AUSTRALIAN INSTITUTE OF CRIMINOLOGY

trends & issues

in crime and criminal justice

No.85

Poverty, Parenting, Peers and Crime-Prone Neighbourhoods

Don Weatherburn and Bronwyn Lind

It has long been known that officially recorded rates of most forms of crime are higher in economically disadvantaged areas. The conventional view has been that disadvantage increases the motivation to offend but there are a number of findings which are difficult to reconcile with this view. A growing body of research evidence drawn from studies of individual families suggests that economic and social stress exert their effects on crime by disrupting the parenting process. The research reported here confirms this hypothesis for Australian families and points to the importance of increasing family supports and parenting skills as a means of reducing juvenile involvement in crime.

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Director

Conventional wisdom suggests that crime-prone neighbourhoods are likely to be characterised by high levels of economic stress or disadvantage (as indexed by high rates of unemployment and / or low average levels of household income). Research generally confirms this impression (Braithwaite 1979; Chiricos 1987; Belknap 1989). The classical view of the relationship between economic stress and crime is that economic stress, in one way or another, motivates individuals affected by it to offend (Cloward & Ohlin 1960; Becker 1968; Merton 1968; Wilson & Herrnstein 1985; Braithwaite 1988). But there are a number of findings which are difficult to reconcile with this view.

The peak age for onset of criminal activity, for example, predates entry into the labour market (and, in some cases, entry into secondary school) by a large margin (Farrington et al. 1990). It is unclear why economic stress would motivate individuals to commit non-acquisitive crimes yet poor areas generally have high rates of *both* acquisitive and non-acquisitive crime. Cross-sectional studies favour the hypothesis of a strong positive relationship between poverty, unemployment and crime but time series studies frequently show a significant negative relationship (Chiricos 1987). Finally, the effect of individual-level economic stress on juvenile involvement in crime would appear to be shaped by the level of economic stress and / or the prevalence of offending in the surrounding neighbourhood (Reiss & Rhodes 1961; Braithwaite 1979; Paternoster & Mazerolle 1994).

The failure to observe evidence consistent with the view that economic stress motivates otherwise law-abiding individuals to offend raises the possibility that the effects of economic stress on crime are mediated by some other mechanism or set of mechanisms. In this paper we examine the role of parenting and delinquent peers as mediating factors in the relationship between economic stress and delinquency.

April 1998

ISSN 0817-8542
ISBN 0 642 24068 X

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Aggregate-level studies almost universally show a strong positive association between measures of economic stress and reported rates of child neglect and child abuse (*see* Garbarino & Sherman 1980; US Department of Health and Human Services 1988; Garbarino & Kostelny 1992; Durkin et al. 1994; Coulton et al. 1995; Chaffin, Kelleher & Hollenberg 1996).

Studies which rely on self-report or direct observation of families for information about parental behaviour, rather than on official records, have also found that low-income parents are less likely to be nurturant, less likely to closely supervise their children and more likely to engage in inconsistent, erratic and harsh discipline (*see* Elder, Van Nguyen & Caspi 1985; Larzelere & Patterson 1990; Harris & Marmer 1996). Importantly, these effects appear to be exacerbated when low-income families are exposed to social stress (for example, the absence of a supportive partner, depression, drug use) and attenuated when low-income families enjoy strong social supports (for example, close and supportive relationships with other family members or neighbours).

Research also shows a strong relationship between factors such as poor parental supervision of children, inconsistent, harsh and erratic parental discipline, and a weak parent-child bond, and subsequent juvenile and adult involvement in crime (Loeber & Stouthamer-Loeber 1986; Widom 1989; Larzelere & Patterson 1990; Thornberry et al. 1991; Barnes & Farrell 1992; Martens 1992; Mak 1994; Smith & Thornberry 1995). These findings suggest that economic stress may exert at least some of its effects on crime by disrupting the child-rearing process.

Poverty, Child-rearing and Delinquency

Disrupted parenting may provide a pathway between economic stress and crime without carrying all or even most of the traffic. How do we tell how much of the effect of economic stress on crime is mediated by disruption to the child-rearing process? One way to address this question is to examine the spatial interrelationship between economic stress, child neglect / abuse and juvenile participation in crime. The rate of child neglect / abuse in a particular postcode area is probably a fair measure of the prevalence of those parental behaviours which have been shown in individual-level studies to be criminogenic. If economic stress shapes the level of juvenile participation in crime in a neighbourhood mainly by disrupting the child-rearing process, we should find little effect of economic stress on juvenile participation in crime in a postcode area once we have controlled for its level of child neglect / abuse.

Weatherburn and Lind recently examined this issue in a study of the interrelationship between economic and social stress, child maltreatment and juvenile participation in crime across postcode areas in New South Wales. Full details of the study methodology are contained in Weatherburn and Lind (1997a) and will not be repeated here. Suffice it to say that poverty (measured by the percentage of households with an annual income of less than $16 000) was used as an index of the level of economic stress in a postcode area; the percentage of single parent families and the percentage of "crowded" households (that is with more than 1.5 persons per bedroom) were used as measures of social stress. These measures of social and economic stress came from the 1991 census. For each postcode area the rates of child neglect and abuse (as reported to the New South Wales Department of Community Services) were used as indices of the level of parental disruption, and the juvenile court appearance

Figure 1a: *Rates of child neglect and rates of poverty in urban postcode areas in New South Wales*

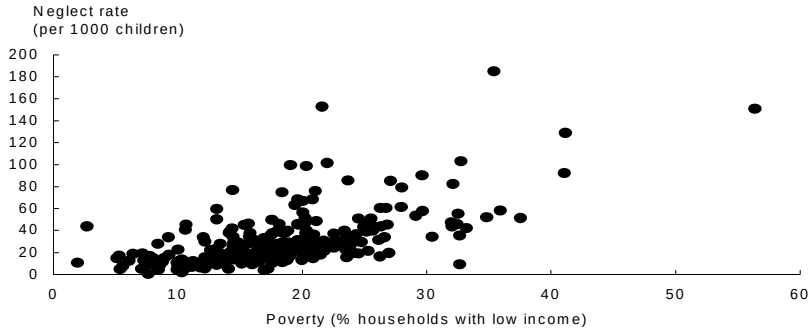
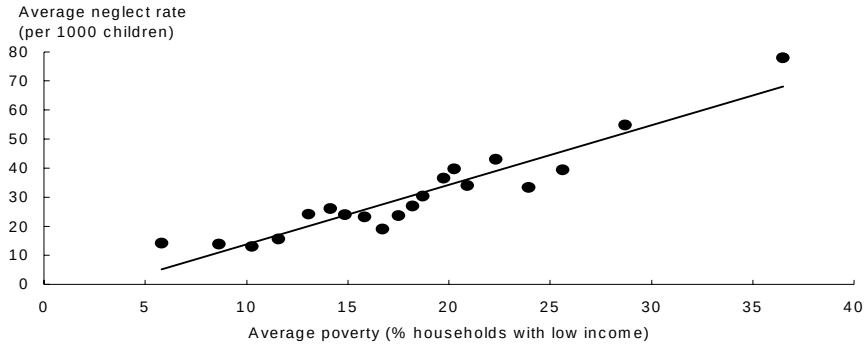


Figure 1b: *Average rates of child neglect and average rates of poverty in groups of urban postcode areas in New South Wales*



rate for property and violent offences was used as an index of the rate of juvenile involvement in crime. Rates of child neglect and abuse were measured over a five-year period ending 30 June 1991 and juvenile court appearance rates were measured over a five-year period ending 30 June 1995. Inter-relationships among these variables were then examined using multiple regression analysis.

In the initial set of analyses we set out to confirm what others had already shown, namely that economic and social stress were strongly related both to child maltreatment and to crime. The results were as expected. Postcode areas with high levels of poverty tended to have significantly higher levels of parenting deficits such as child neglect. For example, this can be seen in Figures 1a and 1b. Figure 1a plots rates of child neglect against rates of poverty for 261 postcode areas in the urban areas of Sydney, Newcastle and Wollongong.

The strong linear relationship can be seen more clearly when some of the variation is removed by averaging across groups of postcode areas. Whereas each point in Figure 1a represents one postcode area, each point in Figure 1b represents a group of postcode areas. Figure 1b plots the average rate of child neglect against the average rate of poverty for 20 groups of postcode areas.[1]

Also, as might be expected, we found a strong relationship between the level of child neglect / abuse in a postcode area and the level of juvenile participation in crime in that postcode area. For neglect, the relationship can be seen in Figures 2a and 2b. Figure 2a plots the rate of juvenile participation in crime against the rate of neglect whereas Figure 2b plots the averages of the same rates, for the same urban postcode areas, sorted into 20 groups as in Figure 1b (except that the postcode areas were sorted on their rates of neglect for Figure 2b, rather than on their rates of poverty as in Figure 1b).

Figure 2a: *Rates of juvenile participation in crime and rates of child neglect in urban postcode areas in New South Wales*

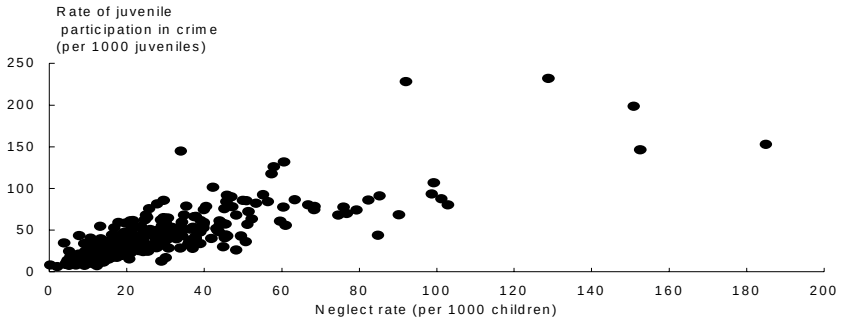
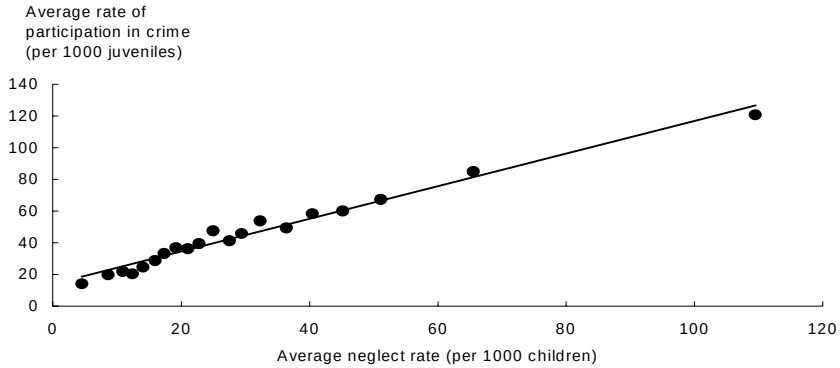


Figure 2b: *Average rates of juvenile participation in crime and average rates of child neglect in groups of urban postcode areas in New South Wales*



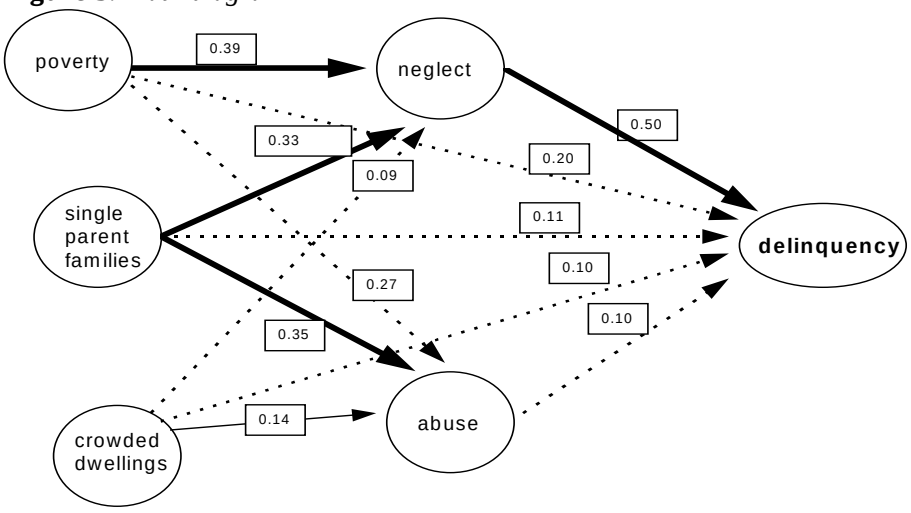
This evidence is consistent with the hypothesis that economic and social stress exert an indirect effect on juvenile participation in crime by disrupting the parenting process. But it is also consistent with the hypothesis that economic and social stress exert direct effects both on the quality of parenting and on juvenile delinquency. To see how important child maltreatment (i.e. neglect or abuse) is as a **mediator** of the relationship between economic and social stress and crime, we conducted what is known as a path analysis.

Path analysis is an analytical technique often used in the social sciences to assess the strength of a set of hypothesised causal relationships. (Path analysis does not prove that the relationships are causal; it merely assesses the relative strength of the relationships, assuming they are causal.) One of the values of such an analysis is it can be used to tell whether variables are related directly to one another or indirectly, through their effects on other variables. Path coefficients are calculated for each of the hypothesised causal paths and displayed in a path diagram. The path coefficient for a specified causal "path" can be considered as a measure of the unit change expected in the specified predicted variable, resulting from each unit change in the specified causal variable, assuming all other causal variables (for the specified predicted variable) are held constant.

In this study we were interested in whether economic stress was directly related to juvenile involvement in crime, or indirectly related through its effect on the quality of parenting. Figure 3

1. To produce Figure 1b the postcodes were sorted according to their rates of poverty, then grouped into 20 groups, each of 13 postcodes (one group had 14 postcodes). The average rate of poverty and the average rate of child neglect were calculated for each of the 20 groups and plotted. The line in Figure 1b is the straight line of best fit to the plotted data.

Figure 3: *Path diagram*



shows the results of the path analysis for urban areas.[2] The figure is a path diagram which includes as posited causes of juvenile participation in crime the variables: poverty, single parent families, crowded dwellings, neglect and abuse. There are two salient points to note about the figure. Firstly, the largest path coefficient is that from neglect to juvenile participation in crime (0.50). By contrast the path coefficient from abuse to juvenile participation in crime is relatively small (0.10). This indicates that, of all the posited causes of juvenile participation in crime, neglect has the greatest causal influence. Secondly, the path coefficients linking economic and social stress to neglect are much larger than those linking economic and social stress *directly* to juvenile participation in crime. These findings suggest that economic and social stress exert most of their effects on crime, at least in urban areas, by increasing the risk of child neglect.

The Role of Neighbourhoods

Taken together, Figures 1b and 2b suggest that, other things (for example, social stress) being equal, the prevalence of juvenile involvement in crime in a neighbourhood is a simple linear function of its level of economic stress. But there are reasons for suspecting that the true relationship between economic stress and delinquency may be more complex than this. There is a large body of evidence which suggests that the influence of these parenting factors on juvenile involvement in crime is mediated by association with delinquent peers. In other words, once the effect of association with peers has been partialled out, the effect of what might be called inept parenting on delinquency is either reduced to insignificance or greatly attenuated in magnitude (Elliott, Huizinga & Ageton 1985; Patterson, Capaldi & Bank 1991; Agnew 1993; Blackson et al. 1996).

Weatherburn and Lind (1997b) recently proposed an epidemic model of delinquency. The model was based on the idea that economic stress increases juvenile participation in crime because it disrupts the parenting process thereby rendering juveniles more susceptible to delinquent peer influence. According to the model, juveniles rendered susceptible to involvement in crime by poor parenting are more likely to become involved in crime if they reside in "offender-prone" neighbourhoods than if they do not reside in such neighbourhoods. The model implies that the prevalence of juvenile involvement in crime in a neighbourhood will not increase until the level of economic stress is sufficient to push the number of juveniles susceptible to crime past a certain limit, known as the epidemic threshold. Once this limit is crossed, growth in the young offender population, instead of being linear, accelerates rapidly past what would have been expected if equal increments in economic stress produced equal increments in juvenile involvement in crime.

One attraction of such a model is that it helps resolve some of the anomalies associated with the relationship between economic stress and crime. The fact that the model predicts a threshold for the effects of economic stress on juvenile participation in crime, for example, explains why some studies of the relationship between economic stress and crime may have failed to observe any effect. The model also explains why juveniles from low socioeconomic status families who reside in low socioeconomic status neighbourhoods are more likely to become involved in crime than those who do not reside in such neighbourhoods. Low socioeconomic status neighbourhoods will generally have larger populations of delinquents and will therefore produce higher rates of interaction between juveniles susceptible to involvement in crime and juveniles already involved in crime.

Central to the epidemic model is the assumption that parenting and neighbourhood (i.e. delinquent peer) effects interact in shaping the rate of entry into crime. There is evidence to support such an assumption. Table 1, based on

2. Similar analysis was conducted for rural areas. For various technical reasons the results were not as clear-cut but they were still generally similar to the results obtained for urban areas.

data from the Western Australian Child Health Survey, shows the estimated percentages of juveniles involved in crime, according to the level of parental supervision they experienced and whether or not they resided in a crime-prone neighbourhood (*see* Zubrick et al. 1995 for a description of the Western Australian Child Health Survey.)

Table 1 shows that, for poorly supervised juveniles (those allowed out very often any evening), the estimated percentages involved in crime are 51.0 per cent for those living in crime-prone neighbourhoods compared with 33.8 per cent living in neighbourhoods that are not crime-prone. The difference, while not statistically significant (probably because of the small sample size) certainly suggests that neighbourhood and parenting factors interact as assumed in the epidemic model. Inspection of the confidence intervals, moreover, shows that being allowed out very often any evening is associated with a significantly higher likelihood of involvement in crime only for those who reside in crime-prone neighbourhoods. This provides further evidence in support of the epidemic model.

Table 1: *Estimated percentage of juveniles involved in crime: Supervision by neighbourhood type*

	Estimated percentage of juveniles involved in crime			
	Not crime-prone neighbourhood		*Crime-prone neighbourhood*	
Allowed out any evening:	*Percentage*	*95% confidence interval*	*Percentage*	*95% confidence interval*
Never	5.0	(0.4 – 9.6)	8.8	(2.0 – 15.7)
Sometimes	6.9	(2.6 – 11.2)	14.1	(6.2 – 22.1)
Often	9.1	(-1.5 – 19.8)	5.0	(-2.6 – 12.6)
Very often	33.8	(0.2 – 67.3)	51.0	(24.5 – 77.6)

Policy Implications

What are the implications of the foregoing for crime control policy? Crime control strategies may be divided into those designed to reduce the frequency of offending amongst the existing population of motivated offenders and those designed to reduce the supply of motivated offenders. Most crime control strategies undertaken by Government fall into the former rather than the latter category. Increasing police patrols in crime "hotspots", improving vehicle and household security and increasing penalties for offending, for example, are all initiatives which probably exert most of their effects on those who are already involved in crime. They are attractive strategies because, if they are effective at all in reducing crime, they generally produce relatively quick effects. The public focus on these strategies is reinforced by the fact that law enforcement authorities generally have little control over the supply of motivated offenders.

Strategies designed to reduce the supply of motivated offenders, by contrast, do not generally produce immediate effects. Depending upon the approach taken, it may take some considerable time to produce improvements in the quality of parenting in a neighbourhood. Even when they occur, the reduction in crime which follows will not show up until the children who benefit from it reach their crime-prone years. This may be a decade or more later. Notwithstanding the fact that reductions in the supply of motivated offenders take a long time to engineer, however, they should be regarded as a vital component in any overall crime prevention strategy. The reason for this is that small changes in the supply of motivated offenders have the potential to produce large crime-reduction dividends.

The path coefficient between neglect and delinquency in Figure 3 indicates that, other things being equal, a one unit change in the rate of child neglect results in a 0.5 unit change in the juvenile offender rate. Hence, other things being equal, a 10 per cent reduction in the rate of child neglect would ultimately reduce the rate of juvenile offenders turning up in court by 5 per cent. This may seem a small change. For every offence committed by a juvenile and detected by authorities however, there are many undetected offences. Salmelainen (1995), for example, found that incarcerated juvenile offenders committed break, enter and steal offences at the rate of about one every three weeks. Thus the savings in crime accruing from a given sized reduction in the number of motivated offenders are likely to be very much larger than the size of that reduction would seem to suggest. If the epidemic model is correct, moreover, each reduction in the supply of motivated offenders will produce further reductions because the scope for delinquent peer influence is reduced.

One important implication of the foregoing is that Governments which want to produce a reduction in the supply of motivated offenders must look beyond the usual agencies they call upon to deal with crime. The evidence suggests that three of the most important ways of reducing the supply of motivated offenders are to

- reduce the level of economic stress,
- prevent geographic concentration of poverty (so as to attenuate the influence of delinquent peers) and

- introduce family and child support programs designed to prevent social and economic stress exerting disruptive effects on the parenting process.

The first two of these strategies can only be achieved through changes in macro-economic or macrosocial policy. The third requires changes to policy in areas such as community services, school education and public health rather than changes to law enforcement and sentencing policy.

Australians should view the task of setting in place strategies to reduce the supply of motivated offenders with some urgency. Our analysis of child neglect and delinquency in New South Wales suggests that in some areas both have reached epidemic proportions. In the worst ten postcode areas for child neglect, no less than 10 per cent of the population of children aged 15 years and younger were reported as neglected in the five years covered by the study. In the worst postcode area, nearly 1 in 3 children aged 15 years and younger were reported as neglected. In the worst ten postcode areas for delinquency, no less than 18 per cent of juveniles aged 10-17 resident in the postcode area appeared in a Children's Court over the period of the study. In the worst postcode area, nearly one half of the children in this age group appeared before a Children's Court over the five years of the study.

Some might be tempted to dismiss these data on the assumption that New South Wales is Australia's most crime-prone jurisdiction. That would be a mistake. Although New South Wales records the nation's highest robbery rates, higher rates of break, enter and steal are recorded in Western Australia, higher rates of assault are recorded in the Northern Territory and higher rates of sexual assault are recorded in South Australia. It is likely therefore that the high rates of child neglect and juvenile participation in crime we have observed in New South Wales exist in all Australian States and Territories. The task of reducing the level of child neglect and abuse is clearly one which should attract the attention of all Australian Governments interested in laying the foundations for long-term crime prevention.

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