The road traffic risk of different offender groups after licence reinstatement

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Abstract

Background
In Germany, courses for the restoration of the fitness to drive after licence revocation are provided for different offender groups (alcohol, drug and demerit point offenders). Providers of these courses are by law required to prove the effectiveness of the applied course programs. For the evaluation of effectiveness, the Federal Highway Research Institute (BASt) established specific “Reference Values” in 2002.

Aims
The objective of the study at hand was to collect valid data in order to renew the old-established Reference Values from 2002. Additionally, data collection aimed at initializing Reference Values for drug offender programs.

Methods
Over 66,000 drivers were analysed regarding their traffic probation in the three years after licence reinstatement. Offenders were assigned to an offender group (alcohol, drugs and demerit point offenders) based on the reason for prior licence revocation. Different indicators were used as criteria for re-offending: new alcohol or drug records, culpable accident involvement and repeated licence revocation. For each of the offender groups, frequency distributions regarding these indicators were calculated.

Results
Frequencies of recidivism are highest for the group of demerit point offenders. Compared to the Reference Values of this group from 2002, frequencies of re-offending increased. Conversely, re-offence frequencies of alcohol offenders are halved compared to the data from 2001. The analysis of the re-offence frequencies of drug offenders reveals an equal amount of re-offenders as in the alcohol offender group.

Discussion and conclusions
The collected data serve as a good base for renewal of the old-established Reference Values and may be applicable as comparative data for future evaluations. The results reveal significant differences between recent data and earlier studies. These may occur due to improvements of the applied programmes, but also due to situational changes, e.g. increased enforcement levels and expansion of the catalogue of offenses which lead to demerit points.

Introduction

Courses for the restoration of the fitness to drive of traffic offenders (“Section70-courses”)

Psychological rehabilitation measures for traffic offenders with deficits in the fitness to drive have been applied in Germany since the beginning of the 1970s. Before these courses were definitely implemented into the legal system, their effectiveness had to be proven (Winkler, Jacobshagen & Nickel, 1988).
With the implementation of the Driving Licensing Regulation (Fahrerlaubnisverordnung, FeV) in 1999, courses for the restoration of the fitness to drive gained the necessary legal frame: Section 70 FeV states that the Supreme Authority of the Federal State may authorize course programs for the restoration of the fitness to drive in case of meeting the following requirements:

- the course program is based on a concept with scientific background,
- the suitability of the course program is approved by an independent scientific expert opinion,
- the course leader provide evidence for
  - an academic degree in psychology,
  [...]
- the effectiveness of the course program is approved according to the state of the art (evaluation)
- [...] (Section 70 FeV)

This section furthermore requires re-evaluation of the course program every 15 years.

Course programs are offered target group-specific for alcohol offenders, drug offenders and demerit point offenders. In most cases, these offenders have to pass a Medical-Psychological Assessment prior to licence reinstatement (for details see Boets, Meesmann, Klipp et al., 2008; Klipp, Escrihuela-Branz, Boets et al., 2009). As one result of this examination (in addition to negative or positive results), participation in one of these so called “Section70-courses” may be recommended. The licensing authority has to give an additional permission for each offender that allows him/her to participate. The successful participation in a Section70-course has legal consequences: the driving licence is reinstated without any new assessment or additional obligations.

Evaluation of course programs

Section70-course providers are by law required to prove the effectiveness of the applied course program in order to gain authorization from the Supreme Authority of the Federal State. Hence, the Federal Highway Research Institute (Bundesanstalt fuer Strassenwesen, BASt) published official guidelines for the evaluation of program effectiveness (Bundesanstalt fuer Strassenwesen, 2002). These guidelines specify designs of adequate effectiveness studies and indicators for approval of effectiveness. Thus, as meaningful criterion for effectiveness, traffic probation after successful completion of the course is defined. It is recommended to compare the treatment group to a matched control group of MPA-participants with positive assessment results. Recidivism rates of the treatment group should not significantly exceed recidivism rates of the control group. As some course providers may have difficulties to recruit adequate controls, the BASt established additional “Reference Values” for approval of effectiveness from earlier evaluation studies, indicating that recidivism rates of course participants should not exceed this Reference Values significantly. The following Reference Values for a look-back period of three years after licence reinstatement were set:

- Courses for the restoration of the fitness to drive for alcohol offenders: 18.8% (based on Winkler, Jacobshagen und Nickel, 1988; meaning that the amount of course participants registered with a subsequent alcohol offense should not significantly exceed 18.8%)
Courses for the restoration of the fitness to drive for demerit point offenders: 32.6% (based on Jacobshagen & Utzelmann, 1998; meaning that the amount of course participants registered with repeated or serious offenses leading to 4 demerit points\(^1\) should not significantly exceed 32.6%)

As no comparable evaluation studies for drug offender programs were available in 2002, no Reference Values for such courses were set at that time. However, the BASt already announced in the guidelines to adapt the Reference Values on the base of new empirical findings.

In 2009, the BASt started a new research project aiming at renewal of the Reference Values by collecting re-offense data of different offender groups. Additionally, the study also intended to initialize Reference Values for drug offender programs.

**Methods**

*Data source*

The Federal Motor Transport Authority (Kraftfahrt-Bundesamt, KBA) was contracted for data collection, because every final and legally binding decision about a road traffic offense in Germany is recorded in the Central Register of Traffic Offenders. This Central Register is kept by the KBA and contains notifications of the following institutions:

- driving licensing authorities (approx. 650 nationwide) which refuse, withdraw or newly grant driving licences,
- authorities imposing fines to punish traffic offences with a fine of at least 40 Euro or with a driving ban,
- courts which pass a sentence because of a punishable act committed in connection with road traffic. (Kraftfahrt-Bundesamt, 2013)

The data content of the Central Register of Traffic Offenders is reliable and valid and thus, served as pool for data collection of the study at hand.

**Sample**

<table>
<thead>
<tr>
<th>Reason for licence revocation</th>
<th>N (amount of offenders)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>44,228</td>
</tr>
<tr>
<td>Drugs</td>
<td>2,701</td>
</tr>
<tr>
<td>Reaching demerit point maximum threshold</td>
<td>1,560</td>
</tr>
<tr>
<td>Others(^2)</td>
<td>18,902</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>66,391</strong></td>
</tr>
</tbody>
</table>

*Table 1: Distribution of the sample by reasons for licence revocation*

\(^1\) 4 demerit points indicate either multiple minor offenses or one serious offense. Therefore, the 4-point-criterium is used as threshold of relevance for recidivism.

\(^2\) The group of “others” consisted of offenders of whom the reason for revocation was not clearly identifiable or offenders with other offenses leading to licence revocation, e.g. dangerous driving, hit and run, etc.
The sample consisted of N=66,391 traffic offenders with licence reinstatement in 2006 after prior revocation. They were analysed regarding their traffic probation in the three years after licence reinstatement, whereby the exact three year period was considered based on the date of licence reinstatement. The offenders were assigned to an offender group (alcohol, drug, demerit point offenders and others (see footnote 2 above) based on the reason for prior revocation (see table 1).

Re-offense data analyses

Different indicators were used as criteria for re-offending:

- offense leading to a new entry in the Central Register (P1)
- alcohol or drug offense leading to a new entry in the Central Register (P1a)
- repeated offenses registered in the Central Register (PP)
- repeated offenses whereof at least one is an alcohol or drug offense (PPa)
- offense or multiple offenses leading to a minimum of 4 demerit points (P4, see footnote 1 above)
- offense or multiple offenses leading to a minimum of 4 demerit points whereof at least one is an alcohol or drug offense (P4a)
- repeated licence revocation (R)
- repeated licence revocation due to an alcohol or drug offense (Ra)
- culpable accident involvement (A)
- culpable alcohol- or drug-related accident involvement (Aa)

For each of the offender groups, frequency distributions regarding the different indicators were calculated.

Results

Averaged re-offense rates

On average, 38.4 % of the offenders were registered again with at least one offense (P1) in the Central register in the three year observation period. Almost every fifth offender (19.2%) reached the threshold of 4 demerit points (P4). Repeated licence revocation (R) was recorded for 7.6% and 4.7% of the total sample were involved culpably in an accident (A) (see table 2).

Target group-specific re-offense rates

It becomes obvious that demerit point offenders seem to pose the highest risk in traffic as 73.7% were registered again with at least one offense (P1) compared to only 34.4% of alcohol offenders and 39.9% of drug offenders. This is even supported by rates of culpable accident involvement (A): a double amount in the demerit point offender group caused an accident (8.8%), compared to only 4.1% in the alcohol group and 4.6% in the drug group. Surprisingly, demerit point offenders show the lowest rates of repeated licence revocation (R): only 4.7% were registered. In contrast, the amount of drug offenders with licence revocation in the observation period is almost doubled (9.3%; respectively, 6.5% in the alcohol offender group). Detailed re-offense frequencies for all offender groups are displayed in table 2.
Concerning the old-established Reference Values (Bundesanstalt fuer Strassenwesen, 2002), significant differences appear. Re-offense rates of alcohol offenders decreased considerably. Only 8% were registered with a new alcohol offense (P1a). In 6.5% of these cases, the licence was revoked again due to this offense (Ra). These amounts lie far below the Reference Value of 18.8% which was taken from Winkler, Jacobshagen & Nickel (1988). On the contrary, re-offense rates of demerit point offenders increased substantially. In the study at hand, 45.9% of this offenders group reached the corresponding re-offense criterion of being newly registered with four demerit points (P4) compared to 32.6% in the study by Jacobshagen & Utzelmann (1998). Reference Values for drug offenders programs were not yet set in 2002, but results of the study at hand are in accordance with other evaluation studies of drug offender programs (DeVol, Hilger & Schupa, 2012; Biel & Birnbaum, 2004): for 9.6% of the drug offenders new drug offenses (P1a) were recorded within the three-year observation period.

<table>
<thead>
<tr>
<th>Re-offense indicator</th>
<th>Alcohol offender (N=43,228)</th>
<th>Drug offender (N=2,701)</th>
<th>Demerit point offender (N=1,560)</th>
<th>Others (N=18,902)</th>
<th>Total mean (N=66,391)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>34.4</td>
<td>39.9</td>
<td>73.7</td>
<td>44.4</td>
<td>38.4</td>
</tr>
<tr>
<td>P1a</td>
<td>8.0</td>
<td>9.6</td>
<td>5.8</td>
<td>8.2</td>
<td>8.1</td>
</tr>
<tr>
<td>P4</td>
<td>16.4</td>
<td>19.1</td>
<td>45.9</td>
<td>23.5</td>
<td>19.2</td>
</tr>
<tr>
<td>P4a</td>
<td>8.0</td>
<td>9.5</td>
<td>5.8</td>
<td>8.1</td>
<td>8.0</td>
</tr>
<tr>
<td>PP</td>
<td>11.4</td>
<td>14.9</td>
<td>48.4</td>
<td>19.0</td>
<td>14.6</td>
</tr>
<tr>
<td>PPa</td>
<td>0.6</td>
<td>1.1</td>
<td>0.6</td>
<td>0.8</td>
<td>0.7</td>
</tr>
<tr>
<td>R</td>
<td>6.5</td>
<td>9.3</td>
<td>4.7</td>
<td>10.2</td>
<td>7.6</td>
</tr>
<tr>
<td>Ra</td>
<td>5.6</td>
<td>6.7</td>
<td>3.2</td>
<td>5.5</td>
<td>5.6</td>
</tr>
<tr>
<td>A</td>
<td>4.1</td>
<td>4.6</td>
<td>8.8</td>
<td>5.8</td>
<td>4.7</td>
</tr>
<tr>
<td>Aa</td>
<td>1.4</td>
<td>1.0</td>
<td>0.7</td>
<td>1.4</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Table 2: Re-offense frequencies for different indicators per offender group (in %)

Discussion and conclusion

The results reveal significant differences between recent data and earlier studies of which the Reference Values had been taken. Hence, the Reference Values urgently need renewal based on recent data. However, differences in the data may have several reasons. For the alcohol offender group, the significant decrease from 18.8% to 8% may be due to the fact that the early study only considered repeated drink drivers. Repeated drink drivers belong to the group of hard core drinking drivers (Simpson, Beirness, Robertson et al., 2004) who by definition have a high risk of re-offending. The study at hand did not differ between first or repeat offenders. The sample contained both, also independent of further measures besides licence withdrawal (e.g. MPA or course participation), but it may be assumed that the majority were first offenders. Another reason for the decrease of re-offense rates may be an increase in deterrent effects due to enhanced enforcement and countermeasures for secondary prevention, i.e. assessment (MPA) prior to licence reinstatement, which have been
established since the early study was carried out. For the group of demerit point offenders, the effect of enhanced enforcement may have worked the other way around: the increase of speed cameras and evolution of new techniques for the detection of traffic offenses has led to an increased risk of being caught. Thus, offenders have a higher likelihood of being registered with demerit points. Additionally, the catalogue of offenses which lead to demerit points has expanded in the meantime.

All in all, the collected data serve as a good base for renewal of the old-established Reference Values and may be applicable as comparative data for future evaluations. However, the data will be replicated with the aim of validation by a sample with licence reinstatement in 2007. Subsequently, the results are going to be discussed by experts and decision makers. The outcomes of these consultations will lead to the establishment of renewed Reference Values for the evaluation of future Section70-course programs.

References


