based sanction as an alternative to imprisonment;
- Whether the offender has pleaded guilty in the current case; and
- The age and gender of the offender.

In the first part of this study we address the question of whether Indigenous offenders are more likely to receive a sentence of imprisonment, after controlling for the factors listed above. In the second part we compare Indigenous and non-Indigenous offenders (in terms of the factors listed above) to determine what factors account for most of the difference between Indigenous and non-Indigenous offenders in the rate at which they are imprisoned.

METHODS AND DATA SOURCES

The data for this study are drawn from ROD, the Bureau's re-offending database (Hua & Fitzgerald 2006). We focus on adult offenders who were found guilty of one of a defined group of offences¹⁴ in a Local, District or Supreme Court in NSW in the four years from 2001 to 2004. The offences were chosen so as to exclude those with a very high probability of imprisonment (e.g. homicide) and offences that are rare (e.g. abduction).

There were a number of other restrictions on the sample of cases we examined. Because the effect of prior imprisonment on risk of subsequent imprisonment tends to lessen the effects of all other legal variables we removed all offenders with a prior full-time prison record. (A

separate analysis was carried out for this group and is included as Appendix 1). To avoid cross-contamination of case effects, we removed all offenders on remand for another offence at the time of their final hearing for the offence of interest. Preliminary analyses indicated that legal representation is strongly predictive of imprisonment, presumably because legal representation acts as a proxy for offence seriousness. To ensure that the model was able to treat all offenders equally, we further limited our population to offenders with legal representation. This group comprised approximately 56 per cent of all offenders in our original sample.

Because multiple records existed for some offenders (i.e. the offender had been found guilty at more than one case over the period), only the most recent case was retained. We chose to retain the final case so as to ensure an accurate picture of the offender's criminal record was reflected. Offenders with missing data on demographic variables of interest were removed after appropriate checks were performed to ensure this did not bias the remaining sample. This latter process resulted in the removal of 118 records.

The Indigenous variable is coded in ROD as 'Indigenous', 'Non-Indigenous' and 'Unknown'. 'Unknown' offenders are predominantly driving and traffic offenders (61 per cent of offenders meeting our criteria) and have a significantly lower imprisonment rate than other offenders. We allocated all entries with an 'Unknown' value to the 'Non-Indigenous' category and treated as Indigenous only those offenders who had specifically identified as such. This may seem quite a large assumption to make but informal advice given by NSW Police to the second author suggests that police often fail to record the ATSI status of someone who does not appear to them to be an Aboriginal or Torres Strait Islander. Note that in making this assumption, we will in fact be overestimating the Indigenous effect, rather than underestimating it.

In total there were 93,130 offenders who fulfilled our criteria over the period from 2001 to 2004. Of these, 6,212 (or 6.67 per cent) were given a prison sentence for

the current offence. Indigenous offenders made up 9,401 (or 10.09 per cent) of all offenders and 1,063 (or 17.11 per cent) of the offenders sentenced to prison. This percentage is lower than the average percentage of Indigenous offenders convicted in courts and imprisoned each year because our sample is drawn from offenders receiving only their first prison sentence.

In order to determine whether the justice system treats Indigenous offenders more harshly than non-Indigenous offenders we constructed a binary logistic regression model with prison as the dependent (or response) variable. The factors included in the model were as follows:

1. Age
2. Gender
3. Number of prior court appearances¹⁵ resulting in at least one conviction
4. Whether the principal offence¹⁶ at the current court appearance involves serious violence
5. Whether the defendant has been convicted at the current court appearance of any other (i.e. concurrent) offences
6. Whether any of the convictions at the current court appearance (other than that involving the principal offence) involve a breach of a court order
7. Whether the offender has previously received a suspended sentence
8. Whether the offender has previously received a sentence of periodic detention
9. Whether the defendant pleaded guilty to the principal offence
10. Year of offence¹⁷

RESULTS

The results of our analysis are presented in four stages. Firstly we explore the bi-variate relationships between our explanatory variables and the likelihood of receiving a prison sentence, in order to determine which variables influence the likelihood of imprisonment. We then

include these variables in a logistic regression analysis of the probability of imprisonment in order to see whether the Indigenous status of a defendant exerts any effect on the likelihood of imprisonment, once controls have been introduced for factors that the courts can take into account when sentencing an offender. In the section that follows, a series of graphs are presented which illustrate the effect that various legal factors have on the likelihood of a prison sentence. We conclude the results section of the report by comparing the distribution of the most significant variables for Indigenous and non-Indigenous offenders, highlighting those variables that contribute towards the discrepancy in imprisonment rates.

BI-VARIATE COMPARISONS¹⁸

Prior convictions

Table 3 shows how the likelihood of a sentence of full-time imprisonment changes as a function of the number of prior convictions. Note that the term ‘prior convictions’ in what follows refers to prior court appearances resulting in at least one conviction.

As would be expected, the likelihood of a custodial penalty increases with each conviction. Only about 1 in 30 offenders with no prior conviction receive a prison sentence. The chance of a prison sentence rises to nearly 2 in 7 for offenders who have been convicted eight or more times.

Principal offence in current case

In the present study, the principal offence was initially coded according to the Australian Standard Offence Classification (ASOC), as defined by the Australian Bureau of Statistics (Australian Bureau of Statistics 1997) and then grouped according to the broad nature of the offence. Table 4 shows the percentage of offenders sentenced to prison according to the nature of their principal offence. The category ‘Serious violent’ includes aggravated assault, aggravated sexual assault and aggravated robbery. ‘Other violent’

Table 3: Percentage of offenders imprisoned by number of prior convictions

<i>Number of Prior Convictions</i>	<i>Percentage of Offenders</i>	
	<i>Given Prison Sentence</i>	<i>Given Sentence Other than Prison</i>
	<i>%</i>	<i>%</i>
0	3.4	96.6
1	5.4	94.6
2	8.3	91.7
3	11.2	88.9
4	15.4	84.6
5	18.4	81.6
6	20.8	79.2
7	23.2	76.8
8+	28.1	71.9

Source: NSW Bureau of Crime Statistics and Research. Unpublished data

Table 4: Percentage of offenders imprisoned by principal offence type

<i>Principal offence type</i>	<i>Percentage of Offenders</i>	
	<i>Given Prison Sentence</i>	<i>Given Sentence Other than Prison</i>
	<i>%</i>	<i>%</i>
Serious violent	54.3	45.7
Other violent	5.5	94.5
Property	15.4	84.6
Drugs	15.8	84.2
Other	2.8	97.2

Source: NSW Bureau of Crime Statistics and Research. Unpublished data

Table 5: Percentage of offenders imprisoned by whether the offender had a concurrent offence

<i>At least one concurrent offence</i>	<i>Percentage of Offenders</i>	
	<i>Given Prison Sentence</i>	<i>Given Sentence Other than Prison</i>
	<i>%</i>	<i>%</i>
Yes	15.6	84.4
No	3.7	96.3

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

is defined as non-aggravated assault, sexual assault and robbery offences. The ‘Property’ category includes break and enter, theft and fraud. ‘Drugs’ includes all drug offences. Finally, the ‘Other’ category includes offences, such as driving, traffic and breach charges.

Table 4 indicates that ‘Serious violent’ offending is the only category of crime

where the majority of offenders (about 11 in 20) receive a prison sentence (n.b. recall that none of these offenders have been sentenced to a term of imprisonment before). Drug and property offenders are the second and third groups most likely to be sentenced to prison. In both groups just over one in six offenders receive such a sentence. This proportion

is almost three times more than the proportion of 'Other violent' offenders. The 'Other' category is the largest in numerical terms, but it has the smallest percentage imprisoned.

Concurrent offences

A concurrent offence is any offence not considered the principal offence but for which a conviction is entered at the same time as the principal offence. This means, in the context of the present study, that it is an offence with a penalty less serious than that of another offence in the same case. Table 5 examines the relative likelihood of imprisonment, according to whether or not the offender had been convicted of concurrent offences.

As can be seen from Table 5, offenders with at least one concurrent offence are more than four times more likely to be imprisoned than those who have no concurrent offences. Less than 1 in every 6 of those with a concurrent offence receive a prison sentence, compared with 1 in every 27 offenders who have no concurrent offence.

Concurrent breach offences

As noted earlier, when deciding whether to imprison an offender, courts are permitted to consider whether the offender has failed to comply with (i.e. breached) a previous court order. In this study, a breach offence is defined as any offence involving the breach of a justice order, including breach

of bail, parole and domestic violence orders. Table 6 shows the percentage of offenders imprisoned, according to whether their current case contains a concurrent breach offence.

The table shows that offenders whose concurrent convictions include breaching a previous court order are more than four times more likely to receive a prison sentence than offenders who have no concurrent convictions or whose concurrent convictions do not include a breach offence. Only about one in every 17 offenders without a concurrent breach offence is sentenced to prison, whereas almost one in every four offenders with a concurrent breach offence is imprisoned.

Previous penalties

Penalties such as suspended sentences or periodic detention are at the penultimate end of the penalty scale, before the imposition of a sentence of full-time imprisonment. The risk of imprisonment for offending after the imposition of these other penalties would be expected to be high. Tables 7 and 8 examine this issue. Table 7 shows the likelihood of imprisonment for offenders who have previously received one or more suspended sentences. Table 8 shows the likelihood of imprisonment for offenders who have previously received one or more periodic detention sentences.

Table 7 indicates that the risk of imprisonment for an offence that follows the imposition of a suspended sentence increases by a factor of 5.4 (i.e. from 1 in 17 to slightly under 1 in 3). Table 8 shows that offenders appearing in court who have at least one previous sentence of periodic detention are about 4.6 times more likely to receive a prison sentence than offenders who have not received a periodic detention sentence. About 1 in 17 of those who have not previously received a sentence of periodic detention, receive a prison sentence, compared with about 1 in 4 of those who have previously received a periodic detention sentence.

Age and gender

Tables 9 and 10 show the likelihood of a prison sentence given the age (Table 9) and gender (Table 10) of the offender.

Table 6: Percentage of offenders imprisoned by whether offender had a concurrent breach offence

	Percentage of Offenders	
	Given Prison Sentence	Given Sentence Other than Prison
Concurrent breach offence	%	%
Yes	23.9	76.2
No	5.9	94.1

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

Table 7: Percentage of offenders imprisoned by whether or not given a previous suspended sentence

	Percentage of Offenders	
	Given Prison Sentence	Given Sentence Other than Prison
At least one previous sentence included a suspended sentence	%	%
Yes	31.8	68.2
No	5.9	94.1

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

Table 8: Percentage of offenders imprisoned by whether or not given a previous periodic detention

	Percentage of Offenders	
	Given Prison Sentence	Given Sentence Other than Prison
At least one previous sentence included periodic detention	%	%
Yes	27.5	72.5
No	6.0	94.0

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

The age is at the court appearance rather than at the offence date. The age grouping has been chosen to separate younger from older offenders.

Table 9 does not show a significant difference between the age groups at the 5 per cent level but the difference is significant at the 10 per cent level. Age, therefore, will still be included in the model. Table 10 shows a clear difference between the imprisonment rates for men and women, with men being almost twice as likely as women to be sentenced to prison.

Plea for principal offence

Defendants who plead guilty can be given a ‘discount’ on their sentence. Table 11 shows the likelihood of a prison sentence for offenders who plead “guilty” compared with those who plead either “not guilty” or enter no plea.

Table 11 shows a noticeable reduction in imprisonment risk when an offender pleads guilty. Almost 1 in 10 offenders who plead not guilty are imprisoned, compared with less than 1 in 16 of those who plead guilty.

MULTIVARIATE ANALYSIS

Bi-variate comparisons do not allow us to tell whether the putative effect of some factor (e.g. offence type) is actually attributable to it and not to some other correlated factor (e.g. prior criminal record). Regression models allow us to assess the effect of a variable while keeping other variables included in the model constant. Because of the dichotomous nature of our response variable (i.e. whether or not the offender was given a prison sentence), a binary logistic regression model is the most appropriate.

The model was constructed using a random sample of approximately 40 per cent of the total dataset. The sampled dataset contained 38,109 offenders. The following table (Table 12) presents the results of the model¹⁹, including the parameter estimates (and their associated standard errors); the *p*-values and the odds ratios (with their associated 95 per cent confidence intervals). The year variables were included to control for the year effect rather than to serve as useful explanatory variables.

Interpreting parameter estimates and odd ratios in logistic regression needs to be carefully done because, rather than modelling the risk of imprisonment directly, we are modelling the log odds of a prison sentence. That is, we are modelling the natural logarithm of the probability of a prison sentence divided by the probability of a non-prison sentence:

$$\ln \left[\frac{p}{1-p} \right]$$

Considering the parameter estimates, the model suggests that, when holding other variables constant:

- Offenders aged under 30 are less likely than those aged 30 or over to be sentenced to prison;
- Male offenders are more likely to be imprisoned than female offenders;
- Additional previous convictions increase the probability of prison;
- Being convicted of a serious violent offence significantly increases the likelihood of prison, as compared with all other offences under consideration;
- A conviction for at least one concurrent offence has a strong positive effect on the probability of imprisonment;
- A concurrent breach offence has a relatively low positive effect on imprisonment;
- A previous serious penalty (periodic detention or suspended sentence) has a positive impact on imprisonment, with a previous suspended sentence having more of an impact;
- A guilty plea reduces the chances of imprisonment; and

Table 9: Percentage of offenders imprisoned by age

	Percentage of Offenders	
	Given Prison Sentence	Given Sentence Other than Prison
Age at time of court appearance	%	%
18-29	6.6	93.4
30+	6.3	93.7

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

Table 10: Percentage of offenders imprisoned by gender

	Percentage of Offenders	
	Given Prison Sentence	Given Sentence Other than Prison
Gender	%	%
Female	3.7	96.3
Male	7.1	92.9

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

Table 11: Percentage of offenders imprisoned by plea

	Percentage of Offenders	
	Given Prison Sentence	Given Sentence Other than Prison
Plea for principal offence	%	%
Guilty	6.0	94.0
Not guilty or no plea	9.8	90.2

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

Table 12: Results of the binary logistic model, with prison sentence as the dependent variable

Comparison	Parameter Estimate (and Standard Error)	P-value	Odds Ratio (With 95% CI)
Intercept	-4.365 (0.102)	<0.001	N/A
Aged under 30 vs. Aged 30 or over	-0.215 (0.048)	<0.001	0.806 (0.733 - 0.886)
Male vs. Female	0.430 (0.074)	<0.001	1.537 (1.331 - 1.776)
Prior convictions ²⁰	0.228 (0.010)	<0.001	1.256 (1.232 - 1.281)
Current offence is serious violent vs. other offence type	3.053 (0.082)	<0.001	21.18 (18.05 - 24.85)
At least one concurrent offence vs. No concurrent offences	1.371 (0.051)	<0.001	3.937 (3.565 - 4.348)
Concurrent breach offence vs. No concurrent breach offence	0.410 (0.087)	<0.001	1.507 (1.271 - 1.788)
Prior suspended sentence vs. No prior suspended sentence	1.067 (0.097)	<0.001	2.906 (2.402 - 3.515)
Prior periodic detention vs. No prior periodic detention	0.773 (0.106)	<0.001	2.166 (1.761 - 2.665)
Guilty plea vs. Other plea	-0.202 (0.066)	0.002	0.817 (0.718 - 0.930)
2001 vs. 2004	0.381 (0.061)	<0.001	1.464 (1.299 - 1.651)
2002 vs. 2004	0.330 (0.059)	<0.001	1.390 (1.238 - 1.561)
2003 vs. 2004	3.134 (0.128)	<0.001	22.96 (17.87 - 29.50)
Indigenous vs. Non-Indigenous	0.081 (0.070)	0.247	1.084 (0.945 - 1.243)

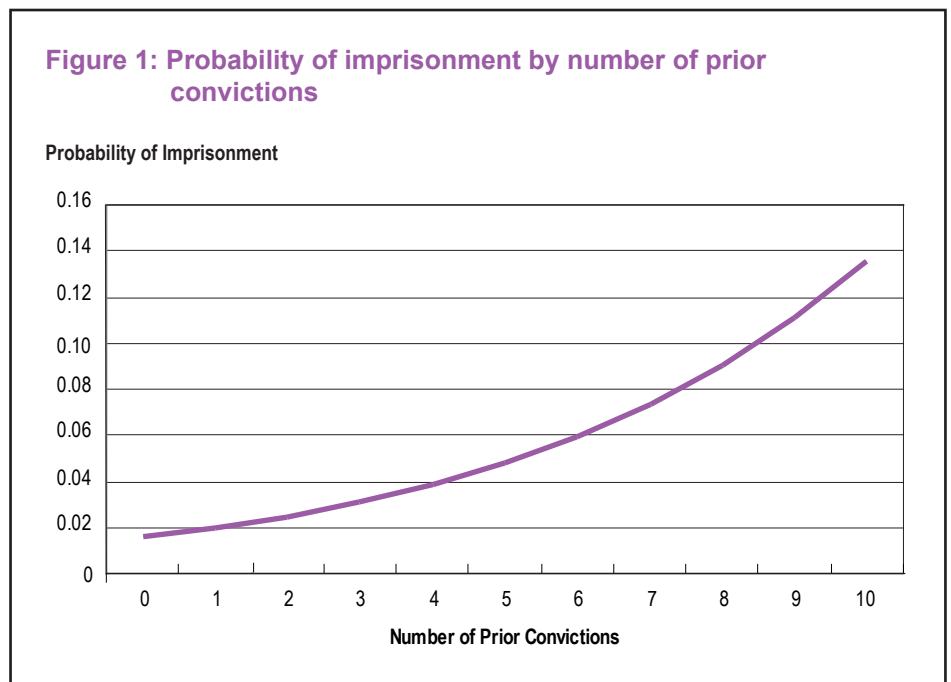
Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

- The Indigenous variable has a *p*-value of 0.247. This suggests that when other variables are held constant, the Indigenous variable does not have a significant effect on the Prison response variable. That is, the Indigenous status of an offender does not explain their prison sentence when other variables such as those in the model are held constant.

The parameter estimates in Table 12 do not provide a direct indication of how various combinations of offender characteristics influence the risk of imprisonment. The next section presents a series of graphs designed to draw out the full implications of Table 12.

THE EFFECT OF LEGAL FACTORS ON THE RISK OF IMPRISONMENT

In this section we examine the effect of four variables (number of prior convictions, conviction for a serious violent offence, conviction for a concurrent offence and previous suspended sentence) on the probability of imprisonment. The following graphs



show the changing probability of prison with respect to the median case (see Figure 1 above), current conviction for a serious violent offence (Figure 2), at least one concurrent offence (Figure 3) and a previous suspended sentence (Figure 4).

Figure 5 shows the effect on the risk of imprisonment of changes in the number of risk factors.

The median case assigns each variable in the model its median value in the total dataset.²¹ In this case, only sex and guilty

plea had values of 1. All other variables had values of 0. So the median case is a male age 30 or over, who has no prior serious penalties, has not committed a serious violent crime in the current case, has no concurrent convictions and has pleaded guilty.

Figure 1 indicates that an offender in the median case who has no prior convictions has only a 1.5 per cent chance of being given a sentence of imprisonment. An identical offender with five previous convictions has a five per cent chance of being sentenced to prison. With 10 previous convictions the probability of imprisonment rises to 13.5 per cent. Clearly, even for offenders with no history of serious violent crime and no history of serious penalties, the number of previous convictions has a significant impact on their chances of being imprisoned.

Figure 2 considers the situation of an offender who has committed a serious violent offence in the current case.

Here the relationship between prior record and risk of imprisonment is much more pronounced. For an offender with no prior record, the probability of imprisonment is 25 per cent. This is 17 times higher than the risk of imprisonment faced by an offender with the same characteristics who has not been convicted of a serious violent offence in the current case. With five prior convictions, the risk of imprisonment rises to just over 50 per cent, which is 10 times higher than the risk of imprisonment for an identical offender who has not been convicted of a serious violent offence. With 10 prior convictions, the risk of imprisonment rises to 77 per cent. Note that this is only about six times higher than the corresponding risk for someone with the same characteristics who has not committed a serious violent offence. The diminishing difference between the two groups in the risk of imprisonment arises because the relationship between prior record and risk of imprisonment for offenders convicted of serious violent offences is almost linear, whereas the same relationship for offenders not convicted of a serious violent offence is positively accelerated.

Figure 2: Probability of imprisonment by number of prior convictions: offenders with a current serious violent offence



Figure 3: Probability of imprisonment by number of prior convictions: offenders with at least one concurrent offence

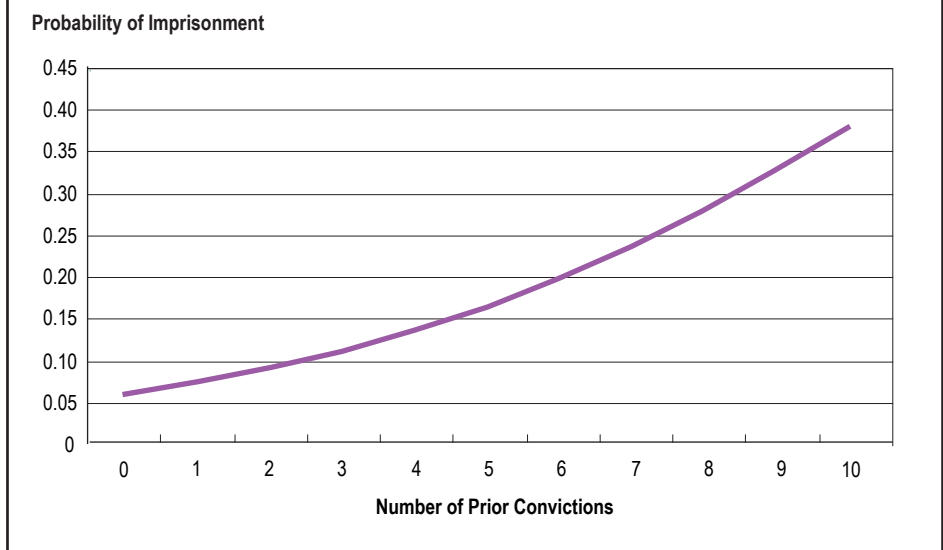


Figure 3 again takes the median case but this time considers the effect on the probability of imprisonment of having at least one concurrent offence.

The rise in probability is not as dramatic as that seen in the previous graph. For an offender with concurrent offences but no prior convictions, the risk of imprisonment is six per cent. This is four times higher than the risk faced by an offender with no concurrent convictions. When the number

of prior convictions rises to five, the risk of imprisonment for someone with concurrent convictions rises to just over 16 per cent, which is 3.2 times higher than the corresponding risk for someone with no concurrent convictions. Finally, for offenders with 10 prior convictions, the risk of imprisonment is 38 per cent, which is just under three times higher than the corresponding risk for someone with no concurrent offences.

Figure 4 considers the effect of having a previous suspended sentence on the probability of imprisonment.

The probability of imprisonment for offenders with a previous suspended sentence and only one previous court appearance is 5.5 per cent, which is almost three times higher than the corresponding risk for an offender with the same characteristics but no previous suspended sentence. With five previous convictions, the probability increases to 12.7 per cent, which is 2.5 times higher than the median case. And finally, for 10 previous convictions, the risk of imprisonment is 31.2 per cent, or just over twice that for someone with identical characteristics but who has not previously received a suspended sentence. This suggests that, while a previous serious non-custodial sentence increases the chances of imprisonment, committing a serious violent offence has a much larger effect on the risk of imprisonment.

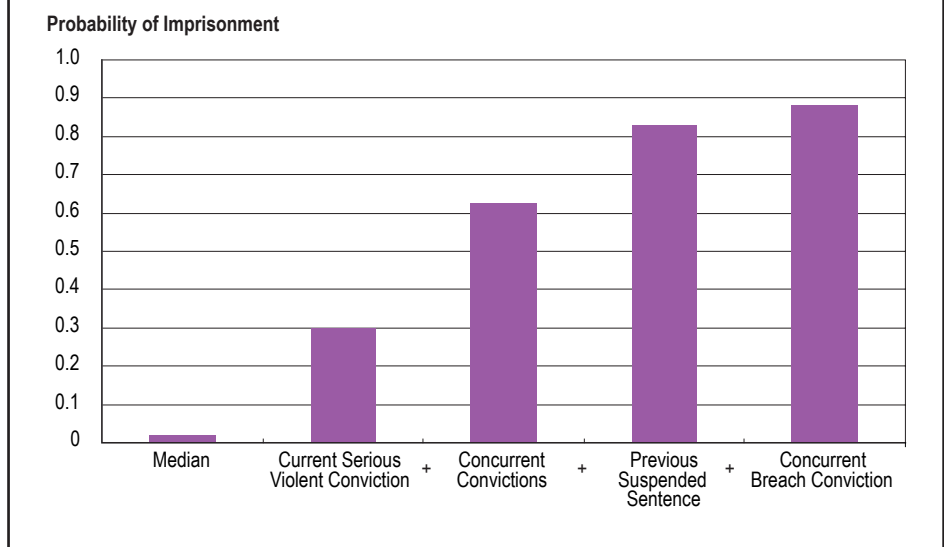
It is of interest to examine the cumulative effect on the risk of imprisonment of having various combinations of the characteristics we have just examined. In Figure 5 we consider the effect of each extra characteristic for a person with one prior conviction. The first case is the median case outlined above; the second adds a conviction for a serious violent offence to the median case; the third adds a concurrent conviction to the serious violent case and so on.

Figure 5 shows the compounding effect one characteristic has when taken in conjunction with other influential characteristics. For an offender with one conviction, a serious violent conviction increases the chance of imprisonment from two per cent to 30 per cent. A concurrent conviction on top of a serious violent conviction increases the probability to 63 per cent. Having previously been given a suspended sentence increases the risk of imprisonment to over 80 per cent. If, in addition to all these other characteristics, the offender has a concurrent conviction for breaching a court order, the risk of imprisonment rises to 88 per cent. Notice, incidentally, that the effect of having

Figure 4: Probability of imprisonment by number of prior convictions: offenders with a previous suspended sentence



Figure 5: Probability of imprisonment as a function of various offender characteristics



a conviction for a concurrent offence is much larger where the offender is convicted of a serious violent offence than where they have not been convicted of a serious violent offence (see Figure 3).

COMPARING INDIGENOUS AND NON-INDIGENOUS OFFENDERS²²

Results from the model suggested that the variable, 'Indigenous status' was not significant. The *p*-value associated with

this statistic can be thought of as the probability of getting the results for the coefficient (the parameter value and the standard error) given that the 'true' value for the coefficient of the variable is negligible (i.e. that the variable has no explanatory power). In this case a *p*-value of 0.247 (or a 25 per cent chance) suggests that there is no discernable evidence to suggest that the Indigenous status of an offender has a significant effect on their probability of imprisonment.

It follows that the imprisonment rate differential shown in Table 1 most likely stems from differences between the two groups of offenders in their sentence-relevant characteristics. The following section compares Indigenous and non-Indigenous offenders in terms of these characteristics in order to obtain a better understanding of the higher imprisonment rate for Indigenous offenders.

Prior convictions

Table 13 compares Indigenous and non-Indigenous offenders in terms of their prior convictions.

Whereas almost 60 per cent of non-Indigenous offenders had not previously been convicted, approximately 75 per cent of Indigenous offenders had been previously convicted. Considering offenders with a prior conviction, 21.6 per cent of Indigenous offenders had been convicted five or more times. Only 5.3 per cent of non-Indigenous offenders had been convicted five or more times. Finally, 6.7 per cent Indigenous offenders had been convicted eight or more times, compared with 1.2 per cent of non-Indigenous offenders.

Principal offence

Table 14 looks at distribution of principal offence type across Indigenous and non-Indigenous offenders.

The total number of offenders with a conviction for a serious violent offence is quite small in relation to the total number of convicted offenders but Indigenous offenders are 1.2 times more likely to be convicted of a serious violent offence than non-Indigenous offenders. The 'Other violent' and 'Other' categories account for most of the other difference between the two groups. The difference in the 'Other' category is explained by:

- The larger proportion of non-Indigenous offenders involved in driving and traffic offences, such as drink driving (59.4 per cent for non-Indigenous compared with 30.8 per cent for Indigenous offenders) and negligent driving (7.8 per cent for non-Indigenous offenders compared with 3.1 per cent for Indigenous offenders);

- The larger proportion of Indigenous offenders involved in breach offences, such as breach of a Domestic Violence or Justice order (12.5 per cent for Indigenous offenders compared with 5.5 per cent for non-Indigenous offenders); and
- The larger proportion of Indigenous offenders involved in public order offences, such as offensive language or behaviour (17 per cent of Indigenous offenders compared with eight per cent of non-Indigenous offenders).

Concurrent convictions

Table 15 looks at the relative frequency of conviction for at least one concurrent offence.

For Indigenous offenders, 33.7 per cent have at least one concurrent conviction in the current case, compared with 22.3 per cent for non-Indigenous offenders, making Indigenous offenders 1.5 times as likely to have this characteristic.

Table 13: Number of prior convictions by Indigenous status of offender

Number of Prior Convictions	Percentage of Offenders	
	Indigenous	Non-Indigenous
	%	%
0	25.3	58.5
1	17.8	18.1
2	14.1	9.2
3	12.4	5.4
4	8.9	3.4
5	7.2	2.1
6	4.7	1.3
7	3.0	0.7
8+	6.7	1.2

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

Table 14: Principal offence by Indigenous status of offender

Principal offence type	Percentage of Offenders	
	Indigenous	Non-Indigenous
	%	%
Serious violent	3.0	2.5
Other violent	31.7	17.7
Property	7.4	7.7
Drugs	6.2	7.1
Other	51.7	65.1

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

Table 15: Indigenous status of offender by concurrent convictions

At least one concurrent conviction	Percentage of Offenders	
	Indigenous	Non-Indigenous
	%	%
Yes	33.7	22.3
No	66.3	77.7

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

Table 16: Indigenous status of offender by previous suspended sentence

<i>At least one previous sentence included a suspended sentence</i>	<i>Percentage of Offenders</i>	
	<i>Indigenous</i>	<i>Non-Indigenous</i>
	<i>%</i>	<i>%</i>
Yes	5.6	1.7
No	94.4	98.3

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

Table 17: Indigenous status of offender by previous periodic detention

<i>At least one previous sentence included periodic detention</i>	<i>Percentage of Offenders</i>	
	<i>Indigenous</i>	<i>Non-Indigenous</i>
	<i>%</i>	<i>%</i>
Yes	3.0	1.9
No	97.0	98.1

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

Table 18: Indigenous status of offender by concurrent breach offence

<i>Concurrent breach offence</i>	<i>Percentage of Offenders</i>	
	<i>Indigenous</i>	<i>Non-Indigenous</i>
	<i>%</i>	<i>%</i>
Yes	6.2	2.7
No	93.8	97.3

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

Previous penalties

Tables 16 and 17 compare Indigenous and non-Indigenous offenders with respect to whether they had been previously given a suspended sentence or periodic detention.

Indigenous offenders are more than three times as likely to have previously been given a suspended sentence than non-Indigenous offenders and approximately 1.6 times as likely to have previously been given a periodic detention order.

Concurrent breach offence

Table 18 looks at the difference in the distribution of concurrent breach offences across Indigenous and non-Indigenous offenders.

Again, there is a clear difference between Indigenous and non-Indigenous offenders in their likelihood of being convicted

of a concurrent breach offence, with Indigenous offenders being more than twice as likely to have this characteristic than non-Indigenous offenders.

SUMMARY AND DISCUSSION

This study sought to address two questions of fundamental importance to an understanding of Indigenous over-representation in prison:

1. Are Indigenous adult offenders more likely than non-Indigenous adult offenders to receive a sentence of imprisonment, once legally relevant factors have been taken into account?
2. If not, which legally relevant factors account for most of the difference in the rate at which Indigenous and non-Indigenous offenders are sent to prison?

As to the first question, the present study found no evidence of bias on the part of sentencing courts in relation to adult Indigenous offenders. This finding is consistent with that obtained by Gallagher and Poletti (2000) in relation to Indigenous juvenile offenders. In the present case, the apparent difference between adult Indigenous and non-Indigenous adult offenders in the likelihood of imprisonment appears to be due to the fact that, by comparison with non-Indigenous offenders, Indigenous offenders:

- Have much longer criminal records;
- Are more likely to be convicted of a serious violent offence;
- Are more likely at any particular court appearance to be convicted of multiple offences;
- Are more likely to have breached a previous court order; and
- Are much more likely to have re-offended after being given an alternative to full-time imprisonment, such as periodic detention and/or a suspended sentence.

What implications do these findings have for Indigenous over-representation in prison? Note first that, although Indigenous offenders may be two or three times more likely than non-Indigenous offenders to be sent to prison if convicted, the differential in rates of court appearance on serious criminal charges is many times higher than this (see Appendix 2). Per head of population, Indigenous residents of NSW appear in court on criminal charges about nine times more often than non-Indigenous residents. The gap between Indigenous and non-Indigenous rates of appearance is especially notable where violent crime is concerned, with Indigenous rates of appearance being approximately 11 times higher for sexual assault, 19 times higher for aggravated assault and 17 times higher for robbery. Policy to reduce Indigenous over-representation in prison, then, should focus on:

1. Reducing levels of Indigenous involvement in crime, particularly violent crime; and

2. Reducing rates of recidivism among Indigenous offenders, particularly following placement on community-based sentencing orders.

There is no space here for a comprehensive discussion of (1) and (2) but some discussion of them is in order, if only to provide guidance on the general direction in which policy in relation to Indigenous imprisonment should head.

In its consideration of the causes of Indigenous imprisonment, the Royal Commission highlighted the issue of disadvantage, which it saw as the principal underlying cause of Aboriginal involvement in crime. Thus, according to the Royal Commission:

‘Changes to the operation of the criminal justice system alone will not have a significant impact on the number of persons entering custody....the social and economic circumstances which both predispose Aboriginal people to offend and which explain why the criminal justice system focuses on them are much more significant factors in over-representation (Commonwealth of Australia 1991: vol. 4, p.1).

Economic and social disadvantage do play a role in causing crime but much of their influence is distal rather than proximate. Economic stress appears to exert most of its effects on crime by disrupting the parenting process. It is known, for example, that economic stress, social isolation and lack of social support increase the risk that parents will neglect or reject their children or treat them in ways that are harsh, erratic or inconsistent. These patterns of parenting substantially increase the risk of juvenile involvement in crime (Weatherburn & Lind 2001; Fergusson, Swain-Campbell, & Horwood 2004). Thus while the broader economic and social context of Indigenous offending ought not to be ignored, it would make more sense in the short to medium term to focus crime prevention policy on the specific conditions that put young Indigenous Australians at risk of involvement in crime. Past research (Loeber and Stouthamer-Loeber 1986, National Crime

Prevention 1999) suggests that the principal conditions are:

- Child neglect and abuse;
- Parental psychiatric problems (particularly maternal depression);
- Family dissolution and violence;
- Poor school performance;
- Early school leaving;
- Drug and alcohol abuse; and
- Youth unemployment.

These problems are particularly acute among Indigenous Australians. Although much Indigenous child neglect and abuse probably never gets reported, the ratio of Indigenous to non-Indigenous rates of substantiated child maltreatment ranges from 1.4 in Tasmania to 9.7 in Victoria. Indigenous students are half as likely to proceed to year 12 as non-Indigenous students. The unemployment rate amongst Indigenous males aged 18-24 is 28.4 per cent compared with 13.1 per cent for their non-Indigenous counterparts. Nearly 20 per cent of Indigenous people drink at risky or high-risk levels (over the long term) compared with about 10 per cent of the non-Indigenous population (Commonwealth of Australia 2005). There is little doubt that each of these problems makes a significant contribution to Indigenous offending. All of them, however, are potentially capable of being alleviated through some form of treatment or program (National Crime Prevention 1999, p. 143-156; Farrington and Welsh 2002).

Any measure that significantly improves the quality of parenting that young children receive can be expected to reduce the later risk of involvement in crime and the seriousness and duration of any offending behaviour that occurs (Yoshikawa 1994). The NSW Government is actively pursuing some valuable measures under this heading through its Two Ways Together Plan (NSW Department of Aboriginal Affairs 2006). The family initiatives being pursued as part of this plan include measures designed to address gaps in early childhood services for Indigenous

children under the age of five, measures designed to make school more engaging and interesting for Indigenous students and measures designed to improve the health, literacy skills and performance of Indigenous students.

Rates of recidivism can also be reduced through programs targeted at older age groups, including those who have already become involved in crime. Multisystemic therapy²³, for example, has been shown in several randomised trials to be effective in reducing serious anti-social behaviour by teenage offenders at high risk of out of home placement (Farrington & Welsh 2002). Other programs known to be effective in reducing recidivism among adult offenders include: in-prison therapeutic communities with follow-up community treatment; cognitive behavioural therapy; some non-prison based sex offender treatment programs; vocational education; and community employment programs (MacKenzie 2002). Further investment in these programs is also likely to help reduce Indigenous over-representation in prison.

A high proportion of Indigenous assaults and sexual assaults are alcohol-related.²⁴ A variety of methods have been employed to try and reduce alcohol abuse and/or alcohol-related crime. These include: limiting the availability of alcohol; providing treatment to alcohol abusers; mounting local community-based health promotion campaigns to highlight the risks and harms associated with alcohol; and increasing the cost of alcohol products. Some of these measures are likely to be more effective in reducing alcohol-related crime and violence than others. One limitation with treatment, for example, is that alcohol abusers often only begin seeking treatment after the abuse has already done considerable damage. On the limited evidence available, the most effective measures appear to be those that involve restrictions on the availability of alcohol (e.g. reduced liquor outlet trading hours) and those that involve using taxation policy to discourage consumption of the most harmful types of alcoholic beverages (Gray et al. 2002).

Illicit drug use also exerts powerful direct and indirect effects on crime. Psycho-stimulant dependence increases the risk of paranoia and violent behaviour (McKetin et al. 2006). Heroin dependence increases the frequency with which offenders commit income-generating property crimes, such as robbery and burglary (Blumstein et al. 1986). Drug dependence also greatly increases the risk of child neglect and abuse (Chaffin, Kelleher & Hollenberg 1996). Policing strategies that reduce the availability of illicit drugs in Indigenous communities therefore have considerable potential to reduce rates of Indigenous involvement in crime. It should be noted, however, that restricting the availability of one illicit drug might encourage dependent drug users to switch to other (in some cases more harmful) illicit drugs (Weatherburn et al. 2003). Given that it carries potential risks as well as potential benefits, drug law enforcement is clearly a strategy that needs to be deployed with considerable care.

While law enforcement and criminal justice offer important opportunities through which to reduce offending behaviour, informal social controls are often more potent in controlling criminal behaviour than formal social control measures, such as arrest and prosecution (Paternoster et al. 1983). Offenders, in other words, are often more strongly influenced by the opinion of family and friends than they are by the formal legal consequences that might flow from apprehension and prosecution. Recognising this, some criminologists (e.g. Braithwaite 1988; La Prairie 1995) have promoted approaches to dealing with offenders (e.g. Youth Justice Conferencing and Circle Sentencing) that involve bringing offenders and victims face to face, in order to capitalise on the powerful effects of social disapprobation at the hands of family, friends and peers. It is probably too soon to pass final judgement on the effectiveness of these approaches (Luke & Lind 2002; Braithwaite 1999, Commonwealth of Australia 2003). Given the evidence on informal social controls, these options ought to be trialled and evaluated. Even if

they do not exert any immediate effect on Indigenous re-offending, they may exert a positive capacity-building effect over the longer term.

NOTES

1. Acknowledgements:

We would like to thank our external reviewers: Ms Catherine Gray of the NSW Law Reform Commission and Dr Boyd Hunter of the ANU Centre for Aboriginal Economic Policy Research. In addition we would like to thank Hugh Donnelly of the NSW Judicial Commission for his help in identifying case law relevant to the variables selected by the authors and Dr Maggie Brady of the Centre for Aboriginal Economic Policy Research for drawing our attention to several articles that were of considerable value in preparing this report. Finally, we would also like to thank the many staff of the Bureau who read and provided valuable critical feedback on earlier drafts of this report.

2. At year end 2004, there were 3,218 black male sentenced prisoner inmates per 100,000 black males in the United States, compared with 463 white male inmates per 100,000 of population (US Bureau of Justice Statistics 2006). In other words, the black male imprisonment rate in the United States is about 6.95 times the white male imprisonment rate. The crude (non age-adjusted) imprisonment rate for Indigenous Australians is more than 16 times higher than the corresponding imprisonment rate for non-Indigenous Australians (Australian Bureau of Statistics 2005b).
3. http://www.hreoc.gov.au/racial_discrimination/index.html
4. Veen v THE QUEEN (No 2) (1988) 164 CLR 465
5. They did find a significant difference (favouring non-Indigenous defendants) when examining the decision to charge rather than caution. They also found a 'just statistically significant' effect when examining the decision to proceed by

way of arrest or by way of summons (Luke and Cunneen 1995: 23). Unfortunately they made no attempt to show how differences in the police decision to charge rather than caution a juvenile offender could account for the massive over-representation of Aboriginal juveniles serving custodial sentences.

6. This is not to say, of course, that such laws are in any way socially desirable.
7. Veen v THE QUEEN (No 2) (1988) 164 CLR 465 at 477
8. This is application of the principle of totality expressed by the High Court in Pearce v The Queen (1998) 194 CLR 610.
9. Serious violent offences are classified as: aggravated assault, aggravated sexual assault and aggravated robbery.
10. Veen v The Queen (No 2) (1988) 164 CLR 465; R v Shankley [2003] NSW CCA 253 at [31] per Howie, J.
11. R v GDP (1991) 53 A Crim R 112.
12. R v Togias (2001) 127 A Crim R 23 at [69]-[78]
13. Siganto v The Queen (1988) 194 CLR 656, at 663-664 [22] per Gleeson CJ.
14. The offences fall into the following ASOC classifications (with ASOC number):
 - Aggravated and Non-Aggravated assault (0211 and 0212)
 - Aggravated and Non-Aggravated sexual assault (0311 and 0312)
 - Driving under the influence of alcohol or drugs (0411)
 - Dangerous or negligent driving (0412)
 - Aggravated and Non-Aggravated robbery (0611 and 0612)
 - Unlawful entry with intent/burglary, break and enter (0711)
 - Motor vehicle theft and related offences (0811, 0812 and 0813)
 - Fraud, forgery or false financial instruments (0911, 0912, 0913, 0914, 0915, 0919)

- Import or export illicit drugs (1011 and 1012)
 - Deal or traffic in illicit drugs (1021 and 1022)
 - Possess and/or use illicit drugs (1041 and 1042)
 - Offensive language (1312)
 - Offensive behaviour (1313)
 - Driving licence offences (1411, 1412 and 1419)
 - Breach of justice order (1511, 1512, 1513, 1514, 1515 and 1519)
15. A prior court appearance was only counted if the defendant was convicted of at least one offence. The commencement date for ROD is 1994, so the number of prior convictions can only be counted from this date. For some offenders it should be noted that this method will underestimate their total offending history, as will the fact that we are only able to capture offences that are brought to court rather than total offences committed.
16. We define the principal offence as the offence that receives the most serious penalty out of all the offences in the case of interest.
17. Introduced a control for the possibility of temporal changes in the profile of people coming before the courts.
18. The following comparisons are statistically significant at the 5 per cent level.
19. This model does not include interaction effects between the Indigenous variable and all other variables in the model. A second model was constructed including these interaction effects. It similarly found that the Indigenous status of an offender had no effect on the probability of a prison sentence once other legally relevant factors had been taken into account.
20. The Prior Convictions variable is coded in the following manner: 0,1,2,3,4,5,6,7,8,9,10,11 and 12+. We grouped the final category in this manner to ensure it remained linear against the logit of prison.
21. Because the median value is taken for each of the variables and the median value for prior convictions is 1, the probabilities associated with higher prior convictions could be less accurate than those associated with prior convictions of or close to 1. While the following section makes reference to these probabilities, this possible inaccuracy needs to be taken into account.
22. The following comparisons are statistically significant at the 5 per cent level, unless otherwise stated.
23. An intensive family and community based treatment that addresses the multiple determinants of serious antisocial behaviour by teenage offenders.
24. Unpublished data from the NSW Bureau of Crime Statistics and Research, for example, shows that in the urban areas of NSW during 2004-5 45 per cent of police-recorded domestic assaults, 45 per cent of non-domestic assaults and 33 per cent of police-recorded sexual assaults (involving Indigenous defendants) were alcohol-related. In rural areas the corresponding figures were even higher – 60 per cent, 51 per cent and 56 per cent.
25. The population figure for Indigenous persons aged 15 and over was determined using the “High Series” population projections in Australian Bureau of Statistics (2004). The high series was used in order to provide a conservative estimate for the conviction rate for these offences. The population estimate used here was at 30th June 2004.
26. The population figure for non-Indigenous persons was calculated by subtracting the Indigenous population from the revised Estimated Resident population figure as at 30th June 2004, in Australian Bureau of Statistics (2005b). This figure includes permanent residents of Australia and long-term visitors as well as citizens. It excludes short-term visitors (visitors staying in Australia for less than one year). Because short-term visitors could be in the offender population in 2004, this approach could overestimate the rate. However, we expect if an overestimation exists, it will be slight.

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APPENDIX 1

This study has focused primarily on offenders who have not previously been imprisoned. However, as was seen in Table 1, the discrepancy between Indigenous and non-Indigenous

imprisonment rates is larger when considering the entire offender population, rather than just this subset. We constructed a similar model to that discussed in the main section of the report, which also included offenders who had previously been imprisoned and offenders on remand for another offence at the time of their bail hearing. To control for their previous record we also included a variable that indicated whether or not the offender had previously been imprisoned. The model was constructed using a 40 per cent sample (43,091 offenders). The results are outlined in Table 19 below.

The Indigenous variable becomes even less significant when modelling the entire offender population. The *p*-value associated with the test statistic is 0.325 (or 33 per cent).

Table 19: Results of the binary logistic model, with prison sentence as the dependent variable

<i>Comparison</i>	<i>Parameter Estimate (with Standard Error)</i>	<i>P-value</i>	<i>Odds Ratio (with 95% CI)</i>
Intercept	-3.911 (0.083)	<0.001	N/A
Aged under 30 vs. Aged 30 or over	-0.131 (0.039)	<0.001	0.877 (0.813 - 0.947)
Male vs. Female	0.413 (0.061)	<0.001	1.511 (1.340 - 1.704)
Prior convictions ²⁰	0.124 (0.008)	<0.001	1.132 (1.115 - 1.149)
Current offence is serious violent vs. Other offence type	2.780 (0.075)	<0.001	16.12 (13.93 - 18.66)
At least one concurrent offence vs. No concurrent offences	1.322 (0.041)	<0.001	3.749 (3.462 - 4.061)
Concurrent breach offence vs. No concurrent breach offence	0.450 (0.072)	<0.001	1.568 (1.361 - 1.806)
Prior prison sentence	1.933 (0.046)	<0.001	6.908 (6.311 - 7.561)
Prior suspended sentence vs. No prior suspended sentence	0.660 (0.070)	<0.001	1.935 (1.685 - 2.221)
Prior periodic detention vs. No prior periodic detention	0.290 (0.071)	<0.001	1.336 (1.164 - 1.535)
Prior conviction for serious violent offence	0.258 (0.111)	0.020	1.294 (1.042 - 1.607)
Guilty plea vs. Other plea	0.220 (0.053)	<0.001	0.802 (0.723 - 0.890)
2001 vs. 2004	-0.037 (0.051)	0.465	0.964 (0.873 - 1.064)
2002 vs. 2004	0.007 (0.046)	0.876	1.007 (0.921 - 1.101)
2003 vs. 2004	2.773 (0.110)	<0.001	16.01 (12.90 - 19.87)
Indigenous vs. Non-Indigenous	0.049 (0.049)	0.325	1.050 (0.953 - 1.157)

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.

APPENDIX 2

Table 20 shows the relative rates at which Indigenous and non-Indigenous persons are convicted in NSW courts for the types of criminal charges that often lead to imprisonment. The principal offence is used, so as to only include one offence per case. It is obvious that rates of Indigenous appearance on serious criminal charges are much higher than those for non-Indigenous offenders. For all offences, the Indigenous rate is almost nine times that of non-Indigenous offenders.

Table 20: Relative rates of conviction for Indigenous and non-Indigenous offenders, 2004

<i>Principal Offence Type</i>	<i>Number of Offenders</i>			
	<i>Indigenous</i>		<i>Non Indigenous</i>	
	<i>Number</i>	<i>Rate per 100,000²⁵</i>	<i>Number</i>	<i>Rate per 100,000²⁶</i>
Murder	5	5	33	1
Sexual assault	62	67	339	6
Aggravated assault	106	114	311	6
Robbery	125	134	422	8
Break and enter	549	589	1,317	25
Motor vehicle theft	22	24	64	1
Breach of justice order	973	1,044	3,544	67
All offence types	13,047	13,994	79,031	1,490

Source: NSW Bureau of Crime Statistics and Research. Unpublished data.