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Safety Report

Actions to Reduce Fatalities, Injuries, and Crashes Involving the Hard Core Drinking Driver

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Abstract: From 1983 through 1998, at least 137,338 people died and 99,812 people were injured in fatal crashes involving hard core drinking drivers, a term used in this report to include repeat offender drinking drivers as well as offenders with high blood-alcohol concentrations. In 1998 alone, hard core drinking drivers were involved in a minimum of 6,370 highway fatalities, the estimated cost of which was at least $5.3 billion.

The safety issue discussed in this report is the roadway risk presented by hard core drinking drivers. The report discusses research on control measures used in one or more of the States and proposes solutions. It also discusses steps taken by the United States Congress to address the hard core drinking driver problem by enacting certain provisions in the Transportation Equity Act for the 21st Century (TEA-21), and suggests ways to make this legislation even more effective.

As a result of its study, the National Transportation Safety Board issued recommendations to the Governors and Legislative Leaders of the 50 States and the Mayor and Council of the District of Columbia, and to the Department of Transportation.

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List of Acronyms

ALR	Administrative License Revocation
BAC	Blood Alcohol Concentration
BAIID	Breath Alcohol Ignition Interlock Device
DDMP	Drunk Driver Monitoring Program (State of Maryland)
DOT	U.S. Department of Transportation
DUI	Driving Under the Influence (of Alcohol)
DWI	Driving While Impaired (by Alcohol)
DWS	Driving While (License) Suspended
DWU	Driving While Unlicensed
FARS	Fatality Analysis Reporting System
FY	Fiscal Year
IID	Ignition Interlock Device
ISP	Intensive Supervision Probation
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
MADD	Mothers Against Drunk Driving
NCADD	National Commission Against Drunk Driving
NDR	National Driver Register
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
PDPS	Problem Driver Pointer System (of the NDR)
SOBER	Supervising Offenders by Enforcement Response
TEA-21	Transportation Equity Act for the 21st Century
TIRF	Traffic Injury Research Foundation of Canada
TRB	Transportation Research Board, National Academy of Science

Executive Summary

In 1984, the National Transportation Safety Board published a safety study titled *Deficiencies in Enforcement, Judicial, and Treatment Programs Related to Repeat Offender Drunk Drivers (NTSB/SS-84/04)* (the *Repeat Offender Study*). That study identified repeat offender drinking drivers (included in this report under the category of "hard core drinking drivers") as a serious traffic safety problem.

In the more than 15 years that have passed since that investigation was concluded, efforts have been made by all the States to address this major safety problem. However, despite significant progress, the measures taken and the degree of implementation have not been uniform, and 15,794 people still died in 1999 from alcohol-related crashes. This number is far above the target set by the Secretary of Transportation in 1995 to reduce the number of alcohol-related fatalities to no more than 11,000 by 2005.

For purposes of this report, the NTSB uses the term "hard core drinking drivers" to include repeat offender drinking drivers (that is, offenders who have prior convictions or arrests for a Driving While Impaired [DWI] by alcohol offense) and high-BAC offenders (that is, all offenders with a blood alcohol concentration [BAC] of 0.15 percent or greater).

From 1983 through 1998, at least 137,338 people died in crashes involving hard core drinking drivers.[1] NHTSA's data also indicate that 99,812 people were injured in fatal crashes involving hard core drinking drivers (as defined by the Safety Board) during that same time period. In 1998 alone, hard core drinking drivers were involved in a minimum of 6,370 highway fatalities, the estimated cost of which was at least $5.3 billion.

In preparing this report, the Safety Board reviewed the literature on countermeasures that have been found effective in reducing recidivism, crashes, fatalities, and injuries. This report identifies the highway safety problem involving hard core drinking drivers, discusses research on control measures, and proposes solutions. It also discusses steps taken by the United States Congress to address the hard core drinking driver problem by enacting certain provisions in the Transportation Equity Act for the 21st Century (TEA-21), and suggests ways to make this legislation even more effective.

TEA-21 would better assist the States to reduce the hard core drinking driver problem if it were modified to (a) include a revised definition of "repeat offender" that included administrative actions on DWI offenses, (b) require mandatory treatment for offenders, (c) establish an extended period for records retention and DWI offense look-back; (d) require administratively imposed vehicle sanctions; (e) eliminate provisions for community service; and (f) provide for the inclusion of home detention with electronic monitoring.

[1] Nineteen ninety-eight is the most recent year for which complete data are available from the National Highway Traffic Safety Administration.

The Safety Board believes that a model program to reduce hard core drinking driving would incorporate the following elements:

- Frequent and well-publicized statewide sobriety checkpoints that include checking for valid driver's licenses. Checkpoints should not be limited to holiday periods.
- Vehicle sanctions to restrict or separate hard core drinking drivers from their vehicles, including license plate actions (impoundment, confiscation, or other actions); vehicle immobilization, impoundment, and forfeiture; and ignition interlocks for high-BAC first offenders and repeat offenders.
- State and community cooperative programs involving driver licensing agencies, law enforcement officers, judges, and probation officers to enforce DWI suspension and revocation.
- Legislation to require that DWI offenders who have been convicted or administratively adjudicated maintain a zero blood alcohol concentration while operating a motor vehicle.
- Legislation that defines a high blood alcohol concentration (0.15 percent or greater) as an "aggravated" DWI offense that requires strong intervention similar to that ordinarily prescribed for repeat DWI offenders.
- As alternatives to confinement, programs to reduce hard core drinking driver recidivism that include home detention with electronic monitoring and/or intensive probation supervision programs.
- Legislation that restricts the plea bargaining of a DWI offense to a lesser, non-alcohol-related offense, and that requires the reasons for DWI charge reductions be entered into the public record.
- Elimination of the use of diversion programs that permit erasing, deferring, or otherwise purging the DWI offense record or that allow the offender to avoid license suspension.
- Administrative license revocation for BAC test failure and refusal.
- A DWI record retention and DWI offense enhancement look-back period of at least 10 years.
- Individualized sanction programs for hard core DWI offenders that rely on effective countermeasures for use by courts that hear DWI cases.

As a result of this review, the Safety Board issued a recommendation to the Governors and Legislative Leaders of the 50 States and to the Mayor and Council of the District of Columbia, to establish a hard core drinking driver program that is designed to reduce the incidence of alcohol-related crashes and fatalities, and that includes highly visible enforcement, administrative license revocation, vehicle sanctions, special laws for aggravated driving while impaired offenses and zero BAC for repeat offenders, limits on plea-bargaining, alternatives to confinement, and improved record-keeping, as described in the model program. The Board also issued a recommendation to the U.S. Department of Transportation, regarding improvements to the Transportation Equity Act for the 21st Century.

Chapter 1

Introduction

In 1984, the National Transportation Safety Board (Safety Board) published a safety study titled *Deficiencies in Enforcement, Judicial, and Treatment Programs Related to Repeat Offender Drunk Drivers (*NTSB/SS-84/04*)* (the *Repeat Offender Study*). That study was based on Safety Board investigations of more than 50 alcohol-related crashes in which the driver had prior arrests for driving while impaired (DWI).[1] The *Repeat Offender Study* identified repeat offender drinking drivers (included in this report under the category of "hard core drinking drivers") as a serious traffic safety problem. By studying the circumstances of these crashes, the Safety Board was able to identify the problems, loopholes, and deficiencies in the States' systems for detecting, arresting, and adjudicating drinking drivers. The study examined why the systems already in place in the States were unable to prevent the drivers in the investigated crashes from continuing to drive after drinking. Based on its analysis of those cases, the Safety Board issued 14 recommendations, including 10 to the States, 2 to the National Highway Traffic Safety Administration (NHTSA), 1 to the Veterans Administration, and 1 to legal associations and judicial organizations.[2]

In the more than 15 years that have passed since the recommendations were issued, efforts have been made by all States to address the alcohol-related highway safety problem, and considerable progress has been made in detecting, arresting, and adjudicating drinking drivers. Efforts by public and private entities[3] have contributed to substantial reductions between 1983 and 1999 in the number (23,646 to 15, 794) [4] and proportion (56 percent to 38 percent) of alcohol-related fatalities. However, the measures taken and the degree of implementation of the Safety Board's 1984 recommendations by States and localities have not been uniform, and alcohol-related crashes continue to claim too many lives on the Nation's roads and highways. The 15,794 people killed in such crashes in 1999 far exceed the target of no more than 11,000 alcohol-related driving fatalities by 2005 that was set by the Secretary of Transportation in 1995.[5]

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[1] In this report, the term "driving while impaired" and its acronym "DWI" are used to refer to the act of driving with a blood alcohol concentration that exceeds the State's standard. States use different terms, such as "driving under the influence (DUI)," "operating under the influence (OUI)," "driving while alcohol impaired (DWAI)," and other terms to describe essentially the same offense.

[2] A description of the recommendations and their current status are fully discussed in Appendix A.

[3] These include the National Highway Traffic Safety Administration, the States, Mothers Against Drunk Driving (MADD), and others.

[4] Preliminary estimate by the National Highway Traffic Safety Administration in a press release dated 3 Apr. 2000, entitled "U.S. Transportation Secretary Slater Says Nation's Traffic Death Rates Reach Historic Low in 1999." The final 1999 fatality report, pending completion of data collection and quality control verification, will be available in August 2000. Data for 1998 are the most recent complete data available and are used throughout this report except as noted.

In light of the thousands of deaths still resulting from these crashes, the National Transportation Safety Board is again focusing efforts on the groups it categorizes as "hard core drinking drivers." For purposes of this report, the term includes the following two groups:

- repeat offender drinking drivers (that is, offenders who have prior convictions or arrests for DWI offenses within the past 10 years) and
- offenders with a blood alcohol concentration (BAC) of 0.15 percent or greater (simply called "high BAC").[6]

These two groups are involved in almost 40 percent of the alcohol-related fatalities and present traffic safety challenges that States can address by implementing the laws, policies, and strategies described in this report.[7]

Six accident investigations for which the Safety Board obtained information were used in preparing this report (see appendix F for briefs of the investigations). These six investigations illustrate some types of crashes in which repeat offenders and high-BAC drivers are involved. While the Board's 1984 study investigated over 50 crashes, this safety report is based on the extensive crash analysis and research currently available that was not available for the 1984 study. These data, despite the limitations of NHTSA's Fatal Accident Reporting System (FARS) and the General Estimates System (GES), provide sufficient information to determine that the involvement of hard core drinking drivers in alcohol-related crashes and fatalities is substantial.[8] The bulk of available data and research on the hard core drinking driver problem made the study of large numbers of Safety Board investigations unnecessary, as no new information would likely be gained regarding the nature or cause of these crashes.

This report examines alcohol-related fatality crash trends in the United States; identifies repeat offenders and high-BAC drinking drivers as highway safety problems; summarizes research on countermeasures; and proposes actions to decrease fatalities caused by hard core drinking drivers. This report also discusses steps taken by the United States Congress to address the problem by enacting certain provisions in the

[5] National Highway Traffic Safety Administration, *Partners in Progress: Impaired Driving Goals and Strategies for 2005 Summary of Proceedings*, DOT HS 808 246 (Washington: National Highway Traffic Safety Administration, 1995) 5.

[6] The amount of alcohol consumption necessary to reach a BAC of 0.15 percent is substantial. Various BAC estimators have been developed, including the "Blood Alcohol Educator," which was used to develop the following estimates. These estimates assume that the person has not eaten, and drinks quickly. For a 180-pound male, six drinks (each drink equals 12 ounces of beer, a 1-ounce shot of 80 proof distilled liquor, or 5 ounces of wine) in 1 hour will result in a BAC of approximately 0.15 percent. For a 130-pound female, four drinks in 1 hour will result in an estimated BAC of 0.15 percent. Conditions that affect blood alcohol concentration include gender, weight, food intake, alcohol content of the drink, rate of consumption (sipping, drinking, or "chugging" or "slamming"), and time elapsed since consumption. University of Illinois and The Century Council, *Blood Alcohol Educator*, CD-ROM (Urbana-Champaign: University of Illinois and The Century Council, 1999).

[7] A more detailed description of each group and case illustrations are provided in the next chapter.

Transportation Equity Act for the 21st Century (TEA-21),[9] and suggests ways to make this legislation more effective.

Trends

Exposure and Probability-of-Arrest Data

Marked decreases have occurred both in hard core drinking driving exposure and in the probability of hard core drinking drivers' arrest, according to NHTSA. The agency's 1997 survey of driver behavior revealed that there were an estimated 968 million drinking and driving trips in 1997 (based on this self-reported data).[10] This was a decrease from an estimated 1.3 billion trips (also self-reported) in 1993.[11] Also, in 1997, the FBI reported 1.477 million DWI arrests.[12] NHTSA's 1984 review of alcohol-impaired driving in the United States indicated that the risk of DWI arrest is low: it was estimated to be 1 in 300 in a heavily patrolled area and 1 in 2,000 in other areas.[13] NHTSA further reported that "on average, a driver can drive [impaired] 5,000 miles before being arrested for a DUI offense."[14]

NHTSA's *Drinking and Driving in the United States: The 1996 National Roadside Survey* further indicates that on Friday and Saturday nights between the hours of 10 p.m. and 3 a.m., 19.6 percent of 6,400 drivers surveyed had been drinking, 3.2 percent had an illegal BAC of 0.10 percent or greater, and 0.8 percent had a BAC of 0.15 percent or greater. Based on those results, on Friday and Saturday nights in 1996 approximately 1 in 5 cars was driven by a driver who had been drinking, approximately 1 in 31 cars was

[8] These two systems are crash databases that provide statistics on traffic crashes of all severities. NHTSA states that "care should be taken when comparing nonfatal crash and injury statistics from one year to the next. Since the statistics derived from General Estimates System (GES) data are estimates, year-to-year differences may be the result of the sampling process, not the result of an actual trend. The variability or sampling errors associated with the estimates must be considered when making any year-to-year comparisons using GES data." National Highway Traffic Safety Administration, *Traffic Safety Facts 1998: A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System* DOT HS 808 983 (Washington: National Highway Traffic Safety Administration, 1999) 13. One shortcoming of FARS involves the lack of information involving the role that alcohol impairment plays in the causation of highway crashes. Currently, FARS does not allow an analyst to determine with confidence whether an individual driver's alcohol impairment was a determining factor in causing a crash. While it is clear that degraded driver performance caused by alcohol impairment is a leading cause of death and serious injury, statistical summaries of alcohol-related injuries or fatalities may lead to a tendency to overstate the relationship between alcohol and highway crashes. This happens because all injuries caused by crashes involving at least one drinking driver are labeled "alcohol-related"; this practice leads to the mistaken assumption that alcohol impairment is causal in every crash where alcohol is present.

[9] Pub. L. 105-178. 9 Jun. 1998. Stat. 112.107.

[10] Dawn Balmforth, *National Survey of Drinking and Driving Attitudes and Behavior: 1997* (Washington: National Highway Traffic Safety Administration, 1998) 81.

[11] Balmforth 81.

[12] Federal Bureau of Investigation, *Crime in the United States* (Washington: Federal Bureau of Investigation, 1997) 222.

driven by a legally impaired driver, and approximately 1 in 119 cars was driven by a hard core drinking driver.[15]

Alcohol-Related Crash Fatalities in the United States

NHTSA defines a fatal traffic crash as alcohol-involved or alcohol-related if either a driver or pedestrian/bicyclist had a blood alcohol concentration (BAC) of .01 g/dl (.01 percent) or greater.[16] In 1983, of the 42,589 people who died in traffic crashes, 23,646 (nearly 56 percent) died in alcohol-related crashes.[17] In 1999, an estimated 41,345 people died in all motor vehicle crashes; 15,794 (38 percent) of the deaths resulted from alcohol-related crashes.[18] This percentage represents the lowest proportion of alcohol-related fatalities in the history of reliable national statistics; it also represents a 33.2-percent reduction in alcohol-related fatalities reported since 1983 (see figure 1).

Reductions in alcohol-related crash fatalities have occurred among *all* drinking drivers, including those whom the Safety Board defines as hard core. For example, in those States with good BAC testing rates (greater than 80 percent) of fatally injured drivers, the proportion of these drivers with a BAC of 0.15 percent or greater declined from 29 percent in 1983 to 20 percent in 1997.[19]

Safety Board staff analyzed FARS data for the same time period as that of NHTSA's Roadside Survey (Friday and Saturday nights, 10 p.m. to 3 a.m., 1996). This analysis determined that 5,203 drivers were involved in fatal crashes during those hours, of which 1,421 were hard core drinking drivers, using the Safety Board's definition. While hard core drinking drivers constituted only 0.8 percent (1 of 119) of all drivers on the road in the National Roadside Survey, they constituted 27 percent of drivers in fatal crashes during the same time period in 1996. These data clearly suggest that hard core drinking drivers are overrepresented in fatal crashes.

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[13] National Highway Traffic Safety Administration, *Alcohol and Highway Safety 1984: A Review of the State of the Knowledge* (Washington: National Highway Traffic Safety Administration, n.d.) 56.

[14] National Highway Traffic Safety Administration, *Alcohol and Highway Safety 1984*, 56.

[15] Robert B. Voas, et.al., *Drinking and Driving in the United States: The 1996 National Roadside Survey*, DOT HS 809 019. (Washington: National Highway Traffic Safety Administration, 2000) 8, B-26-30.

[16] Since BAC tests are not given to all active participants in fatal crashes (i.e., drivers, pedestrians or bicyclists), an estimation procedure using discriminant function analyses is used in NHTSA's Fatal Accident Reporting System (FARS) to determine these percentages (Terry M. Klein, *A Method for Estimating Posterior BAC Distributions for Persons Involved in Fatal Traffic Accidents,* DOT HS 807 094 [Washington: U.S. Department of Transportation, 1986]). Unless otherwise noted, statistics used in this report were provided by NHTSA.

[17] National Highway Traffic Safety Administration, DOT HS 808 983, 32.

[18] National Highway Traffic Safety Administration, "U.S. Transportation Secretary Slater Says Nation's Traffic Death Rates Reach Historic Low in 1999," 1. In 1998, 15, 935 people died in all alcohol-related crashes combined.

[19] These states include CA, CO, DE, HI, IL, MD, MN, NV, NJ, NM, OR, SD, WA, WI, and WY. Personal communication with Allan Williams, Insurance Institute for Highway Safety, Mar. 2000.

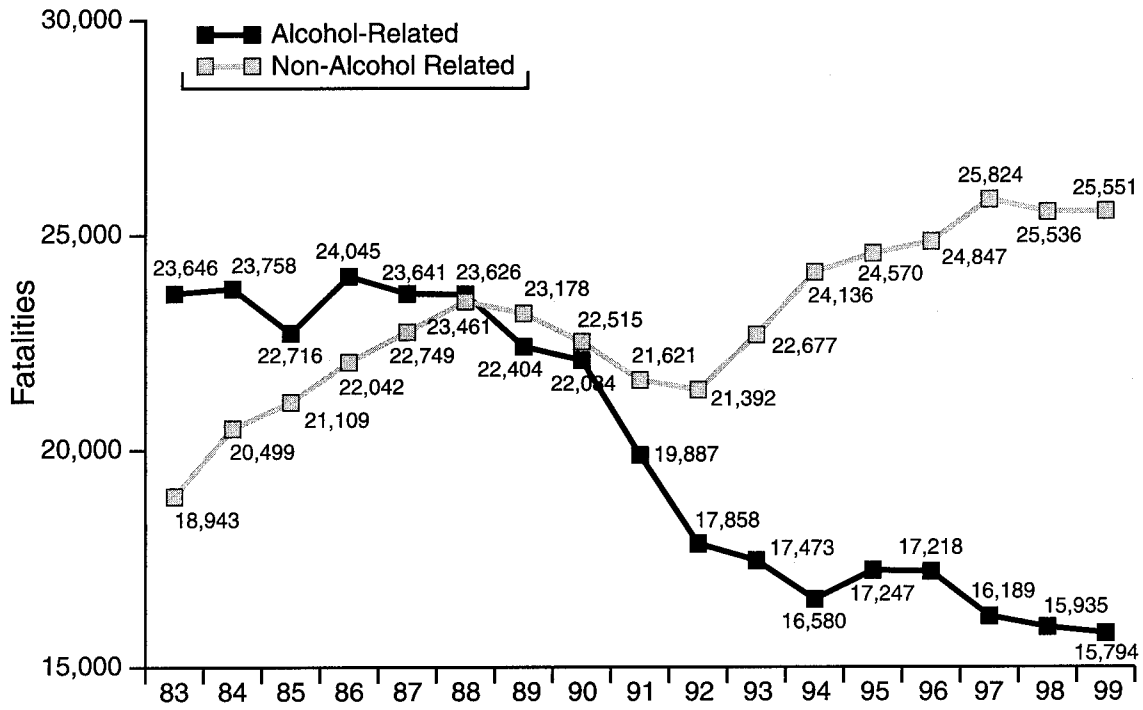

Figure 1. Alcohol-related fatalities in the United States, 1983–1999

Alcohol-Related Crash Injuries in the United States

The proportion of injuries involving all drinking drivers is difficult to estimate because driver blood alcohol concentration is not routinely taken on surviving drivers and thus is not available for inclusion in NHTSA's General Estimates System. However, according to NHTSA's *Traffic Safety Facts 1998: A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System,*[20] an estimated 305,000 persons were injured in alcohol-related crashes in 1998 alone, a decline from an estimated 340,000 persons in 1992.[21] NHTSA's data also indicate that 99,812 people were injured in fatal crashes involving hard core drinking drivers (as defined by the Safety Board) between 1983 and 1998. The number of injuries resulting from all crashes (both fatal and non-fatal) involving hard core drinking drivers was probably far greater than 100,000 over 16 years.[22]

[20] See footnote 9, page 13.

[21] See footnote 9, page 13.

[22] See footnote 9, page 13.

Chapter 2

The Hard Core Drinking Driver

This chapter describes the drivers that the Safety Board defines as hard core, who present particular challenges that can be addressed through proven, effective measures. Following are descriptions and justifications for inclusion of these two groups in the Board's definition of this term.[23] Also included in this chapter are the details of two cases illustrating typical fatal crashes involving repeat DWI offender drivers and high-BAC drivers. Information concerning these and four additional cases are provided in appendix F.

The Hard Core Drinking Driver

- Repeat offender drinking drivers (DWI Arrest or conviction in past 10 years)
- Drivers having high BAC (0.15 percent or greater)

Groups Included in The NTSB Definition

Repeat Offender Drinking Drivers

Repeat offenders, as the term is used in this report, are individuals who are convicted of or arrested for a DWI offense within 10 years of a prior DWI conviction or arrest. In 1995, NHTSA identified this group as high-risk, problem drinking drivers.[24] The agency recognizes that "the relative risk of crashes leading to death—both their own and other people's—is greater for drivers with prior DWI [convictions]."[25] NHTSA reports that 17 percent of fatally injured drivers in 1998 with a positive BAC had a previous DWI conviction, and that fatally injured drivers with BAC levels of 0.10 percent or greater were six times as likely to have a prior DWI conviction compared to fatally injured sober drivers.[26] A North Carolina study also found that 26.2 percent of case drivers who died in alcohol-related motor vehicle crashes had prior DWI arrests while only 3.1 percent of those who died in non-alcohol-related crashes (control group) had one or more DWI arrest

[23] Definitions used by other agencies and organizations are provided in appendix C.

[24] National Highway Traffic Safety Administration, "Repeat DWI Offenders in the United States," *Traffic Tech* 85 (Feb. 1995) 1.

[25] James C. Fell, "Persistent Killers," *Recovery*, 7:3 (Fall 1996) 2 <http://www.icbc.com/oldrecover/volume7/number3/persistentkillers>.

[26] National Highway Traffic Safety Administration, *Traffic Safety Facts 1998: Alcohol,* DOT HS 808 950 (Washington: National Highway Traffic Safety Administration, 1998) 3.

in the preceding 5 years. The same study found that the risk of death increases dramatically in relation to the number of prior DWI arrests.[27]

In March 2000, NHTSA published a summary of the attributes of repeat offenders. The report characterizes the typical repeat offender as follows:

Mean Age	35
Education	High school or less
Occupation	Non-white collar
Income	Low
Preferred Beverage	Beer, some distilled liquor
Other Offenses	Traffic and Criminal
Gender	Male (over 90 percent)
Race	White
Marital Status	Unmarried
BAC	>0.18 percent at arrest; higher in fatal crashes
Prior DWIs	2-3
Alcohol Problems	Alcohol dependency common[a]

[a] John H. Lacey and Ralph K. Jones, *State of Knowledge of Alcohol-Impaired Driving Research on Repeat Offenders (* Washington: National Highway Traffic Safety Administration, 2000) 19.

In analyzing the extent of the problem, NHTSA reviewed repeat offense drinking driver data provided by 12 States (CA, CO, IA, LA, MN, NC, NE, NM, OH, SD, TX, and WI) and reported that approximately one-third of all drivers convicted or arrested for DWI each year are repeat DWI offenders. Eight of these States indicated proportions between 21 and 47 percent for repeat offenders previously convicted of DWI. Repeat offense drinking driver data from the four other States, which measure repeat offense in terms of arrests rather than convictions, were similar; that is, re-arrests ranged between 24 and 46 percent of total DWI arrests.[28] In addition, NHTSA reported that repeat offenders account for 10 to 20 percent of all drinking drivers in fatal crashes, and one out of eight drinking drivers in fatal crashes have had a prior DWI conviction within the past 3 years.[29] The following case[30] is an example of a recent fatal crash involving a repeat offender.

Case 1.—On October 7, 1999, at 4:32 p.m., a pickup truck traveling on the shoulder of the road in excess of 50 mph in a 35 mph zone in Bristol Township, Pennsylvania, struck two pedestrians standing behind a truck parked on the shoulder. The impact threw one pedestrian into a nearby yard, causing him serious injury. The second pedestrian was killed when he was pinned between the two trucks.

At the time of this crash, the pickup truck driver, a 42-year-old female, was driving despite the fact that her license had been suspended until 2003 for DUI-related offenses.

[27] Robert D. Brewer, et. al., "The Risk of Dying in Alcohol-Related Automobile Crashes Among Habitual Drunk Drivers," *New England Journal of Medicine* 331:8 (25 Aug. 1994) 513-17.

[28] National Highway Traffic Safety Administration, "Repeat DWI Offenders in the United States" 2.

[29] National Highway Traffic Safety Administration, "Repeat DWI Offenders in the United States" 1.

[30] Both cases included in this chapter, along with additional illustrative cases, are provided in appendix F.

A blood test taken 1 hour after the crash revealed her BAC to be 0.079 percent.[31] Her driver's record indicated that she had been sentenced to a diversion program known as DUI Accelerated Rehabilitation Disposition[32] (a DWI-offender diversion program designed for first-time offenders) in 1985. Although she had not been arrested for another drinking and driving offense for 13 years, she had been re-arrested in both July and August of 1998 for DUI. Following these two arrests in 1998, she received two separate sentences in 1999 of 2 to 364 days in county jail. She served only the minimum 2 days on each count before she was released on probation.[33]

High-BAC Offenders

The precise definition of what constitutes a "high-BAC" offender is subject to debate. [34] In the 15 States that have established laws imposing increased penalties against drivers with a high BAC, the definition of the term differs: four States define high BAC as 0.15 percent; three States, as 0.16 percent; three States, as 0.18 percent, and five States, as 0.20 percent (see appendix B).[35] The National Commission Against Drunk Driving, the Century Council, and Mothers Against Drunk Driving have all developed policies or programs to deal with hard core drinking and driving; all include high-BAC drivers as a part of the problem. These groups all define the term as either 0.15 or 0.16 percent (see appendix C).

The Safety Board selected 0.15 percent or greater in defining high BAC for the following reasons: At this level, offenders are from 1 1/2 to nearly 2 times above the legal BAC limit established in any of the 50 States. Drivers who reach this high level of BAC have consumed large amounts of alcohol, much more than is considered to be social or responsible drinking.[36] Moreover, research has found that drivers with a high BAC are at a substantially greater risk of being involved in a fatal crash: using NHTSA Fatality Analysis Reporting System (FARS) data, the Insurance Institute for Highway Safety estimated the relative fatality risk for drivers in single-vehicle crashes with a high BAC (0.15 percent or greater) to be 385 times that of a zero-BAC driver (see figure 2).[37] Similarly, The Traffic Injury Research Foundation (TIRF), also using FARS data,

[31] The driver also tested positive for cocaine and benzoylecgonine, a cocaine metabolite.

[32] Under the Pennsylvania DUI Accelerated Rehabilitation Disposition, a violator loses his or her driver's license for 1 year and serves 1 year of probation. If the violator successfully completes probation, the violator may request to have his or her record expunged after 7 years.

[33] National Transportation Safety Board Accident No.: HWY-00-IH-20

[34] The Safety Board specifically notes, as it did in its 1990 Safety Study NTSB/SS-90-01, *Fatigue, Alcohol, Other Drugs, and Medical Factors in Fatal-to-the-Driver Heavy Truck Crashes,* that any BAC may be impairing and that the only safe BAC is zero.

[35] Indiana, Louisiana, Maine, and Washington use 0.15 percent. Connecticut, New Hampshire, and New Mexico use 0.16 percent. Arizona, Arkansas, and Kentucky use 0.18 percent. Colorado, Florida, Idaho, Minnesota, and Tennessee use 0.20 percent.

[36] The American Psychiatric Association accepts a single DWI conviction as evidence of alcohol abuse. DWI convictions can be obtained at 0.08 percent BAC or greater in 18 States and the District of Columbia and at 0.10 percent BAC or greater in 33 States. In addition, the U.S. Department of Health and Human Services in the National Household Survey on Drug Abuse defines "binge drinking" as drinking 5 or more drinks on the same occasion. American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition* (Washington: American Psychiatric Association, 1994) 196.

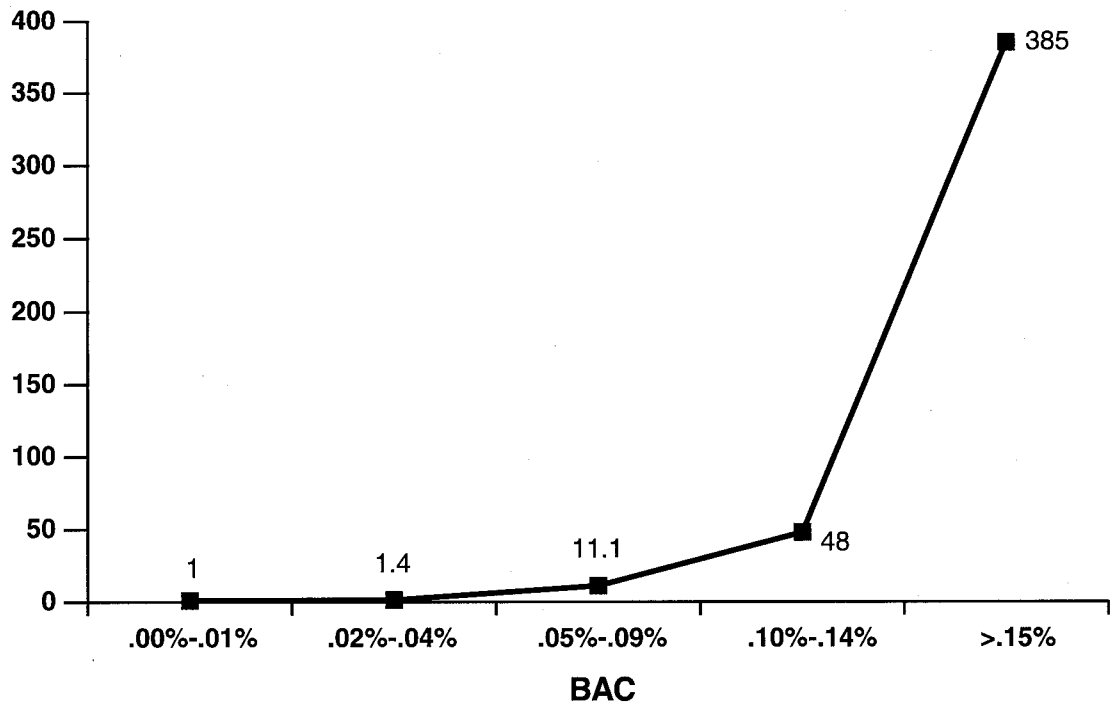

Figure 2. Relative single vehicle crash risk at a high-BAC level

estimated that high-BAC drivers (0.15 percent or greater) are more than 200 times more likely to be involved in a fatal crash than a non-drinking driver.[38] TIRF also indicated that on weekend nights, less than 1 percent of all drivers on the road have a BAC of 0.15 or greater, but they "represent nearly half of all the fatal crashes at that time."[39]

In 1998, NHTSA sponsored a critical literature review of the alcohol highway safety problem and concluded that "recent research adds little new knowledge about the role of high BAC in alcohol-related crashes, but reinforces the findings of prior studies indicating that a high BAC is strongly related to both high alcohol-crash incidence and high alcohol-crash risk."[40] One study by Simpson and Mayhew,[41] included in the 1998 literature review, showed that 80 percent of all fatally injured drivers with measurable BAC had a level in excess of 0.10 percent, 64 percent had a level in excess of 0.15 percent, and about 40 percent had a level of 0.20 percent or greater.[42] The Simpson and Mayhew study also showed that, among drivers who had a BAC above 0.10 percent,

[37] Paul Zador, "Alcohol-related Relative Risk of Fatal Driver Injuries in Relation to Driver Age and Sex," *Journal of Studies on Alcohol* 52 (1991) 302-310.

[38] Herbert M. Simpson, Daniel R. Mayhew, and Douglas J. Beirness, *Dealing with the Hard Core Drinking Driver* (Ottawa: The Traffic Injury Research Foundation of Canada, 1996) 40.

[39] Simpson, Mayhew, and Beirness, *Dealing with the Hard Core Drinking Driver* 21.

[40] Ralph K. Jones and John H. Lacey, *Alcohol Highway Safety: Problem Update*, DOT HS 808 743 (Washington: National Highway Traffic Safety Administration, 1998) 34.

[41] Herbert M. Simpson and Douglas R. Mayhew, *The Hard Core Drinking Driver Update* (Ottawa: The Traffic Injury Research Foundation of Canada, 1992) 3.

[42] Jones and Lacey DOT HS 808 743, 13

almost 8 out of 10 had a BAC of 0.15 percent or more.[43] An examination of 1997 data by NHTSA showed that these proportions had changed very little since 1991, indicating the large role played by high-BAC drivers in fatal crashes.[44]

The following case is an example of a recent fatal crash involving a high-BAC driver.

Case 2.— On November 25, 1999, about 1:20 a.m., a 1993 Pontiac Grand Am had been traveling for more than 5 miles in the wrong direction (east) on Interstate 76 (I-76) in Upper Merion, Pennsylvania, when it collided head-on with a 1993 Nissan Altima transporting the driver and four passengers. The impact caused the Altima to spin, strike a concrete barrier, and catch fire. One passenger was trapped in the Altima and died of burns, multiple injuries, and smoke inhalation. The three remaining passengers and the driver of the Altima sustained minor to serious injuries. A third vehicle that was also traveling west on I-76 struck the Pontiac. Both the driver of the Pontiac and the driver of the third vehicle also suffered minor to serious injuries. The driver of the Pontiac was found to have a BAC of 0.24 percent.[45] This driver had been arrested for DUI on June 30, 1996. The court ordered his license suspended, but the suspension did not take effect until Aug. 21, 1997.[46]

Scope Of The Hard Core Drinking Driver Problem

NHTSA's data show that, since 1983, at least 137,338 people have died in crashes involving hard core drinking drivers. In 1998, 6,370 died in such crashes; this number represents nearly 40 percent of all alcohol-related fatalities for that year (6,370 of 15,935).

Cost to Society

- 137, 338 Hard core drinking driver related fatalities, 1983–1998
- 6,370 Hard core drinking driver related fatalities, 1998
- $5.3 Billion estimated economic cost of these fatalities, 1998

According to *Traffic Safety Facts 1998,*[47] an estimated 305,000 persons were injured in alcohol-related crashes in 1998, and of that number, 60,000

[43] Jones and Lacey DOT HS 808 743, 13

[44] The 1997 Fatality Analysis Reporting System (FARS) data also indicated that there was a sizable number (3,507) of fatal crashes at lower BACs (.01 to .09 percent), but there were no comparable data from non-crashes to get a good estimate of relative risk. Combining the data from FARS and from roadside surveys, the National Highway Traffic Safety Administration believes that there is a significant relative crash risk at BAC levels between 0.05 and 0.10 percent, and a lower but not insignificant crash risk for BAC levels between 0.02 and 0.05 percent (Jones and Lacey, DOT HS 808 743, 34).

[45] Traces of marijuana (cannabinoids) were also detected in the driver's system.

[46] Like many DUI offenders, this driver had not taken the necessary measures to have his driver's license reinstated following the period of suspension. National Transportation Safety Board Accident No.: HWY-00-IH-12.

[47] National Highway Traffic Safety Administration, DOT HS 808 983, 111.

persons received incapacitating injuries. The proportion of injuries involving hard core drinking drivers, however, is difficult to estimate because of the lack of alcohol test results in the GES.

In addition to the cost of human lives, hard core drinking drivers exact a substantial monetary cost. In 1994, NHTSA estimated that all motor vehicle crashes *combined* cost American society over $150 billion dollars per year.[48] Using NHTSA's formula, the economic cost to society for hard core drinking driver-related fatalities in 1998 would be at least $5.3 billion dollars (6,370 x $830,000).[49]

Hard core drinking drivers (repeat offender drinking drivers with a prior DWI arrest or conviction within the past 10 years and offenders with a blood alcohol concentration of 0.15 percent or greater) pose an increased risk of crashes, injuries, and fatalities. Therefore, the States should take measures that would further reduce the significant loss of human life and immense societal costs caused by hard core drinking drivers. The following chapter discusses countermeasures that have been shown successful in achieving this goal.

[48] Lawrence J. Blincoe, *The Economic Cost of Motor Vehicle Crashes*, DOT HS 807 876 (Washington: National Highway Traffic Safety Administration, 1995) 5.

[49] Computation rendered in 1994 dollars as defined in *The Economic Cost of Motor Vehicle Crashes*. In this report, the economic cost of a human life was estimated at $830,000 for a fatality, $706,000 for a critically injured survivor, and $230,000 for a seriously injured survivor.

Chapter 3

Countermeasures To Reduce Hard Core Drinking Driving

Since the Safety Board issued its recommendations to the States in the *Repeat Offender Study,* a variety of countermeasures have been implemented by States and localities to address the problems caused by hard core drinking drivers, and alcohol-related crashes and fatalities have declined. In order for additional gains to be made in addressing this problem on a National level, it is necessary to examine which of these actions have been found effective in the specific States that have utilized them. The experiences of such jurisdictions can serve as examples to other States that have not yet put these countermeasures to use.

This chapter, therefore, examines specific countermeasures to combat the hard core drinking driver problem. The Safety Board identified these specific countermeasures through a review of approximately 200 research studies of the effectiveness of drinking driving countermeasures. The examples used in this report were chosen based on their statistically significant results. The following sections of the chapter examine BAC laws, law enforcement strategies, licensing sanctions, vehicle sanctions, limits on plea-bargaining and diversion programs, assessment and treatment, confinement, and alternatives to confinement.

High-BAC and Repeat Offender Low-BAC Laws

This section discusses two types of State laws that set alcohol limits for licensed drivers who are operating a motor vehicle: laws that address drivers with high BACs and laws that set lower BAC limits for repeat offenders.

High-BAC Laws

As discussed previously, research has indicated that high-BAC offenders (0.15 percent or greater) have a greatly elevated crash risk and that the amount of alcohol that must be consumed to reach 0.15 percent may indicate that these offenders have an alcohol abuse problem.[50] High-BAC first offenders with other traffic violations are also very likely to repeat the offense.[51] As stated in Chapter 2, 15 States have enacted laws

[50] Herbert M. Simpson and Daniel R. Mayhew, *The Hardcore Drinking Driver* (Ottawa: The Traffic Injury Research Foundation of Canada, 1991) 28-29, 32.

[51] Leonard A. Marowitz, "Predicting DWI Recidivism," *Blood Alcohol Concentration and Driving Record Factors* I (Sacramento: California Department of Motor Vehicles, 1998) 2.

providing for an "extreme" or "aggravated" DWI offense defined by the arrest BAC. In these States, a first offender committing an aggravated alcohol offense can be subject to sanctions similar to those that may be applied to repeat offenders (for example, assessment and treatment referral may be mandatory and a longer license suspension and jail terms may be imposed). Seven of the 15 States use either 0.15 or 0.16 percent as the *per se* extreme offense level; 3 States use 0.18 percent, and 5 States use 0.20 percent. Many foreign countries have tiered BAC laws in which sanctions are graduated as the offense BAC increases. These countries include Australia, Austria, Belgium, Denmark, France, Germany, the Netherlands, Portugal, and Sweden.[52]

Repeat Offender Low-BAC Laws

Much debate has occurred at both national and State levels about the merits of lowering BAC limits for all drivers. This report does not address that issue, because this report focuses on hard core drinking drivers, not all drinking drivers. However, this report does suggest that BAC limits be lowered for repeat offenders.

Countermeasures–Laws

- High-BAC
- Zero-BAC for convicted DWI offenders
- Administrative License Revocation
- Limits on plea bargaining of DWI offenses to non-alcohol-related charges
- 10-year minimum look-back period for DWI offenses

In some States, courts may impose lower-BAC or zero-alcohol probation conditions for drivers convicted of DWI to facilitate compliance with court mandates, such as treatment. For example, in Georgia, a judge in Rockdale County requires repeat offenders to be alcohol free and requires some to submit to daily breath-alcohol testing.[53] Some courts may also require sobriety without incorporating a means of testing except for possible traffic enforcement.

Both Maine and North Carolina have lowered their BAC limit for drivers who have been convicted or similarly administratively adjudicated on a first DWI offense. Only the Maine law has been evaluated for effectiveness (Hingson, Heeren, and Winter). This State law, passed in 1988, mandated a BAC of 0.05 (the BAC for drivers without prior offenses is 0.08) for a subsequent offense occurring within 1 year for first offenders and within 10 years for subsequent offenders. A repeat offender with a BAC of 0.05 percent or greater would receive a 1-year administrative license suspension under the Maine low-BAC law for a first low-BAC offense, and a 10-year suspension for a subsequent offense.[54]

A 1998 evaluation of the effect of Maine's law on repeat offenders, using FARS data for 1982 through 1994 (N [sample size] = 874 for Maine; 5,808 for comparison

[52] Kathryn Stewart, *Literature Review on DWI Laws in Other Countries* (Washington: National Highway Traffic Safety Administration, 2000) 13-28.

[53] Ralph K. Jones and John H. Lacey, *Evaluation of An Individualized Sanctioning Program for DWI Offenders* (Washington: National Highway Traffic Safety Administration, 1998) 1-3.

[54] The law also mandated a 2-year license suspension for those who refuse to submit to a breath test.

States), determined that the Maine law had resulted in a 25-percent decline in the proportion of repeat offender drivers in fatal crashes, and a 31-percent decline in fatally injured repeat offenders with a 0.05-percent or greater BAC. The number of fatally injured repeat offenders with prior DWIs and a high BAC (0.15 percent or greater) declined 35 percent.[55] In other words, the measure had a greater effect at the higher BAC levels. The authors (Hingson, Heeren, and Winter) reported that for other States in New England, these proportions increased during the same period. In 1995, the Maine legislature changed the 0.05-percent BAC law for convicted offenders to a zero-BAC law. The 1995 change has not been evaluated.

Since it is applied administratively, the zero-BAC law for repeat offenders relieves the courts of the burden of trying to enforce sobriety as a condition of probation. It also sets a clear standard—no alcohol when driving—for convicted DWI offenders.

Law Enforcement Strategies

This section discusses the role of law enforcement in deterrence, focusing on the use of checkpoints, administrative license revocation, and license suspension enforcement as effective countermeasures against hard core drinking driving.

Checkpoints

Countermeasures–Enforcement

- Frequent sobriety checkpoints in all states
- Driving while suspended or unlicensed enforcement

Sobriety checkpoints are an important enforcement strategy for detecting impaired drivers, but more importantly, for deterring individuals from drinking and driving.[56] The Safety Board recognized checkpoint effectiveness in its 1984 *Repeat Offender Study.* In another 1984 safety study, *Deterrence of Drunk Driving: The Role of Sobriety Checkpoints and Administrative License Revocations*, the Safety Board strongly supported the use of sobriety checkpoints, and the Safety Board continues to believe that checkpoints are one of the most effective, highly visible measures in deterring individuals from drinking and driving. Despite the success of checkpoints, only 39 States currently use them, and many of those States conduct checkpoints only at holidays and do not conduct them Statewide.

[55] These declines were statistically significant. Ralph Hingson, Timothy Heeren, and Michael Winter, "Effects of Maine's 0.05% Legal Blood Alcohol Level for Drivers with DWI Convictions," *Public Health Reports* 113 (Sep.-Oct. 1998) 443.

[56] To be operated in a constitutionally permissible manner, sobriety checkpoints must be conducted in accordance with conditions specified in two U.S. Supreme Court cases: Michigan Dept. of State Police v. Sitz, 496 U.S. 444 (1990) and Delaware v. Prouse, 440 U.S. 648 (1979). Generally, this means that checkpoints must be planned and approved by police command levels, public notice (including warning devices and visible police authority) must be given, provisions for safety must be included in the plan, and vehicles must be stopped on a non-discriminatory basis. Public support for sobriety checkpoints appears to be strong. A 1993 Gallup poll indicates that 74 to 79 percent of respondents favored the use of checkpoints to combat impaired driving. *Gallup/Mothers Against Drunk Driving Survey* (1994).

Starting in 1993, North Carolina conducted a multi-year program that consisted of alternating checkpoints for sobriety and safety belt use. Publicity in the media announced the checkpoint in use during any given 3-month period. Through 1998, North Carolina conducted more than 22,000 checkpoints, identifying over 35,000 DWI violators and nearly 50,000 drivers without licenses.[57] The State reported that it reduced the percentage of drivers with illegal BAC levels (0.08 percent or greater) stopped at checkpoints during the course of the program by more than half (from 1.98 percent of those tested to 0.90 percent.)

In 1994, the Tennessee Highway Patrol and local agencies also provided personnel for Statewide checkpoints there. Checkpoints were conducted every weekend for a year and were accompanied by extensive media coverage. The program achieved a statistically significant reduction equivalent to nine alcohol-related fatal crashes per month. Fatal crashes linked to impaired driving were reduced by 20.4 percent.[58]

Administrative License Revocation

Administrative license revocation (ALR) authorizes the arresting police officer, as an agent of the driver licensing agency, to confiscate the license of a driver who refuses or who takes and fails a chemical test for alcohol. The license is typically confiscated on the spot, and a temporary license document is issued to the driver. This temporary permit usually has a 14- to 30-day time limit in which the offender may request an administrative hearing. Appeals are usually authorized, but typically do not stay the suspension.

The Safety Board has previously recommended enactment of administrative license revocation laws (H-84-13, H-84-17, and H-89-2),[59] as it believes that administrative license revocation is an effective countermeasure against drinking and driving in general, including hard core drinking driving. With NHTSA and others, the Safety Board started the ALR Coalition to promote State action on these recommendations. In January 1983, only 6 States had ALR laws. By January 2000, 40 States and the District of Columbia had ALR laws.

Studies by NHTSA and the Department of Justice indicate that ALR laws are effective in reducing alcohol-related crashes (e.g., they have brought about a 13- to 19-percent reduction in adult drivers in fatal crashes).[60] A 1999 NHTSA study estimated

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[57] Insurance Institute for Highway Safety, "North Carolina Belt Use Peaks at 84 Percent; Future Gains Sought," *Status Report* 33:2 (7 Mar. 1998) 5 <http://www.highwaysafety.org/srpdfs/sr3302.pdf>.

[58] John H. Lacey, Ralph K. Jones, and Randolph G. Smith, *An Evaluation of Checkpoint Tennessee: Tennessee's Statewide Sobriety Checkpoint Program* (Washington: National Highway Traffic Safety Administration, 1998) 20 <http://www.nhtsa.dot.gov/search97cgi/s97_cgi.exe>.

[59] National Transportation Safety Board, *Deterrence of Drunk Driving: The Role of Sobriety Checkpoints and Administrative License Revocations.* NTSB/SS-84-01 (Washington: National Transportation Safety Board, 1984); National Transportation Safety Board, *Highway Accident Report, Pickup Truck/Church Activity Bus Head-on Collision and Fire near Carrollton, Kentucky, May 14, 1988.* NTSB/HAR-89-01 (Washington: National Transportation Safety Board, 1989).

[60] Robert B. Voas and A. Scott Tippetts, *The Relationship of Alcohol Safety Laws to Drinking Drivers in Fatal Crashes* DOT HS 808 980 (Washington: National Highway Traffic Safety Administration, 1999) 11-13.

that 1,359 lives were saved in 1997 in States with ALR laws.[61] ALR also has been shown to have a specific deterrence effect, delaying or deterring repeat offenses even after the period of suspension has ended.[62]

License Suspension Enforcement

Hard core drinking drivers who drive while their driver's licenses are either suspended or revoked for a prior DWI offense are a serious problem because these drivers pose a substantial risk of harm to the general driving public. A Safety Board analysis of 1998 FARS data showed that, if involved in a fatal crash, drivers with suspended or revoked licenses and a prior DWI are 4.43 times more likely to be drinking at the time of the crash than drivers with a valid license and no prior DWI. This analysis also determined that, based on 1998 FARS data, 70 percent of drivers in fatal crashes with suspension or revocation and prior DWI were drinking at the time of the crash. Only 16 percent of legal drivers with no DWI conviction history who were also involved in fatal crashes were drinking. The success of license suspension and revocation in combating recidivism and crashes has been well documented for over 20 years. Research from California and other States has shown that license suspension effectively reduces DWI recidivism and crashes.[63]

Despite the value of this sanction, NHTSA summarized several California studies showing that up to 75 percent of drivers who have their licenses suspended for any reason, including DWI-based suspensions and revocations, continue to drive during suspension or revocation periods.[64] One California study found that California drivers with suspended or revoked licenses have 3.7 times the fatal crash rate of the average driver (N=1,043),[65] and a second study determined that the relative risk of fatal crash is substantially higher than average among drivers suspended or revoked for drinking and driving offenses.[66]

In an analysis of national accident fatality data, NHTSA found that 43 percent of the fatally injured drivers in 1998 with a positive BAC had a record of license suspension or revocation.[67] Canada has also reported substantial numbers of people driving on suspended licenses. Transport Canada (the Canadian federal Ministry of Transport) notes

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[61] Voas and Tippetts, DOT HS 808 980, 14.

[62] Kathryn Stewart, Paul Gruenewald, and Theresa Roth, *An Evaluation of Administrative* Per Se *Laws* (Washington: U.S. Department of Justice, 1989) 25.

[63] James L. Nichols and H. Laurence Ross, "The Effectiveness of Legal Sanctions in Dealing with Drinking Drivers," *Alcohol, Drugs and Driving* 6: 2 (Los Angeles: University of California at Los Angeles, Apr.-Jun. 1990) 33-60; David F. Preusser, Richard D. Blomberg, and Robert G. Ulmer, "Evaluation of the 1982 Wisconsin Drinking and Driving Law," *Journal of Safety Research* 19 (1988) 24-40.

[64] National Highway Traffic Safety Administration, "California Impounds the Vehicles of Motorists Caught Driving Without a Valid License," *Traffic Tech* 180 (May 1998) 1.

[65] David J. DeYoung, Raymond C. Peck, and Clifford J. Helander, "Estimating the Exposure and Fatal Crash Rates of Suspended/Revoked and Unlicensed Drivers in California," *Accident Analysis and Prevention* 29:1 (1997) 21.

[66] Raymond C. Peck, "Unlicensed Driving a Major California Safety Problem," *Research Notes* (Summer 1997) 3.

[67] National Highway Traffic Safety Administration, DOT HS 808 950, 3.

that "if the system provides little in the way of additional sanctions for those who are caught driving while suspended, their behaviour is unlikely to change."[68]

Detecting Driving While Suspended (DWS) and Driving While Unlicensed (DWU) offenders is difficult, because police require probable cause to stop drivers.[69] State and local agencies in California, Ohio, Florida, New York, West Virginia, Utah, and other States have developed DWS enforcement-surveillance programs, which they report have had positive results in reducing recidivism. The following programs provide a few examples of State and local cooperation in enforcing driver license suspension and revocation laws.

In 1991, the State of Ohio instituted a "Habitual Offenders Tally" or "HOT sheet" as part of its habitual offender program. The program targets five-time offenders with currently suspended licenses. HOT sheets are tabulated for each county in the State and provided to police agencies and sheriffs to target those who continue driving while suspended. The State also publishes a monthly newsletter that reviews cases of multiple offenders who are apprehended and recognizes officers who arrest multiple offenders. The newsletter is provided to enforcement agencies, courts, and other agencies. From August 1, 1991, through May 1, 1994, police arrested approximately 1,400 of these habitual offenders. Ohio reported that the program contributed to a 30-percent reduction in alcohol-related fatalities over this period.[70]

Salt Lake County, Utah, also developed a HOT sheet program to increase enforcement of license suspension and revocation laws. NHTSA reported that Salt Lake County, with over 550,000 licensed drivers, has "an average of 50,000 drivers on suspension at any given time."[71] To focus the program, the county identified 3,000 drivers who had been suspended for impaired driving.[72] In developing the HOT sheets, the police and driver licensing agency identified one driver who had been suspended 50 times. Salt Lake County developed 131 separate sheets for police agencies. These sheets were distributed to patrol officers every 3 to 4 weeks. NHTSA reported that the program resulted in a 14-percent increase in arrests for driving while suspended or revoked.[73]

The Merced County, California, Supervising Offenders by Enforcement Response (SOBER) program incorporated a law enforcement link with probation for felony DUI probationers (probation officers usually supervise court-ordered probations without police

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[68] Douglas J. Beirness, Herbert M. Simpson, and Daniel R. Mayhew, *Evaluation of the Vehicle Impoundment and Administrative License Suspension Programs in Manitoba* TP13096 E (Ottawa: Traffic Injury Research Foundation of Canada, 1997) 11.

[69] Beirness, Simpson, and Mayhew 11.

[70] Ohio Department of Public Safety, *Hot Sheet News* (June 1994).

[71] A.N. Moser, Jr. *Guidelines for a Suspended or Revoked Operator Enforcement Program*, National Highway Traffic Safety Administration DOT HS 808 653 (Washington: National Highway Traffic Safety Administration, n.d.) 2.

[72] Moser 2.

[73] Moser 2.

Sample Driving on Alcohol Suspension HOT Sheet

Lic #	L. Name	F. Name	M. Name	DOB	State	City	Status	Ht	Wt	Hair	Eyes	Times Susp
		ROBIN		08/17/1949		KEARNS	REVA	505	095		BLU	38
		DAVID	J	03/25/1964		KEARNS	REVA	511	190	BRO	BRO	33
		TONY	STEVE	06/06/1968		KEARNS	REVA	507	130	BRO	BRO	33
		EDVARDO	RUDOLFO	01/14/1962		KEARNS	REVA	507	150		BRO	32
		ROBERT	ELLIS	12/30/1961		KEARNS	REVA	509	175	BLD	HAZ	30
		ALLAN	M	03/07/1956		KEARNS	REVA	508	150		BLU	30
		ROBERT	ANTHONY	09/20/1948		KEARNS	REVA	508	210	BLK	BRO	27
		DARRIN	DEE	05/05/1962		KEARNS	REVA	600	180	RED	BLU	26
		MARK	D	03/13/1958		KEARNS	REVA	602	188		BRO	26
		KENNETH	JACOBSEN	07/02/1942		KEARNS	REVA	506	145	BRO	BLU	25
		GLEN	ALFRED	02/07/1952		KEARNS	REVA	600	160		BLU	23
		WILFORD		07/18/1968		KEARNS	REVA	507	200	BLK	BRO	23
		JOEL	A	12/10/1961		KEARNS	REVA	511	135	BLD	BRO	16
		ROBERT	D	05/23/1963		KEARNS	REVA	510	175	BRO	BLU	16
		RICKY		04/21/1965		KEARNS	REVA	504	195	BLK	BRO	16

support).[74] A deputy probation officer and a California Highway Patrol officer were teamed to supervise all felony DUI probationers in the county. Merced County indicated that it had 172 felony DUI probationers, representing over 372 DUI convictions. Prior to the SOBER program, Merced County reportedly mingled DUI probationers' cases with other offenders on conventional (limited supervision) probation or placed DUI cases on the unsupervised caseload. That caseload group reportedly had no probation officer contact unless they were re-arrested. In 3 months of operations, the SOBER program reported a "ten percent return to custody on violations." The SOBER program also reported that it cleared more than 3 percent of outstanding warrants and enforced probation conditions of treatment.[75]

For those drivers who persist in driving on a license that was suspended for a DWI offense, the next step is to limit vehicle use or separate them from the vehicle they were driving when they were arrested, and possibly from any other vehicle to which they may have access. The next section of this chapter discusses various ways to accomplish that objective.

Vehicle Sanctions

Countermeasures–Vehicle Actions

- License plate impoundment
- Ignition interlock devices
- Vehicle immobilization
- Vehicle impoundment
- Vehicle forfeiture

Vehicle sanctions include license plate impoundment, vehicle immobilization, vehicle impoundment, and vehicle forfeiture, as well as ignition interlock devices. These sanctions may be used in combination with administrative license suspension or revocation to punish and deter hard core drinking drivers. According to the Transportation Research Board, "the most hopeful approach to controlling these individuals is not so much reform as incapacitation, rendering the crime difficult or impossible for those who would otherwise be motivated to commit it."[76] Vehicle sanctions substantially decrease the opportunity for hard core drinking drivers to operate vehicles illegally. These sanctions "add to the incapacitation effects of license sanctions by removing at least one vehicle from potential use by the offender ...and ...serve as general deterrents for others who might drink and drive or who might drive while suspended or revoked."[77]

[74] Generally, a non-injury DUI offense is a misdemeanor. A fourth or subsequent non-injury DUI offense is a felony. National Highway Traffic Safety Administration, *Digest of State Alcohol-Highway Safety Related Legislation, 18th Edition* DOT HS 809 008 (Washington: National Highway Traffic Safety Administration, 1999).

[75] California Office of Traffic Safety, *Tracks, 12:2* (Sacramento: California Office of Traffic Safety, 1997).

[76] H. Laurence Ross, Kathryn Stewart, and Anthony C. Stein, "Vehicle-Based Sanctions: An Overview," *Strategies for Dealing with the Persistent Drinking Driver*, ed. Barry Sweedler, Transportation Research Board Circular 437 (1995) 49.

License Plate Impoundment

Minnesota includes license plate impoundment as one sanction for drinking and driving and authorizes its use against offenders with three DWIs in 5 years or four or more DWIs in 10 years. Minnesota initially required judges to order this sanction, but despite this directive, the sanction was rarely imposed.[78] The law was subsequently amended to permit police to impound and destroy license plates upon arrest, even when the offender does not own the vehicle. Use of the sanction dramatically increased once police received the authority to impound the plates themselves.[79] A Minnesota study determined that administrative impoundment is less hindered than judicial enforcement, and results in swifter punishment that appears to be applied more uniformly.[80] In cases involving third-time offenders subject to administrative impoundment, the recidivism rate was half that of offenders who qualified for but were not subjected to the sanction. In this study, Rodgers found that after 12 months, the test group had a recidivism rate of 8 percent and the control group had a recidivism rate of 16 percent. After 24 months, the recidivism rates were 13 percent and 26 percent, respectively.

The study concluded that plate impoundment is extremely efficient, avoiding many of the logistical difficulties that might be encountered with other vehicle sanctions such as vehicle immobilization and impoundment. The license plates can be removed and disposed of easily, rendering the vehicle virtually unable to be driven.

Vehicle Immobilization

Vehicles can be immobilized through the use of a device that either locks the steering wheel (a "club") or one that locks the vehicle's wheel (a "boot"). Because the vehicle can remain on the offender's premises, this vehicle sanction eliminates the storage problems and potential costs associated with vehicle impoundment; the vehicle's presence may also serve as a constant reminder to the offender.[81]

Ohio amended its immobilization statute in 1993, extending the application of immobilization from DWS only to include repeat DWI offenders as well. Under Ohio's law, vehicles are seized at the time of the driver's arrest and are held until the hearing. Upon conviction of an offender, courts can order 30 days of immobilization for the first DWS offense, 60 days for the second DWS offense, 90 days for the second DWI offense, and 180 days for the third DWI offense. Upon the third DWS or the fourth DWI offense, an offender's vehicle is forfeited.[82]

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[77] Kathryn Stewart, "Streamlined Vehicle-Based Sanctions: Specific and General Deterrence Effects," *Strategies for Dealing with the Persistent Drinking Driver*, ed. Barry Sweedler, Transportation Research Board Circular 437 (1995) 51.

[78] Alan Rodgers, "Effect of Minnesota's License Plate Impoundment Law on Recidivism of Multiple DWI Violators," *Alcohol, Drugs and Driving* 10: 2 (1994) 128.

[79] Rodgers 133.

[80] Rodgers 133.

[81] Simpson, Mayhew, and Beirness, *Dealing with the Hard Core Drinking Driver* 96.

[82] Robert B. Voas, A. Scott Tippetts, and Eileen Taylor, "Temporary Vehicle Immobilization: Evaluation of a Program in Ohio," *Accident Analysis and Prevention* 29: 5 (1997) 635-36.

A study of Franklin County's use of Ohio's immobilization provisions found that brief impoundment followed by immobilization significantly reduced DWS and DUI offenses. The effects appeared to last beyond the sanction period, suggesting that temporary loss of a vehicle may promote specific deterrence against drinking and driving even after return of the vehicle.[83]

Vehicle Impoundment

Impounding the vehicle of a suspended driver has also been found effective in reducing recidivism. The effects of vehicle impoundment in four jurisdictions have been evaluated. A discussion of these evaluations follows.

In 1994, California passed two bills creating an impoundment and forfeiture program. Senate Bill 1758 authorized police to arrest DWS and DWU offenders and have their vehicles towed to an impound lot. Registered owners could reclaim their vehicles at the conclusion of the impoundment period (generally 30 days), by showing a valid driver's license and by paying the administrative charge, tow costs, and impound costs. Assembly Bill 3148 provided for forfeiture of vehicles when the offender was the registered owner and had had a previous DWS or DWU conviction, although a family member with a community property interest could take the vehicle.

A review of both the specific and general deterrent effects of the California impoundment provisions determined that there were statistically significant differences between the test and control groups in their subsequent DWS or DWU conviction rates, subsequent traffic conviction rates, and subsequent crash rates. [84] According to these findings, reductions ranged from 18 to 34 percent for subsequent convictions and from 25 to 38 percent for subsequent crashes.[85]

While California's impoundment program was successful in specific deterrence, it was not so successful in general deterrence. Upon implementation of the impoundment legislation, California experienced a drop in crashes among all suspended and revoked drivers, whether or not they received the impoundment sanction. However, the crash level returned to the pre-legislation levels relatively quickly, and drivers from the control group (those individuals who faced no threat of receiving this sanction) experienced the same reduction in crash levels.[86] Had this legislation created general deterrence, the crash levels among suspended and revoked drivers should have remained lower than pre-legislation levels.[87]

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[83] Voas, Tippetts, and Taylor, "Temporary Vehicle Immobilization" 641.

[84] David J. DeYoung, *An Evaluation of the General Deterrent Effect of Vehicle Impoundment on Suspended, Revoked and Unlicensed Drivers in California* RSS-98-180 (Sacramento: California Department of Motor Vehicles, 1998) 5.

[85] David J. DeYoung, *An Evaluation of the Specific Deterrent Effect of Vehicle Impoundment on Suspended, Revoked and Unlicensed Drivers in California* RSS-97-171 (Sacramento: California Department of Motor Vehicles, 1997) 38-42.

[86] DeYoung, RSS-98-180, 35.

[87] DeYoung, RSS-98-180, 36-38.

DeYoung hypothesized that perhaps suspended and revoked drivers had learned about the selective use of impoundment throughout the State and, therefore, did not fear the sanction sufficiently for it to succeed as a general deterrent.[88] Sanctions need to be frequent and visible to achieve general deterrence. Because the research shows that California's impoundment program did produce a significant specific deterrent, impoundment remains a viable sanction.[89] Furthermore, the reviewer hypothesized that "the longer that these measures are used, and the more consistently and widely they are applied, the more likely it is that they will eventually exert a significant general deterrent impact as well as a specific deterrent one." [90]

A local program in San Francisco demonstrates the potential for impoundment's success in reducing crashes, as well as the potential for an impoundment program to be economically self-sufficient when it has been carefully conceived and implemented. San Francisco passed an ordinance imposing a $150 administrative fee on impounded cars. In 1995, the first year of the program, 7,066 vehicles were impounded. In that year, San Francisco experienced a 26-percent reduction in crashes causing fatalities and injuries, and a 25-percent reduction in hit-and-run crashes. DWI enforcement increased as well, and a significant reduction in crime was also reported. The administrative fees associated with the impoundment program generated $721,000 in revenue; an additional $1 million was collected from offenders for unpaid traffic citations, vehicle registration, and towing fees. The funds recovered were sufficient to pay the costs of the program. San Francisco's undertaking illustrates the positive effects that can be derived from such an impoundment program.[91] This countermeasure appears to be especially effective with repeat DWI offenders and other high-risk drivers whom the State has had difficulty reaching through other means.

Other studies have also supported the effectiveness of impoundment programs. In their 1997 evaluation, Beirness, Simpson, and Mayhew analyzed the administrative impoundment program established in Manitoba, Canada, to specifically support its administrative license suspension program; they studied the re-arrest rate for DWS offenders in the first 3 months following the initial violation and discovered that once the impoundment program was begun, the re-arrest rate dropped significantly. [92]

In Hamilton County, Ohio, an impoundment program led to a 40-percent reduction in repeat offenses for DWS and DWI; analysis also found a 44- to 84-percent reduction in offense recurrence compared to offenders whose vehicles were not impounded. Reductions in offenses continued even after impounded vehicles were returned. Continued reductions ranged between 9 and 53 percent for DWS offenses and between 28 and 58 percent for DWI offenses.[93]

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[88] DeYoung, RSS-98-180, 37.

[89] DeYoung, RSS-98-180, 38.

[90] DeYoung, RSS-98-180, 38.

[91] California Office of Traffic Safety, *Tracks* 12: 2 (1997).

[92] Douglas J. Beirness, Herbert M. Simpson, and Daniel R. Mayhew 57.

The researchers (DeYoung, Beirness, Simpson, Mayhew, Voas, Tippetts, and Taylor) found that all of the programs described had to overcome a variety of logistical and legal barriers, including considerations for vehicles not owned by offenders, concerns about employment and family needs, and costs associated with towing and storage. The studies also determined, however, that all of the jurisdictions described above have been able to deal with these issues sufficiently well to demonstrate significant impacts on recidivism and crashes.

Vehicle Forfeiture

Vehicle forfeiture is the strongest and least-applied vehicle sanction. It is, in most jurisdictions, a discretionary sanction imposed by the courts. Vehicle forfeiture may involve high administrative and legal processing costs because of the property rights of the owners. Forfeiture may be costly in staff time, and localities may have difficulty in recovering costs through vehicle sales.[94] Portland, Oregon, operates a vehicle forfeiture program, and has seen the recidivism rate of offenders whose vehicles were seized drop to about half that of offenders who were not subjected to the sanction.[95] However, there was no difference experienced between offenders whose vehicles were merely impounded and offenders whose vehicles were forfeited.[96]

In an attempt to deter drinking drivers, New York City implemented a vehicle confiscation program for DWI offenders in February 1999 based upon the city's authority to confiscate money and property that are the instrumentality of a crime. New York's impoundment and confiscation program applies to all offenders, even first offenders, because in New York State, first-time offenders are responsible for 87 percent of DWI-related fatalities.[97]

While the results of the program have not yet been subjected to scientific evaluation, early indications imply that vehicle confiscation may be effective. Between February 22 and December 31, 1999, New York City seized 1,458 vehicles and demanded forfeiture of 827 vehicles. According to the New York City Police Department, who compared the first 10.5 months of the program in 1999 to a similar period in 1998, the city achieved a 14.4-percent decrease in alcohol-related crashes (from 1,660 in 1998 to 1,421 in 1999) and a 32.2-percent decrease in alcohol-related fatalities (from 31 in 1998 to 21 in 1999). Alcohol-related arrests declined 18.3 percent (from 4,170 to 3,407) in the same period.[98] The program has been highly publicized and duplicated in a number of other

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[93] Robert B. Voas, A. Scott Tippetts, and Eileen Taylor, *Effectiveness of the Ohio Vehicle Action and Administrative License Suspension Laws* DOT HS 809 000 (Washington: National Highway Traffic Safety Administration, 1999) 31-37.

[94] Robert B. Voas, *Assessment of Impoundment and Forfeiture Laws for Drivers Convicted of DWI Phase I Report: Review of State Laws and their Application* DOT HS 807 870 (Washington: National Highway Traffic Safety Administration, 1992) 57.

[95] DeYoung, RSS-98-180, 4.

[96] DeYoung, RSS-98-180, 4.

[97] George A. Grasso, "New York City Drunk Driving Forfeiture Initiative," *Impaired Driving Update* III: 3 (Kingston: Civic Research Institute, Summer 1999) 51.

New York State jurisdictions. In an important review, the Supreme Court of the State of New York, New York Division, has upheld the vehicle confiscation program.

Ignition Interlocks

Ignition interlocks, sometimes called breath alcohol ignition interlock devices (IID or BAIID), are designed to prevent an impaired driver from operating a vehicle. These devices are designed with a variety of safeguards such as temperature sensors and "rolling re-tests" (followup tests while the car is being driven) to reduce the chance that impaired drivers or other persons may defeat the IID. While IIDs can be used at any point in the sanction process, a "hard" license suspension period (no hardship license is granted) is an effective sanction that has been required by Congress in several DWI grant programs for the States (23 USC 408, 410, 164). IIDs can function as a means of providing mobility to offenders after a period of license suspension. Studies of IID effectiveness have been conducted in Alberta, Canada; Ohio; Maryland; and West Virginia.[99]

IIDs are authorized for use in 36 States (see appendix B). In these States, the courts may choose to impose IIDs on certain offenders. Use of the sanction is limited by the interest of the courts and an offender's financial status (offenders pay the costs associated with the device), although provisions can be made for indigent offenders in most States. However, a reported 90 percent of offenders given the option (by the court) choose license suspension over the IID.[100]

IIDs have been found effective in preventing alcohol-impaired driving to the extent that they are used on cars owned or operated by the offender while the IIDs are installed. An Alberta, Canada, evaluation found IIDs to be effective for first offenders as well as for hard core drinking drivers. During the IID program, offenders assigned IIDs were only half as likely to incur a repeat DWI offense as were offenders who received a license sanction alone. Also, IID participants were only one-fourth as likely to receive a serious traffic violation or be involved in an injury crash as offenders who received a license sanction alone. However, the effect of the IID on driving behavior gradually decreased after the IIDs were removed.[101]

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[98] Howard Safir, George A. Grasso, and Robert F. Messner, "The New York City Police Department DWI Forfeiture Initiative," presented May 2000 at T2000 Conference of the International Council on Alcohol, Drugs, and Traffic Safety, Stockholm, Sweden.

[99] Kenneth H. Beck et. al., "Effects of Ignition Interlock License Restrictions on Drivers with Multiple Alcohol Offenses: A Randomized Trial in Maryland," *American Journal of Public Health* 89: 11 (Nov. 1999) 1698; Barbara J. Morse and Delbert S. Elliott, "Effects of Ignition Interlock Devices on DUI Recidivism: Findings from a Longitudinal Study in Hamilton County, Ohio," *Crime and Delinquency* 38: 2 (1992) 152-153; A. Scott Tippetts and Robert B. Voas, *The Effectiveness of the West Virginia Interlock Program* (Bethesda, Maryland: The Pacific Institute, 1996); Michael Weinrath, "The Ignition Interlock Program for Drunk Drivers: A Multivariate Test," *Crime and Delinquency* 43: 1 (1997) 56-57.

[100] Robert B. Voas, et. al. "The Alberta Interlock Program: The Evaluation of a Provincewide Program on DUI Recidivism," *Addiction* 94: 12 (1999) 1849.

[101] Weinrath 56-57.

In Hamilton County, Ohio, the IID group was slightly more than one-third as likely to receive a repeat DWI offense compared to the license suspension group over a 30-month period (3.4-percent failure rate, compared to 9-percent).[102]

In the Maryland Drunk Driver Monitoring Program (DDMP), multiple offenders were randomly assigned to IID and control groups. The DDMP participants all received assessment and long-term tracking and follow-up. Some also received license sanctions and were required to participate in treatment, including Alcoholics Anonymous. In the first year, the IID group had a recidivism rate 65 percent lower than the control group.[103] An update of the Maryland DDMP study found, however, "no evidence that the first-year benefits extended into the second year" when IIDs were no longer required.[104] The implication is that chronic or hard core DWI offenders may require long-term IID installation.

West Virginia also used IIDs for DWI offenders. The West Virginia evaluation showed a 6.4-percent recidivism rate over 12 months for the comparison group, while the recidivism rate for the IID group over the same period was only 1.6 percent.[105]

The above studies indicate that IIDs reduce recidivism with all DWI offenders as long as the devices remain on the vehicle. According to these studies, the major problem with IIDs is their low use rate and the apparent judicial disinclination to assign them to hard core drinking drivers. One California study found that courts ordered fewer than 15 percent of repeat offenders to install IIDs.[106] It may be that the devices should be administratively imposed by the licensing agency as a condition for restricted license reinstatement, subsequent to a period of plate confiscation, impoundment, or immobilization. IIDs could be used in conjunction with restoration of the offender's vehicle registration and license plates. The positive evaluation results and the Maryland experience indicate that IIDs could be useful over a long period (1-3 years) as part of a comprehensive program to reduce hard core drinking driver recidivism.

Most State laws authorize IID use for repeat DWI offenders. The above-cited studies of IID programs suggest that high-BAC first offenders could benefit from IIDs, while repeat DWI offenders (based on research in Maryland) may require a longer period of IID installation than first offenders.[107] IID installation could also be used in conjunction with or subsequent to other driver license (hard suspension) and vehicle sanctions. IIDs could be part of a State's effort to control hard core drinking drivers and could be administratively assigned to offenders that meet the NTSB hard core drinking driver

[102] Morse and Elliott 152-153.

[103] Beck et. al. 1698.

[104] Beck et. al. 1698-99.

[105] Tippetts and Voas.

[106] Leonard A. Marowitz, "Evaluation of the Efficacy of Ignition Interlock in California," *Research Notes* (Fall 1999).

[107] Beck et.al. 1698-99.

definition. IID installation could also be used in conjunction with or subsequent to other vehicle sanctions.

Limits To Plea Bargaining And Diversion Programs

This section discusses laws that prohibit plea bargaining of alcohol-related offenses to other types of offenses and diversion programs.

Plea Bargaining Limits

A State law that limits plea bargaining can be effective in dealing with impaired drinking drivers. In 1984, the Safety Board recommended eliminating the option of plea bargaining a DWI offense to a non-alcohol-related offense (see appendix A). Sixteen States currently restrict plea bargaining DWI offenses (see appendix B). Such restrictions provide for an alcohol-related charge to be brought (filed) and a conviction record to be retained for possible future enhancement.[108] Such a law also means that adequately supported cases are brought before the court. Plea bargaining limits do not mean that charges cannot be reduced. Laws that limit plea bargaining typically require that the reason for a plea bargain be entered into the public record. NHTSA research indicates that these laws can reduce alcohol-related crashes.[109] A NHTSA evaluation of plea-bargaining limits in two States found reductions in DWI re-arrest recidivism. In Fort Smith, Arkansas, the recidivism rate before the implementation of the law limiting plea bargaining was 33 percent compared to 21 percent for the post-implementation period. Louisville, Kentucky, reduced recidivism over a 3-year period from 23 percent to 19 percent in the post-implementation period. Lexington, Kentucky, achieved a greater reduction than Louisville: recidivism was reduced in Lexington from 19 percent to 8 percent. [110] If no record of the original charge is maintained, plea bargaining a DWI offense to a lesser, non-alcohol-related offense reduces the State's ability to track prior alcohol-related offenses.

DWI Offender Diversion Programs

The Century Council's Hard Core Drinking Driver State review found 16 States and the District of Columbia with some form of diversion programs provided for by State

[108] The term "enhancement," as used in this report, refers to treating subsequent DWI arrests as repeat offenses, for which punishment is usually more severe than for first-time offenders. Some plea-bargaining practices and diversion programs cause repeat offenses to appear as first-time offenses because the original offense has been purged from the record or was never retained.

[109] National Highway Traffic Safety Administration, *An Evaluation of the Elimination of Plea Bargaining for DWI Offenders* (Washington: National Highway Traffic Safety Administration, 1989) 1, 9-10. A study of the Fort Smith, Arkansas, policy limiting plea bargaining revealed that despite a gradual increase in population, Fort Smith experienced a dramatic decrease in DWI citations and alcohol-related crashes.

[110] National Highway Traffic Safety Administration, *An Evaluation of the Elimination of Plea Bargaining,* 2-3.

law or statewide practice.[111] Some local courts and judges in other States also offer their own diversion programs, although comprehensive data on community or individual court-based programs in the other 34 States is not available. A diversion program may include assessment and treatment in exchange for judicial consideration of a lesser charge or less severe sanctions. Such reduced charges may be non-alcohol-related charges, such as reckless driving. In some cases, charges may be dropped altogether. This diversion results in less severe sanctions that may include voiding the license suspension in exchange for treatment participation.

Diversion programs defer sentencing while offenders participate in assessment, education, or treatment activities. DWI offenders may enter diversion programs with judicial system approval. Courts have usually used diversion in a pre-sentence mode to promote treatment participation. For example, Virginia, Maryland, Pennsylvania, and Oregon have developed institutionalized programs. In Maryland, the DWI offender can enter the Drunk Driver Monitoring Program under a judicial grant of "probation before judgment." If the offender successfully completes the program, the judgment (of guilt for DWI) is vacated, and no record exists of the offense. Other States use a similar deferred judgment technique that vacates the record if the offender participates in treatment and is not rearrested (usually within a short period, such as 1 year).

There is no evidence that diversion programs reduce recidivism. NHTSA reviewed programs in Rochester and Syracuse, New York, and in Fresno, California, and found no studies indicating its effectiveness.[112] In its Guide to Sentencing DUI Offenders, NHTSA also reported that "Programs allowing charge dismissal after completion of treatment generally do not appear to reduce recidivism."[113]

Diversion programs may weaken efforts to reduce DWI recidivism to the extent that they allow offenders to avoid license suspension and an alcohol-related offense record that can be used for subsequent offense enhancement. Further, there is no reliable evidence that diversion reduces recidivism.

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[111] The Century Council, *Combating Hardcore Drunk Driving* (Washington: The Century Council, n.d.) 23-24.

[112] Wayne A. Harding, Robert Apsler, and Wendi A. Walsh, *Assessment of Multiple DWI Offender Restrictions* DOT HS 807 605 (Washington: National Highway Traffic Safety Administration, 1989) 34. In the Board's review of the literature, no studies were identified between 1989 and 1999 that indicated the effectiveness of diversion programs. At the time this report was going to press, a study of the Maryland diversion (indicating adverse effects of diversion) program was also published: W.J. Rauch et. al., "A Survival Analysis of Traffic Alcohol Recidivists in Maryland," presented at 23rd Annual Scientific Meeting of the Research Society on Alcoholism, Denver, Jun. 2000.

[113] National Highway Traffic Safety Administration, *A Guide to Sentencing DUI Offenders* DOT HS 808 365 (Washington: National Highway Traffic Safety Administration, 1996) 11.

Confinement

Confinement has long been held to be an effective measure of reducing DWI recidivism for the simple reason that, for at least the term of imprisonment, jailed offenders are not free to drive. However, time actually served by offenders may be very brief. While 19 States mandate imprisonment for a first DWI offense conviction, 47 States for a second conviction, and 46 States for a third conviction, minimum sentences range between 24 and 72 hours for a first conviction, between 2 days and 6 months for a second conviction, and between 2 days and 1 year for a third conviction.[114] States also provide for alternatives to imprisonment. Three common alternatives are community service, treatment facility confinement, and home detention with electronic monitoring. Some communities have experimented with special techniques such as intensive supervision probation or "day reporting centers." Several of these alternatives hold promise for reducing recidivism.

Jail and Jail/Treatment Facilities

Countermeasures–Confinement and Alternatives

- Jail–special DWI facilities
- Home detention with electronic monitoring
- Intensive supervision probation

Jails and prisons are relatively finite resources that are strained if required to incarcerate hard core drinking drivers. While incarceration provides punishment, and temporarily removes from the community the threat the drinking driver poses, it results in substantial community expense.[115] On the other hand, the real possibility of a long jail term may provide sufficient incentive to offenders to motivate their active participation in other programs that may be even more effective in reducing recidivism.

Research on the effectiveness of jail has been equivocal. Three studies[116] in the 1980s found that 2-day jail sentences had a general deterrent effect for first-time DWI offenders, but Nichols and Ross concluded in 1990 that jail was ineffective.[117] The high cost of jail per offender per day may be a burden. State mandatory jail laws for DWI may increase local government costs and adversely affect DWI adjudication with increased jury trials and court crowding.

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[114] National Highway Traffic Safety Administration, *Digest of State Alcohol-Highway Safety Related Legislation* 2-5–2-7.

[115] James L. Nichols and Kevin Quinlan, "Prosecution, Adjudication, and Sanctioning: A Process Evaluation of Post-1980 Activities," *Surgeon General's Workshop on Drunk Driving: Background Papers* (1989) 124.

[116] Cheryl L. Falkowski, *The Impact of Two-Day Jail Sentences for Drunk Drivers in Hennepin County, Minnesota* (Springfield: National Highway Traffic Safety Administration, 1984); Ralph K. Jones, et. al., *Field Evaluation of Jail Sanctions for DWI* DOT HS 807 325 (Springfield: National Highway Traffic Safety Administration, 1988); and Paul L. Zador, et. al., *Fatal Crash Involvement and Laws Against Alcohol-Impaired Driving* (Arlington: Insurance Institute for Highway Safety, 1988).

[117] Nichols and Ross 43.

Alternatives to incarceration have also received attention. Special DWI facilities have been developed in five States to provide structured incarceration and treatment for DWI offenders. Some of these facilities permit work release so that the offender may remain employed, but the facilities also may require periodic testing for alcohol use. On average, incarceration in these facilities can last from 2 weeks to 90 days.[118] This type of incarceration is usually followed by an aftercare program or some form of monitored probation. Maryland, Ohio, New York, and Massachusetts have developed facilities that have been evaluated for their effectiveness.[119] These evaluations found a significantly reduced risk of recidivism for offenders who participated in the programs when compared to offenders who received more conventional sanctions. In some cases, the documented reductions in recidivism have been dramatic. For example, Baltimore County, Maryland, has a 28-day residential treatment program with 24-hour supervision and a 1-year aftercare program. This program is funded by court-imposed restitution fees and grants. A study found that the program's participants had a 4-percent recidivism rate compared to a 35-percent recidivism rate for a comparison group of convicted drinking drivers.[120]

Alternatives To Confinement

Home Detention with Electronic Monitoring

Home detention with electronic monitoring was originally developed as a low-cost alternative to imprisonment. Electronic monitoring involves the use of a base station installed in the offender's residence and connected to telephone lines, with a waterproof, shock-resistant transmitter and a tamper alarm. The transmitter is attached to the offender, usually on the ankle, and secured by a tamper-resistant strap. The transmitter has a limited range for the purpose of controlling the offender's movement. Monitoring can be accomplished through telephone contact, but some devices also use video cameras or portable breath testers. According to BI Incorporated, a community corrections and monitoring firm, home detention with electronic monitoring is used in all 50 States, in Puerto Rico, and in Canada.[121] Using information provided by this company, the Safety Board estimates that 75,000 persons are monitored with these systems each day.

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[118] Robert Voas and A. Scott Tippetts, "Evaluation of Treatment and Monitoring Programs for Drunken Drivers," *Journal of Traffic Medicine* 18.

[119] Harvey A. Siegel, *Impact of a Driver Intervention Program on DWI Recidivism and Problem Drinking* DOT HS 807 203 (Washington: National Highway Traffic Safety Administration, 1985); Harvey A. Siegel et. al., *Hardcore DUI Offender Research Initiative Findings and Recommendations* (Wright State University School of Medicine, 1999); Robert B. Voas and A. Scott Tippetts, *The Impact of Treatment and Monitoring on Prince George's County DWI's* DOT HS 807 649 (Washington: National Highway Traffic Safety Administration, 1989); and D.P. LeClair, *Use of Prison Confinement for the Treatment of Multiple Drunk Driving Offenders: An Evaluation of the Longwood Treatment Center* (Massachusetts Department of Corrections, National Institute of Justice Report, 1987).

[120] Voas and Tippetts, "Evaluation of Treatment."

[121] Personal communication with Anita Pedersen-Smith, Director of Public Affairs, BI Inc., 28 Jun. 2000.

One long-term (26 months) study determined that electronic monitoring is a safe, low-cost, and cost-effective alternative to jail for DWI and DWS offenders. A 1996 evaluation of the Los Angeles County electronic monitoring program found that this sanction was able to reduce recidivism from a rate of 6 percent (traditional sanctions) to 4 percent. The evaluation reported that "one year after entering the electronic monitoring program, the recidivism of this group was about one-third less than that of the comparison group."[122] The evaluator described the program as one designed to be self-sufficient, with offenders paying monitoring fees based on their ability to do so. Average costs were $15 per day. According to the study, electronic monitoring saved Los Angeles County an estimated $1 million during the evaluation period compared to the cost of jailing these offenders.[123] In addition, the study found that home detention with electronic monitoring can be an effective tool in reducing hard core drinking driver recidivism. To be effective, however, this countermeasure requires a longer sanction period than a jail sentence (the mean electronic monitoring period in Los Angeles was 83 days).

Another alternative to imprisonment that is being used in some States is a day reporting center that may require electronic monitoring and breath testing in addition to education, counseling, and assistance. A limited evaluation of the Maricopa County, Arizona, day reporting center found similar rates of recidivism between those assigned to the center and those incarcerated; however, using the center cut costs nearly in half.[124]

Intensive Supervision Probation

Intensive supervision probation (ISP) is an infrequently used alternative that is usually imposed post-conviction. ISP provides offenders with frequent and often unscheduled contacts with probation officers. A typical probation officer caseload could include as many as 200 or more probationers, while an ISP caseload is more likely to be between 25 and 50. The lighter caseload enables ISP officers to maintain more frequent contact with offenders assigned to them.

Milwaukee County, Wisconsin, developed an unusual pre-trial ISP program for repeat offenders. ISP participants received lighter sanctions than repeat offenders in a comparison group, in exchange for more frequent monitoring. ISP usually lasted from 4 to 5 months for participating offenders. Evaluation of the program showed that recidivism was significantly lower for the ISP group than for the comparison group. According to this evaluation, after 1 year, the re-arrest recidivism for the ISP group (6 percent) was about half that of the comparison group (11 percent).[125]

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[122] Ralph K. Jones, C.H. Wiliszowski, and John H. Lacey, *Evaluation of Alternative Programs for Repeat DWI Offenders* DOT HS 808 493 (Washington,: National Highway Traffic Safety Administration, 1996) 62.

[123] Jones, Wiliszowski, and Lacey 58.

[124] National Highway Traffic Safety Administration, "Alternative Sentences for DWI Evaluation of a Day Reporting Center," *Traffic Tech* 210 (Washington: National Highway Traffic Safety Administration, Nov. 1999).

[125] Jones, Wiliszowski, and Lacey 34.

IIDs, intensive supervision probation, home detention with electronic monitoring, and day reporting centers all share some common characteristics that may be important. These programs all provide relatively frequent contact between offenders and those who monitor their progress (for example, probation officers) and, to an extent, provide structure for the offender. Some programs also provide guidance, education, treatment, and support.

Court-ordered Individualized Sanctions for Repeat Offenders

Starting in 1992, the Rockdale County, Georgia, State Court developed a customized sentencing program for DWI offenders. Sentences were imposed according to the offense, history, and degree of the offender's drinking problem. For example, a first offender with no evidence of an alcohol problem could be sentenced to 2 days in jail, a fine, and DWI-school participation. A repeat offender with an alcohol dependency or related problem would receive a longer jail sentence, a larger fine, mandatory participation in treatment, daily breath alcohol testing, and frequent supervision by a probation officer. The court also developed its own pre-sentence investigation database to track offenders and to develop the most appropriate and effective sanctions. All offenders received jail time, 44 percent were required to participate in Alcoholics Anonymous, 48 percent were required to provide periodic breath tests, and 20 percent were sentenced to home detention, half of which also had electronic monitoring.

The Rockdale County program participants had a 6-percent recidivism rate after 1 year and a 13.8-percent rate after 4 years, compared to an 11-percent recidivism rate after 1 year and a 24.7-percent rate after 4 years for a neighboring jurisdiction.[126] A key element to the success of the Rockdale Court program may be its provision for frequent contact with the offender, as in ISPs, ignition interlock programs, and programs of home detention with electronic monitoring.

[126] National Highway Traffic Safety Administration, "Individualized Sanctions for DWI Offenders Reduce Recidivism" *Traffic Tech* 193 (Washington: National Highway Traffic Safety Administration, Feb. 1999) 2.

Chapter 4

A Model Program To Reduce Crashes Involving Hard Core Drinking Drivers

The Safety Board's review in Chapter 3 of countermeasures that reduce hard core drinking driving identified a number of measures that appear to be effective in reducing alcohol-related crashes by hard core drinking drivers. The societal cost of crashes involving hard core drinking drivers, both in human and economic terms, demands that additional action be taken by the States. Although all States have some components of a program to reduce hard core drinking driving, the variations in countermeasures used among the States are numerous, and no State uses all of the countermeasures that can reduce hard core drinking driver crashes (see appendix B for tables of State laws).

For example, 40 States and the District of Columbia have administrative license revocation laws for DWI test refusal or failure. The Safety Board recommended this countermeasure in 1984 and 1989 because administrative license revocation is an effective measure to reduce alcohol-related crashes and fatalities, and studies by NHTSA and others support this view. However, the States of Kentucky, Michigan, Montana, New Jersey, New York, Pennsylvania, Rhode Island, South Carolina, South Dakota, and Tennessee currently do not have laws authorizing administrative license revocation for BAC test failure or refusal.

Sobriety checkpoints are conducted in 39 States. Publicized DWI enforcement including sobriety checkpoints can be very effective in identifying the hard core drinking driver and in reducing alcohol-involved driving and alcohol-related crashes. The Tennessee experience with weekly checkpoints indicates that this strategy is effective when conducted frequently, regularly, and statewide. In addition to deterring drinking and driving, checkpoints can be used to promote several other highway safety measures at the same time, including checking for valid driver's licenses, and safety belt use.[127] Sobriety checkpoints provide an opportunity to apprehend not only alcohol-impaired drivers but also unlicensed drivers and those who are driving on suspended or revoked licenses. Often, when licenses are checked at sobriety checkpoints, more unlicensed than impaired drivers are found.[128]

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[127] The Tennessee and North Carolina checkpoint programs also reported thousands of arrests for other offenses including stolen vehicles, illegal gun possession, drug offenses, and escaped felons. North Carolina reported 6,173 drug violators, 788 firearms violations, 403 stolen vehicles, and 273 fugitive arrests from 1993 through 1997. Lacey, Jones, and Smith 20; Insurance Institute for Highway Safety 5.

[128] Susan E. Martin and David F. Preusser, "Enforcement Strategies for the Persistent Drinking Driver," *Strategies for Dealing with the Persistent Drinking Driver*, ed. Barry Sweedler, Transportation Research Board Circular 437 (1995) 41.

Measures that separate hard core drinking drivers from their vehicles are used in 38 States and the District of Columbia. These measures include license plate action (impoundment, confiscation, or other actions) (8 States), vehicle immobilization (6 States), vehicle impoundment (12 States and the District of Columbia), and vehicle forfeiture (28 States). To the extent permitted by the Constitution and applicable State law, vehicle-based sanctions can be administratively ordered at the time of arrest. When taken, this action ensures swift and certain punishment for the DWI offense and prevents offenders from avoiding such sanctions by transferring possession of their vehicles to family members or friends. Another vehicle sanction is the use of ignition interlocks, which are devices that prevent an impaired driver from operating a vehicle. Thirty-eight States permit the use of these devices in some manner, and at least five States have statewide ignition interlock programs; statewide programs are being developed in other States. Vehicle sanctions to separate the hard core drinking driver from his or her vehicle or to prevent him/her from drinking while impaired appear to be effective tools in reducing hard core drinking driver recidivism.

Sixteen States have laws prohibiting plea-bargaining DWI cases, but eight of those States limit the ban to specific conditions, such as when the DWI has caused an injury or fatality. The Safety Board continues to support its 1984 recommendation to eliminate the option of plea bargaining a DWI offense to a lesser, non-alcohol-related offense. This type of plea bargaining reduces the State's ability to track prior alcohol-related offenses when no record is kept of the original charges brought. Laws restricting plea bargaining have been found to reduce the number of DWI repeat offenses as well as the number of alcohol-related crashes.

Diversion programs that may include assessment and treatment in exchange for judicial consideration of a lesser charge or less severe sanctions are used in many States.[129] Diversion, like plea bargaining, interferes with the retention of accurate records for the hard core drinking driver. Diversion programs that allow license retention or erasure of offenses from the driver's record may prevent the State from prosecuting hard core drinking drivers as repeat offenders in the future.

Fifteen States have a high-BAC "aggravated" or "extreme" DWI offense, but the BAC that defines the offense varies from 0.15 percent to 0.20 percent. The elevated crash risk and potential for recidivism of high-BAC (0.15 percent or greater) drivers constitute a safety problem that warrants State legislation creating a high-BAC "aggravated" alcohol offense. Two States have a low- or zero-BAC law for repeat DWI offenders; of these, only Maine also has a high-BAC law (0.15 percent).

No single countermeasure appears to be sufficient to address the hard core drinking driver problem. The Safety Board does not believe that every State must have identical countermeasures in place; however, the Board believes that a model program to reduce hard core drinking driving would incorporate the following elements:

[129] The total number of States in which diversion programs are used was unavailable. As stated earlier, 16 States and the District of Columbia specifically provide for diversion by State law or Statewide practice. Some local courts and judges in other States also offer diversion programs.

- Frequent and well-publicized statewide sobriety checkpoints that include checking for valid driver's licenses. Checkpoints should not be limited to holiday periods.
- Vehicle sanctions to restrict or separate hard core drinking drivers from their vehicles, including license plate actions (impoundment, confiscation, or other actions); vehicle immobilization, impoundment, and forfeiture; and ignition interlocks for high-BAC first offenders and repeat offenders.
- State and community cooperative programs involving driver licensing agencies, law enforcement officers, judges, and probation officers to enforce DWI suspension and revocation.
- Legislation to require that DWI offenders who have been convicted or administratively adjudicated maintain a zero BAC while operating a motor vehicle.
- Legislation that defines a high BAC (0.15 percent or greater) as an "aggravated" DWI offense that requires strong intervention similar to that ordinarily prescribed for repeat DWI offenders.
- As alternatives to confinement, programs to reduce hard core drinking driver recidivism that include home detention with electronic monitoring and/or intensive supervision probation programs.
- Legislation that restricts the plea bargaining of a DWI offense to a lesser, non-alcohol-related offense, and that requires the reasons for DWI charge reductions be entered into the public record.
- Elimination of diversion programs that permit erasing, deferring, or otherwise purging the DWI offense record or that allow the offender to avoid license suspension.
- Administrative license revocation for BAC test failure and refusal.
- A DWI record retention and DWI offense enhancement look-back period of at least 10 years.
- Individualized sanction programs for hard core DWI offenders that rely on effective countermeasures for use by courts that hear DWI cases.

The problem of hard core drinking drivers is complex. The optimal way to target these drivers to reduce the crashes, injuries, and fatalities they cause is with a comprehensive program that includes elements such as those suggested in the National Transportation Safety Board's Model Program. Therefore, the National Transportation Safety Board believes that the Governors and Legislatures of the 50 States and the Mayor and Council of the District of Columbia should establish a comprehensive program that is designed to reduce the incidence of alcohol-related crashes, injuries, and fatalities caused by hard core drinking drivers and that includes elements such as those suggested in the National Transportation Safety Board's Model Program.

Chapter 5

Congressional Action On Drinking And Driving

This chapter includes a description of congressional efforts to address the drinking and driving problem (including the hard core drinking driver) on the Nation's roadways in the Transportation Equity Act for the 21st Century (TEA-21). It then discusses several ways to further enhance the overall effectiveness of TEA-21 to combat the hard core drinking driver problem.

The TEA-21 Provisions

The Transportation Equity Act for the 21st Century (TEA-21) was enacted June 9, 1998, as Public Law 105-178. TEA-21 authorizes the Federal surface transportation programs for highways, for highway safety, and for transit and other surface transportation programs for a 6-year period, 1998-2003. A total of $2.7 billion is authorized for nonconstruction highway safety programs; approximately $2.3 billion of these funds are authorized for grant programs. TEA-21 builds on the initiatives established in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA),[130] which was the last major authorizing legislation for Federal surface transportation programs.

The new act combines the continuation and improvement of ongoing programs with new initiatives. One new incentive program (Section 164) encourages States to strengthen their repeat intoxicated driver laws.[131] TEA-21 addresses impaired driving in three sections, two of which include the topic of hard core drinking drivers: Section 410 provides for incentive grants to those States that meet the designated criteria and Section 164 authorizes penalties for States that do not meet certain requirements.

Section 410: Incentive Grants to States

Section 410 provides $219.5 million over 6 years to the States, available through three types of grants: Basic Grants A and B, and Supplemental Grants. States may apply for one or more grants, which are awarded based on the State's implementation of programs to reduce traffic safety problems resulting from individuals driving while intoxicated.

[130] Pub. L. 102-240. 18 Dec. 1991. Stat. 105.1914.

[131] A State that does not have a law that meets the minimum standards described in the act by October 1, 2000, will have Federal-aid funds transferred from highway construction programs to the State's highway safety or hazard elimination programs.

Under Basic Grant A, a State must satisfy five of seven criteria, which include addressing administrative license revocation, underage drinking, intensive enforcement, sobriety checkpoints, and high-BAC drinking drivers, among other issues (see appendix E for a detailed list of criteria).

A State may also qualify for a Basic Grant B by demonstrating a reduction in its percentage of fatally injured drivers with a BAC of 0.10 percent or greater during each of the 3 most recent calendar years for which such statistics are available. The percentage of these drivers must be lower than the national averages for the same 3 calendar years.

States eligible for a basic grant may qualify for a Supplemental Grant by implementing at least one of six programs; the options include a program to reduce driving with a suspended license as well as an effective DWI tracking system (see appendix E for a detailed list of the six options and a chart of funds authorized).

Section 164: Minimum Penalties for Repeat Offenders

Section 164 requires the U.S. Department of Transportation (DOT) to penalize any State that fails to enact and enforce a repeat intoxicated driver law. If a State has not met the requirements of Section 164 by the start of fiscal year (FY) 2001, the DOT must transfer 1.5 percent of the State's highway construction money provided under 23 U.S.C. Section 104(b)(1), (3), and (4) to highway safety programs authorized by Federal law. The amount of the penalty will increase to 3 percent in FY 2003.

Section 164 requires mandatory minimum sanctions to be imposed against repeat offenders who are convicted of a second or subsequent DWI offense within 5 years. These mandatory minimum sanctions include license suspension; either vehicle impoundment, immobilization, or installation of ignition interlock devices; assessment and treatment; and either confinement or community service (see appendix E for a complete description).

TEA-21 Improvements

TEA-21 includes a substantial effort by Congress to address the hard core drinking driver problem. By providing incentive grants to States that implement specified countermeasures and penalizing those States that fail to enact certain life-saving alcohol safety legislation, Congress has enlisted States in a national effort to combat hard core drinking driving. The preceding chapter identified countermeasures that have proven effective in the fight against hard core drinking driving. Based upon that discussion of proven effective countermeasures, this section discusses several ways to further enhance the overall effectiveness of TEA-21.

Definition of Repeat Offender

It should be noted that the TEA-21 definition of repeat offender applies only to convictions and does not include offenders who have received only administrative

sanctions such as those received under ALR laws. Administratively granted permits, such as driver's licenses, that are administratively withdrawn for DWI offenses should be included in the TEA-21 repeat offender definition.

Minimum Look-back Period for Repeat Offenses

Under TEA-21, mandatory minimum sanctions are imposed against repeat offenders who are convicted of a second or subsequent offense for DWI or DUI within 5 years of a previous conviction for that offense. All States have enacted laws that define a look-back period for enhancement of a DWI offense to a repeat offense.[132] These periods range from 3 years (Arkansas, Maryland, and Ohio) in length to the lifetime of the offender (Delaware, Florida, Idaho, Illinois, Indiana, Minnesota, and Vermont). The NHTSA-operated National Driver Register (NDR) at one time had a records retention period of 3 years. The NDR does not now retain records itself, but refers inquirers to State databases.[133] NHTSA has recommended that States retain records of major offenses, including driving while impaired by alcohol or other drugs, for 10 years.[134] The Safety Board supports this recommendation.

Given the low likelihood of arrest and the need for long-term measures to change the behavior of hard core drinking drivers, record-retention and look-back periods of longer than 5 years are needed.

Pre-adjudication Alcohol Assessment and Treatment

Section 164 of TEA-21 requires States to provide appropriate assessment and treatment for repeat offenders. Pre-adjudication screening may be helpful in assigning offenders effective sanctions, including ignition interlock, impoundment, and intensive supervision probation (all of which are described in Chapter 3).[135] Referral to treatment—where an intake assessment, classification, and assignment to treatment modalities may be

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[132] Personal communication with Bill Holden, Chief, Driver Register and Traffic Records Division, National Highway Traffic Safety Administration, 4 Feb. 2000.

[133] The National Driver Register is a central repository of information, provided by the States, on individuals whose licenses to operate a motor vehicle have been revoked, suspended, canceled, or denied, or who have been convicted of certain serious traffic offenses such as driving while impaired by alcohol or other drugs. As of 1998, all States and the District of Columbia converted to the Problem Driver Pointer System (PDPS). Under PDPS, the NDR contains only identifying information to check whether an adverse action has been taken against an individual. NDR no longer contains specific information regarding the reason for the adverse action. When a match occurs with a record on the NDR file, the NDR electronically points to the State of record for the adverse action. The State of record retrieves the information and relays it to the State initiating the inquiry for verification and licensing decision.

[134] The following States do not have a 10-year look-back period: Alaska, Arizona, Arkansas, California, Colorado, Georgia, Kansas, Kentucky, Maine, Maryland, Mississippi, Montana, Nebraska, Nevada, New Hampshire, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Utah, Washington, and West Virginia.

[135] Some States (Florida, Kansas, Nebraska, and West Virginia) conduct pre-adjudication screening. Most States conduct assessment after adjudication. Accurate assessment is essential to effective adjudication and treatment. Generally, States that require assessment do so only for second offenders.

performed—is also effective if used in conjunction with other sanctions in an individualized sanction process.

Intensive supervision probation, electronic monitoring, and jail-treatment (special DWI) facilities appear to be effective in reducing hard core drinking driver recidivism and share a common approach of frequent contact and long-term aftercare with the hard core drinking driver.

Substance abuse treatment for DWI offenders in the past has resulted overall in a 7- to 9-percent reduction in DWI recidivism.[136] However, California has found treatment in combination with license suspension and interlocks to be the most effective in preventing DWI recidivism.[137]

The California Department of Motor Vehicles noted in its 1999 annual report that a treatment and ignition interlock combination program had a "significantly lower 1-year DUI incident rate" than license suspension. Over a 7-year period, treatment and license suspension showed "the lowest re-offense rates...the jail sanction group accumulat[ed] significantly higher rates than the other two [treatment and license suspension groups]."[138] These findings reinforce the need for assigning DWI offenders not to treatment alone but to a combination of sanctions that include treatment.

The Safety Board believes that treatment of both high-BAC first offenders and repeat offenders should be mandatory and should be imposed in conjunction with sanctions that include vehicle immobilization and ignition interlock. Allowing treatment to be a voluntary option invites its use by defense attorneys as a bargaining tactic.[139] States must use multiple avenues, including treatment, to reduce hard core drinking driving. TEA-21 provisions may need revisions so that all hard core DWI offenders receive appropriate sanctions.

Vehicle Sanctions Administratively Imposed at the Time of Arrest

TEA-21 requires that States impound, immobilize, or install IIDs on each of the repeat offender's vehicles. The immobilization requirement of Section 164 is linked to the conviction of the offender. Based on a review of existing immobilization programs, immobilization should occur at the time of arrest, not conviction, thereby both ensuring that the immobilization will take place and preventing the repeat offender from transferring vehicle ownership. As noted in Chapter 4, vehicle sanctions including immobilization and impoundment should be imposed administratively when possible.

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[136] House of Representatives, U.S. Congress, "A Factsheet on Alcohol-Impaired Driving from the Center for Disease Control" Extension of Remarks E952 (Washington: House of Representatives, May 19, 1997).

[137] Helen N. Tashima and Clifford J. Helander, *1999 Annual Report of the California DUI Management Information System* CAL-DMV-RSS-99-179 (Sacramento: California Department of Motor Vehicles, Jan. 1999) 30, 38.

[138] Tashima and Helander 30.

[139] Tashima and Helander 30.

TEA-21 mandates a 1-year license suspension period; Section 164 and the NHTSA rule permit the installation of the IID device upon conclusion of this suspension period. However, there is some question whether license reinstatement (after a 1-year suspension) is sufficient motivation for offenders to elect IID installation. Voluntary use and even court-mandated IID installation are limited to 15 percent or fewer of the eligible offenders. Further, even when eligible for license reinstatement, only a small proportion of DWI offenders choose to have their licenses reinstated. Accordingly, IID installation permitted after a shorter period of license suspension might serve as an inducement to the hard core drinking driver to install an IID.

Community Service as an Alternative to Confinement

Among the other countermeasures of Section 164 of TEA-21, the repeat offender provision requires that State laws mandate either community service or imprisonment for repeat DWI offenders. Community service for DWI offenders was developed in the 1980s as an alternative to jail because of high jail costs and limited available space. As of January 2000, 10 States have laws providing for community service as an alternative to jail for a first DWI conviction, 16 States for a second conviction, and 7 States for a third conviction.[140] While community service may help relieve the problem of limited jail space, existing research has not identified any significant effects of community service on recidivism or crashes.[141] Since community service has no proven effect, the option in TEA-21 permitting its substitution for imprisonment is of concern.

As an alternative, house arrest with electronic monitoring is an effective countermeasure for reducing DWI recidivism. In its rule implementing section 164 of TEA-21, NHTSA includes house arrest in its definition of imprisonment. The rule allows States to give repeat offenders the option of a day-for-day substitution of house arrest for jail.[142] This substitution may not be prudent, in that jail terms for DWI offenders are already usually short, and even mandatory minimums are not routinely imposed. House arrest with electronic monitoring requires a longer sanction period (as has been stated, the mean electronic monitoring period in Los Angeles was 83 days). States should consider periods of house arrest with electronic monitoring that last sufficiently longer than a jail sentence to reduce recidivism.

The Safety Board concludes that TEA-21 may be more effective in assisting the States to reduce the hard core drinking driver problem if it were modified to (a) include a revised definition of "repeat offender" that included administrative actions, (b) require mandatory treatment for hard core offenders, (c) establish an extended period (10 years minimum) for records retention and DWI offense look-back; (d) require administratively imposed vehicle sanctions including interlocks; (e) eliminate provisions for community service as an alternative to incarceration; and (f) provide for the inclusion of house arrest

[140] Jones, Wiliszowski, and Lacey 34.

[141] National Highway Traffic Safety Administration, DOT HS 808 365, 8.

[142] Robert B. Voas, "The NHTSA Rules on Repeat Intoxicated Driver Laws: An Important First Step to Control High-Risk Drivers," *Impaired Driving Update* (Spring 1999) 30.

with electronic monitoring. Therefore, the Safety Board believes that the U. S. Department of Transportation should evaluate modifications to the provisions of TEA-21 so that it can be more effective in assisting the States to reduce the hard core drinking driver problem, and recommend changes to Congress as appropriate. Considerations should include (a) a revised definition of "repeat offender" to include administrative actions on DWI offenses; (b) mandatory treatment for hard core offenders; (c) a minimum period of 10 years for records retention and DWI offense enhancement; (d) administratively imposed vehicle sanctions for hard core drinking drivers; (e) elimination of community service as an alternative to incarceration; and (f) inclusion of house arrest with electronic monitoring as an alternative to incarceration.

Chapter 6

Conclusions

1. Efforts by public and private entities have contributed to substantial reductions since 1983 in the number of fatalities (23,646 to 15,794) and proportion (56 percent to 38 percent) of alcohol-related crashes.

2. While hard core drinking drivers constituted only 0.8 percent (1 of 119) of all drivers on the road in the National Roadside Survey, they constituted 27 percent of drivers in fatal crashes during the same time period in 1996. These data clearly suggest that hard core drinking drivers are overrepresented in fatal crashes.

3. Hard core drinking drivers (repeat offender drinking drivers with a prior DWI arrest or conviction within the past 10 years and offenders with a blood alcohol concentration of 0.15 percent or greater) pose an increased risk of crashes, injuries, and fatalities. Therefore, the States should take measures to further reduce the significant loss of human life and immense societal costs caused by hard core drinking drivers.

4. Administrative license revocation is an effective measure to reduce alcohol-related crashes and fatalities.

5. Publicized DWI enforcement including sobriety checkpoints can be very effective in identifying the hard core drinking driver and in reducing alcohol-involved driving and alcohol-related crashes.

6. Sobriety checkpoints provide an opportunity to apprehend not only alcohol-impaired drivers but also unlicensed drivers and those who are driving on suspended or revoked licenses.

7. Vehicle sanctions to separate the hard core drinking driver from his or her vehicle or to prevent him or her from drinking while impaired appear to be effective tools in reducing hard core drinking driver recidivism.

8. Laws restricting plea bargaining have been found to reduce the number of DWI repeat offenses as well as the number of alcohol-related crashes.

9. Diversion programs that allow license retention or erasure of DWI offenses from the driver's record may prevent the State from prosecuting hard core drinking drivers as repeat offenders in the future.

10. The elevated crash risk and potential for recidivism of high-BAC (0.15 percent or greater) drivers constitute a safety problem that warrants State legislation creating a high-BAC "aggravated" alcohol offense.

11. The optimal way to target hard core drinking drivers to reduce the crashes, injuries, and fatalities they cause is with a comprehensive program that includes elements such as those suggested in the National Transportation Safety Board's Model Program.

12. TEA-21 might be more effective in assisting the States to reduce the hard core drinking driver problem if it were modified to (a) include a revised definition of "repeat offender" that included administrative actions, (b) require mandatory treatment for hard core offenders, (c) establish an extended period (10 years minimum) for records retention and DWI offense look-back; (d) require administratively imposed vehicle sanctions including interlocks; (e) eliminate provisions for community service as an alternative to incarceration; and (f) provide for the inclusion of home detention with electronic monitoring as an alternative to incarceration.

Chapter 7

Recommendations

As a result of this review, the National Transportation Safety Board makes the following safety recommendations:

The National Transportation Safety Board recommends that the Governors and Legislatures of the 50 States and the Mayor and Council of the District of Columbia—

> Establish a comprehensive program that is designed to reduce the incidence of alcohol-related crashes, injuries, and fatalities caused by hard core drinking drivers and that includes elements such as those suggested in the National Transportation Safety Board's Model Program. (H-00-26)

The National Transportation Safety Board recommends that the U.S. Department of Transportation—

> Evaluate modifications to the provisions of the Transportation Equity Act for the 21st Century so that it can be more effective in assisting the States to reduce the hard core drinking driver problem. Recommend changes to Congress as appropriate. Considerations should include (a) a revised definition of "repeat offender" to include administrative actions on driving-while-impaired offenses; (b) mandatory treatment for hard core offenders; (c) a minimum period of 10 years for records retention and driving-while-impaired offense enhancement; (d) administratively imposed vehicle sanctions for hard core drinking drivers; (e) elimination of community service as an alternative to incarceration; and (f) inclusion of home detention with electronic monitoring as an alternative to incarceration. (H-00-27)

BY THE NATIONAL TRANSPORTATION SAFETY BOARD

JAMES E. HALL
Chairman

JOHN A. HAMMERSCHMIDT
Member

JOHN J. GOGLIA
Member

GEORGE W. BLACK, JR.
Member

CAROL J. CARMODY
Member

Adopted: June 27, 2000

John A. Hammerschmidt, Member, did not concur with conclusion 12 or recommendation H-00-27.

On July 5, 2000, Member Hammerschmidt filed the following dissenting opinion on this report:

Notation 7256

Member HAMMERSCHMIDT, dissenting:

The definition of a "hard core drinking driver" that is used in this report as the basis for proposed countermeasures is not the optimum definition. To brand a person as a hard core drinking driver for a first offense at a BAC of .15 is not logical. "Hard core" should refer to a habitual violator. In any event, the individual States and localities are closest to the various facets of this safety problem and are in a better position to determine what definitions would work best in their jurisdictions. Likewise, the States and localities are also better able to assess what type of countermeasures are, or would be, most effective, appropriate, and acceptable in their own jurisdictions.

Because this report is primarily based on research and work conducted by people outside of the Safety Board, it is difficult to provide a stamp of approval on the validity of all that is being proposed. Nonetheless, the importance of this report is to focus attention on the continuing problem of hard core drinking drivers and to highlight possible approaches that could improve highway safety.

Appendix A

Progress of Prior Recommendations

Safety Recommendation No. H-84-13

Date Issued: 04/23/84

Recipients: Governors of Alabama, California, Connecticut, Hawaii, Illinois, Kansas, Kentucky, Michigan, Montana, New Hampshire, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Wisconsin, and Wyoming

Recommendation: Enact legislation or utilize existing authority to provide for administrative revocation of the licenses of drivers who refuse a chemical test for alcohol or who provide a result at or above the state presumptive limit.

Status: With the exception of 6 States (Kentucky, Michigan, Montana, Pennsylvania, Rhode Island, and Tennessee), administrative license revocation or suspension for chemical test failure or refusal to submit to a chemical test for alcohol is legislatively authorized in all of the States to which Recommendation H-84-13 was issued.

Safety Recommendation No. H-84-17

Date Issued: 04/23/84

Recipients: Governors of Arizona, Arkansas, Florida, Georgia, Idaho, Maryland, Massachusetts, Nebraska, New Jersey, New York, South Dakota, Vermont, and Virginia

Recommendation: Enact legislation or utilize existing authority to provide for administrative revocation of the licenses of drivers who refuse a chemical test for alcohol or who provide a result at or above the state presumptive limit.

Status: With the exception of 3 States (New Jersey, New York, and South Dakota), administrative license revocation or suspension for chemical test failure or for refusal to submit to a chemical test for alcohol is legislatively authorized in all of the States to which Recommendation H-84-17 was issued.

Safety Recommendation No. H-84-77

Date Issued: 10/12/84

Recipients: Governors of the 50 States and the Mayor of the District of Columbia

Recommendation: Encourage the use, by all traffic law enforcement agencies in your state, of preliminary breath test devices and the NHTSA-recommended three-part field sobriety test, including the horizontal gaze nystagmus test.

Status: Preliminary Breath Tests are legislatively authorized in the District of Columbia and the following 29 States: Alaska, Arizona, California, Colorado, Delaware, Florida, Illinois, Iowa, Kansas, Kentucky, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New York, North Carolina, North Dakota, Pennsylvania, Rhode Island, South Dakota, Vermont, Virginia, West Virginia, and Wisconsin.

Preliminary Breath Tests are used absent specific legislative authority, but based upon case law in Georgia, Maine, and Wyoming.

The NHTSA-recommended three-part field sobriety test, including the horizontal gaze nystagmus test is a National standard used in training law enforcement officers.

Safety Recommendation No.H-84-78

Date Issued: 10/12/84

Recipients: Governors of the 50 States and the Mayor of the District of Columbia

Recommendation: Propose legislation, if necessary, and/or take other appropriate action to facilitate the collection of DWI evidence based on the drawing of blood for BAC test purposes.

Status: The collection of DWI evidence based on the drawing of blood for BAC test purposes is legislatively authorized in the District of Columbia and 47 States. Alaska, Massachusetts, and New Jersey do not authorize blood testing for the determination of alcohol concentration.

Safety Recommendation No.H-84-79

Date Issued: 10/12/84

Recipients: Governors of the 50 States and the Mayor of the District of Columbia

Recommendation: Encourage detention agencies in your state to adopt DWI holding and release policies that do not permit the release of alcohol offenders until after their blood alcohol concentration has dropped below the lowest level specified in state law as indicating alcohol impairment.

Status: Hawaii, Minnesota, and Nebraska have adopted DWI policies that do not permit the release of alcohol offenders from retention until after their BAC has dropped below the lowest level specified by state law as indicating alcohol impairment.

Safety Recommendation No.H-84-80

Date Issued: 10/12/84

Recipients: Governors of the 50 States and the Mayor of the District of Columbia

Recommendation: Take steps to preclude reduction of an alcohol-related charge to a non-alcohol-related charge and to require in all cases that the defendant's driving record reflect the original charge.

Status: The reduction of an alcohol-related charge to a non-alcohol-related charge is legislatively restricted in the following 11 States: Arizona, Arkansas, Colorado, Kansas, Kentucky, Maine, Mississippi, Nevada, New Mexico, New York, and Wyoming.

Three other States (California, Florida, and Michigan) also legislatively restrict the reduction of an alcohol-related charge to a non-alcohol-related charge but only in limited circumstances, such as in cases involving vehicular homicide, high BAC, under-age-21 DWI offense, and other serious DWI offenses. Oregon also prohibits the reduction of a DWI charge to a non-alcohol-related charge, but allows the offender to participate in a diversion program; and Pennsylvania prohibits the presiding judicial officer at an arraignment of preliminary hearing from reducing or modifying a DWI charge.

Safety Recommendation No. H-84-81

Date Issued: 10/12/84

Recipients: Governors of the 50 States and the Mayor of the District of Columbia

Recommendation: Encourage and support initial and recurrent training on alcohol, problem drinking, and drunk driving case adjudication for all judges hearing DWI cases.

Status: Judicial training on alcohol, problem drinking and drunk driving is encouraged in the following 14 States: Alaska, California, Florida, Kentucky, Minnesota, Mississippi, Nebraska, Nevada, New Jersey, New York, North Carolina, Ohio, Pennsylvania, and Texas.

Safety Recommendation No. H-84-82

Date Issued: 10/12/84

Recipients: Governors of the 50 States and the Mayor of the District of Columbia

Recommendation: Take steps to develop a records system that preserves records of alcohol-related traffic offenses committed by a juvenile after the offender reaches adulthood.

Status: A records system that preserves the records of alcohol-related traffic offenses committed by a juvenile after the offender reaches adulthood has been established in the following 13 States: Alaska, Arizona, California, Connecticut, Florida, Hawaii, Kentucky, Minnesota, Nebraska, Nevada, New Jersey, North Carolina, and Pennsylvania.

Safety Recommendation No. H-84-83

Date Issued: 10/12/84

Recipients: Governors of the 50 States and the Mayor of the District of Columbia

Recommendation: Take steps to require that law enforcement and judicial records systems in your state include complete records of DWI defendants' previous alcohol-related traffic offenses, including those committed as a juvenile, and that they are available to judges prior to sentencing.

Status: Law enforcement and judicial records systems that include complete records of DWI defendants previous alcohol-related traffic offenses, including those

committed as a juvenile, are available to judges prior to sentencing in the following 11 States: Alaska, Florida, Hawaii, Kentucky, Minnesota, Nebraska, Nevada, New Jersey, North Carolina, Ohio, and Pennsylvania.

Safety Recommendation No. H-84-84

Date Issued: 10/12/84

Recipients: Governors of the 50 States and the Mayor of the District of Columbia

Recommendation: Require that appropriate alcohol problem evaluations of persons charged with alcohol-related traffic offenses be conducted and made available to judges hearing these cases.

Status: Twenty-seven States (Alabama, Alaska, Arizona, Arkansas, Colorado, Hawaii, Idaho, Illinois, Iowa, Kansas, Kentucky, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, Texas, Utah, and Washington) require DWI offender assessment or pre-sentence investigation.

Thirteen States (California, Florida, Georgia, Indiana, Louisiana, Maryland, Mississippi, Montana, Nevada, South Dakota, Vermont, Virginia, and Wisconsin) make alcohol assessment or pre-sentence investigation optional or require alcohol assessment for certain offenders, such as subsequent DWI offenders or DWI offenders who cause serious injury or death.

The District of Columbia and 10 States (Connecticut, Delaware, Maine, Missouri, Ohio, Rhode Island, South Carolina, Tennessee, West Virginia and Wyoming) fail to require DWI offender assessment or pre-sentence investigation.

Safety Recommendation No. H-84-85

Date Issued: 10/12/84

Recipients: Governors of the 50 States and the Mayor of the District of Columbia

Recommendation: Take steps to ensure that no diversion or supervision program in your state is used in place of license revocation/suspension and that court and DMV records reflect participation in diversion/ supervision programs.

Status: The District of Columbia and 40 States, except Kentucky, Michigan, Montana, New Jersey, New York, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, have a mandatory minimum period of license suspension under their administrative license suspension laws.

The District of Columbia and 12 States (Connecticut, Indiana, Iowa, Kansas, Maryland, Massachusetts, Missouri, Oregon, Pennsylvania, Virginia, Washington, and Wyoming) permit diversion and expunge or seal the offender's record after a period of DWI conviction-free driving. These States keep extensive records on offenders who are permitted diversions.

Safety Recommendation No. H-84-86

Date Issued: 10/12/84

Recipients: Governors of the 50 States and the Mayor of the District of Columbia

Recommendation: Take action to increase the availability and quality of alcohol treatment services designed specifically for juvenile alcohol abusers, especially to provide services at low cost to the user.

Status: Action to increase the availability and quality of alcohol treatment services designed specifically for juvenile alcohol abusers has been taken in 13 States: Alaska, Arizona, Florida, Hawaii, Kentucky, Massachusetts, Minnesota, Mississippi, Nebraska, Nevada, New Jersey, North Carolina, and Pennsylvania.

Safety Recommendation No. H-84-87

Date Issued: 10/12/84

Recipient: National Highway Transportation Safety Administration

Recommendation: Evaluate the effectiveness of license actions against juveniles who violate alcohol laws, such as the laws recently enacted in Oregon, Washington, North Carolina, Maryland, and Maine.

Status: In a report to Congress dated January 19, 1993, titled, *Addressing the Safety Issues Related to Younger and Older Drivers*, DOT HS 808 161, NHTSA included as part of its planned research agenda, evaluation of provisional licensing in those States (such as Maryland, California, and Oregon) that have implemented a provisional license system that contains a majority of the components recommended in a model program developed by NHTSA and the American Association of Motor Vehicle Administrators. The report concerning the effectiveness of such systems has not yet been released.

Safety Recommendation No. H-84-88

Date Issued: 10/12/84

Recipient: National Highway Transportation Safety Administration

Recommendation: Incorporate the salient features of such court records systems as the Court Reporting Network in Pennsylvania and the PROMIS System in Colorado in the model Case Management Information System; ensure that the model system incorporates motor vehicle licensing records and court records of drunk driving-related violations and convictions.

Status: In 1997, NHTSA embarked on several efforts to improve DWI court data systems and published a three-volume report on the design and operation of DWI tracking systems that could serve as models for States and localities. The report was titled *Driving While Intoxicated Tracking Systems*; the three volumes are numbered DOT HS 808 520, DOT HS 808 521 and DOT HS 808 522, January 1997.

The National Driver Register (NDR), another resource for tracking, is a central repository of information provided by the States on individuals whose license to operate a motor vehicle has been revoked, suspended, canceled, or denied, or who have been convicted of certain serious traffic offenses such as driving while impaired by alcohol or other drugs. As of 1998, all States and the District of Columbia converted to the Problem Driver Pointer System (PDPS). Under PDPS, the NDR contains only identifying information to check whether an adverse action has been taken against an individual. NDR no longer contains specific information regarding the reason for the adverse action. When a match occurs with a record on the NDR file, the NDR electronically points to the State of record for the adverse action. The State of record retrieves the information and relays it to the State initiating the inquiry for verification and licensing decision.

Safety Recommendation No. H-84-89

Date Issued: 10/12/84

Recipient: Veterans Administration

Recommendation: Develop and implement a national policy making VA hospital alcohol dependence treatment programs more consistently available to local traffic court rehabilitation programs for convicted DWI offenders who are veterans.

Status: In recent years, the Veterans Administration has attempted to expand its alcohol/drug rehabilitation program to better meet local needs of veterans and provide greater access to care.

Safety Recommendation No. H-84-90

Date Issued: 10/12/84

Recipients: American Bar Association, the National Association of State Judicial Educators, and the National Judicial College

Recommendation: Work with State governments, State judicial organizations and the National Highway Traffic Safety Administration to vigorously promote initial and recurrent training for judges in alcohol issues and DWI case adjudication and to develop more source funds for financing this training.

Status: The National Judicial College currently works with NHTSA through a cooperative agreement to encourage training in the adjudication of DWI cases in state judicial education programs. Scholarships are provided to teams of faculty selected by participating States to attend faculty development training. The team must include representatives from the State Judicial Educator's office and the State Highway Safety Office, judges, prosecutors, law enforcement officers, defense attorneys, and toxicologists as well as other professionals that the State selects. Each team develops an action plan for the DWI educational program(s) that they will conduct in their State.

Safety Recommendation No. H-89-2

Date Issued: 03/11/93

Recipients: Governors of all States, except Kentucky and the District of Columbia

Recommendation: Convene or reconvene a committee or task force to review your state's driving-under-the influence (DUI) legislation and its implementation, in light of the problems discussed in the accident report on the pickup truck/church activity bus head-on collision and fire near Carrollton, Kentucky, on May 14, 1988. Particular attention should be paid to implementation of administrative license revocation programs, improved evaluations of convicted DUI offenders, and enhanced public awareness and enforcement programs. Based on this review, take appropriate action to improve your state's DUI prevention program.

Status: California, Colorado, Delaware, Florida, Kansas, Mississippi, New Mexico, Ohio, and Rhode Island have established task forces to review DUI legislation and conduct evaluations of, among other things, administrative license revocation programs.

Appendix B

State Laws Governing Alcohol-Highway Safety

Table 1. State Laws Related to BAC, Arrest for Chemical Testing, Refusal and Plea Bargaining Restrictions

State	Second-Tier Aggravated BAC	Arrest Required for Chemical Testing	Chemical Test Refusal Admissible	Plea Bargaining Restrictions
Alabama	No	Yes	Yes	No
Alaska	No	Yes	Yes	No
Arizona	0.18	Yes	Yes	Yes
Arkansas	0.18	Not always	Criminal	Yes
California	No	Yes	Yes	Limited (Serious felony and DWI cases only)
Colorado	0.20	No	Criminal	Yes
Connecticut	0.16	Yes	Criminal	No
Delaware	No	Probably Not	Yes	No
District of Columbia	No	Yes	Yes	No
Florida	0.20	Yes	Criminal	Limited (high BAC, property damage, vehicular homicide, manslaughter)
Georgia	No	No	Yes	No
Hawaii	No	Yes	Administrative	No
Idaho	0.20	No	Criminal	No
Illinois	No	Yes	Yes	No
Indiana	0.15 (7/1/00)	No	Yes	No
Iowa	No	No	Yes	No
Kansas	No	Yes	Criminal	Yes
Kentucky	0.18	Yes	Criminal	Yes
Louisiana	0.15	Yes	Criminal and Administrative	No
Maine	0.15	No	Criminal	Yes
Maryland	No	Yes	Criminal	No
Massachusetts	No	Yes	No	No
Michigan	No	Yes	Criminal	Limited (Applies only to persons under age 21)
Minnesota	0.20	Not always	Yes	No
Mississippi	No	No	Criminal	Yes
Missouri	No	Yes	Criminal and Possibly Civil	No
Montana	No	Yes	Criminal	No
Nebraska	No	Yes	Criminal	No

Table 1. State Laws Related to BAC, Arrest for Chemical Testing, Refusal and Plea Bargaining Restrictions (cont.)

State	Second-Tier Aggravated BAC	Arrest Required for Chemical Testing	Chemical Test Refusal Admissible	Plea Bargaining Restrictions
Nevada	No	No	Criminal	Yes
New Hampshire	0.16	Yes	Yes	No
New Jersey	No	No	Criminal	No
New Mexico	0.16	Yes	Criminal and Possibly Civil	Yes
New York	No	Not always	Yes	Yes
North Carolina	No	Yes	Criminal	No
North Dakota	No	Yes	Yes	No
Ohio	No	Yes	Criminal	No
Oklahoma	No	Yes	Criminal	No
Oregon	No	Yes	Yes	Limited (Diversion Program)
Pennsylvania	No	No	Criminal	Limited (No reduction of original charge at arraignment)
Rhode Island	No	No	Unknown	No
South Carolina	No	Yes	Criminal	No
South Dakota	No	Yes	Criminal	No
Tennessee	0.20	Yes	Criminal	No
Texas	No	Yes	Criminal	No
Utah	No	Yes	Yes	No
Vermont	No	No	Criminal	No
Virginia	No	Yes	Yes (Rebuttal only)	No
Washington	0.15	Yes	Criminal (Limited)	No
West Virginia	No	Yes	Criminal	No
Wisconsin	No	Yes	Criminal	No
Wyoming	No	Yes	Yes	Yes
Total	**15**	**35**	**18**	**11**

Table 2. State Laws Related to Mandatory Sanctions for Driving with a Suspended/Revoked License, Home Detention, Administrative License Revocation/Suspension Law

State	Mandatory Sanctions: Driving w/Suspended or Revoked License[a]				Home Detention with Electronic Monitoring	Administrative License Revocation/ Suspension Law
	Jail	Fine	Comm. Service	License Action		
Alabama	No	No	No	No	No	Yes
Alaska	Yes	Yes	Yes	Yes	No	Yes
Arizona	Yes	No	No	Yes	Yes	Yes
Arkansas	Yes	No	No	Yes	No	Yes
California	Yes	No	No	No	Yes	Yes
Colorado	Yes	No	No	Yes	No	Yes
Connecticut	Yes	No	No	Yes	No	Yes
Delaware	Yes	Yes	No	No	Yes	Yes
District of Columbia	No	No	No	Yes	No	Yes
Florida	No	No	No	No	No	Yes
Georgia	Yes	Yes	No	Yes	No	Yes
Hawaii	Not Certain	Not Certain	No	Yes	Yes	Yes
Idaho	Yes	No	No	Yes	Yes	Yes
Illinois	Yes	No	No	Yes	No	Yes
Indiana	Yes	No	No	Yes	Yes	Yes
Iowa	No	Yes	No	Yes	Yes	Yes
Kansas	Yes	Yes	No	Yes	No	Yes
Kentucky	No	No	No	Yes	No	No
Louisiana	Yes	No	No	Yes	Yes	Yes
Maine	Yes	Yes	No	Yes	No	Yes
Maryland	No	No	No	Yes	No	Yes
Massachusetts	Yes	No	No	Yes	No	Yes
Michigan	No	No	No	Yes	No	No
Minnesota	No	Yes	No	No	No	Yes
Mississippi	No	Yes	No	Yes	No	Yes
Missouri	Yes	No	No	No	No	Yes
Montana	Yes	No	No	No	Not certain	No
Nebraska	No	No	No	Yes	No	Yes
Nevada	Yes	Yes	No	Yes	No	Yes
New Hampshire	Yes	No	No	Yes	No	Yes
New Jersey	Yes	Yes	No	Yes	No	No
New Mexico	Yes	Yes	No	Yes	No	Yes
New York	No	No	No	No	No	No
North Carolina	Yes	No	No	Yes	Yes	Yes
North Dakota	Yes	No	No	Yes	No	Yes
Ohio	Yes	Yes	No	Yes	No	Yes
Oklahoma	No	No	No	Yes	Yes	Yes
Oregon	No	Yes	No	No	Not Certain	Yes

Table 2. State Laws Related to Mandatory Sanctions for Driving with a Suspended/Revoked License, Home Detention, Administrative License Revocation/Suspension Law (cont.)

State	Mandatory Sanctions: Driving w/Suspended or Revoked License[a]				Home Detention with Electronic Monitoring	Administrative License Revocation/ Suspension Law
	Jail	Fine	Comm. Service	License Action		
Pennsylvania	Yes	Yes	No	Yes	No	No
Rhode Island	Yes	Yes	No	Yes	No	No
South Carolina	Yes	No	No	No	No	No
South Dakota	Not Certain	No	No	Yes	No	No
Tennessee	Yes	No	No	Yes	No	No
Texas	No	No	No	No	Yes	Yes
Utah	No	Yes	No	Yes	No	Yes
Vermont	Yes	No	No	No	No	Yes
Virginia	No	No	No	Yes	No	Yes
Washington	No	No	No	Yes	Yes	Yes
West Virginia	Yes	Yes	No	Yes	No	Yes
Wisconsin	No	No	No	No	Yes	Yes
Wyoming	Yes	Yes	No	Yes	No	Yes
Total	**31**	**18**	**1**	**38**	**13**	**41**

[a] Although a State may have sanctions for driving with a suspended or revoked license, these sanctions may not have mandatory minimums. The sanctions for driving with a suspended or revoked license may be for the general offense and are not necessarily DWI specific.

Table 3. State Laws Dealing with Vehicle Sanctions for Drinking and Driving

State	License Plate Impoundment	Vehicle Immobilization	Vehicle Impoundment	Vehicle Forfeiture	Ignition Interlock
Alabama	No	No	Yes	Yes	No
Alaska	No	No	No	Yes (Discretionary)	Yes
Arizona	No	No	No	Limited (3rd or subsequent offense if vehicle owned and used by offender)	Yes
Arkansas	Yes	No	No	Limited (4th or subsequent DWI off.) and Discretionary	Yes
California	No	No	Yes	Yes	Yes
Colorado	No	No	No	No	Yes
Connecticut	No	No	Yes	No	No
Delaware	Yes	No	Limited (4th or subsequent DWI offense)	No	Yes
District of Columbia	No	No	Yes	No	No
Florida	No	No	Yes	Yes	Yes
Georgia	Yes	No	No	Limited (4th or subsequent DWI offense)	Yes
Hawaii	No	No	No	No	Yes
Idaho	No	No	No	No	Yes
Illinois	No	No	Yes	Limited (3rd or subsequent DWI offense or 2nd DWI offense w/ a prior alcohol or drug-related reckless homicide driving offense)	Yes
Indiana	No	No	No	No	Yes
Iowa	No	Yes	Yes	No	Yes
Kansas	Limited (4th or subsequent DWI offense)	No	No	No	Yes
Kentucky	No	No	No	No	No
Louisiana	No	No	No	Limited (3rd or subsequent DWI offense)	Yes
Maine	No	No	No	No	Yes
Maryland	No	Yes	Yes	No	Yes
Massachusetts	No	No	No	No	No
Michigan	Yes	Yes	No	Yes (Discretionary)	Yes
Minnesota	Yes	No	Yes	Yes	No
Mississippi	No	No	No	Limited (3rd or subsequent DWI offense if vehicle owned and used by offender) and Discretionary	No
Missouri	No	No	Yes	Yes	Yes
Montana	No	No	No	Limited (3rd or subsequent DWI offense if vehicle owned and used by offender)	Yes
Nebraska	No	Yes	No	No	Yes

Table 3. State Laws Dealing with Vehicle Sanctions for Drinking and Driving (cont.)

State	License Plate Impoundment	Vehicle Immobilization	Vehicle Impoundment	Vehicle Forfeiture	Ignition Interlock
Nevada	No	No	No	No	Yes
New Hampshire	No	No	No	No	No
New Jersey	No	No	No	No	No
New Mexico	No	No	No	No	Yes
New York	No	No	No	Yes (Discretionary)	Yes
North Carolina	No	No	No	Limited (4th or subsequent DWI offense if the DWI offense is committed while license is revoked for a prior DWI offense)	Yes
North Dakota	Yes	No	No	Yes (Discretionary)	Yes
Ohio	Yes	Yes	Yes	Yes	Yes
Oklahoma	No	No	No	Yes (Discretionary)	Yes
Oregon	No	Yes (Discretionary)	Yes (Discretionary)	Yes (Discretionary)	Yes
Pennsylvania	No	No	No	Yes (Discretionary)	No
Rhode Island	No	No	No	Yes (Discretionary)	Yes
South Carolina	No	No	No	Limited (3rd or subsequent DWI offense if the vehicle is owned and used by the offender)	No
South Dakota	No	No	No	No	No
Tennessee	No	No	No	Yes	Yes
Texas	No	No	No	Yes (Discretionary)	Yes
Utah	No	No	Conditional (Owner or has a financial interest in vehicle)	No	Yes
Vermont	No	Yes (Discretionary)	No	Limited (3rd or subsequent DWI offense if the vehicle is owned and used by the offender) and Discretionary	No
Virginia	No	No	No	No	Yes
Washington	No	No	No	Conditional (Owner or has a financial interest in vehicle) and Discretionary	Yes
West Virginia	No	No	No	No	Yes
Wisconsin	No	Yes (Discretionary)	No	Yes (Discretionary for a 3rd offense and mandatory for a 4th or subsequent DWI offense)	Yes
Wyoming	No	No	No	No	No
Total	**7**	**7**	**11**	**17**	**37**

Appendix C

Hard Core Drinking Driver Definitions

Terms Used To Describe The Hard Core Drinking Driver

Over the last decade, increased attention has focused on a subset of drinking drivers who seem to be unaffected or at least less affected by the current laws and programs in place in the States. This subset of habitual drinking drivers has been given a variety of names, including "chronic drinking drivers," "repeat offenders," "problem drinking drivers," "persistent drinking drivers," and "hard core drinking drivers." They have been the subject of reports and analyses conducted by a variety of groups including NHTSA, the National Commission Against Drunk Driving (NCADD), the Transportation Research Board (TRB), the Traffic Injury Research Foundation of Canada (TIRF), the Century Council, and most recently, Mothers Against Drunk Driving (MADD).

Agency, Group, or Organization	Definition
National Commission Against Drunk Driving	"These individuals drive repeatedly after drinking; they often do so at high BACs – .15 or .20 or more – that exceed the legal limits by two to almost three times; and they resist changing their behavior, for the most part ignoring the anti-DWI countermeasures that have worked so well with social drinkers."[a]
Transportation Research Board	The TRB expert panel chose the term "persistent drinking driver" to describe the intractability of the problem. Hedlund states that such a driver is nearly always male, and refers to him as "the person who drinks and drives again and again... 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, perhaps even by arrest and punishment for...violations."[b]
Traffic Injury Research Foundation	TIRF has published two reports on the hard core drinking driver, one in 1991 and another in 1996.[c] These reports describe high-BAC and repeat offenders as "individuals who repeatedly drive after drinking, especially with high blood alcohol concentrations (BACs) and who seem relatively resistant to changing this behavior." [d] TIRF notes that there was no change in the magnitude of the problem caused by this group during the time that elapsed between the publication of its two reports.[e]

Agency, Group, or Organization	Definition
Century Council	The Century Council, an organization funded by the alcohol beverage industry, defines "hard core drunk drivers" as the following: "individuals who drive with a high BAC of .15 or above, who do so repeatedly, as demonstrated by having more than one drunk driving arrest, and who are highly resistant to changing their behavior despite previous sanctions, treatment, or education efforts."[f]
Mothers Against Drunk Driving	MADD refers to these drivers as "higher risk drivers;" the organization identifies them as drivers having the following: §A second DUI/DWI offense within a 5-year period (repeat offender) §A first DUI/DWI offense with a BAC of .16 or higher (high-BAC offender) §A conviction for DWS where the suspension was the result of a DUI/DWI offense.[g]

[a] National Commission Against Drunk Driving, *Chronic Drunk Drivers: Resources Available to Keep Them Off the Road* (Washington: National Commission Against Drunk Driving, 1996) 1.

[b] James Hedlund, "Who is the Persistent Drinking Driver? Part I: USA," *Strategies for Dealing with the Persistent Drinking Driver,* ed. Barry Sweedler, Transportation Research Board Circular 437 (1995) 16.

[c] Simpson, Mayhew, and Beirness, *Dealing With the Hard Core Drinking Driver* 1.

[d] Simpson, Mayhew, and Beirness, *Dealing With the Hard Core Drinking Driver* 1, 8-10.

[e] Simpson, Mayhew, and Beirness, *Dealing With the Hard Core Drinking Driver* 2.

[f] In a letter to the Safety Board dated June 29, 2000, the Honorable John C. Lawn, chairman and CEO of the Century Council, commented upon the organization's definition as follows: "...under our definition, to qualify as a hardcore drunk driver any one of these criterion [those given in the table above] by themselves would suffice....research has demonstrated a strong correlation between high blood alcohol concentration (BAC) drivers and the likelihood of having a previous DWI conviction....although high BAC drivers may not have been previously apprehended, it is probable that they have repeatedly operated a motor vehicle while intoxicated."

[g] Robert Voas, "MADD's Higher Risk Driver Program," (unpublished paper) 3, presented at press conference Dec. 29, 1999, to initiate MADD's High Risk Driver Campaign.

Hard core drinking drivers, as a group, have been less affected by countermeasures that have helped reduce alcohol-related fatalities. It may be difficult for society to extract a behavior change from hard core drinking drivers because they are different from other drivers. For example, Simpson described hard core drinking drivers as having "psychosocial and behavioral characteristics that distinguish them from the general driving population." [1]

[1] Simpson, Mayhew, and Beirness, *Dealing with the Hard Core Drinking Driver* 28-30.

Appendix D

Statistics

Injury Outcomes for Persons Involved in Fatal Crashes with Hard Core Drinking Drivers

Table 1. Injury severity by year for all persons involved in fatal crashes with hard core drinking drivers

	1983	*1984*	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*Total*
No_Injury	2079	2327	2309	2540	2569	2377	2346	2347	1925	1868	1742	1620	1668	1550	1427	1335	**32,029**
Injured	6241	6546	6737	7397	7749	7726	7338	7149	6469	5958	5586	5329	5346	5051	4752	4438	**99,812**
Fatal	8461	9183	9155	10352	10290	10236	9973	9903	9026	8045	7642	7370	7406	7189	6737	6370	**137,338**
Died Prior	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**
Unknown	34	52	44	47	37	29	54	69	46	33	48	54	36	25	19	21	**648**
Total	**16,815**	**18,108**	**18,245**	**20,336**	**20,645**	**20,368**	**19,711**	**19,468**	**17,466**	**15,904**	**15,018**	**14,373**	**14,456**	**13,815**	**12,935**	**12,165**	**269,828**

**The two tables shown below are independent subsets of the table shown above.*

Table 2. Injury severity by year for hard core drinking drivers involved in fatal crashes

	1983	*1984*	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*Total*
No_Injury	509	559	508	551	538	469	460	494	411	351	366	320	304	294	297	273	**6,704**
Injured	1338	1409	1487	1665	1683	1593	1516	1509	1437	1305	1123	1074	1058	1087	954	938	**21,176**
Fatal	5616	6197	6113	6950	6954	7042	6867	6823	6173	5524	5269	5187	5226	5020	4726	4507	**94,194**
Died Prior	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**
Unknown	5	5	6	6	3	4	4	6	8	9	7	6	2	3	4	2	**80**
Total	**7,468**	**8,170**	**8,114**	**9,172**	**9,178**	**9,108**	**8,847**	**8,832**	**8,029**	**7,189**	**6,765**	**6,587**	**6,590**	**6,404**	**5,981**	**5,721**	**122,155**

Table 3. Injury severity by year for those involved in fatal crashes with hard core drinking drivers (does not include the hard core drinking drivers)

	1983	*1984*	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*Total*
No Injury	1570	1768	1801	1989	2031	1908	1886	1853	1514	1517	1376	1300	1364	1256	1130	1062	**25,325**
Injured	4903	5137	5250	5732	6066	6133	5822	5640	5032	4653	4463	4255	4288	3964	3798	3500	**78,636**
Fatal	2845	2986	3042	3402	3336	3194	3106	3080	2853	2521	2373	2183	2180	2169	2011	1863	**43,144**
Died Prior	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Unknown	29	47	38	41	34	25	50	63	38	24	41	48	34	22	15	19	**568**
Total	**9,347**	**9,938**	**10,131**	**11,164**	**11,467**	**11,260**	**10,864**	**10,636**	**9,437**	**8,715**	**8,253**	**7,786**	**7,866**	**7,411**	**6,954**	**6,444**	**147,673**

Procedures for Tabulating Fatalities Resulting from Crashes Involving Hard Core Drinking Drivers:

- The number of persons fatally injured in crashes involving at least one hard core driver were tabulated from 1998 files of NHTSA's Fatality Analysis Reporting System using the following steps.
- A subset of variables from the FARS person and FARS vehicle files for the years 1983-1998 were joined by year, state case number, and vehicle number and combined into a single file.
- Drivers were separated from other people in the combined FARS person/vehicle file.
- Hard core drivers were separated from other drivers based on the following criteria: reported blood alcohol concentration level of at least 0.15 *or* police-reported drinking and a previous DWI conviction.
- Cases were analyzed by injury severity to produce Table 2.
- All variables were removed from the file except year and state case number, duplicate cases were removed.
- The resulting file was merged with the combined FARS person/vehicle file (created in step 1) by year and state case number.
- Cases were analyzed by injury severity to produce Table 1.
- Values in Table 2 were subtracted from values in Table 1 to obtain the values shown in Table 3.
- SAS program statements for performing the data manipulations necessary to create the file containing all people in accidents involving at least one hard core driver follow.

Appendix E

TEA-21

Section 410: Incentive Grants

Basic Grant A: To qualify for a Basic Grant A under TEA-21, a State must establish five of the seven following criteria:

- Implement an administrative license revocation program with a 90-day suspension for the first offense and at least a 1-year suspension for the second and subsequent offense occurring within a 5-year period.
- Implement an underage drinking enforcement program.
- Implement a special enforcement program that includes an education component and sobriety checkpoints or an equivalent.
- Implement a graduated licensing system in three stages, including driving restrictions for the first two stages, a mandatory safety belt requirement, and a zero tolerance requirement.
- Implement a program that addresses the issue of drivers with high BACs. The program may include graduated penalties or alcohol assessments.[1]
- Implement a program that addresses the issue of drinking drivers between the ages of 21 and 34.
- Implement a BAC testing program for drivers involved in fatal crashes, including successfully maintaining a testing rate equal to or greater than the National average by the beginning of FY 2001.

Basic Grant B: A State is eligible for a Basic Grant B upon demonstrating both of the following:

- A reduction in its percentage of fatally injured drivers with a BAC of .10 percent or greater, in each of the 3 most recent calendar years for which such statistics are available, and
- The percentage of fatally injured drivers with a BAC of .10 percent or greater in the State must be lower than the average percentage for all States in the same 3 calendar years.

[1] Under Federal regulations, the threshold at which sanctions begin must be higher than the BAC level established by the State as the standard DWI offense and less than or equal to a 0.20 percent BAC.

Supplemental Grant: A State that qualifies for either one or both basic grants may apply for one or more supplemental grants by implementing one or more of the following six criteria:

- Videotaping of drinking drivers by law enforcement officers.
- A self-sustained drinking driver prevention program.
- Enact and enforce a law to reduce driving with a suspended license.
- Use of passive alcohol sensors by law enforcement officers.
- Adopt an effective DWI tracking system.
- Establish other innovative programs to reduce traffic safety problems resulting from DWI or controlled substances.

Section 164: Minimum Penalties for Repeat Offenders

Section 164 provides that a repeat intoxicated driver law must, as a minimum, impose the following sanctions on an individual convicted of a second or subsequent offense for DWI or DUI within 5 years of a previous conviction for that offense:

- License suspension for not less than 1 year;
- Impoundment or immobilization of every motor vehicle owned by the repeat offender, or the installation of an ignition interlock system on each motor vehicle;[2]
- Assessment of a repeat offender's degree of abuse of alcohol and treatment as appropriate; and
- For a second offense, assignment of not less than 30 days of community service or not less than 5 days of imprisonment. For a third or subsequent offense, assignment of not less than 60 days of community service or not less than 10 days of imprisonment.[3]

[2] The NHTSA rule specifies that impoundment and immobilization would occur during the repeat offender's license suspension. Installation of the ignition interlock device would occur at the conclusion of the license suspension.

[3] According to the NHTSA rule, imprisonment includes confinement in one of the following: jail, a minimum security facility, a community corrections facility, house arrest with electronic monitoring, an inpatient rehabilitation or treatment center, or other facility, provided that the repeat offender is actually being detained.

NHTSA Rule Implementing TEA-21

23 CFR § 1275.4

To avoid transfer of funds, State must enact and enforce a law that establishes, as a minimum penalty, that all repeat intoxicated drivers shall:

Receive driver's license suspension of not less than one year;

Be subject either to: (i) Impoundment of each of driver's motor vehicles during one-year license suspension; (ii) Immobilization of each of driver's motor vehicles during one-year license suspension; or (iii) Installation of State-approved ignition interlock system on each of driver's motor vehicles at conclusion of one-year license suspension;

Receive assessment of degree of alcohol abuse, and treatment as appropriate; and

Receive mandatory sentence of: (i) Not less than 5 days of imprisonment or 30 days of community service for second offense; and (ii) Not less than 10 days of imprisonment or 60 days of community service for third or subsequent offense.

State may provide limited exceptions to impoundment or immobilization requirements on an individual basis, to avoid undue hardship to any individual who is completely dependent on motor vehicle for the necessities of life, including any family member of the convicted individual, and any co-owner of the motor vehicle, but not the offender. Such exceptions issued only in accordance with State law, regulation or binding policy directive establishing the conditions under which vehicles may be released by the State or under Statewide published guidelines and in exceptional circumstances specific to the offender's motor vehicle, and may not result in unrestricted use of vehicle by repeat intoxicated driver.

23 CFR § 1275.5(b)

(Name of certifying official), (position title), of the (State or Commonwealth) of _____, do hereby certify that the (State or Commonwealth) of _____, has enacted and is enforcing a repeat intoxicated driver law that conforms to the requirements of 23 U.S.C. 164 and 23 CFR 1275.4, (citations to State law).

23 CFR § 1313.6(c)

State shall submit statement certifying that State meets each element of this criterion, based on percentages calculated in accordance with provision.

State with percentage of BAC testing among fatally injured drivers of 85% or greater, as determined under FARS as of the first day of the FY for which grant funds are being sought, may demonstrate compliance with this criterion by submitting statement certifying that the State meets each element of this criterion and by submitting its calculations developed under paragraph (b)(3) of this section. (Any State with percentage of BAC testing among fatally injured drivers of 85% or greater in each of the 3 most

recent calendar years, as determined by FARS as of the first day of the FY for which grant funds are being sought, may calculate for submission to NHTSA the percentage of fatally injured drivers with a BAC of .10% or greater in that State for those calendar years, using State data.)

STATE TEA-21 FUND ALLOCATION and ESTIMATED PENALTY

State	Section 410 Funds (FY 1999)	Section 164 Estimated Penalty (FY 2001)	Section 164 Estimated Penalty (FY 2003)
Alabama	$ 622,009	$ 4,940,000	$10,313,000
Alaska		$ 3,467,000	$ 5,208,000
Arizona	$ 559,311	$ 4,573,000	$ 9,546,000
Arkansas		$ 3,599,000	$ 7,416,000
California	$7,109,102	$22,406,000	$46,609,000
Colorado	$ 589,905	$ 3,426,000	$ 7,125,000
Connecticut		$ 2,776,000	$ 5,814,000
Delaware	$ 179, 040	$ 1,355,000	$ 2,614,000
District of Columbia	$ 189,995	$ 1,065,000	$ 2,210,000
Florida	$3,173,340	$12,283,000	$25,692,000
Georgia	$1,080,937	$ 9,299,000	$19,412,000
Hawaii	$ 211,903	$ 1,222,000	$ 2,546,000
Idaho	$ 278,011	$ 2,014,000	$ 4,206,000
Illinois	$1,663,787	$ 8,583,000	$17,839,000
Indiana	$ 966,216	$ 6,585,000	$13,737,000
Iowa	$ 566,531	$ 3,334,000	$ 6,925,000
Kansas		$ 3,326,000	$ 6,906,000
Kentucky		$ 4,338,000	$ 9,061,000
Louisiana		$ 3,829,000	$ 7,969,000
Maine		$ 1,292,000	$ 2,692,000
Maryland	$ 559,194	$ 3,674,000	$ 7,649,000
Massachusetts		$ 3,538,000	$ 7,345,000
Michigan	$1,441,971	$ 8,153,000	$16,997,000
Minnesota	$ 873,229	$ 4,324,000	$ 8,992,000
Mississippi		$ 3,209,000	$ 6,678,000
Missouri		$ 5,959,000	$12,395,000
Montana		$ 2,737,000	$ 5,727,000
Nebraska	$ 388,728	$ 2,332,000	$ 4,845,000
Nevada	$ 263,522	$ 2,013,000	$ 4,204,000
New Hampshire	$ 179,040	$ 1,248,000	$ 2,600,000
New Jersey		$ 4,907,000	$ 9,988,000
New Mexico	$ 362,023	$ 2,937,000	$ 6,123,000

STATE TEA-21 FUND ALLOCATION and ESTIMATED PENALTY (cont.)

State	Section 410 Funds (FY 1999)	Section 164 Estimated Penalty (FY 2001)	Section 164 Estimated Penalty (FY 2003)
New York	$2,491,550	$ 9,092,000	$18,926,000
North Carolina	$1,061,830	$ 6,865,000	$14,339,000
North Dakota		$ 2,081,000	$ 4,332,000
Ohio	$1,623,865	$ 8,644,000	$17,990,000
Oklahoma		$ 4,298,000	$ 8,943,000
Oregon	$ 536,102	$ 3,267,000	$ 6,794,000
Pennsylvania	$1,578,949	$ 8,432,000	$17,567,000
Rhode Island		$ 1,363,000	$ 2,849,000
South Carolina	$ 562,521	$ 4,326,000	$ 9,035,000
South Dakota		$ 2,098,000	$ 4,370,000
Tennessee	$ 818,519	$ 5,608,000	$11,702,000
Texas		$19,718,000	$41,144,000
Utah	$ 585,127	$ 2,290,000	$ 4,764,000
Vermont	$ 211,903	$ 1,199,000	$ 2,494,000
Virginia	$ 790,949	$ 6,577,000	$13,712,000
Washington	$ 843,447	$ 4,420,000	$ 9,191,000
West Virginia		$ 1,783,000	$ 3,723,000
Wisconsin	$ 887,444	$ 5,510,000	$11,502,000
Wyoming		$ 2,202,000	$ 4,586,000
Total	**$33,250,000**	**$247,226,000**	**$1,047,370,000**

Appendix F

Accident Investigations

Case No. 1

Accident No.:	HWY-00-IH-012
Location:	Enumclaw, Washington
Date and Time:	March 16, 1999; 9:50 p.m.
Case Vehicle (V1):	1994 Chevrolet Camaro
Other Vehicle(s)	1979 Chevrolet El Camino pickup truck
Injuries/Fatalities	2 fatalities, 1 serious injury

Description of the Accident:

The driver of a Camaro traveling westbound on SE 424 Street at an estimated speed of 62 - 68 mph in a 35-mph zone failed to stop at the posted stop sign and struck a pickup truck traveling southbound on 244 Avenue. Both vehicles continued traveling off the road and through a fence located at the southwest corner of the intersection before coming to rest in a field. The weather conditions were clear and the roadway was dry.

The pickup truck driver and passenger were ejected through the driver's side window and died at the scene. The Camaro driver, who was not wearing a seatbelt, sustained serious head injures and was flown to a medical center in Seattle. His blood alcohol level was 0.15 percent. The Camaro driver had a valid license and no prior traffic violations, accidents, or criminal convictions within the past 5 years.

Case No. 2

Accident No.:	HWY-00-IH-020
Location:	Bristol Township, Pennsylvania
Date and Time:	October 7, 1999; 4:32 p.m.
Case Vehicle (V1):	1985 Chevrolet pickup truck
Other Vehicle(s)	Ford pickup truck (parked)
Injuries/Fatalities	1 pedestrian fatality, 1 pedestrian serious injury

Description of the Accident:

A driver of a pickup truck traveling at a high rate of speed on the shoulder of Green Lane struck two pedestrians standing behind a parked pickup truck. One pedestrian was thrown clear while the fatally injured pedestrian was pinned between the two vehicles. The striking pickup truck separated from the parked pickup truck and the fatally injured pedestrian was thrown over the striking vehicle, landing in the roadway 83 feet from the point of impact.

One hour after the accident, the pickup truck driver had a blood alcohol level of 0.079 percent, along with a concentration of 0.08 micrograms/L of cocaine, and a concentration of 0.11 micrograms/L of benzoylecgonine.

In 1985 the pickup truck driver had her first DUI offense, and her second occurred in July 1998. Under the Accelerated Rehabilitation Disposition, she lost her license for 1 year and served probation for 1 year. In January 1999 she was sentenced to 2 to 364 days in the county prison for a DUI arrest in July 1998. She served 2 days and was released on probation. In June 1999, she pled guilty to DUI and was sentenced to 2 to 364 days in the county prison for a DUI arrest in August 1998. She again served 2 days and was released on probation. According to the Bristol Township police department, she was suspended until 2003 for DUI-related offenses and remains under suspension until 2006. She has also been convicted as a habitual offender.

Case No. 3

Accident No.:	HWY-00-IH-009
Location:	Irving, Texas
Date and Time:	October 23, 1999; 11 a.m.
Case Vehicle (V1):	1999 Chevrolet pickup truck
Other Vehicle(s)	1998 Freightliner tractor-semitrailer, Ford pickup truck, Cadillac
Injuries/Fatalities	2 fatalities

Description of the Accident:

The Chevrolet pickup truck driver was proceeding westbound on Spur 482 and was merging onto State Highway 183 when it veered to the south, crossed over three lanes and a shoulder, and struck the guardrail. The collision with the guardrail caused it to become airborne and travel 98 feet before striking the ground in the center median between the east and westbound lanes of State Highway 183. It then continued to the southwest an additional 97 feet and collided with a tractor-semitrailer. The striking vehicle traveled in a southeast direction for 183 feet and came to rest against a tree. The tractor-semitrailer traveled 278 feet southeast , crashed through a guardrail, and collided with a bridge pillar. A post crash fire ensued destroying the tractor-semitrailer and damaging the bridge structure. The debris from the initial collision struck a Ford pickup truck and a Cadillac during the accident sequence.

The tractor-semitrailer truck driver was fatally injured. The Chevrolet pickup truck driver was found partially ejected and was fatally injured. He was an unlicensed driver. A toxicology report on the driver of the Chevrolet pickup disclosed an alcohol concentration of 0.29 percent.

Case No. 4

Accident No.:	HWY-00-IH-021
Location:	Upper Merion, Pennsylvania
Date and Time:	November 25, 1999; 1:28 a.m.
Case Vehicle (V1):	1999 Dodge passenger car
Other Vehicle(s)	1993 Pontiac, 1996 Nissan
Injuries/Fatalities	1 fatality, 6 injuries

Description of the Accident:

The Pontiac driver was traveling eastbound in the westbound lanes of Interstate 76 for over 5 miles when it struck a Nissan head-on. A Dodge traveling behind the Nissan struck it from the rear. The Nissan caught fire and a trapped passenger died. The other four occupants in that vehicle and the Dodge driver were injured.

The Pontiac driver had a blood alcohol concentration of 0.24 percent. He was driving on a suspended license at the time of the accident. The suspended license was the result of a DUI arrest on June 30, 1996. He had also been charged with driving while suspended in December 1997. There was no further information about his past driving history.

Case No. 5

Accident No.:	HWY-00-IH-019
Location:	Bristol, Connecticut
Date and Time:	December 6, 1999; 1:45 a.m.
Case Vehicle (V1):	1995 Saturn
Other Vehicle(s)	1999 Ford
Injuries/Fatalities	None

Description of the Accident:

The Saturn driver was parked in front of his house with his engine off. After a police officer questioned him and asked him to go inside his house, he started his car, made a U-turn and started to drive away, but struck the police car. The damage was minor and no one was injured.

He refused to submit to an alcohol test and was driving on a suspended license. This suspension was for two DUI arrests, one on October 16, 1997, and the other on October 5, 1999.

Case No. 6

Accident No.:	HWY-00-IH-013
Location:	Richmond, Virginia
Date and Time:	December 13, 1999; 5:33 p.m.
Case Vehicle (V1):	
Other Vehicle(s)	1995 International tractor-semitrailer, 1992 Ford pickup truck, 1985 Oldsmobile
Injuries/Fatalities	1 fatality, 2 injuries

Description of the Accident:

The truckdriver was traveling westbound on I-64 when he struck the rear of a Ford pickup truck that had slowed for heavy traffic. The two drivers were in the truck in the roadway exchanging information when the Oldsmobile driver ran into the rear of the tractor-semitrailer. The Oldsmobile driver was not wearing a seatbelt and died at the scene. His 4-year-old passenger, who was lap-belted, sustained minor injuries. The Ford pickup truck driver was also injured. It was raining lightly and misty at the time of the accident.

The truckdriver was given a breathalyzer test that showed an alcohol concentration of 0.19 percent. He had a previous 3-year CDL suspension (1995-1998) as a result of non-payment of multiple parking tickets. His license was valid at the time of this accident.

Appendix G

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