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Overview

The Compendium of re-offending statistics and analysis is an annual publication created to address a selection of re-offending questions not answered in existing statistical publications. It is designed to answer questions of interest to policy-makers and delivery staff and aid in development of policy and delivery of services to reduce re-offending.

The 2013 Compendium consists of two papers covering:

- impact of sentencing on proven re-offending for adult offenders in England and Wales, 2009-2010;
- end of sentence re-offending.

There is also an Appendix which contains a glossary of key re-offending terms which have been used throughout this Compendium.
Paper 1: Impact of sentencing on proven re-offending for adult offenders in England and Wales, 2009-2010

Summary

This paper compares the impact of a range of adult sentences on re-offending. The Ministry of Justice publishes quarterly re-offending figures broken down by sentence type but these should not be used to judge the relative effectiveness of different sentences. This is because the offenders that make up each sentencing group have different offender and offence characteristics to one another and it may be these factors that account for the difference in re-offending for each sentence group rather than the sentences themselves.

To deal with this issue, Propensity Score Matching was used to create matched offender groups for each pair of sentences being compared. Through matching, the different offender and offence characteristics are controlled for and a more informed judgement can be made regarding the relative effectiveness of each sentence.

The analysis updates the findings presented in the 2011 Compendium by; using more recent 2009 and 2010 re-offending data, employing an improved matching methodology and including several new comparisons.

The key findings, using the one year proven re-offending rate as the main outcome measure, are outlined below.

Comparisons of immediate custodial sentences

Offenders sentenced to less than 12 months in custody had a higher one year re-offending rate than similar, matched offenders receiving:

- a community order, of 6.4 percentage points for 2010;
- a suspended sentence order, of 8.6 percentage points for 2010;
- a ‘court order’ (either a community order or a suspended order), of 6.8 percentage points for 2010.

Offenders sentenced to less than 12 months in custody also had a higher re-offending rate than offenders given an immediate custodial sentence of between 1 and 4 years. The difference was 12 percentage points for 2010. Offenders released from custodial sentences of less than 12 months are not currently subject to supervision by the Probation service upon release; this may at least partially explain the above differences. Current government proposals in the Offender Rehabilitation Bill will extend supervision to all offenders released from custody.
When short term custodial sentences were broken down, offenders sentenced to less than or equal to 6 months in custody re-offended at a higher rate than matched offenders sentenced to more than 6 and less than 12 months. The difference for 2010 was 4.8 percentage points. This suggests that a longer custodial sentence length may have more of an effect on re-offending than a shorter one for offenders who could have received either less than or equal to 6 months in custody or to more than 6 and less than 12 months.

Comparisons of court sentences other than immediate custody

Offenders receiving a suspended sentence order had a lower one year re-offending rate than similar, matched offenders receiving a community order. The difference was 3.2 percentage points for 2010.

Offenders receiving a community order had a slightly higher one year re-offending rate than similar matched offenders receiving a fine, the difference being 0.9 percentage points for 2010. Fines in these comparisons only refer to police recorded fines, which are those given for more serious offences (such as being drunk and disorderly) rather than less serious ones (such as TV license evasion and speeding).

Offenders receiving a conditional discharge had a lower re-offending rate than similar, matched offenders receiving:

- A community order, of 5.1 percentage points for 2010;
- A fine, of 5.5 percentage points for 2010.

The difference between conditional discharges and fines grew month by month over the re-offending follow-up period, with a smaller difference earlier on. This may be due to the nature of each sentence, with fines being imposed immediately compared to conditional discharges which are given for a period of time set by the court.
Introduction

The Ministry of Justice publishes National Statistics on proven re-offending in England and Wales for both juvenile and adult offenders on a quarterly basis. This publication provides measures of re-offending broken down by the type of sentence. However, it is not recommended to compare the impact of different sentences on re-offending rates using these breakdowns alone. This is because the re-offending rates for each sentence are based on offenders with different characteristics, such as age, gender, length of criminal career and number of previous offences. Without adjusting for these characteristics, any differences in re-offending between sentences cannot confidently be attributed to the sentences themselves as they may be the result of the unadjusted characteristics.

In the 2011 Compendium, a paper was included to provide adjusted comparisons between various sentences that a criminal court might give. Matched adult offender groups were constructed for each set of sentences being compared. Offenders who received one sentence (for example a fine) were matched to offenders receiving the comparison sentence (say a community order) if they were identical in terms of age, gender, ethnicity, number of previous criminal convictions and latest offence type. This enabled re-offending outcome measures to more reliably be compared between different sentences, and a more informed judgement to be made on each sentence’s relative effectiveness. The 2011 Compendium compared a range of sentences for adult offenders sentenced between 2005 and 2008.

The current paper aims to build on the analysis presented in the 2011 Compendium in two ways; firstly by updating the figures using more recent 2009 and 2010 re-offending data and a more robust matching methodology and secondly by adding several new comparisons.

In this paper, the following comparisons that were present in the 2011 Compendium are updated using 2009 and 2010 data:

- immediate custody (less than 12 months) compared with community orders;
- immediate custody (less than 12 months) compared with suspended sentence orders;
- community orders compared with suspended sentence orders;
- community orders compared with conditional discharges;

1 See Proven Re-Offending Quarterly Bulletin, Ministry of Justice, April 2013.
• community orders compared with police recorded fines; and,

• police recorded fines compared with conditional discharges.

The new comparisons included for the 2013 Compendium are:

• court orders (which incorporates community orders and suspended sentence orders) compared with immediate custody (less than 12 months). This comparison was added to meet demand amongst users for a comparison featuring both forms of court order combined.

• immediate custody (1 to 4 years) compared with immediate custody (less than 12 months). This replaces the comparison between immediate custody (less than 12 months) and immediate custody (1 to 2 years) to bring the current Compendium in line with the custodial sentence length breakdowns published in Table 19a of the Proven Re-Offending Quarterly Bulletin.

• immediate custody (less than or equal to 6 months) compared with immediate custody (more than 6 to less than 12 months). This comparison was added to improve understanding of short term sentences as the majority of sentences less than 12 months are actually for less than or equal to 6 months. Also, because offenders sentenced to less than 12 months are not currently supervised by Probation upon release, splitting up this sentence length into two allows us to be more confident that any difference in re-offending rate reflects the sentence length rather than differences in post-release supervision.

The selected comparisons cover a range of realistic options a judge may consider when sentencing an offender at court. Each individual comparison aims to compare two sentences which could possibly be given for the same offence. It would not make sense, for example, to compare conditional discharges with custodial sentences of more than a year because these sentences relate to different levels of offence severity.

Methodology

Comparing measures of proven re-offending

It is not possible to assess the impact of a sentence on re-offending by looking at the re-offending rate for that sentence in isolation. Neither is

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3 See Table 2.1a in the Prison Reception table presented in the latest Offender Management Statistics, Ministry of Justice, April 2013.
it advisable to compare the unadjusted re-offending rate for one sentence with that of another. This is because the composition of offenders that make up one sentence group will likely be different to those in the other. This difference in composition means that when comparing unadjusted re-offending rates between two sentences, it is unclear whether any difference in the rates is due to the difference in sentence or differences in other characteristics between the groups.

Therefore in order to make a judgement on the relative impact of two sentences on re-offending, it is important to control for differences in offender characteristics between the two sentencing groups. The aim is to make the two groups as similar as possible so that the only systematic difference between the groups is that one received one type of sentence and the other another type of sentence. By minimising the other differences between the groups, the sentences become more comparable.

From a statistical perspective, arguably the most robust method of comparing the impact of two sentence types on re-offending would be a Randomised Controlled Trial (RCT). This would involve randomly assigning offenders to each of the two sentences. RCTs are ideal as they allow for control over both observable and unobservable offender characteristics and also any underlying systematic differences in sentencing and offender management. However, an RCT design is inappropriate for comparing sentences for ethical reasons; it would be unethical to randomly assign offenders different sentences in a court of law.

To compare two sentences, therefore, the most appropriate method available is to create matched offender groups for each sentencing comparison, based on available information about the offenders. This quasi-experimental approach is not considered as robust as an RCT because it can only use available offender and offence data.

In this paper, Propensity Score Matching (PSM) was used as the method of creating matched offender groups for each sentencing comparison.

**Propensity score matching**

Propensity score matching constructs statistical comparison groups of offenders based on the probability of receiving one of the sentences in each comparison, using observed offender and offence characteristics. The probability is represented as a ‘propensity score’ which is a value between 0 and 1. Offenders given one type of sentence (the ‘treatment’ sentence) are matched to offenders receiving the other sentence type (the ‘control’ sentence) where the propensity scores of each offender are similar. After matching, the average treatment effect of receiving one sentence rather than the other is calculated as the difference in the mean re-offending rates between the two sentences.
Datasets featuring adult offenders in England and Wales between 2009 and 2010 were therefore constructed for each sentence category to be compared using information taken from the Police National Computer (PNC). The datasets contained offender, offence, criminal history and re-offending information for each occasion when an adult offender received one of the selected court sentences.

Offenders were included in each sentence dataset for as many times as they had received the relevant sentence during the time period. So an offender who received two community orders on separate sentencing occasions during the period, for example, would have two records eligible for matching when comparing community orders to another sentence.

Under PSM, the propensity score of an offender receiving the sentencing outcome deemed the ‘treatment’ sentence was derived from a logistic regression model using a wide range of offender and offence characteristics likely to be associated with receiving the sentence. Such characteristics include age, gender, offence type, offence severity and number of previous offences; a full list can be found in Annex B. Variables that had statistically significant relationships at the 0.2 significance level with either the probability of receiving ‘treatment’ sentence or with re-offending were included in the model.

Once propensity scores were calculated, offenders in each sentencing group were matched to one another using one to one Nearest-Neighbour matching. Under this method, each offender receiving the ‘treatment’ sentence was matched to the offender with the closest propensity score receiving the ‘comparison’ sentence, provided the nearest match was within a specified distance. In this analysis, the matching was done with replacement. This means the same offender in the ‘comparison’ group can be used as a match for different offenders receiving the ‘treatment’ sentence, so long as they represent the closest match. In cases where no suitable match was found for offenders in the ‘treatment’ sentencing group, offenders were excluded.

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4 Adult offenders are defined as offenders aged 18 or over at the time of their sentence, or in the case of custodial sentences, at the time of their discharge from prison. This is also referred to as the start point or the index date.
5 The Police National Computer is the administrative data system used by all police forces in England and Wales. It is managed by the Home Office. The Ministry of Justice receive monthly extracts of data from the PNC.
6 Logistic regression is a type of regression analysis used for predicting the outcome of a binary variable based on one or more explanatory variables (or covariates).
7 The 0.2 level of statistical significance is consistent with guidance from the academic literature (e.g. Apel & Sweeten, 2010; Hahs-Vaughn & Onwuegbuzie, 2006; Rosenbaum, 2002) and with previous Ministry of Justice research such as the 2012 Compendium analysis comparing sentences for juvenile offenders (Ministry of Justice, 2012).
8 The specified distance (known as a ‘caliper’) was 0.05 standard deviations of the propensity score. The probabilities of receiving a particular sentence outcome therefore did not have to be exactly the same, but needed to be within 0.05 standard deviations of the propensity score.
from the comparison. However, as the tables in Annex A show very few ‘treatment’ sentence offenders were dropped from the comparisons.

To illustrate the matching process consider a comparison of fines against community orders with offender A, having received a fine, and offender B who received a community order. Their respective propensity scores of receiving a community order are similar, say 0.31 for both offenders, meaning they are a potential match. Given that the propensity score is a function of offender and offence characteristics related either to receiving one of the two sentences or re-offending, it is likely that the underlying characteristics of offenders A and B are similar. They are therefore deemed an acceptable match and their re-offending outcomes can be compared.

**Differences in methodology from the 2011 compendium**

In the sentencing analysis presented in the 2011 Compendium, PSM was used as a secondary matching method to ‘contextualise some of the results’. The primary matching method there was variable by variable matching, where matched comparison groups were constructed by matching offenders exactly on a few characteristics, namely age, gender, ethnicity, index offence and the number of previous offences.

The present analysis uses PSM as its primary and only matching methodology. PSM is advantageous in that it allows more matches to be made than in variable by variable matching and allows the inclusion of more variables in the matching process. PSM was also used as the primary matching methodology in the sentencing analysis presented in the 2012 Compendium which compared the impact of difference sentences on re-offending for juvenile offenders.

Due to changes in the methodology, the results presented in the 2011 Compendium for 2005-2008 should not be directly compared to the results presented here for 2009 and 2010 in terms of a time series. The purpose of this analysis is not to chart differences in re-offending between sentences over time but rather to update the figures using the latest re-offending data.

**Re-offending outcome measures**

In order to compare the impact of different sentences on re-offending, three re-offending outcome measures were calculated. As in the sentencing analysis published in the 2011 Compendium, these were:

1. **The one year proven re-offending rate** – defined as the proportion of offenders who committed an offence in a one year follow-up period

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10 The measures were calculated in line with the Ministry of Justice’s National Statistics on re-offending in England and Wales. See Definitions and Measurement for more information.
which received a court conviction, caution, reprimand or warning during the period, with a further six month waiting period to allow the offence to proceed through court. The one year follow-up period begins at the time of sentence except in the case of custodial sentences where it begins at the time of discharge from prison.

2. **The proven re-offending frequency rate** – the mean number of proven re-offences in the follow-up period *per offender* in the sentence group.

3. **The proven re-offending custody rate** – the proportion of re-offenders whose re-offence resulted in an immediate custodial sentence.

**Methodological Limitations**

The PSM approach has the advantage of using all relevant observed offence and offender characteristics available in the dataset to match the two groups and due to the statistical model, most offenders with a particular sentencing outcome are likely to have a corresponding matched offender in another sentencing outcome. As with any matching approach, this methodology relies heavily on the model specification and robustness, and in particular on having a complete set of factors in the propensity score model. Essentially, it needs to include all factors which influence both the likelihood of proven re-offending and the type of sentence received.\(^\text{11}\)

However, this analysis is limited to the offender and offence characteristics available on the PNC and cannot draw upon other characteristics that may have influenced the sentencing decision or the probability of re-offending, such as the offender’s plea. It is therefore possible that some of the differences in the re-offending rates found in this analysis reflect differences in the offenders and their offences that could not be covered by the data used. This may be more of an issue for certain comparisons than others, for example magistrates/judges may take into consideration an offender’s income when deciding whether to give a fine, though income data was not in the dataset.

In general, some extra caution is advised when interpreting comparisons featuring fines. The PNC does not record all offences for which fines may be given in a court such as TV license evasion or less serious motoring offences. Rather it only covers fines for more serious offences, such as shoplifting, driving over the limit, being drunk and disorderly and possession of cannabis. This means the findings should not be considered in terms of all fines, but rather the more serious offences that might lead to a fine.

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\(^{11}\) More technically, the Conditional Independence Assumption needs to be satisfied. For a fuller account of this see Bryson, Dorsett and Purdon (2002).
In addition, the matching of offenders for most comparisons was conducted on the basis of selecting the ‘treatment’ group as the sentence with the smallest number of offenders and the ‘comparison’ group as the sentence with the largest number. The tables in Annex A show which sentence was the ‘treatment’ sentence in each comparison.

Selecting the treatment group in this way limits the interpretation of the results to comparisons of the re-offending rates in one direction only. For example, when comparing community orders with fines the analysis shows what would have happened to those receiving a community order if they had received a fine, not the other way around. This means that the analysis for this comparison would be more focused on particular offences that might receive a community order or a fine, rather than less serious offences warranting only a fine and not a community order.

Assessing the matching quality

The robustness of the calculated treatment effect depends on the quality of the match achieved by the PSM. Following the matching for each comparison, the closeness of the matched groups on characteristics selected by the model as being predictive of sentence outcome and re-offending was tested using standardised (mean) differences.

Standardised differences of 5% or less indicate that the groups were closely matched on that particular offender or offence characteristic. As an example, the post-matching mean age at first offence could be 16.2 for community orders and 16.1 for suspended sentence orders, with a standardised difference between the two of 0.6%. This would indicate that the matched community order and suspended sentence order groups are well matched on age at first offence. Standardised differences between 5% and 10% indicate a reasonable match quality and differences above 10% indicate a poor quality of matching which could alter the interpretation of the final result.

In this analysis, the vast majority of standardised differences were less than 5%. None were greater than 10%. This suggests the propensity score matching succeeded in creating well matched groups of offenders.

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12 The exception to this was the Immediate Custody (less than 12 months) compared with Immediate Custody (1 to 4 years).

13 The formula for the standardised (mean) difference is as follows, where the \( x \) represents the characteristic selected and \( s \) the standard deviation of that characteristic:

\[
\text{Standardised difference} = \frac{\left(\frac{X_{\text{treatment}}}{\sqrt{2}} + \frac{X_{\text{control}}}{\sqrt{2}}\right)}{\sqrt{\frac{S_{\text{treatment}}^2}{2} + \frac{S_{\text{control}}^2}{2}}}
\]
offenders. The accompanying tables to this publication feature information on the standardised differences for each comparison.

**Sensitivity Analysis**

As noted above, it is possible that some factors which might influence both re-offending and sentencing decisions were not covered in the analysis due to limitations with the data available. As in the 2011 Compendium, sensitivity analysis was performed to test the potential sensitivity of the results to these unobserved characteristics.

A randomly generated factor linearly correlated with re-offending was included in the Propensity Score Matching. The level of correlation with re-offending was set to be higher than that of any variable available for analysis in the dataset. The factor was included to emulate the potential impact of the unobserved characteristics.

Sensitivity analysis was performed for the two new comparisons included for the present compendium, having previously been performed for other comparisons in the 2010 Compendium. The results for these are included in the appropriate results section for each comparison.

The main findings for all sentencing comparisons for the matched offender groups using 2009 and 2010 data are presented in Tables A1.1 and A1.2 in Annex A. These tables show that for every comparison at least 98% of the treatment sentence group were matched. Further demographic breakdowns of the data can be found in the tables accompanying this paper as can details of the coefficients from the logistic regression for each comparison. Detailed results and commentary for the comparisons are presented below. All differences in the main outcome measures were statistically significant unless otherwise stated.

**Immediate custody (less than 12 months) compared with community orders**

Offenders discharged from immediate custodial sentences of less than 12 months re-offended at a higher rate than matched offenders receiving a community order. They also committed more re-offences per offender and a greater number of re-offenders committed a re-offence that resulted in an immediate custodial sentence. The differences for these three outcome measures were similar for 2009 and 2010.
Table 1.1: One year re-offending outcome data for offenders receiving immediate custodial sentences of less than 12 months compared with matched offenders receiving a community order, for 2010.

<table>
<thead>
<tr>
<th></th>
<th>Immediate Custody (less than 12 months)</th>
<th>Community Orders</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>One year proven re-offending rate</td>
<td>62.5%</td>
<td>56.2%</td>
<td>6.4 pp</td>
</tr>
<tr>
<td>Frequency of re-offences per offender</td>
<td>3.39</td>
<td>2.44</td>
<td>0.95</td>
</tr>
<tr>
<td>Proven re-offending custody rate</td>
<td>44.4%</td>
<td>33.3%</td>
<td>11.1 pp</td>
</tr>
</tbody>
</table>

Offenders released from custodial sentences of less than 12 months are not currently given supervision by Probation upon release and this may at least partially explain the above difference.

The one-year follow-up period for measuring re-offending begins for all custodial sentences at the date of custodial release, whereas for community orders it begins at commencement of the order. Additional analysis showed the difference in re-offending rate between the two sentences became apparent early into the follow-up. For 2010, almost a third of matched offenders released from custody (31.4%) had re-offended within two months of their release. In comparison, less than a quarter (23.3%) of matched offenders receiving a community order had re-offended within two months of their order starting; a difference of 8 percentage points.
Figure 1.1: One year proven re-offending rate for offenders released from immediate custodial sentences of less than 12 months compared with matched offenders receiving a community order, over the one year re-offending follow-up period, for 2010.

When checking the quality of the match, the standardised differences between the two groups were all less than 5% for both 2009 and 2010, suggesting that the groups were well matched on all relevant observed characteristics in the datasets.

**Immediate custody (less than 12 months) compared with suspended sentence orders**

Offenders discharged from immediate custodial sentences of less than 12 months re-offended at a higher rate than matched offenders receiving a suspended sentence order and committed more re-offences per offender. However, offenders receiving a suspended sentence order were more likely to commit a re-offence resulting in immediate custody. This is likely to be explained by the nature of suspended sentence orders; offenders are sent to custody if they do not meet the requirement of the order or if they re-offend

The results for this comparison were similar for 2009 and 2010 on all three outcome measures.

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14 See the Sentencing Council guidelines on [Suspended Sentence Orders](#).
Table 1.2: One year re-offending outcome data for offenders receiving immediate custodial sentences less than 12 months compared with matched offenders receiving a suspended sentence order, for 2010.

<table>
<thead>
<tr>
<th></th>
<th>Immediate Custody (less than 12 months)</th>
<th>Suspended Sentence Orders</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>One year proven re-offending rate</td>
<td>62.5%</td>
<td>53.9%</td>
<td>8.6 pp</td>
</tr>
<tr>
<td>Frequency of re-offences per offender</td>
<td>3.37</td>
<td>2.23</td>
<td>1.14</td>
</tr>
<tr>
<td>Proven re-offending custody rate</td>
<td>44.4%</td>
<td>55.5%</td>
<td>-11.1 pp</td>
</tr>
</tbody>
</table>

Like community orders, the one year re-offending follow-up period for suspended sentence orders begins when an offender commences an order. As in the comparison between community orders and short custodial sentences, the difference in re-offending rate between suspended sentence orders and immediate custodial sentences of less than 12 months was apparent early into the follow-up period. For example, the difference in percentage points between the re-offending rates was 9.6 at two months into the 2010 follow-up period.

Figure 1.2: One year proven re-offending rate for offenders released from immediate custodial sentences of less than 12 months compared with matched offenders receiving a suspended sentence order, over the one year re-offending follow-up period, for 2010.
When checking the quality of the match, all bar one standardised difference across 2009 and 2010 were less than 5%, suggesting the groups were well matched. The standardised difference in mean previous court orders for the 2010 comparison was only just above 5% (5.1%) and still indicates a reasonable quality of matching.

**Immediate custody (less than 12 months) compared with court orders**

Community orders and suspended sentence orders were combined to look at ‘court orders’ as a whole. For both 2009 and 2010, offenders discharged from immediate custodial sentences of less than 12 months had a higher re-offending rate and committed more re-offences per offender than matched offenders who were given a court order.

Unsurprisingly the percentage point difference in the re-offending rate for court orders compared with short custodial sentences is closer to that found in the comparison between short custodial sentences and community orders, as opposed to the comparison between short custodial sentences and suspended sentence orders, because a greater proportion of court orders are community orders.

The re-offending custody rate has not been provided for this comparison. This is because return to custody following a re-offence is the key difference between community orders and suspended sentence orders and so should be considered separately for each sentence in relation to custodial sentences less than 12 months.

**Table 1.3: One year re-offending outcome data for offenders receiving immediate custodial sentences less than 12 months compared with matched offenders receiving a court order, for 2010.**

<table>
<thead>
<tr>
<th></th>
<th>Immediate Custody (less than 12 months)</th>
<th>Court Orders</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>One year proven re-offending rate</td>
<td>62.6%</td>
<td>55.7%</td>
<td>6.8 pp</td>
</tr>
<tr>
<td>Frequency of re-offences per offender</td>
<td>3.39</td>
<td>2.45</td>
<td>0.94</td>
</tr>
</tbody>
</table>

The difference in re-offending between court orders and custodial sentences less than 12 months was apparent early into the follow-up period. At two months in, for example, 31.4% of offenders released from short custodial sentences had re-offended, compared with less than a quarter (23.7%) of those serving a court order, a difference of 7.7 percentage points. The difference was similar throughout the remainder of the follow-up period.
Figure 1.3: One year proven re-offending rate for offenders released from immediate custodial sentences of less than 12 months compared with matched offenders receiving a court order, over the one year re-offending follow-up period, for 2010.

When checking the quality of the match, the standardised differences between the two groups were all less than 5% for both 2009 and 2010, suggesting that the groups were well matched on all relevant observed characteristics in the datasets.

**Immediate custody (less than 12 months) compared with immediate custody (1 to 4 years)**

Offenders discharged from immediate custodial sentences of less than 12 months had a higher re-offending rate than matched offenders who were sentenced to between 1 and 4 years in custody. They also committed more re-offences per offender. This was the same for both 2009 and 2010.

However, re-offenders sentenced to less than 12 months in 2010 were less likely to return to custody for their re-offence than re-offenders in the 1 to 4 year group. The difference in re-offending custody rate for 2009 was small and non-significant.
Table 1.4: One year re-offending outcome data for offenders receiving immediate custodial sentences less than 12 months compared with matched offenders receiving immediate custodial sentences of between 1 and 4 years, for 2010.

<table>
<thead>
<tr>
<th></th>
<th>Immediate Custody (less than 12 months)</th>
<th>Immediate Custody (1 to 4 years)</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>One year proven re-offending rate</td>
<td>62.5%</td>
<td>50.5%</td>
<td>12.0 pp</td>
</tr>
<tr>
<td>Frequency of re-offences per offender</td>
<td>3.39</td>
<td>2.02</td>
<td>1.37</td>
</tr>
<tr>
<td>Proven re-offending custody rate</td>
<td>44.4%</td>
<td>47.8%</td>
<td>-3.4 pp</td>
</tr>
</tbody>
</table>

It is not conclusive as to whether the differences in re-offending rate and frequency of re-offending for this comparison are due to the longer sentence length in itself. For 2009 and 2010, offenders released from immediate custodial sentences of less than 12 months were not supervised by Probation upon release; neither do offenders in this category necessarily have enough time to complete interventions in prison. Offenders are supervised upon release if their sentences are greater than 12 months and are more likely to have within prison interventions. It may be these differences that at least partially explain the differences in re-offending outcomes for this comparison.

Nevertheless, the difference in re-offending rate between the two sentences was apparent within a month of custodial release. For 2010, over a fifth (21.0%) of matched offenders released from custodial sentences of less than 12 months had re-offended within 30 days of release, compared to 11.5% of offenders sentenced to between 1 and 4 years; a difference of 9.5 percentage points.

This difference grew in the next few months; after six months, the difference in re-offending rate was 16.4 percentage points for 2009 and 13.5 percentage points for 2010. For both 2009 and 2010, a higher proportion of all matched offenders sentenced to less than 12 months had re-offended within six months of release than of the matched offenders sentenced to between 1 and 4 years did in the full twelve months.
Figure 1.4: One year proven re-offending rate for offenders released from immediate custodial sentences of less than 12 months compared with matched offenders released from custodial sentences of between 1 and 4 years, over the one year re-offending follow-up period, for 2010.

All bar one of the standardised differences across both years were less than 5%, suggesting that the groups were well matched on virtually all of the relevant offender characteristics. The sensitivity analysis\textsuperscript{15} to test for the potential influence of unobserved factors reduced the difference in re-offending rate between the sentences slightly to 7.7 percentage points for 2010 and 9.1 percentage points for 2009, though the difference remained statistically significant.

**Immediate custody (more than 6 to less than 12 months) compared with immediate custody (less than or equal to 6 months)**

As described above, an issue with comparing immediate custodial sentences of less than 12 months with custodial sentences of between 1 and 4 years is that it is hard to draw conclusions about the impact of

\textsuperscript{15} The randomly generated factor had a linear correlation with re-offending of 0.6 in 2010 and 0.56 in 2009.
custodial sentence duration on re-offending because of differences in supervision post-release and access to interventions in prison. For this reason, custodial sentences less than 12 months were split in half to compare offenders sentenced to less than or equal to 6 months with offenders sentenced to more than 6 but less than 12 months. Offenders in each category do not receive supervision by Probation post-release.

The analysis found that offenders discharged from immediate custodial sentences of more than 6 to less than 12 months re-offended at a lower rate than matched offenders discharged from immediate custodial sentences of less than or equal to 6 months. They also committed fewer re-offences per offender. This was the same for both 2009 and 2010. This suggests that a longer custodial sentence length may have more of an effect on re-offending than a shorter one, at least for offenders sentenced to less than 12 months who could have received either sentence length from the judge.

In both years, though, the difference in the proportion of re-offenders receiving an immediate custodial sentence was non-significant.

Table 1.5: One year re-offending outcome data for offenders receiving immediate custodial sentences of more than 6 to less than 12 months compared with matched offenders receiving immediate custodial sentences of less than or equal to 6 months, for 2010.

<table>
<thead>
<tr>
<th></th>
<th>Immediate Custody (less than or equal to 6 months)</th>
<th>Immediate Custody (more than 6 months to less than 12 months)</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>One year proven re-offending rate</td>
<td>55.2%</td>
<td>50.3%</td>
<td>4.8 pp</td>
</tr>
<tr>
<td>Frequency of re-offences per offender</td>
<td>2.64</td>
<td>2.34</td>
<td>0.30</td>
</tr>
</tbody>
</table>

For this comparison, the one year follow-up period begins when the offender is released from custody. For both years, the difference in re-offending rate between the custodial sentence lengths became apparent early into the follow-up period. For 2010, almost a third (32.4%) of offenders released from immediate custodial sentences of less than or equal to 6 months had re-offended three months after release, compared with a quarter of offenders (25.7%) released from immediate custodial sentences of more than 6 to less than 12 months - a difference of 6.7 percentage points.
Figure 1.5: One year proven re-offending rate for offenders released from immediate custodial sentences of more than 6 months to less than 12 months compared with matched offenders released from custodial sentences of less than or equal to 6 months, over the one year re-offending follow-up period, for 2010.

All bar one of the standardised differences were less than 5%, suggesting that the sentence groups were well matched on all the relevant offender and offence characteristics. The sensitivity analysis\textsuperscript{16} to test for the potential influence of unobserved factors reduced the difference in re-offending rate between the sentences to 3.5 percentage points for 2010 and 3.1 percentage points for 2009, a slight reduction though it remained statistically significant.

Suspended sentence orders compared with community orders

Offenders receiving a suspended sentence order re-offended at a lower rate than matched offenders receiving a community order and committed fewer re-offences per offender. The differences were consistent across both years.

The difference in re-offending custody rate was also consistent for both 2009 and 2010, though offenders sentenced to a suspended sentence order who re-offended within the follow-up period were more likely to

\textsuperscript{16} The randomly generated factor had a linear correlation with re-offending of 0.6 in 2010 and 0.56 in 2010.
be given a custodial sentence than matched offenders sentenced to a community order. This is not surprising as under the terms of a suspended sentence order, offenders will serve the original custodial term given in the suspended sentence order should they re-offend whilst serving the order.

**Table 1.6: One year re-offending outcome data for offenders receiving a suspended sentence order compared with matched offenders receiving a community order, for 2010.**

<table>
<thead>
<tr>
<th></th>
<th>Community Orders</th>
<th>Suspended Sentence Orders</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>One year proven re-offending rate</td>
<td>36.8%</td>
<td>33.6%</td>
<td>3.2 pp</td>
</tr>
<tr>
<td>Frequency of re-offences per offender</td>
<td>1.24</td>
<td>1.07</td>
<td>0.17</td>
</tr>
<tr>
<td>Proven re-offending custody rate</td>
<td>25.6%</td>
<td>48.1%</td>
<td>-22.5 pp</td>
</tr>
</tbody>
</table>

For both community orders and suspended sentence orders, the one year re-offending follow-up period begins when the sentence is given at court. For both 2009 and 2010, the difference in the re-offending rate between the two sentences was very small at the beginning of the one year follow-up period; two months into each sentence, the difference in the re-offending rate was 1.4 percentage points for 2010. For this comparison, the difference in re-offending rate between the two sentences rose slightly each month until the end of the year.

**Figure 1.6: One year proven re-offending rate for offenders receiving a suspended sentence order compared with matched offenders receiving a community order, over the one year re-offending follow-up period, for 2010.**
For this comparison all the standardised differences were less than 5%, for both years, suggesting that the groups were well matched on all offender and offence characteristics.

**Conditional discharges compared with community orders**

Offenders receiving a conditional discharge had a lower one year re-offending rate, committed fewer re-offences per offender and had a lower re-offending custody rate than a matched group of offenders who received a community order. The differences in the latter two re-offending outcomes were similar for both 2009 and 2010, though the difference in one year re-offending rate was higher in 2010 (3.7 percentage points) than for 2009 (5.1 percentage points).

**Table 1.7: One year re-offending outcome data for offenders receiving a conditional discharge compared with matched offenders receiving a community order, for 2010.**

<table>
<thead>
<tr>
<th></th>
<th>Community Orders</th>
<th>Conditional Discharges</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>One year proven re-offending rate</td>
<td>39.6%</td>
<td>34.5%</td>
<td>5.1 pp</td>
</tr>
<tr>
<td>Frequency of re-offences per offender</td>
<td>1.42</td>
<td>1.15</td>
<td>0.27</td>
</tr>
<tr>
<td>Proven re-offending custody rate</td>
<td>23.2%</td>
<td>17.8%</td>
<td>5.4 pp</td>
</tr>
</tbody>
</table>

For both community orders and conditional discharges, the one year re-offending follow-up period begins on the date the sentence is received. As with the community order against suspended sentence order comparison, the percentage point difference in the one year re-offending rate between the sentences grew over time as Figure 6 shows. After two months the difference for 2010 was 1.9 percentage points, with this increasing to 5.1 percentage points by the end of the follow-up period.
Figure 1.7: One year proven re-offending rate for offenders receiving a conditional discharge compared with matched offenders receiving a community order, over the one year re-offending follow-up period, for 2010.

![Graph showing re-offending rates over time for conditional discharges versus community orders.]

For this comparison all the standardised differences were less than 5%; the highest standardised difference for any offender and offence characteristic across both years was 2%. This suggests the groups were very well matched.

Community orders compared with police recorded fines

Offenders receiving a community order had a higher re-offending rate and re-offending frequency rate than a matched group of offenders receiving a fine, but the difference was small. There was a larger difference in the proportion of re-offenders who received an immediate custodial sentence for their re-offence. These differences were similar across both 2009 and 2010, though the difference in re-offending frequency rate in 2009 was non-significant.

Table 1.8: One year re-offending outcome data for offenders receiving a community order compared with matched offenders receiving a fine, for 2010

<table>
<thead>
<tr>
<th></th>
<th>Community Orders</th>
<th>Fines</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>One year proven re-offending rate</td>
<td>38.7%</td>
<td>37.8%</td>
<td>0.9 pp</td>
</tr>
<tr>
<td>Frequency of re-offences per offender</td>
<td>1.35</td>
<td>1.32</td>
<td>0.03</td>
</tr>
<tr>
<td>Proven re-offending custody rate</td>
<td>25.1%</td>
<td>18.0%</td>
<td>7.2 pp</td>
</tr>
</tbody>
</table>

Looking at changes in the re-offending rate over the one year follow-up period did not yield any interesting findings for this comparison, as the
difference between the re-offending rates was very small throughout the period, fluctuating between -1.3 and 1 percentage point for each month.

For this comparison all the standardised differences were less than 5%, for both years, suggesting that the groups were well matched on all offender and offence characteristics.

**Conditional discharges compared with police recorded fines**

Offenders receiving a conditional discharge were less likely to re-offend than a matched group of offenders receiving a fine. They also committed fewer re-offences per offender. The differences between the sentences were similar for both 2009 and 2010.

For 2009, there was a non-significant difference between the sentences in the proportion of re-offenders who were sentenced to custody for their re-offence. For 2010, however, offenders receiving a conditional discharge had a slightly higher re-offending custody rate than matched offenders receiving a fine, of 1 percentage point.

**Table 1.9: One year re-offending outcome data for offenders receiving a conditional discharge compared with matched offenders receiving a fine, for 2010.**

<table>
<thead>
<tr>
<th></th>
<th>Fines</th>
<th>Conditional Discharges</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>One year proven re-offending rate</td>
<td>40.0%</td>
<td>34.5%</td>
<td>5.5 pp</td>
</tr>
<tr>
<td>Frequency of re-offences per offender</td>
<td>1.48</td>
<td>1.15</td>
<td>0.32</td>
</tr>
<tr>
<td>Proven re-offending custody rate</td>
<td>16.9%</td>
<td>17.8%</td>
<td>-1.0 pp</td>
</tr>
</tbody>
</table>

For both fines and conditional discharges, the one year follow-up period for measuring re-offending begins when the sentence is received at court. The difference in re-offending rate between conditional discharges and fines grew month by month. For example, after two months the difference was only 3 percentage points for 2010. This growing difference over time may be due to the nature of each sentence. Conditional discharges are given for a period of time set by the court, within which the offender will be sentenced for both the old and new offence should they re-offend. As such there is an extra incentive for the offender not to re-offend as compared with fines which are imposed immediately.
Figure 1.9: One year proven re-offending rate for offenders receiving a conditional discharge compared with matched offenders receiving a fine, over the one year re-offending follow-up period, for 2010.

For this comparison all the standardised differences were less than 2% in both years, suggesting the groups were very well matched on all relevant, observed offender and offence characteristics.
Annex A: Statistical Tables

Table A1.1 Proven re-offending outcomes for matched pairs of offenders where one sentencing type is an immediate custodial sentence in England and Wales, 2009 to 2010.

<table>
<thead>
<tr>
<th>Matched pairs (and unmatched 'treated' offenders)</th>
<th>One year proven re-offending rate</th>
<th>Frequency of re-offences per offender</th>
<th>Proven re-offending custody rate³</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Custody (less than 12 months) †</td>
<td>62.3%</td>
<td>3.23</td>
<td>43.2%</td>
<td>42,352 (0)</td>
<td>36,391 (5)</td>
</tr>
<tr>
<td>Community Orders</td>
<td>55.5%</td>
<td>2.34</td>
<td>31.9%</td>
<td>42,288 (64)</td>
<td>36,358 (36)</td>
</tr>
<tr>
<td>Difference</td>
<td>6.8 ***</td>
<td>0.89 ***</td>
<td>11.4 ***</td>
<td>9,124 (58)</td>
<td>6,033 (48)</td>
</tr>
<tr>
<td>Matched pairs (and unmatched 'treated' offenders)</td>
<td>62.2%</td>
<td>3.21</td>
<td>43.2%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Immediate Custody (less than 12 months) †</td>
<td>55.1%</td>
<td>2.28</td>
<td>54.3%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Difference</td>
<td>7.2 ***</td>
<td>0.95 ***</td>
<td>-1.1 ***</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Matched pairs (and unmatched 'treated' offenders)</td>
<td>62.3%</td>
<td>3.23</td>
<td>43.2%</td>
<td>42,353 (0)</td>
<td>36,396 (0)</td>
</tr>
<tr>
<td>Immediate Custody (less than 12 months) †</td>
<td>49.5%</td>
<td>2.19</td>
<td>42.8%</td>
<td>42,346 (17)</td>
<td>36,596 (17)</td>
</tr>
<tr>
<td>Immediate Custody (1 to 4 years)</td>
<td>12.8 ***</td>
<td>1.04 ***</td>
<td>0.4</td>
<td>12,018 (124)</td>
<td>8,088 (124)</td>
</tr>
</tbody>
</table>

*** Significant at the 0.1% level, ** Significant at the 1% level, * Significant at the 5% level

¹ Differences in proven re-offending rate and proven re-offending custody rate between sentences are expressed in percentage points.
² Differences in proven re-offending frequency rate between sentences are expressed in terms of number of re-offences per offender.
³ The proven re-offending custody rate refers to the proportion of re-offenders only.
† Indicates the sentence designated the 'treatment' group for the comparison.
Table A1.2 Proven re-offending outcomes for matched pairs of offenders for non-custodial court sentences in England and Wales, 2009 to 2010

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One year proven re-offending rate</td>
<td>Frequency of re-offences per offender</td>
</tr>
<tr>
<td>Matched pairs (and unmatched 'treated' offenders)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Orders</td>
<td>37.7%</td>
<td>1.24</td>
</tr>
<tr>
<td>Suspended Sentence Orders †</td>
<td>34.4%</td>
<td>1.06</td>
</tr>
<tr>
<td>Difference</td>
<td>3.3 ***</td>
<td>0.18 ***</td>
</tr>
<tr>
<td>Matched pairs (and unmatched 'treated' offenders)</td>
<td>62,450 (8)</td>
<td></td>
</tr>
<tr>
<td>Community Orders</td>
<td>39.2%</td>
<td>1.37</td>
</tr>
<tr>
<td>Conditional Discharges †</td>
<td>35.5%</td>
<td>1.18</td>
</tr>
<tr>
<td>Difference</td>
<td>3.7 ***</td>
<td>0.19 ***</td>
</tr>
<tr>
<td>Matched pairs (and unmatched 'treated' offenders)</td>
<td>121,746 (0)</td>
<td></td>
</tr>
<tr>
<td>Community Orders †</td>
<td>38.6%</td>
<td>1.29</td>
</tr>
<tr>
<td>Fines (recorded by the police)</td>
<td>37.5%</td>
<td>1.28</td>
</tr>
<tr>
<td>Difference</td>
<td>1.1 ***</td>
<td>0.01</td>
</tr>
<tr>
<td>Matched pairs (and unmatched 'treated' offenders)</td>
<td>62,455 (3)</td>
<td></td>
</tr>
<tr>
<td>Fines (recorded by the police)</td>
<td>40.6%</td>
<td>1.49</td>
</tr>
<tr>
<td>Conditional Discharges †</td>
<td>35.5%</td>
<td>1.18</td>
</tr>
<tr>
<td>Difference</td>
<td>5.1 ***</td>
<td>0.30 ***</td>
</tr>
</tbody>
</table>

*** Significant at the 0.1% level, ** Significant at the 1% level, * Significant at the 5% level

¹ Differences in proven re-offending rate and proven re-offending custody rate between sentences are expressed in percentage points.
² Differences in proven re-offending frequency rate between sentences are expressed in terms of number of re-offences per offender.
³ The proven re-offending custody rate refers to the proportion of re-offenders only.
† Indicates the sentence designated the ‘treatment’ group for the comparison.
Annex B: List of variables tested for inclusion in logistic regression models used to calculate propensity scores\textsuperscript{17}

**Offender Demographics**
- Gender
- Ethnicity

**Index Offence** (this is the offence that led to the sentence)
- Age at date of index offence\textsuperscript{*}
- OGRS offence code (condensed 20 categories for the index offence, e.g. robbery, violence, burglary and so on, as in the Offender Group Reconviction Scale 3)
- Severity of index offence (ranked 1 to 3 with 1 being the most severe).

**Offending History\textsuperscript{18}** (prior to index offence)
- Number of previous offences\textsuperscript{*}
- Copas Rate\textsuperscript{19}
- Number of previous custodial sentences\textsuperscript{*}
- Number of previous court convictions\textsuperscript{*}
- Number of previous court orders\textsuperscript{*}
- Age at first contact with the criminal justice system\textsuperscript{*}
- Number of previous offences split by severity of offence\textsuperscript{*}

\textsuperscript{17} A \textsuperscript{*} indicates that a squared term was also tested for inclusion in the model. Squared terms are able to account for non-linear relationships between variables and the likelihood of receiving treatment or of re-offending (Wermink et al., 2010).

\textsuperscript{18} All offending history variables exclude Penalty Notices for Disorder.

\textsuperscript{19} The Copas Rate controls for the rate at which an offender has built up convictions. The higher it is, the more likely the offender is to re-offend. The formula is as follows;

\[
\text{copas rate} = \log_e \left( \frac{\text{Number of court appearances or cautions} + 1}{\text{Length of criminal career in years} + 10} \right)
\]
Paper 2  End of sentence re-offending

Summary
This paper presents the work done to develop an end of sentence measure of re-offending for offenders sentenced to short prison sentences (less than 12 months), and court orders (community orders and suspended sentence orders - SSOs). Not all offenders successfully reach the end of their sentence – for example those who commit a further offence while under probation service supervision and are subsequently given a custodial sentence. Such offenders are not included in this end of sentence measure of re-offending.

The main findings are:

- For court orders, the end of sentence re-offending rate in 2010 was 22.4 per cent, lower than the proven re-offending rate of 34.1 per cent.

- For short prison sentences of less than 12 months, the end of sentence re-offending rate in 2010 was 51.3 per cent, lower than the proven re-offending rate of 57.6 per cent.

However, these results do not control for the differences in offender characteristics which mean re-offending rates for different sentences cannot be directly compared. Paper 1 of this Compendium and papers in previous Compendia have shown how propensity score matching can be used to compare the relative effectiveness of different sentences in reducing re-offending.

Considering the complexity involved in developing an end of sentence measure for all offenders and the limitations for comparing sentencing effectiveness we do not propose to further develop an end of sentence re-offending measure.

Introduction

This paper is an update to the discussion paper on the options for measuring end of sentence re-offending which was published in the 2012 Compendium. That discussion paper considered some of the issues involved in defining end of sentence re-offending, and proposed how such a measure could be developed using existing data sources.

In that paper the Ministry of Justice made a commitment to continue work to derive an end of sentence measure of re-offending, looking initially at offenders released from short prison sentences (less than 12 months) and those ending court orders (community sentences and suspended sentence orders – SSOs). This paper presents the findings from that work.

20 See Paper 7, ‘End of Sentence Re-Offending: What are the options?’ in 2012 Compendium of Re-offending Statistics and Analysis
Methodology

The headline re-offending measure published as National Statistics by the Ministry of Justice is based on a cohort of all offenders who were released from custody, received a non-custodial conviction at court, received a caution, reprimand, warning or tested positive for opiates or cocaine over a 12 month period. This means that re-offending is measured from the start of sentence for some offenders (for example, those given a community sentence or a suspended sentence order), and from the mid-point of sentence for some other offenders (those released from custody, who are typically released at the halfway point of the sentence).

However, following a Ministry of Justice consultation on improvements to re-offending statistics in 2011, there was some user demand for a measure of re-offending that used the same starting point for all offenders. The discussion paper published in the 2012 Compendium outlined a number of technical and data challenges in developing an end of sentence measure. These challenges still remain but in this paper we have worked through some of the issues around handling breaches and other cohort adjustments to develop an end of sentence measure of re-offending for offenders sentenced to short prison sentences (less than 12 months), community sentences and SSOs. The data used to create this end of sentence measure is described below.

Court orders

Probation Trusts keep electronic records on all offenders they are currently supervising. When an offender leaves supervision the date of termination and the reason why the termination occurred are added to the offender’s record.

A termination can occur for several reasons, which are typically grouped into three categories: negative, positive and neutral. Negative reasons for termination include failure to comply with the conditions of the order and committing a further offence. Positive reasons for termination include the order terminating normally (i.e. the offender completed the conditions of the supervision) and early termination for good progress. Reasons for neutral terminations include the death of the offender before completion of the order and the order being revoked by the court because of a change in the offender’s circumstances.

In developing an end of sentence measure we have included offenders whose court order terminated in 2010 for a positive reason. Offenders who terminated for neutral and negative reasons were not included because they either had not fully completed their sentence (negative reasons), or it did not make sense to monitor their re-offending (neutral reasons).

Less than 12 month prison sentences

Offenders sentenced to custody are usually released from prison at the halfway point of their sentence. Adults released from a short custodial sentence are not currently subject to supervision on release, but remain ‘at risk’ in the community until the end of their sentence (the sentence expiry date). If they commit a further offence during the ‘at risk’ period, they may have to serve the outstanding part of the sentence.
In developing an end of sentence measure we have included offenders given a custodial sentence of less than 12 months whose sentence expiry date occurred in 2010, and who had not returned to custody prior to their sentence expiry date. We have excluded all offenders who returned to custody after initial release and prior to their sentence expiry date.

Re-offending rates

After selecting the cohort of court order and short prison sentence offenders, re-offending rates were produced using the same methodology as is used for the National Statistics Proven Re-offending measure.\textsuperscript{21}

The re-offending rates presented here have been produced by matching data from the prison IT system, probation case management systems and the Ministry of Justice extract of the Police National Computer. Although care is taken when processing and analysing the returns, the detail collected is subject to the inaccuracies inherent in any large-scale recording system.

Results

Table 2.1 shows the end of sentence re-offending rates for offenders ending their sentences in 2010 and, for comparison, the 2010 figures for the proven re-offending measure (where re-offending is measured from the start of a court order or from the point of release from custody). However these results cannot be directly compared because, in addition to any timing issues (an offender may start a court order in one year and finish it the following year) they include different types of offenders.

Looking first at court orders, the proven re-offending measure includes all offenders who commenced a court order, whereas the end of sentence measure only includes those whose order terminated for a positive reason. Around 25 per cent of court orders terminate for a negative reason, including 10 per cent that terminate because the offender has committed a further offence.\textsuperscript{22} This group are likely to have a higher re-offending rate than those whose orders terminate for positive reasons. As a consequence it is not surprising that the end of sentence re-offending rate (which excludes those whose court order terminated for a negative reason) is lower than the proven re-offending measure (22.4 compared to 34.1 per cent).

Similarly on the prison side, the proven re-offending measure includes all offenders released from a prison sentence of less than 12 months, whereas the end of sentence measure only includes the subset who had not returned to custody prior to the end of the sentence. Those offenders excluded from the end of sentence measure are likely to have a higher re-offending rate than those offenders who are included in the measure. As a consequence it is not surprising that the end of sentence re-offending rate is lower than the proven

\textsuperscript{21} See Proven Re-Offending Statistics: Definitions and Measurement.
\textsuperscript{22} Offender Management Caseload Statistics 2010, table A, 4.24
re-offending rate for offenders given custodial sentences of less than 12 months (51.3 compared to 57.6 per cent).

Table 2.1: End of sentence re-offending rates and proven re-offending measure for adults sentenced to court orders and prison sentences of less than 12 months, for 2010.

<table>
<thead>
<tr>
<th>End of sentence re-offending measure</th>
<th>Proven re-offending measure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Court orders</td>
</tr>
<tr>
<td>Proportion of offenders who re-offend (%)</td>
<td>22.4</td>
</tr>
<tr>
<td>Average number of re-offences per re-offender</td>
<td>2.49</td>
</tr>
<tr>
<td>Average number of re-offences per offender (frequency rate)</td>
<td>0.56</td>
</tr>
<tr>
<td>Number of re-offences</td>
<td>56,181</td>
</tr>
<tr>
<td>Number of re-offenders</td>
<td>22,577</td>
</tr>
<tr>
<td>Number of offenders in cohort</td>
<td>100,741</td>
</tr>
</tbody>
</table>

The end of sentence re-offending rate is much lower for court orders than for short prison sentences – 22.4 per cent and 51.3 per cent respectively. This is similar to the pattern seen for the proven re-offending measure (34.1 and 57.6 per cent) and partly reflects the different characteristics of offenders in each group.

Conclusions

The results presented provide a limited picture of re-offending at the end of sentence and could potentially be further developed to include offenders who have served longer custodial sentences (although identifying the cohort for this group would be considerably more difficult than for court orders or short prison sentences – see the 2012 Compendium article for more details).

Beyond the potential measurement issues, there remain a number of disadvantages to an end of sentence measure:

- it excludes life and indeterminate sentenced prisoners who remain under supervision by offender management services for the rest of their life after release from prison;
- it excludes the most prolific of offenders who are repeatedly re-sentenced before the end of their current sentence, and therefore never actually end a sentence to be included in such a measure;
- it ignores offences committed whilst under probation supervision before the end of sentence; and
- it does not remove the differences in offender characteristics which mean re-offending rates for different sentences cannot be directly compared.
Addressing the last bullet above, Paper 1 of this Compendium, and papers in previous Compendia have shown how propensity score matching can be used to compare the relative effectiveness of different sentences in reducing re-offending. In doing this work we are able to both control for different offender characteristics and test the results by controlling for time spent in prison. Ministry of Justice statisticians currently assess the comparisons using propensity score matching as our best current estimates of effectiveness of different sentences at reducing re-offending.

Given the complexity involved in developing the cohort for longer sentenced prisoners, and the overall limitations of an end of sentence measure, we do not propose to further develop an end of sentence re-offending measure.
Appendix A  Glossary of terms

Cohort definition used in the Proven Re-offending Statistics Quarterly Bulletin in England and Wales publication

The re-offending cohort consists of offenders who were released from custody, received a non-custodial conviction at court, received a caution, reprimand, warning or tested positive for opiates or cocaine during the 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 follow-up period and receiving a court conviction, caution, reprimand or warning (either in the one year follow-up or in a further six months waiting period) counts as a re-conviction.

The latest available publication is the Proven re-offending quarterly – July 2010 to June 2011; Ministry of Justice, April 2013.

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 introduced a new suspended sentence order for offences which pass the custody threshold. It also changed the release arrangements for prisoners. See Definitions and Measurement23 for more information.

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 Home Office. 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 re-offending and criminal histories.

Prison IT System

Prison establishments record details for individual inmates on the prison IT system (Prison-NOMIS). 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), from which data extracts are used to produce the various analyses of prison population, receptions, discharges and time served in custody.

23 Offender management statistics: definitions and measurement; Ministry of Justice, April 2011.
Probation Case Management System

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 and terminating probation supervision and those supervised on the probation caseload at the end of each month.

Proven offence

A proven offence is defined as an offence which results in the offender receiving a reprimand, warning, caution or conviction.

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.

Termination

A period of supervision by the Probation Service (e.g. a Community Order) which comes to an end because the order has been completed successfully, because the order has been breached and terminated early for negative reasons (such as failing to comply with its requirements) or because of some other neutral reason, such as the order being quashed by the court or because the offender has died.

Adult sentencing types

Offenders can be sentenced at a magistrates’ court or the Crown Court. The sentences include immediate custody, a suspended sentence order, a community order, a fine, a conditional discharge or an absolute discharge.

- **Absolute discharge** – When a court decides someone is guilty, but decides not to punish them further at this time, they will be given a ‘discharge’. Discharges are given for minor offences. An ‘absolute discharge’ means that no more action will be taken.

- **Community orders** - 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. The court must impose one or more 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 re-offending;

prohibited activity – a requirement not do so something that is likely to lead to further offending;

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.

- **Conditional discharge** - This is where the offender remains liable to punishment for the offence if they are convicted of a further offence within a period specified by the court (but not more than three years).

- **Fine** - A financial penalty imposed following conviction.

- **Immediate Custody** - The offender is given a sentence to be served in prison (adults aged over 21) or Young Offenders Institute (adults aged 18-20 and 15-17 year olds). 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.

- **Prison Sentences – under 12 months**: Those sentenced to under 12 months (made under the Criminal Justice Act 1991) 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.

- **Prison Sentences - 12 months or over:** The Criminal Justice Act 2003 created a distinction between standard determinate sentences (for 12 months or more) 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. Offenders convicted of a sexual or violent offence may be sentenced to a public protection sentence. There are two such sentences: Imprisonment or detention for Public Protection (IPP), an indeterminate sentence where the offender will serve the minimum term in prison as set by the judge and then is eligible to be released if considered safe by the Parole Board. If and when released, the offender must serve at least ten years on licence in the community. An Extended sentence for Public Protection (EPP) comprises the normal determinate custodial period plus an extended period on licence. Changes introduced in the Criminal Justice and Immigration Act 2008 mean that offenders sentenced to an EPP are now released automatically at the halfway point of the custodial period with licence extending from then until the end of the extension period.

- **Suspended Sentence Order (SSO) -** The Criminal Justice Act 2003 introduced a new suspended sentence order. This is a custodial sentence which is suspended and in addition the court imposes one or more community requirements, which are the same as those available under a community order. The order 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 normally result in the custodial sentence being given effect.

**Disposal**

This is an umbrella term referring both to sentences given by the court and pre-court decisions made by the police. Disposals may be divided into four separate categories of increasing seriousness starting with pre-court disposals then moving into first-tier and community-based penalties through to custodial sentences.

**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.
Explanatory notes

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods; and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

Symbols and conventions

All figures have been rounded to either one or two decimal places, except offender counts.
Contact Points

Current and previous editions of this publication are available for download at:


Press enquiries should be directed to the Ministry of Justice press office:

Tel: 020 3334 3536
Email: press.office@justice.gsi.gov.uk

Other enquiries about these statistics should be directed to:

Mike Elkins
Justice Statistics Analytical Services
Ministry of Justice
7th Floor, 102 Petty France, London SW1H 9AJ
Tel: 020 3334 2946

General enquiries about the statistical work of the Ministry of Justice can be e-mailed to: statistics.enquiries@justice.gsi.gov.uk

General information about the official statistics system of the United Kingdom is available from www.statistics.gov.uk

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