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Crime prevention design in a vehicle registration system: a case study from Australia

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Abstract

This paper examines the crime prevention measures embedded in the Australian vehicle registration system. It builds upon a body of existing literature that has shown how changes to systems can generate positive crime reduction impacts. The crime prevention measures that have been introduced in Australia since the late 1990's have included proof of identity checks, checks of available databases, identity inspections for inter-state vehicles and close scrutiny of repairable written-off vehicles resubmitted for registration. These changes would appear to have reduced the number of opportunities available to re-register a stolen vehicle, which may have had an impact on profit-motivated vehicle theft. However, there remain a number of ways in which a profit can be generated from vehicle theft. Within the registration system, there would still appear to be methods of circumventing existing controls. More importantly, there would appear to have been a shift in modus operandi towards dismantling a vehicle for its parts and selling the remainder for scrap. These channels of disposal have grown in recent years, thanks in part to weak regulation of these sectors. This may have concentrated disposal methods for stolen vehicles into the vehicle dismantling and wrecking sectors, which may ultimately aid crime control measures aimed at further reducing profit-motivated vehicle theft.

Keywords: Crime prevention, Vehicle theft, Vehicle crime, Vehicle registration, Third party policing

Background

In many countries, registering a motor vehicle with the appropriate authorities is one of those necessary tasks on taking ownership of a vehicle. From the owner's perspective, it usually provides some proof of ownership and bestows a right to drive the vehicle on public roads (assuming the appropriate fees have been paid). From the state authorities' perspective, the registration system provides multiple functions, including a means of generating revenue, for issuing traffic infringement enforcement notices and for ensuring that vehicles driven on the public roads meet the required safety standards. However, the vehicle registration system can also play a role in preventing and detecting vehicle crime. For example, it provides a means by which the police can confirm the link between a vehicle's ownership and its driver during a routine traffic stop, which may detect a stolen vehicle. The vehicle registration system can also be designed to reduce the opportunities for profiting from vehicle theft by making it difficult to re-register a stolen vehicle.

Alterations to the vehicle registration system have long been identified in the UK as a means by which vehicle crime could be reduced. Indeed, as early as 1920, the Metropolitan Police in London identified the potential for reducing vehicle crime by improving the then fragmented vehicle registration system, which allowed vehicles stolen in one local authority area to be re-registered in another (Webb 2005). More recently, a range of crime reduction proposals for tightening the vehicle registration system were developed (Webb et al. 2004; Laycock and Webb 2005).

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An approach to reducing profit-motivated vehicle theft[1] that targets the vehicle registration system draws on a significant body of case-study evidence associated with designing out crime (Ekblom 1995). More specifically, it draws on research that has shown how, often relatively minor changes to systems can significantly reduce criminal opportunities (Tilley 2005). This has included system changes that have reduced (inter alia) cheque fraud (Knuttson and Kuhlorn 1997), welfare fraud (Prenzler 2014), shop theft (Ekblom 1986) and alcohol related violence (Homel et al. 1997). Tilley (2005) described how systems can be designed to reduce crime in a number of different ways. This includes making crime more risky, more difficult, or less rewarding; creating offender uncertainty; reducing provocation; reminding offenders of the rules; denying criminogenic resources; facilitating detection; reducing the supply of offenders; and identifying problems and stimulating attention towards them. Drawing on a range of case studies, Tilley showed how each approach could be facilitated through system design changes.

Much of Tilley's (2005) analysis drew its inspiration from Clarke's (1995) 25 techniques of situational crime prevention. This framework classifies situational crime prevention techniques into five main categories of activity, which are drawn from rational choice theory (Clarke and Cornish 1985), techniques of neutralisation (Sykes and Matza 1957) and in response to Wortley's (1998, 2001) criticisms of an earlier version of the framework (Cornish and Clarke 2003; Clarke 2005). These five main categories include increasing risk, increasing effort, reducing reward, removing excuses and reducing provocation. From the perspective of opportunity reduction approaches to theft (Felson and Clarke 1998) there would appear to be a range of ways in which situational crime prevention could theoretically be applied to the vehicle registration system. For example, system changes could increase the risk of detection for attempting to register a stolen vehicle. Alternatively, the effort involved could be increased by removing the most vulnerable weaknesses in the system. A third approach might involve reducing rewards by manipulating the vehicle registration system in order to reduce the market value of re-registered stolen vehicles, or to increase the costs associated with re-registration. Finally, the system could remove the excuses of vehicle thieves who might attempt to sell a stolen vehicle without the appropriate documentation by strengthening the registration rules.

Manipulating the vehicle registration system as a means of reducing vehicle crime can be viewed as part of a tradition of using regulatory responses to reducing social problems, in much the same way that regulation has addressed fencing of stolen goods through pawn shops (Fass and Francis 2004), illicit firearm ownership (Bricknell 2012), marijuana use in some US states (Chemerinsky et al. 2015), prostitution in some Australian states (Wightman 2012) and international money laundering through the financial system (Walters et al. 2011). Such regulation typically involves a set of rules, established through legislation, a regulatory code that specifies how the legislation will be operationalised and a means of monitoring compliance with the rules (Baldwin et al. 1998). This will often involve a state agency with responsibility for regulatory monitoring and compliance. Importantly, the agency responsible for regulatory compliance will often be separate from that responsible for more general policing duties. In the context of the vehicle registration system for example, this will often be a separate vehicle registration authority, located under a government department responsible for other transport related matters.

In this sense, vehicle registration authorities provide a third-party policing function (Mazerolle and Ransley 2005) by monitoring compliance with vehicle regulations. In some jurisdictions, a more direct third-party policing role may be played by vehicle registration authorities in attempting to reduce vehicle theft. In Australia, there has been a steady evolution of the system over the past 15 years designed to address specific vulnerabilities that have facilitated the re-registration of stolen vehicles. These developments have reflected what Sparrow (2000) has noted to be three key elements of a more general shift towards proactive regulation—a focus on results, the adoption of problem-solving methodologies to achieve results and working in partnership with other key stakeholders—in this case, the police and insurance industry.

This paper continues the work on systems approaches to crime prevention by exploring the ways in which the Australian vehicle registration system plays a third-party policing role in preventing opportunities for vehicle rebirthing (changing the identity of a stolen vehicle to make it appear legitimate) and cloning (copying another vehicle's identity) and therefore acts to reduce profit-motivated vehicle theft. The analysis presented here is largely descriptive in nature. It aims to identify the features of the existing system that reduce criminal opportunities on a *prima facie* basis. Attempts are also made to test the description with the available evidence, although this is somewhat limited. The result is a description of a

[1] 'Profit-motivated vehicle theft' is the term used in Australia to refer to vehicles that are stolen and unrecovered. These thefts are assumed to derive a profit as a result of selling the vehicle (whole or in parts) in either the domestic or overseas market. As such, this term is similar to 'permanent theft', or 'professional theft' used in other jurisdictions. 'Short-term vehicle theft' is the term used in Australia to refer to vehicles that are recovered following a theft. As such, this term is similar to 'temporary theft' or 'amateur theft' used in other jurisdictions.

vehicle registration system that would appear to incorporate a range of complementary measures to reduce profit-motivated vehicle theft.

Method

The research for this paper, conducted between February and May 2014, involved reviewing the legislation and regulatory codes associated with each of the vehicle registration authorities in Australia. This was followed by telephone interviews with representatives from seven of the eight vehicle registration authorities—Australian Capital Territory, New South Wales, Northern Territory, Queensland, South Australia, Victoria and Western Australia—which were used to clarify the specific regulations associated with each vehicle registration authority and to document how these had developed over time. In addition, telephone interviews were conducted with representatives of Northern Territory Police, Queensland Police, Tasmania Police and Western Australia Police and a detailed written response was received from New South Wales Police. These interviews with policing agencies were used to explore the approaches taken in each jurisdiction to reducing profit-motivated theft. An interview was also conducted with a representative of the National Motor Vehicle Theft Reduction Council.

Results

The Australian vehicle registration system is organised at the state/territory level, resulting in there being eight discrete systems in operation. Over time, states/territories have worked together to harmonise registration processes. This collaboration has also involved developing aspects of the system design that are specifically intended to prevent stolen vehicles from being re-registered.

Proof of identity of the registered keeper

Analysis of vehicle registration documentation showed that all eight states/territories in Australia require the person registering a vehicle to show proof of identity (typically a driver's license) to the vehicle registration authority. There has long been a requirement to prove identity when registering a vehicle in Australia, but this became more stringent when photographs were introduced on to drivers licenses in the late 1980's. Proof of identity at the point of registration helps to prevent simple vehicle cloning (either intra- or inter-state) involving the copying of an existing legitimate vehicle's identity, because the legitimate vehicle will be linked to another person's identity.

Proof of identity can also prevent a change of address fraud, a variant of cloning in which a vehicle registration document is obtained by registering a vehicle owned by another person at an address of the vehicle thief's choice. Replacement registration documentation is then obtained from the vehicle registration authority, with the identity of the stolen vehicle being changed to match those on the documentation. However, in Australia, the proof of identity check means that an address cannot be changed unless the registered keeper's identity is first verified.

In addition to preventing these forms of rebirthing/cloning, the proof of identity requirement is useful for raising the risk of detection for an offender, by linking an individual with an attempt to register a vehicle that is subsequently detected as stolen.

Check of the National Exchange of Vehicle and Driver Information System

At the point of registration, checks are made of the National Exchange of Vehicle and Driver Information System (NEVDIS[2]) (which is updated by all states/territories). This database provides a history of the vehicle's previous registration and will indicate whether there is an outstanding stolen vehicle flag against the vehicle. A number of interviewees (both from vehicle registration authorities and policing agencies) noted that NEVDIS will also identify vehicles with duplicate Vehicle Identification Numbers (VINs), which may be an indication of vehicle cloning.

Check of the written-off vehicle register

The national written-off vehicle register (WOVR) will also be accessed to identify whether the vehicle has previously been written-off by an insurance company as this would trigger a further inspection process. Both statutory (non-repairable) write-offs and repairable write-offs are recorded on the national WOVR[3]. Interviewees from both vehicle registration authorities and policing agencies considered the development of the national WOVR to have been important in preventing profit-motivated vehicle theft, given that written-off vehicles can provide a source of donor vehicles for rebirthing stolen vehicles.

Checks on written-off vehicles

Particular attention is paid to the re-registration of repairable written-off vehicles because of the important role they play in rebirthing. Analysis of registration

[2] NEVDIS was rolled out by states/territories incrementally between 1999 and 2006 (National Motor Vehicle Theft Reduction Council 1999, 2005).

[3] The national WOVR combines registers operated by each state/territory, which were introduced incrementally between 1996 and 2004. The state/territory Written-Off Vehicle Registers were rolled out nationally between 2002 and 2004 (National Motor Vehicle Theft Reduction Council 2000, 2001, 2005), following an evaluation of an earlier scheme in New South Wales, which was developed in 1996 (New South Wales Roads and Traffic Authority 2009).

documentation showed that all states/territories undertake identity inspections on all repairable written-off vehicles that are submitted for re-registration. The identity checks discussed here only relate to vehicles classed as *repairable* write-offs. No state/territory allows the registration of *statutory* write-offs. Interviews with representatives from the vehicle registration authorities suggested that these checks were useful from a preventative perspective. Indeed, few stolen vehicles were reported to be detected via this method because vehicle thieves were aware of the stringent checks applied to written-off vehicles.

An interview with a representative of the National Motor Vehicle Theft Reduction Council noted that recent changes to the criteria for a written-off vehicle had increased the proportion of written-off vehicles classed as statutory write-offs and reduced the proportion that were repairable write-offs. This had further reduced the opportunities available for rebirthing stolen vehicles. To date, these changes have been implemented in all states and territories apart from the Northern Territory.

Vehicle identity inspection

In discussions with interviewees, the requirement for vehicles being registered for the first time in the state/territory to be physically checked to ensure that the VIN on the vehicle had not been tampered with and that it matches the registration documentation was recognised as an important security check to prevent rebirthing/cloning. This measure was introduced at different times by states/territories, but was commonplace by the early 2000's. This measure was considered to help to address vulnerabilities in the system that may arise from a vehicle being stolen in one state and then registered in another.

Summarising the benefits of the vehicle registration system

Table 1 summarises the five crime prevention mechanisms by which the registration system in Australia seeks to reduce profit-motivated vehicle theft, drawing on Clarke's (1995) framework of 25 situational crime prevention techniques. While Clarke's framework includes five overarching mechanisms (increasing effort, increasing risk, reducing reward, reducing provocation and removing excuses), only the first three (effort, risk, reward) are of relevance for explaining how the vehicle registration system operates. Rather than showing each measure as working through one mechanism, as was the case in Clarke's 25 techniques, Table 1 shows that each of the five measures have an impact on risk, effort *and* reward. Typically, each measure makes vehicle rebirthing/cloning harder by removing easier options, or because greater attention to detail in the identity change process needs to be applied to avoid detection. Each measure also raises the risk of detection of vehicle rebirthing/cloning as all five provide a point of scrutiny by vehicle registration officials, who typically work closely with the police on such issues. Each measure has also been described as reducing rewards, although these are closely linked to effort and risk. The crime prevention measures embedded in the vehicle registration system increase the supply-side costs of rebirthing/cloning (as a result of increased effort, or in an attempt to reduce risk of detection), which in turn reduce the profitability of the activity.

Assessing the impact of measures

Assessing the impact of the five crime prevention measures (either individually or combined) is complicated by the fact that the behaviour they attempt to address (recycling stolen vehicles back into the vehicle fleet) is by its very nature a hidden activity, hard to detect and not recorded in official statistics. Indeed, vehicle registration authority representatives reported few cases where detections were made, highlighting the preventative mechanisms by which the measures tended to work. The data that are available relate to the impact on the number of vehicles stolen and unrecovered, that are assumed to be largely for profit. These data are an indicator of the effectiveness of the five crime prevention measures, given that one would anticipate a decline in profit-motivated thefts as vehicle registration processes tightened. However, this indicator is influenced by other changes in the environment that would have affected theft rates. In particular, the introduction of improved security on new vehicles during this time is likely to have accounted for a significant portion of the observed reduction. In addition, the timing of the vehicle registration related crime prevention measures does not fit well with the available data. For example, photo identification of the registered keeper and vehicle identity inspections were introduced well before the data on profit-motivated theft became available in 2000. As a result, it is difficult to attribute change in profit-motivated vehicle theft to the five crime prevention measures outlined above.

Figure 1 shows the trends in the rates of profit-motivated vehicle theft and short-term vehicle theft, indexed on 2000[4]. Between 2000 and 2014, profit-motivated theft

[4] All statistics were provided by the National CARS Project, Adelaide, South Australia. The National CARS Project uses 'stolen not recovered' data provided by the police as a proxy measure for profit-motivated vehicle theft. It should be noted that, while the best measure available, stolen not recovered data may not always represent profit-motivated vehicle theft. For example, a vehicle may be stolen and not recovered as a result of being dumped in a remote location, or as a result of insurance fraud. In addition, stolen not recovered data will fail to capture profit-motivated vehicle theft where a vehicle is recovered, as may be the case when a stolen vehicle is stripped for its parts, with only a shell being recovered.

Table 1 Mechanisms by which the vehicle registration system aims to prevent profit-motivated vehicle theft

Measure	Mechanisms		
	Increase the effort	**Increase the risk**	**Reduce the rewards**
Proof of identity of the registered keeper	Makes it difficult to obtain a replacement vehicle registration document from a registration authority as the document would be sent to the legitimate registered keeper	Raises the risk of detection when registering a rebirthed stolen vehicle as the new registered keeper must give proof of identity	Although not impossible, sale of a vehicle without the registration document (which has been linked to a registered keeper through proof of identity) is likely to be more difficult
Check of the National Exchange of Vehicle and Driver Information System	Prevents simple cloning involving duplication of another vehicle's identity (both intra and inter-state)	Identifies vehicles that have been stolen and attempted to be re-registered. This can lead to prosecution for vehicle rebirthing	Increases the costs associated with rebirthing by preventing some of the simplest forms of re-registering stolen vehicles
Check of the written off vehicle register	Prevents vehicles that have been classed as non-repairable written off vehicles from being re-registered. This removes an important source of vehicles for rebirthing	Identifies written off vehicles that may have been used to rebirth a stolen vehicle. This can lead to prosecution for vehicle rebirthing	Written off vehicles can provide a cheap supply of donor identities, meaning that vehicle thieves may need to source vehicles from more expensive donor vehicles
Vehicle identity inspections for repairable written off vehicles being re-registered	Methods that use written off vehicles as donor vehicles for rebirthing will require all identifiable parts from a stolen vehicle to be anonymised, as well as requiring falsified receipts of purchases of the stolen parts	Identifies vehicles that have been stolen and attempted to be re-registered. This can lead to prosecution for vehicle rebirthing	Increases the labour costs associated with rebirthing as parts must be anonymised
Vehicle identity inspections for inter-state registrations	Sophisticated approaches required to change vehicle identities in a way that will not be identified by vehicle examiners	Identifies vehicles that have been stolen and attempted to be re-registered. This can lead to prosecution for vehicle rebirthing	Increases the labour costs associated with rebirthing by requiring more sophisticated, time consuming identity changes

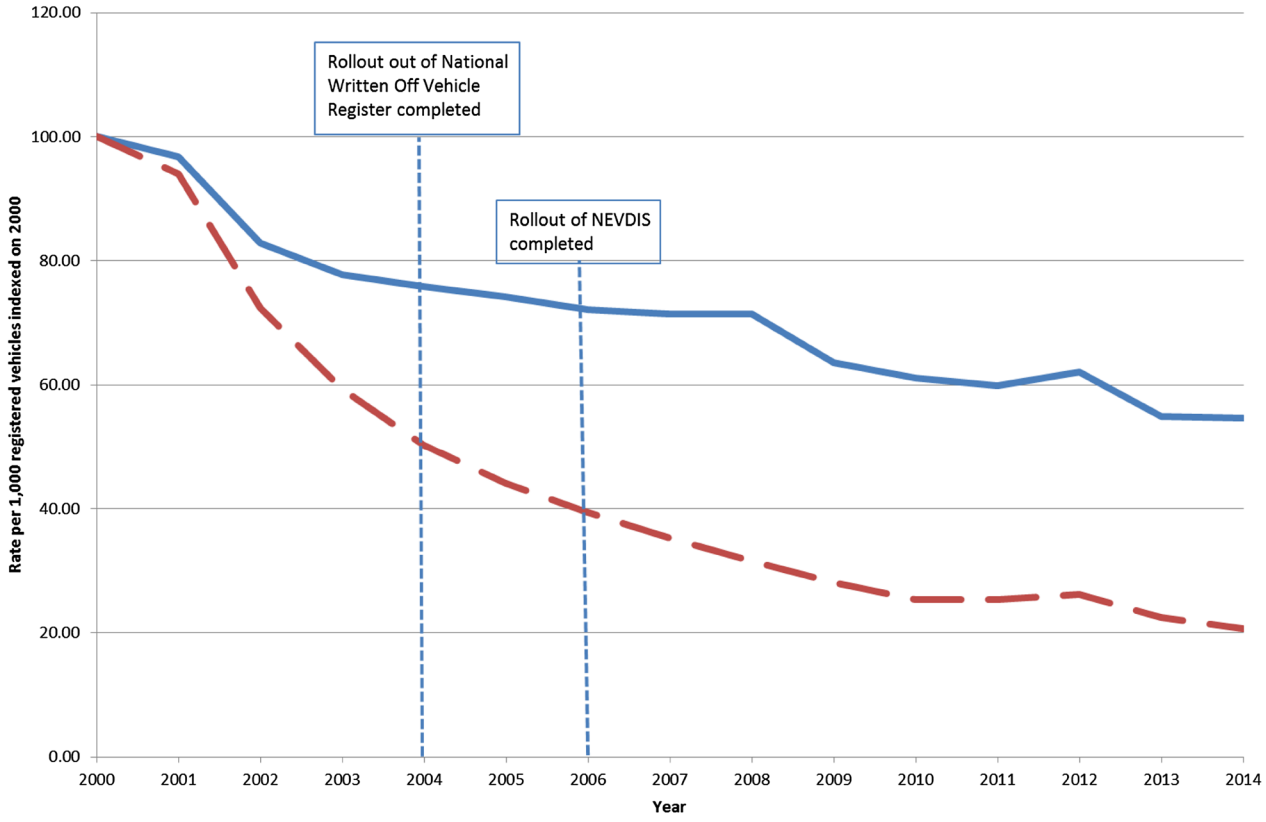

Fig. 1 Trend in the rate of profit motivated vehicle theft and short term vehicle theft in Australia: 2000–2014 indexed on 2000. Source: National CARS Project: Adelaide, South Australia

declined by 45 %, while short-term vehicle theft declined by 79 %. This is consistent with findings on the impact of electronic vehicle immobilisation (introduced in Australia as a mandatory requirement on new cars in 2001), which has shown larger declines in temporary, rather than permanent theft (Brown 2013). As a result of these trends, the proportion of vehicle theft accounted for by profit-motivated theft increased from 14 % in 2000 to 31 % in 2014. It remains unclear whether this proportion would have risen at a faster rate had the crime prevention measures in the vehicle registration system not been introduced.

Given that measures were introduced at different times in different jurisdictions, there may be benefit in further research that examines changes at the individual state/territory level over a longer time period. This would require data collection from individual policing agencies, which was beyond the scope of this paper.

Opportunities for displacement

Displacement refers to the potential for crime to move (partially) in some circumstances, in response to crime prevention efforts. It can move in many different ways, including in terms of time, place, crime type, crime target and modus operandi (Barr and Pease 1990; Hesseling 1994 Guerette and Bowers 2009). Within the Australian vehicle registration system, there remain opportunities for displacement involving inspection avoidance and post-inspection manipulation. However, as noted below, there are other means of profiting from vehicle theft that do not require contact with the vehicle registration system and these provide further opportunities for displacement.

Rebirthing through inspection avoidance (operating within the vehicle registration system)

Inspection avoidance relates to measures that could be taken to by-pass the identity inspection process when re-registering a stolen vehicle. For example, one vehicle registration authority representative noted that there had previously been cases of corruption of vehicle inspectors to pass a stolen vehicle through the inspection process. Alternatively, attempts could be made to target loopholes in the identity inspection process. For example, one state has no universal requirement for an identity inspection to be conducted on inter-state vehicles, while another only

requires identity inspections on vehicles over 10 years old. There was no evidence from the interviews that such avoidance measures had been detected. However, these differences in identity inspection processes potentially weaken the system as a whole as they provide points at which rebirthing may be easier.

Rebirthing through post-inspection manipulation (operating within the vehicle registration system)

Opportunities to conduct vehicle rebirthing once a vehicle has been inspected remain high. Typically, this will involve purchasing a relatively high value legitimate vehicle at low cost due to damage (e.g. repairable write-off) or wear (e.g. ex-mining vehicle). These legitimate vehicles will then be repaired to a standard sufficient to pass a roadworthy test and identity inspection, with (often false) documentation being used to prove the purchase of components to repair the vehicle. Once the vehicle has been registered, it will be stripped of its major panels and components, which are replaced with the parts from a stolen vehicle, typically of a higher specification, thereby maximising the resale value. Due to this form of vehicle rebirthing occurring post registration, it is difficult to detect from a vehicle registration perspective, unless the vehicle is later transferred to another state/territory and is subject to another identity inspection. All of those interviewed for this study recognised the potential for post inspection manipulation to occur, although views differed on its prevalence. In New South Wales, it was noted that this activity was covered by legislation that outlawed vehicle rebirthing.

Dismantling for parts as an alternative to rebirthing (operating outside the vehicle registration system)

An alternative to rebirthing can involve dismantling vehicles for their components and residual scrap value, which can be a profitable way of avoiding the vehicle registration process. Indeed, Longman (2006) estimated that the component parts of a vehicle were worth two to three times more than a whole vehicle. This method of disposal may well be aided by poor regulation of the separated vehicle parts market. Indeed, an audit of motor wreckers and scrap recyclers in Victoria, by Victoria Police, found that many were non-compliant with the regulations governing their industry (National Motor Vehicle Theft Reduction Council 2014), which raised the potential for stolen vehicles to be dismantled for parts with minimal risk of detection. The report also found that 398 (92 %) of the businesses audited were not complying with regulations that required them to notify the vehicle registration authority when dismantling/destroying a vehicle. As a result, this approach could create 'clean' identities that could be used on stolen vehicles. As such vehicles would not show up as being written-off (unless reported by insurers) or at end of life, they would remain registered and therefore would not require an identity check, thereby circumventing one of the key crime prevention measures in the Australian vehicle registration system.

This process was examined further by assessing the change in the proportion of profit-motivated vehicle theft that involved vehicles aged between 5 and 9 years old. It was hypothesised that there would be a particular market for dismantled parts of vehicles in this age range to replace worn parts on other vehicles in the fleet. In addition, by 2010 all vehicles aged 5–9 years would have an electronic immobiliser installed, thereby controlling for this as a contributory factor in theft risk. Figure 2 shows an initial decline in the proportion of profit-motivated vehicle thefts involving vehicles aged 5–9 years, which may partially be explained by the increasing penetration of new security into this age range. However, this initial decline was followed by a steady increase from 2007. Between 2007 and 2014, this proportion rose from 32 to 43 %. Further, over the 15 years, the number of profit-motivated vehicle thefts targeting vehicles aged 5–9 years declined by just seven percent, compared with a 23 % decline among vehicles of all other ages. This lends further support to the possibility that the dismantled parts market may have become a more important channel of disposing of stolen vehicles as the registration system has been tightened.

Targeting unregistered vehicles as an alternative to rebirthing (operating outside the vehicle registration system)

Another means of profiting from stolen vehicles involves focusing on vehicles that do not require registration, thereby side-stepping the crime-prevention measures embedded in the Australian vehicle registration system. There is some evidence to suggest this has occurred. For example, CARS (2013) showed that profit-motivated theft associated with plant and equipment increased by 102 per cent between 2002/03 and 2012/13, compared with an overall decline of two percent in total profit-motivated vehicle theft over the same period.

Opportunities for diffusion of benefit

In describing their work to design out crime from the UK vehicle registration system, Webb et al. (2004) noted that design improvements could also bring about a diffusion of benefit for both vehicle crime and crime in general. Professional vehicle thieves were described as innovating ways to overcome existing vehicle security, which would then be mainstreamed by amateur vehicle thieves. This process of innovation has been described by Southall and Ekblom (1985) as part of an 'arms-race' in

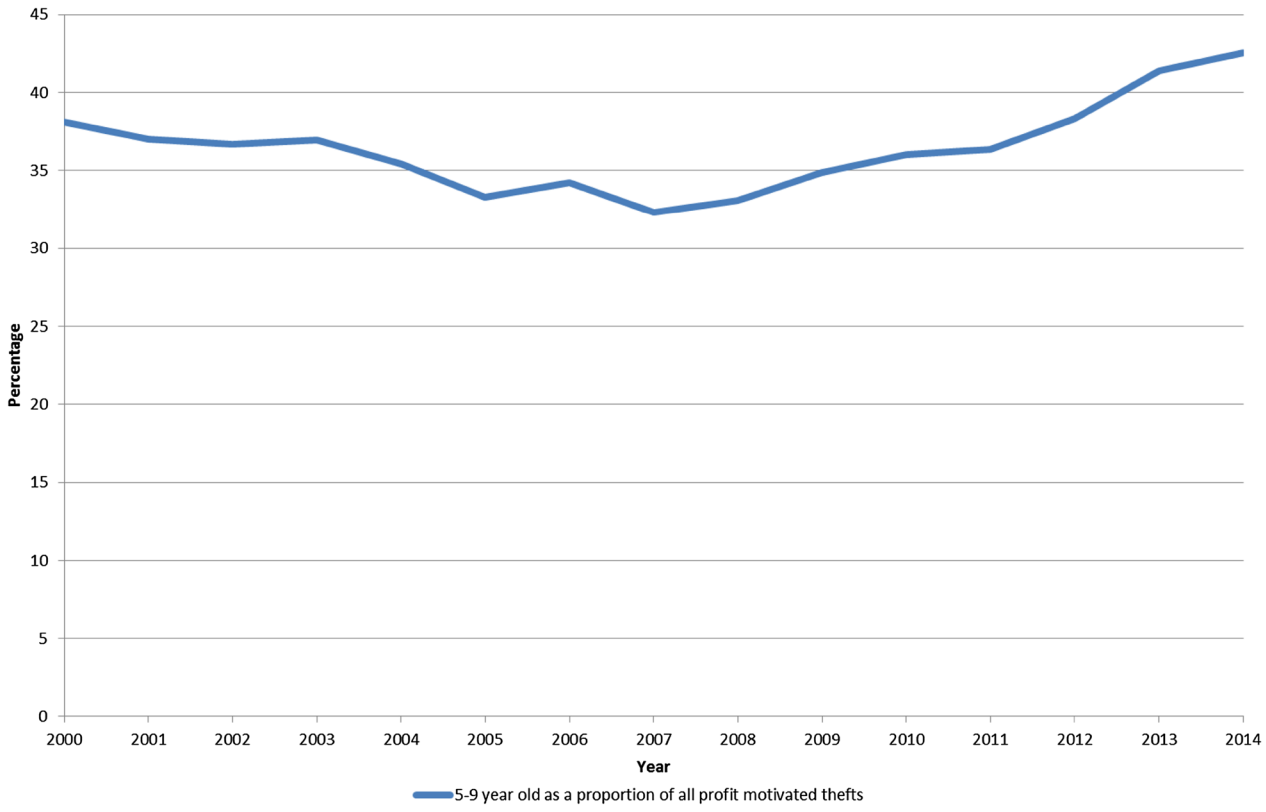

Fig. 2 Proportion of profit motivated vehicle thefts in Australia involving vehicles aged 5–9 years: 2000–2014. Source: National CARS Project: Adelaide, South Australia

which manufacturers seek to develop security solutions, which are subsequently overcome by vehicle thieves. This was later described by Ekblom (1997, 2012) as co-evolution, with design modifications being met by changes in modus operandi by vehicle thieves. This process described the incremental implementation of steering column locks in the UK and their subsequent circumvention (Mayhew et al. 1992).

By reducing the attractiveness of profit-motivated vehicle theft, the registration system could discourage individuals from stealing vehicles for profit and therefore remove the impetus to develop innovative approaches to circumventing vehicle security. This in turn could reduce the extent to which vehicle theft techniques are disseminated to amateur thieves and therefore reduce the extent of temporary vehicle theft. A consequence of not stealing vehicles for temporary purposes may be a reduction in crime overall. Farrell et al. (2011) conceived of vehicle crime as a 'debut crime', engaged in at the early stages of a criminal career. It is possible that, without the opportunity to engage in vehicle crime, potential offenders fail to become involved in crime more generally. In this way, improvements in the Australian vehicle registration system could have far reaching impacts on crime in general.

Conclusions

This paper has examined the crime prevention measures embedded in the Australian vehicle registration system that are designed to address profit-motivated vehicle theft. These measures are designed to prevent a particular form of profit-motivated vehicle theft—vehicle rebirthing/cloning. They operate by increasing the risk of detection, increasing the effort involved in changing a vehicle's identity and therefore reducing the associated rewards. The impact of these measures may have reduced the opportunities for rebirthing and cloning while simultaneously displacing the disposal methods towards more vulnerable, less regulated sectors. The National Motor Vehicle Theft Reduction Council's (2013) strategic plan for 2013–2016 indicated that the proportion of unrecovered stolen vehicles that were subject to dismantling for parts (25 %), converted to scrap metal (25 %) and exported (10 %) were all on the rise, while the proportion that were subject to rebirthing/cloning through the registration system (15 %) was declining

(although it is unclear over what timescale these changes have occurred). While the origins of these estimates are unclear, the fact that experts working in this area have signalled a shift from disposal through the registration system to other forms of disposal is significant. It indicates that profit-motivated vehicle theft remains profitable despite vehicle rebirthing/cloning becoming more difficult and also highlights the need for attention to be focused on the regulation of the separated parts market and salvage market. Indeed, this shift from seeking to re-register a stolen vehicle to dismantling for parts and scrap can be viewed as a kind of 'crime fuse' (Barr and Pease 1990). The means by which a profit can be generated from vehicle theft has become concentrated in very specific modus operandi, associated with specific types of business (dismantlers and wreckers). This has resulted from the likely reduction in opportunities for rebirthing/cloning through the vehicle registration system which was previously targeted by a potentially large number of used vehicle dealerships and private sellers attempting to sell stolen vehicles. This concentration of illicit activity towards vehicle dismantlers and wreckers potentially aids both future crime prevention and detection efforts by narrowing the range of locations that may be subject to crime control measures. Indeed, law enforcement and regulatory efforts focused on these sectors may prove more effective in future simply because that is where a disproportionate amount of the opportunities to profit from vehicle theft are to be found.

In conclusion, this study has explored how the Australian vehicle registration system has provided a form of third party policing by embedding a range of crime prevention measures aimed at reducing profit-motivated vehicle crime. If successful, such measures may not only reduce profit-motivated vehicle theft, but all vehicle theft and indeed crime in general. However, the extent to which profit-motivated vehicle theft has migrated towards easier targets as opportunities for rebirthing/cloning were removed remains unclear. It seems likely that at least part of the problem may have been displaced towards other more vulnerable sectors. This highlights the need for further attention to be paid to these markets. Indeed, a systems approach to crime prevention associated with these particular sectors may yield benefits by further reducing the opportunities for profit-motivated vehicle theft.

Compliance with ethical guidelines

Competing interests

The author declares that he has no competing interests.

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