



Summary

This analysis assessed the impact on re-offending of persons who received support provided by Bail Accommodation and Support Services (BASS) and were on Home Detention Curfew (HDC) following release from custody. The one year proven re-offending rate¹ for 70 offenders who were released from custody on HDC and received support from BASS was 39%, compared with 43% 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 support from BASS had on re-offending for those persons who were on HDC following release from custody. However, the results of the analysis do not mean that the support provided 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 receiving support provided by BASS whilst on HDC after release from custody on re-offending.

What you cannot say: This analysis shows that support provided by BASS to individuals on HDC after release from custody decreased proven re-offending by 4 percentage points, or by any other amount.

Introduction

Bail Accommodation and Support Services provide support to those persons who have been referred to them by the probation trusts, courts and prisons across England and Wales. These persons would normally be living in the community on bail, Home Detention Curfew (HDC) or Intensive Alternative to Custody (IAC), but do not have a suitable address or are in need of some extra support during their Order or Licence. BASS provide either a support only service, or both accommodation and support, aiming to address the needs that are thought to drive offender behaviour. These are needs such as housing and education, as well as helping offenders comply with their Order and Licence conditions. This analysis relates to those persons who received support provided by BASS whilst on a HDC order, since Stonham took over the contract in June 2010.

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.

² The difference was non-significant, $p = 0.42$. Statistical significance testing is described on page 6 of this report.

Processing the Data

542

Bail Accommodation and Support Services sent data to the Justice Data Lab for 542 offenders who received support from BASS whilst on Home Detention Curfew between 2010 and 2012.

492

492 of the 542 offenders were matched to the Police National Computer, a match rate of 91%.

74

74 offenders received support from BASS within three months of release from an identifiable custodial sentence during 2010. Analysis on the unmatched offenders revealed that some of the individuals did not have an identifiable custodial sentence as their most recent proven offence related to the start of the support provided by BASS.

Some of the individuals were not included in the analysis as the start of their support provided by BASS was not within three months of release from custody. Having a three month period between release from custody and the start date of the support provided by BASS is appropriate as HDC typically lasts up to 135 days, meaning that any observable difference in the one year proven re-offending rate would be more likely to be attributable to the work of BASS, rather than any other factors which may have had an effect. One individual could not be included in the analysis as they had a previous sexual offence.

70

4 offenders were removed because they had committed a re-offence before receiving support from BASS.

Creating a Matched Control Group

70

All of the 70 offender records for which re-offending data was available could be matched to offenders with similar characteristics, but who did not receive support from BASS. In total the matched control group consisted of 27,373 offender records.

As this analysis refers to those that received support from BASS after release from custody and on HDC, an additional check needed to be 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 start date of the support of the matched BASS counterparts. Any matches where the control group had committed a proven re-offence prior to the start date of the BASS counter part were excluded from the analysis. This check ensures that we have

greater confidence that the matched control group presents a more accurate counterfactual for comparison.

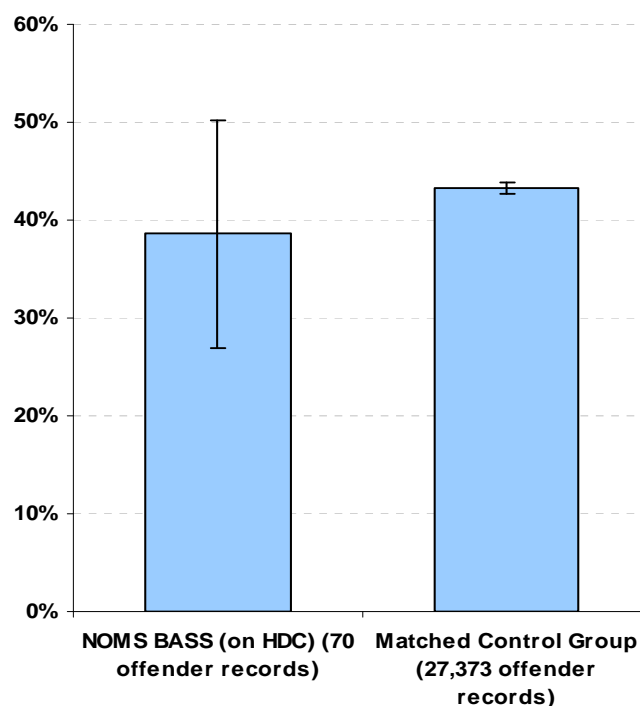
The Annex provides information on the similarity between the treatment and control groups. Further data on the matching process is available upon request.

Results

The one year proven re-offending rate for 70 offenders who were on HDC after release from custody and received support from BASS was 39%. This compares to 43% 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 -17 and 8 percentage points. However, because this difference crosses 0, we cannot be sure either way that receiving support from BASS 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 from BASS whilst on HDC after release from custody, 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, those who received support from BASS whilst on HDC after release from custody) is very small. The precision of this estimate could be improved if the size of the BASS support group used in the analysis was increased. It is recommended that the analysis is repeated on a larger sample when future years of information become available for the BASS contract delivered by Stonham.

Additional proven re-offending measures

Frequency of re-offending

The frequency of one year proven re-offending for 70 offenders who received support from BASS whilst on HDC after release from custody was 1.39 offences per individual, compared with 1.59 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 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. It should be noted that it has only been possible to control for a limited amount of information about the offenders who are included within this analysis. 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 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 this instance, it would have been particularly beneficial to be able to take account of various factors such as accommodation, mental health and education issues for both the group that BASS worked with, and the matched control group. This information however, is currently not available routinely to the Justice Data Lab. Whilst the success of the matching described in the Annex suggests that the individuals were well matched to the control group on key characteristics such as demographic and criminal history, individuals with accommodation, mental health 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.

³ The p-value for this significance test was 0.52. Statistical significance testing is described on page 6 of this report.

It should also be noted that we have been unable to statistically control for HDC status in the control group. The control group may contain offenders who were released from custody on HDC and those who were not.

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

Furthermore, only 70 of the 542 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 were on HDC after release from custody and received support from BASS. 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 from BASS, were on HDC, 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	70	27,373	
Ethnicity			
White	81%	81%	2
Other	19%	19%	-2
Nationality			
UK Citizen	89%	90%	-4
Foreign National	11%	10%	4
Gender			
Proportion that were male	80%	79%	2
Age			
Mean age at Index Offence	32	32	-2
Mean age at first contact with CJS	18	18	0
Index Offence¹			
Violent offences including robbery	36%	34%	4
Burglary	14%	14%	2
Drugs	27%	28%	-1
Other ²	23%	25%	-4
Length of Custodial Sentence			
12 months or less	41%	43%	-2
12 months to 4 years	59%	57%	2
Criminal History³			
Mean Copas Rate	-0.805	-0.803	0
Mean total previous offences	27	28	-4
Mean previous criminal convictions	11	11	0
Mean previous custodial sentences	3	3	-4
Mean previous court orders	3	3	-1
Employment and Benefit History			
In P45 employment (year prior to conviction)	31%	30%	3
In P45 employment (month prior to conviction)	17%	17%	0
Claiming Out of Work Benefits (year prior to conviction) ⁴	77%	78%	-2
Claiming Job Seekers Allowance (year prior to conviction)	44%	46%	-4
Claiming Incapacity Benefit (year prior to conviction)	34%	35%	-1
Claiming Income Support (year prior to conviction)	17%	17%	-1
Notes:			
<p>1 Index Offence is based on OGRS categories. Further details on make-up of categories available upon request. 2 Other offences including theft, fraud, forgery and motoring offences (including theft of and from vehicles). 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).</p>			

All figures (except mean copas rate) are rounded to the nearest whole number, this may mean that percentages do not sum to 100%.
Standardised Difference Key
Green - the two groups were well matched on this variable (-5% to 5%)
Amber - the two groups were reasonably matched on this variable (6% to 10% or -6% to -10%)
Red - the two groups were poorly matched on this variable (greater than 10% or less than -10%)

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

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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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