

Corrections Research Paper Series
Paper No. 01 June 2007

01

Who returns to prison?
Patterns of recidivism among
prisoners released from
custody in Victoria in 2002-03

Corrections
Research
Paper Series

01

DEPARTMENT
OF JUSTICE

State Government
Victoria

Published by Department of Justice,
Melbourne, Victoria, Australia.

© Copyright State of Victoria 2007
Department of Justice

Authorised by Kelvin Anderson,
Commissioner, Corrections Victoria.
Department of Justice,
121 Exhibition Street, Melbourne.

Design by Celia Dymond Design, St Kilda.
Printed by Blue Print, Port Melbourne.

This publication is copyright. Apart from
any use as permitted under the Copyright
Act 1968 or by individuals for study
purposes, no part of this publication may
be reproduced without permission. In all
cases the source of the material must
be acknowledged when reproducing or
quoting any part of this publication.

ISSN 1834-7703

Contact for permission to copy or
for further information:
Department of Justice
GPO Box 4356 Melbourne Victoria 3001

www.justice.vic.gov.au

Telephone +61 3 8684 6600
Facsimile +61 3 8684 6611
corrections@justice.vic.gov.au

Who returns to prison? Patterns of recidivism among prisoners released from custody in Victoria 2002-03

Who returns to prison?
Patterns of recidivism among
prisoners released from
custody in Victoria in 2002-03

Shasta Holland and Kym Pointon
Research and Evaluation Unit
Corrections Victoria, Department of Justice

Dr Stuart Ross
Department of Criminology
University of Melbourne

Who returns
to prison?
Patterns of
recidivism
among
prisoners

Foreword

I am pleased to introduce a new series of research papers examining a range of contemporary correctional issues.

I am confident that this series will be a valuable reference tool for those with an interest in correctional trends and issues, and will promote informed discussion about our correctional system.

The papers will review relevant research, provide interpretation and analysis of Victorian data, identify gaps in correctional research, and discuss implications for policy and practice in Victoria.

This first paper examines patterns of recidivism among prisoners released from custody in Victoria in 2002-03. It highlights a number of limitations regarding current understanding and measurement of this critical and complex topic in Victoria, and recommends directions for future research in this area.

I welcome any feedback or comments you might have regarding this paper.



KELVIN ANDERSON

Commissioner
Corrections Victoria

Contents

Tables			Executive Summary	6
Table 1	Comparison of two-year recidivism rates	8	1. Introduction	7
Table 2	Demographic, Custody and offence characteristics of the study cohort	14	1.1 Background	7
Table 3	Observed and expected recidivism by time after release	14	1.2 Defining Recidivism	8
Table 4	Proportion of cohort returning to prison within two years of release by age	15	1.3 Previous Research	9
Table 5	Proportion of cohort returning to prison within two years of release by time served	16	1.4 Study Aims	10
Table 6	Proportion of cohort returning to prison within two years of release by number of prior terms of imprisonment	16	2. Method	11
Table 7	Proportion of cohort returning to prison within two years of release by most serious offence of base episode	16	2.1 The Cohort	11
Table 8	Logistic regression model predicting recidivism	17	2.2 Definition of Recidivism	11
Table 9	Proportion of prisoners returning to prison with the same offence type, a violent offence or a property offence by base offence type	18	2.3 Measures	12
			2.4 Methods of Analysis	12
			2.5 Data Limitations	12
			3. Results	13
			3.1 Cohort Characteristics	13
			3.2 Recidivism Patterns	13
			3.3 Demographic Correlates of Recidivism	14
			3.4 Offence, Sentence and Criminal History Correlates of Recidivism	15
			3.5 Multivariate Predictors of Recidivism	17
			3.6 Recidivist Offence Type	18
			4. Discussion	19
			4.1 Summary of Findings	19
			4.2 Study Limitations	20
			4.3 Future Directions	21
			4.4 Conclusions	22
			5. Endnotes and References	23
Figures				
Figure 1	Attrition from the original sample	11		
Figure 2	Proportion of males and females returning to prison over the two-year period after release	15		
Figure 3	Proportion of Indigenous and non-Indigenous prisoners returning to prison over the two-year period after release	15		

Executive Summary

This study explored patterns of recidivism among a cohort of sentenced prisoners released from Victorian prisons during the 2002-03 financial year. For the purposes of this study recidivism was defined as a return to prison as a result of further offending within two years of release. This definition excludes prisoners who breached a parole order through failure to comply with parole conditions and who were not also sentenced to an additional term of imprisonment. Prisoners who returned to prison for a remand only episode were also excluded, as were prisoners who served episodes only in default of payment of fines.

The study cohort consisted of 3,352 prisoners, of whom 35 per cent (1,162 prisoners) returned to prison for further offending within two years of release. This rate of return is similar to rates reported in other studies, although differences in definitions and counting rules make precise comparisons problematic.

The more often someone had been imprisoned in the past the more likely it was that they would return to prison after release.

A number of key findings emerged from this study:

- Prisoners returned to prison more quickly in the early months after release, with almost 40 per cent of those who returned to prison doing so within 6 months, and close to 70 per cent within 12 months.
- Males and Indigenous prisoners were more likely to return to prison than females and non-Indigenous prisoners respectively, and were also more likely to return to prison more quickly.
- The younger a prisoner was, the more likely they were to return to prison. Almost 60 per cent of 17-20 year olds returned to prison within two years, compared with less than 5 per cent of prisoners aged 50 years and over.
- The more often someone had been imprisoned in the past the more likely it was that they would return to prison after release. Fewer than one in five of those released from their first term of imprisonment returned to prison within two years, compared with close to two-thirds of those who had been imprisoned six or more times.
- Prisoners who served between 6 and 12 months had the highest rates of return (43 per cent within two years), while prisoners who served more than 2 years had the lowest rates of return (15 per cent within two years).
- Prisoners with a burglary or other property offence as their most serious offence were more likely to return to prison (50 per cent and 45 per cent within two years respectively) than prisoners with sexual offences (6 per cent) or drug offences (23 per cent) as their most serious offence.
- After taking into account the combined influence of the study variables, only three factors significantly predicted returning to prison within two years: age at release, number of prior terms of imprisonment and having a property offence as the most serious offence.
- Three-quarters of prisoners who returned to prison did not return for the same type of most serious offence. While 13 per cent of prisoners returned for a violent offence, 52 per cent returned for a property offence.
- Prisoners who were released with a most serious offence of homicide, assault, and other offences against the person were more likely to return for a violent offence, while prisoners who were released with a property offence as their most serious offence were more likely to return for a property offence.

The current study provides up-to-date information on who returns to prison, but was not able to examine why prisoners return to prison. Key areas for further development are:

1. Future research should investigate a wider range of influences on re-offending (such as employment, drug and alcohol use, family relationships, housing), both pre-imprisonment and post-release, to examine the causal question of why prisoners return to prison.
2. Future research should examine criminal justice system impacts (such as policing and sentencing) on recidivism rates.
3. Development of a recidivism database incorporating conviction as a measure of recidivism, in addition to imprisonment.
4. Development of a recidivism model to enable Corrections Victoria to measure its performance in achieving its goal of reducing re-offending.

1.1 Background

Reducing re-offending is a central objective of most correctional systems and is usually linked to broader government priorities such as reducing crime and improving public safety. The performance of criminal justice systems in achieving this objective is most often measured in terms of 'recidivism'. In Australia, the only national recidivism measures available are those provided by adult correctional services agencies for publication in the annual *Report on Government Services*. However, some jurisdictions also produce police and/or court-based recidivism data for their own purposes. For example, the New South Wales Bureau of Crime Statistics and Research (BOCSAR) has developed a re-offending database that uses court conviction records in addition to corrections records for research purposes.

In Victoria, reducing re-offending is linked to a number of government policy initiatives aimed at achieving a safer community. Of particular relevance is the Government's *Growing Victoria Together* policy statement, which identifies reducing crime and reducing re-offending as outcomes that contribute to the goal of enhancing community safety (Victorian Government, 2005). Consistent with these broader government objectives, a major priority for the Victorian adult correctional system has been the development and continuing implementation of the Corrections Long Term Management Strategy (CLTMS) in 2001. Corrections Victoria has implemented a range of diversion, rehabilitative and re-integration initiatives under the strategy, all of which aim to address growth in prisoner numbers and reduce re-offending.

Offending behaviour is influenced by a wide range of complex factors, many of which are outside the control of correctional services agencies and the wider criminal justice system. Consequently, even though correctional service agencies may implement initiatives aimed at reducing re-offending, recidivism rates are generally not considered to be appropriate performance measures for these agencies (Ross & Guarnieri, 1996; Bonta, Rugge & Dauvergne, 2003). Nonetheless, recidivism, as an indicator for reducing re-offending, remains a measure of central interest; particularly when viewed alongside other criminal justice statistics such as crime rates, imprisonment rates, changes in prisoner numbers and program evaluations.

1.2 Defining Recidivism

The term 'recidivism', while commonly understood as a return to offending behaviour, does not have a single accepted definition. In its most fundamental sense, recidivism refers to any further instances of offending behaviour. However, there are well-documented difficulties with measuring the occurrence of such behaviour (Maltz, 1984; Tarling, 1993). For example, many offences are not detected or reported, and self-report data is difficult to obtain. For this reason, and because criminal justice agencies tend to be most interested in events that are relevant to their operation, recidivism is often defined in terms of events occurring within the criminal justice system: further arrests, convictions, or terms of imprisonment.

All definitions of recidivism have limitations, and also produce quite different estimates of the extent of recidivism (see Table 1). Re-arrest, while perhaps closest to the commonly understood meaning of recidivism, may overestimate the extent of re-offending. People who

have not committed an offence may be wrongly arrested, resulting in false positives (counting individuals as recidivists when they are not). Arrests are also influenced by changes in police practices, and particular groups, for example those with a criminal record, may be targeted and arrested at higher rates than other groups. Defining recidivism using re-conviction as a measure, i.e. by including only those individuals found guilty of an offence, reduces false positives but also greatly increases false negatives, as actual offending may not result in a conviction. For example, people who have committed offences may be diverted rather than receiving a conviction or cases may not proceed to prosecution (Maltz, 1984).

Finally, using re-imprisonment to define recidivism is the most restrictive measure, excluding people who are convicted but are sentenced to non-custodial penalties such as fines, community correctional orders or suspended sentences. One advantage of re-imprisonment as a measure, however, is that it represents the offending behaviour that imposes the greatest cost to the correctional system (Bakker & Riley, 1998).

Ultimately, the measure that is most appropriate is determined, to a large extent, by the purpose of the study. Maltz (1984) argues that, subject to checks on the quality of arrest data, arrests are a better indicator of recidivism than convictions because this is the most inclusive measure using official data. In contrast, Bakker and Riley (1998) argue that for the purposes of the New Zealand Department of Corrections, convictions are the most suitable measure as they can be applied to all offenders under the Department's care. And, in a third dissenting opinion, Thompson (1995) argues that for Australian correctional administrators, the most useful measure relates to former prisoners who receive further custodial and non-custodial sentences.

Two final considerations regarding definitions of recidivism relate to length of follow-up and determining which offences should be included. Just as there is no general consensus on whether recidivism should be measured using arrests, convictions or imprisonment, there is no agreement on the length of time that offenders should be monitored. The American

Table 1 Comparison of two-year recidivism rates

Study	Re-conviction	Re-imprisonment	Country
Thompson (1995)	-	35.2%	Australia - NSW
Ross and Guamieri (1996)	59.7%	43.2%	Australia - Vic
Speir (2002)	72.9%	37.1%	New Zealand
Bonta et al. (2003)*	40.6%	-	Canada
Cuppleditch and Evans (2005)	58.5%	-	United Kingdom
Jones et al. (2006)	64.0%	41.0%	Australia - NSW

* Federal prisoners only

Advisory Commission on Criminal Justice recommends a follow-up period of three years (Maltz, 1984), while in Australia, the definition of recidivism developed for the *Report on Government Services* uses a two-year follow-up period. Studies show that actual recidivism rates increase with the length of follow-up. For example, Spier (2002) found that 37 per cent of ex-prisoners were re-convicted within six months, 58 per cent within one year, 73 per cent within two years, and 86 per cent within five years. Decisions about length of follow-up are often determined by the availability of data, but may also be tempered by what researchers are trying to measure. If an immediate effect of a program is expected, then a relatively short follow-up period, for example six months, may be appropriate.

Researchers must also decide which offences to include in any definition of recidivism. A common consideration is whether to count technical breaches of parole conditions that are not accompanied by additional offending as recidivism. If the aim is to measure further offending following release, then technical parole breaches are best excluded. If, however, the aim is to model expected prison receptions, then prisoners with such parole breaches should be included.

These definitional variations mean that comparing studies can be problematic and illustrate the importance of researchers being explicit about how they define recidivism and calculate recidivism rates.

1.3 Previous Research

Although recidivism rates have been given increasing importance in measuring the performance of corrective services in Victoria, relatively little research has been conducted into prisoner recidivism, with only one substantial study produced in Victoria in the last decade.

In that study, Ross and Guarneri (1996) examined re-conviction and re-imprisonment among a sample of 838 Victorian prisoners in the seven years following their release from custody. Within two years of release, 60 per cent of the sample had been re-convicted of at least one offence and 43 per cent had been re-imprisoned. Within seven years, 74 per cent had been re-convicted and 54 per cent had been re-imprisoned. Although males and females were equally likely to be re-convicted and re-imprisoned, prisoners who were younger when they committed their first offence were significantly more likely to be both re-convicted and re-imprisoned than prisoners who were older at their first offence. Similarly, prisoners with many prior offences were more likely to be re-convicted and re-imprisoned, and those imprisoned for property offences were more likely to be re-convicted and re-imprisoned than those imprisoned for homicide.

These findings are broadly consistent with a range of studies conducted in other Australian jurisdictions, and internationally, that support the influence of age, prior imprisonment, Indigenous status, sentence length and offence type on recidivism rates.

The relationship between age and further offending is one of the most robust findings in criminology (Nagin & Farrington, 1992). Spier (2002), in a New Zealand study, found that close to 60 per cent of 15-19 year olds were re-imprisoned within two years compared with 17 per cent of those aged 40 years and over. Similarly, in the United Kingdom, Cuppleditch and Evans (2005) found that 68 per cent of 18-20 year old prisoners were re-convicted within two years compared with 41 per cent of those aged 40 and over. However, these two studies used bivariate analyses, which do not take into account the influence of other variables, such as gender or Indigenous status. Using multivariate methods, Jones et al. (2006) demonstrated that age continued to be associated with recidivism when other variables, including number of terms of custody and Indigenous status, were taken into account. In this study, New South Wales parolees aged 18-24 were 1.7 times more likely to re-offend than parolees aged 35 years and over.

Prior imprisonment is also strongly associated with further offending. Thompson (1995) found that offenders with no episodes of prior imprisonment were significantly less likely to be re-imprisoned, while Spier (2002) found a direct inverse relationship between the number of prior terms of imprisonment and re-conviction. Sixty per cent of offenders who had not previously been imprisoned were re-convicted, compared with 74 per cent of those with one prior term of imprisonment and 87 per cent of those with 6-10 prior terms of imprisonment.

In terms of gender, Spier (2002) and Cuppleditch and Evans (2005) found that a greater proportion of males prisoners were re-convicted than female prisoners (74 per cent compared with 64 per cent, and 60 per cent compared with 51 per cent, respectively). However, it appears that this difference may not remain significant when other variables, such as number of prior episodes of imprisonment, are taken into account (Ross & Guarnieri, 1996). Thompson (1995) also found this to be the case for Indigenous status. Although overall recidivism rates for Indigenous prisoners were considerably higher than those for non-Indigenous prisoners, Indigenous recidivism rates were only slightly higher when compared with non-Indigenous prisoners of the same age and offence groupings. In contrast, Jones et al. (2006) found that Indigenous status remained significant when other variables were accounted for, with Indigenous parolees 1.4 times more likely than non-Indigenous parolees to re-offend. Given these contradictory findings, the influence of gender and Indigenous status on recidivism over and above other relevant variables needs to be examined further.

Another factor that has been found to influence likelihood of recidivism is sentence length. Offenders who serve longer terms of imprisonment are less likely to be re-convicted and re-imprisoned than those serving shorter sentences (Spier, 2002; Jones et al., 2006). Finally, recidivism rates vary considerably according to the type of offence committed by offenders. Studies have consistently found that prisoners with homicide and sex offences have considerably lower recidivism rates than average (Burgoyne, 1979a, 1979b; Thompson, 1995; Jones et al., 2006), while prisoners with assault, robbery, property and

justice procedure offences have higher than average recidivism rates (Burgoyne, 1979; Spier, 2005; Jones et al., 2006).

In summary, the relationships between an offender's age, number of prior terms of imprisonment, offence type and, to a lesser extent, sentence length and recidivism are the most consistent and also among the strongest in the literature. In relation to the influence of gender and Indigenous status, there have been inconsistent findings. Some studies suggest that when other variables are taken into account, gender and Indigenous status are not significantly associated with recidivism, while other studies have found that they remain significant predictors.

1.4 Study Aims

Although recidivism, or more specifically the rate at which ex-prisoners return to prison, is of considerable interest to Corrections Victoria, little is currently known about how it varies across the prison population. A more detailed understanding of the factors that contribute to recidivism and how recidivism rates vary between different groups of prisoners is an important first step in improving our knowledge in this area.

This paper aims to examine the recidivism patterns of a cohort of Victorian prisoners following their release from prison. Specifically, this paper aims to address five questions regarding prisoner recidivism:

1. What are the patterns of recidivism for Victorian prisoners over the two years following release?
2. How does this overall pattern of recidivism vary across the primary demographic characteristics of the cohort (age, gender and Indigenous status)?
3. How does this overall pattern of recidivism vary across the primary offence, sentence and criminal history characteristics of the cohort (most serious offence, sentence length, release type and number of prior terms of imprisonment)?
4. What are the strongest predictors of recidivism, taking into account the combined influence of demographic, offence and sentence characteristics?
5. For prisoners who return to prison, what offence types are associated with a greater likelihood of returning with the same offence type, or a violent or property offence?

2

Method

2.1 The Cohort

The study cohort consists of prisoners who were released in 2002-03 after serving a sentence of imprisonment. This episode of imprisonment is referred to as the 'base' episode. Prisoners who were released during this period were identified on Corrections Victoria's Prisoner Information Management System (PIMS).

Initially 3,648 prisoner release records were extracted from PIMS, relating to 3,472 distinct individuals. A total of 296 records were removed from the sample; 2 records because they were incomplete, and a further 85 records because the base episode was for breach of parole conditions only, i.e. there was no further offending¹. Prisoners may serve more than one episode of imprisonment in a year and consequently have multiple release records. In 2002-03, 156 prisoners were released from prison more than once. For these prisoners, only their first release record was retained and subsequent records (176) were removed from the sample. Finally, 33 records were removed because the individuals were recorded in PIMS as being deceased². The final cohort contained 3,352 records relating to 3,352 distinct individuals.

2.2 Definition of Recidivism

The current study is limited to measuring recidivism in terms of the rate of re-imprisonment of ex-prisoners. This is due to the fact that Corrections Victoria does not have access to arrest or conviction data, and data on returns to community corrections are also currently unavailable.

Recidivism in the current study was defined as re-imprisonment for further offending within two years of release from custody. Episodes of imprisonment meeting this definition are referred to as 'recidivism episodes'. This definition excludes prisoners returning to prison for breaching conditions of parole who were not also sentenced to additional terms of imprisonment. Prisoners who returned to prison with a remand only episode (i.e. who were not sentenced at any point in the episode) were also excluded, as were those who served episodes only in default of payment of fines.

Figure 1 Attrition from the original sample

INITIAL
n = 3,648 release records n = 3,472 persons
Minus 2 incomplete records n = 2 release records n = 2 persons
Minus 176 records for multiple discharges in 2002-03 n = 176 release records n = 156 persons
Minus 85 records for breach of parole conditions only n = 85 release records n = 85 persons
Minus 33 records where individual was deceased n = 33 discharge records n = 33 persons
FINAL
n = 3,352 release records n = 3,352 persons

2.3 Measures

The outcome measure used in the current study was re-imprisonment within two years of release.

The following variables were included as potential predictors of the outcome measure:

Age - age at release from the base episode.

Gender - the sex of the prisoner.

Indigenous status - whether the offender had identified themselves as being of Aboriginal or Torres Strait Islander descent. Forty prisoners had unknown Indigenous status and were counted as non-Indigenous

Prior terms of imprisonment - number of times the prisoner had previously been received into prison in Victoria, including remand only and fine default only episodes.

Release type - whether the prisoner was released from the base episode without conditions (straight release) or released onto parole.

Time served - the total length of time served in prison during the base episode.

Base offence type - the most serious offence (MSO) for which the base episode of imprisonment was given. The most serious offence is determined as the offence that received the longest sentence. Where equal sentences are given for two different offences, the MSO is the offence with the lowest Australian National Classification of Offences code (Australian Bureau of Statistics, 1985). Offences were grouped into nine categories: homicide, assault and other offences against the person; sex; robbery and extortion; burglary; other property; justice procedure and good order; drug; driving and traffic; and other offences.

Three variables relating to the recidivism episode were also included in the current study:

Same offence - whether the MSO for the recidivism episode was in the same offence category (as defined above) as the most serious offence for the base episode.

Violent offence - whether the MSO for the recidivism episode was homicide, sex, assault, robbery, or other offences against the person.

Property offence - whether the MSO for the recidivism episode was burglary or other property.

2.4 Methods of Analysis

The bivariate relationship between predictor variables and the outcome measure, re-imprisonment within two years of release, were analysed using independent sample t-tests, chi-square analyses and adjusted standardised residuals. The combined influence of predictor variables on the outcome measure was analysed using the multivariate technique logistic regression.

2.5 Data Limitations

It is reasonable to expect that some individuals could not be followed up through the correctional system in the two years following their release from the base episode, for example because they died or moved interstate/overseas. Thirty-three records were removed from the cohort because the individuals were recorded as having died at some point following their release from the base episode. However, it is possible that other ex-prisoners died following release, but Corrections Victoria was not notified. It is also not possible to know how many of the cohort moved interstate or overseas following their release. Thus, some individuals may be recorded as non-recidivists either because they had died or because they were re-imprisoned in another state or territory. Consequently, the rates presented in this study may underestimate actual recidivism.

3

Results

3.1 Cohort Characteristics

Table 2 presents the demographic, offence and custody characteristics of the study cohort. The majority of the cohort was male (90 per cent) and non-Indigenous (95 per cent). Approximately 50 per cent of the cohort was aged under 30 years at the time of their release from the base episode, with less than 20 per cent aged 40 years and over. Just under two-thirds of the cohort was released from the base episode without conditions (straight release), while three-quarters of the cohort had served sentences of less than 12 months.

Property offences (excluding burglary) were the most common MSO for the base episode (29 per cent), followed by justice procedure and good order offences (16 per cent) and burglary (13 per cent). Slightly more than one-third of the cohort had not been imprisoned prior to the base episode, while 22 per cent of the cohort had four or more prior terms of imprisonment.

3.2 Recidivism Patterns

Overall, 34.7 per cent of the cohort were convicted of further offences and returned to prison within two years of release. Six per cent of the cohort had returned to prison within three months of release, and nearly one-quarter had returned within a year of release.

The proportion of prisoners returning to prison was relatively higher in the period immediately after release. Table 3 presents the actual proportion of the cohort returning to prison within one, three, six, 12, 18 and 24 months of release compared with the proportion expected to return if recidivism was evenly distributed over the two-year period (the 'equal hazard' proportion). If the likelihood of returning to prison is equally distributed across the two-year follow-up, then approximately 4 per cent of prisoners would be expected to have returned to

prison within three months of release, and 9 per cent within six months of release. However, the actual proportion of prisoners returning to prison was around 50 per cent higher than expected over these periods. This indicates that the 'risk' of returning to prison is greater in the early periods after release.

Table 2 Demographic, custody and offence characteristics of the study cohort

	N	%
Total Prisoners	3,352	100
Gender		
Male	3,031	90.4
Female	321	9.6
Indigenous Status		
Indigenous	169	5.0
Non-Indigenous	3,183	95.0
Age		
17-24	795	23.7
25-29	818	24.4
30-34	705	21.0
35-39	399	11.9
40+	635	18.9
Release Type		
Straight release	2,048	61.1
Parole	1,304	38.9
Time Served		
< 3 months	878	26.2
3 to < 6 months	856	25.5
6 to < 12 months	872	26.0
1 to < 2 years	440	13.1
2+ years	306	9.1
Most Serious Offence Type		
Homicide	52	1.6
Sex	131	3.9
Other violent	325	9.7
Robbery & Extortion	233	7.0
Burglary	437	13.0
Other Property	973	29.0
Justice Procedure & Good Order	546	16.3
Drugs	284	8.5
Driving & Traffic	265	7.9
Other	106	3.2
Prior Terms of Imprisonment		
0	1,255	37.4
1	662	19.7
2-3	699	20.9
4-5	363	10.8
6+	373	11.1

3.3 Demographic Correlates of Recidivism

Males returned to prison at significantly higher rates than females ($\chi^2 = 6.887, p < .01$). Thirty-five per cent of males returned to prison within two years of release compared with 28 per cent of females (see Figure 2). The rate of recidivism for males was also relatively higher in the early period after release, while the rate of recidivism for females was more constant over the two-year period.

Indigenous prisoners returned to prison at significantly higher rates than non-Indigenous prisoners ($\chi^2 = 19.197, p < .001$). Fifty per cent of Indigenous prisoners returned to prison within two years compared with 34 per cent of non-Indigenous prisoners (see Figure 3). The rate of return for Indigenous prisoners was also around 60 per cent higher in the first six months after release than would be expected if recidivism was constant over the two year period. For non-Indigenous prisoners, the rate of return within the first six months was approximately 50 per cent higher than expected, indicating that Indigenous prisoners are more likely to return to prison in the early months after release than non-Indigenous prisoners.

Table 3 Observed and expected recidivism by time after release

Time after release	1 month	3 months	6 months	12 months	18 months	2 years
% Observed Recidivists	1.3%	6.3%	13.5%	23.6%	30.3%	34.7%
% 'Equal Hazard' Recidivists	1.4%	4.3%	8.6%	17.3%	26.0%	34.7%

Recidivism rates also varied considerably according to age at release (see Table 4). There was an inverse relationship between recidivism and age, with younger prisoners returning to prison at higher rates than older prisoners. Fifty-six per cent of prisoners aged 17-20 years at release returned to prison within two years, compared with 29 per cent of prisoners aged 35-39 years and only 4 per cent of prisoners aged 50 years and over.

These results show that recidivism significantly varies according to all three demographic variables measured: age, gender and Indigenous status.

3.4 Offence, Sentence and Criminal History Correlates of Recidivism

Release type, that is whether a prisoner was released without conditions or to parole, had no effect on the likelihood of recidivism. Thirty-six per cent of parolees returned to prison within two years compared with 33 per cent of straight releases. However, likelihood of recidivism did vary according to length of time served. Prisoners who served between six and 12 months had a higher rate of return than prisoners serving shorter or longer periods (see Table 5). The lowest rates of recidivism were evident for those serving the longest sentences (more than two years).

Figure 2 Proportion of males and females returning to prison over the two-year period after release

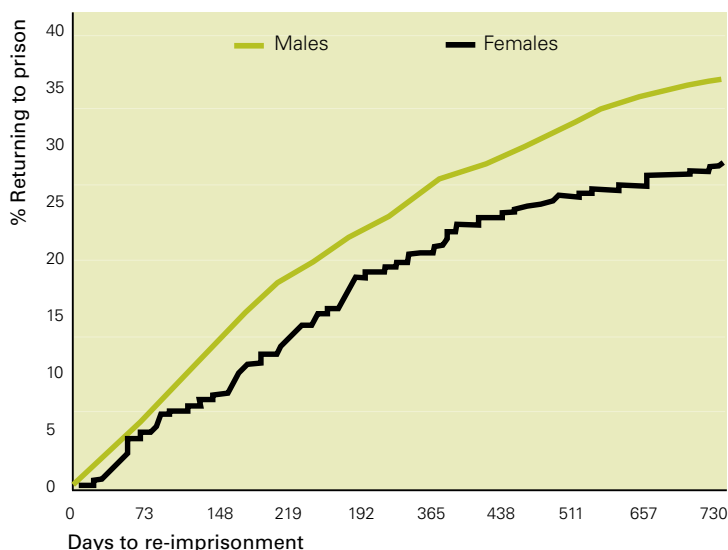


Figure 3 Proportion of Indigenous and non-Indigenous prisoners returning to prison over the two-year period after release

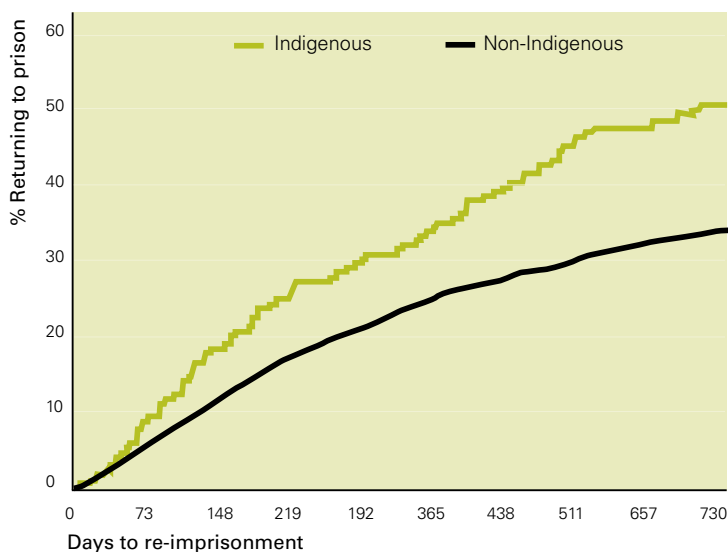


Table 4 Proportion of cohort returning to prison within 2 years of release by age

	N	%
17 to 20 years	83	55.7
21 to 24 years	289	44.7
25 to 29 years	345	42.2
30 to 34 years	244	34.6
35 to 39 years	114	28.6
40 to 44 years	53	19.0
45 to 49 years	26	15.8
50 years & over	8	4.2

Recidivism rates also varied according to the number of prior terms of imprisonment served. The more often a prisoner had been imprisoned in the past, the more likely it was that they would return to prison after release. Fewer than one in five of those released from their first term of imprisonment returned to prison within two years, compared with close to two-thirds of those who had been imprisoned six or more times (see Table 6).

Prisoners who returned to prison were more likely to have been imprisoned for burglary or another property offence in the base episode. Almost 50 per cent of prisoners released with burglary as their most serious offence returned to prison within two years, as did 45 per cent of prisoners with other property offences as their most serious offence (see Table 7). This compares with only 6 per cent of prisoners with sexual offences as their most serious offence and 23 per cent of prisoners with drug offences.

Comparing recidivism rates for different offences with the cohort average of 35 per cent, offences can be grouped into three broad categories. Prisoners with burglary and other property offences have recidivism rates that are significantly higher than average. Recidivism rates for prisoners with robbery and justice procedure and good order offences are around the cohort average. Prisoners with homicide, assault and other offences against the person, sex offences, drug offences, and driving and traffic offences have recidivism rates that are significantly below the cohort average³.

Table 5. Proportion of cohort returning to prison within two years of release by time served

	N	%
< 1 month	110	34.7
1 < 3 months	167	29.8
< 6 months	318	37.1
6 < 9 months	214	40.8
9 < 12 months	162	46.7
1 < 2 years	144	32.7
2 < 3 years	29	21.2
3 < 5 years	12	11.3
5 years & over	6	9.5

Table 6 Proportion of cohort returning to prison within two years of release by number of prior terms of imprisonment

	N	%
No prior terms	231	18.4
1 prior term	188	28.4
2 to 3 prior terms	311	44.5
4 to 5 prior terms	191	52.6
6+ prior terms	241	64.6

Table 7 Proportion of cohort returning to prison within two years of release by most serious offence of base episode

	N	%
Homicide, assault & other offences against the person	86	22.8
Sex	8	6.1
Robbery	72	30.9
Burglary	215	49.2
Other Property	436	44.8
Justice Procedure & Good Order	192	35.2
Drug	66	23.2
Driving & Traffic	62	23.4
Other	25	23.6

3.5 Multivariate Predictors of Recidivism

The likelihood of returning to prison is strongly influenced by a prisoner's demographic characteristics, offence type, sentence length and imprisonment history. However, it is likely that some of these effects are the result of interactions between factors. For example, prisoners who have served long sentences are also likely to be older and, in this sample, Indigenous prisoners were both younger on average than non-Indigenous prisoners (28.8 years compared with 32.1 years) and had a greater average number of prior terms of imprisonment (3.4 compared with 2.1)⁴. In order to determine which of these factors are independently significant in determining the likelihood of recidivism, a logistic regression analysis was performed using age at release, gender, Indigenous status, whether the prisoner had a property offence (including burglary) for their most serious offence⁵, time served and number of prior terms of imprisonment as variables.

The results of the regression model are presented in Table 8. The strongest predictor of returning to prison was the number of prior terms of imprisonment (as indicated by the large Wald value), followed by age at release and having a property offence as the most serious offence. Although gender and time served remained significant, they did not improve the prediction of recidivism. However, Indigenous status was not a significant predictor of returning to prison when the other variables were taken into account.

The Exp(B) statistic from the regression model (presented in the last column in Table 8) shows the increase (or decrease) in the odds of an individual returning to prison as the predictor variable increases by one unit. For example, prisoners with a property offence are 1.7 times more likely to return to prison than prisoners with other offence types after taking into account the effect of other variables. Every additional term of prior imprisonment also increases the likelihood of returning to prison 1.3 times over and above the influence of other

variables. Thus, prisoners with six prior terms of imprisonment are 1.8 times more likely to return to prison than prisoners who have not previously been imprisoned. Finally, each additional year of age reduces the likelihood of returning to prison by 0.09 times. Therefore, prisoners aged 47 years are 2.7 times less likely to return to prison than prisoners aged 17 years.

Together, the three significant variables from the regression model - age at release, number of prior terms of imprisonment, and having a property offence - correctly predicted whether prisoners returned to prison within two years in 72.5 per cent of cases.

Table 8 Logistic regression model predicting recidivism

Covariate	B	SE	Wald	df	Sig.	Exp(B)
Time served	0.000	0.000	8.487	1	0.004	1.000
Property offence?	0.542	0.082	44.015	1	0.000	1.720
Gender	0.412	0.143	8.370	1	0.004	1.510
Indigenous status	0.312	0.176	3.134	1	0.077	1.367
Age	-0.084	0.006	194.964	1	0.000	0.919
Prior terms	0.257	0.016	257.130	1	0.000	1.293
Constant	0.800	0.219	13.323	1	0.000	2.225

3.6 Recidivist Offence Type

Differences in the types of offences for which a prisoner returns to prison are also apparent depending on the type of offence for which they were released (see Table 9). Overall, just under one-quarter of prisoners returned to prison with the same type of offence as their previous most serious offence. Prisoners who had a burglary offence for their most serious offence at release were significantly more likely to return to prison for a burglary offence (43 per cent), while prisoners with justice procedure and good order offences for their most serious offence at release were significantly less likely to return for a justice procedure and good order offence (16 per cent).

Of the prisoners who returned to prison, 13 per cent returned with a violent offence (i.e. homicide, assault, sex offences, robbery or other offences against the person) as their most serious offence.

Prisoners released with homicide, assault and other offences against the person, and robbery offences as their most serious offence were significantly more likely to return to prison for a violent offence (34 per cent and 25 per cent respectively), while prisoners released with property offences (excluding burglary) were less likely to return for a violent offence (7 per cent)⁶. More than 50 per cent of prisoners who returned to prison within two years of release returned with a property offence as their most serious offence. Prisoners who were released with property offences (both burglary and other property) as their most serious offence were significantly more likely to return to prison for a property offence (63 and 62 per cent respectively), while prisoners released with homicide, assault and other offences against the person, drug offences, and traffic and driving offences were significantly less likely to return to prison for a property offence (31, 26 and 21 per cent respectively).

Table 9. Proportion of prisoners returning to prison with the same offence type, a violent offence, or a property offence by base offence type (N=1,162)

	Base offence type									
	Homicide assault & other person offences	Sex	Robbery	Burglary	Other Property	Justice Procedure & Good Order	Drugs	Traffic & Driving	Other	Cohort Average
Same Offence %	17.4	25.0	18.1	42.8*	21.6	15.6*	21.2	29.0	-	23.9
Violent Offence (a) %	33.7*	37.5	25.0*	11.6	7.1*	12.5	4.5	12.9	16.0	12.5
Property Offence %	31.4*	12.5	37.5	63.3*	61.7*	53.6	25.8*	21.0*	52.0	52.2

* Significant at $p < .01$, based on adjusted standardised residuals

(a) Includes homicide, assault, other offences against the person, sex and robbery

4

Discussion

4.1 Summary of Findings

This study examined patterns of recidivism among a cohort of prisoners released from prison in Victoria in 2002-03 after serving a sentence. A number of key findings emerged from this study that have implications for Corrections Victoria in terms of how it measures and reports recidivism, as well as for understanding of recidivism more generally.

More than one-third of prisoners (34.7 per cent) returned to prison for further offending within two years of release from custody, with close to one-quarter returning in the first 12 months following release. Although these figures are high, they are consistent with those reported in other studies (for example, Jones et al., 2006; Spier, 2002). Prisoners were at greater risk of returning to prison in the early periods after release, with nearly 40 per cent of those who returned to prison doing so within 6 months, and close to 70 per cent within 12 months. This finding

is also consistent with previous research. For example, Cuppleditch and Evans (2005) found that 83 per cent of those who re-offended did so within 12 months. This highlights the need for effective transition programs for prisoners in the immediate period after release, for example, employment, housing and substance abuse programs.

Rates of return to prison differed significantly according to all three demographic variables: age, gender and Indigenous status. Males were more likely to return to prison than females and as prisoners age at release increased, rates of return consistently decreased. Finally, Indigenous recidivism rates were substantially higher than non-Indigenous rates, and Indigenous prisoners were also more likely to return to prison in the early periods after release than non-Indigenous prisoners.

Rates of return to prison also differed significantly according to a number of offence, criminal history and sentence variables. Although there was not a significant difference in recidivism between prisoners released to parole and

those released without conditions, prisoners serving intermediate sentence lengths (between six and twelve months) had significantly higher recidivism rates than those serving shorter or longer sentences. Prisoners released after serving a sentence for a property offence were significantly more likely to return to prison, while those released after serving sentences for sex, drug, and driving and traffic offences were significantly less likely to return to prison. Finally, the more times a prisoner had previously been imprisoned, the more likely they were to return to prison.

Taking into account the combined influence of all variables, number of prior terms of imprisonment, age at release and a most serious offence which was a property offence were the strongest predictors of returning to prison within two years. Although males and Indigenous prisoners had significantly higher recidivism rates than females and non-Indigenous prisoners respectively, neither variable added to the prediction of overall recidivism when the

effect of other variables was taken into account. This suggests that the differences in recidivism rates between these groups are due to other factors, such as age and number of prior terms of imprisonment. Certainly, in this study Indigenous prisoners were significantly younger and had significantly more prior terms of imprisonment than non-Indigenous prisoners, but were no more likely to have a property offence as their MSO.

This finding differs from some other Australian studies and illustrates jurisdictional differences in the correlates of recidivism. In NSW, Jones et al. (2006) found that Indigenous status remained a significant predictor of recidivism after taking into account the influence of other variables, although the difference between Indigenous and non-Indigenous recidivism decreased with the inclusion of the other variables. One possible explanation for the lack of influence of Indigenous status in the current study is that Indigenous prisoners represented only five per cent of the cohort, compared with 28 per cent in the NSW study. However, this finding may also be due to differences in the justice systems of the two states.

Finally, there were differences in the types of offences for which a prisoner returned to prison, according to the type of offence for which they were released. Overall, there was little offence specificity evident with fewer than one-quarter of prisoners returning to prison with the same type of offence for which they were previously imprisoned. Burglary was the only offence for which prisoners were significantly more likely to return to prison for the

same type of offence. In total, only 13 per cent of prisoners returned to prison for a violent offence. Generally, prisoners released with a homicide, assault, other offence against the person, sex or robbery offence were more likely to return for a violent offence, while prisoners released with other property and drug offences were less likely to return for a violent offence. Property offences were the most common recidivist offence, with more than 50 per cent of prisoners who returned to prison returning for a property offence. Prisoners released with a homicide, assault, other person, drug or driving and traffic offence were less likely to return for a property offence, while prisoners released with a burglary or other property offence were more likely to return for a property offence.

4.2 Study Limitations

There are two major limitations associated with this study, the first relating to length of follow-up and the second to the study variables.

First, although prisoners returned to prison more quickly in the early months following release, the recidivism curves presented in Figures 2 and 3 had not flattened off by the end of the study period. This indicates that the proportion of prisoners returning to prison would have continued to increase beyond two years, before levelling off at some undetermined time. In order to determine when recidivism rates cease to significantly increase, follow-up periods of longer than two years are necessary. Currently, Corrections Victoria does not measure recidivism beyond two years. Future research should

include longer follow-up periods to examine which is most suitable for recidivism studies in Victoria and whether varying follow-up lengths are required for different types of prisoners, for example, sex offenders.

Secondly, the current study used quite a limited set of demographic, offence, custody and sentence variables. However, research has shown that a range of other factors, such as employment, social support, drug and alcohol use, education and accommodation are significantly related to re-offending (see, for example, May, 1999). This data is currently unavailable in Victoria in relation to adult prisoners. Consequently, while the current study was able to examine who returned to prison, it was not able to examine why prisoners return to prison. In order to increase our knowledge regarding the causal process of re-offending, data on these factors, both prior to imprisonment and following release is required. In Victoria, the upcoming implementation of the Victorian Intervention Screening and Assessment Tool (VISAT) in prisons will enable a more in-depth study of recidivism patterns in Victoria to be undertaken. The VISAT will provide information about prisoners' drug and alcohol use, accommodation, income, social support, education and employment, family and other relationships, physical and mental impairment, and offending attitudes at the time they are received into prison.

4.3 Future Directions

A number of areas represent priorities for further development in relation to recidivism in Victoria. These include further research into the causal drivers of recidivism rates in Victoria, the development of a 'recidivism model' for performance measurement purposes, and development of a 'recidivism database'.

As previously indicated, this study was not able to determine why prisoners return to prison because of data limitations. Substantially more research is required in order to understand the causal drivers of prisoner recidivism rates in Victoria. With the implementation of the VISAT in prisons Corrections Victoria will, within the next two to three years, be able to undertake more in-depth research examining the influence of a range of relevant personal, social and demographic characteristics on recidivism. However, the circumstances and environment that prisoners return to after release from prison are also important in determining the likelihood of recidivism (UK Government, 2002; Borzycki, 2005). Close to two-thirds of prisoners in Victoria are released without conditions (i.e. are not under further supervision by Corrections Victoria) and consequently little is currently known about their circumstances after release. The impact of prisoners' post-release environment and circumstances on recidivism, and the interaction of these factors with other demographic and criminal history factors, requires further investigation. Another significant influence on recidivism rates, and one which is currently poorly understood, relates to criminal justice system reforms.

The proportion of prisoners who return to prison in any given year is not only determined by their personal and social characteristics, but also by criminal justice system policies, practices and legislation. Legislative, sentencing and indeed arrest changes can significantly influence the proportion of prisoners returning to prison, and trends in recidivism rates over time must be understood in the context of such changes. To date, research examining the contribution of these influences to changes in Victorian recidivism rates has not been undertaken. Together these three areas represent the current priorities in relation to prisoner recidivism research in Victoria.

Currently, Victoria also does not have a means of assessing progress towards the objective of reducing re-offending other than the crude rate of recidivism (defined as a return to prison). Crude recidivism rates are, at least partially, determined by the characteristics of those exiting prison, which are in turn a function of the profile of those coming into prison. Changes in crime trends, criminal justice system practices and even demographic features of the general population can influence the profile of people entering, and consequently exiting, prison, resulting in differences in prisoner cohorts released over the years. These influences are largely out of the control of corrective services agencies. As a result, crude recidivism rates are not only an inappropriate measure of the performance of correctional services agencies, but they are also not suitable for comparing recidivism rates between years. In Victoria, crude recidivism rates have declined for the past four years, however we need to better understand what has driven these

decreases. The proportion of prisoners who were aged under 30 years at release has also been declining for a number of years, and, given the strong relationship between age and recidivism, may have contributed to this decrease. The relative impact of diversion policies and rehabilitation programs implemented by the Victorian Government through CLTMS also need to be quantified.

The United Kingdom Home Office has developed a model for monitoring performance in reducing re-offending that overcomes some of these issues (see Cuppleditch & Evans, 2005). In the UK, a statistical model produces a predicted recidivism rate based on the characteristics of the cohort being released from prison. Once the two-year follow-up period is completed, the predicted recidivism rate for the cohort is compared to the actual rate. The difference between the predicted and actual rates is then calculated and expressed as a percentage of the predicted rate. This means that changes in the characteristics of cohorts over years do not affect the measurement of recidivism rates, and ensures 'like-for-like' comparisons. Given the increasing focus on prisoner recidivism in Victoria, a similar model to the UK one should be developed to allow Corrections Victoria to monitor its performance in achieving the goal of reducing re-offending.

Another area of development for the Victorian Department of Justice is to extend measurement of recidivism beyond re-imprisonment to include rearrest and reconviction. Currently in Victoria, re-imprisonment is the only available measure of recidivism. As previously discussed, re-imprisonment is a restrictive measure and does not provide the whole picture in relation to offender recidivism. The development of a recidivism database including police, court and corrections data in Victoria would allow more comprehensive measurement of recidivism and would also be particularly useful for examining the impact of criminal justice system changes (for example, if re-imprisonment rates increase but re-conviction rates do not).

The NSW Bureau of Crime Statistics and Research developed a re-offending database in 2001, including court appearance and imprisonment data, which has been used extensively for research purposes in NSW. The full implementation of the E-Justice data system in Victoria will allow the development of such a database, as each individual has a unique identifier that is common to police, courts and adult corrections. Such a recidivism database could also include varying follow-up lengths, and eventually be expanded to include the juvenile justice system. This would enable research into the progression of offenders from the juvenile to the adult correctional system in Victoria to be undertaken and would add to knowledge regarding criminal careers and appropriate interventions for young, high-risk offenders.

4.4 Conclusions

This study has presented up-to-date information on prisoner recidivism in Victoria and has also highlighted a number of limitations regarding our current understanding and measurement of recidivism.

Now that this first step has been taken, future research should focus on the priority areas identified in this paper:

- pre-imprisonment and post-release characteristics of prisoners and their social environments, and their relationship with re-offending;
- impact of criminal justice system influences on re-imprisonment rates.

This work will inform Corrections Victoria's reducing re-offending strategy and will provide a solid research base to enable the organisation to better meet its strategic objectives.

5

Endnotes and References

Endnotes

1. None of these individuals had subsequent discharges in 2002-03 for sentenced terms of imprisonment.
2. Deaths that Corrections Victoria is notified about are recorded in PIMS. However, this record does not include the date of death. Because it was not possible to determine when the deaths occurred, all of these records were removed from the cohort.
3. There are also differences in recidivism rates within these broader categories. For example, although homicide, assault and other person offences have an overall recidivism rate of 22.8 per cent, only 5 per cent of prisoners with murder as their most serious offence, and 3 per cent of prisoners with other homicide offences, returned to prison. Similarly, the rate for all drug offences was 23 per cent. However, 55 per cent of prisoners with drug possession offences returned to prison compared with only 19 per cent of prisoners with drug trafficking offences.
4. Significant at $t = 5.33$, $p < .001$ and $t = -4.75$, $p < .001$ respectively.

5. Because burglary and other property offences were the only types of offences that were associated with significantly higher recidivism rates than the cohort average, a dichotomous variable 'property offence' (y/n) was adopted for the full logistic regression model.
6. Although prisoners discharged with sex and drug offences as their most serious offence return with a violent offence at substantially higher and lower rates respectively, the effect is not significant. This is probably due to the small number of prisoners in each category, with only three prisoners with sex offences and three prisoners with drug offences returning to prison with a violent offence. Using a less stringent level of significance ($p = .1$), prisoners discharged with a drug offence are significantly less likely to return to prison with a violent offence than the cohort average.

References

- Australian Bureau of Statistics. (1985). *Australian National Classification of Offences (ANCO)*. Canberra: Australian Bureau of Statistics.
- Baker, L. & Riley, D. (1998). *Recidivism: How to measure a fall from grace*. Wellington: NZ Department of Corrections.
- Bonta, J., Ruge, T., & Dauvergne, M. (2003). *The reconviction rate of federal prisoners*. Ottawa: Solicitor General Canada.
- Borzycki, M. (2005). *Interventions for prisoners returning to the community*. Canberra: Australian Government Attorney-General's Department.
- Burgoyne, P. H. (1979a). *Homicide and Recidivism*. Melbourne: Department of Community Welfare Services.
- Burgoyne, P. H. (1979b). *Recidivism among Rapists*. Melbourne: Department of Community Welfare Services.

- Cuppleditch, L. & Evans, W. (2005). *Re-offending of adults: Results from the 2002 cohort*. Home Office Statistical Bulletin no. 25/05. London: Home Office.
- Jones, C., Hua, J., Donnelly, N., McHutchison, J., & Heggie, K. (2006). *Risk of re-offending among parolees*. Crime and Justice Bulletin no. 91. Sydney: NSW Bureau of Crime Statistics and Research.
- Maltz, M. D. (1984). *Recidivism*. Orlando: Academic Press Inc.
- May, C. (1999). *Explaining reconviction following a community sentence: The role of social factors*. Home Office Research Study 192. London: Home Office.
- Nagin, D. S. & Farrington, D. P. (1992). The onset and persistence of offending. *Criminology*, 30, 501-523.
- New Zealand Department of Corrections. (2005). *Department of Corrections Annual Report 2004-05*. Wellington: New Zealand Government.
- Ross, S. & Guarnieri, T. (1996). *Recidivism rates in a custodial population: The influence of criminal history, offence and gender factors*. Criminology Research Council Grant 35/89. Canberra: Criminology Research Council.
- Spier, P. (2002). *Reconviction and reimprisonment rates for released prisoners*. Research Findings no. 1. Wellington: NZ Ministry of Justice.
- Steering Committee for the *Report on Government Services*. (2006). Report on Government Services 2006. Canberra: Productivity Commission.
- Tabachnick, B. G. & Fidell, L. S. (2001). *Using multivariate statistics* (4th Ed.). Boston: Allyn and Bacon.
- Tarling, R. (1993). *Analysing offending: Data, models and interpretations*. London: Home Office.
- Thompson, B. (1995). *Recidivism in NSW: General study*. Research Publication no. 31. Sydney: NSW Department of Corrective Services.
- United Kingdom Government. (2002). *Reducing re-offending by ex-prisoners*. London: UK Government.
- Victorian Government. (2005). *Growing Victoria Together*. Melbourne: Victorian Government

Acknowledgements

The authors would like to thank Malcolm Feiner and Lynne Wilkinson from Corrections Victoria for their helpful comments on drafts of this paper.

Corrections
Research
Paper Serie
Paper No. 1

Back cover