

**Local Adult Reoffending
1 October 2011 –
30 September 2012
England and Wales**

Ministry of Justice
Statistics bulletin

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Local Adult Re-offending

Introduction

Following a consultation, the Ministry of Justice (MOJ) has introduced a new measure of Proven Re-offending which provides consistent measures of re-offending at national and local levels¹.

The local adult re-offending measure remains a National Offender Management Service (NOMS) performance indicator for Probation Trusts for the year 2011/12. Therefore, we will continue to publish this legacy measure to support Probation Trusts in assessing their performance.

This bulletin contains re-offending data at the following geographic levels:

- Regions within England and Wales
- Probation Trusts
- Local Authorities²

It covers re-offending in the period 1 October 2011 to 30 September 2012.

These statistics are available via the Ministry of Justice website:

www.justice.gov.uk/statistics/reoffending/local-adult-reoffending

¹ For more information on the new measure of proven re-offending see www.justice.gov.uk/statistics/reoffending/proven-re-offending. More information explaining the differences between these two measures is available on request. See contact details at end of bulletin.

² “Local authorities” in this report, are unitary authorities in single-tier areas, or upper tier authorities (e.g. county councils) in two-tier areas.

Local Adult Re-offending

Key points

All statements on increases or decreases in re-offending rates in this section refer to comparisons with rates that have been adjusted to control for changes in the characteristics of offenders on the probation caseload³. The latest re-offending results are compared to the adjusted rate based on 2007/08 which is hereafter referred to as the baseline. The 2007/08 results covered re-offending between 1 April 2007 to 31 March 2008 and are the earliest published data on this measure.

- The North West and Wales regions had a statistically significant increase in re-offending compared to the baseline. Four regions had a statistically significant reduction in re-offending (London, North East, West Midlands and Yorkshire & Humberside)⁴.
- Seven Probation Trusts had a statistically significant increase in re-offending, whilst ten Probation Trusts showed a statistically significant reduction in re-offending.
- Fifteen local authorities had a statistically significant increase in re-offending, whilst thirty two⁵ local authorities showed a statistically significant reduction in re-offending.

Results for all regions, Probation Trusts and local authorities are available in Appendix A.

Trends in re-offending by area

The re-offending rates of individual areas over time have been tracked to assess whether any areas have seen clear trends in re-offending rates since the start of the series in the 2007/08 baseline. This analysis focuses on areas where re-offending has been significantly higher or lower than predicted over four or more consecutive periods.

Reductions in re-offending

At the regional level, London, West Midlands, and Yorkshire & Humberside have had re-offending rates which were consistently lower than predicted over the four most recent periods.

³ See Appendix B for more information on the predicted rate, which variables have been controlled for and why it is important to control for changes in offender characteristics.

⁴ Changes in re-offending performance are only reported where the changes are statistically significant (i.e. we are 95 per cent confident that the change is a real one, and not due to random volatility in the datasets).

⁵ This includes the Isles of Scilly whose re-offending rate is based on a very small cohort size.

Within the London region, Bromley and Newham local authorities have had re-offending rates which were consistently lower than predicted.

Within the West Midlands region, Staffordshire and West Midlands, and Warwickshire Probation Trusts and Birmingham, Coventry, Dudley, Sandwell and Warwickshire local authorities have had re-offending rates which were consistently lower than predicted.

For the Yorkshire and Humberside region, South Yorkshire and West Yorkshire Probation Trusts and Barnsley, Bradford, Doncaster, Kirklees, Rotherham, and Sheffield local authorities have had re-offending rates which were consistently lower than predicted.

The Isles of Scilly⁶ local authority has had a re-offending rate which was consistently lower than predicted.

Increases in re-offending

At the regional level, the North West and Wales has had re-offending rates which were consistently higher than predicted over the four most recent periods.

Within the North West region, Bolton, Lancashire and Tameside local authorities have had re-offending rates which were consistently higher than predicted.

Within the Wales region, Carmarthenshire and Rhondda Cynon Taff local authorities have had re-offending rates which were consistently higher than predicted.

Hertfordshire, Surrey and Sussex, and Avon and Somerset Probation Trusts have had re-offending rates which were consistently higher than predicted.

Within Hertfordshire Probation Trust, Hertfordshire local authority has had a re-offending rate which was consistently higher than predicted.

Within Avon and Somerset Probation Trust, Somerset local authority has had a re-offending rate which was consistently higher than predicted.

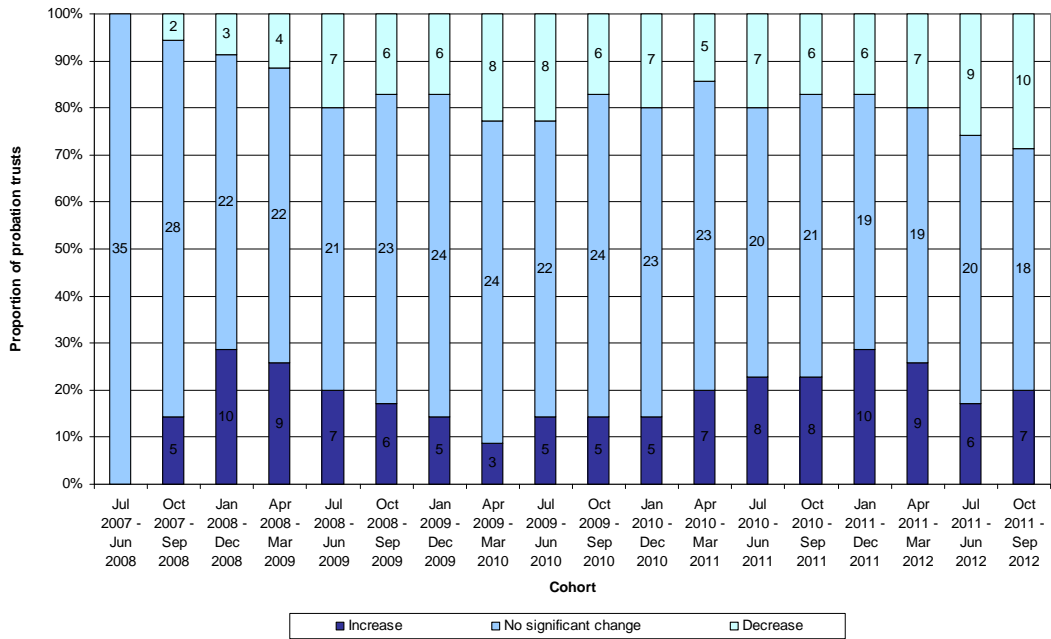
Hammersmith and Fulham and City of Kingston upon Hull local authorities have also had re-offending rates which were consistently higher than predicted.

⁶ The re-offending rate for the Isles of Scilly is based on a very small cohort size.

Trends since 2007/08

Chart 1 shows the proportion of Probation Trusts that have seen increases/decreases/no significant change over each of the 18 quarters since the baseline. For the most recent quarter, 20 per cent of Trusts (seven Trusts) show an increase and 29 per cent (ten Trusts) show a decrease⁷.

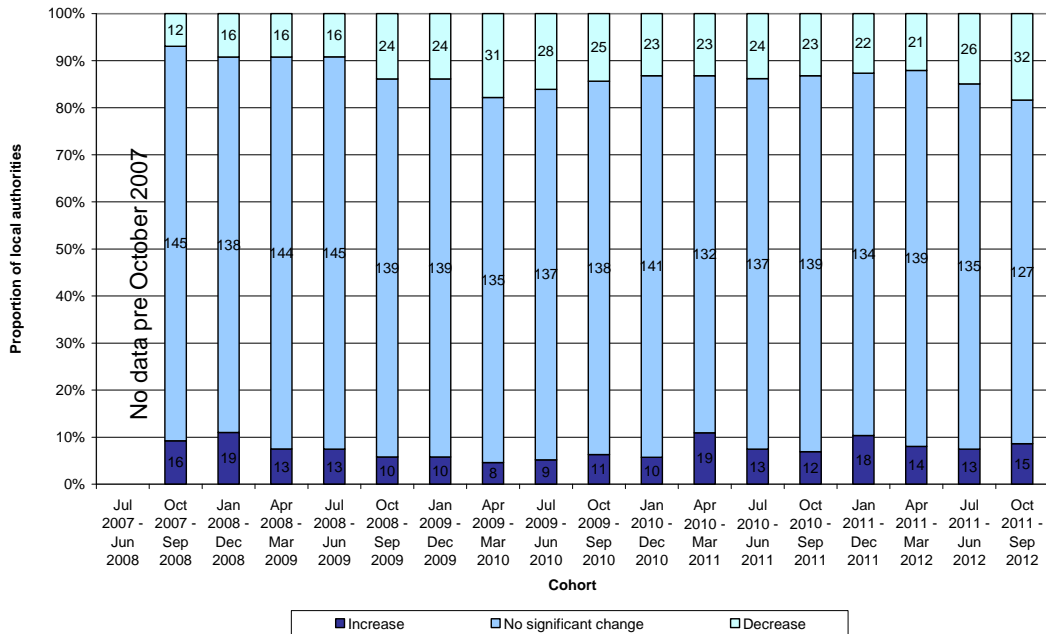
Chart 1: Proportion of Probation Trusts with increases/decreases/no change in re-offending, July 2007 – September 2012



⁷ Note that these percentages should not be directly compared to those in reports published prior to 16 November 2010 which were based on the former 42 Probation Areas.

Chart 2 presents the same information for local authorities⁸. For the most recent quarter, the proportion showing an increase was nine per cent (15 local authorities) and the proportion showing a decrease 18 per cent (32 local authorities).

Chart 2: Proportion of local authorities with increases/decreases/no change in re-offending, October 2007 – September 2012



Comparing re-offending rates between areas

Comparing changes in the actual rates of re-offending between areas does not ensure a like for like comparison as the mix of offenders being dealt with may vary across areas and over time.

In comparing reductions in re-offending between areas, it is important that comparisons are made on the basis of the reduction in re-offending after controlling for changes in the characteristics of offenders on the caseload and taking into account the size of the caseload in each area⁹.

⁸ Data for periods prior to October 2007 cannot be broken down to the local authority level.

⁹ Column titled '% difference from baseline' in data tables in Appendix A.

Explanatory notes

Which offenders are included in the analysis?

The local adult re-offending measure takes a snapshot of all offenders, aged 18 or over, who are under probation supervision at the end of a quarter, and combines four such snapshots together.

This means that the measure includes offenders who have been under supervision in the community (either on licence after release from custody or on a court order) for a range of time from one day to a number of years. However, the measure does not include offenders aged 22 or over who have been released from a custodial sentence of less than one year (as they do not receive probation supervision on release).

This also means that some offenders will be included in the sample more than once by combining four snapshots, as offenders can remain under probation supervision for a number of quarters.

Methodology for measuring re-offending

The local adult re-offending measure counts the proportion of offenders who re-offend in a three month period, and compares this to the proportion expected to re-offend given their characteristics. The results of four snapshots are then combined to form a rolling four quarter average. Each quarterly update will include the latest available quarter, and remove the oldest quarter.

Why are the results being compared to 2007/08 results (the baseline)?

The 2007/08 results were used to build the predictive rate model, which allow comparisons to be made across time, controlling for changes in the mix of offenders in the caseload. The 2007/08 results are also the first available for this measure. For more information on the predictive rate model please see Appendix B.

What counts as a re-offence?

The local measure allows three months from each snapshot for re-offending to occur (with a further three months for offences to be proven by court conviction or caution). Analysis has shown that re-offending over three months is representative of re-offending over twelve months for most offences, but is not representative for more serious offences which take longer to work through the criminal justice system.

The measure includes recordable offences, as entered on the Police National Computer (PNC), which are proven by either court convictions or cautions.

The predicted rate

The predicted rate is the proportion of offenders we would expect to re-offend given the known characteristics of the offenders in the snapshot and re-offending rates in the baseline period. More detail on the predicted rate, and the statistical model used to calculate it, is provided in Appendix B.

Assigning offenders to Probation Trusts and local authorities

Offenders are assigned to a Probation Trust based on where they are recorded on each Trust's Caseload Management System. In a small number of cases (less than one per cent), offenders cannot be assigned to a single Probation Trust as they are recorded under more than one Probation Trust at the end of a quarter. They are therefore classified as having an unknown Probation Trust, and only counted towards the England and Wales level data.

Offenders' postcode information is used to assign them to a local authority (98 to 99 per cent of offenders can be assigned to a local authority). Those offenders that do not have any relevant address information are not matched to a local authority and are included under the heading of unknown local authority (shown at the end of Table 4).

A small proportion of offenders (roughly one per cent) have a postcode that is in a local authority area outside the Probation Trust which supervises them.

Probation Trusts

On 1 April 2010, 27 new Probation Trusts were established following a rigorous formal application process, resulting in all 42 former Probation Boards having been replaced by 35 Probation Trusts¹⁰.

As part of these changes, a number of former Probation Boards were involved in mergers to become Probation Trusts. This publication covers a reporting period (1 October 2011 to 30 September 2012) which was after the mergers came into effect.

For more information on the move from Probation Boards to Probation Trusts please see www.opsi.gov.uk/si/si2010/uksi_20100195_en_1.

Data sources and quality

The data presented in this bulletin are drawn from Probation Caseload Management systems and the Ministry of Justice extract of the PNC. Although care is taken when processing and analysing the returns, the detail collected is subject to the inaccuracies inherent in any large-scale recording system. While the figures shown have been checked as far as practicable, they should be regarded as approximate and, therefore, have been rounded to two decimal places.

¹⁰ The first six Probation Trusts were established from 1 April 2008 and a further two were established from 1 April 2009 under powers of the Offender Management Act 2007.

This bulletin covers all offenders who are on the probation caseload and are at risk of re-offending. Offenders who are recorded as being in custody at the end of each quarter are excluded from the analysis. However, offenders who have entered custody during this three month follow up period cannot be identified in the dataset and are, therefore, included in these figures.

Revisions policy

The local adult re-offending results are not subject to routine revisions.

Whilst the PNC is a live system and the Ministry of Justice extract is updated on a weekly basis, the local adult re-offending results are produced using snapshots of this database at the end of each quarter. We do not, therefore, update the results to reflect later updates to the database.

Revisions will only be made in the case of methodological change (on which we would consult in advance) or errors in the dataset (which will be corrected at the first available opportunity). In both cases, any revisions would be clearly explained in the report and accompanying tables showing the old and revised data would be included.

Contact points for further information

Current and previous editions of this publication are available for download at www.justice.gov.uk/statistics/reoffending/local-adult-reoffending. Spreadsheet files of the tables contained in this document are also available for download from this address.

Reports are published on a quarterly basis. The next report will cover reoffending in the period 1 January 2012 to 31 December 2012.

Press enquiries should be directed to the Ministry of Justice press office:

Tel: 020 3334 3536

Email: newsdesk@justice.gsi.gov.uk

Other enquiries about these statistics should be directed to:

Re-offending Statistics
Ministry of Justice 7/B
102 Petty France
London SW1H 9AJ

General enquiries about the statistical work of the Ministry of Justice can be e-mailed to: statistics.enquiries@justice.gsi.gov.uk.

General information about the official statistics system of the UK is available from www.statistics.gov.uk.

Appendix A – Main results

Table 1: Local Adult Re-offending rates, all offenders on the probation caseload in England and Wales^{11,12}

Re-offending period covered	Cohort size (combining four quarters of probation caseload data)	Actual rate of re-offending	Predicted rate of re- offending	% difference from baseline
April 1 2007 to March 31 2008 (<i>baseline period</i>)	685,873	9.82%	9.82%	0.00%
July 1 2007 to June 30 2008	690,049	9.84%	9.81%	0.31%
October 1 2007 to September 30 2008	692,330	9.88%	9.83%	0.56%
January 1 2008 to December 31 2008	691,588	9.95%	9.86%	0.91%
April 1 2008 to March 31 2009	691,638	9.98%	9.92%	0.57%
July 1 2008 to June 30 2009	691,517	9.93%	9.98%	-0.52%
October 1 2008 to September 30 2009	690,994	9.87%	10.02%	-1.46%
January 1 2009 to December 31 2009	691,261	9.82%	10.02%	-2.03%
April 1 2009 to March 31 2010	688,616	9.71%	10.00%	-2.88%
July 1 2009 to June 30 2010	683,540	9.70%	9.96%	-2.60%
October 1 2009 to September 30 2010	677,654	9.77%	9.91%	-1.47%
January 1 2010 to December 31 2010	671,716	9.75%	9.89%	-1.34%
April 1 2010 to March 31 2011	667,469	9.82%	9.86%	-0.39%
July 1 2010 to June 30 2011	663,340	9.81%	9.85%	-0.45%
October 1 2010 to September 30 2011	658,596	9.77%	9.84%	-0.70%
January 1 2011 to December 31 2011	652,735	9.84%	9.84%	-0.01%
April 1 2011 to March 31 2012	645,384	9.83%	9.82%	0.03%
July 1 2011 to June 30 2012	639,429	9.66%	9.81%	-1.55%
October 1 2011 to September 30 2012	632,396	9.54%	9.78%	-2.48%

¹¹ The number of offenders is the sum of the number of offenders from the four snapshots who could be matched to the PNC. Therefore, many offenders will be included more than once. For the purposes of measuring re-offending they are considered separately for each snapshot in which they are included. This number is not the number of offenders on the probation caseload at a point in time, as it reflects the aggregation of four quarters of data.

¹² Data in bold illustrate that the change in re-offending from the baseline is statistically significant.

Table 2: Local Adult Re-offending rates, all offenders on licence under probation supervision, England and Wales^{13,14}

Re-offending period covered	Cohort size (combining four quarters of probation caseload data)	Actual rate of re-offending	Predicted rate of re- offending	% difference from baseline
April 1 2007 to March 31 2008 (<i>baseline period</i>)	102,721	8.22%	8.22%	0.00%
July 1 2007 to June 30 2008	106,840	8.37%	8.24%	1.51%
October 1 2007 to September 30 2008	111,402	8.63%	8.28%	4.24%
January 1 2008 to December 31 2008	114,614	8.69%	8.24%	5.45%
April 1 2008 to March 31 2009	118,112	8.78%	8.24%	6.50%
July 1 2008 to June 30 2009	120,290	8.67%	8.16%	6.18%
October 1 2008 to September 30 2009	122,255	8.44%	8.06%	4.71%
January 1 2009 to December 31 2009	125,000	8.31%	7.95%	4.60%
April 1 2009 to March 31 2010	127,724	8.15%	7.84%	4.07%
July 1 2009 to June 30 2010	130,074	8.01%	7.72%	3.75%
October 1 2009 to September 30 2010	132,180	7.93%	7.61%	4.19%
January 1 2010 to December 31 2010	134,168	7.81%	7.52%	3.82%
April 1 2010 to March 31 2011	136,532	7.72%	7.47%	3.29%
July 1 2010 to June 30 2011	139,235	7.66%	7.42%	3.23%
October 1 2010 to September 30 2011	142,090	7.61%	7.36%	3.43%
January 1 2011 to December 31 2011	145,233	7.64%	7.34%	4.06%
April 1 2011 to March 31 2012	147,880	7.60%	7.26%	4.66%
July 1 2011 to June 30 2012	150,985	7.47%	7.23%	3.36%
October 1 2011 to September 30 2012	153,850	7.35%	7.20%	2.08%

¹³ The number of offenders is the sum of the number of offenders from the four snapshots who could be matched to the PNC. Therefore, many offenders will be included more than once. For the purposes of measuring re-offending they are considered separately for each snapshot in which they are included. This number is not the number of offenders on the probation caseload at a point in time, as it reflects the aggregation of four quarters of data.

¹⁴ Data in bold illustrate that the change in re-offending from the baseline is statistically significant.

Table 3: Local Adult Re-offending rates, all offenders on court orders under probation supervision, England and Wales^{15,16}

Re-offending period covered	Cohort size (combining four quarters of probation caseload data)	Actual rate of re-offending	Predicted rate of re- offending	% difference from baseline
April 1 2007 to March 31 2008 (baseline period)	583,152	10.10%	10.10%	0.00%
July 1 2007 to June 30 2008	583,209	10.11%	10.10%	0.14%
October 1 2007 to September 30 2008	580,928	10.12%	10.12%	-0.02%
January 1 2008 to December 31 2008	576,974	10.20%	10.18%	0.18%
April 1 2008 to March 31 2009	573,526	10.23%	10.27%	-0.41%
July 1 2008 to June 30 2009	571,227	10.19%	10.36%	-1.64%
October 1 2008 to September 30 2009	568,739	10.18%	10.44%	-2.49%
January 1 2009 to December 31 2009	566,261	10.15%	10.48%	-3.14%
April 1 2009 to March 31 2010	560,892	10.07%	10.50%	-4.07%
July 1 2009 to June 30 2010	553,466	10.10%	10.49%	-3.70%
October 1 2009 to September 30 2010	545,474	10.21%	10.47%	-2.47%
January 1 2010 to December 31 2010	537,548	10.24%	10.48%	-2.27%
April 1 2010 to March 31 2011	530,937	10.37%	10.48%	-1.07%
July 1 2010 to June 30 2011	524,105	10.38%	10.50%	-1.15%
October 1 2010 to September 30 2011	516,506	10.36%	10.52%	-1.49%
January 1 2011 to December 31 2011	507,502	10.47%	10.55%	-0.82%
April 1 2011 to March 31 2012	497,504	10.49%	10.59%	-0.92%
July 1 2011 to June 30 2012	488,444	10.34%	10.61%	-2.58%
October 1 2011 to September 30 2012	478,546	10.24%	10.61%	-3.47%

¹⁵ The number of offenders is the sum of the number of offenders from the four snapshots who could be matched to the PNC. Therefore, many offenders will be included more than once. For the purposes of measuring re-offending they are considered separately for each snapshot in which they are included. This number is not the number of offenders on the probation caseload at a point in time, as it reflects the aggregation of four quarters of data.

¹⁶ Data in bold illustrate that the change in re-offending from the baseline is statistically significant.

Detailed tables

Hypothetical examples to illustrate how re-offending rates relate to numbers of re-offenders

For an area with a caseload of 10,000 offenders:

A 10 per cent re-offending rate means that 1,000 offenders (out of the 10,000) re-offended.

An 11 per cent re-offending rate means that 1,100 offenders (out of the 10,000) re-offended.

An increase from the baseline of 10 per cent (assuming predicted rate of 10 per cent, and actual rate of 11 per cent) for a caseload of 10,000 would mean that there were 100 re-offenders more than was predicted.

For an area with a caseload of 5,000 offenders:

A 10 per cent re-offending rate means that 500 offenders (out of the 5,000) re-offended.

A 9.5 per cent re-offending rate means that 475 offenders (out of the 5,000) re-offended.

A decrease from the baseline of five per cent (assuming predicted rate of 10 per cent, and actual rate of 9.5 per cent) for a caseload of 5,000 would mean that there were 25 re-offenders fewer than predicted.

Table 4: Local Adult Re-offending rates for 1 October 2011 to 30 September 2012, at the Regional, Probation Trust and local authority level of disaggregation

Where data in the ‘% difference from baseline’ column is in bold, this indicates that the change is statistically significant at the 95 per cent level.

Data in this table have been formatted so that regional data are left aligned, Probation Trust data centre aligned, and local authority data right aligned in each cell to assist users in viewing the data (this data is also available in Excel format and is available from www.justice.gov.uk/statistics/reoffending/local-adult-reoffending).

Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
East Midlands			50018	8.76%	9.03%	-2.94%
	Derbyshire		10666	7.79%	7.74%	0.71%
		Derby	3661	8.19%	8.06%	1.70%
		Derbyshire	6950	7.51%	7.61%	-1.29%
	Leicestershire		10392	8.27%	7.93%	4.18%
		Leicester	5562	8.70%	8.20%	6.13%
		Leicestershire	4606	7.88%	7.74%	1.76%
		Rutland	164	4.27%	5.18%	-17.62%

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Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
	Lincolnshire		6103	9.04%	8.93%	1.31%
		Lincolnshire	6100	8.98%	8.91%	0.85%
	Northamptonshire		8384	6.74%	7.53%	-10.56%
		Northamptonshire	8289	6.73%	7.54%	-10.69%
	Nottinghamshire		14473	10.89%	11.67%	-6.71%
		Nottingham	6608	11.06%	11.71%	-5.57%
		Nottinghamshire	7711	10.53%	11.55%	-8.81%
East of England			54606	9.56%	9.32%	2.55%
	Bedfordshire		6033	8.07%	8.52%	-5.22%
		Bedford ¹⁹	1,980	9.34%	8.78%	6.37%
		Central ¹⁹ Bedfordshire	1,601	6.87%	7.88%	-12.77%
		Luton	2563	7.92%	8.79%	-9.93%
	Cambridgeshire and Peterborough		8268	9.94%	10.23%	-2.80%
		Cambridgeshire	4758	10.05%	10.12%	-0.74%

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Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
		Peterborough	3321	9.64%	10.29%	-6.32%
	Essex		16944	9.14%	9.42%	-3.02%
		Essex	12532	9.19%	9.28%	-0.97%
		Southend-on-Sea	2399	9.84%	10.61%	-7.26%
		Thurrock	1973	8.06%	9.40%	-14.23%
	Hertfordshire		10606	8.98%	7.76%	15.72%
		Hertfordshire	10119	9.00%	7.81%	15.24%
	Norfolk and Suffolk		12,755	11.07%	10.29%	7.58%
		Norfolk	6903	11.18%	10.79%	3.66%
		Suffolk	5645	10.86%	9.65%	12.53%
London			96171	8.07%	8.71%	-7.36%
		Barking and Dagenham	2914	7.48%	9.13%	-18.06%
		Barnet	2500	6.20%	7.86%	-21.16%

Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
		Bexley	2189	6.85%	7.85%	-12.70%
		Brent	3761	8.40%	7.94%	5.81%
		Bromley	2909	6.43%	8.08%	-20.47%
		Camden	2127	10.16%	10.29%	-1.28%
		City of London	38	13.16%	8.56%	53.75%
		Croydon	4843	8.05%	9.41%	-14.44%
		Ealing	3751	8.10%	8.21%	-1.27%
		Enfield	3543	7.23%	7.88%	-8.36%
		Greenwich	3597	7.65%	8.71%	-12.22%
		Hackney	3783	8.01%	8.60%	-6.84%
		Hammersmith and Fulham	2300	12.91%	10.76%	20.04%
		Haringey	3972	8.11%	8.52%	-4.85%
		Harrow	1560	7.56%	7.40%	2.26%
		Havering	1977	6.27%	7.89%	-20.47%
		Hillingdon	2704	7.77%	8.29%	-6.31%

Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
		Hounslow	3167	9.73%	9.59%	1.43%
		Islington	2774	10.92%	9.83%	11.08%
		Kensington and Chelsea	1388	10.88%	9.71%	12.05%
		Kingston upon Thames	965	7.77%	8.87%	-12.41%
		Lambeth	4914	8.47%	9.09%	-6.88%
		Lewisham	4606	8.01%	9.21%	-13.04%
		Merton	1824	7.62%	8.11%	-6.08%
		Newham	5077	7.48%	8.29%	-9.74%
		Redbridge	3047	6.76%	7.90%	-14.45%
		Richmond upon Thames	1011	7.12%	7.85%	-9.23%
		Southwark	4403	7.02%	8.51%	-17.52%
		Sutton	1788	8.56%	9.15%	-6.48%
		Tower Hamlets	3600	8.58%	9.46%	-9.30%
		Waltham Forest	3449	6.47%	7.78%	-16.92%

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Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
		Wandsworth	2794	7.98%	8.80%	-9.32%
		Westminster	1752	9.53%	10.31%	-7.53%
North East			40123	14.14%	14.87%	-4.88%
	Durham Tees Valley		19,645	14.14%	14.80%	-4.48%
		Darlington	1942	12.98%	14.28%	-9.15%
		Durham	6434	12.62%	12.99%	-2.85%
		Hartlepool	1885	17.56%	16.68%	5.29%
		Middlesbrough	3742	16.44%	17.21%	-4.51%
		Redcar and Cleveland	2481	13.74%	15.14%	-9.20%
		Stockton-on-Tees	3093	13.13%	14.41%	-8.89%
	Northumbria		20478	14.15%	14.94%	-5.26%
		Gateshead	2934	13.67%	14.01%	-2.47%
		Newcastle-upon- Tyne	4840	16.26%	16.65%	-2.36%

Local Adult Reoffending – 1 October 2011 – 30 September 2012

Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
		North Tyneside	2546	14.57%	14.41%	1.16%
		Northumberland	3063	11.49%	12.83%	-10.43%
		South Tyneside	2229	13.41%	14.53%	-7.65%
		Sunderland	4830	13.95%	15.51%	-10.04%
North West			99067	9.71%	9.50%	2.26%
	Cheshire		9707	9.16%	8.55%	7.08%
		Cheshire East	2654	9.08%	8.17%	11.12%
		Cheshire West and Chester	3202	9.06%	8.98%	0.85%
		Halton	1638	8.30%	7.94%	4.56%
		Warrington	2188	9.69%	8.92%	8.66%
	Cumbria		5282	10.92%	11.59%	-5.74%
		Cumbria	5273	11.04%	11.60%	-4.87%
	Greater Manchester		42443	9.50%	9.38%	1.30%

Local Adult Reoffending – 1 October 2011 – 30 September 2012

Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
		Bolton	3897	10.75%	9.51%	13.10%
		Bury	2421	9.91%	8.51%	16.48%
		Manchester	11689	9.43%	9.79%	-3.73%
		Oldham	3443	8.95%	9.26%	-3.34%
		Rochdale	3492	8.71%	9.21%	-5.52%
		Salford	4946	9.04%	9.17%	-1.49%
		Stockport	3106	7.92%	8.76%	-9.59%
		Tameside	2998	11.64%	10.18%	14.41%
		Trafford	2494	9.26%	8.79%	5.37%
		Wigan	3642	9.58%	9.04%	6.02%
	Lancashire		20952	11.30%	10.54%	7.15%
		Blackburn with Darwen	3110	9.61%	9.76%	-1.46%
		Blackpool	3889	11.67%	10.90%	7.07%
		Lancashire	14008	11.54%	10.62%	8.65%

Local Adult Reoffending – 1 October 2011 – 30 September 2012

Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
	Merseyside		20683	8.48%	8.58%	-1.19%
		Knowsley	2410	6.51%	7.90%	-17.59%
		Liverpool	9439	8.79%	8.84%	-0.48%
		St Helens	2027	8.83%	8.79%	0.49%
		Sefton	2838	7.58%	7.56%	0.21%
		Wirral	3958	9.25%	9.03%	2.45%
South East			69777	9.40%	9.35%	0.55%
	Hampshire		17333	10.51%	10.67%	-1.51%
		Hampshire	9188	9.80%	10.10%	-3.04%
		Isle of Wight	1516	12.53%	10.88%	15.15%
		Portsmouth	2629	12.29%	12.29%	-0.07%
		Southampton	3767	10.14%	10.82%	-6.25%
	Kent		16502	8.97%	8.66%	3.65%
		Kent	13337	8.92%	8.62%	3.55%
		Medway	3142	9.10%	8.90%	2.26%

Local Adult Reoffending – 1 October 2011 – 30 September 2012

Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
	Surrey and Sussex		18,312	9.27%	8.78%	5.59%
		Brighton and Hove	3005	9.65%	9.10%	6.04%
		East Sussex	4158	8.35%	8.27%	0.88%
		Surrey	6059	9.19%	8.79%	4.63%
		West Sussex	5173	9.47%	8.78%	7.88%
	Thames Valley		17630	8.83%	9.28%	-4.80%
		Bracknell Forest	925	8.00%	9.01%	-11.17%
		Buckinghamshire	3086	6.97%	7.85%	-11.27%
		Milton Keynes	2412	10.20%	10.12%	0.74%
		Oxfordshire	3530	9.86%	10.33%	-4.57%
		Reading	2250	8.93%	9.83%	-9.15%
		Slough	2479	8.51%	8.47%	0.52%
		West Berkshire	1012	9.88%	10.47%	-5.63%
		Windsor and Maidenhead	1099	7.92%	8.62%	-8.17%

Local Adult Reoffending – 1 October 2011 – 30 September 2012

Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
		Wokingham	788	7.36%	7.76%	-5.09%
South West			41867	9.62%	9.40%	2.33%
	Avon and Somerset		16990	10.59%	9.99%	5.97%
		Bath and N.E. Somerset	1408	8.74%	9.63%	-9.32%
		City of Bristol	7691	10.67%	10.60%	0.70%
		North Somerset	1714	9.68%	9.67%	0.14%
		Somerset	4075	12.81%	10.17%	26.01%
		South Gloucestershire	1919	8.08%	7.88%	2.47%
	Devon and Cornwall		10954	8.86%	8.78%	0.94%
		Cornwall	2911	7.73%	7.85%	-1.58%
		Devon	3598	8.59%	8.74%	-1.73%
		<i>Isles of Scilly</i> ²⁰	4	*	*	*
		Plymouth	2898	10.32%	9.48%	8.83%

Local Adult Reoffending – 1 October 2011 – 30 September 2012

Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
		Torbay	1516	9.43%	9.57%	-1.39%
	Dorset		4949	8.10%	9.00%	-9.95%
		Bournemouth	2163	8.32%	9.39%	-11.33%
		Dorset	1851	7.78%	8.19%	-5.03%
		Poole	981	8.46%	9.79%	-13.54%
	Gloucestershire		4731	8.94%	9.43%	-5.16%
		Gloucestershire	4696	9.07%	9.48%	-4.35%
	Wiltshire		4243	10.25%	9.11%	12.57%
		Swindon	1654	11.97%	9.93%	20.54%
		Wiltshire	2462	9.10%	8.55%	6.42%
Wales			41700	11.14%	10.71%	4.10%
		Blaenau Gwent	1095	10.59%	11.20%	-5.38%
		Bridgend	2281	10.83%	9.45%	14.64%
		Caerphilly	1999	10.41%	9.91%	4.96%
		Cardiff	6727	11.31%	11.59%	-2.40%

Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
		Carmarthenshire	1939	14.65%	11.31%	29.54%
		Ceredigion	512	8.20%	8.92%	-8.09%
		Conwy	1191	9.57%	10.47%	-8.58%
		Denbighshire	1206	8.29%	9.44%	-12.20%
		Flintshire	1546	9.12%	8.95%	1.92%
		Gwynedd	1466	9.00%	11.58%	-22.24%
		Isle of Anglesey	759	11.59%	10.12%	14.61%
		Merthyr Tydfil	1145	10.74%	10.58%	1.53%
		Monmouthshire	604	12.75%	11.30%	12.78%
		Neath Port Talbot	1720	8.43%	9.22%	-8.57%
		Newport	2619	14.78%	12.80%	15.47%
		Pembrokeshire	1046	9.08%	10.12%	-10.29%
		Powys	1150	10.96%	10.08%	8.64%
		Rhondda, Cynon, Taff	4068	10.74%	9.63%	11.52%
		Swansea	3586	10.49%	10.47%	0.14%

Local Adult Reoffending – 1 October 2011 – 30 September 2012

Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
		Torfaen	963	13.71%	11.26%	21.71%
		The Vale of Glamorgan	1592	11.87%	10.84%	9.54%
		Wrexham	2276	12.61%	12.17%	3.65%
West Midlands			68651	7.71%	8.64%	-10.78%
	Staffordshire and West Midlands		53,897	7.27%	8.36%	-13.11%
		Birmingham	18966	6.66%	8.10%	-17.76%
		Coventry	4996	7.53%	8.86%	-15.06%
		Dudley	3052	5.18%	7.48%	-30.82%
		Sandwell	4593	6.12%	7.63%	-19.84%
		Solihull	1881	7.07%	8.28%	-14.65%
		Staffordshire	7857	7.71%	7.83%	-1.50%
		Stoke-on-Trent	4461	10.40%	10.06%	3.35%
		Walsall	3672	8.03%	9.25%	-13.14%
		Wolverhampton	3946	7.48%	8.61%	-13.20%

Local Adult Reoffending – 1 October 2011 – 30 September 2012

Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
	Warwickshire		4526	7.71%	9.54%	-19.20%
		Warwickshire	4513	7.87%	9.52%	-17.38%
	West Mercia		10228	10.04%	9.71%	3.42%
		Herefordshire	1432	11.73%	11.30%	3.83%
		Shropshire	1761	8.97%	9.16%	-2.00%
		Telford and Wrekin	1547	8.53%	9.01%	-5.32%
		Worcestershire	5550	10.09%	9.57%	5.42%
Yorkshire and Humberside			67,115	10.15%	10.86%	-6.62%
	Humberside		11914	11.53%	10.94%	5.43%
		East Riding of Yorkshire	2178	8.63%	8.88%	-2.79%
		City of Kingston upon Hull	4840	13.55%	11.77%	15.17%
		North East Lincolnshire	2590	12.43%	12.44%	-0.05%
		North Lincolnshire	2281	8.94%	9.40%	-4.83%

Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
	York and North Yorkshire		6529	10.32%	10.82%	-4.62%
		North Yorkshire	4601	9.58%	10.15%	-5.56%
		York	1905	12.13%	12.41%	-2.26%
	South Yorkshire		17624	10.04%	11.50%	-12.73%
		Barnsley	3116	9.92%	11.12%	-10.82%
		Doncaster	4619	11.00%	12.21%	-9.89%
		Rotherham	3052	8.94%	10.93%	-18.17%
		Sheffield	6587	9.81%	11.44%	-14.30%
	West Yorkshire		31048	9.64%	10.48%	-8.07%
		Bradford	7728	8.77%	9.92%	-11.60%
		Calderdale	2567	9.82%	10.68%	-8.06%
		Kirklees	4809	8.19%	10.02%	-18.25%
		Leeds	11979	10.61%	10.98%	-3.37%
		Wakefield	3906	9.98%	10.45%	-4.44%

Region	Probation Trust	Local Authority	Cohort size (combining four quarters of probation caseload data) ¹⁷	Actual rate of re- offending	Predicted rate of re-offending	% difference from baseline (2007/08 results) ¹⁸
	Unknown Probation Trust		3,301	10.18%	10.86%	-6.26%
		Unknown local authority	7,572	11.62%	10.51%	10.55%

¹⁷ Note that data will not exactly aggregate from the local authority level to the Probation Trust level, as there are a small (roughly one per cent) number of offenders who could not be assigned to a local authority as they have no postcode data. There are also a small (again roughly one per cent) number of offenders whose postcode is in a local authority which is not in the probation trust where they are on the caseload.

¹⁸ Data in bold illustrate that the change in re-offending from the baseline is statistically significant.

¹⁹ Formerly Bedford and Central Bedfordshire were both part of Bedfordshire Local Authority.

²⁰ Data for the Isles of Scilly are based on only four offenders and have only been included for completeness in covering all Local Area Agreements. The actual and predicted rates have been removed as they are unreliable for interpretation due to the small number of offenders.

Appendix B – Explanation of the Predicted Rate and Statistical Significance

Introduction to the predicted rate

The characteristics of offenders are likely to be systematically different over time, and the Criminal Justice System aims to target particular sentences to offenders with the greatest likelihood to benefit most from that type. It is, therefore, important to note that one can neither reach firm conclusions about changes in rates over time, nor about the relative effectiveness of different sentence types, from actual re-offending rates.

The Ministry of Justice has used as a basis for this local re-offending predicted model, the work done for the National Statistics on re-offending.

Predicted or expected (yes/no) rates (see Lloyd et al., 1994, for a discussion) are used to take account of some of the differences in characteristics of offenders. Accordingly they can give a more meaningful measure of the change that has occurred in the rate of re-offending than can be obtained using the actual (yes/no) rates. If the composition of the groups of offenders being compared differs significantly over a time period, so that the type of offenders in one rolling four quarter dataset is inherently more (or less) likely to re-offend, this may result in a spurious rise or fall in the actual (yes/no) rates even when there may be no 'real' difference for similar offenders over that time. Hence the actual (yes/no) rates should be compared with the expected rates using a model based on data from an earlier period (baseline). Changes in re-offending rates should be measured by comparing the actual rate with the rate that would be expected given this group of offenders.

Statistical model

The local adult re-offending statistical model is an adaption of the 2005 logistic regression model as outlined above and includes a range of offender characteristics available on the PNC, such as age, gender, offence group and criminal history. However, research has shown that other factors, for which data on these samples are not available, such as drug and alcohol use, employment, accommodation and marital background are likely to be significantly related to re-offending (see, for example, May, C. 1999).

The logistic regression model behind the local adult re-offending predicted rate provides a probability of re-offending for each offender and identifies the statistically significant set of variables that are related to re-offending. Aggregated predicted (yes/no) rates are also only valid for terms included in the final model. Any predicted rates for groups of offenders that have a common characteristic that is not in the final model (e.g. employment status or substance misuse) can suffer from statistical biases and are, therefore, unreliable.

For the local adult re-offending model additional developments were included to ensure that the predicted rate model was more robust against changes in the number of offenders, and that interaction terms and non-linear terms were included where appropriate. The final decision for inclusion or exclusion of particular variables was heavily influenced by their statistical significance (typically $p < 0.01$). The model coefficients, their exponents and significance values can be found in Table 5.

The model has been peer reviewed by an academic statistician.

Table 5: List of variables in the logistic regression model applied to the 2007/08 data and their respective coefficients

Variables	Logistic coefficient	Exponent of coefficient	Significance
Constant	-1.340	0.085	<0.001
Age band			
18 - 20		<i>Reference category</i>	
21 - 24	-0.555	0.574	<0.001
25 - 29	-0.883	0.414	<0.001
30 - 34	-1.065	0.345	<0.001
35 - 39	-1.079	0.340	<0.001
40 - 49	-1.267	0.282	<0.001
50+	-1.429	0.239	<0.001
Gender			
Male		<i>Reference category</i>	
Female	-0.068	0.935	<0.001
General criminal career variables			
Time on caseload (days)	0.000	1.000	0.380
Time on caseload (inverse)	0.143	1.154	<0.001
Copas rate	0.854	2.349	<0.001
Copas rate (exponential)	-0.543	0.581	<0.001
Previous offences (linear)	-0.004	0.996	<0.001
Previous offences (log)	0.147	1.159	<0.001
Previous custodial sentences (linear)	0.019	1.019	<0.001
Previous custodial sentences (log)	0.198	1.219	<0.001
One or more previous serious offences	-0.082	0.922	<0.001
Length of criminal career			
Less than 1 year		<i>Reference category</i>	
1 year	0.109	1.115	0.001
2 years	0.105	1.111	0.011
3 years	0.082	1.086	0.013
4 years	0.080	1.084	0.314
5 years	0.033	1.033	0.283
6-10 years	0.032	1.033	0.998
11-15 years	0.000	1.000	0.156
16-20 years	-0.053	0.948	0.002
21-25 years	-0.128	0.880	0.001
26-30 years	-0.147	0.863	<0.001
30+ years	-0.298	0.742	<0.001
Index offence			
Violence (non serious)		<i>Reference category</i>	
Violence (serious)	-0.464	0.629	0.004
Robbery	-0.113	0.893	<0.001
Public Order	0.131	1.140	<0.001
Sexual	-0.206	0.814	<0.001
Sexual Child	-0.608	0.545	<0.001
Domestic Burglary	0.185	1.204	<0.001
Other Burglary	0.278	1.320	<0.001
Theft	0.508	1.661	<0.001
Handling	0.193	1.213	<0.001
Fraud/Forgery	-0.116	0.890	<0.001
Absconding Bail Offence	0.258	1.294	<0.001
Taking and Driving Away	0.187	1.206	<0.001
Theft from Vehicles	0.369	1.446	0.042
Motoring Offence	0.040	1.041	<0.001
Drink Driving	-0.141	0.868	<0.001
Criminal Malicious Damage	0.172	1.188	<0.001
Drugs Import/Export/Supply	-0.237	0.789	0.305
Drugs possession/Small Scale Supply	0.022	1.022	<0.001
Other	0.166	1.181	<0.001
Breach	0.244	1.277	<0.001
Ethnicity			
White		<i>Reference category</i>	
Not Recorded	-0.329	0.720	<0.001
Black	0.060	1.061	0.874
Asian	0.004	1.004	0.531
Other	0.038	1.038	<0.001
Appearances in previous cohorts			
No previous appearances		<i>Reference category</i>	
One previous appearance	-0.026	0.974	<0.001
Two previous appearances	-0.154	0.858	<0.001
Three previous appearances	-0.224	0.799	<0.001
Reoffences in previous cohorts			
No reoffences		<i>Reference category</i>	
One reoffence	0.448	1.566	<0.001
Two reoffences	0.736	2.088	<0.001
Three reoffences	0.973	2.647	<0.001
Reoffended in most recent cohort	0.225	1.253	0.001

Variables	Logistic coefficient	Exponent of coefficient	Significance
Previous offences			
Total number of previous violence offences	-0.006	0.994	<0.001
Total number of previous public order offences	0.033	1.033	<0.001
Total number of previous theft offences	0.011	1.011	<0.001
Total number of previous handling offences	-0.012	0.988	<0.001
Total number of previous absconding offences	0.016	1.016	0.015
Total number of previous theft from vehicle offences	0.007	1.007	0.039
Total number of previous drink driving offences	0.026	1.026	<0.001
Total number of previous criminal damage offences	0.009	1.009	<0.001
Total number of previous drugs (possession/small-scale supply) offences	0.010	1.010	<0.001
One or more previous sexual offences	0.121	1.129	<0.001
Area			
London		<i>Reference category</i>	
Avon and Somerset	-0.092	0.912	0.006
Bedfordshire	-0.144	0.866	0.439
Cambridgeshire	-0.030	0.970	0.010
Cheshire	-0.097	0.908	<0.001
Teesside	0.191	1.211	0.098
Cumbria	0.070	1.072	<0.001
Derbyshire	-0.233	0.792	<0.001
Devon and Cornwall	-0.153	0.858	0.006
Dorset	-0.132	0.877	0.135
Durham	0.055	1.057	0.007
Essex	-0.080	0.923	0.104
Gloucestershire	-0.080	0.923	0.166
Hampshire	-0.040	0.961	0.005
West Mercia	-0.100	0.904	<0.001
Hertfordshire	-0.163	0.849	0.079
Humberside	-0.061	0.941	<0.001
Kent	-0.151	0.860	0.378
Lancashire	-0.023	0.977	<0.001
Leicestershire	-0.242	0.785	0.019
Lincolnshire	-0.111	0.895	<0.001
Greater Manchester	-0.175	0.840	<0.001
Merseyside	-0.163	0.849	0.618
Norfolk	-0.021	0.979	0.007
Northamptonshire	-0.125	0.882	<0.001
Northumbria	0.120	1.128	0.021
Nottinghamshire	0.069	1.071	0.007
Thames Valley	-0.077	0.926	0.001
Staffordshire	-0.112	0.894	0.019
Suffolk	-0.116	0.891	0.004
Surrey	-0.146	0.864	<0.001
Sussex	-0.165	0.848	0.469
Warwickshire	-0.037	0.964	<0.001
West Midlands	-0.095	0.909	<0.001
Wiltshire	-0.217	0.805	0.162
North Yorkshire	-0.060	0.942	0.165
South Yorkshire	0.038	1.039	0.016
West Yorkshire	-0.056	0.946	0.154
Dyfed-Powys	-0.074	0.929	0.323
Gwent	-0.038	0.962	0.359
North Wales	0.036	1.037	0.590
South Wales	-0.015	0.985	0.439
Unknown area	0.037	1.037	<0.001
Type of sentence			
Licence		<i>Reference category</i>	
Community order	0.273	1.314	<0.001
Interactions between sentence type and age			
Community order and aged 18-20		<i>Reference category</i>	
Community order and aged 21 - 24	0.279	1.322	<0.001
Community order and aged 25 - 29	0.488	1.630	<0.001
Community order and aged 30 - 34	0.649	1.913	<0.001
Community order and aged 35 - 39	0.621	1.861	<0.001
Community order and aged 40 - 49	0.795	2.214	<0.001
Community order and aged 50+	0.835	2.306	0.002
Interactions between sentence type and criminal career variables			
Community order * Time on caseload (inverse)	0.603	1.827	<0.001
Community order * previous drink driving offences	-0.053	0.949	<0.001
Community order * previous custodial sentences (log)	-0.159	0.853	<0.001
Interactions between sentence type and appearances in previous cohorts			
Community order and one previous appearance	-0.213	0.809	<0.001
Community order and two previous appearances	-0.281	0.755	<0.001
Community order and three previous appearances	-0.327	0.721	<0.001
Community order and reoffended in most recent cohort	0.188	1.207	<0.001

Statistical significance

Testing for statistical significance allows us to determine whether a change between two datasets is likely to be due to a real change in performance, or is just due to random volatility in the data.

For the local re-offending measure we test for statistical significance such that we are 95 per cent confident that any change we observe that meets our test for statistical significance is 'real'.

References

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