



## Summary

This analysis assessed the impact on re-offending of a recruitment service run by Working Chance targeted at female offenders in prison or in the community. Working Chance aims to give women training and support around seeking paid or voluntary employment; this analysis assesses the impact of the programme on women who found employment. Unlike the previous published analysis for Working Chance<sup>1</sup>, it excludes those they worked with who were unable to find employment.

The one year proven re-offending rate<sup>2</sup> for 69 offenders who received the recruitment service provided by Working Chance and found employment<sup>3</sup> was 7%, compared with 9% for a matched control group of 29,654 similar offenders. Statistical significance testing has shown that this difference in the re-offending rates is not statistically significant<sup>4</sup>.

As Working Chance work with offenders in a limited area including London, East of England and the South East, a regional analysis was also performed. The one year proven re-offending rate for 65<sup>5</sup> offenders who received the recruitment service provided by Working Chance and found employment was 6% compared with 10% for a matched control group of 9,755 similar offenders from the London, East of England and South East areas. As with the national matched control group, testing has shown that this difference is not statistically significant<sup>6</sup>.

These results suggest that at this stage there is insufficient evidence to draw a conclusion about the impact of Working Chance's recruitment service which led to employment on the re-offending rate. However, the results of the analysis do not

---

<sup>1</sup> The report on the previous analysis can be found at [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/328807/working-chance-report.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/328807/working-chance-report.pdf).

<sup>2</sup> 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 or start their probation sentence.

<sup>3</sup> 69 individuals were matched from a cohort of 361 women's details who were sent to the Justice Data Lab, as described on page 3 of this report.

<sup>4</sup> The p-value for this significance test was 0.53. Statistical significance testing is described on page 10 of this report.

<sup>5</sup> 65 individuals were matched from a cohort of 361 individuals, whose details were sent to the Justice Data Lab, as described on page 3 of this report. 4 individuals from the national analysis did not match to individuals in the regional control group.

<sup>6</sup> The p-value for this significance test was 0.22. Statistical significance testing is described on page 10 of this report.

mean the recruitment service provided by Working Chance which led to employment failed to impact on re-offending behaviour.

**What you can say:** There is insufficient evidence at this stage to draw a conclusion about the impact of Working Chance's recruitment service which led to employment on the one-year proven re-offending rate. However, this did lead to a reduction in the frequency of re-offending of between 0.32 and 0.17 offences per individual.

**What you cannot say:** This analysis shows that Working Chance's recruitment service which led to employment decreased the one-year proven re-offending rate by 1 percentage point, or by any other amount.

## Introduction

Working Chance is a charity which supports female offenders into paid and voluntary work with mainstream employers. Working Chance advises candidates on CV writing and provides opportunities to practise for interviews, including how best to present information regarding their offending history and how to prepare for the practicalities of attending interviews and starting work. They also provide candidates with information about vacancies and potential employers.

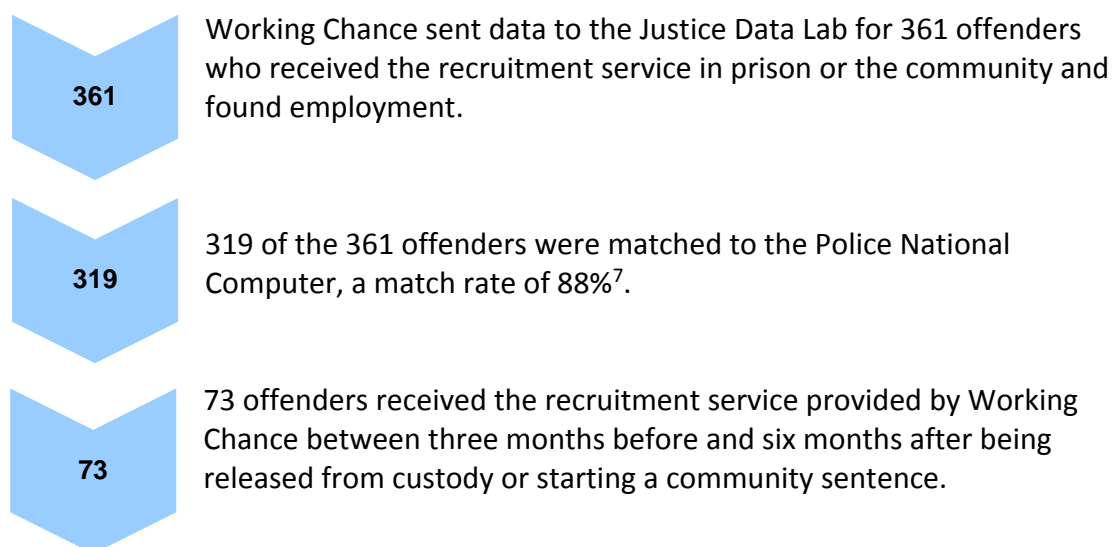
The work conducted with individuals depends on their needs and engagement. After a one-hour registration session, during which Working Chance aim to learn more about the candidate and identify the support they need, individuals are given the option to attend training events. The most engaged and active individuals receive further support over a 6-9 month period. If candidates are placed into voluntary or paid work, Working Chance continues to check in with them at 1/3/6 month intervals.

Working Chance supports women offenders in prison and in the community. Individuals are referred to the recruitment service by prisons (HMPs Holloway, Send, East Sutton Park, Downview (until it closed) and Bronzefield), London Probation Trust and partner charities, or can refer themselves or someone they know. Working Chance is currently open to registration for any woman who has been involved in the Criminal Justice System in the past three years and is free to work in London (or an alternative local area in the South East).

This analysis relates to female offenders who received the recruitment service run by Working Chance in prison or in the community who started their community sentence or were released from custody between April 2009 and September 2013, and only includes individuals that were successfully placed into paid or voluntary employment. Previous analyses were not able to separately assess the re-offending rate of women who were successfully placed into employment, which is the primary goal for Working Chance.

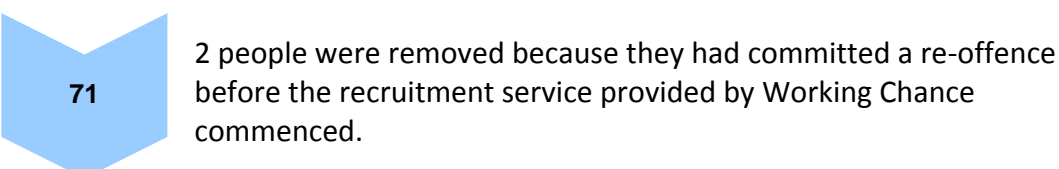
Please note that this analysis includes both women who just received the registration session and those who continued to receive more support sessions. Also, it does not differentiate between those who made use of other support provided by Working Chance (e.g. help with accommodation) and those who did not. Therefore this analysis was not able to separately assess re-offending rates for those who were more engaged in the service.

## Processing the Data



A breakdown of the unmatched individuals revealed the following:

- 2 individuals matched to the PNC were removed as they did not appear to have received a conviction or their cases were still pending.
- 137 individuals could not be included in the analysis as they received the recruitment service provided by Working Chance more than three months before, or over six months after, being released from custody or starting a community sentence.
- Sentences could not be found on the administrative datasets for 107 individuals. Some of these individuals may have been released from custody after September 2013, a period for which re-offending data is not currently available, or may not have received a conviction during 2002-September 2013, the period for which re-offending data is currently available.



---

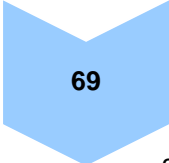
<sup>7</sup> A possible reason that some women could not be matched is that a different surname may have been recorded either with Working Chance or on the Police National Computer – for example due to use of their maiden/married surname if applicable.

Comparing the 73 matched individuals and the 137 unmatched individuals who could be found in the administrative datasets shows that the matched and unmatched individuals have similar nationality and severity of offence. However, the matched individuals:

- Are less likely to be of white ethnicity (37% of compared to 45% of unmatched individuals) and more likely to be black (52% compared to 45% of unmatched individuals).
- Are more likely to have fraud and forgery offences (28% compared to 18% of unmatched individuals) or violence offences (31% compared to 23% of unmatched individuals).
- Are more likely to have a short prison sentence of up to 4 years (52% compared to 17% of unmatched individuals) and less likely to have no prison sentence (37% compared to 69% of unmatched individuals).
- Are more likely to have a prison sentence or suspended sentence order (78% compared to 38% of unmatched individuals) and less likely to have other sentences such as fines, conditional discharges and cautions (4% compared to 18% of unmatched individuals).

As such, the final treatment group may not be representative of all offenders who found employment after receiving the support provided by Working Chance so all results should be interpreted with care.

## Creating a Matched Control Group

 69 of the 71 offender records for which re-offending data was available could be matched to offenders with similar characteristics, but who did not find employment after receiving the recruitment service run by Working Chance. In total, the national matched control group consisted of 29,654 offender records.

In the regional analysis, 65 of the 71 offender records for which re-offending data was available could be matched to offenders with similar characteristics, but who did not find employment after receiving the recruitment service provided by Working Chance. The regional matched control group consisted of 9,755 offender records from the London, East of England and South East areas.

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

As this analysis refers to those that received the recruitment service provided by Working Chance after release from custody (as well as whilst in custody) or after the start of a community sentence, additional checks were imposed on the control group to ensure that the matched individuals had similar characteristics. All members of the matched control group could not have committed a proven re-offence before the intervention start date for the matched Working Chance counterparts. Any

matches where the control group had committed a proven re-offence prior to the intervention start date of the Working Chance counterpart were excluded from the analysis. Also, all the members of the matched control group could only be matched to the Working Chance counterparts if they received the same sentence type. These checks ensured that we have greater confidence that the matched control group presents a more accurate counterfactual for comparison.

## **Results**

The one year proven re-offending rate for 69 offenders who received the recruitment service provided by Working Chance<sup>2</sup> was 7%. This compares to 9% for a matched control group of 29,654 similar offenders (see Figure 1)

There were similar results for the regional analysis, where the one year proven re-offending rate<sup>1</sup> for 65 offenders who found employment after receiving the support provided by Working Chance<sup>4</sup> was 6%. This compares to 10% for a matched regional control group of 9,755 similar offenders from the London, East of England and South East areas (see Figure 2).

Figures 1 and 2 present 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 confident that the true re-offending rate for the groups lie. For the national analysis we can be confident that the true difference in re-offending between the treatment and control groups is between an 8 percentage point reduction and a 4 percentage point increase. For the regional analysis 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 2 percentage point increase

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 found employment after receiving the recruitment service run by Working Chance in prison and the community, and a matched national control group

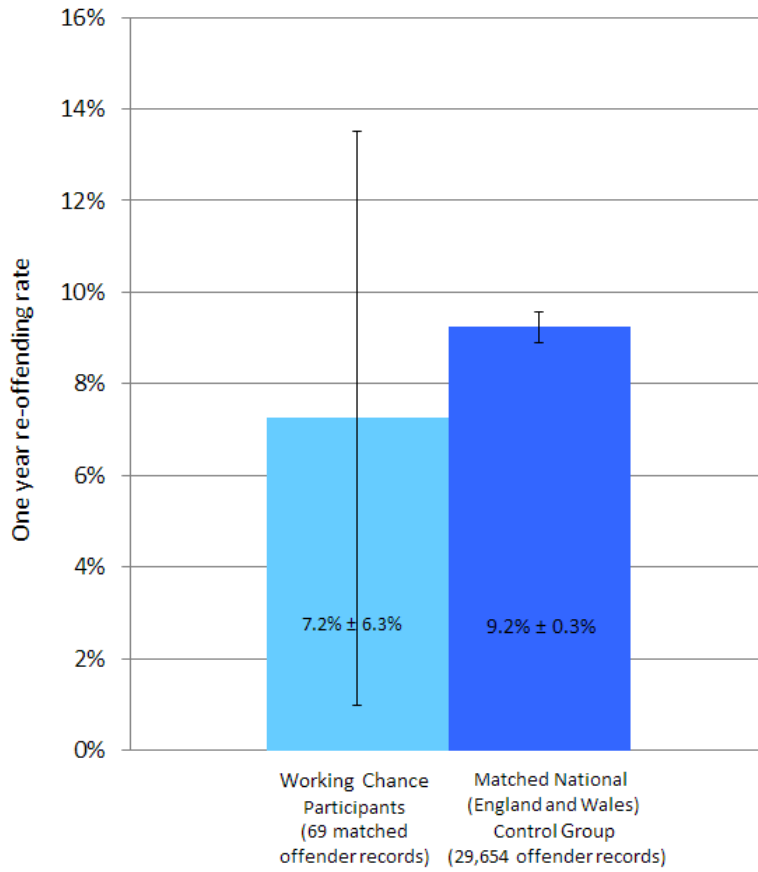
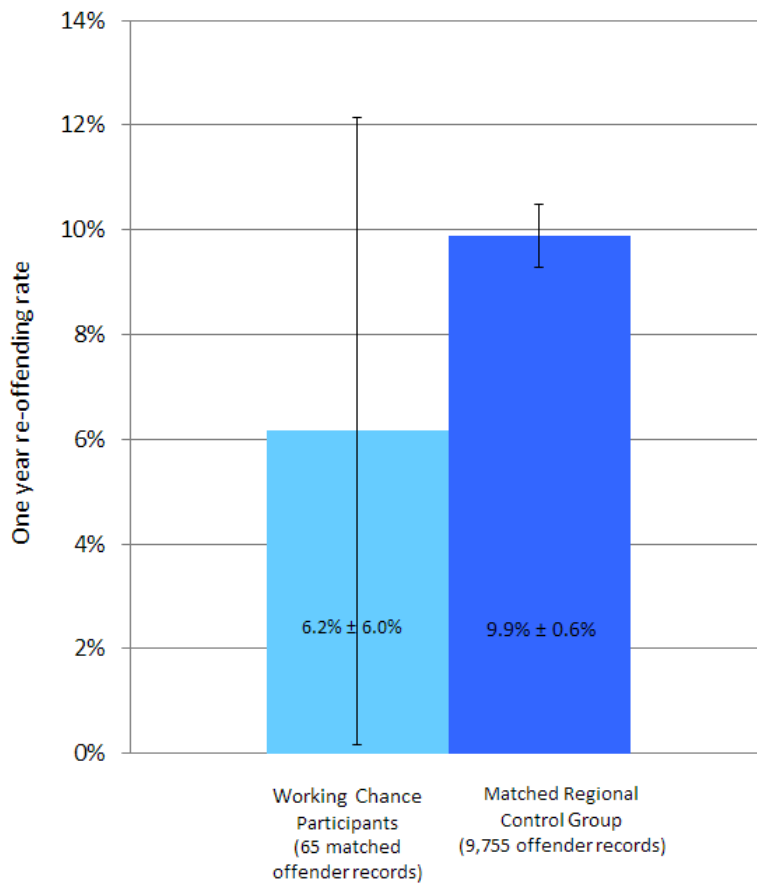


Figure 2: The best estimates for the one year proven re-offending rate for offenders who found employment after receiving the recruitment service run by Working Chance in prison and the community, and a matched regional control group



The precision of these estimates could be improved if the size of the Working Chance group used in the analysis was increased<sup>8</sup>.

A further analysis is planned once data on employment after the index offence for the control group is available within JDL analyses. This will allow those who found employment after using the recruitment service provided by Working Chance to be matched with others who also found employment after their offence. The analysis will look at the re-offending of all those who used the recruitment service provided by Working Chance, as well as the reoffending of those who found employment after using the service.

<sup>8</sup> If the measured difference in the one-year re-offending rate is correct for the national analysis, there is a 95% chance that this difference would become statistically significant if the treatment group contained at least 2,407 individuals.

## **Additional proven re-offending measures**

### **Frequency of re-offending**

In the national analysis, the frequency of one year proven re-offending for 69 offenders who used the recruitment service run by Working Chance and found employment was 0.09 offences per individual, compared with 0.27 per individual in the matched control group. Statistical significance testing has shown that, unlike the findings around the one year proven re-offending indicator, this difference in the re-offending rates is statistically significant<sup>9</sup>.

For the regional analysis the frequency of one year proven re-offending for 65 offenders who found employment after using the recruitment service run by Working Chance was 0.06 offences per individual. This compares with 0.30 per individual in the matched control group. As per the national analysis, this difference in the re-offending rates is statistically significant<sup>10</sup>.

### **Time to first re-offence within a year**

For the national analysis, the average time to the first re-offence for the 5 individuals who found employment after receiving the recruitment service provided by Working Chance, and who re-offended within a one-year follow-up period, was 260 days. This compares to 178 days for the 4,293 individuals in the national control group with re-offences in a one-year follow-up period.

In the regional analysis the average time to the first re-offence for the 4 individuals who found employment after receiving the recruitment service provided by Working Chance, and who re-offended within a one-year follow-up period, was 239 days. For the 1,464 individuals from the regional matched control group who re-offended within the one-year follow-up period the average time to the first re-offence was 175 days. Testing has shown that both these differences in the time to first re-offence within a year are not statistically significant<sup>11</sup>.

These last results are both in line with the findings around the indicator of one-year proven re-offending, the subject of this report. The same caveats and limitations apply to these findings, which are described in Annex A.

---

<sup>9</sup> The p-value for this significance test was <0.001. Statistical significance testing is described on page 10 of this report.

<sup>10</sup> The p-value for this significance test was <0.001. Statistical significance testing is described on page 10 of this report.

<sup>11</sup> In the national analysis the p-value for this significance test was 0.08, in the regional analysis it was 0.16. Statistical significance testing is described on page 10 of this report.



**Measures of severity of re-offending/ re-offending resulting in custody**

Further measures regarding the severity of re-offending and of re-offences resulting in custody have not been included in this report. This is because the numbers within each category were too small to make reliable estimates for these measures.

## Annex A

### 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. It is possible that underlying characteristics about the individuals included in the analysis which were not captured by the data (e.g. full previous employment history; education history; attendance on other interventions), that may have impacted participants' success in achieving the aims of the recruitment service run by Working Chance and re-offending behaviour.

In this instance, it would have been particularly beneficial to be able to take account of factors such as employment after the index offence for the control group, and motivation for both the group that found employment after receiving the support provided by Working Chance, and the matched control group. This information however, is currently not available routinely to the Justice Data Lab. This analysis presents a comparison between offenders with similar characteristics, where one group (the treatment group) was known to receive support through the recruitment service provided by Working Chance and find employment, and the comparison group did not. Whilst the success of the matching described in Annex B suggests that the individuals were reasonably matched to the control group on all key characteristics such as demographic and criminal history, we were unable to match on educational attainment. Individuals with employment and education problems are known to have particular difficulties in breaking the cycle of re-offending. As this key information is missing from the underlying data used, the results of this analysis should be interpreted with particular care. Another limitation is that the data used for matching is restricted to that which is available in existing systems, and there remains a possibility that the difference after matching reflects differences in underlying characteristics which are not recorded in the data, rather than differences in re-offending behaviour.

The one year proven re-offending rate is measured from when an offender leaves custody or starts their community sentence. It is possible that there may be many other unobserved variables, which to varying extents, play a role in whether an offender re-offends. We cannot account for any of these variables such as whether the offender was actively looking for work between the release from custody or start of a community sentence, and the start of receiving the recruitment service provided by Working Chance. Therefore, the results of this analysis should be interpreted with particular care.

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, for the national analysis only 65 of the 361 offenders whose details were 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 received the recruitment service run by Working Chance. 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 received the recruitment service provided by Working Chance, 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 <http://www.justice.gov.uk/downloads/justice-data-lab/justice-data-lab-methodology.pdf>.

## **Assessing Statistical Significance**

This analysis uses statistical testing to assess whether a measured difference in re-offending behaviour can reasonably be attributed to chance, or if the intervention is likely to have led to a real change in behaviour. The outcome of each statistical test is a ‘p-value’, which is between 0 and 1, indicating the certainty that a real difference

in re-offending between the two groups has been observed. The smaller the p-value, the less likely it is that chance is the explanation for the measured difference.

If the p-value is less than, or equal to, 0.05, the result is regarded as 'significant' because chance appears to be an unlikely explanation. The measured difference is then attributable either to the treatment intervention or to some other difference between the treatment and control groups (see 'caveats and limitations' above). 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, it indicates that there is significant evidence of a real difference between their re-offending rates.

## Annex B

**Table 1:**  
**Characteristics of offenders in the treatment and national control groups**

|   | Treatment Group | Matched Control Group | Standardised Difference |
|---|-----------------|-----------------------|-------------------------|
| <b>Number in group</b>                        | <b>69</b>       | <b>29,654</b>         |                         |
| <b>Ethnicity</b>                              |                 |                       |                         |
| White   | 36%             | 38%                   | -4                      |
| Black, Asian and Other                        | 54%             | 50%                   | 6                       |
| Asian and Other                               | 10%             | 11%                   | -4                      |
| <b>Nationality</b>                            |                 |                       |                         |
| UK Citizen                                    | 68%             | 67%                   | 3                       |
| Foreign National                              | 13%             | 14%                   | -3                      |
| Unknown Nationality                           | 19%             | 19%                   | -2                      |
| <b>Gender</b>                                 |                 |                       |                         |
| Proportion that were female                   | 100%            | 100%                  | 0                       |
| <b>Age</b>                                    |                 |                       |                         |
| Mean age at Index Offence                     | 32              | 32                    | -1                      |
| Mean age at first contact with CJS            | 25              | 25                    | -1                      |
| <b>Index Offence<sup>1</sup></b>              |                 |                       |                         |
| Violent offences including robbery            | 32%             | 32%                   | 1                       |
| Theft and handling                            | 25%             | 22%                   | 6                       |
| Fraud and Forgery                             | 28%             | 29%                   | -3                      |
| Motoring and other offences                   | 10%             | 11%                   | -3                      |
| Drugs related <sup>2</sup>                    | 6%              | 6%                    | -2                      |
| <b>Type of Sentence</b>                       |                 |                       |                         |
| Less than 6 months                            | 9%              | 9%                    | 1                       |
| 6 months to 1 year                            | 9%              | 10%                   | -3                      |
| 1 - 4 years                                   | 35%             | 35%                   | 0                       |
| Over 4 years                                  | 12%             | 11%                   | 2                       |
| Other (non-prison) sentence                   | 36%             | 36%                   | 0                       |
| <b>Criminal History<sup>4</sup></b>           |                 |                       |                         |
| Mean Copas Rate                               | -1.91           | -1.94                 | 4                       |
| Mean total previous offences                  | 6               | 6                     | -2                      |
| Mean previous criminal convictions            | 3               | 3                     | 1                       |
| Mean previous custodial sentences             | 0               | 0                     | 2                       |
| Mean previous court orders                    | 1               | 1                     | 2                       |
| <b>Employment and Benefit History</b>         |                 |                       |                         |
| In P45 employment (year prior to conviction)  | 52%             | 54%                   | -4                      |
| In P45 employment (month prior to conviction) | 35%             | 36%                   | -3                      |

|  |     |     |   |
|--|-----|-----|---|
| Claiming Out of Work Benefits (year prior to conviction) <sup>5</sup>  | 62% | 61% | 3 |
| Claiming Job Seekers Allowance (year prior to conviction)  | 43% | 43% | 1 |
| Claiming Incapacity Benefit and/or Income Support (year prior to conviction)   | 33% | 33% | 1 |
| <b>Notes:</b>  |     |     |   |
| 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 All excluding Penalty Notices for Disorder. All prior to Index Offence.  |     |     |   |
| 4 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). |     |     |   |
| All figures (except mean copas rate) are rounded to the nearest whole number, this may mean that percentages do not sum to 100%.   |     |     |   |
| <b>Standardised Difference Key</b>   |     |     |   |
| <b>Green - the two groups were well matched on this variable (-5% to 5%)</b>   |     |     |   |
| <b>Amber - the two groups were reasonably matched on this variable (6% to 10% or -6% to -10%)</b>  |     |     |   |
| <b>Red - the two groups were poorly matched on this variable (greater than 10% or less than -10%)</b>  |     |     |   |

**Table 2: Characteristics of offenders in the treatment and regional control groups**

|                                    | Treatment Group | Matched Control Group | Standardised Difference |
|------------------------------------|-----------------|-----------------------|-------------------------|
| <b>Number in group</b>             | 65              | 9,755                 |                         |
| <b>Ethnicity</b>                   |                 |                       |                         |
| White                              | 38%             | 39%                   | -1                      |
| Black, Asian and Other             | 51%             | 50%                   | 2                       |
| Asian and Other                    | 11%             | 11%                   | -2                      |
| <b>Nationality</b>                 |                 |                       |                         |
| UK Citizen                         | 68%             | 66%                   | 3                       |
| Foreign National                   | 14%             | 14%                   | -2                      |
| Unknown Nationality                | 18%             | 19%                   | -2                      |
| <b>Gender</b>                      |                 |                       |                         |
| Proportion that were female        | 100%            | 100%                  | 0                       |
| <b>Age</b>                         |                 |                       |                         |
| Mean age at Index Offence          | 32              | 32                    | -5                      |
| Mean age at first contact with CJS | 25              | 25                    | -4                      |
| <b>Index Offence<sup>1</sup></b>   |                 |                       |                         |
| Violent offences including robbery | 32%             | 32%                   | 2                       |
| Theft and handling                 | 25%             | 23%                   | 5                       |
| Fraud and Forgery                  | 28%             | 29%                   | -3                      |
| Motoring and other offences        | 9%              | 10%                   | -4                      |

|  |       |       |    |
|--|-------|-------|----|
| Drugs related <sup>2</sup>   | 6%    | 6%    | 0  |
| <b>Type of Sentence</b>  |       |       |    |
| Less than 6 months   | 9%    | 9%    | 0  |
| 6 months to 1 year   | 9%    | 9%    | 0  |
| 1 - 4 years  | 35%   | 35%   | 1  |
| Over 4 years   | 9%    | 9%    | -1 |
| Other (non-prison) sentence  | 37%   | 37%   | 0  |
| <b>Criminal History<sup>4</sup></b>  |       |       |    |
| Mean Copas Rate  | -1.95 | -1.96 | 1  |
| Mean total previous offences   | 5     | 5     | -4 |
| Mean previous criminal convictions   | 2     | 2     | -5 |
| Mean previous custodial sentences  | 0     | 0     | -5 |
| Mean previous court orders   | 1     | 1     | -1 |
| <b>Employment and Benefit History</b>  |       |       |    |
| In P45 employment (year prior to conviction)   | 52%   | 52%   | 1  |
| In P45 employment (month prior to conviction)  | 35%   | 35%   | 1  |
| Claiming Out of Work Benefits (year prior to conviction) <sup>5</sup>  | 60%   | 59%   | 2  |
| Claiming Job Seekers Allowance (year prior to conviction)  | 42%   | 39%   | 5  |
| Claiming Incapacity Benefit and/or Income Support (year prior to conviction)   | 34%   | 32%   | 5  |
| <b>Notes:</b>  |       |       |    |
| 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 All excluding Penalty Notices for Disorder. All prior to Index Offence.  |       |       |    |
| 4 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). |       |       |    |
| All figures (except mean copas rate) are rounded to the nearest whole number, this may mean that percentages do not sum to 100%.   |       |       |    |
| <b>Standardised Difference Key</b>   |       |       |    |
| <b>Green - the two groups were well matched on this variable (-5% to 5%)</b>   |       |       |    |
| <b>Amber - the two groups were reasonably matched on this variable (6% to 10% or -6% to -10%)</b>  |       |       |    |
| <b>Red - the two groups were poorly matched on this variable (greater than 10% or less than -10%)</b>  |       |       |    |

The quality of matching between the treatment and control groups is assessed using the standardised differences for all variables that are included in the matching process.

Tables 1 and 2 show that the treatment group was reasonably matched to the national and regional control groups on all variables found to have associations with receiving treatment and/or re-offending. Some standardised differences are highlighted as amber (i.e. between 5% to 10% or -5% to -10%) in both analyses,

suggesting that the control group could have been slightly better matched in these cases, but were still indicative of a control group who exhibit similar characteristics.



## **Annex C**

### **Glossary of terms**

#### **95% confidence intervals**

If the measured value for a re-offending measure were equal to the true mean, 95% of repeat analyses would give a value that is within the measured 95% confidence intervals.

#### **Copas rate**

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.

#### **Custodial sentence**

A sentence that requires an individual to serve time in custody as a result of a conviction for one or more offences.

#### **Follow-up period**

This refers to the time period for which re-offending is measured from the index date.

#### **Frequency of one-year proven re-offending**

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 follow-up or in a further six month waiting period. The one-year follow-up period begins when an offender leaves custody, starts their court sentence, or from receipt of their caution.

#### **Index date**

The date from which proven re-offences are measured. This is defined as the date of prison discharge for custodial sentences, the date of court conviction for non-custodial sentences, the date of receipt for a caution, reprimand or final warning or the date of a positive drug test.

#### **Index offence**

The offence of which an individual has been convicted, which leads to a sentence and an index date.

#### **Matched control group**

The matched control group contains all individuals who have available re-offence records, who are eligible for analysis, who did not receive the treatment intervention and who could be matched to at least one member of the matched treatment group.

**Matched treatment group**

The matched treatment group contains all individuals who have available re-offence records, who are eligible for analysis, who received the treatment intervention and who could be matched to at least one member of the matched control group.

**One-year proven re-offending rate**

The proportion of offenders in a cohort who commit an offence in a one-year follow-up period, where the offence 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.

**p-value**

A value, between 0 and 1, that indicates the likelihood that a real difference in re-offending between the treatment and control groups has been observed. A p-value that is less than, or equal to, 0.05 is a significant piece of evidence in support of the idea that the treatment intervention is effective in changing re-offending behaviour – provided the two groups are well matched. Statistical significance testing is described on page 8 of this report.

**Re-offence**

An offence committed following conviction of the index offence which was proven through receipt of a court conviction, caution, reprimand or warning. The first re-offence refers to the first offence committed after conviction for the index offence.

**Standardised difference**

The standardised differences shown in Annex B measure the differences between the treatment and control groups in terms of the variation within each group. Each standardised difference represents the quality of the matching between the two groups for a single variable, with a smaller difference representing a better match.

**Time to re-offending**

Time to re-offending is defined as the average number of days between the index date and the date of the first re-offence within a one-year follow-up period. This measure is only calculated for individuals who re-offended during the one-year follow-up period.

**Treatment intervention**

The programme whose impact on re-offending is being analysed.

**True mean**

The true mean for a re-offending measure is the mean value that would be obtained from many repeat analyses. It is the 'real value' of the re-offending measure for large populations of people with the characteristics of the matched treatment and control groups. The measured value for a re-offending measure is the best available estimate of the true mean.

## Contact Points

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

Tel: 020 3334 3555

Other enquiries about the analysis should be directed to:

### **Sarah French**

#### **Justice Data Lab Team**

Ministry of Justice

Justice Data Lab

Justice Statistical Analytical Services

7<sup>th</sup> Floor

102 Petty France

London

SW1H 9AJ

Tel: 0203 334 4770

E-mail: [justice.datalab@justice.gsi.gov.uk](mailto:justice.datalab@justice.gsi.gov.uk)

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

General information about the official statistics system of the United Kingdom is available from [www.statistics.gov.uk](http://www.statistics.gov.uk)

© Crown copyright 2015

Produced by the Ministry of Justice

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit <http://www.nationalarchives.gov.uk/doc/open-government-licence/> or email: [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk)

Where we have identified any third party copyright material you will need to obtain permission from the copyright holders concerned.