

# New car security and shifting vehicle theft patterns in Australia

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## Summary report

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### Background

Motor vehicle security has improved considerably in the past decade, both in Australia and other developed countries, and from July 2001 all new passenger vehicles sold in Australia were required to be fitted with an Australian Standard (AS) engine immobiliser prior to sale. Although little formal evaluation of the effect of engine immobilisers has been undertaken, Brown & Thomas (2003) investigated the effect of a similar initiative introduced in the European Union in 1998. They found that in the United Kingdom immobilisers were effective in reducing vehicle theft rates, but also that there was some evidence of displacement in thefts toward older, non-immobilised vehicles.

This study replicates the method of Brown & Thomas using Australian data from the National CARS (Comprehensive Auto-theft Research System) Project to determine whether the same pattern in theft trends has occurred in Australia. This study compares the calendar years 2000 and 2004 in terms of theft rates, the proportion of late model vehicles fitted with AS immobilisers, and the age distributions of stolen vehicles (both recovered and not recovered) in order to look for any changes in the theft profile that may be attributed to improved new car security.

### Key Findings

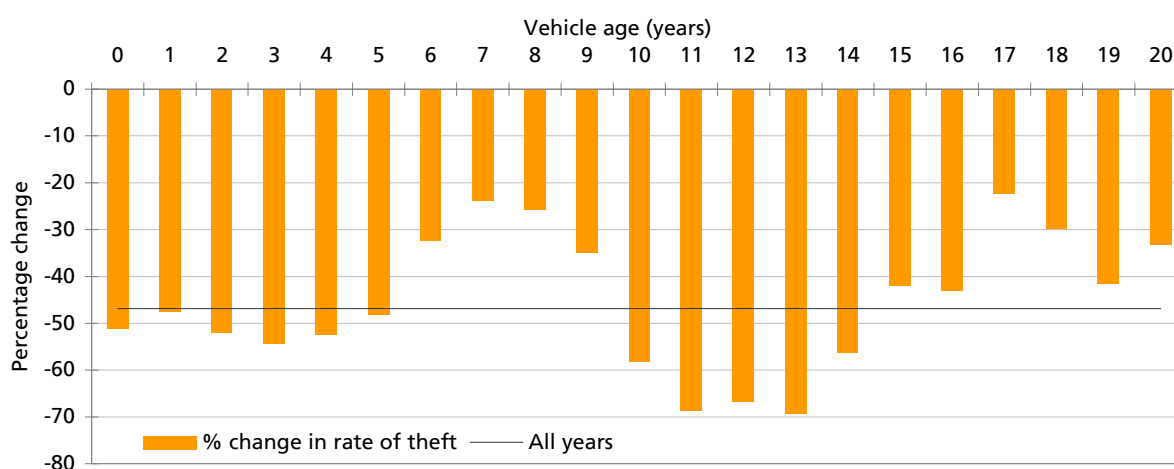
- Passenger/light commercial vehicle thefts in Australia dropped by 40% between 2000 and 2004, from 127,155 thefts in 2000 to 76,137 thefts in 2004. The theft rate per 1,000 registrations decreased from 11.34 to 6.02.
- Table 1 shows that between 2000 and 2004 the proportion of registered passenger/light commercial vehicles (aged less than 10 years) fitted with an Australian Standard immobiliser increased from 27% to 65%. Accordingly, the number of vehicles without an immobiliser fell from 53% to 23%.
- In both years, the theft rate for passenger/light commercial vehicles aged less than 10 years was far lower for vehicles fitted with an AS immobiliser than for other vehicles.

Table 1: Proportion of passenger/light commercial fleet (less than 10 years old) with an immobiliser, and theft rates per 1,000 registered vehicles for 2000 and 2004

| Immobiliser type        | % of registered fleet |      | Theft rate per 1,000 vehicles registered |      |
|-------------------------|-----------------------|------|--|------|
|                         | 2000                  | 2004 | 2000                                     | 2004 |
| Australian Standard     | 27                    | 65   | 2.7                                      | 1.9  |
| Non-Australian Standard | 20                    | 12   | 5.3                                      | 3.8  |
| None                    | 53                    | 23   | 4.8                                      | 3.5  |

- Figure 1 shows that the greatest decline in thefts between 2000 and 2004 has occurred among vehicles aged 0-5 years and those aged 10-14 years. Immobilisers could be expected to account for the strong decline among the newer vehicles. The slower decline of vehicles aged 6-9 years indicates that some displacement toward these relatively new, but largely non-immobilised vehicles has occurred.
- A shift has also occurred among older vehicles, from those aged 10-14 years towards those aged 15+ years. This is not likely to be related to compulsory immobilisation, but more likely to be a result of other theft-reduction initiatives in Australia.

Figure 1: Percentage change in the rate of passenger/light commercial vehicle theft for vehicles stolen in 2000 and 2004



- An analysis of recovered and unrecovered vehicles showed that the displacement away from very new vehicles towards 6-9 year-old vehicles was more apparent among unrecovered thefts than among recovered thefts.

## Conclusion

The evidence suggests that immobilisers have contributed to a strong decline in motor vehicle theft in Australia in recent years, although other factors and initiatives have no doubt also played a part. The reduction in thefts has not been even across vehicle ages, with vehicles aged 0-5 years and 10-14 years showing the strongest decline. There is some evidence of displacement toward older vehicles, particularly for unrecovered thefts. Improvements in vehicle security, including immobilisers, are thought to account for this displacement among newer vehicles, while other theft reduction initiatives are likely to account for this shift among older vehicles. This research suggests that as the vehicle fleet becomes increasingly immobilised, theft rates in Australia will continue to fall.

## Reference:

Brown, R and Thomas, N. (2003) Aging Vehicles: Evidence of the effectiveness of new car security from the Home Office Car Theft Index. *Security Journal*/Vol. 16, Number 3, pp 45-53.