CIVILIAN SECRETARIAT FOR POLICE SERVICE

ANALYSIS OF THE EFFECT OF THE FIREARMS CONTROL ACT ON CRIME

2000 – 2014

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List of Acronyms

AAA	Arms and Ammunition Act
ANC	African National Congress
CAGR	Compound Annual Growth Rate
CFR	Central Firearms Registry
CSP	Civilian Secretariat for Police
EC	Eastern Cape
Ed.	Editor
excl.	excluding
FCA	Firearms Control Act
FIFA	Federation International Football Association
FS	Free State
Gau	Gauteng
GFSA	Gun Free South Africa
IBIS	Integrated Ballistics Identification System
ISS	Institute for Security Studies
KZN	KwaZulu-Natal
Li	Limpopo
Mp	Mpumalanga
MP	Member of Parliament
MRC	Medical Research Council
NC	Northern Cape
NCPC	National Crime Prevention Centre
NIMSS	National Injury Mortality Surveillance System
NW	North West
PAS	Provisioning Administration System
POCA	Prevention of Organised Crime Act
RSA	Republic of South Africa
SAGA	South Africa Gun Owners Association
SANDF	South African National Defence Force
SAPS	South African Police Services
SASQAF	South African Quality Assessment Framework
SaVI	South African Violence Initiative
SD	Standard deviation
Stats SA	Statistics South Africa
TMS	Technology Management Services
WC	Western Cape
WR	Weapon Registration
WSG	Wits School of Governance

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Foreword: The Cruelty of Statistics

By its very nature, a report such as this requires an analysis of masses of data. In this case the main data are in the form of copious details of millions of reported crimes in South Africa. The process requires that these details be examined for anomalies, summarised into statistics and then presented in tables or graphs, which in turn are summarised further and conclusions finally drawn. This is the nature of quantitative research. And well-constructed quantitative research is essential for policy making, monitoring and evaluation.

But sadly, the quantitative research process loses the humanity in the data – it loses the story of every one of the 17,805 people murdered in South Africa between 1 April and 31 March 2014 (SAPS statistic). One such example is the murder (with a knife not a firearm) in October 2014 of Dr Lehlohonolo Mathengtheng aged 27, a multiple award winner and promising doctoral graduate of University of Free State, originally from Odendaalsrus in rural Free State, who did not live to attend his own graduation[1]. No doubt there are another 17,804 similarly devastating stories of the other victims of murder this past year, and thousands more of previous years. Regrettably, as this report and the recently published 2014/15 SAPS crime statistics show, the numbers of murders, as well as almost all other violent crimes in South Africa, have been increasing over the past four years.

However, a valuable finding of our research is that increasing crime trends have been successfully addressed and actually reversed in the past – indeed from 2008/9-2010/11, after a period of increasing crime rates, the levels of violent crime decreased substantially. In this period of effective crime fighting, the Firearms Control Act was essentially the same as now, but the period was characterised by crime intelligence and clear-cut strategies, for example the SAPS Gauteng Aggravated Robbery Strategy[2] (2009-2011). And in this period crime decreased, substantially so. However the period that followed saw a change in SAPS leadership and subsequent abandonment of such operational strategies, and crime has been increasing ever since.

We need to abandon complacency and remember that every part of every crime statistic relates in some way to a person and a tragedy that ripples through our society. Coherent responses to crime must continue to be a national priority using the historical lessons that could teach us how to police and how not to.

The WSG team

[1] http://www.timeslive.co.za/thetimes/2015/07/10/The-Big-Read-How-crime-murders-our-hope

[2] Newham, G. (2015) https://www.issafrica.org/iss-today/the-not-so-secret-solution-to-fighting-sas-most-feared-crime

Objective of the Report

This report describes the work completed by Wits School of Governance (WSG) as contracted by the National Civilian Secretariat for Police for the Firearms Research Project (December 2014). The Civilian Secretariat for Police is mandated through section 6(1)(f) of their Act to conduct research[3]. This report is aligned to the scope of services delineated in the request.

The main objective of this research was to assess the effects of the Firearms Control Act (FCA) on crime. As stated in the SAPS request for proposal, recommendations made from the research findings will inform the amendments to the Firearms Control Act.

The analyses in this report represent a re-analysis of the population of detailed SAPS crime records from 2000-2014. Accordingly, the outcome of the research is the description and evaluation of the categories of violent crime in South Africa from before the advent of the FCA until a decade after its commencement. Using detailed SAPS crime data, the analyses describe the trends and patterns in the numbers and rates of violent crimes, types of weapons used in these crimes, types of firearms used in crimes committed with firearms, and the demographics of persons accused of committing crimes. Details of registered firearms and their owners, as well as firearms reported stolen, lost and recovered are examined in the context of the FCA.

Introduction

The Firearms Control Act (FCA) of 2000 (Act No. 60 of 2000) replaced the Arms and Ammunition Act (AAA) of 1969, with increased eligibility and competency certification requirements. The FCA was assented to on 4 April 2001 and commenced on 1 July 2004[4]. The FCA currently complies with the Zimring Standard[5], an internationally accepted standard to measure effective gun control of countries.

The purpose of Act is to:

> *(a) enhance the constitutional rights to life and bodily integrity;*
>
> *(b) prevent the proliferation of illegally possessed firearms and, by providing for the removal of those firearms from society and by improving control over legally possessed firearms, to prevent crime involving the use of firearms;*
>
> *(c) enable the State to remove illegally possessed firearms from society, to control the supply, possession, safe storage, transfer and use of firearms and to detect and punish the negligent or criminal use of firearms;*

[3] National Firearms Summit on Gun Control, Parliament SA, March 2015

[4] http://www.saps.gov.za/resource_centre/acts/downloads/juta/firearms_control_act_2000_a_0060.pdf

[5] The Zimring Standard was first proposed in 1991 by US criminologist Frank Zimring. It is based on prohibition/ restriction of certain uses of weapons and ammunition, certain users of weapons, and certain types of weapons and ammunition

(d) establish a comprehensive and effective system of firearm control and management; and

(e) ensure the efficient monitoring and enforcement of legislation pertaining to the control of firearms.

The Act raised the minimum age of firearm ownership from 16 to 21 years, and among its several other conditions for responsible ownership, it requires licensed firearm owners to apply for competency certificates every five years as a condition for re-applying for the renewal of their licences, failing which they are obliged to dispose of their firearms within 60 days or forfeit them to the state.

Government rationale for the FCA

Preceding its implementation, the FCA was seen as a fundamental strategy to address the high levels of violent crime in South Africa. The Government maintained that the Act would 'turn the tide' against violent crime in South Africa[6] and did not question the link between violent crime and firearms. Indeed the Minister of Safety and Security at that time, the late Steve Tshwete, noted that, "…firearms are almost without exception at the centre of all instances involving serious violence in South Africa[7]". Similarly his successor, Charles Nqakula, considered violent crime as virtually synonymous with firearms, identifying drug/substances trafficking and abuse, domestic violence and rape, aggravated robbery, and police killings as …. violent crimes that are mostly carried out by the use of firearms". A decade later (December, 2012), the spokesman for the Ministry of Police, Zweli Mnisi [8] reasserted that tougher controls on firearms had reduced gun related crime. Further, in October 2014, following the high profile murders by firearm of Bafana Bafana captain Senzo Meyiwa in Vosloorus and the wounding of ANC MP Jackson Mthembu during a robbery in Witbank, the message of the ANC was "…to review existing gun control measures with a view to limiting access to guns that end up in the wrong hands" (ANC spokesperson Zizi Kodwa, October 30, 2014). And recently, in a media briefing by the Civilian Secretariat for Police on the occasion of the destruction of illegal firearms (July, 2015)[9], the role of the FCA was stressed further in combatting violent crime: "…the importance of the Firearms Control Act as being amended cannot be more emphasized". Even more recently, in an interview (SABC broadcast on 1 November 2015), the president stated that there are statistics that show "… that guns kill more people than any other thing", and that he would "absolutely" support the tightening of gun control in South Africa.

Thus the FCA, with its tight control over firearm licences, has been considered as a critical solution to combat violent crime since pre-inception, and the proposed further tightening of its regulations is expected to be the solution to the upsurge of violent crime in the country.

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[6] Firearms Control Act Turning the tide against violent crime: Sephadi, 20 November, 2003
[7] http://www.anc.org.za/show.php?id=2831
[8] http://www.southafrica.info/services/gunlaw-190213.htm#.Vj02sbcrK70#ixzz3ql55fDv1
[9] http://www.policesecretariat.gov.za/newsroom/speeches/speech_09-07-2015.php

Challenges to the FCA

When the FCA was first implemented, a transitional scheme was created to facilitate the transition of licences registered under the old 1969 Act to the new FCA. This scheme was created in terms of Schedule 1 of the new Act whereby firearms licenced to owners under the old Act remained valid for five years. Thereafter, firearm owners would need to reapply for their licences.

However on 26 June 2009, five years after the implementation of the Act, the Northern Gauteng Division of the High Court declared portions of the new Firearms Control Act unconstitutional, in response to the application of the South African Hunters and Game Conservation Association. In an interim interdict against the Minister of Police, the High Court declared that all firearm licences approved under the 1969 Arms and Ammunition Act be lawful and valid, pending the outcome of the appeal. Nevertheless, firearm owners were encouraged to renew their licences as the outcome of the main application could ultimately rule against owners who waited for the judgement and did not renew in the interim. Accordingly, owners were given an opportunity to renew their firearms in the firearm amnesty period of January 2010-11 April 2010, and renewal applications peaked just before.

To date the main application on the constitutionality of the transitional process has not been finalised and so the interim interdict remains in place, with thousands of firearm owners still registered with old but nevertheless valid licences and who therefore cannot be criminally charged for illegal possession of their firearms. Since 2004 however, 'new' owners, and those who reapplied under the new Act, have been obliged to abide by the rules of the FCA. All license renewals, applications and other administrative aspects related to firearm licences are the concern of the Central Firearm Registry (CFR).

The Central Firearms Registry

The CFR is a department of the South African Police Service (SAPS). It is responsible for details of firearm licence holders and of all firearms in South Africa, including new firearm applications, competency applications and applications for renewals. Among its other functions, it maintains details of approved and refused firearm permits and authorisations for all licence holders, as well as details of lost, stolen and found firearms.

Historically, there have been allegations of the lack of completeness and accuracy of the CFR (ISS, 1999) with doubts cast on the completeness and accuracy of the inclusion of firearm licence records of the reintegrated former TBVC homelands. Other historical challenges of the CFR include backlogs in updating firearm records of deceased estates, and challenges of outdated records of licence holders who fail to update their contact details and to report information on stolen and lost firearms.

In spite of a revised IT system, the CFR was heavily criticised at the National Firearms Summit organised by Parliament's police committee and the Civilian Secretariat for Police in March, 2015[10]. There have since been remedial actions taken against corrupt officials and additional personnel have been hired[11].

It must be stated that the content of Chapter 4 of this report is based on data received from the personnel of the CFR. The data was received timeously and found to be acceptably clean and internally consistent, and the staff were most helpful, informed and knowledgeable.

Evaluation of the Firearms Control Legislation and proposed amendments

More than a decade later, the effectiveness of the Firearms Control Legislation on crime and violence in South Africa is being evaluated, and the Draft Firearms Control Amendment Bill, 2015 has been published for public comments (see Appendix A for a summary of the proposed amendments). There are currently several ongoing dialogues and an established Firearms Functional Task Team by the Minister of Police, Mr Nathi Nhleko, to conduct in-depth research and follow-up on the resolutions of dialogue. The research described in this report is directly relevant to such dialogues and in turn for the Draft Firearms Control Amendment Bill, 2015[12].

A note to the reader

We understand that this report is detailed and technical. We have therefore provided a choice of three levels of summary, in addition to the full detailed report, for readers who prefer different levels of detail:

- *Summary 1: The findings of the report in brief (under two pages)*
- *Summary 2: The research objective, methodology, findings and recommendations of the report in brief*
- *Summary 3: A comprehensive summary of the research*
- *The detailed report in Chapters 1-6.*

[10] http://www.bdlive.co.za/national/2015/03/26/firearms-registry-mess-to-be-fixed-says-nhleko
[11] http://www.policesecretariat.gov.za/newsroom/speeches/speech_09-07-2015.php
[12] https://jutalaw.co.za/media/filestore/2015/07/Draft_Firearms_Control_Amendment_Bill_2015.pdf

Summary 1: The findings of the report in brief

1 Crime rates have declined since the start of the FCA, judging from the decline in the rates from 2004/5 to 2013/14. However, there is little evidence that the FCA has caused the decline. The level of strong and sustained policing, rather than the FCA, is a necessary condition for reducing firearm related crime. The FCA is not sufficient to reduce firearm related crime in the absence of strong policing[13].

2 The FCA is relevant to less than 5% of all crimes reported to SAPS. This percentage refers to violent crimes that could be related to firearms, but do not necessarily entail the use of firearms. For example, in crimes of murder, firearms are used in only about a third of cases. Thus violent crime should not be equated with firearms as they are often carried out with other weapons.

3 Firearm related crimes should be viewed as comprising Firearm Choice crimes versus Firearm Dependent crimes. Firearm Choice crimes are perpetrated when there is a choice between using a firearm or a different weapon, for example a sharp object. Examples of Firearm Choice crimes are murder, attempted murder and robbery at residential premises. On the other hand, Firearm Dependent crimes are dependent on the use of firearms. Examples of Firearm Dependent crimes are truck hijacking, cash in transit robbery, bank robbery.

4 Firearm Choice crimes are more responsive to policing in the presence of the FCA. When the rates of Firearm Choice crimes decline under strong policing, the level of usage of firearms in these crimes drops. On the other hand, Firearm Dependent crimes are impervious to the FCA. Even when the rates of Firearm Dependent crimes decline under strong policing, the level of usage of firearms in these crimes remains intact.

5 We posit that there be distinct legislation compiled and applied to control the two sets of crimes - Firearm Choice crimes versus Firearm Dependent crimes. Possibly an Act like The Dangerous Weapons Act 15 of 2013, or more appropriate legislation, may complement policing and the FCA in addressing Firearm Choice crimes.

6 Strong policing must be maintained in order to achieve sustained decline in crime. In spite of the FCA, in the absence of strong policing, the usage of firearms in perpetrating murder (although not used in the majority of murders), tends to return to the higher levels that existed before the general decline in both

[13] The term 'strong' policing, here and throughout the report, means a coherent, resource intensive approach with high compliance to protocols and support from the whole Criminal Justice System. It was not the purpose of this study to investigate the details of the policing in this period. It must suffice to note that this approach had a crime-reducing impact.

murders and in the percentage of firearm usage in the period of strong policing. Thus strong policing needs to be maintained to sustain the lower levels of firearm use.

7 The official SAPS crime statistics convey the same message as the statistics in this study, i.e. some decline in the 2004/5-2007/8 period that followed the commencement of the FCA, the greatest decline in crime levels in the 2008/9-2010/11 Peri FIFA Cups period, and a rise in crime levels in the subsequent 2011/12-2013/14 Post World Cup period.

8 There is little evidence in the detailed data of persons accused of committing crimes to suggest that the FCA's increase in the minimum age of firearm ownership has changed the use of firearms in crime carried out by young people. Over the past decade, there has been a shift towards accused persons tending to be older (25+ years), but this shift appears to affect persons accused of crimes similarly, irrespective of whether a firearm is involved. It therefore appears unlikely that the shift towards older accused is due to the FCA.

9 The rates of firearm losses and recoveries have been improving since 2000, most likely due to the FCA. However although recovery rates within one and two years of loss have become quicker, the eventual recovery rates remain at around 20% and have hardly improved. It is necessary to minimise the losses and improve recoveries further as the profile of stolen firearms mirrors the profile of firearms used in crime rather than the profile of the population of CFR licenced firearms. Gauteng province has among the worst rates of losses and recoveries.

10 Based on the demographics of the population of private individuals registered on the CFR as legal firearm owners, there are only 2% of individuals aged 21-30, and 12% aged 21-40. It is possible that the conditions for registering a firearm are so onerous that young people no longer apply for firearms. We also note that the distributions of age and gender of private firearm owners are very different from those of persons accused of crime.

Summary 2: The research objective, methodology, findings and recommendations of the report in brief

The research was undertaken by Wits School of Governance (WSG) as contracted by the National Civilian Secretariat for Police. The objective of the report was to assess the effects of the Firearms Control Act (FCA) on crime. The research was based primarily on an analysis of detailed SAPS crime records from 2000-2014. The Central Firearms Registry of registered firearms and their owners as at October 2014 was used to complement the analyses of the crime data.

The analyses focused on four FCA related periods over a 15-year time period (2000-2014). These four periods were respectively: the first period is the 2000/1-2003/4 period before the commencement of the FCA and with moderately strong policing initiatives (Operation Sethunya) under the late Jackie Selebe; the second is the four year period (2004/5-2007/8) following commencement of the FCA with a similar level of policing initiatives (the effect of Operation Sethunya would still have been felt plus the 2005 illegal firearms amnesty) under the same Police Commissioner; the third is the three year period (2008/9-2010/11) of intense policing operations and high expenditure spanning the FIFA Confederation and World Cup events under a new Police Commissioner and still with the application of the FCA; and the fourth (2011/12-2013/14) is the withdrawal of strong policing under a new Police Commissioner while the FCA continues. These four periods functioned as our timeframe to measure levels of firearm related crime, the outcome variable of the study.

Firearm related crime comprises crimes in which firearms may be used, i.e. murder, attempted murder, general aggravated robbery and its subcategories of robbery at residential premises, robbery at non-residential premises, carjacking, truck hijacking, cash in transit robbery, bank robbery, pointing/discharging a firearm in public, and illegal possession of firearms/ammunition (a crime dependent on police action for detection and thus ideally displaying high levels).

If the FCA was effective in reducing firearm related crime, we would expect the crime levels to be highest in the pre FCA period (2000/1-2003/4), to reduce in the FCA period immediately following commencement of the FCA (2004/5-2007/8), and to show a sustained decrease in crime levels in the following two FCA related periods (2008/9-2010/11 and 2011/12-2013/14). In other words, this trend of reducing crime levels would be sustained under the FCA, irrespective of the presence or absence of strong policing operations. On the other hand, if strong policing operations was the treatment condition effective for reducing firearm related crime rather than the FCA, then we would expect the crime levels to reduce the most in the strongly policed third FCA related time period, i.e. in the 2008/9-2010/11 time around the FIFA Cup events, and to increase again when this condition of strong policing was withdrawn in FCA period 4 (2011/12-20113/14).

Our results indeed showed the latter trend, i.e. that firearm crime levels reduced the most in the 2008/9-2010/11 FIFA Cups period, more so than in the period immediately following the commencement of the FCA (2004/5-2007/8), and that despite the FCA, the decreased crime levels were not sustained in the FCA period when strong policing initiatives were withdrawn. This pattern of favourable improvement in firearm related crime was generally consistent when measured by crime levels and rates, with the exception of the crime of robbery at business premises which remained high throughout the 14-year period. The key finding of our research was therefore that the level of strong policing, rather than the FCA, is a necessary condition for reducing firearm related crime. The FCA is not sufficient to reduce firearm related crime in the absence of strong policing.

Furthermore, the FCA is relevant to less than 5% of all crimes reported to SAPS. These 5% of crimes are firearm related crimes and do not necessarily entail the use of firearms. For example, firearms are used in only about a third of murders nationally. Thus violent crime should not be equated with firearms.

Firearm related crimes should be viewed as comprising Firearm Choice crimes versus Firearm Dependent crimes. Firearm Choice crimes are perpetrated when there is a choice between using a firearm or a different weapon, for example a sharp object. Examples of Firearm Choice crimes are murder, attempted murder and robbery at residential premises. On the other hand, Firearm Dependent crimes are dependent on the use of firearms. Examples of Firearm Dependent crimes are truck hijacking, cash in transit robbery, bank robbery.

Firearm Choice crimes are more responsive to policing - when the rates of Firearm Choice crimes decline under strong policing, the level of usage of firearms in these crimes drops too. However, in the absence of strong policing, in spite of the FCA, the usage of firearms in perpetrating murder (although not used in the majority of murders), tends to return to the higher levels that existed before the general decline in both murders and in the percentage of firearm usage in the period of strong policing. On the other hand, Firearm Dependent crimes are impervious to the FCA. Even when the rates of Firearm Dependent crimes decline under strong policing, the level of usage of firearms in these crimes remains intact. Strong policing must be maintained in order to achieve sustained decline in crime.

We thus conclude that strong policing needs to be maintained to sustain the lower levels of firearm use. We posit that there be distinct legislation compiled and applied to control the two sets of crimes. The Dangerous Weapons Act 15 of 2013, or a more appropriate Act, may complement policing and the FCA in addressing Firearm Choice crimes.

There is little evidence in the detailed statistics of persons accused of crime to suggest that the FCA's increase in the minimum age of firearm ownership has changed the use of firearms in crime carried out by young people. Over the past decade, there has been a shift towards accused persons tending to be older

(25+ years), but this shift appears to affect persons accused of crimes similarly, irrespective of whether a firearm is involved. It therefore appears unlikely that the shift towards older accused persons is due to the FCA.

The official SAPS crime statistics are conveying the same message as our statistics, i.e. some decline in the 2004/5-2007/8 period which followed the commencement of the FCA, the greatest decline in crime levels in the 2008/9-2010/11 Peri FIFA Cups period, and a rise in crime levels in the subsequent 2011/12-2013/14 Post World Cup period.

The rates of firearm losses and recoveries have been improving since 2000, most likely due to the FCA. However although recovery rates within one and two years of loss have become quicker, the eventual recovery rates remain at around 20% and have hardly improved. It is necessary to minimise the losses and improve recoveries further as the profile of stolen firearms mirrors the profile of firearms used in crime rather than the profile of the population of CFR licenced firearms. Gauteng province has among the worst rates of losses and recoveries.

Based on the demographics of the population of private individuals registered on the CFR as legal firearm owners, there are only 2% of individuals aged 21-30, and 12% aged 21-40. It is possible that the conditions for registering a firearm are so onerous that young people no longer apply for firearms. There are also a substantial number of registered firearms that belong to deceased estates.

We recommend the following:

- Authorities need to shift their misplaced, unconditional faith in the ability of the FCA to solve crime to policing; the FCA is not effective unless it functions under strong policing.
- On the policy side, there should be policies and legislation specific to addressing firearm dependent crime, independent of firearm choice crime.
- On the data side, there needs to be readily accessible data based on SAPS IT systems that can link the various SAPS databases, and that link SAPS databases to court records.
- On the safety of legal firearms, there need to be regular unconditional, anonymous illegal firearm amnesties so that private individuals can turn in unwanted firearms.
- On the amendments of the FCA, we need to realise that the population of legal firearm owners is ageing and increasingly stringent conditions for firearm licencing may be viewed as restricting their human rights to security.
- Finally, in the present and future of 3-D printing if firearms, the FCA may be inappropriate, and policing would once again be the effective strategy in the fight against crime.
- Finally, the official SAPS crime statistics should be more up-to-date and released more regularly.

Summary 3: A comprehensive summary of the research

The main objective of this research was to assess the effect of the Firearms Control Act (FCA) on crime. Accordingly, this summary is structured into three main sections.

The first section of this summary describes the two approaches to the timeframes used in the study to evaluate the effects of the FCA. The simplistic approach evaluates changes over the 10 year timeframe based solely on measurements at the beginning and end years of the 10 year period since commencement of the FCA (2004/5-2013/14). By contrast, the comprehensive approach considers historical events by taking into account the four year period before the FCA commenced, as well as major anti-crime initiatives and external events, in evaluating changes in crime indices. This report focusses on the comprehensive approach as it illustrates the extraneous variables that could have caused changes in the levels of crime, rather than the FCA causing these changes. We call these periods the four 'FCA related time periods' and we describe them in moderate detail.

The second section of the summary examines the structural framework of crime that we have posited in this report, showing how the individual firearm related crimes are placed in this structure. We base our discussion of these crimes on the detailed results from Chapter 3 within the four FCA related time periods. We discuss the patterns in the numbers and rates of firearm related crimes, firearm usage in perpetrating these crimes, and the demographics of accused persons. We explain the cross validation of the official SAPS crime statistics, where comparisons allow, and show that the crime trends in South Africa based on the official SAPS statistics are the same as the crime trends in our analyses. However the levels of crime in our analyses are generally higher.

The third section focusses on the Central Firearms Registry (CFR) as the Registry controls the registration of firearm owners and firearm licences, among its many other functions, and is thus the main channel for operationalising the FCA. We compare the characteristics of the CFR population of registered firearms to the characteristics of firearms used in crime, and compare the profile of the registered firearms that have been reported stolen, lost and recovered over the past 14 years in relation to the profile of firearms used in crime.

Approaches to the timeframes for evaluating the effect of the FCA

The most simplistic approach to evaluating changes over the FCA period is to compare crime measures at the start and end years of the 10 years of the FCA. This approach ignores the effects of any events that may occur during the 10 year period but is nevertheless used in research. We have used this approach as a starting point to provide perspective to the overall levels of crime at the start versus the end of the period, but we have been careful not to posit reasons for the changes between these two years. However, some researchers, for example, Abrahams et al., 2013[14], merely take the differences from the start and end points of a period and mistakenly attribute these differences to an intervening event, like the FCA, with no consideration of other historical factors that occurred over the period. Clearly, in order to understand the changes we need to consider the period leading up to the FCA as well as various crime related historical events that occurred over the subsequent period. This is the comprehensive view that we have achieved through basing our analyses on the four FCA related time periods.

The FCA periods were chosen to be as relevant as possible to the maturity of the FCA and also to take into account major external and internal events that may have affected crime levels in the country. The major external events are for example FIFA sporting events that entailed substantial crime prevention initiatives, and major internal events that refer to SAPS anti-crime operations. Furthermore, the SAPS National Commissioner epitomises the leadership style employed at the time and is also considered of major significance.

Figure 1 displays the four time periods in terms of their dates, the police commissioner(s) in charge at the time, and major external and internal events that took place. A clear description of these time periods is important in order to understand some of the variables that may be associated with, or have caused or contributed to changes in crime levels, rather than the implementation of the strict controls of the FCA.

Pre FCA: 2000/2001-2003/2004

Although the Firearms Control Act of 2000 was signed into law in April 2001, it was phased into operation over the period from 2000/1 and officially commenced on 1st July 2004. Thus the 2000/1-2003/4 SAPS years may be considered as the baseline period of four years prior to the Act becoming fully effective, and the crime levels in this baseline period can be compared to the crime levels in the following four years (2004/5-2007/8). In the terminology of research design, the pre FCA 2000/1-2003/4 period would be referred to as the pre-test condition and the post FCA 2004/5-2007/8 period as the post-test condition.

[14] Abrahams N, Mathews S, Martin LJ, Lombard C, Jewkes R. Intimate partner femicide in South Africa in 1999 and 2009. PLoS Med. 2013;10(4): e1001412.

However, a major SAPS event, Operation Sethunya (including its normalisation phase), occurred in the last year of this period, from April 2003-March 2004. The operation targeted illegal firearms in the country and resulted in the confiscation of close to 26,000 illegal firearms, 1.7 million rounds of ammunition and 6,000 arrests for illegal possession of firearms and ammunition (Meek & Stott, 2004). The effect of this large scale operation would have reduced the pool of illegal firearms in South Africa and may well have resulted in fewer firearm related crimes such as murder, and fewer firearm dependent crimes such as armed hijackings, business robberies, cash in transit robberies and bank robberies at the end of the Pre FCA 2000/1-2003/4 period.

This period was under the leadership of the late Jackie Selebi.

Post FCA: 2004/2005-2007/2008

As Operation Sethunya took place at the end of the Pre/Partial FCA period, its effects would surely have carried over into the post FCA 2004/5-2007/8 period, coincidentally the same period in which the FCA was implemented. So it is difficult, if not impossible, to separate out the effect of Operation Sethunya on the level of firearm crimes committed, from the effect of the implementation of the FCA in the post FCA 2004/5-2007/8 period.

Likewise, the six month illegal firearm amnesty from January-June 2006 occurred in the middle of the Post FCA period and may be another confounding factor mitigating against attributing changes in crime levels to the full implementation of the FCA. However the illegal firearms and ammunition may have been mostly unwanted firearms that were previously registered on the CFR rather than illegal firearms involved in the perpetration of crime[15]. Nevertheless, by the end of this amnesty period, close to 34,000 illegal firearms, 609,000 illegal rounds of ammunition and 42,000 legal firearms were surrendered to SAPS and earmarked for destruction after ballistic testing. In all, SAPS destroyed approximately 107,000 firearms in 2005/06[16].

This period was also under the leadership of the late Jackie Selebi.

Peri FIFA Confederation & World Cups: 2008/2009-2010/2011

Although there was no major FCA event in this period, the two FIFA soccer events were associated with heightened security measures which would have extended before and after the international events – hence our use of the word Peri. The security measures for the World Cup event were based on the 2010 FIFA World Cup South Africa Special Measures Act, No. 11 of 2006[17], detailing vast budgets for anti-crime initiatives in order to provide a safe environment for local and international visitors and players.

[15] Announcements, Tablings and Committee Reports No 84. Parliament of the Republic Of South Africa, 16 July 2015
[16] Illegal firearms amnesty pays off. http://www.southafrica.info/services/firearms-amnesty.htm#.VlyXi3YrJ9A
[17] http://www.saps.gov.za/resource_centre/acts/downloads/fifa2010_a11_2006.pdf

The first 15 months of this period were under Jackie Selebi and the last 21 months were under the leadership of Bheki Cele.

Clearly, the successes in reduced crime levels in this period cannot be ascribed solely to the ongoing FCA.

Although there was also a three-month illegal firearm amnesty in January-April 2010 which netted 32,000 firearms and 350,000 rounds of ammunition, half of which were illegal[18], it is acknowledged that illegal firearms involved in previous crimes are unlikely to be handed in. Furthermore, some of the firearms handed in during the amnesty were recirculated illegally rather than destroyed, illustrating corruption within SAPS[19].

Post World Cup: 2011/2012-2013/2014

The most recent period was under the leadership of Bheki Cele for the first six months, then under no commissioner for nine months, and thereafter under General Riah Phiyega for 18 months. There were no external events or internal anti-crime initiatives in this period. However there were significant changes in leadership structures.

Having described the four FCA related time periods, we now present our findings on the firearm related crimes as these are pertinent to the FCA. The analyses first examine the rate of firearm related crimes per FCA period, then the level of firearm usage in the various crime categories, then the types of firearms used. The final level of detail relates to the age, sex and nationality of the persons accused of firearm related crimes.

The following section describes our hierarchical structure of crime and the relevance of the FCA to this structure. The different levels of crime are then discussed using the simplistic and comprehensive timeframes.

Crime Analysis

Changes in the rates of firearm related crimes

In line with the main objective of the report, the discussion is based on the results of specific firearm related crimes presented in Chapter 3 which identified these crimes as murder, attempted murder, the overall category of aggravated robbery (in which the locality of several crimes involving weapons is not specified), subcategories of aggravated robbery, as well as pointing/discharging a firearm in public (not included in the overall category of Aggravated robbery), and the unlawful possession of firearms and ammunition. These categories are referred to as the generic category of firearm related crimes throughout the report.

[18] http://www.sapsjournalonline.gov.za/dynamic/journal_dynamic.aspx?pageid=414&jid=21505

[19] Announcements, Tablings and Committee Reports No 84. Parliament of the Republic Of South Africa, 16 July 2015

National level

The growth (CAGR) in the rates (per 100,000) of the firearm related crimes within each of the FCA related periods at national level show some increases in crimes in the Pre FCA period (2000/2001-2003/2004), including pointing/discharging a firearm in public, and the unlawful possession of firearms and ammunition. Both these crimes would be expected to decrease in subsequent FCA periods as responsible firearm possession and handling would be more strictly enforced, and indeed this was so for the next two FCA periods. However in the Post FCA period (2004/2005-2007/2008), there were increases in most subcategories of aggravated robbery. In contrast, there were almost no increases in firearm related crimes in the Peri FIFA Confederation & World Cups period (2008/2009-2010/2011), with most crime rates decreasing except for a small increase in the rate of Robbery at non-residential premises. However, there were increases in the rates of almost all firearm related crimes in the more recent Post FIFA Cups period (2011/2012-2013/2014), except for truck hijackings, cash in transit robberies and bank robberies.

The conclusion drawn is that before the full implementation of the FCA, there was an increasing level of irresponsible firearm handling and illegal possession, but that these crimes decreased subsequently, possibly due to the stringency of the FCA. However, the only period in which firearm related crimes dropped was in the Peri FIFA Cups period (2008/2009-2010/2011), with robbery at non-residential premises the only exception. In the most recent FCA period, firearm related crime increased except for truck hijackings, cash in transit robberies and bank robberies for which anti-crime measures would probably have been controlled by large corporations.

Provincial level

In general the trends observed at national level are also apparent in the crime rates across almost all provinces with general decreases in the rates of firearm related crimes in the Peri FIFA Cups period and general increases in the Post FIFA Cups 2011/12-2013/14 period.

However when the provincial murder rates are considered, the Western Cape showed an increased rate rather than decreased rate in the Peri FIFA Cups period, and these rates continue to increase. Rather than the high murder rate being a province-wide phenomenon, the exceptional increase in the number of murders in the Western Cape is strongly related to the Cape Flats areas. Of all the provinces, Gauteng showed the highest rates of aggravated robbery in general and in the subcategories thereof.

The usage of firearms in firearm related crimes

The percentage usage of firearms in murder crimes is highest in Gauteng (45%) in the latest FCA period, followed closely by KZN (42%), then by Western Cape (39%) and Mpumalanga (36%). These percentages are lower in the other provinces: 27% for Limpopo, 23% for North West, 18% in Eastern Cape, 16% in Free State, and only 6% in the Northern Cape. These numbers clearly show that firearms are not the weapon used in the

majority of murders. Instead, our analysis revealed that sharp objects were frequently used, greatly outnumbering blunt and other objects.

Murders

As shown in the analysis of firearm related crimes, the numbers and rates of murder were generally decreasing regardless of the weapon used, until the more recent 2011/12-2013/14 period when they increased again.

- National level

At national level, the number of murders with firearms were dropping at a faster rate than the number of all murders for the first three CAGR periods, particularly so in the Peri FIFA Cups period (Table 8). In the 2010/11 SAPS year, firearms were used in 31% of murders, compared to around 42% in 2004/5. However the number of murders increased in the more recent 2011/12-2013/14 FCA period, and the number of murders that used firearms increased even faster, so that the usage of firearms in murders returned to the levels seen four or five years before (2008/9 and 2009/10).

- Provincial level

This pattern of the generally decreasing percentage usage of firearms, particularly in the Peri FIFA Cups period, was different in the Western Cape which saw the percentage of firearm perpetrated murders increasing in both the 2008/2009-2010/2011 and 2011/12-2013/14 periods. Elsewhere, in general, firearm usage in murders has been increasing from 2011/12-2013/14. So the nature of murder perpetration changed back towards firearms.

Other firearm related crimes

At national level, the percentage usage of firearms is stable for crimes dependent on firearms (carjackings, truck hijackings, robbery at non-residential premises, cash in transit robberies and bank robberies (Table 9 and Figure 4). However in the case of firearm choice crimes such as robbery at residential premises and attempted murder (and murder as discussed above), the percentage firearm usage did drop in the 2008/2009-2010/2011 period, but remained relatively similar or increased in the 2011/12-2013/14 period. Thus the FCA has had a negligible, if any, effect on firearm related crimes since 2011/12.

Types of firearms used in firearm related crimes perpetrated with firearms

The vast majority of all crimes that are carried out with a firearm involve the use of handguns. In 2013/14, of crimes committed with firearms, handguns were used as follows: murder (93%), attempted murder (94%), aggravated robbery (97%), carjacking (97%), truck hijacking (97%), robbery at residential premises (96%), robbery at non-residential premises (96%), cash in transit robberies (91%) and bank robberies (89%). High calibre rifles were used in 8% of cash in transit robberies, and shotguns were used in 11% of bank robberies (Table 12). There is some indication of a marginal increase in the percentage of murders (3%-5%) and

aggravated robberies (2%-3%) involving shotguns over the 2011/12-2013/14 periods (Table 11) and in robberies at residential premises (2%-3%). However, the relative percentages of firearm types per crime category are fairly stable. AK-47s percentages are unreliable as so few of this type of weapon have been used in crime in recent years.

The results of these analyses provided a consistent picture of the crime levels decreasing mainly in the 2008/2009-2010/2011 period and subsequently increasing, and usage of firearms across the four FCA periods which in turn describes the effectiveness (or lack thereof) of the FCA on crime.

Demographics of persons accused of firearm related crimes

We consider the variables of age, nationality and sex of the accused.

Age groups of accused

The analysis of age of accused was aimed at comparing the extent to which persons accused of crimes, with versus without a firearm, were under the minimum registration age for a firearm, and whether the under-aged persons accused of crimes with firearms decreased over the four FCA periods to a greater extent than under-aged accused of crimes without firearms, as would be expected if the FCA was a deterrent to under-aged persons using firearms. However, the age distributions of persons accused of crime with firearms, as well as crime without firearms, have both shifted similarly towards the older age groups, and it is thus unlikely that the FCA is the reason for the increasing age of accused persons over time.

Other findings were that younger accused, those aged 12-15 and 16-20, are hardly ever involved in truck hijackings, cash in transit robberies and bank robberies. For these crimes the accused are almost always older, i.e. 25-35 or 36+ implying older and more skilled perpetrators. There is a general trend for the accused in the younger age groups to be using firearms less frequently in murder, attempted murder and robberies than older accused people are.

Further, firearm use has decreased over time for these crimes of murder, attempted murder and robberies, but the decreasing trend over the four FCA related periods is much more obvious for younger accused than for older accused. However in the Western Cape, firearm use over time in murder and attempted murder has not decreased over the four FCA related time periods. Firearm use in truck hijackings, cash in transit robberies and bank robberies remains high and has not diminished over time or age groups.

It does appear that firearm use has decreased over the last three of four FCA related periods, and this trend is mirrored in the decline in the usage of the younger age group accused of firearm related crimes.

The nationalities of persons accused of firearm related crimes

The results of the percentages of accused foreigners show a generally increasing involvement of foreigners in crime across the four FCA periods. In particular, the percentages of foreigners accused are highest

nationally and in most provinces for bank robberies and truck hijackings, suggestive of involvement in organised crime. It must be stressed that the numbers of these crimes are small and so provide a small base yielding magnified and widely fluctuating percentages of foreigners accused of these two crimes.

Further compared to other provinces, Gauteng shows the greatest percentages of accused foreigners for most categories of aggravated robbery, but particularly so and for the longest history for robberies at residential and at non-residential premises. There are also indications of high percentages of foreigners accused of possession of firearms and ammunition in Limpopo and Free State provinces.

NB: As estimates of the numbers of foreigners in South Africa vary widely and the provincial distribution of foreigners is similarly unknown, there are no baselines for evaluating whether a disproportionate percentage of foreigners are involved in crime in the provinces. For these reasons and in a context sensitive to xenophobic violence, we stress that the percentages of foreigners accused of firearm related crimes should be regarded only as baseline percentages for future longitudinal research and as a basis for policy making.

Gender of accused

As only 1%-3% of accused persons with firearms are female, a gender analysis was not required.

Comparisons of the WSG and official SAPS statistics

As outlined in 'Comparison of WSG to SAPS Crime Statistics: 2004/5-2013/14', p. 101, we expect our numbers of crimes in types such as murders to be higher than the official numbers due to the methodological differences: the official numbers are based on crime counts as at midnight six months before the crime statistics are published and not subsequently updated, as well as based on reported date, whereas our statistics are based on crime data that has been retrospectively updated and based on date of crime committed. Furthermore, we expect the crime rates of the two sets of statistics to differ as we have used the annually updated Statistics SA population estimates weighted proportionately to the SAPS year of April-March as the base for the rate calculation, while the official statistics are based on the 2001 and 2011 Census figures. Nevertheless we have calculated the percentage differences in the crime numbers and rates for completeness and in anticipation of this being a frequent question.

In general, over the past seven years, our national crime figures are 3%-7% higher for murder and attempted murder, 1%-2% higher for aggravated robbery, 7%-10% higher for carjacking, 6%-10% higher for truck hijacking, 3%-4% higher for robbery at residential premises and 0%-3% higher for robbery at non-residential premises. In terms of the rates per 100,000 over the past seven years, our murder rates are 4%-7% higher, our attempted murder rates are 3%-7% higher, and our aggravated robbery rates between 2%-5% higher (Table 25).

A further methodological issue that became apparent when the 2014/15 official SAPS crime statistics were released is that the official historical SAPS figures have been retrospectively downgraded by within 0.5%- 1% (Table 29). Consequently the discrepancy between our figures and the official retrospectively downgraded published figures is slightly bigger than before the downgrade.

However, of greater relevance than discussing the percentage differences in the numbers and rates of crimes is whether the trends in the two sets of crime numbers are comparable. For this comparison we used the unadjusted 2013/14 official SAPS historical crime numbers, the retrospectively adjusted official SAPS 2014/15 historical numbers and our numbers to calculate the compound annual growth rates for the number of crimes for the latest three of the four FCA related time periods. The 2004/5-2007/8 period had to start one year later to accommodate the period of available SAPS data in the 2014/15 official release.

The SAPS annual growth rates and our growth rates are similar for the three FCA periods, with the rates calculated on the adjusted figures more similar to ours for the 2005/6-2007/8 period than the unadjusted figures for this period. We conclude that the official SAPS statistics for firearm related crimes shows similar trends to ours, in spite of our figures and rates being up to 7% higher which, to an extent, may be explained by the underlying methodological differences in the sets of figures.

Support for the undercount of the number of murders in the official SAPS statistics comes from the count of bodies in the Gauteng Forensic Pathology Services' mortuaries for the combined 2012/13 and 2013/14 years. Once again our figures are closer to the mortuary count. The methodological differences must be taken into account in the explanation of the discrepancy.

We thus conclude that in spite of the traditional annual skepticism that greets each year's release of the official SAPS crime statistics, the results from our analyses based on the population of SAPS crime records has provided a pattern of results consistent with the pattern shown in the official SAPS statistics on firearm related crime, all be our statistics approximately 2%-7% higher. The consistency in the patterns of the results using different methodologies is a positive reflection of the validity of both the official crime statistics and the independent methodology used in our research.

Conclusions on the relation between the FCA and crime based on the SAPS crime records

The reliability in our results is evident in the results of the multiple analyses that consistently show that in the four year 2008/9-2010/11 Peri FIFA Cups period, firearm related crimes and the percentage of firearm usage within firearm choice crimes decreased substantially more than in the preceding four years immediately following the formal commencement of the FCA (2004/5-2007/8). Furthermore, the successes of the period were not sustained in the post Peri FIFA Cups period from 2011/12-2013/14 when all firearm related crime increased and the percentage of firearm usage within firearm choice crimes increased. These

consistent patterns in the results show that strategic policing, rather than the FCA alone, are critical for reducing firearm related crime.

In summary, we have found no evidence for the causal relation between the FCA and reduced crime levels and firearm use based on the SAPS crime records.

It must be remembered that the design of our research does not qualify as an experimental design because the intervention, i.e. the implementation of the FCA, was not randomly assigned nor manipulated in any way by the researcher, and thus there is no control group available for an unbiased comparison. As these conditions of randomisation and a control group are necessary in order to justify a causal link between the intervention and the outcome, no cause-and-effect relationship between the FCA and crime characteristics may be inferred with certainty, as something other than the FCA may have caused the changes in crime characteristics over time. However, we have analysed the levels, rates and changes in crime patterns over the four FCA related periods and scrutinised the results for consistent patterns. Thus the analyses, from before the FCA intervention and thereafter at various time intervals relevant to the FCA, have been used to build a descriptive argument consistent with a causal relationship. By discovering repeated patterns in the results of the analyses, the relation between the FCA intervention and crime characteristics are described, albeit not implying cause.

The following section deals with the CFR.

CFR analysis

Characteristics of the population of licenced firearms

In October, 2014 there were almost 4.4 million registered firearms in South Africa (**Table 34** and Table 35). Of these firearms, approximately 3 million (68%) are registered to 1.75 million private individuals, compared to 15 years ago when there were more than 4.5 million registered firearms of which 78% were registered to private individuals (Chetty, 2000[20]). Furthermore, in 2014, handguns (Pistols + Revolvers) comprised almost half of all registered firearms (Table 34) compared to almost 2.8 million (62%) in 1999 (Chetty, 2000).

These comparisons indicate that relative to 15 years ago there are now fewer legal firearms registered to fewer individuals. Handguns now comprise half of all registered firearms compared to almost two-thirds 15 years ago.

Since 2004 to March 2015, SAPS had received approximately 3.2 million firearm applications, almost all (97%) of which had been finalised[21]. Over half (55%) of licence applications were for self-defence, 10% for

[20] Chetty, R. Firearm Use and Distribution in South Africa (Pretoria: The National Crime Prevention Centre, 2000)
[21] Firearm Summit Report_ATC 83, Parliament 2015

professional hunting, 28% for occasional hunting, 2% legacy, 2% collectors, and the rest were for various other reasons[22].

Demographics of the population of private individual owners

The provincial distribution of private owners ranges from Gauteng (37%) down to the Northern Cape (2%). The ownership rate per 100,000 is highest for Gauteng at approximately 4,000 firearm owners per 100,000 representing 4% per 100,000 in the population compared to 3.3% nationally. On average 19% of registered individual firearm owners are female. The age distribution is mostly older, with the average age of licenced owners at 54 years old, and only 3% of registered firearm owners in any province 30 years old or younger. Almost 10% of all registered private individuals are 81 or older, most likely reflecting deceased individuals and their estate firearms. Apparently the updating of deceased records is currently underway at the CFR. It thus appears that younger people are less inclined to go to the trouble of obtaining licenced firearms.

It is important to note the extreme differences between the populations of registered firearm owners versus persons accused of crime in terms of their age and sex distributions.

Lost, stolen and recovered firearms

Based on the Circulations database from January 2000 – October 2014 as at October 2014, of approximately 202,600 firearms in circulation over this period, 70% had been reported stolen or lost but not recovered and 17% reported stolen or lost and recovered. The remaining 13% had been found but never reported as stolen or lost[23]. This unknown quantity implies that there is a greater unknown population of missing firearms that have not been reported. Of all reported stolen or lost firearms, 19% are found.

The rate of firearms reported stolen (per 100,000 individuals) has decreased over the four FCA periods (37, 26, 21 and 17 respectively). Furthermore, the recovery rate within the same year as loss has improved over the four periods (4%, 6%, 8% and 9%), and within two years of loss (7%, 11%, 13% and 14%). However, the eventual rate of recovery has barely improved at 19%.

Gauteng has the record for the greatest rate of stolen/lost firearms, although the rates have improved over the four FCA periods. The province also has amongst the lowest rates of recoveries, with KZN and Mpumalanga closely following. The Western Cape has the highest rate of recoveries with more than two-thirds of its stolen/lost firearms recovered eventually, approximately 20% recovered within the same year as the loss, and approximately 28% recovered within two years of the loss.

[22] Gifts, sports

[23] These numbers do not include 'non-physical' firearms that have been processed for destruction. These are firearms that have been found but are un-identifiable as their serial numbers have been filed off.

When the loss rates are calculated for the various firearm owners, based on the percentage of firearms stolen/lost in 2013/14 relative to firearms registered in that year, Security Services have the highest loss rate at 0.99% of registered firearms reported stolen/lost, compared to less than 0.2% of registered firearms in the case of other owners.

When the loss rates are calculated for the various firearm types, based on the percentage of firearms of each type that were stolen/lost in 2013/14 relative to firearms of that types registered in 2013/14, it is clear that handguns, and in particular pistols, are overrepresented in the stolen/lost pool compared to their representation in the population of firearms in the CFR. In 2014, pistols represented 36% of all registered firearms, yet they represented 70% of all lost or stolen firearms in 2013/14, with a loss rate of 0.37%. Revolvers are also overrepresented among stolen or lost firearms, although less so (16% of all stolen or lost firearms compared to 13% in the Registry), with a loss rate of 0.23%. Altogether, handguns comprise 86% of all stolen firearms in 2013/14, consistent with the over 90% usage of handguns in firearm related crime committed with firearms. By comparison, rifles and shotguns have a much lower risk of being stolen or lost, with loss rates of 0.04% and 0.09%. This finding implies that stolen previously legal firearms are a source of firearms used in crime.

Since 2009/10, there has been substantial improvement in the numbers of missing SAPS firearms, based on the PAS system, with losses having decreased from approximately 4200 in 2006/7 to 743 in 2014/15. Furthermore the recovery rates within a year of loss have improved from 6% a decade ago, to 14% in 2014/15, and from 13% to 20% within two years of loss. These improved recovery rates are positive for stemming the supply of firearms for criminal activity, but the eventual recovery rate of stolen firearms is low at 20% and must be improved. It is expected that the compulsory application of microdots that comply with standard specifications on and the ballistic testing of all firearms licenced in terms of the propose amendments to the Act will deter extensive losses of firearms and facilitate their quick recovery.

Firearm amnesties

Firearm amnesties are thought to be of limited success with respect to illegal firearms used in crime as most firearms handed in are private individuals' unwanted firearms or from state stockpiles. At the Firearms Summit (Parliament, 2015) it was recommended that amnesties be conducted on an anonymous, unconditional basis to encourage forfeiting of more illegal weapons.[24] It was noted that firearms marked for destruction from the 2010 amnesty were recirculated as illegal firearms, indicative of corruption in SAPS.

This concludes the summaries of the results of the research.

[24] Firearm Summit Report_ATC 83, Parliament 2015

Structure of the Report

The report is divided into six chapters:

Chapter 1 describes and evaluates previous research related to violent and firearm-related crime.

Chapter 2 deals with the more technical aspects of the SAPS crime data. The chapter presents details of the categorisations used to analyse the approximately 75 million records of reported crimes at national and provincial levels. The categorisations of type of crime, type of weapon and accused age are described, and the quality of the data is discussed in terms of the USAID (2007) criteria of data validity, reliability, completeness, precision, timeliness and integrity. Finally, the statistical and graphical methods used in the analyses are presented.

Chapter 3 presents the results of the crime analyses. After an initial overview of the crime statistics, crimes associated with high frequencies of firearm use are identified for further in depth analysis. These crimes are considered from pre commencement of the FCA until 2013/14. This 14-year period is divided into four periods related to the FCA, and crime and accused details are analysed annually and over these time periods.

Chapter 4 presents a structural framework for viewing crime and the relevance of the FCA to crime.

Chapter 5 provides details of licenced firearms and their owners registered on the Central Firearms Registry, and details of stolen, lost and recovered firearms in circulation.

Chapter 6 presents the conclusions and recommendations of the research.

1 Review of the Literature related to Crime and the Firearms Control Act

The major objective of this review is to assess the sources of data on crime and firearms, and the research that links the two, in order to assess the weight of evidence on the effectiveness of the FCA in addressing violent crime.

There are a few main sources of published crime information in South Africa. The first is derived from the annual published SAPS crime statistics; the second addresses crimes of murder and is based on the research of the Medical Research Council (MRC) on unnatural and violent death post mortem homicide reports and other mortuary data of the National Injury Mortality Surveillance System (NIMSS); the third source is based mainly on perceptions and attitudes of Victims of Crime Surveys; and the fourth source comprises studies commissioned by associations such as Provincial Departments of Community Safety and the Civilian Secretariat of Police to augment the SAPS statistics. We also consider the views of the pro- and anti- gun activists on the FCA and crime.

1.1. SAPS published statistics on violent crime in South Africa (1999-2014)

The official South African national crime statistics have been published each year in September from 2000 to date. Aside from SAPS annual reports and analyses, and those of third parties based on the same SAPS published data, the official SAPS crime statistics are the only publically available documented evidence of the population of national SAPS-reported crimes. Over 80% of the entire country's crime statistics are community reported, in other words, reported at a police station (Police Minister Nathi Nhleko[25]).

The Deputy Minister of Police, Hon. Ms Makhotso Maggie Sotyu (MP) recently emphasised the importance of the SAPS crime statistics in her keynote remarks at the Destruction of Illegal Firearms (09 July 2015).

> *Crime statistics are continuously helping the police to meet their targets when combating violent crime, contrary to the allegations that say, "Crime statistics are being manipulated to indicate SAPS achievements in tackling crime". People need to start to acknowledge that Police do not use crime statistics solely for measuring violent crimes. Crime statistics are predominantly used for effective planning and operational purposes*.[26]

[25] http://www.news24.com/SouthAfrica/News/6-keys-points-from-Nhleko-on-crime-stats-20150929Kh

[26] Keynote Remarks by the Deputy Minister of Police, Hon. Ms. Makhotso Maggie Sotyu (MP) on the Destruction of Illegal Firearms. http://www.policesecretariat.gov.za/newsroom/speeches/speech_09-07-2015.php

However, each year the statistical release is met with a barrage of concerns and criticisms from several sources (for example in 2015: Africa Check, 2015[27], De Kock, Kriegler & Shaw, 2015[28], Institute of Security Studies[29], opposition political parties[30], religious institutions[31] and the media[32 33 34]).

Central to the SAPS crime statistics concerns are questions on the quality of crime data and its credibility[35]. Data from 1994-2003 are viewed by critics as less reliable, although since improved[36], rendering long-term comparisons questionable. Even the more recent crime statistics reports are slated, with critics citing errors at the station level of certain provinces in the 2013/14 statistics[37] and calls for independent audits.

In response, SAPS management has partnered with Statistics South Africa (Stats SA) to ensure that SAPS crime statistics abide by the quality criteria for official statistics according to the provisions of South African Quality Assessment Framework (SASQAF). The recently released SAPS 2014/15[38] (September 2015) statistics are the first of this partnership. Nevertheless, this release still reflects statistics that are 6-18 months out of date covering incidents of reported crimes from 1 April 2014 to 31 March 2015. Belated reporting has been a criticism of the SAPS crime statistics since 2000. Consequently the WSG report is similarly belated.

Other criticisms of the SAPS crime reports are that the annual statistics use a '10-5-1 model'[39] as they analyse crimes relative to 10 years, 5 years and the previous year. In so doing, each report uses different base years for comparisons as the time periods change. Some critics (De Kock et al., 2015[40]) would prefer there to be a meaningful historical baseline for all annual comparisons, for example the start of the FCA. We

[27] "Africa Check a non-partisan organisation which promotes accuracy in public debate and the media. Twitter @AfricaCheck and www.africacheck.org". https://africacheck.org/factsheets/a-guide-to-crime-statistics-in-south-Africa-what-you-need-to-know/

[28] https://webcms.uct.ac.za/sites/default/files/image_tool/images/225/PDFs_CRI/CITIZENGUIDE/CRI_doc_protected_CrimCitGuideSAPS.pdf

[29] https://www.issafrica.org/crimehub/crime-analysis/crime-facts-and-analysis

[30] https://www.da.org.za/2015/09/crime-stats-national-governments-failings-need-to-be-addressed-to-keep-south-africans-safe/

[31] http://www.ngopulse.org/blog/2015/10/06/crime-statistics-2014-2015

[32] http://www.financialmail.co.za/opinion/editorial/2014/09/25/editorial-crime-stats-sad-bad-and-partial

[33] http://www.dailymaverick.co.za/article/2015-10-02-op-ed-fighting-crime-or-using-immigrants-as-scapegoats/#.VhWmIPmqpBd

[34] http://www.iol.co.za/news/crime-courts/crime-stats-murder-hijackings-up-1.1922423#.VhLoZRsViUk

[35] https://www.issafrica.org/uploads/Crime_Conference_abstracts_2015.pdf

[36] https://webcms.uct.ac.za/sites/default/files/image_tool/images/225/PDFs_CRI/CITIZENGUIDE/CRI_doc_protected_CrimCitGuideSAPS.pdf

[37] https://africacheck.org/reports/mapping-crime-in-south-africa/

[38] http://www.saps.gov.za/resource_centre/publications/statistics/crimestats/2015/crime_stats.php

[39] http://www.saps.gov.za/about/stratframework/annual_report/2013_2014/crime_statreport_2014_part1.pdf

[40] https://webcms.uct.ac.za/sites/default/files/image_tool/images/225/PDFs_CRI/CITIZENGUIDE/CRI_doc_protected_CrimCitGuideSAPS.pdf

have addressed the lack of contextual relevance in our report by using four time periods relevant to the FCA to evaluate all historical trends.

Ten-year reporting can also produce deceptive messages, for example the Minister of Police, Mr Nathi Nhleko, claimed double digit percentage decreases in contact and other serious crimes over a 10-year period[41], despite contact crime having increased over the past four years.

Crime rates are another major criticism of the reporting of SAPS crime statistics (De Kock, Kriegler & Shaw, 2015)[42]. Up to and including the 2013/14 SAPS report, the crime statistics were provided in the form of crime rates, consistent with international reporting standards of frequencies per 100,000 persons in the population, as well as in the form of frequencies or numbers of crimes. However, this rate calculation requires accurate and up-to-date population estimates, and apparently the SAPS rates that have been used in the published releases have relied on the 2001 and 2011 Census estimates from decade to decade. As a result, after 10 years of reporting crime rates (for the 2002/3-2011/12 statistical releases) based on the 2001 Census figures, the 2012/13 rates were abruptly re-based on the higher 2011 Census population figures making the crime rates appear to have decreased. Furthermore, no rates are supplied in the latest 2014/15 crime statistics release, making provincial comparisons within the year impossible, and historical comparisons problematic.

For the rates calculation in the WSG report, we have used the number of crimes per 100,000 persons in the population derived from Statistics SA Census supplemented by annual mid-year population estimates (Statistics SA, P0302) for each year, with a weighted population estimate based on a 75:25 split of the population sizes for April-December (75% of the time period) and the following January-March (25% of the time period) respectively to match the start and end of the SAPS calendar year.

Furthermore, the annual criticism that the SAPS statistics are under-reported as they are based on crimes reported to SAPS rather than on all crimes, is not considered a major problem in the WSG report as the report is predominantly based on serious violent crimes for example murders and aggravated robberies. Underreporting is less evident in these serious violent crimes, according to victims of crime studies[43]. Other sensitive crimes such as sexual offences which are known to be underreported are not covered in the WSG report.

[41] http://www.iol.co.za/news/crime-courts/crime-stats-murder-hijackings-up-1.1922423#.VhLoZRsViUk
[42] De Kock, C., Kriegler, A. & Shaw, M. (2015). A citizen's guide to SAPS crime statistics: 1994 to 2015. https://webcms.uct.ac.za/sites/default/files/image_tool/images/225/PDFs_CRI/CITIZENGUIDE/CRI_doc_protected_CrimCitGuideSAPS.pdf
[43] http://beta2.statssa.gov.za/publications/P0341/P03412013.pdf

From the perspective of this report, the most serious criticism of the SAPS published data is that SAPS have not released data detailing the weapons associated with each crime since 2000. Instead, SAPS Annual Reports show correlational evidence in support of the effectiveness of the FCA, for example a decline in the numbers of civilian firearms reported lost/stolen since 1994 and improvement in the rates of SANDF weapons recovered or confiscated.

The last use of detailed SAPS crime data covering the 1994-1999 period[44] was in the major review of crime and firearms by the National Crime Prevention Centre (NCPC). The report accumulated and consolidated extensive disaggregated firearms crime data on firearm use in South Africa which it analysed in terms of weapon details, for example it presented statistics on crimes that involved legal versus illegal firearms and firearm type. In addition to using the detailed SAPS crime data, it used the results of research of the Medical Research Council (MRC) based on post mortem homicide reports and other mortuary data of the National Injury Mortality Surveillance System (NIMSS). Ever since this report, studies on the relation between firearms and violent crime, specifically homicides, have relied largely on the research of the MRC and NIMSS in the absence of SAPS disaggregated crime-weapon data.

1.2. Studies on murders based on MRC mortality data

The reasoning behind using mortality data to quantify the number of murders and to assess the relation of murders and weapons, is that mortuaries provide reliable counts on post mortems, number of bodies and details on deaths, including violent unnatural deaths and accompanying weapons. These patterns can be studied for deaths in different geographical areas and across time. For the purposes of the WSG report, the MRC studies are examined to provide information on the effects of the FCA on homicide. However, although studies based on the credible MRC NIMSS database claim a causal relation between the FCA and the decrease in the numbers of murders, and specifically murders committed with firearms, the relationship between the FCA's increased restrictions on firearms and its effects on violent crime levels are still strongly contested.

On the one hand, the recent review of the Western Cape Provisional Department of Community Safety on the effects of the FCA on crime [45] cites three NIMSS-based studies that claim evidence, albeit disjointed, for the effectiveness of the FCA: firstly, there were decreases in both homicides and gun-related homicides in five cities from 2001-2005 with a greater rate of decline in firearm homicides than in non-firearm homicides

[44] Chetty, R. (Ed.) (2000). Firearm use and distribution in South Africa. Pretoria, National Crime Prevention Centre.
[45] Department of Community Safety – 2014/15
https://www.westerncape.gov.za/sites/www.westerncape.gov.za/files/the_effect_of_firearm_legislation_on_crime_western_cape.pdf

in this period (Matzopoulos, Thompson & Myers, 2014[46]); secondly, deaths due to firearms used in homicides decreased from 2005-2009, with estimates of 44% in 2005 to 38.5% in 2009, the latter based on 22583 post-mortem investigations in eight provinces (Matzopoulos, Prinsloo, Pillay-van Wyk, Gwebushe, Mathews, Martin, Laubscher, Abrahams, Msemburi, Lombard & Bradshaw, 2015)[47]; and thirdly, firearm-related homicides of females showed a significant overall reduction of firearm murders in 2009 compared to 1999 (Abrahams, Mathews, Martin, Lombard & Jewkes, 2013)[48]. Although these researchers attribute the difference between the beginnings and ends of these discrete periods causally to the effectiveness of the FCA and some have controlled for some extraneous variables in their statistical analyses, it is still possible that other factors may have mediated or contributed to the changes over the periods researched. Furthermore, the sustainability of the decreased rate of murders, and firearm-related murders in particular, has not been examined by these researchers beyond 2009. If the FCA is indeed responsible for reducing murders and firearm-related murders, then the numbers of murders should still be decreasing and the percentage of firearm related murders should still be decreasing at an even greater rate. However, the researchers have not updated their studies. We re-address these findings in the context of the results of our study (see 6.1.10).

As mortuary-based research is limited to crimes of murder, countrywide household-based victims of crime surveys on the use of firearms in other serious violent crimes such as attempted murder, aggravated robberies such as car hijackings are reviewed next.

1.3. Victims of Crime Surveys

Countrywide household-based victims of crime surveys (Statistics SA 2012, 2013) have been conducted covering the 2011 calendar year period and April 2013–March 2014 respectively. Victims in 2011 recalled the use of firearms in crimes that involved weapons as follows: 21% of murders, 24% of home robberies, 91% of car hijackings and 25% of sexual offences that involved weapons[49]. In the 2013/14 study, victims reported the use of a firearm in 55% of murders, 58% of home robberies, 93% of car hijackings, and 57% of sexual offence in crimes that involved weapons[50]. However, the use of firearms involved in these studies is

[46] Matzopoulos, R., Thompson, M., and Myers, J. (2014). 'Firearm and Non-firearm Homicide in 5 South African Cities: A Retrospective Population-Based Study' in Department of Community Safety – 2014/15, American Journal of Public Health, 104(3): 455-460.

[47] Matzopoulos R., Prinsloo, M., Pillay-van Wyk, V., Gwebushe, N., Mathews, S., Martin, L.J., Laubscher, R., Abrahams, M., Msemburi, W., Lombard, C. & Bradshaw, D. (2015). Injury-related mortality in South Africa: a retrospective descriptive study of post-mortem investigations. Bulletin of the World Health Organization. 2015 May 1; 93(5): 303- 313.

[48] Abrahams N, Mathews S, Martin LJ, Lombard C, Jewkes R. Intimate partner femicide in South Africa in 1999 and 2009. PLoS Med. 2013;10(4): e1001412.

[49] http://www.statssa.gov.za/publications/P0341/P03412012.pdf

[50] http://beta2.statssa.gov.za/publications/P0341/P03412013.pdf

limited as the percentage of crimes involving weapons is not provided; only the breakdown of the type of weapon for those crimes specifically involving a weapon is provided. So for example, if weapons were used in a small minority of sexual crimes, 57% of which involved a firearm, then firearms would be associated with only a small percentage of all sexual crimes, i.e. a small percentage of both sexual crimes that involved a weapon and those that did not.

These studies do not cover the use of firearms in other violent crimes such as aggravated robbery, for example truck hijackings, bank robberies, robberies at non-residential premises and cash in transit robberies. However, the use of firearms in these violent crimes is reportedly high, generally used in almost of these crimes.

1.4. The Civilian Secretariat of Police National Study

Until recently, no study had related crime trends to the FCA from before its inception to date. However, in the past year the Civilian Secretariat of Police undertook a national study whereby each province has researched the implementation of the FCA and its effects of crime based on reviews of police dockets of firearm-related crimes from 1999-201451. In the case of the Western Cape, the Provincial Secretariat for Safety and Security conducted an empirical study of 300 police dockets in the four police precincts of Paarl East, Nyanga, Mitchells Plain and Worcester. The research confirmed that firearms were used to commit a quarter of the business robberies, 9% of murders and 14% of attempted murder cases.

The results of their research point to a decrease in violent crime until 2009, and thereafter an increase from 2010/11 to 2013/14 both provincially and nationally, coupled with a significant increase in the use of firearms. This increase coincided with the number of firearms issued, which suggests to the researchers a possible link between violent crime and the number of firearms in circulation.

The authors relate their results to the NIMSS-based studies that support the FCA in murders, as well as to international studies that support the claim that firearm controls reduce violent robberies and attempted murder (Taylor & Li, 2015, cited in the study of Department of Community Safety 2014/15)[52] [53].

[51] Department of Community Safety – 2014/15 https://www.westerncape.gov.za/sites/www.westerncape.gov.za/files/the_effect_of_firearm_legislation_on_crime_western_cape.pdf

[52] 5 Taylor, B. and Li, J. (2015). 'Do Fewer guns Lead to Less Crime? Evidence from Australia.' International Review of law and Economics.

[53] Department of Community Safety – 2014/15 https://www.westerncape.gov.za/sites/www.westerncape.gov.za/files/the_effect_of_firearm_legislation_on_crime_western_cape.pdf

1.5. Anti- versus Pro- Gun Advocates

As would be expected, there are extreme and opposing views on the benefits of firearm ownership. On the one extreme, Gun Free South Africa (GFSA), advocates legislative reform and social anti-gun mobilisation claiming that the FCA has saved several thousands of lives through improved gun control[54] and the association strongly endorses the success of the FCA in reducing crime.

On the other extreme, these pro-FCA claims have been challenged by pro-gun lobbyists, for example the South Africa Gun Owners Association (SAGA), whose main argument is that as the statistics made public by SAPS do not specify whether firearms used in most gun-related crimes are legal or illegal, there is no evidence as to the causal link between the implementation of the FCA and the crime rate. Furthermore, statistics on lost or stolen guns are questionable as inconsistencies exist in reported figures based on different data sources. Some of the other pro-FCA claims questioned are that overall, SAPS crime statistics have shown a downward trend since 2004/5, and the decrease in gun-related crime may merely reflect this pattern; and, the substantial number of guns confiscated largely as a result of SAPS proactive action i.e. "Crimes dependent on police action for detection" may be responsible for the drop in gun-related crime, rather than caused by the FCA. But without the detailed disaggregated crime-weapon data, studies assessing the effectiveness of the FCA have necessarily been speculative on the impact of the FCA[55].

Ironically, but logically, the GFSA and SAGA concur on several aspects of firearm control. Firstly, they both agree on the benefits of the FCA in promoting responsible firearm ownership. Secondly, they both agree that legal guns can become illegal: firearms are lost or stolen from SAPS, individuals, official and non-official organisations and high calibre rifles that are involved in major violent crime are likely sourced through corrupt officials or smuggled from neighbouring countries[43]. So both organisations support eradicating illegal weapons through addressing corruption, improved policing and interventions such as firearm amnesties.

However, while GFSA advocates strengthened FCA legislation, administrative control and implementation thereof, SAGA emphasises stronger policing to address corruption and smuggling of firearms across South Africa's borders. Furthermore, the two organisations differ on their views of the effectiveness of the FCA on crime and also on the extent to which there should be restrictions on firearm ownership. GFSA claims that the FCA has saved thousands of lives, and cite studies that murders have decreased and gun-related murders have decreased even more since before the firearms Control Act. GFSA attributes the more recent increases in violent crime to the poor implementation of the FCA and supports strengthening legislation on firearms. Conversely, SAGA claims that the FCA has cost thousands of lives by restricting individuals who did not have

[54] Gun Free South Africa (2015) http://www.gfsa.org.za/about-us/impact/

[55] https://africacheck.org/reports/did-gun-control-cause-fall-in-gun-crime-the-data-backs-the-claim/

firearms to defend themselves against criminals. So while GFSA advocates even stricter control of the legal stocks of guns and limiting the number and type of firearm any one person can own[56], SAGA advocates the right of responsible individuals to own and use firearms legitimately and opposes the strict controls of the FCA and its even stricter proposed amendments[57].

1.6. Calls for evidence-based research

At the two-day National Firearms Summit in Parliament (March 2015), organised by the Portfolio Committee on Police[58], various key stakeholders related to firearms or crime presented their views on gun control in South Africa. A key theme that emerged from the Summit on Gun Control was the lack of accessible, reliable and comprehensive data on firearms in South Africa. The Committee cited the lack of available firearm-related data as a major challenge to the accurate description of firearm-related violence and homicide in South Africa and advocated quantitative studies to understand the causal impact of the firearm controls in South Africa. A representative of the South African Violence Initiative (SaVI: Mr Guy Lamb[59]) stressed the need for access to SAPS data for targeted evidence-based research on firearm violence.

1.7. Conclusion

We conclude from the literature reviewed that in order to provide evidence based evaluation of the impact of the FCA on crime, rigorous statistical analysis must be conducted based on adequate detail in the data supplied on each crime and on the weapon used in the crime. For rigorous statistical analysis, all violent crimes in which firearms are frequently used should be examined in depth over the time period from pre inception of the FCA to recent times. In an attempt to examine the causal link between the FCA and crime, the context of major events involving extraordinary policing must be considered, for example the FIFA Confederation Cup and Soccer World Cup, among others.

While the objectives of the ongoing national study of the Civilian Secretariat of Police overlap the brief of this WSG report, the methodologies differ as the WSG study uses individual SAPS crime records with details previously unpublished, while the national study is using sampled docket analysis. The detailed SAPS data supplied means that the WSG report has produced results at an unprecedented level of depth. However, the results of all the studies will complement each other, provide cross validation, and present a composite picture of the effects of the FCA on violent crime. The following chapter describes the methodology used in an attempt to address these ideals.

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[56] Ms A Kirsten, Gun Free South Africa, submission to the National Summit, Parliament SA, March, 2015

[57] http://www.phasa.co.za/what-is-in-the-news/saga-news/item/674-firearms-and-crime.html

[58] http://www.parliament.gov.za/live/content.php?Item_ID=7276

[59] Firearms Summit, Parliament. March 2015

2 SAPS Crime Data

The two sources of data used in this report were the SAPS crime data and data from the Central Firearms Registry. The SAPS crime data was the main data source used.

In this chapter, the methodology of the WSG research used on the SAPS data is described, including the various categorisations used for timeframes, crimes, weapons, firearm types and age of accused. In depth description is provided on the examination of the data, the quality of the data and the statistical analyses computed.

The crime data were supplied by SAPS Technology Management Services (TMS). Individual data files were supplied per province for the calendar years from 1999-2014 at the individual crime level. The 144 files (16 files covering 1999-2014) supplied for each province together comprised over 75 million crime records. Each record comprised details of the location of the crime, the time of the crime (time reported, registered and committed), the type of weapon, and the description of the crime (type and category), the complainant details, and the victim details.

There were two main levels of analysis:

- Crime level analyses comprising unique crimes, and
- Accused level analyses comprising the accused person(s) per crime.

The categorisations used in the analyses are now described in terms of the time intervals used, the geographic areas, the crime categories and the age groupings.

2.1. Time intervals

In addition to comparing the data from the year of commencement of the FCA (2004) to the data a decade later (in 2014), the following time periods were considered:

- Quarterly: April-June, July-September, October-December and January-March each year
- Annually: per SAPS financial year (April 2000-March 2001, to April 2013-March 2014), and finally, per
- Four FCA related time periods (2000/1-2003/4, 2004/5-2007/8, 2008/9-2010/11 and 2011/12-2013/14)

The quarterly analyses were used to examine seasonal crime patterns as monthly error or random variation is to some extent cancelled out by aggregating monthly data. These seasonal effects may be of considerable importance for operational policing and are presented in this report. Quarterly analyses were also used to examine the impact of the various SAPS operations and initiatives, and important events such as:

- Operation Sethunya (April-September 2003 with normalisation phase October 2003-March 2004), a high-profile SAPS operation to confiscate illegal firearms and ammunition and enforce legal owners' compliance the firearms legislation[60] (ISS [61])
- Illegal firearm amnesties: January-June 2006 and January 2010-April 2010. At the end of the 2010 amnesty period 32,169 firearms had been captured on SAPS systems at police stations nationally, mostly from Gauteng, followed by KZN and then the Western Cape. Half (53%) of these firearms were legal and surrendered voluntarily, 27% were illegal firearms and surrendered voluntarily, and the rest were confiscated during police operations during the amnesty period. A further 350,000 rounds of ammunition were recovered, half were surrendered voluntarily, 24% were illegal and 24% were confiscated during police operations[62].

The annual level analyses addressed the main objective of the research, i.e. to evaluate the effect of the Firearms Control Act on crime. These analyses were initially considered from January 1999 – March 2014. However, after scrutiny of the quality of the 1999 data, it was decided to omit the data of this year from most analyses and instead to consider data from 2000 onwards. Furthermore, the annual data were aggregated from April 2000 in order to align the analyses with the SAPS financial year. Accordingly, the annual data considered were from April 2000 to March 2014.

Finally, the 2000/2001-2013/2014 SAPS years were categorised relative to the Firearms Control Act as follows (Figure 1):

- 2000/2001-2003/2004: Pre FCA (three full years of data & four data points)
- 2004/2005-2007/2008: Post FCA (three full years & four data points)
- 2008/2009-2010/2011: 'Peri' FIFA Confederation Cup & World Cup[63] (two full years & three data points)
- 2011/2012-2013/2014: Post World Cup (two full years & three data points)

The World Cup Soccer period is considered highly significant to this report as it exemplifies high security and advanced policing under the auspices of the 2010 Soccer World Cup Special Measures Act[64]. Security measures included intelligence gathering and information through cooperation with other international security agencies (Mthethwa, 2010). R640 million was budgeted for organizing a larger and well-trained

[60] https://www.issafrica.org/pubs/CrimeQ/No.10/Meek.htm

[61] Operation Sithunya: Proactive policing can solve the illicit firearms problem, Sarah Meek and Noel Stott, Institute for Security Studies, Published in Crime Quarterly No 10 2004

[62] http://www.sapsjournalonline.gov.za/dynamic/journal_dynamic.aspx?pageid=414&jid=21505

[63] The Confederation Cup took place in South Africa in June 2009 and the World Cup Soccer took place in South Africa in June/July 2010

[64] http://www.saps.gov.za/resource_centre/acts/downloads/fifa2010_a11_2006.pdf

police force including deploying 41,000 officers designated for the World Cup, increasing the general police numbers by 55,000 to over 190,000, increasing the number of police reservists from 45,000 to 100,000 members, placing SAPS and the South African National Defence Force (SANDF) on full alert, scrutinising private security companies, and heightening border security at ports of entry. A further R665-million was spent on special equipment including 40 helicopters, 100 highway patrol vehicles, 300 mobile cameras and other advanced information and communication military technology, and setting up four specialised mobile command centres at R6 million each[65]. This period of heightened security would have extended before and after the actual event of the World Cup and therefore the tight security measures of the period are important to take into account in evaluating the FCA over time.

It must be acknowledged that these four analysis periods may also be related, although approximately, to the periods of the services of the National Commissioners over the past 15 years as there was sometimes a change of commissioner at the start and end of the analysis periods. While the Pre FCA and Post FCA analysis periods fall within the service of the late Mr Jackie Selebi (2000–2009), the Peri FIFA Cups period falls largely within the service of Mr Bheki Cele (August 2009– October 2011). Further, the Post World Cup analysis period falls largely within the service of General Riah Phiyega (June 2012 to October 2015).

Although the report is describing the crime trends in terms of these four periods, there is no way of knowing what the actual reasons were for the different trends in crime within these four periods – for example, the decreased crime in the Peri FIFA Cups period may have been due to SAPS' vastly increased security spend, or to the different philosophy of the then National Commissioner, or to a combination of these factors, or to other factors altogether.

The four periods are henceforth referred to as the FCA related time periods, and are displayed in Figure 1.

[65] http://www.politicsweb.co.za/opinion/how-sa-will-secure-the-soccer-world-cup--mthethwa

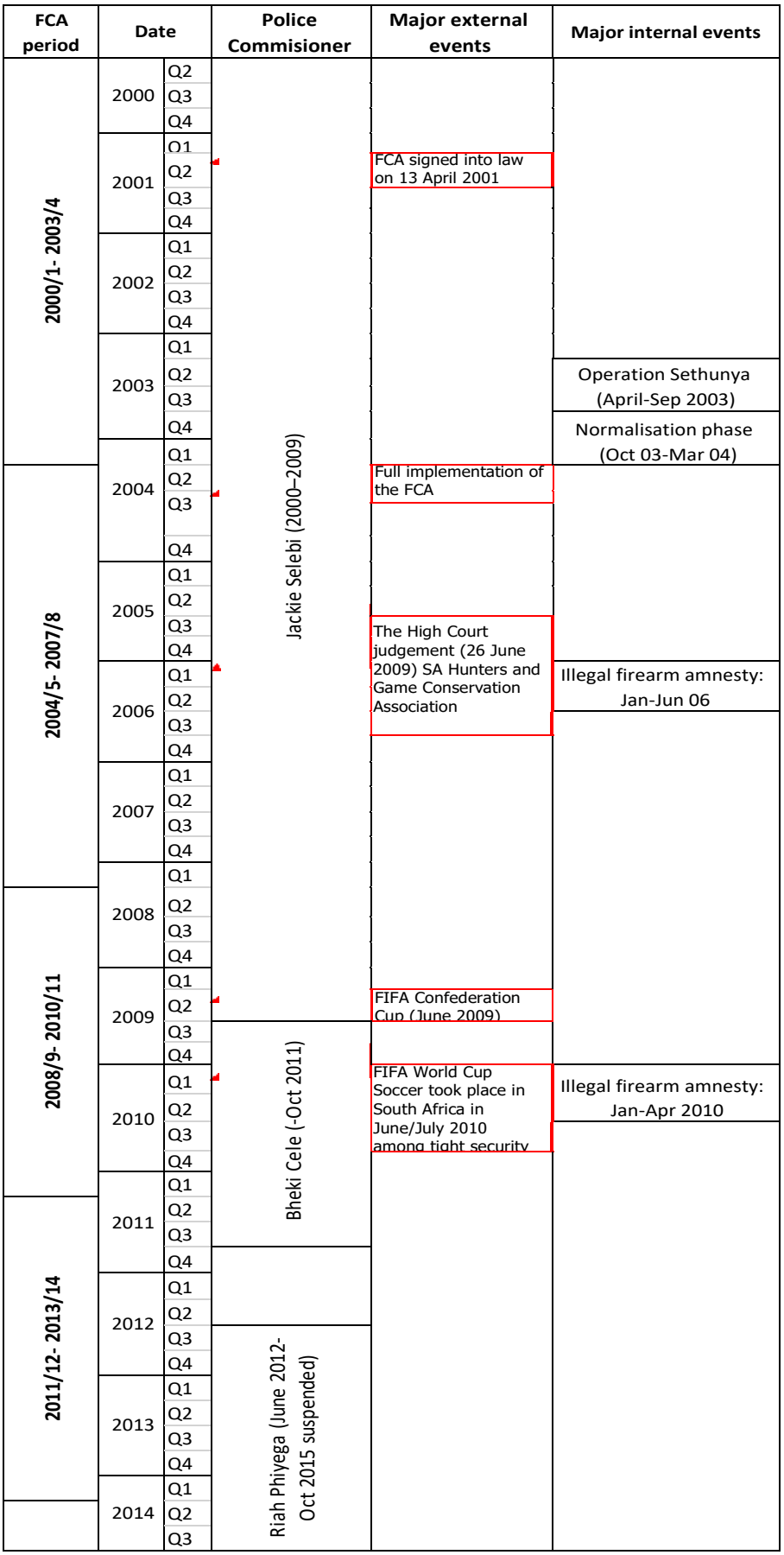


Figure 1: FCA timelines and major external and internal events

2.2. Provinces and rates per 100,000

Analyses were performed nationally and per province.

Two types of provincial analyses were considered:

- The actual number of reported crimes and
- The number of crimes per 100,000 persons in the provincial population as derived from Statistics SA Census and complementary annual Mid-year population estimates (P0302). The rate of crimes per 100,000 per province is conventionally used when comparing the provinces in order to control for differences in the population sizes per province.
- In re-weighting the crime numbers per 100,000 in each of the provinces per SAPS year, a weighted population number was calculated by taking a 75:25 split of the population sizes for April-December (75% of the time period) and January-March (25% of the time period) respectively.

2.3. Crime categories

The 205 crime categories identified from the SAPS data were further categorised with the aid of the SAPS Offence codes (2015/06/01) supplied. These crime categories were summarised at two levels of detail:

The first level of detail comprised 61 crime categories (see Appendix B), with attempted crimes kept separate from actual crimes. The categories were arranged according to the structure used by SAPS in reporting the annual crime statistics. Analyses at this level of detail are not provided in this report. The second level of detail further summarised the 61 crime categories to 33 categories (see APPENDIX C). The 33 categories are presented in the initial analyses of this report.

- With the exception of the crimes of Murder and Attempted Murder, the attempted and actual crimes were combined per crime category, for example 'Attempted Robbery at Residential Premises' and 'Robbery at Residential Premises' were combined as 'Robbery at Residential Premises'.
- Furthermore, the category of 'Robbery with Aggravating Circumstances was formed in line with the definition of this crime category as robberies that involve the use or threat of the use of a weapon[66], thereby comprising Attempted Robbery not Firearms, Robbery not Firearms, Attempted Robbery with Firearms, Robbery with Firearms, Attempted Robbery in Transit, Cash in Transit Robbery, Attempted Robbery at non-Residential Premises, Robbery at non-Residential Premises, Attempted Robbery at Residential Premises, Robbery at Residential Premises, Attempted Carjacking, Carjacking, Attempted Truck-hijacking, Truck-hijacking, Attempted Bank Robbery and Bank Robbery.

[66] Bruce, D. http://mg.co.za/article/2014-10-02-focus-on-trio-crimes-skews-the-stats

- As with the official SAPS crime statistics, subcategories of Aggravated Robbery are supplied in a separate section (with attempted and actual crimes combined) for Attempted Robbery at non-Residential Premises, Robbery at non-Residential Premises, Attempted Robbery at Residential Premises, Robbery at Residential Premises, Attempted Carjacking, Carjacking, Attempted Truck-hijacking, Truck-hijacking, Attempted Bank Robbery and Bank Robbery. Attempted Robbery in Transit, Cash in Transit Robbery. Most of the unmentioned subcategories of Aggravated Robbery (about half of all Aggravated robberies) collectively refer to 'street robberies' (Bruce, 2014)[67].

  The Act Regulating Arms and Ammunition (A&B) which is the Pointing or Discharging of a firearm in a public place, is also included in our analyses. Commercial crimes and Shoplifting were omitted as they are rarely firearms related.

In general, the SAPS categorisation used in reporting the annual crime statistics (Statistics South Africa) has been used in presenting the statistics. This familiar structure should facilitate greater applicability of the findings for the reader. However, the emphasis in all analyses is on crimes involving weapons.

2.4. Weapon categories

Approximately 185 weapon types were identified from the data. With the aid of definitions of weapons used by the US Department of Justice (http://www.bjs.gov), types of weapons were categorised as:

- Firearms (pistols and revolvers, shotguns, high calibre, home-made, AK-47's and ammunition)
- Blunt objects (e.g. rocks, clubs, blackjacks, bats, poles, metal pipes, walking sticks);
- Hand/Foot/Other referring to parts of the body used as weapons;
- Sharp objects (e.g. knife, saw, glass and other sharp-edged or pointed objects);
- Motor vehicle; and
- Other weapons that could not be classified (e.g. ropes, chains, poison, and martial arts weapons).

As our initial analyses revealed that the majority of weapons other than firearms fell into the sharp objects category, we present our results as firearm versus 'Other' weapons for simplicity.

[67] http://www.bdlive.co.za/opinion/2014/11/07/police-focus-on-trio-crimes-is-misguided-and-elitist

2.5. Age levels

The age of accused categorisations were formed based on the age related change to the Firearms Control Act whereby the minimum age of firearm licencing was raised from 16 to 21 years, and also guided by the UNESCO definition given in the African Youth Charter where 'youth' means 'every person between the ages of 15 and 35 years'[68]

- 12-15 years
- 16-20 years
- 21-25 years
- 26-35 years, and
- 35+ years

2.6. Quality of the data

The quality of the crime data was assessed in terms of the USAID (2007) criteria of quality: accuracy/ validity, reliability, completeness, precision, timeliness and integrity (as cited by Gorgens & Kusek, 2009).

2.6.1. Data accuracy/validity

Data accuracy, also referred to as validity, is the extent to which the data measures what it is intended to measure. As the individual SAPS crime records are based on recorded crimes, it is possible that the complainant omits details or provides inaccurate crime details. This problem is difficult to control. However, the SAPS crime data were checked for obvious instances of accuracy versus mismatches between the category of crime and the category of weapons, for example "Illegal Possession of Firearms" should always involve a type of firearm rather that another type of weapon, and 'Robbery not Firearm' should not be associated with a firearm as the weapon type. In general, questionable crime category-weapon details occurred in approximately 5%-10% or fewer of these cases.

Furthermore, the validity of the SAPS data is improved over time as SAPS has a process whereby the crime data is revisited retrospectively if the category of a crime is changed. This process occurs for example when an attempted murder is re-categorised as murder if a victim dies, or an attempted murder is changed to culpable homicide after court judgement. Data validity would then be partially dependent on the extent to which the SAPS updating procedures are executed timeously.

[68] http://www.unesco.org/new/en/social-and-human-sciences/themes/youth/youth-definition/ accessed 14 July, 2015.

An obvious suggestion on checking the validity of the data is to compare the crime results of the WSG research to the published SAPS crime statistics. However there are several reasons for the non-comparability of the two sets of results.

Firstly, the reported SAPS crime statistics are derived from reported cases at 12 midnight, 6 months before the published statistics are reported. This means that the SAPS analysis is based on data that is not updated when further or correct details emerge per case, for example a crime initially reported as GBH or attempted murder in which the victim later died and which would then be correctly categorised as murder. By contrast, the results of our analyses are based on the updated and corrected data. Furthermore, our analyses are based on crimes committed up to 31 March 2014 but extracted in June 2015. This means that the dataset of crimes used in the present analysis would reflect a much more up-to-date picture of crimes committed retrospectively compared to the SAPS analysis.

Secondly, the SAPS crime statistics are derived from crimes by *reported* date. In other words, if a crime is reported a month later, or a year later or several years later, the SAPS crime statistics analysis considers the crime to have happened at the date of the reporting. By contrast, our analyses are based on crimes by date *committed*. The SAPS convention of analysing crimes by reported date rather than by committed date constitutes a major difference in the underlying philosophies of the two sets of analyses and is undoubtedly a source of discrepancy as several crimes are reported late/ retrospectively. However, it is unlikely that there would be a large discrepancy in the timing of reported versus occurrence dates in crimes such as murder, cash in transit robberies, bank robberies and truck hijackings.

Nevertheless, we have compared the results of this research to the published crime statistics (Table 25 - Table 33. These tables compare the levels of crimes per official SAPS categories in terms of numbers of crimes, rates of crimes per 100,000 persons in the population and annual growth rates.

2.6.2. Data reliability

Data reliability is the extent to which there is consistency in measurement and reporting, and that the data does not vary according to procedures and protocols. The reliability of the SAPS crime data was evaluated in terms of its internal consistency and the extent to which it appeared free of random error or 'noise'.

The internal consistency was judged on the extent to which recurring patterns were found in the results, for example consistent seasonality and other patterns over time within and across provinces.

The data cleaning process involved deletion of duplicate records. In some instances, duplications were obvious, for example duplicate records or records that had been entered more than once, differing only in slight details in the address fields, with all other fields identical. However, in other cases, we developed

stringent sets of rules depending on the level of analysis, i.e. Crime or Accused, to determine whether a record was unique or indeed a duplicate that needed to be deleted.

2.6.3. Data completeness

The completeness of the data refers to the extent to which all instances of crimes are reported and therefore present in the data. The extent of under-reporting of crimes is unknown and would clearly affect the level of crimes recorded and reported. Moreover, if the extent of under-reporting changes over time, for example because of a trend of continually reducing confidence in the SAPS response to crime, the completeness of the data may become increasingly problematic over time.

Estimates of the extent of under-reporting (for example, Statistics SA Victims of Crimes Surveys, 2013)[69], reveal that the majority (60%) of respondents expressed satisfaction with the extent to which police and the courts are doing their jobs. However there are several other reports of reducing public confidence in SAPS (Burger 2011[70]).

However the most serious crimes, for example Murder are more likely to be reported accurately[71] (Brodie, 2013).

Data on the accused was available in just over half of the crime records.

2.6.4. Data precision

The precision of the data refers to the extent to which the data comprises sufficient detail. There were several instances in which the type of weapon was not reported (10%-25%). To accommodate the missing detail, all statistics on weapons were computed based on crime records with complete weapon information only. It is assumed that missing information was randomly distributed across crimes.

2.6.5. Data timeliness

The timeliness of the data refers to the extent to which complainants report crimes timeously. The timing difference between time of reporting and time of the occurrence of the crime may be, to some extent, the reason for the discrepancy noted between the published SAPS numbers of murders and the count by the Gauteng Forensic Pathology Services' mortuaries of bodies due to deaths from assault, rape, shootings, stabbings and strangulation for 2012/13 and 2013/14[72] (September 23 2015). Whereas official SAPS figures

[69] http://www.statssa.gov.za/publications/P0341/P03412013.pdf
[70] Burger, J. (2011) To protect and serve: Restoring public confidence in the SAPS. South African Crime Quarterly, 36. http://www.ajol.info/index.php/sacq/issue/view/10921
[71] https://africacheck.org/factsheets/a-guide-to-crime-statistics-in-south-africa-what-you-need-to-know/
[72] http://www.iol.co.za/news/crime-courts/police-are-undercounting-murder-1.1920043#.Vkk_DnYrK70

for Gauteng murder for the combined 2012/13 and 2013/14 years is 6,330, the count by the Gauteng Forensic Pathology Services' mortuaries of bodies due to deaths from assault, rape, shootings, stabbings and strangulation for the combined 2012/13 and 2013/14 years is 7,188. Therefore, the SAPS published murder figures are 11.9% lower than the mortuary figures. The WSG murder figure for 2012/13-2013/14 is 6,894, i.e. 4.1% lower. It is possible that either the data has not been captured into the SAPS system timeously, or it is the issue of data that has not been updated, for example when an attempted murder charge becomes a murder charge as the victim has died. Of course both reasons may apply.

2.6.6. Data integrity

The integrity of the data refers to the extent to which the data is devoid of "…deliberate bias or manipulation for political or personal reasons" (Gorgens & Kusek, 2009, p.254). Based on the consistency of the major trends evident in the research results, the integrity of the data is assumed to be reasonably intact.

2.7. Methodology

In this section the consolidation of the data records and the analyses of crimes and of accused persons are described.

2.7.1. Data consolidation: Unit of Analysis

As the data records were supplied at the individual crime level, multiple records were listed per unique Case number when a particular case involved multiple crime categories, multiple accused, multiple weapons and/or multiple victims. Therefore, depending on the level of analysis and thus whether the unit of analysis was the crime or the accused, records needed to be filtered to avoid over-counting. This meant that a different set of non-duplicate records were retained for analyses at the Crime level versus analyses at the Accused level.

For analyses at the crime level, we ensured that only unique crimes were analysed with no over-counting of records by selecting only data records that differed on all of the following fields: the unique case number incorporating the cluster description, the crime and weapon types, and the times reported and committed. Thus the unit of analysis considered was the crime category and weapon per unique case number, incorporating the cluster description, irrespective of the number of accused persons per crime. For these analyses of crime, examples of multiple records listed per crime and the corresponding decision made are:

i. If for a particular unique case number there were reports of both "ASSAULT WITH THE PURPOSE TO INFLICT GRIEVOUS BODILY HARM" and "POSSESSION OF FIREARM WITHOUT A LICENCE", both these crimes were counted.

ii. If for a particular unique case number there were reports of both “ASSAULT WITH THE PURPOSE TO INFLICT GRIEVOUS BODILY HARM” and “POSSESSION OF FIREARM WITHOUT A LICENCE”, and there were two victims named for each crime, then all four crimes were counted.

iii. If for a particular unique case number there were reports of both “POSSESSION OF FIREARM WITHOUT A LICENCE” and “ILLEGAL POSSESSION OF AMMUNITION”, both these crimes were counted.

iv. If for a particular unique case number there were reports of the crime “POSSESSION OF FIREARM WITHOUT A LICENCE” with multiple rows of data as there were multiple persons accused for the crime with one victim, only a single crime was recorded and counted.

However, in the case of analyses of accused persons, all unique records referring to an individual crime were retained.

2.7.2. Analyses of the data

All crime analyses were computed on the complete set of crime data comprising detailed data on over 75 million crime records. As the population of data was used rather than a sample, sampling error is not applicable.

The analyses were structured from the most general to the most specific. The levels of analyses cascaded as follows:

1. All crimes, irrespective of whether a weapon was used.
2. Only crimes related to firearms, irrespective of whether a firearm or another weapon was used. For example, robbery at residential premises may involve a firearm or another weapon and so this crime category was used. However, by definition the crime of burglary is not related to firearms and so this crime category was not considered. Several other categories of crime that involve firearms infrequently (less than 5%) and therefore were not considered. The ages of the accused of these crimes related to firearms were also analysed for the firearm related crimes.
3. Only crimes related to firearms in which a firearm was used.

Most of the analyses were computed at the second level, i.e. on crimes related to firearm, producing comparisons of numbers of crimes and trends over time that were committed with firearms versus with other weapons.

The analyses were kept deliberately simple and easy to understand, with supporting graphs and colour-coded tables to describe the extensive results. All analyses were relevant to the objective of the report, i.e.

to evaluate the effect of the Firearms Control Act on crime over the period from pre commencement until a decade after.

Counts of the numbers of each crime aggregated quarterly, annually (SAPS April-March year), and for each of the four FCA periods were calculated, with the aggregated annual counts controlling the seasonality in the data. These counts or frequencies were converted to rates per 100,000 persons in the population for several analyses including the provincial comparisons.

The Compound Annual Growth Rate (CAGR) was calculated for changes within time periods for counts, rates and percentages, where relevant. The CAGR change statistic was preferred to a simple percentage change as it takes into account the number of years over which the change has occurred and the compounding effect of the change from year to year. The graphs used were simple line graphs or multiple bar charts, and a combination of the two.

We compared our results to the published annual SAPS statistics in terms of crime levels and trends in these crime levels. We re-evaluated the findings and claims of previous researchers and of pro- and anti- firearm advocates in the context of the detailed findings of our research. It is hoped that this research will provide unambiguous evidence on the relationship (or lack thereof) between the FCA and crime.

2.8. Challenges encountered in the data

The main challenge encountered in the data is that there was no viable mechanism available to link each crime record to the specific weapon used by some unique weapon identifier. This meant that:

1. It was not possible to link each weapon identifier (when known) to the characteristics of the weapon i.e. legality of weapon, age of weapon, demographics of original and new owner etc.
2. It was not possible to link each weapon identifier to the history of the weapon i.e. whether it was previously lost or stolen, the date stolen, previously private or state property, etc.

However, in the case of crimes committed with weapons, the data provided did indicate which type of weapon was used i.e. firearm, knife, bat, hand or foot of a person etc. In the case of crimes committed with firearm, the data provided the type of firearm i.e. pistol, revolver, rifle, shotgun etc. Furthermore, details of the location, accused and victim were supplied where relevant for each crime. This crime-weapon, crime-location, crime-accused and crime-victim information is the discriminator between this research and research on the published SAPS crime statistics since 2000.

2.9. Caveat

The design of the research is described as an interrupted time series longitudinal design (i.e. characterised

by multiple measures over time). It does not qualify as an experimental design because the intervention, i.e. the implementation of the FCA, was not randomly assigned nor manipulated in any way by the researcher, and thus there is no control group available for an unbiased comparison. As these conditions of randomisation and a control group are necessary in order to justify a causal link between the intervention and the outcome, no cause-and-effect relationship between the FCA and crime characteristics may be inferred with certainty as something other than the FCA may have caused the changes in crime characteristics over time. However the levels, rates and changes thereof are analysed in the four FCA related periods and the results are scrutinised for consistent patterns. Thus the levels of analyses, from before the FCA intervention and then at various time intervals relevant to the FCA, have been used to build a descriptive argument consistent with a causal relationship. By discovering repeated patterns in the results of the analyses, the relation between the FCA intervention and crime characteristics are described, albeit not implying cause.

The design of our research is discussed in more detail in 6.1.2.

3 Crime Analyses

This chapter presents the results of the SAPS crime analyses. At the outset the analyses are used to identify firearm-related crimes for subsequent in-depth analysis at national and provincial levels per quarter, per annum and for each of the four FCA related time periods. In these detailed analyses, crime type, weapon type and firearm type are analysed by province across time. The chapter concludes by comparing our results to the corresponding official SAPS statistics, albeit with reservation as there are systematic methodological differences between the two sets of data.

The results of the analyses are presented in six main sections, initially following the familiar SAPS reporting structure of Contact crimes, Contact-related crimes, Property-related crimes, Crime detected as a result of police action, Other serious crimes, Subcategories of aggravated robbery and Other crime categories. In most subsequent sections however, the emphasis is on firearm related crimes, as befits the main objective of this report.

The results are structured as follows:

Growth rates of crime per SAPS categories (3.1)

- Changes over time of frequencies and rates of all SAPS crime categories committed for the entire period of the analysis i.e. for the SAPS calendar years from 2000/1-2013/14, as well as for each of the FCA related time periods.
- Usage of firearms in all crime categories

Level and growth of firearm related crimes (3.2)

- National quarterly and annual plots of firearm related crimes displaying seasonality and trends nationally
- National level and annual growth of firearm related crimes per FCA related time periods in terms of frequencies and rates per 100,000
- Provincial rates per 100,000 of firearm related crimes per FCA related time periods

Level and growth of firearm use in firearm related crimes (3.3)

- National level and annual growth of firearms used in firearm related crimes per FCA related time period
- Provincial level and annual growth of firearms used in firearm related crimes per FCA related time period
- National growth rate of percentage representation of firearms used in firearm related crimes

Firearm type used in firearm related crimes perpetrated with firearms (3.4)

- National percentage representation and growth of firearm type used in crimes with firearms per FCA related time period
- National frequencies of crimes committed per firearm type and type of crime nationally
- Provincial frequency of crimes committed per firearm type and type of crime

Demographics of accused persons of firearm related crimes perpetrated with versus without firearms (3.5)

Distribution of types of crimes committed by firearm per age and nationality groupings of persons accused of firearm related crimes across FCA related time periods

Comparison to published SAPS crime statistics (3.6)

- Percentage differences in official national frequencies and rates per crime category 2004/5-2013/14
- SAPS 2015 Retrospective downward adjustment %
- Differences in numbers of crimes pre SAPS adjustment 2004/5-2013/14
- SAPS 2015 Retrospective crime frequencies after adjustment vs WSG frequencies 2005/6-2013/14
- WSG percentage differences vs SAPS post adjusted frequencies
- WSG versus SAPS Annual growth rates in crime over FCA related time periods.

Notes for interpreting tables: Colour coding convention

- *In several of the tables, a colour-coding system of red, pink and grey dots are used to show unfavourable results, e.g. increases in crime whereby red indicates the most unfavourable results, pink indicates relatively less favourable results, and grey the least unfavourable. Neutral or favourable results are not colour coded.*
- *When considering crimes in the category 'Crimes Detected as a Result of Police Action' decreases are considered unfavourable and increases favourable.*

3.1. Growth of crime per SAPS crime categories

The first section of the results provides the most general view of crime as all SAPS crime categories are viewed in terms of their changes over time, and then in terms of the percentage of each category of crimes in which firearms are used. The familiar SAPS crime statistics layout is used for presentation.

3.1.1. Growth rates of crime

Table 1 provides changes over the entire period starting from the SAPS year of the commencement of the FCA and ending in 2013/14. The changes are expressed as a percentage change over this entire period, as well as per year calculated as a compound annual growth rate (CAGR). The table also provides the compound annual growth rates for the four FCA related time periods.

As indicated by the colour coding system, there has been an overall decrease in all crimes over the 10-year period which is unsurprising as crime rates were generally high before the FCA was implemented. Nevertheless, the numbers of crimes in the aggravated robbery category, specifically robberies at residential and non-residential premises, and cash in transit robberies increased over the period. There were also increases in several of the 'Other' crime categories.

However, the overall 10-year long trend conceals the important details of what happened during the period and does not consider the four years (2000/1-2003/4) after the FCA was signed into law but before commencement.

The findings of the four FCA periods, based on the size and direction of the compound annual growth rates are summarised as follows:

- 2000/1-2003/4: In the four years pre FCA commencement, all contact crimes except for murder were increasing. Although carjackings and cash in transit robberies were increasing, what is surprising is that robberies at residential and non-residential premises were decreasing annually. It should be borne in mind that the data of this period is reputedly less reliable than more recent data, but the upward trends in most contact crimes are unlikely to be completely spurious.
- 2004/5-2007/8: In the four years post FCA implementation contact crimes decreased with the exception of murder and most subcategories of aggravated robbery. The numbers of murders increased slightly, and there were annual increases in robberies at residential and non-residential premises, and cash in transit robberies and bank robberies. Note that there are categories of robberies that do not specify whether these are at residential or non-residential premises and therefore the changes in the aggregated category of the robbery with aggravating circumstances can

easily reflect differences from the components displayed in the category 'Subcategories of Aggravated Robbery".

- 2008/9-2010/11: In the Peri FIFA Cups period, violent crimes decreased virtually across all categories with the exception of robberies at non-residential premises. There were increases in less violent crimes such as burglaries and thefts.
- 2011/12-2013/14: The most recent three years of the analysis period were characterised by increases in murder and attempted murder, as well as in aggravated robbery and most of its sub-categories. Cash in transit and bank robberies did not increase, possibly because of heighted security around these crimes.

Table 1: RSA: Growth rates of crimes per category overall and per FCA related period

Crime	% change 2004/5-2013/14	CAGR 2004/5-2013/14	CAGR 2000/1-2003/4	CAGR 2004/5-2007/8	CAGR 2008/9-2010/11	CAGR 2011/12-2013/14
CONTACT CRIMES (CRIMES AGAINST THE PERSON)						
Murder	-9%	-0.2%	-1%	2%	-5%	4%
Total Sexual Crimes	-3%	-2%	6%	-3%	-2%	-4%
Attempted Murder	-22%	-2%	6%	-6%	-7%	6%
Grievous Bodily Harm	-18%	-2%	1%	-3%	-1%	-3%
Common Assault	-24%	-3%	6%	-8%	-2%	-4%
Common Robbery	-32%	-4%	4%	-9%	-3%	1%
Robbery with aggravating circumstances	17%	0%	9%	-1%	-8%	8%
CONTACT-RELATED CRIMES						
Arson	-15%	-2%	2%	1%	-2%	-5%
Malicious Injury to Property	-4%	-1%	6%	-2%	-3%	-1%
PROPERTY-RELATED CRIMES						
Burglary at Non-Residential Premises	-9%	3%	-9%	6%	-1%	2%
Burglary at Residential Premises	-3%	-0.1%	1%	-3%	0%	3%
Theft of motor vehicle and motorcycle	-40%	-3%	-2%	-1%	-8%	-2%
Theft out of or from motor vehicle	-25%	-0.1%	-4%	-8%	6%	5%
Stock-theft	-9%	1%	-4%	4%	2%	-6%
CRIME DETECTED AS A RESULT OF POLICE ACTION						
Unlawful Possession of a Firearm/ Ammunition	21%	0%	8%	-2%	0%	2%
Drug-related Crime	540%	9%	13%	10%	14%	21%
Driving under the influence of alcohol or drugs	186%	7%	0%	18%	9%	0%
OTHER SERIOUS CRIMES						
Other theft	-22%	-2%	4%	-8%	-3%	-2%
SUBCATEGORIES OF AGGRAVATED ROBBERY						
Carjacking	-14%	-1%	4%	5%	-14%	8%
Truck Hijacking	-71%	0%	-36%	10%	-16%	10%
Robbery at Residential Premises	44%	7%	-17%	21%	-4%	7%
Robbery at Non-Residential Premises	58%	15%	-34%	50%	3%	8%
Robbery Cash In Transit	2%	-3%	8%	21%	-28%	-4%
Pointing/ Discharging a Firearm in Public	-50%	-5%	2%	-10%	-10%	2%
Bank Robbery	-95%	-9%	-46%	26%	-22%	-14%
OTHER CRIME CATEGORIES						
Culpable homicide	18%	0%	3%	5%	-1%	-3%
Public Violence	100%	5%	0%	0%	-8%	17%
Crimen injuria	-46%	-6%	6%	-15%	5%	-10%
Neglect and ill-treatment of children	-42%	-5%	7%	-7%	-4%	-6%
Kidnapping	10%	5%	-13%	0%	18%	3%
Domestic Violence	98%	2%	11%	4%	2%	4%
Order of the Peace (A&B)	125%	0%	9%	15%	7%	-23%

3.1.2. Usage of firearms: all crime categories

In order to address the main objective of the research, it was necessary to identify the crimes that are largely associated with firearms. Table 2 displays the percentage of crimes in each crime category that involve firearms for the FCA related time periods. Once again, the format used for the annual SAPS crime statistics is followed, and the colour coding convention is used.

It should be noted that all percentages were computed relative to those crimes for which the type of weapon was known. Thus crimes involving weapons specified as 'Unknown' or missing were omitted from the usage calculations. These missing weapon details occurred approximately 10%-25% of the time, with the frequencies of missing data decreasing over time. It is assumed that they are fairly evenly distributed across the crime categories so that there is not a systematic bias in the findings.

There are two objectives to presenting this table:

The first objective, as described above, is to identify the crimes that will be the focus of subsequent analyses relevant to the effect of the Firearms Control Act on crime, and so the table shows the level of firearms per crime category over time. Specifically, the following crime categories generally involve firearms in only 1%-3% or even fewer crime instances in any time period and will therefore not be examined in further detail: 'Total Sexual Crimes', 'Assault with the intent to inflict grievous bodily harm', 'Common assault', 'Common robbery ', 'Arson', 'Malicious injury to property', 'Burglary at non-residential premises 'Burglary at residential premises', 'Theft of motor vehicle and motorcycle', 'Theft out of or from motor vehicle', 'Stock theft', 'Drug-related crime', 'Driving under the influence of alcohol or drugs', 'Culpable homicide', 'Public violence', 'Crimen injuria', 'Neglect and ill-treatment of children', 'Domestic Violence', and 'Order of the Peace'. 'Kidnapping' is not considered further as the numbers are low (5-10 cases reported per year).

The second objective of the tabled information is to display the extent of irregularities in the data. For example, by definition, certain crime categories are non-firearm related, and burglary occurs when there is no contact at all between a victim and the perpetrator[73]. Thus the use of firearms in the various categories of burglary reflects either that the crime has been wrongly categorised or that the weapon involved has been wrongly reported or registered. These crimes are again not the focus of attention of further analyses. On the other hand, there are certain crime categories that should always involve firearms or ammunition, but are not recorded as such in the data, for example 'Unlawful possession of firearms and ammunition' was sometimes associated with 'Hand' or 'Foot' implying the person who perpetrated the crime, and likewise for

[73] Africa Check a non-partisan organisation which promotes accuracy in public debate and the media. Twitter @AfricaCheck and www.africacheck.org, 2013.

'Pointing or Discharge of a firearm in public'. Such instances may mitigate against the validity of the data but are nevertheless important to examine in detail.

The results of this analysis thus identified the following firearm related categories of crime for further detailed analysis: murder, attempted murder, aggravated robbery and its sub-categories: robberies at residential and non-residential premises, carjackings and truck hijackings, cash in transit robberies and bank robberies, and of necessity, pointing or discharging a firearm, and illegal possession of a firearm or ammunition.

Table 2: RSA: Percentage of crimes involving firearms

Crime	2000/2001-2003/2004	2004/2005-2007/2008	2008/2009-2010/2011	2011/2012-2013/2014
CONTACT CRIMES (CRIMES AGAINST THE PERSON)				
Murder	50%	38%	33%	33%
Total Sexual Crimes	2%	1%	1%	0%
Attempted murder	78%	72%	71%	69%
Grievous Bodily Harm	2%	1%	1%	1%
Common assault	1%	0%	0%	0%
Common robbery	3%	2%	1%	1%
Robbery with aggravating circumstances	82%	72%	65%	57%
CONTACT-RELATED CRIMES				
Arson	1%	1%	1%	1%
Malicious injury to property	2%	2%	1%	1%
PROPERTY-RELATED CRIMES				
Burglary at non-residential premises	0%	1%	1%	1%
Burglary at residential premises	0%	0%	0%	0%
Theft of motor vehicle and motorcycle	1%	2%	3%	2%
Theft out of or from motor vehicle	0%	0%	0%	0%
Stock-theft	0%	0%	0%	0%
CRIME DETECTED AS A RESULT OF POLICE ACTION				
Unlawful possession of firearms and ammunition	73%	80%	82%	83%
Drug-related crime	0%	0%	0%	0%
Driving under the influence of alcohol or drugs	0%	0%	0%	0%
OTHER SERIOUS CRIMES				
All theft not mentioned elsewhere	0%	0%	0%	0%
SUBCATEGORIES OF AGGRAVATED ROBBERY				
Carjacking	93%	91%	88%	85%
Truck hijacking	94%	90%	89%	86%
Robbery at residential premises	90%	78%	68%	62%
Robbery at non-residential premises	96%	93%	85%	80%
Robbery Cash-In-Transit	94%	95%	96%	98%
Pointing or Discharge of a firearm in public	90%	87%	88%	89%
Bank Robbery	79%	90%	91%	93%
OTHER CRIME CATEGORIES				
Culpable homicide	0%	0%	0%	0%
Public violence	5%	3%	2%	1%
Crimen injuria	0%	0%	0%	0%
Neglect and ill-treatment of children	0%	0%	0%	0%
Kidnapping	16%	15%	13%	15%
Domestic Violence	1%	0%	0%	0%
Order of the Peace	3%	1%	0%	0%

3.2. Level of firearm related crimes

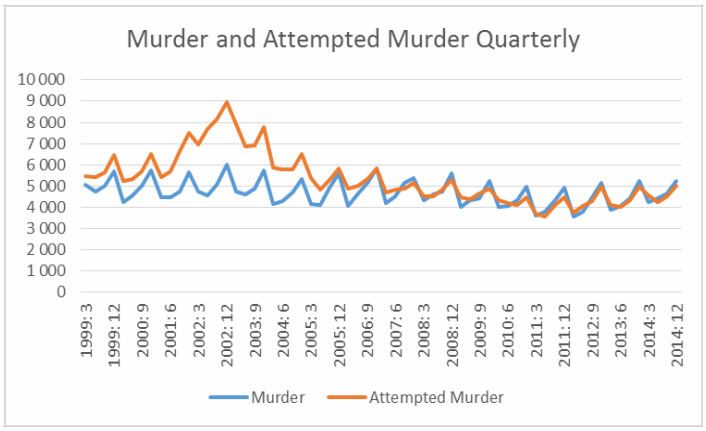
Following the identification of the set of firearm related crimes, this section displays the numbers of these crimes graphically at national level per quarter and annually.

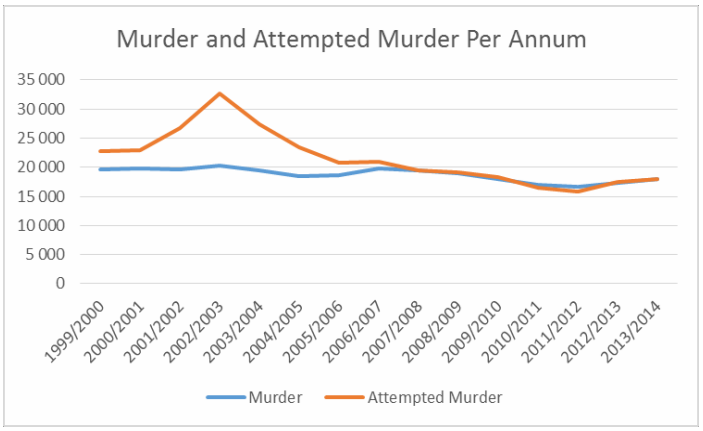
3.2.1. National quarterly and annual plots of firearm related crimes

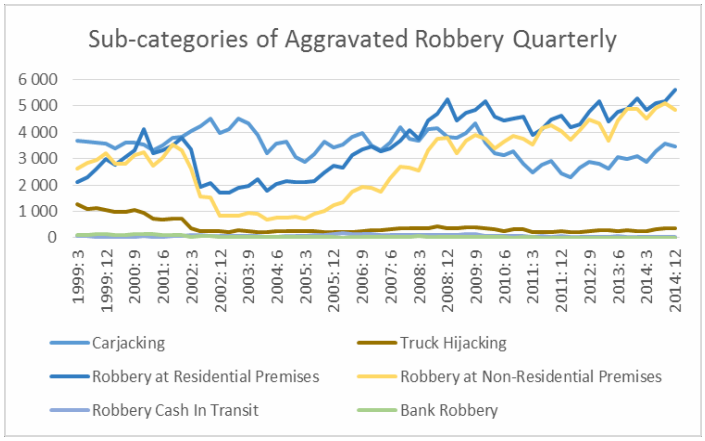
In the plots of the firearm related crimes over time in Figure 2 (continued over three pages), a logical grouping of crimes is used, for example murder and attempted murder appear in the same plot, the subcategories of aggravated robbery appear together, and in various combinations so that the so-called trio crimes of carjacking, robberies at residential premises and robberies at non-residential premises are plotted together. These plots thus give a perspective to the trends and the relative frequencies of crimes in the same category.

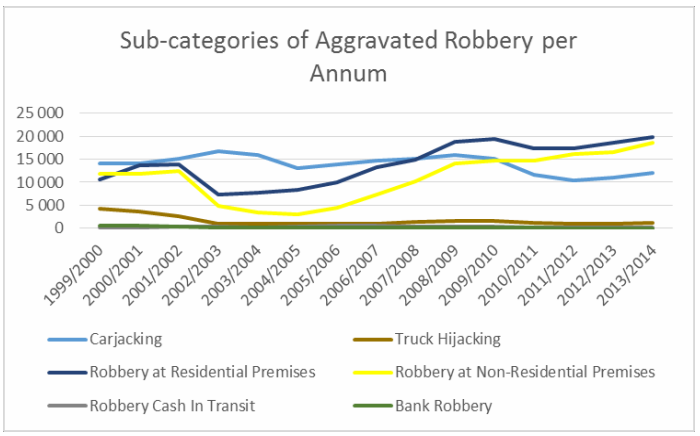
Furthermore, the quarterly plots (Figure 2) clearly show the seasonal nature of the various crimes as the peaks occur in the fourth quarter of each year. This phenomenon is well known and obviously important for strategic policing.

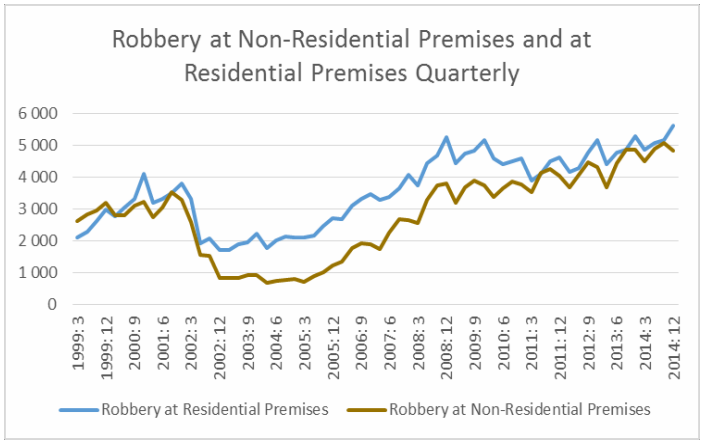
By considering the annual plots, the seasonality is smoothed across each SAPS year and the overall trend across the four FCA periods is more obvious, for example the largely monotonically increasing trend of robberies at residential premises and robberies at non-residential premises. The interpretation of the plots is clearly consistent with the interpretation of the growth rates of Table 1. The upward 'kick' in in the most recent years of almost every series shows the recent upward trend in crime.

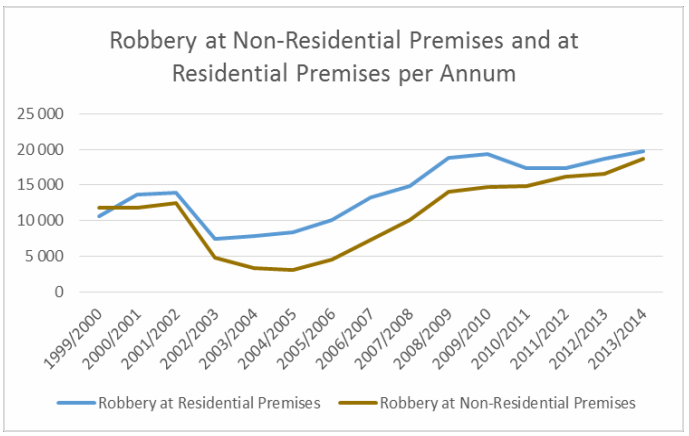


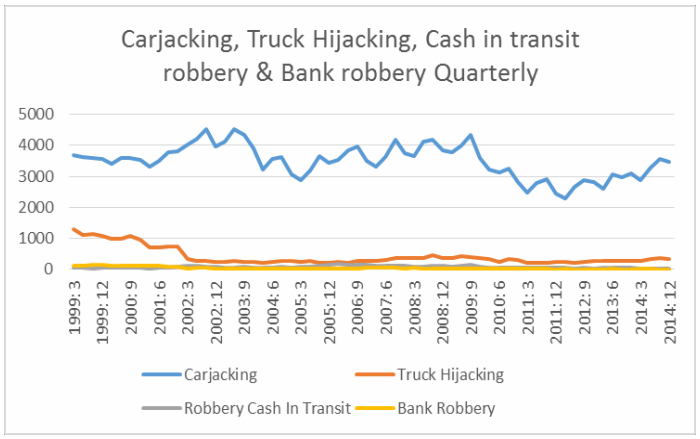












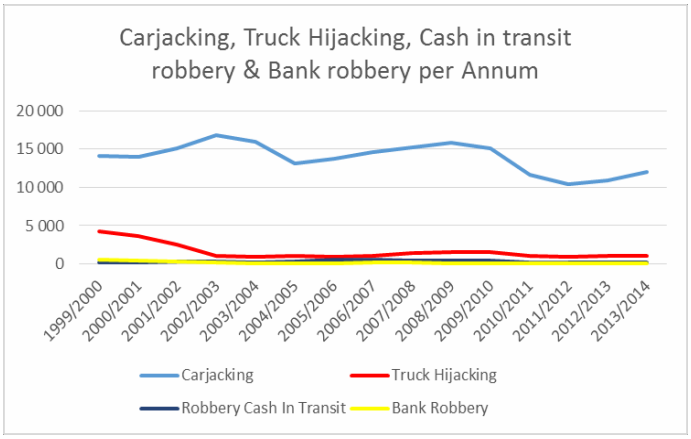
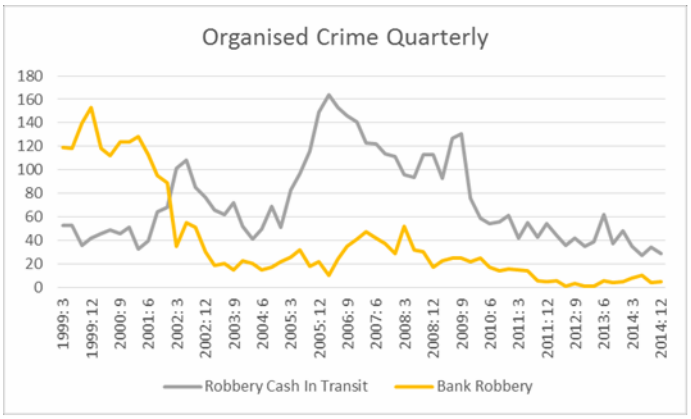


Figure 2: Frequencies of crimes at national level per quarter and annually


Organised Crime Quarterly
180
160
140
120
100
80
60
40
20
0
1999: 3
1999: 12
2000: 9
2001: 6
2002: 3
2002: 12
2003: 9
2004: 6
2005: 3
2005: 12
2006: 9
2007: 6
2008: 3
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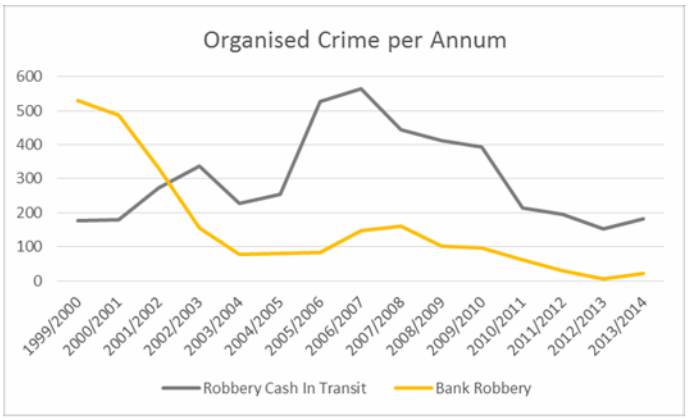
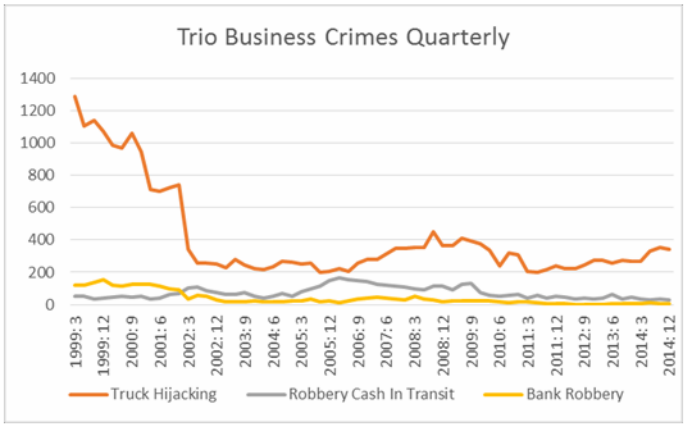
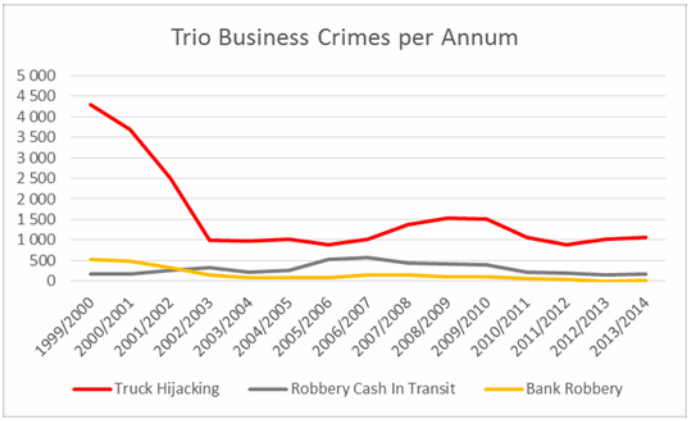
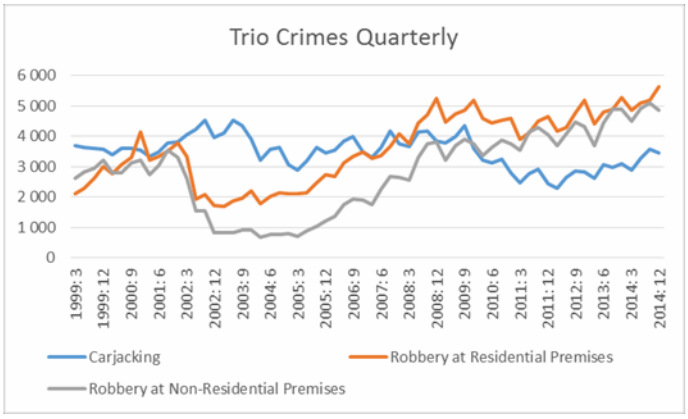
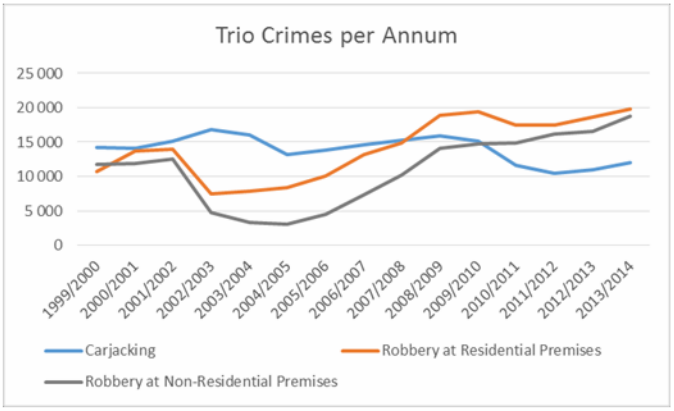
2010: 6
2011: 3
2011: 12
2012: 9
2013: 6
2014: 3
2014: 12
Robbery Cash In Transit
Bank Robbery

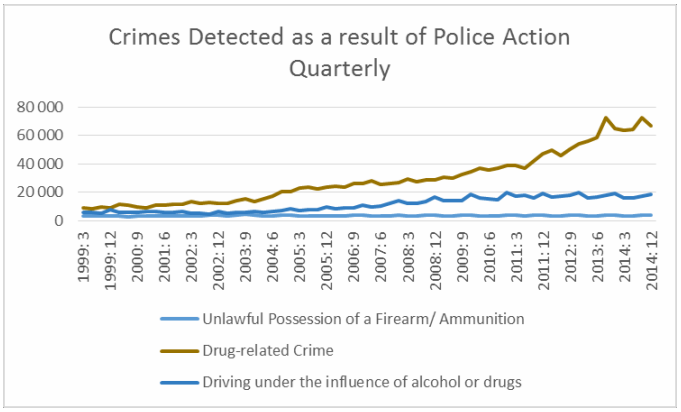

Organised Crime per Annum
600
500
400
300
200
100
0
1999/2000
2000/2001
2001/2002
2002/2003
2003/2004
2004/2005
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011
2011/2012
2012/2013
2013/2014
Robbery Cash In Transit
Bank Robbery

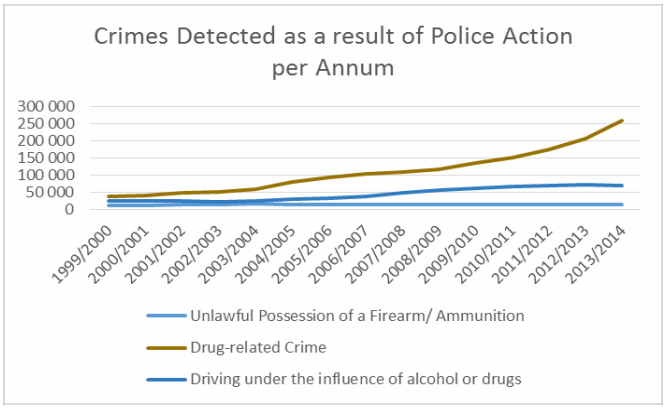

Trio Business Crimes Quarterly
1400
1200
1000
800
600
400
200
0
1999: 3
1999: 12
2000: 9
2001: 6
2002: 3
2002: 12
2003: 9
2004: 6
2005: 3
2005: 12
2006: 9
2007: 6
2008: 3
2008: 12
2009: 9
2010: 6
2011: 3
2011: 12
2012: 9
2013: 6
2014: 3
2014: 12
Truck Hijacking
Robbery Cash In Transit
Bank Robbery

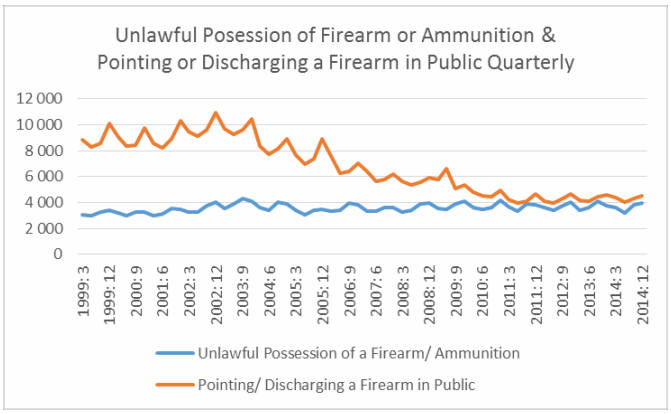

Trio Business Crimes per Annum
5 000
4 500
4 000
3 500
3 000
2 500
2 000
1 500
1 000
500
0
1999/2000
2000/2001
2001/2002
2002/2003
2003/2004
2004/2005
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011
2011/2012
2012/2013
2013/2014
Truck Hijacking
Robbery Cash In Transit
Bank Robbery

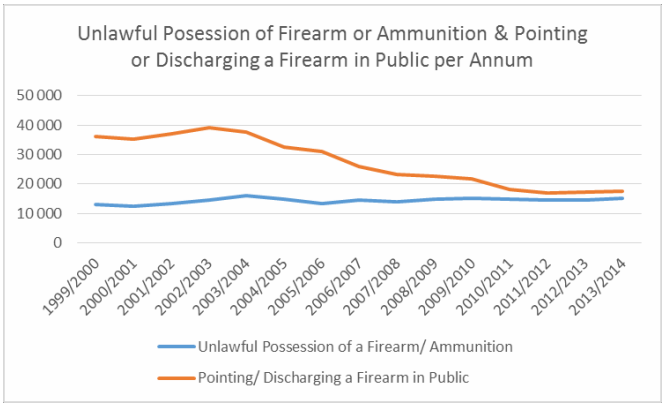

Trio Crimes Quarterly
6 000
5 000
4 000
3 000
2 000
1 000
0
1999: 3
1999: 12
2000: 9
2001: 6
2002: 3
2002: 12
2003: 9
2004: 6
2005: 3
2005: 12
2006: 9
2007: 6
2008: 3
2008: 12
2009: 9
2010: 6
2011: 3
2011: 12
2012: 9
2013: 6
2014: 3
2014: 12
Carjacking
Robbery at Residential Premises
Robbery at Non-Residential Premises


Trio Crimes per Annum
25 000
20 000
15 000
10 000
5 000
0
1999/2000
2000/2001
2001/2002
2002/2003
2003/2004
2004/2005
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011
2011/2012
2012/2013
2013/2014
Carjacking
Robbery at Residential Premises
Robbery at Non-Residential Premises


Crimes Detected as a result of Police Action Quarterly
80 000
60 000
40 000
20 000
0
1999: 3
1999: 12
2000: 9
2001: 6
2002: 3
2002: 12
2003: 9
2004: 6
2005: 3
2005: 12
2006: 9
2007: 6
2008: 3
2008: 12
2009: 9
2010: 6
2011: 3
2011: 12
2012: 9
2013: 6
2014: 3
2014: 12
Unlawful Possession of a Firearm/ Ammunition
Drug-related Crime
Driving under the influence of alcohol or drugs


Crimes Detected as a result of Police Action per Annum
300 000
250 000
200 000
150 000
100 000
50 000
0
1999/2000
2000/2001
2001/2002
2002/2003
2003/2004
2004/2005
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011
2011/2012
2012/2013
2013/2014
Unlawful Possession of a Firearm/ Ammunition
Drug-related Crime
Driving under the influence of alcohol or drugs


Unlawful Posession of Firearm or Ammunition & Pointing or Discharging a Firearm in Public Quarterly
12 000
10 000
8 000
6 000
4 000
2 000
0
1999: 3
1999: 12
2000: 9
2001: 6
2002: 3
2002: 12
2003: 9
2004: 6
2005: 3
2005: 12
2006: 9
2007: 6
2008: 3
2008: 12
2009: 9
2010: 6
2011: 3
2011: 12
2012: 9
2013: 6
2014: 3
2014: 12
Unlawful Possession of a Firearm/ Ammunition
Pointing/ Discharging a Firearm in Public


Unlawful Posession of Firearm or Ammunition & Pointing or Discharging a Firearm in Public per Annum
50 000
40 000
30 000
20 000
10 000
0
1999/2000
2000/2001
2001/2002
2002/2003
2003/2004
2004/2005
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011
2011/2012
2012/2013
2013/2014
Unlawful Possession of a Firearm/ Ammunition
Pointing/ Discharging a Firearm in Public

3.2.2. National levels & growth of firearm related crimes per FCA related time periods

The numbers and rates of firearm related crimes are presented per SAPS year from 2000/1-2013/14 in Table 3 and Table 4 respectively. The corresponding growth rates for the four FCA related periods are supplied, once again showing the recurrent patterns of moderately increasing crime from 2000/1-2003/4, some decrease in murders and attempted murders and firearm specific crimes i.e. unlawful possession of firearms and ammunition and pointing/ discharging a firearm in public, but increases in robberies at residential premises and robberies at non-residential premises from 2004/5-2007/8, decreasing crime (except for robberies at non-residential premises) in the 2008/9-2010/11 period, and finally increasing crime numbers and rates per 100,000 in the 2011/12-2013/14 period. Murder rates per 100,000 were stable in the 2004/5-2007/8 period.

3.2.3. Provincial rates of firearm related crimes per FCA related time periods

Provincial rates per 100,000 were used to compare the level of firearm related crimes across provinces. These comparisons are provided in the colour coded Table 5 for murder and attempted murder rates, Table 6 for aggravated robbery, carjacking, truck hijacking and robberies at residential and robberies at non-residential premises, and Table 7 for the firearm specific crimes of unlawful possession of firearms and ammunition and pointing/ discharging a firearm in public.

Table 3: Frequencies of firearm related crimes per SAPS year and corresponding annual growth rate (CAGR) per firearm related period

Crime: RSA	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
Murder	19 767	19 568	20 361	19 379	18 463	18 680	19 807	19 382	18 951	17 970	16 962	16 608	17 274	17 938	-1%	2%	-5%	4%
Attempted murder	22 952	26 788	32 692	27 461	23 461	20 790	20 880	19 398	19 090	18 287	16 465	15 887	17 410	17 915	6%	-6%	-7%	6%
Robbery with aggravating circumstances	103 326	108 821	122 665	132 056	125 856	121 536	129 613	121 160	122 483	115 547	103 234	103 543	108 380	121 029	9%	-1%	-8%	8%
Robbery at residential premises	13 706	13 953	7 421	7 829	8 387	10 035	13 213	14 858	18 835	19 355	17 428	17 423	18 632	19 794	-17%	21%	-4%	7%
Robbery at non residential premises	11 872	12 486	4 767	3 351	3 035	4 495	7 360	10 153	14 043	14 700	14 810	16 157	16 570	18 702	-34%	50%	3%	8%
Carjacking	14 052	15 110	16 798	15 995	13 148	13 795	14 610	15 221	15 917	15 136	11 680	10 402	10 945	12 037	4%	5%	-14%	8%
Truck hijacking	3 685	2 508	995	965	1 019	879	1 021	1 365	1 526	1 516	1 071	877	1 016	1 068	-36%	10%	-16%	10%
Cash in transit robbery	179	273	336	227	253	526	563	443	413	393	213	196	152	182	8%	21%	-28%	-4%
Bank robbery	488	332	155	78	80	82	147	160	102	97	62	31	6	23	-46%	26%	-22%	-14%
Unlawful possession of firearm or ammunition	12 503	13 367	14 571	15 890	14 697	13 290	14 494	13 852	14 733	15 007	14 872	14 605	14 567	15 108	8%	-2%	0%	2%
Pointing/ Discharging a firearm	35 100	36 892	39 263	37 638	32 428	30 890	26 035	23 276	22 641	21 833	18 147	16 832	17 089	17 516	2%	-10%	-10%	2%

Table 4: Rates per 100,000 of firearm related crimes per SAPS year and corresponding annual growth rate (CAGR) per firearm related period

Crime Rates: RSA per 100,000	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
Murder	45	44	45	42	40	40	41	40	39	36	34	33	33	34	-2%	0%	-7%	2%
Attempted murder	53	60	72	59	50	44	43	39	39	37	33	31	33	34	4%	-8%	-8%	5%
Robbery with aggravating circumstances	237	244	270	284	270	259	272	250	251	233	206	203	208	227	6%	-3%	-9%	6%
Robbery at residential premises	31	31	16	17	18	21	28	31	39	39	35	34	36	37	-18%	20%	-5%	4%
Robbery at non-residential premises	27	28	10	7	7	10	15	21	29	30	30	32	32	35	-36%	44%	2%	5%
Carjacking	32	34	37	34	28	29	31	32	33	31	23	20	21	23	2%	5%	-17%	7%
Truck hijacking	8	6	2	2	2	2	2	3	3	3	2	2	2	2	-37%	14%	-18%	0%
Cash in transit robbery	0	1	1	0	1	1	1	1	1	1	0	0	0	0		0%	-100%	
Bank robbery	1	1	0	0	0	0	0	0	0	0	0	0	0	0	-100%			
Unlawful possession of firearm or ammunition	29	30	32	34	31	28	30	29	30	30	30	29	28	28	5%	-2%	0%	-2%
Pointing/ Discharging a firearm	81	83	86	81	69	66	55	48	46	44	36	33	33	33	0%	-11%	-12%	0%

Table 5: Provincial and national annual rates of murders and attempted murders and growth rates per FCA related periods

Province	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
	Murder per 100 000														CAGR Murder per 100 000			
EC	29	28	31	36	38	46	51	52	50	49	48	50	51	52	7%	11%	-2%	2%
FS	35	33	34	35	31	30	34	32	33	33	36	37	39	36	0%	1%	4%	-1%
Gau	68	64	62	51	45	42	43	41	40	36	32	28	27	28	-9%	-3%	-11%	0%
KZN	60	58	59	55	53	52	52	50	49	43	38	34	37	36	-3%	-2%	-12%	2%
Lim	9	10	10	13	14	13	14	14	15	15	13	14	13	14	13%	0%	-7%	0%
Mp	29	29	32	32	33	28	25	25	26	26	21	22	19	21	3%	-9%	-10%	-2%
NC	57	52	54	52	46	43	29	10	38	35	32	35	37	39	-3%	-40%	-8%	6%
NW	20	21	21	23	21	22	25	26	26	24	25	26	26	24	5%	7%	-2%	-4%
WC	96	83	82	62	59	61	64	59	46	46	47	45	47	51	-10%	0%	1%	6%
RSA	45	44	45	42	40	40	41	40	39	36	34	33	33	34	-2%	0%	-7%	2%
	Attempted Murder per 100 000														CAGR Attempted Murder per 100 000			
EC	19	26	31	26	28	32	31	31	30	29	26	27	28	29	11%	2%	-7%	4%
FS	35	57	58	51	47	36	35	33	33	31	29	33	37	34	12%	-11%	-6%	2%
Gau	94	99	115	92	76	65	62	57	52	48	40	33	33	32	0%	-9%	-13%	-2%
KZN	71	71	87	71	62	56	54	51	50	46	39	36	38	38	0%	-6%	-12%	2%
Lim	13	16	19	20	18	15	16	14	14	14	13	13	13	14	15%	-8%	-4%	4%
Mp	42	45	58	50	47	42	38	36	36	35	23	22	20	20	6%	-9%	-20%	-5%
NC	42	189	233	170	147	112	69	18	65	62	59	51	50	54	50%	-50%	-5%	2%
NW	17	28	35	29	26	23	27	26	24	26	23	25	27	32	10%	0%	-2%	13%
WC	95	92	109	76	54	43	45	39	36	35	44	46	60	58	-7%	-10%	11%	12%
RSA	53	60	72	59	50	44	43	39	39	37	33	31	33	34	4%	-8%	-8%	5%

3.2.3.1. Murder and Attempted murder rates

The murder rates per 100,000 decreased for most provinces in the 2004/5-2007/8 period as well as in the 2008/9-2010/11 period, except for Eastern Cape and North West (Table 5) and slight increases for Free State. These patterns are consistent with the MRC NIMMS research that showed decreases in the numbers and rates of murders from 2001-2005 and 2005-2009 [33] [34].

Relatively speaking, the Eastern Cape and Western Cape have become the provinces with the highest murder rates per 100,000. In particular, the murder and attempted murder rates in the Western Cape have increased the most of all provinces over the last three years (2011/12-2013/14) based on the compound annual growth rates in crime rates per 100,000. It is likely that the high 2002/3 murder rate coincided with the disbandment of the Western Cape police's specialised gang unit by then-police commissioner Jackie Selebi[74], and the subsequent drop in the rates of murders and attempted murders in 2003/4 and 2004/5 may reflect the highly visible Operation Tswikila, launched in June 2003, when more than 300 police officers from various provinces supported local police to suppress crime in Khayelitsha[75]. The decreased murders in 2010 were probably due to Operation Combat, a focused cross-departmental anti-gang strategy, designed to

[74] http://www.theguardian.com/world/2014/may/29/gangs-south-africa-western-cape
[75] http://www.iol.co.za/news/south-africa/pruis-tswikila-won-t-be-a-flash-in-the-pan-1.109921

arrest high-ranking gangsters in the province and prosecute them under the Prevention of Organised Crime Act (POCA)[58].

As the Western Cape trends in murders and attempted murders were so seriously different from the other provinces', and as murder is possibly the most serious of all crimes, a more detailed analysis of all murders reported per SAPS station in the Western Cape was undertaken. The results show that half (50%) of persons accused of murders in the Western Cape are linked to fewer than 10% of SAPS stations (i.e. 14 of the 150). These stations are: Nyanga, Harare, Khayelitsha, Gugulethu, Mitchells Plain, Mfuleni, Kraaifontein, Delft, Worcester, Lingelethu-West, Philippi East, Lwandle, Bishop Lavis and Philippi. Thus the high murder rate in the Western Cape is more a Cape flats phenomenon than province-wide.

Furthermore, there is a significant and strong correlation (r= -.52, n=150, p< .001) between the ages distribution of the accused and the number of murders in a police station precinct, with a substantial percentage per station of the murder accused younger than 21 years old, for example Nyanga (22%) Gugulethu (22%), Mfuleni (20%), Lingelethu-West (35%), Philippi East (22%), Bishop Lavis (20%) and Philippi (20%).

Interestingly, the murder rate per 100,000 in Gauteng was not only found to be relatively low, but also showed a decreasing to stable trend across the four FCA related periods. Further research is recommended to analyse murder rates and annual growth rates for the stations of each province in order to understand crime better within each province.

3.2.3.2. Aggravated robbery

Unhappily, the relatively positive picture of Gauteng's murder rate is reversed when its provincial rate per 100,000 of aggravated robbery crimes and subcategories thereof are considered, relative to other provinces and relative to its own compound annual growth rates across the four FCA related periods (Table 6). Indeed, it has the highest rates of all these aggravated robbery crimes, and generally these rates were increasing in the 2011/12-2013/14 period. Once again, a station-level analysis of these crimes is recommended in order to identify geographic locations of concentrations of violent crimes. This analysis was beyond the scope of the present report.

Specifically, in the three-year period following the FCA (2004/5-2007/8), there were obvious increases in the rates of carjackings and robberies at residential and non-residential premises. There was a general improvement or decrease in the levels of these crimes in the 2008/9-2010/11 period, except for the robberies at non-residential premises which continued to increase, but thereafter almost all these crimes increased in the most recent 2011/12-2013/14 period.

Thus the effect of the FCA on these violent crimes which are heavily dependent on firearms for their perpetration appears to be negligible, although the measures taken in the 2008/9-2010/11 period had a definite effect in reducing these violent crimes with the exception of robberies at non-residential premises. It is possible that the successes of the 2008/9-2010/11 period may be ascribed to the combination of the FCA and the policing measures.

3.2.3.3. Pointing/ discharging a firearm and Unlawful possession of firearms and ammunition

The rate of the crime of pointing/ discharging a firearm in public has reduced across all provinces in both the 2004/5-2007/8 period as well as in the 2008/9-2010/11 periods (Table 7). This favourable trend in responsible firearm handling could be due to the imposition of the strict requirements of the FCA. It is however alarming to note that in the recent 2011/12-2013/14 period, this crime has been increasing in four provinces - Eastern Cape, Free State, Northern Cape, and in Western Cape in particular.

The unlawful possession of firearms and ammunition decreased in almost all provinces in the 2004/5-2008/9 period, following the previous four years in which the rate of this crime was increasing across all provinces (Table 7). However, this is a crime dependent on police action for detection and so should ideally increase. Furthermore, the decrease in unlawful possession has not been sustained as this crime has been increasing in most provinces from 2011/12-2013/14.

Table 6: Provincial and national annual rates of aggravated robberies and subcategories and growth rates per FCA related period

Province	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
	Robbery with aggravating circumstances per 100 000														CAGR Robbery with aggravating circumstances per 100 000			
EC	67	73	82	97	104	121	136	131	149	147	156	187	179	205	13%	8%	2%	5%
FS	73	89	94	156	157	143	147	156	181	174	176	198	215	196	29%	0%	-1%	-1%
Gau	691	693	733	706	664	590	595	535	495	450	364	315	305	338	1%	-7%	-14%	4%
KZN	257	261	287	287	264	258	270	248	256	224	186	175	191	203	4%	-2%	-15%	8%
Lim	36	39	50	56	57	56	62	47	54	58	52	70	73	95	16%	-6%	-2%	16%
Mp	133	147	175	194	206	205	194	170	196	186	155	158	137	130	13%	-6%	-11%	-9%
NC	50	51	59	120	121	121	78	23	108	90	82	89	111	122	34%	-43%	-13%	17%
NW	52	65	73	93	130	152	161	157	165	164	161	168	157	155	21%	6%	-1%	-4%
WC	274	290	318	299	293	281	324	299	242	238	238	261	295	326	3%	1%	-1%	12%
RSA	237	244	270	284	270	259	272	250	251	233	206	203	208	227	6%	-3%	-9%	6%
	Carjacking per 100 000														CAGR Carjacking per 100 000			
EC	4	4	4	4	5	7	9	9	11	10	8	10	11	12	0%	22%	-15%	10%
FS	5	5	4	5	6	4	5	5	9	12	9	11	11	10	0%	-6%	0%	-5%
Gau	119	126	134	113	89	86	83	82	79	76	58	47	44	50	-2%	-3%	-14%	3%
KZN	32	32	32	33	30	34	39	42	42	38	27	23	25	24	1%	12%	-20%	2%
Lim	3	4	4	3	3	3	4	4	6	5	4	3	4	5	0%	10%	-18%	29%
Mp	16	19	17	13	15	18	17	19	29	22	13	11	10	10	-7%	8%	-33%	-5%
NC	1	1	1	1	1	1	0	0	1	1	1	1	3	3	0%	-100%	0%	73%
NW	4	5	4	6	5	7	9	9	8	9	8	9	8	8	14%	22%	0%	-6%
WC	15	18	25	24	21	21	20	20	14	11	10	11	15	17	17%	-2%	-15%	24%
RSA	32	34	37	34	28	29	31	32	33	31	23	20	21	23	2%	5%	-17%	7%
	Truck Hijacking per 100 000														CAGR Truck Hijacking per 100 000			
EC	1	1	0	0	0	0	0	0	0	1	0	0	0	0	-100%			
FS	4	3	1	3	3	2	2	3	3	2	1	2	3	3	-9%	0%	-42%	22%
Gau	29	18	7	6	6	5	6	9	9	8	6	4	5	4	-41%	14%	-18%	0%
KZN	8	5	2	1	2	1	1	1	1	1	1	1	1	1	-50%	-21%	0%	0%
Lim	2	1	0	0	1	0	0	0	1	0	0	0	1	0	-100%	-100%	-100%	
Mp	8	7	3	3	3	3	3	4	5	6	5	4	4	5	-28%	10%	0%	12%
NC	0	0	0	0	0	0	0	0	0	0	1	0	0	0				
NW	2	2	1	1	2	2	2	2	2	2	2	1	1	1	-21%	0%	0%	0%
WC	4	3	1	1	1	0	0	1	1	0	0	1	1	1	-37%	0%	-100%	0%
RSA	8	6	2	2	2	2	2	3	3	3	2	2	2	2	-37%	14%	-18%	0%
	Robbery at Residential Premises per 100 000														CAGR Robbery at Residential Premises per 100 000			
EC	9	9	3	2	3	4	6	10	23	25	23	26	27	30	-39%	49%	0%	7%
FS	8	9	3	2	4	4	3	7	17	19	24	25	32	28	-37%	21%	19%	6%
Gau	88	80	57	58	64	69	82	77	80	78	65	57	57	60	-13%	6%	-10%	3%
KZN	47	43	16	16	14	20	28	35	46	45	39	36	40	40	-30%	36%	-8%	5%
Lim	4	6	2	2	2	3	3	6	10	12	10	15	14	18	-21%	44%	0%	10%
Mp	16	25	8	5	8	12	16	25	35	37	30	33	30	28	-32%	46%	-7%	-8%
NC	1	2	3	1	1	1	1	1	4	5	4	8	10	10	0%	0%	0%	12%
NW	4	7	4	4	8	12	17	23	27	28	27	29	31	29	0%	42%	0%	0%
WC	22	30	7	6	7	9	15	17	19	22	24	26	29	32	-35%	34%	12%	11%
RSA	31	31	16	17	18	21	28	31	39	39	35	34	36	37	-18%	20%	-5%	4%
	Robbery at Non-Residential Premises per 100 000														CAGR Robbery at Non-Residential Premises per 100 000			
EC	7	9	2	1	1	2	4	8	13	20	25	32	29	37	-48%	100%	39%	8%
FS	13	16	3	1	2	1	3	10	27	31	37	41	42	36	-57%	71%	17%	-6%
Gau	72	71	33	27	24	35	48	53	60	60	50	45	42	47	-28%	30%	-9%	2%
KZN	33	32	11	4	4	6	14	20	25	20	18	18	22	26	-51%	71%	-15%	20%
Lim	7	7	3	1	1	1	2	6	10	12	14	21	22	25	-48%	82%	18%	9%
Mp	16	22	6	2	2	2	6	9	23	27	31	38	34	31	-50%	65%	16%	-10%
NC	6	5	1	0	0	1	1	1	11	13	14	19	19	25	-100%		13%	15%
NW	8	11	3	2	4	5	13	22	30	34	37	41	36	38	-37%	77%	11%	-4%
WC	31	32	4	2	2	3	5	14	20	20	25	30	34	36	-60%	91%	12%	10%
RSA	27	28	10	7	7	10	15	21	29	30	30	32	32	35	-36%	44%	2%	5%

Table 7: Provincial and national annual rates of pointing/discharging and possession of a firearm/ammunition and growth rates per FCA related periods

Province	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
	Pointing or Discharging a Firearm in Public per 100 000														CAGR Pointing or Discharging a Firearm in Public per 100 000			
EC	31	31	34	33	31	39	36	33	34	35	27	27	26	28	2%	2%	-11%	2%
FS	97	99	94	89	63	62	48	43	44	41	38	37	42	40	-3%	-12%	-7%	4%
Gau	163	167	167	148	126	114	88	77	72	65	54	46	40	39	-3%	-15%	-13%	-8%
KZN	73	75	78	71	65	61	50	43	39	41	34	30	32	30	-1%	-13%	-7%	0%
Lim	29	28	32	32	29	30	27	25	28	24	19	17	16	16	3%	-5%	-18%	-3%
Mp	75	80	84	81	73	62	47	42	39	42	30	28	25	23	3%	-17%	-12%	-9%
NC	82	81	88	79	66	52	28	9	30	24	25	25	26	26	-1%	-49%	-9%	2%
NW	42	49	56	56	46	48	49	45	41	36	25	24	26	23	10%	-1%	-22%	-2%
WC	118	122	123	111	98	85	75	64	57	50	43	44	49	58	-2%	-13%	-13%	15%
RSA	81	83	86	81	69	66	55	48	46	44	36	33	33	33	0%	-11%	-12%	0%
	Unlawful Possession of Firearm or Ammunition per 100 000														CAGR Unlawful Posession of Firearm or Ammunition per 100 000			
EC	11	12	14	17	16	18	20	21	24	22	22	22	23	27	16%	9%	-4%	11%
FS	19	20	19	21	15	14	12	11	11	12	12	13	16	17	3%	-10%	4%	14%
Gau	47	51	55	57	47	40	43	39	44	42	35	35	30	28	7%	-6%	-11%	-11%
KZN	43	45	46	50	49	43	46	43	42	47	47	43	41	43	5%	-4%	6%	0%
Lim	6	7	7	9	9	8	8	9	9	9	8	8	9	9	14%	0%	-6%	6%
Mp	21	20	25	23	23	18	17	15	17	18	15	19	20	22	3%	-13%	-6%	8%
NC	18	18	14	17	13	9	6	2	7	4	6	6	6	8	-2%	-46%	-7%	15%
NW	9	11	12	15	14	12	13	14	14	12	12	14	14	13	19%	0%	-7%	-4%
WC	54	52	51	42	49	49	53	48	44	41	49	44	49	46	-8%	-1%	6%	2%
RSA	29	30	32	34	31	28	30	29	30	30	30	29	28	28	5%	-2%	0%	-2%

3.3. Usage of firearms in firearm related crimes

In the previous section, the trends in the numbers and rates of firearm related crimes were examined. However, some of these crimes, for example murder and attempted murder, are frequently committed with weapons other than firearms, for example with sharp objects such as knives or broken bottles, blunt objects such as rocks or hammers, or via other objects. The results of the analyses in this section describe how frequently firearms, as opposed to these other weapons, are used in firearm related crimes across the four FCA related periods, and whether the pattern of the frequency of using firearms in these crimes is changing.

The section begins with an in-depth analysis of firearm use in murders within each province and nationally per SAPS year from 2000/1-2013/4 and across the four FCA periods (Table 8). Thereafter firearm use in each of the firearm related crimes across the periods is analysed (Table 9).

3.3.1. Murders: Annual level and growth rates of firearm use

The following information is presented in Table 8 for murders committed between from 2000/1-2013/4 for each province and nationally:

- The number of murders committed per SAPS year
- The percentages of murders committed per SAPS year that involve firearms
- The annual growth rate in numbers of murders within each of the four FCA related periods
- The annual growth rate in numbers of murders committed with a firearm within each of the four FCA related periods
- The annual growth rate in percentages of murders committed with a firearm (firearm usage) within each of the four FCA related periods.

The tri-colour coding system of dots is used to identify increases in firearm usage in murders. Furthermore, all information for murders committed with firearms and the corresponding percentages and rates are printed in red.

To facilitate the interpretation of this volume of information, the aggregated percentages of firearms used in murders in each of the four FCA related periods are displayed graphically in Figure 3 per province. The graph clearly shows that over the past six years, the majority of murders are perpetrated with a weapon other than a firearm. In provinces such as the Northern Cape, Eastern Cape and Free State, firearms are rarely used in committing murders.

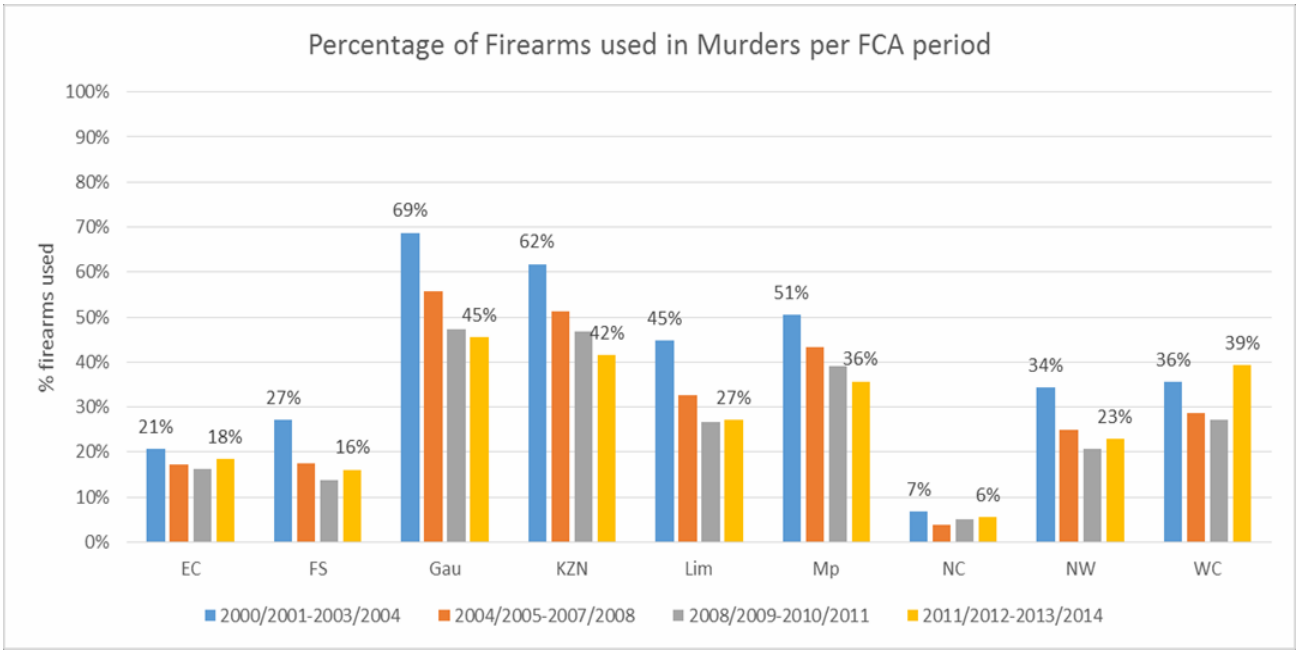


Figure 3: Aggregated percentages of firearms used in provincial murders in each of the four FCA related periods

The results of Table 8 show that in the pre FCA implementation period (2000/1-2003/4), the level of firearm use in murders was generally decreasing, although there were increases in firearm use in murders in KZN, Mpumalanga and North West provinces in these four years.

In the four years following implementation of the FCA, the numbers of murders were overall fairly stable, although with increases in some provinces. However, the percentage of firearm use in these murders generally decreased. By implication, there was a relative proportional increase in the proportion of murders committed with sharp, blunt or other objects. The Eastern and Northern Cape showed a different pattern as firearm use in murders in these provinces increased, although these increases are based on low initial percentages.

In the 2008/9-2011/12 period, there was a general decrease in the number of all murders irrespective of the weapon used as well as in the level of firearm specific murders. And because the number of murders committed with firearms were decreasing more rapidly than the decrease in the number of murders in general, there was a general decrease in the proportion of murders using firearms in this period. Murder in the Western Cape however was the exception to this pattern of reducing murders and reducing level of firearms as the weapon used. In the Western Cape, although the number of murders increased only slightly in this period, the use of firearms in murders increased from 33% to 45%, the latter percentage usage of firearm the highest of all the provinces.

In the recent 2011/12-2013/14 period, firearm use in murders increased nationally and for seven of the nine provinces, with the exceptions of Free State and Limpopo.

By considering the seven-year period from the implementation of the FCA, it would appear that the Act has been beneficial for controlling murder crimes as the number of murders generally decreased over this period, and the percentage of firearm use in the perpetration of these murders also decreased. However, these trends are much more apparent in the later part of the period from 2008/9-2011/12 than in the 2004/5-2007/8 period immediately following the commencement of the FCA. So although the stricter controls of the FCA appear to have been somewhat successful in decreasing the use of firearms in murders, there is a stronger case for claiming that the policing strategies in the Peri FIFA Confederation and World Cups period were even more successful than the FCA. As the FCA was operational in this period of successful crime fighting, the combination of the FCA and the strong policing strategies could have been effective in reducing both firearm related crime in general and firearm related crime committed with firearms.

However, these achievements were not sustained in the 2011/12-2013/14 period as the number of firearm related murders generally increased as did the level of firearm use in these murder crimes nationally and in most provinces. It appears that the sustainability of the effectiveness of the FCA depends on strong policing.

Table 8: All Murders by province and national, % firearm usage and growth rates for FCA related periods

Province & descriptor		2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14
EC	All Murders	1 989	1 956	2 137	2 388	2 681	3 187	3 499	3 563	3 276	3 285	3 250	3 378	3 442	3 559
	% firearms	23%	22%	21%	16%	16%	17%	19%	17%	17%	15%	16%	18%	17%	20%
FS	All Murders	985	929	966	964	916	888	997	930	940	945	1 019	1 023	1 073	989
	% firearms	26%	30%	27%	25%	18%	16%	20%	15%	15%	12%	14%	15%	18%	14%
Gau	All Murders	5 290	5 150	5 226	4 709	3 993	3 816	4 128	4 027	4 215	3 869	3 594	3 271	3 337	3 557
	% firearms	69%	70%	68%	67%	61%	56%	55%	51%	49%	47%	45%	42%	45%	49%
KZN	All Murders	5 316	5 298	5 547	5 385	5 104	5 100	5 201	4 986	4 995	4 486	4 009	3 673	3 880	3 794
	% firearms	61%	63%	62%	61%	55%	53%	51%	46%	51%	47%	41%	39%	42%	44%
Lim	All Murders	496	578	596	700	754	711	776	753	793	807	738	787	746	765
	% firearms	45%	40%	44%	48%	35%	33%	33%	30%	31%	25%	24%	28%	25%	28%
Mp	All Murders	867	908	1 016	1 032	1 062	931	885	877	943	937	764	801	752	863
	% firearms	44%	49%	56%	51%	48%	43%	42%	39%	41%	38%	37%	38%	31%	37%
NC	All Murders	501	461	466	437	413	405	422	436	427	398	352	388	423	458
	% firearms	7%	7%	6%	7%	4%	2%	4%	5%	6%	3%	6%	4%	7%	6%
NW	All Murders	714	744	784	868	813	801	859	880	906	814	794	851	902	879
	% firearms	34%	35%	37%	31%	28%	22%	24%	25%	22%	21%	18%	20%	24%	24%
WC	All Murders	3 609	3 544	3 623	2 896	2 727	2 841	3 040	2 930	2 456	2 429	2 442	2 436	2 719	3 074
	% firearms	35%	37%	39%	31%	28%	28%	33%	26%	26%	24%	31%	33%	38%	45%
RSA	All Murders	19 767	19 568	20 361	19 379	18 463	18 680	19 807	19 382	18 951	17 970	16 962	16 608	17 274	17 938
	% firearms	50%	52%	51%	48%	42%	38%	39%	34%	36%	32%	31%	30%	32%	35%

CAGR %	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
All Murders	6%	10%	0%	3%
Murder with firearms	-9%	24%	-3%	9%
% firearms	-11%	3%	-3%	5%
All Murders	-1%	1%	4%	-2%
Murder with firearms	-1%	-4%	2%	-6%
% firearms	-2%	-5%	-3%	-3%
All Murders	-4%	0%	-8%	4%
Murder with firearms	-3%	-7%	-14%	11%
% firearms	-1%	-6%	-5%	7%
All Murders	0%	-1%	-10%	2%
Murder with firearms	2%	-8%	-21%	7%
% firearms	0%	-6%	-10%	7%
All Murders	12%	0%	-4%	-1%
Murder with firearms	27%	-4%	-16%	-5%
% firearms	2%	-5%	-12%	-1%
All Murders	6%	-6%	-10%	4%
Murder with firearms	13%	-13%	-17%	3%
% firearms	5%	-6%	-5%	-1%
All Murders	-4%	2%	-9%	9%
Murder with firearms	-2%	9%	-11%	41%
% firearms	-1%	10%	-2%	33%
All Murders	7%	3%	-6%	2%
Murder with firearms	11%	2%	-19%	13%
% firearms	-3%	-4%	-10%	9%
All Murders	-7%	2%	0%	12%
Murder with firearms	-10%	1%	8%	33%
% firearms	-4%	-2%	9%	16%
All Murders	-1%	2%	-5%	4%
Murder with firearms	-1%	-5%	-13%	12%
% firearms	-1%	-7%	-7%	8%

3.3.2. All firearm-related crimes: Annual level and growth rates of firearm use nationally

The structure of Table 9 is similar to that of Table 8, with Table 9 displaying information on all firearm related crimes rather than murder only, and at national rather than provincial level. In summary, it presents the number of firearm related crimes and the percentage of firearms used in these crimes per SAPS year. For each of the four FCA related periods, it presents the annual growth rates of the crimes irrespective of the weapon used, the annual growth rates of the crimes committed by firearms, as well as the annual growth rates of the percentage firearm use in these crimes. The colour coding system is once again used to display increases in crimes involving firearms. The percentages of firearms used in these firearm related crimes, aggregated for each of the four FCA related periods at national level, are displayed graphically in Figure 4. The results of Table 9 show that in the Post FCA 2004/5-2007/8 period, there were increases in the numbers of carjackings, truck hijacking, robberies at both residential and non-residential premises, cash in transit robberies and bank robberies, irrespective of weapon used, as well as for these particular crime categories when firearms were used. The percentage usage of firearm use was fairly similar within this period.

However, in the following four years (2008/9-2011/12), there was an across-the-board decrease in the number of firearm related crimes, irrespective of the weapon used and also specifically those perpetrated with firearms. Furthermore, the percentage of firearm usage decreased in this period for all crimes. By contrast, in the following 2011/12-2013/14 period there were increases in both the numbers of these firearm related crimes irrespective of weapon used and those that used a firearm. These trends are displayed graphically in Figure 3, showing the high usage of firearms in Carjackings, Truck Hijacking, Robberies at non-residential premises, cash in transit robberies and bank robberies and the very small changes in percentage representation of firearms in these crimes that are heavily firearm dependent.

These findings are interpreted as highlighting the necessary condition of policing strategies in addressing crimes heavily dependent on firearms in 2008/9-2010/11, compared to the 2004/5-2007/8 period when the FCA was largely ineffective in addressing these crimes in the absence of strong policing. The argument that strong policing is a necessary condition for the effectiveness of crimes heavily dependent on firearms is strengthened by the reversal of the crime fighting successes of the 2008/9-2010/11 period in the 2011/12-2013/14 period. Clearly, the sustainability of successful crime strategies is dependent on complementary policing strategies as the FCA alone is only a part of the solution and effectively incapable of controlling these violent crimes in the absence of strong policing.

Note that the percentages of firearm use in firearm related crimes at provincial level are supplied in Table 10 showing high firearm use for crimes like carjacking, robbery at non-residential premises, cash in transit robbery and bank robbery.

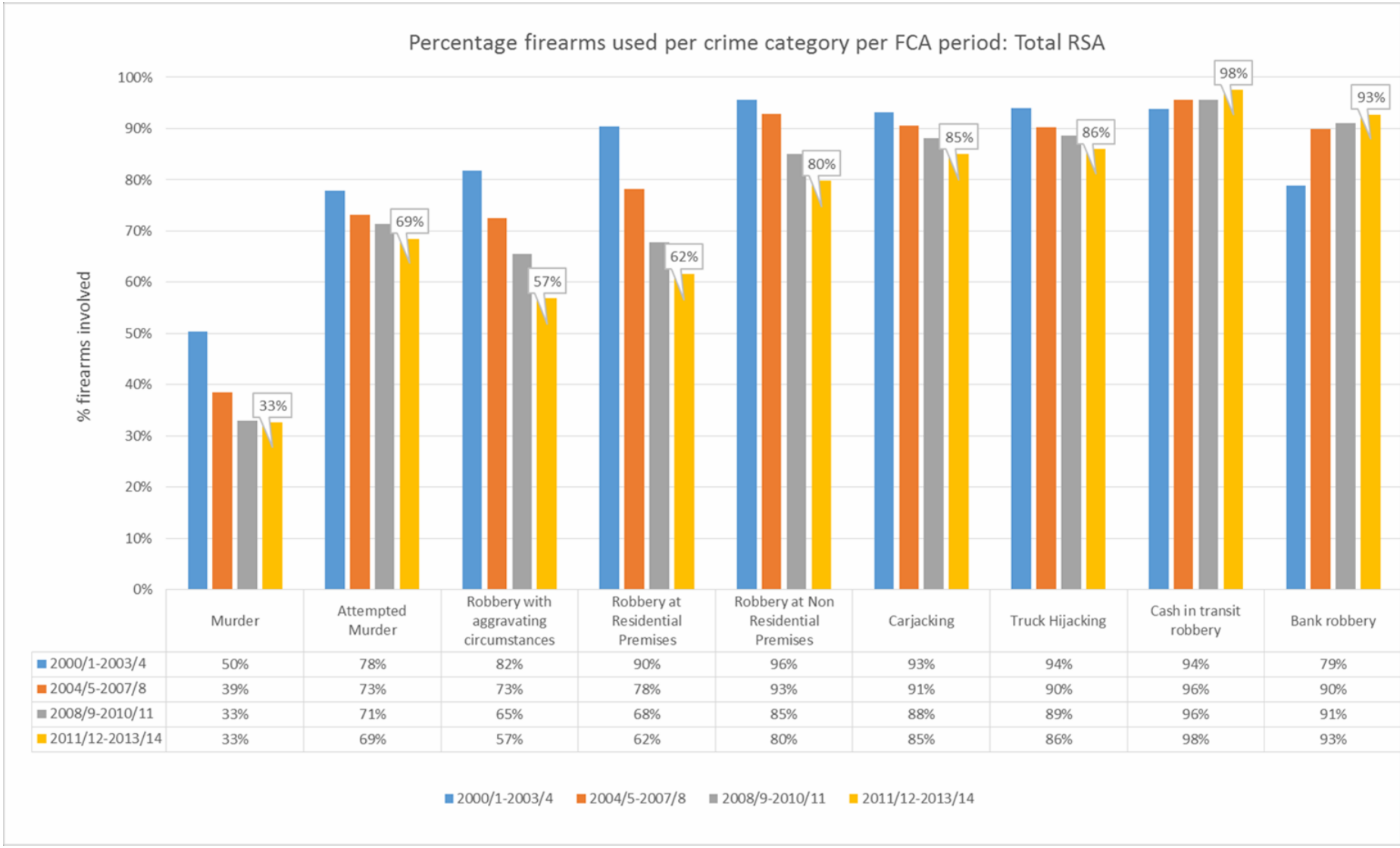


Figure 4: Usage of firearms per firearm related crime category within each FCA period: RSA

Table 9: RSA: Percentage representation of firearms used in firearm related crimes

Crime descriptor		2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	CAGR %	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
Murder	All	19 767	19 568	20 361	19 379	18 463	18 680	19 807	19 382	18 951	17 970	16 962	16 608	17 274	17 938	All Murders	-1%	2%	-5%	4%
	% firearms	50%	52%	51%	48%	42%	38%	39%	34%	36%	32%	31%	30%	32%	35%	Murder with firearms	-1%	-5%	-13%	12%
																% firearms	-1%	-7%	-7%	8%
Attempted murder	All	22 952	26 788	32 692	27 461	23 461	20 790	20 880	19 398	19 090	18 287	16 465	15 887	17 410	17 915	All Attempted murders	6%	-6%	-7%	6%
	% firearms	86%	77%	76%	75%	71%	72%	74%	73%	73%	71%	69%	68%	68%	69%	Attempted murder with firearms	2%	-5%	-10%	8%
																% firearms	-4%	1%	-3%	1%
Aggravated robbery	All	103 326	108 821	122 665	132 056	125 856	121 536	129 613	121 160	122 483	115 547	103 234	103 543	108 380	121 029	All Aggravated robbery	9%	-1%	-8%	8%
	% firearms	82%	82%	84%	79%	75%	73%	72%	70%	68%	66%	62%	58%	57%	56%	Aggravated robbery with firearms	8%	-3%	-13%	6%
																% firearms	-1%	-2%	-5%	-2%
Carjacking	All	14 052	15 110	16 798	15 995	13 148	13 795	14 610	15 221	15 917	15 136	11 680	10 402	10 945	12 037	All Carjackings	4%	5%	-14%	8%
	% firearms	95%	94%	92%	92%	91%	91%	90%	90%	89%	88%	87%	87%	84%	85%	Carjacking with firearms	4%	5%	-15%	6%
																% firearms	-1%	0%	-1%	-1%
Truck Hijacking	All	3 685	2 508	995	965	1 019	879	1 021	1 365	1 526	1 516	1 071	877	1 016	1 068	All Truck Hijackings	-36%	10%	-16%	10%
	% firearms	96%	95%	89%	92%	91%	91%	89%	90%	90%	89%	87%	86%	87%	84%	Truck Hijacking with firearms	-37%	10%	-18%	9%
																% firearms	-1%	0%	-2%	-1%
Robbery at residential premises	All	13 706	13 953	7 421	7 829	8 387	10 035	13 213	14 858	18 835	19 355	17 428	17 423	18 632	19 794	All Robbery at residential premises	-17%	21%	-4%	7%
	% firearms	96%	94%	80%	84%	81%	80%	78%	76%	70%	68%	65%	62%	61%	63%	Robbery at residential premises with firearms	-22%	19%	-8%	7%
																% firearms	-5%	-2%	-4%	1%
Robbery at non-residential premises	All	11 872	12 486	4 767	3 351	3 035	4 495	7 360	10 153	14 043	14 700	14 810	16 157	16 570	18 702	All Robbery at non-residential premisesMurders	-34%	50%	3%	8%
	% firearms	97%	96%	91%	96%	95%	95%	94%	90%	87%	86%	82%	80%	79%	80%	Robbery at non-residential premises with firearms	-35%	49%	0%	7%
																% firearms	0%	-2%	-3%	0%
Cash in transit robbery	All	179	273	336	227	253	526	563	443	413	393	213	196	152	182	All Cash in transit robbery	8%	21%	-28%	-4%
	% firearms	94%	94%	93%	94%	92%	95%	97%	95%	96%	95%	98%	97%	97%	99%	Cash in transit robbery with firearms	10%	24%	-27%	-3%
																% firearms	0%	1%	1%	1%
Bank Robbery	All	488	332	155	78	80	82	147	160	102	97	62	31	6	23	All Bank Robbery	-46%	26%	-22%	-14%
	% firearms	78%	78%	84%	79%	89%	90%	89%	92%	91%	91%	90%	97%	75%	90%	Bank Robbery with firearms	-45%	31%	-23%	-19%
																% firearms	1%	1%	-1%	-3%

Table 10: Percentage representation of firearms used in firearm related crimes nationally and per province

	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
	Murder			
EC	21%	17%	16%	18%
FS	27%	17%	14%	16%
Gau	69%	56%	47%	45%
KZN	62%	51%	47%	42%
Li m	45%	33%	27%	27%
Mp	51%	43%	39%	36%
NC	7%	4%	5%	6%
NW	34%	25%	21%	23%
WC	36%	29%	27%	39%
RSA	50%	38%	33%	33%
	Attempted Murder			
EC	61%	62%	67%	67%
FS	59%	46%	44%	49%
Gau	88%	82%	78%	77%
KZN	88%	80%	78%	70%
Li m	79%	76%	67%	66%
Mp	82%	79%	79%	80%
NC	12%	7%	8%	10%
NW	64%	63%	59%	49%
WC	77%	80%	79%	77%
RSA	78%	72%	71%	69%
	Robbery with aggravating circumstances			
EC	63%	58%	52%	46%
FS	58%	36%	37%	36%
Gau	88%	84%	79%	72%
KZN	81%	71%	65%	55%
Li m	86%	82%	71%	54%
Mp	85%	82%	74%	69%
NC	21%	11%	13%	16%
NW	67%	48%	49%	48%
WC	70%	59%	45%	42%
RSA	82%	72%	65%	57%
	Carjacking			
EC	82%	82%	73%	75%
FS	87%	76%	73%	77%
Gau	95%	92%	91%	89%
KZN	94%	91%	90%	87%
Li m	91%	87%	79%	74%
Mp	91%	91%	86%	84%
NC	58%	42%	40%	33%
NW	85%	82%	76%	72%
WC	85%	85%	77%	75%
RSA	93%	91%	88%	85%
	Truck Hijacking			
EC	83%	79%	88%	75%
FS	91%	92%	90%	89%
Gau	95%	91%	90%	87%
KZN	93%	89%	87%	81%
Li m	94%	81%	82%	93%
Mp	92%	91%	88%	86%
NC	64%	83%	88%	50%
NW	92%	90%	83%	84%
WC	90%	84%	85%	90%
RSA	94%	90%	89%	86%

	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
	Robbery at Residential Premises			
EC	87%	62%	50%	51%
FS	83%	48%	42%	39%
Gau	91%	83%	78%	73%
KZN	92%	75%	65%	59%
Li m	90%	72%	64%	48%
Mp	90%	72%	67%	67%
NC	35%	38%	17%	16%
NW	83%	66%	60%	55%
WC	88%	64%	54%	51%
RSA	90%	78%	68%	62%
	Robbery at Non-residential Premises			
EC	93%	85%	75%	73%
FS	95%	77%	67%	61%
Gau	96%	96%	94%	90%
KZN	96%	92%	87%	82%
Li m	94%	89%	84%	73%
Mp	91%	90%	81%	85%
NC	88%	37%	33%	42%
NW	91%	80%	72%	70%
WC	97%	91%	83%	80%
RSA	96%	93%	85%	80%
	Cash in Transit Robbery			
EC	96%	94%	93%	100%
FS	73%	97%	96%	96%
Gau	96%	95%	98%	97%
KZN	95%	97%	96%	99%
Li m	93%	98%	100%	96%
Mp	89%	89%	95%	98%
NC		83%	67%	100%
NW	100%	98%	94%	91%
WC	91%	95%	90%	97%
RSA	94%	95%	96%	98%
	Bank Robbery			
EC	54%	69%	75%	100%
FS	68%	88%	76%	100%
Gau	88%	92%	96%	93%
KZN	66%	89%	87%	100%
Li m	84%	63%	67%	-
Mp	73%	87%	100%	67%
NC	20%	80%	50%	-
NW	79%	92%	96%	100%
WC	67%	87%	40%	-
RSA	79%	90%	91%	93%

3.4. Firearm types used in firearm related crimes

This section of the report deals specifically with the crimes related to firearms that were perpetrated with a firearm. In particular, it analyses the types of firearms used in these crimes per SAPS year and for the four FCA time periods.

The types of firearms analysed are handguns (pistols and revolvers), shotguns, high calibre firearms, home-made firearms, AK-47's, as well as crimes specifying Ammunition. In crimes involving a firearm, the firearm type was almost always supplied in the data (99%-100%). *It is important to note that the percentages and frequencies provided refer to the number of crimes involving each type of firearm, not the number of firearms used in the crimes. If more than one firearm of a particular type was used in a crime, the frequency of one will be counted towards the relevant total in the table.*

For this analysis, the 1999/2000 SAPS year is included in the tables as it may be of use when examining the numbers of crimes involving AK-47's[76] and other high calibre weapons.

Table 11 - Table 13 provide the distribution of types of firearms used per SAPS year and their compound annual growth rates for the four FCA time periods for the following firearm related crimes: murder, attempted murder and aggravated robbery (Table 11), subcategories of aggravated robbery (Table 12) and pointing/ discharging a firearm and unlawful possession of firearms or ammunition (Table 13). Table 14 shows the crime categories in which the different firearms types were used, and the tri-colour coding system is used to identify high frequencies of crimes in the subcategories of aggravated robbery and displayed in Figure 5. Finally, Table 15 provides a provincial analysis of the number of firearm related crimes committed with AK-47 weapons per SAPS year. It should be noted that these weapons have been superseded and their equivalents are likely reported in the generic category of high calibre firearms.

Handguns are the types of firearms used in more than 90% of crimes that are committed with firearms. In cash in transit robberies, there is a higher percentage of high calibre weapons (8% in 2013/14) compared to other crime categories (Table 11 and Table 12). There is some indication of a marginal increase in the percentage of murders (3%-5%) and aggravated robberies (2%-3%) involving shotguns over the 2011/12-2013/14 periods (Table 11) and in robberies at residential premises (2%-3%).

3.4.1. Types of crimes perpetrated per type of firearm

As would be expected, the relative percentages of crimes perpetrated with the different firearm types reflects the distribution of types of crimes committed with firearms in general. So as there are more aggravated robberies committed using firearms than other crime category it is expected that aggravated

[76] For this category additional precision is used in presenting the percentages.

robberies will dominate the crimes carried out with every type of firearm. However, the percentages of aggravated robberies and the subcategories thereof differ (Table 14) as shown in the colour coding for the subcategories:

In 2013/14, aggravated robberies comprised 68% of all crimes involving handguns, 58% of all crimes involving shotguns, 40% of all crimes involving high calibre weapons and 60% of all crimes carried out with AK-47s.

The distributions of aggravated robbery crime types committed per firearm type in the 2011/12-2013/14 period displayed in Figure 5.

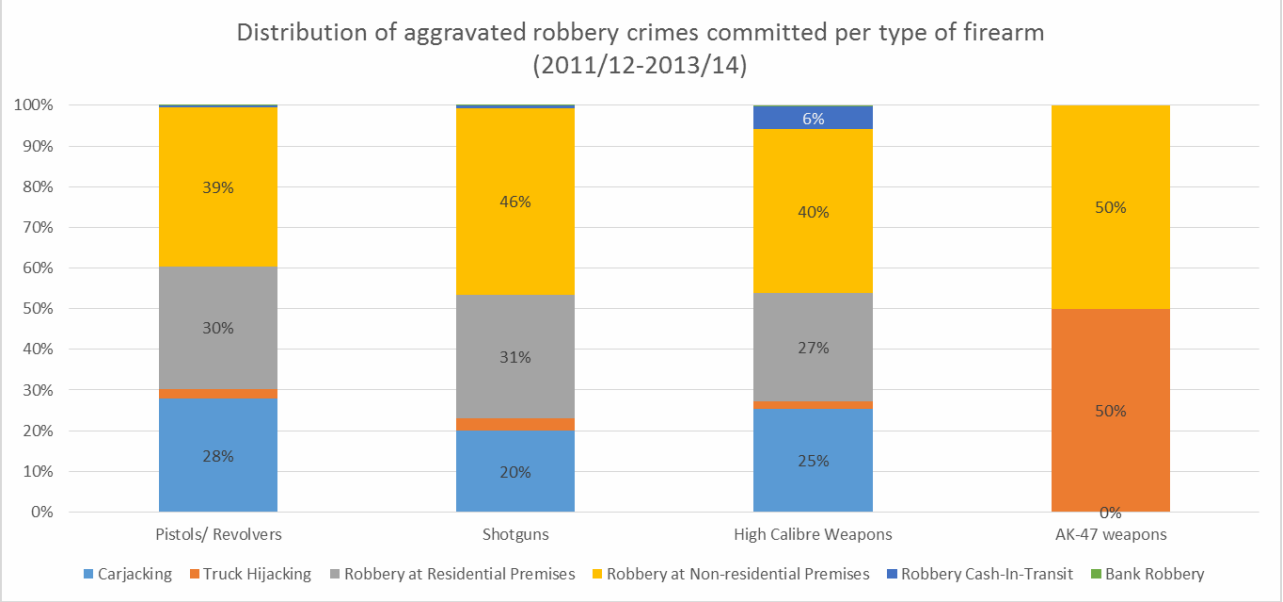


Figure 5: Distribution of aggravated robbery crime types committed per firearm type (2011/12-2013/14)

Figure 5 shows that in the 2011/12-2013/14 period, relative to other aggravated robbery crimes, handguns and shotguns are rarely used in truck hijackings and cash in transit robberies. High calibre weapons are used more often for cash in transit robberies (6%). AK-47s are used with equal frequency in truck hijackings and robbery at non-residential premises. However, these AK-47s percentages are unreliable as so few of this type of weapon have been used in recent years.

Table 11: Type of firearm used in murders, attempted murders and aggravated robberies with annual growth in each FCA period

Crime	Weapon	1999/ 00	2000/ 1	2001/ 2	2002/ 3	2003/ 4	2004/ 5	2005/ 6	2006/ 7	2007/ 8	2008/ 9	2009/ 10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
Murder	Pistol/ Revolver	92%	93%	94%	94%	95%	95%	94%	93%	93%	93%	92%	94%	93%	95%	93%	1%	0%	0%	-1%
	Shotgun	3%	3%	2%	2%	2%	2%	3%	3%	4%	4%	4%	3%	3%	3%	5%	-11%	0%	8%	17%
	High Calibre	4%	3%	3%	2%	2%	2%	2%	3%	2%	2%	3%	2%	2%	1%	2%	-5%	-13%	1%	8%
	Home made	1%	1%	1%	1%	0%	0%	1%	0%	1%	1%	1%	1%	1%	0%	0%	-19%	-16%	-3%	7%
	Ammunition	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-30%			-100%
	AK47	0.3%	0.1%	0.0%	0.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.1%	0.0%	-33%	131%	-25%	7%
Attemted Murder	Pistol/ Revolver	94%	94%	94%	94%	95%	94%	94%	94%	93%	93%	92%	92%	93%	94%	94%	0%	0%	0%	0%
	Shotgun	2%	2%	2%	3%	2%	3%	3%	3%	4%	4%	4%	4%	4%	4%	4%	5%	13%	7%	9%
	High Calibre	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%	2%	2%	2%	1%	1%	-7%	-14%	3%	12%
	HomeMade	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	-6%	-12%	2%	2%
	Ammunition	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-51%	18%	-6%	59%
	AK47	0.1%	0.0%	0.2%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	-22%	-12%	49%	39%
Aggravated Robbery	Pistol/ Revolver	96%	97%	96%	96%	97%	96%	96%	96%	96%	96%	96%	96%	96%	97%	97%	0%	0%	0%	0%
	Shotgun	1%	1%	1%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	3%	21%	27%	4%	10%
	High Calibre	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	-14%	-19%	-7%	8%
	HomeMade	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	-6%	-10%	10%	9%
	Ammunition	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%	-22%	21%	-7%
	AK47	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-17%	-27%	5%	-7%

Table 12: Type of firearms used in subcategories of aggravated robberies with annual growth in each FCA period

Crime	Weapon	1999/ 00	2000/ 1	2001/ 2	2002/ 3	2003/ 4	2004/ 5	2005/ 6	2006/ 7	2007/ 8	2008/ 9	2009/ 10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
Carjacking	Pistol/ Revolver	97%	97%	97%	97%	97%	97%	97%	97%	97%	96%	97%	97%	97%	97%	97%	0%	0%	0%	0%
	Shotgun	0%	1%	1%	1%	1%	1%	1%	2%	2%	2%	2%	2%	2%	2%	2%	11%	10%	-19%	16%
	High Calibre	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	-7%	-5%	-12%	-23%
	HomeMade	1%	0%	1%	0%	0%	1%	1%	1%	0%	1%	1%	1%	1%	0%	0%	-2%	-12%	34%	-56%
	Ammunition	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-24%			-100%
	AK47	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-24%	63%	-32%	
Truck Hijack	Pistol/ Revolver	97%	96%	96%	95%	96%	97%	95%	97%	96%	96%	96%	96%	96%	95%	97%	0%	0%	0%	0%
	Shotgun	1%	1%	1%	2%	1%	2%	3%	2%	3%	3%	3%	2%	3%	3%	3%	5%	13%	-7%	-3%
	High Calibre	1%	2%	2%	1%	1%	1%	1%	0%	0%	1%	1%	0%	0%	1%	0%	-15%	-25%	-23%	13%
	HomeMade	1%	0%	0%	1%	1%	0%	1%	0%	1%	1%	1%	1%	1%	0%	0%	33%		28%	-62%
	Ammunition	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%				
	AK47	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%	0.0%				
Robbery at Residential Premises	Pistol/ Revolver	96%	97%	96%	97%	98%	97%	97%	96%	96%	96%	96%	95%	96%	97%	96%	0%	0%	0%	0%
	Shotgun	1%	1%	1%	2%	1%	2%	1%	2%	2%	2%	2%	2%	2%	3%	3%	7%	12%	-2%	15%
	High Calibre	1%	1%	1%	1%	0%	0%	1%	1%	1%	1%	1%	1%	1%	0%	0%	-30%	10%	0%	-25%
	HomeMade	1%	1%	1%	1%	1%	0%	1%	1%	1%	1%	1%	1%	1%	0%	0%	-10%	7%	29%	-35%
	Ammunition	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	28%	-100%	-100%	
	AK47	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	-100%	-100%	-56%	
Robbery at Non-residential Premises	Pistol/ Revolver	96%	96%	96%	95%	96%	96%	96%	97%	96%	95%	96%	95%	95%	96%	96%	0%	0%	0%	0%
	Shotgun	1%	1%	1%	2%	2%	2%	2%	2%	2%	3%	3%	2%	3%	3%	3%	37%	-3%	-3%	8%
	High Calibre	1%	1%	1%	1%	0%	1%	1%	1%	1%	1%	1%	1%	1%	0%	1%	-29%	1%	9%	5%
	HomeMade	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	-2%	-5%	7%	-42%
	Ammunition	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			0%	-46%
	AK47	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	-3%		-53%	
Cash in transit robbery	Pistol/ Revolver	81%	76%	70%	75%	65%	71%	78%	81%	82%	82%	90%	92%	91%	91%	91%	-5%	5%	6%	0%
	Shotgun	3%	1%	2%	3%	6%	3%	4%	3%	5%	4%	2%	1%	4%	2%	1%	114%	21%	-39%	-45%
	High Calibre	16%	23%	25%	20%	27%	24%	15%	15%	13%	12%	7%	6%	5%	6%	8%	6%	-19%	-29%	22%
	HomeMade	0%	0%	1%	0%	0%	0%	0%	1%	0%	1%	1%	0%	0%	1%	0%		-100%	-21%	
	Ammunition	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%				
	AK47	0.0%	0.6%	0.9%	1.9%	1.0%	0.9%	1.6%	0.7%	0.0%	0.8%	0.5%	0.0%	0.0%	0.0%	0.0%	15%	-100%	-100%	
Bank Robbery	Pistol/ Revolver	90%	92%	93%	97%	89%	94%	94%	93%	95%	100%	88%	96%	93%	100%	89%	-1%	1%	-2%	-2%
	Shotgun	2%	1%	2%	1%	0%	0%	1%	1%	1%	0%	5%	4%	3%	0%	11%	-100%			75%
	High Calibre		5%	3%	2%	7%	6%	1%	5%	4%	0%	7%	0%	3%	0%	0%	15%	-18%		-100%
	HomeMade	1%	1%	1%	0%	4%	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	83%			
	Ammunition	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%				
	AK47	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-100%			

Table 13: Type of firearms used in subcategories of firearm specific crimes with annual growth in each FCA period

Crime	Weapon	1999/00	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
Pointing/ Discharging a firearm	Pistol/ Revolver	94%	95%	94%	94%	95%	94%	94%	94%	93%	92%	93%	92%	93%	93%	94%	0%	0%	0%	0%
	Shotgun	2%	2%	2%	2%	2%	3%	3%	3%	3%	4%	3%	4%	3%	3%	3%	9%	7%	-4%	6%
	High Calibre	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	-7%	6%	3%	-2%
	HomeMade	1%	1%	2%	1%	1%	1%	1%	1%	1%	2%	2%	2%	2%	1%	1%	-5%	9%	12%	-18%
	Ammunition	0%	0%	0%	0%	0%	0%	1%	0%	1%	1%	1%	1%	1%	1%	1%	70%	8%	9%	1%
	AK47	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-3%		10%	-100%
Unlawful Possession of firearm or ammunition	Pistol/ Revolver	72%	73%	75%	76%	76%	72%	69%	68%	68%	67%	65%	63%	60%	59%	58%	1%	-2%	-3%	-2%
	Shotgun	3%	2%	2%	2%	2%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	1%	7%	1%	-3%
	High Calibre	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	-6%	3%	-1%	-4%
	HomeMade	5%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%	3%	2%	2%	1%	-4%	-6%	3%	-21%
	Ammunition	15%	17%	16%	15%	16%	20%	22%	24%	24%	25%	26%	29%	32%	34%	36%	-2%	6%	9%	6%
	AK47	0.1%	0.2%	0.0%	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	-35%	4%	-48%	-17%

Table 14: RSA: Firearm related crimes committed with firearms, by firearm type

Crime category	1999/ 2000	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14
Crime with Pistols/ Revolvers															
Murder	6%	6%	6%	5%	5%	4%	5%	5%	4%	5%	4%	5%	4%	5%	5%
Attempted Murder	15%	14%	13%	14%	12%	11%	11%	11%	11%	11%	11%	12%	12%	13%	12%
Aggravated Robbery	56%	60%	60%	61%	64%	66%	67%	69%	69%	69%	68%	68%	68%	67%	68%
Pointing or Discharging a firearm	23%	21%	21%	19%	19%	19%	17%	16%	15%	15%	16%	16%	16%	16%	15%
Subcategories of Aggravated Robbery with Pistols/ Revolvers															
Carjacking	24%	22%	24%	58%	50%	54%	50%	42%	30%	25%	24%	21%	28%	28%	28%
Truck Hijacking	10%	8%	6%	3%	3%	4%	3%	3%	3%	3%	3%	3%	2%	3%	2%
Robbery at Residential Premises	26%	21%	21%	21%	24%	28%	29%	21%	30%	30%	30%	30%	30%	31%	30%
Robbery at Non-residential Premises	28%	27%	29%	16%	12%	13%	17%	22%	26%	30%	31%	36%	20%	39%	39%
Robbery Cash-In-Transit	0%	0%	0%	1%	1%	1%	2%	1%	1%	1%	1%	1%	1%	0%	0%
Bank Robbery	1%	1%	1%	0.5%	0.2%	0.3%	0.3%	0.4%	0.4%	0.2%	0.2%	0.2%	0.1%	0.0%	0.0%
Crime with Shotguns															
Murder	13%	11%	9%	6%	5%	4%	5%	6%	6%	5%	5%	5%	6%	6%	8%
Attempted Murder	25%	22%	19%	19%	17%	14%	16%	15%	15%	16%	18%	18%	19%	19%	17%
Aggravated Robbery	31%	40%	43%	52%	55%	58%	56%	60%	59%	58%	57%	55%	54%	56%	58%
Pointing or Discharging a firearm	32%	27%	29%	23%	24%	23%	23%	19%	20%	20%	19%	22%	20%	20%	17%
Subcategories of Aggravated Robbery with Shotguns															
Carjacking	23%	29%	25%	44%	50%	48%	41%	26%	25%	22%	27%	22%	19%	21%	20%
Truck Hijacking	8%	9%	5%	5%	3%	5%	6%	3%	5%	3%	4%	3%	3%	4%	2%
Robbery at Residential Premises	33%	24%	42%	25%	22%	29%	27%	25%	22%	30%	31%	33%	29%	32%	31%
Robbery at Non-residential Premises	32%	27%	25%	24%	21%	17%	22%	22%	25%	22%	37%	41%	48%	43%	46%
Robbery Cash-In-Transit	1%	0%	1%	2%	4%	2%	5%	3%	3%	2%	1%	0.4%	1%	0.4%	0.2%
Bank Robbery	3%	1%	2%	0.2%	0.0%	0.0%	0.3%	0.2%	0.1%	0.0%	0.5%	0.3%	0.1%	0.0%	0.2%
Crime with High Calibre Weapons															
Murder	16%	12%	11%	10%	11%	10%	10%	11%	11%	9%	11%	8%	10%	8%	12%
Attempted Murder	20%	18%	20%	20%	19%	18%	19%	19%	22%	20%	19%	21%	21%	22%	22%
Aggravated Robbery	46%	52%	51%	52%	50%	51%	51%	54%	49%	50%	50%	49%	46%	40%	40%
Pointing or Discharging a firearm	18%	18%	18%	18%	20%	22%	20%	16%	19%	20%	20%	21%	23%	29%	26%
Subcategories of Aggravated Robbery with High Calibre Weapons															
Carjacking	29%	24%	26%	48%	51%	47%	27%	41%	24%	22%	21%	24%	29%	25%	21%
Truck Hijacking	11%	11%	7%	2%	4%	3%	2%	1%	1%	3%	2%	2%	1%	3%	2%
Robbery at Residential Premises	26%	26%	27%	11%	10%	12%	20%	19%	19%	24%	29%	27%	30%	28%	21%
Robbery at Non-residential Premises	25%	28%	29%	17%	7%	10%	14%	16%	24%	28%	29%	43%	34%	39%	48%
Robbery Cash-In-Transit	5%	7%	10%	21%	26%	26%	28%	22%	19%	13%	8%	5%	5%	5%	7%
Bank Robbery	3%	3%	1%	1%	2%	2%	0%	2%	2%	0.0%	1.8%	0.0%	0.5%	0.0%	0.0%
Crime with Home Made Weapons															
Murder	5%	5%	4%	5%	3%	3%	3%	3%	3%	4%	5%	2%	3%	3%	3%
Attempted Murder	14%	14%	14%	17%	13%	12%	11%	9%	11%	12%	12%	12%	9%	12%	9%
Aggravated Robbery	47%	53%	49%	50%	57%	56%	58%	62%	58%	58%	58%	60%	63%	51%	50%
Pointing or Discharging a firearm	34%	28%	33%	28%	27%	30%	28%	26%	28%	27%	25%	26%	24%	34%	39%
Subcategories of Aggravated Robbery with Home Made Weapons															
Carjacking	27%	21%	30%	42%	45%	58%	47%	25%	29%	26%	27%	27%	26%	26%	16%
Truck Hijacking	9%	5%	3%	6%	6%	0%	4%	2%	6%	3%	3%	3%	2%	3%	1%
Robbery at Residential Premises	33%	45%	42%	29%	21%	24%	22%	40%	32%	30%	35%	34%	31%	34%	40%
Robbery at Non-residential Premises	30%	29%	23%	23%	15%	18%	15%	21%	33%	40%	34%	36%	41%	36%	43%
Robbery Cash-In-Transit	0%	0%	1%	0%	1%	1%	1%	2%	0%	1%	1%	0%	0%	1%	0%
Bank Robbery	1%	1%	1%	0.0%	1.6%	0.0%	0.6%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Crime with AK-47 weapons															
Murder	28%	22%	3%	21%	11%	39%	6%	12%	4%	8%	28%	18%	0%	43%	0%
Attempted Murder	24%	17%	51%	12%	14%	37%	24%	32%	42%	37%	36%	18%	50%	29%	40%
Aggravated Robbery	42%	54%	46%	56%	64%	24%	58%	52%	50%	54%	32%	55%	25%	29%	60%
Pointing or Discharging a firearm	5%	7%	0%	12%	11%	0%	12%	4%	4%	2%	4%	9%	25%	0%	0%
Subcategories of Aggravated Robbery with AK-47 weapons															
Carjacking	25%	22%	20%	11%	40%	25%	9%	22%	100%	14%	14%	20%		0%	0%
Truck Hijacking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14%	20%		100%	0%
Robbery at Residential Premises	29%	17%	22%	11%	0%	25%	0%	11%	0%	29%	0%	20%		0%	0%
Robbery at Non-residential Premises	29%	22%	28%	11%	20%	0%	18%	22%	0%	43%	43%	40%		0%	100%
Robbery Cash-In-Transit	0%	8%	11%	67%	40%	50%	72%	44%	0%	14%	29%	0%		0%	0%
Bank Robbery	6%	8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%
Murder	21	10	2	7	3	19	2	3	1	4	7	2	0	6	0
Attempted Murder	18	8	32	4	4	18	8	8	11	19	9	2	4	4	2
Aggravated Robbery	31	25	29	19	18	12	19	13	13	28	8	6	2	4	3
Pointing or Discharging a firearm	4	3	0	4	3	0	4	1	1	1	1	1	2	0	0

Table 15: RSA: Firearm related crimes involving AK-47 weapons (1999/2000-2013/14)

	Crime with AK-47 weapons	1999/2000	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/2012	2012/13	2013/14	Total 1999/2000 - 2013/14
EC	Murder	3	1	0	0	0	0	0	0	0	2	0	0	0	0	0	6
	Attempted Murder	1	0	0	0	0	0	2	0	0	1	0	0	0	0	0	4
	Aggravated Robbery	0	2	0	0	0	0	1	0	0	1	2	1	0	0	0	7
	Carjacking	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Truck Hijacking	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
	Robbery at Residential Premises	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	Robbery at Non-residential Premises	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2
	Robbery Cash-In-Transit	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2
	Pointing or Discharging a firearm	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
	Bank Robbery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FS	Murder	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
	Attempted Murder	3	0	1	1	0	0	0	2	0	0	0	0	0	0	0	7
	Aggravated Robbery	1	2	0	0	0	0	0	1	0	1	0	0	0	0	0	5
	Carjacking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck Hijacking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Robbery at Residential Premises	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Robbery at Non-residential Premises	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
	Robbery Cash-In-Transit	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
	Pointing or Discharging a firearm	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Bank Robbery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gau	Murder	0	2	0	0	0	0	0	1	0	0	0	0	0	1	0	4
	Attempted Murder	3	0	2	0	1	0	1	2	1	3	0	1	2	0	1	17
	Aggravated Robbery	13	9	12	6	6	5	8	2	1	4	1	3	2	3	1	76
	Carjacking	2	1	2	0	1	1	0	2	1	1	0	1	0	0	0	12
	Truck Hijacking	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	Robbery at Residential Premises	1	0	0	1	0	1	0	0	0	1	0	0	0	0	0	4
	Robbery at Non-residential Premises	2	1	3	1	0	0	2	0	0	0	1	1	0	0	0	11
	Robbery Cash-In-Transit	0	1	2	1	1	2	3	0	0	0	0	0	0	0	0	10
	Pointing or Discharging a firearm	0	0	0	2	2	0	1	0	0	0	0	1	0	0	0	6
	Bank Robbery	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
KZN	Murder	14	6	0	4	3	19	2	2	0	2	7	1	0	3	0	63
	Attempted Murder	6	7	29	1	3	18	5	4	10	10	9	0	1	2	0	105
	Aggravated Robbery	13	4	12	6	7	2	2	7	7	10	2	1	0	1	2	76
	Carjacking	3	1	4	1	0	0	1	0	4	2	0	0	0	0	0	16
	Truck Hijacking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Robbery at Residential Premises	3	0	3	0	0	0	0	1	0	1	0	1	0	0	0	9
	Robbery at Non-residential Premises	2	0	2	0	1	0	0	2	0	1	1	0	0	0	1	10
	Robbery Cash-In-Transit	0	0	0	1	1	0	0	2	0	3	0	0	0	0	0	7
	Pointing or Discharging a firearm	4	0	0	1	0	0	3	0	1	0	0	0	1	0	0	10
	Bank Robbery	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Li	Murder	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
	Attempted Murder	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3
	Aggravated Robbery	1	1	3	1	1	1	2	0	1	0	1	0	0	0	0	12
	Carjacking	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
	Truck Hijacking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Robbery at Residential Premises	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Robbery at Non-residential Premises	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Robbery Cash-In-Transit	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	3
	Pointing or Discharging a firearm	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2
	Bank Robbery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mp	Murder	0	1	2	1	0	0	0	0	1	0	0	1	0	0	0	6
	Attempted Murder	0	0	0	1	0	0	0	0	0	0	0	1	1	0	1	4
	Aggravated Robbery	3	3	2	1	2	1	4	2	3	3	1	1	0	0	0	26
	Carjacking	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3
	Truck Hijacking	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
	Robbery at Residential Premises	1	2	1	0	0	0	0	0	0	3	0	0	0	0	0	7
	Robbery at Non-residential Premises	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	2
	Robbery Cash-In-Transit	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	3
	Pointing or Discharging a firearm	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	Bank Robbery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NC	Murder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Attempted Murder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Aggravated Robbery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Carjacking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck Hijacking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Robbery at Residential Premises	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Robbery at Non-residential Premises	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Robbery Cash-In-Transit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pointing or Discharging a firearm	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	Bank Robbery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NW	Murder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Attempted Murder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Aggravated Robbery	0	2	0	1	1	2	2	1	0	2	0	0	0	0	0	11
	Carjacking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck Hijacking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Robbery at Residential Premises	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Robbery at Non-residential Premises	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	Robbery Cash-In-Transit	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	Pointing or Discharging a firearm	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
	Bank Robbery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WC	Murder	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	Attempted Murder	4	1	0	1	0	0	0	0	0	5	0	0	0	0	0	11
	Aggravated Robbery	0	2	0	4	1	1	0	0	1	7	1	0	0	0	0	17
	Carjacking	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Truck Hijacking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Robbery at Residential Premises	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Robbery at Non-residential Premises	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6
	Robbery Cash-In-Transit	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	3
	Pointing or Discharging a firearm	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
	Bank Robbery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3.5. Demographics of Accused

The demographic variables considered for persons accused of crimes were sex, age and nationality. As the percentage of persons accused of crime with firearms who are female is only 1%-3% across the provinces, the gender analysis is not provided.

The analysis of the ages of accused persons was undertaken in an attempt to assess the effects of raising the minimum age of firearm licencing from 16 to 21 years under the FCA. Again, no causal relation can be asserted. However, the literature has found empirical evidence of a substantial reduction in the percentage of gunshot injuries (Van As, 2015[77]), and reduction in suicide and accidental shootings in the USA[78], associated with raising the minimum age criteria.

The ages of the accused in our study were categorised as 12-15, 16-20, 21-24, 25-35 and 36 and older. The 12-15 year age group represented approximately 1% of all accused persons for murder and most other firearm related crimes. Accordingly, we ignore changes over time for the 12-15 year age group due to extremely small sample sizes (0, 1 or 2 accused persons).

3.5.1. Age groups of persons accused per firearm related crime

The distributions of age groups of accused persons per firearm related crime are presented in Figure 6. The accused in younger age groups (12-15 and 16-20) are hardly ever involved in truck hijackings, cash in transit robberies and bank robberies. It is the older persons who are accused of committing these crimes.

Note that one cannot compare the percentage representation of accused age groups within a crime category as the age groups are not equal, so the comparisons should be made across the crime categories to compare the representation of age groups per crime categories.

3.5.1.1. Distribution of crimes by accused in each age categories

The distribution of firearm related crimes committed by accused persons in each age group is shown in Figure 7. The accused in the 12-15 and 16-20 year old categories are more often involved in robberies at residential and non-residential premises, but for accused 36 or older, these crimes are no longer dominant, and truck hijackings, cash in transit robberies and bank robberies are more common for them.

[77] The analysis of age of accused was undertaken in an attempt to assess the effects of the FCA increasing the minimum age of firearm licencing from 16 to 21 years. Professor S van As, Head of Paediatric Trauma at the Red Cross, Children's Hospital, in his submission to the Summit on gun control, professed that the He experienced a 70% reduction in children treated for gunshot injuries since 2000 when the Act came into operation.

[78] Guy Lamb: studies in the USA have shown that minimum age licencing controls access of firearms to youth, thus assisting to prevent suicide and accidental shootings.

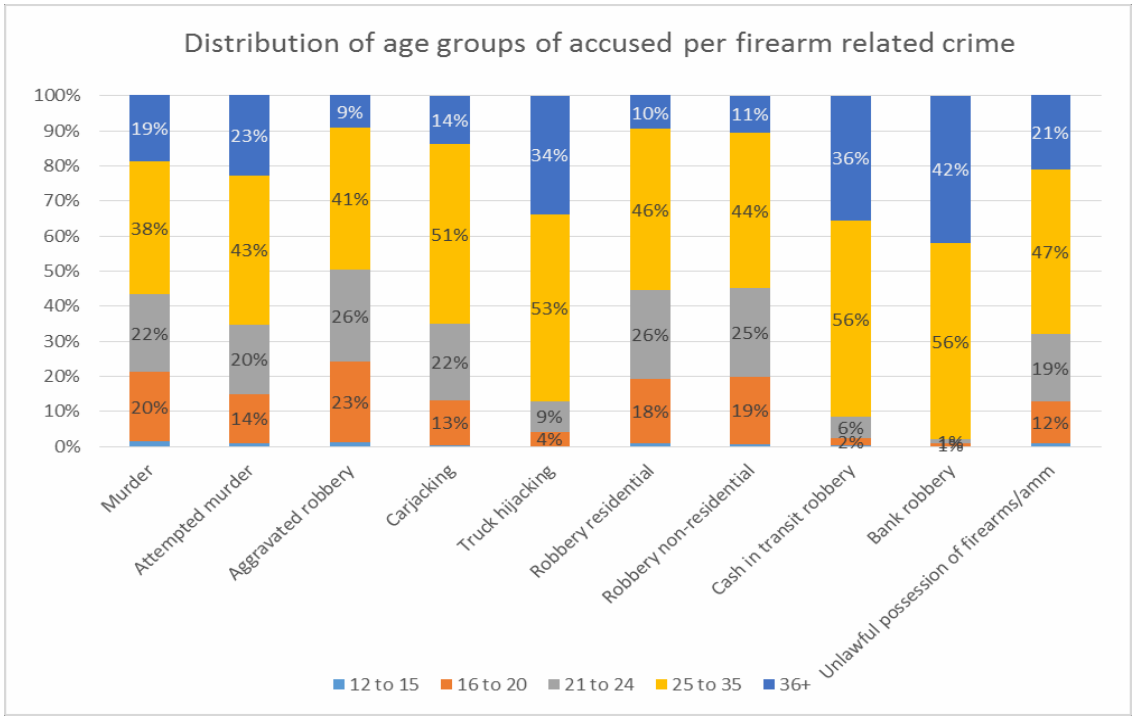


Figure 6: Distribution of age groups of accused per firearm related crime

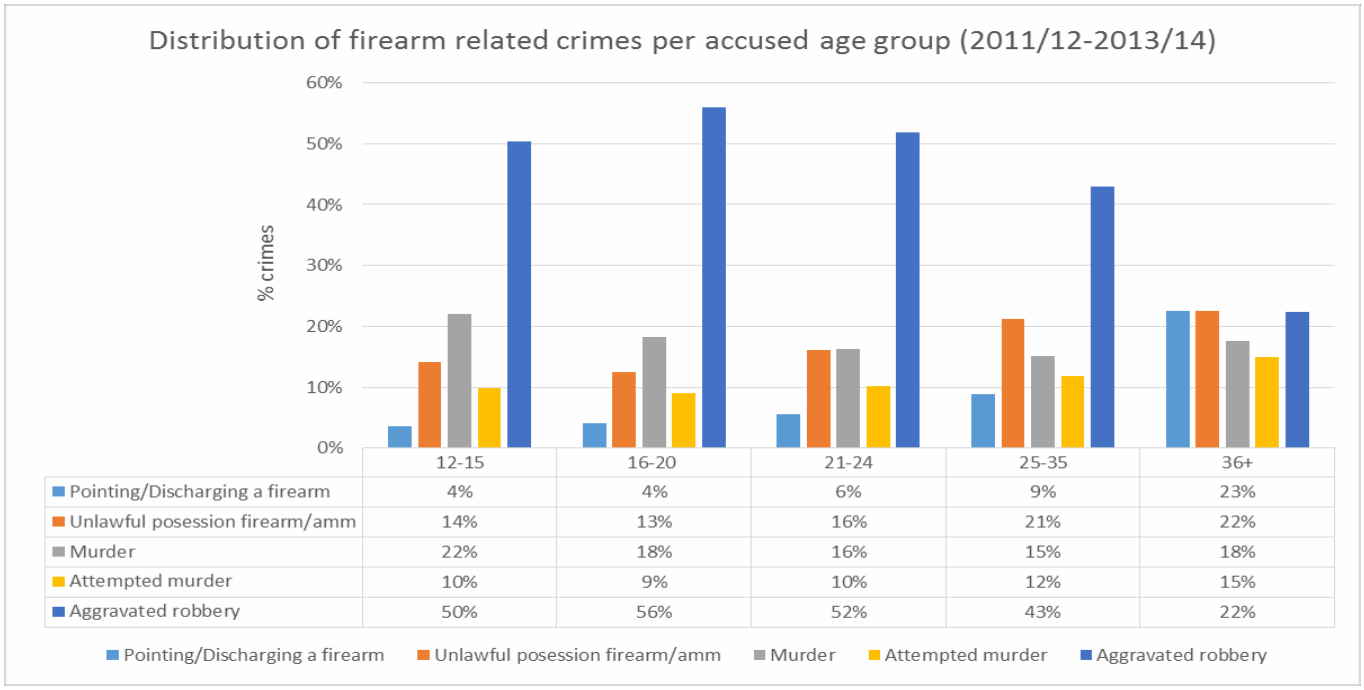


Figure 7: Distribution of firearm related crimes per age group of accused

3.5.1.2. Firearms used in firearm related crimes per age of accused

Figure 8 provides the percentage of accused persons per age group who use firearms to perpetrate firearm related crimes for each FCA period.

It appears that the level of firearm use in murders, attempted murders and aggravated robbery - robbery at residential premises in particular - has tended to decrease over time. However, this trend is considerably stronger in the case of accused aged 16-20, less so for accused aged 21-24 and 25-35 and almost negligible for accused aged 36 and older.

Usage of firearms in robberies at non-residential premises has shown little decrease over the four time periods for persons accused in the 25-35 and 36+ year age categories, although there was a decrease for these younger accused in the 2008/9-2010/11 period.

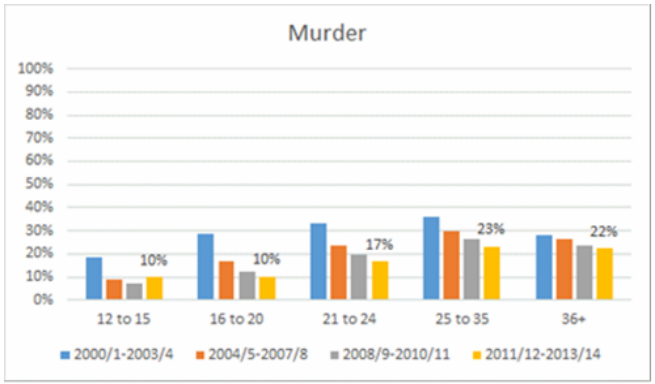
The level of firearm use in carjackings, truck hijackings, cash in transit robberies and bank robberies remains high and does not change substantially over time for accused in any age group.

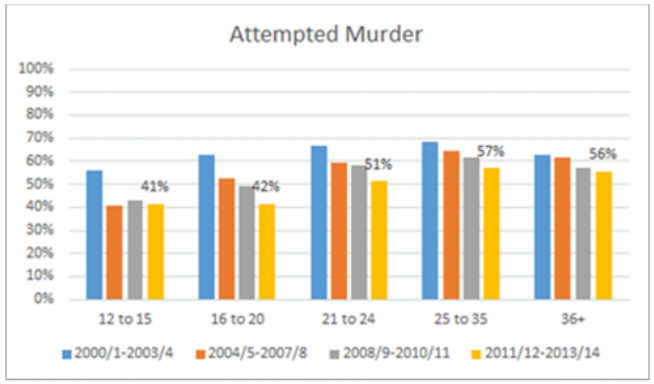
Table 16 provides the percentage of accused persons in each age category who use firearms in each crime category. The CAGR rates are also included for the level of firearms use per age group per FCA related period.

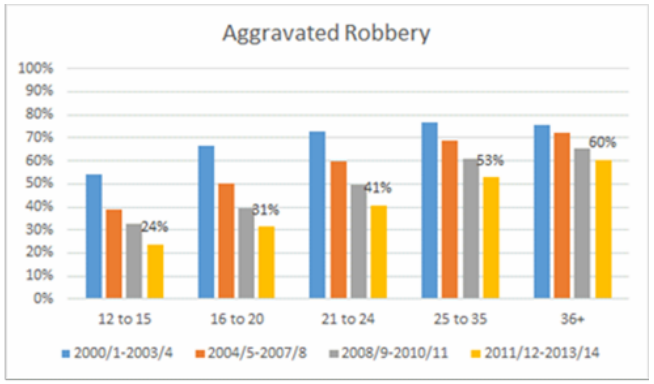
The table shows decreasing use of firearms within the 2008/9-2010/11 period for murder, attempted murder, aggravated robbery, robbery at residential and non-residential premises and carjackings. However, in the 2011/12-2013/14 period, the level of firearm use has increased for accused in the 21-24, 25-35 and 36+ age groups.

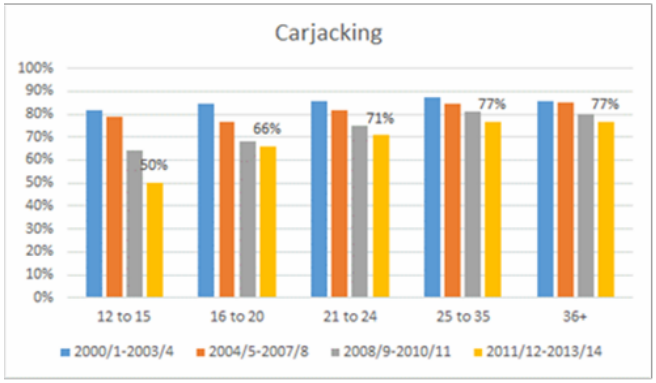
Finally, the trends in firearm use in firearm related crimes per age group are examined for the three provinces with the highest numbers of crimes – Gauteng, KZN and Western Cape (Figure 10-Figure 14). In contrast to the national trend for the decreasing level of firearm use in murders and attempted murders across the four FCA related time periods, the level of firearm use in these crimes is increasing over time for accused in the Western Cape in the 21-24, 25-35 and 36+ year old categories. The contradiction is likely due to the firearm related gang violence on the Cape Flats.

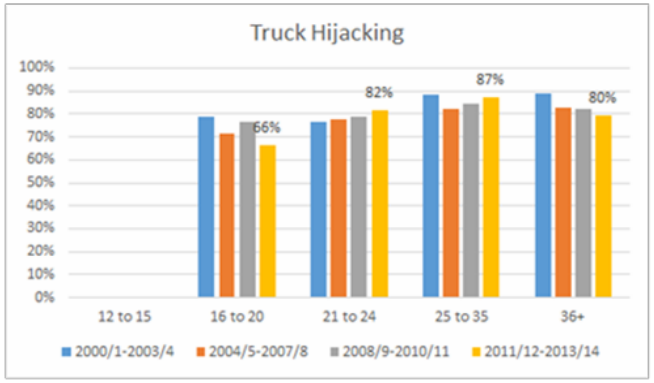
Various combinations of age*firearm type and firearm usage are presented graphically for selected provinces.

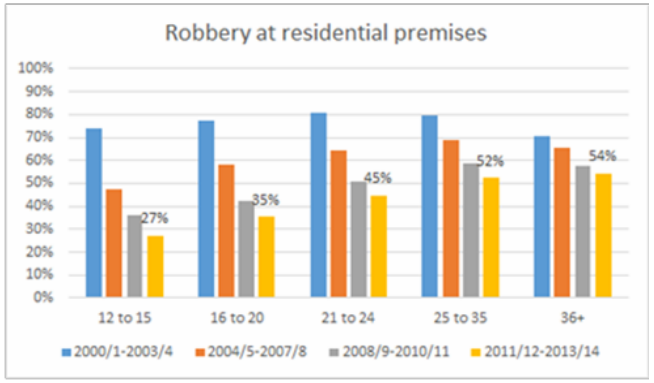


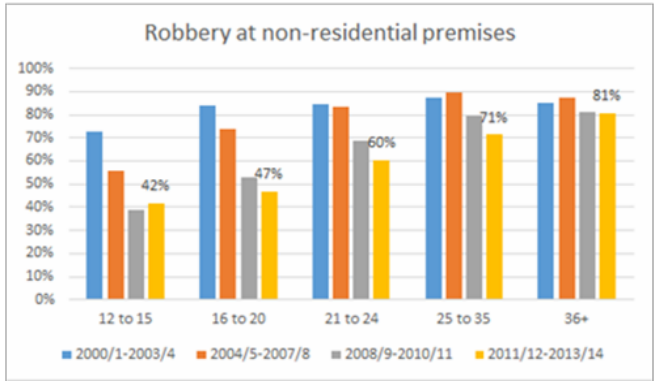


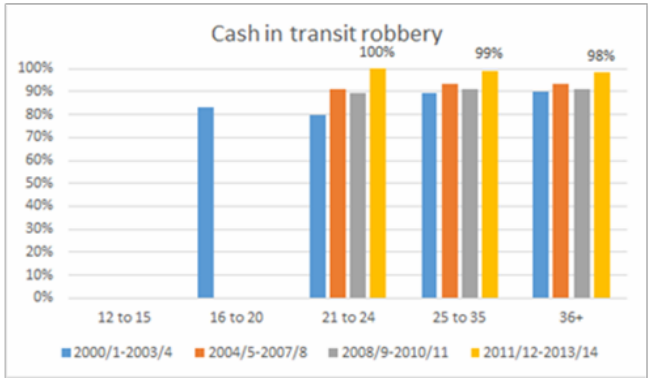












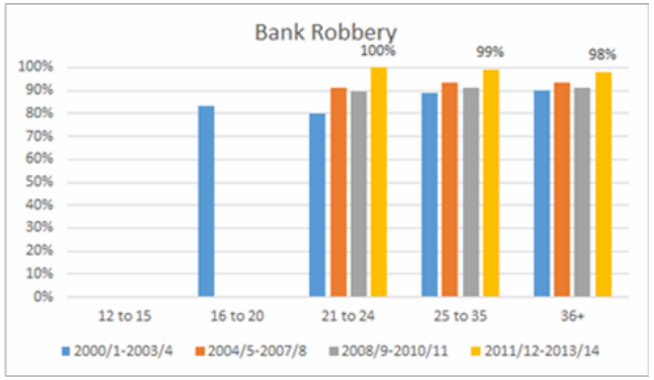


Figure 8: RSA: Percentage of accused per age group who use firearms to perpetrate firearm related crimes for each FCA period

Table 16: RSA: Percentage of accused per age group who use firearms to perpetrate firearm related crimes

Crime	Age category	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2000/2001-2003/2004	2004/2005-2007/2008	2008/2009-2010/2011	2011/2012-2013/2014
Murder	12 to 15	21%	19%	19%	15%	10%	9%	9%	7%	7%	9%	7%	14%	9%	6%	-11%	-9%	0%	-32%
	16 to 20	27%	30%	31%	27%	19%	19%	17%	13%	14%	13%	10%	10%	10%	10%	0%	-12%	-16%	-4%
	21 to 24	31%	34%	35%	33%	27%	23%	24%	20%	20%	21%	19%	16%	15%	18%	2%	-9%	-2%	8%
	25 to 35	34%	36%	38%	37%	30%	28%	32%	30%	27%	27%	25%	22%	24%	24%	2%	0%	-4%	4%
	36+	26%	28%	31%	27%	25%	24%	28%	29%	25%	23%	22%	22%	22%	23%	2%	5%	-6%	3%
AttMurder	12 to 15	66%	49%	60%	48%	40%	45%	37%	41%	49%	39%	42%	41%	46%	37%	-10%	1%	-7%	-5%
	16 to 20	71%	59%	62%	59%	51%	54%	55%	50%	53%	49%	46%	39%	43%	43%	-6%	-1%	-7%	
	21 to 24	74%	65%	65%	63%	57%	59%	62%	61%	59%	59%	56%	51%	51%	52%	-5%	2%	-3%	1%
	25 to 35	75%	66%	67%	66%	62%	61%	67%	67%	64%	61%	59%	57%	58%	56%	-4%	3%	-4%	-1%
	36+	68%	62%	60%	60%	56%	58%	63%	69%	59%	57%	55%	60%	52%	55%	-4%	8%	-3%	-4%
Robbery with aggravating circumstances	12 to 15	53%	57%	56%	49%	44%	38%	40%	35%	34%	32%	33%	29%	26%	17%	-3%	-7%	-1%	-25%
	16 to 20	65%	68%	71%	63%	56%	49%	49%	46%	43%	40%	36%	34%	31%	29%	-1%	-7%	-7%	-7%
	21 to 24	72%	73%	77%	70%	63%	60%	59%	56%	54%	50%	46%	43%	41%	39%	-1%	-4%	-7%	-5%
	25 to 35	74%	76%	80%	76%	70%	68%	70%	68%	64%	62%	58%	55%	52%	51%	1%	-1%	-5%	-4%
	36+	72%	77%	79%	76%	71%	70%	75%	72%	69%	66%	62%	62%	61%	59%	2%	0%	-5%	-2%
Carjacking	12 to 15	80%	86%	76%	84%	86%	76%	80%	73%	85%	54%	53%	42%	42%	67%	2%	-5%	-21%	26%
	16 to 20	87%	87%	81%	82%	79%	75%	73%	79%	75%	67%	63%	67%	63%	69%	-2%	0%	-8%	1%
	21 to 24	88%	86%	87%	83%	84%	84%	81%	77%	78%	74%	74%	71%	69%	72%	-2%	-3%	-3%	1%
	25 to 35	87%	87%	89%	85%	83%	85%	85%	84%	82%	81%	79%	80%	77%	73%	-1%	1%	-2%	-4%
	36+	84%	89%	86%	84%	83%	84%	89%	84%	80%	82%	79%	82%	76%	72%	0%	0%	-1%	-6%
Truck Hijacking	12 to 15	75%	89%	100%															
	16 to 20	87%	77%	87%		63%	55%	85%	85%	86%	67%	77%	71%	82%	46%	-9%	11%	-5%	-20%
	21 to 24	87%	84%	88%	47%	76%	78%	76%	81%	72%	82%	83%	75%	85%	86%	-19%	2%		
	25 to 35	88%	92%	91%	83%	85%	72%	89%	84%	82%	89%	83%	92%	84%	86%	-2%	0%	1%	-3%
	36+	85%	83%	96%	91%	83%	82%	87%	80%	80%	87%	80%	77%	84%	78%		-1%	0%	1%
Robbery at residential premises	12 to 15	88%	87%	55%	66%	65%	49%	37%	39%	43%	34%	32%	38%	33%	10%	-10%	-15%	-14%	-48%
	16 to 20	88%	87%	63%	73%	63%	61%	56%	53%	44%	43%	39%	40%	35%	32%	-6%	-6%	-6%	-10%
	21 to 24	89%	88%	67%	79%	68%	70%	65%	56%	53%	50%	49%	44%	45%	46%	-4%	-6%	-4%	
	25 to 35	89%	86%	70%	75%	72%	67%	71%	65%	61%	57%	57%	54%	48%	55%	-6%	-3%	-3%	0%
	36+	87%	77%	57%	61%	57%	68%	69%	69%	58%	56%	59%	55%		55%	-11%	7%	1%	0%
Robbery at non-residential premises	12 to 15	83%	94%	47%	67%	43%	60%	73%	48%	35%	38%	45%	47%	45%	33%	-7%	4%		-16%
	16 to 20	93%	87%	73%	84%	76%	72%	82%	64%	57%	52%	50%	47%	46%	47%	-3%	-6%	-6%	1%
	21 to 24	92%	88%	77%	81%	82%	87%	89%	76%	72%	69%	64%	62%	60%	60%	-4%	-2%	-5%	-2%
	25 to 35	90%	90%	82%	87%	87%	91%	93%	87%	82%	80%	77%	72%	71%	71%	-1%	0%	-3%	-1%
	36+	87%	90%	83%	80%	81%	88%	91%	89%	85%	81%	78%	81%	82%	79%	-3%		-4%	-1%
Cash in transit robbery	12 to 15	100%													100%				
	16 to 20	71%	95%	100%	67%		71%	75%	91%	67%		100%	67%		100%	-2%		22%	
	21 to 24	86%	78%	86%	71%	77%	97%	100%	90%	74%	94%	100%	100%	100%	100%	-6%	6%	16%	0%
	25 to 35	90%	88%	93%	86%	88%	91%	98%	96%	89%	90%	94%	100%	98%	99%	-1%	3%	2%	-1%
	36+	95%	94%	88%	84%	86%	94%	98%	95%	96%	84%	93%	100%	100%	95%	-4%	3%	-2%	-3%
Bank robbery	12 to 15	50%	100%	0%															
	16 to 20	47%	67%	0%	50%	0%	100%	50%	80%							2%			
	21 to 24	56%	80%	93%	69%	75%	60%	80%	100%	88%	71%	0%	100%			7%		-100%	
	25 to 35	76%	90%	88%	89%	93%	98%	100%	91%	87%	95%	89%	100%		92%	6%	-1%		-4%
	36+	68%	74%	94%	81%	92%	100%	93%	96%	91%	91%	64%	91%		69%	6%		-17%	-13%

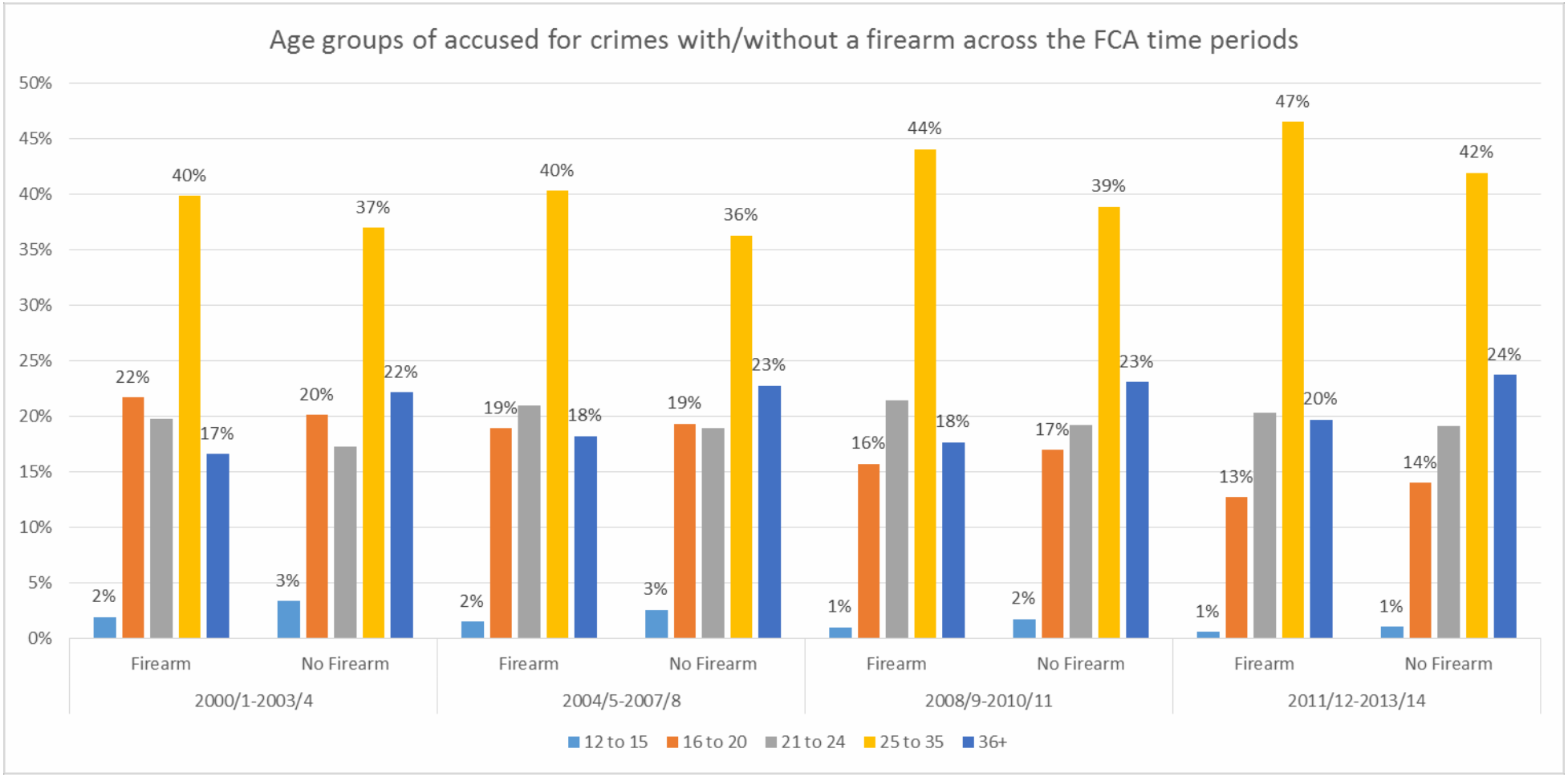


Figure 9: Age groups of accused for crimes with versus without firearms across FCA periods

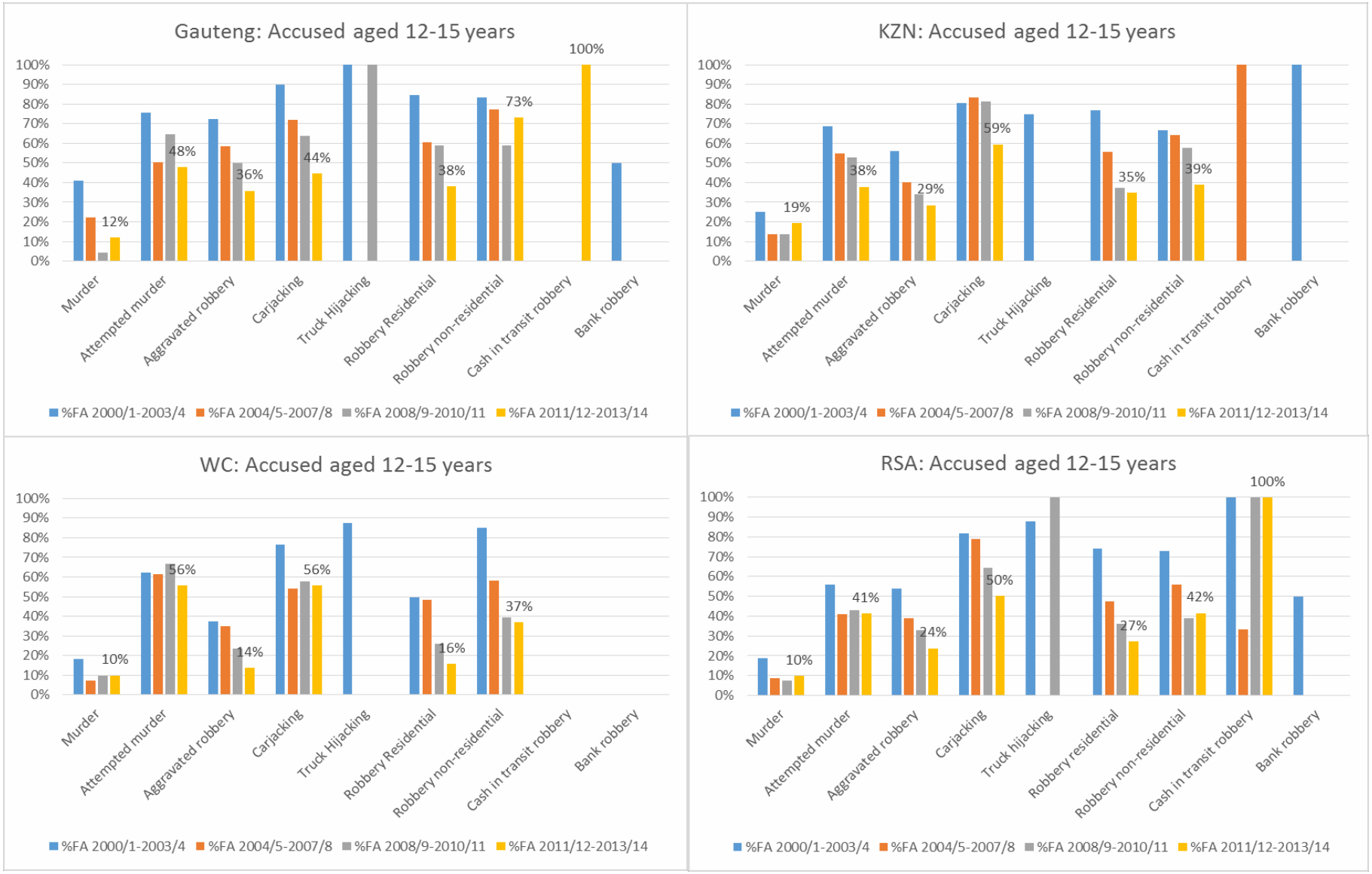


Figure 10: Percentage accused aged 12-15 using firearms per crime category per FCA related period

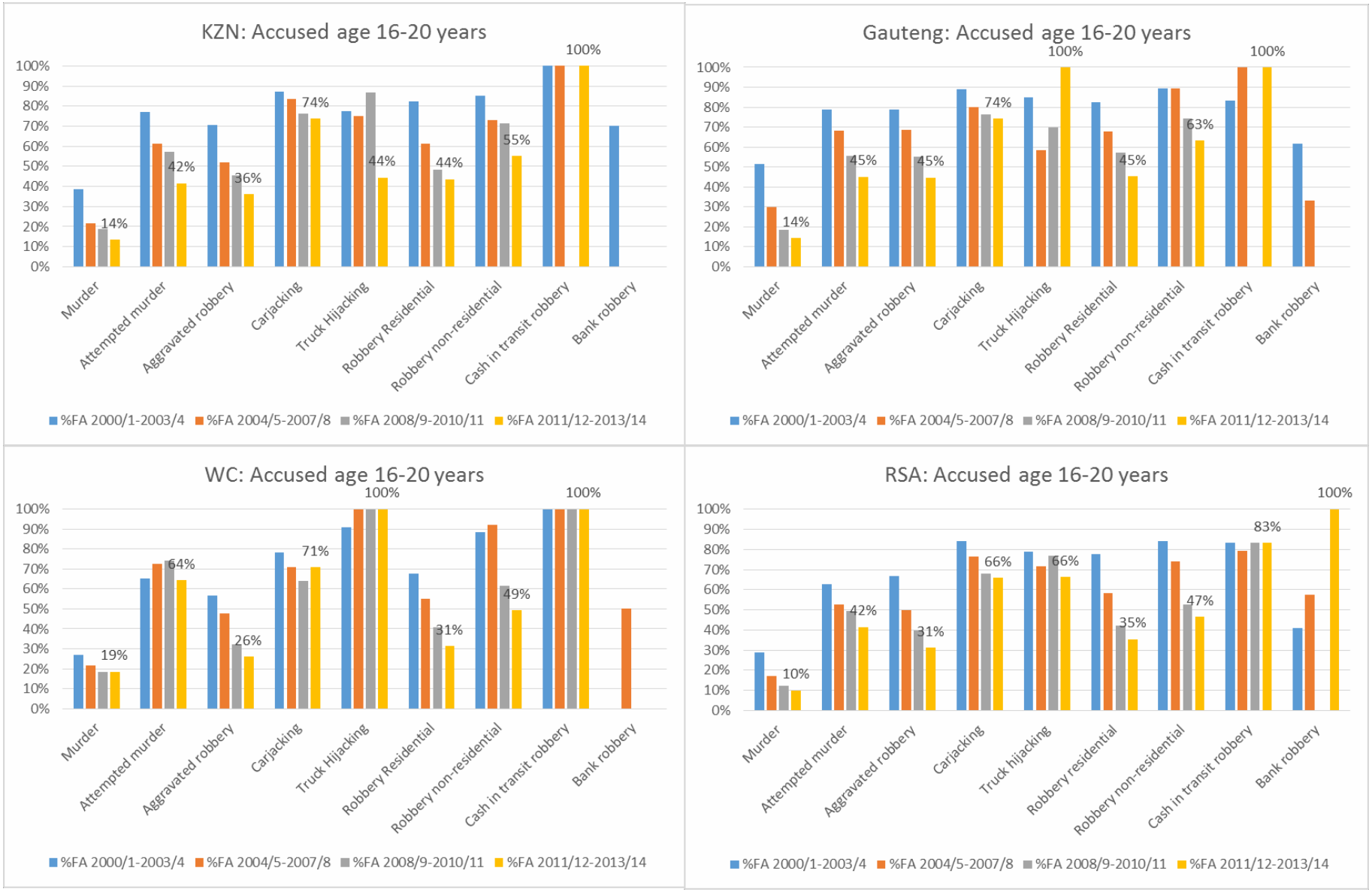


Figure 11: Percentage accused aged 16-20 using firearms per crime category per FCA related period

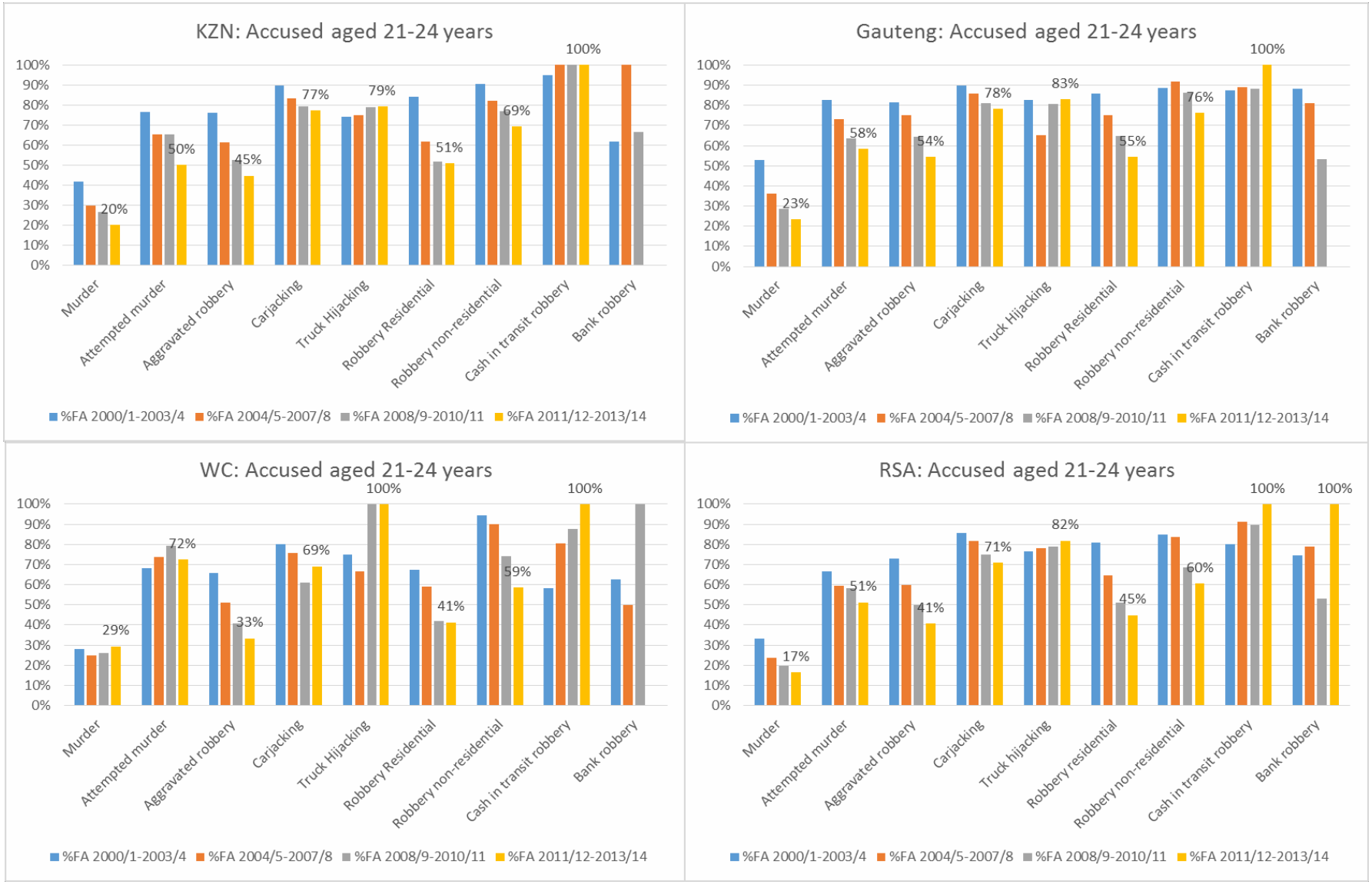


Figure 12: Percentage accused aged 21-24 using firearms per crime category per FCA related period

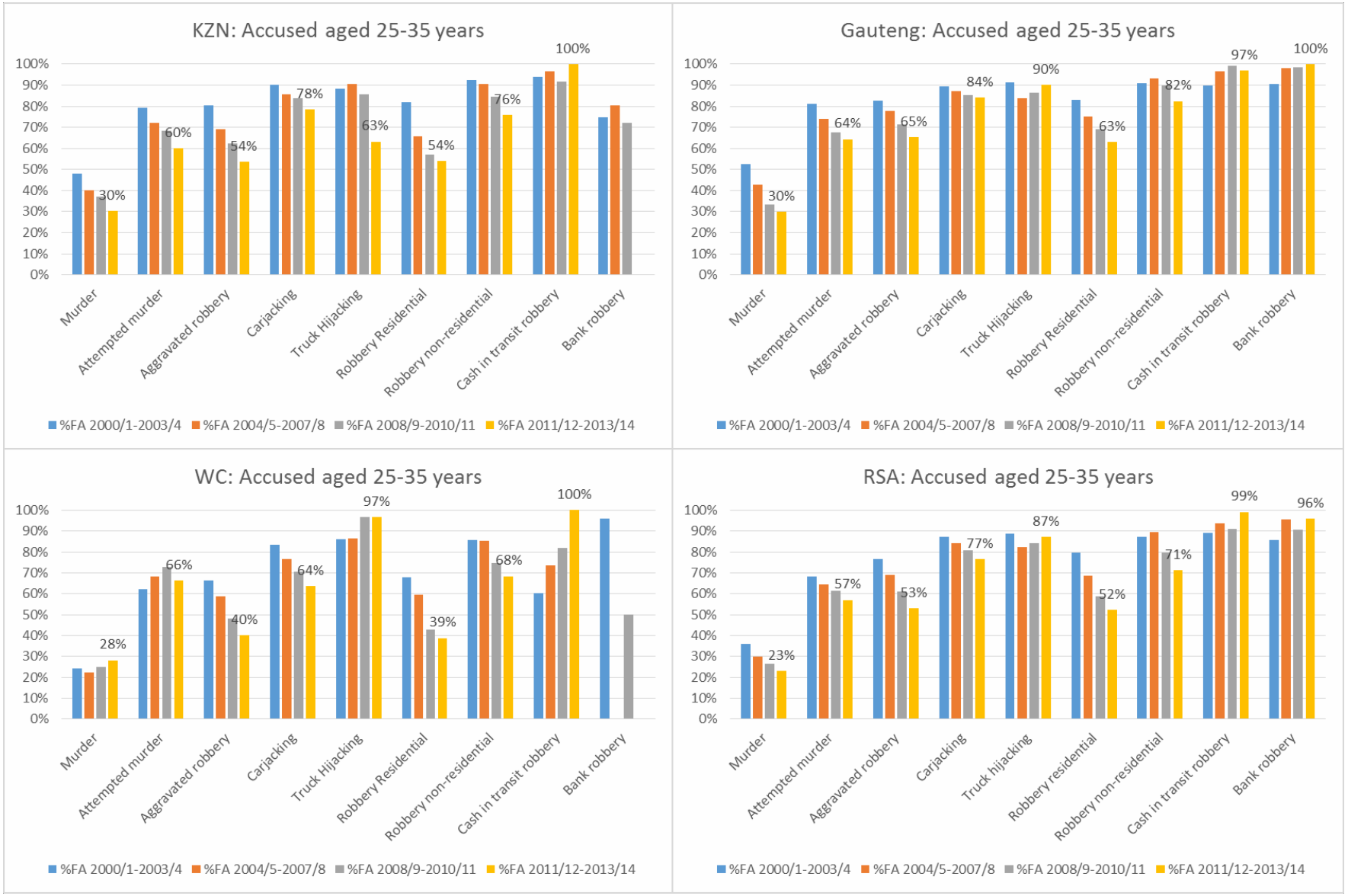


Figure 13: Percentage accused aged 25-35 using firearms per crime category per FCA related period

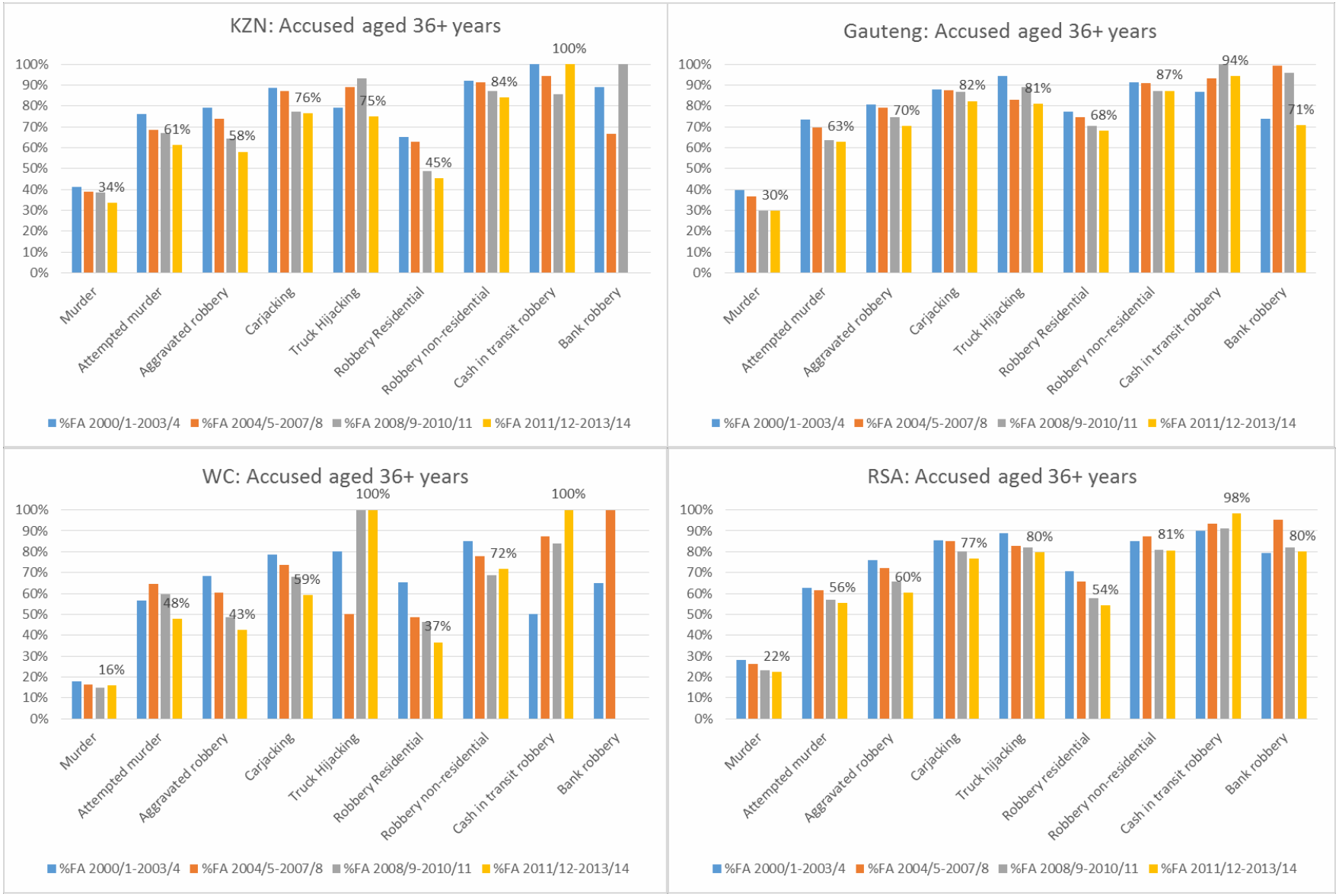


Figure 14: Percentage accused aged 36+ using firearms per crime category per FCA related period

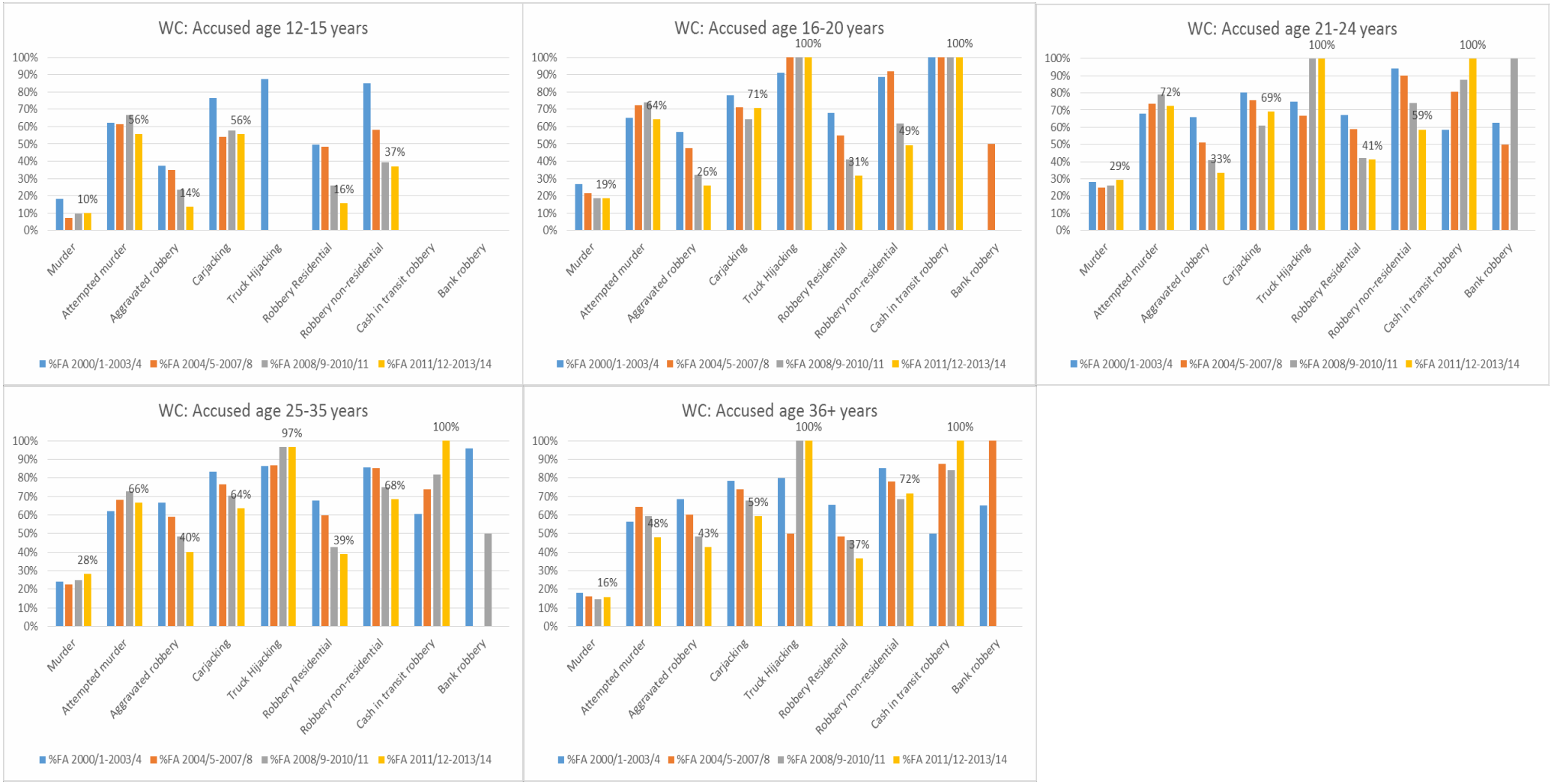


Figure 15: WC: Percentage of accused per age group who use firearms to perpetrate firearm related crimes for each FCA period

3.5.2. Nationality of persons accused of committing crime

Following the analysis of the ages of persons accused of committing crimes, this section of the report presents the analysis of the nationalities of the accused. As such all these analyses refer to accused persons rather than the number of crimes committed.

The nationality of persons accused of committing crimes was highlighted by Police Minister Nathi Nhleko in his presentation of the 2014/15 official SAPS crime statistics to the Parliamentary Portfolio Committee on Police, when he remarked on the relationship between "…the problem of the influx of undocumented immigrants" and crime such as taxi-related violence[79]. However, there is no category in the SAPS statistics that refers to anti-foreigner violence and there is no published evidence of the relation between undocumented migrants and crime.

Furthermore, the Minister's claim of an influx of foreigners has been questioned and his allegations strongly criticised for their potential to increase anti-migrant and xenophobic sentiments, and in turn deflect from the real reasons for crime[80] [81]. However, reliable data on crimes perpetrated by foreigners will allow the police and other agencies to develop policies and strategies that are evidence-based.

In keeping with the objective if this report, the analysis presents the numbers of persons accused of committing firearm related crimes from 2000/1 to 2013/14 according to their category of nationality. The categories of the nationality variable provided in the SAPS data are: SA citizen by birth, Immigrant, Foreign visitor, SA citizen by naturalisation and the category of Unknown. The country of origin of the accused was not analysed as it is beyond the scope of the research brief.

Two separate analyses were computed for persons accused of firearm related crime, the first calculating the percentage of firearm related crimes committed by Immigrants and Foreign visitors combined, relative to the number of accused persons with known nationality category (Table 17 - Table 20), and the second calculating the percentage of firearm related crimes committed by accused Immigrants, Foreign visitors and SA citizens by naturalisation combined, relative to the number of accused persons with known nationality category (Table 21 - Table 24). The difference between the two sets of results is then the percentage attributed to the number of SA citizens by naturalisation accused of crimes.

[79] http://www.news24.com/SouthAfrica/News/Undocumented-immigrants-a-problem-Nhleko-20150929
[80] http://www.dailymaverick.co.za/article/2015-10-02-op-ed-fighting-crime-or-using-immigrants-as-scapegoats/#.VhWmIPmqpBd
[81] Crime Statistics 2014-2015. http://www.ngopulse.org/blog/2015/10/06/crime-statistics-2014-2015

3.5.2.1. Caveats of the analysis of nationality of accused

Although the research addresses to some extent the need for data on foreigner crime, there are a number of challenges:

- In order to evaluate if foreigners are disproportionately involved in crime at national level, we need to estimate the number of foreigners in the country. However there are no reliable estimates of the number of undocumented foreigners in South Africa, and estimates vary widely from 2.2 million in Census 2011, 3 million[68] to 5 million[82]. The estimate of 3 million would yield an estimate of 5.7% of the 2013/14 South African population. Clearly this estimate could be very inaccurate.
- In order to evaluate if foreigners are disproportionately involved in crime at a provincial level, we need estimates of the number of foreigners in each province. While our analysis found the largest concentration of accused persons of firearm related crimes in Gauteng, it is entirely possible that foreigners are vastly disproportionately represented in Gauteng as they seek employment or other opportunities in the economic hub of the country. Furthermore, this disproportionate number of foreigners may be far greater than the disproportionate number of South Africans in Gauteng (approximately 23.7% according to Census 2011[83]). Taken together, these unknown factors of numbers of foreigners, disproportion across provinces and disproportion relative to local South Africans in Gauteng may lead us to vastly different criteria for judging whether there are disproportionate numbers of foreigners accused of crime. It is therefore stressed that as the evaluation criteria are potentially fraught with error, judgements on possible disproportionate numbers of foreigners involved in crime may be completely inaccurate. The statistics provided should be considered as baselines for evaluating changes in foreigner accused crimes rather than for making judgements on the relation between foreigners and crime.
- There is missing information in the SAPS data on the details of the accused as there may not be an accused person(s) for the crime. Information is more complete for crimes like bank robbery (90%) but low for crimes such as carjackings or attempted carjacking (30%). If unknown nationality is not randomly spread across the crime data, the results of analyses would be biased.

3.5.2.2. Results of the analyses on nationality of persons accused of firearm related crime

The familiar grey, pink and red colour coding scheme is used in the tables based on the fairly arbitrary cut-offs of 10%, 20% and 30% of crimes committed by Immigrants and Foreign visitors relative to the number of accused persons with a known nationality category (Table 17 - Table 20), and cut-offs of 12%, 22% and 32% for the percentage of firearm related crimes committed by Immigrants, Foreign visitors and SA citizens by

82 https://africacheck.org/reports/do-5-million-immigrants-live-in-s-africa-the-new-york-times-inflates-number/

83 http://www.southafrica.info/about/people/population.htm#.VlpTynYrK70

naturalisation relative to the number of accused persons with a known nationality category (Table 21 - Table 24).

In addition to the percentages of foreigners accused of crimes per SAPS year, the average annual percentage of foreigners accused of crimes is presented for each of the four FCA periods.

The results of the percentages of accused foreigners show a generally increasing involvement of foreigners in crime across the four FCA periods. In particular, the percentages of foreigners accused are highest nationally and in most provinces for bank robberies and truck hijackings, indicative of involvement in organised crime. It must be stressed that the numbers of these crimes are small and so provide a small base yielding magnified and widely fluctuating percentages of foreigners accused of these two crimes.

Further compared to other provinces, Gauteng shows the greatest percentages of accused foreigners for most categories of aggravated robbery, but particularly so and for the longest history for robberies at residential and at non-residential premises. There are also indications of high percentages of foreigners accused of possession of firearms and ammunition in Limpopo and Free State provinces.

Once again, we stress that the percentages obtained should be regarded as baseline percentages for future longitudinal research and as a basis for policy making.

It is interesting that there is no evidence of high percentages of foreigner involvement in firearm related crimes in KZN. In spite of, or possibly because of the history of xenophobic violence in this province, there are relatively few crimes committed by foreigners but rather crimes committed against them. This topic requires future research.

Table 17: RSA: Percentage representation of immigrants + foreign visitors in firearm related crime per annum

Crime	Accused: % Immigrants + Foreign visitors															Accused: % Immigrants + Foreign visitors average per annum			
	1999/ 2000	2000/ 1	2001/ 2	2002/ 3	2003/ 4	2004/ 5	2005/ 6	2006/ 7	2007/ 8	2008/ 9	2009/10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	200/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
Unlawful posession of firearm/amm	1%	1%	2%	1%	2%	2%	3%	3%	5%	5%	5%	5%	6%	7%	8%	2%	3%	5%	7%
Murder	1%	1%	1%	1%	1%	1%	1%	2%	2%	2%	2%	3%	3%	3%	3%	1%	2%	3%	3%
Attempted Murder	1%	1%	1%	1%	1%	1%	1%	2%	2%	3%	3%	3%	4%	4%	4%	1%	2%	3%	4%
Aggravated robbery	2%	2%	2%	2%	3%	3%	3%	4%	4%	5%	6%	6%	6%	6%	6%	2%	3%	5%	6%
Robbery Cash in transit	2%	3%	0%	3%	3%	3%	2%	2%	1%	2%	1%	1%	2%	2%	4%	2%	2%	1%	3%
Robbery at Non-residential Premises	2%	2%	2%	5%	6%	7%	8%	7%	6%	5%	6%	5%	6%	6%	5%	3%	7%	5%	6%
Robbery at Residential Premises	3%	2%	3%	4%	6%	6%	5%	6%	10%	8%	7%	8%	9%	9%	7%	4%	7%	8%	9%
Pointing/Discharging a firearm	1%	1%	1%	1%	1%	2%	1%	2%	2%	3%	3%	4%	4%	3%	4%	1%	2%	3%	4%
Carjacking	2%	2%	2%	2%	2%	3%	3%	3%	3%	3%	4%	4%	4%	4%	3%	2%	3%	4%	4%
Truck Hijacking	4%	3%	4%	1%	7%	8%	10%	6%	8%	12%	9%	17%	14%	18%	16%	4%	8%	13%	16%
Bank Robbery	5%	7%	8%	8%	10%	11%	5%	27%	26%	11%	35%	10%	43%		17%	8%	17%	18%	30%

Table 18: RSA and provincial (EC, FS & Gau): Percentage representation of immigrants + foreign visitors accused of firearm related crime per annum

Province	Crime	Accused: % Immigrants + Foreign visitors														Accused: % Immigrants + Foreign visitors average per annum			
		1999/ 2000	2000/ 1	2001/ 2	2002/ 3	2003/ 4	2004/ 5	2005/ 6	2006/ 7	2007/ 8	2008/ 9	2009/10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	200/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
EC	Unlawful posession of firearm/amm	0%	1%	1%	0%	0%	1%	1%	3%	4%	4%	3%	2%	2%	3%	5%	0%	2%	3%	3%
	Murder	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%
	Attempted Murder	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	2%	1%	1%	1%	1%	0%	1%	1%	1%
	Aggravated robbery	0%	0%	0%	1%	0%	1%	1%	1%	1%	1%	2%	0%	1%	1%	1%	0%	1%	1%	1%
	Robbery Cash in transit	0%	0%		0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%
	Robbery at Non-residential Premises	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%	1%	1%	0%	0%	0%	0%	1%	1%
	Robbery at Residential Premises	0%	0%	1%	0%	0%	0%	0%	0%	1%	1%	2%	0%	1%	1%	1%	0%	0%	1%	1%
	Pointing/Discharging a firearm	1%	1%	0%	0%	1%	0%	1%	1%	2%	1%	2%	2%	1%	2%	2%	0%	1%	2%	2%
	Carjacking	0%	0%	0%	0%	0%	0%	0%	2%	2%	1%	2%	0%	1%	1%	0%	0%	1%	1%	1%
	Truck Hijacking	0%	13%	0%	0%	0%	0%	0%	67%	0%	0%	0%	0%	0%	0%	0%	3%	17%	0%	0%
	Bank Robbery	0%	0%	0%	0%	0%			0%	0%	0%	0%		0%		0%	0%	0%	0%	0%
FS	Unlawful posession of firearm/amm	5%	3%	4%	4%	6%	4%	5%	7%	10%	8%	10%	9%	10%	12%	15%	4%	7%	9%	15%
	Murder	1%	2%	2%	1%	1%	1%	2%	4%	4%	3%	2%	2%	6%	4%	4%	2%	3%	2%	5%
	Attempted Murder	0%	0%	0%	1%	0%	1%	2%	2%	2%	4%	2%	1%	5%	7%	3%	0%	2%	2%	5%
	Aggravated robbery	1%	1%	2%	1%	1%	1%	1%	3%	2%	2%	3%	2%	4%	6%	4%	1%	2%	3%	5%
	Robbery Cash in transit	0%	0%	0%	0%	0%			0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	3%
	Robbery at Non-residential Premises	1%	1%	2%	2%	7%	0%	0%	0%	4%	1%	2%	2%	4%	5%	4%	3%	1%	2%	5%
	Robbery at Residential Premises	3%	0%	4%	0%	0%	1%	11%	0%	10%	5%	7%	3%	7%	16%	11%	1%	6%	5%	11%
	Pointing/Discharging a firearm	0%	0%	1%	1%	1%	2%	1%	1%	2%	5%	4%	3%	5%	3%	4%	1%	1%	4%	4%
	Carjacking	5%	7%	8%	3%	0%	8%	0%	20%	0%	12%	11%	3%	7%	9%	18%	5%	7%	9%	11%
	Truck Hijacking	0%	2%	9%	0%	10%	8%	0%	0%	17%	6%	10%	50%	0%	21%	10%	5%	6%	22%	10%
	Bank Robbery	0%	0%	0%	0%	0%	0%		0%	0%	13%		0%	0%		0%	0%	0%	6%	0%
Gau	Unlawful posession of firearm/amm	3%	2%	3%	3%	4%	4%	7%	7%	10%	9%	9%	10%	10%	13%	14%	3%	7%	9%	12%
	Murder	2%	2%	2%	2%	3%	3%	4%	5%	6%	7%	8%	8%	10%	10%	11%	2%	5%	8%	11%
	Attempted Murder	2%	1%	2%	2%	2%	3%	3%	5%	6%	8%	7%	8%	10%	11%	12%	2%	4%	8%	11%
	Aggravated robbery	3%	3%	4%	4%	5%	6%	7%	8%	10%	11%	13%	13%	14%	14%	13%	4%	8%	12%	14%
	Robbery Cash in transit	3%	5%	0%	4%	3%	6%	5%	0%	2%	7%	8%	3%	3%	4%	15%	3%	3%	6%	7%
	Robbery at Non-residential Premises	3%	3%	3%	8%	9%	10%	13%	11%	11%	13%	12%	11%	12%	17%	12%	6%	11%	12%	14%
	Robbery at Residential Premises	3%	5%	7%	6%	9%	9%	8%	11%	17%	16%	14%	19%	20%	19%	14%	7%	11%	16%	18%
	Pointing/Discharging a firearm	1%	1%	1%	1%	2%	2%	3%	3%	5%	6%	6%	8%	7%	6%	7%	1%	3%	7%	7%
	Carjacking	4%	4%	4%	3%	3%	6%	5%	5%	6%	6%	5%	7%	6%	6%	5%	4%	6%	6%	6%
	Truck Hijacking	6%	4%	4%	1%	6%	8%	13%	5%	10%	14%	16%	23%	18%	20%	25%	4%	9%	18%	21%
	Bank Robbery	9%	11%	12%	2%	13%	9%	6%	38%	34%	18%	51%	21%	60%		29%	9%	22%	30%	44%

Table 19: RSA and provincial (KZN, Li & Mp): Percentage representation of immigrants + foreign visitors accused of firearm related crime per annum

Province	Crime	Accused: % Immigrants + Foreign visitors														Accused: % Immigrants + Foreign visitors average per annum			
		1999/ 2000	2000/ 1	2001/ 2	2002/ 3	2003/ 4	2004/ 5	2005/ 6	2006/ 7	2007/ 8	2008/ 9	2009/10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	200/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
KZN	Unlawful posession of firearm/amm	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%	2%	0%	0%	1%	1%
	Murder	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	1%	1%	1%	1%	1%	0%	0%	1%	1%
	Attempted Murder	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%	0%	0%	1%	1%
	Aggravated robbery	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	2%	1%	2%	0%	1%	1%	2%
	Robbery Cash in transit	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Robbery at Non-residential Premises	0%	0%	0%	1%	0%	1%	1%	3%	1%	1%	1%	2%	3%	0%	2%	0%	2%	1%	2%
	Robbery at Residential Premises	1%	0%	0%	0%	0%	1%	0%	0%	1%	1%	1%	1%	1%	2%	3%	0%	1%	1%	2%
	Pointing/Discharging a firearm	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	1%	1%	1%	1%	0%	0%	1%	1%
	Carjacking	0%	0%	0%	0%	0%	0%	1%	0%	1%	1%	1%	1%	1%	1%	1%	0%	1%	1%	1%
	Truck Hijacking	1%	2%	0%	0%	6%	3%	5%	0%	0%	8%	0%	7%	14%	4%	14%	2%	2%	5%	11%
	Bank Robbery	0%	0%	0%	0%	0%	8%	0%	0%	0%	0%	0%					0%	2%	0%	
Li	Unlawful posession of firearm/amm	3%	2%	1%	1%	1%	3%	4%	2%	5%	3%	4%	8%	11%	12%	18%	1%	3%	5%	14%
	Murder	3%	2%	2%	1%	3%	3%	1%	5%	2%	3%	4%	6%	7%	4%	6%	2%	3%	4%	6%
	Attempted Murder	1%	2%	1%	0%	1%	2%	2%	4%	3%	1%	4%	4%	11%	6%	6%	1%	3%	3%	8%
	Aggravated robbery	1%	2%	1%	2%	2%	2%	2%	4%	4%	4%	7%	8%	13%	10%	11%	2%	3%	6%	11%
	Robbery Cash in transit	0%	0%	0%	0%	0%	0%	3%	19%	3%	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%
	Robbery at Non-residential Premises	2%	1%	2%	7%	0%	0%	0%	0%	4%	1%	4%	3%	8%	7%	6%	2%	1%	3%	7%
	Robbery at Residential Premises	0%	4%	2%	2%	0%	0%	1%	4%	10%	3%	7%	10%	23%	17%	19%	2%	4%	7%	20%
	Pointing/Discharging a firearm	0%	1%	0%	0%	2%	2%	1%	1%	1%	1%	1%	2%	3%	3%	4%	1%	1%	1%	4%
	Carjacking	0%	2%	0%	1%	0%	0%	2%	6%	1%	1%	0%	6%	7%	4%	2%	1%	2%	2%	4%
	Truck Hijacking	0%	3%	0%	0%	11%	0%	0%	33%		0%	43%	8%	9%	0%	50%	4%	11%	17%	20%
	Bank Robbery	0%	0%	0%	22%	0%	0%	0%	0%			0%					5%	0%	0%	
Mp	Unlawful posession of firearm/amm	3%	2%	2%	2%	1%	1%	2%	2%	2%	2%	3%	8%	7%	9%	12%	2%	2%	5%	9%
	Murder	2%	1%	2%	2%	1%	1%	2%	4%	3%	2%	4%	6%	2%	3%	5%	2%	2%	4%	3%
	Attempted Murder	2%	1%	2%	3%	2%	1%	2%	2%	2%	3%	4%	6%	2%	4%	6%	2%	2%	4%	4%
	Aggravated robbery	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	4%	3%	3%	5%	2%	2%	3%	3%
	Robbery Cash in transit	8%	0%	0%	11%	8%	10%	0%	0%	0%	0%	5%	0%	0%	0%	0%	5%	3%	2%	0%
	Robbery at Non-residential Premises	0%	2%	0%	0%	0%	0%	0%	3%	3%	3%	1%	1%	2%	3%	2%	0%	1%	2%	2%
	Robbery at Residential Premises	15%	1%	2%	0%	3%	8%	1%	2%	2%	3%	6%	6%	2%	3%	9%	2%	3%	5%	5%
	Pointing/Discharging a firearm	0%	1%	0%	1%	0%	1%	0%	1%	0%	3%	2%	4%	2%	3%	3%	0%	1%	3%	3%
	Carjacking	1%	2%	3%	7%	0%	1%	7%	2%	2%	2%	4%	4%	4%	4%	5%	3%	3%	3%	4%
	Truck Hijacking	8%	11%	13%	0%	17%	11%	14%	15%	15%	6%	2%	17%	23%	31%	5%	10%	14%	9%	20%
	Bank Robbery	13%	0%	8%	19%	23%	0%	0%	0%	17%		0%	0%			0%	13%	4%	0%	0%

Table 20: RSA and provincial (NC, NW & WC): Percentage representation of immigrants + foreign visitors accused of firearm related crime per annum

Province	Crime	Accused: % Immigrants + Foreign visitors														Accused: % Immigrants + Foreign visitors average per annum			
		1999/ 2000	2000/ 1	2001/ 2	2002/ 3	2003/ 4	2004/ 5	2005/ 6	2006/ 7	2007/ 8	2008/ 9	2009/10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	200/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
NC	Unlawful posession of firearm/amm	2%	12%	18%	1%	1%	4%	1%	2%	5%	3%	2%	0%	1%	5%	5%	8%	3%	1%	4%
	Murder	0%	1%	1%	0%	0%	0%	0%	0%	1%	0%	2%	1%	2%	0%	1%	0%	0%	1%	1%
	Attempted Murder	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	2%	1%	2%	3%	2%	0%	0%	1%	2%
	Aggravated robbery	0%	0%	0%	0%	1%	1%	1%	1%	0%	1%	1%	0%	1%	1%	2%	0%	1%	1%	1%
	Robbery Cash in transit						0%		0%	0%	0%	0%		0%		0%		0%	0%	0%
	Robbery at Non-residential Premises	0%	0%	3%	0%		0%	0%	0%	0%	4%	2%	0%	3%	0%	5%	1%	0%	2%	3%
	Robbery at Residential Premises	0%	0%	0%	0%	0%	0%	0%	0%	8%	0%	5%	0%	1%	2%	2%	0%	2%	2%	2%
	Pointing/Discharging a firearm	1%	1%	3%	3%	4%	1%	2%	3%	2%	3%	3%	2%	4%	5%	6%	3%	2%	3%	5%
	Carjacking	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	9%	17%	0%	0%	0%	8%
	Truck Hijacking		0%						0%	0%	0%		0%	0%	0%		0%	0%	0%	0%
	Bank Robbery	0%				60%	43%		0%	0%			0%				60%	14%	0%	
NW	Unlawful posession of firearm/amm	1%	2%	1%	2%	2%	2%	3%	4%	3%	6%	6%	9%	8%	8%	9%	2%	3%	7%	9%
	Murder	1%	2%	1%	2%	1%	1%	1%	3%	2%	4%	4%	4%	5%	6%	7%	1%	2%	4%	6%
	Attempted Murder	1%	1%	1%	2%	1%	2%	1%	1%	6%	4%	6%	2%	4%	5%	6%	1%	3%	4%	5%
	Aggravated robbery	1%	1%	1%	4%	1%	2%	2%	3%	4%	4%	4%	3%	4%	5%	6%	2%	3%	4%	5%
	Robbery Cash in transit	0%	0%	0%	0%	0%	0%	5%	0%	3%	0%	0%	0%	0%	0%	1%	0%	2%	0%	0%
	Robbery at Non-residential Premises	0%	1%	1%	4%	0%	1%	3%	2%	2%	2%	4%	3%	3%	4%	5%	1%	2%	3%	4%
	Robbery at Residential Premises	4%	1%	2%	5%	5%	5%	8%	10%	18%	13%	8%	5%	6%	10%	12%	3%	10%	9%	9%
	Pointing/Discharging a firearm	0%	0%	1%	1%	1%	2%	1%	1%	2%	1%	5%	4%	2%	5%	6%	1%	1%	4%	5%
	Carjacking	0%	3%	1%	1%	2%	3%	5%	5%	5%	4%	4%	2%	1%	6%	7%	2%	4%	3%	5%
	Truck Hijacking	0%	0%	15%	13%	0%	21%	17%	3%	5%	24%	10%	14%	0%	20%	21%	7%	11%	16%	14%
	Bank Robbery	0%	0%	17%	0%	0%			0%	50%	0%	0%	0%	100%	0%	0%	4%	25%	0%	33%
WC	Unlawful posession of firearm/amm	1%	0%	1%	1%	0%	0%	1%	1%	3%	2%	4%	3%	5%	5%	6%	1%	1%	3%	5%
	Murder	0%	0%	1%	0%	0%	0%	0%	1%	1%	2%	1%	2%	1%	2%	2%	0%	0%	2%	2%
	Attempted Murder	0%	0%	0%	0%	0%	0%	1%	1%	1%	2%	1%	1%	2%	2%	1%	0%	1%	2%	2%
	Aggravated robbery	0%	0%	1%	0%	1%	1%	1%	1%	2%	2%	3%	3%	3%	2%	2%	1%	1%	3%	3%
	Robbery Cash in transit	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	9%	0%	0%	0%	0%	1%	3%
	Robbery at Non-residential Premises	0%	1%	1%	0%	0%	3%	0%	4%	3%	2%	4%	3%	4%	3%	3%	1%	3%	3%	3%
	Robbery at Residential Premises	0%	0%	0%	1%	0%	0%	0%	2%	7%	8%	9%	6%	6%	6%	4%	0%	2%	8%	5%
	Pointing/Discharging a firearm	1%	0%	0%	1%	1%	1%	1%	1%	1%	2%	2%	3%	3%	3%	3%	0%	1%	2%	3%
	Carjacking	1%	0%	0%	0%	3%	0%	1%	1%	2%	1%	2%	1%	0%	2%	1%	1%	1%	1%	1%
	Truck Hijacking	0%	0%	0%	0%		0%	0%	0%	0%	6%	0%	0%	0%	0%	0%	0%	0%	2%	0%
	Bank Robbery	0%	0%	0%	9%	0%	0%	0%	0%	0%	0%	0%	0%				2%	0%	0%	

Table 21: RSA : Percentage representation of immigrants + foreign visitors + SA Naturalised accused of firearm related crime per annum

	Accused: % Immigrants + Foreign visitors + SA Citizens naturalised															Accused: % Immigrants + Foreign visitors + SA Citizens naturalised average per annum			
Crime	1999/ 2000	2000/ 1	2001/ 2	2002/ 3	2003/ 4	2004/ 5	2005/ 6	2006/ 7	2007/ 8	2008/ 9	2009/10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	200/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
Unlawful posession of firearm/amm	3%	3%	3%	3%	3%	3%	4%	4%	7%	6%	7%	7%	8%	9%	10%	3%	4%	7%	9%
Murder	2%	2%	2%	2%	2%	2%	2%	4%	4%	4%	5%	5%	5%	5%	5%	2%	3%	5%	5%
Attempted Murder	2%	2%	2%	2%	2%	2%	3%	3%	4%	5%	6%	5%	8%	6%	5%	2%	3%	5%	7%
Aggravated robbery	3%	3%	3%	4%	4%	4%	4%	5%	6%	6%	7%	7%	8%	8%	7%	3%	5%	7%	8%
Robbery Cash in transit	4%	3%	0%	3%	4%	3%	4%	5%	2%	5%	6%	5%	3%	2%	6%	2%	4%	5%	4%
Robbery at Non-residential Premises	2%	2%	3%	7%	8%	7%	9%	8%	8%	7%	8%	6%	8%	8%	7%	5%	8%	7%	8%
Robbery at Residential Premises	4%	4%	5%	5%	7%	8%	7%	8%	11%	9%	9%	9%	10%	11%	9%	5%	8%	9%	10%
Pointing/Discharging a firearm	2%	2%	2%	3%	2%	3%	3%	3%	4%	5%	5%	6%	6%	6%	6%	2%	3%	5%	6%
Carjacking	3%	3%	3%	4%	3%	5%	4%	4%	5%	5%	5%	6%	6%	6%	5%	3%	5%	5%	6%
Truck Hijacking	5%	5%	5%	5%	8%	10%	11%	13%	11%	14%	12%	22%	16%	20%	19%	6%	11%	16%	18%
Bank Robbery	5%	8%	8%	9%	15%	14%	11%	28%	48%	22%	59%	13%	45%		18%	10%	25%	31%	32%

Table 22: RSA and provincial (EC, FS & Gau) Percentage representation of immigrants + foreign visitors + SA Naturalised accused of firearm related crime per annum

		Accused: % Immigrants + Foreign visitors + SA Citizens naturalised														Accused: % Immigrants + Foreign visitors + SA Citizens naturalised average per annum			
Province	Crime	1999/ 2000	2000/ 1	2001/ 2	2002/ 3	2003/ 4	2004/ 5	2005/ 6	2006/ 7	2007/ 8	2008/ 9	2009/10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	200/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
EC	Unlawful posession of firearm/amm	2%	1%	2%	2%	2%	1%	2%	5%	7%	6%	4%	5%	5%	5%	7%	2%	4%	5%	5%
	Murder	1%	1%	2%	1%	1%	1%	1%	2%	3%	3%	3%	6%	5%	2%	2%	1%	2%	4%	3%
	Attempted Murder	1%	1%	1%	1%	0%	1%	1%	2%	3%	3%	4%	4%	20%	2%	2%	1%	2%	3%	8%
	Aggravated robbery	2%	1%	2%	2%	1%	1%	2%	2%	3%	2%	3%	1%	3%	2%	2%	1%	2%	2%	2%
	Robbery Cash in transit	0%	0%		0%	20%	0%	0%	3%	0%	0%	1%	0%	0%	0%	0%	7%	1%	0%	0%
	Robbery at Non-residential Premises	1%	1%	0%	4%	0%	0%	3%	0%	1%	2%	5%	2%	6%	2%	1%	1%	1%	3%	3%
	Robbery at Residential Premises	1%	0%	4%	0%	0%	0%	1%	1%	1%	2%	3%	2%	2%	2%	2%	1%	1%	2%	2%
	Pointing/Discharging a firearm	2%	2%	3%	2%	2%	1%	2%	3%	4%	4%	6%	5%	4%	4%	4%	2%	3%	5%	4%
	Carjacking	0%	0%	0%	0%	1%	0%	0%	3%	3%	1%	2%	2%	4%	2%	1%	0%	1%	2%	2%
	Truck Hijacking	0%	13%	0%	0%	0%	0%	0%	67%	0%	0%	0%	0%	0%	0%	0%	3%	17%	0%	0%
	Bank Robbery	0%	0%	0%	0%	0%			33%	0%	0%	0%		0%		6%	0%	17%	0%	3%
FS	Unlawful posession of firearm/amm	6%	3%	6%	5%	7%	4%	8%	8%	15%	15%	15%	14%	22%	16%	18%	5%	9%	15%	19%
	Murder	2%	3%	3%	2%	2%	2%	3%	5%	12%	9%	8%	6%	10%	6%	6%	2%	6%	8%	7%
	Attempted Murder	1%	1%	1%	1%	2%	2%	3%	3%	7%	6%	9%	3%	9%	10%	7%	1%	4%	6%	9%
	Aggravated robbery	1%	1%	3%	1%	1%	1%	2%	4%	5%	6%	6%	5%	6%	9%	8%	2%	3%	6%	8%
	Robbery Cash in transit	0%	0%	0%	0%	0%			0%	0%	4%	0%	25%	0%	10%	0%	0%	0%	10%	3%
	Robbery at Non-residential Premises	1%	1%	2%	2%	7%	0%	0%	0%	5%	7%	5%	4%	8%	7%	8%	3%	1%	5%	8%
	Robbery at Residential Premises	3%	0%	4%	0%	0%	1%	12%	4%	11%	7%	11%	4%	9%	17%	13%	1%	7%	8%	13%
	Pointing/Discharging a firearm	1%	1%	2%	2%	2%	2%	2%	3%	7%	11%	9%	5%	9%	6%	7%	2%	3%	9%	7%
	Carjacking	5%	7%	8%	3%	0%	8%	0%	27%	0%	15%	16%	8%	10%	11%	21%	5%	9%	13%	14%
	Truck Hijacking	0%	4%	9%	0%	10%	8%	0%	0%	33%	6%	10%	50%	0%	21%	10%	6%	10%	22%	10%
	Bank Robbery	0%	0%	0%	0%	0%	0%		0%	0%	25%		0%	0%		0%	0%	0%	13%	0%
Gau	Unlawful posession of firearm/amm	3%	4%	4%	4%	5%	5%	8%	8%	12%	10%	12%	11%	12%	15%	16%	4%	8%	11%	14%
	Murder	2%	3%	4%	3%	4%	4%	5%	6%	8%	9%	11%	9%	12%	13%	13%	3%	6%	9%	13%
	Attempted Murder	3%	2%	3%	3%	3%	4%	5%	6%	8%	10%	11%	9%	11%	14%	13%	3%	6%	10%	13%
	Aggravated robbery	4%	4%	5%	6%	7%	7%	8%	9%	12%	12%	15%	15%	16%	17%	14%	5%	9%	14%	15%
	Robbery Cash in transit	4%	5%	3%	5%	3%	6%	11%	3%	4%	18%	34%	3%	6%	4%	17%	4%	6%	18%	9%
	Robbery at Non-residential Premises	4%	4%	5%	11%	12%	11%	14%	12%	14%	15%	16%	13%	14%	18%	14%	8%	13%	15%	15%
	Robbery at Residential Premises	4%	7%	8%	7%	10%	10%	10%	12%	18%	16%	15%	20%	22%	21%	16%	8%	13%	17%	19%
	Pointing/Discharging a firearm	2%	2%	3%	4%	3%	4%	4%	5%	7%	7%	8%	10%	9%	9%	9%	3%	5%	8%	9%
	Carjacking	4%	5%	6%	5%	5%	8%	6%	7%	8%	8%	6%	8%	8%	10%	6%	5%	7%	7%	8%
	Truck Hijacking	6%	6%	6%	3%	7%	10%	14%	7%	10%	16%	18%	25%	22%	23%	29%	5%	10%	20%	25%
	Bank Robbery	9%	12%	12%	2%	13%	11%	14%	38%	67%	39%	85%	21%	64%		29%	9%	33%	49%	46%

Table 23: RSA and provincial (KZN, Li, Mp): Percentage representation of immigrants + foreign visitors + SA Naturalised accused of firearm related crime per annum

		Accused: % Immigrants + Foreign visitors + SA Citizens naturalised															Accused: % Immigrants + Foreign visitors + SA Citizens naturalised average per annum			
Province	Crime	1999/ 2000	2000/ 1	2001/ 2	2002/ 3	2003/ 4	2004/ 5	2005/ 6	2006/ 7	2007/ 8	2008/ 9	2009/10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	200/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
KZN	Unlawful posession of firearm/amm	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
	Murder	2%	2%	2%	1%	2%	2%	1%	3%	1%	2%	2%	2%	2%	4%	2%	2%	2%	2%	3%
	Attempted Murder	2%	2%	2%	2%	1%	2%	1%	3%	1%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
	Aggravated robbery	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	3%	2%	4%	3%	3%	2%	2%	2%	3%
	Robbery Cash in transit	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	3%	0%	1%	0%	1%
	Robbery at Non-residential Premises	2%	2%	2%	2%	2%	2%	1%	4%	3%	1%	2%	2%	7%	2%	2%	2%	3%	2%	4%
	Robbery at Residential Premises	2%	3%	2%	1%	2%	4%	0%	2%	2%	2%	3%	2%	3%	3%	4%	2%	2%	2%	4%
	Pointing/Discharging a firearm	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	2%	2%	3%	2%	3%	2%	2%	2%	2%
	Carjacking	2%	1%	1%	2%	1%	1%	2%	2%	2%	2%	3%	1%	4%	2%	3%	1%	2%	2%	3%
	Truck Hijacking	4%	3%	4%	9%	6%	3%	5%	0%	10%	8%	0%	7%	14%	8%	14%	6%	5%	5%	12%
	Bank Robbery	3%	4%	0%	3%	0%	8%	0%	0%	0%	0%	0%					2%	2%	0%	
Li	Unlawful posession of firearm/amm	4%	3%	2%	3%	2%	4%	6%	4%	7%	4%	7%	11%	17%	16%	22%	3%	5%	8%	18%
	Murder	5%	4%	2%	4%	4%	5%	4%	7%	4%	5%	7%	8%	9%	8%	9%	4%	5%	7%	9%
	Attempted Murder	2%	5%	2%	1%	3%	5%	5%	6%	7%	4%	7%	9%	15%	10%	10%	3%	6%	7%	11%
	Aggravated robbery	3%	4%	2%	4%	3%	4%	4%	6%	7%	6%	9%	11%	15%	13%	14%	3%	5%	8%	14%
	Robbery Cash in transit	0%	0%	0%	0%	0%	0%	5%	25%	11%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%
	Robbery at Non-residential Premises	4%	2%	4%	13%	0%	0%	0%	2%	7%	4%	7%	6%	11%	10%	9%	5%	2%	5%	10%
	Robbery at Residential Premises	9%	7%	3%	5%	2%	1%	5%	5%	14%	5%	9%	12%	26%	10%	22%	4%	6%	9%	22%
	Pointing/Discharging a firearm	4%	3%	3%	3%	3%	5%	4%	3%	4%	3%	3%	7%	9%	8%	7%	3%	4%	4%	8%
	Carjacking	0%	2%	0%	1%	3%	3%	14%	7%	3%	4%	1%	13%	8%	5%	6%	2%	7%	6%	6%
	Truck Hijacking	0%	9%	0%	0%	11%	0%	0%	33%		25%	43%	8%	9%	0%	50%	5%	11%	25%	20%
	Bank Robbery	0%	0%	0%	22%	67%	0%	0%	0%			0%					22%	0%	0%	
Mp	Unlawful posession of firearm/amm	3%	2%	3%	3%	2%	3%	2%	4%	6%	3%	6%	11%	9%	12%	13%	3%	4%	7%	11%
	Murder	4%	2%	4%	3%	3%	2%	3%	4%	5%	3%	5%	9%	4%	5%	6%	3%	4%	6%	5%
	Attempted Murder	3%	2%	4%	5%	4%	2%	3%	4%	3%	5%	6%	6%	3%	6%	8%	3%	3%	6%	6%
	Aggravated robbery	4%	2%	4%	3%	3%	3%	3%	3%	4%	3%	4%	6%	5%	4%	6%	3%	3%	4%	5%
	Robbery Cash in transit	8%	0%	0%	11%	8%	10%	0%	4%	0%	0%	5%	60%	0%	0%	0%	5%	4%	22%	0%
	Robbery at Non-residential Premises	1%	2%	2%	1%	0%	0%	0%	4%	4%	5%	3%	3%	4%	4%	4%	1%	2%	4%	4%
	Robbery at Residential Premises	15%	1%	3%	2%	5%	9%	1%	2%	2%	4%	8%	6%	3%	4%	11%	3%	3%	6%	6%
	Pointing/Discharging a firearm	3%	3%	2%	3%	2%	4%	2%	2%	1%	4%	3%	6%	4%	6%	4%	2%	2%	4%	5%
	Carjacking	1%	2%	4%	8%	1%	3%	7%	2%	10%	3%	5%	8%	11%	4%	5%	4%	5%	5%	7%
	Truck Hijacking	14%	15%	16%	0%	17%	29%	29%	26%	20%	19%	11%	40%	33%	34%	8%	13%	26%	26%	25%
	Bank Robbery	13%	0%	8%	22%	22%	0%	0%	0%	17%		67%	0%			0%	13%	4%	33%	0%

Table 24: RSA and provincial (NC, NW & WC): Percentage representation of immigrants + foreign visitors + SA Naturalised accused of firearm related crime per annum

		Accused: % Immigrants + Foreign visitors + SA Citizens naturalised														Accused: % Immigrants + Foreign visitors + SA Citizens naturalised average per annum			
Province	Crime	1999/ 2000	2000/ 1	2001/ 2	2002/ 3	2003/ 4	2004/ 5	2005/ 6	2006/ 7	2007/ 8	2008/ 9	2009/10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	200/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
NC	Unlawful posession of firearm/amm	4%	13%	19%	2%	2%	4%	1%	2%	8%	4%	2%	5%	5%	6%	7%	9%	4%	4%	6%
	Murder	2%	1%	3%	2%	2%	1%	0%	0%	2%	0%	2%	2%	2%	2%	2%	2%	1%	1%	2%
	Attempted Murder	1%	0%	1%	1%	0%	1%	0%	1%	2%	1%	2%	2%	3%	4%	3%	1%	1%	2%	3%
	Aggravated robbery	0%	1%	0%	3%	1%	1%	1%	1%	1%	2%	1%	0%	2%	2%	4%	1%	1%	1%	2%
	Robbery Cash in transit						0%		0%	0%	0%	0%		0%		0%		0%	0%	0%
	Robbery at Non-residential Premises	0%	1%	3%	0%		0%	0%	0%	0%	4%	2%	0%	4%	1%	7%	1%	0%	2%	4%
	Robbery at Residential Premises	0%	0%	0%	0%	0%	0%	0%	0%	8%	0%	5%	3%	1%	3%	4%	0%	2%	3%	3%
	Pointing/Discharging a firearm	1%	2%	4%	4%	5%	3%	2%	4%	3%	5%	3%	3%	4%	5%	9%	4%	3%	4%	6%
	Carjacking	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	9%	39%	0%	0%	0%	16%
	Truck Hijacking		0%						0%	0%	0%		0%	0%	0%		0%	0%	0%	0%
	Bank Robbery	0%				80%	57%		0%	0%			0%				80%	19%	0%	
NW	Unlawful posession of firearm/amm	3%	2%	2%	4%	3%	3%	4%	6%	5%	9%	9%	11%	8%	9%	10%	3%	5%	9%	9%
	Murder	1%	3%	2%	4%	2%	3%	4%	7%	4%	5%	5%	6%	6%	7%	8%	3%	4%	5%	7%
	Attempted Murder	2%	2%	2%	4%	2%	3%	4%	3%	8%	6%	8%	4%	5%	6%	7%	3%	4%	6%	6%
	Aggravated robbery	2%	3%	2%	5%	2%	2%	3%	4%	5%	6%	6%	5%	5%	6%	7%	3%	4%	6%	6%
	Robbery Cash in transit	5%	0%	0%	0%	0%	0%	5%	6%	7%	0%	0%	0%	0%	1%	2%	0%	4%	0%	1%
	Robbery at Non-residential Premises	0%	1%	1%	4%	0%	1%	3%	4%	3%	3%	6%	5%	4%	5%	6%	2%	3%	5%	5%
	Robbery at Residential Premises	4%	3%	2%	5%	5%	5%	10%	13%	19%	15%	11%	7%	6%	11%	13%	4%	12%	11%	10%
	Pointing/Discharging a firearm	2%	2%	3%	2%	3%	3%	3%	3%	4%	3%	7%	6%	4%	6%	7%	2%	3%	6%	6%
	Carjacking	0%	3%	1%	8%	4%	6%	6%	5%	6%	9%	6%	4%	2%	7%	8%	4%	6%	6%	6%
	Truck Hijacking	0%	0%	15%	25%	0%	21%	17%	32%	11%	24%	20%	14%	0%	21%	22%	10%	20%	19%	14%
	Bank Robbery	0%	11%	17%	0%	0%			0%	50%	0%	0%	14%	100%	0%	0%	7%	25%	5%	33%
WC	Unlawful posession of firearm/amm	2%	1%	2%	1%	1%	1%	2%	1%	3%	4%	5%	5%	6%	6%	7%	1%	2%	4%	7%
	Murder	1%	1%	1%	1%	1%	1%	1%	2%	2%	3%	1%	3%	2%	3%	3%	1%	1%	2%	3%
	Attempted Murder	0%	1%	1%	1%	1%	1%	2%	1%	2%	3%	2%	2%	3%	3%	2%	1%	1%	2%	3%
	Aggravated robbery	1%	1%	2%	1%	2%	2%	2%	2%	4%	4%	4%	3%	4%	4%	4%	1%	2%	4%	4%
	Robbery Cash in transit	0%	0%	0%	0%	0%	0%	0%	0%	0%	7%	1%	0%	9%	0%	7%	0%	0%	2%	5%
	Robbery at Non-residential Premises	1%	2%	3%	0%	4%	3%	0%	6%	5%	3%	4%	4%	5%	4%	4%	2%	4%	4%	4%
	Robbery at Residential Premises	0%	0%	1%	1%	0%	2%	3%	2%	8%	9%	10%	7%	7%	7%	6%	0%	4%	9%	6%
	Pointing/Discharging a firearm	2%	1%	1%	2%	2%	2%	2%	2%	3%	4%	4%	5%	4%	4%	5%	1%	2%	4%	4%
	Carjacking	1%	0%	1%	1%	3%	2%	3%	3%	3%	2%	4%	1%	1%	3%	5%	1%	3%	2%	3%
	Truck Hijacking	0%	0%	0%	0%		0%	0%	0%	0%	6%	0%	0%	0%	0%	0%	0%	0%	2%	0%
	Bank Robbery	0%	0%	0%	9%	0%	0%	0%	0%	0%	0%	0%	0%				2%	0%	0%	

3.6. Comparison of WSG to SAPS Crime Statistics: 2004/5-2013/14

In the latest 2014/15 SAPS statistics[84], there is a retrospective downward adjustment of the 2005/6-2013/14 crime numbers. To our knowledge, no explanation for the adjustment has been provided to date.

We have calculated the differences between the original (pre-adjusted) SAPS crime figures and the new (post adjusted) SAPS figures as a percentage of the original SAPS figures. The retrospective adjustment percentages are provided in Table 29. The 2015 retrospectively adjusted crime numbers are provided in Table 30, together with the WSG crime numbers; the discrepancy percentages between these two sets of figures are provided in Table 31. The discrepancies between the WSG and unadjusted crime figures at national and provincial levels are provided in Table 25 - Table 28.

There are therefore three sources of SAPS crime data: The original published SAPS crime statistics up until 2013/14, the retrospectively adjusted published SAPS crime statistics up until 2014/15, and the WSG statistics. This section of the report compares the numbers of crimes in these sets of data and the growth rates that these sets of data provide:

3.6.1. Comparisons of the historical SAPS and WSG crime numbers

As explained in Chapter 2, there are several methodological differences between the crime data of this report and the data on which the SAPS crime statistics are based. The reasons for the non-comparability of the two sets of results are:

1. The data on which the WSG report is based has been updated by SAPS retrospectively, whereas the official SAPS crime statistics are derived from reported cases at 12 midnight, 6 months before the published statistics are reported. Furthermore, the WSG report data is based on crimes committed up to 31 March 2014 but extracted in June 2015. Thus the dataset of crimes used in the present analysis would reflect a much more up-to-date picture of crimes committed retrospectively compared to the SAPS analysis.
2. The official SAPS crime statistics are derived from crimes categorised by reported date whereas the present analysis is based on crimes categorised by date committed. This difference in the underlying philosophies of the timing of crime incidents is one of the reasons for discrepancies in the two sets of crime statistics as several crimes are reported late/ retrospectively. However the reporting/committed dates of crimes such as murder, bank robberies and cash in transit robberies may be less likely to differ than in the case of other types of crime.

Clearly, it is important to compare the WSG and SAPS results to evaluate the messages conveyed using the published SAPS crime statistics on the levels of crime and the trends over time in these crime levels.

[84] http://www.saps.gov.za/resource_centre/publications/statistics/crimestats/2015/crime_stats.php

Accordingly, our comparisons examined the percentage differences in crimes levels per SAPS year, and thereafter we analysed the compound annual growth rates of firearm related crimes for the FCA related time periods calculated on the SAPS published data, in the same way as we had calculated these rates based on our SAPS raw data, to see if the annual growth rates in crimes would be similar.

3.6.2. Comparisons of differences in crimes levels per SAPS year: Unadjusted SAPS figures

Both the numbers of crimes and the rates per 100,000 of the WSG report were compared to the corresponding values in the 2013/14 published SAPS crime statistics[85] . The discrepancies in the number of crimes were calculated by subtracting the SAPS figures from the corresponding WSG figures and then dividing by the SAPS figures. Therefore, for example, a positive discrepancy of 2% would indicate that the WSG figure is higher than the SAPS figure by 2% of the SAPS figure. Likewise a negative discrepancy of -2% would indicate that the WSG figure is lower than the SAPS figure by 2% of the SAPS figure. Table 25 provides these discrepancies for all provinces combined, and Table 26 - Table 28 provide the discrepancies for the nine provinces.

At national level, the numbers of murders and attempted murders obtained in our report are generally 5%-7% higher and our numbers of sexual crimes lower by 0%-5% in the past five years. Our stock theft numbers are substantially higher. Our carjacking and truck hijacking are 7%-10% higher. It should be noted that the base of the hijackings figures, particularly the truck hijacking figures, are relatively low especially at provincial levels, and so even small discrepancies produce large percentage differences. Numbers of robberies at residential and non-residential premises are within 4% in the past seven years.

At provincial level, the discrepancies in the numbers of murders and attempted murders are highest for Gauteng with our numbers always higher (Table 26). The SAPS murder figures for Gauteng have been challenged by discrepancies between the published SAPS numbers of murders and the count by the Gauteng Forensic Pathology Services' mortuaries of bodies due to deaths from assault, rape, shootings, stabbings and strangulation for those two years[86] (September 23, 2015). The official SAPS crime statistics for Gauteng murder for the combined 2012/13 and 2013/14 years is 6 330 (unadjusted). Our WSG figure is 6,894. The count by the Gauteng Forensic Pathology Services' mortuaries of bodies due to deaths from assault, rape, shootings, stabbings and strangulation for the combined 2012/13 and 2013/14 years is 7,188. Therefore, relative to the mortuary figure, the SAPS published murder figures are 11.9% lower than the mortuary figures, while the WSG figures are 4.1% lower. The discrepancy in the numbers is probably due to late capturing of data into the SAPS system, or un-updated crime records when a victim of a violent crime dies

85 http://www.saps.gov.za/resource_centre/publications/statistics/crimestats/2014/crime_stats.php

86 http://www.iol.co.za/news/crime-courts/police-are-undercounting-murder-1.1920043#.Vkk_DnYrK70

and the crime category for that crime should be changed. While the published SAPS crime statistics do not incorporate these updates, the SAPS data provided for the WSG report should incorporated these amendments. It is possible that these amendments have not been completed for the 2011/12 and 2012/13 SAPS years.

Table 25: RSA: Percentage differences between WSG and SAPS crime statistics: Numbers of crimes (2004/5-2013/14) (+ indicates WSG > SAPS)

CRIME CATEGORY	National Total									
	2004/5-2005/6	2005/6-2006/7	2006/7-2007/8	2007/8-2008/9	2008/9-2009/10	2009/10-2010/11	2009/10-2010/11	2010/11-2011/12	2011/12-2012/13	2012/13-2013/14
CONTACT CRIMES										
Murder	-2%	1%	3%	5%	4%	7%	6%	6%	6%	5%
Total Sexual Crimes	12%	10%	12%	9%	-3%	1%	1%	0%	-2%	-5%
Attempted murder	-4%	1%	4%	3%	4%	5%	6%	7%	6%	5%
Assault with the intent to inflict grievous bodily harm	-8%	-2%	0%	0%	0%	0%	1%	1%	1%	0%
Common assault	-4%	-1%	0%	0%	0%	0%	0%	0%	0%	0%
Common robbery	-5%	-1%	-1%	0%	0%	1%	1%	1%	1%	1%
Robbery with aggravating circumstances	-1%	2%	2%	2%	1%	2%	2%	2%	2%	1%
CONTACT-RELATED CRIMES										
Arson	-13%	-5%	-1%	-1%	-1%	1%	0%	1%	1%	0%
Malicious injury to property	-4%	-1%	0%	0%	0%	0%	0%	0%	0%	-1%
PROPERTY-RELATED CRIMES										
Burglary at non-residential premises	-6%	-1%	0%	0%	0%	0%	0%	0%	0%	0%
Burglary at residential premises	-4%	0%	1%	2%	1%	1%	1%	2%	2%	1%
Theft of motor vehicle and motorcycle	-2%	-1%	-1%	0%	-1%	-1%	-1%	-1%	-1%	-1%
Theft out of or from motor vehicle	-3%	-1%	0%	0%	0%	0%	0%	0%	0%	0%
Stock-theft	-13%	5%	10%	10%	8%	11%	13%	12%	12%	10%
CRIME DETECTED AS A RESULT OF POLICE ACTION										
Unlawful possession of firearms and ammunition	-5%	-1%	1%	3%	5%	3%	3%	1%	-2%	-2%
Drug-related crime	-4%	-1%	-1%	-1%	-1%	-1%	0%	0%	0%	0%
Driving under the influence of alcohol or drugs	-2%	-1%	0%	0%	0%	0%	-1%	1%	0%	0%
OTHER SERIOUS CRIMES										
All theft not mentioned elsewhere	2%	6%	8%	9%	10%	11%	11%	10%	10%	9%
SUBCATEGORIES OF AGGRAVATED ROBBERY										
Carjacking	6%	8%	7%	7%	7%	9%	10%	10%	10%	7%
Truck hijacking	10%	6%	14%	10%	6%	7%	7%	7%	8%	8%
Robbery at residential premises	-11%	-1%	4%	3%	2%	3%	3%	4%	4%	3%
Robbery at non-residential premises	-9%	2%	10%	3%	1%	1%	1%	1%	1%	0%
OTHER CRIME CATEGORIES										
Culpable homicide	0%	1%	3%	5%	4%	8%	7%	8%	6%	7%
Public violence	-3%	2%	4%	4%	3%	6%	7%	10%	6%	3%
Crimen injuria	-1%	2%	3%	3%	3%	3%	3%	3%	3%	2%
Neglect and ill-treatment of children	-10%	-7%	-4%	-3%	-2%	0%	3%	2%	1%	0%
Kidnapping	-7%	-1%	5%	7%	12%	9%	10%	9%	15%	9%

Table 26: EC, FS and Gauteng: Percentage differences in numbers of crimes between WSG and SAPS crime statistics (2004/5-2013/14)

CRIME CATEGORY	Eastern Cape Provincial Total										Free State Provincial Total										Gauteng Provincial Total									
	2004/5-2005/6	2005/6-2006/7	2006/7-2007/8	2007/8-2008/9	2008/9-2009/10	2009/10-2010/11	2009/10-2010/11	2010/11-2011/12	2011/12-2012/13	2012/13-2013/14	2004/5-2005/6	2005/6-2006/7	2006/7-2007/8	2007/8-2008/9	2008/9-2009/10	2009/10-2010/11	2009/10-2010/11	2010/11-2011/12	2011/12-2012/13	2012/13-2013/14	2004/5-2005/6	2005/6-2006/7	2006/7-2007/8	2007/8-2008/9	2008/9-2009/10	2009/10-2010/11	2009/10-2010/11	2010/11-2011/12	2011/12-2012/13	2012/13-2013/14
CONTACT CRIMES																														
Murder	-20%	-13%	-4%	1%	0%	2%	2%	3%	3%	3%	2%	2%	5%	6%	3%	4%	6%	6%	5%	5%	5%	5%	6%	7%	6%	12%	10%	9%	11%	7%
Total Sexual Crimes	-9%	-15%	4%	0%	-8%	1%	0%	1%	-2%	-7%	5%	5%	5%	6%	1%	2%	4%	1%	-5%	-9%	23%	19%	15%	10%	-8%	2%	2%	2%	1%	-2%
Attempted murder	-34%	-12%	-1%	-2%	-1%	1%	3%	6%	6%	2%	5%	1%	5%	4%	4%	5%	4%	4%	7%	2%	2%	4%	6%	5%	6%	6%	10%	10%	11%	6%
Assault with the intent to inflict grievous bodily harm	-35%	-12%	-3%	-3%	-2%	-1%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	1%	0%	0%	1%	1%	2%	2%	0%
Common assault	-29%	-9%	-2%	-1%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%
Common robbery	-34%	-14%	-4%	-1%	-1%	1%	0%	0%	2%	-1%	-1%	0%	0%	-1%	0%	1%	1%	2%	1%	0%	0%	0%	0%	0%	0%	1%	2%	2%	0%	1%
Robbery with aggravating circumstances	-23%	-8%	1%	0%	0%	1%	1%	1%	2%	1%	3%	1%	2%	2%	1%	1%	2%	2%	2%	1%	2%	3%	3%	3%	1%	2%	2%	2%	4%	1%
CONTACT-RELATED CRIMES																														
Arson	-55%	-26%	-4%	-4%	-5%	-1%	0%	1%	0%	-1%	0%	0%	0%	-2%	-1%	2%	0%	0%	1%	-1%	0%	0%	0%	1%	-1%	2%	1%	2%	3%	0%
Malicious injury to property	-27%	-8%	-1%	-2%	-1%	0%	0%	0%	0%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%
PROPERTY-RELATED CRIMES																														
Burglary at non-residential premises	-31%	-11%	0%	-2%	-1%	0%	0%	1%	0%	-1%	0%	2%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%	0%	0%	0%	1%	0%	1%	1%	-1%
Burglary at residential premises	-30%	-7%	1%	2%	1%	0%	0%	1%	1%	0%	2%	1%	2%	1%	1%	0%	1%	1%	1%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%
Theft of motor vehicle and motorcycle	-21%	-9%	-2%	-2%	-2%	-2%	-2%	-1%	-1%	-3%	-2%	0%	-1%	0%	-2%	-1%	-2%	-3%	-2%	-2%	0%	0%	0%	0%	-1%	-1%	-1%	-2%	-1%	-1%
Theft out of or from motor vehicle	-21%	-5%	-1%	0%	0%	1%	0%	0%	0%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Stock-theft	-60%	-17%	9%	6%	7%	12%	13%	12%	11%	10%	11%	12%	10%	8%	6%	8%	7%	7%	7%	9%	27%	33%	25%	34%	33%	39%	44%	49%	33%	17%
CRIME DETECTED AS A RESULT OF POLICE ACTION																														
Unlawful possession of firearms and ammunition	-40%	-18%	-7%	0%	2%	4%	1%	1%	0%	-1%	3%	3%	6%	4%	2%	2%	4%	5%	-1%	-1%	5%	7%	6%	11%	14%	8%	8%	4%	-3%	-3%
Drug-related crime	-22%	-10%	-3%	0%	-2%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%	0%	0%	0%	0%	-2%	-2%	-2%	-4%	-5%	-3%	-1%	-1%	-1%	-1%
Driving under the influence of alcohol or drugs	-11%	-4%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	-1%	0%	0%	-1%	0%	0%	-1%	0%	-1%	0%	0%	0%	2%	1%	-1%	-2%	2%	0%	0%
OTHER SERIOUS CRIMES																														
All theft not mentioned elsewhere	-19%	0%	7%	9%	9%	11%	9%	10%	11%	9%	4%	5%	7%	7%	8%	8%	9%	8%	9%	10%	5%	7%	8%	9%	10%	13%	13%	11%	10%	9%
SUBCATEGORIES OF AGGRAVATED ROBBERY																														
Carjacking	-33%	-4%	2%	0%	0%	5%	4%	7%	7%	5%	4%	16%	9%	2%	5%	12%	13%	9%	11%	9%	10%	9%	8%	8%	8%	9%	10%	9%	9%	6%
Truck hijacking	-63%	-58%	-17%	0%	-10%	-2%	4%	10%	40%	6%	-2%	-2%	18%	16%	3%	3%	15%	0%	7%	11%	17%	14%	12%	9%	7%	6%	5%	7%	6%	2%
Robbery at residential premises	-83%	-54%	20%	2%	-1%	3%	1%	2%	3%	2%	3%	3%	31%	2%	3%	5%	4%	5%	5%	3%	1%	1%	1%	3%	2%	3%	3%	4%	5%	3%
Robbery at non-residential premises	-67%	-26%	24%	9%	1%	3%	1%	2%	0%	0%	2%	4%	31%	1%	1%	1%	0%	1%	0%	0%	2%	2%	2%	2%	0%	1%	1%	1%	2%	0%
OTHER CRIME CATEGORIES																														
Culpable homicide	-18%	-12%	-4%	2%	4%	6%	7%	5%	6%	5%	2%	1%	3%	4%	4%	19%	8%	7%	12%	7%	4%	3%	4%	6%	4%	5%	4%	7%	5%	5%
Public violence	-25%	-12%	0%	-5%	2%	4%	8%	7%	4%	1%	0%	0%	-5%	3%	8%	10%	7%	7%	2%	4%	3%	4%	5%	11%	3%	9%	5%	14%	10%	2%
Crimen injuria	-22%	-2%	2%	3%	4%	4%	4%	5%	5%	6%	0%	0%	0%	0%	0%	1%	1%	1%	1%	0%	5%	5%	5%	5%	5%	4%	5%	5%	5%	4%
Neglect and ill-treatment of children	-29%	-27%	-4%	-5%	-4%	-3%	2%	5%	2%	-2%	-3%	-8%	1%	-3%	-3%	1%	5%	1%	3%	3%	-8%	-4%	-2%	-1%	1%	-3%	2%	0%	-3%	-1%
Kidnapping	-56%	-51%	-16%	1%	9%	20%	7%	7%	13%	9%	2%	6%	5%	17%	8%	9%	3%	8%	7%	2%	1%	4%	9%	8%	19%	12%	16%	13%	20%	10%

Table 27: KZN, Limpopo and Mpumalanga: Percentage differences in numbers of crimes between WSG and SAPS crime statistics (2004/5-2013/14)

CRIME CATEGORY	KwaZulu-Natal Provincial Total										Limpopo Provincial Total										Mpumalanga Provincial Total									
	2004/5-2005/6	2005/6-2006/7	2006/7-2007/8	2007/8-2008/9	2008/9-2009/10	2009/10-2010/11	2009/10-2010/11	2010/11-2011/12	2011/12-2012/13	2012/13-2013/14	2004/5-2005/6	2005/6-2006/7	2006/7-2007/8	2007/8-2008/9	2008/9-2009/10	2009/10-2010/11	2009/10-2010/11	2010/11-2011/12	2011/12-2012/13	2012/13-2013/14	2004/5-2005/6	2005/6-2006/7	2006/7-2007/8	2007/8-2008/9	2008/9-2009/10	2009/10-2010/11	2009/10-2010/11	2010/11-2011/12	2011/12-2012/13	2012/13-2013/14
CONTACT CRIMES																														
Murder	2%	4%	4%	6%	5%	6%	7%	7%	7%	5%	3%	3%	4%	8%	6%	6%	11%	7%	6%	5%	-3%	6%	2%	5%	5%	7%	6%	10%	8%	7%
Total Sexual Crimes	21%	16%	18%	17%	1%	2%	0%	0%	-1%	-3%	3%	6%	10%	9%	1%	2%	2%	0%	1%	0%	4%	5%	5%	6%	2%	1%	1%	1%	2%	-4%
Attempted murder	0%	2%	3%	3%	4%	5%	6%	6%	5%	4%	-6%	2%	7%	5%	4%	4%	8%	5%	5%	5%	-2%	3%	1%	1%	2%	4%	2%	6%	7%	8%
Assault with the intent to inflict grievous bodily harm	-3%	-2%	-2%	0%	0%	0%	0%	1%	1%	0%	-8%	0%	0%	0%	0%	1%	1%	1%	1%	0%	-4%	0%	0%	0%	0%	0%	0%	1%	1%	0%
Common assault	-2%	-1%	-1%	0%	0%	0%	0%	0%	0%	0%	-7%	0%	0%	0%	0%	1%	1%	0%	1%	0%	-3%	0%	0%	0%	0%	0%	0%	1%	0%	0%
Common robbery	-2%	-1%	-1%	0%	0%	1%	0%	1%	1%	0%	-4%	0%	0%	0%	0%	2%	2%	-1%	1%	1%	-3%	1%	0%	0%	0%	1%	1%	1%	1%	1%
Robbery with aggravating circumstances	1%	2%	3%	2%	1%	1%	1%	2%	1%	1%	-4%	3%	3%	3%	2%	3%	3%	6%	2%	2%	-4%	2%	2%	2%	1%	2%	1%	2%	3%	2%
CONTACT-RELATED CRIMES																														
Arson	-7%	-7%	-4%	-2%	0%	-1%	1%	1%	0%	-1%	-8%	1%	0%	1%	2%	0%	0%	0%	0%	0%	-5%	0%	0%	1%	-1%	1%	-1%	4%	0%	0%
Malicious injury to property	-2%	-1%	-1%	0%	0%	0%	0%	0%	0%	0%	-7%	0%	0%	0%	0%	0%	1%	0%	0%	0%	-4%	0%	0%	0%	-1%	0%	0%	0%	-1%	-1%
PROPERTY-RELATED CRIMES																														
Burglary at non-residential premises	-3%	-1%	0%	0%	-1%	0%	-1%	0%	0%	-1%	-13%	0%	1%	0%	0%	0%	0%	0%	0%	0%	-5%	5%	1%	0%	1%	2%	0%	1%	1%	0%
Burglary at residential premises	-1%	0%	0%	1%	1%	1%	1%	1%	1%	0%	-4%	1%	1%	1%	1%	1%	1%	1%	1%	1%	-2%	2%	2%	2%	1%	0%	0%	1%	1%	0%
Theft of motor vehicle and motorcycle	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-5%	-2%	0%	0%	-1%	-1%	-1%	-1%	-1%	-2%	-2%	-1%	-1%	0%	-2%	-1%	-2%	-2%	-1%	-1%
Theft out of or from motor vehicle	-2%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	0%	-1%	-4%	0%	0%	-1%	0%	0%	1%	-1%	0%	0%	-2%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Stock-theft	0%	2%	4%	6%	3%	4%	8%	8%	7%	5%	4%	37%	14%	19%	22%	24%	19%	19%	19%	12%	5%	23%	17%	13%	8%	9%	11%	12%	16%	10%
CRIME DETECTED AS A RESULT OF POLICE ACTION																														
Unlawful possession of firearms and ammunition	-2%	-3%	-1%	0%	1%	0%	0%	-1%	-3%	-3%	-10%	-1%	2%	1%	2%	1%	8%	4%	2%	1%	-7%	1%	1%	3%	4%	2%	3%	1%	-1%	-4%
Drug-related crime	-2%	-1%	-1%	-1%	-1%	-1%	0%	0%	0%	-1%	-11%	1%	0%	1%	-1%	0%	1%	-1%	0%	0%	-8%	-1%	0%	0%	0%	0%	0%	0%	0%	0%
Driving under the influence of alcohol or drugs	0%	0%	0%	-1%	-1%	0%	0%	1%	0%	-1%	-2%	0%	0%	0%	0%	1%	0%	0%	-1%	0%	0%	0%	0%	1%	0%	0%	0%	1%	0%	0%
OTHER SERIOUS CRIMES																														
All theft not mentioned elsewhere	8%	10%	10%	10%	9%	9%	7%	7%	8%	7%	0%	5%	7%	9%	11%	12%	11%	9%	12%	10%	3%	6%	6%	9%	9%	9%	10%	11%	11%	10%
SUBCATEGORIES OF AGGRAVATED ROBBERY																														
Carjacking	6%	6%	8%	7%	7%	9%	10%	11%	10%	9%	-8%	11%	10%	5%	5%	10%	11%	15%	9%	10%	3%	12%	2%	3%	6%	11%	11%	12%	8%	8%
Truck hijacking	16%	19%	32%	11%	6%	13%	7%	17%	10%	24%	-11%	25%	60%	0%	7%	21%	15%	5%	0%	8%	9%	9%	18%	5%	5%	13%	11%	5%	8%	14%
Robbery at residential premises	-3%	5%	5%	2%	2%	2%	3%	4%	2%	2%	-16%	1%	15%	3%	3%	5%	4%	8%	4%	4%	-20%	2%	6%	2%	5%	2%	3%	5%	6%	4%
Robbery at non-residential premises	-2%	17%	39%	3%	2%	1%	1%	1%	1%	0%	-43%	0%	23%	2%	1%	1%	1%	1%	1%	0%	-35%	0%	9%	4%	0%	1%	1%	1%	1%	1%
OTHER CRIME CATEGORIES																														
Culpable homicide	1%	0%	2%	2%	3%	5%	7%	6%	6%	7%	0%	1%	2%	7%	5%	13%	11%	10%	6%	10%	0%	4%	3%	4%	5%	4%	5%	9%	7%	7%
Public violence	1%	6%	-1%	11%	15%	2%	6%	10%	5%	2%	4%	3%	45%	10%	4%	5%	6%	10%	4%	5%	17%	2%	2%	0%	4%	9%	-3%	26%	11%	5%
Crimen injuria	5%	4%	5%	5%	4%	4%	4%	5%	5%	4%	-5%	2%	3%	3%	3%	2%	4%	4%	4%	3%	5%	7%	6%	6%	8%	7%	7%	7%	5%	8%
Neglect and ill-treatment of children	-3%	-6%	-5%	-2%	-2%	-1%	-3%	-1%	1%	-9%	-16%	3%	-4%	4%	-3%	9%	8%	9%	12%	6%	-5%	1%	-2%	-4%	1%	-4%	6%	3%	-8%	5%
Kidnapping	-2%	4%	1%	5%	4%	5%	5%	5%	11%	7%	4%	4%	9%	5%	14%	8%	6%	10%	14%	8%	-11%	8%	-2%	9%	15%	4%	6%	7%	12%	10%

Table 28: NC, NW and WC: Percentage differences in numbers of crimes between WSG and SAPS crime statistics (2004/5-2013/14)

CRIME CATEGORY	Northern Cape Provincial Total										North West Provincial Total										Western Cape Provincial Total									
	2004/5-2005/6	2005/6-2006/7	2006/7-2007/8	2007/8-2008/9	2008/9-2009/10	2009/10-2010/11	2009/10-2010/11	2010/11-2011/12	2011/12-2012/13	2012/13-2013/14	2004/5-2005/6	2005/6-2006/7	2006/7-2007/8	2007/8-2008/9	2008/9-2009/10	2009/10-2010/11	2009/10-2010/11	2010/11-2011/12	2011/12-2012/13	2012/13-2013/14	2004/5-2005/6	2005/6-2006/7	2006/7-2007/8	2007/8-2008/9	2008/9-2009/10	2009/10-2010/11	2009/10-2010/11	2010/11-2011/12	2011/12-2012/13	2012/13-2013/14
CONTACT CRIMES																														
Murder	1%	3%	1%	3%	4%	4%	3%	5%	3%	5%	2%	5%	4%	7%	6%	10%	7%	6%	3%	7%	2%	3%	6%	3%	5%	7%	6%	6%	5%	6%
Total Sexual Crimes	1%	5%	7%	5%	2%	2%	0%	0%	3%	-3%	0%	6%	4%	1%	-4%	-2%	-3%	-5%	-7%	-9%	22%	25%	18%	14%	2%	-3%	-2%	-4%	-5%	-6%
Attempted murder	-2%	1%	-1%	2%	1%	0%	0%	2%	5%	3%	-6%	3%	10%	6%	6%	7%	5%	10%	4%	7%	0%	7%	6%	4%	8%	9%	7%	7%	5%	5%
Assault with the intent to inflict grievous bodily harm	-3%	1%	0%	0%	0%	0%	1%	1%	0%	0%	-8%	0%	1%	0%	0%	0%	0%	1%	1%	0%	-1%	0%	1%	0%	1%	1%	1%	1%	1%	0%
Common assault	-1%	0%	0%	1%	0%	0%	0%	1%	1%	0%	-6%	0%	0%	0%	0%	0%	0%	1%	1%	0%	-1%	0%	0%	0%	0%	0%	1%	1%	0%	0%
Common robbery	-2%	0%	-1%	0%	0%	1%	1%	1%	1%	1%	-7%	1%	0%	0%	0%	0%	2%	1%	2%	2%	-1%	1%	0%	0%	1%	1%	1%	1%	0%	0%
Robbery with aggravating circumstances	0%	2%	1%	2%	0%	-1%	1%	2%	2%	1%	-8%	1%	3%	3%	1%	3%	2%	3%	3%	3%	2%	1%	1%	1%	1%	1%	2%	2%	1%	1%
CONTACT-RELATED CRIMES																														
Arson	-3%	0%	0%	0%	1%	-1%	-1%	-1%	1%	2%	-10%	0%	1%	0%	-1%	1%	0%	-1%	1%	0%	-2%	2%	1%	0%	2%	1%	1%	2%	0%	1%
Malicious injury to property	-2%	0%	0%	1%	0%	-1%	1%	1%	0%	0%	-6%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PROPERTY-RELATED CRIMES																														
Burglary at non-residential premises	-3%	0%	0%	0%	0%	1%	0%	0%	1%	-1%	-9%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	0%
Burglary at residential premises	-1%	1%	1%	1%	1%	0%	0%	0%	1%	0%	-6%	1%	1%	1%	1%	1%	0%	1%	1%	0%	1%	2%	2%	2%	2%	2%	2%	3%	4%	3%
Theft of motor vehicle and motorcycle	-3%	0%	-4%	3%	-1%	-7%	-6%	-5%	1%	-6%	-3%	0%	-1%	0%	-1%	-1%	-2%	-1%	0%	-2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%
Theft out of or from motor vehicle	-1%	-1%	0%	0%	0%	0%	1%	0%	1%	-1%	-3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Stock-theft	6%	15%	15%	15%	18%	19%	17%	20%	13%	15%	2%	18%	13%	14%	9%	14%	16%	9%	10%	10%	9%	20%	18%	18%	15%	25%	22%	24%	34%	35%
CRIME DETECTED AS A RESULT OF POLICE ACTION																														
Unlawful possession of firearms and ammunition	-1%	-3%	3%	2%	5%	2%	7%	11%	-2%	0%	-5%	0%	5%	-3%	1%	6%	-1%	-1%	3%	-1%	1%	1%	0%	0%	0%	1%	1%	0%	-3%	-1%
Drug-related crime	-2%	-2%	3%	-3%	0%	0%	3%	-2%	0%	-1%	-8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Driving under the influence of alcohol or drugs	2%	1%	0%	0%	0%	0%	0%	0%	0%	1%	-3%	0%	0%	0%	-1%	0%	-1%	1%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
OTHER SERIOUS CRIMES																														
All theft not mentioned elsewhere	2%	5%	12%	13%	11%	10%	9%	9%	9%	9%	3%	8%	9%	13%	13%	12%	11%	11%	12%	10%	4%	5%	7%	9%	9%	10%	10%	9%	9%	9%
SUBCATEGORIES OF AGGRAVATED ROBBERY																														
Carjacking	0%	50%	0%	0%	0%	31%	0%	11%	14%	21%	-8%	9%	11%	10%	15%	15%	12%	22%	22%	19%	4%	4%	2%	5%	4%	5%	11%	9%	9%	9%
Truck hijacking		0%	0%	100%		0%	50%	0%	-25%		8%	0%	7%	14%	14%	9%	6%	4%	27%	17%	50%	10%	33%	39%	7%	14%	12%	6%	14%	18%
Robbery at residential premises	0%	0%	0%	33%	0%	-6%	2%	0%	6%	1%	-11%	2%	6%	3%	2%	7%	5%	5%	4%	6%	2%	2%	6%	3%	2%	2%	5%	4%	2%	2%
Robbery at non-residential premises	-33%	0%	13%	7%	0%	-2%	0%	0%	0%	2%	-12%	3%	13%	3%	2%	1%	1%	1%	1%	1%	5%	16%	24%	10%	1%	3%	2%	2%	1%	1%
OTHER CRIME CATEGORIES																														
Culpable homicide	3%	4%	4%	6%	5%	10%	9%	5%	7%	7%	1%	5%	5%	5%	3%	7%	7%	7%	6%	10%	6%	7%	7%	8%	6%	10%	6%	13%	7%	8%
Public violence	3%	9%	0%	-9%	4%	3%	3%	8%	0%	14%	-7%	10%	8%	6%	0%	8%	4%	8%	7%	12%	3%	3%	2%	2%	2%	3%	11%	6%	5%	5%
Crimen injuria	0%	1%	1%	0%	3%	3%	2%	2%	1%	1%	-5%	1%	1%	1%	2%	1%	2%	1%	1%	1%	-1%	0%	1%	0%	1%	1%	1%	1%	2%	0%
Neglect and i l l -treatment of children	-14%	-8%	-15%	-2%	-1%	-1%	16%	18%	-4%	1%	-8%	-5%	3%	-2%	3%	4%	4%	0%	8%	7%	-11%	-8%	-6%	-7%	-8%	3%	4%	1%	0%	0%
Kidnapping	-13%	-4%	29%	-11%	7%	5%	0%	5%	0%	-3%	-6%	6%	9%	12%	4%	2%	2%	15%	25%	16%	1%	3%	4%	5%	7%	8%	11%	8%	11%	8%

Table 29: Statistics SA/SAPS 2015 Retrospective downward adjustment percentages

CRIME CATEGORY	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014
CONTACT CRIMES (CRIMES AGAINST THE PERSON)									
Murder	-0.5%	-0.5%	-0.5%	-0.3%	-0.4%	-0.3%	-0.3%	-0.3%	-0.3%
Total Sexual Offences	-1.5%	-1.7%	-2.0%	-2.1%	-1.9%	-1.9%	-6.0%	-8.5%	-9.0%
Attempted murder	-0.8%	-0.9%	-0.8%	-0.8%	-0.9%	-0.8%	-0.8%	-0.9%	-0.7%
Assault with the intent to inflict grievous bodily harm	-0.5%	-0.6%	-0.6%	-0.7%	-0.7%	-0.6%	-0.5%	-0.4%	-0.5%
Common assault	-0.8%	-1.0%	-1.0%	-1.1%	-1.2%	-0.9%	-0.8%	-0.7%	-0.6%
Common robbery	-0.6%	-0.7%	-0.8%	-0.7%	-0.9%	-0.8%	-0.8%	-0.6%	-0.7%
Robbery with aggravating circumstances	-0.4%	-0.4%	-0.4%	-0.4%	-0.5%	-0.4%	-0.4%	-0.4%	-0.4%
CONTACT-RELATED CRIMES									
Arson	-4.6%	-5.5%	-5.7%	-5.4%	-5.8%	-5.6%	-6.5%	-6.2%	-5.8%
Malicious damage to property	-1.7%	-1.8%	-1.9%	-2.0%	-2.1%	-1.9%	-1.8%	-1.7%	-1.4%
PROPERTY-RELATED CRIMES									
Burglary at non-residential premises	-0.3%	-0.4%	-0.4%	-0.3%	-0.3%	-0.2%	-0.2%	-0.2%	-0.2%
Burglary at residential premises	-0.4%	-0.5%	-0.5%	-0.5%	-0.5%	-0.4%	-0.3%	-0.3%	-0.3%
Theft of motor vehicle and motorcycle	-0.4%	-0.4%	-0.3%	-0.4%	-0.4%	-0.5%	-0.5%	-0.5%	-0.4%
Theft out of or from motor vehicle	-0.3%	-0.5%	-0.5%	-0.6%	-0.7%	-0.6%	-0.7%	-0.5%	0.0%
Stock-theft	-6.8%	-9.3%	-9.5%	-9.7%	-9.8%	-9.9%	-11.1%	-11.1%	-11.7%
CRIME DETECTED AS A RESULT OF POLICE ACTION									
Illegal possession of firearms and ammunition	-1.4%	-1.4%	-1.0%	-0.9%	-0.8%	-0.6%	-0.6%	-0.4%	-0.4%
Drug-related crime	-1.1%	-0.3%	-0.2%	-0.2%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Driving under the influence of alcohol or drugs	-0.1%	-0.2%	-0.2%	-0.1%	-0.1%	-0.1%	0.0%	-0.1%	0.0%
Sexual offences detected as result of police action									
OTHER SERIOUS CRIMES									
All theft not mentioned elsewhere	-1.5%	-1.7%	-1.9%	-1.8%	-1.9%	-1.9%	-1.8%	-1.6%	-1.4%
Commercial crime	-4.3%	-3.8%	-3.3%	-3.5%	-3.1%	-3.2%	-2.8%	-2.8%	-2.6%
Shoplifting	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	-0.1%	0.0%
SUBCATEGORIES OF AGGRAVATED ROBBERY									
Carjacking	-0.3%	-0.5%	-0.4%	-0.4%	-0.3%	-0.6%	-0.5%	-0.6%	-0.4%
Truck hijacking	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Robbery of cash in transit	0.0%	0.0%	-0.2%	19.2%	0.0%	-0.3%	0.0%	0.0%	0.0%
Bank robbery	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Robbery at residential premises	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Robbery at non-residential premises	-0.1%	-0.3%	-0.4%	-0.4%	-0.2%	-0.2%	-0.3%	-0.2%	-0.3%

Table 30: RSA: SAPS versus WSG crime numbers 2005/6-2013/14 post SAPS retrospective adjustment

	SAPS 2015										WSG								
CRIME CATEGORY	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14
CONTACT CRIMES (CRIMES AGAINST THE PERSON)																			
Murder	18 455	19 106	18 400	18 084	16 767	15 893	15 554	16 213	17 023	17 805	18 680	19 807	19 382	18 951	17 970	16 962	16 608	17 274	17 938
Total Sexual Offences	67 064	64 071	62 484	69 197	66 992	64 921	60 539	60 888	56 680	53 617	74 891	72 819	69 571	68 730	68 865	66 582	64 385	65 257	59 826
Attempted murder	20 369	19 957	18 643	18 140	17 247	15 360	14 730	16 236	16 989	17 537	20 790	20 880	19 398	19 090	18 287	16 465	15 887	17 410	17 915
Assault with the intent to inflict grievous bodily harm	225 655	216 754	208 705	202 328	203 807	197 470	191 612	185 050	182 333	182 556	222 313	217 471	209 244	203 305	206 124	199 889	194 592	187 609	183 170
Common assault	225 434	207 869	195 885	190 709	194 922	184 103	180 165	171 653	166 081	161 486	225 079	209 889	197 819	192 663	197 536	186 294	182 575	173 336	166 741
Common robbery	74 221	70 598	64 417	58 764	56 993	54 442	52 566	53 196	53 505	54 927	73 718	70 749	64 847	59 337	58 098	55 477	53 554	53 923	54 138
Robbery with aggravating circumstances	119 242	126 038	117 760	120 920	113 200	101 039	100 769	105 488	118 963	129 045	121 536	129 613	121 160	122 483	115 547	103 234	103 543	108 380	121 029
CONTACT-RELATED CRIMES																			
Arson	7 247	7 438	6 948	6 445	6 304	6 157	5 996	5 665	5 458	5 127	7 214	7 776	7 346	6 783	6 736	6 559	6 486	6 104	5 799
Malicious damage to property	141 776	140 713	134 251	131 469	129 343	122 814	119 907	119 026	117 983	120 662	142 661	142 899	136 647	133 796	132 040	125 283	122 308	121 167	119 107
PROPERTY-RELATED CRIMES																			
Burglary at non-residential premises	54 217	58 240	62 756	69 829	71 544	68 907	69 902	73 492	73 464	74 358	53 897	58 539	62 797	69 947	72 122	68 972	70 389	73 924	73 262
Burglary at residential premises	261 402	248 462	236 638	245 465	255 278	246 612	244 667	261 319	259 784	253 716	263 626	253 217	241 916	249 872	259 029	250 357	249 393	266 847	263 202
Theft of motor vehicle and motorcycle	85 595	85 979	79 970	75 630	71 449	64 162	58 800	58 102	56 645	55 090	85 115	85 815	80 031	75 402	70 996	63 595	58 303	57 834	56 051
Theft out of or from motor vehicle	138 582	123 361	110 988	108 909	120 054	122 334	129 644	138 956	143 801	145 358	137 888	123 546	111 399	109 362	120 960	122 866	130 440	140 213	143 339
Stock-theft	26 526	26 155	26 053	27 255	29 428	26 942	27 611	26 465	24 534	24 965	30 210	31 768	31 639	32 581	36 058	33 927	34 590	33 386	30 812
CRIME DETECTED AS A RESULT OF POLICE ACTION																			
Illegal possession of firearms and ammunition	13 239	14 160	13 335	13 918	14 430	14 385	14 372	14 813	15 362	15 116	13 290	14 494	13 852	14 733	15 007	14 872	14 605	14 567	15 108
Drug-related crime	94 792	104 369	108 902	116 949	134 687	150 561	176 218	206 721	260 596	266 902	94 270	104 051	108 387	116 032	134 041	150 463	175 976	206 090	259 648
Driving under the influence of alcohol or drugs	33 076	38 210	48 338	56 121	62 904	66 645	69 410	71 025	69 725	68 561	32 931	38 175	48 480	56 116	62 740	66 311	70 002	70 985	69 514
Sexual offences detected as result of police action	-	-	-	-	-	-	2 726	4 175	4 720	6 340									
OTHER SERIOUS CRIMES																			
All theft not mentioned elsewhere	424 677	407 714	387 554	386 858	360 120	361 222	370 916	356 847	363 517	360 541	457 434	447 028	432 043	432 343	406 539	406 963	414 026	398 888	400 913
Commercial crime	51 911	59 637	63 233	75 166	82 414	85 646	85 570	89 138	76 744	67 830	0	0	0	0	0	0	0	0	0
Shoplifting	64 433	65 428	66 934	80 713	88 568	78 326	71 810	71 267	70 487	71 327	63 933	65 423	66 948	80 613	88 574	78 327	71 937	71 233	70 324
SUBCATEGORIES OF AGGRAVATED ROBBERY																			
Carjacking	12 783	13 534	14 152	14 855	13 852	10 541	9 417	9 931	11 180	12 773	13 795	14 610	15 221	15 917	15 136	11 680	10 402	10 945	12 037
Truck hijacking	829	892	1 245	1 437	1 412	999	821	943	991	1 279	879	1 021	1 365	1 526	1 516	1 071	877	1 016	1 068
Robbery of cash in transit	383	467	394	386	358	290	182	145	145	119	487	514	393	388	365	207	185	143	166
Bank robbery	59	129	144	102	93	39	35	7	21	17	80	138	145	101	93	62	31	6	23
Robbery at residential premises	10 173	12 761	14 481	18 438	18 786	16 889	16 766	17 950	19 284	20 281	10 035	13 213	14 858	18 835	19 355	17 428	17 423	18 632	19 794
Robbery at non-residential premises	4 384	6 675	9 836	13 885	14 504	14 637	15 912	16 343	18 573	19 170	4 495	7 360	10 153	14 043	14 700	14 810	16 157	16 570	18 702

Table 31: RSA: Percentage discrepancy in crime numbers - SAPS versus WSG 2005/6-2013/14 post SAPS retrospective adjustment

	WSG vs SAPS 2015								
CRIME CATEGORY	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14
CONTACT CRIMES (CRIMES AGAINST THE PERSON)									
Murder	1%	4%	5%	5%	7%	7%	7%	7%	5%
Total Sexual Offences	12%	14%	11%	-1%	3%	3%	6%	7%	6%
Attempted murder	2%	5%	4%	5%	6%	7%	8%	7%	5%
Assault with the intent to inflict grievous bodily harm	-1%	0%	0%	0%	1%	1%	2%	1%	0%
Common assault	0%	1%	1%	1%	1%	1%	1%	1%	0%
Common robbery	-1%	0%	1%	1%	2%	2%	2%	1%	1%
Robbery with aggravating circumstances	2%	3%	3%	1%	2%	2%	3%	3%	2%
CONTACT-RELATED CRIMES									
Arson	0%	5%	6%	5%	7%	7%	8%	8%	6%
Malicious damage to property	1%	2%	2%	2%	2%	2%	2%	2%	1%
PROPERTY-RELATED CRIMES									
Burglary at non-residential premises	-1%	1%	0%	0%	1%	0%	1%	1%	0%
Burglary at residential premises	1%	2%	2%	2%	1%	2%	2%	2%	1%
Theft of motor vehicle and motorcycle	-1%	0%	0%	0%	-1%	-1%	-1%	0%	-1%
Theft out of or from motor vehicle	-1%	0%	0%	0%	1%	0%	1%	1%	0%
Stock-theft	14%	21%	21%	20%	23%	26%	25%	26%	26%
CRIME DETECTED AS A RESULT OF POLICE ACTION									
Illegal possession of firearms and ammunition	0%	2%	4%	6%	4%	3%	2%	-2%	-2%
Drug-related crime	-1%	0%	0%	-1%	0%	0%	0%	0%	0%
Driving under the influence of alcohol or drugs	0%	0%	0%	0%	0%	-1%	1%	0%	0%
Sexual offences detected as result of police action									
OTHER SERIOUS CRIMES									
All theft not mentioned elsewhere	8%	10%	11%	12%	13%	13%	12%	12%	10%
Commercial crime									
Shoplifting	-1%	0%	0%	0%	0%	0%	0%	0%	0%
SUBCATEGORIES OF AGGRAVATED ROBBERY									
Carjacking	8%	8%	8%	7%	9%	11%	10%	10%	8%
Truck hijacking	6%	14%	10%	6%	7%	7%	7%	8%	8%
Robbery of cash in transit	27%	10%	0%	1%	2%	-29%	2%	-1%	14%
Bank robbery	36%	7%	1%	-1%	0%	59%	-11%	-14%	10%
Robbery at residential premises	-1%	4%	3%	2%	3%	3%	4%	4%	3%
Robbery at non-residential premises	3%	10%	3%	1%	1%	1%	2%	1%	1%

Table 32: RSA: Rate per 100,000 Discrepancy - SAPS versus WSG 2004/5-2013/14 pre SAPS retrospective adjustment based on SAPS 2013/14 crime statistics

Crime Category	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014
CONTACT CRIMES										
Murder	-1.8%	0.3%	2.9%	4.5%	4.0%	6.5%	6.0%	5.6%	6.6%	4.6%
Total Sexual Offences	11.7%	9.7%	11.4%	8.5%	-2.8%	0.5%	0.3%	-0.8%	-1.3%	-4.9%
Attempted murder	-4.4%	1.0%	3.4%	2.7%	3.9%	4.7%	5.9%	6.2%	6.8%	4.2%
GBH	-8.1%	-2.3%	-0.5%	-0.8%	-0.5%	0.1%	0.3%	0.4%	1.3%	-0.5%
Common assault	-25.8	-6.5	-1.4	-2.3	-1.7	-0.8	-0.3	-0.3	2.0	-2.3
Robbery with aggravating circumstances	-2.5	3.2	5.7	4.8	1.5	2.9	2.9	3.4	5.5	2.0
Common robbery	-10.1	-2.6	-1.2	-0.9	-0.2	0.7	0.8	0.5	1.1	0.0
CONTACT RELATED CRIME										
Arson	-2.3	-1.0	-0.2	-0.2	-0.2	0.0	0.0	0.0	0.1	-0.1
Malicious damage to property	-14.0	-4.3	-1.7	-1.9	-1.9	-1.1	-0.8	-1.2	0.9	-2.3
PROPERTY RELATED CRIME										
Burglary at non-residential premises	-7.7	-1.4	-0.1	-1.0	-0.6	0.2	-0.6	-0.2	1.0	-1.3
Burglary at residential premises	-22.7	0.8	6.2	6.3	5.1	3.2	4.0	4.7	10.9	2.8
Theft of motor vehicle and motorcycle	-4.0	-2.3	-1.5	-1.2	-1.6	-2.0	-2.2	-2.2	-0.7	-2.0
Theft out of or from motor vehicle	-9.5	-3.3	-1.6	-1.6	-1.1	-0.7	-1.2	-1.6	2.0	-2.2
Stock-theft	-9.2	3.0	6.1	5.7	5.0	7.2	7.4	6.8	6.9	5.0
CRIME DETECTED AS A RESULT OF POLICE ACTION										
Illegal possession of firearms and ammunition	-1.8	-0.4	0.2	0.6	1.4	0.8	0.8	0.1	-0.4	-0.7
Drug-related crime	-7.6	-3.6	-1.9	-2.6	-3.2	-2.5	-1.3	-2.7	0.1	-4.4
Driving under the influence of alcohol or drugs	-1.2	-0.6	-0.3	-0.3	-0.5	-0.8	-1.1	0.3	0.4	-1.1
OTHER SERIOUS CRIMES										
All theft not mentioned elsewhere	25.0	50.3	65.0	72.9	75.6	76.5	75.4	67.5	71.8	57.3

3.6.3. Comparison of WSG historical crime growth rates to SAPS historical unadjusted and adjusted crime rates

In order to compare the compound annual growth rates (CAGR) for the FCA related time periods for the SAPS unadjusted, adjusted and WSG crime figures, the 2004/5-2008/9 period had to be shortened as the 2014/15 SAPS crime figures do not include the 2004/5 crime numbers. So as the 2004/5-2007/8 time period used throughout this report could not be calculated, the shortened 2005/6-2007/8 period was used as the first of the FCA time related periods, giving us three time periods for the CAGR calculations: 2005/6-2007/8, 2008/9-2010/11 and 2011/12-2013/14. The CAGR rates are provided in Table 33.

The three compound annual growth rates of the published SAPS retrospectively adjusted time periods are remarkably similar to the WSG growth rates, and more similar than the growth rates based on the published SAPS unadjusted figures compared to the WSG growth rates. The similarity of the latest official SAPS results to the WSG results validates the results and interpretations of the latest SAPs crime statistics in terms of the growth of crime. Our absolute figures are however in general approximately 0-10% higher at national level, ignoring stock theft which has a low level of firearm use. Truck hijackings, cash in transit robberies and bank robberies may reflect large discrepancies due to their low base frequencies.

Table 33: Annual growth rates comparison of SAPS versus WSG for 2008/9-2010/11 and 2011/12-2013/14

CRIME CATEGORY	SAPS2014			SAPS2015			WSG		
	CAGR 2005/6-2007/08	CAGR 2008/9-2010/11	CAGR 2011/12-2013/14	CAGR 2005/6-2007/08	CAGR 2008/9-2010/11	CAGR 2011/12-2013/14	CAGR 2005/6-2007/08	CAGR 2008/9-2010/11	CAGR 2011/12-2013/14
CONTACT CRIMES (CRIMES AGAINST THE PERSON)									
Murder	-0.8%	-6.3%	4.6%	-0.1%	-6.3%	4.6%	1.9%	-5.4%	3.9%
Total Sexual Offences	-3.9%	-3.1%	-1.5%	-3.5%	-3.1%	-3.2%	-3.6%	-1.6%	-3.6%
Attempted murder	-12.4%	-8.0%	7.3%	-4.3%	-8.0%	7.4%	-3.4%	-7.1%	6.2%
Assault with the intent to inflict grievous bodily harm	-8.2%	-1.3%	-2.5%	-3.8%	-1.2%	-2.5%	-3.0%	-0.8%	-3.0%
Common assault	-14.0%	-1.8%	-4.1%	-6.8%	-1.7%	-4.0%	-6.3%	-1.7%	-4.4%
Common robbery	-15.4%	-3.7%	0.8%	-6.8%	-3.7%	0.9%	-6.2%	-3.3%	0.5%
Robbery with aggravating circumstances	-3.4%	-8.6%	8.6%	-0.6%	-8.6%	8.7%	-0.2%	-8.2%	8.1%
CONTACT-RELATED CRIMES									
Arson	-4.9%	-2.3%	-4.8%	-2.1%	-2.3%	-4.6%	0.9%	-1.7%	-5.4%
Malicious damage to property	-4.7%	-3.4%	-1.0%	-2.7%	-3.3%	-0.8%	-2.1%	-3.2%	-1.3%
PROPERTY-RELATED CRIMES									
Burglary at non-residential premises	6.0%	-0.7%	2.5%	7.6%	-0.7%	2.5%	7.9%	-0.7%	2.0%
Burglary at residential premises	-7.2%	0.2%	3.0%	-4.9%	0.2%	3.0%	-4.2%	0.1%	2.7%
Theft of motor vehicle and motorcycle	-2.2%	-7.9%	-1.9%	-3.3%	-7.9%	-1.8%	-3.0%	-8.2%	-2.0%
Theft out of or from motor vehicle	-13.3%	6.0%	5.0%	-10.5%	6.0%	5.3%	-10.1%	6.0%	4.8%
Stock-theft	-6.2%	0.2%	-4.8%	-0.9%	-0.6%	-5.7%	2.3%	2.0%	-5.6%
CRIME DETECTED AS A RESULT OF POLICE ACTION									
Illegal possession of firearms and ammunition	-6.7%	1.5%	3.3%	0.4%	1.7%	3.4%	2.1%	0.5%	1.7%
Drug-related crime	14.0%	13.4%	21.6%	7.2%	13.5%	21.6%	7.2%	13.9%	21.5%
Driving under the influence of alcohol or drugs	27.2%	9.0%	0.2%	20.9%	9.0%	0.2%	21.3%	8.7%	-0.3%
OTHER SERIOUS CRIMES									
All theft not mentioned elsewhere	-14.1%	-3.4%	-1.2%	-4.5%	-3.4%	-1.0%	-2.8%	-3.0%	-1.6%
Shoplifting	0.4%	-1.5%	-0.9%	1.9%	-1.5%	-0.9%	2.3%	-1.4%	-1.1%
SUBCATEGORIES OF AGGRAVATED ROBBERY									
Carjacking	6.9%	-15.6%	8.8%	5.2%	-15.8%	9.0%	5.0%	-14.3%	7.6%
Truck hijacking	15.7%	-16.6%	9.9%	22.5%	-16.6%	9.9%	24.6%	-16.2%	10.4%
Robbery of cash in transit	34.0%	-3.1%	-10.7%	1.4%	-13.3%	-10.7%	-10.2%	-27.0%	-5.3%
Bank robbery	57.6%	-38.2%	-22.5%	56.2%	-38.2%	-22.5%	34.6%	-21.7%	-13.9%
Robbery at residential premises	24.2%	-4.3%	7.2%	19.3%	-4.3%	7.2%	21.7%	-3.8%	6.6%
Robbery at non-residential premises	72.4%	2.6%	8.0%	49.8%	2.7%	8.0%	50.3%	2.7%	7.6%

4 The Central Firearms Registry (CFR)

The Central Firearms Registry (CFR) is a department of the South African Police Service (SAPS). It is responsible for all firearms and firearm licence holders in South Africa, including new firearm applications, competency applications and applications for renewals, details of approved and refused firearm permits and authorisations for all licence holders, details of all firearms including lost, stolen and found firearms, and details of all licence holders.

In the early years there were allegations of the lack of completeness and accuracy of the CFR (ISS, 1999) with doubts cast on the completeness and accuracy of the inclusion of firearm licence records of the reintegrated former TBVC homelands, and licence holder failing to update their contact details and information on firearms in estates and stolen and lost firearms. In 1998, 74% of the almost 206,000 firearm licence applications were approved (ISS, 1999).

Challenges to the registry continued over the next decade, with a backlog of almost 1.1 million outstanding firearm licence applications by 2010. Following intervention, these applications were resolved by August 2011[87]. However, at the National Firearms Summit organised by Parliament's police committee and the civilian secretariat for police in March 2015[88], the CFR was still heavily criticised in spite of a revised IT system.

It must be stated that the results in Chapter 4 of this report are based on data received from the personnel and database of the CFR. The staff were always helpful and informed and the data was issued timeously and found to be acceptably clean and internally consistent.

4.1. Numbers and distribution of firearms and owners

In October, 2014 there were almost 4.4 million registered firearms in South Africa (Table 34 and Table 35).

Of these firearms, approximately 3 million (68%) are registered to 1.75 million private individuals, compared to 15 years ago when there were more than 4.5 million registered firearms of which 78% were registered to private individuals (Chetty, 2000[89]). Furthermore, in 2014 handguns (Pistols + Revolvers) comprised almost half of all registered firearms (Table 34) compared to almost 2.8 million (62%) in 1999 (Chetty, 2000).

[87] Presentation at National Firearms Summit, 2015: Gen. R Phiyega, suspended *National Commissioner of the South African Police Service (SAPS)*

[88] http://www.bdlive.co.za/national/2015/03/26/firearms-registry-mess-to-be-fixed-says-nhleko

[89] Chetty, R. Firearm Use and Distribution in South Africa (Pretoria: The National Crime Prevention Centre, 2000)

These comparisons indicate that relative to 15 years ago there are now fewer legal firearms registered to fewer individuals. Handguns now comprise half of all registered firearms compared to almost two-thirds 15 years ago.

Table 34: Registered firearms: 2014 and 1998

	October 2014 (CFR)	1998 (Chetty, 2000)
Registered firearms	4.4 million	4.5 million +
% Handguns (Pistols + Revolvers)	49% (36%+13% resp.)	62%
Private individuals with firearms	1.75 million	2 million
Firearms registered to private registered individuals	3 million	3.6 million
Average firearms per private registered individual	1.7 firearms	1.8 firearms
% Firearms registered to private individuals	68%	78%

4.2. Registered Owners & Firearms details as at October 2014 (CFR)

According to the CFR data in October 2014, two-thirds (68%) of firearms are registered to private individuals. Further, approximately 135,000 (3%) firearms are registered to Non-official Institutions with approximately 85,000 of these firearms registered to Security Companies and 50,000 to non-security companies. Approximately 1.27 million (29%) of firearms were registered to Physical Government Departments including SAPS. Nine percent of all firearms are registered to SAPS (Table 35 and Table 36).

More recent figures for owners and firearms were provided by General Phiyega at the Firearms Summit in Parliament (March 2015). These numbers are slightly higher for firearms and appear italicised in red in Table 35. The numbers provided at the Summit for the Private Security Industry Regulatory Authority (PSIRA) were also higher than the CFR 2014 figures with 3,340 registered companies with a total of 101,000 firearms, based on a 2013/14 audit[90]. For the sake of internal consistency, the 2014 CFR figures will be used throughout this report. A more concise presentation of the firearm numbers may be found in Table 35.

[90] Presentation at National Firearms Summit, 2015: Chauke, M (*Director of the Private Security Industry Regulatory)*

Table 35: Registered Owners & Firearms details as at October 2014 (CFR)

	Owners	Pistol	Revolver	Rifle	Shotgun	Combi-nation	Other[91]	Total Firearms	
All individuals	1 753 839	1 222 667	531 978	936 134	282 080	13 317	4 080	2 990 256	68%
	(1 749 034)							*(3 081 173)*	
Non-official Institutions - Security Companies	2 330	50 021	15 778	5 073	12 050	6	1 593	84 521	2%
Non-official Institutions -Non Security Companies	6 569	16 380	14 645	7 750	10 263	70	1 015	50 123	1%
Total Non-official Institutions	*8 899*							*134 644*	
	(8 937)							*(136 259)*	
Physical Government Departments - SAPS		235 477	9 065	69 400	73 755	47	947	388 691	9%
Physical Government Departments - excl. SAPS	423	48 441	19 870	790 195	6 198	3 984	12 390	881 078	20%
Total Physical Government Departments	*(425)*							*1 269 769*	
								(1 270 405)	
TOTAL FIREARMS		1 572 986	591 336	1 808 552	384 346	17 424	20 025	4 394 669	100%
		36%	13%	41%	9%	0%	0%		

[91] Other: Hand Carbine, Main Firearm Component, Machine Gun, Adaptor, Humane Killer, Light Machine Gun, Pen Flare, Self-Loading, Home Manufactured Firearm

Table 36: Registered Owners & Firearms summary as at October 2014 (CFR)

	Owners	Handguns (Pistols + Revolvers)	Rifles + Shotguns + Combinations	Other	Total Firearms	
All individuals	1 753 839	1 754 645	1 231 531	4 080	2 990 256	68%
Non-official Institutions - Security Companies	2 330	65 799	17 129	1 593	84 521	2%
Non-official Institutions -Non Security Companies	6 569	31 025	18 083	1 015	50 123	1%
Physical Government Departments - SAPS		244 542	143 202	947	388 691	9%
Physical Government Departments - excl. SAPS	423	68 311	800 377	12 390	881 078	20%
TOTAL Firearms		2 164 322	2 210 322	20 025	4 394 669	100%
		49%	50%	0.50%		

4.2.1. Demographics of registered firearm owners

The demographics of registered private individual firearm owners are summarised in terms of number of individual owners per province, ownership rate per province per 100,000 individuals, and percentage female ownership per province. The ownership numbers and rates are also provided graphically (Figure 16). The ages of registered owners per province are analysed in Table 38-Table 41 and presented graphically in Figure 17 and Figure 18.

Over a third (37%) of registered individual firearm owners are from Gauteng, 14% from KZN, 12% from Western Cape and fewer than 10% from each of the other provinces (Table 37). However, when the provincial firearm ownership rate is considered, the differences are smaller. Based on population estimates (Statistics SA, 2015)[92], when the registered firearm ownership rate per 100,000 individuals per province is considered, Gauteng has only a slightly higher rate of registered private owners at approximately 4,100 per 100,000 individuals compared to the Free State at approximately 3,500 per 100,000 individuals, possibly owing to the many farms in the province. Limpopo has the lowest ownership rate at approximately 1,400 per 100,000 individuals (Figure 16).

Using population estimates once again, it is estimated that 5.5% of adults (i.e. persons aged 21 years or older) in South Africa are registered licenced firearm owners. As females comprise only 19% of registered private individual firearm owners (CFR as at October, 2014), it is estimated that approximately 8.6% of adult males in South Africa are registered private firearm owners. As expected these usage figures are highest in Gauteng where it is estimated that 5.9% of all adults and 9.7% of adult males are registered firearm owners. These estimates are consistent with the findings of the 2013/14 Victims of Crime Survey which revealed the presence of firearms in 5.2% of households, and 5.8% in Gauteng[93].

[92] Statistical release P0302: Mid-year population estimates 2015. http://www.statssa.gov.za/publications/P0302/P03022015.pdf

[93] http://beta2.statssa.gov.za/publications/P0341/P03412013.pdf

Table 37: Demographics of registered individual firearm owners (October, 2014: CFR)

	Eastern Cape	Free State	Gauteng	KZN	Limpopo	Mpumalanga	North West	Northern Cape	Western Cape	Total
Distribution of individual owners per province (%)	8%	7%	37%	14%	5%	7%	7%	2%	12%	100%
Total private individual owners	112 266	97 015	521 406	202 664	75 198	102 818	91 400	34 241	165 629	1 753 839
Owners per 100,000 in province population	1 685	3 513	4 081	1 927	1 356	2 476	2 527	2 942	2 741	3 294
% female owners within each province	14%	22%	17%	10%	17%	17%	21%	22%	17%	19%

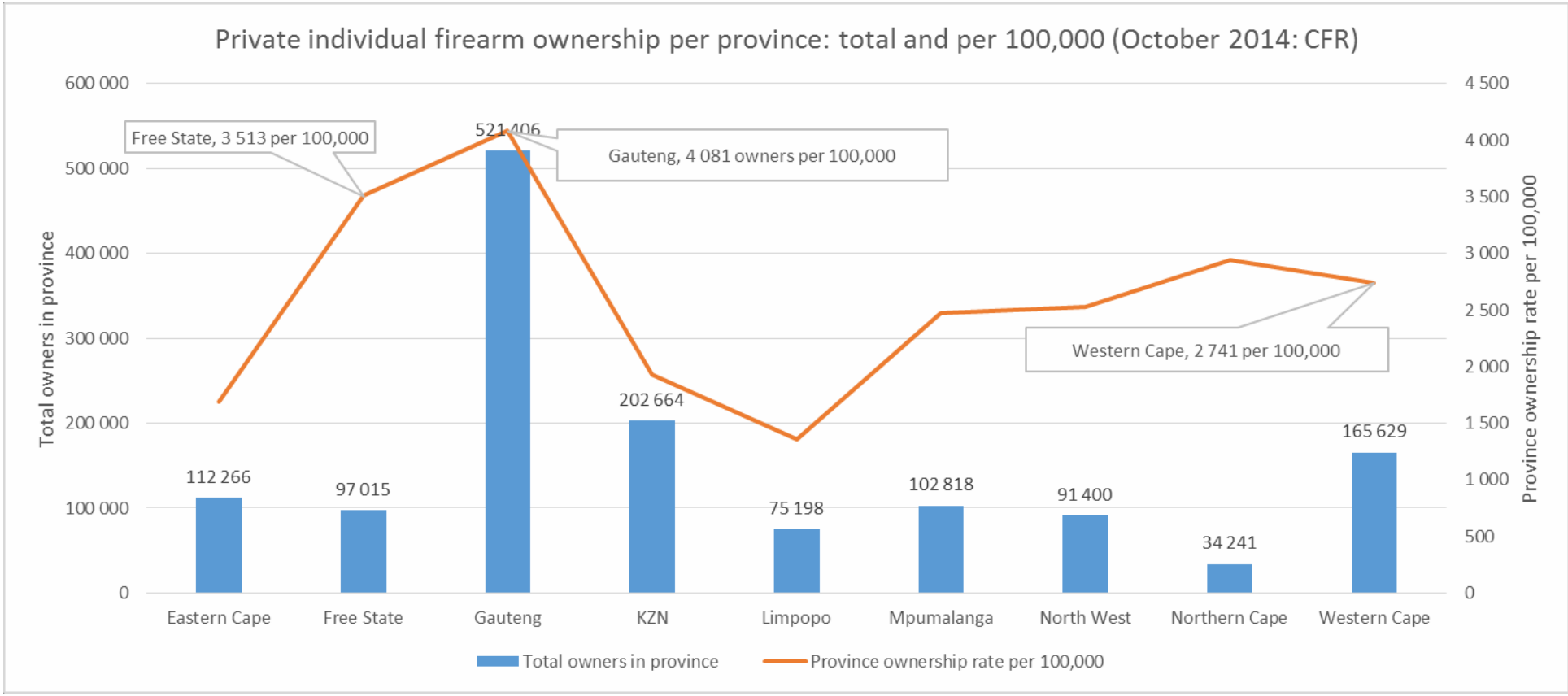


Figure 16: Provincial numbers and numbers per 100,000 of registered private individual firearm owners

4.2.2. Ages of registered firearm owners

The average age of registered firearm owners is 54.1 years (SD=13.7 years). However these summary statistics are unrepresentatively high owing to the number of licenced owners of 80-104 years old who are likely to be deceased but still registered on the CFR. Thus the slightly lower median age of 53 years is more representative, indicating that half of all licenced firearm owners are 53 years old or younger, and the other half 53 or older. The median ages of registered firearm owners in the provinces is similar ranging from 52 years (Gauteng and KZN) to 55 years (Eastern Cape). However, all these estimates are likely to be biased by ownership associated with deceased estates. Although the CFR receives information on deceased firearm owners from The Department of Home Affairs, the updating of deceased firearm owners on the registry is work in progress.

For provinces, as shown in Figure 18 and Table 40, only 3% of registered firearm owners in any province are 21-30 years, 9%-14% are 31-40 years old, 50%-56% are 41-60 years old, 16%-19% are 61-70 years old, and 12%-17% are older than 70. There are 4%-6% who are 81 or older.

Gauteng and KZN firearm owners are marginally younger (by 1 year) than firearm owners in other provinces.

The numbers and percentages of registered private individual firearm owners per province by age group are provided in Table 39 and Table 41 respectively. As at October 2014, there were approximately 350,000 firearm owners with unknown province particulars. The age distributions of firearm owners in the provinces is similar.

Table 38: Average ages of registered firearm owners per province (CFR October, 2014)

	Eastern Cape	Free State	Gauteng	KZN	Limpopo	Mpumalanga	North West	Northern Cape	Western Cape	Total RSA
Mean age (years)	56.4	55.3	53.2	53.3	54.2	53.5	54.7	55.2	55.4	54.1
SD age (years)	13.7	14.7	13.3	13.1	14.0	13.4	14.4	14.9	13.7	13.7
Median age (years)	55.0	54.0	52.0	52.0	53.0	52.0	53.0	54.0	54.0	53.0

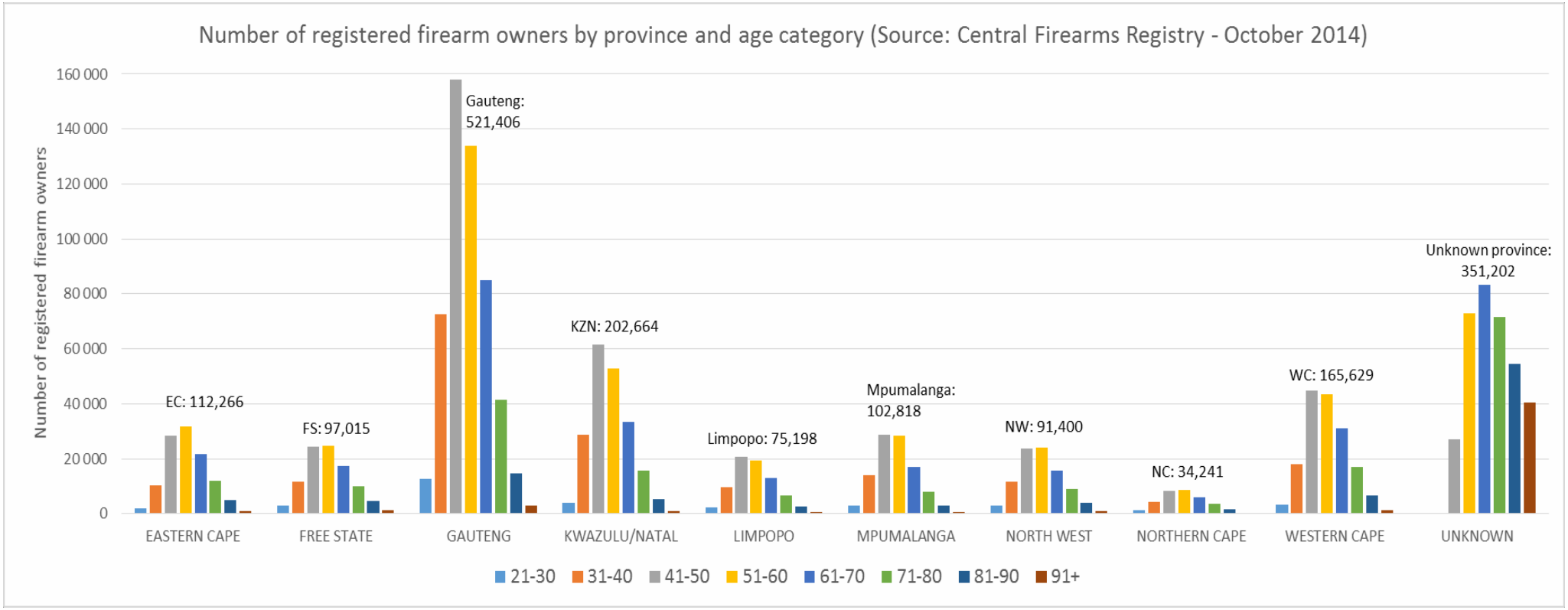


Figure 17: Ages of registered private individual firearm owners by province (CFR October, 2014)

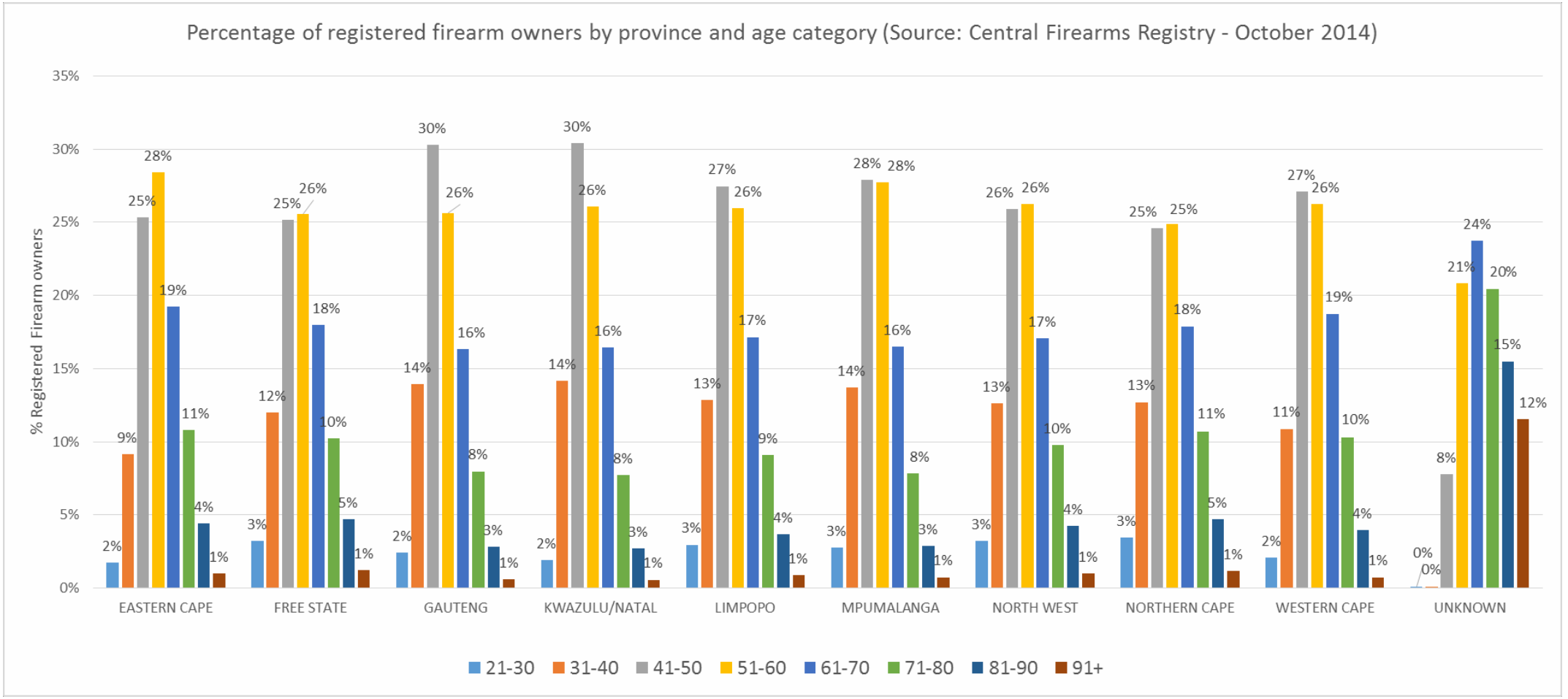


Figure 18: Age distribution of registered private individual firearm owners per province (CFR October, 2014)

Table 39: Distribution of numbers of registered private individual firearm owners by age category per province (CFR October, 2014)

Age	Eastern Cape	Free State	Gauteng	KZN	Limpopo	Mpumalanga	North West	Northern Cape	Western Cape	Unknown	Total
21-30	1 938	3 110	12 646	3 887	2 218	2 827	2 936	1 176	3 441	363	34 542
31-40	10 267	11 637	72 679	28 676	9 670	14 082	11 524	4 349	18 026	376	181 286
41-50	28 427	24 421	158 001	61 629	20 660	28 680	23 681	8 422	44 869	27 239	426 029
51-60	31 911	24 814	133 738	52 853	19 514	28 529	24 003	8 511	43 492	73 105	440 470
61-70	21 594	17 419	85 131	33 335	12 898	16 949	15 578	6 124	31 046	83 414	323 488
71-80	12 107	9 896	41 565	15 674	6 823	8 057	8 922	3 649	17 010	71 719	195 422
81-90	4 936	4 561	14 587	5 486	2 772	2 941	3 868	1 611	6 538	54 414	101 714
91+	1 086	1 157	3 059	1 124	643	753	888	399	1 207	40 572	50 888
Total	112 266	97 015	521 406	202 664	75 198	102 818	91 400	34 241	165 629	351 202	1 753 839

Table 40: Distribution of percentages of registered private individual firearm owners by age category per province (CFR October, 2014)

Age	Eastern Cape	Free State	Gauteng	KZN	Limpopo	Mpumalanga	North West	Northern Cape	Western Cape	Unknown	Total
21-30	2%	3%	2%	2%	3%	3%	3%	3%	2%	0%	2%
31-40	9%	12%	14%	14%	13%	14%	13%	13%	11%	0%	10%
41-50	25%	25%	30%	30%	27%	28%	26%	25%	27%	8%	24%
51-60	28%	26%	26%	26%	26%	28%	26%	25%	26%	21%	25%
61-70	19%	18%	16%	16%	17%	16%	17%	18%	19%	24%	18%
71-80	11%	10%	8%	8%	9%	8%	10%	11%	10%	20%	11%
81-90	*4%*	*5%*	*3%*	*3%*	*4%*	*3%*	*4%*	*5%*	*4%*	*15%*	*6%*
91+	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*12%*	*3%*
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 41: Distribution of registered private individual owners per age category across provinces (%)

Age	Eastern Cape	Free State	Gauteng	KZN	Limpopo	Mpumalanga	North West	Northern Cape	Western Cape	Unknown	Total
21-30	6%	9%	37%	11%	6%	8%	8%	3%	10%	1%	100%
31-40	6%	6%	40%	16%	5%	8%	6%	2%	10%	0%	100%
41-50	7%	6%	37%	14%	5%	7%	6%	2%	11%	6%	100%
51-60	7%	6%	30%	12%	4%	6%	5%	2%	10%	17%	100%
61-70	7%	5%	26%	10%	4%	5%	5%	2%	10%	26%	100%
71-80	6%	5%	21%	8%	3%	4%	5%	2%	9%	37%	100%
81-90	5%	4%	14%	5%	3%	3%	4%	2%	6%	53%	100%
91+	2%	2%	6%	2%	1%	1%	2%	1%	2%	80%	100%
Total	6%	6%	30%	12%	4%	6%	5%	2%	9%	20%	100%

4.3. Circulations analysis: Firearms reported stolen, lost and recovered

'Circulations' is an integration system developed in compliance with the Firearms Control Act in order to record and track firearms reported stolen, reported lost and recovered. The Circulation system has been operational from November 2013. It is under the custodianship of the CFR.

In order to analyse the Circulations records, each recovered, reported stolen or reported lost firearm was identified uniquely through a combination of its Type, Calibre, Make and Serial number.

Table 42 presents a summary of the Circulations data for stolen, lost and recovered firearms by ownership type from January 2000 – October 2014. Out of approximately 202,600 firearms in circulation over this period, 70% had been reported stolen or lost but not recovered and 17% reported stolen or lost and recovered. The remaining 13% had been found but never reported as stolen or lost.

Furthermore, of the uniquely identified 175,640 firearms reported lost or stolen from 2000 –2014, almost all (95%) were reported as stolen rather than lost. Under 20% (i.e. 19%) of these reported lost or stolen firearms were recovered. The percentages are displayed graphically in Figure 19.

However, the recovery percentages calculated cannot reflect the actual picture of recoveries as almost 27,000 firearms had been found but could not be matched to any firearm that had been reported stolen or lost. It is likely that these non-matched recovered firearms were never reported as stolen or lost and therefore the pool of stolen or lost firearms may be substantially larger. Realistically the number of unreported stolen or lost firearms that are not recovered cannot be determined or reliably estimated. Furthermore, the numbers in the analysis of this report do not include 'non-physical' firearms that have been processed for destruction. These are firearms that have been found but are un-identifiable as their serial numbers have been filed off.

Table 42: CIRCULATIONS: Firearms reported found, lost or stolen 2000-2014 as at October 2014

Owner	Found but not reported	Reported Lost		Reported Stolen		Total
		not found	found	not found	found	
DEALER	767	108	19	1 572	433	2 899
FIREARMS MANUFACTURER	1			2	1	4
GUNSMITH	2				3	5
INDIVIDUAL	19 143	4 298	1 208	105 091	25 936	155 676
INSTITUTION	381	108	12	1 639	221	2 361
PHYSICAL GOVERNMENT DEPT excluding SAPS	4 991	2 091	273	13 311	2 358	23 024
SECURITY SERVICES	1 657	517	154	13 300	2 985	18 613
Total	26 942	7 122	1 666	134 915	31 937	202 582

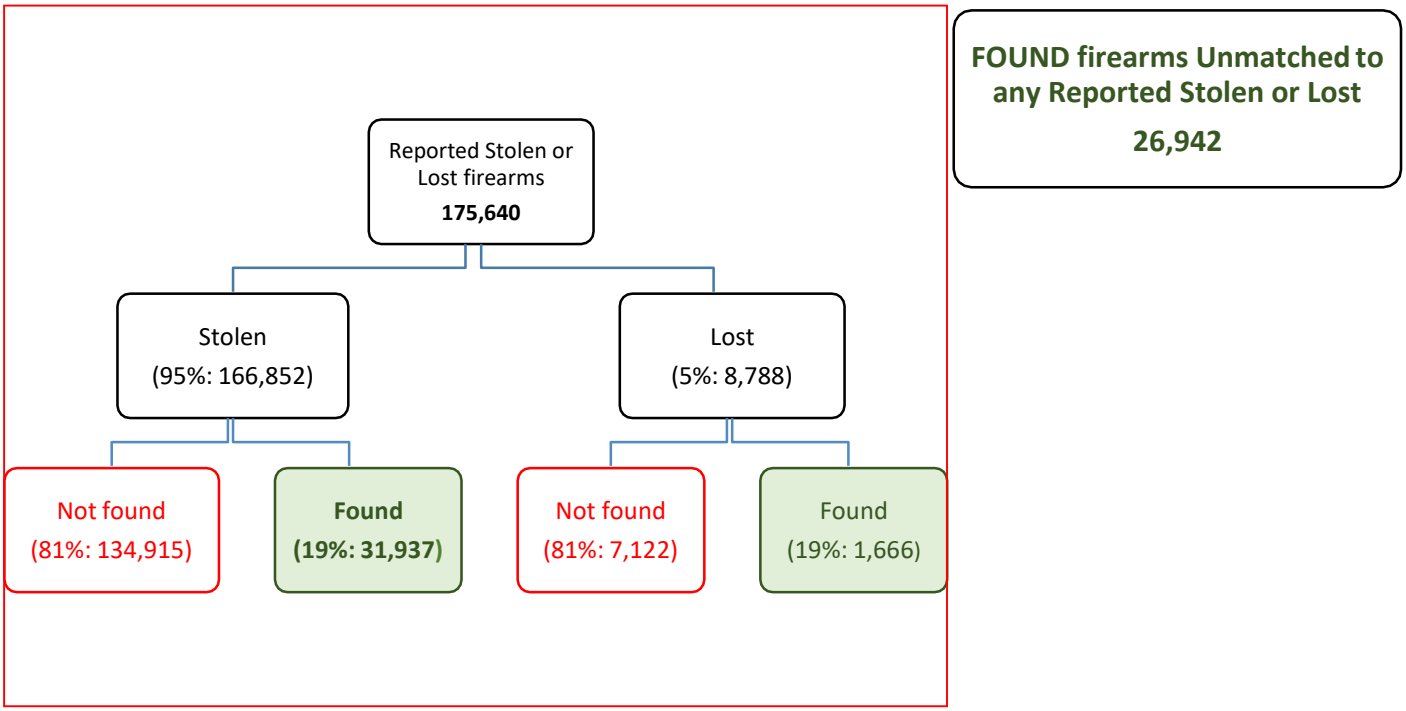


Figure 19: Firearms reported stolen or lost according to recovery status

4.3.1. SAPS Firearm losses and Recoveries

Data on SAPS firearm losses and recoveries were based on data from the Provisioning Administration System (PAS) as at 30 April 2015. As shown in Table 43 and Figure 20, the number of SAPS firearms were lost increased almost annually from 2004/5 – 2009/10 and then decreased, substantially and consistently.

Although the rates of SAPS firearm recovery within two years of their losses has remained fairly stable at about 20% for the past five years, the recovery rate within the same year as the firearm loss has generally increased over the period, from 6% in 2005/6 to 14% in 2014/15. Historically, the eventual recovery rate of SAPS firearms is around 30%-33%[94]. Note that the time period of two years may be insufficient to evaluate the number of firearms that are 'Recovered eventually', and so values for 2012/13 and 2013/14 in this column in Table 43 should be considered with caution.

Table 43: SAPS Firearm losses and recoveries and percentage recovered within the same financial year (Source: PAS)

SAPS financial year	Losses	Recovered within year of loss	Recovered in second year	Recovered within two years	Recovered eventually
2004/5	2416		7%		29%
2005/6	3175	6%	8%	13%	29%
2006/7	4221	6%	5%	11%	26%
2007/8	2187	10%	11%	21%	38%
2008/9	3409	10%	10%	19%	32%
2009/10	3814	9%	10%	19%	33%
2010/11	1345	10%	10%	20%	30%
2011/12	891	13%	8%	21%	29%
2012/13	840	12%	9%	21%	25%
2013/14	773	12%	9%	20%	*21%*
2014/15	743	14%			

Relative to the number of registered firearms in 388 691 as at October 2014 (CFR), the percentage of firearms lost in 2013/14 is less than 1% (0.2%).

[94] "A number of firearms without serial numbers are recovered after being used in illicit activities. It might be that some of these firearms have been reported and circulated as stolen or lost firearms. If serial numbers cannot be retrieved, the firearm cannot be identified and linked to a firearm owner and therefore the status of the firearm on the name of the original owner cannot be amended from 'stolen/lost' to 'found'. These unidentified firearms are issued with Weapon Registration (WR) Numbers and are included in the total of recoveries for this indicator." South African Police Service Technical Indicator Description: Annual Performance Plan, 2015/16, p.45

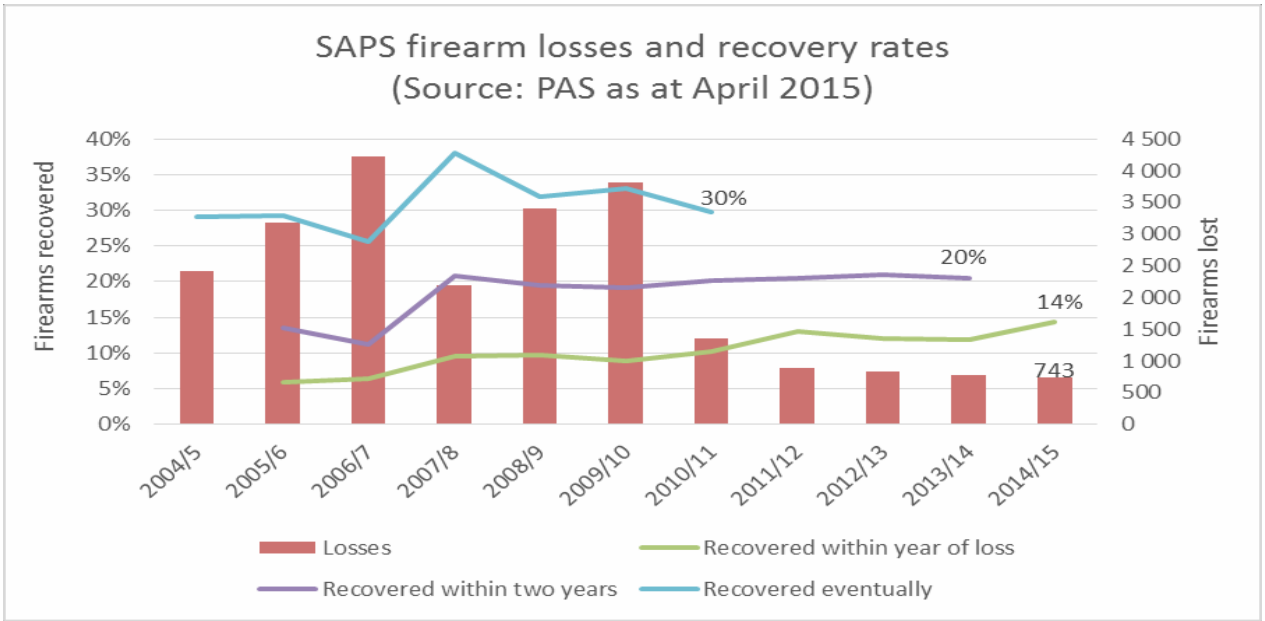


Figure 20: SAPS Firearm losses and Recoveries (Source: PAS)

4.3.2. Circulations: Firearm losses and recoveries (excl. SAPS)

The total number of private individually-owned firearms reported stolen or lost annually, and the rate per 100,000 individuals as well as the recovery rates are presented in Table 44, and further summarised annually for the four FCA periods in Table 45.

4.3.3. Reported firearm losses nationally

Since the FCA, the rate of reported stolen and/or lost firearms per 100,000 persons has improved i.e. decreased nationally as well as within all provinces. Nationally, the average annual rate of reported stolen or lost firearms per 100,000 has decreased (2000/1-2003/4: 37; 2004/5-2007/8: 26; 2008/9-2010/11: 21; and 2011/12-2013/14: 17)

Although the rate of firearms reported stolen or lost had already started decreasing in the four years prior to the FCA (2000/1-2003/4), the compound annual decrease in this period was lower at -1.8%, as compared to the four years following the implementation of the FCA (2004/5-2007/8) at -6.3%. However, the greatest annual decrease in the rate of reported stolen or lost firearms was in the 2008/9-2010/11 period at -15.8%. In the following 2011/12-2013/14 period, the reported numbers were more stable with an annual decrease of -3%.

4.3.4. Firearm recoveries nationally

The recovery rate within the same year as the reported loss of the firearm has improved from 3% in 2000/1 to approximately 9% since 2008/9. This improvement in the rapid recovery of firearms was only slightly lower in the four years prior to the FCA (2000/1-2003/4) as in the four years following the implementation of the FCA (2004/5-2007/8). Similarly, the rate of firearm recoveries within two year of the reported loss has

improved comparably in the pre and post 4-year FCA periods, and so these successes may not be ascribable directly to the implementation of the FCA. On average, the annual rate of recovered reported stolen or lost firearms in the 2011/12–2013/14 period is 14% within two years and an eventual recovery rate at 19%-21%.

Table 44: RSA: Numbers and rates of firearms reported stolen or lost annually and recovery rates (excl. SAPS)

National SAPS year	Number of Firearms reported stolen or lost annually			Firearms reported stolen/lost annually per 100,000 people			Recovery rate of Firearms reported stolen or lost annually			
	Stolen + lost	Stolen	Lost	Stolen + lost	Stolen	Lost	In same year	Within 2 years	Recovered eventually	Not Recovered
2000/2001	16 299	16 244	55	37	37	0	3%	6%	17%	83%
2001/2002	17 659	17 623	36	40	40	0	3%	6%	17%	83%
2002/2003	16 046	15 966	80	35	35	0	4%	8%	19%	81%
2003/2004	16 102	15 620	482	35	34	1	5%	9%	21%	79%
2004/2005	13 179	12 360	819	28	26	2	6%	9%	21%	79%
2005/2006	12 727	12 014	713	27	26	2	6%	10%	21%	79%
2006/2007	12 108	11 476	632	25	24	1	7%	11%	22%	78%
2007/2008	10 934	10 087	847	23	21	2	8%	12%	22%	78%
2008/2009	11 547	10 565	982	24	22	2	9%	13%	23%	77%
2009/2010	10 861	9 785	1 076	22	20	2	8%	12%	20%	80%
2010/2011	8 607	7 645	962	17	15	2	8%	13%	20%	80%
2011/2012	8 436	7 748	688	17	15	1	9%	14%	19%	81%
2012/2013	9 507	8 736	771	18	17	1	9%	13%		
2013/2014	8 347	7 871	476	16	15	1	9%			
TOTAL National	172 359	163 740	8 619	364	346	18	7%	10%	20%	80%

Table 45: RSA: Average annual firearms reported stolen or lost annually and recovery rates per FCA related periods (excl. SAPS)

FCA related time periods National	Number of Firearms reported stolen or lost annually			Firearms reported stolen/lost annually per 100,000 people			Recovery rate of Firearms reported stolen or lost annually			
	Stolen+ lost	Stolen	Lost	Stolen + lost	Stolen	Lost	In same year	Within 2 years	Recovered eventually	Not Recovered
2000/1 - 2003/4	16 527	16 363	163	37	36	0	4%	7%	19%	81%
2004/5 - 2007/8	12 237	11 484	753	26	24	2	6%	11%	21%	79%
2008/9 - 2010/11	10 338	9 332	1 007	21	19	2	8%	13%	21%	79%
2011/12 - 2013/14	8 763	8 118	645	17	16	1	9%	14%	19%	81%

4.3.5. Reported firearm losses provincially

Table 46 presents the provincial picture of firearms reported stolen or lost and their rates of recovery for the four FCA related periods. In this table, a colour coding system has been used once again to denote the worst results (red dots), moderately poor results (pink dots) and somewhat poor results (grey dots). No colour coding denotes more average or normative results.

Although there have been improvements in the stolen/lost firearm rates, Gauteng is consistently the province with the highest rate of stolen & lost firearms per 100,000 and the lowest of the provinces in terms of the percentage recoveries within the same or two years of the firearm being stolen or lost. KZN and Mpumalanga show similarly poor patterns of reported losses and recoveries. The Western Cape has the best recovery rate within the same year (18% per annum) or within two years (27% per annum) of the stolen/lost firearm and also firearms eventually recovered (36%-39% per annum).

The percentages of reported stolen or lost that are recovered within two years are displayed graphically in Figure 21 showing an overall pattern of improvement in recovery rates and the relatively poor performance of firearm recoveries within Gauteng.

The detailed statistics on provincial losses and recoveries per year are presented in Table 47-Table 49.

4.3.6. Reported Losses and Recoveries by firearm type

Although there have been substantial decreases in the numbers of pistols and revolvers reported stolen or lost across the four FCA related periods (Table 50), and across each year (Table 52), the percentage stolen or lost pistols and firearms is considerably higher than the percentage of these firearms registered in the CFR. In 2014, pistols represented 36% of all registered firearms, yet they represented 70% of all lost or stolen firearms in 2013/14, with a loss rate of 0.37% (i.e. % losses/registered in that year). Revolvers are also over-represented among stolen or lost firearms, although less so (16% of all stolen or lost firearms compared to 13% in the Registry), with a loss rate of 0.23%. Rifles and shotguns are underrepresented among lost or stolen firearms with loss rates of 0.04% and 0.09% (Table 50-Table 52).

However, the number of rifles reported stolen or lost across the four FCA related periods has increased, although shotguns reported stolen have decreased.

4.3.7. Reported Losses and Recoveries by firearm owner

The numbers of firearms reported stolen or lost have decreased over time for individuals, security services, institutions and dealers. However, the numbers reported have increased substantially across Physical Government departments excluding SAPS, although there is some evidence of a decrease in 2013/14 (Table 53). Relative to the number of registered firearms to owners in 2013/14 (Table 35), the numbers reported stolen or lost in 2013/14 are highest for Security Services (837/84,521) at almost 1%, and between 0.1%-0.2% for other owners (Table 53).

Table 46: Provinces: Firearms reported stolen or lost annually and recovery rates (excl. SAPS)

PROVINCE	SAPS year	Number of Firearms reported stolen or lost annually:			Firearms reported stolen/lost annually per 100,000 people			% Firearms reported stolen or lost annually:			
		Reported stolen+lost	Reported stolen	Reported lost	Reported stolen+lost per 100,000	Reported stolen per 100,000	Reported lost per 100,000	Recovered in same year	Recovered within 2 years	Recovered eventually	Not Recovered
EASTERN CAPE	2000/1-2003/4	1 103	1 095	9	16	16	0	6%	10%	24%	76%
	2004/5-2007/8	866	743	124	12	11	2	9%	15%	31%	69%
	2008/9-2010/11	816	476	340	12	7	5	11%	15%	27%	73%
	2011/12-2013/14	967	813	153	14	12	2	13%	18%	27%	73%
FREE STATE	2000/1-2003/4	731	724	6	26	26	0	6%	8%	15%	85%
	2004/5-2007/8	544	498	46	18	17	2	11%	14%	20%	80%
	2008/9-2010/11	442	412	30	15	14	1	8%	11%	18%	82%
	2011/12-2013/14	353	333	20	13	12	1	9%	15%	22%	78%
GAUTENG	2000/1-2003/4	7 299	7 196	104	88	86	1	3%	6%	17%	83%
	2004/5-2007/8	5 364	4 940	424	58	53	5	5%	8%	18%	82%
	2008/9-2010/11	4 160	3 761	399	39	35	4	6%	9%	17%	83%
	2011/12-2013/14	3 285	2 965	320	27	24	3	6%	10%	16%	84%
KZN	2000/1-2003/4	3 353	3 346	7	36	36	0	3%	5%	17%	83%
	2004/5-2007/8	2 423	2 401	22	25	24	0	5%	9%	19%	81%
	2008/9-2010/11	2 073	2 057	16	20	20	0	8%	13%	20%	80%
	2011/12-2013/14	1 605	1 544	61	15	15	1	9%	14%	17%	83%
LIMPOPO	2000/1-2003/4	549	544	6	10	10	0	2%	4%	12%	88%
	2004/5-2007/8	574	531	43	10	10	1	8%	11%	19%	81%
	2008/9-2010/11	458	408	50	9	8	1	12%	16%	22%	78%
	2011/12-2013/14	356	352	4	6	6	0	10%	16%	18%	82%
MPUMALANGA	2000/1-2003/4	1 001	985	16	32	31	0	4%	7%	18%	82%
	2004/5-2007/8	669	607	63	20	18	2	5%	8%	17%	83%
	2008/9-2010/11	811	731	80	22	20	2	7%	11%	16%	84%
	2011/12-2013/14	679	663	15	17	17	0	8%	9%	11%	89%
NORTHERN CAPE	2000/1-2003/4	133	132	1	15	15	0	11%	15%	26%	74%
	2004/5-2007/8	103	98	6	10	10	1	17%	19%	28%	72%
	2008/9-2010/11	55	52	4	5	5	0	15%	17%	20%	80%
	2011/12-2013/14	64	57	7	6	5	1	12%	13%	16%	84%
NORTH WEST	2000/1-2003/4	799	794	5	22	22	0	5%	8%	17%	83%
	2004/5-2007/8	563	552	11	16	16	0	7%	11%	21%	79%
	2008/9-2010/11	518	499	19	15	15	1	10%	14%	19%	81%
	2011/12-2013/14	582	563	19	17	16	1	11%	15%	14%	86%
WESTERN CAPE	2000/1-2003/4	1 165	1 160	5	27	27	0	7%	13%	33%	67%
	2004/5-2007/8	1 175	1 169	7	25	25	0	11%	17%	38%	62%
	2008/9-2010/11	1 088	1 019	69	21	20	1	16%	25%	39%	61%
	2011/12-2013/14	811	782	29	15	14	1	18%	27%	36%	64%

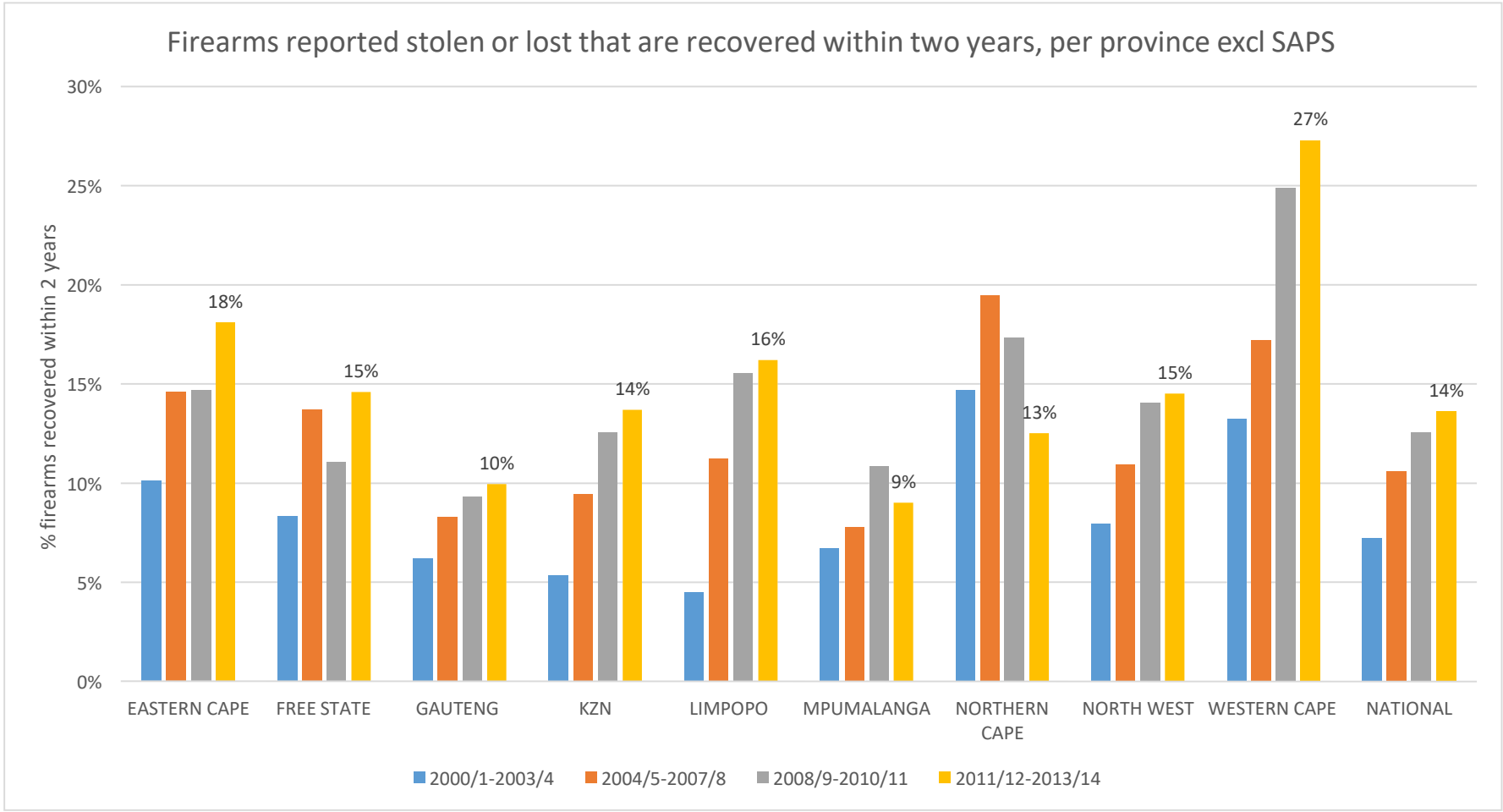


Figure 21: Firearms reported stolen or lost and recovered within two years of loss, per province for the four FCA related periods

Table 47: Provinces (EC, FS & Gau): Firearms reported stolen or lost annually and recovery rates (excl. SAPS)

PROVINCE	SAPS year	Number of Firearms reported stolen or lost annually:			Firearms reported stolen/lost annually per 100,000 people			% Firearms reported stolen or lost annually:			
		Reported stolen+lost	Reported stolen	Reported lost	Reported stolen+lost per 100,000	Reported stolen per 100,000	Reported lost per 100,000	Recovered in same year	Recovered within 2 years	Recovered eventually	Not Recovered
EASTERN CAPE	2000/2001	936	931	5	14	14	0	5%	9%	21%	79%
	2001/2002	1 246	1 244	2	18	18	0	4%	7%	22%	78%
	2002/2003	1 166	1 151	15	17	17	0	6%	11%	25%	75%
	2003/2004	1 065	1 052	13	16	16	0	10%	14%	30%	70%
	2004/2005	959	938	21	14	13	0	9%	14%	30%	70%
	2005/2006	987	914	73	14	13	1	8%	14%	31%	69%
	2006/2007	790	668	122	11	10	2	10%	16%	33%	67%
	2007/2008	729	451	278	11	7	4	10%	15%	30%	70%
	2008/2009	838	532	306	13	8	5	12%	17%	32%	68%
	2009/2010	852	503	349	13	8	5	10%	13%	23%	77%
	2010/2011	759	393	366	11	6	5	11%	14%	27%	73%
	2011/2012	734	555	179	11	8	3	13%	19%	27%	73%
	2012/2013	881	714	167	13	11	2	12%	17%		
	2013/2014	1 285	1 171	114	19	18	2	13%			
TOTAL EASTERN CAPE		**13 227**	**11 217**	**2 010**	**194**	**164**	**30**	**9%**	**14%**	**28%**	**72%**
FREE STATE	2000/2001	656	652	4	24	23	0	6%	8%	16%	84%
	2001/2002	824	818	6	29	29	0	4%	7%	13%	87%
	2002/2003	727	724	3	26	26	0	5%	8%	15%	85%
	2003/2004	715	703	12	26	25	0	7%	10%	17%	83%
	2004/2005	756	696	60	26	24	2	15%	19%	24%	76%
	2005/2006	567	504	63	19	17	2	7%	10%	17%	83%
	2006/2007	467	439	28	16	15	1	9%	12%	18%	82%
	2007/2008	384	353	31	13	12	1	11%	14%	21%	79%
	2008/2009	397	380	17	14	13	1	10%	13%	23%	77%
	2009/2010	454	404	50	16	14	2	10%	12%	18%	82%
	2010/2011	476	453	23	17	16	1	4%	8%	14%	86%
	2011/2012	322	311	11	12	11	0	13%	17%	22%	78%
	2012/2013	414	383	31	15	14	1	7%	12%		
	2013/2014	324	306	18	12	11	1	8%			
TOTAL FREE STATE		**7 483**	**7 126**	**357**	**263**	**250**	**12**	**8%**	**12%**	**18%**	**82%**
GAUTENG	2000/2001	7 788	7 778	10	99	99	0	2%	5%	15%	85%
	2001/2002	7 400	7 392	8	92	92	0	2%	5%	15%	85%
	2002/2003	6 968	6 929	39	82	82	0	2%	7%	17%	83%
	2003/2004	7 040	6 683	357	76	72	4	4%	8%	19%	81%
	2004/2005	6 417	5 914	503	72	67	6	4%	7%	17%	83%
	2005/2006	5 425	4 991	434	59	55	5	5%	8%	18%	82%
	2006/2007	5 230	4 851	379	55	51	4	5%	9%	19%	81%
	2007/2008	4 384	4 003	381	44	41	4	5%	9%	18%	82%
	2008/2009	4 730	4 331	399	45	41	4	6%	10%	19%	81%
	2009/2010	4 401	3 966	435	41	37	4	6%	9%	17%	83%
	2010/2011	3 348	2 985	363	30	27	3	5%	9%	17%	83%
	2011/2012	3 010	2 629	381	26	23	3	8%	12%	16%	84%
	2012/2013	3 796	3 484	312	31	29	3	5%	8%		
	2013/2014	3 049	2 781	268	24	22	2	5%			
TOTAL GAUTENG		**72 986**	**68 717**	**4 269**	**778**	**737**	**42**	**5%**	**8%**	**17%**	**83%**

Table 48: Provinces (KZN, Li & Mp): Firearms reported stolen or lost annually and recovery rates (excl. SAPS)

PROVINCE	SAPS year	Number of Firearms reported stolen or lost annually:			Firearms reported stolen/lost annually per 100,000 people			% Firearms reported stolen or lost annually:			
		Reported stolen+lost	Reported stolen	Reported lost	Reported stolen+lost per 100,000	Reported stolen per 100,000	Reported lost per 100,000	Recovered in same year	Recovered within 2 years	Recovered eventually	Not Recovered
KZN	2000/2001	3 156	3 144	12	35	35	0	2%	4%	16%	84%
	2001/2002	3 833	3 829	4	42	42	0	2%	5%	14%	86%
	2002/2003	3 111	3 104	7	33	33	0	3%	6%	17%	83%
	2003/2004	3 311	3 307	4	34	34	0	4%	7%	19%	81%
	2004/2005	2 236	2 208	28	23	23	0	5%	9%	21%	79%
	2005/2006	2 623	2 604	19	27	27	0	5%	9%	19%	81%
	2006/2007	2 567	2 535	32	26	25	0	5%	9%	19%	81%
	2007/2008	2 264	2 257	7	23	22	0	6%	11%	19%	81%
	2008/2009	2 352	2 334	18	23	23	0	9%	12%	20%	80%
	2009/2010	2 158	2 151	7	21	20	0	8%	12%	20%	80%
	2010/2011	1 710	1 687	23	16	16	0	8%	14%	19%	81%
	2011/2012	1 669	1 653	16	15	15	0	9%	14%	17%	83%
	2012/2013	1 856	1 696	160	18	16	2	9%	14%		
	2013/2014	1 290	1 284	6	12	12	0	9%			
TOTAL KZN		**34 136**	**33 793**	**343**	**348**	**345**	**3**	**6%**	**10%**	**18%**	**82%**
LIMPOPO	2000/2001	467	467	0	8	8	0		3%		90%
	2001/2002	554	553	1	10	10	0		5%		87%
	2002/2003	532	530	2	9	9	0		5%		87%
	2003/2004	644	625	19		11	0		5%		87%
	2004/2005	484	462	22	9	8	0		10%		83%
	2005/2006	782	728	54		13	1		10%		82%
	2006/2007	521	481	40	10	9	1	13%	16%	24%	76%
	2007/2008	509	454	55	9	8	1		9%		82%
	2008/2009	514	466	48	10	9	1		15%	21%	79%
	2009/2010	466	407	59	9	8	1	14%	17%	24%	76%
	2010/2011	394	350	44	7	6	1		14%	21%	79%
	2011/2012	287	282	5	5	5	0		15%		82%
	2012/2013	393	391	2	7	7	0	14%	18%		
	2013/2014	388	383	5	7	7	0				
TOTAL LIMPOPO		**6 935**	**6 579**	**356**	**126**	**120**	**7**	**8%**	**11%**	**17%**	**83%**
MPUMALANGA	2000/2001	926	923	3		30	0		7%		82%
	2001/2002	1 065	1 065	0		34	0		7%		83%
	2002/2003	1 086	1 082	4		34	0		7%		83%
	2003/2004	926	869	57		27	2		6%		83%
	2004/2005	599	445	154		14	5		6%		84%
	2005/2006	628	591	37		18	1		8%		80%
	2006/2007	685	672	13		19	0		8%		84%
	2007/2008	764	718	46		20	1		10%		83%
	2008/2009	853	781	72		22	2		13%		82%
	2009/2010	963	877	86		24	2		7%		86%
	2010/2011	618	535	83		15	2		12%		83%
	2011/2012	804	776	28		21	1		8%		89%
	2012/2013	686	671	15		17	0		10%		
	2013/2014	546	543	3		13	0				
TOTAL MPUMALANGA		**11 149**	**10 548**	**601**	**326**	**308**	**17**	**5%**	**8%**	**17%**	**83%**

Table 49: Provinces (NC, NW & WC): Firearms reported stolen or lost annually and recovery rates (excl. SAPS)

PROVINCE	SAPS year	Number of Firearms reported stolen or lost annually:			Firearms reported stolen/lost annually per 100,000 people			% Firearms reported stolen or lost annually:			
		Reported stolen+lost	Reported stolen	Reported lost	Reported stolen+lost per 100,000	Reported stolen per 100,000	Reported lost per 100,000	Recovered in same year	Recovered within 2 years	Recovered eventually	Not Recovered
NORTHERN CAPE	2000/2001	139	139	0	16	16	0	7%	9%	21%	79%
	2001/2002	146	146	0	17	17	0	10%	15%	25%	75%
	2002/2003	113	113	0	13	13	0	13%	15%	29%	71%
	2003/2004	134	131	3	16	16	0	13%	19%	28%	72%
	2004/2005	120	113	7	13	13	1	8%	9%	20%	80%
	2005/2006	97	91	6	10	10	1	19%	24%	34%	66%
	2006/2007	99	94	5	9	9	0	20%	23%	30%	70%
	2007/2008	96	92	4	9	8	0	20%	22%	27%	73%
	2008/2009	56	52	4	5	5	0	14%	16%	18%	82%
	2009/2010	69	64	5	6	6	0	17%	19%	23%	77%
	2010/2011	41	39	2	4	4	0	15%	17%	20%	80%
	2011/2012	51	50	1	5	5	0	12%	16%	16%	84%
	2012/2013	64	49	15	6	4	1	8%	9%		
	2013/2014	76	71	5	7	6	0	17%			
TOTAL NORTHERN CAPE		**1 301**	**1 244**	**57**	**134**	**129**	**5**	**14%**	**16%**	**24%**	**76%**
NORTH WEST	2000/2001	802	802	0	23	23	0	4%	6%	14%	86%
	2001/2002	849	846	3	23	23	0	4%	8%	14%	86%
	2002/2003	774	769	5	21	21	0	7%	10%	22%	78%
	2003/2004	772	760	12	20	20	0	6%	8%	18%	82%
	2004/2005	453	437	16	12	11	0	6%	10%	21%	79%
	2005/2006	553	535	18	15	14	0	7%	11%	22%	78%
	2006/2007	607	601	6	18	18	0	8%	10%	20%	80%
	2007/2008	639	634	5	19	19	0	9%	13%	22%	78%
	2008/2009	546	534	12	16	16	0	13%	17%	25%	75%
	2009/2010	517	507	10	15	15	0	10%	14%	20%	80%
	2010/2011	491	455	36	15	14	1	8%	12%	14%	86%
	2011/2012	695	667	28	21	20	1	8%	11%	14%	86%
	2012/2013	509	495	14	15	14	0	13%	18%		
	2013/2014	543	528	15	15	15	0	11%			
TOTAL NORTH WEST		**8 750**	**8 570**	**180**	**248**	**243**	**5**	**8%**	**11%**	**19%**	**81%**
WESTERN CAPE	1999/2000	303	301	2	7	7	0	3%	10%	31%	69%
	2000/2001	1 310	1 306	4	31	31	0	8%	13%	31%	69%
	2001/2002	1 543	1 533	10	36	36	0	7%	13%	34%	66%
	2002/2003	1 503	1 500	3	34	34	0	9%	17%	35%	65%
	2003/2004	1 458	1 455	3	31	31	0	12%	16%	35%	65%
	2004/2005	1 120	1 112	8	24	24	0	11%	15%	39%	61%
	2005/2006	1 046	1 037	9	22	22	0	9%	18%	39%	61%
	2006/2007	1 077	1 071	6	23	22	0	11%	20%	39%	61%
	2007/2008	1 105	1 066	39	22	22	1	16%	27%	42%	58%
	2008/2009	1 235	1 136	99	23	21	2	18%	25%	39%	61%
	2009/2010	923	854	69	17	16	1	14%	23%	37%	63%
	2010/2011	749	727	22	14	14	0	17%	27%	36%	64%
	2011/2012	805	795	10	15	15	0	17%	27%	35%	65%
	2012/2013	878	823	55	15	14	1	21%	28%		
	2013/2014	835	793	42	14	13	1	19%			
TOTAL WESTERN CAPE		**15 587**	**15 208**	**379**	**323**	**316**	**7**	**13%**	**21%**	**37%**	**63%**

Table 50: Firearm Types reported stolen or lost annually and recovery rates (excl. SAPS)

FIREARM OWNER	SAPS year	Reported stolen+lost	Reported stolen	Reported lost	Recovered in same year/ Reported stolen or lost (%)	Recovered within 2 years/ Reported stolen or lost (%)	Recovered eventually / Reported stolen or lost (%)	Not recovered/ Reported stolen or lost (%)
PISTOL	2000/1-2003/4	11 905	11 794	111	4%	8%	20%	80%
	2004/5-2007/8	8 701	8 173	527	7%	11%	23%	77%
	2008/9-2010/11	7 221	6 532	690	9%	13%	22%	78%
	2011/12-2013/14	6 031	5 588	443	10%	15%	20%	80%
REVOLVER	2000/1-2003/4	3 239	3 210	30	4%	6%	16%	84%
	2004/5-2007/8	2 255	2 130	125	5%	9%	19%	81%
	2008/9-2010/11	1 888	1 734	154	7%	11%	19%	81%
	2011/12-2013/14	1 438	1 368	70	8%	13%	19%	81%
RIFLE	2000/1-2003/4	721	708	13	5%	7%	14%	86%
	2004/5-2007/8	726	662	64	7%	9%	16%	84%
	2008/9-2010/11	712	609	103	8%	11%	17%	83%
	2011/12-2013/14	851	753	99	7%	9%	10%	90%
SHOTGUN	2000/1-2003/4	598	589	9	3%	5%	13%	87%
	2004/5-2007/8	504	470	34	5%	8%	16%	84%
	2008/9-2010/11	481	426	55	7%	10%	16%	84%
	2011/12-2013/14	409	379	30	8%	12%	15%	85%

Table 51: Firearm types reported stolen or lost in 2013/14 and recovery rates in same year and loss rate (excl. SAPS)

Firearm type	Reported stolen+lost	Reported stolen	Reported lost	% stolen+ lost	Recovered in same year as reported stolen or lost (%)	Total in CFR (Oct 2014)	% registered in CFR	Loss rate
Pistol	5 834	5 463	371	70%	10%	1 572 986	36%	0.37%
Revolver	1 347	1 295	52	16%	8%	591 336	13%	0.23%
Rifle	796	764	32	10%	9%	1 808 552	41%	0.04%
Shotgun	353	335	18	4%	7%	384 346	9%	0.09%

Loss rate - % of type of firearms stolen/lost in 2013/14 relative to type firearms registered as at 2013/14

Table 52: Firearm types reported stolen or lost annually and recovery rates in same year (excl. SAPS)

FIREARM TYPE	SAPS year	Reported stolen+l ost	Reported stolen	Reported lost	Recovered in same year/ Reported stolen or lost (%)	Recovered within 2 years/ Reported stolen or lost (%)	Recovered eventually/ Reported stolen or lost (%)	Not recovered/ Reported stolen or lost (%)
PISTOL	2000/2001	11 595	11 571	24	4%	6%	18%	82%
	2001/2002	12 443	12 422	21	3%	7%	18%	82%
	2002/2003	11 689	11 640	49	4%	9%	21%	79%
	2003/2004	11 892	11 541	351	6%	9%	22%	78%
	2004/2005	9 456	8 912	544	6%	10%	22%	78%
	2005/2006	9 141	8 680	461	6%	11%	23%	77%
	2006/2007	8 550	8 071	479	7%	12%	23%	77%
	2007/2008	7 655	7 030	625	8%	13%	24%	76%
	2008/2009	8 163	7 476	687	10%	14%	24%	76%
	2009/2010	7 504	6 760	744	8%	12%	21%	79%
	2010/2011	5 997	5 359	638	9%	14%	21%	79%
	2011/2012	5 664	5 225	439	10%	15%	20%	80%
	2012/2013	6 595	6 077	518	9%	14%		
	2013/2014	5 834	5 463	371	10%			
TOTAL PISTOL		**122 178**	**116 227**	**5 951**	**7%**	**11%**	**21%**	**79%**
REVOLVER	2000/2001	3 388	3 369	19	3%	5%	15%	85%
	2001/2002	3 587	3 578	9	3%	5%	15%	85%
	2002/2003	3 039	3 034	5	4%	7%	17%	83%
	2003/2004	2 943	2 858	85	5%	7%	18%	82%
	2004/2005	2 391	2 238	153	4%	7%	17%	83%
	2005/2006	2 303	2 182	121	4%	8%	18%	82%
	2006/2007	2 237	2 146	91	6%	10%	20%	80%
	2007/2008	2 088	1 952	136	6%	10%	19%	81%
	2008/2009	2 125	1 958	167	7%	11%	20%	80%
	2009/2010	1 986	1 823	163	6%	10%	19%	81%
	2010/2011	1 553	1 422	131	6%	11%	18%	82%
	2011/2012	1 454	1 367	87	9%	14%	19%	81%
	2012/2013	1 512	1 442	70	8%	12%		
	2013/2014	1 347	1 295	52	8%			
TOTAL REVOLVER		**31 953**	**30 664**	**1 289**	**6%**	**9%**	**18%**	**82%**
RIFLE	2000/2001	703	695	8	3%	6%	14%	86%
	2001/2002	797	796	1	5%	7%	14%	86%
	2002/2003	749	728	21	5%	7%	15%	85%
	2003/2004	633	612	21	6%	7%	15%	85%
	2004/2005	682	607	75	8%	10%	15%	85%
	2005/2006	734	654	80	7%	8%	15%	85%
	2006/2007	766	723	43	4%	7%	14%	86%
	2007/2008	723	665	58	8%	11%	18%	82%
	2008/2009	728	636	92	11%	14%	21%	79%
	2009/2010	779	695	84	8%	11%	15%	85%
	2010/2011	630	497	133	6%	9%	14%	86%
	2011/2012	854	733	121	6%	8%	10%	90%
	2012/2013	904	761	143	7%	10%		
	2013/2014	796	764	32	9%			
TOTAL RIFLE		**10 478**	**9 566**	**912**	**6%**	**9%**	**15%**	**85%**
SHOTGUN	2000/2001	542	538	4	4%	6%	14%	86%
	2001/2002	761	756	5	2%	4%	12%	88%
	2002/2003	509	505	4	2%	4%	12%	88%
	2003/2004	579	555	24	4%	6%	15%	85%
	2004/2005	608	561	47	8%	10%	15%	85%
	2005/2006	488	444	44	5%	8%	17%	83%
	2006/2007	484	466	18	4%	6%	14%	86%
	2007/2008	435	409	26	5%	9%	18%	82%
	2008/2009	491	460	31	9%	12%	19%	81%
	2009/2010	573	489	84	6%	9%	15%	85%
	2010/2011	379	329	50	7%	10%	15%	85%
	2011/2012	405	367	38	7%	12%	15%	85%
	2012/2013	470	435	35	8%	11%		
	2013/2014	353	335	18	7%			
TOTAL SHOTGUN		**7 077**	**6 649**	**428**	**5%**	**8%**	**15%**	**85%**

4.3.8. Losses and Recoveries by firearm owner

Table 53: Firearm losses and recoveries per annum per firearm ownership per FCA related period, and loss rates in 2013/14

FIREARM OWNER	SAPS year	Reported stolen+lost	Reported stolen	Reported lost	Recovered in same year/ Reported stolen or lost (%)	Recovered within 2 years/ Reported stolen or lost (%)	Recovered eventually / Reported stolen or lost (%)	Not recovered/ Reported stolen or lost (%)	Total Firearms as at October 2014	Firearms stolen/lost in 2013/14	Loss rate
INDIVIDUAL	2000/1-2003/4	14 201	14 102	99	4%	8%	19%	81%			
	2004/5-2007/8	9 246	8 680	566	7%	11%	22%	78%			
	2008/9-2010/11	7 429	6 829	600	8%	13%	21%	79%			
	2011/12-2013/14	5 684	5 384	300	10%	15%	21%	79%	2 990 256	5 427	0.18%
SECURITY SERVICES	2000/1-2003/4	1 402	1 384	18	3%	5%	19%	81%			
	2004/5-2007/8	1 335	1 283	52	4%	8%	21%	79%			
	2008/9-2010/11	1 138	1 058	80	7%	11%	21%	79%			
	2011/12-2013/14	932	887	45	7%	12%	19%	81%	84 521	837	0.99%
INSTITUTION	2000/1-2003/4	295	281	14	2%	3%	11%	89%			
	2004/5-2007/8	101	93	8	4%	7%	13%	87%			
	2008/9-2010/11	56	53	3	8%	11%	19%	81%			
	2011/12-2013/14	36	34	2	11%	26%	21%	79%	50 123	46	0.09%
DEALER	2000/1-2003/4	235	228	8	8%	13%	30%	70%			
	2004/5-2007/8	184	168	15	9%	14%	31%	69%			
	2008/9-2010/11	91	84	7	10%	16%	27%	73%			
	2011/12-2013/14	56	51	5	19%	32%	45%	55%			
SAPS	2000/1-2003/4										
	2004/5-2007/8	3000			7%	15%	31%	70%			
	2008/9-2010/11	2856			10%	19%	32%	68%			
	2011/12-2013/14	835			12%	21%	25%	75%	388 691	773	0.20%

Loss rate - % of firearms stolen/lost in 2013/14 relative to firearms registered in 2013/14

Table 54: Firearms reported stolen or lost annually and recovery rates per firearm owner (excl. SAPS)

FIREARM OWNER	SAPS year	Reported stolen+lost	Reported stolen	Reported lost	Recovered in same year/ Reported stolen or lost (%)	Recovered within 2 years/ Reported stolen or lost (%)	Recovered eventually/ Reported stolen or lost (%)	Not recovered/ Reported stolen or lost (%)
INDIVIDUAL	2000/2001	14 540	14 523	17	4%	6%	17%	83%
	2001/2002	14 529	14 514	15	4%	7%	18%	82%
	2002/2003	14 315	14 296	19	4%	8%	20%	80%
	2003/2004	13 421	13 075	346	6%	9%	21%	79%
	2004/2005	9 962	9 377	585	6%	10%	22%	78%
	2005/2006	9 657	9 078	579	6%	11%	23%	77%
	2006/2007	9 303	8 797	506	7%	12%	22%	78%
	2007/2008	8 061	7 466	595	8%	12%	23%	77%
	2008/2009	8 488	7 842	646	9%	13%	23%	77%
	2009/2010	7 745	7 144	601	8%	12%	20%	80%
	2010/2011	6 054	5 502	552	8%	13%	21%	79%
	2011/2012	5 604	5 252	352	10%	15%	21%	79%
	2012/2013	6 020	5 706	314	10%	15%		
	2013/2014	5 427	5 194	233	10%			
TOTAL INDIVIDUAL		**133 126**	**127 766**	**5 360**	**7%**	**11%**	**21%**	**79%**
SECURITY SERVICES	2000/2001	1 266	1 258	8	3%	6%	21%	79%
	2001/2002	1 627	1 620	7	1%	3%	17%	83%
	2002/2003	1 269	1 264	5	2%	6%	19%	81%
	2003/2004	1 444	1 392	52	4%	7%	20%	80%
	2004/2005	1 358	1 300	58	3%	6%	16%	84%
	2005/2006	1 432	1 391	41	3%	7%	21%	79%
	2006/2007	1 357	1 318	39	4%	9%	22%	78%
	2007/2008	1 194	1 124	70	6%	11%	23%	77%
	2008/2009	1 232	1 168	64	6%	10%	23%	77%
	2009/2010	1 191	1 080	111	7%	12%	23%	77%
	2010/2011	992	926	66	7%	11%	19%	81%
	2011/2012	988	939	49	10%	14%	19%	81%
	2012/2013	972	927	45	6%	10%		
	2013/2014	837	796	41	5%			
TOTAL SECURITY SERVICES		**17 159**	**16 503**	**656**	**5%**	**9%**	**20%**	**80%**
INSTITUTION	2000/2001	235	212	23	1%	2%	8%	92%
	2001/2002	690	677	13	1%	2%	9%	91%
	2002/2003	126	119	7	2%	3%	15%	85%
	2003/2004	130	116	14	2%	5%	14%	86%
	2004/2005	116	102	14	7%	9%	17%	83%
	2005/2006	72	67	5	1%	1%	7%	93%
	2006/2007	96	91	5	3%	6%	13%	88%
	2007/2008	119	111	8	5%	9%	14%	86%
	2008/2009	76	72	4	7%	7%	17%	83%
	2009/2010	52	48	4	13%	15%	23%	77%
	2010/2011	40	39	1	3%	10%	18%	83%
	2011/2012	34	30	4	9%	21%	21%	79%
	2012/2013	29	29	0	17%	31%		
	2013/2014	46	43	3	7%			
TOTAL INSTITUTION		**1 861**	**1 756**	**105**	**6%**	**9%**	**15%**	**85%**

FIREARM OWNER	SAPS year	Reported stolen+lost	Reported stolen	Reported lost	Recovered in same year/ Reported stolen or lost (%)	Recovered within 2 years/ Reported stolen or lost (%)	Recovered eventually/ Reported stolen or lost (%)	Not recovered/ Reported stolen or lost (%)
DEALER	2000/2001	114	114	0	4%	7%	28%	72%
	2001/2002	554	554	0	2%	3%	12%	88%
	2002/2003	112	82	30	6%	14%	33%	67%
	2003/2004	161	160	1	21%	26%	45%	55%
	2004/2005	457	425	32	2%	4%	9%	91%
	2005/2006	57	52	5	16%	19%	42%	58%
	2006/2007	55	54	1	15%	22%	47%	53%
	2007/2008	165	142	23	4%	11%	25%	75%
	2008/2009	90	84	6	12%	13%	22%	78%
	2009/2010	50	43	7	16%	26%	44%	56%
	2010/2011	132	125	7	2%	8%	15%	85%
	2011/2012	40	38	2	23%	40%	45%	55%
	2012/2013	58	46	12	17%	24%		
	2013/2014	69	69	0	16%			
TOTAL DEALER		**2 114**	**1 988**	**126**	**11%**	**17%**	**31%**	**69%**

5. A structural framework for crime

Having analysed the SAPS crime statistics and the CFR firearm data in depth, we now examine the FCA in the total context of crime to assess what percentage of all crime it could affect. Effectively we situate the FCA in a structural framework comprising all crimes reported to SAPS. Our structure comprises four levels, and the percentages of crimes provided for these levels are calculated based on the average frequencies of reported crimes over the 2011/12-2013/14 period.

We present our four-level framework and follow with the results of our analyses at the four levels.

5.1. Our structural framework

We illustrate our crime structure in Figure 22 and Figure 23. The levels are described as follows:

5.1.1 Level 1

This first level of the structure provides the most macro view of crime in South Africa, comprising all the crimes that are reported to SAPS (Group A: All crime reported to SAPS).

5.1.2 Level 2

The second level of the structure presents crime as formed from three large, although not equally large, groups of crimes in the SAPS data: Crimes Dependent on Police Action for Detection (8%: Group B), Crime not Dependent on Police Action for Detection (57%: Group C), and Commercial Crime (35%: Group D). These three crime groups are separated as the patterns in the numbers and rates of crimes may differ from each other over time.

Crime Dependent on Police Action for Detection reflects proactive action against crime on the part of SAPS and SAPS policies, for example carrying out roadblocks, searches etc. Accordingly, this is the only SAPS crime category for which increasing numbers of crimes are viewed favourably. Overall SAPS officers detected about 300,000 such crimes per annum from 2011/12 to 2013/14, with this number having grown each year (Figure 22 and Table 9: RSA: Percentage representation of firearms used in firearm related crimes).

By contrast, Crime not Dependent on Police Action for Detection comprises crimes such as burglary, theft, robbery, murder etc. (our Group C) which ideally should be decreasing in number and rate, and indeed this is so over the last three FCA periods (Table 58: **Structural model for crime: RSA Crime numbers, rates & Percentage firearm use**).

Commercial crime comprises crimes of fraud, trademarks, second-hand goods, public administration, professions such as chartered accountants, customs and excise and tax, the protection of information act, pension laws and pension funds, among several others. On average per SAPS year from 2011/12-2013/14,

there were approximately 1.3 million of such crimes (Table 58: **Structural model for crime: RSA Crime numbers, rates & Percentage firearm use**).

5.1.3 Level 3

The third level of the structure separates the firearm related crime from non-firearm related crime. Accordingly, Crime Dependent on Police Action for Detection is split into the firearm related crime of the B1: Unlawful possession of firearms/ammunition (5%), versus B2: Drug related crime and Driving under the influence of alcohol or drugs (95%). Crimes Not Dependent on Police Action for Detection (Group C) are split into the firearm related crimes (7%: Group C1 of murder, attempted murder, pointing/discharging a firearm in public, and all aggravated robbery comprising robbery at residential premises, robbery at non-residential premises, carjacking, truck hijacking, bank robbery, and other robbery), versus the non-firearm related crimes (93%: Group C2 e.g. burglary, stock theft, other theft, common assault, common robbery etc.).

Thus the FCA is relevant to the firearm related crime groups (B1 and C1) which together comprise fewer than 5% of all crimes reported to SAPS, or fewer than 7% of crimes if commercial crimes are not considered. However small, this fraction of firearm related crime in South Africa is violent and unacceptably high by any standard. These firearm related crimes constitutes the topic of this report.

5.1.4 Level 4

The fourth and most detailed level of the structure divides firearm related crime into Firearm Choice crime (27%) which may or may not be perpetrated by firearms, for example murder, attempted murder and robbery at residential premises, versus Firearm Dependent crime (29%) which invariably involves firearms, i.e. carjacking, truck hijacking, robbery at non-residential premises, bank robbery and pointing/discharging a firearm in public. There is also a less defined group of 'other' aggravated robberies (44%) which are not specified in terms of a particular subcategory of aggravated robberies. These are also firearm choice crimes.

5.2 Analysis of crimes in the structural framework (2004/5-2013/2014)

Based on the changes in crime levels over the 10 year period from the commencement of the FCA to 10 years after (2004/5-2013/2014) for crimes at the four levels of the structural crime framework, it appears that crime rates per 100,000 persons in South Africa have declined. This decline in the crime rates applies to all crimes reported to SAPS, both including and excluding commercial crime, commercial crime rates, crime not dependent on police for detection, firearm related crime, and firearm non related crime. Although crime rates are unacceptably high by international and other standards, the overall decrease in crime rates over the decade is positive for South Africa. The exception is the decline in the rate of unlawful possession of firearms/ammunition, the firearm related crime dependent on police action for detection (B1) which ideally should have increased.

5.2.1 Four FCA related periods

The FCA periods take into account the trends in crime rates in the period before the commencement of the FCA as well as other crime related events that took place over the 10 years that may have caused the decline in crime rates rather than the FCA.

For each level of the structural framework the numbers of crimes in the crime groups, the corresponding crime rates per 100,000, and the percentage of firearms in these crimes are supplied in Table 55, Table 56 and Table 57 respectively per SAPS year, together with their compound annual growth rates within each of the FCA periods. Table 58 is a composite of these tables. The crime rate per 100,000 is a useful index as changes in the numbers of crimes need to take into account concomitant population growth.

In the pre FCA period (2000/1-2003/4), overall crime rates were increasing on average per annum, and general firearm related crime was increasing. More specifically, firearm related crime was increasing. In the post FCA period (2004/5—2007/8), there were decreases in the rates of firearm related crime. Furthermore, in the Peri FIFA Cup period (2008/9-2010/11), there were the greatest decreases in the rates of firearm related crime. However, the rates of firearm related crime increased in the Post World cup period (2011/12-2013/14) (Table 58). Moreover, the percentage firearms involved in firearm choice crime increased in the 2011/12-2013/14 period after having declined since 2000/1. In other words, the success in decreasing firearm related crime until 2010/11, and particularly in the Peri FIFA Cups 2008/9-2010/11 period, were not sustained in the most recent four years considered.

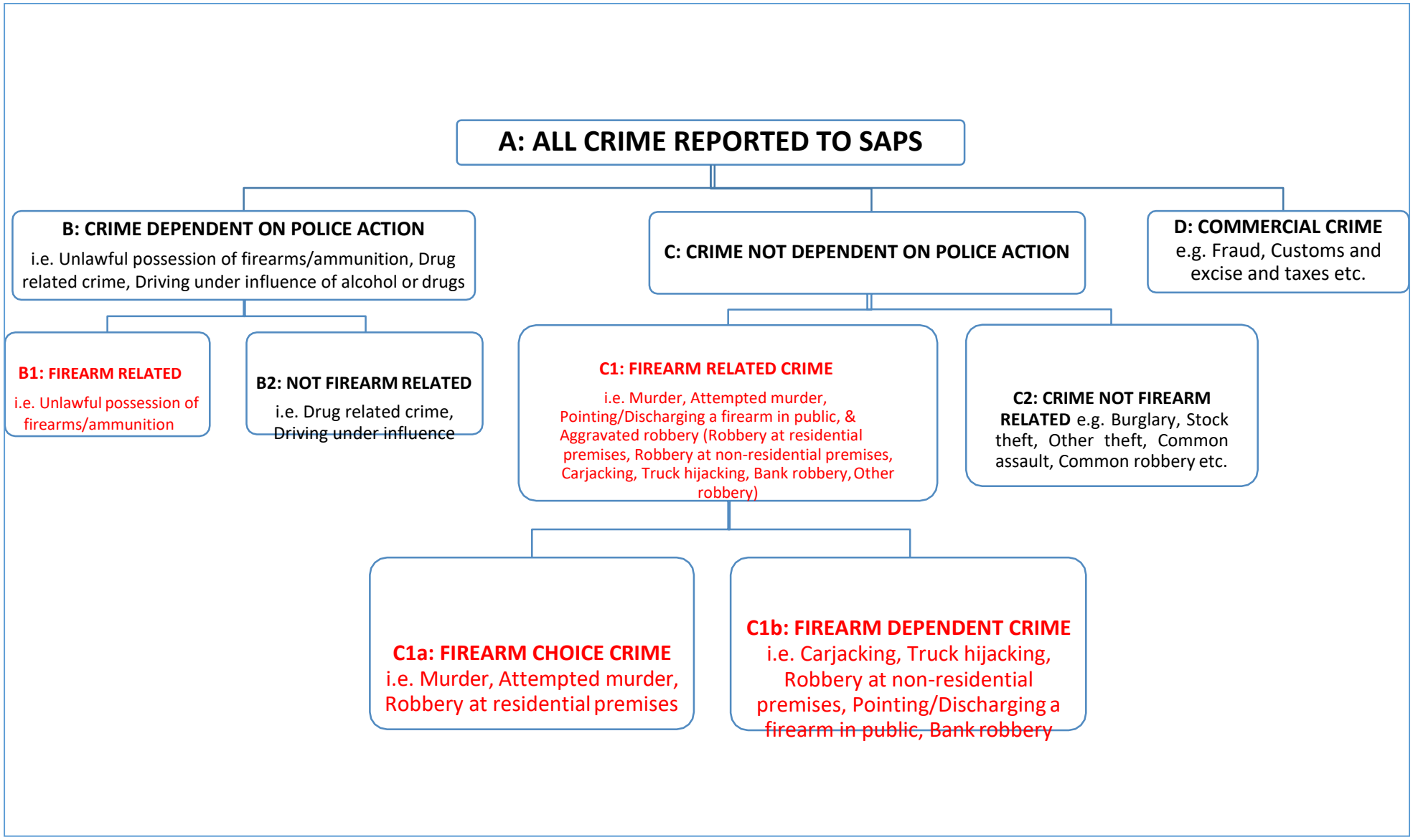


Figure 22: A structural model for crime

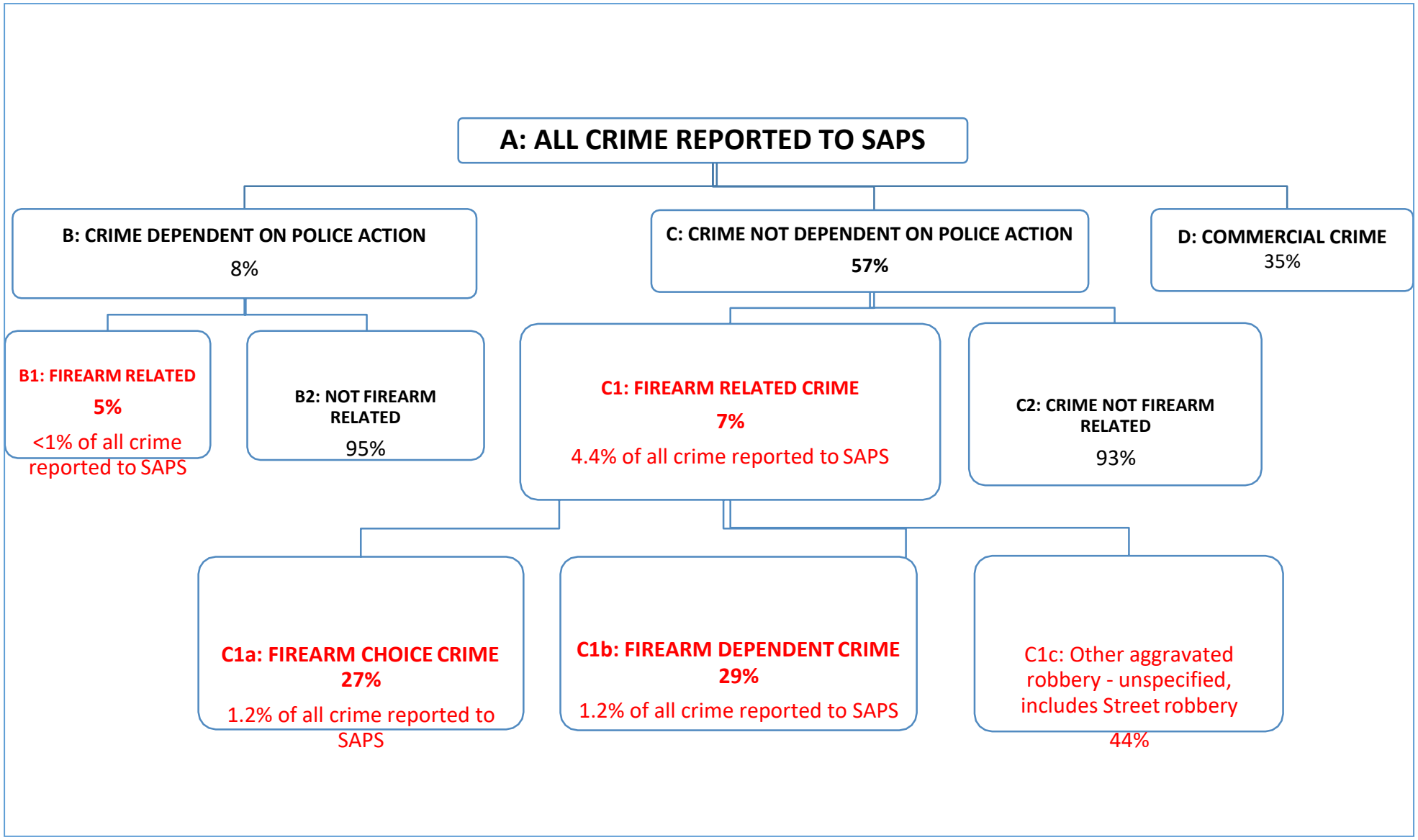

A: ALL CRIME REPORTED TO SAPS
B: CRIME DEPENDENT ON POLICE ACTION
8%
C: CRIME NOT DEPENDENT ON POLICE ACTION
57%
D: COMMERCIAL CRIME
35%
B1: FIREARM RELATED
5%
<1% of all crime reported to SAPS
B2: NOT FIREARM RELATED
95%
C1: FIREARM RELATED CRIME
7%
4.4% of all crime reported to SAPS
C2: CRIME NOT FIREARM RELATED
93%
C1a: FIREARM CHOICE CRIME
27%
1.2% of all crime reported to SAPS
C1b: FIREARM DEPENDENT CRIME
29%
1.2% of all crime reported to SAPS
C1c: Other aggravated robbery - unspecified, includes Street robbery
44%

Figure 23: A structural model for crime, situating firearm related crime and the FCA

Table 55: Structural model for crime: RSA Crime numbers

RSA: CRIME NUMBERS			FCA related period 1				FCA related period 2				FCA related period 3			FCA related period 4			CAGR			
CRIME GROUP		1999/ 2000	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
OVERALL CRIME	A: All CRIME REPORTED TO SAPS includes Business related crime	2 805 785	3 098 743	3 370 771	3 643 524	3 771 377	3 910 807	3 864 167	3 894 999	3 861 922	3 800 985	3 902 717	3 901 609	3 840 230	3 767 772	3 547 244	7%	0%	1%	-4%
	B+C: All CRIME excludes Business related crime	2 253 526	2 430 798	2 534 616	2 710 723	2 682 855	2 643 369	2 524 428	2 489 039	2 425 721	2 421 498	2 417 470	2 372 427	2 412 983	2 421 701	2 425 936	3%	-3%	-1%	0%
	D: BUSINESS RELATED CRIME e.g. Fraud, Customs and excise and taxes etc.	552 259	667 945	836 155	932 801	1 088 522	1 267 438	1 339 739	1 405 960	1 436 201	1 379 487	1 485 247	1 529 182	1 427 247	1 346 071	1 121 308	18%	4%	5%	-11%
CRIME DEPENDENT ON POLICE ACTION	B: All: Unlawful possession of firearms/ammunition, Drug related crime, Driving under influence of alcohol or drugs	76 940	77 362	84 700	85 663	99 355	124 675	140 491	156 720	170 719	186 881	211 788	231 646	260 583	291 642	344 270	9%	11%	11%	15%
	B1: FIREARM RELATED i.e. Unlawful possession of firearms/ammunition	12 904	12 503	13 367	14 571	15 890	14 697	13 290	14 494	13 852	14 733	15 007	14 872	14 605	14 567	15 108	8%	-2%	0%	2%
	B2: NOT FIREARM RELATED i.e. Drug related crime, Driving under influence	64 036	64 859	71 333	71 092	83 465	109 978	127 201	142 226	156 867	172 148	196 781	216 774	245 978	277 075	329 162	9%	13%	12%	16%
CRIME NOT DEPENDENT ON POLICE ACTION	C: CRIME NOT DEPENDENT ON POLICE ACTION	2 176 586	2 353 436	2 449 916	2 625 060	2 583 500	2 518 694	2 383 937	2 332 319	2 255 002	2 234 617	2 205 682	2 140 781	2 152 400	2 130 059	2 081 666	3%	-4%	-2%	-2%
FIREARM RELATED CRIME	C1: FIREARM RELATED CRIME i.e. Murder, Attempted murder, Pointing/Discharging a firearm in public, & Aggravated robbery (Robbery at residential premises, Robbery at non-residential premises, Car jacking, Truck hijacking, Bank robbery, Other robbery)	167 871	181 145	192 069	214 981	216 534	200 208	191 896	196 335	183 216	183 165	173 637	154 808	152 870	160 153	174 398	6%	-3%	-8%	7%
	C1a: FIREARM CHOICE CRIME i.e. Murder, Attempted murder, Robbery at residential premises	51 902	55 225	58 775	58 419	52 751	47 967	46 681	49 983	48 884	49 780	47 899	43 308	41 944	44 555	46 710	-2%	1%	-7%	6%
	C1b: FIREARM DEPENDENT CRIME i.e. Car jacking, Truck hijacking, Robbery at non-residential premises, Pointing/Discharging a firearm in public, Bank robbery	67 022	65 376	67 601	62 314	58 254	49 963	50 667	49 736	50 618	54 642	53 675	45 983	44 495	45 778	49 528	-4%	0%	-8%	6%
CRIME NOT FIREARM RELATED	C2: CRIME NOT FIREARM RELATED e.g. Burglary, Stock theft, Other theft, Common assault, Common robbery etc.	2 008 715	2 172 291	2 257 847	2 410 079	2 366 966	2 318 486	2 192 041	2 135 984	2 071 786	2 051 452	2 032 045	1 985 973	1 999 530	1 969 906	1 907 268	3%	-4%	-2%	-2%

Table 56: Structural model for crime: RSA Crime rates (per 100,000)

RSA: CRIME RATE (per 100,000)			FCA related period 1				FCA related period 2				FCA related period 3			FCA related period 4			CAGR				Average rate of crime per annum (per 100,000)			
CRIME GROUP		1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
OVERALL CRIME	A: All CRIME REPORTED TO SAPS includes Business related crime	6 508	7 115	7 568	8 010	8 116	8 381	8 219	8 199	8 036	7 782	7 886	7 781	7 547	7 234	6 663	4%	-1%	0%	-6%	7 702	8 209	7 816	7 148
	B+C: All CRIME excludes Business related crime	5 227	5 582	5 691	5 959	5 773	5 665	5 370	5 239	5 047	4 957	4 885	4 732	4 742	4 650	4 557	1%	-4%	-2%	-2%	5 751	5 330	4 858	4 649
	D: BUSINESS RELATED CRIME e.g. Fraud, Customs and excise and taxes etc.	1 281	1 534	1 877	2 051	2 342	2 716	2 850	2 960	2 988	2 824	3 001	3 050	2 805	2 584	2 106	15%	3%	4%	-13%	1 951	2 878	2 958	2 498
CRIME DEPENDENT ON POLICE ACTION	B: All: Unlawful possession of firearms/ammunition, Drug related crime, Driving under influence of alcohol or drugs	178	178	190	188	214	267	299	330	355	383	428	462	512	560	647	6%	10%	10%	12%	192	313	424	573
	B1: FIREARM RELATED i.e. Unlawful possession of firearms/ammunition	30	29	30	32	34	31	28	31	29	30	30	30	29	28	28	6%	-3%	-1%	-1%	31	30	30	28
	B2: NOT FIREARM RELATED i.e. Drug related crime, Driving under influence	149	149	160	156	180	236	271	299	326	352	398	432	483	532	618	6%	11%	11%	13%	161	283	394	545
FIREARM RELATED CRIME	C1: FIREARM RELATED CRIME i.e. Murder, Attempted murder, Pointing/Discharging a firearm in public, & Aggravated robbery (Robbery at residential premises, Robbery at non-residential premises, Car jacking, Truck hijacking, Bank robbery, Other robbery)	389	416	431	473	466	429	408	413	381	375	351	309	300	307	328	4%	-4%	-9%	4%	446	408	345	312
	C1a: FIREARM CHOICE CRIME i.e. Murder, Attempted murder, Robbery at residential premises	120	127	132	128	114	103	99	105	102	102	97	86	82	86	88	-4%	0%	-8%	3%	125	102	95	85
	C1b: FIREARM DEPENDENT CRIME i.e. Car jacking, Truck hijacking, Robbery at non-residential premises, Pointing/Discharging a firearm in public, Bank robbery	155	150	152	137	125	107	108	105	105	112	108	92	87	88	93	-6%	-1%	-9%	3%	141	106	104	89
CRIME NOT FIREARM RELATED	C2: CRIME NOT FIREARM RELATED e.g. Burglary, Stock theft, Other theft, Common assault, Common robbery etc.	4 659	4 988	5 069	5 298	5 094	4 969	4 663	4 496	4 311	4 200	4 106	3 961	3 929	3 782	3 583	1%	-5%	-3%	-5%	5 112	4 610	4 089	3 765

Table 57: Structural model for crime: RSA Percentage firearms used in firearm related crime

RSA: % Firearm in crime group			FCA related period 1				FCA related period 2				FCA related period 3			FCA related period 4			CAGR				Average per annum % Firearm in crime			
CRIME GROUP		1999/ 2000	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
OVERALL CRIME	A: Al l CRIME REPORTED TO SAPS includes Business related crime	8%	7%	7%	7%	6%	5%	5%	5%	4%	4%	4%	3%	3%	4%	4%	-6%	-5%	-12%	11%	7%	5%	4%	4%
	B+C: Al l CRIME EXCEPT BUSINESS RELATED CRIME	10%	10%	10%	10%	9%	8%	8%	8%	8%	8%	7%	6%	6%	6%	6%	-2%	-2%	-10%	5%	10%	8%	7%	6%
CRIME NOT DEPENDENT ON POLICE ACTION	C: CRIME NOT DEPENDENT ON POLICE ACTION	10%	10%	10%	10%	9%	8%	8%	8%	8%	8%	7%	6%	6%	6%	7%	-2%	-1%	-9%	8%	10%	8%	7%	6%
FIREARM RELATED CRIME	C1: FIREARM RELATED CRIME i .e. Murder, Attempted murder, Pointing/Discharging a fi rearm in public, & Aggravated robbery (Robbery at residential premises, Robbery at non-residential premises, Car jacking, Truck hi jacking, Bank robbery, Other robbery)	81%	81%	80%	81%	78%	74%	71%	71%	70%	68%	66%	63%	60%	59%	59%	-1%	-2%	-4%	-1%	80%	72%	66%	59%
	C1a: FIREARM CHOICE CRIME i .e. Murder, Attempted murder, Robbery at residential premises	69%	69%	65%	65%	63%	57%	53%	53%	49%	47%	44%	42%	40%	41%	43%	-3%	-5%	-6%	3%	65%	53%	44%	41%
	C1b: FIREARM DEPENDENT CRIME i .e. Car jacking, Truck hi jacking, Robbery at non-residential premises, Pointing/Discharging a fi rearm in public, Bank robbery	92%	93%	93%	90%	90%	90%	88%	89%	89%	88%	87%	86%	85%	84%	85%	-1%	0%	-1%	0%	91%	89%	87%	85%

Table 58: Structural model for crime: RSA Crime numbers, rates & Percentage firearm use

RSA: CRIME NUMBERS, RATES per 100,000 & PERCENTAGE FIREARM USED				FCA related period 1				FCA related period 2				FCA related period 3			FCA related period 4			CAGR			
CRIME GROUP		Index	1999/ 2000	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2000/1-2003/4	2004/5-2007/8	2008/9-2010/11	2011/12-2013/14
OVERALL CRIME	A: All CRIME REPORTED TO SAPS includes Business related crime	Total	2 805 785	3 098 743	3 370 771	3 643 524	3 771 377	3 910 807	3 864 167	3 894 999	3 861 922	3 800 985	3 902 717	3 901 609	3 840 230	3 767 772	3 547 244	7%	0%	-4%	-4%
		Rate	6 508	7 115	7 568	8 010	8 116	8 381	8 219	8 199	8 036	7 782	7 886	7 781	7 547	7 234	6 663	4%	-1%	0%	-6%
		% FA	8%	7%	7%	7%	6%	5%	5%	5%	4%	4%	4%	3%	3%	4%	4%	-6%	-5%	-12%	11%
	B+C: All CRIME excludes Business related crime (65%)	Total	2 253 526	2 430 798	2 534 616	2 710 723	2 682 855	2 643 369	2 524 428	2 489 039	2 425 721	2 421 498	2 417 470	2 372 427	2 412 983	2 421 701	2 425 936	3%	-3%	-1%	0%
		Rate	5 227	5 582	5 691	5 959	5 773	5 665	5 370	5 239	5 047	4 957	4 885	4 732	4 742	4 650	4 557	1%	-4%	-2%	-2%
		% FA	10%	10%	10%	10%	9%	8%	8%	8%	8%	8%	7%	6%	6%	6%	6%	-2%	-2%	-10%	5%
	D: BUSINESS RELATED CRIME e.g. Fraud, Customs and excise and taxes etc. (35%)	Total	552 259	667 945	836 155	932 801	1 088 522	1 267 438	1 339 739	1 405 960	1 436 201	1 379 487	1 485 247	1 529 182	1 427 247	1 346 071	1 121 308	18%	4%	5%	-11%
		Rate	1 281	1 534	1 877	2 051	2 342	2 716	2 850	2 960	2 988	2 824	3 001	3 050	2 805	2 584	2 106	15%	3%	4%	-13%
		% FA	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%				
CRIME DEPENDENT ON POLICE ACTION	B: All: Unlawful possession of firearms/ammunition, Drug related crime, Driving under influence of alcohol or drugs (12%)	Total	76 940	77 362	84 700	85 663	99 355	124 675	140 491	156 720	170 719	186 881	211 788	231 646	260 583	291 642	344 270	9%	11%	11%	15%
		Rate	178	178	190	188	214	267	299	330	355	383	428	462	512	560	647	6%	10%	10%	12%
		% FA	11.1%	10.6%	10.9%	12.2%	12.0%	8.9%	7.5%	7.3%	6.5%	6.3%	5.8%	5.3%	4.7%	4.1%	3.7%	4%	-10%	-8%	-11%
	B1: FIREARM RELATED i.e. Unlawful possession of firearms/ammunition	Total	12 904	12 503	13 367	14 571	15 890	14 697	13 290	14 494	13 852	14 733	15 007	14 872	14 605	14 567	15 108	8%	-2%	0%	2%
		Rate	30	29	30	32	34	31	28	31	29	30	30	30	29	28	28	6%	-3%	-1%	-1%
		% FA	69.7%	67.8%	71.7%	73.3%	76.9%	78.8%	80.2%	79.8%	80.1%	81.1%	82.6%	83.3%	83.7%	82.9%	83.5%	4%	1%	1%	0%
	B2: NOT FIREARM RELATED i.e. Drug related crime, Driving under influence	Total	64 036	64 859	71 333	71 092	83 465	109 978	127 201	142 226	156 867	172 148	196 781	216 774	245 978	277 075	329 162	9%	13%	12%	16%
		Rate	149	149	160	156	180	236	271	299	326	352	398	432	483	532	618	6%	11%	11%	13%
		% FA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8%	18%	6%	9%
CRIME NOT DEPENDENT ON POLICE ACTION	C: CRIME NOT DEPENDENT ON POLICE ACTION (88%)	Total	2 176 586	2 353 436	2 449 916	2 625 060	2 583 500	2 518 694	2 383 937	2 332 319	2 255 002	2 234 617	2 205 682	2 140 781	2 152 400	2 130 059	2 081 666	3%	-4%	-2%	-2%
		Rate	5 048	5 404	5 501	5 771	5 560	5 398	5 071	4 910	4 692	4 575	4 457	4 270	4 230	4 090	3 910	1%	-5%	-3%	-4%
		% FA	10%	10%	10%	10%	9%	8%	8%	8%	8%	8%	7%	6%	6%	6%	7%	-2%	-1%	-9%	8%
FIREARM RELATED CRIME	C1: FIREARM RELATED CRIME i.e. Murder, Attempted murder, Pointing/Discharging a firearm in public, & Aggravated robbery (Robbery at residential premises, Robbery at non-residential premises, Car jacking, Truck hijacking, Bank robbery, Other robbery)	Total	167 871	181 145	192 069	214 981	216 534	200 208	191 896	196 335	183 216	183 165	173 637	154 808	152 870	160 153	174 398	6%	-3%	-8%	7%
		Rate	389	416	431	473	466	429	408	413	381	375	351	309	300	307	328	4%	-4%	-9%	4%
		% FA	81%	81%	80%	81%	78%	74%	71%	71%	70%	68%	66%	63%	60%	59%	59%	-1%	-2%	-4%	-1%
	C1a: FIREARM CHOICE CRIME i.e. Murder, Attempted murder, Robbery at residential premises	Total	51 902	55 225	58 775	58 419	52 751	47 967	46 681	49 983	48 884	49 780	47 899	43 308	41 944	44 555	46 710	-2%	1%	-7%	6%
		Rate	120	127	132	128	114	103	99	105	102	102	97	86	82	86	88	-4%	0%	-8%	3%
		% FA	69%	69%	65%	65%	63%	57%	53%	53%	49%	47%	44%	42%	40%	41%	43%	-3%	-5%	-6%	3%
	C1b: FIREARM DEPENDENT CRIME i.e. Car jacking, Truck hijacking, Robbery at non-residential	Total	67 022	65 376	67 601	62 314	58 254	49 963	50 667	49 736	50 618	54 642	53 675	45 983	44 495	45 778	49 528	-4%	0%	-8%	6%
		Rate	155	150	152	137	125	107	108	105	105	112	108	92	87	88	93	-6%	-1%	-9%	3%
		% FA	92%	93%	93%	90%	90%	90%	88%	89%	89%	88%	87%	86%	85%	84%	85%	-1%	0%	-1%	0%
CRIME NOT FIREARM RELATED	C2: CRIME NOT FIREARM RELATED e.g. Burglary, Stock theft, Other theft, Common assault, Common robbery etc.	Total	2 008 715	2 172 291	2 257 847	2 410 079	2 366 966	2 318 486	2 192 041	2 135 984	2 071 786	2 051 452	2 032 045	1 985 973	1 999 530	1 969 906	1 907 268	3%	-4%	-2%	-2%
		Rate	4 659	4 988	5 069	5 298	5 094	4 969	4 663	4 496	4 311	4 200	4 106	3 961	3 929	3 782	3 583	1%	-5%	-3%	-5%
		% FA	1.3%	1.2%	1.1%	1.0%	0.9%	0.7%	0.6%	0.7%	0.6%	0.6%	0.6%	0.5%	0.4%	0.4%	0.4%	-10%	-4%	-15%	0%

6 Conclusions and Recommendations

We frame our conclusions on the relation between the FCA and crime using themes derived from the results of our analyses. Thereafter we offer our conclusions to the research question on the effect of the FCA on crime.

6.1 Conclusions

Based on our research, we frame our conclusions to the research using 11 themes.

6.1.1 Crime rates since the commencement of the FCA

In order to situate the FCA in the population of crime in the country, we have constructed a structural framework comprising four broad groups of crime. We conclude that the FCA is relevant to less than 5% of all crimes reported to SAPS but that these crimes are violent and at an unacceptably high level. In general, the rates of crime in these broad groups have declined at the end of a decade since the commencement of the FCA in 2004/5. However we cannot attribute the decline in crime rates to the FCA.

Conclusion: *Crime rates have declined since the start of the FCA, judging from the decline in the rates in 2004/5 and 2013/14. However, the declines are not necessary attributable to the FCA. Furthermore, the FCA is relevant to less than 5% of all crimes reported to SAPS.*

6.1.2 Policing as an alternate explanation to the FCA for changes in crime rates

The past 15 years has offered us a timeline relevant to the period before and after the commencement of the FCA. This period is punctuated by historical events such as policing operations, illegal firearm amnesties and the enhanced anti-crime operations over the FIFA Confederation and World Cup soccer events, all of which must be taken into account in attempting to assess the impact of the FCA on crime.

In the language of research design, the 15 year period of crime data serves as a longitudinal time series design with multiple measures of crime. The commencement of the FCA is the first treatment condition, and strong policing initiatives is the second. These two conditions provide us with four distinct time periods: the first is the 2000/1-2003/4 period before the commencement of the FCA and with moderately strong policing initiatives (Operation Sethunya) under the late Jackie Selebe, the second is the four year period following commencement of the FCA with a similar level of policing initiatives (the effect of Operation Sethunya would still have been felt plus the 2005 illegal firearms amnesty) under the same Police Commissioner; the third is the three year period of intense policing operations and high expenditure spanning the FIFA Confederation and World Cup events under a new Police Commissioner and still with the application of the FCA; and the fourth is the withdrawal of strong policing under a new Police Commissioner while the FCA continues. We

have named these four time periods, the four 'FCA related periods' i.e. FCA periods 1, 2, 3 and 4. These four periods functioned as our timeframe to measure levels of firearm related crime, i.e. the outcome variable.

Firearm related crime comprises crimes in which firearms may be used, i.e. murder, attempted murder, general aggravated robbery and its subcategories of robbery at residential premises, robbery at non-residential premises, carjacking, truck hijacking, cash in transit robbery, bank robbery, pointing/discharging a firearm in public, and illegal possession of firearms/ammunition (a crime dependent on police action for detection and thus ideally displaying high levels).

If the FCA was effective in reducing firearm related crime, we would expect the crime levels to be highest in FCA period 1, i.e. in the period before the FCA (2000/1-2003/4), to reduce in FCA period 2 following commencement of the FCA, and to show a sustained decrease in crime levels in the following two FCA related periods. This trend of reducing crime levels would be sustained under the FCA, irrespective of the presence or absence of strong policing operations. On the other hand, if strong policing operations was the treatment condition effective for reducing firearm related crime rather than the FCA, then we would expect the crime levels to reduce the most in the third FCA related time period, i.e. in the 2008/9-2010/11 time around the FIFA Cup events, and to increase again when this condition of strong policing was withdrawn in FCA period 4 (2011/12-20113/14).

Our results indeed showed the latter trend, i.e. that firearm crime levels reduced the most in the 2008/9-2010/11 Peri FIFA Cups period, more so than in the four-year period immediately following the commencement of the FCA (2004/5-2007/8), and that despite the FCA, the decreased crime levels were not sustained in the FCA period when strong policing initiatives were withdrawn. This pattern of favourable improvement in firearm related crime was generally consistent when measured by crime levels and rates with the exception of the crime of robbery at business premises which remained high throughout the 14-year period. Clearly these differential patterns in the movement of crime levels would have been hidden had we merely compared the beginning and end years of the time periods (as in the research of Abrahams et al, 2013).

Conclusion: *The level of strong policing, rather than the FCA, is a necessary condition for reducing firearm related crime. The FCA is not sufficient to reduce firearm related crime in the absence of strong policing.*

6.1.3 Firearm Choice versus Firearm Dependent crimes

The levels of firearm usage in firearm related crimes in the four FCA related periods is more complex. Our results showed that in the 2008/9-2010/11 Peri FIFA Cups period, for some firearm related crimes such as murder, attempted murder and robbery at residential premises, both the levels and the percentage usage of firearms reduced in this period of strong policing, but the percentage usage of firearms did not reduce in

other crimes such as carjacking, truck hijacking, cash in transit robbery, bank robbery and robbery at non-residential premise. In these crimes, firearms were almost always used and did not reduce when the levels of these crimes reduced under strong policing. This observation led to us split the category of firearm related crimes into FIREARM CHOICE crimes versus FIREARM DEPENDENT crimes, the latter category of crimes dependent on firearms for their perpetration and thus impervious to the FCA, only responding to strong policing in terms of reduced levels of these crimes rather than the usage of firearms involved.

We thus arrive at our third conclusion, and we posit that the Act needs to distinguish between these two types of firearm related crimes.

Conclusion: *Firearm related crimes should be viewed as comprising Firearm Choice crimes versus Firearm Dependent crimes. Firearm Dependent crimes are impervious to the FCA as usage of firearms remains intact, even when levels of these crimes decline under strong policing. The Act needs to distinguish between these two types of firearm related crimes.*

6.1.4 The sustainability of lower usage of firearms in crimes of murder

The use of firearms to perpetrate murder started to decline in the pre FCA period (2000/1-2003/4) nationally and in most provinces, and continued its until 2010/11. Further, this decline in the use of firearms for committing murder was consistent with the decline in the rate of murders. However, as the murder rates increased in the 2011/12-2013/14 FCA period, so too did the relative usage of firearms in murders nationally and in most provinces. Thus in spite of the FCA, in the absence of strong policing, usage of firearms in perpetrating murder tends to return to the higher levels that existed before the general decline in both murders and in the percentage firearm usage when there was strong policing.

Nevertheless, the majority of murders in the post FIFA period (2011/12-2013/14) are still committed using sharp objects and not firearms, particularly in the Northern Cape (where firearms are used in less than 8% of murders, and in Eastern Cape and the Free State where firearms are used in less than 20% of murders) with the national firearm usage in murder crimes averaging at 35%.

Accordingly, our fourth conclusion states:

Conclusion: *In spite of the FCA, in the absence of strong policing, usage of firearms in perpetrating murder (although not used in the majority of murders), tends to return to the higher levels that existed before the general decline, both in murders and in the percentage of firearm usage in the period of strong policing. Thus strong policing needs to be maintained to sustain the lower levels of firearm use.*

6.1.5 Validity of the official SAPS crime statistics for the FCA related periods

We assessed whether the official SAPS crime statistics would provide similar trends to those that we obtained based on the 75 million detailed crime records that we processed for this report. This cross-validation exercise was limited to the official SAPS 2005/6-2013/14 results as this time period was common to the two sets of results. We applied the same analysis to the official SAPS crime statistics (shortening the length of the 2004/5-2007/8 FCA period by one year to 2005/6-2007/8), and compared the average annual growth rates for each crime. We performed this calculation on both the retrospectively adjusted SAPS statistics as well as on the unadjusted as a check on the adjustment. The latest retrospectively adjusted SAPS statistics provided remarkably similar annual growth trends for crimes for the FCA related periods considered.

When we compared our levels of crimes to the official SAPS statistics, we found that our levels are approximately 2%-7% higher on the firearm related crimes in the past seven years. These differences are not unexpected as our methodology for counting crimes differed from the methodology used by SAPS.

Conclusion: *The official SAPS crime statistics are conveying the same message as our statistics, i.e. a drop in crime levels in the 2008/9-2010/11 Peri FIFA Cups period and a rise in crime numbers in the subsequent 2011/12-2013/14 Post World Cup period.*

6.1.6 The impact of the FCA's increased age of firearm ownership on age of accused

In our attempt to examine the effect of the FCA raising the minimum age for legal firearm ownership, we analysed the ages of persons accused of committing crimes with versus without firearms. Although information on the accused is available in only about half the cases of reported crimes, it appears that over the four FCA related periods the age distribution of accused has become slightly older (25 years and older) implying fewer accused under 21 year old. However this trend applies equally to persons accused of crimes irrespective of whether a firearm is used or not, and therefore it is unlikely that the shift towards older accused is due to the FCA. However under-aged accused persons do tend to use firearms relatively less than older accused.

Conclusion: *The shift towards accused persons tending to be older (25+ years) since the post FCA period applies equally to persons accused of crimes irrespective of whether they are accused of using a firearm or not. It is therefore unlikely that the shift towards older accused is due to the FCA.*

6.1.7 The impact of the FCA on the rates of stolen/lost and recovered firearms

Considering all firearms reported stolen or lost since 2000 based on data from the Circulations system (approximately 176,000 cases), 19% of firearms are recovered. However there are an additional 27,000 firearms recovered that have not been reported. This implies that the size of the pool of firearms reported

stolen or lost is larger than the number of firearms reported stolen or lost. The size of this unknown quantity cannot be estimated and may be of grave significance.

However the rate of reported stolen or lost firearms since 2000 has declined steadily, i.e. improved, and the rates of recovery in the same year as the loss, and within two years of the loss have both improved, implying that stolen or lost firearms are now being recovered more quickly. However, the eventual rate of recovery has hardly improved over time. Furthermore, there are provincial differences in the recovery rates of firearms, with Gauteng being the province with the highest rates of reported stolen and lost firearms and the lowest rates of recovery, and Western Cape the most successful in terms of the rates of both reported losses and recoveries.

A disproportionate number of pistols are lost or stolen compared to other types of firearms. While pistols represented 36% of all registered firearms in 2013/14, they represented 70% of all lost or stolen firearms. Furthermore, pistols, when combined with revolvers, comprised 86% of all lost or stolen firearms in 2013/14. This percentage is fairly similar to the vast majority (over 90%) of handguns used in firearm crimes. Thus the characteristics of firearms reported stolen reflect the characteristics of firearms used in crime and thus the 'demand' for stealing legal firearms for use in firearm crime.

Of all firearm owners, Security Services show the highest loss rate of their firearms at almost 1% of their registered firearms stolen or lost per year, compared to 0.2% in the case of other firearm owners.

Conclusion: *The rates of firearm losses and recoveries have been improving since 2000, prior to the commencement of the FCA. It is likely that the FCA has played a role in these improvements, and it is certainly necessary to improve further the losses and recoveries as the profile of stolen firearms mirrors the profile of firearms used in crime rather than the profile of the population of CFR licenced firearms. Gauteng province has among the worst rates of losses and recoveries. Furthermore, even though recovery rates within one and two years of firearm loss have improved over time, the eventual recovery rates remain at around 20% and have hardly improved over the past decade. Of all firearm owners, Security Services show the highest loss rate of their firearms at almost 1% of their registered firearms stolen or lost per year, compared to 0.2% in the case of other firearm owners.*

6.1.8 The reliance on the FCA and firearm control as the solution to crime

For the last 15 years, control of firearms epitomised by the FCA has been viewed by our government as the panacea for controlling crime. However our research shows that firearms are not used in the majority of firearm choice crimes. For example, firearms were used in only a third of murders nationally in the 2011/12-2013/14 period. So even if the Act was effective in addressing crime, it would not be addressing the two-thirds of murders perpetrated using other weapons. Thus the FCA can be, at best, only a partial solution to

violent crime as it fails to address the weapons used most often in these crimes. Given that sharp objects are frequently used in murders and other firearm choice crimes, there needs to be recognition that violent crime is not synonymous with firearms and that possibly, legislation such as the Dangerous Weapons Act 15 of 2013, or a more appropriate Act, may complement policing and the FCA in addressing Firearm Choice crime. The Dangerous Weapons Act, or more appropriate legislation, could also have a far greater reach as the FCA is relevant to less than 5% of all crimes reported to SAPS including commercial crime, and less than 7% of all crimes reported to SAPS excluding commercial crimes.

Conclusion: *As the majority of firearm choice crimes of murder are not carried out with a firearm, there needs to be recognition that violent crime is not synonymous with firearms and that in terms of legislation, possibly the Dangerous Weapons Act 15 of 2013 may complement policing and the FCA in addressing Firearm Choice crime. This Act, or another more appropriate piece of legislation, would also have a much greater reach to crime than the FCA as the FCA is relevant to less than 5% of all crimes reported to SAPS including commercial crime, and less than 7% of all crimes reported to SAPS excluding commercial crimes.*

6.1.9 The ageing population of registered firearm users

Less than 2% of the population of 1.75 million registered private individual firearm owners (CFR as at October, 2014) are 30 years old or younger; only 12% are 40 years old or younger. Whether the FCA has made the process of owning a firearm so onerous that younger people do not often go through the process, or there are other reasons for the ageing population, is a topic for future research.

Conclusion: *Based on the demographics of the population of private individuals registered on the CFR as legal firearm owners as at October 2014, there are only 2% of individuals aged 21-30, and 12% aged 21-40. It is possible that the conditions for registering a firearm are so onerous that young people do not apply for firearms.*

6.1.10 The contradictory findings of MRC research

Our findings contradict the results of two MRC studies (Abrahams et al., 2013[95]; Matzopolous et al., 2014[96]). In both these studies, the researchers credited the stricter gun control of the FCA with having caused the declines in numbers of homicides and the decreasing use of firearms in homicides over the period of their studies (nine years and five years respectively).

[95] Abrahams N, Mathews S, Martin LJ, Lombard C, Jewkes R. Intimate partner femicide in South Africa in 1999 and 2009. PLoS Med. 2013; 10(4): e1001412.
[96] Matzopoulos, R., Thompson, M., and Myers, J. (2014). 'Firearm and Non-firearm Homicide in 5 South African Cities: A Retrospective Population-Based Study' in Department of Community Safety – 2014/15, American Journal of Public Health, 104(3): 455-460.

However, the femicide study of Abraham et al. compared only the start and end years (1999 and 2009) of this 10-year period and so Abraham's conclusions are simplistic and misleading. There was no consideration given to the fact that 1999 was a year in which violent crime was at a peak relative to the following 15 years, and 2009 was the year of low crime as it was then that the FIFA Confederation Cup took place and also the year immediately prior to the FIFA World Cup events that were characterised by a high state of security and policing at high cost with unprecedented anti-crime success. Thus the start and end years of Abraham's study, were simply coincidental with weak and strong policing respectively. But the authors associated the decrease in crime levels over this period as due to the FCA, an erroneous causal attribution. Furthermore, these authors did not follow up on the sustainability of their findings.

The other suspect causal attribution of decreased homicides to the FCA is in the study of Matzopolous et al. (2014). According to the authors, the study period (2001-2005) involved records from the mortuaries of five cities and these records showed a proportionately greater decrease in homicides perpetrated with a firearm versus a different object. Our objections are:

Firstly, as the FCA only commenced officially in July 2004, the 2001-2005 study period incorporates at most 18 out of 60 months under the FCA (July 2004-December 2005), assuming that the study actually carried on until December 2015). The other 70% of the time period of the study was under the old Act, when the old firearm regulations were still in place and valid. Furthermore, from 2004 to 2005, the year when the FCA commenced, homicides actually increased in two of the five cities (Cape Town and Port Elizabeth).

Secondly, if one considers the number of homicides presenting to mortuaries in the five cities over the study period (2001-2005), relative to the overall population of homicides, it is clear that these mortuaries are representing a smaller and smaller percentage of national homicides each year: in the start year of the study, the sample of homicides represented 43% of all homicides nationally, and in the following four years, the sample represented successively decreasing percentages (41%, 37%, 35% and 35%) relative to the population of homicides (19,314; 20,345; 19,962; 18,458; and 18,768). For some reason, the mortuary statistics became less representative of the national numbers which themselves were decreasing, although not to the same extent as the homicides in the cities over the five-year period (8,227; 8,296; 7,442; 6,525; and 6,577 respectively). So the lesser percentages of the city mortuaries' homicides relative to the national numbers of homicides each year would imply that the rural homicides were increasing. Thus either it would appear that the number of homicides in the five cities were decreasing to a much greater extent than they actually were because the mortuaries in the five cities were absorbing fewer bodies for some reason (perhaps they were being sent to other mortuaries?), or the decreasing phenomenon of homicides - and firearm homicides in particular in the five cities - are peculiar to urban rather than rural populations, while

elsewhere the opposite trend occurred. Even the authors (Matzopolous et al., 2014) discount this possibility.

Conclusion: *We discount the findings of the MRC researchers* (Abrahams et al., 2013[97]; Matzopolous et al., 2014[98]) *who claim that the stricter gun control of the FCA has caused the declines in numbers of homicides and the decreasing usage of firearms in homicides over the period of their studies (nine years and five years respectively).*

6.1.11 The potential impact of 3-D printing on the FCA

A primary purpose of the FCA is to control legal firearms so that they are not stolen and become illegal weapons to be used in crime. Anti-firearm proponents such as Gun Free SA advocate for increasingly strict legislation and controls over firearms. However, the option of 3-D printing a fully functioning firearm already exists, and this option will become increasingly sophisticated and available in the near future[99]. 3-D printed guns could become a primary source of firearms used in crime, and the FCA would be powerless over them. Clearly, policing would be the better answer to controlling these firearms.

Conclusion: *As 3-D printing technology improves, printing firearms is likely to evolve at an increasing pace and level of sophistication and would be an uncontrolled source of firearms ripe for illegal crimes. The FCA would be incapable of controlling them; however strong or more technologically skilled policing could address the problem.*

[97] Abrahams N, Mathews S, Martin LJ, Lombard C, Jewkes R. Intimate partner femicide in South Africa in 1999 and 2009. PLoS Med. 2013; 10(4): e1001412.
[98] Matzopoulos, R., Thompson, M., and Myers, J. (2014). 'Firearm and Non-firearm Homicide in 5 South African Cities: A Retrospective Population-Based Study' in Department of Community Safety – 2014/15, American Journal of Public Health, 104(3): 455-460.
[99] http://www.wired.com/2014/05/3d-printed-guns/

6.2 Recommendations

We have eight high-level recommendations relevant to the FCA and crime:

6.2.1 Stop the misplaced, unconditional faith in the ability of the FCA to solve crime; rather concentrate on policing

For the past 15 years or more, the government and police leaders have equated violent crime with firearms and consequently expressed unconditional support for the FCA. Even today, when crime levels have increased, our leaders rationalise their dissonance by proposing even stronger amendments to the Act. We claim that the faith in the FCA as a major means of addressing crime is misplaced for several reasons:

- Firstly, our research has shown that violent crime, i.e. crime in which firearms may be involved, is not necessarily dependent on firearms. In fact in murder crimes, firearms are used in only about a third of cases, with sharp objects used more often.
- Secondly, in periods of strategic, strong policing, under the FCA conditions, crime drops and the involvement of firearms in firearm related crimes such as murder, attempted murder and robberies at residential premises, drops too. But when strong policing is withdrawn, even under the stringent conditions of the FCA, firearm related crime increases once again and the use of firearms in these crimes tends to increase even more, so that the use of firearms regresses towards its former elevated levels. This finding of the necessity of strong policing for reducing firearm related crime, and firearm usage in these crimes, even under the FCA, has been a consistent pattern in our findings. Credit must go to strong policing, rather than to the FCA, for controlling crime and for reducing the use of firearms in crimes of murder, attempted murder and house robberies.
- Thirdly, there are certain violent crimes that are impervious to the FCA. Crimes such as carjackings, truck hijackings, robberies at business premises, cash in transit robberies, and bank robberies are dependent on firearms. Once again, even under the stringent FCA regulations, these crimes decrease only under strong policing conditions and increase when policing is withdrawn. However the level of firearm use does not reduce.
- Fourth, the FCA applies to less than 5% of all crimes reported to SAPS when commercial crimes are included. Although these crimes are at a level of violence and trauma that is completely unacceptable, the vast majority of crimes are not firearm related and therefore the FCA is not applicable to them.
- Finally, even today and more so as technology improves, techno savvy individuals are able to print 3-D guns that are operational. These weapons will not appear in the CFR and the FCA legislation and its increasingly strict amendments are simply irrelevant to them.

6.2.2 Formulate policies and legislation specific to firearm dependent crime, independent of firearm choice crime

As the use of firearms is necessary for perpetrating firearm dependent crimes, there needs to be tightened legislation addressing smuggled firearms and corruption of high calibre weapons. Crimes such as truck hijacking, cash in transit robbery and bank robberies are dependent on supplies of such firearms, and there need to be targeted operations to identify the main sources of supply.

In the case of firearm choice crimes there needs to be greater emphasis on legislation, possibly the Dangerous Weapons Act 15 of 2013 as this Act, or a more appropriate one, may complement policing and the FCA in addressing Firearm Choice crimes.

6.2.3 Enhance IT systems to link the various SAPS databases

As stated in the Introductory Provisions of the Act, one of the main purposes of the FCA is to improve control over legal firearms to prevent crime involving firearms and to prevent the proliferation of other illegally acquired firearms that could be used in crime.

At present there is no readily available and accessible system that readily links weapons used in crimes to the CFR, and therefore we could not analyse whether firearms used in crime were illegal, either having been stolen from, or lost by, a firearm owner originally licenced on the CFR, or smuggled in from elsewhere. This challenge meant that we could not directly evaluate the extent to which the FCA was contributing to reducing stolen and smuggled firearms. A system that linked crimes to stolen, lost and recovered firearms in the Circulations system with details of (previous) owner would be invaluable to determine the effect of the FCA on crime over time.

Hypothetically, had we had data from such a system, we would have employed the same research design as in this report, i.e. tracked the characteristics of the weapons used in crime over our four FCA related periods in order to attempt to control internal and external crime related initiatives such as SAPS operations, and anti-crime programs associated with FIFA events, as well as other extraneous events, to distinguish between the effects of enhanced policing efforts and the FCA.

SAPS has a myriad of data and world-class systems, for example the DNA Criminal Intelligence Database, the National Drug Intelligence Database, and the Integrated Ballistics Identification System (IBIS) at the Pretoria

Forensic Science Laboratory which received the international award for the "most effective installation globally" in the USA in March 2000[100]. Integrated data from these systems could be extraordinarily useful[101].

6.2.4 Link the SAPS databases to court records

A readily available database of court records of successful convictions involving positively matched firearms to crimes on the CAS system with details on the origin of these firearms would inform us whether the increasing stringency of the Act on legal owners is appropriate relative to the predominant source(s) of stolen firearms[98]. This topic would require a new research project.

6.2.5 Introduce unconditional, anonymous illegal firearm amnesties

Our research has shown that approximately 153,000 firearm owners registered on the CFR are over 80 years old implying that there are probably a large number of estate firearms in households. Although the CFR is in the process of updating their records based on notifications from Home Affairs, it is likely that there are several households with estate weapons that may no longer be well looked after and are consequently at risk of being lost or stolen. Annual (or more or less frequent) unconditional, anonymous illegal firearm amnesties may be an efficient way of removing these firearms from circulation. Obviously, the process of the destruction of these amnesty firearms needs to be more transparent and honest than in the case of the 2010 amnesty[102].

6.2.6 Take heed of the ageing legal firearm owner population

It is remarkable that only 2% of private individual licenced firearm owners are 21-30 years old and 12% are 21-40 old. If the FCA regulations are viewed as excessively stringent, it is possible that they could be viewed as unconstitutional to "rights to life and bodily integrity", the first purpose of the Act. After all, more than half of firearm licence applications are for self-defence. It is not impossible that pro-gun activists could argue this case in the high court, as did the South African Hunters and Game Conservation Association in 2009. Further research on the reasons for the ageing population should be considered.

6.2.7 Release official up-to-date SAPS statistics more regularly

The official SAPS crime statistics should be released more frequently, possibly monthly, to be more useful for operational policing. Statistical releases that are up to 18 months old are of reduced practical use. Our

[100] http://www.saps.gov.za/faqdetail.php?fid=6

[101] This causal link is presently not known as access to the IBIS is restricted. These restrictions may be due to incomplete court processes. A review of court findings of completed judgements are the likely source of this information.

[102] National Firearms Summit organised by Parliament's police committee, March 2015

experience in computing the statistics for this research is proof that rigorous statistics can be generated in a few days rather than taking many months.

6.2.8 Respect the role of the FCA within the context of policing

Most likely owing to the FCA, firearms reported stolen or lost have decreased over the years, and recovery rates within the same year of loss, and within two years of have increased, although the ultimate recovery rate remains at approximately 20%. If something other than the FCA was responsible for these improvements in controlling legal firearms, we would have seen a reversal in the positive trends at some point, as we saw in the case of reversals in crime. However these positive trends have been sustained, and so we maintain that the FCA has an important role for controlling legal firearms in South African society.

However, the FCA is not a sufficient resource to control crime. Strategic, strictly enforced policing is necessary to control crime.

APPENDIX A: BILL[103] TO AMEND THE FIREARMS CONTROL ACT, 2000

So as to amend and insert certain definitions;

- to provide for the verification by accredited associations of applications to possess a firearm;
- to provide that a semi-automatic firearm or semi-automatic shotgun may only be licenced to a person who has held a dedicated status as a sports-shooter for a period of at least two years;
- to provide that additional motivation must be provided to the Registrar for the registration of any firearm licence that exceeds the stipulated two firearms licences for dedicated hunting or dedicated sports-shooting, taking into account the needs of the dedicated hunter and sports shooter, the type of firearm required, the shooting disciplines involved in, and that such motivation must be supported by the relevant accredited hunting association or sports shooting organisation;
- to provide for the validity period of competency certificates;
- to provide for a penalty for late applications for the renewal of a firearms licences;
- to provide for consequential amendments in respect of muzzle loading firearms in order to provide for control over muzzle loading firearms in respect of trading, manufacturing, marking, display of, disposal of and alterations thereto;
- to provide for the compulsory application of microdots that comply with standard specifications on and the ballistic testing of all firearms licenced in terms of the Act;
- to provide for the application of microdots on firearms and the ballistic sampling of firearms of Official Institutions registered in terms of the Act;
- to provide for a licence in respect of a percussion-cap-and ballfirearm;
- to provide for the application of microdots 4 on, and the marking of, muzzle loading firearms in dealers stock in a prescribed, non-damaging manner;
- to provide for the ballistic sampling of firearms;
- to provide for the designation of a Designated Firearms Officer at each police station, where practicable, with a clear description of functions, in order to strengthen the control over firearms in possession of the South African Police, other Official Institutions and private security service providers and to improve the processing of applications for competency certificates and firearm licences;
- to provide for obligations of commanders, including station commanders in respect of the control over firearms;
- to provide for the approval by the Minister of Police of a list of Designated Firearms Officers who will exclusively function as such and the factors to take into account in determining the same;
- to provide for the Minister of Police to appoint additional members to the Appeal Board, to provide for the strengthening of the independence of the Appeal Board and the functions of the Appeal Board;
- to provide for powers of the Minister of Police to prescribe matters pertaining to the processing of applications for firearm licences and competency certificates, the functioning of the Appeal Board and the carrying of firearms by security officers in the execution of their duties and functions;
- to provide for the number of cartridges that may be possessed;
- to provide for transitional provisions in respect of percussion cap-and-ball firearms, including provision for an additional licence in the category of occasional hunting and sports shooting, in order to accommodate the licensing of percussion cap-and-ball firearms;
- to provide for the compliance by Official Institutions to Chapter 11 of the Act;
- to provide for transitional provisions in respect of the registration of actions, frames and receivers;
- to provide for transitional provisions in respect 5 of licences issued under the repealed Arms and Ammunition Act, 1969;
- to provide for the amendment of the Criminal Law Amendment Act, 1997 (Act No. 105 of 1997), in order to provide for minimum sentences where a firearm was used in a murder, rape or robbery and to provide for a minimum sentence for the illegal possession of anyfirearm; and to provide for matters connected therewith.

[103] https://jutalaw.co.za/media/filestore/2015/07/Draft_Firearms_Control_Amendment_Bill_2015.pdf

APPENDIX B: CATEGORISATION 1

Murder incl. Farm Murders
Sexual Crimes
Attempted Murder
Assault with the Purpose to Inflict Grievous Bodily Harm
Common Assault
Common Robbery
Attempted Common Robbery
Attempted Robbery Not Firearm
Robbery Not Firearm
Attempted Robbery in Transit
Robbery Cash in Transit
Attempted Robbery at Business/Non-Residential Premises
Robbery at Business/ Non-Residential Premises
Attempted Robbery at Residential Premises
Robbery at Residential Premises
Attempted Robbery with a Fire-Arm
Robbery with a Fire-Arm
Arson
Malicious Damage to Property (Common- or Statutory Law)
Burglary at Non-Residential Premises
Attempted Burglary at Non-Residential Premises
Burglary at Residential Premises
Attempted Burglary at Residential Premises
Attempted Theft of Motor Vehicle and Motor Cycle
Theft of Motor Vehicle and Motor Cycle
Theft out of a Motor Vehicle (Also Goods from the Back of LDV)
Attempted Theft out of a Motor Vehicle (Also Goods from the Back of LDV)
Stock Theft
The Act Regulating Arms and Ammunition (Category A)
The Act Regulating Arms and Ammunition (Category B)
Offences In Terms Of the Dangerous Weapons Act
Unlawful Possession of Firearms and Ammunition
All Others under the Police Act Except Section 67 And 68
Possession of a Dangerous Weapon except Fire-Arm - See Codes 00221-6 - 00223-2
Sabotage
Terrorism
The Act Regulating Explosives (Category A)
The Act Regulating Explosives (Category B)
Drug-related Crime (Offences under the Drugs and Drug Trafficking Act)
Driving While Under the Influence of Liquor or Drugs
Pick-Pocketing or Bag Snatching
Attempted Theft
Shoplifting
Carjacking
Attempted Carjacking
Hijacking - Truck
Attempted Truck Hijacking
Truck Theft
Attempted Truck Theft
Culpable Homicide
Public Violence
Crimen Injuria
Neglect and Ill-Treatment of Children
Man-Stealing (Kidnapping)
Attempted Bank Robbery
Bank Robbery

Commercial Crime/ Corruption etc.
Domestic Violence
Gatherings Act
Order of the Peace (Category A)
Order of the Peace (Category B)

APPENDIX C: CATEGORISATION 2

Murder
Total Sexual Crime
Attempted Murder
Assault with the Purpose to Inflict Grievous Bodily Harm
Common Assault
Common Robbery
Robbery with Aggravating Circumstances
Arson
Malicious Injury to Property (Common- or Statutory Law)
Burglary at Non-Residential Premises
Burglary at Residential Premises
Theft of Motor Vehicle and Motor Cycle
Theft out of a Motor Vehicle (also Goods from the back of LDV)
Stock Theft
Unlawful Possession of Firearms and Ammunition
Drug-Related Crime (Offences under the Drugs and Drug Trafficking Act)
Driving While under the Influence of Liquor or Drugs
Other Theft
Carjacking
Truck Hijacking
Robbery at Residential Premises
Robbery at Business/ Non-Residential Premises
Culpable Homicide
Public Violence
Crimen Injuria
Neglect and Ill-Treatment Of Children
Movement of and Control over Individuals
Kidnapping
Robbery Cash in Transit
The Act Regulating Arms and Ammunition (Categories A&B)
Bank Robbery
Domestic Violence
Order of the Peace (Categories A&B)