
APPENDIX C

APPENDIX C1**WHO IS THE PERSISTENT DRINKING DRIVER? PART I: USA**

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We all think we know who the persistent drinking driver is: the person who drinks and drives again and again, week after week, month after month, year after year; the person whose drinking and driving behavior has not been changed by information and education, who has not been deterred by drinking and driving laws and enforcement, and perhaps even by arrest and punishment for drinking and driving law violations. He (almost always he) has been called hard-core, problem drinker, alcoholic, anti-social. He appears periodically in the press after a tragic crash in which he kills innocent victims and prompts repeated calls to "do something" about him. He is the subject of this workshop.

Before we can suggest how to deal with him, we first must examine whether our intuitive definition is accurate or is operationally useful. Next, we must understand as much as we can about the persistent drinking driver: who he is, what he knows and thinks, how he acts. This paper gives a brief overview of recent data and studies on the persistent drinking driver primarily from the United States. Herb Simpson's companion paper does the same for persistent drinking drivers in the rest of the world.

Persistent drinking drivers in crashes -- FARS data

The most objective data on drinking drivers in crashes come from FARS, NHTSA's Fatal Accident Reporting System. FARS data are limited in several important respects. FARS includes only fatal crashes. FARS contains only information from official sources, such as police reports and driver records, and consequently is silent on many important issues. Within these limitations, the data are quite accurate and complete.

Can we identify persistent drinking drivers in FARS? FARS records drivers with prior DWI convictions. This is a narrow definition: convictions, not arrests, within the past three years only. Alcohol-positive drivers with a prior DWI conviction probably are persistent drinking drivers, since they have been caught and punished for this offense recently. However, many persistent drinking drivers have not been convicted recently, as we shall see shortly.

Here's what FARS (1992) says about the 2,252 drivers with a prior DWI who were involved in fatal crashes. Tables in the appendix give more complete data and compare prior

DWI drivers to drivers without a prior DWI ("other drivers"). In both instances, drivers with unknown prior DWI status (3% of the total) are excluded.

- They are infrequent:
 - 4% of all drivers in fatal crashes have a prior DWI
 - 11% of drivers with BAC .01 and up have a prior DWI
 - 13% of drivers with BAC .10 and up have a prior DWI
- They usually are impaired when they crash:
 - 72% of drivers with a prior DWI have a BAC .01 and above
 - (compared to 35% of other drivers)
 - 63% have a BAC of .10 and above (compared to 27%)
- They are overwhelmingly male: 91% (compared to 74%).
- They typically are aged 21-34: 59% (28% age 35-54; only 7% under 21); other drivers have a similar age distribution.
- They drive passenger cars (54%), light trucks and vans (33%), or motorcycles (9%) in much the same proportions as other drivers.
- They drive older vehicles: 33% are 13 years old or older, compared to only 18% for other drivers; 60% are 8 years old or older, compared to 40% for other drivers. This probably implies that they are poorer than other drivers.
- They are often in single-vehicle crashes: 55%, compared to 38% for other drivers.
- They frequently crash on weekend nights: 42%, compared to 26%;
 - and in rural areas: 62%, compared to 56%;
 - and on 50-55 mph roads (54%), similarly to other drivers.
- They usually don't wear seat belts: 75%, compared to 48%.

Some of these observations are familiar characteristics of drinking-driver crashes. The appendix takes these data one level further, to compare drinking drivers with and without a prior DWI. The prior-DWI drinking drivers are older, more frequently male, drive older vehicles, wear belts less frequently, and have more rural crashes than the no-prior-DWI drinking drivers.

The only other method we could think of to look for persistent drinking drivers in FARS is to examine drivers

with very high BACs -- say .20 and above. To do this as accurately as possible we examined only fatally-injured drivers from the 25 states that recorded BAC levels for over 80% of all fatally-injured drivers. FARS says:

- 17% of very high-BAC dead drivers have a prior DWI;
- 52% of prior-DWI dead drivers have a very high BAC.

So, while they overlap considerably, these two groups are far from identical. In particular, most of the high-BAC dead drivers do not have a prior DWI conviction within the past three years. Compared to the prior-DWI drinking drivers, the very high-BAC dead drivers are younger, less frequently male, drive newer cars, have more single-vehicle and more nighttime crashes, and wear belts less frequently.

Both FARS data sets give only a partial view of the persistent drinking driver. Drivers with a prior DWI who are involved in a fatal crash are a small subset of all persistent drinking drivers. Very high-BAC drivers involved in a fatal crash may not all be persistent drinking drivers.

Persistent drinking drivers in state data

As noted above, FARS data underestimate the proportion of drivers in fatal crashes with a prior DWI since FARS considers only convictions within the past three years. Another view of the size of the repeat offender problem comes from state records of DWI arrests or convictions. Twelve states responded to a recent NHTSA request for information on repeat offenders as follows.

Repeat DWI Convictions

Repeat	State	Period	Years
21%	Iowa	6 years	1992
24	Louisiana	5 years	1989-93
26	Nebraska	30 yrs	1985-94
31	Wisconsin	5 years	1984-88
32	North Carolina	7 years	1988
33	Ohio	5 years	1980-93
34	California	7 years	1991
47	New Mexico	30 yrs	1990

Repeat DWI Arrests

24	South Dakota	5 years	1993
26	Colorado	5 years	1989-91
36	Texas	10 yrs	1987-90
46	Minnesota	30 yrs	1993

The "repeat" column gives the percentage persons arrested or convicted who are repeat offenders. The "period" column gives the length of time used to determine a repeat offense, and the "years" column gives the time period over which the data were taken. Note that, in general, the longer

the time period, the higher is the proportion of repeat offenders. Note also that states may not account accurately for prior offenses that occurred in another state.

From these data it appears that from one-quarter to one-third of all DWI offenders in a typical state are repeat offenders. Conversely, two-thirds to three-quarters have no prior DWI offense on record.

Persistent drinking drivers in the literature

Several review papers in the last 15 years have summarized available literature on drinking driver characteristics. A recent review of more than 130 original and review papers (B.P. Kennedy, "Characteristics of Drinking Drivers: Literature Review, Injury Control Center, Harvard School of Public Health, 1993) summarizes key information as follows. (Numerical estimates below are approximate ranges from the majority of studies reviewed.)

DWI Demographics

- age: median 30, majority are 20-45
- gender: 80-95% male
- education: high school or less
- occupation: 49-79% blue collar
- marital status: single (46-55%), divorced or separated (22-41%)
- race: white

DWI personality and attitude (compared to all drivers)

- frequently aggressive and hostile
- more frequently sensation-seekers
- more likely to have histories of other criminal behavior
 - minimize the risks of impaired driving -- they do not consider impaired driving a serious issue and rarely feel that they are too impaired to drive

DWI drinking behavior

- at least 2-3 times a week; 13-38% daily drinkers
- frequently have 5 or more drinks at a time (35-60%)
- mean BAC 0.18 - 0.28
- drink beer (64-79%)
- drink in licensed establishments (40-60%) more frequently than in private homes (18-34%)
 - frequently had a previous problem due to drinking -- marital or family difficulties (30-49%), previous DWI (20-28%)
 - frequently problem drinkers (54-74%)

This summary doesn't specifically address the persistent drinking driver. However, it's clear from the description of their drinking behavior that these persons are persistent

drinkers, and it's fairly safe to infer that most are persistent drinking drivers as well.

A survey of persistent drinking drivers

One way to find out who persistent drinking drivers are, how they act, and what they think, is to ask them. A 1993 NHTSA national survey of drinking and driving attitudes and behavior did just that. From a weighted sample of 4010 persons aged 16 and above contacted in the random digit dial survey, 56 said that they were frequent drinking drivers in that they drank on at least 12 days, and drove after drinking on at least 8 days, in the month before they were surveyed. (By this definition, 1.4% of the adult population admits to being persistent drinking drivers.) With the twin cautions that the sample size is relatively small and the information is self-reported, here's what these 56 frequent drinker-drivers said.

Demographics and drinking behavior:

- 38% are aged 30-45; 33% aged 46-64, only 16% aged under 30.
- 91% are male.
- All drank at least weekly and 49% drank almost every day in the past year.
- 67% drank beer, 17% wine, and 16% spirits.
- 58% typically drank 2 or 3 drinks at one sitting; 24% drank 4 or 5; only 8% drank 6 or more.
- 61% usually drank at home, 24% at bars or taverns.
- 39% felt they should cut down on their drinking; however only 11% have been annoyed by criticism by others about their drinking and only 13% have felt bad or guilty about their drinking.
- 52% have driven after drinking 13 or more times in the past month.

Attitudes about drinking and driving

- 69% think that most drinker-drivers are not alcoholics or problem drinkers.
- 85% think that drinking and driving by non-alcoholics is a serious highway problem, and 53% think that drinking and driving by others is a serious threat to the personal safety of themselves and their family.
- 58% think it is very important that something be done to reduce drinking and driving; another 35% think it is somewhat important.
- 83% think that people cannot drive safely after drinking too much even if they are careful.
- 32% think they can drink more than most people and still drive safely; 66% think they can drink about the same as most people.
- 3 drinks in 2 hours -- affect driving 41%; too dangerous to drive 10%;

5 drinks in 2 hours -- affect driving 78%; too dangerous to drive 40%;

7 drinks in 2 hours -- affect driving 92%; too dangerous to drive 72%.

(For a 170 lb. male, 3 drinks in 2 hours is approximately a BAC of 0.03; 5 drinks is approximately 0.08, and 7 drinks is approximately 0.12.)

Attitudes on drinking and driving laws and enforcement:

- 69% think current laws and penalties are effective in reducing drinking and driving.
- 67% think the DWI enforcement level is about right; 15% think it too low and 19% too high.
- 73% would like to see DWI enforcement increased at least somewhat.
- 52% think they are at least somewhat likely to be stopped by police if they are driving after they have had too much to drink.
- If stopped, 93% think they are likely to be charged with DWI (52% say "almost certain").
- If charged, 96% think they are likely to be punished (67% "almost certain").
- If punished, 92% think the sanction will be severe (52% "very severe").
- But: only 44% have been stopped on suspicion of DWI; of these, only 18% were convicted of DWI (that's only 7% of the total).
- 33% think DWI sanctions should be made more severe; 44% think they should stay about the same.
- 54% favor the use of checkpoints and 66% have seen one in operation.
- 72% disagree with a "zero tolerance" concept that people should not be allowed to drive if they have been drinking any alcohol at all.

These respondents certainly fit our definition of persistent drinking drivers: they drink frequently (almost every day) and drink and drive frequently (more than twice a week). But they differ in important respects from the crash-involved drinking drivers in FARS and in the literature. They are somewhat older, they drink at home rather than in bars or taverns, and they don't drink as much at one sitting. They believe that drinking and driving is an important highway safety problem and they seem to accept DWI laws at approximately current BAC levels. They also have a far higher expectation of detection, arrest, and sanction if they drink and drive than occurs in practice. Again, these results must be interpreted with caution. They are self-reported data from a small sample in a telephone survey. In particular, persons who drink at home may be over-represented because they were at home to answer their telephone.

Conclusions

These data suggest that persistent drinking drivers are far from homogeneous. Most American adults drink (64% in the NHTSA survey), and 15% admit to driving after drinking in the past month. The data presented above help identify the most persistent of these drinker drivers -- those who admit to driving after drinking almost every other day. But even these very persistent drinker-drivers differ in important respects from drinker-drivers who are involved in fatal crashes.

The persistent drinker-driver as defined in the NHTSA survey fits our intuitive definition precisely: he drinks and drives regularly and repeatedly. But he may not be our most appropriate target. He seems to behave as a generally responsible member of society; in particular, he is rarely convicted of DWI (and, by inference, rarely involved in a crash). We may instead wish to focus on an even higher-risk group, as defined in the FARS data and the literature, who appear to be heavier drinkers, more anti-social, and more difficult to affect through traditional traffic safety measures.

A proposed definition:

Persistent drinking drivers are persons who:

- have driven after drinking repeatedly,
- especially with high BAC levels.

Persistent drinking drivers are likely to be resistant to change, since their behavior has persisted despite drinking and driving prevention and deterrence activities.

Repeat DWI offenders are a subset of persistent drinking drivers who require special attention. They comprise 1/4 to 1/3 of all DWI offenders in a typical state.

Appendix
Drivers involved in fatal crashes -- FARS 1992

	<u>No prior DWI*</u> (n=47,880)		<u>Prior DWI*</u> (n=2,252)	
	<u>Total</u>	<u>BAC > 0</u> (n=12,551)	<u>Total</u>	<u>BAC > 0</u> (n=1,627)
<u>Age < 21</u>	15%	14%	7%	10%
21-34	37	51	59	59
35-54	29	27	28	29
<u>Sex Male</u>	74%	84%	91%	91%
<u>Vehicle</u>				
Car	58%	58%	54%	57%
Light truck	28	32	33	32
Motorcycle	5	8	9	10
<u>Model year</u>				
< 80	18%	24%	33%	36%
80-84	22	24	27	28
85-89	39	34	27	26
> 89	20	18	11	11
<u>Single vehicle</u>	38%	62%	55%	64%
<u>Time</u>				
Weekday	38%	12%	18%	10%
Weeknight	21	31	27	30
Weekend day	14	8	12	10
Weekend night	26	48	42	49
	<u>No prior DWI*</u> (n=47,880)		<u>Prior DWI*</u> (n=2,252)	
	<u>Total</u>	<u>BAC > 0</u> (n=12,551)	<u>Total</u>	<u>BAC > 0</u> (n=1,627)
<u>Rural</u>	56%	58%	62%	64%
<u>Speed limit</u>				
25-35	21%	23%	22%	21%
40-45	20	18	18	18
50-55	51	53	54	48
65	6	3	4	3
<u>No seat belt</u>	48%	72%	75%	82%

* Data exclude 1,749 drivers with unknown prior DWI status.