Ministry of Justice

Justice Data Lab
Re-offending Analysis:
Prisoners Education Trust
Accredited courses funded by BIS grant

Summary

This analysis assessed the impact on re-offending of prisoners in custody receiving a grant from the Prisoners Education Trust to undertake an accredited course[1]. The one year proven re-offending rate[2] for 152 offenders who received a grant for this purpose was 25.0%, compared with 25.1% for a matched control group of similar offenders. Statistical significance testing has shown that this difference in the re-offending rates is not statistically significant[3]; meaning that we cannot be confident that there is a real difference in the re-offending rate for the group who received a grant for this purpose.

What you can say: There is insufficient evidence at this stage to draw a conclusion about the impact of receiving a grant from the Prisoners Education Trust to undertake an accredited course in custody.
What you cannot say: This analysis shows that receiving a grant from the Prisoners Education Trust to undertake an accredited course in custody, led to a reduction in re-offending of 0.1 percentage points.

Introduction

Prisoners Education Trust (PET) provides grants to offenders in prison throughout England for a distance learning course or to purchase materials for arts and hobbies. Learning is supported through a combination of PET's charitable funds and grant funding to PET from the Department for Business Innovation and Skills (BIS) and the Welsh Assembly Government for courses falling into specified criteria. Information on the availability of distance learning grants is available in prisons via distance learning co-ordinators generally in education departments. Prisoners complete applications (which need prison endorsement) for the grants including personal letters. They are then awarded by a panel of Prisoners Education Trust trustees on the basis of the strength of the application including such issues as suitability of the

[1] An accredited course means a course that leads to a qualification which would be approved for public funding through appearing on the Learning Aim Reference Service (LARS) database or its predecessors. The sample selected for this analysis does not represent every course meeting this criterion funded by PET; it is the group of such courses readily identifiable in the PET database as a category specifically funded for this purpose by the Department for Business Innovation and Skills.
[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 or start their probation sentence.
[3] The p-value for this significance test was 0.99. Statistical significance testing is described on page 6 of this report.

course sought, evidence of ability and commitment to complete it successfully and rationale for wanting to undertake the study. The Prisoners Education Trust also offers advice about distance learning courses and provides briefings about how the courses relate to employment paths and possibilities. They support prisoner learners, and follow their progress. In some prisons and regions, prisoners are trained to act as peer learning mentors. This type of intervention requires offenders to apply and show commitment and ability for education, and so the individuals in the data may have a particular characteristics relating to motivation and educational ability.

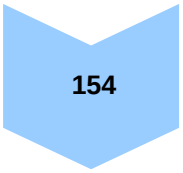
This analysis includes a sub-group of offenders who undertook an accredited course funded by the Prisoners Education Trust through its grant from the Department for Business Innovation and Skills (BIS) between 2002 and 2010. The Prisoners Education Trust also identified for separate analysis prisoners receiving grants for unaccredited courses funded by BIS, arts and hobby materials and Open University grants (funded largely through BIS but also by the Welsh Assembly Government and charitable funding). Analyses of these course types as well as an overall analysis of all Prisoner Education Trust grant types are also available.

Processing the Data

Prisoners Education Trust sent data to the Justice Data Lab for 476 offenders who received a grant for an accredited course between 2002 and 2011.

14 offenders were removed at this stage as their intervention took place in 2011, for which we do not yet have re-offending information.

423 of the 462 offenders were matched to the Police National Computer, a match rate of 92%.



154 offenders had an identifiable custodial sentence which matched the timing of the intervention between 2002 and 2010.

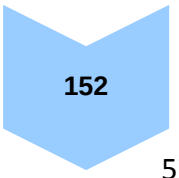
The high rate of attrition seen in the matching process may be due to one or more of the following reasons;

- A high proportion of offenders in the data were on longer prison sentences (4 to more than 10 years), and so may not have been released prior to 2011, for which re-offending information is not yet available;

- Many grants were received a number of years prior to release from custody, meaning that many offenders who started their courses, particularly from 2008 onwards, may not yet have been released from custody.
- Grants were received, and the relevant courses took place from 2002, and so many of those on longer sentences may have been in custody since before 2000, when there were known issues with the administrative datasets we use;

Additionally, many offenders were removed from the analysis at the matching stage due to having life sentences; index or previous offences of a sexual nature, or shorter prison sentences than the rest of the group (for modelling purposes).

Creating a Matched Control Group



Of the 154 offender records for which re-offending data was available, 152 could be matched to offenders with similar characteristics, but who did not receive a grant from Prisoners Education Trust. In total the matched control group consisted of 57,188 offender records.

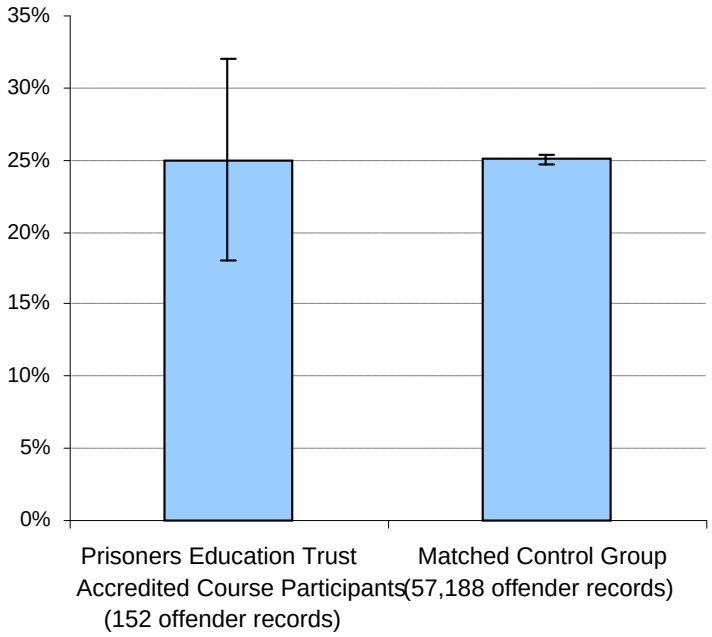
The Annex provides information on the similarity between the treatment and control groups. Further data on the matching process is available upon request.

Results

The one year proven re-offending rate for 152 offenders who undertook an accredited course funded by Prisoners Education Trust through its grant from the Department for Business, Innovation and Skills (BIS) was 25%, compared with 25.1% 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 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 this analysis we can be confident that the true difference in re-offending between the two groups is between -7 and 7 percentage points, however because this difference crosses 0, we cannot be certain of the true impact of the intervention. 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 a grant from the Prisoners Education Trust to undertake a course categorised as currently accredited, and a matched control group



The precision of this estimate could be improved if the size of the Prisoners Education Trust programme group used in the analysis was increased.

Additional proven re-offending measures

Frequency of re-offending

The frequency of one year proven re-offending for 152 offenders who received a grant from the Prisoners Education Trust to undertake an accredited course was 0.65 offences per individual, compared with 0.71 per individual in the matched control group. Statistical significance testing has shown that there is no statistically significant difference around this figure[4].

This result is 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 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. It is possible that underlying characteristics about the individuals included in the

[4] The p-value for this significance test was 0.61. Statistical significance testing is described on page 6 of this report.

analysis which were not captured by the data (e.g. attendance at other interventions or services targeted at offenders) may have impacted re-offending behaviour.
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. In particular, it would have been helpful in this analysis to take account of education attainment or ability, and motivation to change. It is possible that these characteristics could account for, or explain the observed reduction in re-offending.

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. The particular type of intervention this analysis pertains to requires offenders to apply and show commitment and ability for education, and so the individuals in the data may have particular characteristics relating to motivation and educational ability. This means that all results should be interpreted with care, as selection bias cannot be accounted for in analyses.

Furthermore, only 152 of the 476 unique offender records 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 the 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 a grant for an accredited course from Prisoners Education Trust. 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 a service from Prisoners Education Trust, 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	**152**	**57,188**	
Ethnicity			
White	74%	74%	-1
Black	16%	16%	1
Asian or Other or Unknown	10%	10%	-1
Nationality			
UK	100%	100%	0
Gender			
Male	100%	100%	0
Age			
Mean age at Index Offence	31	31	0
Mean age at first contact with CJS	17	17	0
Index Offence[1]			
Violent offences including Robbery	44%	45%	-2
Burglary	11%	11%	0
Other[2]	2%	2%	-1
Motoring	5%	6%	-1
Drugs	32%	32%	0
Length of Custodial Sentence			
12 months to less than 4 years	40%	39%	2
4 years to more than 10 years	60%	61%	-2
Criminal History[3]			
Mean Copas Rate	-1.2	-1.2	-1
Mean total previous offences	22	22	0
Mean previous custodial events	3	3	0
Mean previous criminal convictions	8	8	-1
Mean previous court orders	2	2	-1
Employment and Benefit History			
In P45 employment (year prior to conviction)	38%	39%	-2
In P45 employment (month prior to conviction)	24%	25%	-2
Claiming Out of Work Benefits (year prior to conviction) [4]	46%	46%	0
Claiming Job Seekers Allowance (year prior to conviction)	31%	31%	0
Claiming Incapacity Benefit (year prior to conviction)	21%	21%	0
Claiming Income Support (year prior to conviction)	18%	18%	0
Notes:			

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

2 Other includes Theft, Handling, Fraud, Forgery and Criminal Damage.

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%.

Standardised Difference Key

Green - the two groups were well matched on this variable (5% or less)

Amber - the two groups were reasonably matched on this variable (6%-10%)

Red - the two groups were poorly matched on this variable (10% +)

Table 1 on the previous page shows that the two groups were well matched on all variables found to have associations with receiving treatment and/or re-offending. The standardised mean differences are highlighted green because they were between -5% and 5%, indicating close matches on these characteristics.

Contact Points

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