Designated Driver Concept: Extent of Use in the USA

James Fell', Robert B. Voas', and James E. Lange”

*National Highway Traffic Safety Administration, Department of Transportation, Washington, DC.
**Pacific Institute for Research and Evaluation, Bethesda, MD.

INTRODUCTION

H. Laurence Ross (1993) has pointed to the difficulty in the United States (US), compared to countries with more public transport, of separating drinking and driving. The ubiquitous motor vehicle is the primary means by which Americans get to and from events where alcohol is served. Thus, the «designated driver» concept, originated in Scandinavia, should be a particularly powerful means of reducing impaired driving in the USA. The designated driver concept, however, generally demands planning to ensure that one member of a party refrains from drinking during the evening and that person provides the transportation for the group. As planning frequently does not occur (McKnight, Langston, McKnight, Lange, 1995), the designated driver decision is often made after drinking has begun and the driver designated may be the person who shows the least signs of impairment. Even so, limited use of the concept may have some benefit. In a roadside survey conducted in Canada, Foss and Beirness (1996) found that passengers had higher Blood Alcohol Concentrations (BACs) 68% of the time when at least one occupant of the vehicle (a driver or a passenger) had a BAC above 0.050.

Jay Winsten has published a series of articles on the designated driver concept and its use in the US, one of which summarizes his program (Winsten, 1994). Winsten, collaborating with the television industry, initiated a national media campaign in 1988. For 6 years, more than 160 prime time US television networks (with audiences of up to 45 million) showed subplots, scenes, and dialogue in their programs, as well as 30- and 60-minute episodes, supporting the designated driver campaign. In addition, the major networks (ABC, CBS, NBC) aired public service messages promoting the designated driver concept. This «media blitz» included extensive newspaper coverage.

1 This work was jointly supported by the Insurance Institute for Highway Safety and the National Highway Traffic

- 1005 -
Two Roper Organization surveys in 1989 and 1991 showed strong recognition and support in the US for the designated driver concept (Roper, 1991):

- 93% of Americans characterized the concept as an «excellent» or «good» idea.
- 46% of drinkers reported being a designated driver in 1991 vs. 35% in 1989.
- 52% of adults under age 30 reported being a designated driver in 1991, up from 43% in 1989.
- 37% of adults reported refraining from drinking in order to be a designated driver at least once in their lifetime, up from 29% in 1989.

In more recent national surveys (1991, 1993, 1995) of drinking and driving attitudes and behaviors (Jones and Boyle, 1996), interviewers asked about the use of designated drivers as an alternative to drinking and driving. The 1995 survey showed a decline in the percentage of drivers (ages 16 to 64) who said they had been a designated driver in the past year (39% compared to 42% in 1993). There was also a decline in the percentage of people who reported having ridden with a designated driver in the past year (32% in 1995 compared to 37% in 1993). The current study uses data on the extent to which weekend, nighttime operators report being designated drivers in the Third National Roadside Survey conducted in the fall of 1996 and compares the BACs of these drivers to those who do not claim to have been designated drivers.

METHODS

In the 1996 National Roadside Survey, a 4-stage sampling design was used to select 24 cities or counties as primary sampling units (PSUs) in the 48 contiguous states. Within these PSUs, 43 police jurisdictions cooperated in the selection of 211 survey locations where 6480 drivers were randomly selected. Ninety-six percent (6045) of these drivers agreed to be interviewed and 95.7% (6028) agreed to be breath tested (Voas, Lestina, and Greene, 1997). A two-person survey team (a police officer and an interviewer) operated at each location. Surveys were conducted from 10:00 PM to midnight and 1:00 AM to 3:00 AM on Fridays and Saturdays beginning September 6 and ending November 10, 1996.
When signaled by the interviewer, the officer directed a driver into a safe location at the side of the road or highway. The interviewer indicated that participation in the survey was voluntary and recorded the driver’s gender, ethnicity, and use of a safety belt, and the number of passengers in the vehicle. For 96% of the drivers willing to participate in the survey, the survey team member conducted a 3-minute interview and collected a breath-alcohol test. A passive breath-alcohol indicator was also used to estimate the BAC of respondents who were not willing to blow into the breath-test device. Each interview required approximately 5 minutes of the respondent’s time. Participants with BACs over 0.05 were assisted in finding a ride home.

All participants, even if they had no passengers in their vehicles, were asked: «Are you, or have you been a designated driver tonight?» It was assumed that a lone driver may have served as a designated driver earlier in the evening. Also collected as part of the questionnaire was the driver’s origin and destination, age, and drinking-and-driving history. Drivers’ BACs and survey responses were weighted based on the staged sampling procedure previously described (Voas, Lestina, and Greene, 1997). No information on passenger drinking was collected in this survey.

RESULTS

In contrast to the low percentage of Designated Drivers (DDs) found in the 1986 survey (127 out of 2875, or 4.4%), a large percentage (24.7%) of the 1996 drivers reported being DDs on the night of the survey. Women were more likely to report being a DD than men (28.7% vs. 22.5%). Figure 1 shows that drivers age 21 to 24 were the most likely to be DDs but that the use of DDs is relatively uniform across age groups.
BACs of Designated Drivers.

Previous national surveys (Wolf, 1973; Lund and Wolf, 1991) found that drivers who reported being DDs were more likely to be drinking. A similar result was obtained in the present survey as indicated in Table 1. While the DDs have higher percentages in each of the positive BAC categories, only in the BAC categories from 0.020 to 0.099 are the DDs significantly over-represented. DDs are significantly under-represented among the nondrinkers (0.00–0.019 category).

Table 1: Percentage of drivers (weighted N) in BAC categories

<table>
<thead>
<tr>
<th>Driver BAC</th>
<th>.000-</th>
<th>.020-</th>
<th>.050-</th>
<th>.080-</th>
<th>.100-</th>
<th>.150+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.019</td>
<td>.049</td>
<td>.079</td>
<td>.099</td>
<td>.149</td>
<td></td>
</tr>
<tr>
<td>Designated driver Yes</td>
<td>81.6*</td>
<td>8.4*</td>
<td>4.6*</td>
<td>2.2</td>
<td>2.5</td>
<td>0.7</td>
</tr>
<tr>
<td>Designated driver No</td>
<td>89.4</td>
<td>4.2</td>
<td>2.8</td>
<td>1.2</td>
<td>1.9</td>
<td>0.5</td>
</tr>
</tbody>
</table>

*Yes different from No at the p<.05
Origin of travel.

Of course, the main reason that DDs have higher BACs is that DDs almost always are coming from or going to locations where drinking alcohol will occur, while the non-DDs may or may not be involved in activities involving drinking. This becomes clear when the reported origin of the trip is considered. Designated drivers are over-represented when coming from friends’ homes, bars, and parties; non-DDs are over-represented when coming from work, school, or church (ps<0.05). Other origins did not have statistically different proportions of DDs and non-DDs. In the 1973, 1986, and 1996 surveys, a higher percentage of high BAC drivers were coming from bars than any other location. If we limit our analysis to just bars, the DDs do not present higher BACs than non-DDs (see Table 2). In fact, DDs are less likely to be above a BAC of 0.100. This may be evidence that in those situations in which heavy drinking is common, DDs are limiting the amount of alcohol they consume. The data suggest that DDs drink until they reach a moderately high BAC (0.050 to 0.079) but still stay below the legal limit.

Table 2 : Drivers coming from bars

<table>
<thead>
<tr>
<th>Driver BAC</th>
<th>.000-</th>
<th>.020-</th>
<th>.050-</th>
<th>.080-</th>
<th>.100-</th>
<th>.150+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.019</td>
<td>.049</td>
<td>.079</td>
<td>.099</td>
<td>.149</td>
<td></td>
</tr>
<tr>
<td>Designated driver Yes</td>
<td>67.1</td>
<td>14.9</td>
<td>13.7</td>
<td>2.8</td>
<td>1.2</td>
<td>0.3</td>
</tr>
<tr>
<td>Designated driver No</td>
<td>68.3</td>
<td>14.7</td>
<td>5.1</td>
<td>3.8</td>
<td>6.1</td>
<td>2.0</td>
</tr>
</tbody>
</table>

DISCUSSION

National surveys of drivers in the US show that most adults understand and approve of the designated driver concept. The 1996 National survey found a remarkably high rate of reported use of this procedure. One in four drivers randomly stopped on US roads on Friday and Saturday nights claimed to be designated drivers on the evening interviewed. This suggests a considerably higher level of use of this safety procedure than that reported in previous roadside surveys and is contrary to the recent drop in use reported in telephone surveys. This could be an important factor in the reduction in alcohol-related crashes experienced in the US over the last decade, as was indicated by the roadside survey in Canada.
where those vehicles with at least one person with a BAC greater than 0.050, it was the passenger who had the highest BAC 68% of the time.

It is clear, however, that while a large portion of the driving public (particularly those coming from bars) have adopted this concept, they do not adhere to the proposition that the DDs should refrain from drinking. In all three national surveys, DDs were more likely to be drinking than those who did not report being DDs. In part, this is an artifact of the nature of the trip. DDs are more likely to be traveling when coming from drinking locations—bars, restaurants, sports facilities, and friends’ homes. When only the highest risk drinking locations such as bars are considered, DDs are likely to be at more moderate BACs than drivers who do not report being DDs.

Since enforcement of drunk-driving laws has been stricter in the US for the last several decades, there has always been some pressure for groups of drinkers to select the member who appeared to be the least impaired to do the driving, when accepting an alternate driver was reasonably convenient. There is a risk that the DD concept simply becomes a socially acceptable excuse for behavior that would have occurred anyway. The classic concept of the DD (and the key to the most effective use of this safety measure) is planning. Before leaving for a drinking event, the drinker arranges to have a DD who agrees to abstain from drinking alcohol. Individuals are not likely to abstain from drinking once an event is underway. Additionally, each person may have driven to the event, so leaving a vehicle behind is inconvenient. McKnight, et al. (1995) have shown that without planning, the heavy drinker is almost committed to drinking and driving once he or she arrives at the drinking event.

To become more a more effective program in the US, public education and responsible beverage service promotions should:

1. Emphasize that planning for a DD should occur before the drinking event.
2. Emphasize that the designated driver remain abstinent.
3. Encourage the hospitality industry to provide more incentives (e.g., free nonalcoholic drinks, food, etc.) for people to be DDs and to use DDs.
4. Emphasize the social desirability of being a DD who does not drink in Public Service announcements.
REFERENCES


