



## Summary

This analysis assessed the impact on re-offending of individuals who participated in Community Justice Court (CJC) at Plymouth Magistrates' Court. The one year proven re-offending rate<sup>1</sup> for 63<sup>2</sup> offenders who participated in Community Justice Court (CJC) at Plymouth Magistrates' Court was 41%, compared with 32% for a matched control group of similar offenders. Statistical significance testing has shown that this difference is not significant<sup>3</sup>; suggesting that at this stage there is insufficient evidence to draw a conclusion about the impact of CJC on re-offending. However, the results of the analysis do not mean that the CJC 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 Community Justice Court (CJC) on re-offending.

**What you cannot say:** This analysis shows that persons who participated in Community Justice Court (CJC) at Plymouth Magistrates' Court increased proven re-offending by 9 percentage points, or by any other amount.

## Introduction

The Community Justice Court (CJC) operates at Plymouth Magistrates' Court. The CJC works with offenders who have committed low risk offences in order to reduce the likelihood of them re-offending. Plymouth was chosen to be the site of the first community court within Devon and Cornwall, due to being a: designated neighbourhood renewal area, RESPECT<sup>4</sup> area (to facilitate the RESPECT action plan), and the pilot site for a number of other LCJB (Local Criminal Justice Board) projects. These projects include the Courts and Community Advice Centre (CASS) and conditional cautioning. The CJC was created in 2007. The rationale behind its creation was stated to be the following:

"Community Justice is about engaging with the local community, making the court more responsive to local people and working in partnership with the range of criminal justice agencies, support services and community groups to solve the

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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, start their court sentence, or from receipt of their caution.

<sup>2</sup> 63 individuals were matched from a cohort of 91 individuals, whose details were sent to the Justice Data Lab, as described on page 3 of this report.

<sup>3</sup> The difference was non-significant,  $p = 0.15$ . Statistical significance testing is described on page 7 and 8 of this report.

<sup>4</sup> The Respect Action Plan targeted troublesome families, see [www.homeoffice.gov.uk/respect](http://www.homeoffice.gov.uk/respect).

problems caused by offending in the local area. Success will be measured not in terms of processing cases but in terms of the outcomes achieved for individual offenders, victims, and the wider community".

Magistrates have the option of sending offenders to a problem solving meeting which can help identify problems in their life which may have contributed to them committing crime. It is hoped that this intervention may enable the individual to recognise these problems and with the help of the Community Advice and Support Service (CASS) turn away from criminal acts and focus on solutions to their problems. This meeting aims to consider the behaviour of the defendant and identify any support packages that can be implemented. If the defendant is sentenced to a community based order, the Probation Service will assume responsibility for the support of the defendant. If the defendant is sentenced to a fine/conditional discharge the CASS team will seek to support the problem solving approach identified.

The CJC and the partnership with the Probation Service, the police and the voluntary sector organisation have been running since May, 2007. Though some of the ways in which the CJC operates have altered since that date, the approach to engagement and problem solving has remained largely the same and is therefore a well-established practice in the court.

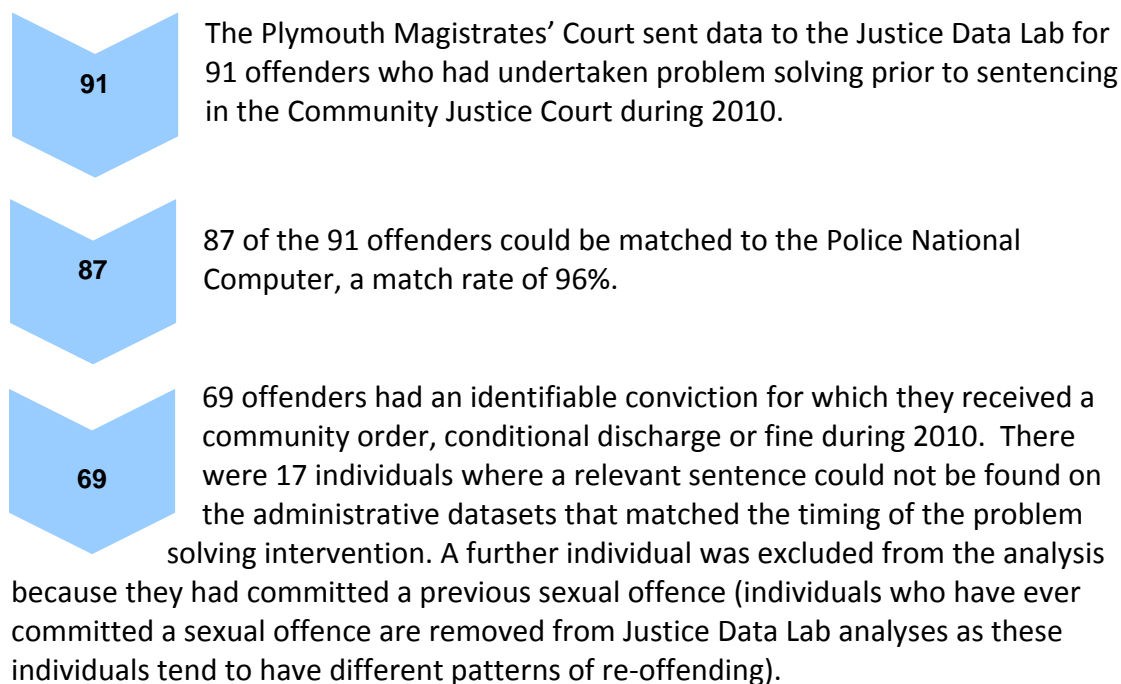
Within Plymouth Magistrates' Court a particular courtroom has been set aside to run the Community Justice Court (CJC). The main personnel involved are:

- It is presided over by a trained bench of Magistrates,
- A Legal Advisor has been identified to have responsibility for the operation of the court,
- A police officer has been allocated to the court to help identify defendants who would benefit from problem solving and to chair problem solving meetings,
- A third sector agency (Community Advice and Support Service, CASS) located in the court building works with the police officer in running problem solving meetings, supporting offenders through signposting and then following up their progress, offering further support as necessary.

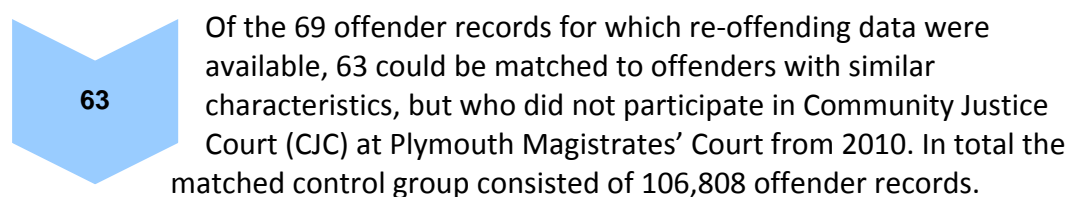
There are two main ways in which this approach differs from standard summary justice in a Magistrates' Court; increased engagement with offenders by magistrates and other court personnel during the case hearing itself, and the option to require the offender to engage in problem solving prior to sentencing. The intervention targets offenders who have committed low risk offences and who plead guilty on the day of their first appearance in court for that offence. There are no particular types of need targeted though by far the most common type of need relates to alcohol, drugs, finance or housing.

This analysis relates to individuals who participated in the Community Justice Court (CJC) at Plymouth Magistrates' Court during 2010. The individuals selected for inclusion in this analysis had all undertaken a problem solving meeting. This represents the highest level of intervention available in the CJC.

## Processing the Data



## Creating a Matched Control Group



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. In this analysis, 6 individuals were excluded for modelling purposes.

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

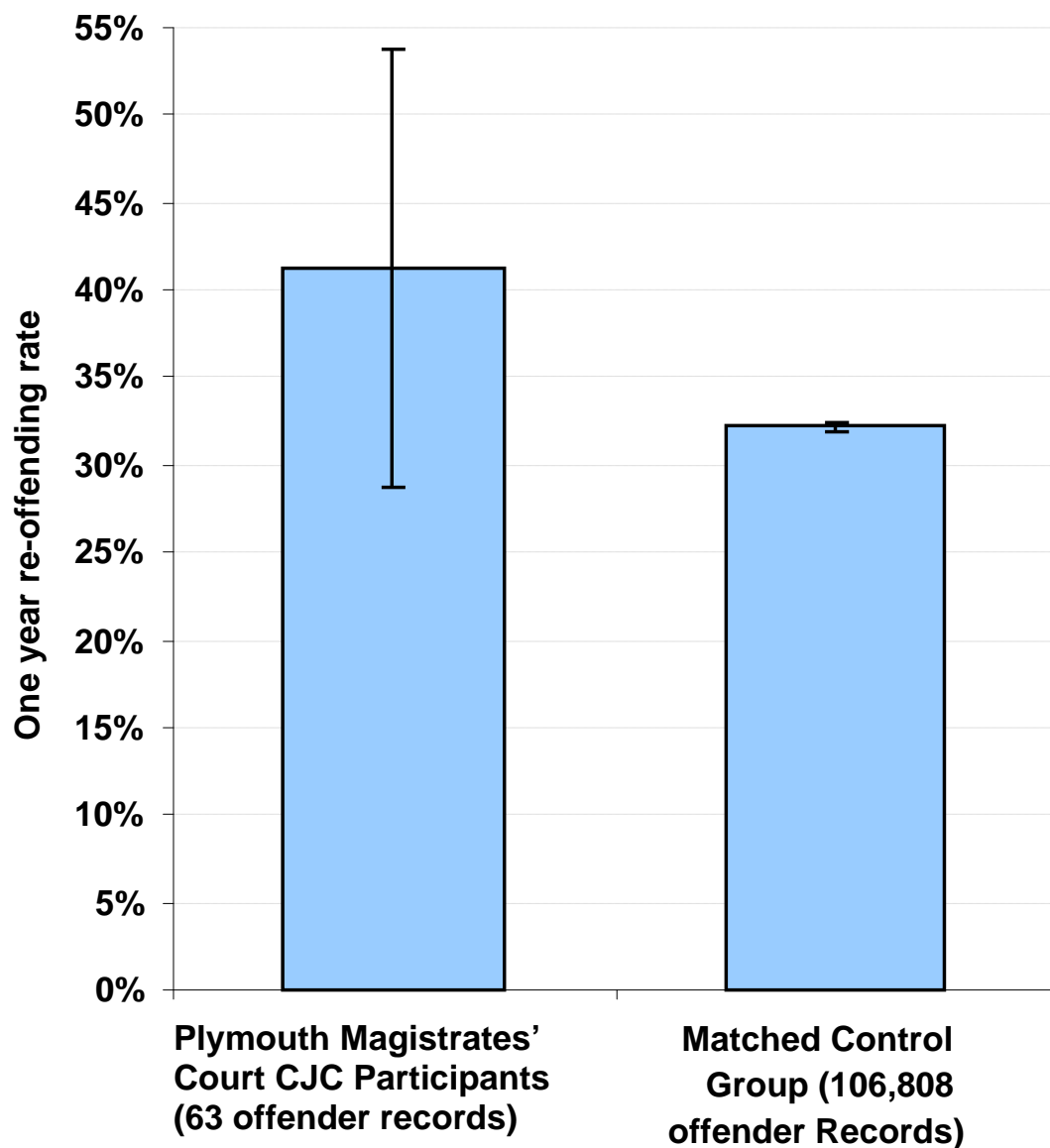
## Results

The one year proven re-offending rate<sup>1</sup> for 63<sup>2</sup> offenders who participated in Community Justice Court (CJC) at Plymouth Magistrates' Court was 41%. This compares to 32% 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 a 4 percentage point reduction, and a 22 percentage point increase. However, because this difference crosses 0, we cannot be sure either way that participating in the Community Justice Court (CJC) programme provided at Plymouth Magistrates' Court 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 participated in the Community Justice Court (CJC) programme provided by Plymouth Magistrates' Court, 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, participants of the Community Justice Court programme provided by Plymouth Magistrates' Court) is very small. The precision of this estimate could be improved if the size of the Plymouth Magistrates' Court group used in the analysis was increased. It is recommended that the analysis is repeated on a larger sample<sup>5</sup>, 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<sup>6</sup> for 63<sup>2</sup> offenders targeted by the Community Justice Court (CJC) programme provided by at Plymouth Magistrates' Court was 0.98 offences per individual, compared with 0.92 per individual in the matched control group. Statistical significance testing has shown that this difference in the frequency of re-offending is not statistically significant<sup>7</sup>.

### **Time to re-offending**

The average time to the first re-offence within a year for the 26 individuals that were matched, and re-offended, after participating in the Community Justice Court (CJC) programme provided by at Plymouth Magistrates' Court was 114 days. This compares to 131 days for the 34,369 individuals who re-offended from the matched control group. Statistical significance testing has shown that this difference in the time to first re-offence within a year is not statistically significant<sup>8</sup>.

These results are 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

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<sup>5</sup> For the difference of the one year proven re-offending rates to be statistically significant for this report, a minimum size of 389 individuals participating in Community Justice Court (CJC) programme provided at Plymouth Magistrates' Court would need to be in the matched treatment group.

<sup>6</sup> The **frequency of one year proven re-offending** is defined as 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 one year follow-up or in a further six month waiting period. The one year follow-up period begins when offenders leave custody, start their court sentence, or from receipt of their caution.

<sup>7</sup> The p-value for this significance test was 0.74. Statistical significance testing is described on page 7 and 8 of this report.

<sup>8</sup> The p-value for this significance test was 0.37. Statistical significance testing is described on page 7 and 8 of this report.

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. alcohol, drugs, finance or housing) may have impacted participants' success in achieving the aims of the programme, and may also have a role in affecting their 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 at other interventions targeted at offenders that may have impacted re-offending behaviour. Therefore, there remains a possibility that any difference in re-offending behaviour after matching reflects differences in underlying characteristics between the two groups, which are not recorded in the data, rather than differences in re-offending behaviour.

In particular, in this analysis we have not been able to statistically control for certain characteristics which are known to be tackled through the problem solving intervention run by Plymouth Magistrates' Court, such as alcohol or drug use, finance or housing issues. It is also likely that individuals are selected to participate in the intervention, because they are known to have one or more of these specific issues. This means that the analysis should be interpreted with care, as these characteristics cannot currently be reflected in the control group.

In addition, it is possible that the final sentence received by an individual may have been affected by their participation and engagement within the problem solving intervention. For example; if an individual showed real progress and commitment to change during this session, the final sentence given by the Magistrates may have been impacted – for example by being more lenient if the individual participated fully. However, it is not clear how sentencing decisions may have been affected by an individual's attendance at this intervention, if at all. The analysis discussed in this report includes matching the treatment group to individuals who have received an equivalent sentence (for example, those who have received a conditional discharge are matched to individuals who received a conditional discharge also, and exhibit other similar characteristics); however if participation and engagement in this intervention affected sentencing, there is a chance that the overall match could be improved, if further information about sentencing decisions was made available and could be taken into account.

Many organisations that work with offenders will look to target specific needs of individuals; for example in this case improving housing or finance issues, or drug and alcohol use. 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 63 of the 91 offenders originally shared with the Ministry of Justice 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 participated in the Community Justice Court (CJC) programme provided by Plymouth Magistrates’ Court. 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 participated in the Community Justice Court (CJC) programme provided by Plymouth Magistrates’ Court, 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

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

	Treatment Group	Matched Control Group	Standardised Difference
<b>Number in group</b>	<b>63</b>	<b>106,808</b>	
<b>Ethnicity</b>			
White	100%	100%	<b>0</b>
<b>Nationality</b>			
UK Citizen	100%	100%	<b>0</b>
<b>Gender</b>			
Proportion that were male	63%	64%	<b>-2</b>
<b>Age</b>			
Mean age at Index Offence	30	30	<b>0</b>
Mean age at first contact with CJS	22	22	<b>0</b>
<b>Index Offence<sup>1</sup></b>			
Violent offences	51%	54%	<b>-6</b>
Theft	11%	12%	<b>-2</b>
Motoring offences	6%	6%	<b>1</b>
Criminal or malicious damage	3%	3%	<b>-1</b>
Drugs related <sup>2</sup>	25%	25%	<b>0</b>
<b>Type of Sentence</b>			
Community Order	27%	27%	<b>0</b>
Conditional Discharge	33%	33%	<b>0</b>
Fine	40%	40%	<b>0</b>
<b>Criminal History<sup>3</sup></b>			
Mean Copas Rate	-1.36	-1.36	<b>0</b>
Mean total previous offences	9	8	<b>1</b>
Mean previous criminal convictions	4	4	<b>1</b>
Mean previous custodial sentences	0.4	0.4	<b>1</b>
Mean previous court orders	1	1	<b>1</b>
<b>Employment and Benefit History</b>			
In P45 employment (year prior to conviction)	32%	32%	<b>0</b>
In P45 employment (month prior to conviction)	19%	19%	<b>-1</b>
Claiming Out of Work Benefits (year prior to conviction) <sup>4</sup>	7%	7%	<b>1</b>
Claiming Job Seekers Allowance (year prior to conviction)	38%	38%	<b>-1</b>
Claiming Incapacity Benefit and/or Income Support (year prior to conviction)	41%	41%	<b>1</b>
<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>			

**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%)**

We assess whether the treatment group and the matched control group are balanced and well matched through a comparison of the standardised differences generated for every variable included in the matching process. Table 1 shows that the two groups were well matched on 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 one variable which is amber is the proportion of individuals whose index offence was a violent offence, where the standardised difference was slightly higher, but we are still confident that the treatment and control groups exhibit similar characteristics overall.

## 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:

**Nicola Webb**

**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)

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