

# Selected crime and justice issues for Indigenous families

**MICK DODSON AND BOYD HUNTER**

Most previous analysis has been conducted using police and court data. However, insights into the socioeconomic forces underlying Indigenous interaction with the justice system can only be obtained by interrogating omnibus social surveys like the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS) and the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) that include a reasonably comprehensive set of potential explanatory factors, including potentially important information on family background.

The Royal Commission into Aboriginal Deaths in Custody (RCIADIC) recognised that “...too many Aboriginal people are in custody too often”, and recommended a strategy of imprisonment as the last resort to reduce the level of over-representation of Indigenous people in custody (Commonwealth of Australia, 1991). Baker (2001) concluded that reducing the rate of court appearances provides the greatest leverage for reducing Indigenous imprisonment rates. Obviously, one clear way of achieving lower court appearance rates and in diverting people away from court is to reduce the rate at which Indigenous people are arrested.

Most previous analysis has been conducted using police and court data. However, insights into the socioeconomic forces underlying Indigenous interaction with the justice system can only be obtained by interrogating omnibus social surveys like the

1994 National Aboriginal and Torres Strait Islander Survey (NATSIS) and the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) that include a reasonably comprehensive set of potential explanatory factors, including potentially important information on family background.

While the 1994 NATSIS has provided some valuable insights into the processes underlying the disproportionate level of Indigenous arrest (see Box 1, and Carcach & Mukherjee, 1996a; Hunter, 1998; 2001; Hunter & Borland, 1999), several important research questions remain unanswered. Why do Indigenous people appear in court at a rate five times higher than the rest of the population? Why are Indigenous people more likely to appear for (and be convicted of) certain types of offences? (Baker, 2001). Clearly, factors such as the over-representation of Indigenous people in prisons and other stages of the criminal justice system, the nature of Indigenous offending and

## Overview of existing literature on socioeconomic factors underlying Indigenous crime

Carcach and Mukherjee (1996b) show that most of the arrests in the NATSIS were for disorderly conduct and/or drink driving, and outstanding warrants and breach of orders. Data show that alcohol consumption might have been associated with the reason(s) for arrest; a result consistent with findings from the National Police Custody Survey (Australian Institute of Criminology (AIC) 1996). The links between alcohol and crime (violence, disorder and acquisitive crime) are well documented (see Ramsay 1996). Previous research would suggest that alcohol might have been involved in incidents of violence both in and outside the family, and in cases where the arrest was due to property crimes (e.g., Tuck 1989).

Hunter (2001) analysed NATSIS and found that the major factors underlying the high rates of Indigenous arrest were sex, labour force status, alcohol consumption, whether a person had been physically attacked or verbally threatened, various age factors, and various education attainments (e.g. level of qualification and high school completion). The top six factors underlying the various categories of arrests (drinking-related, assaults, theft and outstanding warrants) are basically the same as those identified above. However, alcohol consumption and being a victim of physical attack or verbal threat are particularly important factors underlying arrests on

drinking-related and assault charges. This would seem to confirm the suspicion that there is a cycle of violence and abuse in Indigenous communities and families which is probably related to alcohol consumption. The overall results were robust, with the basic findings not changing substantially when the analysis was conducted separately for minors (under 18-year-olds), for each sex, or after prisoners were included in the analysis.

Borland and Hunter (2000) argue that at least some of the correlation between Indigenous arrest and labour force status is driven by a causal relationship, with arrest driving many of the poor employment outcomes experienced by Indigenous youth. Given this interaction, understanding the unique nature of Indigenous arrest is likely to be a key dynamic underlying ongoing Indigenous disadvantage and poverty.

Hunter and Schwab (1998) argued that the interaction with the criminal justice system may also explain poor school participation rates among Indigenous children as young as 13. Hunter (1998) presented formal econometric tests that demonstrated that one cannot discount the hypothesis that the direction of causality is from arrest to educational participation. Given that the 2002 NATSISS is constrained to those aged 15 and over, it will not be possible to replicate this earlier research.

re-offending, and the differential treatment of Indigenous people by the criminal justice system will all have a part to play.<sup>1</sup>

Weatherburn, Snowball, and Hunter (2006) use the 2002 NATSISS data to provide some insights into such issues, but their efforts are hampered, *inter alia*, by the lack of longitudinal data on repeated Indigenous interactions with the justice system and the limited nature of information on Indigenous families and children. Notwithstanding, they found that the most powerful predictors of being charged or imprisoned are alcohol consumption and drug use. For example, being a high-risk user of alcohol increases the risk of being charged by over 11 percentage points. Completing year 12 reduces a person's likelihood of being charged by four percentage points while obtaining welfare as the principal source of income increases the risk of having been charged by a similar amount. Being on welfare, however, has a bigger effect on the risk of being imprisoned than high-risk alcohol consumption. Other significant factors underlying whether a person was charged or imprisoned include financial stress, unemployment, living in a crowded house and social disruption in the early family environment. While it is obviously important to redress the relevant broader economic and social factors, it is also essential to understand family environment if we are to devise constructive policies to address the high rates of Indigenous interactions with the justice system.

This paper revisits selected aspects of the literature and presents some new analysis of the relationship of crime and justice issues and the family environment to highlight the need for longitudinal data that explicitly examines the developmental processes facing Indigenous children. Most survey data are collected for individuals aged 15 and over, and hence there is an obvious need for more information to our understanding of developmental processes for Indigenous children aged less than 15 years.<sup>2</sup> Consequently, the concluding sections also reflect on the possible roles for existing and proposed longitudinal surveys of Australian children: *Growing up in Australia: the Longitudinal Study of Australian Children (LSAC)* and the proposed Longitudinal Study of Indigenous Children (LSIC).

### Crime and justice issues in recent Indigenous social surveys

Crime and justice issues were major components of both the 1994 NATSIS and the 2002 NATSISS. Indeed, the 2002 survey, like its 1994 counterpart was designed to provide a broad range of information across key areas of social concern and is ideal for exploring inter-relationships between these socioeconomic factors and crime and justice issues. This section draws together the recently published data to provide a statistical overview for Indigenous Australia before focusing explicitly on issues facing families within and between generations. Notwithstanding the substantial changes in the crime and justice data collected in the 1994 NATSIS and the 2002 NATSISS, and the limitations of the respective survey methodologies, it is possible to make some

broad observations about the trends for Indigenous Australia (see Dodson & Hunter, 2006).

The law and justice variables exhibited some significant changes between 1994 and 2002. The overall proportion of Indigenous adults who were arrested in the previous five years declined from 20.2 per cent to 16.4 per cent. The main driver here was the significant reduction in the number of people with only one arrest in the previous five years. This is a positive development, although it should be acknowledged that Indigenous people still have excessively high rates of interaction with the criminal justice system relative to other citizens. A less positive development is the increase in the proportion of the population who were a victim of physical or threatened violence in last 12 months. One-quarter of Indigenous people in 2002 reported that they had been a victim of physical or threatened violence in the previous 12 months—nearly double the rate reported in 1994 (12.9 per cent). The ABS (2004) speculates that some of this increase may reflect under-reporting by respondents to the 1994 NATSIS. This is consistent with the above analysis of the way in which the questions were asked in 1994. The final observation from Table 1 is that the proportion of the population who were taken away from their natural family was basically unchanged.<sup>3</sup>

The 2002 NATSISS has two major advantages over the earlier survey in that it collects information never attempted before in a social survey context—namely, whether respondents had been formally charged by police, the age they were first formally charged by police, and whether they had been incarcerated in the last five years. The 'age first formally charged by police' is potentially important, as it may be interpreted as introducing an implicitly longitudinal dimension to what would otherwise be a cross-sectional analysis.

While Table 1 illustrates relevant changes over time at a national level, another relevant issue is how crime and justice issues vary by remoteness. Dodson and Hunter (2006) show that arrest and incarceration rates are equally high in both remote and non-remote areas, but the usage of legal services in the last 12 months is slightly higher in non-remote areas (albeit not significantly higher). The only significant difference between remote and other areas among the law and justice issues is whether a person or relative was removed from their natural family. Weston and Gray (2006) show that people in

	1994 %	2002 %
<b>Law and justice</b>		
Arrested once by police in last 5 years <sup>a</sup>	9.1	6.7
Arrested more than once by police in last 5 years	10.7	9.3
Total arrested in last 5 years <sup>a</sup>	20.2	16.4
Victim of physical or threatened violence in last 12 months <sup>a</sup>	12.9	24.3
Persons removed from natural family	8.3	8.4

a. The change between 1994 and 2002 is significant at the 5 per cent level.  
Source: Dodson and Hunter (2006: Table 19.1) and ABS (2004: Table 6).

non-remote Australia where more likely to have been removed from their natural family than residents of remote areas. This pattern is consistent with the fact that many people were removed from remote communities and placed with families in cities or regional centres (Hunter, Arthur, & Morphy 2005).

Over half of adult males (50.4 per cent) have been charged at some time in their life, about 30 percentage points higher than the equivalent statistic for females (20.8 per cent). The higher incidence of charging among males is probably driven by a greater overall male involvement in the criminal justice system. Another possibility is that charges are also laid at an earlier age for Indigenous males compared to Indigenous females.

**One family factor that does have important implications for Indigenous involvement with the justice system is the removal of people from their natural family.**

While social environment has been repeatedly shown to be important in predicting Indigenous interactions with the justice system (Hunter 2006a), Dodson and Hunter (2006) have also shown that many family and cultural factors have no significant correlation with the incidence of being charged, at least in the bi-variate analysis of cross-tabulations. Even if there was generally no direct discernible association between such factors for adults, this does not mean that they are not significant for developmental processes facing Indigenous children. We will return to this issue in the later sections of this paper. It should also be noted that selected family factors are significant in a multivariate context (Weatherburn, Snowball, & Hunter, 2006).

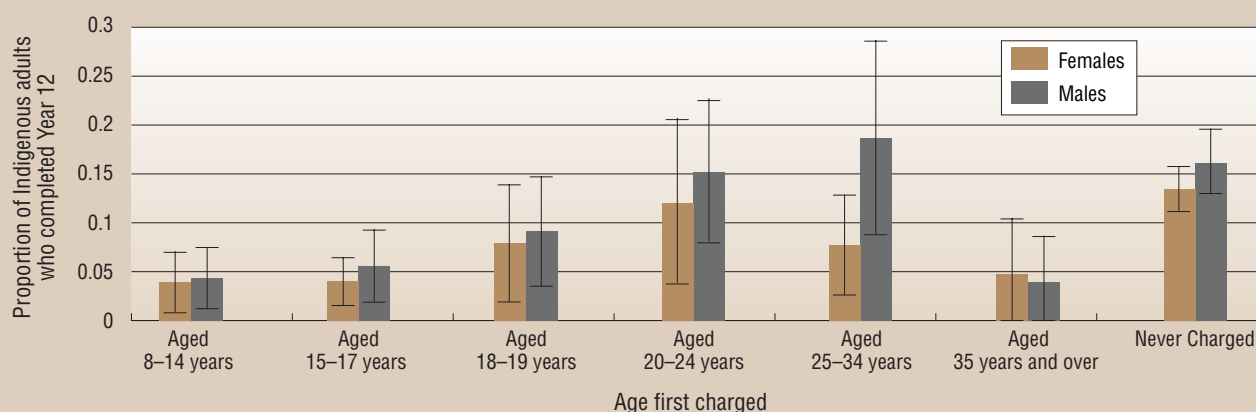
One family factor that does have important implications for Indigenous involvement with the justice system is the removal of people from their natural family. For example, Hunter (2006a) uses this variable to identify the separate effect of arrest, charging and incarceration on economic outcomes, especially involvement in mainstream employment.

Weston and Gray (2006) describe the main characteristics of respondents to 2002 NATSISS who had been removed from natural family. Given that questions on removal from family could be highly stressful for respondents, interviewers first asked respondents whether it was 'alright' to ask questions on this issue. All other respondents were asked, whether they had been taken away from their natural family by a mission, the government or welfare, and secondly, whether any of their relatives had had such an experience. Those who indicated that one or more relatives had been removed from their natural family were asked to indicate which relative(s) experienced this. Weston and Gray argue that resulting data must therefore be interpreted with caution as the terms used to indicate kin relationships were those applicable to the standard Anglo-Celtic kinship system (e.g. parents, aunts, uncles, brothers or sisters, children).

As argued above, estimates based on the 1994 NATSIS and 2002 NATSISS data sets of the proportion of the Indigenous population who had been taken away from their family are very similar. Both surveys suggested that just over 8 per cent of the adult population (at the time of each survey) had been removed. Furthermore, the 1994 survey suggested that 10 per cent aged 25 years or more had been removed. This proportion is the same as that derived in the 2002 survey for those aged 35 years or more (who would have represented roughly the same cohort).<sup>4</sup>

Perhaps the most significant finding from the Weston and Gray (2006) analysis is that, even though a relatively small proportion of the Indigenous population were themselves removed from their natural family, about one-third of the Indigenous population had a relative removed. Indeed, 38 per cent indicated that they and/or at least one of their relatives had been taken from their family (Australian Bureau of Statistics [ABS] 2004, p. 6). However, it is important to note that the responses to the various questions on removal are themselves correlated within families. Just under one-fifth of individuals who had relative taken were themselves

**Figure 1 Completed year 12 by age first charged and sex, 2002**



Notes: The whiskers refer to the 95 per cent confidence intervals that were calculated using the Statistical program STATA, a jackknife methodology, and the replicate weights provided by the ABS.  
Source: NATSISS Confidentialised Unit Record File accessed by the ABS's Remote Access Data Laboratory (RADL™)

taken (18.2 per cent). In contrast, for those respondents who indicated that none of their relatives had been taken, only 3.3 per cent had been taken from their natural family.

When interpreting the data from the question on removal of relatives from natural family it is important to note that the question had a high rate of 'don't know' and 'didn't want to say' responses (15.3 per cent and 4.7 per cent respectively) (ABS, 2004, p. 58). This high rate of non-response is not surprising given the sensitivity of this issue to some families. It is possible that the respondents who did not want to discuss this issue were more likely to have had relatives removed than other respondents, and hence the estimates may be under-estimates.

### Revisiting the importance of the family background in Indigenous interactions with the justice system

The age at which a person was first charged is a retrospective variable that allows us to indirectly examine long-run historical factors that are usually difficult to assess in cross-sectional studies of Indigenous disadvantage. Figure 1 charts the rate of completion of Year 12 by this variable to illustrate the importance of interactions with the justice system in affecting future outcomes for Indigenous youth. The 'whiskers' indicate the 95 per cent confidence intervals for the respective estimates (i.e. the range over which 95 per cent of estimates will lie in repeated samples).

Indigenous people who have never been charged with an offence are three times more likely to have completed education to Year 12 than those who were first charged before their 18th birthday (i.e. before their 'majority'). There is less systematic variation for those who were charged after they reached their majority. While being charged at 35 years of age or older is also associated with relatively low rates of school completion (to Year 12), this is likely to reflect a cohort effect as it was relatively unusual for older Indigenous people (who by definition are aged over 35) to finish secondary school. Consequently, Figure 1 provides a clear indication that early involvement in the justice system is hindering the process of human capital accumulation (see Hunter & Schwab, 1998).

Given that the effect is manifest for the substantial numbers of Indigenous people who were charged as young as eight years old, there is obviously a need for a greater focus on the developmental environment within families.

One major set of factors that drive high Indigenous arrest rates are those that can be characterised as capturing the social disruptions within Indigenous families and households (Hunter, 2001). One such factor that is particularly important in the Indigenous context is whether an individual is a member of the 'stolen generation' (Borland & Hunter, 2000). The remainder of this section explores the relationship between an individual and their family

involvement in the 'stolen generation' phenomenon in order to further tease out the relationship between important crime and justice issues.

Table 2 explores whether the characteristics of respondents who were first charged before or after their 18th birthday are different from respondents who were never charged (N.B., significant statistics are italicised). Having been charged before one's majority is associated with significantly higher arrest and incarceration rates than for other Indigenous respondents to NATSISS who were charged. For example, respondents who were charged before 18 years of age are 15.0 percentage points more likely to have been arrested than other respondents who had been charged (50.5 per cent and 35.5 per cent respectively). Being charged before your majority is also associated with a significantly greater likelihood of being a victim of physical attack or threatened with violence in the last 12 months.

As indicated above, being taken from your family is an important factor underlying arrest. Hunter (2006b) shows that it is similarly important in driving other dimensions of Indigenous interaction with the justice system, namely being charged or incarcerated. To recapitulate the findings from Table 2, the 2002 NATSISS data on whether a respondent was ever charged and the age at which a person is first charged contains a lot of useful information that allow us to explore the likely factors underlying Indigenous engagement with the justice system and the effects of that engagement.<sup>5</sup>

**Table 2 Crime and justice characteristics by aged at which first charged**

	Charged as a minor	Charged after 18 years of age	Never Charged
Arrested in previous five years	50.5 (2.7)	35.5 (2.0)	2.2 (0.3)
Incarcerated in previous five years	25.6 (2.8)	13.4 (1.4)	0.6 (0.1)
Individual was taken from family	13.7 (2.2)	10.2 (1.4)	6.5 (0.6)
Children were taken from family	2.0 (0.6)	2.2 (0.7)	1.2 (0.2)
Siblings were taken from family	8.8 (1.4)	7.8 (1.2)	4.2 (0.4)
Parent(s) taken from family	10.9 (1.5)	9.8 (1.4)	8.6 (0.7)
Grandparents taken from family	19.7 (2.1)	13.4 (1.5)	14.7 (0.9)
Aunties or Uncles taken from family	14.3 (1.7)	13.0 (1.5)	9.6 (0.7)
Cousins taken from family	7.3 (1.5)	6.2 (0.9)	4.6 (0.5)

Source: NATSISS RADL  
Notes: The standard errors are reported in parentheses and are jackknife estimates based on replicate weights provided in the NATSISS provided on the ABS RADL. The jackknife technique entails a data dependent way of consistently estimating standard errors that take into account the complex sample design (see Lohr 1999 for details).

Being involved in the stolen generations, either directly or indirectly through your family, is obviously correlated with an individual's interactions with the justice system. Table 3 shows that the direct experience of the stolen generation is strongly correlated with arrest, incarceration in the last five years and whether formally charged. For example people who were neither taken themselves nor had a relative taken, were about half as likely to be arrested as those who were both taken themselves and had relatives taken from their natural family. The difference in incarceration rates between these two groups was even more pronounced.

The differences in arrest rates are clearly statistically significant, but the other comparable statistics in Table 3 are not necessarily significantly different. While the respondents who were either taken or had relatives taken were more likely than respondents without any direct experience of family disruption to have had an experience with the justice system, the experiences with the justice system did not depend significantly on who had been taken from the family. Therefore there is considerable information in knowing either indicator of social disruption within Indigenous families.

	Neither individual nor relatives taken	Relative taken, but not individual	Individual taken, but not relatives	Both individual and relatives taken
Arrested in previous five years	14.1 (0.8)	18.3 (1.3)	23.2 (4.5)	27.8 (4.8)
Incarcerated in previous five years	5.5 (0.6)	8.1 (0.9)	9.6 (3.0)	17.2 (5.2)
Ever charged	31.6 (1.1)	37.7 (1.7)	43.2 (5.4)	52.1 (4.6)

*Source:* NATSISS RADL  
*Note:* See Note for Table 2.

	Individual taken from natural family	
	Not taken	Taken
Children were taken from family	1.3 (0.2)	4.6 (1.2)
Siblings were taken from family	2.1 (0.2)	45.4 (3.4)
Parent(s) taken from family	8.6 (0.6)	20.0 (3.0)
Grandparents taken from family	15.4 (0.8)	21.3 (3.5)
Aunties or Uncles taken from family	10.6 (0.7)	20.4 (3.0)
Cousins taken from family	4.5 (0.4)	16.9 (2.8)

*Source:* NATSISS RADL  
*Note:* See Note for Table 2.

The broad similarity of the effect of having individuals and relatives taken from natural family probably indicates that many Indigenous children were taken as a group from particular families. Table 4 explores the association of the 'stolen generation' phenomenon within Indigenous families and illustrates the potential importance of longitudinal data. The table indicates the percentage of people with relatives taken from their natural family by whether they themselves were taken. The numbers in brackets are again standard errors. Note that the categories of removal are ordered by generation to illustrate inter-generational issues that are usually hard to get at in cross-sectional data.

The first column of Table 4 indicates the percentage with relatives taken among those who had not been taken themselves, there is a clear cohort effect with grandparents being more likely to have been taken than parents who were in turn more likely to have been taken than siblings and an individual's children. The evidence for intergenerational effect is more in the second column that indicates the percentage with relatives taken when a person was themselves taken. The cohort effect is large and broadly similar to that in the first column, but the proportion with relatives taken was generally higher for most generations and family groupings. For example, people who had been taken were up to 20 times more likely to have had a sibling also taken than people whose family life had not been disrupted. The most concerning statistic is the transmission of social disruption within families to the children's generation who were over three times more likely to have been taken if a parent had been taken. Other entries in Table 4 also show that there are stark correlations within family groups (e.g. aunties/uncles and cousins versus an individual's family group).

Table 5 develops the above themes further by exploring the correlations between the experiences of being taken from a natural family (either as an individual or having a relative taken). The results corroborate that the individual experience of being taken is most strongly correlated with experiences of siblings with a correlation coefficient of 0.45. There is also a reasonably strong correlation within the same generation (i.e., note the correlation between the experiences of individuals and cousins, and that of parents and aunties and uncles), but the association tends to drop away as one moves further away from an individual's generation. The association between the responses relating to cousins and aunties and uncles illustrate how the experience of this extreme form of social disruption is concentrated in particular families.

Clearly, we need to understand the developmental environment facing children within Indigenous families. While many Australian families experience disruptions to their social fabric, the experience of the stolen generation is unique to Indigenous Australians. The effects of such disruptions are demonstrably ongoing and long-lived and need to be understood.

The NATSISS data provides a good starting point for evaluating the evidence on Indigenous families, but is

**Table 5** Pairwise correlations in family disruptions over the generations

	Relatives taken from natural family						
	Individual taken	Children taken	Siblings taken	Parent(s) taken	Grand-parents taken	Aunties or uncles taken	Cousins taken
Individual taken	1						
Children taken	0.07	1					
Siblings taken	0.45	0.08	1				
Parent(s) taken	0.10	0.04	0.08	1			
Grandparents taken	0.03	0.02	-0.03	0.06	1		
Aunties or uncles taken	0.07	0.03	0.05	0.30	0.13	1	
Cousins taken	0.15	0.10	0.14	0.07	0.03	0.21	1

*Source:* NATSISS RADL  
*Note:* These are unweighted correlations (because of the extant limitations on certain statistical programs within RADL).

only a first step. The NATSISS is an omnibus survey that focuses on the experiences of adults rather than children. The next steps are to foster a more coherent and rigorous debate about Indigenous policy that appreciates the importance of developmental factors, and to collect longitudinal data on Indigenous children and families. Given the unique circumstances facing Indigenous families and the culturally specific understandings of what constitutes a family and how that family operates (Morphy, 2006), it is almost certain that any such data will need to be collected using an Indigenous-specific survey instrument. The remainder of this paper reflects on these issues in some detail.

### **Understanding the pathways to disadvantage among Indigenous families: The importance of new longitudinal data**

There is a substantial and growing body of criminological research that demonstrates that early childhood trauma increases the risk of juvenile involvement in crime (Greenwood et al. 1998; Loeber & Stouthamer-Loeber, 1986; National Crime Prevention, 1999). A number of studies have also shown that children in sole parent families are at heightened risk of involvement in crime, particularly where the sole caregiver is poor and/or lacks a close friend, relative or neighbour (Weatherburn & Lind, 2001). The findings in this paper point to the urgent need to identify risk factors and possible protective mechanisms for Indigenous families and children.

One of the conundrums raised by Dodson and Hunter (2006) is the apparently relatively small association between many family factors and crime and justice issues within the 2002 NATSISS. One possible explanation is that surveys such as NATSISS only ask adult respondents about their current family circumstances rather than examine what happens in the family environment during critical developmental phases of children's lives. Longitudinal surveys such as the LSAC and the proposed LSIC are obviously better suited for identifying the developmental pathways that children follow and the factors (both risk and resilience) that predict the course of these pathways. One question that arises is whether the LSAC data can provide useful information on the pathways facing Indigenous children?

LSAC surveys two age groups over time: approximately 5,000 babies born between March of 2003 and February of 2004 and a similar number of children born between March of 1999 and February of 2000. The main objectives of LSAC are to provide comprehensive, national longitudinal data that inform government policy in areas concerning young children, specifically childcare, early childhood education and schooling, parenting and family relationships, and health; and identify opportunities for early intervention and prevention strategies. The underlying conceptual framework for LSAC was based upon the Bronfenbrenner model of ecological contexts shaping child's pathways (Penman, 2005). That is, the implicit model underlying the survey depicts how the family, school and neighbourhood impact upon a child's early years, which is situated within a wider social, economic, political and cultural setting.

**The most concerning statistic is the transmission of social disruption within families to the children's generation who were over three times more likely to have been taken if a parent had been taken.**

The LSAC Wave 1 collected data on 412 Indigenous children. As the sample was not stratified by Indigenous and non-Indigenous children, it may not be representative of Australian Indigenous children. Indigenous children were included and identified in LSAC in a similar proportion to that evident in the population (at least the population of the areas covered by the LSAC sampling frame). While the LSAC was not explicitly designed to provide reliable information on Indigenous children, the paucity of credible data means that we have to consider the extent to which its Indigenous sub-sample can validly be used by policymakers.

Obviously LSAC data does provide some information about Indigenous children, but we have several *a priori* reasons for expecting that this information will provide an inadequate basis for an informed policy to address disadvantage experienced by Indigenous children. First, and most importantly, there may be relevant questions omitted from the

LSAC questionnaire that are critical to understanding the unique situation and development of Indigenous children. Second, the LSAC survey instruments may not be entirely appropriate and hence may not maximise the information content about Indigenous children. This issue is important because the cultural sensitivity of the questionnaires and methodology is to be valued in its own right. However, having an appropriate survey instrument should also be valued by policy makers because it would maximise response rates and minimise non-sampling error which are an unavoidable part of all data collections (Biddle & Hunter, 2006). Non-sampling error includes problems in coverage, response, non-response, data processing, estimation and analysis.

While the concept of non-sampling errors may seem abstract, there are several practical reasons to be concerned about the Indigenous sub-sample of LSAC that are relatively easily understood. It is possible that the sampling frame of LSAC contains systematic biases in the way it samples Indigenous families. If this is the case, then analysts need to exercise caution in drawing inferences about the representativeness of the sample. The source of any such bias might arise from the way in which the sample was drawn or the geographic unit used for stratification of the sample. The last practical reason to be concerned is that the small number of Indigenous respondents is likely to lead to an unacceptably high level of sampling error. That is, the resulting estimates based on LSAC might be unreliable.

**It is important that Indigenous people have some control over how family services are provided (e.g. the need for Indigenous carers for Indigenous clients is often identified as an issue).**

The LSAC survey was designed on the basis of geographic information available from the Health Insurance Commission (HIC). This reflected the practical necessity of finding a reasonably accurate source of information on infants and four year olds that had more or less comprehensive coverage. The remainder of this section reflects on internal consistency of the LSAC sample design with respect to the Indigenous sub-sample. The main issues arise from HIC administrative data constraints and the assumptions used to operationalise the geographic dimensions of LSAC.

FaCSIA is well aware of the potential limitations of LSAC for drawing inferences about Indigenous children and other sub-samples. Indeed, in part, they have been designing the proposed LSIC to address such issues. The LSIC is currently piloting data collection processes in a number of sites. The proposed national data collection is planned to begin in 2008, but the resulting data would not be available for sometime. Hence it is worth reflecting upon what, if anything, existing (LSAC) data can tell us about Indigenous children.

One of the most important aspects of the LSAC sample design is that a substantial number of children in remote locations were excluded because

they are in postcodes that have very few children. In addition, there were some very remote locations where the benefits of obtaining data were not sufficient to justify the expense of data collection.

These exclusions will, by definition, make the remote sample biased against particular groups of Indigenous children, and hence extreme caution would need to be used when examining such estimates. It is not sufficient that such groups are excluded from the population estimates, as a recent geographic analysis of census data points to the responses for LSAC's Indigenous sub-sample in remote areas as being likely to be selective. Hence one must question the value of including this remote sub-sample in LSAC analysis of Indigenous outcomes, irrespective of any caveats made about the ability to generalise the findings. Unmeasured regional characteristics will probably dominate the statistical analysis of remote areas, and hence it would be advisable to ignore LSAC's remote Indigenous sub-sample altogether.

Notwithstanding, the LSAC may provide some limited insights into the dynamics of Indigenous child development outside remote areas, especially in regional Australia. If one does attempt to examine the LSAC data in any detail, the limited number of Indigenous children in the first wave means that some policy questions cannot be addressed as this would require a 'cutting of the cake' into excessively small pieces. One such policy might be in relation to child-care which only affects a small fraction of the Indigenous sub-sample. The issue of small sample size will be exacerbated over time with the attrition of the sample, so that it will be increasingly difficult to identify any trends in such variables. Therefore, this reinforces the conclusion that the LSAC's Indigenous sub-sample does not provide an adequate substitute for a longitudinal survey that is specifically focused on Indigenous issues. If we are to gain a detailed understanding of the pathways facing Indigenous children and the dynamics of disadvantage within Indigenous families, then the proposed LSIC needs to be adequately funded.

### **Concluding remarks**

Weston and Gray (2006) conclude that family and community life is multi-dimensional and complex. Overall, the NATSISS 2002 survey does a relatively good job of measuring a range of aspects of family and community life given that a general omnibus social survey of the Indigenous population needs, by definition, to cover many domains. However, they also highlight some of the issues which need to be taken into account when analysing the data generated by these questions. For example, many measures focus on the individual, with no information gathered on the quality of relationships, parenting behaviour, family functioning, and so on. A related issue is that the measures of household structure and composition are problematic for a proportion of the Indigenous population, given the complex and multi-generational nature of many households. Given the crucial importance of such issues for wellbeing, some measures on these issues should be considered for future surveys. The LSAC may provide a useful source of questions

on some of these issues. The proposed LSIC survey also provides a unique opportunity to ask about Indigenous families in a culturally appropriate manner that maximises response rates.

Finally, family and social factors are not readily amenable to direct policy intervention (Weston & Gray, 2006). Indeed, the misconceived policy interventions that led to the 'stolen generation' appear to be a major factor underlying Indigenous arrest rates. The negative effects of such policies are likely to be driven by the traumatic disruption to family life and the loss of culturally appropriate parenting skills (Hunter, 2001). Early intervention approaches to dealing with risk factors associated with anti-social and criminal behaviour appears to offer a promising avenue for policy action (Bushway & Reuter, 1997). It is important that Indigenous people have some control over how family services are provided (e.g. the need for Indigenous carers for Indigenous clients is often identified as an issue). The needs of children of Indigenous prisoners, especially those from country areas, should also be taken into account if the risk of delinquent behaviour is to be minimised.

### Endnotes

- 1 See Broadhurst et al. (1994) and Cunneen & McDonald (1997).
- 2 The GSS, the equivalent data source for the general Australian population of information provided in the NATSISS, only surveys people aged 18 years and older.
- 3 This finding was robust to confining the analysis to being the same age cohort in the respective surveys. See ABS (2004: Table 6).
- 4 Statistics from ABS (2004).
- 5 In terms of data quality, it is interesting to note that 2.2 per cent of respondents who were never charged claim to have been arrested. While changes in the law in response to the current terrorist threat mean that it is now easier to be arrested without being charged, we find it re-assuring that it is still relatively infrequent occurrence. Notwithstanding, there is probably still some minor measurement error in the NATSISS data on crime as 0.6 per cent of respondents who were never charged claim to have been incarcerated in the last five years.

### References

Australian Bureau of Statistics. (2004). *National Aboriginal and Torres Strait Islander social survey 2002* (Catalogue no. 4714.0). Canberra: Author.

Australian Institute of Criminology. (1996). *National police custody survey 1995: Preliminary report*. Canberra: Author.

Baker, J. (2001). The scope for reducing Indigenous imprisonment rates. *Crime and Justice Bulletin*, 55 (March), pp. 1–10.

Biddle, N. & Hunter, B. H. (2006). Selected methodological issues for analysis of the 2002 NATSISS. In B.H. Hunter (Ed.) *Assessing recent evidence on Indigenous socioeconomic outcomes: A focus on the 2002 NATSISS* (CAEPR Monograph No. 26). Canberra: ANU E-press.

Borland, J. & Hunter, B. H. (2000). Does crime affect employment status? - the case of Indigenous Australians. *Economica*, 67(1), pp. 123–44.

Broadhurst, R. G., Ferrante, A., Loh, N., et al. (1994). *Aboriginal contact with the criminal justice system in Western Australia: A statistical profile*. Perth: Crime Research Centre, The University of Western Australia.

Bushway, S. & Reuter, P. (1997). Labor markets and crime risk factors. In L.W. Sherman, D. Gottfredson, D. MacKenzie, J. Eck, et al. (ed.) *Preventing crime: What works, what doesn't, what's promising: A report to the United States Congress*. Prepared for the National Institute of Justice, Washington DC.

Carcach, C. A. & Mukherjee, S. K. (1996a). Law, justice, indigenous Australians and the NATSISS: Policy relevance and statistical seeds. In J.C. Altman & J. Taylor (Ed.) *The 1994 National Aboriginal and Torres Strait Islander Survey: Findings and future prospects* (CAEPR Research Monograph No. 11). Canberra: CAEPR, ANU.

Carcach, C. A. & Mukherjee, S. K. (1996b). Law, justice, Indigenous Australians and the NATSISS: Policy relevance and statistical seeds. In (Ed.) *The 1994 National Aboriginal and Torres Strait Islander survey: Findings and future prospects* (CAEPR Research Monograph No. 11). Canberra: CAEPR, ANU.

Commonwealth of Australia (1991). *Royal Commission into Aboriginal Deaths in Custody, vol. 2*, (Commissioner E. Johnston). Canberra: AGPS.

Cunneen, C. & McDonald, D. 1997. *Keeping Aboriginal and Torres Strait Islander people out of custody: An evaluation of the implementation of the recommendations of the Royal Commission in Aboriginal Deaths in Custody*. Canberra: ATSIC.

Dodson, M. & Hunter, B. (2006). Crime and justice issues. In B.H. Hunter (Ed.) *Assessing recent evidence on Indigenous socioeconomic outcomes: A focus on the 2002 NATSISS* (CAEPR Monograph No. 26). Canberra: ANU E-press, ANU.

Greenwood, P. W., Model, K. E., Rydell, C. P., et al. (1998). *Diverting children from a life of crime: Measuring costs and benefits* (RAND Monograph Report 699-1-UCB/RC/IF). Santa Monica, California.

Hunter, B. H. (1998). *The effect of high rates of arrest on educational attainment among Indigenous Australians*. Presented to the Annual Meeting of the American Economist Association, Chicago, 3-5 January 1998.

Hunter, B. H. (2001). Factors underlying Indigenous arrests rates. Sydney: New South Wales Bureau of Crime Statistics and Research.

Hunter, B. H. (2006a). *Further explorations of the interactions between crime and Indigenous employment*. Paper presented to the Econometric Society Australasian Meeting, Alice Springs, 4–7 July.

Hunter, B. H. (2006b). Further explorations of the role of crime in Indigenous employment status. *Australian Journal of Labour Economics*, 9(2), pp. 217–237.

Hunter, B. H., Arthur, W. S., & Morphy, F. (2005). Social Justice. In W.S. Arthur & F. Morphy (Ed.). Sydney: Macquarie Atlas of Indigenous Australia, Macquarie Library Pty Ltd.

Hunter, B. H. & Borland, J. (). The effect of the high rate of Indigenous arrest on employment prospects. *Crime and Justice Bulletin*, 45(June), pp. 1–8.

Hunter, B. H. & Schwab, R. G. (1998). *The determinants of Indigenous educational outcomes* (CAEPR Discussion Paper No. 160). Canberra: CAEPR, ANU.

Loeber, R. & Stouthamer-Loeber, M. (1986). Family factors as correlates and predictors of juvenile conduct problems and delinquency. In M. Tonry & N. Morris (Ed.) *Crime and justice: An annual review of research*. Chicago: The University of Chicago Press.

Lohr, S.L. (1999). *Sampling: Design and analysis*. Pacific Grove: Duxbury Press.

Morphy, F. (2006). Lost in translation? Remote Indigenous households and definitions of the family. *Family Matters*, 73, 12–19.

National Crime Prevention (1999). *Pathways to prevention: Developmental and early intervention approaches to crime in Australia*. Canberra: National Crime Prevention, Attorney-General's Department.

Penman, R. (2005). Doing research with Indigenous communities: A Report from footprints in time: The Longitudinal Study of Indigenous Children. Canberra: FaCSIA.

Ramsay, M. (1996). The relationship between alcohol and crime. *Research Bulletin*, 38, 37–43 Home Office Research and Statistics Directorate, London.

Tuck, M. (1989). *Drinking and disorder: A study of non-metropolitan violence* (Home Office Research Study 108). London: Home Office.

Weatherburn, D. & Lind, B. (2001). *Delinquent-prone communities*. Cambridge: Cambridge University Press.

Weatherburn, D., Snowball, L., & Hunter, B. H. (2006). The economic and social factors underpinning Indigenous contact with the justice system: Results from the 2002 NATSISS survey. *Crime and Justice Bulletin*, 104(November), pp. 1–16.

Weston, R. & Gray, M. (2006). Family and community life. In B.H. Hunter (Ed.) *Assessing recent evidence on Indigenous socioeconomic outcomes: A focus on the 2002 NATSISS* (CAEPR Monograph No. 26). Canberra: ANU E-press, ANU.

**Professor Mick Dodson** is a member of the Yawuru peoples, the traditional Aboriginal owners of land and waters in the Broome area of the southern Kimberley region of Western Australia. He is currently Director of the ANU National Centre for Indigenous Studies. **Dr Boyd Hunter** is a Fellow at the Centre for Aboriginal Economic Policy Research, also located at the ANU.