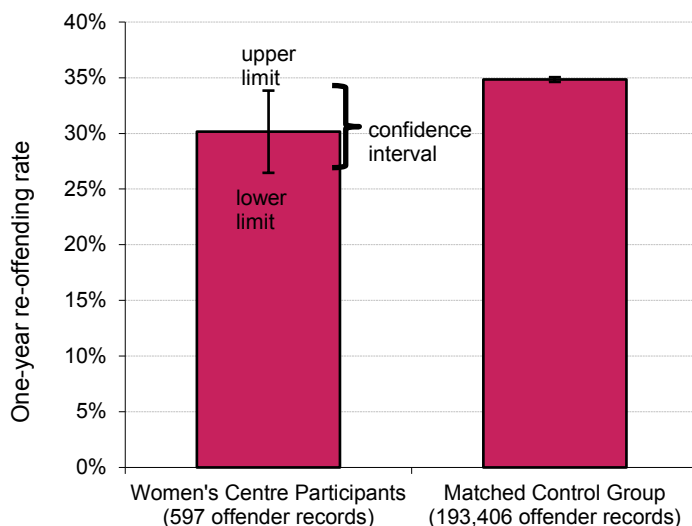# What is the Justice Data Lab?

The Justice Data Lab (JDL) is a **free service** that helps organisations working to reduce reoffending access Government re-offending data so they can better understand the impact of what they do. It is intended for Voluntary, Community and Social Enterprise (VCSE) organisations but is also available to the private and public sector.

To use it you simply need to provide details of offenders you have worked with to the Ministry of Justice (MoJ). In return you receive a report of the **re-offending rate**, **frequency of offending**, and **time to reoffending** for your group compared to a matched control group of offenders with similar characteristics. The difference in outcomes between the two groups is a measure of the impact of your programme that is almost certainly more powerful than any analysis you could conduct by yourself[1]. An example analysis is provided below:

Figure 1: Results of Women's Centres throughout England

The Women's Centre participants had an estimated re-offending rate of 30%, while the matched comparison group had a rate of 35%.

Through statistical testing, the difference between the re-offending rates for the Women's Centre and the comparison group were statistically significant. The confidence intervals (the lines drawn near the top of the bar chart) illustrate the boundaries within which an estimate of re-offending can be found. The true difference in re-offending between the two groups is therefore between one percentage point and nine percentage points.

Source: Ministry of Justice (2015) *Justice Data Lab Re-offending Analysis: Women's Centres throughout England*

This is a unique service. It is the first time anything like it has been available across government. It provides an **easy** and **free** mechanism for accessing data that will help you understand your impact and communicate it to funders / commissioners.

A number of organisations have used the data lab already. For example the Prison Education Trust (PET) have used it to an evaluation of their long distance learning grants. The results have enabled PET to re-negotiate funding with a commissioner are now being used to determine the economic benefit their grants provide.

This briefing provides a summary of how to use the Justice Data Lab and some of the issues you will need to consider. If you want to know more, we suggest looking at the MoJ's 'User Journey' document and other materials, which are available here:
http://www.justice.gov.uk/justice-data-lab

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[1] Level 3 on the NESTA standards of evidence:
http://www.nesta.org.uk/sites/default/files/standards_of_evidence.pdf

How can I use the Justice Data Lab?

To use the Data Lab you will need to supply details of at least 60 offenders that your organisation has worked with. We recommend that you submit a large a sample size as possible as this will make the analysis more powerful and increase the likelihood of showing impact. You can send details of people you have worked with as far back as 2002 – although if you do this you should also think about whether the services you provided were the same then as they are now. At the other end of the scale the latest date you can send data from is 2013.[2]

For each individual client/service-user, you will need to provide details of their; forename; surname; date of birth; gender; and - if possible - Police National Computer Identifier (PNCID) and/or Prison Number. You will also need to provide your **intervention start and end dates** and whether you worked with them in the community or custody. Any further data will also be useful (although page 18 of the 'User Journey' document highlights some variables seen as too sensitive or inappropriate). MoJ will use this data to find the offenders you have worked with on their database and ensure that they are excluded from the control group. Because this data is sensitive you will need to provide the it through a Criminal Justice Secure e mail address (CJSM), although this is relatively straightforward to set up.

You will also need to provide MoJ with information about the services you have provided. This is because the Justice Data Lab team want to know what is being evaluated and ensure the results are meaningful. A description of what this additional information should include is given on page 19 of the 'User Journey' document.

To begin the process you must complete the Data Upload Template on the MoJ webpage.[3] Once you have done this you will be able to discuss the ongoing process and details with Justice Data Lab team.

What will I get back from the Justice Data Lab?

Results from the Data Lab are provided in a short report, explaining the findings and any limitations to the analysis. It will also provide a profile of the offenders you have worked with by a range of variables such as age, gender, ethnicity, employment history, convictions etc.

For transparency the MoJ will publish all reports produced by the Justice Data Lab and use them to improve its own understanding of what works to prevent reoffending. You will be free to use the findings for your own purposes. The MoJ only asks that the reporting and interpretation remains accurate and that they are acknowledged as the source.

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[2] These are the dates at the time of writing. MoJ continually updates the latest date for which data can be submitted but there will always be approximately 19 months delay due to how reoffending is calculated (12 months are needed to enable a possible re-offence to took place, followed by a further six months for the offence to be processed in court, with a further month for IT systems to be updated)

[3] https://www.gov.uk/government/publications/justice-data-lab

Getting results from the Justice Data Lab takes around three weeks, although this might be longer if; your request is complex; your data needs cleaning; or if the Data Lab team are working at capacity. A further delay may occur if you need to apply for a Criminal Justice Secure email (CJSM) to send your data to MoJ in the first place. You may also need to spend time internally; to process your data before sending it to the Data Lab.

What are the limitations of the Justice Data Lab?

Because of confidentiality, outcome data will not be provided for individuals, only combined reconviction rates for groups of offenders. Currently only the re-offending rate, frequency of offending and time to reoffending are reported. However MOJ continues to expand the outcome measures available, for example severity of an offence.

Currently certain types of interventions cannot be tested through the Justice Data Lab. These include interventions that target severe mental health issues and substance abuse, as well as those focussed on sex offenders. This because of the difficulty in determining a reliable control group. These issues are discussed further on pages 11-12 of the 'User Journey' document. However, work is ongoing to link the current dataset with other datasets such as the Offender Assessment System (OASys), which would enable better matching for groups which are currently excluded.

Some organisations have expressed concern about confidentiality/data protection. MoJ have considered this and are satisfied that the Data Lab meets the necessary standards. In particular, they feel that because the purpose of Justice Data Lab is to test the effectiveness of interventions, the consent of individuals is not needed before their data is sent (although they do suggest that organisations take steps to satisfy themselves of this position). In addition, MoJ will ensure all individual data sent by organisations is permanently deleted. A detailed discussion of these issues is available in MoJ's Privacy Impact Assessment Report - available from the web address above.

The dataset used by MoJ is an extract of the Police National Computer, linked to other sources. It contains a wide range of variables relating to criminal history and previous offences, as well as the re-offending outcome. The comparison group is identified using a statistical approach called Propensity Score Matching. In short, drawing on as many variables as possible, a group of offenders with similar characteristics is defined, and their reconviction rate is used as the 'control group'. The weaknesses to the approach are; a) there may be other unknown variables that differentiate the treatment group from the control group; and b) individuals in the control group may themselves have received services/interventions which are not known about. However, it is important to stress that the control group is likely to have a much larger sample size than your 'treatment group' (because it is drawn from the full database). For this reason biases should be reduced to an acceptable level.

MoJ does encounter problems identifying individuals and specific sentences from the data they are sent by organisations. This has resulted in 'attrition', whereby the sample sizes are reduced; which is why we recommend sending as much information as possible.

If the sample size for your group of offenders is small then differences in outcomes to the control group may not be statistically significant. The report will highlight this and include a discussion about "what you can say" and "what you can't say" - based on the rates and statistics given. We have written a short paper to aid understanding of how to interpret an inconclusive result http://www.thinknpc.org/publications/understanding-statistical-significance/

What do NPC and Clinks think of the Justice Data Lab?

The Justice Data Lab has the potential, for the first time, to give VCSE organisations the opportunity to demonstrate what they achieve to a very high standard of evidence. This evidence could complement and greatly enhance your existing evaluation and fundraising activities at virtually no extra cost. We strongly encourage organisations to use the data lab now to ensure that the service continues to be available.

We also believe that submitting data to the Justice Data Lab demonstrates a commitment and ambition to both test and improve what you are doing. As such, it reflects our wider aim of helping VCSE organisations to examine their effectiveness and achieve the maximum positive effect for the people they support.

For further information read the MoJ's 'User Journey' document and other materials, which are available here: http://www.justice.gov.uk/justice-data-lab and visit the NPC www.npcdatalabs.org and Clinks website http://www.clinks.org/support-evaluation-and-effectiveness/demonstrating-outcomes