# Transient Offenders in the 1996 Secondary School Survey<sup>1</sup>: a Cautionary Note on Juvenile Justice Diversion

DON WEATHERBURN\* & JOANNE BAKER\*\*

# Introduction

Criminology, both here and overseas, is experiencing something of a renaissance of interest in the possibility of preventing juvenile crime through programs directed at actual or potential offenders. The renaissance has sprung from evidence that programs directed at families and their children during the early years of a child's life (Yoshikawa 1994, Tremblay & Craig, 1995, Pathways to Prevention 1999) can significantly reduce the likelihood and depth of juvenile involvement in crime. As might be expected, success in preventing crime through early childhood intervention has fostered optimism about the prospects for successful intervention in adolescence and beyond. Indeed, some now characterise child and adolescent development as a 'pathway', with 'critical transition points' distributed along it where timely and appropriate intervention can reduce the future risk of juvenile involvement in crime (Pathways to Prevention 1999).

Despite its apparent freshness this new zeitgeist of enthusiasm for early intervention has an element of deja vu about it. The reason, as Carney (1999) has pointed out, is that deterministic criminology experienced a similar high-water mark during the 1960s with the emergence of what Kittrie (1971) called the 'therapeutic' state. Kittrie used this term to describe the newly emerging techniques of psychiatric intervention and treatment which were widely regarded at the time as offering a more scientific means of controlling future offending behaviour than sanctions imposed by the courts. Then, as now, scholarly support for State intervention was underpinned by a beneficent rather than punitive attitude toward offenders. Paradoxically this beneficent motivation tended to blind supporters of 'early intervention', 1960s style, to the fact that their 'interventions' were often more onerous and restrictive of individual liberty than the punishments they were meant to supplant.

Based on a paper read at the Australian Institute of Criminology Conference: Mapping the Boundaries of Australia's Criminal Justice System, Rydges Canberra Hotel, 22-23 March, 1999.

Director, NSW Bureau of Crime Statistics and Research. Requests of copies of this paper should be directed to the first author at Level 8, St James Centre, 111 Elizabeth Street, Sydney, 2000.

<sup>\*\*</sup> Senior Research Officer, NSW Bureau of Crime Statistics and Research.

It would be unfair to cast all current approaches to early intervention in the same light as those which prevailed during the 1960s. For one thing, some modern forms of early intervention involve nothing more intrusive or coercive than the provision of parenting advice and support to disadvantaged families. This is wholly unobjectionable and there is good evidence of its value (see Olds et al 1998; Moffit & Harrington 1996). Some contemporary proponents of early intervention with juvenile offenders have also shown themselves quite sensitive to issues of civil rights. Braithwaite and Mugford (1994), for example, recommended procedural safeguards to prevent unfairness during re-integrative shaming conferences. It should also be pointed out that psychiatry in the 1960s promised far better control over criminal behaviour than it actually delivered. By contrast, at least some of the currently popular forms of early intervention have been shown in randomised controlled trials to be effective in reducing recidivism. Furthermore, New South Wales, at least, has been quite anxious to ensure that its diversion schemes do not target first or minor offenders. Under the NSW Young Offenders Act 1998 s.7, for example, diversion into the conferencing program does not take place unless the juvenile in question has failed to respond to less intrusive forms of intervention such as warnings and formal cautions. Similar caveats govern the placement of juveniles on the Youth Drug Court Program (NSW Department of Attorney General 2000).

It would be a mistake, nonetheless, to assume that all the risks associated with unbridled enthusiasm for early intervention are well and truly behind us. Offenders may no longer be at serious risk of indefinite psychiatric detention for minor offences but enthusiasm for new forms of early intervention is beginning to outpace the growth in evidence for its efficacy and appropriateness in all contexts (Carney 1999; Blagg 1997; Cunneen 1997). Perhaps most importantly, though it is obvious to criminologists, policy makers in Australia often show little appreciation of the fact that most juvenile involvement in crime is self-limiting, that is, it stops without any need for any form of intervention, early or otherwise. The Commonwealth Government, for example, recently added a \$111 million contribution over four years to various State-based diversion programs for young offenders without any serious regard to whether diversion and treatment were appropriate, or moreover, costeffective for the groups of young offenders served by these schemes (Commonwealth of Australia 1999). The problem is not unique to Australia. Perhaps the extreme example of this somewhat uncritical support for diversion into treatment is California's proposed Proposition 36, under which all minor drug offenders (e.g. those convicted for the first time of possessing or using drugs) are required to undergo treatment (Riley et al 2000).

Of course, one argument commonly made in favour of diversion (including that entailed by Proposition 36) is that it helps reduce dependence on more intrusive measures, such as imprisonment. On this account, the justification for diversion is not the fact that it is a better way of reducing crime but the fact that it protects young people from iatrogenic forms of intervention, such as imprisonment. This is an important point but sanctions designed to reduce the use of imprisonment are more often promised than delivered in practice, at least in Australia. The history of sentencing in this country is replete with examples of sanctions expressly designed to reduce the use of imprisonment but which ended up, despite all hope to the contrary, doing little more than splitting the non-custodial vote (Chan & Zdenkowski 1986; Bray 1990). Thus, while the NSW Government should be credited with its attention to the risks of net-widening, it remains to be seen whether efforts to prevent net-widening will actually prove successful. The views of judicial officers about the best use of sanctions, after all, are not always consistent with the stated intentions of the legislation creating them (Bray & Chan 1991).

The purpose of this article, then, is to sound a cautionary note about juvenile justice diversion using Australian self-reported crime data. By juvenile justice diversion programs we mean programs designed to intervene early in the supposed 'criminal careers' of juvenile offenders. The argument we make is in some ways not that new, at least in countries which routinely conduct surveys on self-reported offending. To date, however, it has not been made with the benefit of evidence drawn from a large-scale Australian survey on self-reported offending. We are interested in three specific questions. The first concerns the prevalence of juvenile involvement in crime. This is important for two reasons; firstly, because it helps highlight both the need for effective ways of reducing juvenile crime but, secondly, because it helps highlight the limits of criminal justice intervention as a means of achieving this goal. The second and third questions concern the amount of crime committed by juveniles who do get involved in crime and the degree to which juveniles persist in crime once they are involved. These questions are important because they reinforce the need to look beyond the criminal justice system for effective options in dealing with juvenile crime.

# Survey methodology

Full details of the survey methodology can be found in Baker (1998). In brief, the survey involved a self-completion questionnaire administered during 1996 to a randomly selected sample of 5,178 NSW public and private secondary school students from years 7 to 12. The questions on offending were derived from those employed in the US National Youth Survey. The questionnaire contained six offences – assault (on and off the sporting field), motor vehicle theft, break and enter, receiving or selling stolen goods, shoplifting goods worth \$20 or more and malicious damage. Student participants were asked whether they had ever committed each offence. If a student answered any question affirmatively they were then asked how many times they had committed that offence in their lifetime and how many times they had committed that offence in the last 12 months. Frequency was measured on a six-interval scale that ranged from 'none' to '20 or more'.

Assurances of confidentiality were given but students were also reminded of the importance of giving honest answers, with reminders about confidentiality and honesty included in the questionnaires before sensitive questions. It is important to note, however, that no attempt was made to target adolescents who had left school before Year 12. Adolescents who leave school early are likely to have different characteristics from those of adolescents who stay at school, and in particular are more likely to be involved in crime. This is especially the case if they left school early because they disliked it or were expelled (Jarjoura 1993; Thornberry, Moore & Christenson 1985). Our findings are probably not generalisable to adolescents who leave school early, but it should be noted that the exclusion of these students probably means that we have underestimated, rather than overestimated, the prevalence of juvenile participation in crime.

# Results

#### Prevalence

To provide some context, we begin by summarising the basic findings reported in Baker (1998). Table 1, below, shows the estimated prevalence of juvenile involvement in each of the six offences. Note that the population estimates were calculated by weighting the survey data to ensure the results were representative of the NSW secondary school population and subsequently extrapolating the weighted data to the population.

Table 1: Crime participation rates of NSW secondary school students<sup>a</sup>

	Ever committed (population estimates <sup>b</sup> )		Committed in 12 mths prior to the survey (population estimates <sup>b</sup> )	
	n	%	n	%
Assault during sport	138,500	31.4	110,300	25.0
Assault outside sport	173,400	39.3	128,000	29.0
Malicious damage	170,300	38.6	120,000	27.2
Receiving/selling stolen goods	100,600	22.8	67,500	15.3
Shoplifting (\$20 or more)	62,200	15.0	41,000	9.3
Break and enter	41,500	9.4	23,800	5.4
Motor vehicle theft	30,000	6.8	20,700	4.7
Any of the six offences <sup>c</sup>	270,900	61.4	210,500	47.7

<sup>&</sup>lt;sup>a</sup> The total population of NSW secondary school students in 1996 was 441,234

The distinctive feature of Table 1 is the high estimated prevalence of juvenile involvement in crime. The pattern is typical (see Snyder & Sickmund 1999; Brener et al 1999, Graham & Bowling 1995, Mofitt & Silva 1988; Blumstein et al 1986) and highlights an obvious point: juvenile offending is far more prevalent than the official figures on juvenile offending suggest. As we show later in the discussion, this point appears frequently overlooked by those who believe that the criminal justice system offers a significant source of leverage over juvenile crime.

The media response to evidence that juvenile involvement in crime is ubiquitous is usually sensationalist (Cooke & Murphy 1998). This is because the media (and most elected officials) assume that, if a juvenile offends at all, they almost certainly offend a lot. Figures 1(a) to 1(f) show, for each of the six offences listed in Table 1, the lifetime frequency of offending amongst those who have ever committed that offence. Figure 1(g) shows the total number of offences committed in a lifetime (across all of the six offences) amongst those who have ever offended.

b Population estimates have been rounded to the nearest 100.

<sup>&</sup>lt;sup>c</sup> Assault during sport is not included here.

0

1 to 2

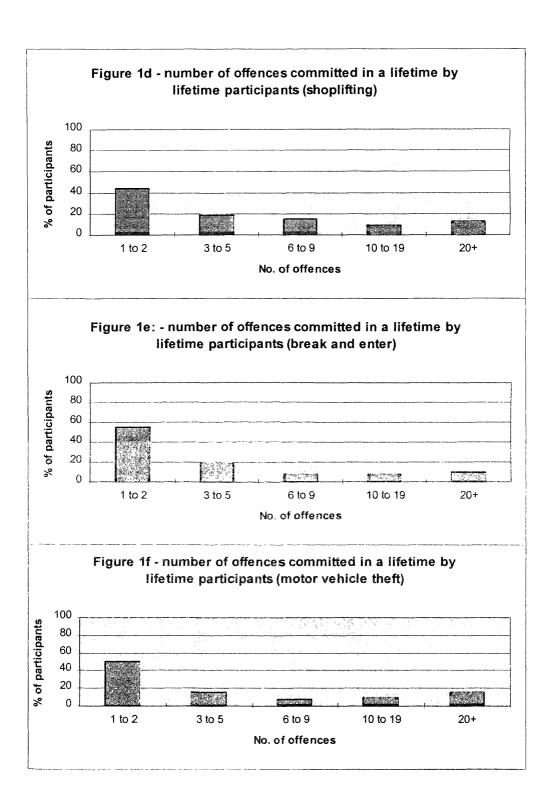
3 to 5

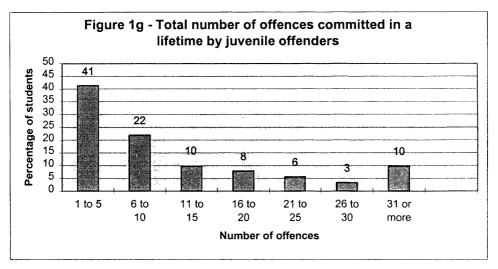
6 to 9

No. of offences

10 to 19

20+





It is clear that, despite the high prevalence of juvenile involvement in crime, most juveniles offend infrequently. The modal lifetime frequency of offending (at the time of the survey) for every offence is in the range 1-2 offences, with a substantial proportion of offenders committing less than five offences in their lifetime within any particular category. Almost two-thirds of offenders report committing a lifetime total of 10 or fewer offences across all of the six offences.

# Desistance and persistence

Now it might be objected that the data presented in Figures 1(a) to (f) only describe the progress of juvenile offending at the time of the survey. Juveniles may continue to offend throughout their school career and beyond. To the extent that they do, Figures 1(a) to (g) would presumably understate the total number of offences committed by active juvenile offenders. There is no direct means of testing this hypothesis with the present data but we can see what proportion of juveniles ever involved in crime were criminally active in the last year. If juveniles tend to persist in crime one would expect most of those ever involved in crime to have been active in the past year.

Table 2: Proportion of juvenile offenders who were criminally active/ inactive in the last year

Offence type	Proportion of lifetime offenders who have not offended in the last year	Proportion of lifetime offenders who have offended in the last year	
	(%)	(%)	
Assault	25	75	
Malicious damage	27	73	
Receiving	28	72	
Shoplifting	35	65	
Break and enter	36	64	
Motor vehicle theft	24	76	

Table 2 indicates that between a quarter and a third of all juveniles who offend at some point in their lifetime were not criminally active in the year prior to the survey. It is, of course, equally true that the majority were criminally active in the year prior to the survey. However, as can be seen from Table 3, below, the majority of currently active offenders in most offence categories only commenced offending in the year of the survey. Whether offenders commenced offending in the year of the survey or prior to it was determined by comparing lifetime and annual offending frequency.

Table 3: Active offenders and commencement of offending

Offence type	Percentage of active offenders who started offending in year of survey  (%)	Percentage of active offenders who started offending prior to the survey year (%)	
Assault	42	58	
Malicious damage	49	51	
Receiving	60	40	
Shoplifting	60	40	
Break and enter	62	38	
Motor vehicle theft	69	31	

Table 4 provides one final piece of evidence highlighting the transient nature of juvenile offending. It shows that the proportion of juveniles who offend at some point in time but have not offended in the past year tends to increase with each year of school for all the offences except motor vehicle theft. This suggests that most juvenile criminal 'careers' are coming to an end by the time a young person leaves school.

Table 4: Proportion of juvenile offenders who were criminally inactive in the last year by year level

Offence type								
Year level	Assault (%)	Malicious damage (%)	Receiving (%)	Shoplifting (%)	Break and enter	Motor vehicle theft (%)		
7	20	27	31	28	26	32		
8	20	25	29	26	31	14		
9	22	23	24	34	31	29		
10	28	26	27	35	37	24		
11	31	27	26	40	45	29		
12	37	40	42	49	55	30		

### Discussion

Our findings confirm for Australia what has so frequently been observed overseas but never fully appreciated by policy makers here; namely that the characteristic pattern of juvenile involvement in crime is one of high prevalence but low frequency and low persistence. Coumarelos and Weatherburn (1995) reached a similar conclusion some years ago in an analysis based on an analysis of juvenile court appearances. Studies based on official records of crime, however, are always vulnerable to the criticism that officially recorded offending gives a false or misleading picture of the magnitude of juvenile involvement in crime, both in terms of its prevalence and its frequency or persistence. The present findings show that such criticism is without foundation. To the extent to which we can judge the matter from the self-reports of secondary school students, juvenile 'criminal careers' are mercifully short and unproductive. The same is not likely to be true of all juveniles who leave school prior to year 10 but, on the other hand, they make up a small minority of the school age population.

Of course our findings also run against the grain of popular (i.e. media) social constructions of juvenile crime, which usually depict it as the work of (a relatively small group of) dangerous, persistent and predatory criminals. While our findings certainly do not contradict the claim that a small group of juveniles commit a large amount of crime, they do illustrate the fact that a very large proportion of juvenile crime is the work of secondary school students who merely dip their 'toe' into the 'water' of crime. In other words much juvenile crime is committed by typical everyday students who desist from crime of their own accord without the need for any significant intervention (whether this be in the form of juvenile justice diversion programs or punitive sanctions such as a custodial sentence).

Somewhat paradoxically, the sheer scale of transient juvenile involvement in crime is another reason for not relying too heavily on juvenile justice diversion programs to control juvenile crime. In 1995/6, for example, (the period closest to the year of the survey) the number of distinct individuals appearing in the NSW Children's Court for break and enter, vehicle theft and property damage were, respectively, 1,587, 970 and 826. Taken together with the data on the prevalence of juvenile offending presented in Table 1, these figures indicate that, at best, only about 7 per cent of juvenile burglars, 5 per cent of juvenile car thieves and 1 per cent of juveniles committing malicious damage to property during 1995/6 ended up in court. It is obvious that juvenile justice diversion programs are only ever likely to reach a tiny minority of those who actually offend. Such programs would therefore seem only likely to prove cost-effective when restricted to persistent offenders or those whose antecedents suggest they are at serious risk of becoming persistent offenders (e.g. juveniles whose commit a serious offence at a very young age).

What, then, of transient juvenile offenders? We are not suggesting that this group of offenders be ignored altogether. The harm done by individual juvenile offenders may generally be small, but it is plain from the prevalence data in Table 1 that, collectively, juvenile offenders make a sizeable contribution to the overall cost of crime. The solution to this problem, however, is not to expand the reach of juvenile justice diversion programs so as to touch the lives of all or most of those at risk of involvement in crime. Indeed, based on our data such programs would need to be directed at over half of the school-aged population. The solution lies in recognition of the fact that transient or adolescent-limited offending is predominantly imitative and opportunistic (Silva & Stanton 1996). This suggests that rather than attempting to control transient offending through juvenile justice diversion strategies, we would be better off attempting to control the incentives, opportunities and triggers for juvenile involvement in crime.

Control of these opportunities, incentives and triggers can be very effective in preventing crime. To name just a few examples in the domain of situational crime prevention, improvements in anti-theft devices have proved extremely successful in reducing the rate at which vehicles are stolen (Laycock & Tilley 1995). Changes in marketing strategies have proved effective in combating store theft (Shapland 1995). Property marking, conducted properly, can reduce burglary (Clarke 1995). Rapid repair of public facilities can reduce vandalism (Clarke 1995). Responsible alcohol serving practices can reduce violence (Hauritz et al 1998). Consistent enforcement of school rules can prevent school violence (Gottfredson 1997). Weapon confiscation can prevent lethal youth violence (Sherman et al 1995).

While the evidence for their efficacy is not as strong, programs designed to strengthen neighbourhood informal social controls and/or expand the range of employment opportunities for young people in disadvantaged neighbourhoods are also deserving of greater attention than they currently receive. Informal social controls are controls exercised by members of the community (e.g. citizen intervention to discourage disturbances in public space or delinquent acts by teenage peer groups) as opposed to those enforced by agencies of the State. Sampson, Raudenbush and Earls (1997) have highlighted the damaging effects which a breakdown in informal social controls can have on levels of neighbourhood violence. Sampson and Wilson (1995) make a convincing case on the strength of this evidence that measures designed to strengthen local neighbourhood institutions, reduce geographic mobility and increase the level of social cohesion in neighbourhoods (e.g. through provision of adequate public housing, the maintenance of municipal services and the strengthening of local clubs and other community organisations) are potentially very important in fostering the involvement of citizens in managing nascent threats to law and order.

Programs designed to reduce unemployment and improve employment earnings potential, particularly among the young, are another neglected area of crime prevention. This is partly because aggregate-level studies of the relationship between unemployment and crime have produced such inconsistent results (Chiricos 1987) and partly because the general fall in unemployment rates in Australia over the last few years has encouraged a degree of complacency about the issue. There is an emerging body of evidence from longitudinal studies of unemployment and crime, however, which suggests that unemployment does cause crime and that the relationship between the two is more subtle than traditionally assumed (see Polk & White 1999). Briefly summarised, this evidence suggests that effect of unemployment on criminal participation appears to be concentrated among those whose long-term labour market prospects are fairly bleak and/or who reside in disadvantaged neighbourhoods (Fagan & Freeman 1999).

This is an important observation. Its significance stems from the fact that, over the last two decades, Australia has experienced a progressive spatial concentration of unemployment in areas of acute disadvantage (Gregory & Hunter 1995). Despite the low general level of unemployment in Australia these are areas where unemployment remains stubbornly high. Youth unemployment also remains particularly high among those whose educational attainment is fairly limited (Chapman & Gray 2000). As we have already noted, these are precisely the conditions identified by criminological research as conducive to involvement in crime. Programs designed to improve the labour market prospects or earnings potential of young people in poor areas may be of significant assistance in combating the effects of boredom or inadequate income on crime.

These are prosaic forms of crime control, to be sure. Some will never be content with crime prevention measures which seek no restitution from or retribution against offenders or, worse yet, which seek to improve their lot in life. Others will never be content with measures which leave the offender's 'deviant inner world' intact, seeking only to thwart its expression and then only in certain circumstances. Still, if we are serious about crime prevention we should not allow ourselves to be distracted by the promise of personal transformation so often made on behalf of diversion programs. If they can be shown to work with persistent and/or serious offenders such strategies have their place. But involvement in crime should not be taken, ipso facto, as evidence of the need for State intervention in the lives of young offenders to rectify some enduring and dangerous personal maladjustment.

## REFERENCES

Baker, J (1998) Juveniles in Crime: Part 1: Participation Rates and Risk Factors, NSW Bureau of Crime Statistics and Research, Sydney.

Blagg, H (1997) 'A Just Measure of Shame? Aboriginal Youth and Conferencing in Australia', The British Journal of Criminology, vol 37, no 4, pp 481-499.

Blumstein, A, Cohen, J, Roth JA & Visher, CA (1986) Criminal Careers and Career Criminals, vol 1, National Academy Press, Washington DC.

Bray, R (1990) The Use of Custodial Sentences and Alternatives to Custody by NSW Magistrates, Judicial Commission of New South Wales, Monograph Series no 1, April.

Bray, R & Chan, J (1991) Community Service Orders and Periodic Detention as Sentencing Options: A survey of judicial officers in NSW, Judicial Commission of New South Wales, Monograph no 3, April.

Brener, ND, Simon, TR, Krug, EG & Lowry, R (1999) 'Recent trends in Violence-Related Behaviours Among High School Students in the United States', The Journal of the American Medical Association, vol 282, no 5, pp 440-446.

Braithwaite J & Mugford, S (1994) 'Conditions for Successful Reintegration Ceremonies', The British Journal of Criminology, vol 32, pp 139-172.

Carney, T (1999) 'New Configurations of Justice and Services for the Vulnerable: Panacea or Panegyric?' Paper presented at the 24<sup>th</sup> Congress of the Academy of Law and Mental Health, Toronto, 16th-18th June.

Chan, J & Zdenkowski, G (1986) 'Just Alternatives (I)', Australian and New Zealand Journal of Criminology, vol 19, no 2, pp 60-90.

Chan, J & Zdenkowski, G (1986) 'Just Alternatives (II), Australian and New Zealand Journal of Criminology, vol 19, no 3, pp 131-154.

Chapman, B & Gray, M (2000) Youth Unemployment: Aggregate Incidence and Consequences for Individuals, Unpublished Paper, Research School of Social Sciences, Australian National University.

Chiricos, T (1987) 'Rates of crime and unemployment: An analysis of aggregate research evidence', Social Problems, vol 34, no 2, pp 187-212.

Clarke, RV (1995) 'Situational Crime Prevention' in Tonry, M & Farrington, DP (eds) Building a Safer Society: Strategic Approaches to Crime Prevention, vol 19, University of Chicago Press, Chicago.

Commonwealth of Australia (1999), COAG Communique 9th of April, 1999, Special Council of Australian Governments Meeting, Commonwealth of Australia, Canberra.

Cooke, J & Murphy, D (1998) 'Half our students break the law', Sydney Morning Herald, December 19, p 3.

Coumarelos, C & Weatherburn, D (1995) 'Targeting Intervention Strategies to Reduce Juvenile Recidivism', *Australian and New Zealand Journal of Criminology*, vol 28, pp 54-72.

Cunneen, C (1997) 'Community Conferencing and the Fiction of Indigenous Control', Australian and New Zealand Journal of Criminology, vol 30, pp 292-311.

Fagan, J & Freeman, RB (1999) 'Crime and Work' in *Crime and Justice: A Review of Research*, ed. M. Tonry, vol 25, The University of Chicago Press, Chicago, pp 225-290.

Gottfredson, DC (1997) 'School-based crime prevention' in Sherman, LW, Gottfredson, DC, MacKenzie, D, Eck, J, Reuter, P, & Bushway, S, (1997) *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.

Graham, J & Bowling, B (1995) Young People and Crime, Home Office, London.

Gregory, B & Hunter, B (1995) The Macro Economy and the Growth of Ghettos and Urban Poverty in Australia, Discussion Paper no 325, Centre for Economic Policy Research, Australian National University.

Hauritz, M, Homel, R, McIllwain, G, Burrows, T, & Townsley, M (1998) 'Reducing Violence at Licensed Premises', *Trends and Issues in Crime and Criminal Justice*, no 101, Australian Institute of Criminology, Canberra.

Jarjoura, GR (1993) 'Does dropping out of school enhance delinquent involvement? Results from a large scale national probability survey', *Criminology*, vol 31, no 2, pp 175-185.

Kittrie, N (1971) The Right to be Different: Deviance and Enforced Therapy, Baltimore, Johns Hopkins Press.

Laycock G & Tilley, N (1995) 'Implementing Crime Prevention', in Tonry, M & Farrington, DP (eds), Building a Safer Society: Strategic Approaches to Crime Prevention, vol 19, the University of Chicago Press, Chicago.

Moffitt, TE & Silva, PA (1988) Self-reported delinquency: results from an instrument for New Zealand, Australian and New Zealand Journal of Criminology, vol 21, pp 227-240.

Moffitt, TE & Harrington, HL (1996) 'Delinquency: The Natural History of Antisocial Behaviour', in Silva, PA & Stanton, DP (eds) From child to adult: The Dunedin multidisciplinary health and development study, Oxford University Press, Auckland.

NSW Department of Attorney General (2000) Youth Drug Court Program: The Youth Drug Court Program Plan, NSW Department of Attorney General, Sydney.

Olds, D, Hill, P & Rumsey, E (1998) Parental and Early Childhood Nurse Visitation, Juvenile Justice Bulletin Nov, Office of Juvenile Justice and Delinquency Prevention, Office of Justice Programs, U.S. Department of Justice, Washington.

Pathways to Prevention (1999) Developmental and early intervention approaches to crime in Australia, National Anti-Crime Strategy, Commonwealth Department of Attorney General, Canberra.

Polk, K & White, R (1999) 'Economic adversity and criminal behaviour: Rethinking youth unemployment and crime', Australian and New Zealand Journal of Criminology, vol 32, no 3, pp 284-302.

Riley, KJ, Ebener, P, Chiesa, J, Turner, S & Ringel, J (2000) Drug Offenders and the Criminal Justice System: Will Proposition 36 Treat or Create Problems, Unpublished report, RAND, Santa Monica, California.

Sampson RJ & Wilson, WJ (1995) Toward a theory of race, crime and urban inequality, in Hagan, J & Peterson, RD (eds) Crime and Inequality, Standford University Press, Stanford, California, pp 37-54.

Sampson, RJ, Raudenbush, SW & Earls, F (1997) 'Neighbourhoods and Violent Crime: A Multilevel Study of Collective Efficacy, Science, vol 277, August 15<sup>th</sup>.

Shapland, J (1995) 'Preventing Retail-Sector Crimes', in Tonry, M & Farrington, DP (eds) Building a Safer Society: Strategic Approaches to Crime Prevention, vol 19, University of Chicago Press, Chicago.

Sherman, L, Shaw, JW, and Rogan, DP (1995) The Kansas City Gun Experiment, National Institute of Justice, US Department of Justice, Office of Justice Programs, Washington DC.

Silva, PA & Stanton, WR (1996) From child to adult: the Dunedin multidisciplinary health and development study, Oxford University Press, Auckland.

Snyder, HN & Sickmund, M (1999) Juvenile Offenders and Victims: 1999 National Report, Washington DC, US Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Thornberry, T, Moore, M & Christenson, R, (1985) 'The effect of dropping out of high school on subsequent criminal behaviour', Criminology, vol 23, no 1, pp 3-18.

Tremblay, RE & Craig, WM (1995) 'Developmental Crime Prevention', in Tonry, M & Farrington, DP (eds), Building a Safer Society Strategic Approaches to Crime Prevention, Crime and Justice: A Review of Research, vol 19, pp 151-236.

Yoshikawa, H, (1994) 'Prevention as cumulative protection: Effects of early family support and education on chronic delinquency and its risks', Psychological Bulletin, vol 115, no 1, pp 28-54.