

Part Two A

Some Direct Costs of Crime

Introduction

In this part we estimate, as best we can, not only some of the direct costs of juvenile crime, but also the cost of the community's responses to it (crime prevention). For analytical purposes we distinguish between the costs attributable to the actual commission of juvenile offences and the costs attributable to crime prevention (mainly, but not exclusively, governmental expenditures) according to the schemata outlined in Part One.

Before commencing our analysis however, it is important that we identify with some precision who are to be counted as juveniles for the purpose of this study, and also explain some of the inherent difficulties in measuring and costing the phenomena we call juvenile crime.

A Preamble to Costs: Identifying the Juvenile Offender

In Australia there is no single definition of a juvenile offender. This is because each state and territory has their own criteria for determining the age of criminal responsibility for young persons. Thus the minimum age of criminal responsibility (the age below which a person may not be prosecuted for a criminal offence) is either seven, eight or 10 years, depending on the jurisdiction. Similarly, the age at which young persons are treated as adults by the criminal justice system also varies from place to place and from time to time. In general, it is determined by law in each jurisdiction by reference to the age of the offender at the time that the offence is committed. Thus, depending on the jurisdiction, the upper age at which the criminal justice system will treat young persons as juvenile offenders is the age immediately prior to their seventeenth or eighteenth birthday. Thereafter they are treated as adults by the criminal justice system.⁶

Table 1 shows the variations in the age of criminal responsibility of juveniles in Australia, together with the estimated population as at 30 June 1987, of persons aged between 10 to under 17 years, or 10 to under 18 years, as the case may be (that is corresponding with the upper age of criminal responsibility as shown in Table 1). Occasionally, children under 10 years of age are brought before the Children's Courts upon criminal charges (as opposed to welfare matters) but this is extremely unusual and for present purposes has not been included in the analyses. The final column in Table 1 provides an indication of the proportion (expressed as a percentage) of

⁶ While each state and territory has its own criminal justice system (criminal laws and procedures, police, courts, child welfare, corrections etc) for convenience the expression 'criminal justice system' is often used loosely as if there were only one such system in Australia. For an exposition of current law relating to juvenile crime in Australia, see Seymour, J. 1988, *Dealing with Young Offenders*, Law Book Company, Sydney.

juveniles in the general population for each jurisdiction, and for Australia as a whole.

TABLE 1
Age of Criminal Responsibility and Percentage of Juveniles* in the General Population

Jurisdiction	Min. and Max. Age of Criminal Responsibility	Population of Juveniles**	% of Juveniles in the General Population
New South Wales	10 yrs - under 18 yrs	713,863	13
South Australia	10 yrs - under 18 yrs	172,756	12
Queensland	10 yrs - under 17 yrs	321,305	12
Northern Territory	10 yrs - under 17 yrs	20,090	13
Victoria	8 yrs - under 17 yrs	476,011	11
Australian Capital Territory	8 yrs - under 18 yrs	38,335	15
Western Australia	7 yrs - under 18 yrs	198,574	13
Tasmania	7 yrs - under 17 yrs	52,499	12
Australia		1,993,433	12

***Juveniles taken to be persons aged between 10 years and 17 years or 18 years, as the case may be.**

****Based on ABS Estimates of Population 30 June 1987**

The emphasis on age and time of offending are important because these determine to a significant extent the way in which the criminal justice system responds to the offender. Adult and juvenile procedures are deliberately different in order to protect the recognised vulnerability and diminished capacity of young persons. There are special rules which the police must follow when handling (interrogating, etc.) young offenders. Special court procedures apply in the Children's Court (generally constituted by a stipendiary magistrate) and only in very exceptional circumstances (for example murder) will a juvenile be faced with the prospects of a trial by judge and jury. Furthermore, child welfare departments rather than prison departments have the responsibility of caring for juvenile offenders who have been committed (as opposed to sentenced) by the courts to an institution or detention centre (rather than a prison).⁷

Given that there is this fundamental difference in the treatment of juveniles it follows, at least in theory, that it should be possible to estimate the amount of resources and therefore the dollar value devoted to processing

⁷ However, in rare cases juveniles are sent to gaol rather than committed to an institution. As for the power of Children's Courts to order imprisonment, *see* Australian Law Reform Commission report, *Sentencing Young Offenders 1988*, Sentencing Research Paper No. 11, AGPS Canberra, p. 157. Statistics published in the Australian Institute of Criminology's *Juveniles under Detention* series reveals that at any one time there are generally between 850 and 1,000 such persons in juvenile corrective institutions around Australia.

juvenile offenders through the various stages of the criminal justice system. In reality, however, there is a remarkable dearth of appropriate data. We simply do not have an accurate picture of the true level of crime or how much crime generally, or juvenile crime in particular, is costing the community.

The Task Ahead

It is important to stress again that it is almost impossible to quantify in precise terms how much crime is committed in the community. Official police data do provide some measure of the prevalence of various categories of crime, as illustrated, for example in Table 2 which sets out some measure of the extent of juvenile crime in Victoria. However, in reality such data do not account for the 'dark figure' of crime - that is, they do not reveal the full extent of crime in the community. Most offences are simply not reported to the police.

TABLE 2
Child Offenders - Principal Offence by
Sex and Disposition (Vic) 1986-87

Principal Offence*	Male		Female		Total	
	Court	Caution	Court	Caution	Court	Caution
Serious Assault	205	55	36	16	241	71
Robbery	53	2	4	1	57	3
Rape	3	-	0	0	3	0
Sexual Penetration	12	2	0	0	12	2
Burglary	1340	1032	66	77	1406	1109
Shopsteal	330	336	166	302	496	638
Stopsteal Warning						
Notice	-	2464	-	1794	-	4258
Other Theft	983	943	87	116	1070	1059
Motor Vehicle Theft	835	312	46	37	881	349
Malicious/Wilful						
Damage, Arson	324	394	32	35	356	429
Deception Fraud	60	36	26	20	86	56
Firearm	49	102	3	0	52	102
Drug	124	62	15	10	139	72
Traffic	624	702	16	38	640	740
Street	448	411	73	91	521	502
Other	284	305	32	46	316	351
TOTAL	5674	7158	602	2583	6276	9741

*-'Principal Offence' is based upon the most serious charge levelled against the child. In 1986-87, 16,017 child offenders were processed for 39,899 offences.

Source: Victoria Police 1986-87 *Statistical Review*, p.93.

In order to overcome this problem criminologists have sought to obtain a fuller picture by using victim surveys. There are also problems with this

technique, for victim surveys rely on the knowledge and memory of victims of crime and upon the truthfulness and accuracy of their answers. Even so, they do provide an alternative measure of the size of the crime problem and indicate, in a crude form, the extent to which official police statistics understate the true level of crime. Unfortunately victim surveys are rarely conducted in Australia. The last one was in 1983 but this survey was not designed in a way which would provide a check on the accuracy of police statistics. On best available evidence from overseas, only about one-third of all offences are brought to the attention of the police. This is illustrated by *The British Crime Survey* (Hough & Mayhew 1983) (*see* Table 3).

It should be noted that some police statistics are very reliable, such as motor vehicle theft or armed robbery of commercial premises, where insurance claims are tied to police reporting.⁸ At the other extreme, the true extent of offences within the family (consider, for example, incidents involving domestic violence) and sexual assault cases rarely come to the notice of police and those that do reflect but a small proportion of the actual offences being committed.

Hence this report proceeds on the basis that police statistics, while understating the true level of crime, nevertheless provide the best data currently available on the extent of crime in our society. They enable us to make some inferences and in turn, some tentative, though highly conservative, estimates as to the cost of administering criminal justice. However, even this task poses considerable difficulty - the problems exacerbated by the need to separate juvenile crime from adult crime before costs can be apportioned.

Paucity of Data

Most police departments which were approached to assist the Australian Institute of Criminology said they were unable to distinguish between general police duties from those relating to juveniles exclusively. This task was particularly difficult for those jurisdictions (the majority of states) which did not have a special unit devoted exclusively to juvenile offenders. Similarly, agencies administering the courts were often unable to provide figures on what proportion of the general budget for courts was allocated to Children's Courts alone.

Perhaps the best, most reliable figures relating to juvenile offenders was the cost of incarcerating juveniles in institutions although, even here, there were variations in the reliability of figures from state to state. Each jurisdiction could provide a global figure, but could not always break these down to provide data on how many juveniles pass through their system each year. In general, there was found to be a paucity of data relating to the cost of juvenile crime and the cost of administering juvenile justice in Australia.

⁸ According to a recent study by the NRMA (*Car Theft in Australia*, Sydney, 1988, p. 8) there were an estimated 60,500 car thefts in NSW in 1987. Of these 56,200 were reported to police. Direct cost to the community was estimated to be \$122 million in 1987.

TABLE 3
British Crime Survey Estimates:
Levels of Recorded and Unrecorded Crime, 1983

	British Crime Survey (BCS)			Criminal Statistics		
	<i>Best Estimate (000s)</i>	<i>Number Reported (000s)</i>	<i>% Reported</i>	<i>Offences Recorded by Police (000s)</i>	<i>% Recorded of Reported</i>	<i>% Recorded of BCS Best Estimate</i>
1. Vandalism	2,953	620	21	229	37%	8%
2. Theft from motor vehicle	1,364	587	43	403	69%	30%
3. Burglary in a dwelling	904	615	68	432	70%	48%
4. Theft of motor vehicle	283	275	97	278	(101%)	98%
5. Bicycle theft	287	195	68	143	73%	50%
6. Theft in a dwelling	126	29	23	48	(166%)	38%
7. Other household theft	1,671	317	19	n.a.	n.a.	n.a.
8. Assault	1,852	685	37	n.a.	n.a.	n.a.
9. Theft from person/Robbery	650	215	33	53	25%	8%
10. Sexual offences	71	6	8	8	(133%)	11%
11. Other personal theft	1,770	549	31	n.a.	n.a.	n.a.
All BCS Offences	11,931	4,057	34			

NOTES:

1. The figures in the first column are derived from applying BCS rates to the 1983 household population of England and Wales (for categories 1 to 7), and to the population aged over 15 (for categories 8 to 11). Only women were asked about sexual offences; the figures are based on women only.

2. Categories 3, 7, 8, 9, 10 and 11 include attempts.

3. Assault (category 8) includes sub-categories of common assault and wounding. These sub-categories have been combined because of problems in developing consistent and objective criteria for distinguishing between the two. For the same reason, theft from the person and robbery have been combined.

4. Offences recorded by the police are rounded to the nearest 1,000.

Source: Hough, Mike & Mayhew Pat, 1984 *Taking Account of Crime: Key findings from the second British Crime Survey*, Home Office Research Study No. 85, p.61.

The matter is further complicated by the fact that jurisdictions do not collect their statistics in a uniform manner. This makes comparisons difficult and leads us strongly to endorse the view recently expressed by the Australian Law Reform Commission that:

an immediate effort is needed to upgrade significantly and co-ordinate a more comprehensive and integrated approach to juvenile justice data collection and research at national and local levels. (Australian Law Reform Commission 1988, p.119).

Data obtained for this report are largely a tribute to those officers contacted in the various state and territorial departments who went to considerable trouble and effort to produce the best information they could. Inevitably some respondents were able to contribute more comprehensive data than others and therefore much 'massaging' and interpretation of the data were necessitated. At the same time, where gaps in the data were found in one jurisdiction, assumptions based on trends in another were made. In this way estimates relating to the amount of crime committed by juveniles and the costs associated with administering juvenile justice were derived.

Estimating the Proportion of Juvenile Involvement in Offences Cleared

Having regard to the proportion of young people in the general population (Table 1) we know that young offenders commit a disproportionately high level of offences coming to the attention of police (*see* Table 4). This suggests that juveniles also demand a disproportionately high level of police attention. Further, we also know that offences which juveniles commit are generally of a less serious nature than those of their adult counterparts. We know, for example, that children have a tendency to commit minor property offences rather than large scale property offences or offences against the person (Mukherjee 1983).

Table 4 shows, for example, that half the break and enter offences cleared by police in 1986-87 involved juveniles. Similarly, the data suggest that juveniles feature very highly in motor vehicle theft (47 per cent). This may be compared with offences where juveniles do not appear to feature significantly, for example, offences against the person (12 per cent), fraud (11 per cent) and drug offences (8 per cent).

One reason given for the high proportion of juveniles coming to the attention of police is not that they are committing property offences in much greater numbers than their representation in the general population would suggest, but rather that they tend to commit offences in groups (Mukherjee 1983).

As will be seen in Table 4, it has not been possible to obtain complete data for all categories of offences in each state. Where omissions exist, they are clearly marked with the abbreviation n.a. (not available).

TABLE 4
Total Offenders in Offences Cleared
with Percentage of Juvenile Involvement

Classification of Offences		NSW	Vic	Tas	SA	Qld	WA	NT	ACT	Australia
1	Offences Against Person (excluding 2 and 3 below)	12106	5166	555	3998	4300	3731	1072	406	31334
		10%	11%	15%	17%	13%	18%	8%	17%	12%
2	Sexual Assaults & Related Offences	1706	871	84	650	851	682	83	34	4961
		11%	14%	23%	19%	16%	16%	16%	12%	14%
3	Robbery & Extortion	627	350	67	277	247	n.a.	28	32	1628
		20%	21%	24%	30%	21%		11%	28%	22%
4	Break/Enter/Burglary	8746	5273	1052	2989	5043	8229	1669	424	33425
		44%	42%	46%	54%	56%	58%	47%	57%	50%
5	Fraud and Misappropriation by Employee	4994	3069	130	1357	1790	2117	543	228	14228
		7%	9%	18%	20%	12%	16%	5%	18%	11%
6	Motor Vehicle Theft	2158	2812	319	1574	2333	2046	599	295	12136
		48%	37%	62%	52%	38%	68%	29%	53%	47%
7	Shop Theft	n.a.	17746	789	6435	n.a.	n.a.	n.a.	729	25699
		35%	43%	43%					55%	38%
8	Other Thefts (including receiving and handling)	21362	6054	560	4367	16291	11854	1293	626	62407
		28%	28%	32%	44%	45%	53%	30%	28%	38%
9	Arson & Wilful Damage by Fire	220	135	n.a.	139	n.a.	58	n.a.	6	558
		33%	53%		44%		16%		0%	38%
10	Damage (including criminal and wilful)	5869	2271	n.a.	2637	2866	n.a.	n.a.	311	13954
		23%	25%		37%	32%			29%	28%
11	Offences Against Public Order Vag. Prostitution	18485	11657	3735	15057	5337	n.a.	n.a.	406	54677
		16%	7%	15%	23%	8%			22%	15%
12	Drug Offence	17448	6186	533	7047	7859	n.a.	n.a.	224	39297
		6%	3%	10%	17%	5%			4%	8%
TOTAL OFFENDERS		93721	67847	7824	46527	46917	38166	5287	3719	310008
		20%	20%	25%	30%	29%	44%	28%	34%	26%

Note

The above information was derived from police departments and *Annual Reports*. Owing to gaps in the data, and the fact that not all offences are listed in the table, total offenders may not add to total offences for each state.

Problem of Attributing Crime Costs to Juveniles

Even if we knew how many crimes of a particular type were committed in the community, and we seem to have reasonably reliable figures in some areas, (for example car theft, but consider the hypothetical case that follows), we cannot be certain what proportion of the total number of these offences are committed by juveniles and, therefore, we cannot simply calculate the cost to the community of juvenile offending.

Consider the following hypothetical example:

It is school holidays. Mum and Dad are at work and the children are at home, unsupervised. Junior, a 16-year-old youth and two of his mates drink a few beers ('tinnies') which they take without permission from the family refrigerator. In doing this they are already engaging in criminal activity. They then retire to the garage to discuss cars and driving. The keys are in the ignition switch of the spare car which is in the garage. They turn on the car radio. One of Junior's friends says he can drive and convinces Junior to let him start the car so they can all go for a short drive. Junior has no authority to hand over the keys but peer pressure and grog lead him to concede. They set out on their journey and the driver of the car, unlicensed and inexperienced, rounds a bend at too great a speed, runs off the road and damages the vehicle. The boys are shaken but not injured. The car is still roadworthy, and the occupants drive the car home. The boys then attempt to patch up the damage to the car but the wheels, the steering and the duco need repair. When Mum and Dad return home they discover the damage to their vehicle, and slowly there is a full disclosure of the facts of the incident.

Police are not informed (a further offence - this time by the adults) because Junior's parents are concerned about the adverse effects of prosecution on their child and his mates. The car is insured against damage but in order to claim under the policy the parents must sign a false declaration stating that one of them, rather than Junior, was driving at the time of the accident. They are not prepared to do this, although the quantum of damage (in this case \$600) is an influencing factor in this decision, as loss of the excess and no claim bonus would also mean they would lose close to this sum. Instead they decide to consult with the other boys' parents. Ultimately the parties agree to 'cover up' the incident (each becoming accessories after the fact to car theft) and decide to contribute equally to the cost of repair of the vehicle.

This case illustrates several problems relating to defining the cost of *juvenile* crime. First, the damage caused will not be recorded as a cost of juvenile crime. There are, no doubt, many such or similar cases, the costs of which are borne by the parties rather than by insurance companies or the community generally. The long-term effects of this crime may be beneficial for the parties, each learning a lesson from the experience itself, without the adverse effects of stigmatisation that could flow from court action. Secondly, there are no public costs (police, courts, welfare) because the matter is handled privately to the satisfaction of the parties involved.

Suppose further that during the course of the accident, the 'stolen' vehicle had knocked over and damaged beyond repair an Australia Post letterbox. If there were no independent witnesses, the authorities would not be able to determine whether the damage caused to the letterbox was accidental (that is, the result of a non-criminal act) or a result of deliberate vandalism. Further, the authorities would not know whether the incident was committed by an adult rather than a young person. In these circumstances the cost which is borne by the public, would not be attributed to juvenile crime, even though it should be.

It is against this background of uncertainty that we tentatively undertake the task of apportioning a value to the direct cost of juvenile crime. In so doing, we deliberately focus on some specific categories where we do have data. These include: motor vehicle theft; household burglary; various categories of vandalism; arson; shoplifting; and some costs attributable to violent crime. We begin with motor vehicle theft - a very common form of juvenile crime.

Motor Vehicle Theft

According to the NRMA (1988a), there were 60,500 cars stolen in New South Wales in 1987. This resulted in an estimated direct cost to the community of \$122 million. This figure can be broken down to \$100 million incurred by insurance companies, \$13 million incurred by policy holders for payment of excesses on their claims for stolen and damaged vehicles, and \$9 million for car owners who had no insurance cover. The NRMA points out that their figure of \$122 million does not include increased premiums paid by individual policy holders as a result of losing their no claim bonuses, the damage done to private and public property in car theft incidents, incidental costs and inconvenience suffered by victims of car theft, and the administrative burden incurred by the police in following up reported incidents of car theft.

After the Northern Territory, NSW has the highest rate of car thefts when measured against the number of vehicles registered and, accordingly, an estimate of the total cost of car theft to the Australian community would be somewhat short of three times the NSW figure (3 x \$122 million) or \$366 million for 1987. The NSW figure is multiplied by three because comparable data from other states were unavailable and NSW has approximately one-third of Australia's total population.

If then we assume that the damage caused by juveniles is in the same proportion as their involvement in offences cleared (our Table 4) then the juvenile component would be 47 per cent of the total cost. This is equal to \$169 million. We feel, however, that this figure may over-represent the true picture, for the reasons given previously, and particularly because juveniles tend to commit their offences in groups. Accordingly, we believe that a figure of \$150 million would be a reasonable estimate of the costs to the community of car theft committed by juveniles in 1987.

Household Burglary

According to a recent report by the NRMA (1988b), the total cost of burglary of private dwellings in NSW for 1987-88 was about \$100 million. If the figure for 1986-87 was about 10 per cent less than this (that is \$90 million) then, again generalising from the NSW experience, the total figure for the whole country would be about three times this amount, or \$270 million.

Although police figures show that juveniles seem to be involved in every second burglary offence (*see* Table 4, above) it is not unlikely that they are involved in the less serious and less professional offences. Also they are more likely to commit their offence in groups, and are more likely to be caught. Accordingly, a conservative estimate of their contribution to the total cost of household burglaries is calculated on the basis of one-third of \$270 million or \$90 million.

Note that this figure relates to household burglaries and does not include other burglaries, such as those involving commercial premises. We were unable to obtain a costing of the latter despite extensive attempts to obtain police and insurance company figures.

Vandalism and Local Government

Time has not permitted a thorough investigation of the extent and cost of vandalism sustained by local government councils. However, figures for the Gold Coast City Council, which in budget terms is the second largest council in Australia, indicate that in 1986-87 the budget was \$36 million. The cost attributed by the Council to vandalism was \$137,321 or about 0.4 per cent of their total budget.

According to the Local Government Association, the total budget for local councils in Australia in 1986-87 was about \$1.2 thousand million. If 0.4 per cent of the budget is a typical allocation of the proportion spent on repair work, vandalism could cost councils as much as \$5 million per year. In addition to this amount there would be costs which are included in their general maintenance programs, which may not be readily recognised or identified as being attributable to vandalism.

Further, in order to reduce the incidence of vandalism and other crime, security is becoming an increasingly important component of the overall budgets of councils. It has been advised that some local government councils are adding a figure of 20 per cent to their building outlays in an attempt to prevent damage from vandalism. Waverley and South Sydney Councils support graffiti classes in the hope of reducing vandalism, and a number of councils employ youth workers, have youth centres, cycling tracks and various other sporting facilities, in an attempt to discourage youth from crime, drugs and boredom⁹. No attempt has been made to provide precise figures in these areas, although such cost must be substantial. In any event these costs are more properly categorised as belonging to the indirect costs of crime (that is crime prevention costs).

As an initial estimate we claim that direct damage from vandalism by juveniles cost local governments about \$4 million annually. We believe that this figure grossly underestimates the true cost of vandalism to local government authorities but we have erred deliberately on the side of caution in arriving at our estimate.

⁹ An excellent review of local government recreation facilities in the Sydney metropolitan area was recently published by Natasha Bitá in the *Sydney Morning Herald*, 31 May 1989.

Arson and Vandalism

Although juveniles appear preoccupied with property offences, the value of damage they cause tends not to be significant. This, of course, is a generalisation, for in specific cases individual offenders have caused many hundreds of thousands of dollars worth of damage. The following press report typifies the extreme case:

\$1m vandalism: boy, 9, held

BRISBANE: Police were holding a nine-year-old boy yesterday and expected to detain three other children after a \$1 million rampage through three southside Brisbane schools. The other boys ranged in age up to 17, police said.

Investigating detectives believed that the four were responsible for damage estimated at \$1 million to the Buranda State Primary School, the Buranda Special School and the Buranda School for the Visually Impaired.

However a police spokesman said children under 10 were not held criminally responsible for their actions.

Some time after 5 pm yesterday vandals had broken into the schools and smashed television sets, videos and computers, police said. Paint had been poured on carpets and into computer keyboards (*Canberra Times*, 13 September 1988).

According to a study done by Nicholas Clark and Associates (1986) there are 25,000 fires per year in New South Wales of which around 4,000 are considered to involve arson or possible arson. In 1985-86 the NSW Fire Brigade figures suggested an estimated \$150 million in replacement damage costs. Children under the age of 16 years are said to be responsible for 28 per cent of the fires, yet are responsible for about 7 per cent of the fire damage. No doubt the percentage would climb slightly if young persons under 18 were included in the analysis.

The total arson bill for 1985-86 is estimated at around \$65 million. If juveniles contributed to 10 per cent of this amount they, then, would be responsible for \$6.5 million for arson fire damage in New South Wales alone. If trends were similar throughout the country the figure for 1985-86 would be \$19.5 million. Conservatively, in 1986-87 this figure could have risen beyond \$20 million, and does not take into account additional social costs of fire.

There are some reliable data on arson and vandalism in NSW Government Schools which enables some further estimates to be made upon the direct costs of these crimes. The NSW Department of Education advises that in 1986-87 arson and vandalism cost the State Government \$14 million. This figure can be broken down into two categories: (1) external vandalism and arson which accounts for \$5 million, and (2) internal vandalism which costs the State Government \$9 million dollars.

We estimate that 90 per cent of this figure could be attributable to juveniles - a total cost of \$12.6 million. If this figure applied across Australia, the total expenditure under this head would be in the order of \$35 million.

Telecom Vandalism

According to senior management in Telecom Australia, damage to their equipment and installations from vandalism for 1986-87 amounted to \$18.5 million. It was advised that 466 people were apprehended for various offences and that 60 per cent of these were juveniles. Though there are problems with arriving at juvenile rates of involvement in Telecom vandalism from arrest figures, we have estimated that juveniles were responsible for at least 60 per cent of the damages at a cost of about \$11 million. This figure does not take into account any inconvenience or harm occasioned to the public by these acts, nor the investment by Telecom in devising preventive measures in its attempt to reduce the incidents of such behaviour, nor of course the resources devoted to bringing offenders to justice.

Vandalism of Public Transport

An attempt was made to obtain reliable data from some government departments as to their estimation of the costs of vandalism to public transport facilities.

The State Transit Authority, which has responsibility for ferry and bus services in New South Wales was unable to supply any data on the question of costs attributable to vandalism. However a spokesperson for the Authority claimed that in his view, the amount involved would be small in view of the fact that buses were always attended when in action, and safely locked up when not in service. Similarly, the ferries always had supervision when carrying passengers, thus reducing the opportunities for destructive behaviour.

The Australian Institute of Criminology has already evaluated sports and recreational schemes other than wilderness programs. While overseas research has revealed that there is a negative association between sport and delinquency, at least for males, it is by no means established that this relationship is a causal one. It is very possible that participation in sport does act as a deterrent against delinquency, but it is equally plausible that those boys who are more prone to be delinquent choose not to be delinquent (Mason & Wilson 1988).

Despite this reservation, it was clear from the Mason and Wilson study that some sporting and recreational programs may be beneficial as a way of preventing delinquency, especially for Aboriginal youth. Certainly Aboriginal spokespersons believed that for a whole range of activities (petrol and glue sniffing, other forms of drug taking, delinquent behaviour, etc.) well thought-out programs may have clear prevention potential.

The elements of sporting and recreational programs that appear to be useful have been dealt with in the Mason and Wilson study and do not need to be repeated here. However two points about such programs should be stressed.

The first point is that one of the greatest shortcomings in this area is the lack of follow-up or evaluation of the success or failure of such programs. Secondly, and of equal importance, is the fact that any sporting and/or recreational program cannot be implemented without consideration of more wide ranging measures. In both Aboriginal and non-Aboriginal communities numerous other issues, such as unemployment, poverty and lack of self-determination (in the case of Aborigines) need to be addressed with equal priority.

As delinquency-prevention measures, sport and recreation programs may well offer advantages to young Australians. However, they should not be seen as a substitute for more wide-ranging economic and social reforms. Though this caveat is applicable to all delinquency prevention schemes, we believe that it is especially relevant for sporting and recreational programs where there is a tendency to see such programs as an end in themselves.

In 1986 the Australian Institute of Criminology published a report *Graffiti and Vandalism on State Rail* for the State Rail Authority of New South Wales (Healy & Wilson 1986). It found that the overall costs for vandalism and graffiti in the year 1984-85 was \$4.79 million. If these offences increased by a modest 10 per cent, a figure of \$5.3 million is derived for 1986-87. The report also indicates that 73 per cent of offenders apprehended were under 20 years of age. If, then, a small reduction is made for offenders between 18 and 20 years of age, it is estimated that the juvenile involvement in these offences would be in a ratio of two persons out of three. The NSW figure for the damage caused to railways by juveniles is then estimated at \$3.5 million. The estimated cost for the whole country therefore is likely to be about three times this amount, or \$10.5 million. Though Sydney, in particular, has a major vandalism problem and therefore our estimate for the whole country could be viewed as excessive, it should be remembered that once again, there is no attempt to cost and apportion the value of preventive measures employed by these authorities. For example, the State Rail Authority has its own police (Transport and Investigation Branch) the function of which is to reduce the incidence of crime on the railways. Such expenditures are not included in our analysis.

Shoplifting

According to the Retail Traders' Association of Australia, the value of goods stolen from retail stores is of the order of 1.75 per cent of total retail sales. This accords with the figure acknowledged as conservative, derived for the United Kingdom by Buckle and Farrington in 1984. Assuming this figure is correct, the value of property stolen in Australia is in the order of \$1,200 million for the financial year 1986-87. If then it is assumed that juveniles were responsible for one-quarter of this amount (and this is a conservative assumption based on data given in Table 4 indicating a 37 per cent involvement), then juveniles could be found responsible for shop stealing to the value of \$300 million. This figure is very tentative for a number of reasons:

- _ most retail theft is undetected and it is not known whether the majority of offences are committed by adults or juveniles;
- _ adults may tend to be responsible for the more serious and juveniles the less serious offences in this category;
- _ it does not take into account employee theft and fraud, which is thought to involve even greater losses than those attributed to shoppers (Burrows 1988, p.17).

Estimating Some Costs of Violent Crime: The Cost of Injuries

Unfortunately there are no national data upon which to estimate on an offence by offence basis, the cost to the community of violent crime committed by juveniles. We have only been able to estimate some hospital costs to victims.

The New South Wales Information Systems Unit, in the NSW Department of Health, has advised that in 1986-87:

— 3,113 males were admitted to hospital for injuries which were identified as being purposely inflicted by another person with intent to injure or kill. This amounted to a total of 32.01 hospital years or an average time of 3.75 days per patient (victim).

— 826 females were similarly admitted, for a total of 11.35 hospital years or 4.65 days per victim.

— The average cost per day for hospital care in NSW in 1986 was approximately \$260.

Thus, the total amount for persons hospitalised in NSW as a result of injuries identified as purposely inflicted is approximately \$4.1 million. Accordingly the figure for the whole of Australia would be in the vicinity of three times this amount, or \$12.3 million for 1986.

Of the \$12.3 million referred to, the proportion of costs attributed to juveniles would probably not exceed 10 per cent of this amount, or \$1.23 million.

This figure does not include persons not hospitalised but treated in casualty departments for deliberately inflicted injuries. It does not include the cost for persons who seek medical attention and receive treatment from general practitioners. It does not include cost of ambulance services, nor the cost of operations consequent upon the more serious cases of physical injury. It also does not include the cost of psychological damage, or incidental costs to victims, such as damage to clothing etc. Nor does it take into account the loss of wages, productivity etc., of those who are seriously injured. The 'real' cost would therefore be substantially greater than the figure suggested here.

Table 5 sets out some data on Criminal Compensation payments. Unfortunately these data do not identify what proportion of the cases involved juvenile offenders, and accordingly it is not possible to assess the contribution of juvenile offending to the total payments awarded. However, even those offences which might be seen as relatively minor assaults can lead to substantial injuries and significant payouts to victims. For example, consider the following two cases set out in the *Annual Report 1986-87*, of the *Criminal Injuries Compensation Ordinance 1983* (ACT).

The first case relates to a young male applicant who was assaulted by a fellow high school student (awarded \$6,165) and the second relates to a 13-year-old boy who was threatened and chased by three others on a bicycle path (awarded \$3,079.95).

The applicant was walking away from a group of students when one of them approached him from behind, grabbed his hair and twisted his head around. The boy then punched the applicant on the mouth with a clenched fist. The blow to the mouth broke the upper left central incisor and resulted in him having to undertake dental treatment for the purpose of

fitting a crown to the broken tooth. The initial treatment was carried out over a period of a month, resulting in the fitting of an acrylic jacket crown. His dentist indicated that a replacement porcelain crown would be necessary at a later date. Both the injury and the subsequent treatment caused him severe pain, and future dental treatment will also cause pain. As a result of the incident, he has some difficulty eating and is fearful of playing contact sports such as football. \$4,500 was awarded for pain and suffering (*Criminal Injuries Compensation Ordinance 1987*, p.46).

[The 13-year-old victim] tried to ride away from the youths but the chain of his bicycle came off, causing him to stop. The youths caught up with him, grabbed the back of the bicycle and lifted it off the ground, causing him to fall heavily to the ground, hitting his chin and wrist on the ground. As a result of the assault, he suffered cuts and abrasions to his chin, left knee, left wrist and knuckles. X-rays revealed a fracture of the left wrist. After the abrasions healed, his arm was set in plaster for six weeks. His left knee required constant dressing for several weeks and left noticeable scarring. As he is left-handed, he was significantly inconvenienced by the incident until his left wrist healed. \$3,000 was awarded for pain and suffering (*Criminal Injuries Compensation Ordinance 1987*, p.49).

These two cases illustrate one method of costing the harm resulting from 'violent' juvenile crime. However it is clear that there are many cases where criminal injuries are occasioned and compensation is not sought. Accordingly we have decided not to attempt to estimate the direct costs of such crime here. Before such an undertaking could, or indeed, should be attempted more research and better record keeping and statistics would be required.

TABLE 5
Criminal Compensation Payments 1986-87*

Item	NSW \$	Vic \$	Qld \$	SA \$	Tas \$	WA \$	NT \$	ACT \$	TOTAL \$
Victims of Crime (Injuries)	8,367,000	8,254,000	205,000	1,313,000	410,000	1,470,000		647,564	20,666,564
Victim of Crime (Others)	4,424,000								4,424,000
Crime Comp. Tribunal		379,000							379,000
Victims of Crimes Organisation			15,000						15,000
Total	12,791,000	8,633,000	220,000	1,313,000	410,000	1,470,000		647,564	25,484,564

*From the *Grants Commission Annual Report 1986-87, Criminal Injuries Compensation Ordinance Annual Report 1986-87, Statutory Report of the Assessor of Criminal Injuries (December 1986 to December 1987)* Western Australia.

Summary

The estimates given above are extremely tentative. They certainly do not represent the full cost of juvenile crime to the Australian community, as there are many items that could be added to the list (*see* Part One). As indicated in the text, the figures that are presented in the following table have been derived from extrapolations from data taken from individual jurisdictions. If we take into account only the items which we have quantified and add them, the following figure for 1986-87 is obtained.

TABLE 6
**Summary of Selective Categories of
Direct Costs for Juvenile Offending**

Item	\$m
Motor Vehicle Theft	150.0
Burglary (excluding burglary of commercial premises)	90.0
Vandalism - Local Government	4.0
Arson and Vandalism - Schools	35.0
Telecom	11.0
Public Transport	10.5
Shoplifting	300.0
Personal Injury (only inpatient bed day costs)	1.2
Total	601.7

It should be emphasised that even for offences selected, this figure falls far short of an aggregate estimate of the real cost of juvenile crime. To reiterate, the social costs of crime consists of the cost of crime and the cost of crime prevention. Unfortunately in Australia the figures we have available on the cost of crime and crime prevention are sparse and unreliable. We would strongly urge relevant agencies concerned directly or indirectly with juvenile justice issues to keep reliable and systematic information on criminal justice matters, especially as they relate to juveniles.

We consider the keeping of such records as a matter of urgency. Without such information it is almost impossible to argue for new programs in ways which would appeal to state and Federal Treasury officials who allocate funds in this area. In addition, no thorough evaluation of the cost-effectiveness of crime prevention initiatives can possibly be conducted without such records.

Because of the lack of reliable data on the costs of crime prevention schemes we have been hampered in adequately costing crime prevention strategies. Nevertheless we turn now to consider some aspects of such schemes based on what data are available.