



Ministry of
JUSTICE

Proven re-offending statistics: definitions and measurement

Published October 2011

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Proven Re-offending Statistics Quarterly Bulletin

Background

The Ministry of Justice launched a statistical consultation on improvements to the transparency and accessibility of our information in 2010 and a response to the consultation was published in March 2011. One aspect of the consultation was the measurement of proven re-offending. Responses have supported the proposals to move to a single framework for measuring re-offending where adult and youth data can be provided at the national and local level on a consistent basis. The response to the consultation is available here:

www.justice.gov.uk/downloads/consultations/improvements-moj-statistics-consultation-response.pdf

Prior to this consultation there were six different measures of proven re-offending:

- national adult proven re-offending;
- local adult proven re-offending;
- national youth proven re-offending;
- local youth proven re-offending;
- Prolific and other Priority Offending (PPO); and
- drug-misusing proven offending.

The current framework for measuring proven re-offending integrates these approaches into a single framework. This allows users to:

- form a clear picture of proven re-offending at national and local levels;
- compare adult and youth results, and enable other work on transition between the youth and adult system;
- understand how results for different offender groups (such as those managed by the prison and probation services, those under the PPO schemes, drug-misusing offenders, first time entrants, etc) fit in to the overall picture on proven re-offending; and
- continue to be able to analyse proven re-offending behaviour of particular types of offender.

Measurement

The underlying principle of measuring re-offending (or recidivism, which is the most commonly used term internationally) is that someone who has received some form of criminal justice sanction (such as a conviction or a caution) goes on to commit another offence within a set time period.

Measuring true re-offending is difficult. Official records are taken from either the police or courts, but they will underestimate the true level of re-offending because only a proportion of crime is detected and sanctioned and not all crimes and sanctions are recorded on one central system. Other methods of measuring re-offending, such as self report studies, are likely to be unreliable.

Following the Ministry of Justice consultation on Improvements to Ministry of Justice Statistics (2010), a **proven re-offence is defined** as any offence committed in a one year follow-up period and receiving a court conviction, caution, reprimand or warning in the one year follow up or a further six months waiting period. The data source is the extract of the Police National Computer (PNC) held by the Ministry of Justice.

Definitions for the measurement of proven re-offending

Cohort

This is the group of individuals whose re-offending is measured. For the Proven Re-offending Statistics Quarterly Bulletin this is defined as all offenders in any one year who received a caution (for adults), a final warning or reprimand (for juveniles), a non-custodial conviction, or were discharged from custody.

Offenders who were discharged from custody or secure accommodation (juveniles only) or commenced a Court Order are matched to the PNC database. A proportion of cases are lost in this process because they cannot be matched (see the section titled "Matching offender records" below for details). Additionally, offenders who appear multiple times in the cohort are only included once (see the section titled "Multiple Offender Entries" below for details).

The group of offenders whose offending behaviour is proven is likely to be a sub-group of all active offenders. The Offending, Crime and Justice Survey (2003)¹ estimated that around one in ten people in England and Wales aged between 10 and 65 had committed an offence in the previous twelve months, which translates into approximately 3.8 million people. This compares to 632,000 offenders in the 2002 cohort used to measure re-offending, underlining that the offenders whose proven re-offending

¹ The Offending, Crime and Justice Survey (2003) was a random probability survey of 10,079 people aged from ten to 65 and asked people about their offending history. Like any such survey its accuracy is dependent upon the level of honesty with which respondents completed the survey.

behaviour is presented in the re-offending bulletin are a small and probably unrepresentative sample of the population of all active offenders.

Index disposal (sentence type)

The index disposal of the offender is the type of sentence the offender received for their index offence. For the Proven Re-offending Statistics Quarterly Bulletin this is defined as custody, court order, other disposal resulting from a conviction at court, such as a fine or discharge, caution (adult offenders), reprimand or final warning (young offenders).

Index offence: Offences are only counted as an index offence if the offence is:

- recordable (see below)
- committed in England and Wales
- prosecuted by the police
- not a breach offence

There are around 3,000 offence codes on the Police National Computer. These have been classified into 21 groups: violence (non serious), violence (serious), robbery, public order or riot, sexual, sexual (child), soliciting or prostitution, domestic burglary, other burglary, theft, handling, fraud and forgery, absconding or bail offences, taking and driving away and related offences, theft from vehicles, other motoring offences, drink driving offences, criminal or malicious damage, drugs import/export/production/supply, drugs possession/small scale supply and other.

Start Point (also known as the index date)

This is the set point in time from when re-offences are measured. For the Proven Re-offending Statistics Quarterly Bulletin this is defined as the date of prison discharge, date of court conviction for non-custodial sentences, date of receipt for a caution, reprimand or final warning or the date of a positive drug test.

Follow-up period

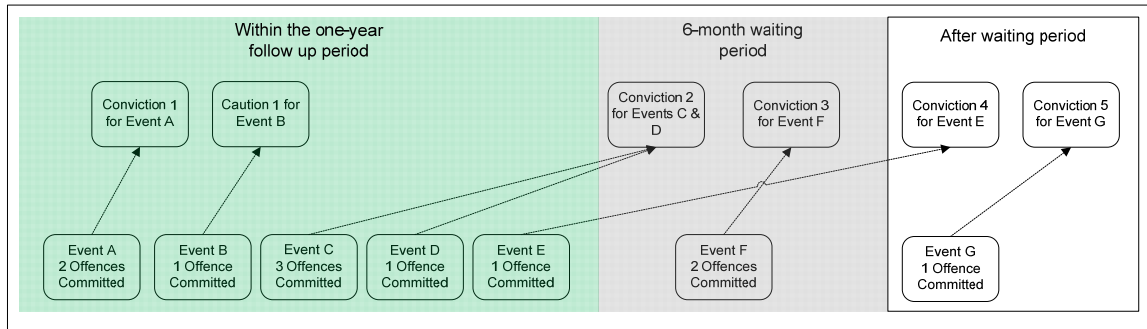
This is the length of time proven re-offending is measured over. For the Proven Re-offending Statistics Quarterly Bulletin this is defined as twelve months from the start point.

Waiting period

This is the additional time beyond the follow up period to allow for offences committed towards the end of the follow up period to be proved by a court conviction, caution, reprimand or final warning. For the Proven Re-offending Statistics Quarterly Bulletin this is six months

Figure 1 below illustrates why different offences are included or not in the re-offending measures for an example offender.

Figure 1: How events of re-offending are included in the measure



Events A-E all occur in the one year follow up period, but Events F and G are outside this period, so would not be counted. Events A-D are all counted because they were all proven within the one year follow-up period or the further six months waiting period, but Event E, even though the offence took place in the one year follow up period, would not be counted, as the conviction did not occur within either the one year follow up period, or the further six month waiting period. The offender has therefore committed 7 proven offences during the one-year follow up period (2 for Event A, 1 for Event B, 3 for Event C, and 1 for Event D).

Sentence/disposal that an offence receives to count as a re-offence

Offences that are proved by a court conviction, caution, reprimand or final warning count as re-offences.

Offences that count as re-offences

Offences are counted as re-offences if they meet all of the following criteria:

- They are recordable. Not all offences are on the PNC and more recordable offences are entered than non-recordable offences. Analysis comparing offences proven at court with offences recorded on the PNC suggests the most common offences that are not recorded relates to motor vehicles e.g. using a motor vehicle whilst uninsured against third party risks, speeding offences, keeping a vehicle on the highway without a driving license, or to television license evasion.
- They were committed in England or Wales.
- They are offences that were prosecuted by the police. PNC data is collected and input by the police and offences prosecuted by the police are likely to be recorded more comprehensively on the PNC than offences that are prosecuted by other organisations. For example, benefit fraud is prosecuted by the Department of Work and Pensions, and benefit fraud offences may be poorly represented on the PNC.
- Offences are only counted if they are proven through caution (for adults), reprimands or final warnings (for juveniles) and court convictions. Offences that are not proven, or which meet with other responses from the Criminal Justice System, are not counted. The Offending, Crime and Justice Survey (2003) estimated that 6 per cent of all offences resulted in any contact with the Criminal Justice System.

- The offence is not a breach offence i.e breach of a court order, since we are only interested in new offences

Adjusted baseline (predicted rate)

Proven re-offending is related to the characteristics of offenders which means that any overall rate of proven re-offending will depend, in part, on the characteristics of offenders coming into the system (just as the examination pass rate of a school will be related to the characteristics of its pupils). We use a modelling technique to produce a baseline figure adjusted to match the characteristics of the cohort we are comparing. For more details see the chapter on Statistical modelling and coefficients.

Measures of proven re-offending

Re-offending data are presented in the following ways:

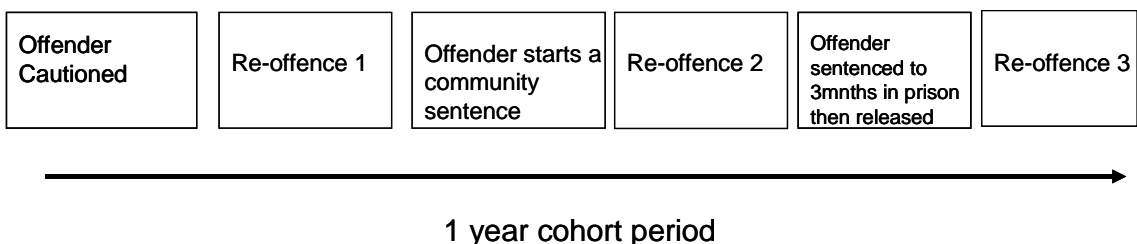
- The number of offenders;
- The proportion of offenders who are proven re-offenders;
- The average number of proven re-offences among **re-offenders**;
- The average number of proven re-offences among **all offenders** including those who committed no proven re-offences (previously the frequency rate);
- The proportion of proven offenders who committed a proven serious re-offence against the person. See page 31 for details of what counts as a serious offence.
- The proportion of proven offenders who committed a proven serious acquisitive re-offence. See page xx for details of what counts as a serious acquisitive offence.

The proportion of offenders who are proven to re-offend, adjusted to control for changes in offender characteristics. This measure is different from the other measures in that it does not come from actual re-offences, but from a statistical model created for the baseline year of 2008. This gives a better indication of actual change against a baseline. See the chapter on Statistical modelling and coefficients (page 23)

Multiple Offender Entries (MOEs)

Each offender is tracked over a fixed period of time and any proven offence committed in this period is counted as a proven re-offence. Offenders who, after entering the cohort in a given year, commits a re-offence and is either cautioned, discharged from prison or gets a non-custodial conviction in the same cohort year. This re-offence could also be included as a second entry for this offender into the cohort.

Figure 2: Example of an offender with Multiple Offender Entries



To date, publications have avoided the double counting of these multiple offender entries (MOE) by only counting an individual once based on their first proven offence in the relevant time period. In the illustration above the caution would be counted as the index disposal and the further two proven offences would be counted as re-offences. This avoids double counting of proven re-offences

Proven re-offending measure

In this publication the main tables (tables 1 to 17) in the report have been produced on the basis of the 'first proven offence in the relevant time period' which led to an offender being included. This provides a picture of proven re-offending which is consistent with previous publications and tracks an offender, irrespective of the disposal they receive, to when they commit a proven re-offence

The measure of proven re-offending now covers all offenders in any one year instead of the first quarter of a calendar year as in previous proven re-offending publications. The result is many more offenders with multiple entries (MOEs).

In addition, including cautions to identify a proven offence means many offenders' first offence will be associated with a caution since cautions account for around a third of adult offenders in one year. Table 1 shows the number of offenders by their number of entries.

Table 1: Number of adult offenders and their respective number of entries for 2000, 2002-2009 cohorts

Multiple Offender Entries (MOEs)	2000	2002	2003	2004	2005	2006	2007	2008	2009
1	512,551	522,376	544,032	551,265	582,840	622,096	638,495	610,329	578,644
2x	75,311	77,813	81,651	78,969	81,120	87,589	91,695	88,207	83,785
3x	19,565	21,208	22,073	20,855	20,926	21,974	23,757	23,662	22,125
4x	6,195	6,689	7,074	6,835	6,725	6,807	7,652	7,917	7,360
5x	1,998	2,314	2,392	2,357	2,355	2,425	2,795	2,911	2,938
6 to 10x	1,240	1,510	1,689	1,641	1,505	1,513	1,966	2,341	2,308
greater than 10x	164	155	129	131	119	115	114	160	202
Total MOEs	104,473	109,689	115,008	110,788	112,750	120,423	127,979	125,198	118,718
% of total cohort	16.9%	17.4%	17.5%	16.7%	16.2%	16.2%	16.7%	17.0%	17.0%
Cohort	617,024	632,065	659,040	662,053	695,590	742,519	766,474	735,527	697,362

The number of offenders with multiple entries has remained fairly constant over time. The proportion of the total that had multiple offender entries has remained at about 16 – 17 per cent between 2000 and 2009

Proven re-offending by index disposal, probation trust and prison

In order to measure proven re-offending on a consistent and representative basis by offender management groups it is necessary to distinguish between the disposal types that led to an offender being included. Doing this allows the cohort to be defined according to the relative start point of an offender's interaction with the prison (discharged from prison) or probation services (court order commencement).

Tables 18 to 21 provide re-offending rates by disposal (sentence) types. These are produced on the basis of an individual's first disposal (sentence) in that category. In the illustration above the individual would appear once in the caution category, once in the community order category and once in the custody category. These tables will include an overall prison and probation proven re-offending rate which will be the figures we quote publicly. However these figures should not be used when comparing proven re-offending rates across different disposals to compare effectiveness. Instead the Compendium of Re-offending (www.justice.gov.uk/downloads/publications/statistics-and-data/mojstats/compendium-of-reoffending-statistics-and-analysis.pdf) should be referred to as this analysis controls for offender characteristics in order to give a more reliable estimate of the relative effectiveness of different disposals

Tables 22 to 24 provide re-offending rates by individual prison and probation trust. These are produced on the basis of an individual's first disposal from each specified prison or probation trust. If the individual offender is discharged from two different prisons in the year they will appear in both of the prison's re-offending rates. The same applies for offenders commencing court orders in more than one probation trust within the year. This is to allow prisons and probation services to track their caseload of offenders.

Early Estimates of Proven Re-offending Statistics

Background

Responses from the consultation and from earlier engagement with representatives of front-line offender management services supported the proposal to produce early estimates of proven re-offending using shorter follow-up and waiting periods. This is intended to provide offender managers feedback on the proven re-offending trends of offenders they are working with in time for them to adjust or build on offender management operational policy. This section of the new bulletin addresses these issues.

Early estimates of proven re-offending are presented for four particular offender groups who are subject to specific offender management arrangements. These are offenders managed by the probation service, Prolific and other Priority Offenders (PPO) who are managed by a partnership of local front-line services, drug-misusing offenders who are managed by Drug Action Teams, and young offenders who are managed by Youth Offending Teams.

Proven re-offending for the early estimates is measured in exactly the same way as for the headline proven re-offending measure except that the follow-up period and waiting period are both three months each. (For the headline measure of proven re-offending they are twelve months and six months, respectively).

The headline figures and early estimates differ in the following ways:

- Early estimates of proven re-offending rates are considerably lower than in the headline publication. This is because they cover a shorter time period.
- The shorter follow-up period and waiting period allow rates to be calculated for more recent groups of proven offenders.
- Early estimates of proven re-offending rates provide local offender management services with information on proven re-offending trends for the offenders they are working with. The headline re-offending publication presents the public with information on a wide range of proven re-offending trends and provides proven re-offending rates by a variety of breakdowns, such as age, gender, disposal etc.
- The shorter follow-up period and waiting period provides insufficient time for many serious re-offences to be committed and convicted. For this reason early estimates of proven re-offending rates do not include information on serious re-offending.
- Results in the headline measure are compared to a baseline rate, adjusted for changes in the offender profile. This relies on an estimate of the relationship between offender characteristics and proven re-offending behaviour over twelve-months. An equivalent estimate has

been carried out for the proven re-offending behaviour of offenders commencing court order over three months. This uses the same variables as the headline measure plus additional variables to ensure that the actual and predicted rates are identical for every probation trust in the baseline period (2008). The tables accompanying the early estimates present the adjusted baseline for each trust, and the text identifies those trusts where the actual rate is significantly higher or lower than the predicted rate in the most recent results available.

Measurement

Coverage: Results are provided for four types of offenders: probation offenders by probation trust, PPO offenders by upper-tier local authority, drug-misusing offenders by Drug Action Team, and young offenders by Youth Offending Team.

Cohort: For probation offenders, the cohort is made up of all offenders who commenced a Court Order within a twelve month period. For PPO offenders, the cohort is made up of all offenders identified as a PPO who were discharged from custody, convicted at court, received a caution (adults), reprimand or final warning (juveniles) or tested positive for opiates or cocaine within a twelve month period. For drug-misusing offenders, the cohort is made up of all offenders identified as drug-misusing who were discharged from custody, convicted at court, received a caution or tested positive for opiates or cocaine within a twelve month period. For juveniles, the cohort is made up of all young offenders who were discharged from custody, convicted at court or received a reprimand or final warning within a twelve month period.

Start Point: Same as for the headline re-offending figures presented in the Re-offending Statistics Quarterly Bulletin.

Follow-up period: Three months from the start point

Waiting period: Three months

Proven Re-offence: Same as for the headline proven re-offending figures presented in the Re-offending Statistics Quarterly Bulletin.

Adjusted baseline: Proven re-offending is related to the characteristics of offenders which means that any overall rate of proven re-offending will depend, in part, on the characteristics of offenders coming into the system (just as the examination pass rate of a school will be related to the characteristics of its pupils). We use a modelling technique to produce a baseline figure adjusted to match the characteristics of the cohort we are comparing. For more details see the chapter on Statistical modelling and coefficients (p 23).

Multiple Offender Entries (MOEs): Same as for the offender management tables in the main bulletin.

Local Measure of Re-offending

Background

Proven re-offending results from this measure have been published by the Ministry of Justice since February 2009 at the Government Office Region, Probation Trust and local authority level. This data is used to measure probation performance and the Ministry of Justice will continue to produce these measures while offender management systems still require them.

The local proven re-offending data measures the re-offending of all offenders on the probation caseload. This includes offenders on licence and serving Court Orders.

www.justice.gov.uk/publications/statistics-and-data/reoffending/local-adult-reoffending.htm

Local proven re-offending rates use the same follow-up period and waiting period to those for the early estimates. However, there are several large differences between the local measure and the early estimates. These include:

- the sample of offenders. Local rates are estimated using all offenders on the probation caseload, including those on licence and those serving court orders. Offenders on the caseload are identified through four 'snapshots' of the caseload, taken each quarter. Offenders are included if they are on the caseload even if they have been on licence or serving the court order for longer than twelve months. The early estimates are based on offenders who commence a court order within a twelve month period.
- Local rates define the period reported on by the period of re-offending. The early estimates refer to the year of the index disposal.

Measurement

Cohort: All offenders on the probation caseload taken from four snapshots taken quarterly.

Start Point: The date of the snapshot.

Follow-up period: Three months from the start point

Waiting period: Three months

Proven Re-offence: Same as for the headline proven re-offending figures presented in the Re-offending Statistics Quarterly Bulletin.

Adjusted baseline (Predicted Rate): The predicted rate is the proportion of offenders we would expect to re-offend given the known characteristics of

the offenders in the snapshot and re-offending rates in the baseline period. More detail on the predicted rate, and the statistical model used to calculate it, is provided in Appendix C of the Local Adult Re-offending bulletin.

Data Quality

The data required for measuring proven re-offending involve a range of data sources (NOMS prison database, probation data, identification of drug-misusing offenders, identification of Prolific and other Priority Offenders, and young offenders in secure accommodation, and the criminal records from the Police National Computer) from a range of agencies (NOMS, probation trusts, the Youth Justice Board, Drug Action Teams, local authorities and the National Police Improvement Agency). These figures have been derived from administrative IT systems which, as with any large scale recording system, are subject to possible errors with data entry and processing.

Police National Computer data

Information regarding the proven re-offending behaviour of offenders has been compiled using the Ministry of Justice's extract from the Police National Computer (PNC). The process involves matching offender details from the prison and probation services to the personal details recorded on the PNC. A proportion of cases cannot be matched and the figures presented in Table 1 are expressed as a percentage of the offenders that are matched. Like any large scale recording system the PNC is subject to errors with data entry and recording. The PNC is regularly updated so that further analysis at a later date will generate revised figures.

The quality of the information recorded on the PNC is generally assumed to be relatively high as it is an operational system on which the police depend, but analysis can reveal errors that are typical when handling administrative datasets of this scale. The extent of error or omitted records on the PNC is difficult to estimate because it is a unique data-source. As a result, there is not always an obvious source of data to provide a baseline from which to assess data quality. For some types of results, however, comparisons can be made. For example, the trend in receptions into prison in each month is very similar using the PNC and prisons data (see below for details) although the number of receptions recorded on the PNC is consistently slightly lower because prisons data included cases on remand whereas the PNC does not. Another example is the number of cases that given a custodial, broken down by offence type, which is similar using the PNC and the Court Proceedings Database with a match rate of 97 per cent.

A number of improvements are routinely carried out:

- Updates to the coding and classification of offences and court disposals, including the reduction of uncoded offences, the reduction in the use of miscellaneous offence codes and the clarification of the coding of breach offences;

- Updates to the methods used to identify the primary offence, where several offences are dealt with on the same occasion, and the methods used to identify the primary disposal, where an offence attracts more than one court disposal; and,
- Removal of some duplication of records within the database resulting in improvements to the efficiency and reliability of the matching process.

Prison data

Prison establishments record details for individual inmates on the prison IT system (either Prison-NOMIS or LIDS). The information recorded includes details such as date of birth, sex, religion, nationality, ethnic origin, custody type, offence, reception and discharge dates and, for sentenced prisoners, sentence length. The data from individual prison establishments then feeds through to a central computer database, called the Inmate Information System (IIS).

In May 2009, the National Offender Management Service began the roll-out of a new case management system for prisons (Prison-NOMIS). During the phased roll-out, data collection issues emerged that affected the supply of data for statistical purposes from July 2009 to February 2010. Specifically, statistical information on sentence length and offence group are not available on any of our prison datasets for this period

In order to ensure the fullest possible set of data from July 2009 to February 2010, sentence lengths were estimated for those prisoners received or discharged before the problems were resolved. At the point when the problems were resolved, a small number of prison establishments were still using the old LIDS case management system; data for prisoners received or discharged from these prisons was assumed to be unaffected.

For those prisoners received or discharged from prisons operating Prison-NOMIS, efforts were made to populate their record with the correct sentence length using other data extracts. For example, many prisoners discharged in January 2010 were originally received into prison prior to July 2009, so we were able to take their sentence length from unaffected datasets before the problems began. Similarly, the majority of those received in early 2010 were still in prison in March 2010 when the problems were resolved, so we were able to use the sentence length in the corrected prison population data.

Where it was not possible to populate a sentence length using other datasets, prisoners were allocated a sentence length band based on the number of days they spent in custody (taking account of early release schemes where relevant).

Alternative estimation method

As a check on the methodology, we created an alternative estimation process and compared the number of discharges in the second half of 2009 in each sentence length band using the two methods.

A number of estimation methods were considered, and each tested on the 2008 data (prior to the data problems, hence we had a full year of data) to see which yielded estimates closest to the actual 2008 data. This identified the following method:

1. Calculate data for the first half of the year as a proportion of the full calendar year, for each year from 2001 to 2008; separately for each sentence length band or offence group (the 2 key breakdowns to be estimated).
2. Apply the average of these proportions to the Jan-Jun 2009 data to estimate the 2009 annual totals; separately for each sentence length band/offence group.
3. Scale the estimated numbers in each sentence length band or offence group to sum to the annual total recorded in the raw data (where the totals are known to be correct).

Results

The maximum difference between the two approaches was 2.6% in the band 12 months to less than 4 years; for all other bands the difference was less than 1%.

Indeterminate sentence prisoners

In addition to the above, data on the discharge of prisoners on indeterminate sentence (prisoners given a life sentence or indeterminate sentence for Public Protection (IPP) is provided from the Public Protection Unit Database (PPUD). This holds data jointly owned by the Offender Management and Public Protection Group (OMPPG) in NOMS and the Parole Board.

PPUD records details of all indeterminate sentence prisoners at the point of conviction, those engaged in the Generic Parole Process and prisoners (determinate and indeterminate) who have been recalled from licence. It also covers those who have received a restricted hospital order/direction from a Crown Court, and those remand and convicted prisoners who have been transferred from prison/detention centres to psychiatric hospital under the relevant sections of mental health legislation.

All decisions taken by the NOMS casework sections and the Parole Board are recorded on the system.

Personal information recorded includes (but is not limited to) name, date of birth, gender, identifying numbers, ethnicity, last known address, probation area and sentencing information.

OMPPG and the Parole Board run monthly and ad hoc reports to cleanse data that are not otherwise identified by data validation routines built into the system.

Probation data

Since 2005, detailed information on the supervision of offenders (at the individual offender level) has been submitted by probation trusts on a monthly basis. These monthly 'probation listings' include information on offenders starting probation supervision. Between 2002 and 2005 this information was submitted quarterly, and prior to 2002 a different data collection system was in place, which meant that information on caseload had to be calculated based on the number of people starting supervision and the number of terminations.

The quality of the information recorded on the probation data is generally assumed to be relatively high as it is a direct extract from an operational system upon which the probation service depends for managing offenders locally. The extract consists of a small number of key fields for which completion is mandatory. Probation Trusts have their own IT departments who manage their own data validation processes and when the data is received centrally it is subject to another set of data validation processes. Trends from the data are consistent with comparable time-series from the Courts Proceeding Database. Any large scale recording systems are subject to possible errors with data entry and processing but there are no known issues regarding the probation commencements data.

Identification of drug-misusing offenders

There are four ways a drug-misusing offender can be identified:

- Individuals who have tested positive for heroin or crack/cocaine following an arrest or charge for 'trigger' offences (largely acquisitive crime offences) as part of the Drug Interventions Programme (DIP) are included as adult proven offenders.
- Any offender that received an OASys assessment whilst on licence or on a community sentence and are either recorded as being subject to a current Drug Treatment and Testing Order (DTTO) or Drug Rehabilitation Requirement (DRR), or are assessed as having a criminogenic drug need.
- Any offender identified as requiring further drug interventions by Counselling, Assessment, Referral, Advice, Throughcare (CARAT) teams in prison, and now being released into the community.
- Any offender identified by local Criminal Justice Integrated Teams (CJITs) as requiring further intervention for their drug use and offending as part of DIP.

Drug Interventions Programme (DIP)

The Drug Interventions Programme (DIP) was introduced in April 2003 with the aim of developing and integrating measures for directing adult drug-misusing offenders into drug treatment and reducing offending behaviour. The programme comprises of a number of interrelated interventions:

- Drug testing in police custody for specified Class A drugs – heroin, cocaine and crack cocaine – for individuals arrested for trigger offences (primarily offences related to acquisitive crime);
- Assessment following a positive test to establish the extent of the individual’s drug-misuse, and whether the individual might benefit from further assessment, assistance or treatment;
- Conditional cautioning which may include a DIP drug rehabilitative condition, tailored to the offender’s drug use and offending.
- Restriction on bail for adults who have tested positive and whose offence is a drug offence or is drug-related.
- Criminal Justice Integrated Teams (CJITs) manage offenders who have been referred to treatment and co-ordinate agencies and services so they offer access to joined-up treatment and support. They maintain strong links with both the National Probation Service and Prison Service to ensure the continuity of care whilst the offender is within the Criminal Justice System.

Legislative changes have broadened the scope of the programme:

- A major expansion of DIP took place in April 2006 to move the point of drug testing from the point of charge to the point of arrest and to introduce required (rather than voluntary) assessments. This change broadened the scope and size of the cohort coming into contact with DIP.
- The latest changes took effect from April 2011, when the authorisation to conduct Drug Testing on Arrest was extended across England & Wales. Drug testing on arrest previously occurred only in ‘intensive’ DIP areas, which had high levels of acquisitive crime.

Data Sources

Records of those who test positive are logged onto the Drugs Intervention Management Information System (DIMIS), which is managed by the Home Office. An extract of positive drug test records for the relevant period is used for a match to the PNC.

Offenders identified as drug misusers via CARAT teams and CJITs are also recorded onto DIMIS, from which an extract is taken for the relevant period to match to the PNC. OASys records are collated centrally within the Ministry of Justice in the OASys Data, Evaluation and Analysis Team (O-DEAT) database, from which an extract is taken for the relevant period to match to the PNC.

Identification of Prolific and other Priority offenders

The Prolific and other Priority Offenders Programme (PPO) aims to use a multi-agency approach to focus on a very small but hard core group of prolific/persistent offenders who commit disproportionate amounts of crime and cause disproportionate harm to their local communities. Full implementation of all three strands had commenced by the beginning of February 2005. In 2009, all local areas were asked to review their PPO schemes to ensure that the programme remained squarely focused on those offenders that were of most concern to the communities in which they live.

The identification of a PPO is undertaken at a local level involving police, local authorities, prison and probation services and youth offending teams. The factors that influence the decision of whether an offender is included in the PPO programme are:

- the nature and volume of crimes they commit;
- the nature and volume of other harm they cause; and
- the detrimental impact they have on their community.

This process will typically involve police, prison and probation information systems and other tools available.

The size of the PPO caseload at a local level is influenced by a range of factors, including the number of offenders who meet the locally agreed selection criteria and the capacity of local partner agencies to provide the intensive management of offenders under PPO supervision.

PPO cohort data are derived from JTRACK, which is a management information and tracking tool used by practitioners in various criminal justice agencies to record details of the offenders being managed as PPOs in a local area. JTRACK relies on the accurate input of data by local users to ensure that the details of the caseload on the system reflect the caseload being managed. An extract of the caseload from JTRACK is taken for the relevant period to match to the PNC.

Young offenders in secure accommodation

Information about secure training centres (STCs) and secure children's homes (SCHs) comes from the Youth Justice Board's (YJB) Secure Accommodation Clearing House System (SACHS) database. The under 18 year olds in YOIs is also from SACHS, whereas information about young people aged 18 and held in YOIs is supplied by the Prison Service and private YOIs.

The quality of the information recorded on the SACHS database is generally assumed to be relatively high as it is a direct extract from an operational system which is used to place young people in custody. The extract uses a number of key fields for which completion is mandatory when booking a young person into custody.

Data processing and analysis

The data underpinning the results are considered by Ministry of Justice to be broadly robust. Considerable work has been carried out ensuring data quality, and the data have been used for research publications. Scrutiny of the data source continues in order to ensure the data remains reliable.

The National Audit Office (NAO) identified risk factors in its review of the reporting of PSA targets (NAO, 2005). The remainder of this section addresses these.

Matching offender records

This process involves matching prison discharges and court order commencements data with the Police National Computer database. The process uses automated matching routines that look at offenders' surnames, initials, and dates of birth, using direct name matching along with a variety of 'sounds like' algorithms. The matching algorithm also searches through PNC held information on alias names and dates of birth for offenders. However, not all offenders are matched and a thorough analysis of bias in the matching system has yet to be undertaken. Table 1 below shows that the overall matching rates between 2000 and 2009 have remained high. Additionally, matching rates are similar for both prison and court orders data.

Table 1: Matching rates for the different data sources for 2000, 2002-2009 cohorts

	2000	2002	2003	2004	2005	2006	2007	2008	2009
Prison									
Prison discharges	87,083	87,338	85,920	86,970	84,897	83,725	87,340	95,824	94,114
Automatically matched to the PNC	80,572	81,211	80,121	81,125	79,398	78,285	81,874	90,021	88,745
Matched to an index date	73,810	75,121	73,327	73,390	71,246	68,185	69,741	76,668	74,189
Percentage matched to the PNC	92.5%	93.0%	93.3%	93.3%	93.5%	93.5%	93.7%	93.9%	94.3%
Percentage matched to the PNC and index offences (not breach etc)	84.8%	86.0%	85.3%	84.4%	83.9%	81.4%	79.9%	80.0%	78.8%
Court Orders									
Court order starts	136,023	154,621	158,750	164,831	163,681	176,346	187,386	189,643	191,784
Automatically matched to the PNC	123,540	142,838	148,257	154,075	158,416	172,906	184,740	187,253	190,128
Matched to an index date	105,685	115,108	119,446	122,927	130,307	148,072	159,279	163,519	167,378
Percentage matched to the PNC	90.8%	92.4%	93.4%	93.5%	96.8%	98.0%	98.6%	98.7%	99.1%
Percentage matched to the PNC and index offences (not breach etc)	77.7%	74.4%	75.2%	74.6%	79.6%	84.0%	85.0%	86.2%	87.3%
YJB									
YJB discharges		1,337	1,612	1,521	1,551	1,564	1,553	1,647	1,626
Automatically matched to the PNC		1,226	1,502	1,425	1,448	1,464	1,463	1,537	1,564
Matched to an index date		680	818	785	800	769	780	845	817
Percentage matched to the PNC		91.7%	93.2%	93.7%	93.4%	93.6%	94.2%	93.3%	96.2%
Percentage matched to the PNC and index date		50.9%	50.7%	51.6%	51.6%	49.2%	50.2%	51.3%	50.2%

The total number of offenders matched to the PNC is substantially higher than the final figure for the cohorts – for example, in 2009 there were 280,437 matched offenders but a final cohort size of 242,384. The main reasons for these discrepancies are:

- Conviction dates for the beginning of the community, suspended or custodial sentence do not match the conviction date within seven days of the criminal records database (PNC);
- The index offence was not dealt with by a Home Office police force – this ensures that only offences in England and Wales are counted;
- Exclusion of all offenders where the index offence is a breach, since we are only interested in new offences; and,

- Exclusion of Multiple Offender Entries (see above for a description).

Counting rules

The counting rules for choosing which prison discharges to include offer a variety of choices. For instance, it makes little sense to include offenders deported on release or who have died. These counting rules were enumerated and discussed to ensure a more accurate and consistent count and are reviewed on an annual basis to ensure a consistent approach.

Complexity of data processing and analysis

The data processing involved for measuring re-offending is complex. To analyse re-offending behaviour by previous offending or disposal history requires the extraction of criminal histories that can span a number of decades, and the subsequent matching of these histories against the probation caseload files and prison discharges in order to generate a dataset.

The extraction of the criminal histories

To quality assure the extraction of criminal histories, a small set of random samples of offenders was taken after the analysis to check, via a basic validation, that outputs of the SQL (Structured Query Language) program are accurate outcomes and the Ministry of Justice is confident that this process has been successful.

Level of subjectivity

There is relatively little subjectivity in the system. Occasional judgements are required (e.g. where to classify an offence) but these will not significantly influence the results.

Maturity and stability of the data system

The system is well established having been used a number of times to produce re-offending statistics for publication. Nonetheless, vigilance continues to be exercised to ensure the validity of the results.

Expertise of those who operate the system

Prison and court order data-feeds are continually monitored and improvement work is regularly undertaken to improve the reliability and the accuracy of datasets. The internal processing of the results within the Ministry of Justice has been subject to dip sampling of criminal histories and the statistical model has been extensively tested.

Interpreting trends in the proportion of offenders who commit a serious re-offence against the person

Care should be taken when interpreting the severity rate for the following reasons:

- **Time through the CJS** – more serious offences are likely to take a longer time to progress through the Criminal Justice System than less serious offences. The proven re-offending statistics track proven re-offending behaviour for a year upon offenders entering the cohort, plus an additional six months for convictions to be updated on the system. There is a risk that this time scale is not long enough to capture the most serious offences. However, analysis suggests that the number of serious

- **Reporting variation** – variation in reporting time between police force areas and courts may also have an impact on how many serious offences are captured during the one-year follow up period.

Data on historical trends

The data used to measure re-offending is from the Police National Computer (PNC). Police forces started to enter criminal records locally in 1995. In order to allow time for good practice among police forces in entering data onto the PNC to become embedded, PNC data was used to measure re-offending for the first time in 2000. In the headline bulletin, results are compared to 2000 to highlight long-term trends because it is the earliest data on re-offending that exists on a comparable basis. Results prior to 2000 cannot be compared to results from 2000 onwards for two main reasons:

- Change in data source – re-offences are measured using data from the Police National Computer (which covers recordable offences), whereas data from years before 2000 was measured using the offenders index (which covered a narrower range of offences)
- Change in measurement – the concept being measured from 2000 onwards in these reports is that of using the offences date to measure re-offences (a period of time is allowed for offences to be committed, and a further period allowed for these offences to be proved by caution, reprimand, final warning or court conviction), whereas the concept being measured prior to 2000 was that of using the conviction date to measure re-convictions (any conviction occurring in a set period of time, whether or not the offence occurred in that time period).

However the compendium of re-offending statistics and analysis published in November 2010 provides the most consistent statistical series possible between 1971 and 2006, adjusting for known methodological changes. For more information please refer to Chapter 4.4 at the following link:

www.justice.gov.uk/publications/statistics-and-data/reoffending/compendium-of-reoffending-statistics-and-analysis.htm

Results for 2001 cannot be calculated for offenders on Court Orders because of a problem with archived data on court orders.

Local breakdowns of the headline re-offending rates are available from 2005 onwards. Re-offending data is broken down by locality using the address and post-code information of the offender. Where this information is missing, the location of the processing police force is used instead. This is not a completely reliable indicator of the offender's home address as offenders may offend in a different locality than where they reside. The

completeness of this information has improved over time. In 2000, this information was omitted for 29 per cent of cases, which was considered too high to produce reliable results. By 2005, this was reduced to 16.5 per cent, and there has been a continuing downward trend since then.

Statistical Modelling and Coefficients

Introduction

The characteristics of proven offenders are likely to be systematically different over time and by sentence type and as the Criminal Justice System targets particular sentences to offenders most likely to benefit from that type. It is therefore important to note that it is not possible to reach firm conclusions about changes in rates over time, nor about the relative effectiveness of different sentence types, from actual proven re-offending rates.

The Ministry of Justice has developed models to address these two issues:

- modelling to adjust the baseline to reflect changes in offender characteristics (see below)
- modelling to match offenders across sentence types to make valid comparisons (see The Compendium of Reoffending Statistics and Analysis 2011 www.justice.gov.uk/publications/statistics-and-data/reoffending/compendium-of-reoffending-statistics-and-analysis.htm)

Modelling to adjust for the varying composition of the cohort of offenders over time

If the composition of the cohorts of offenders being compared differs significantly over time so that the type of offenders in one year is inherently more (or less) likely to re-offend, this may result in an apparent rise or fall in the re-offending rates even when there may be no 'real' difference for similar offenders over that time. In order to address this problem, we have adopted the following solution:

- modelling the likelihood of proven re-offending based on known offender characteristics using historic data (which will be defined as the baseline)
- identifying the characteristics of the most recent cohort
- using the model, adjusting the baseline proven re-offending rate to match these characteristics
- comparing this adjusted rate with the current rate to make a more realistic estimate of trends over time.

In previous publications of proven re-offending statistics, this approach has been referred to as the predicted rate of proven re-offending.

Statistical model

The 2008 statistical model is an update and improvement on the 2000 and 2005 logistic regression models and includes a range of offender characteristics available from the Police National Computer (PNC), such as age, gender, offence group and criminal history.

The logistic regression model based on the 2008 data identifies a statistically significant set of variables that are related to proven re-offending

and based on these provides a probability of proven re-offending for each offender. However, other factors, for which data on these samples are not available, such as drug and alcohol use, employment, accommodation and marital background are likely to be significantly related to re-offending.

This means that the adjusted proven re-offending rates are only valid for terms included in the final model. Any adjusted proven re-offending rates for groups of offenders that have a common characteristic that is not in the final model (e.g. employment status or disposal type) can suffer from statistical biases and are, therefore, unreliable.

For the 2008 model additional developments were included to ensure that the adjusted rate model was a more parsimonious model, more robust against changes in the number of offenders, and that interaction terms and non-linear terms were included where appropriate. The final decision for inclusion or exclusion of particular variables was heavily influenced by their statistical significance (typically $p < 0.10$).

The Ministry of Justice believes that the method used for the construction of the statistical model for producing adjusted rates is robust and fit for purpose.

Variables included

The following notes provide some further detail on the 2008 model and show the relative impacts of different variables when holding all other variables constant.

Gender

Gender is included in the model as a categorical variable separating out males and females. Generally, males are more likely to commit a proven re-offence than females.

Age

Age is included in the model for adults as a linear, quadratic and cubed term and is included for juveniles as a categorical variable separating offenders into seven age bands. Generally, younger adults are more likely to commit a proven re-offence than older adults, and older juveniles are more likely to re-offend than younger juveniles.

Index offence

The index offence represents the offence that led to the offender entering the cohort. Index offences were classified into 21 broad categories and their relative coefficients are shown in relation to the reference category violence. To ensure the reliability and replicability of the model coefficients, any index offences with low numbers were grouped with the 'other' index offence group.

Ethnicity

Ethnicity is derived from the PNC and reflects the officer's view of the offender's ethnicity. Thus, ethnicity in this model should be taken as a proxy

for the actual ethnicity and the results should not be over-interpreted because any biases in the assessment are unknown. Ethnicity was a statistically significant factor, making it an important factor to control for and therefore it was included in the model.

Copas rate

The Copas rate (Copas and Marshall, 1998) controls for the rate at which an offender has built up convictions throughout their criminal career. The higher the rate, the more convictions an offender has in a given amount of time, and the more likely it is that an offender will be re-convicted.

The Copas rate formula is:

$$\text{copas rate} = \log_e \left(\frac{\text{Number of court appearances or cautions} + 1}{\text{Length of criminal career in years} + 10} \right)$$

For adults the copas rate is included as a linear and quadratic, but for juveniles it is included as a linear term only. As mentioned above, inclusion of variables was heavily influenced by their statistical significance.

Length of criminal career

An offender's criminal career is a significant factor in predicting the likelihood of a re-offence and this relationship is quadratic, thus both linear and quadratic terms were included in the model.

Total number of previous offences

The total number of previous offences is a significant factor in predicting the likelihood of a re-offending. The previous offending variables counted cautions and convictions and were included as linear and logged variables.

Previous custodial sentences

For adults, the number of previous custodial sentences was implemented as a continuous variable in both linear and quadratic terms. For juveniles, previous custodial sentences were included as a binary term: had the offender received one or more previous custodial sentences, yes or no. The difference in treatment reflects the more limited custodial history juvenile offenders generally possess compared to adult offenders.

Counts of previous offending by type of offence

For adults, the number of previous offences by type of offence was an improvement over simple 'yes or no' variables for recording the presence of prior offences in the relevant categories. For juvenile offenders, simple 'yes or no' variables for recording the presence of prior offences in the relevant categories performed better. The difference in treatment reflects the more limited offending history juvenile offenders generally possess compared to adult offenders.

Interaction terms

Interaction terms are calculated by multiplying two factors together. The inclusion of these terms allows the effect of one variable to vary according to the values of another, improving the quality of predictions. This is important because three factors (gender, age and total number of previous offences) are not completely independent of each other.

For adults, interaction terms were also included for drug-misusing offenders as they showed some trends in their proven re-offending behaviour that were different from the more general offending population.

Model assessment

The model is assessed by calculating the level of discrimination between offenders that committed a proven re-offence and offenders that did not. The adult logistic regression model achieved a 78.9 per cent overall discrimination level on the 2008 cohort and 72.4 per cent for the juvenile logistic regression model. A level of discrimination of about 70% was deemed to be acceptable and the model should predict results accurately enough for the predicted rate to be used. The discrimination can also be evaluated by calculating the Area Under Curve (AUC) for the Receiver Operator Characteristic curve. Again, the value for the model was .784 for the adult regression model in 2008 and .716 for the youth regression model which means a satisfactory level of discrimination (Hosmer and Lemeshow, 2000, p.162).

Coefficients of the 2008 statistical model

The following tables (2 and 3) show the parameter estimates for the various components of the logistic regression model for the predicted one-year proven re-offending rates for adults and young offenders.

Each logistic coefficient is multiplied by the variable value for each offender to calculate a linear prediction. To calculate each offender's predicted probability of committing a proven re-offence in the follow-up period or a further 6 month waiting period we transform the linear prediction Z using the following formula:

$$\text{Predicted Probability of Reoffending} = \frac{\exp(Z)}{1 + \exp(Z)}$$

The exponent of the coefficient is the odds ratio of committing a proven re-offence corresponding to the particular coefficient and enables us to make comparisons between different categories. For factors with interactions (e.g. age and gender) the interpretation is more complex.

The significance (p-value) gives us an assessment of how significant each variable is in predicting the likelihood of an offender to commit a proven re-offence within one year. For modelling purposes, a probability value (p-value) of less than 0.05 is considered to be significant.

Table 2: List of variables in the logistic regression model applied to the 2008 data on adult offenders and their respective coefficients

Variables	Coefficient	Logs-odd ratios	P-value	Variables	Coefficient	Logs-odd ratios	P-value
Constant	1.940	6.958	0.000	<i>Index offence:</i>			
<i>Gender:</i>				Violence	<i>Reference category</i>		
Female	<i>Reference category</i>			Robbery	-0.361	0.697	0.000
Male	0.645	1.906	0.000	Theft	0.482	1.620	0.000
<i>Age:</i>				Handling	0.173	1.189	0.000
Age	-0.250	0.779	0.000	Taking and driving away	0.180	1.198	0.000
Age squared	0.006	1.006	0.000	Sexual child	-0.465	0.628	0.000
Age cubed	-0.00004	1.000	0.000	Public order	0.220	1.247	0.000
Male * age interaction	-0.013	0.988	0.000	Soliciting/prostitution	0.253	1.288	0.000
<i>General criminal career variables:</i>				Domestic burglary	0.148	1.159	0.000
Previous offences	-0.006	0.994	0.000	Other burglary	0.337	1.401	0.000
Previous offences (logged)	0.391	1.478	0.000	Theft from vehicles	0.478	1.612	0.000
Male * previous offences interaction	-0.003	0.997	0.000	Drink driving	-0.154	0.857	0.000
Previous prison sentences	0.045	1.046	0.000	Criminal damage	0.226	1.254	0.000
Previous prison sentences (logged)	-0.060	0.942	0.000	Drug supply	-0.400	0.670	0.000
Career length	-0.0001	1.000	0.000	Drug possession	0.074	1.077	0.000
Career length squared	0.000	1.000	0.069	Drug test	-1.167	0.311	0.000
Copas rate	0.385	1.469	0.000	Fraud/forgery	-0.213	0.808	0.000
Copas rate squared	-0.064	0.938	0.000	Absconding and bail	0.364	1.440	0.000
PPO offender	0.528	1.696	0.000	<i>Number of previous offences:</i>			
Drug-misusing offender	1.422	4.146	0.000	Public order	0.052	1.053	0.000
<i>Ethnicity:</i>				Sexual	0.035	1.036	0.000
White	<i>Reference category</i>			Domestic burglary	-0.006	0.994	0.005
Unknown	-0.663	0.516	0.000	Theft	0.012	1.012	0.000
White other	0.324	1.383	0.000	Handling	-0.010	0.990	0.002
Black	0.161	1.175	0.000	Absconding and bail	0.018	1.018	0.000
Pacific	0.210	1.233	0.000	Taking and driving away	-0.007	0.993	0.003
Middle East	0.130	1.138	0.003	Criminal damage	0.017	1.017	0.000
				Drug supply	-0.044	0.957	0.000
				Drug possession	0.013	1.013	0.000
				Other	-0.002	0.998	0.073
				<i>Interaction with drug-misusing offenders:</i>			
				Previous offences (logged)	-0.156	0.855	0.000
				Index offence of drug supply	-0.430	0.651	0.000
				Index offence of drug possession	-0.550	0.577	0.000

Table 3: List of variables in the logistic regression model applied to the 2008 data on young offenders and their respective coefficients

Variables	Coefficient	Logs-odd ratios	P-value	Variables	Coefficient	Logs-odd ratios	P-value
Constant	-1.495	0.224	0.000	<i>Index offence:</i>			
<i>Gender:</i>				Violence		<i>Reference category</i>	
Female		<i>Reference category</i>		Robbery	0.130	1.139	0.003
Male	0.527	1.693	0.000	Public order or riot	0.178	1.195	0.000
<i>Age:</i>				Sexual offences	-0.578	0.561	0.000
Aged 10-11		<i>Reference category</i>		Sexual offences against children	-1.157	0.314	0.000
Aged 12	0.354	1.425	0.000	Domestic burglary	0.233	1.262	0.000
Aged 13	0.448	1.566	0.000	Other burglary	0.083	1.087	0.026
Aged 14	0.431	1.538	0.000	Theft	-0.088	0.916	0.000
Aged 15	0.186	1.205	0.000	Handling	0.118	1.126	0.018
Aged 16	-0.124	0.883	0.017	Fraud or forgery	-0.251	0.778	0.000
Aged 17	-0.202	0.817	0.000	Absconding or bail offences	0.176	1.192	0.022
<i>Interactions between age and gender:</i>				Taking and driving away	0.116	1.123	0.003
Female at any age		<i>Reference category</i>		Theft from vehicles	0.264	1.302	0.000
Male aged 10-11		<i>Reference category</i>		Drunk driving	-0.488	0.614	0.000
Male aged 12	-0.276	0.759	0.000	<i>Any previous offences:</i>			
Male aged 13	-0.214	0.807	0.000	Violence	0.039	1.039	0.062
Male aged 14	-0.157	0.855	0.000	Robbery	0.101	1.106	0.011
Male aged 16	0.134	1.144	0.002	Public order or riot	0.143	1.154	0.000
Male aged 17	0.113	1.120	0.013	Domestic burglary	0.166	1.181	0.000
<i>General criminal career variables:</i>				Other burglary	0.099	1.104	0.001
Career length	0.000	1.000	0.000	Theft	0.135	1.144	0.000
Career length squared	0.000	1.000	0.000	Handling	0.107	1.113	0.009
Copas rate	0.128	1.137	0.001	Absconding or bail offences	0.096	1.101	0.032
Previous offences	-0.036	0.964	0.000	Taking and driving away	0.088	1.093	0.012
Previous offences (logged)	0.920	2.510	0.000	Theft from vehicles	0.125	1.133	0.012
Previous prison sentence(s)	0.124	1.132	0.022	Drunk driving	-0.245	0.783	0.033
PPO offender	0.930	2.534	0.000	Criminal or malicious damage	0.069	1.071	0.001
<i>Ethnicity:</i>				Other	0.138	1.148	0.001
White		<i>Reference category</i>		Miscellaneous	-0.689	0.502	0.014
Unknown	-0.823	0.439	0.000	Breaches	0.762	2.144	0.007
White (other)	0.196	1.217	0.000				
Black	0.187	1.206	0.000				
Asian	-0.200	0.819	0.000				
Pacific	-0.468	0.626	0.001				

Additional modelling for prison performance

Assessing the performance of individual prisons in reducing re-offending is difficult because the particular characteristics of offenders that are at a particular prison are likely to be the main drivers behind re-offending.

A statistical methodology has been developed to examine prison re-offending rates that not only takes account of offence, offender and prison characteristics, but also takes account of the hierarchical structure of the data; i.e. that offenders are within prisons.

Two separate models were developed: for prisoners receiving sentences of fewer than 12 months and prisoners with sentences of 12 months or over. The separate models for prisoners with sentences of fewer than 12 months and 12 months or more reflects differences in prisoners' re-offending behaviour by prison sentence length.

The model used for both types of offender was a logistic regression model with mixed effects (fixed and random). The outcome variable is a binary yes/no variable representing whether an offender re-offends or not. Offender characteristics are included as fixed independent variables and the prisons are included as a random effect component which allows each prison to interact with the fixed effects differently.

The variables included in the model were similar to those used to develop the adjusted baseline described above: age, ethnicity, index offence, previous offences, previous prison sentences, copas scores, and criminal career, as well as the random effects component of prisons. The goodness-of-fit by AUC was satisfactory, above 0.77 in all cases.

Considerable preliminary analysis has been undertaken investigating the relative important of offence, offender and prison-level variables in explaining custodial re-offending. This analysis has overwhelmingly shown that offence and offender-level variables shape re-offending whereas prison-level variables refine re-offending behaviour. For this reason, the model uses offender and offence-level variables and only models prison-level effects using a single random effects component.

This model generates an expected probability of re-offending for each offender. When aggregated up to the prison it produces an expected proportion of offenders who re-offend. This can be compared with the actual rate of re-offending.

Where the model-predicted re-offending rate was statistically significantly different to actual re-offending rates, two possible explanations are plausible:

1. Missing characteristics: it is possible that there are underlying offence, offender or prison characteristics affecting re-offending behaviour that are not included in the current model; or,

2. A genuine difference: there is something specific to these prisons that make them better/worse than predicted.

Additional modelling for probation performance

Results in the headline measure are compared to a baseline rate, adjusted for changes in the offender profile. This relies on an estimate of the relationship between offender characteristics and proven re-offending behaviour over twelve-months. An equivalent estimate has been carried out for the proven re-offending behaviour specifically of offenders commencing court orders. This uses the same variables as the headline measure plus additional variables to ensure that the actual and predicted rates are identical for every probation trust in the baseline period (2008). The tables accompanying the report present the adjusted baseline for each trust.

Differences between the prison and probation trusts models and the model for the adjusted baseline for the headline measure

- The adjusted baseline for the headline measure applies to all offenders; the prison and probation models only apply to offenders discharged from custody or given a Court Order.
- The adjusted baseline for the headline measure is created using a fixed effects model using only offender and offence level variables; the probation model does the same, but the prison models use offender and offence level variables and also include a random component to reflect that prisoners are located within prisons.
- The adjusted baseline for the headline measure and for the probation model is derived using data from a baseline year (2008). The observed re-offending is equal to the predicted re-offending for the baseline year; the model coefficients are then applied to subsequent years and the predicted rates begins to differ from the actual rates. Provided the baseline year model is frequently refreshed, this ensures that any deviations of the actual re-offending rate from the predicted rate are due to system changes and not due to changes in the cohort make up. This approach enables us to assess progress in reducing re-offending.

Whereas, the prison model are generated from scratch every year and assess if any prison or probation trust differs from the national average. As with the previous approach, the observed re-offending rate is still equal to the predicted re-offending for the prison population as a whole. It will not necessarily be the case for individual prisons. This approach provides an idea of which prisons have significantly lower (or higher) re-offending rates than predicted.

Work is underway to develop an equivalent model for probation trusts to the one used for prisons.

Appendix A: List of serious offences

Serious violence against the person

1. Murder:
 1. Of persons aged 1 year or over.
 2. Of infants under 1 year of age.
2. Attempted murder.
4. Manslaughter, etc:
 1. Manslaughter.
 2. Infanticide.
 3. Child destruction.
5. Wounding or other act endangering life:
 1. Wounding, etc. with intent to do grievous bodily harm, etc. or to resist apprehension.
 2. Shooting at naval or revenue vessels.
 4. Attempting to choke, suffocate, etc. with intent to commit an indictable offence (garrotting).
 5. Using chloroform, etc. to commit or assist in committing an indictable offence.
 6. Burning, maiming, etc. by explosion.
 7. Causing explosions or casting corrosive fluids with intent to do grievous bodily harm.
 8. Impeding the saving of life from shipwreck.
 9. Placing, etc. explosives in or near ships or buildings with intent to do bodily harm, etc.
 10. Endangering life or causing harm by administering poison.
 11. Causing danger by causing anything to be on road, interfering with a vehicle or traffic equipment.
 13. Possession, etc. of explosives with intent to endanger life.
 14. Possession of firearms, etc. with intent to endanger life or injure property, etc. (Group I).
 15. Possession of firearms, etc. with intent to endanger life or injure property, etc. (Group II).
 16. Possession of firearms, etc. with intent to endanger life or injure property, etc. (Group III).
 17. Using, etc. firearms or imitation firearms with intent to resist arrest, etc. (Group I).
 18. Using, etc. firearms or imitation firearms with intent to resist arrest, etc. (Group II).
 19. Using, etc. firearms or imitation firearms with intent to resist arrest, etc. (Group III).
[Group I - Firearms, etc. other than as described in Group II or III.
Group II - Shotguns as defined in s.1 (3)(a) of the Firearms Act 1968.
Group III - Air weapons as defined in s.1 (3)(b) of the Firearms Act 1968]
 20. Use etc. of chemical weapons.
 21. Use of premises or equipment for producing chemical weapons.
 22. Use, threat to use, production or possession of a nuclear weapon.
 23. Weapons related acts overseas.
 24. Use of noxious substances or things to cause harm or intimidate.
 25. Performing an aviation function or ancillary function when ability to carry out function is impaired because of drink or drugs.
 26. Endangering safety at sea/aerodromes.
 27. Torture.
8. Other wounding, etc:
 1. Wounding or inflicting grievous bodily harm (inflicting bodily injury with or without weapon).

- 33. Racially aggravated wounding or inflicting grievous bodily harm (inflicting bodily injury with or without weapon).
- 40. Religiously aggravated malicious wounding or GBH.
- 46. Racially or religiously aggravated malicious wounding or grievous bodily harm.

Sexual offences

- 17. Sexual assault on a male (previously indecent assault on a male):
 - 11. Indecent assault on male person under 16 years.
 - 12. Indecent assault on male person 16 years or over.
 - 13. Assault on a male by penetration.
 - 14. Assault of a male child under 13 by penetration.
 - 15. Sexual assault on a male.
 - 16. Sexual assault of a male child under 13.

- 19. Rape:
 - 2. Man having unlawful sexual intercourse with a woman who is a defective.
 - 3. Male member of staff of hospital or mental nursing home having unlawful sexual intercourse with female patient.
 - 4. Man having unlawful sexual intercourse with mentally disordered female patient who is subject to his care.
 - 7. Rape of a female aged under 16.
 - 8. Rape of a female aged 16 or over.
 - 9. Rape of a male aged under 16.
 - 10. Rape of a male aged 16 or over.
 - 11. Attempted rape of a female aged under 16.
 - 12. Attempted rape of a female aged 16 or over.
 - 13. Attempted rape of a male aged under 16.
 - 14. Attempted rape of a male aged 16 or over.
 - 16. Rape of female child under 13 by a male.
 - 17. Rape of a male child under 13 by a male.
 - 18. Attempted rape of a female child under 13 by a male
 - 19. Attempted rape of a male child under 13 by a male

- 20. Sexual assault on female (previously indecent assault on a female):
 - 1. On females under 16 years of age.
 - 2. On females aged 16 years and over.
 - 3. Assault on a female by penetration.
 - 4. Assault on a female child under 13 by penetration.
 - 5. Sexual assault on a female.
 - 6. Sexual assault on a female child under 13.

- 21. Sexual activity (male and female) (including with a child under 13) (previously unlawful intercourse with a girl under 13):
 - 2. Causing or inciting a female child under 13 to engage in sexual activity - penetration.
 - 3. Causing or inciting a female child under 13 to engage in sexual activity - no penetration.
 - 4. Causing or inciting a male child under 13 to engage in sexual activity - penetration
 - 5. Causing or inciting a male child under 13 to engage in sexual activity - no penetration.
 - 6. Sexual activity with a female child under 13 - offender aged 18 or over - penetration.
 - 7. Sexual activity with a male child under 13 - offender aged 18 or over - penetration.
 - 8. Causing or inciting a female child under 13 to engage in sexual activity - offender aged 18 or over - penetration
 - 9. Causing or inciting a male child under 13 to engage in sexual activity - offender aged 18 or over - penetration.
 - 10. Engaging in sexual activity in the presence of a child under 13 (offender aged 18 or over).

11. Causing a child under 13 to watch a sexual act (offender aged 18 or over).
 12. Sexual activity with a female child under 13 - offender aged under 18.
 13. Sexual activity with a male child under 13 - offender aged under 18.
 14. Causing or inciting a female child under 13 to engage in sexual activity - offender under 18.
 15. Causing or inciting a male child under 13 to engage in sexual activity - offender under 18.
 16. Engaging in sexual activity in the presence of a child under 13 - offender under 18.
 17. Causing a child under 13 to watch a sexual act - offender under 18.
 18. Sexual activity with a female under 13 - offender aged 18 or over - no penetration.
 19. Sexual activity with a male child under 13 - offender aged 18 or over - no penetration.
 20. Causing or inciting a female child under 13 to engage in sexual activity - offender aged 18 or over - no penetration.
 21. Causing or inciting a male child under 13 to engage in sexual activity - offender aged 18 or over - no penetration.
 22. Sexual activity with a female child under 13 - offender aged under 18 - no penetration.
 23. Sexual activity with a male child under 13 - offender aged under 18 - no penetration.
 24. Causing or inciting a female child under 13 to engage in sexual activity - offender aged under 18 - no penetration.
 25. Causing or inciting a male child under 13 to engage in sexual activity - offender aged under 18 - no penetration.
22. Sexual activity (male and female) (including with a child under 16) (previously unlawful sexual intercourse with a girl under 16):
0. Unlawful sexual intercourse with girl under 16 (offences committed prior to 1 May 2004).
 2. Causing a female person to engage in sexual activity without consent - penetration
 3. Causing a male person to engage in sexual activity without consent - penetration
 4. Causing a female person to engage in sexual activity without consent - no penetration.
 5. Causing a male person to engage in sexual activity without consent - no penetration.
 6. Sexual activity with a female child under 16 (offender aged 18 or over) - penetration
 7. Sexual activity with a male child under 16 (offender aged 18 or over) - penetration
 8. Causing or inciting a female child under 16 to engage in sexual activity (offender aged 18 or over) - penetration
 9. Causing or inciting a male child under 16 to engage in sexual activity (offender aged 18 or over) - penetration
 10. Engaging in sexual activity in the presence of a child under 16 (offender aged 18 or over).
 11. Causing a child under 16 to watch a sexual act (offender aged 18 or over).
 18. Sexual activity with a female child under 16 - offender aged 18 or over - no penetration.
 19. Sexual activity with a male child under 16 - offender aged 18 or over - no penetration.
 20. Causing or inciting a female child under 16 to engage in sexual activity (offender aged 18 or over) - no penetration.
 21. Causing or inciting a male child under 16 to engage in sexual activity (offender aged 18 or over) - no penetration.
70. Sexual activity etc. with a person with a mental disorder:
1. Sexual activity with a male person with a mental disorder impeding choice – penetration.

2. Sexual activity with a female person with a mental disorder impeding choice – penetration.
 3. Sexual activity with a male person with a mental disorder impeding choice - no penetration.
 4. Sexual activity with a female person with a mental disorder impeding choice - no penetration.
 5. Causing or inciting a male person with a mental disorder impeding choice to engage in sexual activity – penetration.
 6. Causing or inciting a female person with a mental disorder impeding choice to engage in sexual activity – penetration.
 7. Causing or inciting a male person with a mental disorder impeding choice to engage in sexual activity – penetration.
 8. Causing or inciting a female person with a mental disorder impeding choice to engage in sexual activity - no penetration.
 9. Engaging in sexual activity in the presence of a person with a mental disorder impeding choice.
 10. Causing a person with a mental disorder impeding choice to watch a sexual act.
 11. Inducement, threat or deception to procure sexual activity with a person with a mental disorder – penetration.
 12. Inducement, threat or deception to procure sexual activity with a person with a mental disorder - no penetration.
 13. Causing a person with a mental disorder to engage in sexual activity by inducement, threat or deception - penetration.
 14. Causing a person with a mental disorder to engage in sexual activity by inducement, threat or deception - no penetration.
 15. Engaging in sexual activity in the presence, procured by inducement, threat or deception, of a person with a mental disorder.
 16. Causing a person with a mental disorder to watch a sexual act by inducement, threat or deception.
 17. Care workers: Sexual activity with a male person with a mental disorder - penetration.
 18. Care workers: Sexual activity with a female person with a mental disorder - penetration.
 19. Care workers: Sexual activity with a male person with a mental disorder - no penetration.
 20. Care workers: Sexual activity with a female person with a mental disorder - no penetration.
 21. Care workers: Causing or inciting sexual activity (person with a mental disorder) - penetration.
 22. Care workers: Causing or inciting sexual activity (person with a mental disorder) - no penetration.
 23. Care workers: Sexual activity in the presence of a person with a mental disorder.
 24. Care workers: Causing a person with a mental disorder impeding choice to watch a sexual act.
71. Abuse of children through prostitution and pornography (previously child prostitution and pornography):
1. Arranging or facilitating the commission of a child sex offence.
 2. Paying for sex with a female child under 13 - penetration
 3. Paying for sex with a male child under 13 - penetration
 4. Paying for sex with a female child under 16 - no penetration
 5. Paying for sex with a male child under 16 - no penetration
 6. Paying for sex with a female child aged 16 or 17.
 7. Paying for sex with a male child aged 16 or 17.
 8. Causing or inciting child prostitution or pornography - child aged 13-17.
 9. Controlling a child prostitute or a child involved in pornography - child aged 13-17.
 10. Arranging or facilitating child prostitution or pornography - child aged 13-17.
 11. Causing or inciting child prostitution or pornography - child under 13.
 12. Controlling a child prostitute or child involved in pornography - child under 13.
 13. Arranging or facilitating child prostitution or pornography - child under 13.

14. Paying for sex with a female child aged under 16 - penetration
 15. Paying for sex with a male child aged under 16 - penetration
72. Trafficking for sexual exploitation:
1. Arranging or facilitating arrival of a person into the UK for sexual exploitation (trafficking).
 2. Arranging or facilitating travel of a person within the UK for sexual exploitation (trafficking).
 3. Arranging or facilitating departure of a person from the UK for sexual exploitation (trafficking).

Taking and driving away and related offences

37. Aggravated vehicle taking:
1. Where, owing to the driving of the vehicle, an accident occurs causing the death of any person.

Other motoring offences

4. Manslaughter, etc:
4. Causing death by dangerous driving.
 8. (Offences) Causing death by careless or inconsiderate driving (Offences due to commence in Autumn 2007).

Drink driving offences

4. Manslaughter, etc:
6. Causing death by careless driving when under the influence of drink or drugs.

Serious acquisitive offences

Burglary

1. Burglary in a dwelling with intent to commit or the commission of an offence triable only on indictment.
2. Burglary in a dwelling with violence or the threat of violence.
3. Other burglary in a dwelling.
4. Aggravated burglary in a dwelling (including attempts)

Robbery

1. Robbery
2. Assault with intent to rob.

Taking and driving away

1. Aggravated taking where the vehicle was driven dangerously on a road or other public place
2. Aggravated taking where owing to the driving of the vehicle an accident occurred causing injury to any person or damage to any property other than the vehicle

Theft from or of vehicles

1. Stealing from motor vehicles.
2. Stealing from other vehicles.
3. Theft of motor vehicle.
4. Unauthorised taking of a motor vehicle

Appendix B: Glossary of Terms

Re-offending terms

Cohort - this is the group of individuals whose re-offending is measured.

Index offence - the index offence is the proven offence that leads to an offender being included in the cohort.

Index disposal - the index disposal of the offender is the type of sentence the offender received for their index offence.

Start point (also known as the index date) - this is the set point in time from when re-offences are measured.

Follow up period - this is the length of time proven re-offending is measured over.

Waiting period - this is the additional time beyond the follow up period to allow for offences committed towards the end of the follow up period to be proved by a court conviction, caution, reprimand or final warning.

Adjusted baseline - proven re-offending is related to the characteristics of offenders which means that any overall rate of proven re-offending will depend, in part, on the characteristics of offenders coming into the system (just as the examination pass rate of a school will be related to the characteristics of its pupils). We use a modelling technique to produce a baseline figure adjusted to match the characteristics of the cohort we are comparing. For more details see the chapter on Statistical modelling and coefficients.

Reconviction – where an offender is convicted at court for an offence committed within a set follow up period and convicted within either the follow up period or waiting period

Proven re-offence – where an offender is convicted at court or receives some other form of criminal justice sanction for an offence committed within a set follow up period and disposed of within either the follow up period or waiting period.

Cohort definitions used in the Proven Re-offending statistic quarterly bulletin in England and Wales publication

The proven re-offending cohort consists of all offenders discharged from custody, otherwise sanctioned at court, receiving a caution, reprimand or warning or tested positive for opiates or cocaine in each year. This cohort's criminal history is collated and criminal behaviour is tracked over the following one year. Any offence committed in this one-year period which is proven by a court conviction or out-of-court disposal (either in the one-year

period, or in a further six months waiting period) counts as a proven re-offence.

The latest available publication is the Proven Re-offending statistic quarterly bulletin in England and Wales; Ministry of Justice, October 2011.

Cohort definitions used in the Local Measure of Re-offending quarterly bulletin publication

The local adult re-offending measure takes a snapshot of all offenders, aged 18 or over, who are under probation supervision at the end of a quarter, and combines four such snapshots together.

This cohort's criminal history is collated and criminal behaviour is tracked over the following three months. Any offence committed in this three month period which is proven by a court conviction or out-of-court disposal (either in the three month period, or in a further three months waiting period) counts as a proven re-offence.

Results from this publication are available at www.justice.gov.uk/publications/statistics-and-data/reoffending/local-adult-reoffending.htm

Cohort definitions used in the previous Adult re-convictions in England and Wales publication

The adult re-conviction cohort consists of adults discharged from custody or commencing a court order under probation supervision in the first quarter of each year. This cohort's criminal history is collated and criminal behaviour is tracked over the following one year. Any offence committed in this one-year period which is proven by a court conviction (either in the one-year period, or in a further six months waiting period) counts as a reconviction.

The last publication in this series is the Adult re-convictions: results from the 2009 cohort; Ministry of Justice, March 2011.

www.justice.gov.uk/publications/statistics-and-data/reoffending/adults.htm

Cohort definitions used in the previous Re-offending of juveniles in England and Wales publication

The juvenile reoffending cohort is formed of juvenile offenders discharged from custody, otherwise sanctioned at court, or receiving a reprimand or warning in January to March of each year. This cohort's criminal history is collated and criminal behaviour is tracked over the following one year. Any offence committed in this one-year period which is proven by a court conviction or out-of-court disposal (either in the one-year period, or in a further six months waiting period) counts as proven reoffending.

The last publication in this series is the Reoffending of juveniles: results from the 2009 cohort; Ministry of Justice, March 2011.

www.justice.gov.uk/publications/statistics-and-data/reoffending/juveniles.htm

Disposals (Sentences)

Fine

A financial penalty imposed following conviction.

Court orders

Court orders include community sentences, community orders and suspended sentence orders supervised by the Probation Service. They do not include any pre or post release supervision.

Criminal Justice Act 2003 (CJA03)

For offences committed on or after 4 April 2005, the new community order replaced all existing community sentences for adults. The Act also introduced a new suspended sentence order for offences which pass the custody threshold. It also changed the release arrangements for prisoners. See Appendix A of Offender Management Caseload Statistics⁹⁶ for more information.

Community order

For offences committed on or after 4 April 2005, the new community order introduced under the CJA 2003 replaced all existing community sentences for those aged 18 years and over. This term refers to all court orders except suspended sentence orders and deferred sentences which may have a custodial component to the sentence. The court must add at least one (but could potentially comprise of all 12) requirements depending on the offences and the offender. The requirements are:

- unpaid work (formerly community service/community punishment) – a requirement to complete between 40 and 300 hours' unpaid work;
- activity – for example, to attend basic skills classes;
- programme – there are several designed to reduce the prospects of reoffending;
- prohibited activity – a requirement not do so something that is likely to lead to further offender or nuisance;
- curfew – which is electronically monitored;
- exclusion – this is not used frequently as there is no reliable electronic monitoring yet available;
- residence – requirement to reside only where approved by probation officer;
- mental health treatment (requires offender's consent);

- drug rehabilitation (requires offender's consent);
- alcohol treatment (requires offender's consent);
- supervision – meetings with probation officer to address needs/offending behaviour; and,
- attendance centre – three hours of activity, between a minimum of 12 hours and a maximum of 36 in total.

Typically, the more serious the offence and the more extensive the offender's needs, the more requirements there will be. Most orders will comprise one or two requirements but there are packages of several requirements available where required. The court tailors the order as appropriate and is guided by the Probation Service through a pre-sentence report.

Suspended Sentence Order (SSO)

The Criminal Justice Act 2003 introduced a new suspended sentence order which is made up of the same requirements as a community order and, in the absence of breach is served wholly in the community supervised by the Probation Service. It consists of an 'operational period' (the time for which the custodial sentence is suspended) and a 'supervision period' (the time during which any requirements take effect). Both may be between six months and two years and the 'supervision period' cannot be longer than the 'operational period', although it may be shorter. Failure to comply with the requirements of the order or commission of another offence will almost certainly result in a custodial sentence.

Pre CJA03 Court Orders - Community sentences:

Community punishment order (CPO): the offender is required to undertake unpaid community work.

Community rehabilitation order (CRO): a community sentence which may have additional requirements such as residence, probation centre attendance or treatment for drug, alcohol or mental health problems.

Community punishment and rehabilitation order (CPRO): a community sentence consisting of probation supervision alongside community punishment, with additional conditions like those of a community rehabilitation order.

Drug treatment and testing order (DTTO): a community sentence targeted at offenders with drug misuse problems.

Custody - the offender is awarded a sentence to be served in prison or YOI (Youth Offenders Institute). If the offender was given a sentence of 12 months or over, or was aged under 22 on release, the offender is supervised by the Probation Service on release. It is important to note that the sentence length awarded will be longer than the time served. For more

information please refer to Appendix A of the Offender Management Caseload Statistics.

Prison categories

Category B and Category C prisons hold sentenced prisoners of their respective categories, including life sentenced prisoners. The regime focuses on programmes that address offending behaviour and provide education, vocational training and purposeful work for prisoners who will normally spend several years in one prison.

High Security Prisons hold Category A and B prisoners. Category A prisoners are managed by a process of dispersal, and these prisons also hold a proportion of Category B prisoners for whom they provide a similar regime to a Category B prison. The Category B prisoners held in a High Security Prison are not necessarily any more dangerous or difficult to manage than those in category B prisons.

Female prisons. As the name implies, they hold women prisoners. Because of the smaller numbers, they are not divided into the same number of categories although there are variations in security levels.

Local prisons serve the courts in the area. Historically their main function was to hold unconvicted and unsentenced prisoners and, once a prisoner had been sentenced, to allocate them on to a Category B, C or D prison as appropriate to serve their sentence. However, pressure on places means that many shorter term prisoners serve their entire sentence in a local prison, while longer term prisoners also complete some offending behaviour and training programmes there before moving on to lower security conditions. All local prisons operate to category B security standards.

Open prisons have much lower levels of physical security and only hold Category D prisoners. Many prisoners in open prisons will be allowed to go out of the prison on a daily basis to take part in voluntary or paid work in the community in preparation for their approaching release.

Prisoner Categories

These categories are based on a combination of the type of crime committed, the length of sentence, the likelihood of escape, and the danger to the public if they did escape. The four categories are:

Category A prisoners are those whose escape would be highly dangerous to the public or national security

Category B prisoners are those who do not require maximum security, but for whom escape needs to be made very difficult

Category C prisoners are those who cannot be trusted in open conditions but who are unlikely to try to escape

Category D prisoners are those who can be reasonably trusted not to try to escape, and are given the privilege of an open prison.

Short sentences – under twelve months

Those sentenced to **under twelve months** spend the first half of their sentence in prison and are then released and considered '**at risk**' for the remaining period. This means they are under no positive obligations and do not report to the probation service but, if they commit a further imprisonable offence during the at risk period, they can be made to serve the remainder of the sentence in addition to the punishment for the new offence. The exception to this is those aged 18 to 20 who have a minimum of three months' supervision on release.

Sentences of 12 months or over

The Criminal Justice Act 2003 created a distinction between **standard determinate sentences** and **public protection sentences**. Offenders sentenced to a standard determinate sentence serve the first half in prison and the second half in the community on licence.

Miscellaneous terms

National Probation Service

The National Probation Service generally deals with those aged 18 years and over. (Those under 18 are mostly dealt with by Youth Offending Teams, answering to the Youth Justice Board.) They are responsible for supervising offenders who are given community sentences and suspended sentence orders by the courts, as well as offenders given custodial sentences, both pre and post their release.

Police National Computer

The Police National Computer (PNC) is the police's administrative IT system used by all police forces in England and Wales and managed by the National Policing Improvement Agency. As with any large scale recording system the PNC is subject to possible errors with data entry and processing. The Ministry of Justice maintains a database based on weekly extracts of selected data from the PNC in order to compile statistics and conduct research on reoffending and criminal histories. The PNC largely covers recordable offences – these are all indictable and triable-either-way offences plus many of the more serious summary offences. All figures derived from the Ministry of Justice's PNC database, and in particular those for the most recent months, are likely to be revised as more information is recorded by the police.

Recordable offences

Recordable offences are those that the police are required to record on the Police National Computer. They include all offences for which a custodial sentence can be given plus a range of other offences defined as recordable in legislation. They exclude a range of less serious summary offences, for

example television licence evasion, driving without insurance, speeding and vehicle tax offences.

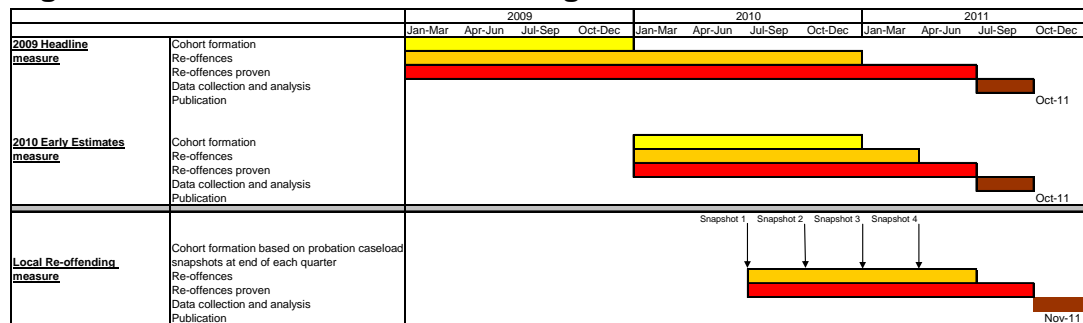
Indictable and summary offences - Summary offences are triable only by a magistrates' court. This group includes motoring offences, common assault and criminal damage up to £5,000. More serious offences are classed either as **triable either way** (these can be tried either at the Crown Court or at a magistrates' court and include criminal damage where the value is £5,000 or greater, theft and burglary) or **indictable** (the most serious offences that must be tried at the Crown Court. These 'indictable-only' offences include murder, manslaughter, rape and robbery).

Offence Group - A split of offences into twelve separate groups. A more detailed split of the ten indictable offence groups (violence against the person, sexual offences, burglary, robbery, theft and handling and stolen goods, fraud and forgery, criminal damage, drug offences, other indictable offences (excluding motoring), indictable motoring) and the two summary offence groups (summary non-motoring and summary motoring offence types).

Appendix C: Comparison of the three measures of re-offending

Figure A1 below compares how the three measures of re-offending (the headline proven re-offending measure, the early estimates of re-offending and local adult re-offending) are constructed. It shows the period over which the re-offending cohort is formed, the time over which re-offending is measured, the additional time allowed for re-offending to be proven, and the time taken to collect and analyse the data, and then to publish.

Figure A1: how the three re-offending measures are constructed



Cohort formation

Headline measure and early estimates: offenders enter the cohort when they receive a caution (adults), a final warning or reprimand (juveniles), are given a non-custodial conviction, are released from custody or test positive for cocaine or opiates in the cohort formation period shown.

Local adult re-offending: this uses a snapshot of all offenders aged 18 or over, who are under probation supervision at the end of a quarter, and combines four such snapshots together.

Re-offences

Headline measure: A re-offence is counted if the offence occurs within the "Re-offences" period shown. This is within 12 months of entering the cohort.

Early estimates and local adult re-offending: A re-offence is counted if the offence occurs within 3 months of entering the cohort for the early estimates measure and within 3 months following each of the four caseload snapshots for the local re-offending measure.

Re-offences proven

Headline measure: For a re-offence to be counted it must also be proven within the "Re-offences proven" period shown. This is within 6 months of the re-offence.

Early estimates and local adult re-offending: For a re-offence to be counted it must also be proven within the "Re-offences proven" period shown. This is within 3 months of the re-offence.

Contact details and further information

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