



Northern Ireland
Statistics & Research Agency

PBNI ACE Effectiveness



Department of
Justice

www.justice-ni.gov.uk



PBNI Probation Board
for Northern Ireland
Changing Lives for Safer Communities

ACE and Reoffending

Table 1: Match rates for PBNI and reoffending data

Cohort	N	Matched	Unmatched	Match rate (%)
Pre-2019/20	33	-	-	-
2019/20	2,341	1,890	451	80.7%
2020/21	2,099	1,450	649	69.1%
Post-2020/21	430	-	-	-
Total Included	4,440	3,340	1,100	75.2%

Table 2a: Matched records by disposal type for custodial disposals

Custodial disposals	N	Matched	Unmatched	Match rate (%)
Extended Custodial Sentences	32	14	18	43.8%
Determinate Custodial Sentences	704	392	312	55.7%
Custody Probation Order	17	10	7	58.8%
Imprisonment	121	121	-	100.0%
Young Offender Centre/ Juvenile Justice Centre Order	12	10	2	83.3%

1. Records are matched by distinct 'PartyURN' and 'base date' for 2019/20 and 2020/21
2. Base date is (i) release date for custodial, or (ii) court date for non-custodial disposals
3. Cohorts are made up of all records where 'base date' falls within the given financial year
4. Given the time lag in reoffending analysis, data beyond 2020/21 is not yet available
5. There is a generally lower match rate for custody releases due to differences in recording of release dates between NIPS and PBNI administrative systems
6. The data used within this report has been collected for administrative and/or operational purposes and figures have been produced for research purposes only; care should therefore be taken when interpreting findings
7. Care should also be taken throughout when interpreting findings based on low numbers

Table 2b: Matched records by disposal type for non-custodial disposals

Non-custodial disposals	N	Matched	Unmatched	Match rate (%)
Suspended Imprisonment	64	64	-	100.0%
Enhanced Combination Order	329	233	96	70.8%
Combination Order	688	479	209	69.6%
Probation/Supervision Order	2,334	1,878	456	80.5%
Community Service Order	5	5	-	100.0%
Conditional Discharge	116	116	-	100.0%
Other Disposals	18	18	-	100.0%

ACE and Reoffending

Table 3a: Percentage reoffended (%) by ACE risk band at base date

ACE Band	N	Reoffended	Rate (%)
High	809	404	49.9%
Medium	1,874	496	26.5%
Low	656	94	14.3%
Unknown	1	1	-
Total	3,340	995	N/A

Table 3b: Percentage reoffended (%) by ACE risk band at end of probation order

ACE Band	N	Reoffended	Rate (%)
High	881	531	60.3%
Medium	1,258	348	27.7%
Low	1,189	113	9.5%
Unknown	12	3	-
Total	3,340	995	N/A

- ACE bands aim to ‘predict’ an individual’s likelihood of reoffending at a specific time point; this is measured as high, medium or low risk
- ACE risk at base date denotes perceived risk of an individual at the closest available assessment to their date of release from custody or court date
- ACE risk at end of probation order denotes perceived risk of an individual at the closest assessment date to the end of their probationary supervision
- Across both assessment stages, a greater proportion of those categorised by ACE as being at high risk went on to reoffend; just over one-quarter of those who were categorised as medium risk reoffended, whilst those categorised as low risk had the smallest proportion of individuals who reoffended; this indicates that ACE assessments are a generally good predictor of reoffending behaviour
- The link between ACE risk band and reoffending was found to be statistically significant for ACE assessments at both the base date ($X^2(3, N=3,340) = 244.24, p = <.001$) and end of probation order ($X^2(3, N=3,340) = 628.18, p = <.001$)
- While both assessments indicate a statistically significant link with reoffending, looking at effect size, there is a moderate association between ACE band at base date and reoffending ($V = .27$) and a strong association between ACE band at end of order and reoffending ($V = .43$); this suggests ACE band at the end of probation order to be a stronger predictor of reoffending
- Based on these findings, any further analysis in this report will be based on ACE scores at the end of probation order

ACE and Gender

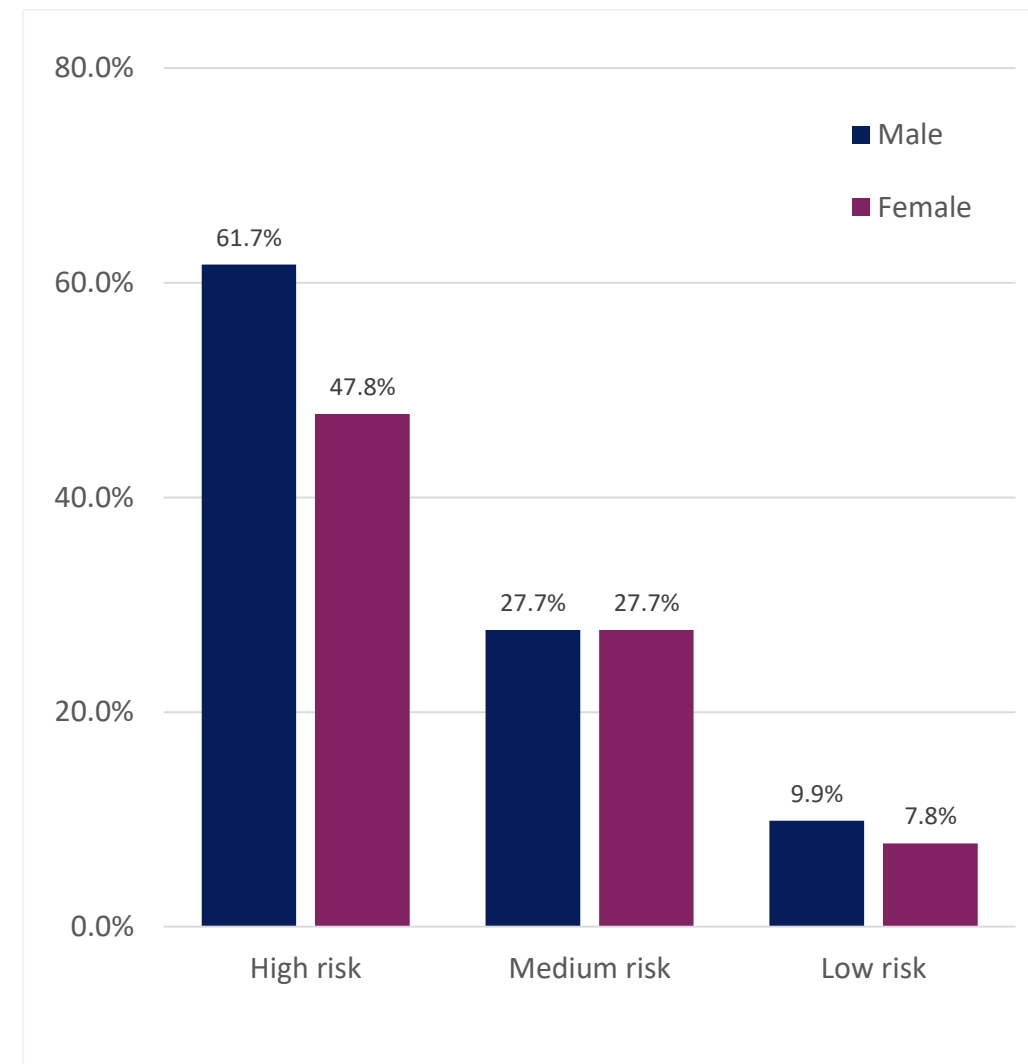
- In terms of gender, ACE bands continue to be a fairly accurate predictor of reoffending
- Across genders, a greater proportion of those categorised as high risk went on to reoffend, followed by medium and low risk respectively
- As with general reoffending trends, a greater proportion of males went on to reoffend (31.0%) in comparison with females (22.9%); this was also true for males classified as high and low risk
- Reoffending rates for those categorised as medium risk were the same across genders
- The link between ACE risk band and reoffending was found to be statistically significant for both males ($\chi^2(3, N=2,855) = 559.43, p < .001$) and females ($\chi^2(3, N=485) = 61.00, p < .001$)
- Looking at effect size, there is a strong association between ACE assessment and reoffending among both males ($V = .44$) and females ($V = .35$)

Table 4: Percentage reoffended (%) by ACE risk band and gender*

ACE Band	Male			Female		
	N	Reoffended	Rate (%)	N	Reoffended	Rate (%)
High	791	488	61.7%	90	43	47.8%
Medium	1,070	296	27.7%	188	52	27.7%
Low	983	97	9.9%	206	16	7.8%
Total	2,844	881	31.0%	481	111	22.9%

*Table excludes instances where ACE risk band is unknown ($N = 12$)

Figure 1: Percentage reoffended (%) by ACE risk band and gender



ACE and Age Band

- A consistent pattern is also seen with age bands; across all age bands a greater proportion of those assessed as high risk went on to reoffend, followed by medium and low risk respectively
- Over four-fifths (82.5%) of those aged under 20 and assessed as high risk went on to reoffend, in contrast to half this proportion (39.1%) of 40-49 year olds
- Across risk levels, as age increased the proportion of individuals who reoffended decreased; while there appears to be an increase among high risk individuals aged 50+, small numbers may disproportionately affect reoffending rates here (Table 5)
- The link between ACE risk band and reoffending was found to be statistically significant across all age bands (Table 6)
- Looking at effect size, there is a strong association between ACE assessment and reoffending across all age bands

Table 5: Percentage reoffended (%) by ACE risk band and age band*

Age Band	High risk			Medium risk			Low risk		
	N	Reoffended	Rate (%)	N	Reoffended	Rate (%)	N	Reoffended	Rate (%)
Under 20	63	52	82.5%	70	29	41.4%	73	15	20.5%
20-24	201	131	65.2%	234	71	30.3%	208	24	11.5%
25-29	216	133	61.6%	251	73	29.1%	234	28	12.0%
30-39	282	163	57.8%	397	113	28.5%	332	32	9.6%
40-49	92	36	39.1%	197	42	21.3%	204	11	5.4%
50+	27	16	59.3%	109	20	18.3%	138	3	2.2%

*Table excludes instances where ACE risk band is unknown (N = 12)

Figure 2: Percentage reoffended (%) by ACE risk band and age band

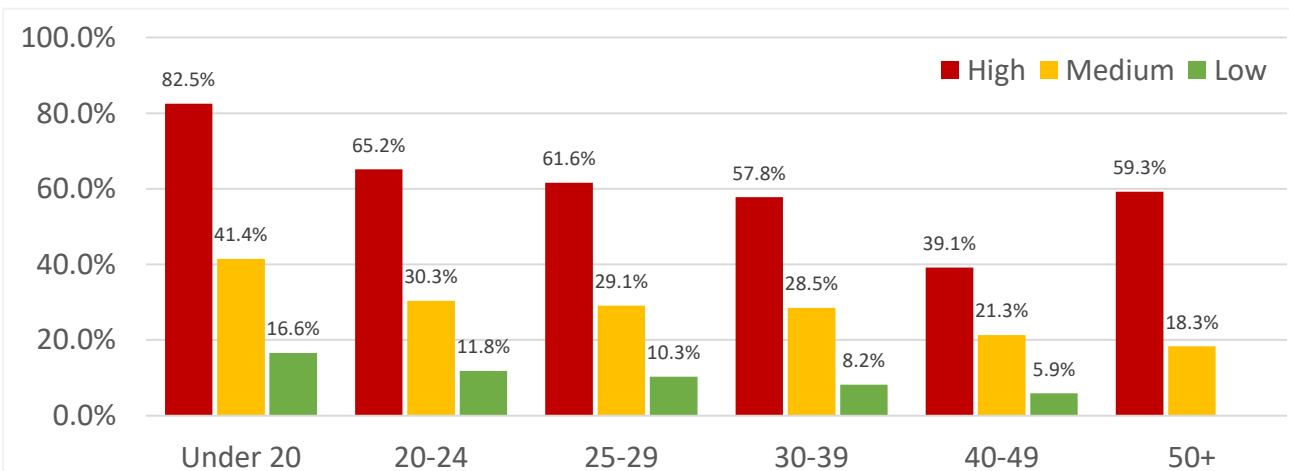


Table 6: Significance of ACE risk bands and reoffending across age bands

Age Band	Chi-square	N	Degrees of freedom	Significance	Cramer's V
Under 20	54.47	207	3	<.001	.51
20-24	132.85	645	3	<.001	.45
25-29	128.73	703	3	<.001	.43
30-39	170.86	1,016	3	<.001	.41
40-49	55.29	494	3	<.001	.34
50+	63.15	275	3	<.001	.48

ACE and Reoffences

- As previously mentioned, a greater number of individuals categorised as high risk went on to reoffend, followed by medium risk and low risk respectively
- There also appears to be a pattern among ACE risk assessment and number of reoffences
- Over four-fifths of individuals categorised as high risk (82.5%) went on to commit more than one reoffence; 12.8% committed eleven or more reoffences
- Approximately 90% of individuals categorised as medium risk (89.7%) or low risk (92.0%) committed six or less reoffences; this was in comparison to just under three-quarters of high risk individuals (73.6%), with the remaining 26.4% of high risk individuals committing seven or more reoffences
- Of those categorised as low risk who went on to reoffend, almost four-fifths (79.6%) committed three or fewer reoffences

Figure 3: Number reoffended by ACE risk band*

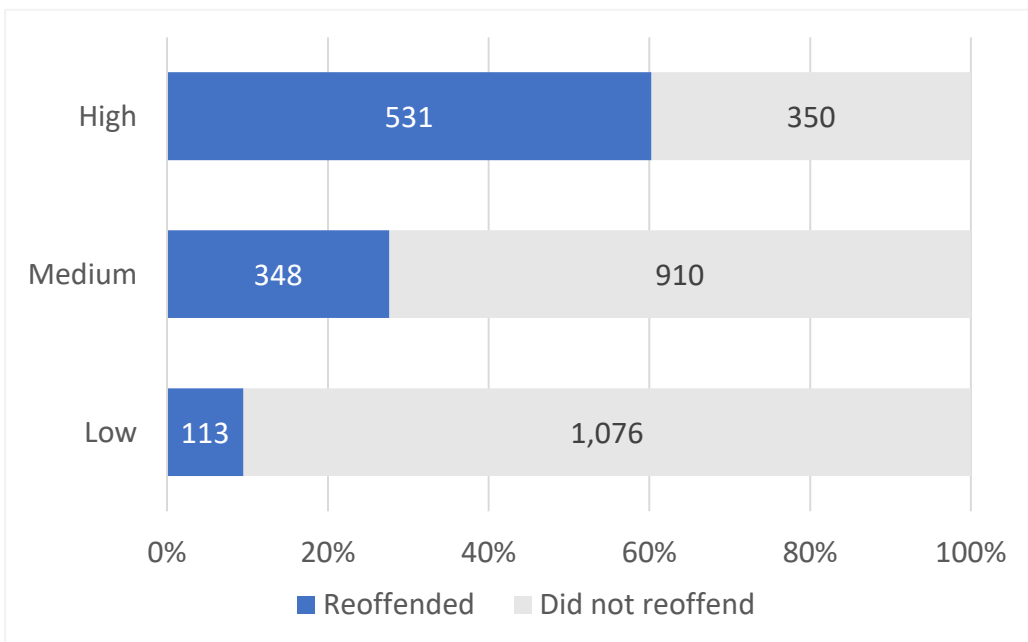
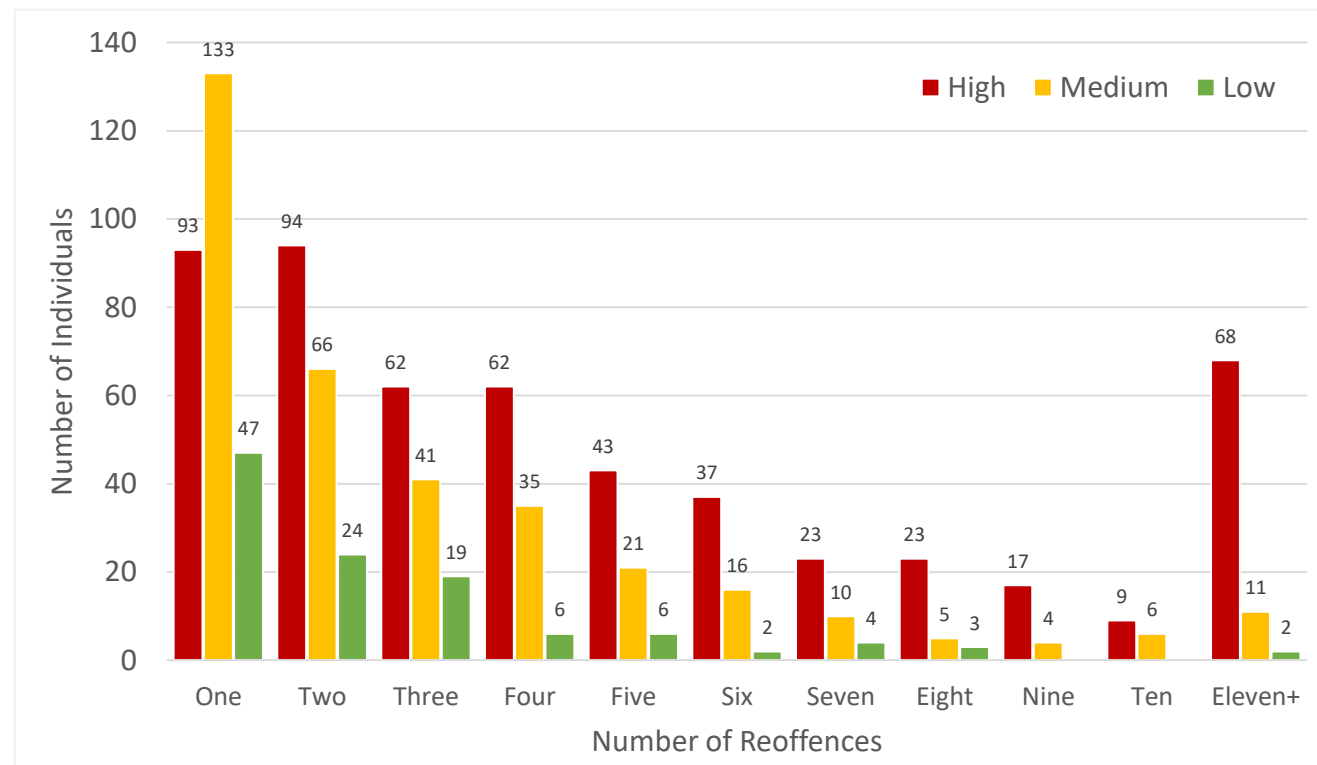


Figure 4: Number reoffences by ACE risk band*



ACE and Disposal Type

- Disposal is based on type of order as recorded by PBNI
- For both custodial and non-custodial disposals, the greatest proportion of individuals who reoffended were categorised as high risk, followed by medium and low risk respectively; the same pattern was seen when looking at each of the different order types individually
- Across all ACE bands, a smaller proportion of those released from custody went on to reoffend compared with non-custodial disposals
- The highest proportion of reoffending was found among those assessed as high risk having completed a combination (68.0%) or probation (62.5%) order
- NB. Breakdowns are only included for orders with sufficient samples to mitigate the risk of disclosure of individuals within the data. Further breakdown of these figures can be found within Table 7.

Figure 5: Percentage reoffended (%) by ACE risk band and disposal category

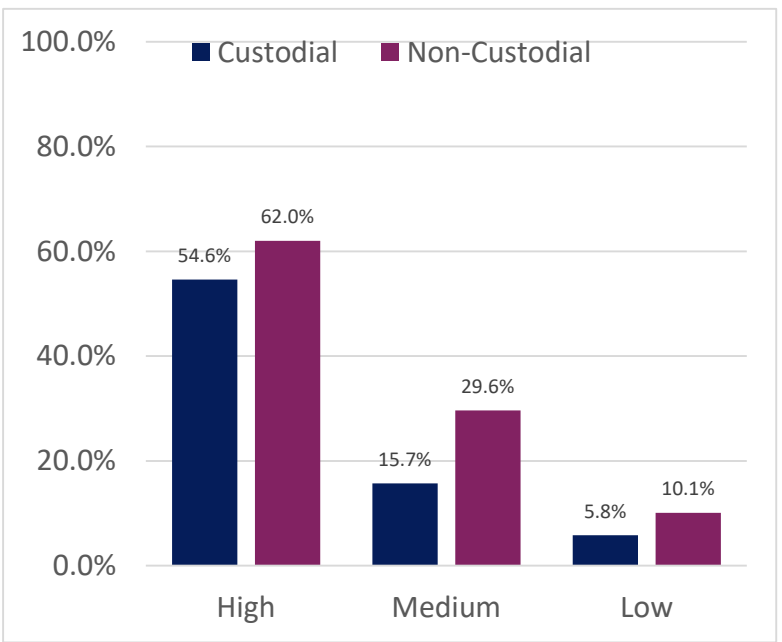


Figure 6a: Percentage reoffended (%) by ACE risk band and custodial order type

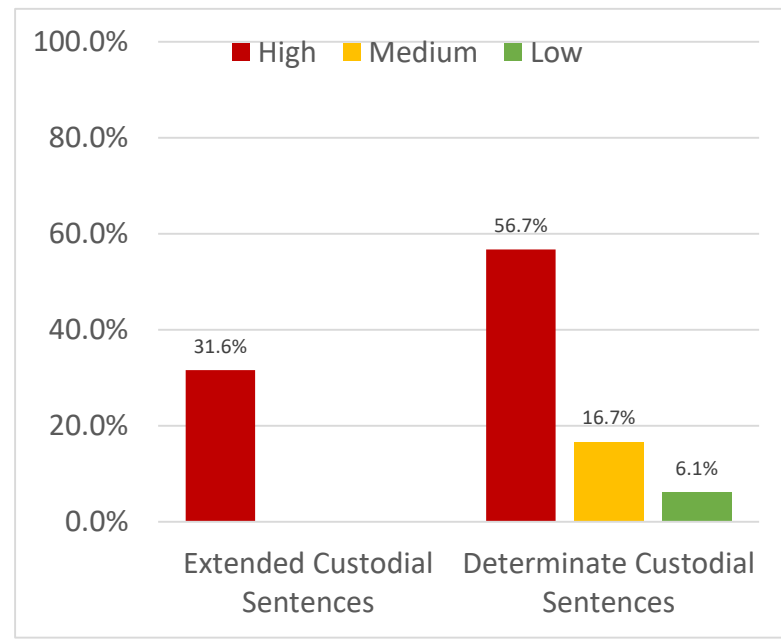
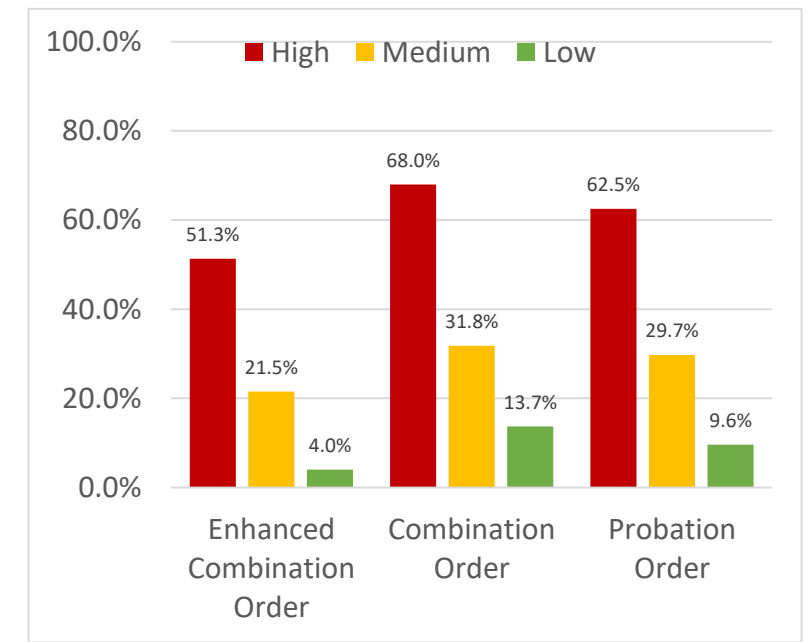


Figure 6b: Percentage reoffended (%) by ACE risk band and non-custodial order type



ACE and Disposal Type

Table 7: Percentage reoffended (%) by ACE risk band and order type*

	High risk			Medium risk			Low risk		
Order Type	N	Reoffended	Rate (%)	N	Reoffended	Rate (%)	N	Reoffended	Rate (%)
CUSTODIAL DISPOSALS									
Extended Custodial Sentences	19	6	31.6%	3	0	0.0%	4	0	0.0%
Determinate Custodial Sentences	187	106	56.7%	162	27	16.7%	147	9	6.1%
Other Custodial Sentences*	1	1	-	7	0	-	4	0	-
<i>Custodial Total</i>	<i>207</i>	<i>113</i>	<i>54.6%</i>	<i>172</i>	<i>27</i>	<i>15.7%</i>	<i>155</i>	<i>9</i>	<i>5.8%</i>
NON-CUSTODIAL DISPOSALS									
Enhanced Combination Order	78	40	51.3%	79	17	21.5%	75	3	4.0%
Combination Order	97	66	68.0%	223	71	31.8%	212	29	13.7%
Probation Order	499	312	62.5%	784	233	29.7%	747	72	9.6%
<i>Non-Custodial Total</i>	<i>674</i>	<i>418</i>	<i>62.0%</i>	<i>1,086</i>	<i>321</i>	<i>29.6%</i>	<i>1,034</i>	<i>104</i>	<i>10.1%</i>
Overall Total	881	531	60.3%	1,258	348	27.7%	1,189	113	9.5%

*Table excludes instances where ACE risk band is unknown (N = 12)

**This relates to other types of custodial sentences which include a probationary element. Due to low numbers these orders have been combined to mitigate the risk of disclosure.