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Armed robbery in Australia
2009–10: National Armed
Robbery Monitoring
Program report

Maria Borzycki
Georgina Fuller

AIC Reports
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Foreword

Armed robbery is a violent crime and a volume crime. Its capacity to impact—sometimes profoundly—upon a large number of people means that to be effective, crime prevention strategies need to be targeted to where they can most benefit the community. Yet effective targeting requires a detailed understanding of the characteristics and nature of the armed robberies committed in Australia.

The Australian Institute of Criminology's National Armed Robbery Monitoring Program (NARMP) is the only national dataset detailing armed robbery in Australia. Through this program the AIC has been collating and examining information on reported armed robbery victims and the characteristics of the crimes in which they were involved since 2003. This report is the first released after NARMP moved to biennial reporting and it summarises key findings from information describing the 12,005 victims reported to police in Australia during the 2009 and 2010 calendar years.

It is pleasing to note that armed robbery has continued to decrease, from a rate of victimisation of 33 persons per 100,000 in 2003 to a rate of 18 persons per 100,000 in 2010.

What is apparent from analyses of armed robberies that were able to be performed on this dataset is that there are particular victim, location and offender characteristics that tend to co-occur, suggesting there are a variety of armed robbery types. This is an area requiring further investigation in order to better understand specific types of armed robbery and to better target prevention strategies. While limitations in the information able to be accessed has precluded more detailed assessments to date, NARMP will continue to aid crime prevention efforts through further examination of armed robbery types and of those factors that make some individuals and organisations more vulnerable to victimisation.

Finally, NARMP only exists through the ongoing cooperation and assistance of police in all Australian jurisdictions. The AIC is particularly grateful to those individuals within the statistical units of state and territory police services whose continued efforts directly support this program.

Dr Adam Tomison
Director

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Acronyms

ABS	Australian Bureau of Statistics
AIC	Australian Institute of Criminology
NARMP	National Armed Robbery Monitoring Program
RCV	Recorded crime: Victims, Australia

The *Technical Appendix* at the close of this report contains a glossary of terms.

Executive summary

The Australian Institute of Criminology's (AIC) National Armed Robbery Monitoring Program (NARMP) has been recording and reporting on trends in armed robbery since 2003. The program was established to monitor trends in armed robbery, but specifically, trends in weapon use. The aim of the program is to identify changing trends and to provide insight into the factors that might underpin these changes.

To date, armed robbery information has been explored and results reported on an annual basis. However, this is the first report produced since the decision was taken to shift to biennial reporting and as such, it provides information on two years of armed robbery data—for the calendar years 2009 and 2010. A total of 12,005 victims were recorded as being involved in the 10,409 armed robberies taking place in 2009 and 2010, and 'recent armed robberies' refers to these incidents.

Long-term trends in armed robbery

Descriptive analyses of NARMP indicate that the overall number of victims reported annually and recorded in NARMP has declined since 2003. Recorded victims numbered 8,865 in 2003 compared with 5,713 in 2010; a 36 percent decrease. The number of incidents in which these victims were involved has also decreased over time, with a 24 percent decrease from the high number of in robberies seen in 2006 (n=6,640), to a low of 5,022 in 2010. This same general downward trend was observed in the rate of victimisation—a decline from 33 persons per 100,000 in 2003 to 18 per 100,000 in 2010.

While overall numbers and rates of armed robbery have declined, descriptive analyses suggest other

features of armed robbery have remained constant over time:

- Each year around one-third of armed robberies took place on the street or footpath, while around one-fifth took place in unspecified retail businesses.
- Knives were the weapon most commonly used in around five or six out of every 10 armed robberies, whereas firearms were used in less than one in five (values ranged between 13% and 18% of all armed robberies depending on year).

Some findings warrant close scrutiny in the coming years. For instance, armed robberies taking place in licensed premises—although a relatively small number compared with the incidents that took place in the street or in generic retailers—increased by 20 percent from 309 in 2004, to 370 in 2010.

Victims and offenders in recent armed robberies

For the purposes of NARMP, only to those individual persons or organisations whose property was the target of the armed robbery are considered to be victims. Of those 12,005 victims in recent robberies, nearly three-quarters (or 8,580) were classified as individual or person victims. The remainder were organisations who had been victimised. Other noteworthy findings regarding armed robbery victims and those individuals who offended against them were:

- Six in 10 individuals victimised in 2009–10 were males aged from 15 to 39 years (60%). Females comprised less than one-quarter of all individual victims.

- Cases of repeat victimisation located within NARMP are likely to be an underestimate of actual numbers. Nonetheless, data suggest that organisations made up the majority (90%) of those repeat victims in recent calendar years. Repeat victims were involved in a higher proportion of firearm robberies (28% of the first of repeat attacks) when compared with all recent armed robberies in NARMP.
- A large proportion of incidents do not contain any offender information (61%; n=6,315) and therefore, offender counts could not be calculated for these incidents. Of those armed robberies containing offender detail, 65 percent (n= 2,642) listed only one attacker. Less than one-quarter (22%; n=920) listed two offenders (pairs), eight percent (n=331) had three offenders and three percent (n=124) had four offenders. Only two percent of armed robberies where offender information was available listed five or more offenders (n=77).
- The average age of all offenders linked to recent reported robberies and recorded in NARMP was 23 years whereas, on average, victims were older (aged 30 years). Less than one percent of offenders were aged 50 years or over, whereas just over one in 10 victims fell into this age group (11%).
- In line with general crime victimisation trends, older individuals were victimised at a much lower rate than younger people. For example, the rate of victimisation among those aged 65 years and over was three per 100,000 persons, compared with 56 per 100,000 for young people aged 15 to 19 years.

Physical aspects of recent armed robbery incidents

As with earlier years, the majority of recent armed robberies in 2009 and 2010 took place on the street or footpath (33%) or in unspecified retail locations (17%). Other key findings concerning the physical circumstances of recent robberies include:

- Nearly all incidents taking place on the street or footpath (97%), in recreational settings (97%), or in transport settings (99%) involved one or more

individual victims. By contrast, 76 percent of bank robberies, 74 percent of service station robberies and 80 percent of armed robberies in licensed premises involved an organisational victim.

- Recent armed robberies were predominantly night-time events; two-thirds of all recent incidents (n=6,932; 67%) took place between the hours of 6:00 pm and 5:59 am.
- Relative to times during the week, a disproportionate number of recent armed robberies occurred between midnight and 5:59 am on Saturdays and Sundays (n=1,027).

Weapons and property stolen in recent armed robberies

In 2009 and 2010, knives were used against the largest proportion of victims (50%). A quarter of victims were attacked with some 'other weapon' (25%); 16 percent were robbed with a firearm, with a small number (2%) threatened with a syringe.

As more than one victim could be involved in an incident, percentage weapon use was therefore slightly different when considering armed robbery events. The most serious weapon in 56 percent of incidents was a knife, in 17 percent of incidents it was a firearm, in 24 percent of incidents it was an 'other weapon' and in three percent of incidents it was a syringe. Other points of note:

- Weapon use varied with location. Incidents in high volume, opportunistic locations such as the street and footpath primarily involved knives (59%; n=1,843) or other weapons (32%; n=979), with only eight percent of incidents involving a firearm (n=253). Conversely, robberies in licensed premises and banking and financial locations involved firearms in four in 10 incidents (42%; n=274) and six in 10 incidents respectively (60%; n=60).
- Weapon use did not vary widely as a result of the number of offenders involved in recent robberies. The percentage of robberies in which a knife was the most serious weapon employed was reasonably constant across offender numbers (around 1 in every 2 incidents).

- Limited data about weapon combinations suggest that most armed robbery incidents in 2009 and 2010 involved only a single type of reported weapon; 49 percent involved a single knife, 22 percent one single 'other weapon', 13 percent a single firearm and three percent a single syringe.

Stolen property variables do not accurately describe all the property taken in all recent robberies. Data do suggest, however, that cash was the type of property most commonly listed as stolen in recent armed robberies (listed as stolen at least once in 2,243 incidents, or 59% of those with property information). Electrical equipment, which includes personal electrical items like laptops and mobile phones, was the next most commonly stolen item (listed at least once in 1,552 or 41% of armed robberies).

The average value of property stolen per incident was much higher for armed robberies involving firearms (\$4,630) compared with knives (\$1,371). When considering location and weapon type in combination, the most 'lucrative' incidents on average involved firearms in unspecified retailers (\$6,335), banking and financial locations (\$6,917), and licensed premises (\$7,362). Almost six in 10 recent armed robberies for which both offender and property value information were available (57%) resulted in victim losses of less than \$500. Only four percent of armed robberies resulted in losses over \$10,000. Even the most 'lucrative' of the recent armed robberies, on average, resulted in returns that were generally small, given the risks inherent to committing armed robbery.

Armed robbery in Australia

Despite declines in the reported number and rate of armed robbery victimisations since 2006, a sizeable number of individuals and organisations in 2009–10 were still subject to the immediate and potential

longer term effects of the offence. Some features of Australian armed robbery appear constant over time. For instance, since the inception of NARMP, the 'typical' armed robbery has been carried out by a young man, armed with a knife and committing the robbery on the street or footpath against another previously unknown young man who was robbed of his cash or his phone.

However, detailed analyses indicate the existence of qualitatively different types of armed robbery; for example, street robberies perpetrated by young offenders compared with those carried out by lone, older offenders against commercial premises. Although only small in number, there is also a suggestion that armed robbery by female offenders may differ in certain respects to that carried out by men, or by women in the company of male offenders. When acting without male accomplices, female offenders may be more opportunistic and take fewer risks than their male counterparts. They appear to target female victims in higher proportions, target softer, less secure locations relatively more often, use more opportunistic weapons like syringes and proportionally fewer firearms, which can bring greater risks to the user. When co-offending with males, characteristics of the victim and incident more closely resemble that seen in male offending.

Currently, there is very little publically available research focused on armed robbery in Australia. The NARMP report, while relying on an imperfect dataset, provides the only national perspective on armed robbery in Australia. It provides an analysis of the nature of armed robbery over time and serves to flag what appear to be various subtypes of armed robbery, which in turn can direct complementary research to enhance understandings of this crime. This, coupled with an emphasis on focused crime prevention strategies to protect victims and deter offenders, may assist in continuing the decrease in armed robbery in Australia that has been evident since the inception of NARMP in 2003.



Introduction

Armed robbery is often portrayed as a professionally executed, high-return exercise for the offenders involved. Recent research undertaken in the United Kingdom into the financial benefits of bank robbery—perhaps the most pervasive of those commonly portrayed images of robbery—demonstrates that the gains from this crime are far from exorbitant given the relative risk to offenders. Around one-third of bank robberies that were analysed netted offenders nothing and on average, bank robbers could expect to ‘earn’ less than £13,000 per person per raid. Furthermore, bank robberies were a relatively rare occurrence when considering the large number of robberies that took place in the reference period (see Reilly, Rickman & Witt 2012). It appears that culturally common understandings of robbery are not necessarily borne out by the data.

Accurate information concerning the nature of armed robbery can assist in providing a clearer picture of the offence. This, in turn, will assist in developing appropriate crime prevention responses that are based on a realistic understanding of what armed robberies can entail.

Monitoring armed robbery in Australia

The AIC’s NARMP has been recording and reporting on armed robbery since 2003. The program was established to monitor trends in armed robbery (specifically trends in weapon use), identify changes in trends and provide insight into the factors underpinning these trends. It was initially modelled on the *Recorded Crime: Victims, Australia* (RCV) collection (eg ABS 2012a) and therefore records information about every victim of armed robbery reported to police in Australia, with police administrative data received from each state and territory.

Stakeholder consultation has seen refinements to what is collated over time. For example, victim data from calendar year 2004 onwards have usually been accompanied by an incident identifier. This allows victim records to be collapsed into the incidents in which those victims were involved. The capacity to analyse data by incident is important for the accurate description of the key elements of armed robberies. For instance, a single armed robbery involving one handgun might have six victims. If data are analysed in a victim-based format, a count of six handguns would result, but if the unit of analysis is the incident, only one handgun is counted, better reflecting the reality of the crime.

Box 1 Victims of armed robbery

For the purposes of NARMP, a victim refers only to those individuals or organisations whose property was the target of the armed robbery. The AIC understands that individuals who may have witnessed the incident or been involved in some way other than via property ownership are clearly victims in the more common use of the term. However, due to NARMP recording practices, these individuals are not included in the following analyses. This report only describes the characteristics of those victims who were involved in armed robbery as owners of the targeted property, not all possible victims of armed robbery.

The level of detail in the collated information has also increased over time. The initial annual dataset mainly contained information pre-coded into higher level RCV categories. Files received from some jurisdictions now contain information in its raw form, which allows more detailed categories to be constructed. However, the small numbers in some categories can vary widely over time due to chance factors, so an apparently large percentage change over time may in reality only represent a small number of cases. This limits the capacity to make reliable yearly comparisons. Some variables are not recorded in NARMP, such as details on sentencing and an offender's prior convictions. This information can now be found in some jurisdictional reports such as Victoria's Sentencing Advisory Council (2010) report *Sentencing for Armed Robbery: A Statistical Profile*.

Additional detail concerning methodology and the type of information included in NARMP can be found in the *Technical Appendix* to this report, as can a more detailed discussion of the limitations of the NARMP data collection. This *Technical Appendix* also contains a glossary of terms and definitions relevant to this report.

The structure of this report

To date, armed robbery information has been explored and reported on an annual basis.

However, this is the first report produced since the decision was taken to shift to biennial reporting and as such, it provides information on two years of armed robbery data—for the calendar years 2009 and 2010. For the purposes of this report, 'recent armed robberies' refers to 10,409 incidents, involving 12,005 victims reported to police between 1 January 2009 and 31 December 2010.

The report is organised into five sections:

- Key trends in armed robbery between 2003 and 2010.
- Characteristics of victims and offenders in 2009 and 2010.
- Physical aspects of recent armed robberies, such as location and time.
- The objects associated with armed robbery—the weapons used and the types of property taken in 2009 and 2010.
- A case study exploring patterns and characteristics of the small number of female armed robbers.

The unit of analyses reported shifts between victim and incident, depending on which aspect of armed robbery is being considered. Presented data and accompanying commentary indicate which unit of analysis has been employed. Finally, Tables separately summarising data relating to each of the years 2009 and 2010 can be found in the *Technical Appendix*.

Key findings

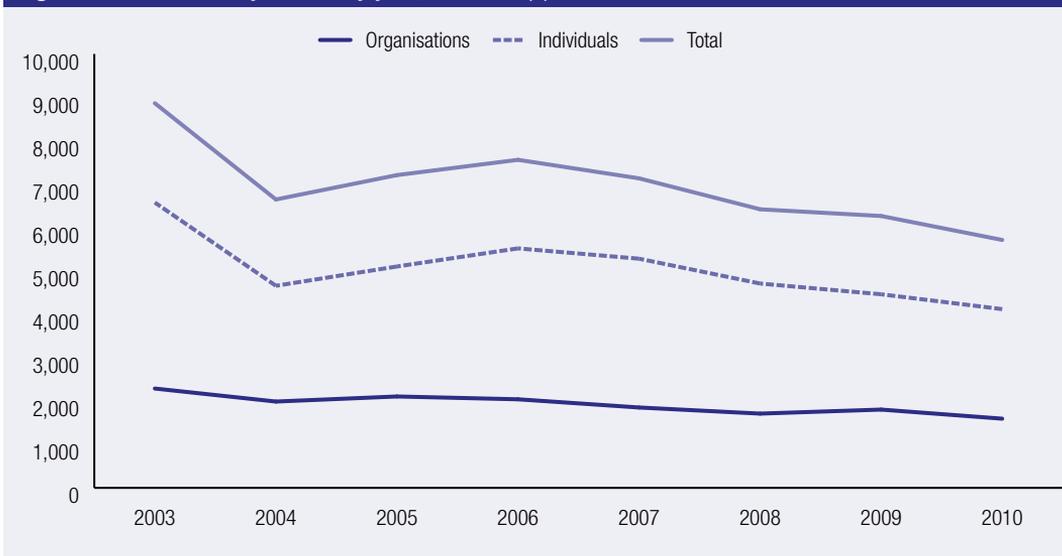
Long-term trends in armed robbery

Individual persons make up the majority of reported victims of armed robbery. The proportion of victims each year flagged as individuals has remained fairly constant since the inception of NARMP, ranging

between 70 and 75 percent of all victims recorded for that year (see Figure 1).

The overall number of victims reported annually and recorded in NARMP has, however, declined since 2003—victim numbers decreased by 36 percent from 2003 (n=8,865), to 5,713 in 2010 (see Figure 1). This reflects general trends seen in

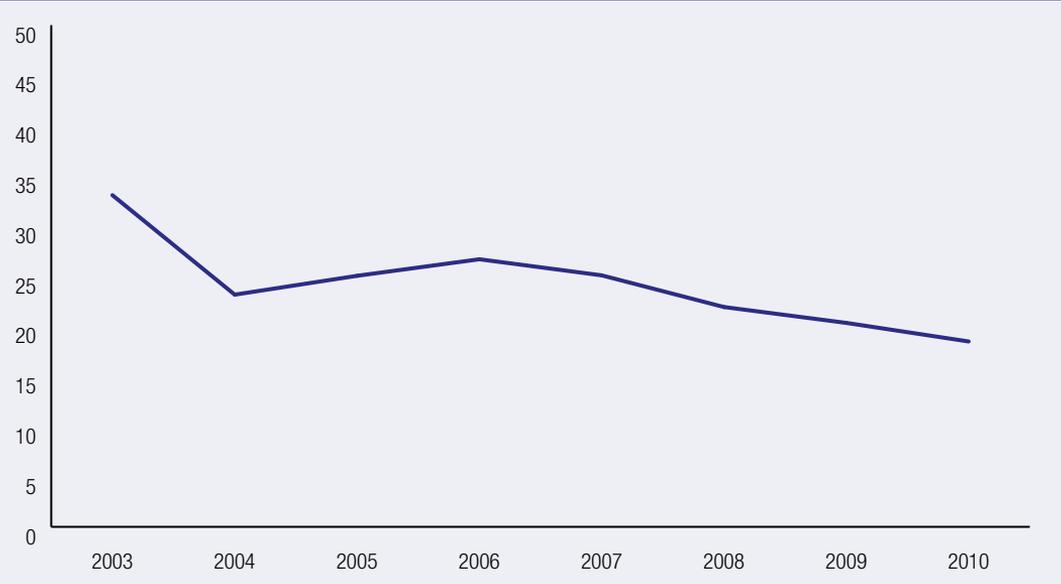
Figure 1 Armed robbery victims by year, 2003–10 (n)



Note: n=55,810. Excludes victims not categorised as either an individual or an organisation

Source: AIC NARMP victims 2003–10 [computer file]

Figure 2 Armed robbery victimisation by year, 2003–10 (rate per 100,000 persons)



Note: Includes only person victims. Rate derived from *Time Series Spreadsheets* Table 4 ABS 2011a
Source: AIC NARMP victims 2003–10 [computer file]

most other crime categories in Australia (eg see AIC 2012) and overseas. For instance, there was a 13.4 percent decrease in estimates of the numbers of violent crimes in the United States between 2001 and 2010 (FBI 2011).

Not surprisingly, this same general downward trend can be observed in the rate of victimisation—a decline from 33 persons per 100,000 in 2003, to 18 per 100,000 in 2010 (see Figure 2). Similarly, the number of incidents in which these victims were involved has decreased over time to a low of 5,022 in 2010; a 24 percent decrease from the high seen in 2006 (n=6,640; see Figure 3).

Armed robbery locations

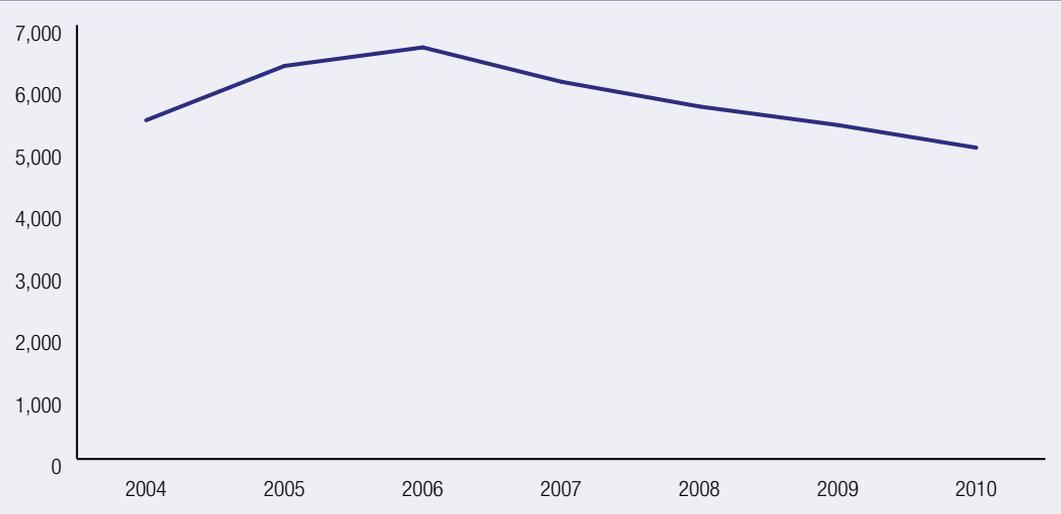
Contrary to popular perceptions, most robberies were not carried out in high-profit locations such as banks. Less than two percent of incidents each year took place in banking and related financial locations. Regardless of reporting year, armed robberies carried out on the street or footpath were the most common (ranging between 30% and 35% of all robbery incidents each year), followed by those occurring in unspecified retail locations (ie locations

where the nature of the retail activity is not specified; between 16% & 19% of all robberies annually). As shown in Figure 4, incident numbers in various locations have generally decreased over time, especially relative to the higher counts seen 2006. A notable exception to this pattern is armed robbery in licensed premises, where the 370 incidents recorded in 2010 represent a 20 percent increase on those numbers observed in 2004 (n=309).

Weapons used to commit armed robbery

NARMP was established, in part, to observe trends in weapon use. Data showing patterns of weapon use in armed robbery have remained relatively constant over time (see Figure 5). Knives were the most serious weapon used in over half of all incidents (57% overall, ranging between 53% and 61% depending on year). Nor has the percentage of firearms used changed substantially over that same timeframe. Sixteen percent of all incidents over the seven year period involved a firearm, with a low of 13 percent in 2005 (n=758) and a high of 18 percent in 2010 (n=825). Syringe robberies comprise only

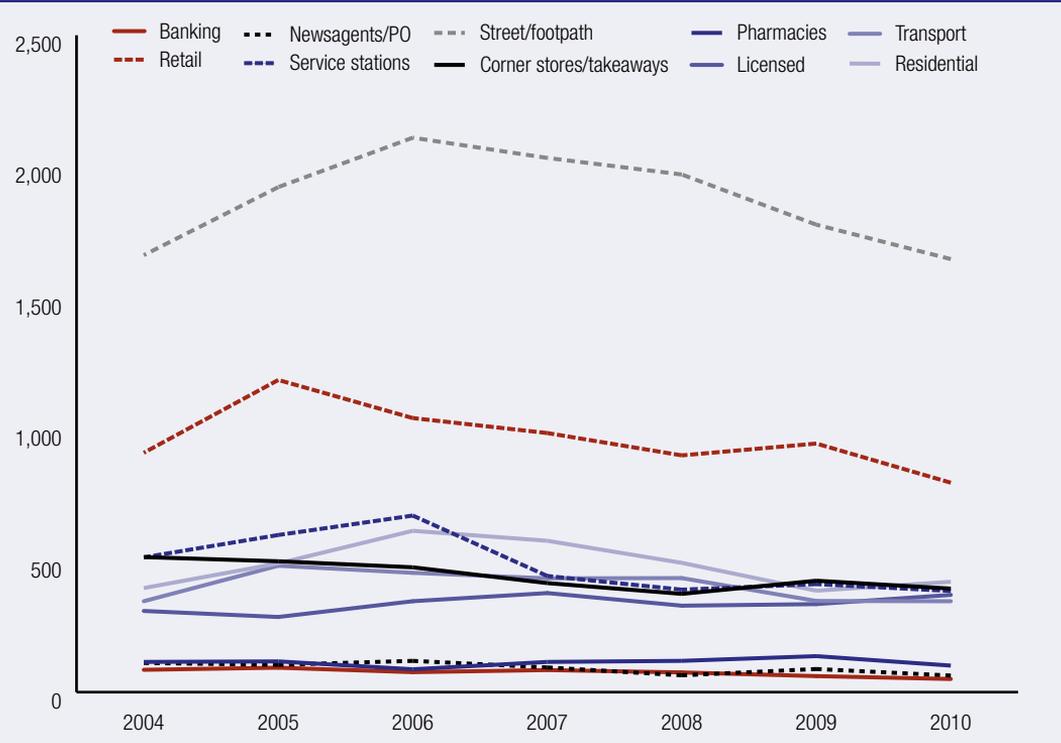
Figure 3 Armed robbery incidents by year, 2004–10 (n)



Note: n=40,627

Source: AIC NARMP incidents 2004–10 [computer file]

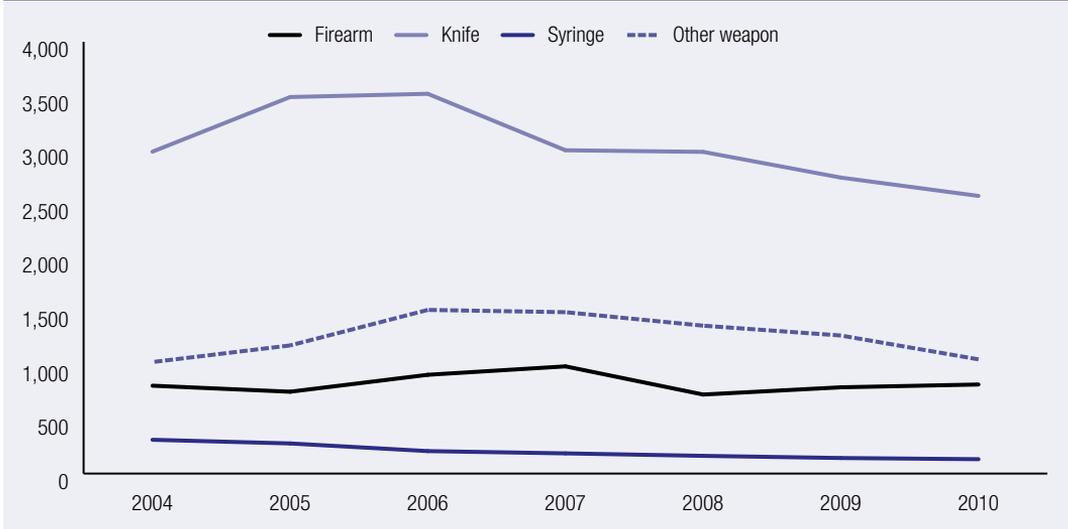
Figure 4 Selected armed robbery locations by year, 2004–10 (n)



Note: n=36,927. Excludes incidents in *wholesalers, administrative and professional, other community, open spaces and recreational locations*, and incidents for which location was missing or not specified

Source: AIC NARMP incidents 2004–10 [computer file]

Figure 5 Weapons used in armed robbery by year, 2004–10 (n)



Note: n=37,479. Excludes incidents for which weapon(s) were missing or not specified. Based on most serious weapon listed for incident, ranked in order of seriousness (firearm, knife, syringe, other weapon)

Source: AIC NARMP incidents 2004–10 [computer file]

a small minority of cases, with an average of four percent across all years (ranging from 3% to 6%).

The *other weapon* category applies to around one-quarter of total incidents (24%; varying between 20% and 26%). It captures a broad range of items, some of which could be considered more serious than syringes insofar as they may be capable of inflicting greater damage or injury, or inducing greater fear (eg bows, spearguns, machetes or axes). Detailed weapon information indicates that some everyday items not necessarily thought of as weapons are nonetheless used to commit robbery. These include crowbars or metal pipes (17% of all other weapon incidents) and bottles or broken glass (13%). In 2004, crowbars and pipes were listed in 27 percent of other weapon incidents but in 2010, they were the most serious weapon used in only 13 percent of other weapon robberies. Thus, it appears that there has been some variation in the use of these other weapons over time. However, it is difficult to draw strong conclusions regarding this other weapon category, as coding practices within jurisdictions means variables are not necessarily consistently recorded and extracted at the lowest possible level (eg a metal pipe may have been recorded as 'other weapon' in one calendar year, but as a 'pipe' in a later year). This caveat also

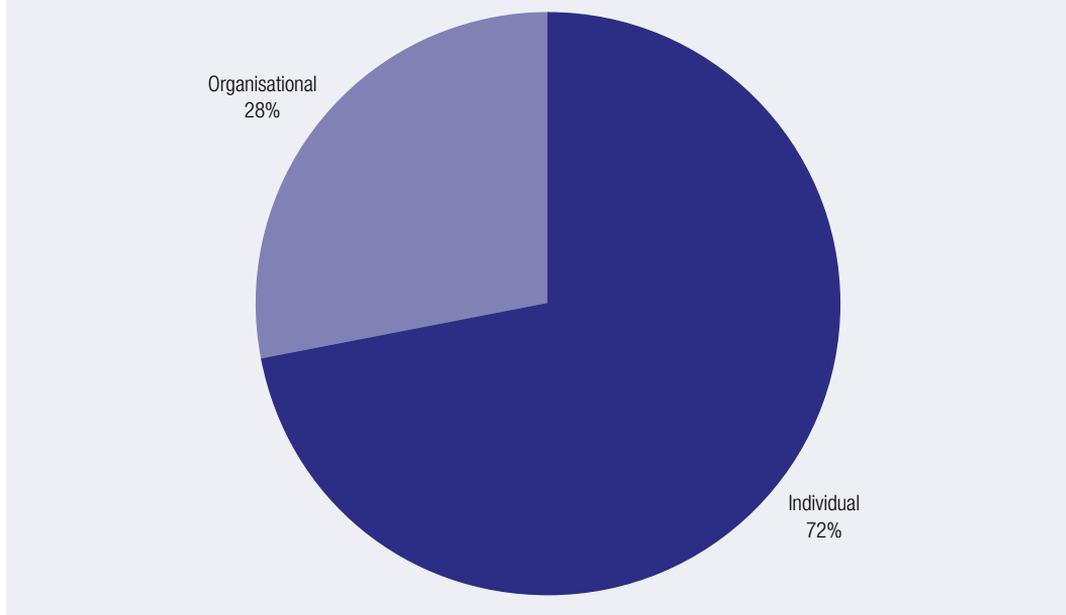
applied to the variables relating to location and stolen property, both discussed later in this report.

Victims and offenders in recent armed robberies

In the following section, the characteristics of recent armed robberies are explored in detail. In this context, 'recent' is defined as occurring in the calendar years of 2009 and 2010. There were a total of 10,409 incidents (2009 n=5,387; 2010 n=5,022) for which partial or complete records were available, for a total of 12,005 valid partial or complete cases of victims of armed robbery reported to police (n= 6,274 in 2009; n=5,731 in 2010).

As already noted, the victims recorded in NARMP are defined as the individual or organisation whose property has been targeted. This means that while armed robbery is both a property offence and an offence against the person (a violent crime), it can be committed against an organisation, through property ownership. The majority of reported armed robbery victims in Australia are individuals (see Figure 1) and this was also the case in 2009–10 (72%, or 8,580; see Figure 6).

Figure 6 Victims of armed robbery, 2009–10 (%)



Note: n=11,977. Excludes victims where type was not specified

Source: AIC NARMP victims 2003–10 [computer file]

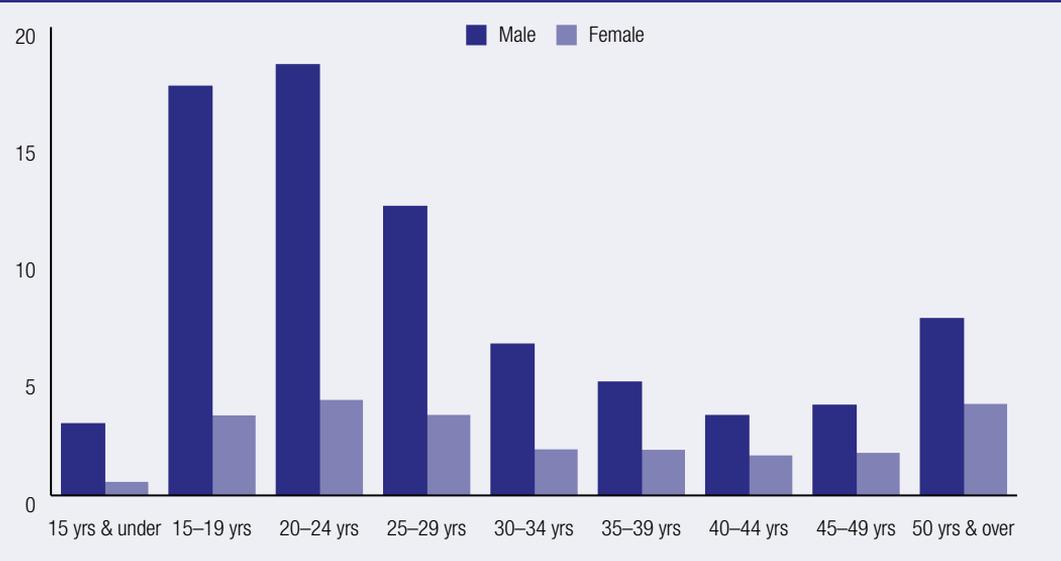
Victims robbed on multiple occasions

Some victims are subjected to repeated armed robberies because of their characteristics—agency operating hours, business location or layout; or in the case of some individual victims, the nature of their employment. An initial attack can also provide offenders with useful knowledge about a target (eg location of money safe) that can assist the offender in subsequent crimes against that same target (see Weisel 2005). There is no capacity to explore repeat victimisation over the long term within NARMP because of the victim identifier codes employed by some police jurisdictions. These non-name codes make it impossible to identify who victims are across years. However, some jurisdictions provide this identifier information in a form that allows for an examination of victims robbed repeatedly *within* the same calendar. As this identifying information is not available for all victims, it should be noted that the determination of repeat victimisation undertaken here is likely to be an underestimation.

In 2009 and 2010 datasets, 158 repeat victims were identified and were reported to be involved in 337 different incidents. Seventeen of these victims were robbed on more than two occasions in the calendar year examined. On average, the first and second armed robberies were 76 days apart (with a median of 48.5 days), although the time elapsed between the first and second armed robberies ranged from zero days (ie victimised multiple times on the same day) to 319 days. This is counter to earlier research, which typically shows that follow-up victimisation often occurs very quickly after the initial attack (eg Pease 1998), although recording limitations within NARMP may account for this difference.

Nine out of every 10 of the repeat victims (90%) were flagged as organisations, even though organisational victims were in the minority of all armed robberies. The locations in which the majority of these organisational repeat victims were robbed were service stations and licensed premises (each 28% of all organisational repeat victims), unspecified retailers (23%) and pharmacies and corner or convenience stores and takeaways (each 8%).

Figure 7 Age group and gender of individual armed robbery victims, 2009–10 (%)



Note: n=8,525. Excludes victims without age and gender information

Source: AIC NARMP victims 2003–10 [computer file]

In contrast to the overall picture of armed robbery, only a small minority of repeat victims were robbed on the street and footpath (3% of organisational repeat victims; 5% when considering both individuals and organisations repeatedly robbed). Furthermore, repeat organisational victims appeared subject to a higher proportion of firearm attacks—28 percent of first attacks and 19 percent of second attacks were with a firearm (as discussed below, only 16% of victims in 2009 and 2010 were involved in incidents where the most serious weapon used was a firearm).

Demographic characteristics of individuals involved in armed robberies

Six in 10 individuals victimised in 2009–10 were males aged from 15 to 39 years old (60%), consistent with observations in earlier NARMP reports (see Figure 7). Females comprised less than one-quarter of all individual victims and like male victims, the majority (65%) were aged between 15 and 39 years.

Males aged from 15 to 39 years also comprised the majority (80%; see Figure 8) of those offenders linked to recent armed robberies (but not of *all* offenders actually involved in all recent incidents—see Box 2). While juvenile and adult female offenders were a minority (10%) of the armed robbers described in the NARMP 2009–10, most of the females were also aged from 15 to 39 years (82%).

Basic victim and (apprehended) offender demographic profiles were broadly similar. The majority of each group was male (see Figures 7 and 8) and most were under 40 years (with less than 10% of each group under 15 years; see Figure 9). Victim and offender demographics, however, were not identical.

Around four in 10 offenders were older teenagers (42% or 2,667 were 15 to 19 years of age), with the average age of an offender being 22.9 years. By contrast, only half the proportion of victims were within this same 15–19 year age group (21%, or 1,778), with the average age of victims much older at 30 years. Profiles also diverged when considering later adulthood. Less than one percent of offenders were aged 50 years or over, whereas just over one in 10 victims fell into this age group (11%; see Figure 9). However, when taking population into account,

Box 2 Offenders included in NARMP

NARMP is not a live database. Data describing all reports during the calendar year in question are received by the AIC once a year. Victim records are extracted by police and forwarded at some point during the 12 months after the calendar year in question. Once records are received by the AIC, they are not updated.

If victim and created incident cases include offender information, this indicates that at the time data were extracted from jurisdictional administrative systems, offenders had been apprehended and proceeded against in some way. Descriptions of suspects are not included and if records are empty of perpetrator information, it is because the offenders had not been apprehended by the time data were extracted, or in a minority of cases, the matter had been cleared without any offender proceedings.

Information concerning armed offenders was available for only 4,094 recent incidents (the majority of incidents, or 61%, did not contain offender details). Armed robbery can involve multiple offenders and data fully or partially describing 6,356 offenders were linked to these recent incidents. Any discussion of offenders in this report relates only to these apprehended individuals. By extension, any discussion of offender groups is based on counts of offenders linked to an incident, not the unconfirmed number of alleged offenders detailed in victim/witness statements provided to police. These qualifications mean that discussion is limited to those individuals examined and cannot describe all armed robbery offenders in Australia.

Related variables derived from NARMP, such as clearance rates, are only broadly indicative of clearance at some time potentially up to two years after the armed robbery in question. Data suggest that matters relating to around one-third (almost 32%) of victims in recent robberies were not finalised at the time of data extraction. A further third (30%) were finalised but without an offender being proceeded against and the remainder (38%) were finalised with an offender proceeded against in some way (eg arrest, diversion, caution or some other court proceedings). These percentages appeared to vary with victim type, so that the matters relating to 45 percent of organisational victims were finalised with an offender proceeded against compared with 36 percent of matters relating to individual victims.

older individuals were still victimised at a much lower rate than younger people (see Table 1).

Criminal desistance (or the cessation of offending with age) has been observed across most crime categories and is the most likely explanation for the relative youth of offenders when compared with victims. Devers (2011: 11), in her review of desistance and development, noted that 'eventually, the vast majority criminals will desist from crime'. Similarly, other Australian data show that most types of offending in Australia decreases as offenders age. In 2009–10, the offender rate across all major crime categories among 15 to 19 year olds was 5,844 per 100,000, compared with a rate of 747 per 100,000 among 50 to 54 year olds. When considering only the offence category of robbery and extortion, rates were 116 and three per 100,000 respectively (ABS 2012b).

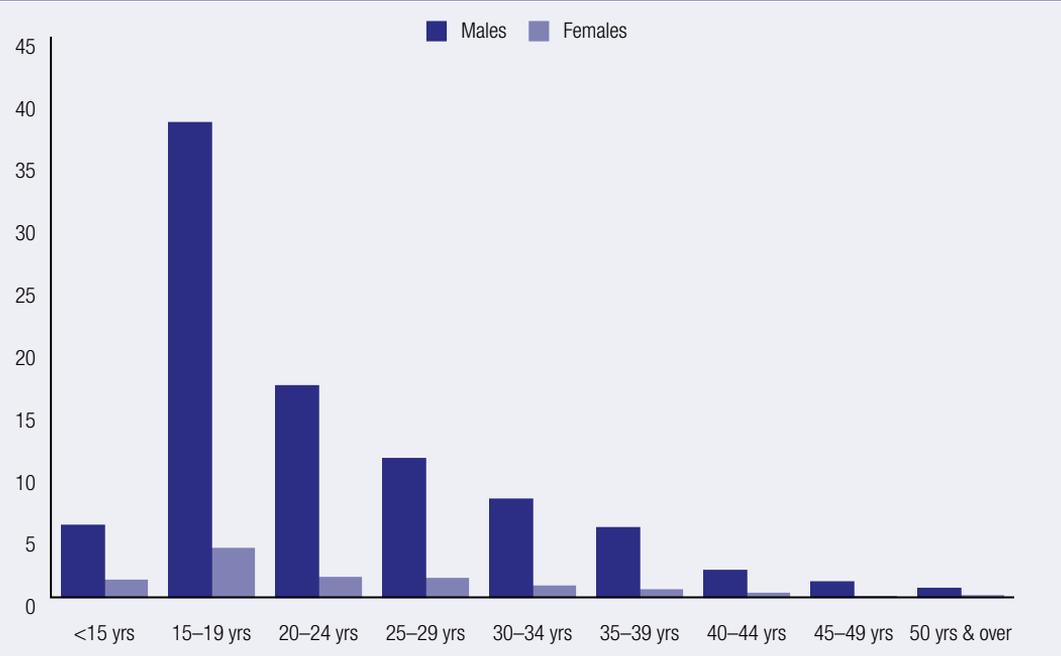
As discussed below, armed robbery offenders are typically unknown to victims and individuals are most likely selected by offenders because of visible attributes that make them appear worthwhile targets. Monk, Heinonen and Eck (2010) outlined some victim characteristics that can contribute to offenders targeting particular street robbery victims. Using the acronym *VALUE*, these authors suggested that offenders are likely to consider a package of characteristics, including how *vulnerable* targets might be (ie intimidated, subdued or overpowered; see Box 3), citing senior citizens as examples of vulnerable individuals. While adults over 50 years of age are certainly a minority of all armed robbery victims, their perceived vulnerability also might, in part, account for why age profiles for victims and offenders diverge in later life.

Box 3 Offenders and the victims they target

The *VALUE* acronym (Monk, Heinonen & Eck 2010) refers to:

- V**—how vulnerable a target may be, with offenders preferring easily subdued or intimidated targets;
- A**—victim is attractive to that specific offender, based on certain characteristics;
- L**—victim lacks awareness of surrounds, making the victim easier to overpower;
- U**—uncomplicated completion of the attack; and
- E**—escapable robbery, with victims unlikely to resist.

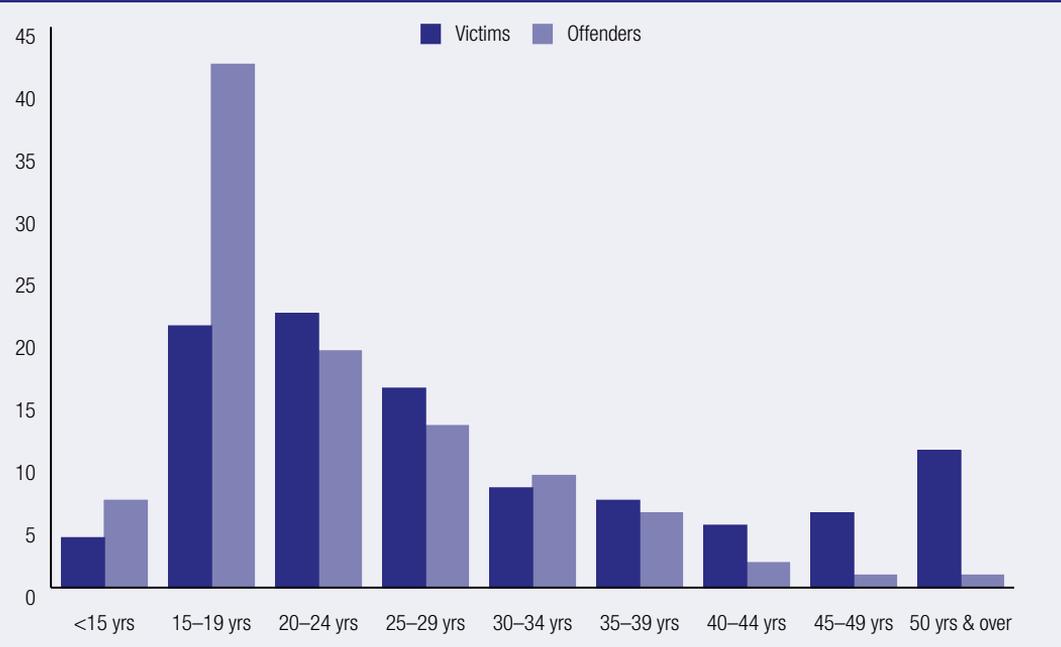
Figure 8 Age and gender of offenders, 2009–10 (%)



Note: n=6,347. Excludes offenders without age and gender information

Source: AIC NARMP incidents 2004–10 [computer file]

Figure 9 Age groups of victims and offenders, 2009–10 (%)



Note: Victims n=8,525. Offenders n=6,347. Excludes victims and offenders without age information

Source: AIC NARMP victims 2003–10; incidents 2004–10 [computer files]

Table 1 Rate of victimisation by sex and age group, 2009–10 (per 100,000)

Age group (yrs)	2009			2010		
	Males	Females	Total	Males	Females	Total
Under 15	7	1	4	6	1	3
15–19	100	23	63	93	16	56
20–24	98	23	62	88	21	55
25–29	69	17	44	58	19	38
30–34	35	11	23	37	10	24
35–39	24	10	17	27	10	19
40–44	19	10	15	19	9	14
45–49	23	10	16	19	9	14
50–54	18	9	14	16	8	12
55–59	14	7	11	11	6	9
60–64	9	5	7	11	4	7
65 & over	5	2	3	3	2	3
Total	31	9	20	29	8	18

Note: n=8,525. Includes only individual victims. Excludes victims without age and gender information. Rate derived from Tables 7 and 8 *Population by Age and Sex Data Cube* ABS 2010a

Source: AIC NARMP victims 2003–10 [computer file]

Armed robbery offenders are typically unknown to their victims. Only 10 percent (n=387; see Figure 10) of recent victim records in NARMP, where relevant information was provided, recorded some form of victim–offender relationship prior to the incident. In this respect, armed robbery differs to other violent crimes where victims and offenders are often known to each other prior to the criminal event. For example, for crimes such as homicide and sexual assault, the majority of victims and their offenders were known to each other in most reporting Australian jurisdictions in 2011 (eg ABS 2012a).

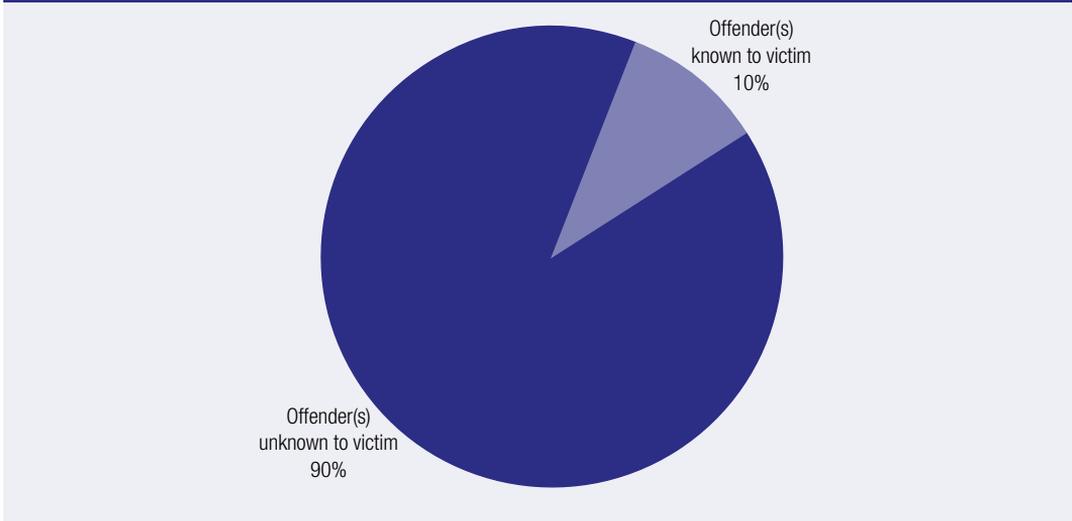
Offender groups

Sixty-five percent (n=2,642) of incident cases containing offender information listed only one attacker. Less than one-quarter (22%; n=920) listed two offenders (pairs), eight percent (n=331) listed three offenders (trios) and three percent (n=124) listed four offenders. Only two percent listed five or more offenders (n=77).

However, as a large proportion of incidents in the dataset do not contain any offender information (61%; n=6,315), accurate offender counts could not be calculated. These cases have been coded as ‘no offender information’. Information regarding offenders was more often recorded for incidents involving organisational victims than for those armed robberies involving only individual victims (see Figure 11). Further, derived offender counts suggest higher proportions of organisational victims were robbed by lone offenders rather than groups, when compared with individual victims (either alone or in groups).

Apparent differences in the number of offenders associated with the different types of victim may simply be an artefact of NARMP recording practices regarding offenders (see Box 2). However, if these data do reflect real differences in armed robbery, a variety of factors could explain this observation. For instance, individual victims may not be able to generate the same level of identifying evidence as organisational victims. Organisations are potentially able to provide investigating officers with material such as CCTV footage, which individuals may not have access to and this may permit faster clearance

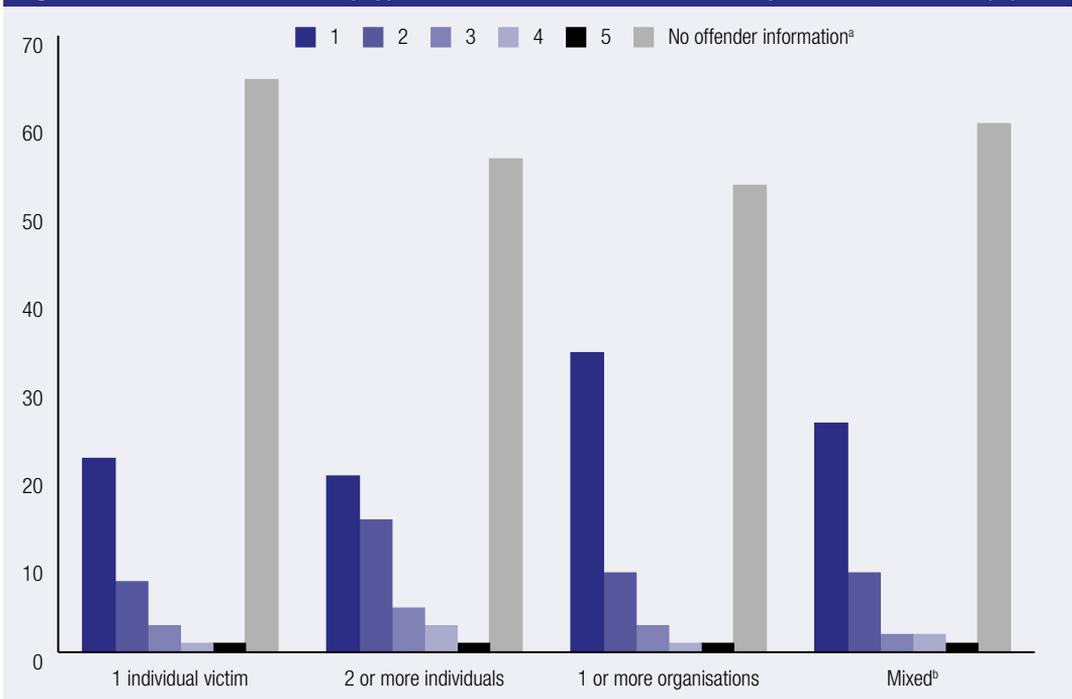
Figure 10 Relationship between offender and victim, 2009–10 (%)



Note: n=3,836. Excludes victims without relationship information. Victims can have relationships with multiple offenders; therefore, total relationships exceeds number of victim cases with valid relationship information

Source: AIC NARMP victims 2003–10 [computer file]

Figure 11 Number of offenders by types of victim involved in armed robbery incidents, 2009–10 (%)



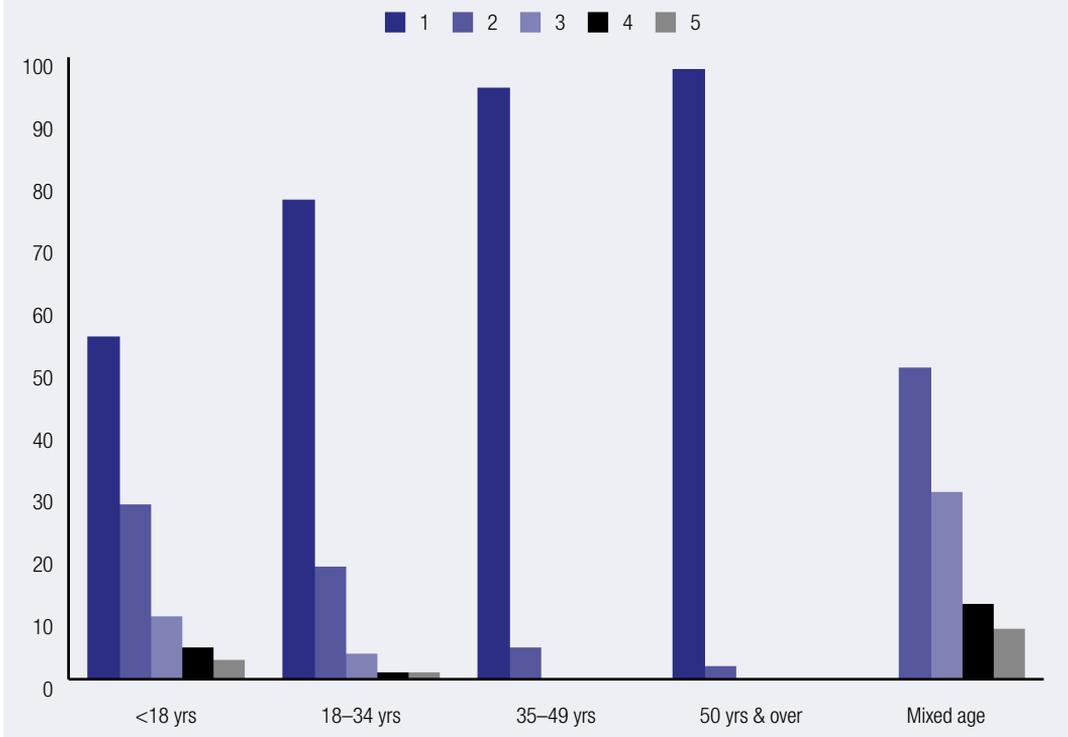
a: Incidents where offender had not been apprehended at data extraction, or annotated as no offender proceeded against

b: Incident involved both individual and organisational victims

Note: n=10,389. Excludes incidents where victim type was not specified

Source: AIC NARMP incidents 2004–10 [computer file]

Figure 12 Number of offenders involved in armed robbery by offender age groups, 2009–10 (%)



Note: n=4,091. Excludes offenders without age and gender information, and incidents without offender information

Source: AIC NARMP incidents 2004–10 [computer file]

of the offence so that this clearance information is captured when NARMP data are compiled. Unfortunately, the NARMP dataset does not contain information about investigations (beyond clearance) or about the security surrounding incidents, so these factors cannot be assessed through the program.

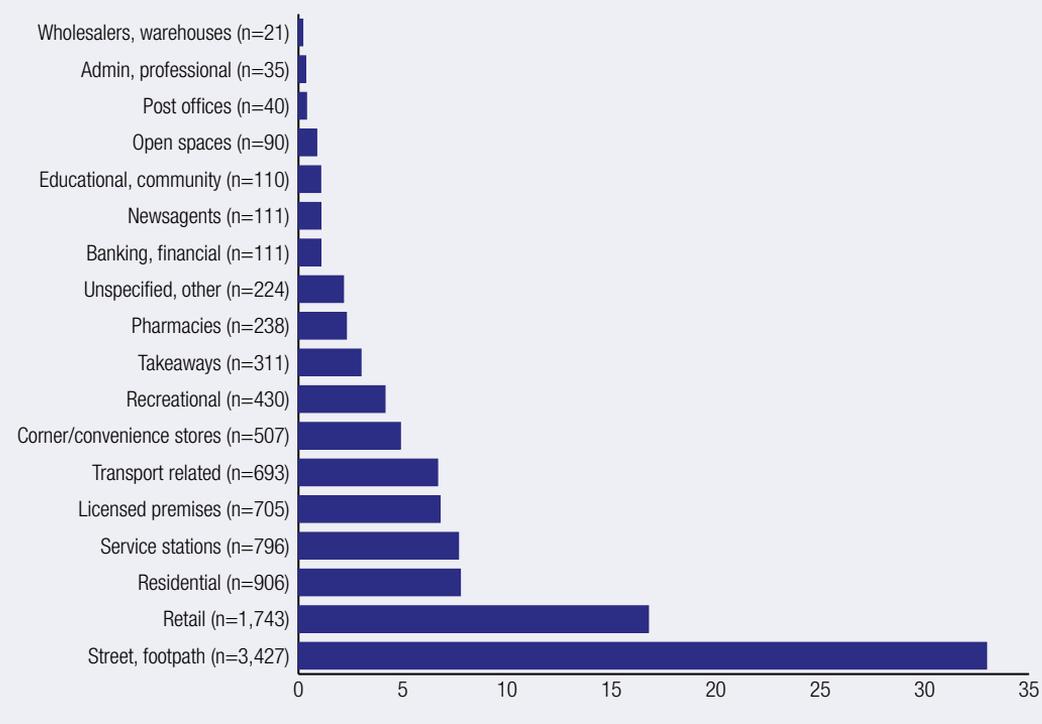
Mindful of the limitations surrounding offender information and the fact that regardless of age, offenders tended more often to act alone, NARMP data suggest that younger offenders appear more likely to operate in groups compared with older offenders (see Figure 12). Detailed examination of offender age and gender data showed that over 40 percent each of the recent armed robberies involving young males (under 18 years; n=779) and young females (n=78) were carried out by offender groups of two or more. When examining groups comprising offenders of various ages in detail (the ‘mixed age’ armed robbery incidents shown in Figure 12), 82 percent of groups of solely male mixed age offender groups, 79 percent of solely female mixed age

groups and 60 percent of mixed groups involving males and females had at least one member who was aged less than 18 years. Further, the average age of lone offenders was older than that of offender groups. The average age when considering groups of five offenders was 18.7 years, compared with 26.2 years for armed robbers acting alone.

Even at this simple level of analysis, the data suggest qualitatively different types of armed robbery. At a minimum, it appears there is a subset of robberies carried out by groups of young people. A study from the United Kingdom found that personal robbery (mugging) was primarily a younger persons’ offence (over half of all offenders were aged between 16 and 20 years), perpetrated in groups (60% involved groups of 2 or more offenders) and occurring in largely open and public locations (40% in the street or public transport; see Smith 2003).

Closer inspection of recent Australian armed robberies shows that three out of five armed robberies (61%)

Figure 13 Armed robbery by location, 2009–10 (%)



Note: n=10,398

Source: NARMP incidents 2004–10 [computer file]

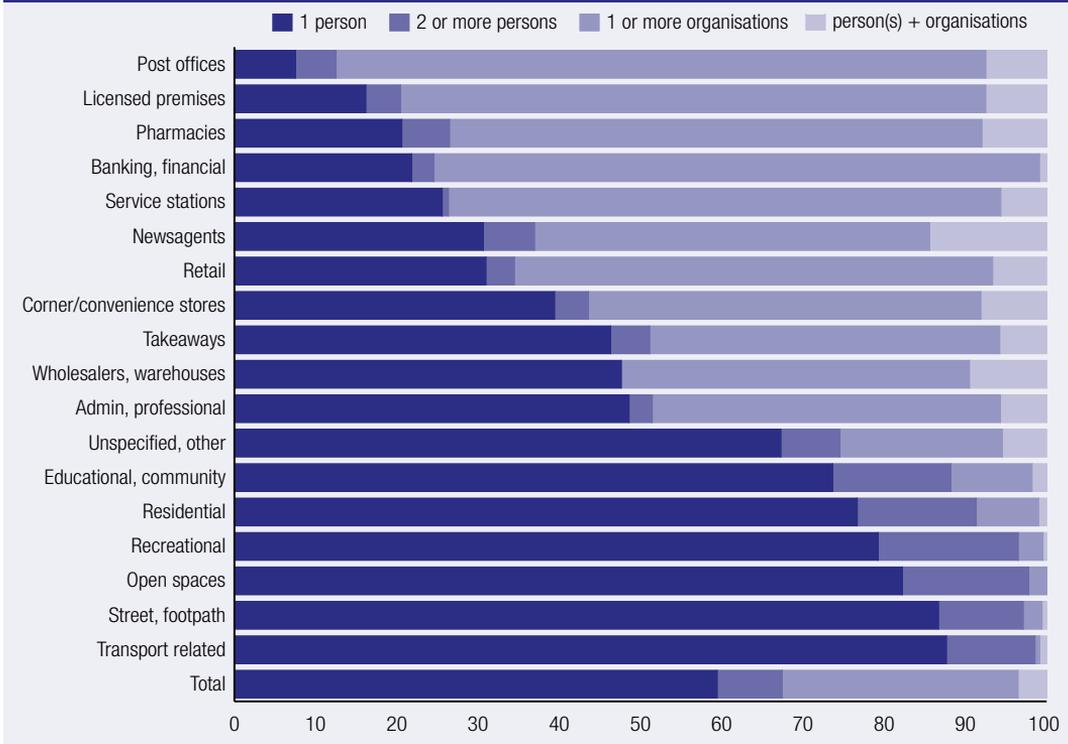
carried out by groups of young people (less than 18 years) similarly took place in the street, in open spaces or in public transport locations. Examined from a slightly different perspective, of those incidents involving five offenders, 45 percent (n=34) took place in the street and the average age of these offenders was 18.1 years. NARMP does not contain information about offender motivation but these young people may operate together because of a group's greater capacity to intimidate and because of the security found in numbers. A recent US study that asked incarcerated adult armed robbers about their offending reported that some offenders operated with accomplices because this also helped to depersonalise the confrontation with victims (Alarid, Burton & Hochstetler 2008).

By contrast, those armed robberies carried out by lone adults over 35 years of age took place in commercial locations in over two-thirds of cases (71%). The average age of lone offenders operating

in commercial locations ranged from 27.6 years in licensed premises to 33.8 years in banking and financial settings. This suggests another armed robbery type, where older offenders target potentially more lucrative locations. Older offenders are perhaps more aware of the risks inherent in operating in large groups and so choose to act alone.

An earlier examination of Australian armed robberies identified three scenarios (types) of the offence—opportunistic street muggings, amateur retail armed robbery and professional armed robbery (Mouzos & Borzycki 2003). There is some congruence between the first two scenarios and the street muggings and commercial robberies suggested in current data. However, the qualitative aspects that could potentially assist in more clearly classifying types of robbery (such as the use of overt violence, offender modus operandi and level of planning as demonstrated in disguises) are not currently available within the NARMP dataset.

Figure 14 Types of armed robbery victims, by incident location, 2009–10 (%)



Note: n=10,378. Excludes incidents without location or victim type information

Source: AIC NARMP incidents 2004–10 [computer file]

Physical aspects of recent armed robbery incidents

Where did armed robberies occur?

Half of armed robberies in 2009 and 2010 occurred either on the street or footpath (n=3,427 or 33%) or at retailers where the nature of the business was not specified (n=1,743 or 17%; see Figure 13).

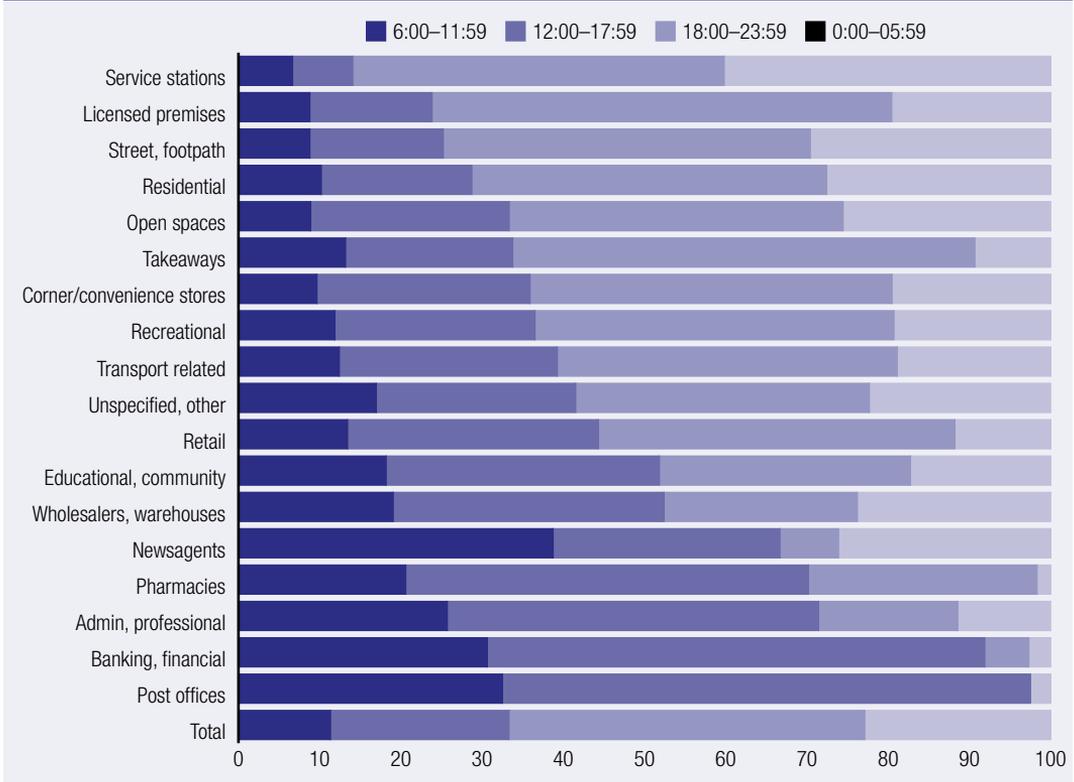
As already noted, data indicate that the number of armed robberies taking place at licensed premises has increased since the inception of NARMP. In 2009 and 2010, this location accounted for seven percent of incidents (n=705); a similar percentage to that seen for service stations (8%; n=796).

Earlier monitoring reports described incidents taking place in the categories of 'newsagents and post offices' and 'corner stores' (incorporating supermarkets and takeaway food outlets). These locations have been treated separately in the analyses of recent armed robberies in this report.

These new categories contain relatively few cases and combined, they account for less than 10 percent of incidents. However, newsagents, convenience stores and takeaway food outlets are locations of interest insofar as they represent retail enterprises that have the potential for high cash turnover and 'unsociable' operating hours, and so can be seen as potentially attractive targets for robbery. These locations will continue to be specifically monitored in the future to explore whether the suggested downward trend seen in armed robbery generally is uniformly mirrored in specific locations.

Different types of victims are robbed in different locations. For instance, nearly all incidents taking place on the street or footpath, in recreational settings (both 97%) or in transport settings (99%) involve one or more individual victims. By contrast, 76 percent of bank robberies, 74 percent of service station robberies and 80 percent of armed robberies in licensed premises involved an organisational

Figure 15 Time of day of armed robbery by location, 2009–10 (%)



Note: n=10,392. Excludes incidents without location or time of day information

Source: AIC NARMP incidents 2004–10 [computer file]

victim (see Figure 14). These data are not surprising as presumably, certain locations are targeted precisely because the businesses that operate there are likely to hold items attractive to offenders.

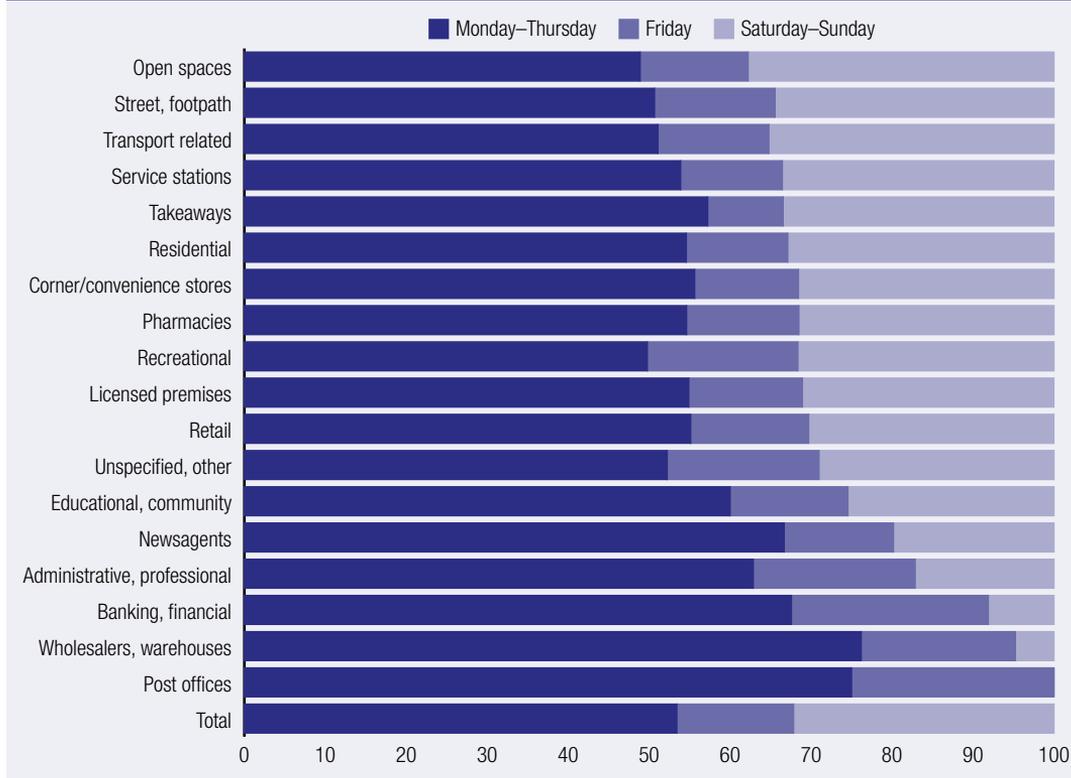
When did armed robberies take place?

Recent armed robberies were predominantly night-time events; two-thirds of all recent incidents (n=6,932 or 67%) took place between the hours of 6:00 pm and 5:59 am, although this was not true of all locations (see Figure 15). Over 90 percent of armed robberies in both banking locations and in post offices took place in the daytime hours (between 6:00 am and 6:00 pm), reflecting the hours of operation of these businesses. The pattern was reversed for those taking place on the street, licensed premises or service stations, where at least 75 percent of armed robberies took place in night-time hours.

Around one-third of all armed robberies (n=3,344; 32%) occurred on a Saturday or Sunday, but this too was not uniform across all locations (see Figure 16); locations with traditional business days, such as post offices, administrative or professional offices and warehouses were less frequently robbed on weekends. The concentration of armed robbery at the close of the working week was further highlighted when the definition of ‘weekend’ was expanded to capture the period spanning 6:00 pm Friday to 5:59 am Monday—41 percent of all incidents (n=4,232) were reported as occurring within this timeframe.

Relative to other times during the week, a disproportionate number of recent armed robberies occurred between midnight and 5:59 am on Saturdays and Sundays (n=1,027; see Figure 17). Armed robberies during these times accounted for 10 percent of all incidents. One-fifth of all early morning armed robberies that took place on the

Figure 16 Day of the week of armed robbery by location, 2009–10 (%)



Note: n=10,398. Excludes incidents without location or day information

Source: AIC NARMP incidents 2004–10 [computer file]

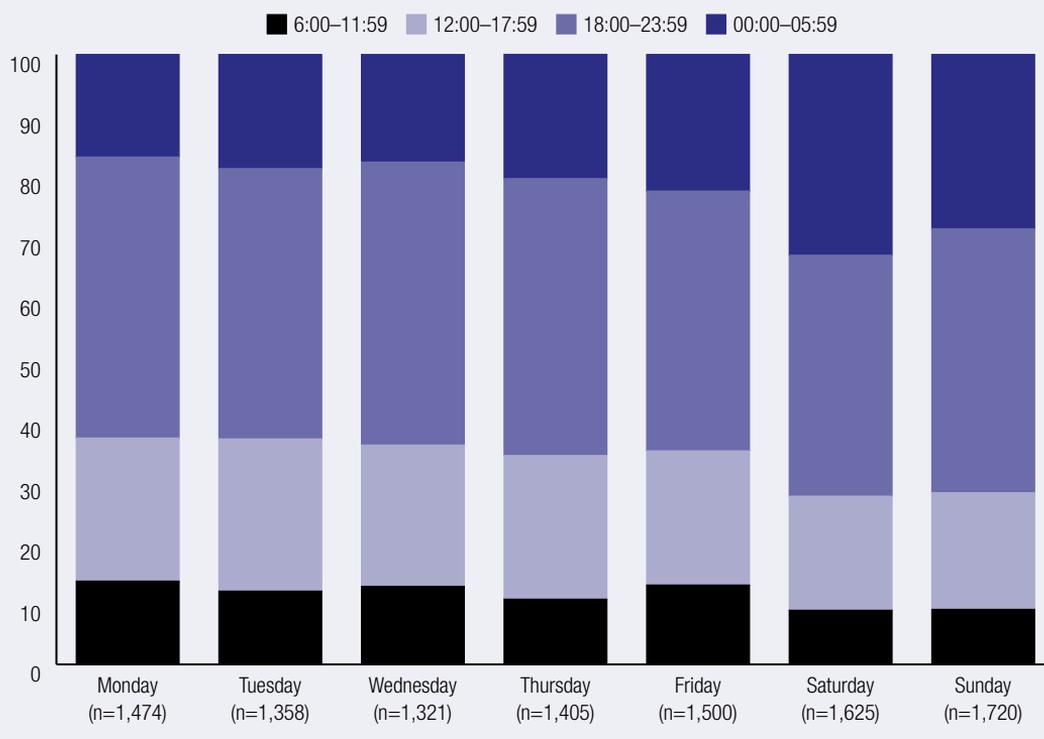
weekend were perpetrated against an organisational victim. Of these organisational victims, 38 percent (n=77) took place in a service station, 27 percent (n=56) in an unspecified retail location and 17 percent (n=34) in licensed premises. A sizeable proportion of early weekend morning armed robberies could be characterised as muggings (for these purposes defined as apparently opportunistic street robberies of individuals): four-fifths were attacks against individual victims (66% against lone persons and 14% against 2 or more persons). Over half of all these armed robberies took place on the street or footpath (62%), with eight percent occurring in transport-related locations. Ninety-four percent of street armed robberies occurring during these hours were perpetrated with a knife or some ‘other weapon’.

Despite a clustering of armed robberies during weekend hours, most armed robberies nonetheless occurred during the week (Monday to Friday; 67%).

As with other aspects of robbery, there was some variation depending on the type of victim. When considering individual victims, only 21 percent of armed robberies occurring on a given weekday happened between the hours of midnight and 6 am. The equivalent figure for both Saturday and Sunday nights was 36 percent (see Figure 18). Findings from earlier investigations of NARMP (eg Smith & Louis 2010) have couched these findings within routine activity theory (see Cohen & Felson 1979). Within this framework, the opportunity for early morning weekend armed robberies increases as more individuals frequent relatively unguarded areas while they socialise in and around night-time entertainment areas.

Similar to individual victims, organisational victims were mainly robbed outside of standard business hours (see Figure 19). Organisational victimisation patterns stayed fairly consistent across the days of the week, with the largest proportion victimised each

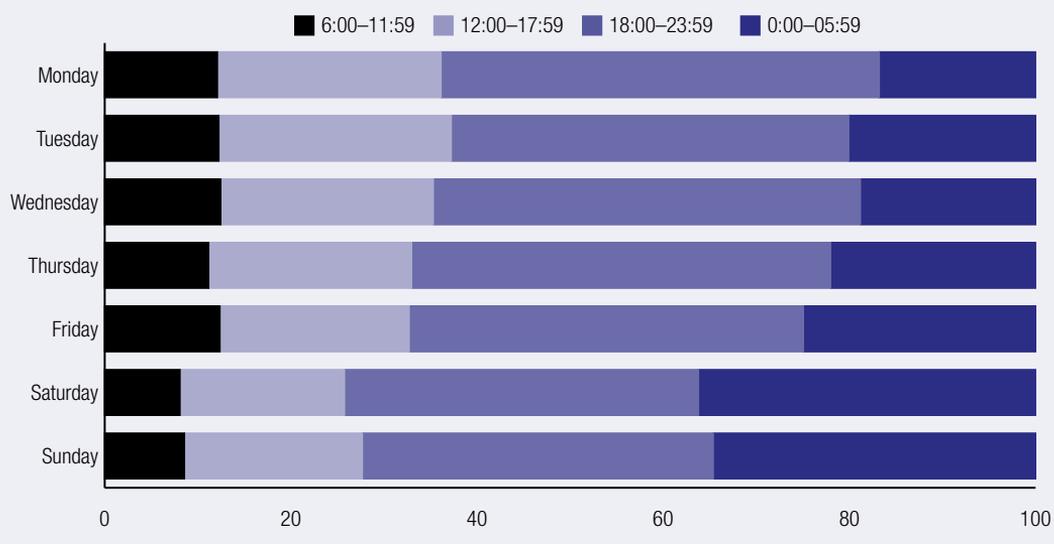
Figure 17 Time and day of armed robbery, 2009–10 (%)



Note: n=10,403. Excludes incidents without time or day information

Source: AIC NARMP incidents 2004–10 [computer file]

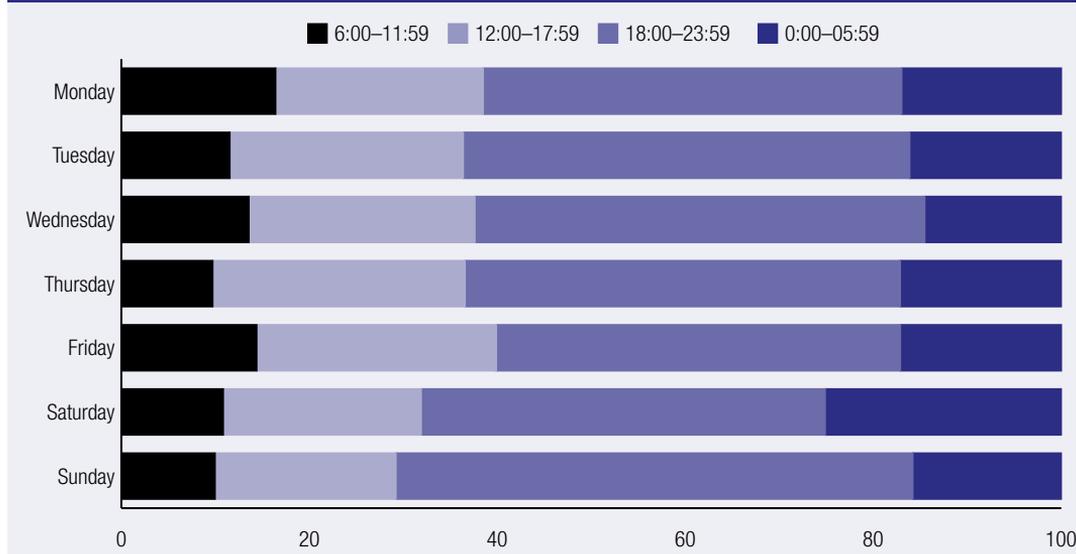
Figure 18 Individual victims of armed robbery by day of the week and time of day, 2009–10 (%)



Note: n=7,001. Excludes incidents without day and time information

Source: AIC NARMP incidents 2004–10 [computer file]

Figure 19 Organisational victims of armed robbery by day of the week and time of day, 2009–10 (%)



Note: n=3,382. Excludes incidents without day and time information

Source: AIC NARMP incidents 2004–10 [computer file]

day between the hours of 6 pm and midnight. This time period presumably captures business closing periods. Retailers may be especially vulnerable during this time as closing procedures often involve the movement of large amounts of cash from the till to safes (or from safes offsite), making the business an attractive target. Further, there may be fewer clients and staff on the premises at this time and therefore ‘guardians’ become fewer, potentially increasing the risk of armed robbery.

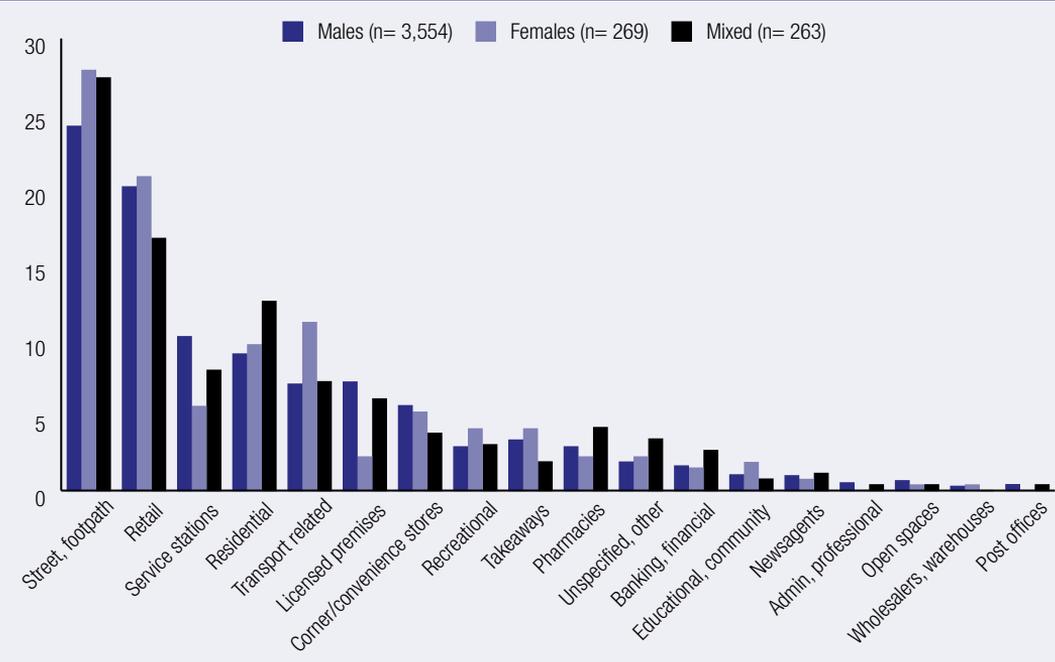
An examination of robbery frequency by location during and outside of these hours showed that relative to other locations, retailers were robbed as frequently inside and outside of this period, as were service stations. However, relative to other locations, licensed premises were robbed more often during this time (9% of robberies during this time period, compared with 5% during other times), but this may reflect the later operating hours of licensed premises generally rather than business closure per se. NARMP data are not sufficiently detailed to test whether end of day closure is a particularly vulnerable time for reporting businesses—the types of businesses contained within the large generic retail category vary widely and presumably so do the specific business operating hours, which are not currently recorded within the data collection.

Offenders and specific locations

Nearly one-half of recent incidents involving exclusively male, exclusively female or mixed gender offender groups occurred either on the street/footpath (24% of male, 28% female and 27% mixed) or in unspecified retail venues (20% of males, 21% of females and 17% of mixed gender groups; see Figure 20). Gender-based differences in location were suggested; however, the very small numbers of exclusively female and mixed gender incidents means some location by gender categories are likely to be highly variable over time. Mindful of this caveat, there is the suggestion that when compared with female offenders, a greater percentage of incidents involving only male offenders took place in service stations (10% *cf* 6% of female armed robberies) and licensed premises (7% *cf* 2% of female-only incidents). Conversely, 11 percent of female-only incidents were in transport locations, compared with seven percent of male-only armed robberies.

Armed robbery is not a homogenous crime. Armed offenders target certain victims after considering a variety of features and the opportunities for this crime to take place are not equally distributed across all locations. Recent NARMP location data also

Figure 20 Armed robbery offenders by location and gender, 2009–10 (%)



Note: Excludes incidents without location and offender information

Source: AIC NARMP incidents 2004–10 [computer file]

broadly suggest a convergence of some offender characteristics with location type, further suggesting discernible armed robbery ‘types’.

Some locations were associated with higher proportions of victimisation by young offenders. For instance, 62 percent (n=53) of armed robberies that occurred in a recreational location involved an offender who was under the age of 18 years. Young offenders also targeted transport locations (n=136), open spaces (n=11) and the street/footpath in similar, sizeable proportions (n=436; ranging between 43% and 45% of incidents in each location).

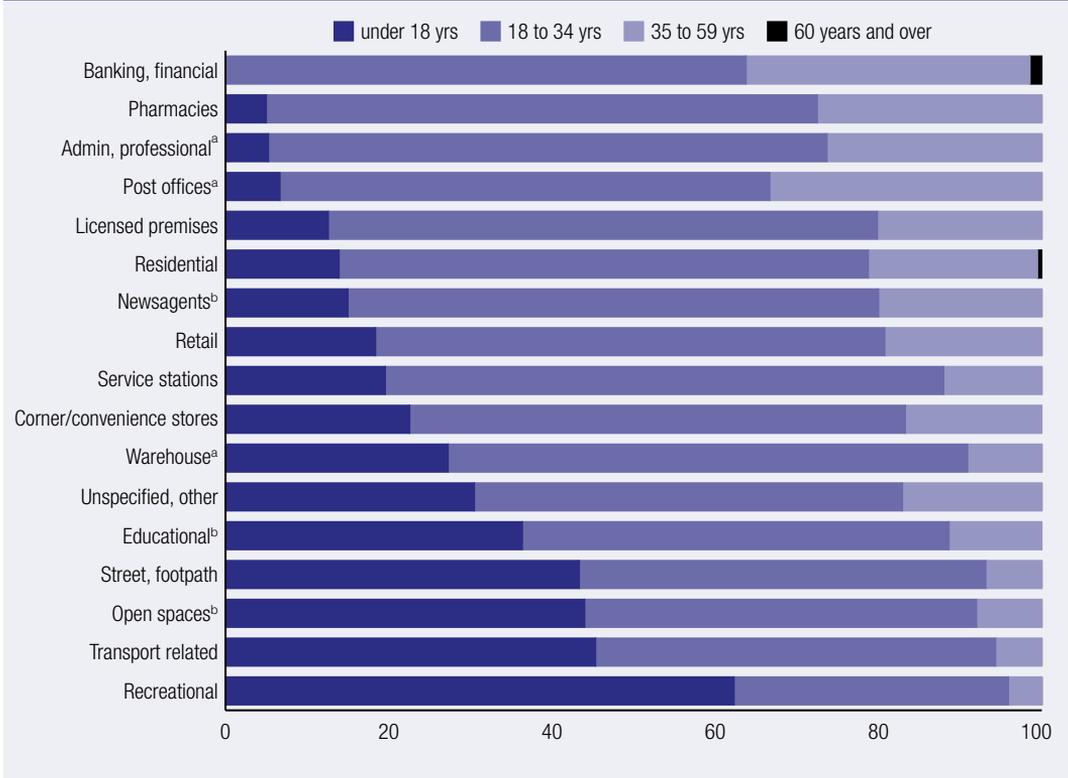
By contrast, older offenders (those aged greater than 35 years) tended to be involved in incidents in what might be considered more lucrative locations (eg banking and financial locations; n=25, or 36% of incidents in this location) relative to the more opportunistic locations (eg n=69 or 7% of those in the street or footpath; see Figure 21). Importantly though, while there are differences across various locations when considering very young and older offenders, the majority of involved offenders across

most locations were aged between 18 and 34 years. The very young and the older offender types suggested in the data were responsible for only a minority of all armed robberies.

Offender groups

Adult offenders (those 18 years and over) generally operated alone regardless of where the offence was committed. This was particularly true for some commercial locations already mentioned—post offices, corner and convenience stores, pharmacies, and banking and financial locations (over 80% of incidents in these locations that involved adult offenders involved lone armed robbers; see Figure 22). Pairs of adults were relatively more common in open, public locations (eg 21% of robberies in the street and footpath involved pairs). Although relatively more offender groups appear to offend in wholesalers, administrative and professional, and recreational settings, few incidents were reported as occurring in these settings (n=8, 16 and 40 armed robberies respectively).

Figure 21 Locations of armed robbery, by the age of the offender, 2009–10 (%)



a: n<20

b: n<50

Note: n=4,086. Excludes incidents without location and offender information

Source: AIC NARMP incidents 2004–10 [computer file]

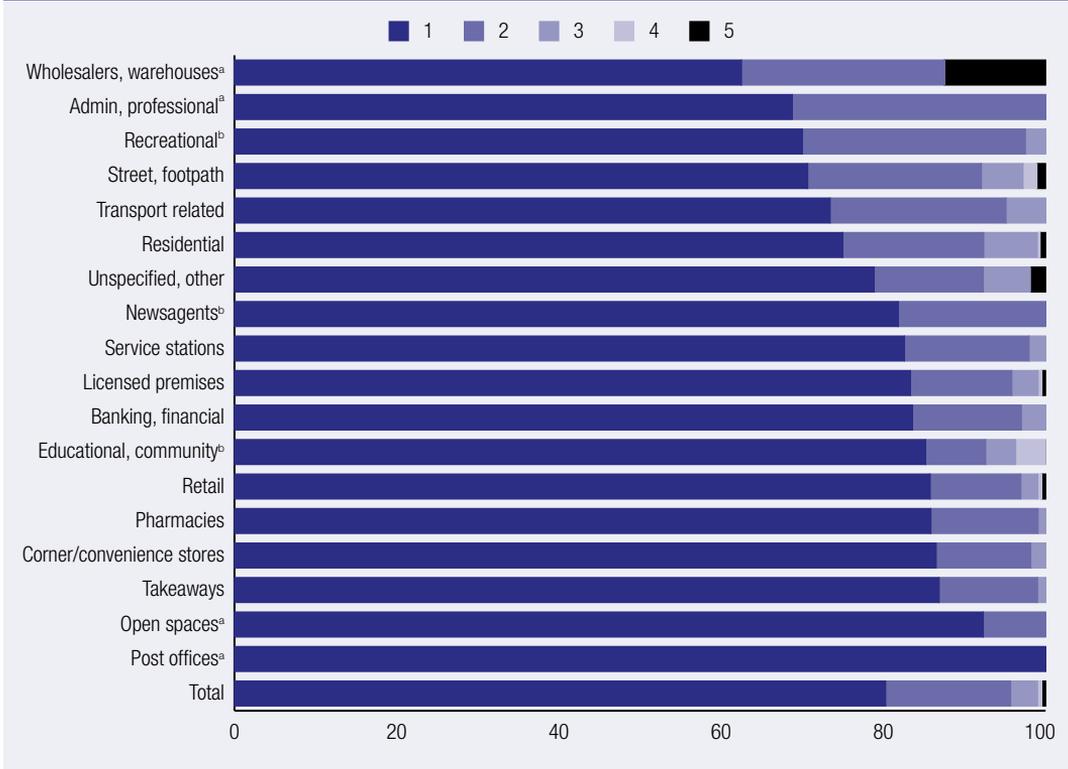
As noted elsewhere, armed robbery involving juveniles (ie under 18 years) also primarily involved only one offender. However, compared with adults, higher proportions of juvenile armed robbers operated in groups across a wider variety of locations (see Figure 23). For example, one-quarter each of incidents involving exclusively juveniles in unspecified retail settings, takeaways and pharmacies involved offender pairs. Over half of the incidents in the street and footpath carried out by young people under 18 years (n=194; 54%) involved groups.

Weapons and property in recent armed robberies

Weapons used in recent armed robberies

The use, presence or threat of a weapon is a defining characteristic of armed robbery. NARMP records information relating to up three weapons in each robbery and the detailed inspection of the weapons reported as used in recent robberies highlights the wide variety of items offenders used to threaten victims (see Table 2). These include what could be considered traditional weapons, such as

Figure 22 Adult offenders of armed robbery by location and number of offenders, 2009–10 (%)



a: n<20

b: n<50

Note: n=2,661. Excludes incidents without location and offender information. Excludes incidents with mixed age offender groups ie involving both juvenile and adult offenders

Source: AIC NARMP incidents 2004–10 [computer file]

knives (n=6,297) and firearms (n=2,003), and ‘other weapons’ such as clubs, batons or sticks (n=535), crowbars and metal pipes (n= 432), and bottles or broken glass (n=399). In 2009 and 2010, knives were used to threaten the majority of victims (50%). A quarter were attacked with some ‘other weapon’ (25%) and 16 percent were robbed with a firearm. Only a very small minority (2%) were threatened with a syringe.

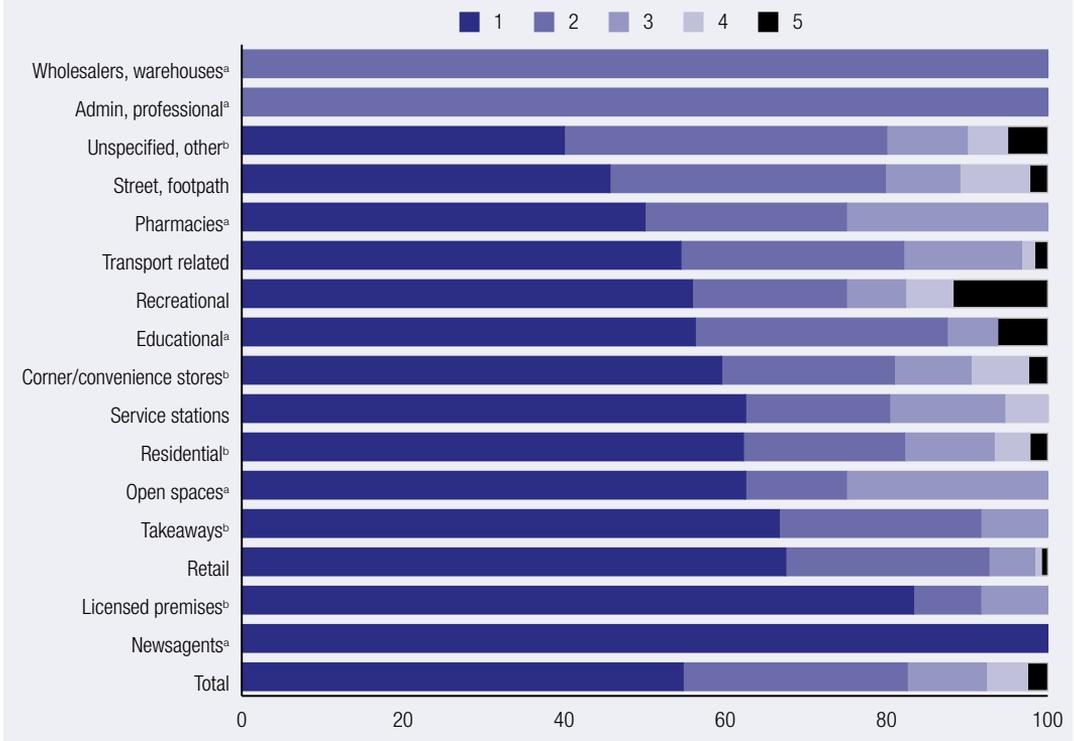
More than one victim could be involved in an armed robbery incident, therefore, percentage weapon use was slightly different when considering armed robbery events as the unit of analysis. The most serious weapon listed in 56 percent of incidents where there was detailed weapon information was a knife (n=5,314), in 17 percent it was a firearm (n=1,624), 24 percent involved some ‘other weapon’ (n=2,337) and a syringe was used in three percent (n=277).

Victim injury

Although inherently a violent crime because of the real or implied threat that accompanies armed robbery, not all armed robberies result in actual physical or emotional/psychological injury to victims. NARMP contains only limited victim injury information, derived from a subset of Australian jurisdictions. Furthermore, the broad injury categories employed by these two jurisdictions are not identical, so at best, these data can only suggest patterns of weapon use and injury.

Emotional trauma was the most common type of injury resulting from armed robbery (35% of the 1,941 individual victim cases in which the injury field contained information), followed by minor injury (eg cuts, abrasions; 21%). Serious injury requiring emergency medical attention was recorded for 71 victims (4%).

Figure 23 Juvenile offenders of armed robbery by location and number of offenders, 2009–10 (%)



a: n<20

b: n<50

Note: n=917. Excludes incidents without location and offender information. Excludes incidents with mixed age offender groups ie involving both juvenile and adult offenders

Source: AIC NARMP incidents 2004–10 [computer file]

The type of injury sustained by victims varied by weapon type (see Figure 24). For instance, 27 percent of victims of ‘other weapon’ robberies received minor injuries, with relatively fewer victims of syringe robberies (12%) and firearm robberies (13%) sustaining similar levels of minor injury.

The single recorded fatality arose from a robbery with a knife and is the first recorded in the NARMP dataset since 2005. However, because of the limited capacity of NARMP to accurately record all injury arising from armed robbery, this is an underestimate. The AIC’s *National Homicide Monitoring Program* reports that when homicide occurs in the course of another crime, the most common preceding offence is robbery (although not necessarily *armed* robbery per se). In 2007–08, eight homicides were preceded by a robbery (Virueda & Payne 2010), none of which were recorded as such in the NARMP dataset.

No injury was noted, or the injury field was flagged as ‘not applicable’ in four out of every 10 individual victim cases (n=778). This does not necessarily indicate that victims did not experience some ill-effect of the incident, simply that it had not been noted in victim files at the time of data extraction.

Weapon use in different locations

Patterns of weapon use differ with location. The weapon selected to commit armed robbery can be seen as related to the level of victim control required in a robbery and the crime prevention ‘obstacles’ and other risks associated with the target and location, relative to the risks posed by carriage

Box 4 Syringe use in armed robbery

Although used in only a small number of incidents—less than five percent of armed robberies since 2004—a separate syringe category is retained in NARMP to permit weapon trends to be examined consistently over time. As noted elsewhere in this report, the NARMP dataset was modelled on the ABS RCV, which still reports separately on this weapon type. As indicated in Figure 5 of this report, the already low levels of use of this weapon may be declining and will continue to be monitored within NARMP.

of a certain weapon (eg see Mouzos & Carcach 2001). Some approaches to understanding crime pose a level of considered reasoning behind weapon choice, that is, a *rational choice perspective*. This assumes offenders carry out their crimes to meet various needs and then make decisions and choices about how they offend based on the information available to them (eg see Clarke & Felson 1993). Within this framework, robbery offenders evaluate the characteristics of the target and the weapons at their disposal and opt for weapons that minimise risks and maximise returns.

The more high risk and high gain a target, the greater the likelihood that offenders will select weapons like a firearm. A firearm allows substantial, arm's length control in highly secured and therefore threatening environments but compounds the risks to offenders because of the serious penalties associated with firearm use and the heightened possibility of firearms being used in response to their threat. Earlier research indicates that firearms are often the weapon of choice for high-yield, professional armed robberies (Smith & Louis 2010). The converse of this is that low-risk, low-yield robberies will likely be characterised by more opportunistic weapons that offer less victim control but are also less risky for offenders (knives, syringes, or other weapons).

It is highlighted in Figure 25 that incidents in high-volume, opportunistic locations such as the street and footpath involve primarily knives (59% or n=1,843) or other weapons (31%; n=979), with only eight percent of incidents involving a firearm (n=253). Conversely, robberies in licensed premises and banking and financial locations (which potentially offer higher gains but also greatly enhanced security and 'guardianship') involved firearms in four in 10 incidents (42% or n=274) and six in 10 incidents respectively (n=60, or 60%). 'Other weapons' were used in only 18 percent of robberies in licensed premises and in only 11 percent of bank robberies.

Victim, offenders and weapons used

Jurisdictions are requested to supply details on up to three weapons employed in an armed robbery, although not all are able supply this information. Four jurisdictions were able to provide more detailed descriptions, enabling some exploration of the way weapons are used in combination. However, these data do not accurately describe *all* weapons employed in *all* recent armed robberies.

If a victim is threatened with multiple weapons, the most serious weapon used in that incident is considered. As shown in Figures 26 and 27, both male and female victims of any age were most often robbed by an offender armed with a knife and least often robbed by an offender with a syringe. However, it is interesting to note that the proportion of victims robbed by offenders with firearms increased as the age of the victim increased. This was true for both males and females, and may be linked to the 'routine activities' of older victims. Older adults might tend to avoid those relatively unsafe locations and times that are associated with high-volume knife robbery, but do frequent those locations that are more often subject to high-gain firearm robbery. Importantly and as noted previously, older adults are subject to fewer armed robbery attacks overall than younger people, so those few firearm robberies that older adults do experience constitute a larger proportion of their overall victimisation.

The armed robbery of an organisation poses a different set of risks and opportunities to those presented by an individual and weapons used against the different types of victims would seem to reflect this. For instance, knives were the weapon most commonly used against both individual and organisational victims, regardless of location (57% and 53% respectively). Firearms were used in the robbery of organisations more often (27%; n=831) than in attacks against individual victims (12%;

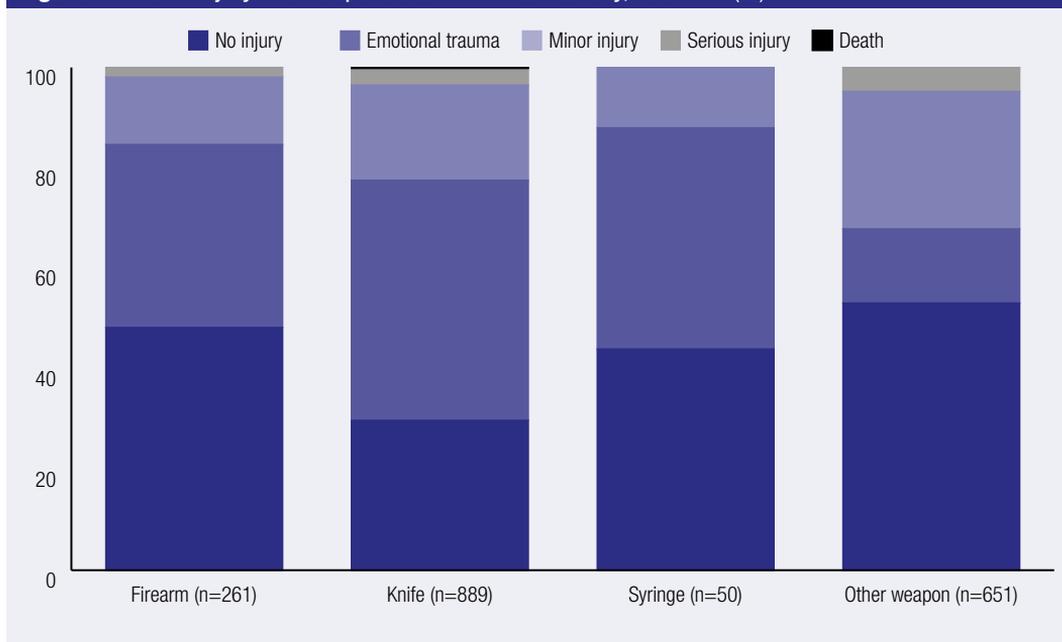
Table 2 Weapons used against armed robbery victims, 2009–10 (%)

Weapon	n	% total weapons
Firearms		
Firearm (with no further detail)	97	1
Handgun	1,162	9
Shotgun	340	3
Rifle, airgun	120	1
Sawn-off longarm	23	0
Replica firearm	50	0
Other firearm (not classified elsewhere)	211	2
Total	2,003	16
Knives		
Knife (with no further detail)	6,070	48
Scissors	7	0
Pocket knife	3	0
Screwdriver	74	1
Other knife (not classified elsewhere)	143	1
Total	6,297	50
Syringes		
Syringe	313	2
Total	313	2
Other weapons		
Other weapon (with no further detail)	928	7
Club, baton or stick	535	4
Rock, stone or brick	88	1
Tool (not classified elsewhere)	261	2
Blunt instrument (not classified elsewhere)	127	1
Bottle, broken glass	399	3
Chemical spray	20	0
Explosive, bomb	10	0
Machete, axe	68	1
Sledgehammer	57	0
Crowbar, metal pipe	432	3
Bow, spear, speargun	5	0
Vehicle	6	0
Conducted electronic weapon (stun gun)	10	0
Sword	9	0
Other weapon (not classified elsewhere)	182	1
Total	3,137	25

Table 2 (continued)

Weapon	n	% total weapons
Unknown and no further detail		
Weapon used (with no further detail)	167	1
Unknown	804	6
Total	971	8
Total	12,721	100

Note: Victims can be threatened with more than 1 weapon therefore total exceeds number of victims. Percentages do not necessarily total 100 due to rounding
Source: AIC NARMP victims 2003–10 [computer file]

Figure 24 Victim injury and weapons used in armed robbery, 2009–10 (%)

Note: Excludes victim cases without injury or weapon information. Based on most serious weapon listed for that victim
Source: AIC NARMP victims 2003–10 [computer file]

n=792), but their use against the different types of victim varied with location. Only eight percent of individual victims robbed in the street were threatened with a firearm, while around one-third of those victimised in banks (35%) and in licensed premises (33%) were subject to firearm robbery (see Figure 28).

Organisational victims at sites with substantial cash holdings and therefore more security (ie hardened), such as banks and financial locations, and licensed premises, were robbed by offenders armed with

firearms at higher rates (68% and 44% respectively) than organisational victims at less secure sites (eg street and footpath, 15%; see Figure 29). It is probable that locations that are attractive to offenders because of cash levels but that are also 'hardened' will be targeted by organised or 'professional' armed robbery offenders employing firearms. Organisational victims are more likely in these locations. Individuals are also victimised at these sites, but at a lesser rate, hence the differential patterns of weapon use when considering victim type and location.

Weapon use did not vary widely with the number of offenders involved in recent robberies (see Figure 30). The percentage of robberies in which a knife was the most serious weapon employed was reasonably constant across offender numbers (around 1 in every 2 incidents). Syringe use is the exception, with these weapons mostly employed by offenders acting alone or in pairs. The apparently different pattern of weapon use among groups of five offenders is likely due to the small number of incidents (n=67).

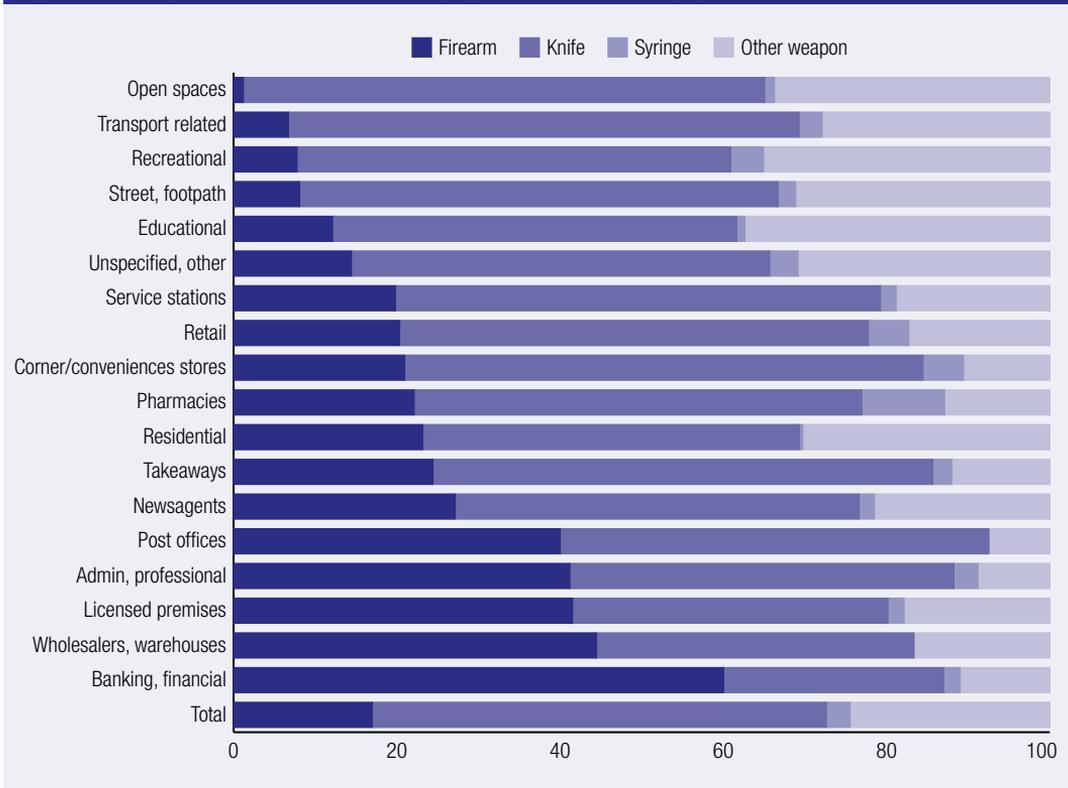
Most armed robbery incidents in 2009 and 2010 involved only a single type of reported weapon; 49 percent involved a single knife, 22 percent one single 'other weapon', 13 percent a single firearm and three percent a single syringe. Where more than one weapon was recorded as involved, the most common combination was a knife and some 'other weapon' (2% of incidents; see Table 3). Also in keeping with earlier analyses, higher percentages

of incidents involved a firearm or a combination of firearms for organisational victims relative to individuals (25% of incidents involving a single organisation and 24% of incidents involving both organisational and individual victims, versus 11% of individuals). Only a very small number of incidents involved offenders armed with syringe(s) (3%), with similar proportions used against organisational and individual of victims.

Property stolen in recent armed robberies

As with victim injury, because of data limitations NARMP information describing the types of property stolen is at best broadly indicative of all Australian armed robberies. Only six jurisdictions were able to supply some type of property information and the type of information received varied with jurisdiction. Information concerning up to five property items can

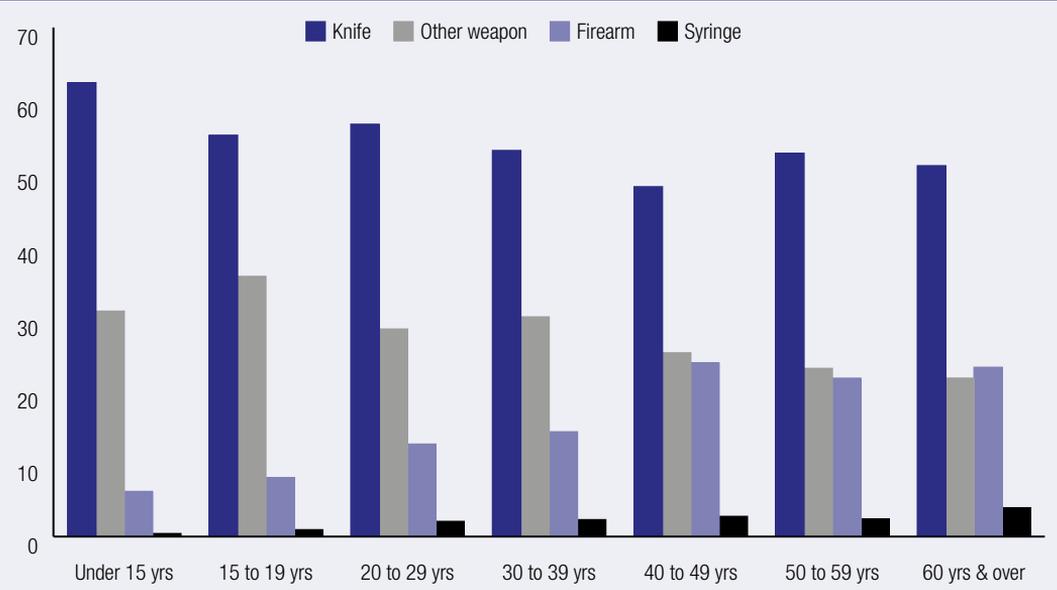
Figure 25 Weapons used in armed robbery by location, 2009–10 (%)



Note: n=9,551. Excludes incident cases without location or weapon information. Based on most serious weapon listed for that incident

Source: AIC NARMP incidents 2004–10 [computer file]

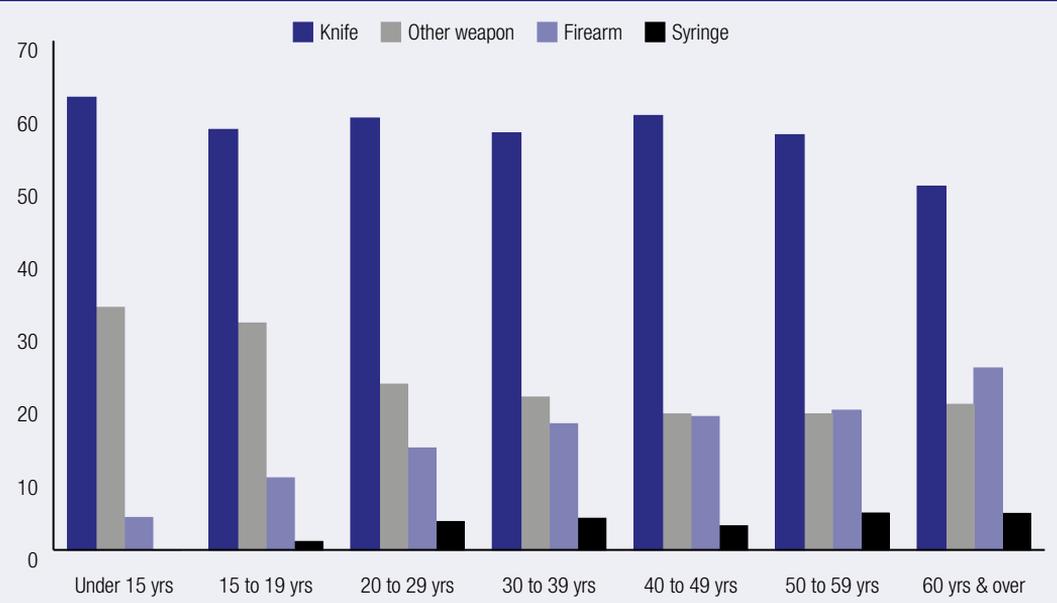
Figure 26 Male victims of armed robbery by age and weapon type, 2009–10 (%)



Note: n=6,044. Excludes victim cases without weapon, gender or age information. Based on most serious weapon listed for that incident

Source: AIC NARMP victims 2003–10 [computer file]

Figure 27 Female victims of armed robbery by age and weapon type, 2009–10 (%)



Note: n=1,772. Excludes victim cases without weapon, gender or age information. Based on most serious weapon listed for that incident

Source: AIC NARMP victims 2003–10 [computer file]

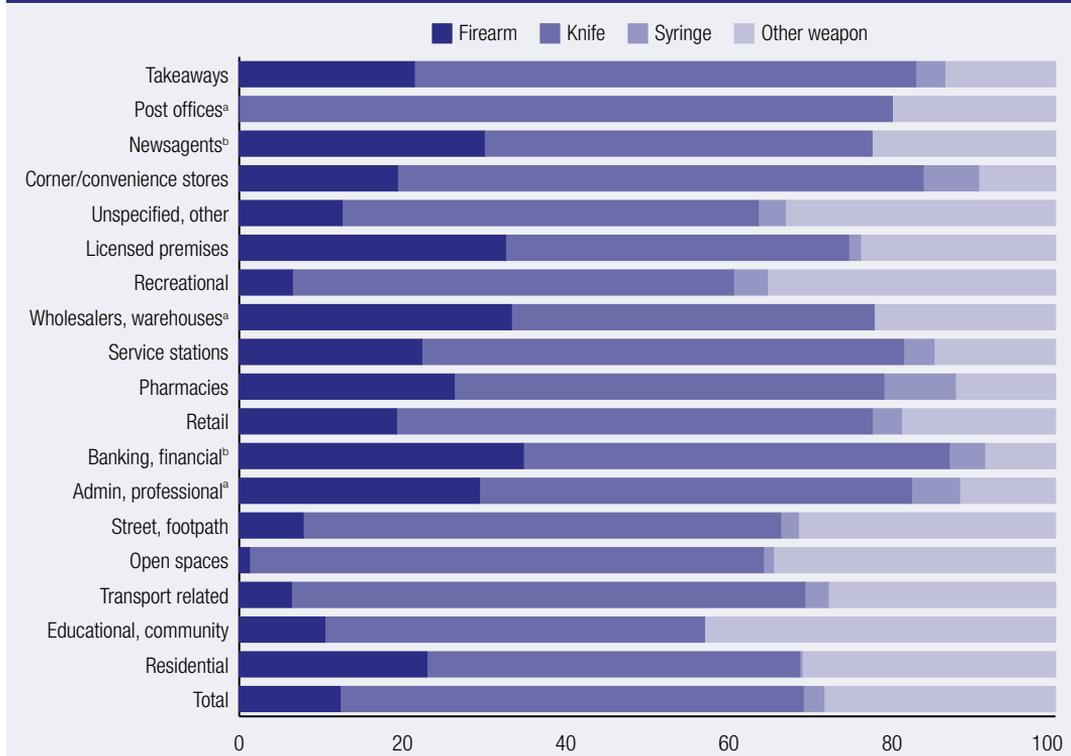
be recorded within NARMP (although an incident may involve the loss of many more items) and there is no standard across states and territories for prioritising property type when data are extracted (the *Technical Appendix* contains additional detail concerning the limitations of property information).

With these caveats in mind, valid (ie non-missing and not flagged as *no property listed*) information was available for 3,820 recent incidents. Only a single type of property was listed in half of these incidents (51%) and five items of property were listed for 604 incidents (16%). On average, among the armed robberies with valid information, two property items were listed as stolen. The types of items taken in recent armed robberies is summarised in Table 4, where cash was listed as stolen at least once in 2,243 incidents (or 59% of those with property information). Electrical equipment, which includes

personal electrical items like laptops and mobile phones, was the next most commonly stolen item (listed at least once in 1,552 or 41% of armed robberies).

The types of property stolen varied with victim type (see Table 4). Not surprisingly, portable items that are commonly carried by people were stolen when robbing individuals—cash (listed at least once in 1,474—or 52%—of incidents involving only individuals and that also contained valid property of information), electrical equipment (47%), luggage (which includes wallets and handbags; 26%) and identity documents (18%). Cash also was listed in nearly eight of every 10 incidents involving only organisations (n=658, or 78% of relevant incidents), but no other property type was noted in more than 20 percent of organisational armed robberies. This again would be expected—offenders would

Figure 28 Individual victims of armed robbery by location and weapon type, 2009–10 (%)



a: n<20

b: n<50

Note: n=6,416. Includes incidents with single or multiple individual victims. Excludes incidents without victim type, location or weapon information

Source: AIC NARMP incidents 2004–10 [computer file]

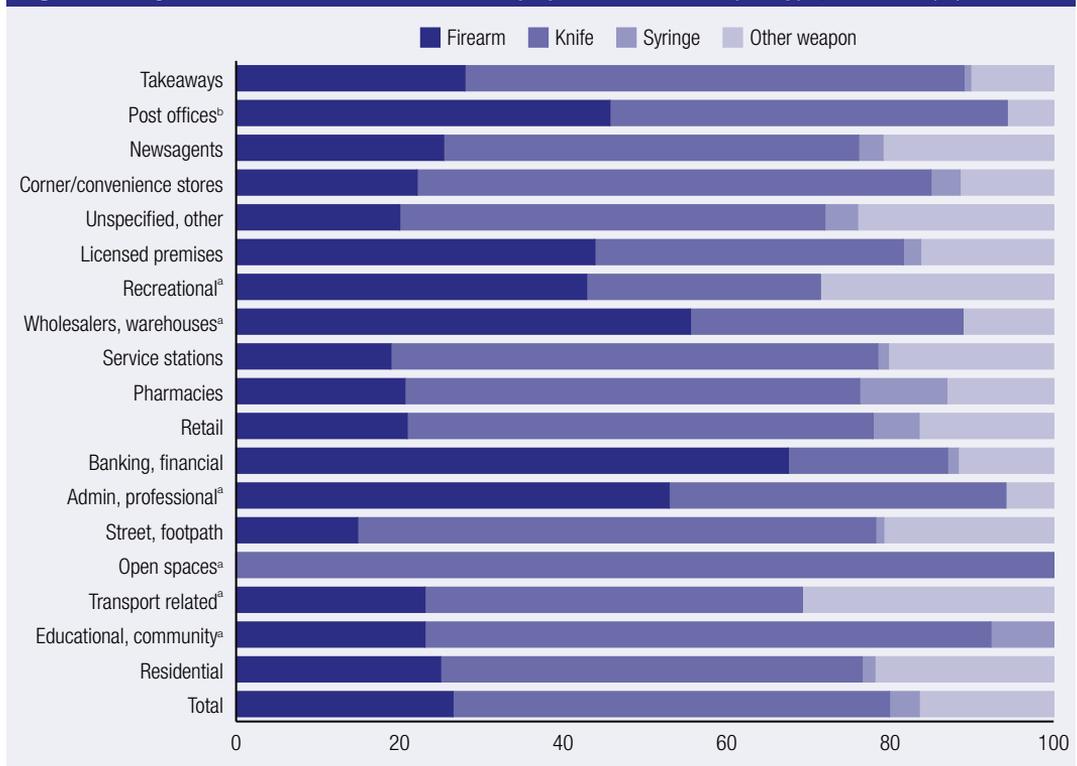
presumably target certain organisational victims because of cash holdings. Because the mixed category describes armed robberies with both individual and organisational victims, the pattern of stolen property reflects both victim types (eg 19% of incidents involved the robbery of identity documents, probably in the stolen luggage items of persons involved), but nearly three-quarters saw the loss of cash, likely from the organisations targeted in the crimes.

Detailed examination of robbery locations highlighted that at least 80 percent each of incidents involving organisations that took place in post offices, in administrative and professional settings, in banking and financial locations, and in service stations involved stolen cash. Service stations also recorded

relatively high levels of stolen alcohol and other drugs (n=41, or 30% of organisational victims robbed in service stations). This property category encompasses tobacco, alcohol, pharmaceuticals, illicit substances and related paraphernalia, and is often likely to represent cigarettes in the case of service stations. Whether these items were the target of the robbery or were picked up incidentally during the offence is impossible to determine. It is more probable that the alcohol and other drugs (including pharmaceuticals and syringes) taken in the course of pharmacy robberies were targeted, but again, this cannot be determined with certainty.

Weapon use varied with location and with victim type, and as highlighted in Table 5, the property stolen also appeared to differ by type of weapon.

Figure 29 Organisational victims of armed robbery by location and weapon type, 2009–10 (%)



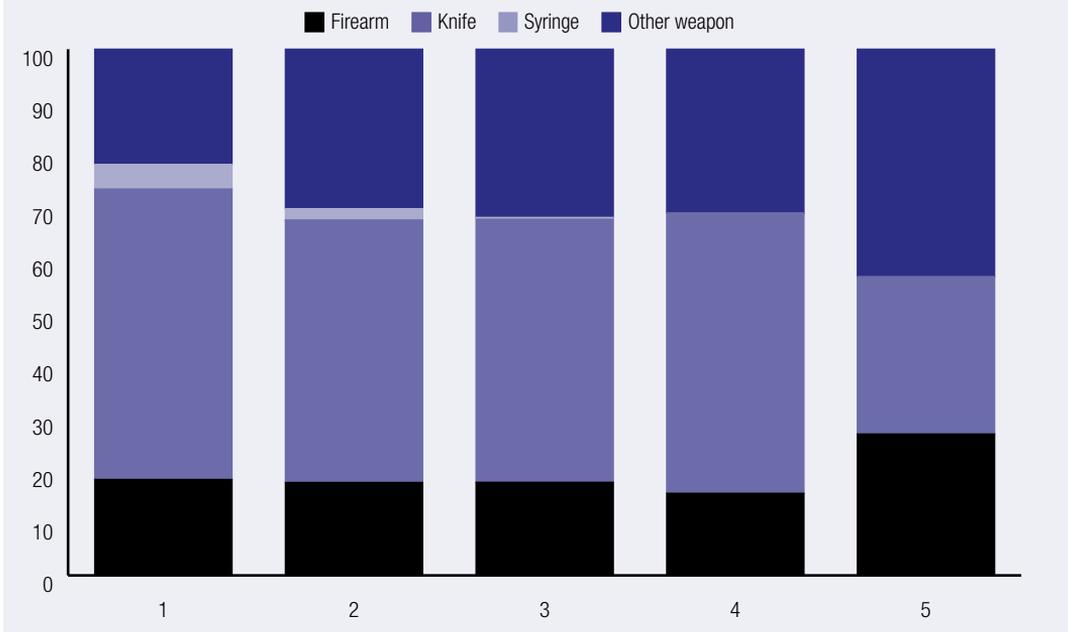
a: n<20

b: n<50

Note: n=3,135. Includes incidents with single or multiple organisational victims that may also involve individual person victims. Excludes incidents without victim type, location or weapon information

Source: AIC NARMP incidents 2004–10 [computer file]

Figure 30 Number of offenders by most serious weapon used, 2009–10 (%)



Note: n=3,694. Excludes incidents without offender or weapon information
 Source: AIC NARMP incidents 2004–10 [computer file]

A larger proportion of firearm robberies involved the loss of cash, with a smaller proportion involving stolen electrical equipment when compared with incidents involving knives or other weapons. Presumably this pattern emerged because of patterns of weapon use among victim types—organisational robberies resulted in proportionally more stolen cash than did incidents involving individuals and firearms were used proportionally more often against organisations. By contrast, ‘other weapon’ robberies were proportionally more frequent among individuals and so the pattern of property lost more resembles that seen among person victims. One in five syringe robberies resulted in the theft of alcohol and other drugs, and closer examination of these cases indicated that nine of these robberies took place in pharmacies, suggesting offender drug involvement in weapon and target choices, and the types of property targeted from those victims.

Average takings by location and weapon are presented in Table 6. Importantly, because of the limitations surrounding property value variables, these data should be viewed as only broadly

indicative. Banks and licensed premises (including pubs or hotels with gaming venues attached) were the two locations with the highest average value property stolen per incident. In 2009 and 2010, banks robberies netted offenders an average of \$5,293 per incident, while for licensed premises the amount was \$5,088. The average value of property stolen per incident was also high for residential armed robbery incidents (\$3,528). Residential armed robberies can be characterised by the disproportionately high occurrence of prior relationships between offenders and victims relative to armed robberies in other locations (eg see Borzycki 2008). Potentially, this prior acquaintance means the offender may be aware of high-value property or cash held within the residence, increasing the gains for robbery in this location.

High-volume locations, such as the street/footpath and unspecified retailers, had relatively smaller stolen property values per incident. For instance, the 840 incidents of armed robbery on the street or footpath (where property information was available) resulted in an average loss of \$1,206 per incident. For retail locations, the value was higher at \$2,133. Average

Table 3 Weapon combinations^a used in armed robberies by victim type, 2009–10 (%)

Weapon	Victim type			Total
	Individuals ^b	Organisations ^c	Mixed	
Firearm				
Single firearm	10	20	19	13
Multiple firearms	<1	1	1	<1
Firearm and knife	1	2	3	1
Firearm and syringe	0	<1	0	<1
Firearm and other weapon	1	1	1	1
Firearm and weapon nfd	0	<1	0	<1
Firearm, knife and other weapon	<1	0	0	<1
Total firearm	11	25	24	16
Knife				
Single knife	50	47	49	49
Multiple knives	<1	<1	<1	<1
Knife and syringe	<1	<1	0	<1
Knife and other weapon	2	1	2	2
Knife and other weapon nfd	<1	<1	1	<1
Knife, other weapon and weapon nfd	<1	0	<1	<1
Total knife	52	49	53	51
Syringe				
Single syringe	2	3	2	3
Syringe & other weapon	<1	<1	0	<1
Syringe & weapon nfd	0	<1	0	<1
Total syringe	2	3	2	3
Other weapon				
Single other weapon	25	14	15	22
Multiple other weapons	1	1	<1	1
Other weapon and weapon nfd	<1	<1	0	<1
Total other weapon	26	15	15	22
Missing				
Not specified/missing	8	8	6	8
Total (n)	7,007	3,016	366	10,389

a: Weapon combinations derived from up to 3 listed weapon types. Excludes incident records with victim type missing

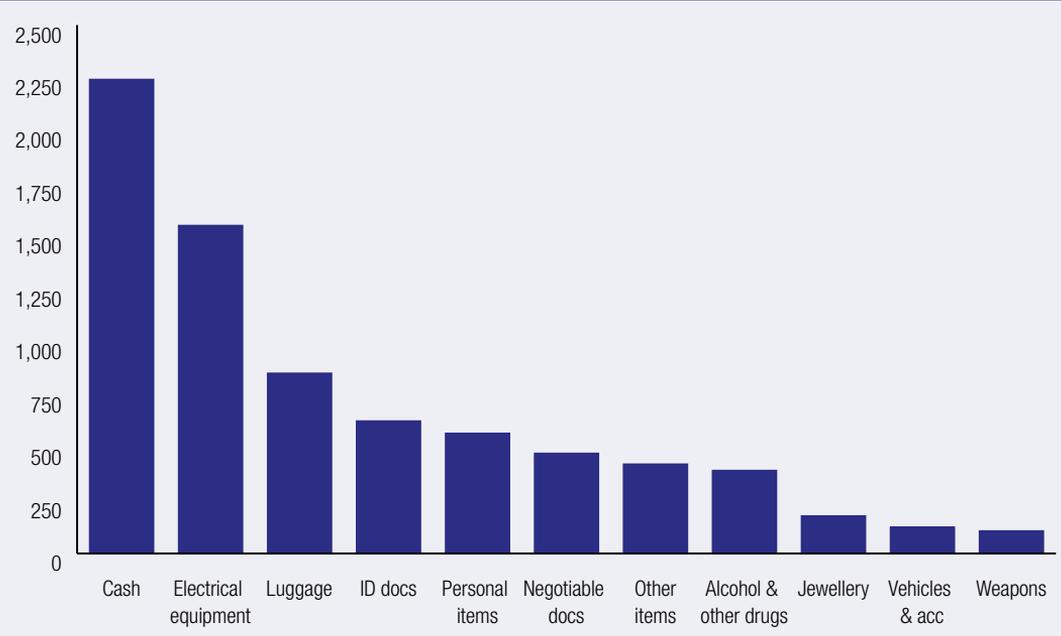
b: Includes incidents involved single and multiple individual victims

c: Includes incidents that involved single and multiple organisations

Note: nfd=not further defined. Percentages may not total 100 due to rounding

Source: AIC NARMP incidents 2004–10 [computer file]

Figure 31 Types of property stolen in armed robbery incidents, 2009–10 (n)



Note: n=3,820. Incidents can include up to 5 types of stolen property. This counts includes incidents in which the specific property type was listed at least once. Excludes incidents annotated as 'no property stolen' or 'not applicable' and those for which stolen property variables were not supplied

Source: AIC NARMP incidents 2004–10 [computer file]

values cannot, however, describe the range of the values associated with all incidents and the highly variable gains offenders might achieve. In 2009 and 2010, the value of property stolen in incidents of armed robbery occurring on the street or footpath ranged from less than \$1 to \$150,000, with a standard deviation of \$6,906.

The average stolen per incident was much higher for armed robberies involving firearms (\$4,630; n=334) compared with knives (\$1,371) and when considering specific location and weapon type in combination, 'lucrative' incidents on average involved firearms in unspecified retailers (\$6,335), banking and financial locations (\$6,917), and licensed premises (\$7,362). Property stolen from

unspecified and other locations using 'other weapons' had the greatest average value per incident in 2009 and 2010 at \$8,478.

These data suggest that even the most 'lucrative' of the recent armed robberies on average resulted in returns that were generally small given the risks inherent to committing armed robbery. Further examination showed that almost six in 10 recent armed robberies for which both offender and property value information were available (57%) resulted in victim losses of less than \$500. Only four percent of these resulted in losses over \$10,000. Finally, there does not appear to be any interpretable pattern to the loss value when considering offender numbers (see Table 7).

Table 4 Property stolen in armed robberies by victim type, 2009–10 (%)

Property category	Victim type		
	Individuals ^a	Organisations ^b	Mixed
Cash	52	78	74
Electrical equipment	47	21	26
Luggage	26	12	13
ID documents	18	11	19
Personal items	17	11	5
Negotiable documents	14	9	10
Other items	10	13	10
Alcohol and other drugs	7	21	17
Jewellery	5	2	7
Vehicles and accessories	4	1	1
Weapons	3	4	0
Total incidents (n)	2,825	845	150

a: Includes incidents involved single and multiple individual victims

b: Includes incidents that involved single and multiple organisation

Note: Percentages do not total 100 because a single incident could involve the loss of up to 5 different property types

Source: AIC NARMP incidents 2004–10 [computer file]

Table 5 Property stolen during armed robbery, by most serious weapon, 2009–10 (%)

Property category	Weapon			
	Firearm	Knife	Syringe	Other weapon
Cash	68	58	57	49
Electrical equipment	29	38	22	43
Luggage	13	19	15	27
ID documents	12	15	13	15
Personal items	12	11	17	20
Negotiable documents	9	11	10	12
Other items	11	7	9	19
Alcohol and other drugs	11	8	19	10
Jewellery	4	3	5	6
Vehicles and accessories	3	2	2	5
Weapons	4	3	3	2
Total incidents (n)	587	2,013	99	899

Note: Excludes incidents without weapon and property information. Based on most serious weapon used in an incident. Percentages do not total 100 because a single incident could involve the loss of up to 5 different property types

Source: AIC NARMP incidents 2004–10 [computer file]

Table 6 Average dollar value of property stolen during armed robbery by weapon and location type, 2009–10

	Firearm	Knife	Syringe	Other weapon	All weapons
Residential					
average \$ per incident	5,583	3,316	0	2,524	3,528
n	53	83	0	91	227
Recreational					
average \$ per incident	1,460	620	343	515	647
n	11	46	4	49	110
Transport					
average \$ per incident	1,547	769	743	512	706
n	11	104	6	83	204
Open space					
average \$ per incident	0	400	0	298	321
n	0	2	0	7	9
Street/footpath					
average \$ per incident	2,679	945	688	1,325	1,206
n	56	428	20	336	840
Educational					
average \$ per incident	787	453	0	624	622
n	3	3	0	5	11
Administration					
average \$ per incident	566	961	0	0	829
n	2	4	0	0	6
Wholesale					
average \$ per incident	1,915	0	0	0	1,915
n	1	0	0	0	1
Retail					
average \$ per incident	6,335	1,329	651	979	2,133
n	70	211	21	81	383
Banking					
average \$ per incident	6,917	4,496	4,000	6	5,293
n	7	6	1	1	15
Pharmacies					
average \$ per incident	2,524	1,750	52	669	1,561
n	14	35	8	9	66
Service stations					
average \$ per incident	3,578	480	410	607	1,196
n	29	65	1	37	132

Table 6 (continued)					
	Firearm	Knife	Syringe	Other weapon	All weapons
Licensed					
average \$ per incident	7,362	4,701	0	2,490	5,088
n	49	53	0	35	137
Newsagents					
average \$ per incident	2,000	487	0	0	991
n	2	4	0	0	6
Post offices					
average \$ per incident	1,878	4,171	0	675	2,636
n	9	7	0	2	18
Corner/convenience stores					
average \$ per incident	821	425	931	500	558
n	8	21	2	1	32
Takeaways					
average \$ per incident	1,430	640	500	550	694
n	2	18	1	2	23
Unspecified/other					
average \$ per incident	5,719	1,372	0	8,478	5,067
n	7	16	0	16	39
Total					
average \$ per incident	4,630	1,371	632	1,432	1,852
n	334	1,106	64	755	2,259

Note: Excludes incidents without location and property value information

Source: AIC NARMP incidents 2004–10 [computer file]

Table 7 Dollar value category of property stolen during armed robbery by number of offenders, 2009–10 (%)						
\$ value category	Offenders (n)					Total
	1	2	3	4	5	
Less than \$500	59	54	46	67	57	57
\$500–\$1,999	28	28	32	17	35	28
\$2,000–\$9,999	10	12	16	17	9	11
\$10,000–\$49,999	2	4	6	0	0	3
\$50,000 and over	1	1	0	0	0	1
Total incidents (n)	569	231	69	24	23	916

Note: Excludes incidents without property value and offender information

Source: AIC NARMP incidents 2004–10 [computer file]



Case study: Female offending

Female offending has attracted a substantial amount of media attention in the recent months (eg Noone & Van Den Broke 2012). In 2009 and 2010, there were 270 incidents of armed robbery involving lone female offenders or exclusively female offender groups. There were an additional 264 incidents that involved mixed gender groups, totalling 534 incidents. Since 2004, female offending has been increasing, with the number incidents perpetrated by exclusively female offenders rising from 93 to 130 in 2010. This equates to a total increase of 40 percent, which although a sizeable percentage increase, reflects only a small number of offenders and a small proportion of all incidents for which offender information was available (see Figure 32).

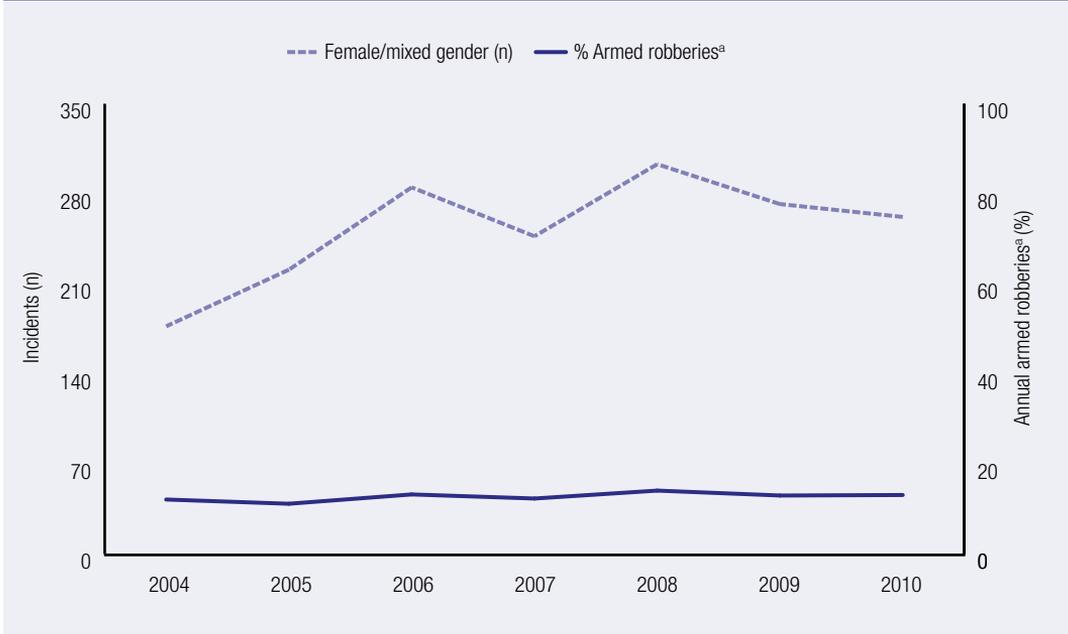
The following analysis is designed to present a more accurate picture of female offending with regard to armed robbery. It is important to emphasise that in the context of armed robbery, females comprise a very small minority of offenders. The ratio of male to female offenders of armed robbery is approximately 9:1, with males accounting for 90 percent of all armed robbery offenders in 2009 and 2010. However, given the interest in female offending across other categories of violent crime, it is important to understand the patterns and trends related to this sub-population of offenders.

Due to the very small numbers of armed robberies committed by females, the majority of analyses were conducted on aggregated data from 2004 to 2010, yet even with this larger number of contributing cases, some categories contain very small counts that may be prone to high variability.

Demographic information shows two peaks in offender age for both males and females. Numbers for both were high in the 15 to 17 year age group, with 25 percent of male offenders and 24 percent of female offenders falling into this age category. For males, the second peak occurred in the 20 to 24 year age group (20%). For females, the second peak occurred over both the 20 to 24 years and 25 to 29 years age categories (each 16% of female offenders).

It was noted that the decline in armed robbery offending over the lifetime appeared marginally less steep for female offenders compared with male offenders (see Figure 33). Female cases number far fewer than males and therefore, the seemingly slower desistance from offending over the lifespan may be no more than an artefact of small numbers. If reflecting some actual occurrence, it suggests that female armed robbers might continue in their offending careers slightly longer than men.

Figure 32 Female armed robbery offenders, 2004–10

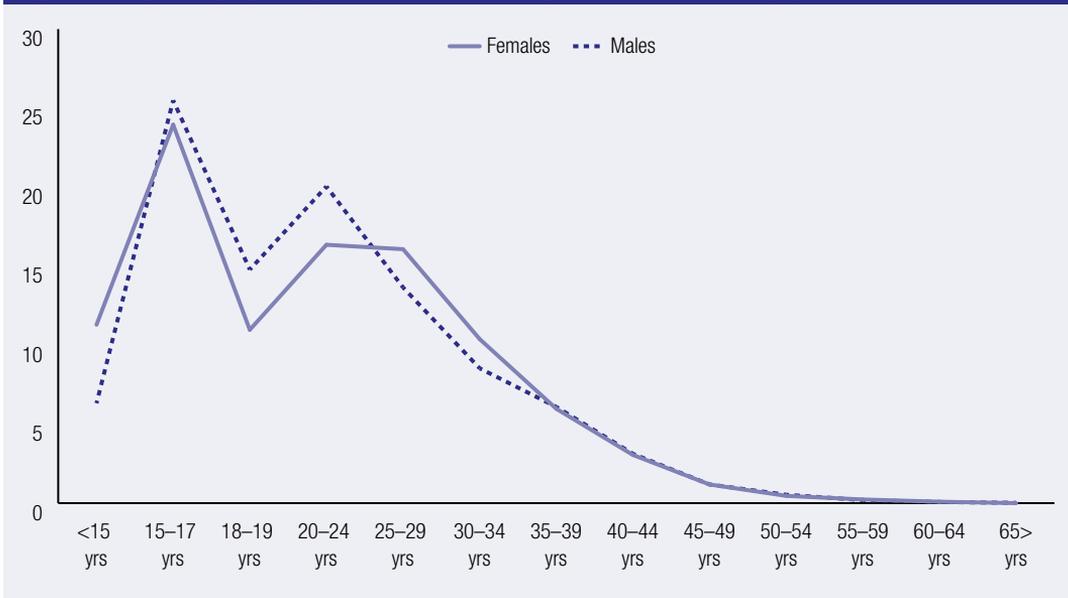


a: Percentage of incidents with offender gender information

Note: Excludes incidents without offender information

Source: AIC NARMP incidents 2004–10 [computer file]

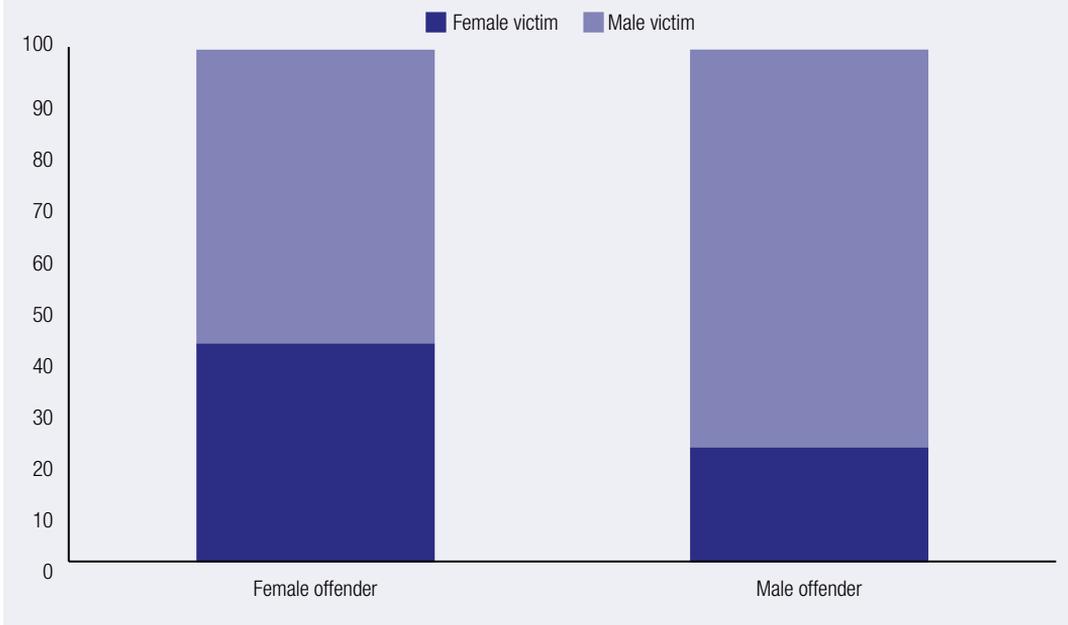
Figure 33 Age category and gender of armed robbery offenders, 2004–10 (%)



Note: Male n=19,211. Female n=2,196. Excludes incidents without offender information

Source: AIC NARMP incidents 2004–10 [computer file]

Figure 34 Gender of individual armed robbery victims by offender gender, 2004–10 (%)



Note: Female offender n=1,218. Male offender n=7,992. Excludes incidents without offender information. Includes female-only and mixed gender incidents. Based on first victim listed in incidents involving only individual victims

Source: AIC NARMP incidents 2004–10 [computer file]

There was no marked difference between males and females in the type of victim targeted; both groups attacked individuals more frequently than organisational victims—individuals were targeted in 62 percent of incidents involving a male offender and 69 percent involving a female offender. However, while male offenders primarily targeted male victims (77% of incidents involving male offenders saw a male victimised) females victimised males and females in roughly equal proportions (see Figure 34).

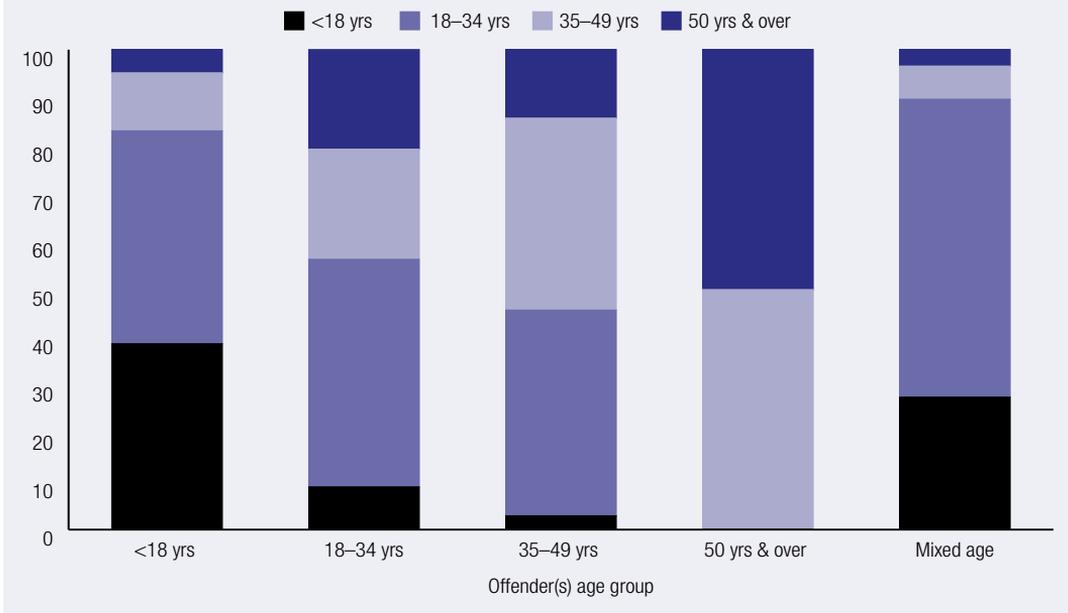
A closer examination of the victim and offender demographics in female armed robbery suggests offenders commonly victimise their peers. Although the largest proportion of armed robberies for most offender age categories involved the 18 to 34 year old victim age bracket (see Figure 35), 39 percent of incidents involving exclusively young female offenders aged less than 18 years (n=48) also involved female victims aged less than 18 years. Almost 50 percent of incidents with female offenders (n=64) aged between 18 and 34 years involved victims also in this age bracket. Similarly, females

aged 35 to 39 years were the victims in 40 percent of armed robberies perpetrated by women in this same age group.

Male age peers were not targeted in the same proportions by female offenders. As was the case with female victims, the largest proportion of male victims was in the 18 to 34 year age category regardless of offender age category. However, male victims of other ages were not concentrated in those age categories shared with offenders to the same extent as among female victims (see Figure 36).

As already noted, most recent armed robberies were committed by offenders acting alone (see Figure 11) and this is true regardless of gender. Seventy-five percent of all robberies described in NARMP were carried out by women or girls acting alone (n=657) and 69 percent of all male robberies (n=8,331) involved lone robbers. Of the offenders who committed armed robbery in company, women and girls appeared to act in pairs proportionally more often than men and boys (167 pairs, or 76% of females who acted with co-offenders, versus 65%

Figure 35 Female offenders and their female victims of armed robbery by age, 2004–10 (%)



Note: n=352. Excludes incidents without offender information. Based on female-only armed robbery incidents and the first victim listed in incidents involving only individual victims

Source: AIC NARMP incidents 2004–10 [computer file]

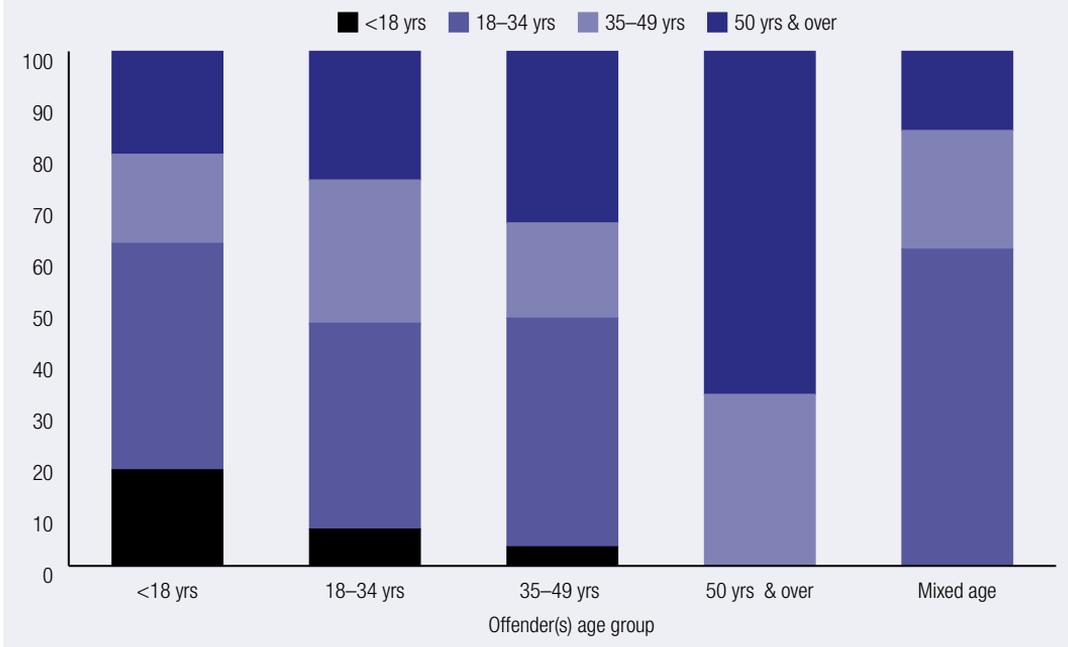
of males, or 2,422 pairs; see Figure 37). However, females co-offended with men in pairs relatively less—among incidents carried out by mixed gender groups, only 55 percent (n=486) were male/female pairs. Of interest, one in five mixed gender armed robberies were carried out by groups of four or five (n=184) compared with female-only groups of four or five, which made up less five percent of exclusively female co-offenders (n=11).

Although there is only a small number of armed robberies carried out by women acting in company, these data imply that they co-offended in same-sex pairs more than men, but chose to offend with males rather than only women when that co-offending involved groups of four or more. Nearly half of the incidents involving female pairings also involved young women aged less than 18 years (46% or n=77), whereas the largest percentage of armed robberies involving male pairs involved adults aged 18 to 34 years (44% or n=1,071; also the case for mixed-sex pairs, where 55% or n=269, were aged 18 to 34 years). Around half of armed robberies carried out by mixed sex groups of four or more

(n=102 or 55%) and by groups of four or more males (50% or n=260) involved offenders from various age groups, whereas virtually all of the 11 female-only group robberies involved offenders aged less than 18 years (82%).

Female offenders most often used a knife or some other weapon in the commission of robbery. Fifty-six percent of incidents (n=446) between 2004 and 2010 involving only female offenders also involved knives, while 22 percent involved other weapons (see Figure 38). This is similar to male offenders who also most often committed armed robberies with knives (55%, or n=6,065) and other weapons (24%). However, while only three percent (n=377) of male offenders committed robbery using a syringe, 16 percent (n=127) of female armed robbery incidents listed this weapon. Only six percent of exclusively female robberies (n=49) involved firearms compared with 17 percent of male-only incidents (n=1,910). Relative percentage weapon use among mixed gender groups was near identical to that seen among exclusively male groups, again potentially demonstrating that armed robberies may be

Figure 36 Female offenders and their male victims of armed robbery by age, 2004–10 (%)



Note: n=258. Excludes incidents without offender information. Based on female-only armed robbery incidents and the first victim listed in incidents involving only individual victims

Source: AIC NARMP incidents 2004–10 [computer file]

qualitatively different when involving *only* women and girls.

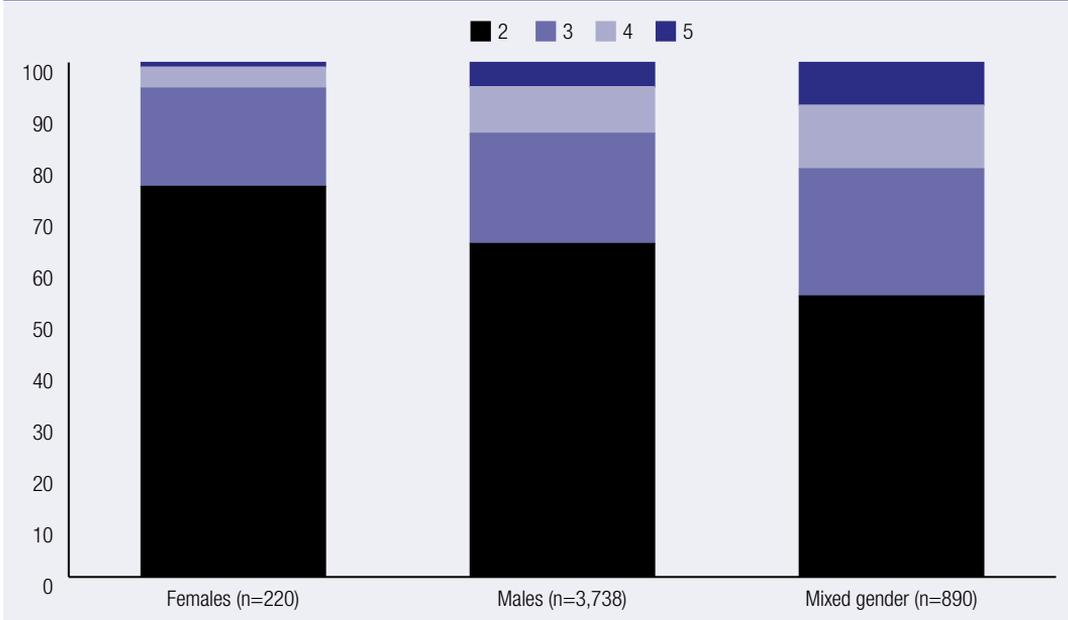
The offender gender differences could reflect different types of armed robbery engaged in by male and female offenders, where females acting alone or together opt more often for lower yield, potentially more opportunistic offences that employ easy to obtain, lower risk weapons. In 2004, there were 12 incidents of armed robbery involving a female offender armed with some ‘other weapon’ compared with 33 incidents in 2010 (equating to an increase of 175%, see Figure 39; the equivalent increase in the albeit more numerous male ‘other weapon’ offending was 50%). This weapons category encompasses items that are not usually considered weapons per se (such as rocks or broken glass) and this lends some support to the hypothesis that female offenders may be engaging in more opportunistic street robberies.

An examination of the average stolen property values associated with the various gender groups also would seem to offer some support for this

notion. More opportunistic offences tend to reap fewer ‘rewards’ for offenders (see Table 6) and on average, female offender armed robberies netted \$760, compared with \$1,461 for mixed gender incidents. The most lucrative robberies were those committed by males only, which netted an average of \$1,659.

Half of female-only armed robberies occurred overnight (49% between 6.00 pm and 6.00 am; n=431). Among male-only incidents, 62 percent (n=7,455) occurred in the night-time hours, with the same percentage seen among mixed gender groups incidents (n=553). Female offenders may be less likely to frequent those less secure locations that facilitate opportunistic attacks during night-time hours, but the implications of this in terms of more or less opportunism are not clear. Unfortunately, as with many of the patterns observed around female offending, the very small number of female of cases considered preclude the examination of multiple variables that might assist in understanding underlying factors.

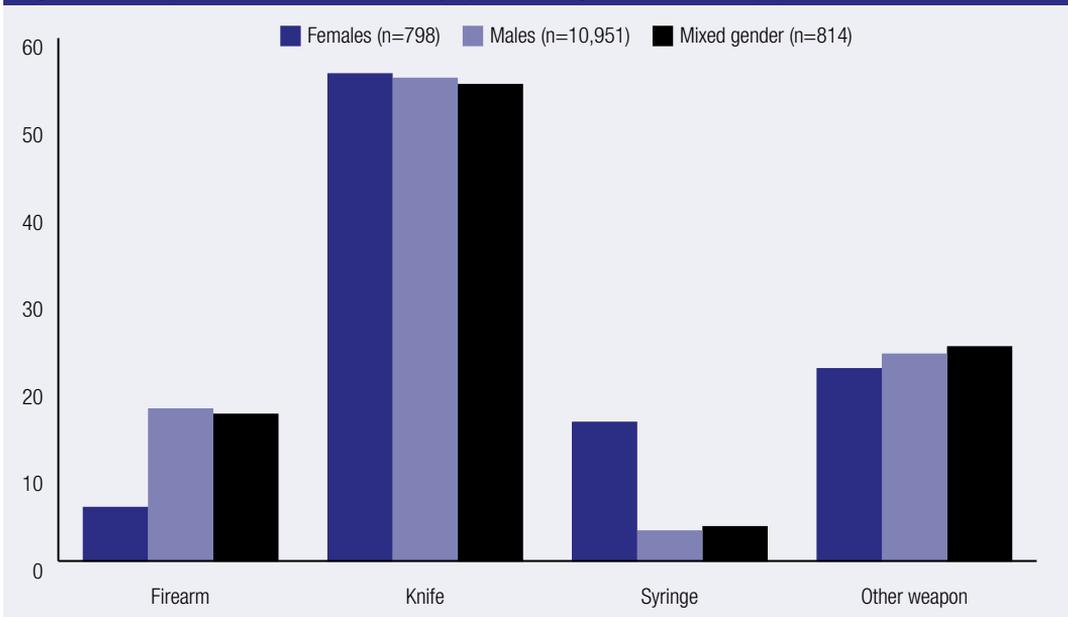
Figure 37 Number of co-offenders in armed incidents by offender gender, 2004–10 (%)



Note: Excludes incidents without offender information

Source: AIC NARMP incidents 2004–10 [computer file]

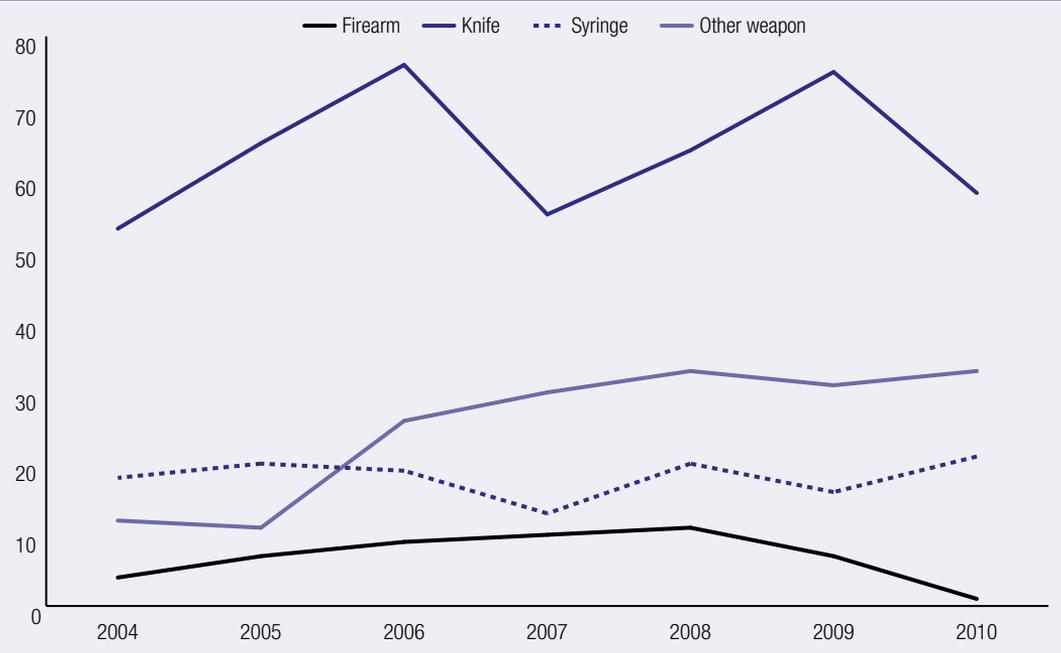
Figure 38 Weapons used in armed robbery by offender gender, 2004–10 (%)



Note: Excludes incidents without weapon and offender information. Based on most serious weapon used in an incident

Source: AIC NARMP incidents 2004–10 [computer file]

Figure 39 Most serious weapon used in incidents involving female offenders by year, 2004–10 (n)



Note: Excludes incidents without weapon and offender information. Based on most serious weapon used in an incident involving only female offenders ie mixed gender incidents have been excluded

Source: AIC NARMP incidents 2004–10 [computer file]

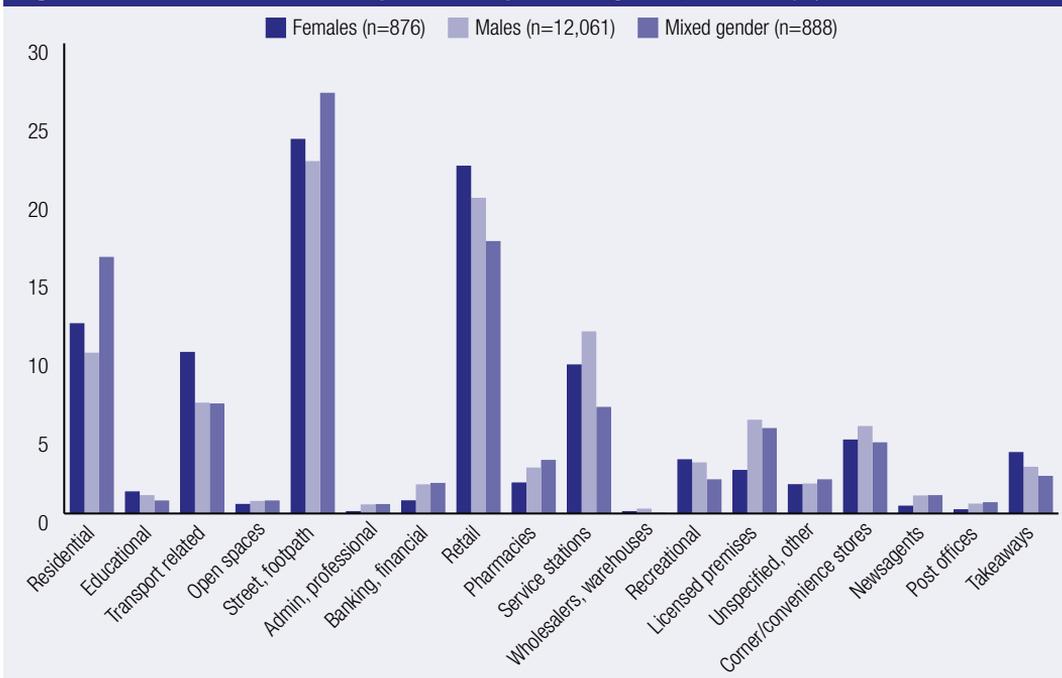
When considering all armed robberies contained within NARMP, there were no substantial differences in the types of locations targeted by male and female offenders, consistent with the findings concerning recent armed robberies (see Figure 20). Female robbers most commonly committed offences on the street or footpath (24%, or n=209) followed by retail locations (n=194 or 22%; see Figure 40). Male-only incidents also took place most often in these settings (22% in the street; 20% in retail settings). Marginally smaller proportions of female-only offences involved licensed premises (3%) and service stations (9%) compared with male-only offences that took place in these locations (6% and 12% respectively). Slightly larger percentages of female offender armed robberies were in transport-related (10%) and residential (12%) settings compared with male-only offences (7% and 10% respectively). This again implies that exclusively female armed robbery may be more opportunistic than male-only attacks, with larger proportions taking place in seemingly more accessible, less secure locations. There is also the suggestion that mixed gender groups may be different again, with

for example, 16 percent of incidents taking place in residential locations.

Examination of the limited data surrounding the relationship between victim and offender in the small subset of incidents taking place in and around residences shows that around one-quarter of male-only (23%) and mixed gender (25%) incidents in this location involved prior relationships, while among females this figure was 60 percent. When considering all armed robberies in all locations for which relationship information was available, the overwhelming majority involved unknown victims (85% of male-only, 82% of mixed gender and 79% of exclusively female). Residential armed robbery seemed a unique variant of the offence and was perhaps subject to offender motivations not seen in other locations where victims are largely unknown, such as revenge or intimidation (eg see Borzycki 2008), and may be particularly true of some female offenders.

In some respects, incidents involving offenders of both genders mirror male-only attacks (eg weapon use and number of co-offenders), but when

Figure 40 Location of armed robbery incidents by offender gender, 2004–10 (%)



Note: Excludes incidents without location and offender information

Source: AIC NARMP incidents 2004–10 [computer file]

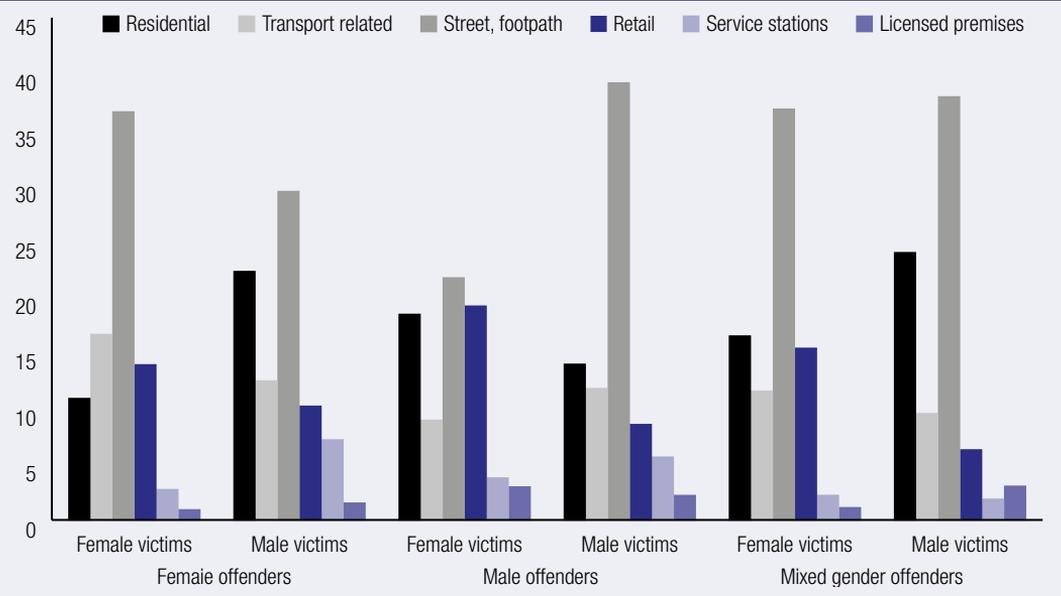
considering location, patterns more closely resemble, but are not identical to, exclusively female robberies. The percentage of victimisation of males and females in a subset of locations as a function of the gender of offenders is described in Figure 41. Again, these data suggest that armed robbery involving female offenders may be different to that perpetrated by only males. For example, of those armed robberies carried by females or by mixed gender groups, a larger proportion of males were victimised in residences than were female victims, but the pattern was reversed in male-only incidents.

In summary, female offenders are a small minority of armed robbery perpetrators described in NARMP. They were involved in less than 15 percent of all incidents recorded annually and this has remained virtually unchanged since 2004. The already outlined limitations associated with the NARMP dataset mean strong conclusions are not possible, however, some noteworthy patterns suggested include:

- Female armed robbers equally targeted male and female individual victims, but males targeted other males in larger proportions.

- While both sexes most often committed offences alone, greater proportions of females committed offences in pairs when compared with groups of males or mixed gender groups. A smaller percentage of women and girls operated in groups of four or more when compared with both male groups and mixed gender groups.
- Regardless of gender, all armed robbers used knives and other weapons most often, but there was the suggestion that women used syringes more often and firearms less often than male offenders.
- Regardless of gender, armed robbery most commonly occurred on the street or footpath or in retail locations, but offences involving only females occurred relatively less frequently in service stations and licensed premises when compared with male and mixed gender groups. Female attacks occurred proportionally more often in residences when compared with exclusively male robberies, but some aspects of the patterns of female offending more resembled that seen among mixed gender groups.

Figure 41 Selected locations of armed robbery incidents for male and female victims by offender gender, 2004–10 (%)



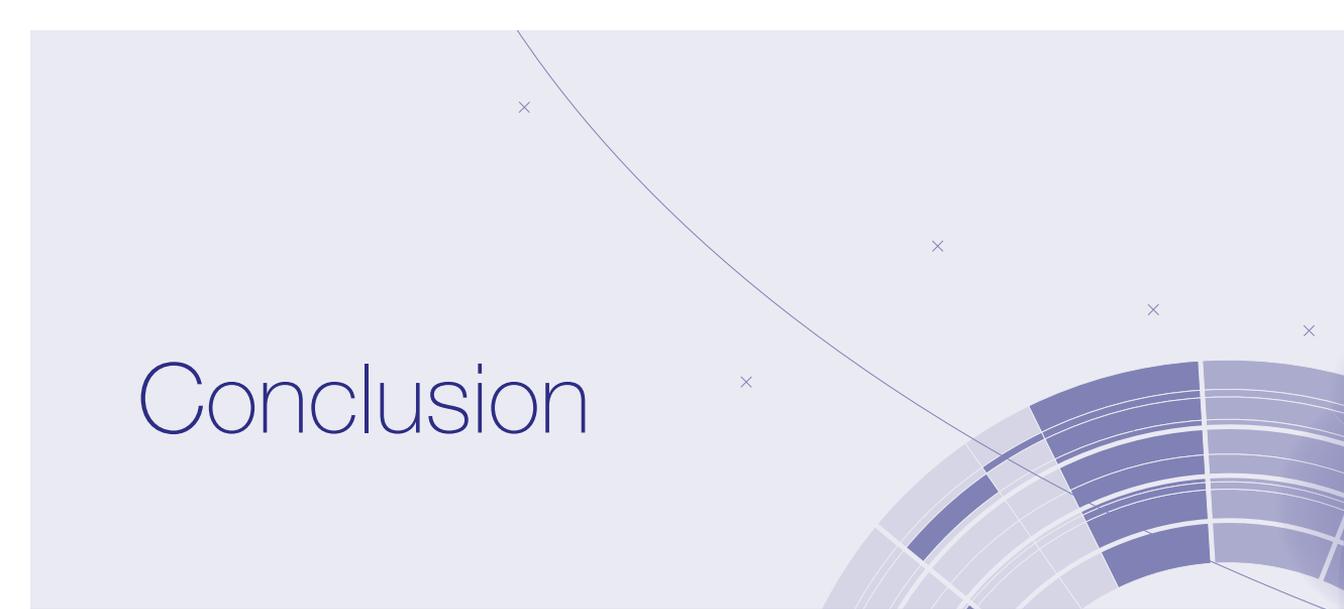
Note: Excludes incidents without location and offender information. Based in first victim listed in incidents involving only individual victims. Percentages for victim gender groupings within offender gender do not total 100 because only selected locations shown

Source: AIC NARMP incidents 2004–10 [computer file]

Findings imply that the nature of female armed robbery may be qualitatively different to that involving males only. Female robbery offenders may also operate differently depending on whether they are acting in the company of other females only, or in groups of males and females. When acting without male accomplices, female offenders may be more opportunistic, taking fewer risks than their male counterparts—targeting female victims in higher proportions, targeting softer, less secure locations relatively more often, using more opportunistic

weapons like syringes and proportionally fewer firearms (which bring greater risks to the user). When co-offending with males, victim and other incident characteristics more closely resemble that seen in male offending (with the exception of location, and specifically residential settings). This may reflect different motivational factors behind a subset of female offending, but the NARMP dataset is not currently able to examine these more qualitative aspects of armed robbery.

Conclusion



While armed robbery in Australia has been in decline since 2006, a sizeable number of individuals and organisations were victimised in 2009–10 and subject to the immediate and potentially longer term impacts of this offence. The picture of armed robbery presented in this report does not differ significantly from previous years, highlighting the generally consistent nature of this offence. For instance, since the inception of NARMP, the 'typical' armed robbery has been carried out by a young man armed with a knife who commits the robbery on the street or footpath against another, previously unknown, young man who was robbed of his cash or his phone. The typical armed robbery is not the bank robbery portrayed in popular culture.

Yet not every reported incident in 2009 and 2010 conformed to the typical armed robbery presented above. While one-third of armed robberies took place in the street, a minority of organisations undertaking business in specific locations appeared prone to a different type of victimisation. Certain organisations were robbed at a proportionally higher rate with firearms (eg banking and financial locations, licensed premises, wholesalers, and administrative and professional locations). Further, certain organisations seem particularly vulnerable to repeat victimisation (service stations and licensed premises). Some of these settings were more often subject to attacks by groups of offenders (eg wholesalers and administrative

locations). While organisational attacks comprised only a minority of recent armed robberies, the potential financial losses to these organisations and the physical and emotional trauma inflicted upon the staff and customers could be sizeable.

The NARMP dataset provides aggregate, national level analyses, which are useful in identifying knowledge gaps that further research can seek to address. For instance, despite limitations, the data appear to indicate the existence of different types of armed robberies. The characteristics associated with street robberies (including age of offender, weapons used and property stolen) appear to be qualitatively different to those perpetrated against organisations.

Although only small in number, there is also a suggestion that armed robbery by female offenders may differ in certain respects to that carried out by men, or by women in the company of male offenders. When acting without male accomplices, female offenders may be more opportunistic, taking fewer risks than their male counterparts. They target female victims in higher proportions, target softer, less secure locations relatively more often, use more opportunistic weapons like syringes and proportionally fewer firearms, which can bring greater risks to the user. When co-offending with males, characteristics of the victim and incident more closely resemble that seen in male offending.

Earlier research undertaken at the outset of NARMP (Mouzos & Borzycki 2003) identified at least three types of armed robbery scenario—opportunistic street muggings, amateur retail armed robbery and professional armed robbery. A more detailed understanding of scenarios is needed in order to properly define and update the different categories of armed robbery seen in Australia. Research currently underway within NARMP aims to provide a more nuanced armed robbery typology by analysing qualitative information supplied by some of the jurisdictions. Doing so will provide further insight into the unique nature of armed robbery as it occurs in Australia compared with overseas.

Research is also needed in order to understand the characteristics and drivers of repeat victimisation. As noted above, NARMP data suggests that certain organisations, such as service stations and licensed premises, are vulnerable to repeat victimisation. International research into the repeat victimisation of organisations with similar hours of operation—convenience stores and fast food outlets—found that particular crime prevention strategies and location features had differing impacts on the organisation's risk of victimisation. For example, the presence of an automatic teller machine was associated with significantly lower rates of robbery, potentially due to the extra guardianship associated with increased customers (Exum et al. 2010).

Importantly, Exum et al. (2010) found that the best predictor of future victimisation among the studied businesses was past victimisation. This predictive capacity, Pease (1998) argued, arises from the failure to change the circumstances that led to the first attack—a lack of change following an initial attack can signal a level of neglect to potential future offenders, suggesting that those offenders can continue to successfully victimise.

Therefore, one way of minimising repeat victimisation is to change the circumstances that resulted in the initial attack and this, in part, can be achieved by conducting analyses of past crimes that simultaneously consider in detail the elements of victimisation, place and offender. This would need to extend beyond the nationally aggregated analyses presented in this report. For instance, it would need to include aspects of the offence location and victim such as existing security measures,

or for organisational victims, staffing numbers, practices and training. Further, this would need to be undertaken at either the local geographical level, or across certain industries because the features relevant to the repeat victimisation of a specific business such as a service station would be very different, for example, to those relevant to repeated attacks against an organisational victim such as pharmacy, or individuals subject to repeated street robbery.

Useful guides do currently exist that indicate how to tailor preventative responses to types of robbery (eg Monk, Heinonen & Eck 2010), as well as methods for understanding relative vulnerability to this type of crime (eg see Draper & Rose 2006) and more general techniques for analysing and preventing crime in practical ways (eg AIC Crime Prevention Assist website <http://cpassist.aic.gov.au/>). The updated armed robbery types currently being developed within NARMP may also provide a framework within which industry can examine past victimisation. This will assist practitioners to avoid a 'one-size fits all' approach and better tailor crime prevention efforts to specific types of armed robbery.

Currently, there is very little publicly available research focused on armed robbery in Australia. The NARMP report provides useful information that illustrates the nature of the offence through long-term trends and characteristics. Annual data indicate little change over time in the weapons armed robbery offenders employ, although the types of locations where these attacks occur may be changing. Not surprisingly, those organisational victims with extended hours of operation appear to be vulnerable to armed robbery because this is a crime that more often occurs at night. An increasing variety of businesses now operate in the night-time economy and safeguards against armed robbery during vulnerable times and specific to business type are needed. NARMP has therefore expanded its location categories to better describe organisational victimisation. However, effective crime prevention requires more complex and thorough analysis to better understand the vulnerabilities associated with particular victims or locations. This understanding and an emphasis on focused crime prevention strategies will go a long way to ensure the decrease in armed robberies evident since the inception of NARMP in 2003 continues.

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Appendix

Technical appendix

National Armed Robbery Monitoring Program glossary

Armed robbery—the Australian Bureau of Statistics (ABS) delineates between armed robbery (involving a weapon) and unarmed robbery (no weapon used). Only armed robbery is of relevance to NARMP. Also see *Robbery* below.

Actual offences that can be classified as armed robbery differ between Australian jurisdictions because of differing criminal codes and legal definitions. The coding scheme employed by the ABS, the *Australian and New Zealand Standard Offence Classification (ANZSOC: ABS 2011b)*, allows varying offences to be grouped into categories. Those categories of relevance to NARMP are aggravated robbery, non-aggravated robbery and robbery not further defined.

Weapon use is central to establishing which offences are included in NARMP. For the purposes of NARMP, a weapon is broadly defined in accordance with the ABS definition (see *Weapon* below).

Incident—the ABS defined a criminal incident as:

- one or more offences (and their related victims and offenders) that are grouped into the same unique occurrence if they are committed by the same person or group of persons and if:
 - they are part of actions committed simultaneously or in sequence over a short period of time at the same place
 - they are part of interrelated actions; that is, where one action leads to the other or where one is the consequence of the other(s)

- they involve the same action(s) repeated over a long period of time against the same victim(s) and come to the attention of the police at one point in time. (ABS 2005: np)

The same broad definition of an incident has been used in the compilation of NARMP, with the following exclusions:

- incidents where different victims (sometimes threatened with different weapons or in different locations) are robbed by the same offender(s) within a short period of time; or
- repeat victimisations of the same individual(s) or organisation(s) by the same offender(s), with long periods intervening between the armed robberies.

Location—‘The initial site where an offence occurred, determined on the basis of its use or function’ (ABS 2012a: np). For the purposes of NARMP, broad location categories include:

- residential—private and commercial residences, includes yards and external structures;
- recreational—includes sporting facilities but excludes premises explicitly flagged as retail or licensed;
- Transport-related location—bus stops and train stations, car parks associated with these terminals and conveyances eg buses, trains, taxis and private vehicles;
- open spaces (excluding street and footpath);
- street and footpath;
- educational, health, religious, justice and other community locations;
- administrative and professional settings;
- wholesalers, warehouses, manufacturing and agricultural location;

- retail, which includes shopping centres, jewellers, pawn shops, gambling locations (not also flagged as licensed premises), other retail locations not further defined and excludes all retail premises included in the following categories:
 - banking and financial—includes automatic teller machines not attached to banking and financial premises;
 - pharmacies and chemists;
 - service stations;
 - licensed premises—includes licensed clubs, pubs, taverns, nightclubs and bottle shops;
 - newsagents;
 - post offices;
 - corner stores, convenience stores and supermarkets;
 - takeaways and fast food outlets; and
- unspecified and others not classified elsewhere.

Offender—the terms *offender(s)* and *armed robber(s)* are used interchangeably to refer to alleged perpetrators of armed robbery offences, even if those individuals have not been convicted of those offences.

Robbery—consistent with the ABS definition, robbery involves:

the unlawful taking of property, with intent to permanently deprive the owner of the property, from the immediate possession of a person, or an organisation, or control, custody or care of a person, accompanied by the use, and/or threatened use of immediate force or violence (ABS 2012a: np).

Victim—also consistent with the ABS, a robbery victim:

may be either an individual person or an organisation. Where the robbery involves an organisation or business, the element of property ownership is the key to determining the number and type of robbery victims. If the robbery only involves property belonging to an organisation, then one victim (ie the organisation) is counted regardless of the number of employees from which the property is taken. However, if robbery of an organisation also involves personal property in an employee's custody, then both the organisation and employee(s) are counted as victims (ABS 2012a: np).

A person traumatised by, or witness to, a robbery and whose property is not targeted, although a victim in the broader, common sense use of the term, is not a victim for the purposes of NARMP. In addition, the term *victim* is used throughout this report to refer to the person(s) or organisation(s) victimised in an alleged armed robbery, regardless of whether related offences were later proven.

Generally, victim records are included in NARMP if actual offences were subsumed by any of those ANZSOC categories listed for *armed robbery* (see above) and some form of weapon use was also recorded, although there are some exceptions. Victim records are excluded if offences:

- are classified as aggravated robbery but weapon information shows no weapon use or not applicable (the use of a weapon in the commission of a robbery is considered one, although not the only aggravating circumstance, hence all offences involving weapons could technically be considered aggravated); or
- are classified as robbery not further defined or non-aggravated robbery, recorded with no weapon use, or where weapon information has not been supplied or is annotated as missing. A minority of victim records classified as non-aggravated robbery or robbery not further defined also recorded use of a weapon and these are retained.

Finally, also consistent with the ABS:

Where a victim is subjected to multiple offences of the same type within a distinct criminal incident, eg in the case of robbery this may be due to attacks by several offenders, the victim is counted only once (ABS 2005: np).

Weapon—as per the ABS definition, a weapon is:

any object that can be used to cause injury or fear of injury. It also includes imitation weapons and implied weapons (eg 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 (ABS 2012a: np).

The broad categories of weapon considered in NARMP generally tally with ABS categories, namely:

- firearm, including imitation firearms;
- knife;

- syringe; and
- other weapon, includes axe, sledgehammer, crowbar/metal pipe, stun gun, sword, tools, drug, vehicle, bow, spear, rock, blunt instruments and other weapons not further defined, and which subsumes ABS categories (see ABS 2012a) of:
 - bottle/glass;
 - bat/bar/club; and
 - chemical.

There are minor differences between broad NARMP and ABS weapon categories. For example, NARMP categorises a screwdriver as a knife (the ABS classify it as ‘other weapon’).

National Armed Robbery Monitoring Program data collection method

Police services in all Australian jurisdictions (ie New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania, Northern Territory and Australian Capital Territory) extract from police administrative information systems, unit record data relating to victims of armed robberies reported during the reference period. Electronic data files from each of the jurisdictions are forwarded to the AIC, where they are reformatted and recoded as necessary to achieve, as far as is possible, a uniform national victim dataset. The final victim dataset is contained and analysed within STATA, a statistical software package.

Jurisdictions cannot extract identical variables in all instances, nor can they always extract equivalent levels of detail or equivalent values for those variables that are produced in common. Raw data undergo considerable recoding and reformatting, and the creation of new variables from supplied raw data where necessary, before being submitted to analyses. Table 7 details the core variables, the number of valid records for each and where relevant, the categories within each variable employed in the victim analyses conducted for this report.

The incident-based data file is created from victim records; victim records are combined into a single, incident record using the shared incident identifier supplied by jurisdictions. Incident information such

as location, weapon use and incident time and date did not agree among all the victims associated with an incident in a small minority of cases. When victim information differed on only a single variable, the relevant variable in victim records was amended to show consistent information (eg incident time amended to show the earliest incident time).

A small number of victim records could be grouped into single incidents by police incident identifiers but were disaggregated into separate incidents for the purposes of NARMP. This occurred when:

- different victims were robbed by the same offender(s) and so grouped as a single incident but detailed examination showed that they were threatened with different weapons or in different locations or at different times; or
- the same individual(s) or organisation(s) were repeatedly victimised (sometimes by the same offenders) and so grouped together, but detail showed there were long periods intervening between the armed robberies.

National Armed Robbery Monitoring Program 2009 and 2010 datasets

As indicated in Table 7, a total of 12,005 valid victim files relating to the calendar years 2009 and 2010 were examined in this report. After grouping these victim records, there were 10,409 incident records in the incident-based file.

Data limitations

Reported findings

Care should be taken in drawing strict or detailed comparisons between different recorded crime sources (such as RCV and NARMP) or even between initial and later NARMP reports because of the evolving nature of NARMP. Comparisons drawn with earlier annual reports are based on observed trends and are not accompanied by statistical tests of significance. None of the annual comparisons have been subjected to any time series analyses. Related

findings concerning recent armed robberies are based on observed trends and/or differences and are not accompanied by statistical tests of significance.

Jurisdictional consistency

What constitutes a single reported crime victim is not uniform across jurisdictions. With respect to the ABS RCV, it has been noted that:

Some jurisdictions almost always record a reported criminal incident on their crime recording system, whereas other jurisdictions apply a threshold test prior to a record being made (eg whether the victim wishes to proceed against the offender or the seriousness of the incident). These thresholds varied across jurisdictions and were not guided by national standards (ABS 2012a: np).

A National Crime Recording Standard has been developed by the ABS but it is additionally noted that

While the application of rules and requirements of the NCRS was designed to enable the recording of crime in a comparable manner across all jurisdictions, there is some variability in the interpretation of the rules, in particular the rule which guides what is recorded on police systems when an incident is reported to police (ABS 2012a: np).

Given that NARMP data are extracted by police services using similar protocols to those employed for RCV, issues raised concerning RCV (ABS 2012a) are directly relevant to the compilation of NARMP.

The overarching ANZSOC scheme (ABS 2011b) allows the grouping of disparate offences across Australian jurisdictions. Nonetheless, offences are not defined identically in all states and territories. Other variables are also inconsistently defined (eg raw values relating to relationships between victims and offenders) and so although they can be collapsed into higher level categories such as those employed in RCV, these categories do not necessarily convey all the information available.

Given all factors, jurisdictional comparisons are not made in this report but jurisdictional information is available to relevant police staff within jurisdictions via a secure internet website.

Representativeness of victim and offender records in the National Armed Robbery Monitoring Program

Not all crime events that take place are reported to, or detected by, police. This means NARMP cannot describe armed robberies and armed robbery victims that do not come to police attention. Not all armed robberies will result in the apprehension of offenders and logically, police data can only include information regarding offenders who have been apprehended and will exclude those who have, for whatever reason, avoided detection. Systematic factors may influence a victim's decision not to report crime; recorded crime as reported to police generally underestimates the level of victimisation compared with that reported in victim surveys (although this is thought to be less pronounced with armed robbery relative to other types of offences). Systematic factors may also influence whether offenders avoid apprehension, or if apprehended, are not proceeded against. These systematic factors are important in the understanding of armed robbery, but are well beyond the scope of NARMP.

Victim counts for 2009 and 2010 do not precisely tally with those provided in RCV for these years (ABS 2011c, 2010b), reflecting slight difference between the data collections in extraction protocols and timing, and inclusion criteria. For the purposes of NARMP and RCV, robbery victims are those persons or organisations whose property was the target of an attack. By definition, organisations can only be involved in a robbery through property ownership. A person traumatised by, or witness to, a robbery but whose property is not targeted, although a victim in the broader, common sense use of the term, is not a victim for recorded crime purposes. In previous reports, it appears that some individual persons who were witness to and/or traumatised (but not actually the owners of targeted property) in the robberies of organisations may have been incorporated in the dataset. To overcome this, all individual victims reported as additionally involved in an incident in which an organisation was robbed of property and who were flagged as having only traumatic (as opposed to a financial) involvement in the incident were excluded from the datasets from the year 2006 onwards for the purposes of this report. A number of these exclusions may be valid victims who did have property removed

but as no means were available to distinguish this, the conservative rule described above was applied.

Some jurisdictions were able to supply information about whether included victims were subject to completed or to attempted armed robberies. As these data were not available for all records, this variable was not examined for this report. Some aspects of robbery, victim or offender may differentiate completed from attempted robberies, but these are not explored in this report.

The investigative status (or outcome) variable initially contained information very similar to that reported in RCV (ie outcome at 30, 90 or 180 days). In order to achieve greater precision, some jurisdictions are able now to supply information about investigative outcomes at the time of data extraction, plus the dates those outcomes were achieved. These cannot be supplied by all states and territories, however, which means the precise time taken to achieve the various possible outcomes has not been calculated. Consequently, the outcomes reported were not necessarily achieved within the same timeframe for each record (ie the time between incident report and outcome achieved varies between records). In a related fashion, the number of jurisdictions able to supply this information and the form it is provided in (ABS coding versus raw, local codes) has changed since the establishment of NARMP. Summary findings making use of this variable should therefore be interpreted with caution and treated as only the most general indicator of outcome.

Data extraction protocols employed in some jurisdictions can result in the duplication of victim records (ie victim records are supplied multiple times with few or even no differences between those records). All detected duplicate records were removed from the victim dataset but in some instances, it was not possible to definitively confirm all apparent duplications (for instance, when the victim was an organisation robbed in a retail setting). As a result, it is possible that the dataset contains some duplicate victim records.

Finally, this report provides some information on repeat victimisation during the reference period. However, it is likely that this is an underestimate of actual repeat victimisations reported to police in Australia. The non-name victim identifiers provided

to the AIC by some jurisdictions are not unique and universal to all states and territories. That is, they identify a victim in a particular incident but if that same individual or organisation is victim to another incident, a new identifier will be allocated. If a victim is subject to second or subsequent armed robbery in a different jurisdiction to that in which the first occurred, they cannot be identified as a repeat victim. Because of the above, the analyses presented should therefore be considered at best as only broadly indicative of all attempted and completed armed robberies, all armed robbery offenders and all armed robbery victims.

Weapons, property, offenders, relationships and victim injury described in the National Armed Robbery Monitoring Program

Where possible and relevant, jurisdictions supply information concerning up to three weapons used against victims, up to five involved offenders, up to five relationships between victim and offenders, and up to five stolen property types and values. These do add to knowledge of armed robbery by providing greater detail about the crime but should not be seen as definitive regarding every reported instance of armed robbery. Some jurisdictions cannot supply any information and others cannot supply information concerning more than one of each of these elements. Records that may involve more than the maximum number of each of these elements (eg more than 5 items of property or more than 3 weapons) are not flagged as such in the national dataset. This means that the true total reported number of weapons employed, offenders involved, or types of property stolen cannot be established.

Variables relating to the type and dollar value of stolen items cannot be supplied by all jurisdictions. These variables are not mandatory fields for police officers when recording offence reports. Further, their accuracy is not necessarily later validated by police. Data do not, therefore, accurately describe the types and value of all property taken in all examined incidents. This caveat is especially important when considering certain subcategories of robbery, for which only single or a very small number of records were examined.

Information concerning injuries sustained during the course of an armed robbery cannot be supplied by all jurisdictions therefore, not all victim injuries are captured in the available data. Furthermore, victim injury is only examined for individual (ie person victims) and so this variable cannot capture any injuries sustained by employees or representatives of organisational victims who were not themselves victims (ie individuals who did not have personal property stolen).

Changes to the National Armed Robbery Monitoring Program over time

As noted in the introduction to this report, as NARMP has evolved, the nature of NARMP information has also changed, making fine-grained comparisons with earlier NARMP reports inappropriate. Some changes have arisen directly from stakeholder feedback and

others are the result of changes in the ways states and territories compile information. Changes include:

- the inclusion of more detailed information in raw data forwarded to the AIC (eg weapon type or location);
- the inclusion of additional variables to those initially specified (eg a flag variable indicating whether or not a location was a licensed premise);
- the supply of information that previously could not be supplied, by more or all jurisdictions (eg unique offence identifier); and
- changes in the way some variables are derived. For example, analyses of weapon type in combination with other variables in 2003 and 2004 annual reports were usually based on the first-listed weapon. Analyses from the 2005 and subsequent reports employ the most serious weapon listed for that victim (or the first-listed victim in an incident).

Table 8 Valid records for variables and values of variables, in the 2009 and 2010 NARMP victim files (n)

Variable description	Valid records			Values
	2009	2010	Total	
Offence code	6,274	5,731	12,005	Aggravated robbery Non-aggravated robbery Robbery not further defined
Organisational identifier flag	6,265	5,714	11,979	Individual victim Organisational victim
Victim age at incident	4,443	4,104	8,547	
Victim date of birth	3,993	3,627	7,620	
Victim gender	4,460	4,117	8,577	
Relationship of first listed offender to victim	1,813	2,369	4,182	Known to victim Unknown to victim No offender identified
Relationship of second listed offender to victim	186	863	1,049	Known to victim Unknown to victim No offender identified
Relationship of fifth listed offender to victim	7	759	766	Known to victim Unknown to victim No offender identified
Injury to victim	1,128	1,137	2,265	No injury noted Injury not further defined Minor injury Major injury Death Emotional trauma
Unique incident reference number	6,274	5,731	12,005	
Date incident reported	6,273	5,731	12,004	
Date incident occurred/started	6,274	5,731	12,005	
Month incident occurred	6,274	5,731	12,005	
Year incident occurred	6,274	5,731	12,005	
Day of week on which incident occurred	6,274	5,731	12,005	
Time of day when incident occurred/started	6,267	5,731	11,998	
Date incident ended	4,099	3,813	7,912	
Time incident ended	4,099	3,813	7,912	

Table 8 (continued)

Variable description	Valid records			Values
	2009	2010	Total	
Location where armed robbery occurred	6,274	5,719	11,993	Residential settings Recreational settings (excluding licensed premises) Transport related settings Open spaces (excluding street and footpath) Street and footpath Educational, health, religious, justice and other community settings Administrative and professional settings Wholesalers, warehouses, manufacturing and agricultural settings Retail (including not further defined and not elsewhere classified) Banking and financial settings Pharmacies and chemists Service stations Licensed premises Newsagents Post offices Corner stores, supermarkets and convenience stores Takeaways and fast food outlets Unspecified and other locations not classified elsewhere
Licensed premises flag	6,224	5,691	11,915	Licensed premises Premises not licensed
First listed weapon used in incident	6,257	5,666	11,923	Firearm Knife Syringe Other weapon
Second listed weapon used in incident	793	732	1,525	Firearm Knife Syringe Other weapon

Table 8 (continued)

Variable description	Valid records			Values
	2009	2010	Total	
Third listed weapon used in incident	76	100	176	Firearm Knife Syringe Other weapon
Date of incident clearance	3,049	2,896	5,945	
Investigation outcome/clearance status at data extraction/at 180 days	6,212	5,677	11,889	Not finalised Finalised, no offender proceeded against Finalised, offender proceeded against Other outcome
Property taken incident, first type listed	2,304	3,274	5,578	No property stolen Cash Negotiable documents Identity documents Luggage Personal electrical equipment (including mobile phones) Jewellery Alcohol and other drugs Weapons Personal items not classified elsewhere Conveyances and accessories Other property not classified elsewhere
Property taken incident, second type listed	1,373	1,296	2,669	Cash Negotiable documents Identity documents Luggage Personal electrical equipment (including mobile phones) Jewellery Alcohol and other drugs Weapons Personal items not classified elsewhere Conveyances and accessories Other property not classified elsewhere

Table 8 (continued)

Variable description	Valid records			Values
	2009	2010	Total	
Property taken incident, third type listed	954	886	1,840	Cash Negotiable documents Identity documents Luggage Personal electrical equipment (including mobile phones) Jewellery Alcohol and other drugs Weapons Personal items not classified elsewhere Conveyances and accessories Other property not classified elsewhere
Property taken incident, fourth type listed	756	607	1,363	Cash Negotiable documents Identity documents Luggage Personal electrical equipment (including mobile phones) Jewellery Alcohol and other drugs Weapons Personal items not classified elsewhere Conveyances and accessories Other property not classified elsewhere
Property taken incident, fifth type listed	600	461	1,061	Cash Negotiable documents Identity documents Luggage Personal electrical equipment (including mobile phones) Jewellery Alcohol and other drugs Weapons Personal items not classified elsewhere Conveyances and accessories Other property not classified elsewhere

Table 8 (continued)

Variable description	Valid records			Values
	2009	2010	Total	
Value of property taken in incident, first property type listed	896	869	1,765	
Value of property taken in incident, second property type listed	629	609	1,238	
Value of property taken in incident, third property type listed	521	513	1,034	
Value of property taken in incident, fourth property type listed	469	465	934	
Value of property taken in incident, fifth property type listed	391	376	767	
Total value of property stolen incident	1,367	1,276	2,643	
Unique reference number for first listed offender	6,274	2,293	8,567	
Unique reference number for second listed offender	6,274	835	7,109	
Unique reference number for third listed offender	6,274	316	6,590	
Unique reference number for fourth listed offender	6,274	102	6,376	
Unique reference number for fifth listed offender	6,274	33	6,307	
Age of first listed offender at time of incident	2,500	2,294	4,794	
Age of second listed offender at time of incident	980	834	1,814	
Age of third listed offender at time of incident	373	316	689	
Age of fourth listed offender at time of incident	174	102	276	
Age of fifth listed offender at time of incident	65	33	98	
Date of birth, first listed offender	2,499	2,293	4,792	
Date of birth, second listed offender	978	835	1,813	
Date of birth, third listed offender	372	316	688	
Date of birth, fourth listed offender	174	102	276	
Date of birth, fifth listed offender	65	33	98	
Gender, first listed offender	2,504	2,294	4,798	
Gender, second listed offender	981	835	1,816	
Gender, third listed offender	373	316	689	
Gender, fourth listed offender	174	102	276	
Gender, fifth listed offender	65	33	98	

Source: AIC NARMP victims 2003–10 [computer file]

Table 9 Victim type, 2009 and 2010

	2009	2010	Total
Individual person	4,460	4,119	8,579
Organisational victim	1,804	1,594	3,398
Other	1	1	2
Missing	9	17	26
Total	6,274	5,731	12,005

Source: AIC NARMP victims 2003–10 [computer file]

Table 10 Victim gender, 2009 and 2010

	2009	2010	Total
Male	3,434	3,183	6,617
Female	1,017	920	1,937
Unknown	9	14	23
Missing	0	2	2
Total	4,460	4,119	8,579

Note: Excludes victim cases not flagged as individuals

Source: AIC NARMP victims 2003–10 [computer file]

Table 11 Victim age group, 2009 and 2010

Age group (yrs)	2009	2010	Total
Under 15	167	141	308
15–19	943	837	1,780
20–24	1,002	919	1,921
25–29	705	642	1,347
30–34	352	366	718
35–39	277	301	578
40–44	224	211	435
45–49	257	225	482
50–54	196	180	376
55–59	141	115	256
60–64	81	91	172
65 and over	98	76	174
Missing	17	15	32
Total	4,460	4,119	8,579

Source: AIC NARMP victims 2003–10 [computer file]

Table 12 Relationship of victim and offender, 2009 and 2010

Relationship type	2009	2010	Total
Known to victim, not further defined	16	25	41
Family member, not further defined	9	6	15
Partner, spouse, de facto	6	4	10
Ex-partners	8	6	14
Sibling	0	1	1
Child	4	0	4
Other related family member, not classified elsewhere	3	5	8
Non family member, not further defined	1	1	2
Friend, including boyfriend/girlfriend	6	7	13
Acquaintance	129	89	218
Professional relationship, excluding employment	15	12	27
Known via employment	2	5	7
Housemate, boarder	2	0	2
Neighbour	1	2	3
Criminal associate	5	6	11
Other non-family member, not classified elsewhere	3	8	11
Total known to victim	210	177	387
Unknown to victim	1,892	1,557	3,449
Total	2,102	1,734	3,836

Note: Victims can be threatened by more than 1 offender therefore total exceeds number of victims

Source: AIC NARMP victims 2003–10 [computer file]

Table 13 Victim injury, 2009 and 2010

Injury	2009	2010	Total
'No injury' noted, not applicable	366	412	778
Emotional trauma	323	355	678
Minor injury	229	184	413
Serious injury	37	34	71
Death	0	1	1
Total	955	986	1,941

Source: AIC NARMP victims 2003–10 [computer file]

Table 14 Most serious weapon used in armed robbery incidents, 2009 and 2010

Weapon type	2009	2010	Total
Firearm	799	825	1,624
Knife	2,742	2,572	5,314
Syringe	144	133	277
Other weapon	1,279	1,058	2,337
Not specified	423	434	857
Total	5,387	5,022	10,409

Source: AIC NARMP incidents 2004–10 [computer file]

Table 15 Location of armed robbery incidents, 2009 and 2010

Location type	2009	2010	Total
Residential	386	420	806
Educational, community	54	56	110
Transport related	347	346	693
Open spaces	48	42	90
Street, footpath	1,779	1,648	3,427
Admin, professional	21	14	35
Banking, financial	61	50	111
Retail	946	797	1,743
Pharmacies	137	101	238
Service stations	411	385	796
Wholesalers, warehouses	14	7	21
Recreational	220	210	430
Licensed premises	335	370	705
Corner/convenience stores	268	239	507
Newsagents	68	43	111
Post offices	20	20	40
Takeaways	156	155	311
Unspecified, other	116	108	224
Missing	0	11	11
Total incidents	5,387	5,022	10,409

Source: AIC NARMP incidents 2004–10 [computer file]

Table 16 Day of the week of armed robbery incidents, 2009 and 2010

	2009	2010	Total
Sunday	873	848	1,721
Monday	744	731	1,475
Tuesday	695	663	1,358
Wednesday	689	633	1,322
Thursday	742	664	1,406
Friday	806	695	1,501
Saturday	838	788	1,626
Total incidents	5,387	5,022	10,409

Source: AIC NARMP incidents 2004–10 [computer file]

Table 17 Time of day of armed robbery incidents, 2009 and 2010

Time category	2009	2010	Total
Midnight–02:59	837	721	1,558
03:00–05:59	427	399	826
06:00–08:59	252	239	491
09:00–11:59	355	331	686
Noon–14:49	488	525	1,013
15:00–17:59	685	587	1,272
18:00–20:59	1,057	1,004	2,061
21:00–23:59	1,280	1,216	2,496
Missing	6	0	6
Total incidents	5,387	5,022	10,409

Source: AIC NARMP incidents 2004–10 [computer file]

Table 18 Number of offenders involved in armed robbery incidents, 2009–10

Count of offenders	2009	2010	Total
0	3,291	3,023	6,314
1	1,333	1,310	2,643
2	478	442	920
3	163	168	331
4	72	52	124
5 or more	50	27	77
Total incidents	5,387	5,022	10,409

Note: A count of zero indicates that offender/s had not been apprehended at the time of data extraction

Source: AIC NARMP incidents 2004–10 [computer file]

Table 19 Property stolen in armed robbery incidents, 2009–10

Property type	2009	2010	Total
Cash	1,244	1,123	2,367
Negotiable documents	277	317	594
Identity documents	502	395	897
Luggage	484	490	974
Electrical equipment	928	949	1,877
Jewellery	140	134	274
Alcohol and other drugs	248	273	521
Weapons	65	58	123
Personal items	372	439	811
Vehicles and accessories	62	69	131
Other items	264	286	550
Total items	4,586	4,533	9,119

Note: Excludes incidents without property variables or coded as not applicable. More than one type of property can be listed for an incident therefore total exceeds number of incidents. Property types can be listed multiple times in a single incident

Source: AIC NARMP incidents 2004–10 [computer file]

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