



## Summary

This analysis assessed the impact on re-offending of grants provided through the Prisoners Education Trust to offenders in custody to complete a distance learning course or to purchase learning materials. The one year proven re-offending rate<sup>1</sup> for 3,085 offenders who received a grant through the Prisoners Education Trust was 19%, compared with 26% for a matched control group of similar offenders. Statistical significance testing has shown that this difference in the re-offending rates is statistically significant<sup>2</sup>; meaning that we can 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:** This analysis shows that participating in an intervention provided by Prisoners Education Trust led to a reduction in re-offending of between 5 and 8 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 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 provide 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

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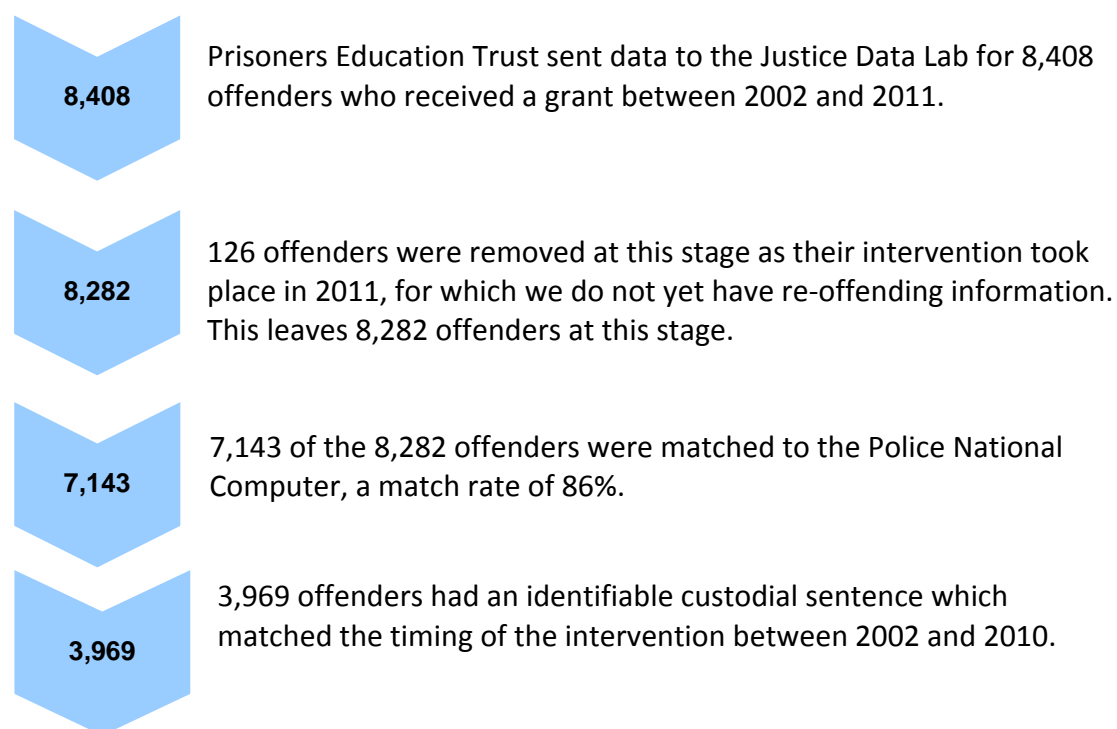
<sup>1</sup> The **one year proven re-offending rate** is defined as the proportion of offenders in a cohort who commit an offence in a one year follow-up period which was proven through receipt of a court conviction, caution, reprimand or warning during the one year follow-up or in a further six month waiting period. The one year follow-up period begins when offenders leave custody or start their probation sentence.

<sup>2</sup> The p-value for this significance test was less than 0.001. Statistical significance testing is described on page 6 of this report.

the data may have a particular characteristics relating to motivation and educational ability.

This is a re-offending analysis of offenders who received a grant for various types of study between 2002 and 2010; these included grants for Open University, accredited and unaccredited courses funded by BIS, and arts and hobby materials grants. A further set of sub-analyses pertaining to sub-groups of prisoners identified as receiving these grant types was carried out and the results for these are available in Annex B and have also been published separately.

## Processing the Data



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;



3,091

Additionally, 878 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



3,085

Of the 3,091 offender records for which re-offending data was available, 3,085 could be matched to offenders with similar characteristics, but who did not receive a service from Prisoners Education Trust. In total the matched control group consisted of 203,543 offender records.

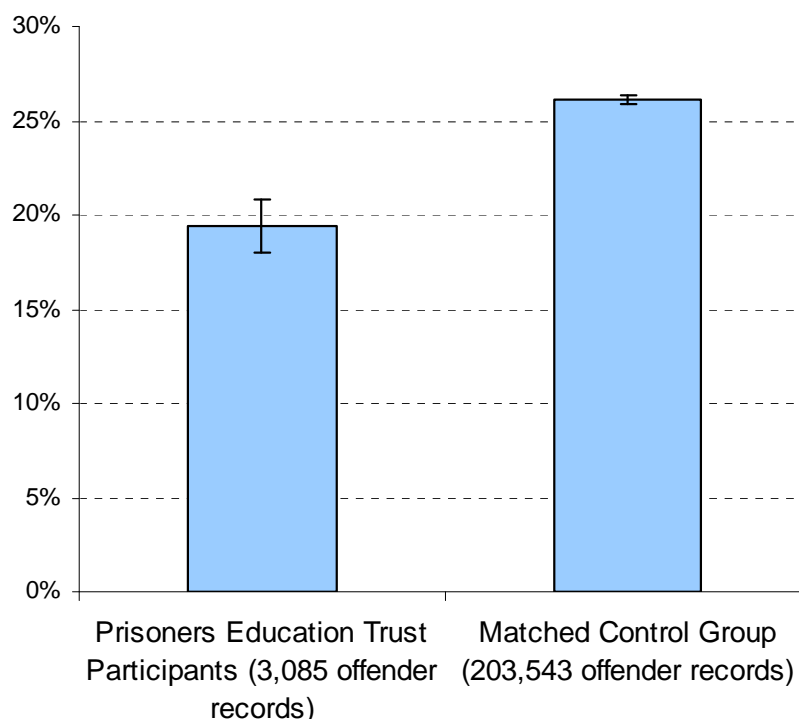
Annex A provides information on the similarity between the treatment and control groups. Further data on the matching process is available upon request.

## Results

The one year proven re-offending rate for 3,085 offenders who received the service was 19%, compared with 26% 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 5 and 8 percentage points. 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 through the Prisoners Education Trust, 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 3,085 offenders targeted by Prisoners Education Trust was 0.5 offences per individual, compared with 0.8 per individual in the matched control group. Statistical significance testing has shown that this difference in the re-offending rates is statistically significant<sup>3</sup>.

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.

<sup>3</sup> The p-value for this significance test was less than 0.001. Statistical significance testing is described on page 6 of this report.

It is possible that underlying characteristics about the individuals included in the 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 3,085 of the 8,408 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 were targeted by 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](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 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 A

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

	Treatment Group	Matched Control Group	Standardised Difference
<b>Number in group</b>	<b>3,085</b>	<b>203,543</b>	
<b>Ethnicity</b>			
White	74%	74%	0
Black	19%	19%	0
Asian and Unknown	8%	8%	0
<b>Nationality</b>			
UK	94%	94%	0
Non-UK or Unknown	6%	6%	0
<b>Gender</b>			
Proportion that were male	90%	90%	0
<b>Age</b>			
Mean age at Index Offence	33	33	-1
Mean age at first contact with CJS	19	19	0
<b>Index Offence<sup>1</sup></b>			
Violent offences including Robbery	47%	47%	-1
Burglary	10%	10%	0
Theft, Handling, Fraud and Forgery	7%	7%	-1
Motoring offences and Criminal Damage	6%	6%	0
Drugs	27%	27%	0
Other	2%	2%	3
<b>Length of Custodial Sentence</b>			
12 months to less than 4 years	31%	32%	-1
4 years to 10 years	61%	61%	0
More than 10 years	7%	7%	0
<b>Criminal History<sup>2</sup></b>			
Mean Copas Rate	-1.3	-1.3	0
Mean total previous offences	24	24	0
Mean previous custodial events	3	3	0
Mean previous criminal convictions	8	8	0
Mean previous court orders	2	2	0
<b>Employment and Benefit History</b>			
In P45 employment (year prior to conviction)	34%	34%	0
In P45 employment (month prior to conviction)	15%	15%	0
Claiming Out of Work Benefits (year prior to conviction) <sup>3</sup>	57%	57%	0
Claiming Job Seekers Allowance (year prior to conviction)	38%	38%	0
Claiming Incapacity Benefit (year prior to conviction)	25%	25%	0
Claiming Income Support (year prior to conviction)	22%	22%	0
<b>Notes:</b>			
1 Index Offence is based on OGRS categories. Further details on make-up of categories available upon request.			
2 All excluding Penalty Notices for Disorder. All prior to Index Offence.			
3 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% or less)</b>
<b>Amber - the two groups were reasonably matched on this variable (6%-10%)</b>
<b>Red - the two groups were poorly matched on this variable (10% +)</b>

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.



## Annex B: Course Type Analyses of Prisoner Education Trust Grants

This analysis looked at offenders who received grants for all course types funded by Prisoner Education Trust, approximately half of who were known to have undertaken a particular course type. These included grants for Open University, accredited/non-accredited courses<sup>1</sup> funded by BIS and arts and hobby materials. Each of these course types was analysed separately in addition to an overall analysis, and the results are in the table below, but have also been published separately through the Justice Data Lab.

**Table 2: Results of course type analyses for Prisoner Education Trust grants**

Course Type	Treatment Group size <sup>2</sup>	Significant difference?	Estimate of impact on re-offending	Reduction in frequency of re-offending
Open University	805	Yes	2% to 8%	Yes
Arts and hobby materials	173	Yes	0.3% to 14%	Yes
Accredited courses funded by BIS	152	No	inconclusive	inconclusive
Unaccredited courses funded by BIS	76	Yes	1.4% to 21%	Yes
Overall	3,085 <sup>2</sup>	Yes	5% to 8%	Yes

<sup>1</sup>A course is either accredited or unaccredited depending on whether or not it leads to a qualification which would be approved for public funding. The samples in these analyses do not represent every course meeting this criterion funded by PET. More detail is available in the separate reports on accredited and unaccredited courses funded by PET through its grant from the Department for Business, Innovation and Skills.

<sup>2</sup> The identified treatment groups do not sum to the Overall number, as the course type was unknown in approximately half of the individuals submitted.

## 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:

### 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 4396

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)

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