



Summary

This analysis assessed the impact on re-offending of an accredited¹ course provided by Leap and delivered by prison officers at HMP & YOI Chelmsford. The one year proven re-offending rate² for 58³ offenders who participated in the accredited course provided by Leap was 59%, compared with 55% for a matched control group of similar offenders from England and Wales. Statistical significance testing has shown that this difference is not significant⁴; suggesting that at this stage there is insufficient evidence to draw a conclusion about the impact of persons who participated in the accredited course provided by Leap on re-offending. However, the results of the analysis do not mean that the accredited course provided by Leap failed to impact on re-offending

The one year proven re-offending rate¹ for 57⁵ offenders who participated in the accredited course provided by Leap was 58%, compared with 60% for a matched control group of similar offenders discharged from Category B prisons only⁶. As with the matched control group of similar offenders from England and Wales, statistical significance testing has shown that this difference is not significant⁷.

An analysis involving taking the control group from former HMP & YOI Chelmsford inmates was also explored. This analysis proved unsuccessful as we were unable to meet the quality criteria that we require to be confident in the analyses when matching individuals from a control group of similar offenders that were released from HMP & YOI Chelmsford, to individuals who participated in the accredited course provided by Leap.

¹ The course was initially accredited at level 2 with OCN and then as part of the City & Guilds level 1 award in employability and personal development (C&G 7546-412).

² The **one year proven re-offending rate** is defined as the proportion of offenders in a cohort who commit an offence in a one year follow-up period which was proven through receipt of a court conviction, caution, reprimand or warning during the one year follow-up or in a further six month waiting period. The one year follow-up period begins when offenders leave custody, start their court sentence, or from receipt of their caution.

³ 58 individuals were matched from a cohort of 261 individuals, whose details were sent to the Justice Data Lab, as described on page 3 of this report.

⁴ The difference was non-significant, $p = 0.60$. Statistical significance testing is described on page 9 of this report.

⁵ 57 individuals were matched from a cohort of 261 individuals, whose details were sent to the Justice Data Lab, as described on page 3 of this report. One individual from the national analysis did not match to individuals in the Category B prisons control group.

⁶ A regional analysis was also performed where statistical significance testing has shown that this difference is not significant.

⁷ The difference was non-significant, $p = 0.74$. Statistical significance testing is described on page 9 of this report.

What you can say: There is insufficient evidence at this stage to draw a conclusion about the impact of the accredited course provided by Leap and delivered by prison officers in HMP & YOI Chelmsford on re-offending.

What you cannot say: This analysis shows that the accredited course provided by Leap and delivered by prison officers in HMP & YOI Chelmsford increased proven re-offending by 4 percentage points, or by any other amount.

Introduction

Leap was launched as an independent registered charity and National Voluntary Youth Organisation registered with the Department for Education and Skills in 1998.

Leap was set up to prevent the escalation of everyday conflict into destructive behaviour and violence by giving young people and the professionals that work with them the skills to understand the causes and consequences of conflict. Leap's holistic approach to conflict resolution works across a range of issues, including leadership, challenging behaviour, peer mediation, identity and prejudice, preventing knife crime and group offending.

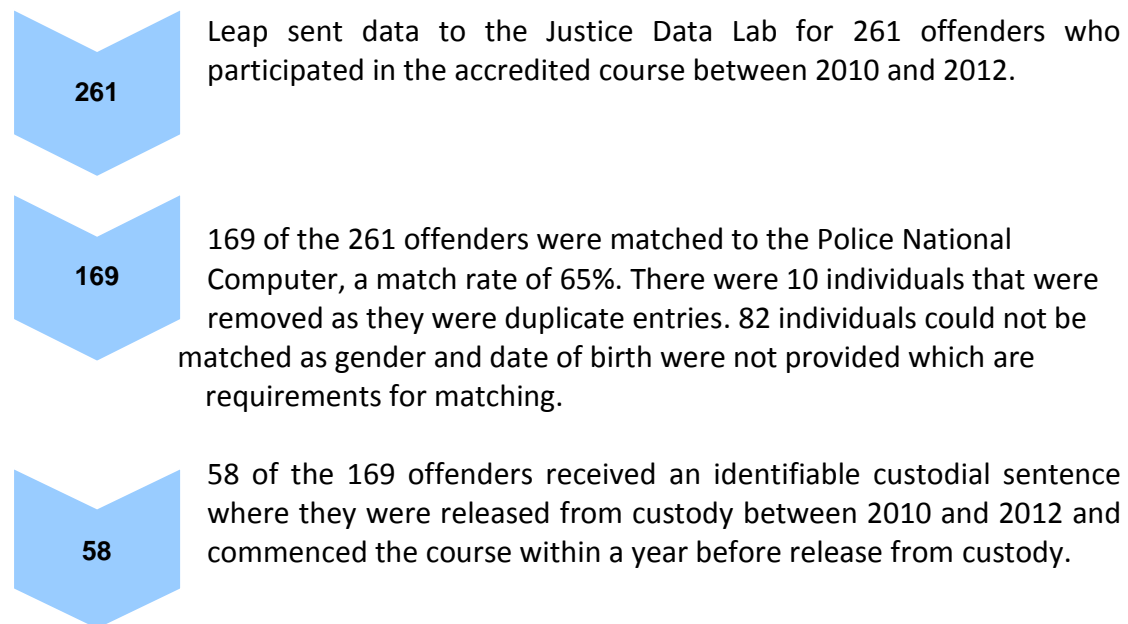
Leap works with young people aged 11 – 25 to understand and manage this conflict and stop it becoming something more destructive or violent. Leap also train professionals such as teachers, youth workers, police and prison officers so that managing conflict benefits whole communities and transforms lives by adults in these professions giving young people the skills, confidence and knowledge to challenge conflict and develop as people.

The programme in prisons is a 3.5 day 'Personal Leadership in Conflict' accredited course, delivered by a team of 2 or 3 prison officers. The group sizes for the course varies from 7 to 15 prisoners. The purpose of the course is to improve prisoner/prison officer relationships by providing a shared understanding of conflict and common language for dealing with difficult situations. Participants gain emotional intelligence, sense of self responsibility, locus of control and self efficacy, the tools to deal with conflict successfully which impacts participant's attitudes and thinking styles leading to changes in their behaviour. By gaining awareness of the impact of previous experiences on their patterns of behaviour, and understanding the consequence of these behaviours currently in their life, the 'Personal Leadership in Conflict' accredited course provides a platform for participants to take responsibility for the choices they make.

This analysis relates to offenders who received the accredited course provided by Leap and delivered by Prison Officers at HMP & YOI Chelmsford whilst participants were on remand or on a custodial sentence between 2010 and 2012.

More information on the programmes Leap provide can be found here: www.leapconfrontingconflict.org.uk/

Processing the Data



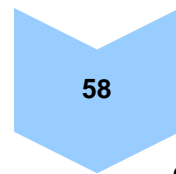
111 of the 169 offenders were not matched. Analysis of the 111 unmatched individuals revealed the following:

- Some were individuals who did not have a custodial sentence as the most recent proven offence before participating in the accredited course provided by Leap; this could include persons who appear to have received fines, community sentences, conditional discharges or youth sentences (82 individuals across all different sentence types).
- There were 19 individuals who had a custodial sentence as the most recent proven offence but were removed from the analysis as they commenced the course more than a year before release from custody or appeared to commence the course after release from custody.
- There were 3 individuals that could not be included in the analysis as they had one or more previous sex offences.
- There were 2 individuals who could not be included in the analysis for modelling purposes. These individuals could not be included in the analysis as they were the only individuals in a category for particular variables. In order to allow for the statistical modelling to work, and achieve reasonable matching quality it was necessary to remove these 2 individuals at this stage.
- Sentences could not be found on the administrative datasets for the remaining 5 individuals.

The 111 unmatched individuals have similar characteristics to the 58 offenders in the matched treatment group for example; they are all male, have similar ethnicities and number of previous offences. However, there are some differences between the unmatched group and the matched treatment group such as some individuals are foreign nationals or have longer custodial sentences (4 to 10 years) in the

unmatched group. As such, the final treatment group may not be representative of all offenders who participated in the accredited course provided by Leap so all results should be interpreted with care.

Creating a Matched Control Group



All of the 58 offender records for which re-offending data was available could be matched to offenders with similar characteristics in England and Wales, but who did not participate in the accredited course provided by Leap. In total the matched control group consisted of 25,831 offender records from England and Wales.

In the Category B prison analysis, one offender record could not be matched so 57 of the 58 offender records for which re-offending data was available could be matched to offenders with similar characteristics, but who did not participate in the accredited course provided by Leap. The Category B prison matched control group consisted of 8,338 offender records.

The Annex provides information on the similarity between the treatment and control groups. Further data on the matching process is available upon request.

Results

The one year proven re-offending rate² for 58³ offenders who participated in the accredited course provided by Leap was 59%. This compares to 55% for a matched control group of similar offenders (see Figure 1). Statistical significance testing has shown that this difference is not significant³; suggesting that at this stage there is insufficient evidence to draw a conclusion about the impact of persons who participated in the accredited course provided by Leap on re-offending.

In the Category B prison analysis the one year proven re-offending rate² for 57⁵ offenders participated in the accredited course provided by Leap was 58%. This compares to 60% for a matched control group of similar offenders discharged from Category B prisons (see Figure 2). Statistical significance testing has shown that this difference is not significant⁷; suggesting that at this stage there is insufficient evidence to draw a conclusion about the impact of persons who participated in the accredited course provided by Leap on re-offending.

Figures 1 and 2 presents the 95 per cent confidence intervals for the re-offending rates of both groups, i.e. the range in which we can be 95 per cent sure that the true re-offending rate for the groups lie. For the analyses we can be confident that the true difference in re-offending between the treatment and control groups is

- between a 10 percentage point reduction and a 17 percentage point increase for the national analysis
- between a 17 percentage point reduction and a 12 percentage point increase for the Category B prisons analysis

However, because both of these differences crosses 0, we cannot be sure either way that participating in the accredited course provided by Leap led to a reduction or an increase in re-offending and thus cannot draw a firm conclusion about its impact. It is important to show confidence intervals because both the treatment and matched control groups are samples of larger populations; the re-offending rate is therefore an estimate for each population based on a sample, rather than the actual rate.

Figure 1: The best estimates for the one year proven re-offending rate for offenders who participated in the accredited course provided by Leap, and a matched control group from England and Wales

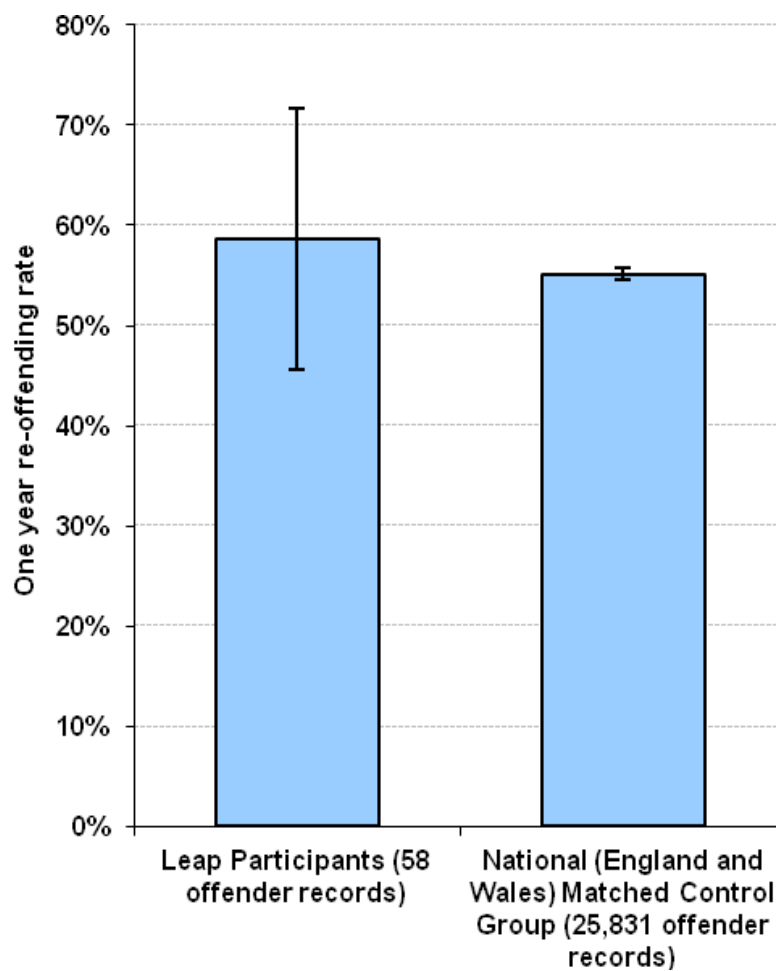
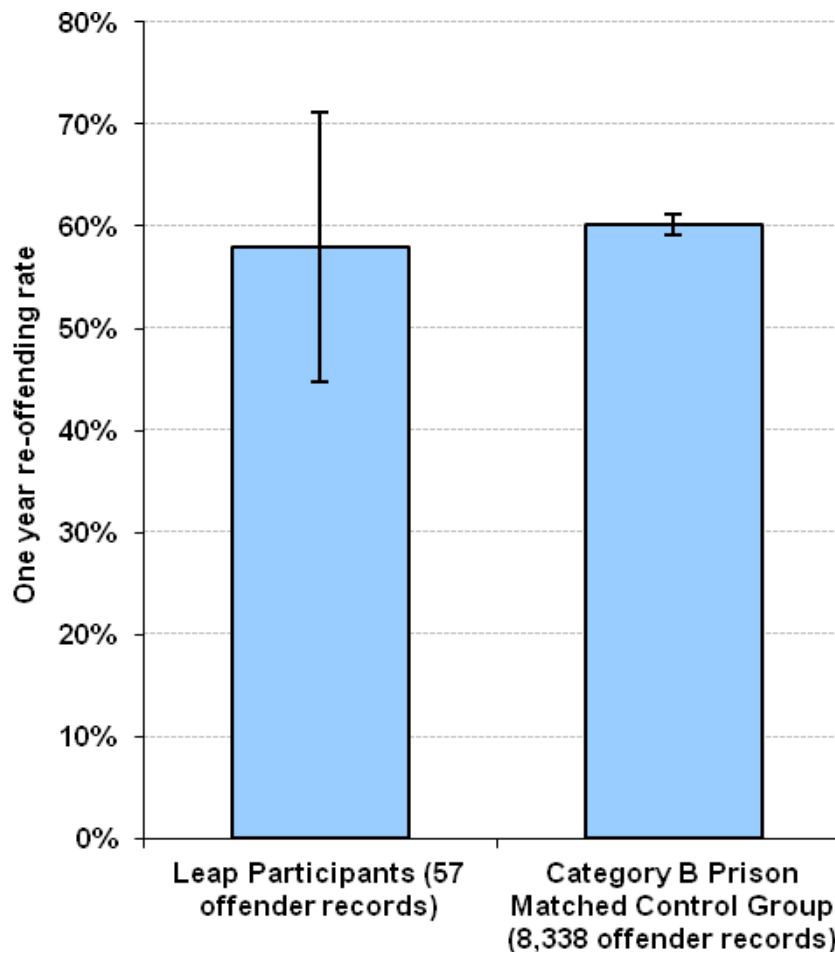


Figure 2: The best estimates for the one year proven re-offending rate for offenders who participated in the accredited course provided by Leap, and a matched control group discharged from Category B prisons



In both cases, the confidence intervals are particularly wide; this is to be expected when the size of the treatment group (in these cases, participants of the accredited course provided by Leap) is very small. The precision of this estimate could be improved if the size of the Leap group used in the analysis was increased. It is recommended that the analysis is repeated on a larger sample⁸, including previous years of information, and when additional years of data become available.

⁸ For the difference of the one year proven re-offending rates to be statistically significant for this report, a minimum size of 3,019 individuals participating in the accredited course run by Leap would need to be in the matched treatment group for the national analysis. The figure is 28,633 individuals for the Category B prison analysis.

Additional proven re-offending measures

Frequency of re-offending

The frequency of one year proven re-offending⁹ for 58³ offenders participating in the accredited course run by Leap was 2.07 offences per individual, compared with 1.87 per individual in the matched national control group. Statistical significance testing has shown that this difference in the frequency of re-offending is not statistically significant¹⁰.

Similarly, in the Category B prison analysis the difference in the frequency of one year proven re-offending⁹ for the 57⁵ offenders participating in the accredited course provided by Leap is not statistically significant¹¹ from the matched control group with offenders discharged from Category B prisons (2.09 offences per individual, compared with 2.26 per individual respectively).

Time to re-offending

The average time to the first offence within a year of release for the 34 individuals that were matched, and re-offended, after participating in the accredited course provided by Leap was 99 days. This compares to 127 days for the 14,000 individuals who re-offended from the matched national control group. Statistical significance testing has shown that this difference in the time to first re-offence within a year is not statistically significant¹².

For the Category B prison analysis, the difference in the time to first re-offence within a year of release is also not statistically significant¹³. For the 33 individuals that were matched, and re-offended, the average time to the first offence within a year, after participating in the accredited course provided by Leap was 100 days and for the 4,970 individuals who re-offended from the matched Category B prison control group it was 133 days.

⁹ The **frequency of one year proven re-offending** is defined as the number of re-offences committed in a one year follow-up period which were proven through receipt of a court conviction, caution, reprimand or warning during the one year follow-up or in a further six month waiting period. The one year follow-up period begins when offenders leave custody, start their court sentence, or from receipt of their caution.

¹⁰ The p-value for this significance test was 0.55. Statistical significance testing is described on page 9 of this report.

¹¹ The p-value for this significance test was 0.61. Statistical significance testing is described on page 9 of this report.

¹² The p-value for this significance test was 0.12. Statistical significance testing is described on page 9 of this report.

¹³ The p-value for this significance test was 0.08. Statistical significance testing is described on page 9 of this report.

Caveats and Limitations

The statistical methods used in this analysis are based on data collected for administrative purposes. While these include details of each offender's previous criminal, benefit and employment history alongside more basic offender characteristics such as age, gender and ethnicity, it is possible that other important contextual information that may help explain the results has not been accounted for.

In particular, in these analyses we have been unable to statistically control for challenging behaviour, thinking behaviour, emotional intelligence and relationships. These are important as one of the main aims of the accredited course provided by Leap is to manage conflict and challenging behaviour. The control group against which re-offending rates for those participating in the accredited course have been compared will therefore include offenders both with and without the specific needs that Leap are seeking to address. It is also possible that there are additional underlying characteristics about the individuals included in the analysis which were not captured by the data, for example attendance at other interventions targeted at offenders, that may have impacted re-offending behaviour. Therefore, there remains a possibility that any difference in re-offending behaviour after matching reflects differences in underlying characteristics between the two groups, which are not recorded in the data, rather than differences in re-offending behaviour.

Many organisations that work with offenders will look to target specific needs of individuals; for example improving housing, or employability. However, how the organisations select those individuals to work with could lead to selection bias, which can impact on the direction of the results. For example; individuals may self select into a service, because they are highly motivated to address one or more of their needs. This would result in a positive selection bias, meaning that for these persons we would generally expect a better re-offending outcome as they are more motivated. Alternatively, some organisations might specifically target persons who are known to have more complex needs and whose attitudes to addressing their needs are more challenging. This would result in a negative selection bias, meaning that for these persons we would generally expect a poorer re-offending outcome as they are not motivated. However, factors which would lead to selection bias in either direction are not represented in our underlying data, and cannot be reflected in our modelling. This means that all results should be interpreted with care, as selection bias cannot be accounted for in analyses.

Furthermore, only 58 (57 for the Category B prison analysis) of the 261 offenders originally shared with the MoJ were in the final treatment group. The section "Processing the Data" outlines key steps taken to obtain the final group used in the analysis. In many analyses, the creation of a matched control group will mean that some individuals, who will usually have particular characteristics – for example a particular ethnicity, or have committed a certain type of offence, will need to be removed to ensure that the modelling will work. Steps will always be taken at this stage to preserve as many individuals as possible, but due to the intricacies of statistical modelling some attrition at this stage will often result. As such, the final treatment group may not be representative of all offenders who participated in the

accredited course provided by Leap. In all analyses from the Justice Data Lab, persons who have ever been convicted of sex offences will be removed, as these individuals are known to have very different patterns of re-offending.

The re-offending rates included in this analysis **should not** be compared to the national average, nor any other reports or publications which include re-offending rates – including those assessing the impact of other interventions. The re-offending rates included in this report are specific to the characteristics of those persons who participated in the accredited course provided by Leap, and could be matched. Any other comparison would not be comparing like for like.

For a full description of the methodology, including the matching process, see www.justice.gov.uk/downloads/justice-data-lab/justice-data-lab-methodology.pdf.

Assessing Statistical Significance

This analysis uses statistical testing to assess whether any differences in the observed re-offending rates are due to chance, or if the intervention is likely to have led to a real change in behaviour. The outcome of the statistical testing is a value between 0 and 1, called a 'p-value', indicating the certainty that a real difference in re-offending between the two groups has been observed. A value closer to 0 indicates that the difference in the observed re-offending rates is not merely due to chance. For example, a p-value of 0.01 suggests there is only a 1 per cent likelihood that any observed difference in re-offending has been caused by chance.

For the purposes of the analysis presented in this report, we have taken a p-value of up to 0.05 as indicative of a real difference in re-offending rates between the treatment and control groups.

The confidence intervals in the figure are helpful in judging whether something is significant at the 0.05 level. If the confidence intervals for the two groups do not overlap, this indicates that there is a real difference between the re-offending rates.

Annex

Table 1: Characteristics of offenders in the treatment and National (England and Wales) control groups

	Treatment Group	Matched Control Group	Standardised Difference
Number in group	58	25,831	
Ethnicity			
White	48%	50%	-4
Black	36%	35%	3
Asian	16%	15%	1
Nationality			
UK Citizen	100%	100%	0
Gender			
Proportion that were male	100%	100%	0
Age			
Mean age at Index Offence	20	20	3
Mean age at first contact with CJS	14	14	-1
Index Offence¹			
Violent offences including robbery	55%	55%	0
Burglary	14%	14%	0
Theft and handling	7%	7%	0
Motoring offences, including theft from Vehicles	7%	7%	0
Drugs related ²	14%	14%	1
Other ³	3%	3%	0
Length of Custodial Sentence			
6 months or less	19%	19%	0
6 months to 12 months	9%	8%	1
12 months to 4 years	72%	72%	0
Criminal History⁴			
Mean Copas Rate ⁵	-0.67	-0.69	3
Mean total previous offences	17	16	3
Mean previous criminal convictions	9	8	3
Mean previous custodial sentences	2	2	3
Mean previous court orders	4	4	3
Employment and Benefit History			
In P45 employment (year prior to conviction)	7%	7%	1
In P45 employment (month prior to conviction)	3%	3%	3
Claiming Out of Work Benefits (year prior to conviction) ⁶	57%	57%	-1
Claiming Job Seekers Allowance (year prior to conviction)	52%	52%	0
Claiming Incapacity Benefit and/or Income Support (year prior to conviction)	16%	15%	0
Notes:			
<p>1 Index Offence is based on OGRS categories. Further details on make-up of categories available upon request. 2 Drug related offences including importation, exportation, possession, and supply of drugs. 3 Other offences including Fraud, Forgery and Other. 4 All excluding Penalty Notices for Disorder. All prior to Index Offence. 5 The Copas rate controls for the rate at which an offender has built up convictions throughout their criminal career.</p>			

<p>The higher the rate, the more convictions an offender has in a given amount of time.</p> <p>6 Out of Work Benefits include people on Jobseeker's Allowance (JSA), Employment and Support Allowance (ESA), Incapacity Benefits (IB) and Income Support (IS) but it does not count people whose primary benefit is Carer's Allowance (CA).</p>
<p>All figures (except mean copas rate) are rounded to the nearest whole number, this may mean that percentages do not sum to 100%.</p>
<p>Standardised Difference Key</p>
<p>Green - the two groups were well matched on this variable (-5% to 5%)</p>
<p>Amber - the two groups were reasonably matched on this variable (6% to 10% or -6% to -10%)</p>
<p>Red - the two groups were poorly matched on this variable (greater than 10% or less than -10%)</p>

Table 2: Characteristics of offenders in the treatment and Category B prison control groups

	Treatment Group	Matched Control Group	Standardised Difference
Number in group	57	8,338	
Ethnicity			
White	49%	51%	-5
Black	35%	34%	3
Asian	16%	15%	2
Nationality			
UK Citizen	100%	100%	0
Gender			
Proportion that were male	100%	100%	0
Age			
Mean age at Index Offence	20	20	0
Mean age at first contact with CJS	14	14	-4
Index Offence¹			
Violent offences including robbery	54%	53%	3
Burglary	14%	13%	3
Theft and handling	7%	8%	-2
Motoring offences, including theft from Vehicles	7%	7%	-1
Drugs related ²	14%	16%	-4
Other ³	4%	4%	-1
Length of Custodial Sentence			
6 months or less	19%	20%	-2
6 months to 12 months	9%	9%	-1
12 months to 4 years	72%	71%	2
Criminal History⁴			
Mean Copas Rate ⁵	-0.66	-0.68	3
Mean total previous offences	17	16	3
Mean previous criminal convictions	9	8	4
Mean previous custodial sentences	2	2	2
Mean previous court orders	4	4	3
Employment and Benefit History			
In P45 employment (year prior to conviction)	7%	7%	-1
In P45 employment (month prior to conviction)	4%	4%	-1
Claiming Out of Work Benefits (year prior to conviction) ⁶	58%	62%	-8
Claiming Job Seekers Allowance (year prior to conviction)	53%	54%	-3
Claiming Incapacity Benefit and/or Income Support (year prior to conviction)	16%	17%	-2
Notes:			
<p>1 Index Offence is based on OGRS categories. Further details on make-up of categories available upon request. 2 Drug related offences including importation, exportation, possession, and supply of drugs. 3 Other offences including Fraud, Forgery and Other. 4 All excluding Penalty Notices for Disorder. All prior to Index Offence. 5 The Copas rate 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. 6 Out of Work Benefits include people on Jobseeker's Allowance (JSA), Employment and Support Allowance (ESA),</p>			

Incapacity Benefits (IB) and Income Support (IS) but it does not count people whose primary benefit is Carer's Allowance (CA).
All figures (except mean copas rate) are rounded to the nearest whole number, this may mean that percentages do not sum to 100%.
Standardised Difference Key
Green - the two groups were well matched on this variable (-5% to 5%)
Amber - the two groups were reasonably matched on this variable (6% to 10% or -6% to -10%)
Red - the two groups were poorly matched on this variable (greater than 10% or less than -10%)

We assess whether the treatment group and the matched control group are balanced and well matched through a comparison of the standardised differences generated for every variable included in the matching process. Table 1 shows that the two groups were well matched on all variables found to have associations with receiving treatment and/or re-offending. All of the standardised mean differences are highlighted green because they were between -5% and 5%, indicating close matches on these characteristics. Table 2 shows that the two groups were reasonably matched on all variables found to have associations with receiving treatment and/or re-offending. The standardised difference for “Claiming Out of Work Benefits (year prior to conviction)” is highlighted as amber (i.e. between 6% to 10% or -6% to -10%), suggesting that the control group could have been slightly better matched on this variable, but overall the groups were still well balanced on the majority of characteristics.

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

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