

Weapon Involvement in Armed Robbery

Weapon Involvement in Armed Robbery

Jenny Mouzos and Carlos Carcach



**Australian Institute of Criminology
Research and Public Policy Series
No. 38**

© Australian Institute of Criminology 2001

ISSN 1326-6004

Apart from any fair dealing for the purpose of private study, research, criticism or review, as permitted under the *Copyright Act 1968* (Cwlth), no part of this publication may in any form or by any means (electronic, mechanical, microcopying, photocopying, recording or otherwise), be reproduced, stored in a retrieval system or transmitted without prior written permission. Inquiries should be addressed to the publisher.

National Library of Australia Cataloguing-in-Publication entry

Mouzos, Jenny

Weapon involvement in armed robbery.

Bibliography

ISBN 0 642 24245 3.

1. Robbery – Australia. 2. Weapons – Australia. 3. Firearms and crime – Australia.
I. Carcach, Carlos. II. Australian Institute of Criminology. III. Title. (Series : Research and public policy series ; no. 38).

364.15520994

Published by the Australian Institute of Criminology
GPO Box 2944
Canberra ACT 2601
Tel: (02) 6260 9221
Fax: (02) 9260 9201
Email: aicpress@aic.gov.au
<http://www.aic.gov.au>

Foreword

Most public attention and concern about armed robbery in Australia has been directed at the use of firearms to commit the offence. While this concern may have been justified in the past, in recent years the nature of armed robbery has seen a number of significant changes. While the use of firearms to commit armed robbery has declined, there has been a dramatic increase in the use of “other weapons” in the commission of armed robbery in Australia. Such changes suggest the need to redirect the focus of research and to examine the use of other weapons in armed robbery in order to determine what are the driving forces behind these changes. The Australian Institute of Criminology, through its continued role in the monitoring of selected offences, has recognised the changing nature of armed robbery and has responded with this report that examines in detail the role of weapons in the commission of armed robbery in Australia.

This report is an important contribution towards examining the role of weapons in armed robbery. While the changes in the nature of armed robbery are reflected in the report’s findings, gaps still exist in research, with further research limited in scope and restricted by the type of data that currently exist. The report also highlights the need for a coordinated effort towards improvements in data quality and breadth of information collected by police services across Australian States and Territories. Answers to many questions raised relating to weapon use, especially unravelling the complex reasons associated with increases in “other weapon” use in armed robbery in Australia, will remain unanswered unless data issues are first addressed.

Adam Graycar

Director, Australian Institute of Criminology

October 2001

Acknowledgments

The Australian Institute of Criminology gratefully acknowledges the cooperation and continuing support provided by the Australasian Police Ministers' Council, the Senior Officers' Group, and police services in all jurisdictions.

Individual officers and staff from statistical service units are also gratefully acknowledged for their assistance in the provision of data for the Armed Robbery Pilot Project.

Contents

Foreword	v
Acknowledgments	vi
Abbreviations	viii
Executive Summary	ix
Background	1
Introduction	2
Overview of Research	4
Type of Weapon Used in Armed Robbery	4
Reasons for the Choice of a Particular Weapon	6
Choosing a Firearm versus Some Other Weapon	8
Robbery in Australia: Armed versus Unarmed	13
National Overview of Armed Robbery	15
Individuals and Organisations	15
Location of Armed Robbery	16
Age Distribution of Victims (Individuals) of Armed Robbery	18
National Overview of Weapon Use in Armed Robbery	20
Knives and “Other Weapons” in Armed Robbery	22
Summary of National Overview	23
The Current AIC Study	24
Limitations and Methodological Issues	25
Empirical Analysis	27
The Data	27
The Findings	28
Jurisdictional Differences	33
Offender Characteristics	33
Summary of Findings	35
Conclusion	36
References	38
Appendix 1: Characteristics of Armed Robbery Data	41

Abbreviations

ABS	Australian Bureau of Statistics
AIC	Australian Institute of Criminology
CAPS	Crime and Property System
PROMIS	Police Realtime Online Management and Investigation System
SOG	Senior Officers' Group
TAB	Totalisator Agency Board

Executive Summary

Most research into armed robbery has focused on the use of firearms. While this focus may seem justified in countries where firearms are the weapon of choice in the commission of armed robbery, in Australia, firearms are used in less than two out of five armed robberies. Most armed robberies in Australia are committed with “other weapons” such as knives, and in recent years, this trend seems to be increasing, raising the possibility that firearms are being substituted by other types of weapons in the commission of armed robbery (Mouzos 1999). This suggests that the focus for Australian research should be directed at examining the use of “other weapons” in armed robbery (Ogilvie 2000a, 2000b). Such research is required to examine “which” particular weapons are driving the increase in armed robbery, and the reasoning behind an offender’s choice of one weapon over another. This will allow more informed decisions to be made regarding the prevention of armed robbery, and the concentration of prevention efforts where required.

Following an overview of the substantive issues raised by Australian and international research and an examination of official national crime statistics produced by the Australian Bureau of Statistics (ABS) on armed robbery in Australia, the Australian Institute of Criminology (AIC) undertook a situational analysis of armed robbery. A total of 16,235 records made up the final file that was analysed. Notwithstanding some of the methodological issues and data limitations, there were three main findings from the AIC study:

- There were no differences in the type of weapon used by an offender of armed robbery based on the type of victim selected; that is, persons and organisations were equally vulnerable to the same types of weapons.
- Generally, knives were used most often to commit armed robbery in Australia. However, when the target was a bank, credit union or building society, a firearm was more frequently used.
- There were no differences in the type of weapon used according to gender and age of offenders.

A number of suggestions to improve our knowledge of armed robbery, and consequently reduce its incidence, are also discussed in this report. These include:

- the re-direction of our focus from firearms towards examining the increasing use of “other weapons” to commit armed robbery;
- the need for in-depth research with multivariate analyses to unravel the complex reasons associated with increases in the use of “other weapons”; and
- a coordinated effort towards improvements in data quality and breadth of information collected—answers to many of the questions raised relating to weapon use and armed robbery will remain unanswered unless the data issues are first addressed.

Background

At the Senior Officers' Group¹ Meeting held in Sydney on 22 April 1999, resolution 7.6(D) was passed. It read:

NATIONAL FIREARMS MONITORING PROGRAM (NFMP)

SOG resolved that in order to better understand the use of weapons in the commission of crime, jurisdictions agree to supply data to the Australian Institute of Criminology (AIC). AIC will contact all jurisdictions to identify the range of offences, the weapons used, and the frequency of collection.

Shortly thereafter, the AIC wrote to all police commissioners requesting their cooperation for a pilot project to examine the feasibility of broadening the AIC's data collection beyond firearms. Realising the complexity of such a study, the AIC confined the parameters of the study to examining only the crime of armed robbery. This study became known as the Armed Robbery Pilot Project. All Australian State and Territory police services generously supplied armed robbery data to the AIC. This report is the end product of the analyses of the data provided by each State and Territory police service.

¹ The Senior Officers' Group (SOG) comprises the police commissioners of the States and Territories, New Zealand and the Australian Federal Police, the Secretary to the Victorian Department of Justice, the Director-General of the New South Wales Ministry of Police, the Chief Executive of the Australian Capital Territory Department of Justice and Community Safety, and the General Manager of Criminal Justice and Security, Commonwealth Attorney-General's Department. The SOG meets at least twice a year to discuss agenda items, in order to promote a coordinated national response to law enforcement issues and to maximise the efficient use of police resources (MCAJ Secretariat 2001).

Introduction

For the purposes of this report, robbery is defined as:

the unlawful taking of property, without consent, under confrontational circumstances from the immediate possession, control, custody or care of a person, accompanied by force or threat of force or violence and/or by placing the victim in fear.

(ABS 1999, p. 126)

There are two categories of robbery:

- armed robbery—defined as “robbery conducted with the use of a weapon” (ABS 1999, p. 126); and
- unarmed robbery—defined as “robbery conducted without the use of a weapon (ABS 1999, p. 126).

Conceptually, the offence of robbery is positioned along the crime continuum between property crime and violent crime (Matthews 1996, p. 1). In some cases, the act of robbery actually results in the most extreme form of crime—homicide. For example, each year about nine per cent of all homicide incidents occur during the course of a robbery in Australia (this equates to about 26 incidents of robbery–murder per year) (Mouzos 2000). While robbery–murder is a relatively infrequent occurrence in Australia, armed robbery accounted for the fourth most common offence committed against a person in Australia in 1999. Also, the overall rate of robbery and armed robbery has increased dramatically in recent years. In 1993, Australia recorded an armed robbery rate of 30 victims per 100,000 population. In 1999, the national armed robbery rate increased to 50 victims per 100,000 population (with a rate of 30 per 100,000 if the victim was recorded as a person) (ABS 2000a). This dramatic increase in the rate of armed robbery appears to have been driven by an increase in the use of “other weapons” to commit armed robbery. The use of firearms, on the other hand, appears to have declined over this period, raising the possibility that firearms are being substituted by other types of weapons in the commission of armed robbery (see Mouzos 1999).

Most research into armed robbery has focused on the use of firearms. While this focus may seem justified in the past where firearms were used in two out of five armed robberies in Australia (ABS 1994), nowadays firearms are used less frequently. About 15 per cent of all armed robberies were committed with a firearm in 1999. This suggests that the focus for Australian research should be directed at examining the use of “other weapons” in armed robbery (Ogilvie 2000a, 2000b).

The limited attention given to the use of “other weapons” during an armed robbery has significant implications for justice system policy development and implementation.

(Ogilvie 2000a, p. 13)

Further research is required to address the growing concern of the use of “other weapons” in armed robbery, and how new policy initiatives can impact on the reduction of the use of “other weapons” to achieve an overall reduction in the rate of armed robbery in Australia. Research is required to examine which particular weapons are driving the increase in armed robbery, and the reasoning behind an offender’s choice of one weapon over another. This will allow more informed decisions to be made regarding the prevention of armed robbery, and the concentration of prevention efforts where required.

Overview of Research

Methodologies primarily used to study the behaviour of robbery offenders involve the extraction of data on robbery offenders from official records and files, and the interviewing of persons convicted of one or more robbery offences. Such interviews are usually carried out with offenders who are serving time in prison. The AIC conducted interviews of armed robbers in the late 1980s (Nugent et al., 1989). For the present study, the AIC will rely on official records and files. A review of the research on armed robbery has identified a number of substantive issues.

Type of Weapon Used in Armed Robbery

Research on armed robbery has consistently identified a firearm as the most commonly used weapon, although differences based on the type of target were noted. An Australian study that involved interviewing 23 convicted multiple armed robbers in New South Wales found that about half of the armed robberies committed against commercial premises were committed with a firearm. In contrast, robberies of a personal nature were more likely to be committed with a weapon other than a firearm (70 per cent of all armed robberies). In addition, the study found important variations in the incidence and types of weapons used in commercial robberies. For most categories of commercial target, the majority of robberies involved a firearm (with the exception of shops and taxis). Few robberies of banks, building societies or betting shops (TABs) involved weapons other than firearms. In most other commercial targets the use of knives and other weapons was common (New South Wales Bureau of Crime Statistics and Research 1987).

Similar findings were noted by Kapardis (1989) who interviewed 100 convicted armed robbers in Victoria and found that the majority of armed robbers used a firearm (66%), and shots were fired in 26 per cent of those incidents. In 1989, the AIC examined robbery from the offender's perspective.² In this study, 110 convicted robbers, both male and female, were interviewed in New South Wales, Queensland and Victoria. Additional

² A copy of the report can be obtained from the AIC web site at <http://www.aic.gov.au/publications/armedrobbery/index.html>.

perspectives were also sought from robbery victims, police officers and bank security staff. This study reported that weapons appeared to be an integral part of robbery, with the majority of robberies committed with a weapon (92.7%). Of the 29 robbery offenders who targeted a bank, 24 carried a firearm and none carried a knife (Nugent et al., 1989). However, knives were more popular with other types of robbery offender, although firearms remained the most favoured choice of weapon.

In terms of the type of firearm used, the study reported that rifles were the most common type of weapon, followed by shotguns. Then followed imitation firearms, automatic pistols and air rifles. In 40 of the robberies examined, the firearms (either shotguns or rifles) had been modified prior to the robbery. Most of the modifications involved the barrel of the firearm being sawn off, however one interviewee reported that they had added a pistol grip on a shotgun, because “it made it easier to handle” (Nugent et al., 1989, p. 38). Other reasons provided for modifying firearms included: “it made the firearm easier to conceal” and “it made the weapon look more threatening” (Nugent et al., 1989, p. 38).

Overseas research confirms Australian findings on the most common weapon chosen to commit armed robbery. Macdonald (1975) interviewed 1,000 armed robbers and their victims in Denver, Colorado, while spending time with the robbery squad of the Denver Police Department over a three-year period. He found that in 1971, over 82 per cent of the 1,000 armed robbers in the study used a firearm. A further 1.6 per cent of the robberies were known to have involved simulated possession of handguns, while 9.2 per cent of offenders claimed or pretended that they were in possession of a handgun. Macdonald noted that offenders who claimed to be in possession of a firearm were not always making false claims. Knives were reportedly used in fewer than 14 per cent of armed robberies and blunt instruments in less than four per cent of armed robberies. However, many of the armed robbers indicated that in some cases, persons were more fearful of a large knife than a firearm, although they did concede that “knives have serious disadvantages in dealing with several victims or in discouraging pursuit” (p. 61). In terms of the type of firearm used, over 75 per cent of the Denver armed robberies involved the use of a revolver, automatic pistol or simulated handgun.

Gabor et al. (1987) examined a total of 1,266 armed robberies committed in the Canadian province of Quebec, and interviewed 39 convicted armed robbers in the Canadian correctional system. Again, the most common weapon used to commit armed robbery was a firearm (72.1%), with a revolver being the type of firearm most often used. When used, the firearms tended to be real; simulated or imitation weapons were infrequently used. Interestingly, the authors found that firearms were somewhat more likely to be used when more than one offender was involved in the armed robbery.

Gill and Matthews (1994) reported similar findings to other research that examined weapon use by armed robbers. After interviewing 341 British prisoners convicted of the robbery of a commercial premise, they found that type of weapon used varied according to the target selected. Although a firearm was the most common weapon chosen regardless of the target, when a knife was used it tended to be in robberies of post offices and commercial premises. Rarely was a knife used when the target was a bank or “cash in transit”.

Bank robberies almost always involve guns or simulated guns. It is difficult to imagine an offender with a knife controlling a large number of employees and customers in a bank and eliciting rapid compliance.

(Gabor 1989, p. 65)

Reasons for the Choice of a Particular Weapon

A consistent theme emerged from the literature concerning the reasons why one particular weapon was chosen over another to commit the armed robbery. Previous research indicates that differences in weapon choice:

may reflect the different exigencies associated with robbing different types of premises—in particular, the differences in spatial characteristics and architecture and the related problems of asserting control over the situation.

(New South Wales Bureau of Crime Statistics and Research 1987, p. 36)

It is also important to mention that the existence of differing cultures of firearm use in different countries may also play a role in weapon choice.

Harding and Blake (1989) conducted a pilot research project designed to identify factors relevant to weapon use in Western Australia. They found that the majority of armed robbers interviewed who had used a firearm considered reasons associated with the management of the victim as “very

important” in their choice of weapon. These reasons included (Harding & Blake 1989, p. 27):

- “Enables offender to get the victim to do what you want.” (60.0%)
- “Enables offender to control victim.” (64.3%)
- “Prevents resistance by victim.” (66.7%)
- “Enables several people to be controlled at the same time.” (64.3%)

While intimidation of victims is an important element in armed robbery, it was also noted that there are other purposes served by the display or gesture of a firearm, knife or some other weapon:

Weapons provide an opportunity for the envious, the resentful and the sadistic to humiliate, injure or even kill their victims. There are many motives for the use of weapons, and the robber himself may not always be aware of all of the factors behind his use of force.

(Macdonald 1975, p. 135)

Weapons also serve as a powerful tool in the intimidation of victims. Macdonald (1975, p. 331) lists four main purposes for the intimidation of victims:

- to assure quick cooperation;
- to prevent resistance;
- to prevent pursuit; and
- to discourage victims from aiding the police and courts.

The purpose of weapons, and in particular firearms, in armed robbery is to elicit cooperation and to prevent resistance on the victim’s part. Nugent et al. (1989) found that the presence of a weapon and threat of its use were employed by robbers in order to “convince” victims to part with the money or goods in their possession.

Gabor et al. (1987) developed a typology of armed robbers (although it was based on a sample of only 39 offenders). The authors divided the sample of armed robbers into four main groups: chronic, professional, intensive and occasional. Weapon choice was found to vary according to the “type” of armed robber:

- *chronic* armed robbers regularly carried firearms (which were always loaded) and used them in one out of five robberies;
- *professional* armed robbers tended also to be well armed (sometimes with automatic weapons), they fired their weapons less often than chronic armed robbers (one out of 10 robberies) and sometimes took hostages;

- *intensive* armed robbers generally used non-lethal weapons, which were infrequently put to use, and they were sometimes armed with firearms (always loaded) which were never used; and
- *occasional* armed robbers were armed with firearms (sometimes loaded) which were never used.

More recently, Gill (2000) re-analysed the data obtained from the 341 interviews with offenders convicted of robbery of a commercial establishment in England and Wales. Recalling some of the findings from previous research, he reported that the primary consideration of the robber is to control the environment in which the robbery is taking place.

Taking control meant ensuring that potential “have-a-go-heroes” were kept at bay and that those who were in possession of the money or goods, that is the victims, complied with their demands.

(Gill 2000, p. 83)

Taking a weapon, especially a firearm, was seen by the offenders as a way not only to control the environment but also to reduce the chances of injury. However, there was also a clear indication that many of the robbers who admitted taking a weapon, specifically a firearm, claimed that the firearm was incapable of firing a lethal shot, either because the firearm was not loaded with live ammunition or it was not loaded at all. Whether the firearm was loaded or not and capable of firing varied also from target to target. Apparently, the more professional and organised robbers (that is, those who targeted banks and “cash-in-transit” [armoured cars]) were more likely to carry firearms that were loaded.

Gill (2000, p. 84) also noted a striking finding from many of the interviews conducted: the ease with which many firearms were obtained.

Thus while legal controls may have some effect on the slippage of guns into the black market, they are not likely to have a dramatic impact on reducing the use of guns in robbery...Perhaps a better approach would be to tackle the illegal trafficking of firearms.

Choosing a Firearm versus Some Other Weapon

Another issue identified in the research on armed robbery was the differences associated with the decision to use a firearm as opposed to some other weapon. The Australian research by Harding and Blake (1989) noted that firearm robbers were also significantly more likely than other robbers to

have planned their crime and also to have made some check of crime scene arrangements. In addition, they were significantly more likely to have given thought to the implications of being caught—“something that most other robbers hardly seemed to weigh in the balance at all” (Harding & Blake 1989, p. 25).

They also reported that robbers armed with a weapon other than a firearm, such as a knife:

had made at least a passive choice not to use a gun; i.e., their decision had not simply been forced upon them by circumstances, but rather they had turned their backs on the possible opportunity of using a gun in their crimes. (Harding & Blake 1989, p. 28)

A number of other reasons seemed to differentiate those who chose a knife over a firearm to commit robbery. According to Harding and Blake (1989, p. 29), a substantial number of the knife-user group thought that:

- they would not trust themselves with a gun;
- someone might get hurt if they had one; and
- they themselves were more likely to get hurt by police.

Most importantly, however, in terms of evidence demonstrating rational choice by armed robbers is the finding that slightly more than half of knife users indicated that they would get a harsher sentence if caught if they used a firearm. In other words, those robbers who *chose* to use a knife instead of a firearm considered the likely outcomes if they were to be apprehended, and opted for an “inferior weapon” such as a knife.

Clearly this research suggests that robbers who choose to use a weapon other than a firearm are:

different from gun robbers in that they contemplate the operational possibilities and risks of gun use and decide not to take them, whereas gun robbers having contemplated those risks decide nevertheless to take them. (Harding & Blake 1989, p. 30)

Wright and Rossi (1986) used self-administered questionnaires to sample about 2,000 convicted and incarcerated felons in the United States during the period August 1982 to January 1983. Of relevance to the present study were the findings relating to the motivations of felons to carry a firearm as opposed to some other weapon. The sampled felons reported that the single most important reason why they decided to carry a firearm while doing

crime was “If you carry a gun your victim doesn’t put up a fight, and that way you don’t have to hurt them” (p. 129). This motive was considered “very important” to 57 per cent of the firearm-using criminals, and the most commonly mentioned motive (out of a possible 14) by a fairly substantial margin.

One predominant motive to go armed was clearly to minimise the “hassles” from victims that a felon might otherwise encounter and, hence, to maximise the chances that the crime would be successfully completed. (Wright & Rossi, p. 130)

“Big, ugly guns” such as 9MMs or .45s were the best weapons for inducing cooperation. The bigger gun has more of a tendency to intimidate the victim and lessen the chance of them trying to [resist]. A person’s gonna fear any kind of gun you put in their face. So it don’t matter [what you use]. If it’s a gun, it’s gonna put fear in you. (Wright & Decker 1997, p. 105–6)

Not surprising—given that this study was undertaken in the United States—was the finding that the second most important reason indicated for the decision to carry a firearm was “There’s always a chance my victim would be armed” (deemed “very important” to 50 per cent of gun-carrying felons) (Wright & Rossi, p. 130).

The important point to be made from these results is not that one or the other of these was the single most important motive for a felon to carry a gun, but rather that guns were important because they allowed for the commission of crimes with minimum trouble from victims and maximum security for the felon...a man who has decided to maximise his chances of survival has obviously made a rational choice. (Wright & Rossi 1986, p. 131)

On the other hand, motivations from non-firearm-carrying felons appeared to be relatively similar to the motivations held by felons who did carry a firearm, although Wright and Rossi (1986) note that all the possible motives for carrying were generally less important to the non-firearm-carrying respondents than to the firearm criminals. Nonetheless, “men who carried weapons other than guns...do so for pretty much the same reasons that gun-carrying felons carried firearms—a combination of efficiency and protection” (Wright & Rossi 1986, p. 132). In other words, it seems that “the motives for carrying guns...were more sharply crystallised—more fervently

held, as it were—than the motives for carrying other weapons” (Wright & Rossi 1986, p. 131). Interestingly, it was found that the decision not to carry a weapon had little, if anything to do with availability, knowledge or price. The least important of all factors asked about was “A good [gun or weapon] just costs too much money”; this factor was said to be “not at all important” by about three-quarters of both relevant groups.

These findings were further confirmed by Morrison and O’Donnell (1994) who examined armed robbery in London. They focused on armed robberies committed with a firearm, or what appeared to be a firearm, or where the offender had given the impression, through their actions and the contents of written or verbal demands, that they possessed a firearm, even though one had not actually been seen. In addition to reviewing 1,134 files held at the Metropolitan Police General Registry, they also carried out interviews with 88 incarcerated armed robbers.

Included as one of the choices that robbers need to make before they embark upon an armed attack is the kind of weaponry they would require for the offence. In the previous research reviewed, reasons for choices differed among robbers who went armed with a firearm, in comparison to those who chose another weapon. Morrison and O’Donnell (1994) found that there were also motivational differences between those who chose to use a real firearm, or an imitation/replica, or those who relied on a bluff. They also found that the choice of weapon “was related to both the task to be undertaken and the offender’s social, psychological and material resources”. In other words, “robberies carried out by real gun users had some distinctive characteristics and were likely to be carried out by persons with certain traits” (p. 61).

Variations in weapon choice were found to be associated with target choice as well. For example, Morrison and O’Donnell found that security vans were never attacked by robbers armed with anything other than at least one real and loaded firearm, whereas building societies were most frequently targeted by robbers carrying replicas or simulating the possession of a firearm.

Many robbers believed a real firearm was an essential tool for the kind of target they planned to raid. They believed that in certain circumstances it might be necessary to fire their guns and therefore anything other than a genuine loaded weapon would not be adequate.

(Morrison & O’Donnell 1994, p. 90)

Another notable difference between those who used a real firearm as opposed to an imitation or an implied weapon reported in the study was that those robbers who used real firearms had made more elaborate preparations for the commission of the offence—most of them wore a disguise, coordinated their activities with at least one accomplice and devised complex methods of escape (p. 91).

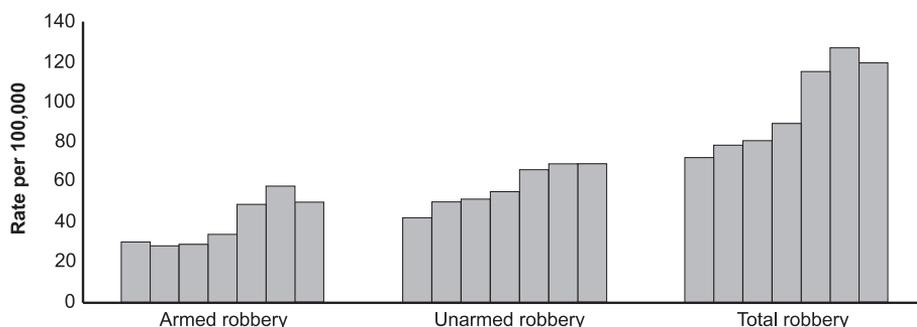
Overall, this review of the substantive issues raised by previous research suggests that there are motivational differences associated with weapon choice in armed robbery. Victim management, target selection, preparation, perception of increased penalties/sanctions for use of a firearm and availability are some of the myriad reasons that an offender may consider when making the decision to use a particular weapon to commit armed robbery. Research also suggests that there are differences not only in the decision to carry a firearm as opposed to some other weapon, but also in the decision to carry either a loaded firearm that is capable of firing, or a firearm that is incapable of firing.

The discussion that follows presents a national overview of armed robbery in Australia using official statistics, and aims to examine trends and patterns of armed robbery to determine whether there have been any changes over time.

Robbery in Australia: Armed versus Unarmed

There were 22,590 victims³ of robbery recorded by police in Australia in 1999. This is 5.1 per cent fewer than in 1998, when there were 23,801 victims of robbery. Despite the recorded decrease in the number of victims of robbery in 1999, an examination of earlier years paints a different picture. From 1993 onwards, Australia has experienced a yearly increase in the rate of robbery (Figure 1). In 1993 the national robbery rate was 72 per 100,000 persons. This rose to a rate of 89 per 100,000 persons in 1996, and then peaked at a rate of 127 per 100,000 persons in 1998. These increasing trends occurred both in the rates of armed and unarmed robbery, although greater increases were observed in the rates of armed robbery (most evident in the years 1997 and 1998).

Figure 1: Armed, unarmed and total robbery in Australia, 1993–1999



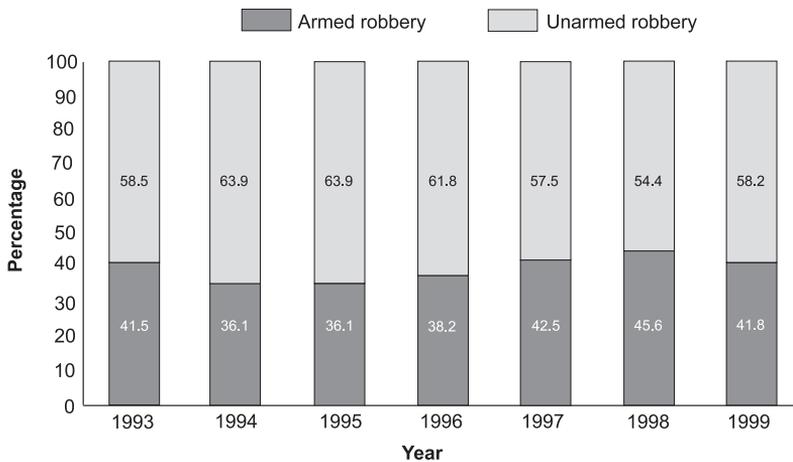
Source: Adapted from *National Crime Statistics* (ABS 1994–1996) and *Recorded Crime Australia* (ABS 1997–2000).

In 1993, Australia recorded an armed robbery rate of 30 and an unarmed robbery rate of 42 victims per 100,000 persons. Five years later, in 1998, the armed robbery rate in Australia peaked at 58 per 100,000, with an unarmed rate of 69 per 100,000. In 1999, the armed robbery rate declined to 50 per 100,000, whereas the unarmed rate remained the same (69 per 100,000) (ABS

³ Persons and organisations.

2000a). Proportionately, about 60 per cent of robberies committed in Australia are committed with no weapon (Figure 2). In 1999, 58.2 per cent of the total number of robberies were unarmed, approximately the same percentage recorded in 1993. It also seems that the distribution of armed and unarmed robberies between 1993 and 1999 has remained remarkably stable despite the overall increase in incidence.

Figure 2: Percentage of armed and unarmed robbery of total robberies in Australia



Source: Adapted from *National Crime Statistics* (ABS 1994–1996) and *Recorded Crime Australia* (ABS 1997–2000).

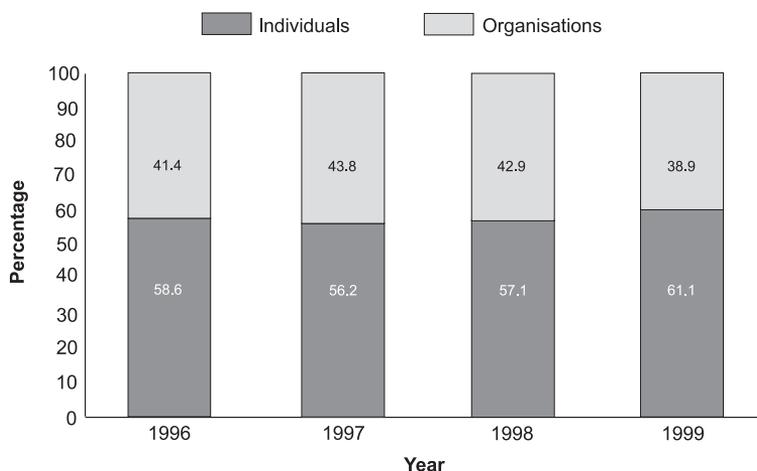
National Overview of Armed Robbery

Individuals and Organisations

There are two principal types of armed robbery—street/personal robbery and commercial robbery. Both are linked through the fact that they involve the (attempted) taking of money and goods with the use of force, although they are contrasting types of crime in terms of the victims and the offenders involved (Matthews 1996, p. 1). The most common targets of street robberies are individuals, whereas the targets of commercial robberies are businesses and financial institutions; in other words, “organisations”.

To reiterate, in Australia there were 9,439 victims of armed robbery in 1999. Sixty-one per cent of those victims (that is, the owners of the property) were individuals, and 39 per cent were recorded as organisations (such as a bank). The distribution of individuals and organisations as victims of armed robbery has remained relatively unchanged between 1996 and 1999 (Figure 3).

Figure 3: Victims (individuals and organisations) of armed robbery in Australia

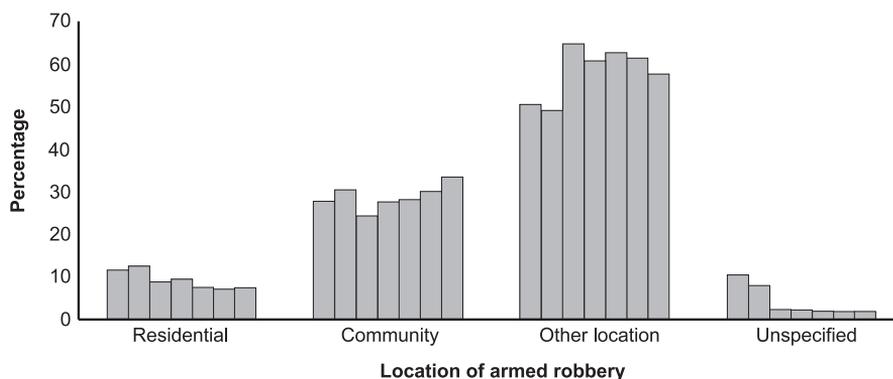


Source: Adapted from *National Crime Statistics* (ABS 1994–1996) and *Recorded Crime Australia* (ABS 1997–2000).

Location of Armed Robbery

Official statistics indicate that armed robbery mostly occurs in a location other than a residential or community setting (Figure 4). Armed robberies committed in a location defined as “other” increased from 50 per cent in 1993 (n=2,462) to 62 per cent in 1998 (n=6,645) and 58 per cent in 1999 (n=5,427).⁴

Figure 4: Location of armed robbery in Australia, 1993–1999



Source: Adapted from *National Crime Statistics* (ABS 1994–1996) and *Recorded Crime Australia* (ABS 1997–2000).

In 1993, 1,473 armed robberies occurred in a community location. This doubled in 1999 to 3,146. Proportionately, about 30 per cent of armed robberies each year are committed in a location classified as “community” (where the primary activity is the provision of services/facilities for public use; ABS 2000a). In comparison, residential armed robberies decreased from 12 per cent in 1993 to seven per cent in 1999.

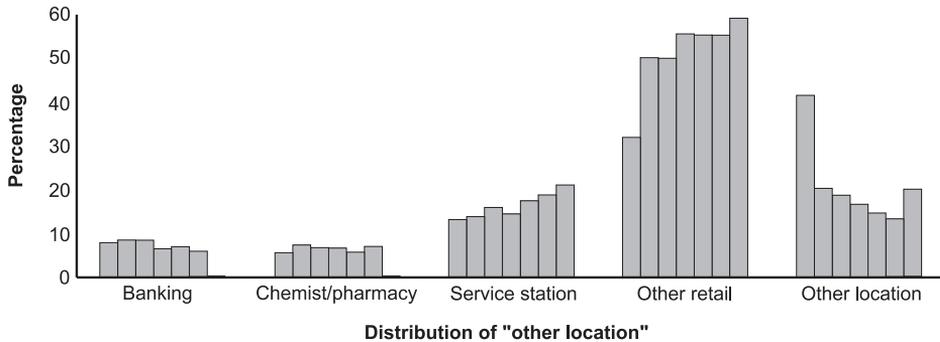
The observed increase in the contribution of “other location” to total armed robberies was associated with increases in the robbery of service stations, other retail establishments⁵ and other locations⁶ (Figure 5). Armed robbery of service stations has also increased marginally. In 1993 there were 349 armed robberies of service stations. Six years later, in 1999, this figure rose to 1,138.

4 “Other location” includes administrative/professional, retail (chemist/pharmacy, service station), wholesale (selling goods to commercial enterprises), warehouse/storage, manufacturing, agricultural, recreational and other locations (those locations that cannot be classified to any of the previous types of locations).

5 Where the primary activity is the selling of goods or the provision of services for personal/household use (ABS 2000a).

6 Such as those classified as wholesale, warehousing/storage, manufacturing, agricultural, recreational and “other location n.e.c.” (the type of location is specified but cannot be classified into any of the other location categories; ABS 2000a, p. 129).

Figure 5: Armed robbery by specific location in Australia, 1993–1999



Note: Data for 1999 are not available for the specific location of "banking" or "chemist/pharmacy".

Source: Adapted from *National Crime Statistics* (ABS 1994–1996) and *Recorded Crime Australia* (ABS 1997–2000).

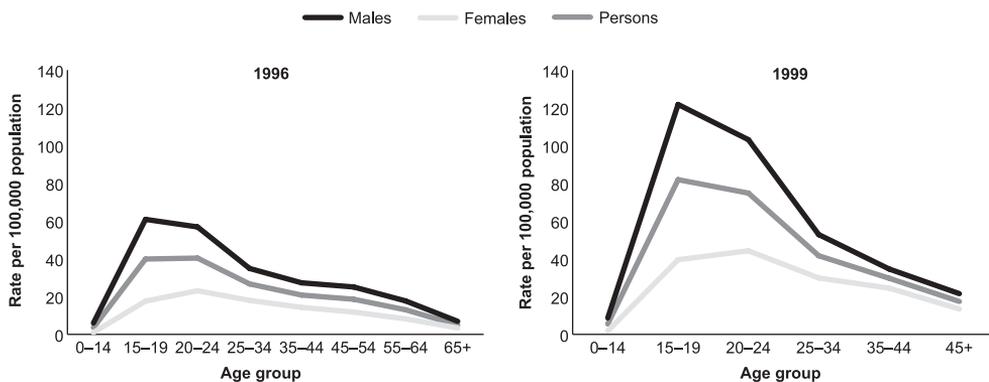
These findings seem to suggest that with increased target hardening, such as a reduction in counter cash by financial institutions and commercial properties, offenders may be turning to more accessible targets. Research also shows that some of today's robbers are generally satisfied with, and are prepared to commit robbery for, very small amounts of money. "Thus, with regard to reducing the financial incentive to rob, there does not appear to be a simple or satisfactory solution" (Morrison & O'Donnell 1994, p. 182).

These findings also suggest the possibility of displacement (that is, a shift towards more vulnerable targets) from banks and building societies to softer targets, particularly shops and service stations. "The likelihood and extent of displacement may be affected by the offender's commitment to armed robbery and the availability of alternative, less well protected targets" (Matthews 1996, p. 7). The possible displacement from banks and building societies/credit unions to other more easily accessible targets such as service stations can reasonably be assumed to be a result of the more sophisticated measures introduced by many banks—rising security screens, video cameras and double security doors make these targets less appealing to armed robbers.

Age Distribution of Victims (Individuals) of Armed Robbery

Males aged 15 to 19 years continue to be most at risk of armed robbery victimisation in Australia (Figure 6). In 1996, males aged between 15 and 19 had the highest armed robbery victimisation rate (with a rate of 60.9). This age group also experienced the highest rate of victimisation in 1999. In contrast, the risk of armed robbery for females is greatest between the ages of 20 and 24 years (with a rate of 23.1 in 1996, and with a rate of 44.3 in 1999).

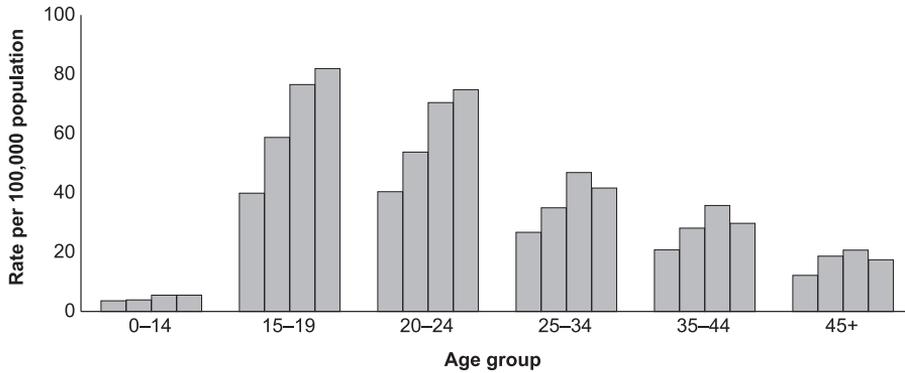
Figure 6: Victims of armed robbery by gender and age group in Australia



Note: Data for 1999 do not provide separate figures for individuals aged 45 years and over.
 Source: Adapted from ABS *Recorded Crime Australia* 1997, 2000.

Comparatively, the age group with the highest victimisation risk of armed robbery is the 15–19-year-old group. From 1996 to 1999, this age group has had the highest rate of armed robbery victimisation (Figure 7). It is interesting to note that although the overall rate of armed robbery victimisation declined in 1998 compared to 1999, not all age groups experienced a decline. For example, persons aged between 15 and 24 recorded a higher victimisation rate for armed robbery in 1999 compared to 1998. In contrast, the armed robbery victimisation rate for persons aged between 25 and 45+ declined in 1999 compared to 1998.

Figure 7: Victims of armed robbery by age group in Australia, 1996–1999



Source: Adapted from ABS *Recorded Crime Australia 1997–2000*.

It is uncertain, however, whether the increases in armed robbery victimisation of persons aged 15 to 24 years are a function of increases in *actual* victimisation or increases in the reporting of armed robberies to law enforcement. According to the latest findings from the 2000 International Crime Victims Survey, there has been an increase in the percentage of robberies reported to the police. In 1989, 52 per cent of robberies were reported to the police, compared with 53 per cent in 1992 and 60 per cent in 2000 (van Kestern, Mayhew & Nieuwbeerta 2001).

National Overview of Weapon Use in Armed Robbery

The Australian Bureau of Statistics (ABS 1999, p. 131) defines a weapon as:

any object used to cause injury or fear of injury. It also includes imitation weapons and implied weapons (e.g., where a weapon is not seen by the victim but the offender claims to possess one). Parts of the body such as fists or feet are not included.

For national crime statistics, such as *Recorded Crime Australia*, data on weapon use are categorised according to three main types of weapon:

1. Firearm

A firearm is any potentially lethal, barrelled weapon from which any shot, bullet or other missile is able, or appears able, to be discharged. This includes but is not limited to: pistol; revolver; rifle; automatic/semi-automatic rifle; shotgun; military rifle; airgun; nail gun; cannon; imitation firearm; implied firearm. This excludes bow and arrow; crossbow; spear gun; blowgun.

2. Other weapon

This includes any instrument or substance, other than a firearm, capable of inflicting damage, injury or death. This includes but is not limited to: knife; sharp instrument; blunt instrument; hammer; axe; club; iron bar; piece of wood; syringe/hypodermic needle; bow and arrow; crossbow; spear gun; blowgun; rope; wire; chemical; acid; explosive; vehicle; other dangerous article; imitation weapon (excluding firearm).

3. Weapon not further defined

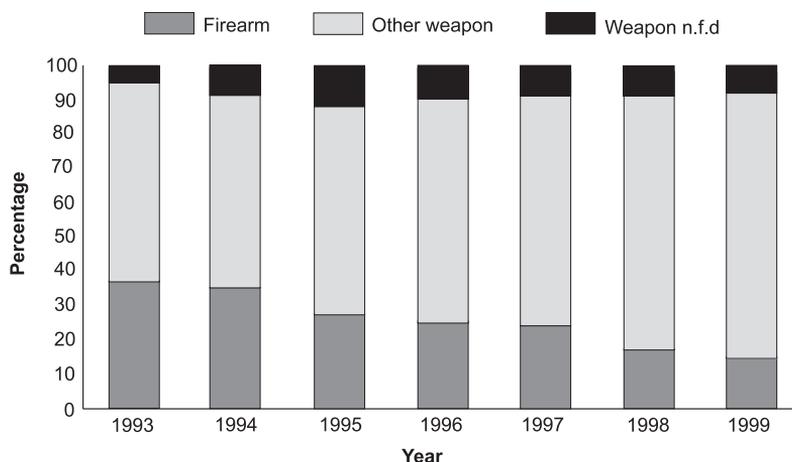
When a weapon is used, sighted or implied during the commission of the offence but the nature of the weapon is unknown or cannot be identified.

In terms of the weapons used (categorised by the ABS as “weapon not further defined”, “firearm” and “other weapon”) in armed robbery, weapons that fall within the “other weapon” category are the most commonly used. This trend has remained consistent between 1993 and 1999 (Figure 8). The proportion of armed robberies committed with “other weapons” has increased over this period. In 1993, 58 per cent of armed

robberies in Australia were committed with “other weapons”. This increased to 76 per cent in 1999 (Figure 8). On the other hand, armed robbery committed with a firearm has decreased substantially over the same period. For example, in 1993, 38 per cent of armed robberies were committed with a firearm. However, in 1999 only 15 per cent of armed robberies involved the use of a firearm.

There are a number of noteworthy trends that have occurred in armed robbery and weapon use. Overall, the incidence of armed robbery between 1993 and 1998 in Australia has increased, more so after 1996. However, as firearm use in armed robbery over the six-year period has declined, the rise in armed robbery in Australia has been driven primarily by a substantial increase in the use of “other weapons” (Figures 8 and 9). The use of “weapons not further defined” has remained relatively stable over the six-year period (Figure 8). These findings suggest the possibility that firearms are being substituted by other weapons in the commission of armed robbery in Australia. It is also important to mention that during the period under review, the Australian Government introduced the National Firearms Agreement (also known as the “Nationwide Agreement on Firearms”) during early May 1996 and by mid-1997 each State and Territory had implemented legislation prohibiting certain types of firearms and limiting access to and ownership of firearms for unsuitable persons (see Mouzos 1999 for an overview). The implications of this legislation are that access to

Figure 8: Weapon use in armed robbery in Australia

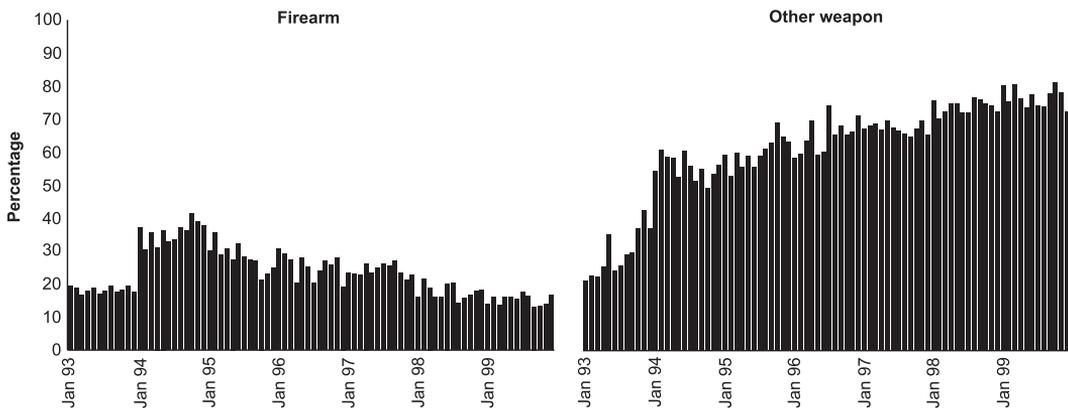


“Weapon n.f.d.” = Weapon not further defined

Source: Adapted from *National Crime Statistics* (ABS 1994–1996) and *Recorded Crime Australia* (ABS 1997–2000).

firearms *via legal means* for unsuitable persons has been limited. Whether this has any bearing on the fact that firearms are being used less often in the commission of armed robbery has yet to be examined.

Figure 9: Weapon use in armed robbery in Australia, 1993–1999



Source: Adapted from unpublished ABS monthly recorded crime data, 1993–1999.

Knives and “Other Weapons” in Armed Robbery

Recent AIC research suggests that the increase in the use of “other weapons” in armed robbery may be driven by an increase in the use of knives (Ogilvie 2000b).

This research raises a number of important questions, such as:

- whether knife robbers and firearm robbers do in fact have different motivations;
- whether they rob in different locations; and
- whether they are pursuing different rewards (money or drugs) (Ogilvie 2000b, p. 5).

These “are critical questions that still need to be answered if we are to improve our capacity to develop effective and appropriately targeted crime prevention strategies” (Ogilvie 2000b, p. 5).

Summary of National Overview

An examination of national crime statistics on armed robbery in Australia between 1993 and 1999 suggests that the increases in armed robbery since 1993 (despite the recorded decrease between 1998 and 1999) have been driven by increases in the following:

- target locations—particularly “other locations” such as service stations and other retail locations;
- persons aged between 15 and 24 consistently recording higher victimisation rates for armed robbery, and continuing to do so in 1999 despite other age groups recording a decline in victimisation rates compared to 1998; and
- use of other weapons.

These findings reinforce the need to further examine the role of weapons in armed robbery.

In summary, Australian research into crimes where a weapon is used must expand its focus beyond traditional debates concerning firearms. This would allow us to better examine and better address the role of weapon use, both in violent crime in general and armed robbery in particular (Ogilvie 2000a, 2000b).

The Current AIC Study

As outlined at the beginning of this report, the present study arose out of a need to examine the feasibility of expanding the National Firearms Monitoring Program's collection to include other weapons. A number of interesting trends have emerged as a result of an examination of national crime statistics. These results have prompted us to examine further the issues associated with weapon use in armed robbery based on the data provided by each State and Territory. In brief, our main aim is to provide a situational analysis of armed robbery in Australia, and to determine whether weapon use varied according to location of the incident (target selection) and sociodemographic characteristics of victims and offenders.

In response to whether any jurisdiction had any specific aspects that they sought to have examined in the study, the Queensland Police Service indicated that it would appreciate further information in relation to:

- the levels and type of injury commonly associated with various categories of weapons;
- the reported decrease in the use of firearms in armed robberies—has there in fact been a decrease in the use of firearms and, if so, has there been a corresponding increase in the use of other weapons?;
- the preferred weapons currently associated with armed robberies; and
- how often firearms are modified to be concealable weapons used in armed robberies.

Northern Territory Police, Fire and Emergency Services also expressed an interest in the types of questions posed by the Queensland Police Service. New South Wales, however, were interested in the impact of the introduction of tighter laws in relation to the possession of knives—through the *Crimes Legislation Amendment (Police and Public Safety) Act 1998*—upon the frequency and nature of armed robbery offences.

More specifically, the AIC also sought to examine the following three questions:

- Are there differences in weapon use based on the type of victims involved in armed robbery? (It is anticipated that armed robbery

perpetrated on organisations would be more likely to involve a firearm than armed robberies committed on individuals.)

- Do situational factors associated with armed robbery influence the type of weapon most likely to be used by an offender?
- Why are “other weapons” being used more often in armed robbery? This last question will allow us to examine whether the dramatic increase in armed robbery and the use of other weapons can be explained as resulting from changes in recording practices, decreased availability of firearms and/or substitution, offenders’ motivations or an overall general increase in crime in society.

Based on available data, the current AIC study was restricted as to the type of analyses which could be undertaken. It was not possible to examine level and types of injuries associated with armed robbery, whether firearms are commonly modified to be concealable weapons in armed robbery, and why other weapons are being used more often in armed robbery. Furthermore, the data did not allow for an assessment to be made of the impact of tougher laws in relation to possession of knives. The fact that these questions remain unanswered suggests that there is a real need for further research into armed robbery in Australia, and more rigorous analysis of unit record data.

Limitations and Methodological Issues

Prior to a discussion of the findings of the AIC study, it is first important to discuss some of the methodological issues/problems that hindered our situational analysis of weapon use in armed robbery in Australia. First and foremost, the main problem encountered was the lack of consistency in the variables that each State and Territory police service provided. Although the same variables were requested of all jurisdictions, only some were able to supply the complete set of requested variables. This limited the type of analyses we were able to undertake. The lack of comparability between each State and Territory was a significant limitation to research. A number of methodological factors limited comparisons between jurisdictions. These include counting and recording practices, variations in the definitions of weapons other than firearms, and the verification of the actual weapon used to commit the armed robbery. Each of these factors are discussed in turn.

During the period covered in the study, a number of changes to counting and recording practices were made to systems used by some State and Territory police services. For example, in December 1994 the Queensland

Police Service introduced a new statistical system. The New South Wales Police Service introduced a new incident-based reporting system in the same year. Since then victims of robbery have included trauma victims as well as victims suffering financial loss. The ABS (1996, p. 60) notes that “as a result it is not possible to compare New South Wales and Australia robbery statistics between 1994 and 1995”. In addition, in May 1999, the Northern Territory Police Service introduced a variant of the Police Realtime Online Management and Investigation System (PROMIS), replacing the Crime and Property System (CAPS). As a result of changes in recording procedures, there are difficulties regarding the extraction of robbery victim counts for incidents involving multiple victims of the same offence category in the Northern Territory. Therefore, victim counts for robbery are not directly comparable with previous published data and with other States and Territories (ABS 2000a). These changes consequently impact on our ability to undertake comparisons between jurisdictions.

Previous research (see Ogilvie 2000a, 2000b) has revealed that definitions of what constitutes “other weapons” vary across jurisdictions. For example, for the definition of knife, Victoria Police use the specific category of “knife” in their recorded offences. In comparison, New South Wales include “knife” as a combined category with “sword, scissors, screwdriver”. South Australia uses the category of “knife/machete”. A lack of standardisation and comparability creates real difficulties for any investigation of the role that specific weapons play in specific crimes (Ogilvie 2000a, 2000b).

Another limitation is the fact that in many cases there is no verification as to whether the type of weapon recorded was actually the type of weapon that was used. This is especially problematic when a weapon is implied but not actually seen by the individual victim. The majority of studies reviewed actually interviewed offenders of armed robbery, and did not rely solely on victim accounts as to the type of weapon used. As the current study relies solely on victim-based reporting of weapon use, there is no method of verifying the weapon actually used by the offender.

It is important to emphasise that the following empirical analyses are based **only** on the data supplied to the AIC by each State and Territory police service. Therefore, the types of analysis undertaken were limited by what could feasibly be conducted with the data at hand.

Empirical Analysis

The results discussed in previous sections suggest that patterns of use of specific types of weapon may vary with the location and timing of armed robberies, as well as with the attributes of victims and offenders. This section discusses the findings from an analysis aimed at explaining variations in the type of weapon involved in the armed robberies recorded by police.

The Data

Each State and Territory police service provided data to the AIC for the purposes of the current study. The main characteristics of the armed robbery data are outlined in Appendix 1. An examination of this data revealed that there were substantial jurisdictional differences in terms of the contents of the collections. In order to undertake the analyses required for the present study, an analysis file containing information that was comparable across the jurisdictions was derived from these data. This file included records for all the armed robberies that were recorded between 1996 and 1998.

The analysis file consisted of 16,235 records and contained data on fields relating to the following variables:

- weapon type;
- State/Territory;
- date and time of incident;
- location of incident;
- whether the victim was an individual or an organisation;
- age and gender of victim (when an individual); and
- age and gender of offender.

State and Territory police services provided the AIC with data on a total of 29,134 recorded incidents of armed robbery during the period from 1 July 1993 to 30 April 1999. Exclusion of incidents that occurred outside the period from 1 January 1996 to 31 December 1998, and incidents with problematic codes for weapon type, resulted in the final file containing 16,235 records. Information on the age and gender of offender was not available from all the

jurisdictions and when these fields were included in the files, information was missing for records corresponding to unsolved incidents. Data on age and gender of victims was available for all the jurisdictions, with the exception of the Australian Capital Territory. These variables were recorded for “person” victims only. It was therefore almost impossible to determine whether a record with missing age and gender information for the victim was missing because the victim was an “organisation” and not a “person”.

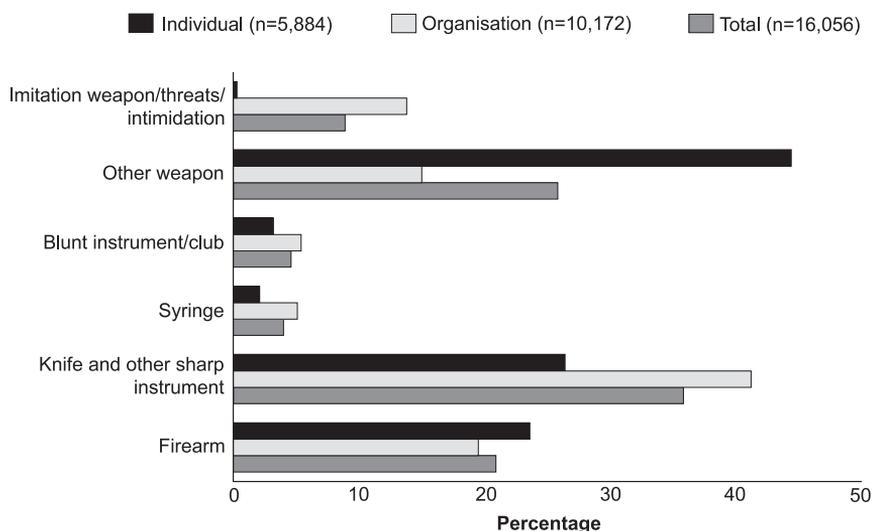
The Findings

Figure 10 shows the percentage distribution of armed robberies recorded during 1996–1998 by whether the victim was a person or an organisation, and the type of weapon used. When an incident had missing data on the gender of the victim, the assumption was made that the victim was an organisation. Robberies recorded in the Australian Capital Territory were excluded from this analysis, as their records did not contain information on the gender of victims.

It appears that knives were used more frequently in armed robberies perpetrated against organisations, and firearms were used more frequently in armed robberies of individuals (Figure 10). The relationship between the type of weapons used and the type of victims (individual or organisation) was not as direct as the data suggests. As previous research indicates, factors such as the location of the incident and other situational factors, as well as the attributes of potential targets and offenders,⁷ can all have an effect on the type of weapon used to commit the armed robbery. There are also important differences between the type of weapon and the type of victim (individuals and organisations) that are worth examining. Firearms and “other weapons” were more likely to be used in robberies perpetrated on individuals than on organisations. On the other hand, robberies where the victim was an organisation were more likely than robberies against individuals to involve the remaining types of weapons. These findings are contrary to expectations and may be the result of the effect that location of the incident may have on the choice and use of weapon by offenders.

7 A chi-squared test indicated that there was association between the type of victim and the type of weapon used in armed robberies ($p < 0.001$). Such association was not as strong as anticipated, as suggested by a modest Cramer’s V statistic of 0.39. This was confirmed by the results of an analysis based on the lambda statistic that indicated that using type of victim to predict type of weapon led to a 10 per cent reduction in error as compared to the case when the prediction is based on the marginal distribution of weapon type.

Figure 10: Weapon use in armed robbery by type of victim in Australia, 1996–1998*



* Excludes recorded armed robberies from the Australian Capital Territory.

Source: Australian Institute of Criminology, 2000, armed robbery unit record file, 1996–1998.

Table 1: Type of weapon used in armed robbery, by type of victim and location of incident^(a)

Location	Type of victim (%)		
	Individual	Organisation ^(b)	Total
Residential	*14.9	4.5	8.3
Street/footpath	*24.4	17.3	20.0
Open space/park	0.9	2.7	2.0
Transport-related/vehicle	4.5	3.5	3.9
Carpark	*1.3	0.2	0.6
Other community locations (school, hospital, etc.)	*1.1	0.4	0.7
Bank/credit union/building society	3.2	2.8	2.9
Offices	0.9	0.5	0.6
Chemist/pharmacy	0.4	*3.3	2.2
Service station	1.4	*12.1	8.1
Other retail locations	39.8	39.0	39.4
Licensed premise/hotel, motel/recreational	4.2	3.8	4.0
Other locations	1.9	*9.6	6.7
Not specified	1.1	0.3	0.6
Total (%)	100.0	100.0	100.0
Number of incidents	5,884	10,172	16,056

* p<0.01

(a) Excludes recorded armed robberies from the Australian Capital Territory.

(b) The term "organisation" encompasses a diverse range of businesses. Therefore, armed robberies where a victim is an organisation and it occurs in a street or footpath may refer to outdoor "organisations" such as portable food outlets, kiosks and so on.

Source: Australian Institute of Criminology, 2000, armed robbery unit record file, 1996–1998

The data in Table 1 show that robberies committed on individuals were more likely than those perpetrated against organisations to have occurred in the following locations:

- residential;
- street/footpath;
- carpark; or
- other community locations.

On the other hand, robberies where the victim was an organisation had a greater likelihood of occurring in the following locations:

- chemist/pharmacy;
- service stations; or
- other locations.

Robberies committed at locations such as an open space/park, transport-related/vehicle, bank/credit union/building society, office, other retail, or at a licensed premise/hotel were equally as likely to be perpetrated on individuals or organisations. These findings suggest that the type of weapon used to commit the armed robbery varied depending on whether the victim was an individual or an organisation, as well as the location of the incident. The following discussion examines how the type of weapon used varied according to the type of victim and the location of the armed robbery.

Table 2 outlines the differences in the types of weapons used to commit armed robbery at different locations and whether the victim was an individual or an organisation. When an armed robbery occurred in a residential location, incidents involving individuals were more likely than those where the victim was an organisation to involve “other weapons”. Knives or sharp instruments, blunt instruments and imitation weapons or threats were more likely to be used in residential robberies involving institutional victims rather than individuals (Table 2).

In comparison, armed robberies committed on a street or footpath against individuals were more likely than robberies with institutional victims to involve use of “other weapons”, but the latter are more likely than the former to involve use of a knife or sharp instrument and imitation weapons or threats. No significant differences were found between individual and organisational victims in the use of the other categories of weapon considered in this study (Table 2). Furthermore, armed robberies that occurred in open spaces or parks against institutional victims were more

Table 2: Armed robbery by location, type of weapon used and type of victim in Australia

	Residential location		Street/footpath		Open spaces/parks		Transport-related		Banks/credit union/building societies		Chemists/pharmacies		Service stations		Other retail locations	
	Ind	Org	Ind	Org	Ind	Org	Ind	Org	Ind	Org	Ind	Org	Ind	Org	Ind	Org
Firearm	24.4	25.4	11.6	10.9	11.3	4.4	4.5	7	*71.8	52.9	20	22.9	14.8	17.3	*27.9	19.9
Knife/sharp instrument	*17.3	34.2	*42.8	49.4	*16.9	54.3	*45.3	52.9	*9	16.1	*68	35.4	*60.6	43.6	*19	40.3
Syringe	0.2	1.3	2.5	2.7	0	1.9	3.4	3.6	**1.1	1.4	4	13.7	6.1	6.1	*2	5.7
Blunt instrument	*5.7	11.7	3.9	3.5	1.9	6.6	1.1	1.7	0.5	2.1	0	3.9	7.4	5.3	*2.6	7
Other weapon	*52.4	17.7	*38.9	15.6	*69.9	16.6	*45.7	11.8	*17.6	11.4	8	8.3	9.9	11.3	*48.2	17.7
Imitation weapon/threats	0	9.7	*0.3	17.9	0	16.2	0	23	0	16.1	0	15.8	*1.2	16.4	*0.3	9.4

Ind=Individual; Org=Organisation

* Statistically significant difference between type of victim at $p < 0.01$ and ** $p < 0.05$.

Source: Australian Institute of Criminology, 2000, armed robbery unit record file, 1996–1998.

likely than robberies against individuals to have involved a knife or sharp instrument. Individuals were more likely than organisations to be robbed with “other weapons” (Table 2). Also, it was found that the type of weapon used to commit armed robberies in transport-related locations followed similar patterns to the armed robberies that occurred in open spaces or parks (Table 2).

Locations classified as street or footpath, open space or park, transport-related, car park and “other community location” can all be classified into the broader category of “community locations”. The results discussed so far show that patterns of weapon use are similar among robberies recorded as occurring in a community location (see Table 2). In contrast, armed robberies that occurred in a bank or similar location where the victim was an individual were more likely than those with an institutional victim to involve a firearm or “other weapon”. The use of knives and imitation weapons was more prevalent in incidents that involved institutional victims rather than individuals (Table 2).

In addition, armed robberies that occurred in chemists or pharmacies against individuals were more likely than armed robberies with institutional victims to have involved the use of a knife or sharp instrument. Imitation weapons and syringes were more likely to be used against institutional victims than individuals in the commission of armed robbery (Table 2). Also, armed

robberies that targeted service stations were found to follow similar patterns to those observed for incidents committed against chemists or pharmacies, with the exception of syringes (Table 2).

Findings also suggest that armed robberies of locations classified as “other retail” exhibited large variations in victimisation risk. The risk of victimisation depends on factors such as the size of a business, volume of operations, and use of security or merchandising strategies, to name only a few. When “other retail” locations were targeted by armed robbers, firearms and “other weapons” were found to be more prevalent in armed robberies committed against individuals than those committed against organisations. Also, the use of “other weapons” was more prevalent in armed robberies involving institutional victims than individual victims (Table 2).

It should be noted that the number of armed robberies that occurred in car parks was too small (78 with individual victims and 21 with institutional victims) to support valid inferences on weapon use. The same limitation applies to armed robberies that occurred in locations classified as “other community locations” (66 with individual victims and 41 with institutional victims), as well as the armed robberies that occurred in offices (54 with individual victims and 48 with institutional victims).

Overall, these results indicate that regardless of the type of victim, firearms were significantly more likely to be used to commit armed robberies against banks or locations of a similar nature. It can be argued that these locations attract high risks to offenders with a greater need to counteract the possibility of victim resistance, thus making a firearm the preferred weapon in their bid to maximise their chances of success. In terms of the most common type of weapon used to commit armed robbery, the present study found that knives and other sharp instruments were the most common type of weapon used in the commission of armed robbery in Australia (refer to Figure 10).

Weapons classified as “other weapon” accounted for over one-quarter of all armed robberies (refer to Figure 10) and were more likely to be used against individuals than against organisations. This finding supports our reservations with the actual process followed to classify the weapons involved in the armed robberies and as to the weapon information supplied by each Australian police service. As discussed in the methodology section,

Table 3: Armed robbery by type of weapon used in Australia

Type of weapon	NSW	Vic	SA	WA	Tas	NT	ACT
Firearm	18.4	19.3	22.1	14.7	21.0	13.3	22.3
Knife/sharp instrument	40.1	61.5	48.9	41.2	52.7	69.0	70.4
Syringe	6.4	7.0	3.1	0.0	0.0	0.0	0.0
Blunt instrument/club	3.1	3.7	10.7	13.5	0.0	0.0	5.0
Other weapon	11.9	7.1	15.2	30.6	26.3	13.3	2.2
Imitation weapon/intimidation/threats	20.1	1.4	0.0	0.0	0.0	4.4	0.0
Total (%)	100.0						

Note: Queensland data excluded due to differences in classification of weapon type.

Source: Australian Institute of Criminology, 2000, armed robbery unit record file, 1996–1998

differences in the structure of the files obtained by State and Territory police services has had a major impact on the analysis of weapon use in the present study. For example, Queensland accounts for 15 per cent of the total number of armed robberies recorded in Australia. However, the data supplied by the Queensland Police Service classified weapon type according to three categories: firearm, other weapon and weapon not further defined (based on the ABS classification of type of weapon). As a consequence, the Queensland data was excluded from any examination of State/Territory variations in type of weapon used to commit armed robbery (Table 3).

Jurisdictional Differences

Table 3 outlines the types of weapons used to commit armed robbery across Australian States and Territories (excluding Queensland) between 1996 and 1998. As Figure 10 previously illustrated, knives and other sharp instruments were the most common types of weapons used to commit armed robbery in Australia. This was consistent across all jurisdictions examined. Firearms represented the second most common weapon used in the commission of armed robbery in most jurisdictions.

Offender Characteristics

The next exercise involved the examination of offender attributes to determine whether the type of weapon used varies significantly according to the offender's age and gender. Unfortunately, data for these analyses were only available for Victoria and the Northern Territory. The results indicate

that the type of weapon used to commit armed robbery does not vary significantly according to the gender and age of the offender (Table 4). Male and female offenders were both more likely to use a knife or other sharp instrument than any other weapon to commit armed robbery in Victoria and the Northern Territory. Similarly, there were no significant differences in the type of weapon used according to the age of the offender. There were, however, a number of notable differences:

- persons aged less than 14 years and between 35 and 44 years were less likely to use a firearm; and
- persons aged 35 to 44 years were more likely to use a syringe than all other age groups.

Table 4: Characteristics of offenders (%), Victoria and Northern Territory

	Gender		Age					
	Male	Female	Less than 14	15–19	20–24	25–34	35–44	45 & over
Firearm	22.5	23.6	16.7	22.9	23.3	24.6	15.6	25.0
Knife and other sharp instrument	61.4	55.5	69.0	60.5	61.9	56.1	64.5	62.5
Syringe	5.9	6.4	4.8	5.9	5.9	5.4	11.1	
Blunt instrument/club	2.6	3.6	2.4	2.8	2.5	3.0	4.4	
Other weapon	6.5	10.9	7.1	7.9	4.9	9.4	2.2	12.5
Imitation weapon/ threats/intimidation	1.1	0.0	0.0	0.0	1.5	1.5	2.2	
(Number)	(n=643)	(n=110)	(n=42)	(n=253)	(n=202)	(n=203)	(n=45)	(n=8)
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Australian Institute of Criminology, 2000, armed robbery unit record file, 1996–1998

Summary of Findings

Although the current study was restricted by limitations associated with the data, a number of noteworthy findings were obtained.

1. Patterns of weapon use in armed robbery in Australia did not differ significantly according to type of victim—that is, whether the victim was a person or an organisation. However, this may in fact be an artefact of recording practices. For example, in a bank robbery the bank (organisation) is recorded as the victim. However, if a bank teller has personal property stolen during that same incident, then he/she would also be recorded as a victim (person) (ABS 2000a).
2. As the national data indicate, knives were the most common type of weapon used in armed robbery in Australia. However, there were a number of exceptions to this rule. Firearms were more commonly used when the target was a bank/credit union or building society. These findings suggest offenders of armed robbery are not necessarily a “homogenous” group. This concurs with Cole’s (1989) perception of armed robbers whereby armed robbers are commonly thought of as “the good”, “the bad”, “the stupid” or “the dangerous” (see Cole 1989 for a description).
3. Patterns of weapon use did not differ significantly according to gender and age of offenders. Although there were a number of notable differences:
 - persons aged less than 14 years and between 35 and 44 years were less likely to use a firearm; and
 - persons aged 35 to 44 years were more likely to use a syringe than all other age groups.

Conclusion

Armed robbery is a crime of particular concern in Australia, both to the public and to governments. National statistics have documented dramatic increases in the incidence of armed robbery, especially between 1996 and 1998 where the rate of armed robbery almost doubled (ABS 1999). Of all types of violent crime, it is the one most commonly committed by strangers. Not only can it entail physical and psychological injury to victims, it can impose significant costs on two important sectors of the economy—banking and small business.

Despite its importance, we know very little about the surrounding circumstances and patterns of armed robbery across Australia. Based on the national statistics collection, we know about its incidence, the gender and age group of persons most likely to be victimised, locations most likely to be targeted, and whether the weapon used was a firearm or some other weapon. This data does not allow us to examine in any great detail the reasons why other weapons are being used increasingly more often in the execution of armed robbery. In the past, most discussions surrounding weapon use in armed robbery have focused solely on firearms. While this focus may have been justified when firearms were used in about 40 per cent of armed robberies in Australia (ABS 1994), more recently firearms have only accounted for about 15 per cent of weapons used (ABS 2000a). The decrease in the use of firearms to commit armed robbery means that the focus should be redirected towards examining “other weapons”.

However, as this study has demonstrated, research examining the role of weapons in armed robbery in Australia is very limited and restricted by the type of data available. Data were simply not available to address such questions as those posed by the Queensland Police Service (see page 24). In addition, official statistics do not allow an in-depth examination of weapon use and its relationship to target selection. Recognising the increased need to examine weapons other than firearms in armed robbery, the Australian Bureau of Statistics undertook an analysis that looked at expanding the existing weapon use classification to include knife and syringe. The expanded

classification of weapon use has been operational since January 2001 (ABS 2000b). While this will allow the monitoring of trends in the use of these weapons over time, in-depth research with multivariate analysis is still required in order to unravel the complex reasons associated with increases in the use of “other weapons” in the execution of armed robbery in Australia, and to determine what is actually driving such changes in weapon use. Answers to many of our questions will not be forthcoming unless the data issues are first addressed.

References

- Australian Bureau of Statistics (ABS) 1994, *National Crime Statistics 1993*, cat. no. 4510, Australian Bureau of Statistics, Canberra.
- 1995, *National Crime Statistics 1994*, cat. no. 4510, Australian Bureau of Statistics, Canberra.
- 1996, *National Crime Statistics 1995*, cat. no. 4510, Australian Bureau of Statistics, Canberra.
- 1997, *Recorded Crime Australia 1996*, cat. no. 4510, Australian Bureau of Statistics, Canberra.
- 1998, *Recorded Crime Australia 1997*, cat. no. 4510, Australian Bureau of Statistics, Canberra.
- 1999, *Recorded Crime Australia 1998*, cat. no. 4510, Australian Bureau of Statistics, Canberra.
- 2000a, *Recorded Crime Australia 1999*, cat. no. 4510, Australian Bureau of Statistics, Canberra.
- 2000b, *Crime and Justice Statistics Newsletter*, no. 9, National Centre for Crime and Justice Statistics, Australian Bureau of Statistics, Melbourne.
- Cole, B. 1989, "Armed robbers—A detective's view", in D. Challenger (ed.), *Armed Robbery*, proceedings of a seminar held 22–24 March 1988, Australian Institute of Criminology, Canberra, pp. 49–54.
- Correctional Service of Canada 1995, *A Profile of Robbery Offenders in Canada*, Research Brief B-10, Research Division, CSC, Canada.
- Gabor, T., Baril, M., Cusson, M., Elie, D., LeBlanc, M. & Normandeau, A. 1987, *Armed Robbery: Cops, Robbers and Victims*, Charles C. Thomas, Springfield, Illinois.
- Gabor, T. 1989, "Armed robbery overseas: Highlights of a Canadian study" in D. Challenger (ed.), *Armed Robbery*, proceedings of a seminar held 22–24 March 1988, Australian Institute of Criminology, Canberra, pp. 59–70.
- Gill, M. 2000, *Commercial Robbery: Offenders' Perspectives on Security and Crime Prevention*, Blackstone Press Limited, Great Britain.

- Gill, M. & Matthews, R. 1994, "Robbers on robbery: Offenders' perspectives", in M. Gill (ed.) *Crime at Work*, Perpetuity Press, Leicester, pp. 11–28.
- Harding, R.W. & Blake, A. 1989, *Weapon Choice by Violent Offenders in Western Australia: A Pilot Study*, Research Report, no. 1, Crime Research Centre, University of Western Australia, Perth.
- Kapardis, A. 1989, "One hundred convicted armed robbers in Melbourne: Myths and reality", in D. Challenger (ed.), *Armed Robbery*, proceedings of a seminar held 22–24 March 1988, Australian Institute of Criminology, Canberra, pp. 37–47.
- Macdonald, J.M. 1975, *Armed Robbery: Offenders and their Victims*, Charles C. Thomas, Springfield, Illinois.
- Matthews, R. 1996, *Armed Robbery: Two Police Responses*, Crime Detection and Prevention Series, no. 78, Police Research Group, Home Office, London.
- Mayhew, C. 2000, *Violence in the Workplace—Preventing Armed Robbery: A Practical Handbook*, Research and Public Policy Series, no. 33, Australian Institute of Criminology, Canberra.
- Ministerial Council on the Administration of Justice (MCAJ) Secretariat 2001, *Directory of the Ministerial Council on the Administration of Justice and Related Bodies*, Ministerial Council on the Administration of Justice, Canberra.
- Mouzos, J. 1999, "Firearm-related violence: The impact of the Nationwide Agreement on Firearms", *Trends and Issues in Crime and Criminal Justice*, no. 116, Australian Institute of Criminology, Canberra.
- 2000, *Homicidal Encounters: A Study of Homicide in Australia 1989–1999*, Research and Public Policy Series, no. 28, Australian Institute of Criminology, Canberra.
- Morrison, S. & O'Donnell, I. 1994, *Armed Robbery: A Study in London*, Occasional Paper, no. 15, Centre for Criminological Research, University of Oxford, Oxford.
- New South Wales Bureau of Crime Statistics and Research 1987, *Robbery: An Analysis of Robbery in New South Wales*, Final Report, Attorney-General's Department, Sydney.
- Nugent, S., Burns D., Wilson, P., & Chappell, D. 1989, "Armed robbery from an offender's perspective: Implications for prevention", unpublished report, Australian Institute of Criminology, Canberra.

- Ogilvie, E. 2000a, *Knives And Criminality: An Examination of Knife Use in Violent Crime*, Criminology Research Council, Australian Institute of Criminology, Canberra.
- 2000b, “Knives and armed robbery”, *Trends and Issues in Crime and Criminal Justice*, no. 159, Australian Institute of Criminology, Canberra.
- van Kesteren, J., Mayhew, P., & Nieuwbeerta, P. 2001, *Criminal Victimization in Seventeen Industrialised Countries: Key Findings from the 2000 International Crime Victims Survey*, Ministry of Justice, Wetenschappelijk Onderzoek-en Documentatiecentrum, Lieden, Netherlands.
- Wright, R.T. & Decker, S.H. 1997, *Armed Robberies in Action: Stickups and Street Culture*, Northeastern University Press, Boston.
- Wright, J.D. & Rossi, P.H. 1986, *Armed and Considered Dangerous: A Survey of Felons and their Firearms*, Aldine De Gruyter, New York.

Appendix 1

Characteristics of Armed Robbery Data

New South Wales

Time frame	Number of records in the file	Description of fields
1996–1999	13,161	Incident category Further class Offence type Event reference number Address Suburb Postcode Beat Nhw Premise type Premise subtype Location description Start date Start time End date End time Day of the week Reporting date Reporting time Creation date in system Creation time in system Incident reference number Property name Longitude Latitude Geocoding result Associated factor 1 Factor qualification 1 Associated factor 2 Factor qualification 2 Associated factor 3 Factor qualification 3 Modus operandi 1 Further modus operandi 1 Modus operandi 2 Further modus operandi 2 Modus operandi 3 Further modus operandi 3

Source: New South Wales Police, Information & Intelligence Centre

Victoria

Time frame	Number of records in the file	Description of fields
1993–94 to 1997–98	4,812	Incident number Recording date Offence type Start date Start time End date End time Weapon Location Victim age Victim sex ID number Offender age Offender sex

Source: Victoria Police, Statistical Services Division

Queensland

Time frame	Number of records in the file	Description of fields
1993–94 to 1997–98	4,754 (derived from two separate victim and offender files)	Crime identifier Victim identifier Location Offence Reporting date Suburb Victim age Victim date of birth Victim sex Weapon Offender identifier Offender age Offender date of birth Offender sex

Source: Queensland Police Service, Information Resource Centre, Statistical Services Section

South Australia

Time frame	Number of records in the file	Description of fields
1993–94 to 1997–98	2,075	Reporting code Jan code Reporting date Count Police district District number Report number Victim age Offence date Offence time Weapon Weapon further description Location Victim–offender relationship Postcode

Source: South Australia Police, Statistical Services Section

Western Australia

Time frame	Number of records in the file	Description of fields
1993–94 to April 1999	3,906	Record number Record year Record month Offence Complainant type Earliest date of likely occurrence of offence Earliest time of likely occurrence of offence Latest time of likely occurrence of offence Place where offence occurred Locality/suburb Police station Police district Victim sex Victim age Victim ethnicity Injury Time of day offence committed (day/night) Record day Int number Weapon type Offender sex Offender age Offender ethnicity Offender date of birth

Source: Western Australia Police Service, Crime Information Unit

Tasmania

Time frame	Number of records in the file	Description of fields
1993–94 to 1997–98	73	Incident number Date reported Offence Location Weapon Victim age group Victim sex Victim–offender relationship Outcome Police district Police division Offence Start date Start time End date End time Month reported Record day Weapon type

Source: Tasmanian Department of Police and Public Safety

Northern Territory

Time frame	Number of records in the file	Description of fields
1993–94 to 1997–98	81	Crime report Offence date Victim name Victim date of birth Victim sex Victim residence Weapon use Weapon type Offence Offence locality Town where offence occurred

Source: Northern Territory Police, Fire and Emergency Services

Australian Capital Territory

Time frame	Number of records in the file	Description of fields
1993–94 to 1997–98	272	Year Offence date Location Weapon Clearance date Offence Offence count Offence time Offence day of week

Source: Australian Federal Police, Regional Operations Coordination Centre