EXPLAINING RECONVICTION RATES:
A CRITICAL ANALYSIS

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Explaining Reconviction Rates: A Critical Analysis

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The following amendments should be made to this publication:

(1) Page 24 – Table 4.1
"The word Probation should appear at the top of the 4th column of the Disposal Group Figures".

(2) Page 41 – Footnote 5
The final sentence is unfinished and should read as follows:
... in the last two months of a two year follow-up in any case.

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Explaining reconviction rates: a critical analysis

by Charles Lloyd, George Mair and Mike Hough

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Foreword

Reconviction rates are one of the key tools of criminology and have been in use for many years as the primary measure of the effectiveness of court sentences. However, there has been no major comparative study of the reconviction rates associated with different sentences in England and Wales for 15 years; and with increasing interest in reconviction rates as a performance indicator, the time is right for such a study.

This study analyses the two-year reconviction rates from 1987 for four groups of sentences - straight probation, community service orders, probation with 4A/4B requirements, and custody. It also provides a critical assessment of the limitations of reconviction rates and reviews previous studies, thus giving a context within which the analysis can be interpreted. The key finding is that different community and custodial penalties did not seem to be differentially effective in preventing reconviction, once demographic and criminal record variables were taken into account.

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Head of the Research and Planning Unit

September 1994
Acknowledgements

We are very grateful to Natalie Aye Maung, Professor John Copas, Steve Farrell, Andy Jones, Martin Joy, Sylvia Keith, Chris Kershaw and Peter Marshall for their help in the preparation and analysis of the data.

CHARLES LLOYD
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Summary

This report describes the first major comparative study of reconviction rates in this country for 15 years. The research examines two-year reconviction rates for community service orders (CSOs), probation orders with 4A or 4B requirements, probation orders without such requirements, and imprisonment.

KEY POINTS

- There were marked differences in the average age and criminal histories of the groups serving the four different types of sentence.
- Past offending was one of the best predictors of reconvictions.
- Younger and male offenders were more likely to be reconvicted than older and female offenders.
- While females had much lower rates of reconviction than males, this can be explained largely in terms of differences in age and criminal history.
- Reconviction rates for the four sentences were all very close to the rates that one might expect for each group simply on the basis of offenders' age, criminal history and pattern of offending.
- There was no firm indication that community penalties outperformed custody or vice versa in preventing reoffending.
- Those serving probation orders with 4A or 4B requirements had the highest predicted reconviction rates on the basis of their age and criminal history; their actual rates were marginally higher.
- Those serving straight probation orders had the lowest predicted reconviction rates (on the basis of their age and criminal history); their actual rates were marginally lower.
- Those committing serious crimes were no more likely to be reconvicted than others - in fact many of the most serious types of crime had low reconviction rates.

The study

This analysis compares reconviction rates for probation orders, probation orders with 4A or 4B conditions (e.g. attendance at a probation centre), community service orders and imprisonment. It builds on the statistical analyses published by the Home Office on offenders' reconvictions and criminal careers. The sample
of 18,000 offenders sentenced to community penalties\(^1\) or released from prison in 1987 was derived from the Home Office Probation Index, Prison Index and Offenders Index. Information was collected on: age; sex; criminal history; the 'index' offence (which resulted in the offender's inclusion in the sample); and reconvictions occurring within two years of sentence (for community penalties) or release (for custodial sentences). The offences recorded on the Offenders Index are Standard List offences (this list excludes less serious summary offences). The reconviction rates quoted here differ slightly from those published in Statistical Bulletin 18/93 (Home Office 1993a) as we adopted a tighter matching criterion which excluded offenders who were originally sentenced for offences not on this Standard List.

Reconviction rates provide us with the only viable means of assessing the national impact of community and custodial penalties in preventing reoffending. They are important indicators of the effectiveness of the work of the prison and probation services. However, comparing the reconviction rates of different court sentences is complex, for several reasons:

- reconviction rates are only a proxy measure of reoffending.
- they are the product of many factors besides the sentence - including police and prosecution practice, which varies over place and time.
- different lengths of follow-up period for reconvictions yield different results
- it is technically difficult to construct the necessary databases.
- sentencing has other aims besides preventing reoffending.

Factors associated with reconviction

The two factors most closely associated with reconviction were age and criminal history: younger offenders and offenders with long criminal histories tended to have high rates. Thus 89 per cent of offenders aged 17 to 20 with 11 or more previous court appearances were reconvicted within two years, compared with 12 per cent of those aged 25 or over with no previous appearances.

Other variables associated with reconviction were sex, previous youth imprisonment, rate of previous court appearances and offence. These variables were also themselves intercorrelated. The multivariate statistical technique of logistic regression was used to disentangle these statistical effects. When account was taken of all the other correlated factors, sex was quite weakly associated with reconviction. Indeed, further analysis showed that at any given number of previous appearances, females aged 30 and over were associated with a slightly higher rate of reconviction than comparable males. The statistical analysis revealed that burglary and criminal damage were the types of crime with the highest reconviction rates. Sex offenders had the lowest risk of reconviction, and drug offenders were also associated with a low risk.

The low risk of reconviction associated with sexual offending appeared to be due to the exceptionally low rate of reconviction associated with those sex offenders aged 30 or over with no or one previous appearance. Less than one per cent of

\(^1\) While probation was not formally a sentence of the court in 1987, it will be referred to as such in this report for the sake of simplicity.
this group of 107 offenders were reconvicted for any offence; we cannot say whether this reflects their success in avoiding offending, or simply in avoiding detection. Younger sex offenders with two or more previous appearances had a reconviction rate of 51 per cent (mainly for non-sexual offences).

Comparing different court sentences

Sentencers and other criminal justice practitioners obviously need to know what sentences have the best chance of success, and with which offenders. However, comparing average reconviction rates is simply misleading. Different types of sentence tend to be given to different sorts of offender, with widely varying chances of reconviction. For example, the reconviction rates of middle-aged sex offenders are likely to be low whether they are imprisoned or punished in the community; and young burglars with long criminal histories are very likely to be reconvicted whether they go to prison or not. Thus a straightforward comparison between, say, the reconviction rates of a community penalty targeted on middle-aged sex offenders and those of a custodial sentence given to young burglars would reach the - very possibly erroneous - conclusion that the former sentence 'worked' much better than the latter.

'Expected reconviction rates'

There are three main research methods for ensuring that like is compared with like when assessing the effect of court sentences in preventing reoffending. The
first is to set up an experiment where offenders are randomly allocated between different types of sentence; there are obvious ethical and practical difficulties in doing this on any scale. The second is the quasi-experimental approach whereby offenders given one type of sentence are matched (with greater or lesser precision) with a control group who receive a different type of sentence; but as there are systematic differences in the characteristics of offenders serving different sentences, there are also limits to this approach. The third method - the one used here - is to use statistical techniques to calculate expected rates of reconvictions for any given group of offenders on the basis of factors other than sentence (such as age, sex and criminal history); the group's actual reconviction rates can then be compared with the predicted or expected rate. If the actual rate is lower than the expected, this implies that the sentence is more effective than others in preventing reoffending.

The validity of this approach depends on its success in identifying all the key variables apart from sentence which may prevent or encourage reoffending. In this study, we calculated expected reconviction rates on the basis of:

- offenders' age and sex
- offence type
- number of previous appearances
- previous appearance rate
- average number of previous convictions per appearance
- number of youth custody sentences.

A weakness of our approach is that we were unable to use more demographic variables, notably marital and employment status, because this information is not held on the Offenders Index. Both marital and employment status may be causally important in shaping criminal careers, and are often taken into account in sentencers' choice of sentence. However, previous research has usually found these variables to be less strongly associated with reconviction than criminal history variables; nor has it adequately addressed the issue of intercorrelation between social and criminal history variables. For example, it is likely that employment and marital status will be associated with previous custodial experience: an offender with a history of frequent imprisonment is unlikely to have stable employment or relationships. It is therefore impossible to gauge what influence these variables might have had.

*Pseudo-reconvictions*

A problem for reconviction studies of this sort stems from the convention of using the date of reconviction as a proxy for the date of reoffending. (The reason is simply that the former information tends to be more accessible than the latter.) A proportion of reconvictions in our sample arose from offences committed before the index conviction. (For example, an offender may elect for Crown Court trial for one crime; he may then commit another crime, and receive a
SUMMARY

conviction in a magistrates' court long before his Crown Court hearing takes place.) We have called these 'pseudo-reconvictions'. To assess the extent of the problems caused by pseudo-reconvictions, we asked the National Identification Bureau to provide us with offence dates for seven per cent of the sample. For this sub-sample, the effect of excluding pseudo-reconvictions was to reduce the proportion reconvicted by between two and seven per cent.

Comparing court sentences

In comparing the four types of sentence, we first calculated expected and actual reconviction rates, and then we adjusted these to take account of pseudo-reconvictions. Table 1 shows three columns of figures. The first shows the "raw reconviction rates" for the four sentences. The second, labelled "Adjusted per cent reconvicted", shows the reconviction rates adjusted to take account of pseudo-reconvictions. And the third shows estimates of what reconviction rates one would expect solely on the basis of individuals' age, sex, offence and criminal history. These estimations are therefore 'blind' to sentence group.

Table 1
Two-year reconviction rates for community penalties and custody

<table>
<thead>
<tr>
<th>Sentence group</th>
<th>Raw % reconvicted</th>
<th>Adjusted % reconvicted</th>
<th>Predicted % reconvicted</th>
<th>Total Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prison</td>
<td>56</td>
<td>54</td>
<td>53</td>
<td>9,615</td>
</tr>
<tr>
<td>Community penalties</td>
<td>53</td>
<td>47</td>
<td>49</td>
<td>8,196</td>
</tr>
<tr>
<td>probation</td>
<td>49</td>
<td>43</td>
<td>45</td>
<td>2,448</td>
</tr>
<tr>
<td>CSOs</td>
<td>56</td>
<td>49</td>
<td>52</td>
<td>2,394</td>
</tr>
<tr>
<td>4A/4B</td>
<td>68</td>
<td>63</td>
<td>60</td>
<td>3,354</td>
</tr>
</tbody>
</table>

There were large differences between the four sentence groups in the raw reconviction rate: ranging from 49 per cent for regular probation to 68 per cent for probation with 4A or 4B requirements; and such large differences were still apparent in the adjusted rates, after account had been taken of pseudo-reconvictions. However, comparison of these adjusted rates with the rates predicted on the basis of the nature of the offenders in each sentence group revealed that the variations are associated with 'background' factors such as age and criminal history. Thus, while approximately 43 per cent of regular probationers were actually reconvicted for further offences, one would have expected 45 per cent of them to have been reconvicted on the basis of their age, sex, offence and criminal history. Likewise, while approximately 63 per cent of probationers subject to probation orders with 4A/4B requirements were reconvicted, one would have expected 60 per cent of them to be reconvicted.
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While comparison of adjusted and predicted rates in Table 1 shows that CSOs and probation did slightly better than expected and prison and 4A/4Bs did slightly worse than expected, great care should be taken in drawing firm conclusions from such small differences. The study was unable to include data on social factors and our estimates of the extent to which pseudo-reconvictions amplify reconviction rates may be imprecise. The main conclusion we draw is that there is very little difference between actual and predicted reconviction rates in our sample.

Other measures of reconviction

So far, we have discussed reconvictions simply in terms of whether or not they occurred within two years. There are many other important dimensions to reconviction rates, such as the time to reconviction, and the seriousness and frequency of reconvictions.

Time to reconviction

In all sentence groups, the bulk of first reconvictions occurred in the 12-month period following sentence/release. However, there was a tendency for a greater proportion of prisoners to be reconvicted towards the end of the two year follow-up. This raises the question of whether three year or four year reconviction rates for custodial sentences would be worse than those for community penalties.

Seriousness of offence at reconviction

A comparison between the seriousness of the offence resulting in the index conviction and that at reconviction showed a tendency for offending behaviour to "regress to the mean". Thus, prisoners, a large proportion of whom were - necessarily - originally convicted of serious offences, tended to be reconvicted of less serious offences, while probationers, who were originally convicted of less serious offences tended to be reconvicted of offences of similar gravity at reconviction. Figure 2 shows target and reconviction offences for the prisoners and probationers, divided into three 'gravity bands', marked 'low', 'medium' and 'high'. While the profile of offences stays roughly the same for probationers, prisoners were reconvicted of far fewer high gravity offences, and considerably more low and medium gravity offences - resulting in a reconviction offence profile similar to that for probationers. This is almost certainly because individual offenders commit both serious and minor crimes, and are sent to prison on those occasions when they are convicted of serious crimes; they will, on average, commit less serious offences next time. The finding does not imply that prison encourages offenders to reduce the severity of their subsequent offending.
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**Figure 2: Changes in offence gravity**

The problem with looking at the number of reconvictions over a given period is that offenders are resentenced at each reconviction. Thus, if a prisoner is given probation at his/her first reconviction and then is subsequently reconvicted again, is this reconviction to be counted as a failure of imprisonment or a failure of probation? Broadly speaking, variables that were significantly associated with whether or not offenders were reconvicted at all were also significantly associated with the proportion of offenders that were reconvicted more than once.

**Conclusions**

The key finding of this study - in common with previous studies - is that there was little difference between actual and predicted reconviction rates for the different groups, suggesting that sentence on its own did not have a major impact upon the likelihood of reconviction. We found no clear evidence to suggest that custody outperformed community penalties or vice versa in preventing reoffending. Four important qualifications must be made. First, it should be re-emphasised that this study was unable to include social factors. There may also be other factors which sentencers take into account which are correlated with reconviction and which were not included in the study. If such factors were differentially associated with the four sentence groups this could explain the small differences between expected and actual rates in Table 1. Second, both probation and prison practice has changed over the last seven years; arguably there have been improvements both in techniques for reducing the risk of reoffending and in targeting and tailoring these techniques for those offenders most likely to respond. Third, there has always been variation in the quality of
work with offenders, whether by the prison or probation service. Our results present national averages, and certainly do not preclude the possibility that in some probation areas and in some prison establishments reconviction rates are much lower than predicted. Finally, the study's findings relate only to the impact of court sentences in preventing reoffending; they can say nothing about the other purposes which sentencing may serve, such as general deterrence, incapacitation and the 'declaratory' function of expressing societal reaction to certain sorts of crime.

An issue that has proved - unexpectedly - to be critical to the study is that of pseudo-reconvictions. Taking account of pseudo-reconvictions led to the prison rate dropping by two per cent, while the CSO rate fell by seven per cent, straight probation by six per cent, and 4A/4B orders by five per cent. Any further comparative reconviction studies which use date of reconviction as a proxy for date of reoffending will have to find ways of taking into account the differential effect of pseudo-reconvictions on community and custodial penalties.
1 Introduction

One of the key questions in penology concerns the effectiveness of court sentences. This issue has been debated at length for many years, but especially since the publication of a short paper in 1974 by Robert Martinson 'What Works? questions and answers about prison reform'. This paper, which was taken by many to answer the question posed in its title with the now clichéd phrase 'Nothing Works', spawned an academic industry. Arguments raged as to whether or not this simplistic phrase was true or false, with crude, reductionist views being the norm. Indeed, the debate continues today (see Mair 1991) with the current balance shifting towards those who assert that 'Nothing Works' is mistaken.

The 'Nothing Works' debate is focused largely around the reconviction rates associated with court sentences. Reconviction rates have had a central place in post-war criminology; but too often they have been treated with more respect and reverence than they deserve. Too rarely has it been recognised that they are artefacts constructed from (for the most part) rather dubious data. With renewed emphasis on the effectiveness of sentences and a new confidence that the old dragon of 'Nothing Works' has been slain, it is critically important that we understand as far as possible the limitations of reconviction rates and recognise just how far they can help.

It is 15 years since the last major study of comparative reconviction rates in England and Wales (Phillpotts and Lancucki 1979) and that was based on a sample of offenders from 1971, more than 20 years ago. There are several reasons for this long gap: it was partly a conscious decision on the part of the Home Office Statistical Department to concentrate on specific studies of particular disposals because of the considerable resources needed for a comparative study; partly a reflection of changing interests in the wider field of criminology; and, more practically, it has been quite difficult to get access to data on the criminal records of offenders. Whatever the reasons, however, a comparative study of reconviction rates is long overdue, particularly given the developments in statistical modelling techniques and recent improvements in the availability of data. This report presents the results of such a study, but in so doing tries to put reconviction rates into context. This latter task is important as reconviction rates are assuming new significance as performance indicators and it is becoming easier to carry out reconviction studies.

Chapter 2 of the report discusses the methodological issues which should be considered in any analysis of reconviction rates; wherever possible we have followed our own advice in the ensuing analysis. Chapter 3 provides a review of reconviction studies in the UK since the early sixties. Chapter 4 examines the
association between various criminal history and demographic variables and
reconviction rates for four groups of disposals (probation, community service,
probation with 4A or 4B¹ requirements and prison). It concludes with a multivariate
statistical analysis of the correlates of reconviction rates. Chapter 5 compares the
four disposal groups on the variables identified in the previous chapter as being
associated with reconviction; it also compares the predicted rate of reconviction and
the observed rate for each of the four groups. Chapter 6 examines three other
aspects of reconviction studies: length of time to reconviction, offence and offence
seriousness at reconviction, and the number of further appearances before a court
where there was a guilty finding during the two year follow-up period. Finally,
Chapter 7 draws together the main findings of the analysis and discusses their
implications, both for policy and for future research.

¹ 4A and 4B requirements refer to sections 4A and 4B of schedule 11 of the 1992 Criminal Justice Act, which allowed
courts to require specified activities (4A) or attendance at a day centre (4B) as part of a probation order. Under the 1991
Criminal Justice Act, this provision has been superseded by schedule 1A.
2 Reconviction rates: methodological issues

It is symptomatic of the general approach to reconviction studies that in the only major, national comparative study of reconviction rates in this country (Phillpotts and Lancucki 1979), there is no discussion of the advantages or drawbacks of using reconvictions to evaluate court sentences. Reconviction rates are approached as a neutral, technical matter; it is taken for granted that they are unproblematic and easily understood. There has been the occasional comment on the inadequacies of reconviction rates in well-known British studies (Hood and Sparks 1970, Brody 1976), and one American study which focuses entirely upon the concept of recidivism (Maltz 1984); but researchers tend to carry on using a measure which they are probably aware is flawed, only rarely making any attempt to draw attention to the flaws and what they might mean for their analyses.

This chapter discusses the various methodological issues which render problematic the use of reconviction rates as a simple measure of the success of sentences. While a cursory glance at what follows may lead to the conclusion that reconviction rates are not particularly helpful, this would be wrong; reconviction rates are an essential part of the tools of the trade of the criminologist. The aim of the chapter is to clarify as far as possible the various issues around reconviction rates in order that they may be used more appropriately with a fuller understanding of what they mean. This is an important undertaking as it is all too easy to condemn one penal disposal for a reconviction rate of 70 per cent and praise another for a rate of 35 per cent without knowing anything about the disposals in question and what they aimed to do. With the increasing pressure on organisations to demonstrate effectiveness, crude measures leading to simplistic judgements must be avoided. For this reason alone, a study such as this which analyses reconviction rates within a framework which has considered the problems associated with them is particularly timely.

Problems associated with reconviction rates

The aims of sentencing

Court disposals aim to do a variety of things in addition to discouraging further offending. Retribution, reparation, general deterrence and denunciation are all included in the objectives of sentencing but cannot be measured by the use of reconviction rates. Maltz (1984) lists a series of correctional goals which he groups into three categories - goals related to the offender, goals related to society and goals related to the correctional institution. He argues that reconviction rates should not be used in measuring the goals of the second or third categories, and cannot be used to
measure all of the goals in the first group: “With such diverse correctional goals one cannot expect a single measure of effectiveness to cover the waterfront; measures of similar diversity are required”.

By concentrating on reconviction rates, the other aims of sentencing are forgotten or relegated to a minor role. This may be acceptable if there is general agreement that the primary aim of sentencing is the reduction of reoffending and that nothing else counts for very much, but it would be dangerous to assume that such agreement exists (the controversy aroused by the Criminal Justice Act 1991 should serve as an adequate reminder of the lack of agreement). The symbolic nature of the trial and sentencing may be at least as important as its more practical objectives, but that cannot be measured by studying reconviction rates.

What is meant by reconviction?

It may seem unduly pedantic to ask what precisely is meant by reconviction, but this is an important question, the answer to which has serious implications for the way in which reconviction data are collected, analysed and interpreted. In the USA recidivism (which is what is being measured by reconviction rates) has been defined in a variety of ways. Maltz (1984) lists nine categories which have been used with some of their qualifying conditions:

- Arrest: number of arrests; recorded police contact, court appearance; time elapsed before the first re-arrest; did conviction result?
- Reconviction: jail or prison sentence; seriousness of offence; sentence.
- Incarceration: type of facility; seriousness of offence.
- Parole violation: nature of the violation; seriousness of the infraction; was it police-initiated?
- Parole suspension: new offence; number of suspensions.
- Parole revocation: new offence; seriousness of the offence; average number of good days on parole.
- Offence: seriousness; number; new offence.
- Absconding: was an absconder warrant issued?
- Probation: proportion re-detained; length of time detained; number of violations; violation warrant.

Matters are further complicated by the fact that in some studies more than one definition has been used; and where the same general definition has been used by two studies, different specific definitions may have been applied. All of this makes for confusion.
In the UK such a wide range of definitions has not been apparent, but this does not mean that reconvictions have a hard-edged clarity. In the first place, the term reconviction does not usually apply to the number of convictions in a court for separate offences at a single appearance; if this were the case, offenders would commonly be found with many reconvictions within a relatively short time as many minor offences are often dealt with on only one or two court appearances. As in this study, reconviction is generally used to mean an appearance in court where there has been at least one finding of guilt, irrespective of how many offences were dealt with on a single appearance. But this is not the end of the matter, as guilty findings for all kinds of offences are not normally counted; the usual approach – and the one followed here - is to count only Standard List Offences (see Appendix A), which ignores many minor offences and therefore provides an underestimate of the number of reconvictions. To count all offences, including the most minor, may seem to be excessive but if reconviction studies are to move towards more sophisticated models and consider the seriousness of offending, then it may be necessary to become more inclusive.

**Reconviction is not reoffending**

Reconvictions are only a proxy measure for reoffending, and this needs to be borne in mind when using and interpreting reconviction studies. By no means all those offenders who, after conviction, go on to commit further crimes are caught, and not all those who are caught are convicted in court. Latest estimates from the British Crime Survey (BCS) suggest that for every 100 offences committed only two result in a criminal conviction. While reporting a crime to the police may be a necessary step towards the conviction of an offender in court it is by no means a sufficient one; only 30 per cent of offences are reported to the police; only 30 per cent are recorded by the police as a crime; seven per cent of crimes are cleared up; and three per cent result in a caution or conviction. The gap widens at every stage in the process.

Indeed the gap is not uniform for all types of crime, and some idea of the problem can be seen from the results of the BCS. In comparing information from the BCS to notifiable offences recorded by the police, it was found that while 92 per cent of burglaries with loss and 99 per cent of motor vehicle theft were reported, only 40 per cent of robberies and 27 per cent of vandalism were reported to the police (Mayhew and Aye Maung 1992). Self-report surveys may go some way towards narrowing the gap (although these have their own considerable problems), but it is impossible to close it completely. Thus the use of reconviction rates means that under-estimation is always present, but we cannot be sure of its extent and this is particularly problematic for any measure of effectiveness.
Is there a 'correct' follow-up period?

How long should the follow-up period for a reconviction study be? This is a key question and the answer will have a significant effect upon reconviction rates. Clearly, a two year reconviction study will provide fewer reconvictions than a five year study, but how much extra value is offered by the latter if the average reconviction rate in a two year study is 65 per cent and that in a five year study is 75 per cent? A five year study will necessarily take much longer to carry out and by the time such a study is completed, the original interest may have petered out. Indeed, if one wishes to use reconviction rates to find out why a sentence seems to be successful or a failure, then it is probably not worth waiting for more than five years before being able to identify 'good' or 'bad' programmes and then trying to isolate what made them succeed or fail.

A six-month study may often be all that is necessary, even if a further 30 per cent of reconvictions take place during the subsequent 18 months; the decision lies in what is known about trends and patterns of offending. For sex offenders a follow-up period of at least five years is considered desirable due to their patterns of offending: the proportion reconvicted grows slowly but consistently over time. For burglars six months or a year may be adequate. The usual period, and the one followed here, is two years but that is not to deny that both longer and shorter periods have their place.

When does one start counting?

Linked with the length of follow-up is the question of when we start counting reconvictions. Again, it is obvious that if we were to begin at the start of all sentences, then those in custody would tend to have lower reconviction rates simply because they would not be able to re-offend (except within prison) for the full follow-up period. The answer for those in custody is to begin counting from the date of release. For community penalties, however, counting conventionally begins on the date of sentence. It might be more appropriate - but also more complex - to begin from the date when the community penalty actually begins; but in any case, this is usually within a few days of sentence.

Parole raises several issues: should counting begin from the date of release from custody or at the end of parole supervision; if the former, does reconviction during parole constitute a failure of prison or supervision; if the latter, then the risk of reconviction will be considerably reduced if parole is completed successfully.

There is a case of sorts for counting reconvictions from the end of a community penalty on the argument that the effectiveness of a 'treatment' should be assessed only when it has been completed. On the other hand, it could be argued that the probation service tries to hold offenders from further offending while they are subject to supervision, but cannot be held responsible for their behaviour post-
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supervision. In any case, those who successfully complete their order are, by
definition, 'better bets' than those who are breached.

The time lag between offending and conviction

Closely related to the previous two issues are the problems arising from the practice
of using date of conviction (or reconviction) as a proxy for date of offending. Some
offenders offend prior to their 'target' appearance, but are reconvicted after they have
begun their sentence - in this report we refer to these false-positives as pseudo-
reconvictions. Conversely, towards the end of the follow-up period, some offenders
will reoffend but not be reconvicted until after the follow-up period (false-
negatives). In the first case, reconviction rates will be inflated while in the second
they will be under-estimated. Reconviction studies have usually ignored the
problem of false-positives and false-negatives, but the distorting effects of pseudo-
reconvictions in particular could be substantial. Of particular relevance in the
current study is the possibility that there are differences between sentences in the
extent of pseudo-reconvictions. For example, it seems plausible that those who have
completed prison sentences will be less likely than those starting probation or
community service to be convicted of offences pre-dating their sentence, simply
because of the greater lapse of time. Offences will come to court while the offender
is still in prison, or else the CPS may decide not to proceed. In this report an
attempt has been made to investigate the effect of pseudo-reconvictions. It has not
been possible to do the same for the converse problem of false-negatives but there
are two considerations which argue against there being a significant problem in the
present context. First, there is no reason to suspect a difference between the sentence
groups analogous to that predicted for pseudo-reconvictions. Second, in looking
simply at whether offenders are reconvicted or not within two years, only those false
positives or false negatives that occur in the absence of any other reconvictions are
relevant. It is unlikely that large numbers of offenders will 'keep a clean sheet' for
two years but then reoffend and be reconvicted shortly after the two year period.

A further factor which could play a part in pseudo-reconvictions is whether the
offender is bailed or remanded in custody prior to his/her target sentence. If the
former, then the offender could have carried out further offending which might well
have been dealt with after the target sentence has commenced; a remand in custody,
however, would preclude further offending until sentence has been passed.
Although recent research has shown that offending while on bail is not as common
as is often claimed (Morgan 1992), reconviction rates will be affected by the
bail/remand decision - with a differential impact on custodial and community
penalties.

1 Recent research on the termination of cases by the Crown Prosecution Service has examined the reasons given by
prosecutors for those cases dropped on public interest grounds (Moxon and Critip 1992). In 15 per cent of cases, one of
the reasons given was that the defendant was in custody on other matters.
Equating reconviction with failure

Reconviction rates have, on the whole, been used as a crude, dichotomous measure whereby reconviction means failure while non-reconviction equals success. This implies that all reconvictions are of equal severity (although, as noted earlier, certain types of reconvictions are not routinely counted). Thus, an offender who was convicted of a shop theft of low value and reconvicted of a major domestic burglary would be counted as no more of a failure than one who had been sentenced for street robbery and reconvicted for a minor shop theft (not, it should be added, by sentences who would be likely to reflect the difference in reconvictions in terms of sentence). In the same way, an offender who, post-conviction, continued to offend every three or four months as he/she had done prior to sentence, would be judged no more of a failure as one whose rate of offending dropped to once every nine months. Differences in the kind of offences involved in reconviction and in the rate of reconviction should ideally be part of any reconviction study.

Comparing reconviction rates for different sentences

A common approach to reconviction rates is to compare different sentences (or different examples of the same sentence). Offenders are not sentenced to different dispositions randomly, and to compare the reconviction rates of dispositions without taking some account of this would be misleading. However, trying to match offenders with different sentences is difficult simply because offenders with different characteristics receive different sentences. In any event, collecting fully adequate data for matching purposes is, logistically, almost impossible; criminal history is relatively easy to collate, but how much (if any) social information is needed and how can one be certain that all key variables have been matched?

Random allocation is one way around this difficulty, but this is not without its own problems. Randomly allocating offenders to different sentences can easily offend principles of equity and would be seen (quite rightly) by the judiciary as interference with their decisions. There is no doubt that ethical issues can arise if offenders found guilty of less serious crimes receive more serious sentences for the sake of research; and there are clear public safety issues to be considered if those found guilty of serious offences are given community penalties for the same reason. Random allocation to different programmes under the same sentence is a more feasible option, and it would be worth exploring this more often. It should be added, however, that it is difficult to ensure that allocation is carried out randomly in practice, and this is a problem which has bedevilled many experiments.

The effect of policing and prosecution practice

Other factors - which are difficult to quantify - can have an impact upon reconviction rates. Police action is one obvious element: we know that police forces
have different clear-up rates, which will result in different recovision rates. Different police patrolling practices and targeting will mean that certain offenders will have a greater chance of being arrested and reconvicted than others; for example, those with long records may be subject to greater surveillance, and where offenders live may be a significant factor in their likelihood of being reconvicted (cf. Gottfredson and Taylor 1986). Over time, the national clear-up rate has been falling, and this will inevitably make the interpretation of recovison trends difficult.

Police cautioning practices will also have an effect on recovison rates. While cautions are not convictions and could not be counted as such, any increase in cautioning over a given period is likely to lead to offences that previously would have resulted in a conviction ending in a caution. Thus, any significant increase in cautioning is likely to depress recovison rates. At present, neither informal nor formal cautions are centrally recorded, making it difficult to gauge the extent or influence of changes in cautioning practice.

The discontinuance of cases by the Crown Prosecution Service (CPS) will have a similar effect. Cases can be discontinued both when evidence is weak and when, despite firm evidence, a prosecution is considered not to be in the public interest (the defendant might be old, for example, or unwell). Again, as discontinuances increase, recovison rates will fall. There have been marked shifts in both cautioning and prosecution practice over time (especially over the last decade) complicating the analysis of trends in recovisions. And, of course, there are also marked differences by area.

An adequate and accessible database

Recovision studies need access to criminal records and this has by no means been easy to arrange in the past. Two national databases are available: that held at the National Identification Bureau (NIB, the old Criminal Records Office) and the Offenders Index held by the Home Office Research and Statistics Department. In the past, Offenders Index data were held on microfiche which had resource problems for the extraction of information. Since computerisation in 1991, however, the Index now yields samples more quickly and more fully than before (Keith 1993). With regard to NIB data, these were not computerised, which meant that large-scale recovision studies (such as that reported on here) could only be carried out with enormous clerical effort. Computerisation is now underway at NIB and this will make such matters easier.

In very large data-bases there are likely to be problems with missing data, miscoded cases, etc. In a search of criminal records it is likely that between 5-10 per cent of names will not be found for one reason or another. If these cases are randomly distributed then this should not be a problem, but it is unlikely that this is the case; for example, offenders' NIB records may be out for updating because of a new offence. At present, there is no way of knowing the extent of such bias but it should
be borne in mind. Some of the specific technical problems associated with the data used in this study are discussed in Chapter 4.

Interpreting recidivism rates

Finally, there is the thorny problem of how recidivism rates are interpreted. There is an unfortunate tendency to conclude simplistically that recidivism means failure and therefore the sentence or programme has failed. In the first place, however, all too often this is in the absence of any hard information about the operation and organisation of the programme. The end result may be the premature termination of an initiative which has not had a chance to be fully evaluated. Similarly, if a very low recidivism rate is found, a programme may be judged too soon as a success (initial enthusiasm for a new project, for example, or the targeting of low-risk offenders may be the reasons for the low rates); rapid expansion may follow without any real grounds and in the longer term disillusionment will result after further evaluation. If a sentence is successfully targeting offenders at high-risk of recidivism then it is almost inevitable that the recidivism rate for that sentence will be high.

Second, if an unacceptably high overall recidivism rate was found to be associated with a certain sentence, it would surely be a mistake to condemn all specific examples of that sentence. A recent study of probation centres found that the overall recidivism rate was 63 per cent, but that several centres had rates of 75 per cent or more, while others fell below 45 per cent (Mair and Nee 1992). Such differences amongst various examples of the same sentence raise important questions which are hidden by looking at recidivism rates solely at a national level; local recidivism rate studies need to be carried out too. Nationally-based recidivism rates are probably more useful as indicators of performance than as measures of effectiveness. As performance indicators they will lead to more detailed questions and investigations as Carter and his colleagues have recently suggested one type of performance indicator should do:

... they do not give answers but prompt interrogation and inquiry, and by themselves provide an incomplete and inaccurate picture. (Carter, Klein and Day 1992)

Using recidivism rates

None of the problems associated with recidivism rates leads to the conclusion that they should be banished from the criminologist's lexicon. On the contrary, the aim of detailing these problems is to urge a more cautious, sceptical and more sophisticated approach to the use of recidivism rates. Recidivism rates can serve as key indicators of performance for both community and custodial penalties; but they must be included in formal lists of key performance indicators only if they are
RECONVICTON RATES: METHODOLOGICAL ISSUES

interpreted with care, with a full understanding of their limitations. In the following chapters a start is made in sketching out ways in which reconviction rates might be analysed and interpreted.

While comparing the effectiveness of different sentences may be fraught with difficulties and caveats, such an exercise is a necessity. One of the reasons for the importance of reconviction rates as a performance indicator is that they can be used for various sentences, unlike other possible measures (such as diversion from custody or incapacitation). Nor should it be forgotten that there are problems with measuring any social phenomena as Maltz (1984) reminds us:

The measurement of poverty, educational attainment, intelligence, employment, self-esteem, socioeconomic status, social structure, or peer-group relationships is no less difficult than the measurement of recidivism. (p.25)

It may be that it is time to consider other possible measures of the effectiveness of sentences (Mair 1991), and certainly other performance indicators will be necessary, but these should be developed in addition to reconviction rates and not as an alternative to them. Reconviction rates cannot and should not be ignored, nor should they be accepted uncritically. The kind of approach taken in this report tries to follow a middle way.
3 Reconviction Studies

The aim of this chapter is to review briefly relevant reconviction studies that have been conducted in the United Kingdom since the early 1960s. While there is a relative abundance of evaluative research that focuses on the reconviction rates of one or two sentences or individual projects (e.g. Folkard et al. 1976; Raynor 1988), few studies have been conducted which specifically set out to compare the reconviction rates of different sentences. Only five have been identified in this review of the literature and these will be included here, along with reconviction studies of the particular disposals included in Chapter 4: imprisonment, CSOs and probation. The extensive literature on predicting reconviction (e.g. Simon 1971; Nuttall et al. 1977) falls outside the scope of this review.

Comparative studies

One of the earliest attempts to compare the reconviction rates of different sentences was that carried out by Hammond in the Home Office Research Unit (Home Office 1964, 1969), and published in 'The Sentence of the Court', a handbook designed to inform sentencers. Although it is now 25 years old, it is worth discussing in some detail, as its results have infused criminological thought to a considerable degree. His 1969 analysis was based on all offenders convicted in the Metropolitan Police District in March and April 1957. Criminal history and reconviction information was obtained from the Criminal Record Office (now the National Identification Bureau). Taking proportion reconvicted within five years as the outcome criterion, Hammond's first table showed that age and previous appearances¹ were closely associated with reconviction. Age was negatively associated with reconviction - the older the offender, the lower the reconviction rate - and number of previous appearances was positively associated with reconviction. Analyses of sentence type by age group were then conducted separately for first offenders and offenders with previous appearances. From the analysis of first offenders, the author concluded that, except for offenders aged 30 and over, custodial sentences were associated with a higher rate of reconviction than other sentence types and fines were associated with an exceptionally low rate. However, the basis for the first of these claims is unclear from the published findings; probation was associated with a higher reconviction rate amongst 21 to 29 year olds, and numbers in younger age groups were far too low to draw any reliable conclusions. The analysis of offenders with previous appearances revealed that age had a much less pronounced effect on reconviction: in particular, the age of probationers and prisoners serving sentences of two years and over.

¹Hammond referred to previous convictions, but this term is ambiguous. Unfortunately there is no explicit description of what was counted, but on the basis of the general use of the term and their frequency in the various tables, it has been assumed that Hammond counted previous court appearances.
seemed to have very little effect on recidivism. Hammond again emphasised the high recidivism rate associated with custodial sentences, but did not point out that overall, probationers were associated with a higher recidivism rate than adult prisoners. In the final section of the report, Hammond compared expected and actual recidivism rates for various subgroups. Expected rates were calculated "on the basis of age, current offence and previous convictions". Results showed that fines and discharges were associated with lower-than-expected rates of recidivism, while prison and probation were associated with similar, higher-than-expected rates of recidivism.

Hammond's study concluded that "some progress has been made towards evaluating sentences by means of comparative studies." However, as he pointed out, there is always the possibility that observed differences between sentences may in fact be due to differences in social circumstances or other factors not recorded by the researcher. There were other limitations to Hammond's report, some due no doubt to its brevity: Hammond neglected to mention whether women were included in his study (apparently they were not); it is not entirely clear whether recidivism for the prison group was always counted from release or from sentence; and most of the analysis of the effect of previous appearances was done only on the basis of their presence or absence. This latter issue is particularly problematic - the variations in recidivism rate amongst offenders with at least one previous appearance could have been solely due to differences in the average number of previous appearances. Nevertheless, despite its limitations, the study was a path-breaking one, done on a scale which, in the absence of computer analysis, is impressive.

The most comprehensive comparative study of the recidivism rates of different sentence types is that carried out by Phillipps and Lencucki (1979). Their research was based on 5,000 offenders convicted of standard list offences in January 1971. Details of these cases (including data on previous appearances and recidivism) were drawn from the Offenders' Index. Before addressing the issue of recidivism, the authors carried out a detailed analysis of the associations between sentence type, sex, age, number of previous appearances and offence, from which they concluded that "all the factors considered...have some association with the type of sentence an offender is given". Taking a follow-up period of six years, Phillipps and Lencucki found that these factors, including sentence type, were also associated with recidivism. Age and previous appearances had their usual effect on recidivism; females had a lower rate of recidivism than males; burglary and robbery offences were associated with a high rate, motoring offences a low rate; and custodial sentences were associated with 71 per cent recidivism, probation 63 per cent and fines 39 per cent. The authors then controlled for groups of these predictor variables through multiple cross-tabulations.2 Beginning with the effects of age and previous appearances on recidivism, they found that these two variables had largely independent associations, although for cases with high numbers of previous appearances, age seemed to have less effect. In a subsequent analysis of the effects of age, previous appearances and offence on recidivism, the abnormal rates

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2These analyses were restricted to males due to the low numbers of females in the sample.
associated with burglary/robbery and motoring offences held true when controlling for age and number of previous convictions. A similar analysis was conducted to explore whether the influence of sentence type was independent of the effects of age and previous appearances and this was found to be the case. Finally, in an attempt to control for all these factors simultaneously, the reconviction rates for the two largest offence groups (burglary/robbery and theft/handling) were divided by age, previous appearances, offence and sentence. Numbers in some cells were small, but the authors found that "it was generally the case that males given custodial sentences had higher reconviction rates than males given suspended sentences or probation or supervision orders and these in turn had higher reconviction rates than males given a fine or an absolute or conditional discharge" (p.16). However, as Phillipotts and Lancucki made clear, "the variation with sentence as opposed to the other factors of sex, age, previous convictions and offence appears to be relatively small."

Walker et al. (1981) carried out further analysis of a sub-sample of the Phillipotts and Lancucki sample using the approach followed by Hammond. Taking only males aged 21 and over, they compared the actual and predicted reconviction rates for different sentences by the number of previous convictions, taking into account the kinds of offences for which the men were sentenced. As might have been expected, they found a very high reconviction rate for those with five or more previous convictions irrespective of the sentence. There were, however, interesting differences between the reconviction rates for those with no previous convictions; the probation rate for first offenders was the highest for any sentence and considerably higher than predicted; on the other hand, the prison rate for first offenders was the lowest for any sentence and markedly lower than predicted. It should be noted that the actual numbers involved in some of these calculations is small, but they do raise important questions which, unfortunately, have rarely been followed up in reconviction analyses.

The fourth study of sentence reconviction rates is a recent Home Office statistical study focusing on the reconvictions of those given probation and community service orders in 1987 (Home Office 1993a). This study was based on the same community disposal samples as those analysed in Chapter 4, but adopted a slightly different approach to sample definition. This difference stemmed from the fact that, while the chief aim of this statistical study was to produce reconviction rates that were as representative as possible of the rates that would apply for all those given probation and community service orders, the main aim of the analysis in Chapter 4 is to compare sentences. However, results are broadly similar. The two year reconviction rates for the three disposal groups were: CSOs 54 per cent, probation orders with 4A/4B requirements 63 per cent and probation orders without such requirements 50 per cent. About half of those reconvicted within two years had only a single reconviction over this period. Reconviction was found to be associated with sex, age, number of previous appearances and previous imprisonment. There was also some indication that 'target' offence was associated with reconviction: with burglars having a consistently high rate of reconviction. As is pointed out, it is impossible to

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3 The Home Office (1993a) study included all cases with a conviction recorded on the OI as at before the commencement date of their orders. Thus cases were included even if there was no OI record of their target appearance, so long as they had previous convictions recorded. Such cases have been excluded in the present study (see Table 4.1).

4 This sample included probation orders with other types of requirements, which have been excluded from the analysis in Chapter 4.
"make any proper judgement about the relative effectiveness of different disposals without making allowance for the different characteristics of offenders who are sentenced to those disposals". An attempt was made to control for some of the more predictive variables, which showed that part of the high reconviction rate of probation orders with 4A/4B requirements was due to their criminal history and age.

The fifth comparative study (included in the 1992 Probation Statistics, Home Office 1993b) was a four year follow-up of the samples analysed in the study just described (Home Office 1993a) and a two year follow-up of offenders given similar orders in 1988. To summarise briefly: the proportion of offenders reconvicted within four years of commencing a probation order with 4A or 4B requirements was 77 per cent, for probation orders without such requirements it was 62 per cent and for CSOs it was 65 per cent. The two year reconviction rates for the 1988 samples were 65 per cent for 4A/4B orders; 49 per cent for other probation and 53 per cent for CSOs.

Studies of CSOs

Turning to studies of individual disposals, two studies will be included here which focus specifically on CSOs. The first of these was another Home Office statistical study (Home Office 1983). This study was based on a sample of 2,486 offenders given CSOs in the first two months of 1979. Information on reconvictions was obtained from the Offenders Index and from statistical returns from the probation service. It was found that 51 per cent were reconvicted within two years and 59 per cent within three years. Older offenders and female offenders were associated with low rates of reconviction. Detailed information on previous appearances was not traced, but an analysis of the most serious previous disposal showed that those with previous custodial sentences had a high reconviction rate and those with no previous convictions had a very low rate. There was considerable variation of reconviction rates across offence groups: while 61 per cent of burglars were reconvicted within two years, this figure was 45 per cent for violence against the person and 37 per cent for fraud and forgery. Theft of a motor vehicle was also associated with a high rate: 57 per cent.

The second study of CSOs was that conducted by McIvor (1992). In her study of 406 offenders sentenced to CS in Scotland, 58 per cent were reconvicted within two years and 63 per cent within three years. McIvor found that on average, offenders received slightly fewer - and slightly less serious - convictions during the two years following conviction than the two years preceding their CSOs. Reconviction was found to be associated with age, previous convictions and marital status. Seventy per cent of 'single' offenders were reconvicted within three years, compared with 52 per cent of other categories. These same variables, with the addition of employment history were also associated with the average number of reconvictions. Unlike most other research, McIvor found that "reconviction appeared to be largely unrelated to the types of offences for which offenders were sentenced to community service".
RECONVICTION STUDIES

However, she did find that offenders who had committed their offences with one or more co-accused had higher numbers of reconvictions than those who had committed their offences alone. Finally, offenders were sent questionnaires at termination of their orders, in which they were asked to indicate how likely it was that they would reoffend; of those who responded, 73 per cent thought it unlikely, 19 per cent fairly likely and six per cent very likely. All of the offenders who thought it likely that they would reoffend were reconvicted, 83 per cent of those who thought it fairly likely were reconvicted and 56 per cent of the offenders who thought it unlikely were reconvicted.

Taking findings from these studies of CSOs together, Home Office (1983) reported a reconviction rate of 51 per cent, Melvor's study found a rate of 58 per cent, Home Office (1993a) reported a rate of 54 per cent and Home Office (1993b) found a rate of 53 per cent. However in the Home Office (1993a) report reference is made to a different methodology used in the 1983 study which led to missing cases being included as having no reconvictions. This therefore overestimated the proportion of cases with no reconvictions by around five per cent and brings the figure into line with the others. Lastly, the only study that included a four year follow-up (Home Office 1993b) found a four year rate of 65 per cent.

Studies of probation orders

Two studies of probation reconviction rates will be covered in this review: a statistical study of a sample of probation orders made in 1979 (Home Office 1986) and a study of a sample of probation orders with a day centre (4B) requirement (Mair and Nee 1992). The former study was published as another Home Office Statistical Bulletin, and was based on the 4,700 persons given probation orders in the first two months of 1979. Information was extracted from the OF on previous appearances and reconvictions. Forty-one per cent of the offenders were reconvicted within two years, 48 per cent within three years and 54 per cent within five years. Sex and age were associated with reconviction, as was previous most serious sentence and offence type. Experience of previous imprisonment was associated with a two year reconviction rate of 60 per cent; those with no previous convictions had a rate of 25 per cent. Theft of a motor vehicle was associated with a reconviction rate of 55 per cent and burglary 54 per cent, whereas theft from shops and violence against the person were associated with reconviction rates of 34 and 36 per cent respectively. However, a similar problem exists with the Home Office (1986) study as existed with the 1983 study of CSOs: thus quoted rates are approximately five per cent lower than they should have been. Thus the proportion of offenders reconvicted within two years is approximately 46 per cent and the proportion reconvicted within five years, 59 per cent.

Mair and Nee's study was based on a sample of 966 offenders drawn from 38 day centres, who had been given 4B orders in 1985/6. This sample consisted of all those
currently on 4B orders plus the last twenty offenders who had completed a 4B order in each centre. Sixty-three per cent of these offenders were reconvicted within two years. Approximately half the sample were aged under 21; half had been sentenced to imprisonment in the past; and half had six or more previous appearances. Age, previous appearances and previous imprisonment were found to be associated with reconviction. Mair and Nee concluded that "it must be recognised that in targeting young offenders at risk of custody, day centres are dealing with a group which is extremely prone to reoffend." The authors went on to describe the reconviction rates of individual centres, which were found to vary between 95 per cent and 31 per cent. However, as they point out, "comparing individual centres would not be a particularly helpful approach" as numbers were very low. Combining figures for the six day centres with the highest rate of reconviction and the four day centres with the lowest rates showed that a large part of the variation seemed to be explained by the type of offenders taken on by the centres - there were especially large differences between the two groups of day centres in terms of the number of offenders' previous appearances. Nevertheless, the authors pointed out that "other factors, too, may be significant", such as the staff and ethos of the centres and varying detection rates between police force areas.

In summarising the available information on the reconviction rates of probation orders, it is important to note that some of the earlier studies included juveniles and some excluded females. Because age and sex are closely associated with reconviction, the following table is based on rates for adult males, except for Mair and Nee's study which includes females.

**Table 3.1**

Reconviction rates of male probationers

<table>
<thead>
<tr>
<th>Study</th>
<th>Type(s) of probation order</th>
<th>Length of follow-up (years)</th>
<th>Percentage reconvicted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hammond (1969)</td>
<td>All</td>
<td>5</td>
<td>61</td>
</tr>
<tr>
<td>Phillipots and Lencucki (1979)</td>
<td>All</td>
<td>6</td>
<td>62</td>
</tr>
<tr>
<td>Home Office (1986)</td>
<td>All</td>
<td>5</td>
<td>67</td>
</tr>
<tr>
<td>Home Office (1993b)</td>
<td>Non-4A/4B</td>
<td>4</td>
<td>66</td>
</tr>
<tr>
<td>Home Office (1986)</td>
<td>All</td>
<td>2</td>
<td>54</td>
</tr>
<tr>
<td>Home Office (1993a)</td>
<td>Non-4A/4B</td>
<td>2</td>
<td>54</td>
</tr>
<tr>
<td>Home Office (1993b)</td>
<td>Non-4A/4B</td>
<td>2</td>
<td>53</td>
</tr>
<tr>
<td>Home Office (1993b)</td>
<td>4A/4B</td>
<td>4</td>
<td>78</td>
</tr>
<tr>
<td>Mair and Nee (1992)</td>
<td>4B</td>
<td>2</td>
<td>63</td>
</tr>
<tr>
<td>Home Office (1993a)</td>
<td>4A/4B</td>
<td>2</td>
<td>66</td>
</tr>
<tr>
<td>Home Office (1993b)</td>
<td>4A/4B</td>
<td>2</td>
<td>66</td>
</tr>
</tbody>
</table>
RECONVICTION STUDIES

This makes the picture clearer: adult males given probation orders without 4A/4B requirements have a two year reconviction rate of about 54 per cent and a four to six year rate of between 61 and 67 per cent; probation orders with such requirements have a considerably higher two year reconviction rate of between 63 and 66 per cent, and a four year rate of 78 per cent.

Prison reconviction rates

Lastly, with regard to prison reconvictions, Home Office statistics are available annually on the reconvictions of persons discharged from prison. The latest available statistics are for those released in 1987 (Home Office 1994). The two year reconviction rate for male prisoners aged 17 and over was 56 per cent. Sixty-nine per cent of 17-20 year old males sentenced to detention centres or youth custody were reconvicted, compared with 49 per cent of adult males. A recent study of the reconvictions of life licensees (Home Office 1993c) provides an interesting comparison: of the life licensees released in the period 1972 to 1985, only 10 per cent were reconvicted within two years and 21 per cent within five years. This very low rate is likely to be associated with factors such as unusual age and criminal history profiles, but may also be associated with offence type and/or sentence length (most of these offenders were convicted of homicide). Unfortunately, details are too few to allow close comparison.

A much more detailed - if small-scale - study of prison reconvictions comes from Northern Ireland (Northern Ireland Office 1991). This research focused on a sample of 363 prisoners discharged in 1986. Information from criminal records on reconvictions and previous convictions included data on the date of offence and it was therefore possible to exclude pseudo-reconvictions\(^3\) relating to offences committed prior to imprisonment. Sixty-four per cent of offenders were reconvicted within two years of release. Because offence data were available as well as conviction data, the authors were able to produce a graph comparing time to reoffending with time to reconviction. Because of the delay in criminal justice processing of cases, the reoffending line is much steeper than the reconviction line - showing that a very large proportion of cases actually reoffend in the first nine months. At reconviction, 29 per cent were given a prison sentence. This is substantially lower than the 37 per cent custody rate referred to above for reconvicted ex-prisoners in England and Wales (Home Office 1990), suggesting that a greater proportion of the reconvictions in the Northern Ireland sample may indeed have been for more trivial, non-standard list offences. Simple bivariate analysis revealed associations between reconviction and age, previous court appearances, marital status, employment, target offence type, age at first appearance, sentence length and the number of committals to a juvenile training school. Burglary was associated with a very high rate of reconviction; theft and criminal damage high rates; sex and fraud and forgery low rates. However, as the authors point out, these variables are associated and interact with one another. The only way to examine the

\(^3\) See Chapter 2 page 7
individual influence of these factors while effectively controlling for the others is through multivariate analysis. Four logistic regression models were presented, predicting reconviction in one and two years and reoffence in one and two years. The most significant variables in all the models were number of previous appearances and age at discharge but the model predicting reconviction in two years also included marital status and number of training school committals as significant factors.

One difficulty with producing reconviction figures for discharged prisoners which are comparable with those described for probation and CSOs lies in the fact that figures have rarely been automatically produced for offenders aged 17 and over, due to the former categorisation of prisoners into adult custody, youth custody and detention centres. However, extrapolation from various tables has produced rates for ex-prisoners aged 17 and over as follows:

Table 3.2
Reconviction rates of prisoners

<table>
<thead>
<tr>
<th>Study</th>
<th>Sex</th>
<th>Length of follow-up (years)</th>
<th>Reconvicted Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hammond (1969)</td>
<td>Males</td>
<td>5</td>
<td>61</td>
</tr>
<tr>
<td>Phillipots and Lancucki (1979)</td>
<td>Males</td>
<td>6</td>
<td>70</td>
</tr>
<tr>
<td>Home Office (1994)</td>
<td>Males</td>
<td>2</td>
<td>56</td>
</tr>
<tr>
<td>NIO (1986)</td>
<td>Males+Females</td>
<td>2</td>
<td>66</td>
</tr>
</tbody>
</table>

The three studies conducted in England and Wales suggest a two year reconviction rate for adult males of about 54 per cent, rising to over 60 per cent at five years and 70 per cent at six years. By comparison, the Northern Ireland rate is very high, but as the authors of the report point out, this may be due to differences in offence recording practices. All the studies conducted in England and Wales (apart from Hammond) will have been based only on reconvictions for standard list offences (see Appendix A), thus excluding many categories of motoring and summary offences which will have been included in the Northern Ireland study.

Prisoners therefore seem to have a two year reconviction rate similar to that found for probationers without 4A/4B requirements and offenders given CSOs, but lower than that found for probation orders with 4A/4B requirements. Comparison of rates over longer follow-ups is complicated by the fact that, at the time of writing, there are no recent figures for prisoners. Nevertheless, the Phillipots and Lancucki study found prisoners to have a considerably higher reconviction rate than probationers at six years.
Of course, it would be very unwise to infer anything about the relative effectiveness of different dispositions from these basic figures; gross differences in the reconviction rates of dispositions are likely to be largely due to disparities in "background" factors associated with the groups of offenders comprising the sentence categories. Two background factors that stand out as important predictors of reconviction are age and criminal history. All the research covered above found these variables to be closely related with reconviction. Additional significant variables in some of the studies were 'target' offence type and gender. Without exception, those studies that looked at offence type found burglary to be associated with a high reconviction rate. Theft of a motor vehicle and criminal damage were also generally associated with high rates of reconviction - although it is notable that the motoring offences in Phillpotts and Lancucki were associated with a very low rate (this might reflect differences in definition or follow-up period). Fraud and forgery and sex offences were generally associated with low rates of reconviction - and violence against the person generally had a rate slightly lower than average. Lastly on the subject of nature of offence, McIvor found that group offenders seemed to be associated with higher rates of reconviction than single offenders. However, this could be because group offenders tend to be younger (Lloyd and Walmsley 1989, unpublished analysis from Hedderman and Moxon 1992) or because group offenders tend to commit offences with high reconviction rates such as criminal damage (e.g. Sveri 1965; Baldwin and Bottoms 1976; Hindelang 1976) and car theft (Light et al. 1993) - these issues were not addressed in the report.

The two studies that addressed the issue of social factors found them to be correlated with reconviction: McIvor found marital status and employment history to be associated with reconviction and the Northern Ireland Office study found marital status to be significant, even when controlling for other variables. This latter finding is a significant advance on previous research - as social variables are likely to be associated with criminal history variables. For instance, an offender with a long criminal history and numerous custodial sentences would presumably be unlikely to have a stable employment and marital history. Future research needs to address the issue of the partial contribution of social, criminal history and demographic variables in predicting reconviction.

Lastly, there is the issue of the length of follow up. Phillpotts and Lancucki's research included an interesting graph depicting the cumulative proportion of probationers and prisoners reconvicted over the six year period (p.22). While approximately five per cent more of the prisoners had been convicted after two years, this margin increased to ten per cent by the end of the third year. Thereafter, while further reconvictions are recorded, there is little change in this margin between probationers and prisoners. This suggests that long follow up periods may be required to capture the differences between disposal groups; in particular there is the suggestion that prisoners may have a delayed pattern of reconviction.
4 Factors associated with reconviction

This chapter examines the reconvictions of offenders subject to four types of sentence: community service orders (CSOs); probation orders with 4A or 4B requirements; probation orders without requirements; and imprisonment. The main aim of this exercise is to plot out the complex and overlapping effects of criminal history, current offence, age and sex on risk of reconviction. The chapter is divided into two sections: the first describes the derivation of the four samples; the second examines the effect of a number of factors on the reconviction rate of the sample as a whole, culminating in a multivariate statistical analysis of their relative effects.

Derivation of the samples

Lists of offenders given the relevant community disposal or discharged from prison in 1987 were drawn respectively from the Home Office Probation Index and the Home Office Prison Index. The sample of offenders given 4A/4B orders was a complete one, consisting of all offenders commencing such orders in 1987, but the probation and CSO samples were ten per cent samples, chosen systematically from lists ordered by probation area and by commencement date within areas. The prison sample consisted of a stratified sample of offenders discharged from prison in 1987. The sample was drawn to enable the calculation of reconviction rates presented in Prison Service Statistics, and over-sampled females, ethnic minorities, young offenders and those serving long term sentences in order to ensure adequate numbers. In all of the following sections the prison sample has been reweighted to ensure representativeness.

Using offenders' names, gender and dates of birth, a match was then sought with the corresponding entry in another Home Office database, the Offenders Index (OI). The OI records information on all convictions for 'Standard List offences' in England and Wales from 1963 to the present, and is therefore a very valuable source of information on offenders' criminal histories. By selecting the year 1987, information could be obtained on offenders' previous convictions back to 1963 and their reconvictions up to the end of 1989 (the most recent data available at the time of the study).

The final data-set therefore combined information from three sources: the Probation Index, the Prison Index and the Offenders Index. While probation and prison statistics are collated by probation and prison staff respectively, the OI is derived from the sentencing statistics, which are recorded by the courts and collated by the

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1 These are databases consisting of information on individual offenders, derived from statistical returns from probation services and prisons.
2 The sample of probation orders without requirements will be referred to in this report simply as 'the probation sample' and the sample of probation orders with 4A/4B requirements will be referred to as the '4A/4B sample'.
3 Standard List offences consist of all indictable offences and a few of the more serious summary offences (see Appendix A).
4 Indeed, a considerable amount of work has been done looking at the criminal careers of cohorts of offenders born in a certain year and followed up on the OI (see Tinsley 1993).
police. By comparing information on the O1 with that from prison or probation statistics, checks on the consistency of the data could be made.

Merging the separate databases was not without its problems. To begin with, in some cases an offender's name, gender and date of birth could not be matched on the O1. In some of these cases, a minor error had been made - for instance, an initial was wrong, a surname misspelt, or the date of birth differed slightly. In such cases, provided the rest of the information matched, these offenders were included in the sample. However, between 3 and 10 per cent of the cases remained unmatched (see Table 4.1 below).

Having found a match on an offender in the O1, there then came the problem of finding a match for the date of conviction at which they received their prison or community sentence (the 'target date'). The prison statistics information included the date at which the offender was sentenced to imprisonment and the probation statistics included the date on which she/he commenced their order. However, a perfect target date match could often not be found on the O1; of the offenders matched in the O1, approximately a quarter did not have appearance dates in the O1 that matched prison/probation statistics data to the day. However, in a number of cases there was a date in the O1 that was close to the conviction date as recorded by prison/probation statistics. Provided the gap was less than 30 days and the disposal recorded at the O1 conviction was correct, these cases were included in the analysis. This took the proportion of cases without acceptable 'target' appearances down to between 15 and 22 per cent (see Table 4.1 below). Finally, juvenile offenders in the prison and CSO samples were excluded, because they prevented ready comparison with the other two disposals which were available only for offenders aged 17 and over in 1987.

Table 4.1
Sample definition

<table>
<thead>
<tr>
<th>Reason for loss of cases</th>
<th>Disposal group</th>
<th>Prisons</th>
<th>CSOs</th>
<th>4A/4Bs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Original sample</td>
<td>12,781</td>
<td>100</td>
<td>3,670</td>
<td>100</td>
</tr>
<tr>
<td>Offender not found on O1</td>
<td>380</td>
<td>3</td>
<td>348</td>
<td>9</td>
</tr>
<tr>
<td>No matching O1 court appearance</td>
<td>1,896</td>
<td>15</td>
<td>794</td>
<td>22</td>
</tr>
<tr>
<td>Juveniles</td>
<td>890</td>
<td>7</td>
<td>134</td>
<td>4</td>
</tr>
<tr>
<td>Remaining cases</td>
<td>9,615</td>
<td>75</td>
<td>2,394</td>
<td>65</td>
</tr>
</tbody>
</table>
FACTORS ASSOCIATED WITH RECONVICTIO

As can be seen from the second and third row of Table 4.1, the proportion of offenders that could not be matched varied across the four samples. In particular, the prison sample had a higher proportion successfully matched than the community disposal groups. Prison samples are more readily matched on the OI because information is usually available on CRO numbers, a variable usually missing from community penalty samples. Another explanation of this difference lies in the selective way in which convictions are recorded on the OI. While prison and probation statistics record information on all people in prison or under supervision by the probation service, the Offenders Index only records information on offenders convicted of standard list offences (see Appendix A). Some prison sentences - and rather more community disposals - are made for offences that are not defined as 'standard list'. Estimates from the Criminal Statistics suggest that around 15 per cent of community disposals and seven per cent of prison sentences are made for offences that are not 'standard list'. This is likely to account for a considerable part of the disparity between the prison and community groups. In addition, it is possible that errors might have been more frequent in the probation statistics than in the prison statistics, or alternatively prison sentences might have been recorded more accurately than probation sentences in sentencing statistics (the basis for the OI). In either case, there is no evidence to suggest that the loss of cases will result in particularly unrepresentative samples. The final sample therefore consisted of 17,811 successfully matched cases.

Factors affecting reconviction

In calculating the reconviction rate for the sample as a whole it was necessary to weight the sample so that it was representative of the four disposal groups. The original samples consisted of ten per cent of the CSOs and probation orders made in 1987; all the 4A/4B orders in that year and a stratified sample of twenty per cent of the 1987 prison discharges. To achieve representativeness, the CSO and probation samples were left unweighted, but the 4A/4B sample was weighted down to a tenth of the original sample and the prison sample was weighted so as to correct the effect of over-sampling of sub-groups and to reduce the sample by a half. This procedure produced a sample representative of all adult offenders given community disposals or discharged from prison in 1987.

The 'clock' for counting reconvictions was started at target appearance for the community disposal groups and at release from prison for the prison group. A two year follow-up period has been chosen in accordance with the majority of previous research on the subject. The proportion of the sample with at least one reconviction over this period was 55 per cent.

9 To check that the final samples were representative, matched cases in the four disposal groups were compared with those without a matching OI court appearance. While samples were generally comparable, unmatched 4A/4B cases had a slightly lower reconviction rate than matched cases. To try to find out why this was, a sample of unmatched 4A/4B cases were followed up in the National Identification Bureau. It was found that a large number of these offenders were convicted of non-standard list offences at their target appearance - and that in such cases, reconvictions also tended to be for non-standard list offences. Such reconvictions were therefore not recorded on the OI and this explained the lower rate.
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Age and sex

Consistent with previous research on the subject, both age and sex were strongly associated with reconviction.

Table 4.2
Percentage reconvicted by age and sex

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-20</td>
<td>67</td>
<td>41</td>
<td>65</td>
</tr>
<tr>
<td>21-24</td>
<td>57</td>
<td>39</td>
<td>55</td>
</tr>
<tr>
<td>25-29</td>
<td>50</td>
<td>34</td>
<td>48</td>
</tr>
<tr>
<td>30+</td>
<td>42</td>
<td>29</td>
<td>40</td>
</tr>
<tr>
<td>All ages</td>
<td>57</td>
<td>36</td>
<td>55</td>
</tr>
<tr>
<td>Total N</td>
<td>15,328</td>
<td>2,483</td>
<td>17,811</td>
</tr>
</tbody>
</table>

Note: Total numbers in this table and those that follow are unweighted (all proportions are based on weighted data).

Females had a considerably lower rate of reconviction than males: 35 per cent, compared with 57 per cent for males. Older offenders were also associated with lower rates of reconviction: while 65 per cent of 17 to 20 year olds were reconvicted, this proportion decreased with increasing age to 40 per cent of those aged 30 and over. While the reconviction rate of males was higher than females in each age group, the difference between the sexes decreased with increasing age.

What Table 4.2 does not show is the proportion of men and women in the different age groups. Females were on average two years older than males, with ten per cent fewer cases aged 17 to 21 and eight per cent more aged thirty and over. Thus, because older offenders are associated with lower reconviction rate, a small part of the overall difference between men and women can be explained by the fact that female offenders tended to be older than males.

Figure 4.1 shows a more detailed breakdown of the correlation between age and proportion reconvicted. The solid line on this graph shows the decrease in reconviction rate with increasing age. Age is divided into two year intervals from 17 to 18 through to 39 to 40, and thereafter, because of the small numbers, into five year intervals. Generally, reconviction declines with increasing age, although the rate of decline seems to decelerate somewhat as age increases - i.e. the line appears to flatten out. Another salient feature of the graph is the way the line changes from a smooth curve from 17 to 30 to a much more irregular tack thereafter. This is most likely to be due to the numbers being smaller in the older age groups and therefore more prone to random fluctuation.
FACTORS ASSOCIATED WITH RECONVICTION

Figure 4.1: Proportion Reconvicted by Age

This graph also shows separate lines for females and males. Not surprisingly, given the preponderance of males in the sample, the 'male' line hugs the 'all cases' over the entire age range. The line for females seems to follow a similar slope to the other two, but at a lower level, signifying the lower proportion of women reconvicted. While there is considerable deviation in the dotted line due to low numbers (especially in higher age groups), there does seem to be some evidence of the lines moving closer together with increasing age, reflecting the point made in relation to Table 4.2, that the difference in reconviction rate between males and females seems to decline with age.

Previous appearances and convictions

In this chapter, the term 'previous conviction' will be used in its literal sense: a conviction for a single offence. The term 'previous appearance' will be used to describe a previous court appearance where the offender was found guilty of at least one offence.

Figure 4.2 shows a detailed picture of the relationship between previous appearances and reconviction. Starting at 27 per cent for first offenders, the proportion reconvicted climbs steeply to over 40 per cent for those with one previous appearance, and continues to rise with additional previous appearances, although progressively less steeply, to 7 appearances. At this point, the line seems to
Figure 4.2: Proportion Reconvicted by Previous Appearances

Figure 4.3: Effect of Previous Appearances & Average no. of Convictions on Reconviction

Average no. convictions per appearance

Percentage Reconvicted

No. Previous Appearances
FACTORS ASSOCIATED WITH RECONVICTON

flatten out for offenders with between 7 and 16 previous appearances, and then continues to climb thereafter. Due to decreasing numbers of cases, the line becomes more erratic after 13 appearances.

Does taking account of the actual number of convictions, as distinct from appearances, add anything to this picture? Figure 4.3 presents information on the average number of previous convictions per previous appearance. Each of the three categories of previous appearance along the horizontal axis is subdivided into four bars, representing different levels of previous conviction rate - from an average of 1 or less previous conviction to over 3 previous convictions per appearance. The height of these bars corresponds to the percentage reconvicted (the vertical axis). This bar chart shows that the average number of previous convictions per previous appearance has an additional effect on reconviction rates. Looking at each category of previous appearances, there is a pronounced tendency for reconviction rates to increase as the average number of convictions per appearance increases. Taking the most numerous category, 2 to 5 previous appearances, the proportion reconvicted ranged from 48 per cent for offenders averaging one or less previous convictions at each appearance, to 70 per cent where they had an average of three or more.

It is not that surprising that the number of convictions per appearance has this effect, as it is highly likely that those who are convicted for several offences at one appearance will have been more criminally active than those convicted on a single count. However, the number of convictions - as distinct from court appearances - has often been ignored in previous research.

How do age and sex affect the relationship between previous appearances and reconviction? Females had much lower numbers of previous appearances than males; 36 per cent of females had no previous convictions, compared with 12 per cent of males. While this difference was an important factor in the lower reconviction rate for females, it was only part of the story: given virtually any number of previous appearances, women were less likely to be reconvicted than men. Figure 4.4 shows the reconviction rate for males and females with up to ten previous appearances (there were too few women with more than ten previous appearances to plot the graph any further).

This graph confirms that women are generally reconvicted at a lower rate than men. However, there are two other interesting points. First, the reconviction rate for women with a single previous appearance is nearly as high as that for men - in fact only 1.4 per cent lower (which is not significantly different statistically). The second point is that females seem to 'catch up' with males as previous appearances become more numerous. Numbers of women with eight or more previous appearances were quite small: there were 55 cases with eight previous appearances; 32 with nine and 33 with ten. However, if cases with eight to 15 previous appearances are combined, the reconviction rate for the 173 unweighted females is 65 per cent, compared with

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4 This measure does not take into account offences taken into consideration (TICs).
Figure 4.4: Proportion Reconvicted by Previous Appearances

67 per cent for males (again, not statistically significant). Women with a high number of previous appearances therefore seem to have similar reconviction rates to men. On further analysis, this did not seem to be due to differences between men and women in the types of offence committed or in their age profile.

An analysis of the relationship between age and number of previous appearances (see Table B.1 in Appendix B) showed, as one might expect, that young offenders generally had fewer previous appearances than old offenders. However, there was a substantial minority of offenders aged 30 and over who had no previous appearances (over a quarter). The effects of age and previous appearances were largely independent of each other, so that for any given category of age or previous appearances, the other variable had a strong correlation with reconviction rate. The combined effect of these factors was therefore very powerful, with reconviction ranging from 10 per cent for offenders aged 30 and over with no previous appearances to 89 per cent for those aged 17 to 20 with 11 or more previous appearances.

**Previous custodial sentences**

Research has identified previous custodial experience as a predictor of reconviction. However, whether or not offenders have a previous custodial sentence must
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obviously be associated with previous appearances, in that offenders with a large number of previous appearances were more likely in 1987 to receive severe sentences. In the present study, separate analyses were conducted for youth imprisonment, adult imprisonment and all types of imprisonment. Youth imprisonment was most strongly associated with reconviction. The reconviction rate of offenders with no previous youth imprisonment was 46 per cent; the rate for those with one such sentence was 66 per cent; and for the minority of cases with six or more youth imprisonment sentences, the proportion reconvicted was 89 per cent. Table B.2 in Appendix B gives details.

Rate of previous appearances

Work carried out by Copas (1994) on a largely similar dataset from the Offenders Index has identified the rate of previous appearances as a powerful predictor of reconviction. Copas calculated this rate by dividing the total number of appearances by the period of time over which an offender had been criminally active, as follows:

\[
\text{court appearance rate} = \frac{1 + \text{Number of previous appearances}}{1 + \text{number of years since first appearance}}
\]

Effectively, this score draws on three variables identified by previous research as being strong predictors of reconviction: number of previous appearances, current age and age at first conviction. Number of previous appearances (plus one) forms

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\* Youth imprisonment is defined here as any type of custody for offenders under 21 years of age, and includes detention centres, borstal, youth custody centres, and detention under Children and Young Persons' Act 1933, sections 53.
the numerator, while subtracting age at first conviction from current age (and adding one) produces the denominator. This measure has been adapted in the present analysis. Copas's original rate gave cases with no previous appearances a value of one, signifying that they had received the single, target conviction. In Figure 4.5, such cases were assigned a rate of nought. Also, for clarity of presentation, the resulting scores have been multiplied by ten, to avoid fractions.

Using this formula gives an offender who has one previous appearance three years before his/her current sentence a score of five. The same score would be given to an offender with five previous appearances, the first of which was ten years ago.

Figure 4.5 shows a steep climb in reconviction rate from 27 per cent for cases with no previous appearances through to 87 per cent for appearance rates of 20 and over. Further analysis showed that while this variable was correlated with number of previous appearances, much of its effect was in fact, independent.

Offence

Offence information for all the samples was drawn from the Offenders' Index, rather than the Probation or Prison Index (both of which recorded offence, but not in a comparable form). Often offenders were convicted of a number of offences at their 'target' appearance. In the following analyses the target offence is the principal offence, as defined by the Of counting procedure.8

Table 4.3

<table>
<thead>
<tr>
<th>Offence</th>
<th>% Reconvicted</th>
<th>Total N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violence</td>
<td>47</td>
<td>2,939</td>
</tr>
<tr>
<td>Sex</td>
<td>25</td>
<td>400</td>
</tr>
<tr>
<td>Burglary</td>
<td>66</td>
<td>4,342</td>
</tr>
<tr>
<td>Theft</td>
<td>53</td>
<td>4,858</td>
</tr>
<tr>
<td>Fraud/forgery</td>
<td>43</td>
<td>1,091</td>
</tr>
<tr>
<td>Motor</td>
<td>62</td>
<td>1,827</td>
</tr>
<tr>
<td>Criminal Damage</td>
<td>60</td>
<td>805</td>
</tr>
<tr>
<td>Drugs</td>
<td>35</td>
<td>849</td>
</tr>
<tr>
<td>Other</td>
<td>46</td>
<td>700</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>55</strong></td>
<td><strong>17,811</strong></td>
</tr>
</tbody>
</table>

Table 4.3 shows wide variation between offence types in the proportion reconvicted within two years. At one extreme, sex offenders show the lowest reconviction rate,

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8 The principal offence is usually defined by the most serious sentence given. If offences at the same appearance are given the same sentence, prioritisation is done on the basis of offence type.
FACTORS ASSOCIATED WITH RECONVICTION

with a quarter being reconvicted, while at the other extreme, two-thirds of the burglars were reconvicted. Sixty per cent of offenders convicted of criminal damage and 62 per cent of those convicted of motor offences were reconvicted.

However, the relationship between offence type and reconviction rate is not a simple one. Factors such as age, sex and previous convictions are associated with both offence type and risk of reconviction, and in some cases these factors can mask or accentuate the actual reconviction rate of offence groups. A detailed examination of the interplay between these variables is presented in Appendix C, but to summarise: while sex offenders had by far the lowest rate of reconviction, this was in large part due to the high proportion of comparatively old, but criminally inexperienced offenders who had the exceptionally low reconviction rate of 0.4 per cent. The remaining, younger offenders with two or more previous appearances had a reconviction rate of 53 per cent. Violent offenders were associated with quite low rates of reconviction, regardless of the effects of sex, age and criminal history, although the fact that violent offenders tended to have slightly fewer previous appearances did contribute to this. Burglars had the highest rate of reconviction, and this was largely independent of the intervening variables studied, although they were younger than average. Motor offenders also had a high reconviction rate, which was partly associated with their very young age profile, and criminal damage offenders also had a high, and largely independent, reconviction rate. While for most offences, the large majority of offenders were male, female offenders were responsible for over 20 per cent of the theft and fraud/forgery offences. This has effectively depressed the reconviction rates for these offence groups in Table 4.3 by approximately five per cent, relative to other offence groups. Lastly, drug offenders were associated with a very low rate of reconviction, but a large part of this effect was associated with the very low numbers of drug offenders aged 17 to 20 and the relatively high number of first offenders.

A multivariate analysis of reconviction rate

As has been shown, many of the variables associated with reconviction are intercorrelated. This results in a highly complex picture, especially if one considers that correlation can occur across a number of variables. As we have seen, the effect of offence type on reconviction rate is associated with number of previous appearances and age, but previous appearances are themselves associated with age. Furthermore, sex is associated with both previous appearances and age. Such chains of association across variables become impossible to study through cross-tabulation: the only possible way to disentangle their effects is to use a multivariate statistical technique. Because a number of the predictor variables so far identified are continuous (e.g. age) or 'counts' (e.g. previous youth custody) and the outcome variable, reconviction, is dichotomous, a suitable technique to use is logistic regression (see Demaris 1992 for a discussion of the method). Only a summary of the analysis will be presented here: a much fuller account is included in Appendix D.

While a number of variables were initially included in the analysis, seven were eventually retained as having the most significant impact on reconviction when
controlling for the effect of all other variables in the analysis. The seven variables were:

- Age
- Number of previous appearances
- Previous appearance rate
- Offence type
- Average number of previous convictions per appearance
- Number of youth custody sentences
- Sex

Age was the variable in the model most strongly associated with reconviction: as age increased, the probability of reconviction decreased. Previous appearances was next most influential, followed by previous appearance rate and offence. Average number of convictions, although considerably less significant than the first four variables already mentioned, was still strongly associated with risk of reconviction. The effect of youth imprisonment was more complex. While risk of reconviction increased with increasing numbers of previous youth imprisonment sentences, this relationship was considerably stronger for young offenders. Thus youth imprisonment was a better predictor of reconviction when the experience of imprisonment was recent. Finally, sex had the weakest independent association with reconviction in the model (females being associated with a reduced risk of reconviction). This is partly due to the fact that there were not a large number of females in the sample. However, as Figures 4.1 and 4.4 showed, there was also a tendency for the difference between males and females to diminish as age and previous conviction increased. Further analysis of the combined effect of age and previous appearances revealed that females aged 30 and over were associated with higher rates of reconviction than males at any given number of previous appearances. While this effect is associated to some degree with the different types of offences committed by males and females, this does not fully account for it.

It was also possible to look at the effect of individual offence types in predicting reconviction. Fraud or forgery offences were the only category of offence that were not significantly associated with reconviction. This may seem surprising, in that Table 4.3 showed that these offenders had a reconviction rate considerably lower than average (43 per cent). The explanation lies in the fact that higher than average proportions of these offenders were female and had few - or no - previous appearances (see Tables B.2 and B.4 in Appendix B).

Sex offences were most significantly associated with reconviction, carrying a greatly reduced risk of reconviction. Burglary and criminal damage were both strongly associated with an increased risk of reconviction. More surprisingly, theft was also quite strongly associated with an increased risk of reconviction. Two explanations for this can be found from the detailed analysis in Appendix C. First, as with fraud/forgery, over 20 per cent of theft offences were committed by women,
and this effectively suppressed the overall reconviction rate shown in Table 4.3. Second, offenders convicted of theft offences tended to be older than average and this will have also effectively suppressed the relative reconviction rate of this offence group (see Table B.4). Further analysis examining the influence of both factors together showed that theft offences were generally associated with a higher-than-average reconviction rate, and that this was especially true of older age groups. As expected, drug offences were quite strongly associated with a low risk of reconviction. As suggested earlier, the high reconviction rate of motor offenders was largely due to their young age - while they are significantly associated with a higher than average reconviction rate, the effect was relatively small. Lastly violent offences were, with the exception of fraud/forgery, most weakly associated with reconviction. This is surprising, in that the low reconviction rate of violent offenders did not seem to be explained by their age and, only to a small degree, by their number of previous appearances. Further analysis showed that violent offenders had a particularly low average number of previous convictions per appearance and quite a low previous appearance rate. Presumably, a combination of these variables explains the low predictive power of violent offences in the model.

In conclusion, this analysis has confirmed many of the trends uncovered by tabular analysis, but calls for a reassessment of the influence of some factors. In particular, it is surprising that a variable that has always been assumed to be a very powerful predictor of reconviction - sex - has turned out to be considerably less closely associated with reconviction when other variables such as age and criminal history are taken into account. The significant influence of average number of convictions in the model is also an interesting finding and suggests that counting both previous appearances and previous convictions should be undertaken in exploring the effect of criminal history on reconviction. The effect of individual offence types in the model has also changed - or clarified - the picture presented earlier. Theft offences were associated much more strongly with a high risk of reconviction than earlier analysis seemed to indicate and violence offences were considerably less strongly associated with a reduced risk of reconviction than had been thought.

However it should be stressed that the particular variables and the part they play in the logistic regression cannot be considered sacrosanct. The salience of variables in the model depends on a number of factors - including whether there are other similar variables which have eclipsed their effect. For instance, the impact of criminal history on reconviction is represented by four variables and one interaction term in the equation and most of these are correlated with one another in some degree. Thus, if previous appearances was the sole criminal history variable in the model, its contribution would be much greater than any other variable. However, as each of the other criminal history variables were added, some of the influence of previous appearances would be lost. As a result, it is meaningless to make general statements like "age is the most powerful predictor of reconviction" on the basis of
this model. It could be speculated that if more detailed information on the social
development of offenders had been available, the impact of age might have been
shared across a number of factors, in the same way that the influence of criminal
history is divided among a number of variables in the present model.

In fact, many of the variables in the equation are really measuring much more
complex phenomena. Perhaps the best example of this is offence type. What do we
really mean when we say that, controlling for other variables in the model, burglars
are more likely to be reconvicted than violent offenders? There is nothing intrinsic
about breaking-in to buildings and stealing which means that those who do so are
likely to offend again. Presumably, much of the explanation for the remaining
differences in reconviction rates between offence groups is bound up in a complex
of social variables which distinguish one type of offender from another.

* It might be argued that burglary offences are 'addictive' or 'compulsive' for some offenders. However, such compulsive
   behaviour is presumably rare - as witnessed by the fact that when burglars are reconvicted, it is far more likely to be for offences
   other than burglary (see next section).
5 A comparison of the four disposal groups

It is inevitable that when the reconviction rates of different dispositions are presented together, they will be compared and conclusions drawn about their relative effectiveness. However, the reliability of such conclusions is critically dependent upon the comparability of the samples comprising the disposal groups. As we have seen in the last section, a number of demographic and criminal history factors are associated with reconviction. Therefore, before one could say a particular disposal was associated with a higher reconviction rate than another, one would have to be sure that all the 'intervening' variables associated with reconviction had been taken into account. Ultimately, short of an ethically unacceptable experiment whereby offenders were sentenced randomly to prison, CSO or probation, no research project could be designed which would completely preclude the possibility that samples were not comparable in some unforeseen and unmeasured way.

One of the present study’s limitations is the absence of information on social factors. Variables such as marital status, employment and motivation have been found to be correlated with reoffending in earlier studies (eg. Nuttall et al. 1977; Northern Ireland Office 1991; Humphrey et al. 1992). However, these variables have tended to be less predictive than criminal history variables. Moreover, previous research has not adequately addressed the issue of correlation between social and criminal history variables. It would seem likely that employment status, for example, will be associated with previous custodial experience: an offender with a history of frequent imprisonment is unlikely to have stable employment. Future research needs to identify and measure the independent contribution of social and criminal history variables.

Another important issue for comparison of the four samples is that of pseudo-reconvictions. As was discussed in Chapter 2, it seems probable that those discharged from prison will be less likely than those on community dispositions to face prosecution for offences committed before their sentence was passed. To try to take account of this potential bias, sub-samples of offenders who were reconvicted within two years were followed up at the National Identification Bureau (NIB) and date of offence obtained.

Finally, another potentially confounding issue is that of breach and recall procedure. Offenders convicted of breaching their community orders may have been sentenced for the original, target offence and given a prison sentence. Because breach of a probation order or a CSO is not a Standard List offence, there will be no record of these appearances on the OI (unless they were also convicted of a Standard List...
offence at the same appearance). Thus, these offenders will have been imprisoned during part of the follow-up period. Only limited statistical information is available on the sentencing of offenders following breach of requirements in 1987. However, estimates suggest that between one and two per cent of offenders on probation orders and three and four per cent of those on CSOs receive custodial sentences for breaching the requirements of their orders and that the average term of imprisonment for all such cases is between three and four months. As over 90 per cent of offenders in the sample that were convicted within two years, received their reconvictions in the first 21 months (see Chapter 6), losing three or four months from the two year 'window' in a small number of cases should not have had a significant effect on overall reconviction rates.

In the same way that some offenders on community disposals will have been imprisoned for breach of requirements, some paroled prisoners will have been recalled to serve the rest of their sentence. Approximately one quarter of the prison sample will have been released on parole, and in the region of four per cent of them will have been recalled for reasons other than being convicted of an offence. Thus, approximately one per cent of the whole prison sample will have spent some of their follow-up period inside prison, where they could not commit further offences. However, as the average license length was around five months, the majority of those recalled will have been out of prison for most of the two year follow-up. As has been pointed out above, the vast majority of reconvictions occur over the first 21 months, thus, there should have been very little impact on the prisoners' overall reconviction rate.

The rest of this chapter falls into two sections. The first summarises the differences between the four disposal groups in terms of the variables found to be correlated with reconviction in Chapter 4 (a more detailed account is given in Appendix E). The second compares the reconviction rates of the four disposal groups and explores the degree to which differences are accounted for by variation in the intervening variables.

Characteristics of the four disposal groups

Over a quarter of the probation sample were females, compared with less than a tenth of the other samples. As has been shown, gender is significantly associated with reconviction rate. In the interests of simplicity, the following table is therefore based on males only.2

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1 Estimates have been made from the Prison Statistics for 1987 (Home Office 1988a) and the Report of the Parole Board (Home Office 1988b). Strictly speaking, the percentage of people recalled is a ratio rather than a percentage, representing the number of people recalled in 1987 as a proportion of the number of people given parole in that year.

2 In comparing the four disposal groups it is necessary to weight parole and 4AAH cases as in the last section. The only weighting used in the following analyses was that of the prison sample, to remove the effect of the oversampling referred to earlier.

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A COMPARISON OF THE FOUR DISPOSAL GROUPS

Table 5.1
A comparison of the four disposal groups: reconviction rates

<table>
<thead>
<tr>
<th>Variable</th>
<th>Prisons</th>
<th>CSOs</th>
<th>4A/4Bs</th>
<th>Probation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged 17-20</td>
<td>35</td>
<td>50</td>
<td>49</td>
<td>43</td>
</tr>
<tr>
<td>6+ previous appearances</td>
<td>45</td>
<td>26</td>
<td>47</td>
<td>28</td>
</tr>
<tr>
<td>Previous youth imprisonment</td>
<td>44</td>
<td>30</td>
<td>48</td>
<td>27</td>
</tr>
<tr>
<td>Previous appearance rate of 10+</td>
<td>38</td>
<td>29</td>
<td>45</td>
<td>30</td>
</tr>
<tr>
<td>High risk offences</td>
<td>61</td>
<td>77</td>
<td>84</td>
<td>77</td>
</tr>
<tr>
<td>Total N</td>
<td>8,179</td>
<td>2,252</td>
<td>3,094</td>
<td>1,803</td>
</tr>
</tbody>
</table>

Note: High risk offences were burglary, theft, criminal damage and motor offences

Table 5.1 summarises the key findings from the comparison of the four disposal groups (more detailed analysis is included in Appendix E). With regard to age, it is clear that the offenders given CSOs and 4A/4B orders were particularly high risk groups: around half of these people being aged between 17 and 20, compared with 35 per cent of prisoners and 43 per cent of probationers. On all the other measures, the 4A/4B group proved to be the highest risk group: a larger proportion of this group having six or more previous appearances, previous experience of youth imprisonment, a previous appearance rate of 10 or higher and having been convicted of burglary, theft, criminal damage or motor offences. Excluding offence type, similar - but slightly lower - proportions of prisoners fell into the high risk groups and considerably lower proportions of probationers and offenders given CSOs were so categorised. With regard to offence, over three-quarters of offenders given probation orders or CSOs had been convicted of 'high risk' offences while only 61 per cent of prisoners had been so convicted.

In conclusion, the offenders given probation orders with 4A or 4B requirements appear to be at particularly high risk of reconviction. On the one hand, they have a high risk age profile very similar to those on CSOs, and on the other their criminal histories and the nature of their target offences show them to be more akin to the prisoners.

Differences between disposals in reconviction

As the previous section has shown, the disposal groups differed considerably with regard to sex, age, criminal history and offence type: factors that the earlier analysis showed were closely associated with reconviction. How can these correlations with intervening variables be disaggregated from any effect that the sentence itself might have had? To take an example, if offenders on CSOs had a high reconviction rate, how could we know whether this was because of their young age profile, as identified in Table 5.1, or due to the fact that CSOs are themselves associated with a high reconviction rate?
The best way of assessing how far the four disposal groups' reconviction rates are explained by the influence of intervening variables is to use a logistic regression model similar to that outlined in Appendix D. Because disposal type was not included in this model, it is possible to produce a risk of reconviction for each individual, based solely on his/her age, sex, current offence and criminal history. These individual risk scores are therefore 'blind' to disposal group. The average risk of reconviction for a disposal group can then be produced by calculating the average score for all the individuals given a particular disposal.

A potential problem with this approach is that some of the predictor variables in Appendix D might have been closely associated with disposal type. As a result, predictor variables might have effectively "stood in" for disposal type. To take a hypothetical example, suppose females had a slightly lower reconviction rate than males in each of the four disposal groups, but that most of the females were in the CSO group. Suppose too that the reconviction rate of the CSO group was very high. In this case, a model that was blind to disposal group might find no difference between males and females: most of the males would be in the non-CSO groups with a correspondingly low reconviction rate but most of the females would be in the CSO group with a high reconviction rate. However, further analysis indicated that there were no such close associations between individual disposal types and other variables (see Appendix F).3

A potential problem specific to the model in Appendix D is that prisoners made up a disproportionate percentage of the cases included in the analysis. If there were significant interactions between disposal groups, predictor variables and reconviction, this could distort the predictions made. For instance, the association between sex offences and a low rate of reconviction might have been much stronger for prisoners than any other group. In this case, due to the high proportion of prisoners, sex offences would have been a strong predictor in the resulting model. This would lead to inaccurate predictions for the community disposal groups, where sex offences were not so strongly associated with reconviction. Further analysis showed that there were some significant interactions between disposal, predictor variables and reconviction (see Appendix F for more details). To reduce the potential bias associated with interaction, the logistic regression was repeated with equal numbers of prisoners, CSOs, 4A/4Bs and probationers. This was done by weighting other samples down to the number of CSOs: 2,394. The resulting model was, in fact, very similar to that described in Appendix D, but with slightly lower levels of significance due to the lower numbers of cases and with some slight changes in the relative influence of some of the coefficients.

Table 5.2 shows the actual and average predicted reconviction rates for the four disposal groups. To begin with, it can be seen that there were large differences between the four disposals in the proportion actually reconvicted: 49 per cent of probationers were reconvicted, compared with 68 per cent of offenders given 4A/4B orders. Prisoners and those given CSOs lay almost midway between these two extremes, with 56 per cent reconvicted.

3 Appendix F describes the effect of introducing disposal type into the model in Appendix D. The changes in the coefficients were for the most part very small, indicating that there were no close associations between individual disposal groups and other variables.
A COMPARISON OF THE FOUR DISPOSAL GROUPS

Table 5.2
Reconviction rates of the four disposal groups

<table>
<thead>
<tr>
<th></th>
<th>Disposal Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prison</td>
</tr>
<tr>
<td>Actual % convicted</td>
<td>56</td>
</tr>
<tr>
<td>Predicted % convicted</td>
<td>58</td>
</tr>
<tr>
<td>Total N</td>
<td>9,615</td>
</tr>
</tbody>
</table>

However, the average predicted percentage convoluted shows that the 4A/4B sample was by far the highest risk group in any case: the model predicted that 64 per cent of this sample would be convicted on the basis of their sex, age, criminal history and offence. Thus the actual reconviction rate for the 4A/4B group is four per cent higher than would be expected. The prisoners had an actual reconviction rate two per cent lower than their predicted rate, the expected and actual rates for CSOs were exactly the same, and probationers did slightly better than expected, with a predicted rate one per cent higher than their actual rate.4

Thus, when account is taken of the criminal histories, age, sex and offences of those given prison or community disposals, the apparent effect of sentence type is greatly reduced. Reconvictions for prisoners and those on probation or CSOs were very much as expected. However, there still seems to be a difference between 4A/4B orders and the other disposal types. When disposal type was entered into the logistic regression, it contributed significantly to the model - and the most influential individual disposal group was 4A/4B, which increased the risk of reconviction. Nevertheless, the most important conclusion to be drawn from this analysis was that the overall contribution of disposal group was not very great, and was dwarfed by the influence of criminal history variables and age (the change in the model is discussed in more detail in Appendix F).

**Pseudo-reconvictions**

As has been discussed in Chapter 2, one issue that reconviction studies need to address (unless they have details on dates of both offence and conviction) is the problem of pseudo-reconvictions - those convictions recorded in a follow-up period that were actually for offences committed prior to the start of the follow-up. This issue is particularly significant in the present context if, as has been suggested, prisoners are less likely to have pseudo-reconvictions recorded than those on community disposals.5 This issue was examined by obtaining information on date of offence from the National Identification Bureau (NIB) for sub-samples of the four

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4 The approach taken here is inevitably comparative; theoretically, if all the relevant characteristics of the disposal groups were successfully modelled and the four disposals had an equal effect on reconviction, there would be no difference between expected and actual reconviction rates.

5 As noted in Chapter 2, there are no grounds for assuming any difference between sentence groups in the number of offences committed towards the end of the follow-up period that resulted in conviction after this period. While such offences would not be recorded in this study, there are likely to be comparatively few offenders reconvicted for the first time in the last two
disposal groups. Two hundred and seventy cases from the three community disposal samples and five hundred cases from the prison sample were followed up. It was found that 7 per cent of prisoners' first convictions were actually pseudo-reconvictions, compared with 16 per cent of the 4A/4B groups' first convictions; 22 per cent of probationers' and 28 per cent of the CSO groups'. Of these, about one-third received a sentence at conviction which meant that they had to be excluded from the analysis. For example, a number of probationers received imprisonment or probation orders with requirements at their pseudo-reconviction, and were therefore excluded on the basis that any further offending might just as easily be associated with their latter disposal as their probation order. Only cases which were discharged, fined, given a suspended sentence of imprisonment or given the same order again were included. Of these cases, a substantial number were convicted again before the end of the two year period; these were therefore correctly reconvicted and were counted as such. However, this still left significant numbers originally counted as reconvicted, but who in fact had clean sheets for the two year follow-up period. Extrapolating from the sub-samples, the following adjustments were made to the reconviction rates shown in Table 5.2.

Table 5.3
Uncorrected and corrected reconviction rates of the four disposal groups

<table>
<thead>
<tr>
<th>Disposal Group</th>
<th>Prison</th>
<th>CSOs</th>
<th>4A/4Bs</th>
<th>Probation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw % reconvicted</td>
<td>56</td>
<td>56</td>
<td>68</td>
<td>49</td>
</tr>
<tr>
<td>Adjusted % reconvicted</td>
<td>54</td>
<td>49</td>
<td>63</td>
<td>43</td>
</tr>
<tr>
<td>Total N</td>
<td>9,615</td>
<td>2,394</td>
<td>3,354</td>
<td>2,448</td>
</tr>
</tbody>
</table>

It is clear that, as predicted, community disposals were associated with considerably more pseudo-reconvictions than prison sentences. While the reconviction rate for prisoners fell by only two per cent, the figure for CSOs fell by seven per cent; that for 4A/4Bs by five per cent and that for probation by six per cent.

How does this information affect the predicted rates shown in Table 5.2? If it can be assumed that the pseudo-reconvictions were random cases - or at least, that their removal from the logistic regression would not greatly alter the associations between predictor variables and reconviction - then the reduction in the number of actual reconvictions would reduce the predicted rates shown by just under five per cent in each case. This would produce the figures shown in Table 5.4, which shows a rather different picture from that in Table 5.2.
Table 5.4
Predicted and actual reconviction rates, correcting for pseudo-reconvictions

<table>
<thead>
<tr>
<th>Sentence group</th>
<th>Raw % convicted</th>
<th>Adjusted % convicted</th>
<th>Predicted % convicted</th>
<th>Total Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prison</td>
<td>56</td>
<td>54</td>
<td>53</td>
<td>9,615</td>
</tr>
<tr>
<td>Community penalties</td>
<td>53</td>
<td>47</td>
<td>49</td>
<td>8,196</td>
</tr>
<tr>
<td>probation</td>
<td>49</td>
<td>43</td>
<td>45</td>
<td>2,448</td>
</tr>
<tr>
<td>CSOs</td>
<td>56</td>
<td>49</td>
<td>52</td>
<td>2,394</td>
</tr>
<tr>
<td>4A/4B</td>
<td>68</td>
<td>63</td>
<td>60</td>
<td>3,354</td>
</tr>
</tbody>
</table>

Note: The sub-totals for community penalties are weighted averages of the rates for the three types of community penalty, weighted according to the number of sentences passed in 1987.

Prisoners were associated with a reconviction rate one per cent higher than predicted; 4A/4Bs were associated with a rate three per cent higher than predicted. By comparison, CSOs had a reconviction rate three per cent lower than expected and probationers two per cent lower.

However, these projections should be treated with caution: it must be acknowledged that the removal of cases with pseudo-reconvictions could affect the model in an unforeseen way. An attempt was made to investigate this issue further by conducting an analysis on the corrected data relating to the sub-sample of offenders followed up at NIB. Unfortunately, the failure to trace about a fifth of these cases led to an unrepresentative sample. Unmatched cases, particularly in the CS group, were more likely to be young and have high numbers of previous appearances than matched cases. This made results unreliable.

The chief conclusion that can be drawn from these findings is that any attempt to compare the effectiveness of sentences through the simple comparison of reconviction rates is likely to produce very misleading results. The basic rates of reconviction for the sentences studied in this report showed 4A/4B orders to have an exceptionally high rate of 68 per cent, followed by imprisonment and CSOs with 56 per cent and probation with 49 per cent. But when account was taken of background variables and pseudo-reconvictions, most of the difference between the disposal groups disappeared, leaving only slight margins between expected and actual rates of reconviction.

The direction of these differentials suggest that prison and 4A/4Bs have a small negative effect on reconviction, while CSOs and probation have a small positive effect. However, care must be taken in drawing firm conclusions from these small margins. It should be re-emphasised that this study was unable to include data on social factors. There may also be other factors sentencers take into account in

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allocating offenders to different disposal groups which are correlated with reconviction and which were not included in this study. If such factors were differentially associated with the four disposal groups this could explain the differences in Table 5.4. Also, these margins are small enough to be significantly affected by sampling error and other sources of imprecision. The study design arose from necessity rather than choice; ideally, the sample on which the model was calibrated would have been independent of the study sample and pseudo-reconvictions would have been excluded prior to analysis. This was impossible.

Even if these figures were taken at face value, there is a limit to what they could tell us about the relative effectiveness of different disposals. In the first place, this study is considering effectiveness only in terms of reconviction rate. Moreover, it is quite possible that sub groups within disposal groups are responding in different ways; for instance there might have been a difference between high and low risk offenders given 4A/4B orders - or people with complex social needs might have done better on probation than those without. This analysis does not address these issues. Finally, it should be emphasised that these findings are only relevant to those given community penalties and released from prison in 1987. There have been many developments in criminal justice policy since then, which are likely to have had a considerable impact on sentencing practice as well as on the way offenders are dealt with both in the community and in prisons.

It is important then, that these findings are seen as one step towards a closer understanding of reconviction rates, rather than any final statement of the comparative effectiveness of the disposals under study.
6 Other measures of reconviction

In the previous two chapters reconviction has simply been defined as whether or not offenders have been reconvicted within a two year period. However, there are other issues of interest: what period of time elapsed before reconviction? What type of offences were offenders convicted of - were they more or less serious than their 'target' offences? How many reconvictions - or reappearances\(^1\) - did offenders receive over the two year period? This section focuses on each of these alternative measures of reconviction in turn and examines their association with the factors described in Chapter 4, and their association with disposal group.\(^2\)

**Time to reconviction**

Because the OI only has information on the date of conviction, we were unable to examine the time elapsing before the date of reoffending. Once apprehended for a further offence, offenders will have been processed through the criminal justice system before being reconvicted. This period of time will have varied according to factors such as the type and location of the court, the plea given and the nature of the offence.

Of those who were reconvicted within two years, the majority (69 per cent) received their first reconviction within a year of sentence/discharge. While the peak in reconvictions was in the second quarter, this is likely to reflect a first quarter peak in actual offences, which took time to come to court. Only six per cent were reconvicted for the first time in the last quarter.

There was little association between most of the factors studied and the time between target conviction (or discharge for the prison sample) and reconviction. However, offenders with high previous appearance rates were likely to be reconvicted soon after sentence/release. Sixty-two per cent of those with appearance rates of 15 or higher were reconvicted within nine months of release, compared with 52 per cent of the rest of the sample. There were also some differences amongst offence types. Offenders originally convicted of criminal damage or motor offences were likely to be reconvicted early on in the two year period: 63 per cent of the former and 58 per cent of the latter were reconvicted within 9 months, compared with an average of 54 per cent. Sex, drugs and violent offenders tended to be reconvicted later on. This may well reflect variation amongst offence groups in the time taken to process cases through the criminal justice system.

There were some differences between the four disposal groups. While approximately 60 per cent of the 4A/4B and CSO groups were reconvicted for the

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\(^1\) It should be noted that the same problem of terminology exists with reconvictions/reappearances as with previous convictions/previous appearances. The term 'reconviction' has and will be used here in a general sense, but when discussion is of the number of reappearances where found guilty the term 'reappearance' will be used.

\(^2\) In the following section, analyses of variables other than disposal group were conducted on the weighted sample. Analysis of disposal group was conducted on the prison-weighted sample.
first time within nine months, 50 per cent of prisoners and 54 per cent of probationers were reconvicted within this period. After nine months, prisoners had the highest proportion reconvicted for the first time in each quarter. Further analysis looking at the 'survival rate' of cases in the sample showed that prisoners caught up with offenders given 4A/4Bs over the two year period - so that, of all those not yet reconvicted over the first seven quarters, prisoners were actually most likely to be reconvicted in the eighth quarter. This finding suggests that prisoners have a relatively delayed reconviction pattern and begs the question of whether adopting a longer follow-up period might have produced different results. Phillipps and Lancucki (1979) in their comparison of the time to first reconviction for those sentenced to custody and probation/supervision, found that prisoners were considerably more likely to be reconvicted for the first time after two years (see Phillipps and Lancucki, 1979, Figure 3.2). Further research using survival analysis techniques is needed to address this issue.

Offence at reconviction

The profile of offences at reconviction for the whole sample was very similar to the profile of offences at target appearance, although there was a slight tendency towards less serious offences at reconviction. Leaving aside the issue of seriousness, which will be dealt with in the next section, there was a definite tendency towards 'offence specialisation' i.e. for offenders to be reconvicted of the same type of offence that they were convicted of at target conviction (see Table B.7 in Appendix B and accompanying text for more detail).

In comparing offence at reconviction among the disposal groups, the most striking feature was the lack of variation between disposals, in comparison to offence at target conviction. Offending behaviour had seemed to drop back to a more average, broadly less-serious profile of offences - so that although a quarter of prisoners had originally been convicted of violent offences, this proportion dropped down to 11 per cent at reconviction - a level very similar to the other disposal groups. The proportion convicted of burglary dropped between target conviction and reconviction for all groups and the proportion convicted of theft increased for all groups. The quite high proportions of motor offences amongst offenders given 4A/4Bs and CSOs dropped to a level similar to that for prisoners and probationers.

Seriousness of offence at reconviction

Although the offence categorisation used so far is a good reflection of relative risk of reconviction, it is a poor indicator of offence seriousness. For instance, the drug offences category includes both offenders convicted of importation of class 'A' drugs and offenders convicted of possession of a small amount of cannabis. In order to address the issue of change in the seriousness of convictions a different offence

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3 This simply consisted of calculating the number reconvicted in a given quarter as a proportion of all those not yet reconvicted at that stage.
OTHER MEASURES OF RECONVICTON

classification had to be created, based on the gravity of the offence. Detailed information on offence and sentence at reconviction was taken from the database. This was supplemented by information from another database drawn from the OI, consisting of all offenders sentenced on one day in 1987. The proportion of each offence receiving a custodial sentence was then calculated and used to produce seven gravity bands. In some cases, offences were too rare to produce reliable custody rates. These offences were either left out or included in a particular band on the basis of intuition. As a test of the accuracy of this gravity scale, the gravity of offence at target appearance was compared for the four disposal groups. As predicted, prisoners were much more likely to have been convicted of offences in the two most serious gravity bands (bands one and two): 30 per cent, compared with 12 per cent of offenders given CSOs or 4A/4Bs and eight per cent of probationers. At the other end of the scale, while 29 per cent of prisoners were convicted of offences in the two least serious gravity bands (bands six and seven), 40 per cent of CSOs, 41 per cent of 4A/4Bs and 58 per cent of probation orders were made for offences of this type (see Table B.8 in Appendix B).

This gravity scale was then used to see if there was any change in seriousness of offence between target conviction and reconviction. Overall, in 44 per cent of cases there was a decrease in the severity of offence at reconviction; in 29 per cent of cases there was no change; and in 27 per cent there was an increase. However, this masks considerable differences between the disposal groups as Table 6.1 shows.

Table 6.1
Change in gravity score at reconviction for the four disposal groups

<table>
<thead>
<tr>
<th>Change in gravity score</th>
<th>Disposal Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prison</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Decrease</td>
<td>52</td>
</tr>
<tr>
<td>No change</td>
<td>25</td>
</tr>
<tr>
<td>Increase</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
<tr>
<td>Total N</td>
<td>4,850</td>
</tr>
</tbody>
</table>

Prisoners were more likely to be reconvicted of a less serious offence than other disposal groups: over half, compared with 39 per cent of CSOs and 4A/4Bs and 34 per cent of probationers. Conversely, prisoners were least likely to be reconvicted of more serious offences: 23 per cent were so reconvicted, compared with 27 per cent of offenders on CSOs, 31 per cent of offenders on 4A/4Bs and 33 per cent of probationers. It is also noticeable from Table 6.1 that a relatively low proportion of
prisoners were reconvicted of an offence of the same degree of gravity as their offence at target conviction.

While it might be assumed that these findings indicate that imprisonment is particularly successful in reducing the gravity of offending behaviour, further analysis shows that this is not so. A comparison was made of the gravity rating of target offences and reconvictions for the four disposal groups. Two main findings came out of this analysis: first, it was clear that the differences that existed between disposal groups in seriousness of offence at target conviction largely disappeared at reconviction. Focusing on the two most disparate groups, prisoners and probationers: while at target conviction approximately half the prisoners were convicted for offences in gravity bands 1, 2 or 3, only 22 per cent of the probationers were convicted for such offences - yet at reconviction, such differences were considerably reduced: 30 per cent of prisoners were reconvicted of such offences, compared with 22 per cent of probationers. Likewise at the other end of the scale, probationers were originally convicted of nearly twice as many band 6 or band 7 offences as prisoners (57 per cent compared with 29 per cent). However at reconviction, this difference was greatly reduced, with 57 per cent of probationers' reconvictions and 49 per cent of the prisoners' reconvictions being in this less serious offence group (see Tables B.8 and B.9 in Appendix B).

The second point to be made is that, with the possible exception of probation, offences have become generally less serious at reconviction. All the disposal groups were reconvicted of more offences that fell into bands 5, 6 and 7; and in the case of prison, CSOs and 4A/4Bs, considerably more. This reflects the picture presented by Table 6.1, where it was shown that individual offenders were generally more likely to be reconvicted of less serious offences.

These findings suggest that the gravity of offending behaviour between sentence and reconviction has effectively "regressed to the mean". Those sentenced to imprisonment - and to a lesser extent CSOs and 4A/4Bs - were convicted of unusually serious offences at that appearance. Their next convictions showed a tendency to be less serious and therefore demonstrated a return to more 'typical' offending behaviour. Because probationers were originally convicted of a more representative profile of offences, they were convicted of quite similar offences at reconviction. This explanation suggests that it might be misguided to try and divide offenders into those who generally commit serious offences and those who generally commit more trivial offences - it may be that offenders are convicted of a range of offences over their criminal careers and that serious offences appear fairly randomly. This is supported by McClintock and Avison's (1968) finding that "the greater the amount of recorded criminality, the greater the likelihood there is of a serious offence appearing on the record." One finding in the present study that would seem to question this perspective is the tendency for offenders to specialise in a particular type of offence category. However, first, this effect is not strong - the highest rate of concurrence was fifty per cent and this was in the most common
OTHER MEASURES OF RECONVICTION

offence category - theft offences; and second, offence type is a poor indicator of
offence severity - offences in the same category often differ greatly in terms of
gravity.

An important finding that has emerged from this study is that the offence gravity is
largely independent of risk of reconviction. It has often been assumed that prisoners
are high risk cases - presumably because they have been convicted of serious
offences. What has become clear in the course of the present study is that adult
prisoners, while convicted of serious offences, are not at particularly high risk of
reconviction. Indeed some of the more serious offence categories - such as sex
offences and some violent offences - are associated with particularly low risks of
reconviction.

Frequency of reconviction

This measure is to a large extent confounded by sentences received at reappearance.
For instance, a prison releasee convicted of a serious offence at his/her first
reappearance is likely to receive another prison sentence. If the sentence is of an
appreciable length, this will prevent the offender committing further offences over
the two year follow-up. In order to make some allowance for this, analyses were
based on reconvicted cases excluding offenders sentenced to imprisonment at their
first reappearance. A further problem exists for comparison of the four disposal
groups: for offenders who reappeared more than once, it is impossible to distinguish
the effect of the original, ‘target’ sentence from the effects of any subsequent
sentences.

Overall, 52 per cent of those reconvicted over the follow-up period were convicted
of an offence on only one occasion; 29 per cent reappeared twice; 12 per cent
reappeared three times and eight per cent reappeared four or more times. Exclusion
of those sentenced to imprisonment at their first reappearance reduced the
proportion who reappeared only once to 49 per cent - suggesting that early
imprisonment was indeed reducing the number of reappearances. The following
analyses were based on the corrected data.

Women were considerably more likely than men to reappear only once: 61 per cent
compared to 48 per cent of men. Age had only a small effect - offenders aged 17 to
20 were more likely than other age groups to reappear more than once, but this
difference was not very large. However, criminal history was strongly related to
number of reappearances. While 65 per cent of offenders with no previous
appearances reappeared once, this figure was 38 per cent for those with 11 or more
previous appearances. Likewise previous appearance rate had a strong and clear
effect, with offenders with high rates reappearing considerably more often than
those with low rates. Number of youth custody sentences was also correlated with
frequency of reappearance. Of the different offence groups, criminal damage was
most strongly associated with multiple reappearances: only 42 per cent reappeared
once and 15 per cent reappeared four or more times. Motor and burglary offences were also positively associated with multiple reappearances. Offenders convicted of violent, sex or drug offences were more likely than average to reappear only once.

The disposal groups differed quite considerably in the number of reconvictions received over the two year period. While 43 per cent of offenders given 4A/4Bs received only one reconviction, 46 per cent of prisoners, 52 per cent of offenders given CSOs and 54 per cent of probationers were in this category. However, as has been mentioned, it is difficult to assign differences in the number of reconvictions between these groups to the influence of the original, target disposals: offenders will have been resentenced before their second reconviction.

A logistic regression was carried out to predict whether reoffenders were reconvicted once or more than once. While the predictive power of this model was substantially inferior to those described earlier, all the variables mentioned in this section were significant predictors, apart from gender. This was largely due to the comparatively low proportion of women amongst the reconvicted offenders. The high reappearance rate of the criminal damage offenders was verified by this analysis.
7 Conclusions

This study has presented both a critique and an analysis of reconviction rates. With regard to the former, the aim was to provide a clear context within which reconviction rates might be understood and used more appropriately. As for the analysis, this is the first national comparative study of reconviction rates for 15 years - which serves as its own justification. In addition, however, the analysis has attempted - by following a step-by-step approach - to set out the complex nature of reconviction studies in practice; the impact of key variables has been studied both individually and in interaction with each other. In this concluding chapter the main findings of the analysis are summarised, and the implications of these for future research are discussed.

Main findings

The key findings of this study are the comparative reconviction rates for the four disposals considered when pseudo-reconvictions have been taken into account: for prisons, 54 per cent were reconvicted within two years of release; for probation orders with a 4A/4B requirement 63 per cent were reconvicted within two years of sentence; in the case of community service orders the figure was 49 per cent; and for straight probation orders, 43 per cent were reconvicted. It is clear that there were considerable differences amongst the four disposals - with a gap of 20 per cent between the reconviction rate associated with straight probation and that associated with probation with 4A/4B requirements. This does not mean that straight probation is far more successful in terms of reconviction rates than probation with a 4A/4B requirement. What it does mean is that offenders with very different characteristics (and therefore different risks of reconviction) are being sentenced to these different disposals - as, in fact, should be the case.

More significant, therefore, is the comparison between the predicted reconviction rates for each disposal and the actual rates (after correcting for pseudo-reconvictions): for prisons the actual rate was one per cent higher than that predicted; for the 4A/4B group the actual rate was three per cent greater than that predicted; for CSOs the actual rate was three per cent lower than that predicted; and for straight probation the actual rate was two per cent lower than that predicted. A simple reading of these findings might lead us to the conclusion that straight probation and community service orders are more effective than prison and probation with 4A/4B requirements in reducing reoffending. A more cautious and more sustainable conclusion is that there is little to choose between these sentencing options in terms of their impact on reoffending - whether the impact is construed as deterrent or rehabilitative.
Several caveats should be noted in comparing the 'performance' of the four types of sentence. In the first place, the findings reflect practice in 1987 - there have been marked changes since then in both probation and prison practice and there may have been consequent changes in effectiveness. Second, it is important to bear in mind that this study has looked at disposals in aggregate, and that there may well be significant differences among individual examples of the same sentence (see Mair and Nee 1992). Third, this study only looked at reconviction rates in the light of offenders' age, gender, current offence and criminal history. It was impossible to take account of social variables, and indeed there may be other variables which sentencee take into account which are correlated with reconviction and which were not included in the study. And finally, the findings relate only to the impact of court sentences in preventing reoffending; they can say nothing about the other purposes which sentencing may serve such as general deterrence, incapacitation and the 'declaratory' function of expressing societal reaction to certain sorts of crime.

More generally, the study points to the gaps in our knowledge about what actually happens in prisons, probation centres and the like - precisely what kind of staff work in these places, what is their motivation and how do they carry out their tasks - and what kinds of regimes and programmes are delivered? It is only common-sense to assume that a carefully planned regime, based upon some considered theoretical foundation, relevant to the needs/problems of offenders, and delivered by committed, enthusiastic staff will have a more positive impact upon offenders than one which is ad hoc, irrelevant and delivered by tired, cynical workers. At present we know far too little about the content, organisation and delivery of court disposals.

On a more specific point, the fact that the 4A/4B predicted rate of reconviction is seven per cent higher than that for prison raises some interesting questions. For example, has the probation service been too successful in diverting from custody offenders with a high risk of reconviction and thereby condemning 4A/4B programmes to a high reconviction rate. How far are sentencee aware of the possible differences between offenders who commit serious offences but who have a low risk of reconviction, and those who commit less serious offences but who have a high risk of reconviction; and how do they take account of these factors in sentencing? Such questions may be difficult to answer, but one clear conclusion from the 'Nothing Works' debate is that matching appropriate offenders to relevant sentences or programmes is likely to lead to reduced recidivism - and it may be that this is not happening in the case of prison and 4A/4B programmes.

The key correlates of reconviction were found to be as previous studies have suggested - age, sex, offence, criminal history - but this may be partly to do with the fact that most reconviction studies only consider these variables. Collecting more 'social' variables would add considerably more work to an already heavy task, but it will be very important to try to establish the relative contribution of social and criminal history variables in predicting reconvictions. Teasing out the individual
CONCLUSIONS

impact of the variables used here is not an easy matter, although it does appear that age remains a particularly strong predictor of reconviction.

The analysis also shows that wherever possible the number of previous convictions should be counted as well as the number of previous appearances with a guilty finding. And although sex becomes less powerful in predicting reconviction when other variables are taken into account, there are some interesting differences at the margins: as age increases, the female reconviction rate approaches that of males; and after eight or more previous appearances the female reconviction rate catches up with that of males.

It is worth drawing attention to the impact of pseudo-reconvictions. If these were equally distributed amongst sentences their effect would not be so important, but the analysis carried out here suggests that they have a larger effect upon community penalties, leading to over-estimation of reconviction rates. The prison rate dropped by two per cent when pseudo-reconvictions were removed, while the CSO rate fell by seven per cent, straight probation by six per cent, and 4A/4B orders by five per cent. Taking these corrected rates into account improves the performance of each of the four disposals, but especially that of probation and CSOs. In future reconviction studies it will be necessary to take account of pseudo-reconvictions; and further work is needed to assess whether or not the converse situation (where offenders commit a crime but are not dealt with until their current sentence has been completed) has an impact in the final months of a sentence.

It is clear that the bulk of reconvictions occur in the first 12 months of sentence/release, although certain types of offenders seem more likely to be reconvicted fairly quickly - notably those originally convicted of criminal damage or motor offences - while others such as sex offenders tend to take longer to be reconvicted. Those with 4A/4B requirements were more likely to be reconvicted within 12 months than those with other sentences. Prisoners tended to catch up with 4A/4B offenders by the end of the two year period, and this raises the question of what happens after two years. More work is needed on time to reconviction; should the usual two year period remain the most appropriate or do other periods need to be used depending upon the offences involved and sentences imposed?

There was little association between offence seriousness and risk of reconviction. Indeed, many of the most serious offences were associated with low risks of reconviction. A comparison between the seriousness of the 'target' offence (for which offenders were originally sentenced to imprisonment or community disposals) with that at reconviction revealed a tendency for offending behaviour to 'regress to the mean'. Thus, prisoners, a large proportion of whom were originally convicted of serious offences, tended to be reconvicted of less serious offences, while probationers, who were originally convicted of less serious offences tended to be reconvicted of offences of similar gravity at reconviction.
Further issues for research

Research studies commonly call for further research into their subject area and this report is no exception. While this study has tried to dig deeper than previous reconviction studies, it should be evident that a good deal more work is necessary. The key areas would seem to be:

1. Pseudo-reconvictions: work is needed to confirm the results of the analysis carried out here, and to investigate the impact of offences carried out just before the end of a sentence but not dealt with until after its completion.

2. Female reconviction rates: there are some interesting findings which suggest that female reconviction is not always much lower than that for males.

3. Follow-up periods: is 24 months still the best length of time for general studies, or can shorter periods be used for some disposals and offences without losing too much information; when longer follow-up periods are needed (such as in the case of sex offenders) just how long a period is required; and are there differences between sentences in reconviction rates over time?

4. Patterns of individual offending: there is little information on the offending careers of individuals - why do they begin offending, why do they carry out some crimes and not others, are there particular developments in offending over time? Such studies are expensive and time-consuming but would put some flesh on the statistical bones of the present work.

5. Social variables: the analysis carried out here could only take account of age, sex, current offence and criminal history variables. It is likely that marital status, accommodation, drug/alcohol misuse, relationships, etc. will have an effect upon reconviction. RPU has plans to construct a special database including such variables, which will help to tease out the significance of social variables.

6. Variations within disposals: research has suggested that there may be greater differences in reconviction rates within disposals than among different sentences. Much more work is required in this area, particularly with the increased interest in reconviction rates as a performance indicator.

Two recent pieces of work also have implications for future work on reconvictions. First, the development of a risk of reconviction predictor for use by the probation service (Copas 1994). This is intended to inform pre-sentence reports, but can also be used to assess the effectiveness of probation work; for example if an individual is assessed prior to sentence as having a risk of reconviction of 75 per cent, and the
assessment at completion of sentence is 50 per cent, then one might reasonably claim some success. A tool such as this can go some way to moving reconviction studies away from a reliance upon the crudity of an 'all or nothing' model whereby one is either reconvicted or not. Second, a major study carried out into the dynamics of recidivism (Burnett 1992) has provided a great deal of information about the reasons imprisoned property offenders offended and continue to reoffend or desist from offending. One of the key findings of this work has been that individuals can predict with reasonable accuracy whether or not they are likely to reoffend. More work of this kind is needed.

This report has not been intended as a definitive study of reconviction rates, but was planned to draw out a new baseline for reconviction studies. It has tried to sum up previous work on recidivism, provide a critique of reconviction rates, set out an up-to-date, national comparative study of reconvictions, and offer some pointers for the future. It is hoped that the ideas and findings in the report will stimulate further work in this important area.
Appendix A. Standard List offences

The classifications defined in this Appendix are those used for the standard list of offences. Generally, attempting, conspiring, inciting, aiding, abetting, causing or permitting a crime is classified under the heading of the crime itself, though in certain cases it is shown separately.

Violence against the person
1. Murder
2. Attempted murder
3. Threat or conspiracy to murder
4.1 Manslaughter
4.2 Infanticide
4.3 Child destruction
4.4 Causing death by reckless driving
4.5 Manslaughter due to diminished responsibility
5. Wounding or other act endangering life
6. Endangering railway passenger
7. Endangering life at sea
8. Other wounding, etc
9. Assault
10. Cruelty or neglect of children
11. Abandoning child aged under two years
12. Child abduction
13. Procuring illegal abortion
14. Concealment of birth

Sexual offences
16. Buggery
17. Indecent assault on a male
18. Indecency between males
19. Rape
20. Indecent assault on a female
21. Unlawful sexual intercourse with girl under 13
22. Unlawful sexual intercourse with girl under 16
23. Incest
24. Procuration
25. Abduction
26. Bigamy
27. Soliciting by a man
28. Gross indecency with a child
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Burglary
28. Burglary in a dwelling
29. Aggravated burglary in a dwelling
30. Burglary in a building other than a dwelling
31. Aggravated burglary in a building other than a dwelling

Robbery
34. Robbery

Theft and handling stolen goods
39. Theft from the person of another
40. Theft in a dwelling other than from automatic machine or meter
41. Theft by an employee
42. Theft or unauthorised taking from mail
43. Abstracting electricity
44. Theft of pedal cycle
45. Theft from vehicle
46. Theft from shops
47. Theft from automatic machine or meter
48. Theft or unauthorised taking of motor vehicle
49. Other theft or unauthorised taking
54. Handling stolen goods

Fraud and forgery
51. Fraud by company director, etc
52. False accounting
53. Other fraud
55. Bankruptcy offence
60. Forgery, or use, of false prescription (in respect of drugs listed in Schedule 2 of the Misuse of Drugs Act 1971)
61. Other forgery, etc (including coinage and hallmarking offences)

Criminal damage
56. Arson
57. Criminal damage endangering life (excluding arson)
58. Other offences of criminal damage
59. Threat or possession with intent to commit criminal damage

Drug offences
77. Drug offences
APPENDICES

Other indictable offences

33. Going equipped for stealing, etc
35. Blackmail
36. Kidnapping
62. Treason Acts 1351-1842
63. Treason felony
64. Rioting
65. Violent disorder
66. Other offences against the State or public order
67. Perjury
68. Libel
75. Betting, gaming and lotteries
76. Aiding suicide
78. Assist entry of illegal immigrant
79. Perverting the course of justice
80. Escaping from lawful custody
81. Firearms offence
82. Revenue Law offence
83. Failing to surrender to bail
84. Trade Descriptions Act and similar offences
85. Health and Safety at work, etc. Act 1974
86. Possession of obscene material, etc
87. Prevention from Eviction Act 1977
89. Adulteration of food or drugs
91. Public health offences
99. Other notifiable offences

Summary offences

103. Aggravated assault
104. Assault on a constable
107. Brothel keeping
109. Cruelty to a child, etc
126. Interference with motor vehicle
139. Indecent exposure
149. Summary offences of criminal or malicious damage
181. Unlawful possession
185. Found in enclosed premises
193. Summary drug offences
194. Summary immigration offences
195. Impersonating a police officer

In addition, those motoring offences which are triable either way are treated as Standard List offences when dealt with at the Crown Court on indictment.
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## Appendix B: Additional tables

### Table B.1
The effects of age and previous appearances on reconviction

<table>
<thead>
<tr>
<th>Number of previous appearances</th>
<th>Age</th>
<th>17-20</th>
<th>21-24</th>
<th>25-29</th>
<th>30+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 %R</td>
<td>41</td>
<td>23</td>
<td>15</td>
<td>10</td>
<td>27</td>
<td>15</td>
</tr>
<tr>
<td>%C</td>
<td>17</td>
<td>12</td>
<td>10</td>
<td>17</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>1 %R</td>
<td>55</td>
<td>38</td>
<td>29</td>
<td>25</td>
<td>44</td>
<td>14</td>
</tr>
<tr>
<td>%C</td>
<td>18</td>
<td>12</td>
<td>9</td>
<td>10</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>2-5 %R</td>
<td>70</td>
<td>54</td>
<td>40</td>
<td>30</td>
<td>55</td>
<td>38</td>
</tr>
<tr>
<td>%C</td>
<td>46</td>
<td>38</td>
<td>32</td>
<td>25</td>
<td>58</td>
<td>38</td>
</tr>
<tr>
<td>6-10 %R</td>
<td>83</td>
<td>69</td>
<td>56</td>
<td>45</td>
<td>66</td>
<td>66</td>
</tr>
<tr>
<td>%C</td>
<td>17</td>
<td>27</td>
<td>26</td>
<td>19</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>11+ %R</td>
<td>89</td>
<td>79</td>
<td>73</td>
<td>68</td>
<td>73</td>
<td>73</td>
</tr>
<tr>
<td>%C</td>
<td>2</td>
<td>10</td>
<td>23</td>
<td>29</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

Total1 %R | 65 | 55 | 48 | 40 | 55
%C | 4,073 | 2,350 | 1,509 | 2,262 | 10,194

Notes:
(i) Totals in this and other tables in Appendix B are weighted.
(ii) %R=Percentage Reconvicted
(iii) %C=Percentage of age group in the cell.

### Table B.2
Previous custodial sentences

<table>
<thead>
<tr>
<th>Type of imprisonment</th>
<th>Number of times imprisoned</th>
<th>0</th>
<th>1</th>
<th>2-5</th>
<th>6+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth</td>
<td>%R</td>
<td>46</td>
<td>66</td>
<td>74</td>
<td>89</td>
<td>55</td>
</tr>
<tr>
<td>N</td>
<td>6,727</td>
<td>1,591</td>
<td>1,779</td>
<td>97</td>
<td>10,194</td>
<td></td>
</tr>
<tr>
<td>Adult</td>
<td>%R</td>
<td>53</td>
<td>55</td>
<td>63</td>
<td>80</td>
<td>55</td>
</tr>
<tr>
<td>N</td>
<td>8,074</td>
<td>879</td>
<td>951</td>
<td>290</td>
<td>10,194</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>%R</td>
<td>45</td>
<td>62</td>
<td>68</td>
<td>78</td>
<td>55</td>
</tr>
<tr>
<td>N</td>
<td>5,693</td>
<td>1,673</td>
<td>2,188</td>
<td>639</td>
<td>10,194</td>
<td></td>
</tr>
</tbody>
</table>

Note: %R=Percentage Reconvicted
### Table B.3
Percentage reconvicted within two years by sex and offence

<table>
<thead>
<tr>
<th>Offence</th>
<th>Violence</th>
<th>Sex</th>
<th>Burglary</th>
<th>Theft</th>
<th>Fraud/ Motor</th>
<th>Crim.</th>
<th>Drugs</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%R</td>
<td>%C</td>
<td>%R</td>
<td>%C</td>
<td>%R</td>
<td>%C</td>
<td>%R</td>
<td>%C</td>
<td>%R</td>
</tr>
<tr>
<td>Males</td>
<td>47</td>
<td>94</td>
<td>25</td>
<td>98</td>
<td>66</td>
<td>98</td>
<td>58</td>
<td>77</td>
<td>62</td>
</tr>
<tr>
<td>Females</td>
<td>34</td>
<td>6</td>
<td>15</td>
<td>2</td>
<td>52</td>
<td>2</td>
<td>26</td>
<td>2</td>
<td>58</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>6</td>
<td>25</td>
<td>2</td>
<td>66</td>
<td>2</td>
<td>53</td>
<td>3</td>
<td>62</td>
</tr>
</tbody>
</table>

Note: %R = Percentage Recaptured  
% C = Percentage of offence group in the cell.

### Table B.4
Percentage reconvicted within two years by age and offence

<table>
<thead>
<tr>
<th>Age</th>
<th>Offence</th>
<th>Violence</th>
<th>Sex</th>
<th>Burglary</th>
<th>Theft</th>
<th>Fraud/ Motor</th>
<th>Crim.</th>
<th>Drugs</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%R</td>
<td>%C</td>
<td>%R</td>
<td>%C</td>
<td>%R</td>
<td>%C</td>
<td>%R</td>
<td>%C</td>
<td>%R</td>
<td>%R</td>
</tr>
<tr>
<td>17-20</td>
<td>56</td>
<td>42</td>
<td>41</td>
<td>18</td>
<td>72</td>
<td>50</td>
<td>26</td>
<td>57</td>
<td>69</td>
<td>64</td>
</tr>
<tr>
<td>21-24</td>
<td>49</td>
<td>25</td>
<td>50</td>
<td>13</td>
<td>63</td>
<td>24</td>
<td>24</td>
<td>54</td>
<td>47</td>
<td>55</td>
</tr>
<tr>
<td>25-29</td>
<td>41</td>
<td>15</td>
<td>29</td>
<td>15</td>
<td>59</td>
<td>13</td>
<td>37</td>
<td>22</td>
<td>50</td>
<td>42</td>
</tr>
<tr>
<td>30 and above</td>
<td>25</td>
<td>18</td>
<td>13</td>
<td>54</td>
<td>31</td>
<td>38</td>
<td>7</td>
<td>20</td>
<td>46</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>54</td>
<td>25</td>
<td>54</td>
<td>66</td>
<td>13</td>
<td>31</td>
<td>43</td>
<td>62</td>
<td>60</td>
</tr>
</tbody>
</table>

Note: %R = Percentage Recaptured  
% C = Percentage of offence group in the cell.
### Table B.5
Percentage reconvicted within two years by previous appearances and offence

<table>
<thead>
<tr>
<th>Number of Previous Appearances</th>
<th>Violence</th>
<th>Sex</th>
<th>Burglary</th>
<th>Theft</th>
<th>Fraud/ Motor</th>
<th>Criminal</th>
<th>Drugs</th>
<th>Other</th>
<th>Total Forgery</th>
<th>Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 %R</td>
<td>22</td>
<td>12</td>
<td>49</td>
<td>24</td>
<td>18</td>
<td>40</td>
<td>30</td>
<td>13</td>
<td>18</td>
<td>27</td>
</tr>
<tr>
<td>%C</td>
<td>17</td>
<td>39</td>
<td>9</td>
<td>15</td>
<td>22</td>
<td>12</td>
<td>11</td>
<td>24</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>1 %R</td>
<td>38</td>
<td>17</td>
<td>55</td>
<td>42</td>
<td>37</td>
<td>53</td>
<td>50</td>
<td>35</td>
<td>41</td>
<td>44</td>
</tr>
<tr>
<td>%C</td>
<td>17</td>
<td>15</td>
<td>12</td>
<td>13</td>
<td>17</td>
<td>12</td>
<td>16</td>
<td>13</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>2-5 %R</td>
<td>50</td>
<td>34</td>
<td>67</td>
<td>53</td>
<td>46</td>
<td>63</td>
<td>61</td>
<td>36</td>
<td>46</td>
<td>56</td>
</tr>
<tr>
<td>%C</td>
<td>38</td>
<td>29</td>
<td>38</td>
<td>37</td>
<td>34</td>
<td>43</td>
<td>39</td>
<td>33</td>
<td>35</td>
<td>37</td>
</tr>
<tr>
<td>6-10 %R</td>
<td>59</td>
<td>42</td>
<td>71</td>
<td>67</td>
<td>61</td>
<td>73</td>
<td>69</td>
<td>45</td>
<td>54</td>
<td>66</td>
</tr>
<tr>
<td>%C</td>
<td>19</td>
<td>9</td>
<td>26</td>
<td>19</td>
<td>16</td>
<td>23</td>
<td>19</td>
<td>16</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>11+ %R</td>
<td>60</td>
<td>68</td>
<td>74</td>
<td>77</td>
<td>71</td>
<td>74</td>
<td>77</td>
<td>63</td>
<td>74</td>
<td>73</td>
</tr>
<tr>
<td>%C</td>
<td>10</td>
<td>7</td>
<td>15</td>
<td>15</td>
<td>12</td>
<td>11</td>
<td>15</td>
<td>15</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Total %R</td>
<td>46</td>
<td>26</td>
<td>66</td>
<td>54</td>
<td>44</td>
<td>63</td>
<td>60</td>
<td>36</td>
<td>46</td>
<td>55</td>
</tr>
<tr>
<td>N</td>
<td>1,534</td>
<td>259</td>
<td>2,601</td>
<td>3,012</td>
<td>630</td>
<td>1,167</td>
<td>491</td>
<td>329</td>
<td>398</td>
<td>10,431</td>
</tr>
</tbody>
</table>

Note: %R = Percentage reconvicted  
% C = Percentage of offence group in the cell

### Table B.6
Disposal and previous adult imprisonment

<table>
<thead>
<tr>
<th>Number of adult prison sentences</th>
<th>Disposal group</th>
<th>%R</th>
<th>%C</th>
<th>%R</th>
<th>%C</th>
<th>%R</th>
<th>%C</th>
<th>%R</th>
<th>%C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prisons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSOs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4A/4Bs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Probation</td>
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<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>5+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total N</td>
<td></td>
<td>9,322</td>
<td>2,252</td>
<td>3,094</td>
<td>2,042</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: %R = Percentage Reconvicted  
% C = Percentage of previous appearance group in the cell
Table B.7
Offence at reconviction by offence at target conviction (per cent)

<table>
<thead>
<tr>
<th>Offence at First</th>
<th>Violence</th>
<th>Sex</th>
<th>Burglary</th>
<th>Theft</th>
<th>Fraud/Forger</th>
<th>Motor</th>
<th>Crim Damage</th>
<th>Drugs</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconviction</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Violence</td>
<td>22</td>
<td>12</td>
<td>9</td>
<td>7</td>
<td>10</td>
<td>11</td>
<td>16</td>
<td>11</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Sex</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Burglary</td>
<td>13</td>
<td>9</td>
<td>13</td>
<td>16</td>
<td>22</td>
<td>16</td>
<td>9</td>
<td>13</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Theft</td>
<td>22</td>
<td>20</td>
<td>25</td>
<td>35</td>
<td>21</td>
<td>21</td>
<td>24</td>
<td>24</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Fraud/Forger</td>
<td>3</td>
<td>10</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Motor</td>
<td>8</td>
<td>3</td>
<td>10</td>
<td>8</td>
<td>2</td>
<td>8</td>
<td>5</td>
<td>10</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Crim Damage</td>
<td>13</td>
<td>21</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>7</td>
<td>2</td>
<td>6</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Drugs</td>
<td>4</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>11</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>10</td>
<td>10</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Total N</td>
<td>705</td>
<td>59</td>
<td>1,686</td>
<td>1,574</td>
<td>262</td>
<td>699</td>
<td>286</td>
<td>116</td>
<td>183</td>
<td>5,570</td>
</tr>
</tbody>
</table>

Table B.7 shows a crosstabulation of offence at target conviction with offence at first reconviction. The shaded diagonal in this table shows the proportion of offenders reconvicted for the same category of offence as their target offence. For all target offence categories other than sex, fraud/forger and other, the most common offence group at reconviction was the same as that at target. However, the highest degree of specialisation was for thieves and only half of these offenders were reconvicted of the same type of offence. As Tarling (1993) has pointed out, the degree to which offenders specialise is likely to depend on the relative frequency of the crime category, and the related issue of the range of criminal behaviours classified by a particular crime category. Theft offences were very common. Thus, as Table B.7 shows, for any target offence type, over 20 per cent of offenders were reconvicted of theft. Subdivision of theft into various categories would inevitably result in a lower specialisation rate.

It is also interesting to examine the links between different offence types. The right hand column in Table B.7 shows the distribution of offences at reconviction. By comparing these rates for the whole sample against proportions under specific target offence types, associations between the offences can be distinguished. Two such associations seem to exist: between criminal damage and violent offences and between fraud/forger and theft offences. Thirteen per cent of violent offenders were reconvicted of criminal damage, compared with a total figure of nine per cent for the whole group, and sixteen per cent of criminal damage offenders were reconvicted for violent offences, compared with a total
figure of twelve per cent for the whole group. Likewise, thieves were more likely than expected to be reconvicted of fraud/forgery and fraud/forgery offenders were more likely than expected to be reconvicted of theft offences. It would therefore seem that these offences are linked in some way; presumably there is an element of violence in many criminal damage offences and Fraud/forgery offences are obviously akin to theft offences.

Table B.8
Gravity of target offences for the four disposal groups (per cent)

<table>
<thead>
<tr>
<th>Gravity band</th>
<th>Disposal group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prisons %</td>
<td>CSOs %</td>
</tr>
<tr>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Total N</td>
<td>5,461</td>
</tr>
</tbody>
</table>

N.B. This table only includes offenders who were reconvicted.

Table B.9
Gravity of reconviction offences for the four disposal groups (per cent)

<table>
<thead>
<tr>
<th>Gravity band</th>
<th>Disposal group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prisons %</td>
<td>CSOs %</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Total N</td>
<td>5,461</td>
</tr>
</tbody>
</table>

N.B. This table only includes offenders who were reconvicted.
Appendix C: Offence type and reconviction

The relationship between offence type and reconviction rate is not a simple one. Factors such as age, sex and previous convictions are associated with both offence type and risk of reconviction. As has been shown, females reconvict far less than males, and this is true for each offence category. Thus, if a particular type of offence is committed frequently by women, it will be associated with a lower reconviction rate than if it was committed only by men. In fact, few offences are committed frequently by women and as a result, for most offence categories, the reconviction rate for both sexes is virtually equivalent to the reconviction rate for males alone. However, this is not true of two offence types: Theft and Fraud/ Forgery, where over 20 per cent of offences were committed by women. Thus for these offence categories, the figures in Table 4.3 are depressed by approximately five per cent compared to the other offence groups. Table B.3 in Appendix B gives the breakdown of offence by sex.

Another factor that is correlated with both offence type and reconviction rate is age. As might be expected, the age profile of offenders varies with the type of crime they have committed. Taking drug offences for example, Table 4.3 shows that these offenders had a very low rate of reconviction: 35 per cent. However, a large part of this is due to the fact that they are older than average. Table B.4 in Appendix B shows the effects of age and offence on reconviction. As can be seen, only 11 per cent of drug offenders fell into the 17 to 20 age category, compared with an average of 40 per cent for the whole sample. However, it should also be noticed that the reconviction rate for drug offenders was slightly lower than average in each age group. Thus, it is not age alone that is responsible for the low rate of reconviction associated with drug offenders; there are other characteristics of this offence category that makes them a low risk group.

By contrast with drug offenders, motor offenders had a high rate of reconviction, but again the age range of these offenders is largely responsible. Over 60 per cent of this offence group was aged between 17 and 20, making them by far the youngest offence category. While there still remains an additional, increased risk of reconviction associated with motor offences, it is a much smaller differential than for drug offences. Burglars also had a young age profile, but reconviction rates for burglars were abnormally high whatever the age: thus the high rate of reconviction associated with burglary offences is largely independent of age. Interestingly, the disparity was much more marked in older age groups - so that while burglars are generally more likely to be reconvicted than other offenders, older burglars show a particularly high reconviction rate compared to the average for their age group. The quite high proportion of criminal damage offenders who were reconvicted does not seem to be due to any abnormality in their age range, but it is interesting to note that it is the older offenders
who have a reconviction rate much higher than average: 58 per cent of offenders aged 30 and over were reconvicted, compared with an average for the whole sample of 40 per cent.

Violent offenders had a normal age profile, yet they had a low reconviction rate in each age group. Thus, their low rate of reconviction is certainly not due to factors other than age. Sex offenders showed an interesting pattern. While all age groups had a lower than average rate of reconviction, the rate of reconviction of offenders aged 30 and over was exceptionally low. As over half of the sex offenders were in this age group, the combined effect is a very low rate of reconviction. Finally, it is notable that the largest offence group, theft, was associated with an older than average age profile - and thieves aged 25 and over were associated with higher than average reconviction rates.

Lastly, how are previous appearances associated with offence type and reconviction? Figure B.5 in Appendix B depicts the relationship between these three variables. Broadly speaking, type of offence is quite strongly associated with reconviction rate, independent of the number of previous appearances, although this effect is less strong at high levels of previous appearance. Thus for offenders with 11 or more previous appearances, the reconviction rate only ranged from 60 per cent for violent offences to 77 per cent for theft and criminal damage offences.

In certain offence groups, such as sex and drug offences, the high proportion of cases with no previous convictions seems to be strongly correlated with the low overall reconviction rate. Although numbers are small and therefore conclusions should be drawn with caution, sex offenders are, again, an interesting example. Thirty-nine per cent of these cases had no previous appearances, compared with the average for the whole group of 15 per cent. However, within this group of first time sex offenders, the reconviction rate was under half the average for the whole group (this was also true of second offenders). Further analysis looking at the combined effect of age and previous appearances on the reconviction of sex offenders revealed that the 107 (unweighted) cases that were either first or second offenders and aged 30 or above had an extremely low reconviction rate of only 0.4 per cent. Excluding all first and second offenders and all offenders aged 30 or over produced a reconviction rate of 51 per cent for the 107 sex offenders that fell into this group (the fact that there were 107 offenders in each group is pure chance). This compared with a figure of 66 per cent for the comparable group drawn from the other offence categories. It was thought that the difference between the two groups of sex offenders might be accounted for by differences in the specific types of sex offence committed. However, further analysis showed that, while there were differences between the two groups in the proportion convicted of rape, indecent assault and other offences, these did not account for the overall difference in reconviction rate. Thus, it was concluded that while most sex offenders fell into the very low risk profile of being relatively old and having relatively few previous appearances, those that did not fit this profile had a reconviction rate approaching the average for other offences.1

Turning to other offence types, motor offenders were associated with a range of previous appearances similar to the group as a whole, but in each category of previous appearance, the

1It should be stressed that these findings are based only on two year reconviction rates. Researchers have found this to be an inadequate follow-up period for sex offenders (Soothill and Gibbens 1978; Bradburn and Mâler 1992). It could be that the picture presented here would change considerably over a longer follow-up period.
reconviction rate was higher than average, indicating that age and other factors lie behind the high reconviction rate of motor offenders. Violent offenders have a slightly less typical distribution across previous appearance categories: 34 per cent were first or second offenders, compared with 28 per cent of the total sample. However, the reconviction rate was lower than average whatever the number of previous appearances and this was the main contributtor to the low rate overall for violence offences. Similarly, while an unusually low proportion of burglars were first offenders, this effect was dwarfed by the generally high rate of reconviction associated with this offence group. It is noticeable from Table B.5 that while first offender burglars have an exceptionally high rate of reconviction of 49 per cent, those with 11 or more previous appearances show a rate close to the average for their category.
Appendix D: A multivariate analysis of reconviction

Logistic regression is a statistical technique which uses predictor variables to produce a statistical equation or model which predicts the probability of an outcome variable.\(^1\) The great advantage of logistic regression in the current context is that it takes account of correlation between predictor variables and allows for the modelling of interaction between them. The statistical package used was SPSS (release 4).

The analysis

The sample used in the analysis consisted of the weighted prison sample plus all the community disposal cases. Excluding disposal group, a satisfactory model was constructed using the variables sex, age, number of previous appearances, average number of convictions per appearance ("avcons"), previous appearance rate, offence and number of youth imprisonment sentences. As highly correlated variables can cause effects in logistic regression which are hard to interpret, a correlation matrix was produced for all the variables in the model. This showed that no two variables had a correlation coefficient greater than .55.

The estimated coefficients for the predictor variables are shown in Table D.1. These coefficients represent the change in the 'log odds' of reconviction associated with a one-unit increase in the predictor variable, controlling for all other predictor variables.

\(^1\)The logistic regression model can be written as:

\[
\text{Probability of an event occurring} = \frac{1}{1 + e^{-a - b_1 x_1 - b_2 x_2 - \cdots - b_n x_n}}
\]

Whereas, a, b, \(x\) are coefficients estimated from the data, \(x_1, x_2, \ldots, x_n\) are independent variables and \(e\) is the base of the natural logarithms (see Norusis/SPSS 1990).
Table D.1
A logistic regression predicting risk of reconviction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient Estimate</th>
<th>Standard Error</th>
<th>Wald</th>
<th>Signif</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-0.533</td>
<td>0.028</td>
<td>363.3</td>
<td>0.000</td>
<td>-1.213</td>
</tr>
<tr>
<td>Previous appearances</td>
<td>0.961</td>
<td>0.055</td>
<td>302.1</td>
<td>0.000</td>
<td>1.106</td>
</tr>
<tr>
<td>Prev appre rate</td>
<td>0.6367</td>
<td>0.0453</td>
<td>197.2</td>
<td>0.000</td>
<td>0.892</td>
</tr>
<tr>
<td>Offence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violence</td>
<td>-1.869</td>
<td>0.441</td>
<td>17.9</td>
<td>0.000</td>
<td>-0.255</td>
</tr>
<tr>
<td>Sex</td>
<td>-0.4431</td>
<td>0.136</td>
<td>15.2</td>
<td>0.001</td>
<td>-0.232</td>
</tr>
<tr>
<td>Burglary</td>
<td>0.371</td>
<td>0.0384</td>
<td>77.1</td>
<td>0.000</td>
<td>0.0533</td>
</tr>
<tr>
<td>Theft</td>
<td>0.261</td>
<td>0.0382</td>
<td>46.7</td>
<td>0.000</td>
<td>0.0472</td>
</tr>
<tr>
<td>Fraud/Forgery</td>
<td>-0.300</td>
<td>0.0676</td>
<td>0.1</td>
<td>0.577</td>
<td>0.000</td>
</tr>
<tr>
<td>Motor</td>
<td>0.2076</td>
<td>0.0509</td>
<td>16.6</td>
<td>0.000</td>
<td>0.044</td>
</tr>
<tr>
<td>Criminal Damage</td>
<td>0.3328</td>
<td>0.0726</td>
<td>21.0</td>
<td>0.000</td>
<td>0.0279</td>
</tr>
<tr>
<td>Drugs</td>
<td>-0.2499</td>
<td>0.0842</td>
<td>8.8</td>
<td>0.030</td>
<td>-0.0167</td>
</tr>
<tr>
<td>Avoetns</td>
<td>0.1763</td>
<td>0.0237</td>
<td>55.5</td>
<td>0.000</td>
<td>-0.0677</td>
</tr>
<tr>
<td>Yth imp x age</td>
<td>-0.0159</td>
<td>0.0026</td>
<td>36.9</td>
<td>0.000</td>
<td>-0.0377</td>
</tr>
<tr>
<td>Youth imprisonment</td>
<td>0.3846</td>
<td>0.0657</td>
<td>34.2</td>
<td>0.000</td>
<td>0.0362</td>
</tr>
<tr>
<td>Gender</td>
<td>-2.965</td>
<td>0.0639</td>
<td>21.6</td>
<td>0.000</td>
<td>-0.0282</td>
</tr>
<tr>
<td>Constant</td>
<td>0.2197</td>
<td>0.0810</td>
<td>7.3</td>
<td>0.007</td>
<td></td>
</tr>
</tbody>
</table>

The column ‘Signif’ contains information on the degree to which coefficients differ significantly from nought. It can be seen that all the predictor variable coefficients were significant at a level of $p=0.003$ per cent or higher except for Fraud/Forgery.

Turning to the other coefficients, how can the relative contribution of the different predictor variables to the model be determined? Unfortunately, a simple comparison of the coefficients does not supply this information. As was explained above, the coefficients represent the change in the 'log odds' of reconviction associated with a one-unit increase in the predictor variable. Because of this, the size of the units of the predictor variable will influence the size of the coefficient. To take an example, if age is entered in years, the coefficient is as above, -0.0533. If age in years is divided by two, the coefficient changes to -0.1066. A more comparable gauge of the influence of the predictor variables is the Wald statistic (see footnote 2) and the related R statistic,3 which is a measure of the partial contribution of variables to the model. These measures take account of the standard error of the predictor variables, and thereby take some account of the distribution and unit size of the predictor variable. So that in the above example when age was divided by two, while the coefficient changed dramatically, the Wald and R statistics remained unchanged. Looking at the Wald and R statistic columns, it is clear that age and previous appearances are the main contributors to this model, with Wald statistics over 300 and R statistics of -1.213 and 1.106 respectively. As with the coefficients, the sign of the R statistic indicates in which direction

---

2Significance tests in SPSS are done on the Wald statistic ((coefficient/S.E)2).

3The $R$ statistic is $\sqrt{\frac{\text{Wald statistic} - 2K}{-2 \text{LL}_0}}$ where $K$ is the degrees of freedom for the variables and the LL is the log likelihood of a base model containing only the intercept or constant.
APPENDICES

the effect of the predictor lay. Thus, age was negatively associated with reconviction - as age increased, the chance of reconviction decreased; and previous appearances was positively associated with reconviction - the greater the number of previous appearances the greater the chance of reconviction. Previous appearance rate was also a highly predictive variable, as was offence. The Wald statistic for the overall effect of offence is not comparable with the other Wald statistics, because there were eight degrees of freedom associated with this figure and one degree of freedom for all others in the equation. However, the R statistic for offence is comparable, as it takes account of the number of degrees of freedom. This shows the influence of offence category to be only slightly less than the influence of previous appearance rate. Average number of convictions per appearance (Avcoons) was a highly significant contributor to the model, although, as will be discussed later, this variable eclipsed some of the effect of previous appearance rate.

The effect of previous youth imprisonment was a complex one. When introduced on its own, the variable had little effect. However, when introduced with an interaction term with age, youth imprisonment became a highly significant predictor. The significant, positive coefficient for youth imprisonment shows that the greater the number of youth custody sentences, the greater the chance of reconviction. The significant, negative interaction term signifies that each unit increase in age decreases the effect of youth imprisonment. Thus, youth imprisonment has a stronger effect where offenders are young (and the experience of imprisonment therefore recent) than where offenders are old.

Interestingly, when all the other variables are taken into account, gender comes last in the list of variables, with a Wald statistic of 21.6. Gender was coded 0 for males and 1 for females, and thus the coefficient shows that being female reduced the log odds of reconviction by .2965. The low Wald statistic is partly explained by the fact that there was not a large number of females in the sample and therefore the standard error was high. However, as Figures 4.1 and 4.3 showed, there was a tendency for the difference between males and females to diminish as age and previous convictions increase. Furthermore, more detailed analysis of the combined effects of age and previous appearances revealed that females aged 30 and above were associated with higher rates of reconviction than males at any given level of previous appearance. While this effect is associated to some degree with the different types of offences committed by males and females, this is by no means the sole explanation.

Turning to offence type, Fraud or Forgery was the only category that was not significantly associated with reconviction, once all the other factors were taken into account. This may seem surprising in that Table 4.3 showed that offenders convicted of Fraud or Forgery offences had a reconviction rate considerably lower than average (44 per cent). However, as Tables B.2 and B.4 in Appendix B showed, a higher than average proportion of Fraud and Forgery offenders were female and had few - or no - previous appearances. This appears to explain the lack of influence of this offence group.

All the other offence categories had a significant impact on reconviction. While hitherto Wald and R statistics have been used to compare variables because they take into account the standard error associated with the coefficient, in comparing individual offence groups this is not necessary. Because all the variables are dichotomous, differences in the standard error are
basically proportional to differences in the distribution of the offence type: if an offence
category is relatively rare, there is likely to be considerable variation in estimated coefficients
and a high standard error. As a result, the standard errors of the offence categories in Table
D.1 are broadly proportional to the frequencies of these offences: theft offences were most
common and had the lowest standard error (.0382) and sex offences were least common and
had the highest standard error (.1136). It is therefore more instructive to compare offence
types using the coefficient. On this measure, sex offences had the biggest impact on
reconviction, with a coefficient of -.4431. Thus, controlling for the effect of all the other
variables in the equation, sex offences were associated with a greatly reduced risk of
reconviction. Burglary and criminal damage were both strongly associated with an increased
risk of reconviction. More surprisingly, theft was also quite strongly associated with an
increased risk of reconviction. Two explanations for this effect can be found from the earlier
analysis. First, as has been pointed out, over 20 per cent of theft offences were committed by
women, and this effectively suppressed the overall reconviction rate shown in Table 4.3.
Second, Table B.4 showed that offenders convicted of theft offences tended to be older than
average - this will have also effectively suppressed the relative reconviction rate of this
offence group. Taking account of these two factors shows that theft offences are associated
with a higher-than-average reconviction rate, especially in older age groups. The coefficient
for drug offences, shows that such offences were quite strongly associated with a low risk of
reconviction. As suggested in the main text, the high reconviction rate of motor offenders
was largely due to their young age - while they are significantly associated with a high
reconviction rate, the coefficient is relatively small. Lastly, excluding Fraud and Forgery
which had no impact, violent offences were associated with the weakest effect of the
different offence groups. This is surprising, in that the low reconviction rate of violent
offenders did not seem to be explained by their age and, only to a small degree, by their
number of previous appearances. Further analysis showed that violent offenders had a
particularly low average number of previous convictions per appearance and quite a low
previous appearance rate. Presumably, a combination of these variables explains the low
predictive power of violent offences in the model.

How well does the model fit the data?

How well does this model predict reconviction? The logistic regression programme can be
used to produce a percentage risk of reconviction for each case in the sample. Using these
risk scores, it is possible to look at the proportion correctly classified. If all those cases with
risks greater than 50 per cent are defined as 'reconviction predicted' and all those with risks
lower than 50 per cent are classified as 'no reconviction predicted', the following table is
obtained:
### APPENDICES

#### Table D.2
**Observed and predicted reconviction rates**

<table>
<thead>
<tr>
<th></th>
<th>Not convicted</th>
<th>Reconvicted</th>
<th>% correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not reconvicted</td>
<td>4,698</td>
<td>3,591</td>
<td>53</td>
</tr>
<tr>
<td>Reconvicted</td>
<td>1,959</td>
<td>8,326</td>
<td>81</td>
</tr>
<tr>
<td>% correct</td>
<td>67</td>
<td>70</td>
<td>69</td>
</tr>
</tbody>
</table>

Table D.2 shows that 53 per cent of the cases that were actually not reconvicted were correctly predicted not to be reconvicted and 81 per cent of those that were actually reconvicted were correctly predicted to be reconvicted. Looking at it the other way round, of those predicted to remain unconvicted, 67 per cent were actually unconvicted and of those predicted to be reconvicted, 70 per cent were reconvicted. Overall, the successful prediction rate was 69 per cent.

However, this is a very crude estimate of predictive accuracy: an incorrect classification in Table D.2 could have resulted from a reconvicted offender being assigned a risk of 49 per cent or a risk of nought per cent: the former would have been a minor error, the latter a major one. Table D.3 divides the predicted probability of reconviction into ten bands.

#### Table D.3
**Percentage risk of reconviction by proportion reconvicted**

<table>
<thead>
<tr>
<th>Actual</th>
<th>Percentage Risk of Reconviction (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;10</td>
</tr>
<tr>
<td>% Recon</td>
<td>5</td>
</tr>
<tr>
<td>Total N</td>
<td>236</td>
</tr>
</tbody>
</table>

N.B. The 213 cases with a predicted risk of reconviction of exactly 50% have been excluded from this table.

Table D.3 shows that for the large majority of cases the actual proportion reconvicted in each prediction category falls around the mid-point - indicating a good fit.
Appendix E: Characteristics of the disposal groups

Sex

Over a quarter of the probation sample were females, compared with less than a tenth of the other samples. As has been shown, gender is significantly associated with reconviction rate. In the interests of simplicity, the rest of this section will therefore focus on males only.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Prisons %</th>
<th>CSOs %</th>
<th>4A/4Bs %</th>
<th>Probation %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>95</td>
<td>94</td>
<td>92</td>
<td>74</td>
</tr>
<tr>
<td>Female</td>
<td>5</td>
<td>6</td>
<td>8</td>
<td>26</td>
</tr>
<tr>
<td>Total %</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total N</td>
<td>9,615</td>
<td>2,394</td>
<td>3,354</td>
<td>2,448</td>
</tr>
</tbody>
</table>

Note: The only weighting used in this and following analyses in this appendix was of the prison sample, to remove the effect of the oversampling referred to in Chapter 4. The prison total shown is the unweighted total, the weighted total being 9,779.

Age

There were some substantial differences between the four disposal groups in age range. Approximately half of the CSO and 4A/4B groups in Table E.2 were aged 17 to 20, compared with 35 per cent of the prison sample and 43 per cent of the probation sample. Conversely, prisoners tended to be older than offenders given CSOs or 4A/4Bs - 41 per cent were 25 or over, compared with 26 per cent of CSOs and 28 per cent of 4A/4Bs. Again, probationers fell in between these groups, with 36 per cent aged 25 or over. It is therefore clear that CSOs and 4A/4Bs have a similar, 'criminogenic' age profile, being comprised of a high proportion of young offenders - although they do differ in other respects.
Table E.2
Disposal group by age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Prisons %</th>
<th>CSOs %</th>
<th>4A/4Bs %</th>
<th>Probation %</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-20</td>
<td>35</td>
<td>50</td>
<td>49</td>
<td>43</td>
</tr>
<tr>
<td>21-24</td>
<td>24</td>
<td>23</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>25-29</td>
<td>16</td>
<td>12</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>30+</td>
<td>25</td>
<td>14</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td>Total %</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total N</td>
<td>8,179</td>
<td>2,252</td>
<td>3,094</td>
<td>1,803</td>
</tr>
</tbody>
</table>

Previous appearances and convictions

As Chapter 4 showed, the number of previous appearances is a very powerful predictor of reconviction. Table E.3 shows a breakdown of the numbers of previous appearances for the four disposal groups.

Table E.3
Disposal group by previous appearances

<table>
<thead>
<tr>
<th>Number of Previous Appearances</th>
<th>Disposal Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prisons</td>
</tr>
<tr>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>2 to 5</td>
<td>36</td>
</tr>
<tr>
<td>6 to 10</td>
<td>26</td>
</tr>
<tr>
<td>11+</td>
<td>19</td>
</tr>
<tr>
<td>Total %</td>
<td>100</td>
</tr>
<tr>
<td>Total N</td>
<td>8,179</td>
</tr>
</tbody>
</table>

Table E.3 shows some marked differences between the disposal groups in numbers of previous appearances. While only five per cent of offenders given 4A/4B orders were first offenders, this compares with 10 per cent of prisoners, 14 per cent of CSOs and 15 per cent
of probationers. Around a tenth of the prison and 4A/4B groups had a single previous appearance, compared with 16 and 17 per cent of probation orders and CSOs respectively. Offenders given custodial sentences or 4A/4B orders were far more likely to have had six or more previous appearances - nearly half in each case, compared to 26 per cent of CSOs and 29 per cent of probation orders. It is interesting to note that, barring the difference in the proportion of first offenders, the distributions of prison sentences and 4A/4Bs are very similar. It would therefore appear from the evidence presented so far that 4A/4B orders are much closer to being 'alternatives to custody' than CSOs (cf Mair 1988).

Looking at the average number of previous convictions is complicated by the fact that this variable is closely associated with previous appearances: offenders with many previous appearances tend to have many convictions at each appearance, and therefore high average rates of conviction. To take account of this, the average rate of conviction for each category of previous appearance was examined for the four disposal groups. Differences were not great - but showed a tendency for prison and 4A/4B cases to have higher average rates of conviction than the other two disposal groups.

Previous custody

As Chapter 4 showed, youth imprisonment was a stronger predictor of reconviction than adult custody - or all custodial sentences. This was verified in the multivariate analysis, where youth imprisonment was a strong predictor of reconviction, especially in young age groups. The following analysis is therefore restricted to youth imprisonment.

Table E.4
Disposal and previous youth imprisonment

<table>
<thead>
<tr>
<th>Number of Youth Prison Sentences</th>
<th>Disposal Group</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prisons</td>
<td>%</td>
<td>CSOs</td>
<td>%</td>
<td>4A/4Bs</td>
</tr>
<tr>
<td>0</td>
<td>56</td>
<td>70</td>
<td>52</td>
<td>73</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>18</td>
<td>15</td>
<td>22</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>2 to 4</td>
<td>22</td>
<td>13</td>
<td>23</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>5+</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total %</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Total N</td>
<td>8,179</td>
<td>2,252</td>
<td>3,094</td>
<td>2,042</td>
<td></td>
</tr>
</tbody>
</table>

Note: The most numerous category of previous custody in Table E.4 has been changed from 6 and over (as in Table E.2 in Appendix B) to 5 and over. This was due to the fact that when the sample was divided into the four disposal groups, numbers became too small. However, it should be noted that the number of offenders sentenced to CSOs and probation who had five or more previous youth imprisonments in Table E.4 were still low: 37 and 24 respectively.
There are some considerable differences between the four disposal groups in their relative experience of youth imprisonment. While around 70 per cent of offenders sentenced to CSOs or probation orders had not been sentenced to youth imprisonment before, the figures for prisons and 4A/4Bs were 56 and 52 per cent respectively. Prisoners and those sentenced to 4A/4Bs were considerably more likely to have received two or more youth prison sentences than the other groups: approximately a quarter in each case, compared with 13 to 15 per cent of CSOs and probationers.

Previous appearance rate and reconviction

Table E.5 depicts the relationship between disposal type and previous appearance rate. It shows that while 35 per cent of probationers had an appearance rate of under five, 32 per cent of offenders on CSOs, 23 per cent of prisoners and 15 per cent of the 4A/4B group were in this category. Turning to the high appearance categories, approximately 30 per cent of the probation and CSO groups had rates of 10 or higher, compared with 38 per cent of the prison group and 45 per cent of the 4A/4B group. The 4A/4B group seems, therefore, to be the highest risk group on this measure.

Table E.5
Disposal type by previous appearance rate

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Disposal Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prisons</td>
</tr>
<tr>
<td>0</td>
<td>%</td>
</tr>
<tr>
<td>&gt;0 - &lt;5</td>
<td>10</td>
</tr>
<tr>
<td>5 - &lt;10</td>
<td>38</td>
</tr>
<tr>
<td>10 - &lt;15</td>
<td>27</td>
</tr>
<tr>
<td>15 +</td>
<td>11</td>
</tr>
<tr>
<td>Total %</td>
<td>100</td>
</tr>
<tr>
<td>Total N</td>
<td>8,179</td>
</tr>
</tbody>
</table>

Summarising the comparison between disposal groups so far, it is clear that the offenders given 4A/4B orders were a very high risk group: comparable with prisoners with respect to previous appearances and youth custody and higher risk with respect to their age profile, age at first conviction and, most importantly, previous appearance rate. While CSOs have a young, and therefore criminogenic, age profile similar to 4A/4B orders, they are not associated with such high risk criminal histories as prisons or 4A/4Bs. Probationers tended to
be older than average, with a similar age profile to prisoners, but with criminal histories more akin to those on CSOs.

**Offence**

Table E.6 shows the offences committed by the four disposal groups. There are some interesting differences in the offence profiles associated with the four disposal groups. A fifth of the prisoners were convicted of violence offences, compared with 12 per cent of CSOs and eight per cent of probation orders and 4A/4Bs. Similar numbers of prisoners and offenders given 4A/4B orders were convicted of burglary: 30 and 31 per cent respectively, compared with 26 per cent of offenders given CSOs and 20 per cent of probationers. Theft was most common amongst probationers and considerably less common amongst prisoners, with CSOs and 4A/4Bs lying between the two. Motor offenders were more common amongst the high tariff community disposals and least common amongst the prison group; criminal damage was most common among both types of probation order, and comparatively rare among prisoners.

**Table E.6**

<table>
<thead>
<tr>
<th>Offence</th>
<th>Prisons %</th>
<th>Disposal Group</th>
<th>Probation %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CSOs</td>
<td>4A/4Bs</td>
<td></td>
</tr>
<tr>
<td>Violence</td>
<td>20</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Sex</td>
<td>3</td>
<td>–</td>
<td>1</td>
</tr>
<tr>
<td>Burglary</td>
<td>30</td>
<td>25</td>
<td>31</td>
</tr>
<tr>
<td>Theft</td>
<td>19</td>
<td>29</td>
<td>27</td>
</tr>
<tr>
<td>Fraud/Forgery</td>
<td>5</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Motor</td>
<td>10</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Criminal damage</td>
<td>2</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Drugs</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Total %</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total N</td>
<td>8,179</td>
<td>2,252</td>
<td>3,094</td>
</tr>
</tbody>
</table>

These differences in offence profiles will inevitably influence reconviction rates. As the multivariate analysis showed, burglary, criminal damage, theft and motor offences were all
positively associated with reconviction, when all other factors are taken into account. These four offence groups accounted for 61 per cent of prisoners, 77 per cent of those on CSOs or regular probation and 84 per cent of those given 4A/4B orders. Thus offenders on 4A/4B orders had a very high-risk offence profile; considerably higher than prisoners. It is also noticeable that prisoners tended to have been convicted of more of the offences associated with a low risk of reconviction. As the earlier analysis showed, sex and drug offences in particular - and to a lesser extent violent offences - were associated with low risks of reconviction. These three offence groups accounted for considerably more of the prison group than the other disposal groups.

The offence categories used in Table E.6 present only limited information about the nature of the offence. In fact, considerably more detailed information was available from the Offenders’ Index - for instance, burglary was subdivided into those occurring in dwellings and those occurring in non-dwellings. However, further analysis found little difference in reconviction rate between specific offence types within the categories shown in Table E.6. It should also be noted that there could be other aspects of offence which influence reconviction rates: whether the offender was part of a group of offenders; whether the offender was a ring-leader; the amount stolen in acquisitive offences; spontaneity/premeditation of the offence etc.
Appendix F: A second multivariate analysis of reconviction

Table F.1 shows the output for a logistic regression carried out on the same variables as in Appendix D, but with the addition of disposal type.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient Estimate</th>
<th>Standard Error</th>
<th>Wald</th>
<th>Signif</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-.0521</td>
<td>.0028</td>
<td>343.5</td>
<td>.0000</td>
<td>-.1180</td>
</tr>
<tr>
<td>Previous appearances</td>
<td>.0951</td>
<td>.0055</td>
<td>296.2</td>
<td>.0000</td>
<td>.1095</td>
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<tr>
<td>Prev appre rate</td>
<td>.6359</td>
<td>.0455</td>
<td>195.7</td>
<td>.0000</td>
<td>.0888</td>
</tr>
<tr>
<td>Offence</td>
<td></td>
<td></td>
<td>155.8</td>
<td>.0000</td>
<td>.0755</td>
</tr>
<tr>
<td>Violence</td>
<td>-.1614</td>
<td>.0446</td>
<td>13.1</td>
<td>.0003</td>
<td>-.0213</td>
</tr>
<tr>
<td>Sex</td>
<td>-.4181</td>
<td>.1139</td>
<td>13.5</td>
<td>.0002</td>
<td>-.0216</td>
</tr>
<tr>
<td>Burglary</td>
<td>.3369</td>
<td>.0385</td>
<td>76.3</td>
<td>.0000</td>
<td>.0550</td>
</tr>
<tr>
<td>Theft</td>
<td>.2447</td>
<td>.0387</td>
<td>40.0</td>
<td>.0000</td>
<td>.0393</td>
</tr>
<tr>
<td>Fraud/Forgery</td>
<td>-.0340</td>
<td>.0678</td>
<td>6.3</td>
<td>.0165</td>
<td>.0000</td>
</tr>
<tr>
<td>Motor</td>
<td>.1568</td>
<td>.0512</td>
<td>13.3</td>
<td>.0003</td>
<td>.0215</td>
</tr>
<tr>
<td>Criminal Damage</td>
<td>.2820</td>
<td>.0736</td>
<td>14.7</td>
<td>.0001</td>
<td>.0227</td>
</tr>
<tr>
<td>Drugs</td>
<td>-.2303</td>
<td>.0847</td>
<td>7.4</td>
<td>.0065</td>
<td>-.148</td>
</tr>
<tr>
<td>Avonca</td>
<td>.1768</td>
<td>.0237</td>
<td>55.5</td>
<td>.0000</td>
<td>.0467</td>
</tr>
<tr>
<td>Yth imp x age</td>
<td>-.0159</td>
<td>.0026</td>
<td>34.5</td>
<td>.0000</td>
<td>-.0364</td>
</tr>
<tr>
<td>Youth imprisonment</td>
<td>.3762</td>
<td>.0659</td>
<td>32.6</td>
<td>.0000</td>
<td>.0353</td>
</tr>
<tr>
<td>Gender</td>
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<td>.0653</td>
<td>21.5</td>
<td>.0000</td>
<td>-.0282</td>
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<td>Disposal</td>
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<td>.0340</td>
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<tr>
<td>Prisons</td>
<td>-.1032</td>
<td>.0269</td>
<td>14.7</td>
<td>.0001</td>
<td>-.0227</td>
</tr>
<tr>
<td>CSOs</td>
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<td>.0373</td>
<td>4.1</td>
<td>.0105</td>
<td>.0000</td>
</tr>
<tr>
<td>4A/4Bs</td>
<td>.1691</td>
<td>.0345</td>
<td>24.0</td>
<td>.0000</td>
<td>.0299</td>
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<tr>
<td>Constant</td>
<td>.2301</td>
<td>.0812</td>
<td>8.0</td>
<td>.0046</td>
<td></td>
</tr>
</tbody>
</table>

Most of the coefficients of the variables in the earlier model have not changed to any great extent, although it is noticeable that some of the offence type coefficients have shifted. Overall, the Wald statistic for offence decreased by over 28. Violent, theft and criminal damage offences lost quite large parts of their influence. This suggests that these offence
types were 'standing in' for certain disposal groups. For example, a large proportion of offenders given 4A/4B orders were convicted of criminal damage offences. Because this disposal group had a high reconviction rate, this led to criminal damage offenders being strongly associated with reconviction in the earlier model. However, when disposal type was put into the present equation, the effect was 'claimed' by the 4A/4B disposal group and 'taken from' the criminal damage group.

The disposal variable's contribution to the model was significant, with a Wald statistic of over 34. However, it is obvious that the effect of disposal group was much smaller than that of the criminal history variables - and smaller than the effect of some offence types. As can be seen from the entries under the 'Disposal' heading in Table F.1, only three of the four disposal groups are shown: probationers appear to be missing. This is because categorical variables such as disposal and offence are coded in logistic regression in such a way that a particular category becomes a reference category. In fact, with the particular coding scheme used in this analysis (and the analysis in Appendix D) the coefficient for probation is equal to the negative sum of the other disposal coefficients, -.0569, and was not significantly associated with reconviction.

There were significant interactions between disposal group and a number of other variables. The two most significant interactions were with previous appearance rate and offence type. It appeared that previous appearance rate was much more positively associated with reconviction for prisoners than those on 4A/4Bs: why this should be so is not clear. With regard to offence type, prisoners convicted of criminal damage were associated with a high risk of reconviction compared with average and offenders on CSOs convicted of criminal damage were associated with a very low risk of reconviction. Both these effects were highly significant. Imprisoned drug offenders and motor offenders given CSOs had relatively low risks of reconviction. These interactions between offence and disposal could reflect the relative effectiveness of disposal type on particular types of offenders - or they could reflect subtle differences in the precise nature of offences between the disposal groups.
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