



Reoffending Analysis for Participants who completed the Course for Drink Drive Offenders 2010 to 2013

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Key Findings

- The current analysis indicates that completing the Course for Drink Drive Offenders significantly reduced the one, two and three year reoffending rates of course completers compared to a matched sample of non-attending offenders.
- The differences in the one, two and three year reoffending rates for those who were referred but did not attend and their matched sample were not statistically significant.

Introduction

In Northern Ireland if a person is convicted of a drink driving offence¹, the courts can refer them to a course aimed at targeting these behaviours. The Course for Drink Drive Offenders (CDDO) is run by TTC2000 on behalf of the Department of the Environment for Northern Ireland. It is a voluntary course aiming to prevent people from committing drink driving offences by making them aware:

- of the effects of alcohol on their driving and wider health,
- of the legal consequence of drink driving,
- of the impact on victims of drink driving incidents and the wider impact on victims' families.

A reduction in driving disqualification times of up to 25 per cent is offered as an incentive for completing the course.

To assess the impact of CDDO on reoffending, a treatment group of participants who had completed CDDO between January 2010 and December 2013 was compared to a matched control group. Further analysis was completed to compare a treatment group of participants who were referred to CDDO between January 2010 and December 2013, but who did not complete the programme. In both cases the matched control group was made up of people who had neither been referred to nor completed the course but had engaged in similar drink drive offences during this time period.

¹ Please see Appendix One for a list of drink drive offences included.

Methodology

For more information on the methodological approach taken in this analysis refer to '[Provision of a Northern Ireland Data Lab Facility](#)' Department of Justice 2015 and for further information on the one year proven reoffending methodology used within this analysis, see [Northern Ireland Reoffending Methodology and Glossary Parts 1 and 2](#).

Key Definition:

Proven Reoffending Rate: Is the percentage of offenders who commit a proven re-offence, within a given time frame from their date of discharge from custody, receipt of non-custodial disposal or diversionary disposal. The offence must be proven, i.e. by receipt of a further conviction, within that specific time frame or a maximum of 6 months thereafter.

Sample

Between January 2010 and December 2013, 4,767 people had at least one referral to CDDO, with 2,527 actually completing the course and 2,240 failing to attend. An attempt was made to match these two groups to information held on the Reoffending Cohort Databases. However, a number of participants could not be matched for the following reasons;

- Insufficient information was available to match the participant(s) to the database.
- The participant(s) had been sentenced or released from custody prior to 2010 and were therefore not in the reoffending database.
- The participant(s), although they had been referred to or commenced a course between January 2010 and December 2013, they had not completed CDDO during that time frame.

In total 2,495 individuals who were convicted of a drink drive offence and completed CDDO, and a further 2,210 who were referred to the course but did not take part were put forward for further analysis².

² Appendix Two provides a breakdown of these two groups in terms of age at 2010/11 conviction, gender, length of disqualification period and number of previous drink drive offences.

Key Definition:

The **Reoffending Cohort Databases** contain all offenders who have been discharged from custody, received a non-custodial disposal or diversionary disposal within a given financial year. Information on further offences or lack thereof is added to this database to produce reoffending rates.

Using court convictions information a group of 5,216 individuals was identified, who had committed similar drink driving offences between January 2010 and December 2013 but who appear to have neither been referred to, nor completed, CDDO. Using propensity score matching a matched comparison sample was generated from these 5,216 people, for both treatment groups (completers and referrals). This method matches individuals based on a series of variables linked to reoffending and their participation in CDDO. Of particular importance in this case was to look at the match on both the individuals' history using the Copas rate and their current sentence including disqualification period³.

Key Definitions:

Copas rate: The Copas rate controls for the rate at which an offender has built up convictions throughout their criminal career. The higher the rate, the more convictions an offender has in a given amount of time, and the more likely they are perceived to engage in further offending behaviours.

Baseline offence: Is the offence associated with the non-custodial court disposal or diversionary disposal given at court or the sentence under which the offender is released that result in their inclusion in the Reoffending Cohort Database. Where more than one offence occurs, the principal offence is selected. This will generally be the disposal considered to attract the highest penalty.

At this stage a further reduction in the treatment group can occur if no sufficient matches can be identified for inclusion in the matched sample. After this process was completed the resulting

³ Appendix 3 provides information on the quality of the matches found.

treatment groups comprised of 2,489 participants who completed the programme and 2,197 people referred but who did not complete, with respective matched samples of 4,463 and 4,544 people. Standardised Mean Differences were calculated to assess how similar the two treatment groups were to their matched samples, please see Appendix Three.

Results

The two treatment groups were compared to their matched samples, to see if there was a significant difference in their one, two and three year proven reoffending rates. Information on further offences is derived from information held on Criminal Record Viewer.

As both the treatment and matched groups represent samples of larger populations, the reoffending rates can only be viewed as estimates of behaviours within the wider population. Confidence intervals were therefore employed to provide a lower and upper boundary of where the true impact on reoffending lies.

• CDDO Completers

Table 1 below provides a breakdown of the one, two and three year reoffending rates for those who completed CDDO and a matched sample. For the one, two and three year reoffending rates there was a statistically significant difference. Confidence intervals were also calculated for these years.

Table 1: One, Two and Three Year Drink Drive Reoffending Rates CDDO Completers Versus a matched Sample

Group	One Year Reoffending Rate*	Two Year Reoffending Rate*	Three Year Reoffending Rate*
CDDO Completer	0.6%	1.7%	2.9%
Matched Sample	2.1%	3.6%	4.6%

*Significant at 0.01 level

In the current analysis we can therefore say that:

Evidence indicates the one, two and three year reoffending rates were significantly lower for a sample of CDDO completers compared to a matched sample of offenders who had not attended the course.

- *For the one year reoffending rate this difference is estimated at between 0.9 and 2.3 percentage points.*
- *For the two year reoffending rate this difference is estimated at between 0.9 and 2.9 percentage points.*
- *For the three year reoffending rate this difference is estimated at between 0.3 and 2.9 percentage points.*

• CDDO Referrals

Table 2 below provides a breakdown of the one, two and three year reoffending rates for those who were referred to CDDO but did not attend the programme and a matched sample. The differences in the one, two and three year reoffending rates for those who were referred but did not attend and their matched sample were not statistically significant.

Table 2: One, Two and Three Year Drink Drive Reoffending Rates for CDDO Referrals Versus a matched Sample

	One Year Reoffending Rate	Two Year Reoffending Rate	Three Year Reoffending Rate
CDDO Referral	1.9%	3.1%	4.1%
Matched Sample	2.3%	4.0%	5.1%

In the current analysis we can therefore say that:

There is insufficient evidence to assess the impact of being referred to CDDO on future offending behaviours.

Conclusion

The current analysis provides useful information for assessing the impact of CDDO on reoffending.

Using Propensity Score Matching a closely matched control group was generated. This allowed comparisons to be drawn between the reoffending rates of the treatment group, comprising of people who completed CDDO between January 2010 and December 2013, and the control group, people who had neither been referred to or completed the course but had engaged in similar drink drive offences during this time period. The assumption is that, if appropriately matched, the main difference between the treatment and matched control group is participation in the intervention and therefore any difference in reoffending rates can be attributed to that intervention.

Findings indicate that completing the Course for Drink Drive Offenders significantly reduced the one, two and three year reoffending rates of course completers compared to a matched sample of non-attending offenders.

Further analysis was completed to compare a treatment group of participants who were referred to but did not complete CDDO between January 2010 and December 2013, to a matched control group of people who had neither been referred to or completed the course but had engaged in similar drink drive offences during this time period. The differences in the one, two and three year reoffending rates between these two groups were not statistically significant.

Limitations

The information provided is based on a sample, and as such, it may not be fully representative of all those who took part or could have taken part in the programme. This analysis should therefore be repeated as more information becomes available.

Information is based on available administrative data only and therefore does not include information on all factors that may be related to, or impact on, reoffending or programme participation.

The information contained in this report relates solely to CDDO and should not be:

- compared to reoffending rates produced in other publications; or
- used as evidence for other similar projects.

The proportion of people who actually reoffended was small; this may have impacted on statistical testing. Again, it may therefore be useful to repeat this analysis when a larger sample can be obtained.

Glossary

- **Baseline offence:** Is the offence associated with the non-custodial court disposal or diversionary disposal given at court or the sentence under which the offender is released that resulted in their inclusion in the Reoffending Cohort Database. Where more than one offence occurs, the principal offence is selected. This will generally be the disposal considered to attract the highest penalty.
- **Confidence Intervals:** Confidence intervals should be employed as they provide a lower and upper boundary of where the true impact on reoffending lies.
- **Copas rate:** The Copas rate controls for the rate at which an offender has built up convictions throughout their criminal career. The higher the rate, the more convictions an offender has in a given amount of time, and the more likely they are perceived to engage in further offending behaviours.
- **Proven Reoffending Rate:** Is the percentage of offenders who commit a proven re-offence, within a given time frame from their date of discharge from custody, receipt of non-custodial disposal or diversionary disposal. The offence must be proven, i.e. by receipt of a further conviction, within that specific time frame or a maximum of 6 months thereafter.
- The **Reoffending Cohort Databases** contain all offenders who have been discharged from custody, received a non-custodial disposal or diversionary disposal within a given financial

year. Information on further offences or lack thereof is added to this database to produce reoffending rates.

- **Statistical Significance:** A significance test is completed to assess if the difference observed between two or more groups has occurred by chance. The above analysis used a p value of 0.05. A significant finding using this p value indicates that we can be 95% confident that the results did not occur by chance.

Appendix One: Offence Codes

Northern Ireland Offence Code	Offence Descriptions
50 08 044	Failure to provide specimen of blood/urine - major
50 08 046	Driving with excess alcohol
50 08 048	In charge with excess alcohol
50 08 049	Driving with excess alcohol – blood /urine
50 08 052	Failing to provide specimen of breath - driving
50 08 053	Failing to provide specimen of breath – attempting to drive
50 08 123	Driving while unfit by drink or drugs
50 08 124	Attempting to drive while unfit by drink or drugs
50 08 125	In charge of a vehicle while unfit by drink or drugs
50 08 126	Driving with excess alcohol in breath
50 08 127	Attempting to drive with excess alcohol in breath
50 08 128	In charge of a vehicle with excess alcohol in breath
50 08 129	Driving with excess alcohol in blood
50 08 130	Attempting to drive with excess alcohol in blood
50 08 131	In charge of a vehicle with excess alcohol in blood
50 08 132	Driving with excess alcohol in urine
50 08 134	In charge of a vehicle with excess alcohol in urine
50 08 135	Failing to provide a specimen of breath for preliminary test
50 08 136	Failing to provide a specimen of breath for analysis
50 08 137	Failing to produce a specimen of blood or urine for analysis
50 08 138	Failing to produce a specimen when driving unfit
50 08 139	Failing to provide a specimen when attempting to drive unfit
50 08 140	Failing to provide a specimen when in charge unfit
50 08 141	Failing to provide a specimen when driving with excess alcohol
50 08 142	Failing to provide a specimen when attempting to drive with excess alcohol
50 08 143	Failing to provide a specimen when in charge with excess alcohol
50 08 204	Causing death by driving carelessly when unfit
50 08 206	Cause GBI by driving carelessly when unfit
50 08 207	Cause GBI by inconsiderate driving when unfit
50 08 208	Causing death by driving carelessly with excess alcohol
50 08 209	Causing death by inconsiderate driving with excess alcohol
50 08 210	Cause GBI by driving carelessly with excess alcohol
50 08 211	Cause GBI by inconsiderate driving with excess alcohol
50 08 212	Cause death by driving carelessly and failing to provide specimen
50 08 213	Cause GBI by inconsiderate driving with excess alcohol and failing to provide specimen
50 08 214	Cause GBI by driving carelessly and failing to provide specimen
50 08 215	Causing death by inconsiderate driving and failing to provide specimen

Appendix Two: Profile of Treatment Groups

Table 3: Age at Baseline Conviction and CDDO Course Status

Age at Baseline Conviction		Total	Percent
Completer	Under 18 Years Old	5	0.2%
	18-19 Years Old	89	3.6%
	20-24 Years Old	385	15.4%
	25-29 Years Old	363	14.5%
	30-39 Years Old	533	21.4%
	40-49 Years Old	555	22.2%
	50-59 Years Old	377	15.1%
	60 Years Old and Over	183	7.3%
	Missing	5	0.2%
	Total	2,495	100%
Referral	Under 18 Years Old	5	0.2%
	18-19 Years Old	109	4.9%
	20-24 Years Old	427	19.3%
	25-29 Years Old	363	16.4%
	30-39 Years Old	475	21.5%
	40-49 Years Old	446	20.2%
	50-59 Years Old	266	12.0%
	60 Years Old and Over	114	5.2%
	Missing	5	0.2%
	Total	2210	100%

Table 4: Gender and CDDO Course Status

Gender		Total	Percent
Attended	Male	1960	78.6%
	Female	535	21.4%
	Total	2495	100%
Referral	Male	1775	80.3%
	Female	435	19.7%
	Total	2210	100%

Table 5: Disqualification Period and CDDO Course Status

Disqualification Period		Total	Percent
Attended	12 months or less	1,976	79.2%
	Over 12 months to 18 months	271	10.9%
	Over 18 months	248	9.9%
	Total	2,495	100%
Referral	12 months or less	1,599	72.4%
	Over 12 months to 18 months	268	12.1%
	Over 18 months	343	15.5%
	Total	2,210	100%

Table 6: Number of Previous Drink Drive and CDDO Course Status

Number of Previous Drink Driving Offences		Total	Percent
Attended	0	2226	89.2%
	1	196	7.9%
	2	46	1.8%
	3	15	0.6%
	4	4	0.2%
	5+	8	0.3%
	Total	2495	100.0%
Referral	0	1873	84.8%
	1	237	10.7%
	2	68	3.1%
	3	21	1.0%
	4	6	0.3%
	5+	5	0.2%
	Total	2210	100.0%

Appendix Three: Standardised Mean Differences

Standardised Mean Differences were calculated to assess how similar the two treatment groups were to their matched samples. Standardised Mean Differences of 5% or less are considered to indicate a close match between the treatment and matched sample. Those of between 6% and 10% are considered to indicate a reasonable match. To be confident that an appropriate matched sample has been generated, the majority of variables should have a Standardised Mean Difference of 10% or below. Those with scores higher than this are felt to represent a poor match. Tables 1 and 2 provide a list of all variables used to generate the matched samples. As can be seen the samples are well or reasonably matched on all variables.

Table 7: CDDO Completers

	CDDO Completers	Matched Sample	Standardised Difference
Number in Group	2,489	4,463	
Mean of Copas Rate	1.6	1.6	1%
Mean Age at Baseline Disposal	38.3	37.4	6%
Mean Length of Driving Disqualification Period	417.2	403.0	9%
Mean Number of Previous Drink Driving Offences	0.2	0.2	-2%
Gender			
Male	78.5%	79.4%	-2%
Female	21.5%	20.6%	2%
Baseline Disposal			
Community Supervision	0.6%	1.5%	-9%
Community Non-Supervision	99.4%	98.5%	9%
Baseline Offences			
Attempting/ Driving	95.3%	94.4%	4%
Failing to provide Specimen	4.6%	5.6%	-4%

Table 8: CDDO Referrals

	CDDO Referrals	Matched Sample	Standardised Difference
Number in Group	2,197	4,544	
Mean of Copas Rate	1.5	1.5	1%
Mean Age at Baseline Disposal	35.8	35.0	6%
Mean Length of Driving Disqualification Period	443.3	431.2	6%
Mean Number of Previous Drink Driving Offences	0.2	0.2	1%
Gender			
Male	80.4%	83.1%	-7%
Female	19.6%	16.9%	7%
Baseline Disposal			
Community Supervision	1.3%	2.1%	-7%
Community Non-Supervision	98.7%	97.9%	7%
Baseline Offences			
Attempting/ Driving	95.3%	93.5%	8%
Failing to provide Specimen	4.6%	6.5%	-8%

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This bulletin is available on the Internet at:

<https://www.justice-ni.gov.uk/articles/reoffending>

Links

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