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Exploring Motor Vehicle Theft in Australia

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Motor vehicle theft costs the Australian community approximately A$1 billion per year. On average, each of the 126 871 vehicles stolen in 1995-96 incurred a direct cost in the order of A$5000 (conservative industry and police estimate) but when we add indirect costs, such as those incurred by police and courts, inconvenience to the victim, loss of earnings (on average at least one working day is lost when a vehicle is stolen), and subsequent higher insurance premiums, then the cost easily approaches the A$1 billion mark.

While some vehicles are stolen by organised gangs, for whom stealing is a business, most vehicles are stolen by young joyriders. Solutions include making cars more difficult to steal, and making the activity of stealing less attractive to the perpetrator.

This Trends and Issues paper deals mainly with the former, and identifies some potentially useful countermeasures.

Adam Graycar
Director

T here has been little major research into motor vehicle theft in Australia. Severe knowledge gaps exist about the movement of stolen vehicles across state and territory boundaries, and the import and export of stolen vehicles to and from Australia, as well as about the relationship between thefts *of* and thefts *from* motor vehicles.

With the introduction in 1996 of the National Motor Vehicle Theft Task Force, national debate on the issues surrounding motor vehicle theft has been renewed. This paper summarises some of the major issues and presents up-to-date statistics on trends in motor vehicle theft in Australia.

Motor Vehicle Theft in Context

Motor vehicle theft is commonly divided into two separate, but linked, phenomena, namely, theft *of*, and theft *from*, motor vehicles. Motor vehicle theft can be defined as the taking of a motor vehicle without the consent of the owner, and theft from motor vehicles is defined as the unlawful appropriation of objects (including parts) from a motor vehicle.

It is generally accepted that reported crime statistics give a good indication of the actual numbers of vehicles stolen. Australian Bureau of Statistics Crime and Safety surveys

(for example, ABS 1994) show that approximately 95 per cent of motor vehicle thefts are reported to the police. This is due to the fact that it is a requirement that thefts be reported to the police for insurance purposes, and that recovery rates of stolen vehicles are generally considered to be high. However, where the stolen vehicle is uninsured due to age or low value, the crime may not be reported to the police.

When vehicle theft rates are compared with other major crimes, and with international theft rates, it becomes clear why motor vehicle theft is considered a major problem in Australia. As can be seen in Figures 1, 2 and 3, theft rates for motor vehicles are high and generally exceed those prevailing overseas.

Sub-categories of motor vehicle theft are opportunistic theft or joyriding, professional theft and owner fraud, according to the purpose for which the vehicle is stolen. Groupings commonly used by the NRMA are: amateur theft (or joyriding); petty theft; and professional theft (NRMA 1995). According to NRMA figures for New South Wales, the Australian Capital Territory, Queensland and Victoria, amateur theft accounted for over 50 per cent of the claims to NRMA in

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MOTOR VEHICLE THEFT IN AUSTRALIA

- 126 871 motor vehicles were stolen in the 1995-96 financial year, i.e. approximately 350 vehicles per day
- average value of vehicle stolen is A$5000
- rates of vehicle theft per 100 000 population have doubled from 1974-75 to 1994-95
- car theft is a major problem in Australia compared to other countries
- jurisdictional variations in theft rates cannot be explained by variations in population alone
- recovery rates of stolen vehicles are stable at approximately 85%
- the majority of car thieves are male juveniles
- the street and public car parks are the main areas of risk (37% from the street and 19% from public car parks)
- older vehicles are at greater risk of theft than new vehicles

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1995, with professional and petty theft accounting for approximately a quarter of the claims each. These classifications are useful when examining the cost of car theft to the community, in that whilst incidents of joyriding are the most prevalent forms of motor vehicle theft, it is professional theft and theft from motor vehicles that impose the highest actual cost.
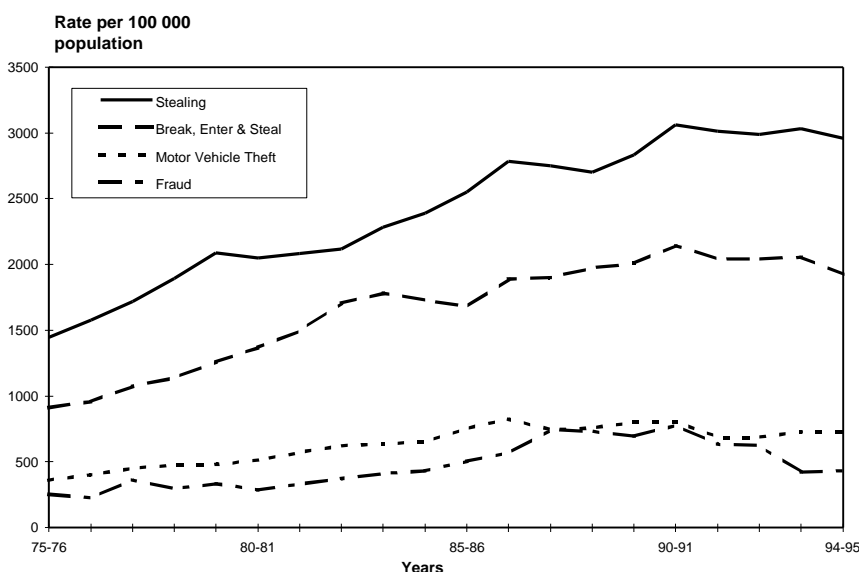
Motor Vehicle Theft Patterns

Some nationally comparable statistics on the gross patterns of theft are available, such as the number of thefts per jurisdiction, or the rate of theft per 100 000 motor vehicles registered, or

per 100 000 population. Detailed information such as the type of motor vehicle stolen, the purpose of theft (that is, joyriding, profess-ional theft, petty theft), the aver-age cost of vehicles stolen, and time and location of the offence, are only available from certain jurisdictions, with the most commonly cited reports being the NRMA Annual Reports on motor vehicle theft, and more recently the inaugural report from the CARS database on motor vehicle theft in South Australia (Thomas 1996).

Over recent years there have been numerous calls for the creation of some form of national database on motor vehicle theft; most recently, a call by the NRMA and the New South Wales Police Commissioner's Motor Vehicle Theft Steering Committee for states and territories to join in the creation of the National Exchange of Vehicle and Driver Information System (NEVDIS) (NRMA 1995). This is the most recent variation on the recurring theme calling for more accurate statistics on motor vehicle theft in Australia to monitor and assist in preventing this crime. However, those statistics that are available provide some indication of the level of both organised and opportunistic theft in Australia.

Figure 1 shows an overall rise in the rate of car theft per 100 000 population for the period 1975-76 to 1994-95. A more accurate indication of the true scale of motor vehicle theft is the number of motor vehicles stolen as a proportion of the number of motor vehicles registered. Table 1

Figure 1: Selected Crime Rates per 100 000 population, Australia, 1975-76 to 1994-95

Source: State and territory Police Annual Reports

Table 1: *Selected Motor Vehicle Theft Statistics, Australia, 1985-95*

Year	Stolen[1]	Rate of MVT[2] per 100 000 motor vehicles registered[3]	Recovered[4]
1984-85	103 164	1151.42	85.8%
1987-88	123 176	1307.88	87.3%
1990-91	139 493	1378.65	83.8%
1992-93	121 102	1152.90	87.3%
1994-95	131 968	1205.46	87.2%

[1] Derived from state and territory Police Annual Reports.

[2] MVT- Motor Vehicle Theft

[3] Calculated using the 1995 Motor Vehicle Census, ABS No. 9309.0 (includes motorcycles).

[4] For the years 1984-85, 87-88 and 90-91 based upon ABCI (1989, 1993); later years derived from the *Report on Government Service Provision 1995*.

summarises motor vehicle theft trends in Australia since 1984-85, calculated on the basis of the number of registered motor vehicles, and whilst these rates are significantly higher than rates of motor vehicle theft per 100 000 population, there is just as much variation from year to year.

Table 1 also shows that the recovery rate (of stolen vehicles) over time appears fairly stable. As the number of vehicles not recovered is said to be a good indication of the level of organised motor vehicle theft (ABCI 1989, 1993), this supports the conclusion that the majority of motor vehicle theft is opportunistic in nature and is for the purposes of joyriding, or conveying the thief from "A" to "B". This also suggests that the relationship between

opportunistic and organised motor vehicle theft remains fairly stable; in other words, that organised motor vehicle theft and opportunistic theft are increasing at the same rate. The assumption that the number of motor vehicles recovered is an indication of the extent of organised motor vehicle theft does not take into account the condition in which stolen vehicles are recovered, which may lead to an underestimate of the levels of professional theft. According to CARS database figures, some 6 per cent of vehicles recovered were extensively stripped, with a further 24.9 per cent recovered with parts or personal items missing (most commonly the car radio system). This type of analysis illustrates the difficulty in only using the number of vehicles recovered as

an indication of organised car theft, as it can be assumed that the majority of cars recovered extensively stripped have also been the subject of professional car theft.

Table 2 reveals a great deal of variation in the proportion of stolen vehicles recovered across each state and territory. It is unclear if this is an indication of varying levels of organised theft or some other factor.

Similarly, as seen in Figure 2, there are large variations in theft rates between jurisdictions. This may be a function of population variations, or the increased opportunity for theft through larger numbers of motor vehicles registered.

Australian Bureau of Statistics (ABS) figures indicate that 37 per cent of motor vehicles stolen in Australia are taken from the street, and 19 per cent from car parks (ABS 1995). These rates conform well to overseas data reported by Clarke and Harris (1992) with 37 per cent of vehicles stolen from the street outside the victim's home, and 19 per cent of the remaining stolen from various public car parks. NRMA and CARS database figures indicate that the majority of the offenders are male juveniles, and that the age of the motor vehicles stolen is becoming increasingly older, with peaks for cars manufactured in 1980, and 1977. This

Figure 2: *Rates of Motor Vehicle Theft by Jurisdiction, Australia, 1975-95*
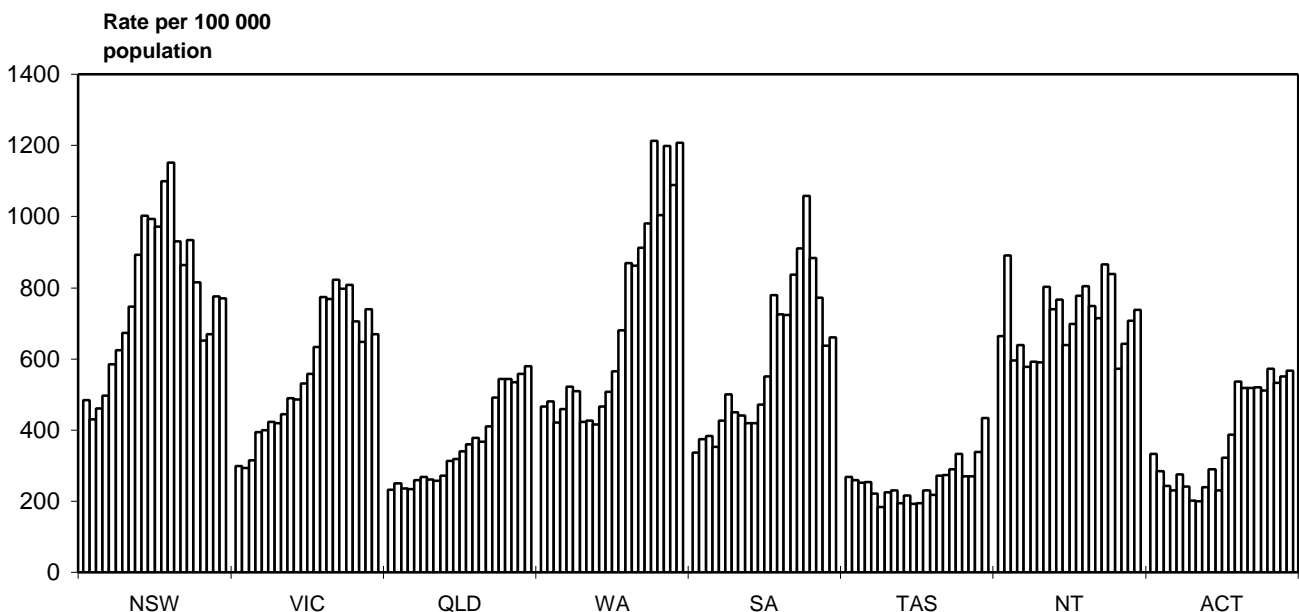
Source: State and territory Police Annual Reports

Figure 3: International Comparisons of Motor Vehicle Theft: Rates per 100 000 population, 1972-95
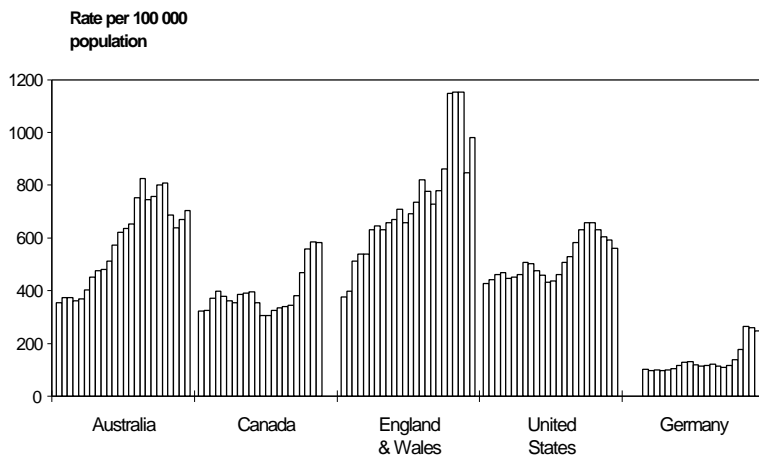
NB.   (a) Figures for Germany from 1992 onwards relate to United Germany; prior figures relate only to West Germany.

(b) Figures for England & Wales in 1994-95 are excluded.

Source: Australian Institute of Criminology (unpublished data).

also co-incides with international trends.

The trend of the increasing age of motor vehicles stolen is reversed when compared to the numbers of cars broken into, with the newer cars being the most prone to theft *from*, rather than theft *of*, the vehicle. This is due, in part, to the fact that newer models are becoming increasingly difficult to steal, but are consider-ed to contain more valuable objects for theft.

The lack of national statistics on motor vehicle theft (apart from aggregate levels) hampers the study of both amateur and professional theft. In addition, more detailed information will enable theft prevention strategies to be targeted most effectively.

Prevention

The majority of the solutions proposed to lower the level of motor vehicle theft can be divided into two main themes: **situational**, or opportunity reduction solutions aimed at reducing the opportunity for theft or attempted theft to occur; and **technological** solutions, aimed at increasing the "hard-ness" of the target, making theft more difficult once attempts are made. Many of the technological solutions are also aimed at facilitating the return of the stolen property by allowing the identification of stolen vehicles or parts. In Australia, motor vehicle theft prevention strategies have usually been formulated follow-ing pressure from motor vehicle

insurers on both manufacturers and government agencies alike. Consequently, the majority of strategies developed have been technological in nature.

Many different solutions have been proposed, ranging from those which rely on owners taking responsibility for their vehicles (for example, by locking doors; parking in well lit areas, and/or areas with many passers-by; ensuring, when feasible, that the vehicle is in sight; if possible keeping the motor vehicle in a locked garage) to the fitting of alarms and tracking systems to vehicles. Clarke and Harris (1992) suggest that better environmental design of car parks will assist in the reduction of car thefts, and that the installation of better lighting or video surveillance will assist in the apprehension of offenders as well as reduce theft. Situational or opportunity reduction prevention strategies and technological solutions may only be effective in a limited location. Just as a technological solution will stop the theft of one model in favour of another, the "hardening" of one location, may merely result in the shifting of theft patterns to another locale.

Attempts to design a "thief-proof car" have long been heralded as the most effective method of preventing the theft of motor vehicles (Geason & Wilson 1990; Pound 1987). Mechanisms range in complexity from improved door locks, to the fitting of global positioning and satellite tracking systems. It has been argued, however, that the cost of manufacturing such a theft proof car would not only place the vehicle outside the price range of most consumers, but would also be virtually impos-sible in practice. The rapidly declining cost of technological innovations may make a thief proof car possible. Some of these technological solutions are worth a specific mention.

To reduce the likelihood of successful theft, newer cars are increasingly being fitted with:

Table 2: Preliminary Motor Vehicle Theft Figures, Australia, 1995-96

Jurisdiction	Stolen	Recovered	Recovery Rate
WA	15 291	13 533	88.5
SA	9 390	8 551	91.1
TAS	2 528	2 323	91.9
ACT	1 523	n/a	n/a
VIC	29 917	23 989	80.2
NSW	47 536	42 358	89.1
QLD	19 550	15 527	79.4
NT	1 136	952	83.8
Australia	126 871	107 233	85.5[1]

[1] Australia total calculated excluding ACT figures.

Source: Police statistical offices in each state and territory

- better door and ignition locks using a larger number of discs in their design;
- security patterned keys;
- internal lock shields to prevent lock jemmying;
- ignition or engine immobilisation devices;
- security coded radios or radios with removable face plates; and
- car alarms.

However, apart from the advent of security coded radios (which discourage theft by making the unit inoperable if the correct code is not entered), and car alarms, there have been few manufacturing solutions proposed to reduce theft *from* cars. According to theory on theft in general, and motor vehicle theft in particular, the likelihood that an offence will or will not be attempted is directly proportional to the time taken to commit an offence. That is, cars which are more difficult to get into require more time and effort on the part of the thief and therefore attempting the theft *of*, or *from*, such vehicles increases the risk that the thief will be caught, resulting in fewer thefts. Accordingly, one solution to reducing theft from cars could be the implementation of laminated security glass in all makes and models (*see* Geason & Wilson 1990). Standard tough-
ened glass shatters very easily, making entry to the vehicle quick and simple. Laminated glass, however, remains intact even when force is applied, making entry difficult. However, as standard glass shatters on impact it reduces the chances of injury in the case of an accident. This then raises the question of security versus safety needs.

Largely ignored in theft prevention discussions is the older car. Theft rates show that these vehicles are becoming increasingly likely to be targets of theft and yet most solutions are focusing on newer models. Arguments about retrospectively fitting prevention mechanisms to older cars tend to focus on the expense of fitting such mechan-

isms and on the value of the car being protected. Fitting new protection mechanisms into older cars is arguably uneconomical. This does not have to be the case. According to NRMA figures, the VN Commodore was one of the most popular targets for thieves due to a manufacturing flaw which made the steering and ignition locks easy to circumvent. Their solution was to encourage owners to fit a "full metal jacket" over the steering column. This costs a little over A\$100 and has subsequently reduced the rate of motor vehicle theft for this model by a significant degree.

Consumers need to be better informed as to the solutions that are available to prevent motor vehicle theft. By informing consumers about the safety and security options available for both new and old vehicles, market forces will drive the prevention of motor vehicle theft (Department of Justice, Victoria 1996), which in turn may reduce the burden on governments to find a solution. It would also ensure that trends towards more secure vehicles would outlast any specific prevention strategy, and that technological solutions to motor vehicle theft would, ultimately, be user-funded.

There has been considerable debate over the value of vehicle identification numbers (VINs) in the fight against car theft. VINs are aimed at ensuring that stolen cars are difficult to turn into "new" cars through the process of rebirthing[1], and that stolen components are more easily traced. Recent debate has focused on increasing the number of parts labelled in such a manner, and in increasing the durability of such labels by either making them costly to remove, or by ensuring that if removal occurs, some detectable trace remains for future identification. Whilst such identification schemes are useful, they can only be successful if they are adopted in a uniform manner and if mechanisms are in place which allow

for the easy identi-
fication of suspect parts or numbers. This would require the creation of a national database which will allow the identi-
fication of legitimate owners of vehicles, vehicles which have been rebirthed (through differing identification numbers of various parts of the car), and potentially, cars which have illegitimate parts. Coordination at a national level is required to ensure such a scheme is successful and to reduce duplication of resources within different states and territories. There are many useful databases in existence which could be used in the creation of an integrated tracking system of stolen motor vehicles and parts ranging from the National Wrecks Database; the CARS database in South Australia; the NRMA Insurance database covering the Australian Capital Territory, New South Wales, and now parts of Queens-
land and Victoria; state and territory Department of Motor Registration databases; and ACID (the Australian Criminal Intelligence Database). The proposed National Exchange of Vehicle and Driver Information System (NEVDIS) (which includes the National Wrecks Database) is the latest in the number of databases. However, these databases, whilst useful in their own right, cannot be fully utilised unless there are uniform national recording and classif-
ication standards, which are integrated into a national motor vehicle theft database. Although the cost of such a system would be high, it would provide an effective tool against organised motor vehicle theft. As this costs the community hundreds of millions of dollars in terms of unrecovered parts and vehicles, causes increased insurance premiums, and uses a vast amount of police and court resources, the benefits of such a system would outweigh the costs.

Such a system of mandated identification of stolen motor vehicles and parts could be readily supplemented by existing voluntary schemes, such as that used by the

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[1] Rebirthing is the process whereby a wreck is purchased and its identity is transferred to a stolen vehicle.

Royal Automobile Association of South Australia (RAASA), where since 1993, for a small cost to the owner, the VIN is etched onto all windows of the car. Replacing the glass adds A$1400 to the turnover cost of rebirthing a vehicle, making it less attractive to steal.

Situational solutions to motor vehicle theft in Australia have largely relied on campaigns to encourage owners to take more responsibility for their vehicles. However, hardening one target may displace the crime to another. In order to ensure some level of success, an integrated approach is needed combining education, deterrence and opportunity reduction. Such a strategy was adopted by the police in Sydney in the early 1990s and involved both the community and other govern-
ment organisations which saw a reduction by 25 per cent in motor vehicle theft for New South Wales in the 1991-92 financial year (Grabosky & James 1995, p. 28). However, the rate of motor vehicle theft subsequently increased, and as this program was not rigorously evaluated it may be that this dramatic fall would have occurred anyway.

Motor vehicle theft needs to be approached in a more system-atic manner with adequate re-sources devoted to the implemen-tation of prevention strategies, and such strategies need careful evaluation to ensure that we learn from our successes and failures.

Conclusion

More research is needed into some of the more detailed aspects of motor vehicle theft in Aust-
ralia; for example, the offender's perspective, or the extent of organised theft. Evaluation of prevention strategies which have been attempted in Australia and overseas needs to be undertaken in order to develop an approach which comprises the best possible aspects of the solutions proposed. However, the most urgent re-

quirement is for a national integ-rated response to motor vehicle theft. We need to incorporate mechanical and situational solutions with standardisation of registration practices; a national database on motor vehicle theft (including information on VINs); and increased public education about the risks of motor vehicle theft and the consequences for the community and for individuals.

Work currently underway by the National Motor Vehicle Theft Task Force may see the formu-lation and implementation of national plans of action to combat motor vehicle theft. It is only by having such a national approach that we can realistically expect to lower motor vehicle theft rates in the long term.

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