

Justice Data Lab Re-offending Analysis: West Yorkshire Community Chaplaincy Project

Summary

This analysis assessed the impact on re-offending of support provided by the West Yorkshire Community Chaplaincy Project. The one year proven re-offending rate¹ for 30 offenders who received support provided by West Yorkshire Community Chaplaincy Project was 57%, compared with 54% for a matched control group of similar offenders. Statistical significance testing has shown that this difference is not significant²; suggesting that at this stage there is insufficient evidence to draw a conclusion about the impact of support provided by the West Yorkshire Community Chaplaincy Project on re-offending. However, the results of the analysis do not mean that support provided by the West Yorkshire Community Chaplaincy Project failed to impact on re-offending.

What you can say: There is insufficient evidence at this stage to draw a conclusion about the impact of support provided by the West Yorkshire Community Chaplaincy Project on re-offending.

What you cannot say: This analysis shows that support provided by the West Yorkshire Community Chaplaincy Project increased proven re-offending by 3 percentage points, or by any other amount.

Introduction

The West Yorkshire Community Chaplaincy Project is an independent resettlement organisation, based at HMP Leeds, which provides "through-the-gate" support for prisoners, both in prison and post-release in the community. Prisoners self-select to receive this support and the West Yorkshire Community Chaplaincy Project work towards person centered action plans based on the seven offender pathways, tailoring the support to the specific needs of the offender. The support works as a mentoring scheme for offenders, providing role models, advice, and intensive support where necessary with the hope that the offenders will resettle back into community and re-offending will be reduced. The amount of support each prisoner receives will vary, with some receiving the majority of their support post-release in the community. The West Yorkshire Community Chaplaincy Project will often work with individuals who are known to have particularly complex needs, and who are at very high risk of re-offending. This analysis assessed the impact on re-offending of

¹ 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.

 $^{^{\}frac{1}{2}}$ The difference was non-significant, p = 0.81. Statistical significance testing is described on page 5 of this report.

prisoners that received support provided by the West Yorkshire Community Chaplaincy between 2008 and 2010.

Processing the Data



West Yorkshire Community Chaplaincy Project sent data to the Justice Data Lab for 64 offenders who received support from West Yorkshire Community Chaplaincy Project between 2008 and 2010.



62 of the 64 offenders were matched to the Police National Computer, a match rate of 97%.

30

30 offenders had an identifiable custodial sentence where they were released from custody before 2011. Analysis on the unmatched offenders revealed that some individuals have either since been released from prison in 2011 or after where re-offending data is not yet available; or the relevant sentence could not be found on the administrative datasets used.

Creating a Matched Control Group



All of the 30 offender records for which re-offending data was available could be matched to offenders with similar characteristics, but who did not receive support provided by the West Yorkshire Community Chaplaincy Project. In total the matched control group consisted of 21,619 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.

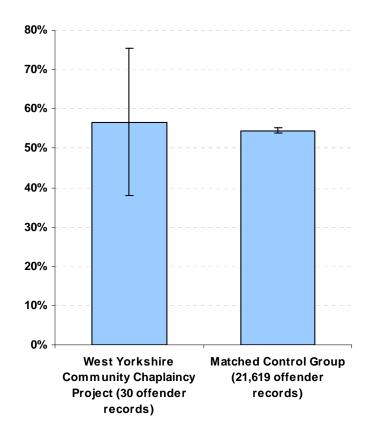
Results

The one year proven re-offending rate for 30 offenders who received support provided by the West Yorkshire Community Chaplaincy Project was 57%. This compares to 54% for a matched control group of similar offenders. This information is displayed in Figure 1 on the next page.

Figure 1 on the next page presents the 95 per cent confidence intervals for the reoffending 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 this analysis we can be confident that the true difference in re-offending between two groups is between -17 and 22 percentage points. However, because this difference crosses 0, we cannot

be sure either way that receiving support provided by the West Yorkshire Community Chaplaincy Project 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 received support provided by the West Yorkshire Community Chaplaincy Project and a matched control group



In this case the confidence intervals are particularly wide; this is to be expected when the size of the treatment group (in this case, West Yorkshire Community Chaplaincy Project) is very small. The precision of this estimate could be improved if the size of the West Yorkshire Community Chaplaincy Project group used in the analysis was increased. It is recommended that the analysis is repeated on a larger sample, including previous years of information, and when additional years of data become available.

Additional proven re-offending measures Frequency of re-offending

The frequency of one year proven re-offending for 30 offenders targeted by the West Yorkshire Community Chaplaincy Project was 2.43 offences per individual, compared with 2.46 per individual in the matched control group. Statistical

significance testing has shown that this difference in the re-offending rates is not statistically significant³.

This result is in line with the findings around the indicator of one year proven reoffending; the subject of this report. The same caveats and limitations apply to these findings, which are described below.

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. For this analysis in particular, it is known that the West Yorkshire Community Chaplaincy Project engages with offenders who have particularly complex needs (including addictions to drugs and alcohol, and complex mental health problems), and who are at very high risk of re-offending, and as such could be considered to be harder to help to break the cycle of re-offending. Having particularly complex needs and being at very high risk of re-offending is not well reflected in the administrative datasets which have been used for this analysis, which means that the results of this analysis should be interpreted with care.

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 on other interventions targeted at offenders, that may have impacted 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.

 $^{^3}$ The p-value for this significance test was 0.97. Statistical significance testing is described on page 5 of this report.

Furthermore, only 30 of the 64 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 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 support provided by the West Yorkshire Community Chaplaincy Project. 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 support provided by the West Yorkshire Community Chaplaincy Project, 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 control groups

	Treatment Group	Matched Control Group	Standardised Difference
Number in group	30	21,619	
Ethnicity			
White	100%	100%	0
Nationality			
UK Citizen	100%	100%	0
Gender			
Proportion that were male	100%	100%	0
Age			
Mean age at Index Offence	31	31	-1
Mean age at first contact with CJS	16	16	-1
Index Offence ¹			
Violent offences including robbery	40%	40%	0
Burglary, theft and handling	37%	36%	2
Other ²	23%	25%	-3
Length of Custodial Sentence			
12 months or less	43%	44%	-2
12 months to 4 years	40%	39%	2
4 years to 10 years	17%	16%	1
Criminal History ³			
Mean Copas Rate	-0.419	-0.403	-3
Mean total previous offences	43	44	-3
Mean previous criminal convictions	17	18	-2
Mean previous custodial sentences	6	6	-2
Mean previous court orders	5	5	-2
Employment and Benefit History			
In P45 employment (year prior to conviction)	13%	18%	-14
In P45 employment (month prior to conviction)	3%	3%	-1
Claiming Out of Work Benefits (year prior to conviction) 4	83%	84%	-2
Claiming Job Seekers Allowance (year prior to conviction)	57%	52%	10
Claiming Incapacity Benefit (year prior to conviction)	47%	47%	-1
Claiming Income Support (year prior to conviction)	27%	27%	-1
Notes: 1 Index Offence is based on OGRS categories. Further deta			on request

¹ Index Offence is based on OGRS categories. Further details on make-up of categories available upon request.

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%)

² Other offences including motoring offences (including theft from vehicles), drugs and other.

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).

Table 1 shows that the two groups were well matched on nearly all variables found to have associations with receiving treatment and/or re-offending. Nearly all of the standardised mean differences are highlighted green because they were between -5% and 5%, indicating close matches on these characteristics. The standardised differences are highlighted as amber (i.e. between 6% to 10% or -6% to -10%) and red (i.e. greater than 10% or less than -10%) in two cases, 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. The average values were lower for the variable 'In P45 employment (year prior to conviction)' and higher for the variable 'Claiming Job Seekers Allowance (year prior to conviction)'. This suggests that the men receiving support from West Yorkshire Community Chaplaincy Project were slightly harder to help in terms of overcoming these aspects than a control group, so care should be taken when interpreting the results.

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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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