

Cash Reduction and Robbery Prevention in Australian Betting Shops

Ronald V. Clarke* and Gerry McGrath†

•School of Criminal Justice, Rutgers, The State University of New Jersey, Newark, NJ, and †National Police Research Unit, Adelaide, Australia

Cash reduction measures that were implemented in the 1980s by state betting shops in Victoria, Australia, appear to have reduced robberies. They also led to a reduction in the average amount stolen in robberies. A crude cost-benefit calculation suggests that the measures saved more money than they cost to implement.

Keywords: Cash handling; cash reduction; situational prevention; robbery; betting shops; Australia.

Introduction

In common with the other states of Australia, off-track betting in Victoria is organized by an independent state agency—the Totalizator Agency Board (TAB). This board operated 431 outlets for betting in 1988, some in stores and pubs, but most in the form of betting shops. The latter are generally located in minimalls or shopping strips. Most consist of a room about 20 by 40 feet, with entrances at the front for customers and at the rear for staff. There are usually four or five selling positions where punters can make bets, a counter on which to write, and two TV monitors, one displaying odds and the other broadcasting races. Opening hours are typically from 11.00 A.M. to 6.30 P.M., Mondays to Fridays (with a few exceptions starting at 9.00 A.M. and closing at 11.00 P.M.). On Saturdays, closing is between 6:30 P.M. and 11:00 P.M.

As these betting shops handle large sums of money, they are constantly vulnerable to robbery. It became apparent, however, in the course of research undertaken in 1989 on armed robbery in Victoria that robberies of TAB offices had declined during the previous 10 years, while robberies of other premises had increased. Discussions with the security manager for the TAB suggested that cash reduction measures were probably responsible for the decline. These measures included:

(i) The introduction in late 1980 of a time-lock cash box easily accessible to selling staff;

Address reprint requests to Ronald V. Clarke, School of Criminal Justice, Rutgers, the State University of New Jersey, 15 Washington St., Newark, NJ 07102.

© 1990 Butterworth Publishers

(ii) The instituting in late 1981 of a cash limit of A\$500 on the draws at each selling position (subsequently adjusted up and down depending on the cash flow of the premises); and

(iii) The fitting in late 1987 of all main safes with an adjustable time lock.

These measures were introduced for all offices except those in very low risk country areas and were advertised by appropriate notices at the entrances.

American evaluations of cash reduction measures have generally produced encouraging results. This is particularly evident in the context of public transport: The installation of safes on buses combined with a system of flat fares almost completely eliminated robberies of bus drivers in New York (Chaiken et al., 1974) and in 18 other cities (Stanford Research Institute, 1970). For convenience stores, the results are a little more mixed. Hunter (1988) found that convenience stores in Florida with signs posted indicating that a drop and/or time-release safe was in use and that the clerk had access only to limited funds were no less likely to be robbed. However, Crow and Bull (1975) report that cash reduction was an important component of a package of successful robbery prevention measures in 7-Eleven stores, though they were unable to isolate its effect independent of the other measures adopted. The strongest endorsement of cash reduction for convenience stores comes in a paper by Scott et al. (undated, but included in Clifton, 1987), in which they argued that by continually emphasizing cash reduction 7-Eleven stores in the United States had reduced the average dollar loss per robbery each year since 1974. The amount lost was cut in half from 1975 to 1980, with the largest reduction taking place between 1978 and 1981, when the average "take" fell below US\$100. Below this level, most of the robbers interviewed said that they would be unwilling to run the risks associated with robbery for such a low return.

Cash reduction is, therefore, a situational measure (Clarke and Mayhew, 1980) of undoubted value in preventing robberies, though this has been demonstrated only in limited contexts. The cash-reduction measures introduced in the context of Australian betting shops thus provide a further arena in which to investigate the value of such situational measures.

Method and Results

Because of data limitations, the method adopted was necessarily simple. It consisted of comparing the number of robberies occurring in a 10-year period covering the implementation of cash reduction by the

TAB with robberies of banks and all other commercial premises in Victoria during the same period. Inspection would determine whether any declines in TAB robberies followed the introduction of cash-handling measures rather than of any more general trends in robbery. The fact that there had been virtually no change in the number of TAB outlets during the period (425 in 1979 and 432 in 1988) meant that this factor could be ignored in the analysis.

The data used were taken from records maintained by the Armed Robbery Squad of the Victoria Police for 1979 to 1988 (and for the first 6 months of 1989). A detailed study of these records suggested that they represented a reasonably complete set of all armed robberies reported to the police in Victoria (Clarke, 1989). In particular, there was a very close fit ($r = .98$) between the counts of TAB robberies for the 40 quarters of 1979-88 recorded by the Armed Robbery Squad ($N = 216$) and independently by the Security Department of the TAB ($N = 225$); there was a similarly close fit ($r = .97$) between bank robberies recorded by the Squad ($N = 736$) and independently by the Australian Bankers Association ($N = 710$).

It can be seen from *Table 1* that while armed robberies of banks and other premises generally increased in the period 1979-1988 those for TAB outlets showed a marked decline—from 40 in 1979 to 14 in 1988. Moreover, the pattern of decline is generally consistent with the introduction of the various cash-handling measures (in late 1980, late 1981, and late 1987), though the drop in 1988 may also reflect a more general decline of robberies in that year.

Table 1. Robberies of TAB Offices, Banks, and All Commercial Premises, Victoria, 1979-89

	TABs	Banks	All Commercial Premises ¹
1979	40	35	303
1980	47 ^b	44	343
1981	20 ^c	40	273
1982	16	60	304
1983	11	104	400
1984	14	96	295
1985	16	86	324
1986	10	81	400
1987	28 ^d	129	437
1988	14	61	262
(1989) ^e	(1)	(22)	(115)

¹Figures available only for robberies with a firearm.

^bTime-locking cash box introduced in late 1980.

^cCash limit of A\$500 set on each selling draw in late 1981.

^dMain safes fitted with time locks introduced in late 1987.

^eJanuary to July only for 1989.

The data in *Table 2* show that not only were the number of robberies reduced, but, as would be expected, the average amount stolen in robberies (TAB Security Department data) also generally declined following the introduction of the cash-handling measures (with an unexplained increase in 1984 that did not coincide with any increase in the number of TAB robberies). (As TAB does not release information to the public about amounts stolen in robberies, figures in *Table 2* have been standardized according to the mean amount taken in 1979. The average for 1979 was converted to A\$100, and that for subsequent years was converted using the same formula. This procedure permits comparison between years without revealing the true dollar amounts.)

The striking reduction in numbers of robberies and amounts stolen in the first 6 months of 1989 (only one robbery occurred, which netted A\$5) suggests that it may have taken some time for information about the installation of the new main safes at the end of 1987 to circulate among the criminal community.

Although it is too early to evaluate the cost effectiveness of the new main safes, a crude calculation suggests that the time-locking cash boxes introduced in late 1980 had more than paid for themselves by the end of 1986. In making this calculation, it was assumed that the pattern of TAB robberies would have followed that for robberies of all other premises (i.e., would not have declined as they did) and that the average amounts stolen in TAB robberies would have been the same as in 1979/80. Given these

assumptions, the expected loss would have been A\$771,209, whereas the actual loss was A\$157,064. The cost of fitting the time-locking cash boxes to approximately 400 premises was A\$360,000. This makes an estimated net saving of just over A\$250,000 from 1981 through 1986, with further savings after that date.

Conclusions

Improved cash handling, including restrictions on cash in drawers and the use of time-lock safes, appears to have achieved a considerable reduction in robberies of betting shops in Victoria during the 1980s. These findings are broadly consistent with American evaluations of cash-reduction measures in public transport and convenience stores. Not only do such measures appear to be effective, but, judging from the present study, they can also save more money than they cost.

Cash-reduction measures should therefore be seriously considered by any commercial operation troubled by robberies. However, they necessarily cause some inconvenience to customers and staff and it may be important to know more about these costs if other commercial establishments, such as banks, are to be persuaded to make fuller use of them. From a public policy perspective, it would also be valuable to know more about the consequences for displacement of adopting cash reduction and other preventive measures. Chaiken et al. (1974) found some evidence of a small increase in subway robberies following the introduction of exact fares on New York City buses, and interviews with Australian robbers suggest that they will direct their attention to other premises in the face of target-hardening efforts (N.S.W. Bureau of Crime Statistics and Research, 1987; Kapardis, 1989; Nugent et al., 1989). However, Clarke (in press) has argued that the dangers of displacement have generally been exaggerated and he was unable to find any sign of displacement between robberies of banks and other premises in Victoria during 1979-1988 (Clarke, 1989).

Acknowledgments

The study reported was part of a larger project on armed robbery. Thanks are due to Senior Sergeants Neal Edwards and Ray Watson (Victoria Police Armed Robbery Squad) and Max Gregory (Totalizator Agency Board, Victoria) for their considerable assistance.

Table 2. Mean Value of TAB Robberies, Victoria, 1979-89

	Mean Dollars Stolen ²
1979	100
1980	45 ^b
1981	25 ^c
1982	28
1983	23
1984	93
1985	39
1986	18
1987	119 ^d
1988	91
1989-	0

^aAmounts standardized by the mean stolen in 1979 (figures not indexed for inflation).

^bTime-locking cash box introduced in late 1980.

^cCash limit of \$A500 set on each selling draw in late 1981.

^dMain safes fitted with time locks introduced in late 1987.

^eJanuary to July only for 1989.

References

- Chaiken, J. J., Lawless, M. W., & Stevenson, K. (1974). *Impact of police activity on crime: Robberies on the New York City subway system* (Report No. R-1424-N.Y.C). Santa Monica, CA: Rand Corporation.
- Clarke, R. V. (1989) *Target hardening of banks and displacement of robberies*. Adelaide, South Australia: National Police Research Unit.
- Clarke, R. V. (in press). Displacement, an old problem in new perspective. In G. Saville and D. Morley (Eds.), *Crime problems: Community solutions: Environmental criminology as a developing preventive strategy*. Toronto: ABL.
- Clarke, R. V., & Mayhew, P. (1980). *Designing out crime*. London: Her Majesty's Stationery Office.
- Clifton, W. (1987). *Convenience store robberies in Gainesville, Florida: An intervention strategy by the Gainesville Police Department*. Gainesville, FL: Gainesville Police Department.
- Crow, W. J., & Bull, J. L. (1975). *Robbery deterrence: An applied behavioral science demonstration*. Lajolla, CA: Western Behavioral Science Institute.
- Hunter, R. D. (1988). Environmental characteristics of convenience store robberies in the state of Florida. Paper presented at the Annual Meeting of The American Society of Criminology, Chicago.
- Kapardis, A. (1989) 100 convicted armed robbers in Melbourne. In Challinger, D. (Ed.), *Armed robbery*, Canberra: Australian Institute of Criminology.
- New South Wales Bureau of Crime Statistics and Research. (1987). *Robbery*. Sydney: Attorney General's Department.
- Nugent, S., Burnes, D., Wilson, P., & Chappell, D. (1989). *Risks and rewards in robbery: Prevention and the offender's perspective*. Melbourne: Australian Banker's Association.
- Stanford Research Institute. (1970). *Reduction of robbery and assault of bus drivers*. Washington, DC: U.S. Department of Transportation.



Ronald Clarke is Professor and Dean at the School of Criminal Justice, Rutgers, The State University of New Jersey. His main research interests are centered on situational crime prevention. He spent June and July, 1989, as a Visiting Fellow at the National Police Research Unit, Adelaide, where he assisted in evaluative work on the prevention of armed robbery.



Gerry McGrath is the founding Director of the Australian National Police Research Unit, a position he has held since 1983. His previous positions included Chairman of the Research Programme, Faculty of Education at the University of New England, where he lectured in the sociology of education. Dr. McGrath's doctoral work at the University of Calgary and his subsequent publications have been in the sociology of the occupations of nursing, teaching, corrections, and police.