

DRUNK DRIVING: SEEKING ADDITIONAL SOLUTIONS



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TABLE OF CONTENTS

List of Tables	ii	Young people under the age of 21	33
List of Figures	ii	Summary	34
Acknowledgements	iii	Chapter 5	35
Drunk driving today	v	System — Drunk driving control operations and problems	
Drunk driving control strategies	vi	State and community drunk driving control systems	35
Problems and solutions	vii	System problems	37
Action — Implementing the recommendations	viii	Summary	41
Drunk driving tomorrow	x	Chapter 6	43
Chapter 1	1	Institutions — National drunk driving control activities and policies	
Introduction		Organizations that affect drunk driving	43
Objectives	2	Current drunk driving policy initiatives	49
Methods	3	Summary	51
This report	5	Chapter 7	52
Terminology	5	Solutions — Recommendations for improvement	
Chapter 2	7	Laws	52
History — Drunk driving in the United States since 1982		Enforcement	54
National forces and events	7	Adjudication and administration	58
Drunk driving changes by state	9	Offender followup	63
Comparison with Canada	11	System support	64
Drivers under the age of 21	12	Summary	67
Conclusions	16	Chapter 8	68
Chapter 3	18	Action — Implementing the recommendations	
Status — Drunk driving in the United States 2000		Drunk driving control system monitoring program	68
Fatal crash data	18	State Drunk Driving Task Forces	70
Roadside survey data	21	State drunk driving grant reauthorization	71
DWI offender data	22	Supporting activities	72
Telephone survey data	24	Concluding thoughts	73
Drunk driving priority as a social issue	25	Appendix A. References	75
Conclusions	26	Appendix B. Glossary of terms and abbreviations	85
Chapter 4	29		
Strategies — Methods for controlling drunk driving			
Drunk driving control strategies	29		
Deterrence	31		

List of Tables

Table 3-1	Drunk Drivers in Fatal Crashes (BAC \geq 0.10), 1982 and 1999
Table 3-2	Drinking Drivers in Fatal Crashes (BAC > 0.00), 1982 and 1999
Table 3-3	BAC Levels for Driver Fatalities (Age \geq 21), 1982 and 1999, 15 Good Reporting States
Table 3-4	Drivers Involved in Fatal Crashes, by State and Alcohol Involvement, 1999
Table 3-5	Driver BAC Levels, Weekend Nights, 1986 and 1996, National Roadside Surveys
Table 3-6	Driver BAC Levels by Age, Weekend Nights, 1986 and 1996, National Roadside Surveys
Table 3-7	DWI Offender BAC levels and Prior Offenses, State Data
Table 3-8	Summary of Driver BAC Levels, Prior Offenses, and Drinking Problems

List of Figures

Figure E-1	US Alcohol-related Traffic Fatalities
Figure E-2	US Drunk Drivers in Fatal Crashes
Figure 1-1	US Alcohol-related Traffic Fatalities
Figure 1-2	US Traffic Fatalities, Percent Alcohol-related
Figure 1-3	US Drunk Drivers in Fatal Crashes
Figure 1-4	US Drivers in Fatal Crashes, Percent Drunk
Figure 2-1	Alcohol-related Traffic Fatality Drop
Figure 2-2	US, Canada Percent Drunk Drivers
Figure 2-3	US, Canada Percent Drunk Drivers, Change from 1982
Figure 2-4	Drinking Drivers in Fatal Crashes, Change from 1982
Figure 2-5	Drinking Drivers in Fatal Crashes, Rate per 100,000 Population
Figure 2-6	Drinking Drivers in Fatal Crashes, Population Rate, Change from 1982
Figure 2-7	Youth Drinking, Driving, Fatal Crashes, Change from 1984
Figure 2-8	US, Canada Young Drinking Drivers, Fatal Crashes, Change from 1982

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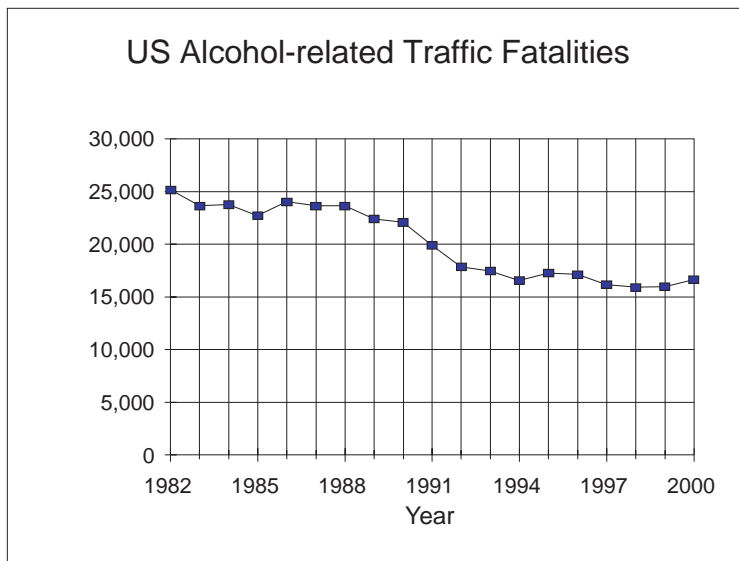
The study's findings, conclusions, recommendations, and opinions are those of the authors alone. The authors are solely responsible for all errors of fact or interpretation.

Executive Summary

Drunk drivers continue to plague American highways. They crash, they injure, and they kill. In 2000, 16,653 traffic fatalities — 40 percent of all highway deaths — involved at least one drinking driver, pedestrian, or bicyclist. Of all drivers involved in fatal crashes, 10,408 had a blood alcohol level of 0.10 or above — a level that is illegal without any further evidence in every state except Massachusetts.

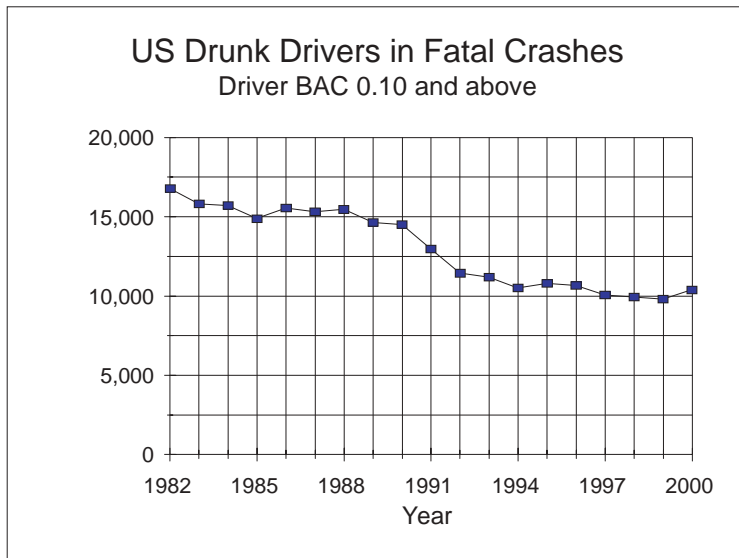
Drunk driving has dropped substantially over the past two decades. Traffic fatalities involving alcohol decreased by 37 percent between 1982 and 1999, and the number of drunk drivers in these crashes who had a blood alcohol level of 0.10 or higher decreased by 42 percent. However, as the figures below show, most of the

Figure E-1



Source: FARS

Figure E-2



Source: FARS

progress ended by about 1994. In 2000, drunk driving deaths increased for the first time since 1995. Traffic fatalities involving alcohol rose by 4%, from 15,976 in 1999 to 16,653 in 2000. The number of drunk drivers in fatal crashes rose by 6%, from 9,818 in 1999 to 10,408 in 2000.

This study investigates why drunk driving has not decreased recently and what can be done to reduce it further. Data from traffic crashes and roadside and telephone surveys present a clear picture of drunk driving in the United States today. Research shows what is known about which drunk driving control methods are effective and which are not. Interviews with over 90 knowledgeable practitioners, managers, and researchers across the country describe what is happening on the streets and in communities, what changes are needed, and how these changes might be effected.

Every state has an elaborate system of drunk driving laws, enforcement, courts, and punishment, but these systems do not work as well as they should. Arrest rates are low. Complex laws allow some offenders to escape any punishment. Other offenders can avoid a drunk driving conviction through a plea bargain. Sanctions are not applied consistently. Sentence requirements are not completed. These problems are not well known because many states do not have good record systems. Drunk drivers have little fear of being stopped, arrested, convicted, and punished — so they continue to drink and drive.

This study recommends effective and practical actions to improve the drunk driving control system along with three specific strategies to implement these recommendations.

Drunk driving today

Drinking and driving is common. About 21 percent of driving-age Americans reported they had driven after drinking in the past year, making about 950 million drinking-driver trips. In about 9 percent of these trips, or about 80 million, the driver's blood alcohol level (BAC) was 0.08 or above.

Drunk driving arrests are rare. With 1.55 million arrests for drunk driving (DWI) in 1999, the chances of arrest on any drunk driving trip were less than one in 50.

Drunk driving by young people has decreased substantially. Only 12 percent of drunk drivers in fatal crashes in 1999 were under 21, compared to 19 percent in 1982.

Repeat offenders and drivers with high blood alcohol levels contribute prominently to

the problem. About one-third of all drivers arrested or convicted of DWI are repeat offenders. Over half of all drivers arrested for DWI and almost two-thirds of fatally injured drinking drivers had a BAC over 0.15 — a level that requires a typical 180lb man to drink seven beers in one hour. About 23 percent of all drinking drivers are problem drinkers, but they contribute over 40 percent of all drinking-driver trips.

States differ substantially. In some states, only about 10 percent of all drivers involved in fatal crashes had BAC levels over 0.10. In other states, over 25 percent did. States that have reduced drunk driving the most over the past 20 years have effective laws, high-visibility enforcement, and substantial public education built on a foundation of strong leadership, secure funding, and firm commitment.

Attention to drunk driving has dropped. The public is more concerned with drugs and crime. Even within traffic safety, the spotlight is on aggressive driving, cell phone use, and tire defects rather than drunk driving.

Many drunk drivers are not deterred. While most of the public supports DWI laws and enforcement, a substantial minority of drivers believes it is unlikely that they would be stopped, arrested, or convicted if they drove after drinking too much.

What is needed? An improved drunk driving control system will ensure that drunk drivers are consistently arrested, regularly convicted, and appropriately punished. When everyone understands that driving drunk is likely to bring certain and uncomfortable consequences, then fewer people will drive drunk.

Drunk driving control strategies

Good laws, active enforcement, and effective punishment. Research over 40 years has shown conclusively that good laws that are strongly supported and enforced with meaningful penalties reduce drunk driving. Three other strategies support this system. Public education informs drivers, especially young drivers, about alcohol and drunk driving issues. Alcohol treatment is essential for problem drinkers. Alcohol control measures such as minimum legal drinking ages and alcohol server training help reduce drinking in situations that may lead to drunk driving. With strong laws, enforcement, and punishment at the center, these strategies reinforce and promote a community standard that drunk driving is not acceptable.

A strong system that affects everyone. Drunk driving laws and enforcement send a message: drunk driving is not acceptable. A strong drunk driving control system increases both the public perception and the reality that drunk drivers will be frequently detected, arrested, convicted, and punished. A weak system sends the oppo-

site message: drunk driving is not a serious problem, drunk drivers usually will not be caught, and those caught will not be punished.

Problems and solutions

Research studies and interviews identified common problems in drunk driving control systems. They do not occur everywhere but are frequent enough that all states and communities should consider them. Research and interviews also identified solutions to these problems.

PROBLEM	SOLUTION
<i>State laws are complex and contain inconsistencies and loopholes</i>	<ul style="list-style-type: none"> • Review and simplify laws; use the Uniform Vehicle Code 2000 as a starting point
<i>Many drivers refuse to take BAC tests</i>	<ul style="list-style-type: none"> • Establish penalties for refusing to take the BAC test that are more severe than the penalties for failing the BAC test
<i>DWI enforcement levels and arrest rates are low</i>	<ul style="list-style-type: none"> • Simplify arrest procedures and paperwork • Provide necessary equipment and training • Enforce a drinking age of 21 and zero tolerance laws for drivers under 21
<i>Many arrested drunk drivers are not convicted</i>	<ul style="list-style-type: none"> • Eliminate plea bargains to non-alcohol offenses • Eliminate diversion programs that allow offenders to escape punishment • Ensure that administrative hearings do not interfere with criminal proceedings
<i>Many repeat offenders are not identified</i>	<ul style="list-style-type: none"> • Improve record systems to identify prior drunk driving offenses
<i>Problem drinkers are not identified or treated effectively</i>	<ul style="list-style-type: none"> • Screen all drunk driving offenders for drinking problems • Require treatment if needed
<i>Even convicted drunk drivers escape meaningful punishment</i>	<ul style="list-style-type: none"> • Apply administrative and criminal sanctions consistently • Include actions against the offender's car

Offenders frequently are not monitored to assure they complete their sentences

- Control offenders closely during probation
- Use home detention, electronic monitoring, or jail as appropriate
- Consider dedicated facilities if needed

Offenders frequently drive in violation of their license suspension or fail to become re-licensed when eligible

- Monitor offenders closely
- Establish and enforce stiff penalties for unlicensed driving

Law enforcement, courts, and probation lack resources

- Provide steady, dedicated funding

States need strong leadership for all drunk driving control activities

- Assure that state transportation, health, law enforcement, motor vehicle, and justice departments work together

Considering and addressing these issues will improve a state's drunk driving control system, show the public that drunk driving will not be tolerated, and convince more drunk drivers to change their behavior.

Action — Implementing the recommendations

Three strategies provide an implementation framework that can link community, state, and national organizations and resources together for a renewed attack on drunk driving. While the strategies are far from unique, they establish a proven structure that in turn will supply the information, management, and funding needed for progress.

1. ESTABLISH A PROGRAM THAT MONITORS THE DRUNK DRIVING CONTROL SYSTEM IN EACH STATE.

Efforts to improve a state's drunk driving control system should begin with good information on the system's performance, from laws through enforcement, administrative actions, adjudication, and offender follow-up. What is working well and what is not? What critical problem areas should be addressed? Some states collect some of this information regularly and report it to the public. Others do not or report only a portion. In particular, there is little information on the successes and problems experienced by judges and prosecutors in the courts. Partly as a result, the courts have not received the public attention, encouragement, or resources they need.

A monitoring program for each state's drunk driving control system could

provide this information. The monitoring program could combine information from official records with data collected directly from communities, in a fashion similar to the court monitoring programs that operated so effectively in the 1980s. The media will eagerly report on the results of the monitoring program and may help with the program's design and operation. The media also can highlight outstanding judges, prosecutors, law enforcement and probation officers, and motor vehicle department staff. Issues revealed by the monitoring program should easily get the attention of public officials and legislators.

MADD, AAA, and other citizen organizations can operate system monitoring programs. The National Highway Traffic Safety Administration (NHTSA) and the Department of Justice can work with organizations representing motor vehicle departments, prosecutors, judges, probation officers, and state highway safety organizations to design the program and help communities to implement it.

2. REINVIGORATE STATE DRUNK DRIVING TASK FORCES.

State task forces include representatives from all constituencies involved with drunk driving control. They have high-level access to the governor and legislature. They can identify problems, suggest solutions, and promote action. State task forces should examine the state's drunk driving laws and procedures, its driver and offender record systems, its drunk driving enforcement and adjudication activities, its resource needs, and the ways authority, responsibility, and coordination are assigned among the state agencies involved in drunk driving control.

NHTSA, in cooperation with other Federal agencies, should help state task forces by defining a model state drunk driving control program, establishing performance measures for drunk driving enforcement and adjudication, and supporting states as they assist each other in reviewing and recommending improvements to their drunk driving control systems.

3. REVISE STATE DRUNK DRIVING GRANTS.

Section 402, 410, and other Federal grants are critical to state drunk driving activities. Federal grants provide funds for drunk driving control and also encourage states to adopt effective strategies. The current grant programs could be improved substantially to be less bureaucratic, more flexible, and more accountable. The next reauthorization should revise the grant programs so that they:

- Reward successful states and also encourage weaker states to improve
- Provide flexibility along with accountability for results
- Ensure steady funding as long as state performance is equally steady
- Use performance-based criteria instead of requiring specific laws or programs
- Provide substantial funding for state record systems to track each drunk driver

- from arrest through prosecution, adjudication, sanction, and rehabilitation
- Require states to establish or continue broad-based drunk driving task forces
 - Require the Federal departments of Transportation, Justice, and Health and Human Services to work together in designing and operating these grant programs.

NHTSA is the organization best suited to provide leadership on all three action steps, in collaboration with the states, other Federal agencies, professional and citizen organizations, and others involved in drunk driving control.

Drunk driving tomorrow

The problems with state drunk driving control systems can be solved in many ways. The most effective will follow several principles: They will invest authority and responsibility in people and organizations at all levels, local to national, because drunk driving control requires action at all levels. They will operate in the public eye, using the media to report on problems and solutions, because ultimate decisions on priorities and resources to control drunk driving must have public support. They will not promise instant solutions based on a single action but rather will take steady steps towards long-term improvement. And they will establish mechanisms for identifying and solving problems rather than attempting to apply one-size-fits-all methods. The three specific recommendations suggest how to turn these principles into action.

Drunk driving control is a long, slow process of modifying social norms and practices regarding drinking and driving. These norms and practices have changed substantially over the past 20 years, and these changes are evident in the substantial reduction in drunk driving crashes, injuries, and fatalities. Very few social problems have been reduced by 37 percent over 18 years, as has drunk driving. Advocates for other issues with similar success rates might be pleased to declare victory and focus on maintaining their gains. However, advocates of drunk driving control are not content to rest on their laurels. The path to additional gains is clear. The goal is a drunk driving control system, extending from detection to rehabilitation, that is open, effective, consistent, and accountable. The result will be further reductions in alcohol-related deaths and injuries. All that is needed is leadership and commitment.

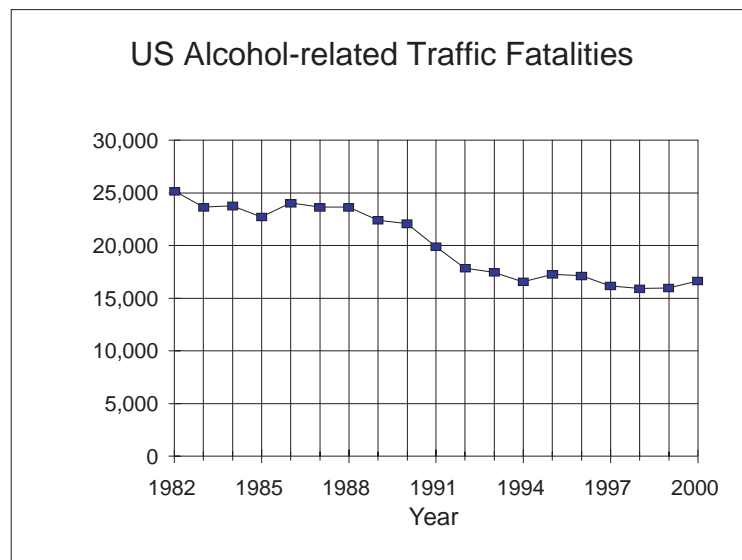
CHAPTER 1

Introduction

Drunk drivers continue to plague American highways. They crash, they injure, and they kill. In 2000, 16,653 traffic fatalities — 40 percent of all highway deaths — involved at least one drinking driver, pedestrian, or bicyclist. Of all drivers involved in fatal crashes, 10,408 had a blood alcohol level of 0.10 or above — a level that is illegal without any further evidence in every state except Massachusetts.

Traffic fatalities involving alcohol have dropped by 37% over the past two decades, from 25,165 in 1982 to 15,976 in 1999. However, as Figures 1-1 and 1-2 show, most of the progress ended by about 1994. In 2000, traffic fatalities involving alcohol increased by 4% to 16,653, the first increase since 1995.

Figure 1-1

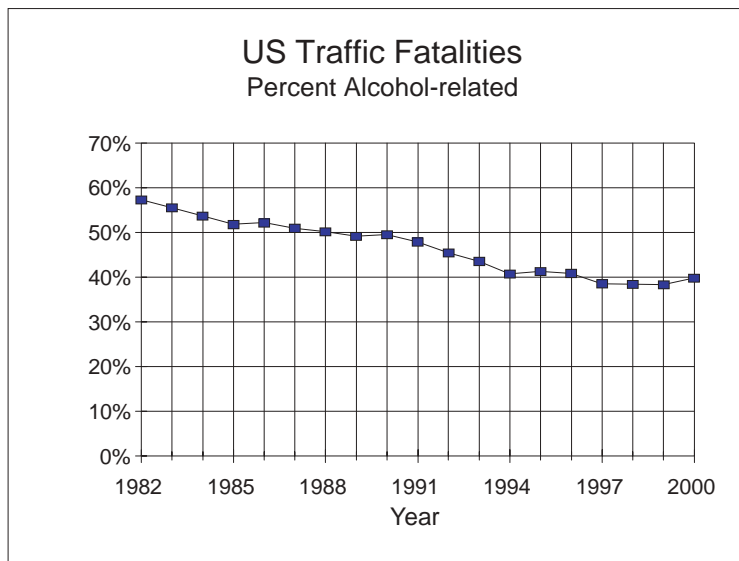


Source: FARS

Different measures of the drunk driving problem show very similar trends. Figures 1-3 and 1-4 show the trends for drivers in fatal crashes who had a blood alcohol level (BAC) of 0.10 or higher. The number of these intoxicated drivers dropped by 42%, from 16,793 in 1982 to 9,818 in 1999 but then rose by 6% to 10,408 in 2000. The proportion of all drivers in fatal crashes with a BAC of 0.10 or higher dropped from 30% in 1982 to 17% in 1999 but rose to 18% in 2000.

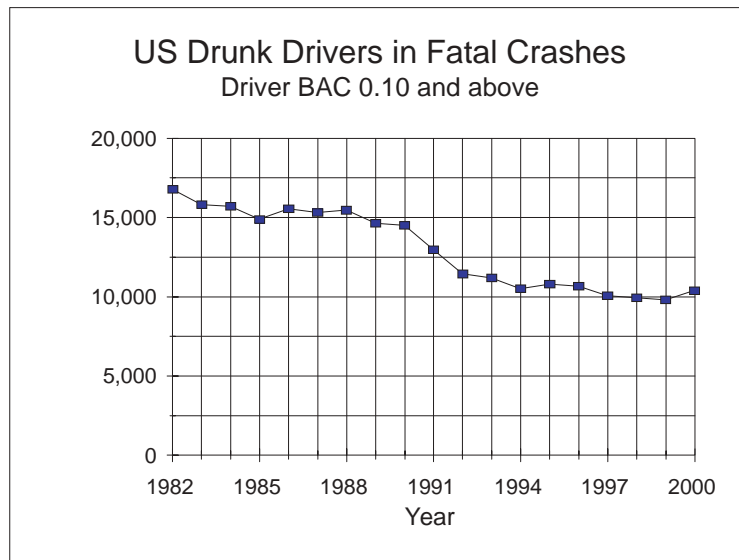
This study investigates why drunk driving has not continued to decrease. Have current drunk driving programs and strategies reached the limits of their effective

Figure 1-2



Source: FARS

Figure 1-3



Source: FARS

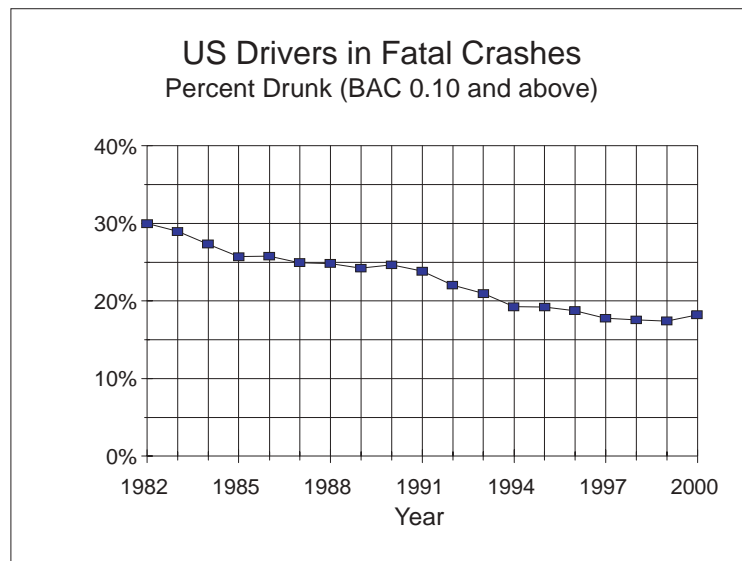
ness? Have some areas of the country lagged behind others? Above all, what can be done to reduce drunk driving even further?

Objectives

The study's objectives are to analyze recent drunk driving control activities and policies in the United States and to recommend strategies to reduce drunk driving further. The strategies must satisfy three criteria.

- *Effective:* There must be convincing evidence that a specific strategy will reduce drunk driving. The evidence can come in different forms. Some strategies have been carefully evaluated to measure their direct effect on drunk driving crashes, arrests, or

Figure 1-4



Source: FARS

recidivism. Other, more experimental, strategies have suggestive but not conclusive evidence. Still other strategies are virtually impossible to evaluate in isolation and must be considered using different criteria, such as their contributions to the entire drunk driving control system.

- *Practical:* There must be a clear way to implement the recommended strategies. This means that a strategy cannot cost too much in political or economic terms, or require unlikely changes in laws or practices, or be unacceptable to the public.

- *Short-term:* The strategies must be able to be implemented within the next two to three years and must produce results soon after implementation. As an absolute limit, strategies that could not promise definite results by 2010 were not considered.

These three criteria limit the study's scope substantially. The study does not attempt to consider or recommend everything that should be done to reduce drunk driving, but examines only strategies that can reduce drunk driving relatively soon. In particular, the study does not consider strategies that require research and development or strategies involving technology that would take many years to implement.

Methods

The study used three sources of information.

- *Data:* Traffic crash and roadside survey data describe the current drunk driving problem and how it has changed over the past 20 years. National telephone survey data capture the public's knowledge and views on matters related to drunk driving.

- *Research:* The extensive research literature shows what is known about methods to control drunk driving and identifies strategies that are known to be effective.

- *Interviews:* Over 90 knowledgeable people across the country were interviewed. They provided extensive insight into the drunk driving research literature and current drunk driving control operations. They suggested what changes were needed and how these changes might be produced.

The traffic safety research literature on drunk driving issues is extensive. Its quality varies widely. Basic research on the effects of alcohol on skills related to driving has been conducted under controlled scientific conditions; this research has produced broadly accepted conclusions that the performance of driving-related skills degrades as blood alcohol concentration increases (see, for example, Moskowitz and Fiorentino, 2000). However, research on the effects of laws, programs, and strategies to reduce drunk driving must necessarily be conducted in real-world settings, where many potential influences on drunk driving cannot be controlled. Conclusions drawn from this research almost always contain an element of judgment.

Rather than attempting to review the entire research literature anew, the study relied heavily on several recent summaries of drunk driving research in key areas, supplemented with research that has appeared recently or has not been included in the available summaries.

The interviews were conducted in four stages. First, Regional Administrators or key staff in each of the 10 National Highway Traffic Safety Administration (NHTSA) regions were interviewed. Next, based on suggestions received from these interviews and from key national traffic safety experts, interviews were conducted with Governor's Highway Safety Representatives or key staff in 16 states. Then, using suggestions from many sources, 24 people in states and communities were interviewed, including representatives from law enforcement, prosecution, the courts, probation and treatment, state liquor control, state legislative offices, community traffic safety programs, education, the media, American Automobile Association (AAA) clubs, and Mothers Against Drunk Driving (MADD). Finally, 34 people with extensive national-level knowledge and experience in drunk driving issues were interviewed. These included policymakers, administrators, practitioners, and researchers from Federal and state government, academia, industry, nonprofit organizations, and associations that represent disciplines including law enforcement, courts, the states, citizen groups, insurance companies, and alcohol producers.

Interviews in the first three stages followed a uniform structure. Interviewees were sent a brief description of the study's scope, a short data summary, and a set of questions requesting their views on drunk driving problems and solutions. After the interviewees gave their views on these questions they were invited to add any other information or suggestions. In the final stage, interviewees were sent the same study description and data summary as well as a one-page summary of interview results from the first three stages. These experts were asked for their comments on the interview results, their overall recommendations on drunk driving strategies, and their suggestions for implementing their recommendations.

All interviewees in each stage were assured that their responses would be confidential. Their frank discussion and comments provided insights that could not be obtained from written sources. Because of this confidentiality, the report contains no direct quotations from any interviews. When similar suggestions were provided frequently they are reported in words such as “Many interviewees noted that ...” or “Several judges said that ...”

The interviewees do not form a representative sample in any statistical sense. However, they include people from over half the states and from a wide range of disciplines that deal with drunk driving issues every day. Their collective voice on many issues carried substantial weight in shaping this report’s conclusions and recommendations.

This report

This report first reviews major drunk driving trends and activities over the past 20 years. Five states that reduced drunk driving considerably more than similar states are compared with states that were less successful. The current drunk driving situation is then described in detail. The main approaches to controlling drunk driving are discussed and compared. A review of the characteristics of state drunk driving control systems is followed by an overview of national drunk driving activities, current policy initiatives, and national opinion regarding drunk driving.

Information from all sources leads to a clear statement of the key current obstacles to reducing drunk driving and suggests effective strategies for overcoming these obstacles. An action agenda proposes methods for implementing the strategies with roles for Federal, state, and local organizations.

Terminology

The following terms and abbreviations are used throughout the report. Additional terms and abbreviations are collected in Appendix B.

Alcohol-related traffic fatality — a traffic fatality in which at least one driver or non-motorist was estimated to have a positive blood alcohol concentration (as reported by the Fatality Analysis Reporting System, or FARS).

BAC — alcohol concentration in the body. BAC stands for Blood Alcohol Concentration. BAC was originally measured by determining the percentage of alcohol in a person’s blood, but now typically involves measuring alcohol in breath. However, it is still expressed in terms of milligrams of alcohol per 100 milliliters of blood.

Drinking driver — a driver with any positive BAC.

Drunk driving — driving with a BAC level exceeding a state's per se level or while sufficiently impaired by alcohol to be guilty of DWI.

DWI — the offense of driving while impaired by alcohol. The formal offense differs from state to state and may be called Driving While Impaired, Driving While Intoxicated, and Driving Under the Influence. Here, DWI is used to describe each state's primary impaired driving offense.

CHAPTER 2

History — Drunk driving in the United States since 1982

Two events make 1982 an appropriate year to begin a review of drunk driving activities and progress in the United States. First, 1982 was the year in which NHTSA's FARS began estimating alcohol involvement in fatal traffic crashes in a consistent manner across all the states. Second, by 1982 two citizens' organizations, Mothers Against Drunk Driving (MADD) and Remove Intoxicated Drivers (RID), were beginning to affect the national debate. MADD and RID produced substantial changes; FARS allowed the effects of these changes to be measured. Following a brief review of important events, this chapter examines and draws important conclusions from the differences in drunk driving reductions among states, between younger and older drivers, and between the United States and Canada.

National forces and events

Several events in the 1960s and 1970s laid the groundwork for subsequent progress (Jacobs, 1989, and Preusser et al, 1993, both contain short accounts of the early history). The Department of Transportation was created with safety as one of its key priorities. States began to receive regular funding for drunk driving control and prevention, as well as other highway safety activities, under Section 402 of the Highway Safety Act. Each state appointed a Governor's Highway Safety Representative to manage these activities. The National Highway Safety Bureau, the agency that was to become NHTSA, was formed in 1966. In its 1968 Report to Congress, *Alcohol and Highway Safety*, the agency raised public concern for drunk driving. It began to conduct research on controlling drunk driving, initiate demonstrations, and develop programs.

In the 1970s, NHTSA implemented Alcohol Safety Action Projects (ASAPs) in 35 communities at a cost of \$88 million. These ASAPs used drunk driving enforcement, public information, and alcohol treatment on a scale not previously seen. While the ASAPs failed to demonstrate a significant impact on drunk driving (Jacobs, 1989), they laid the foundation for subsequent progress.

In 1978, Doris Aiken founded RID in Schenectady, New York, after a drunk driver killed a local teenager. In 1980, Candy Lightner founded MADD in Sacramento, California, after a repeat drunk driver killed her daughter. During the 1980s,

MADD and RID brought drunk driving to the top of the social policy agenda. By focusing public attention on the innocent victims of drunk driving crashes, they effectively criminalized drunk drivers in the public eye. Crashes were no longer “accidents,” the unintended consequences of normal everyday behavior, but were premeditated crimes that deserved jail and other harsh punishment. In 1982, President Reagan appointed the Presidential Commission on Drunk Driving, showing how important the issue had become on the national agenda. In 1988, Surgeon General C. Everett Koop held his Surgeon General’s Workshop, which summarized progress to date, reviewed current problems, and produced a host of recommendations.

In the 1980s, legislative changes begun in the 1970s continued rapidly. States enacted laws including *per se* statutes, administrative license revocation, mandatory driver’s license suspension, and required mandatory time in jail or community service. In 1982, Congress established Section 408 grants that provided funds for drunk driving control to states that implemented or already had in place certain drunk driving control laws or programs. In 1984, Congress required all states to raise their minimum legal drinking age to 21 or lose a portion of their Federal highway construction funds. Many states established drunk driving task forces to develop legislation and coordinate drunk driving control activities (NHTSA, 1991-1998). Perhaps most important, the understanding grew that drunk driving control requires more than individual laws and programs. It needs a coordinated system, with all of the parts working together.

Drunk driving enforcement changed markedly over this period. Accurate and widely used breath test equipment at police stations provided BAC evidence that was acceptable in court. Police were routinely trained in standard field sobriety test procedures and some began to use hand-held preliminary breath test devices at the roadside. Sobriety checkpoints and special drunk driving saturation patrols increased. As a result, drunk driving arrests rose from about 1.27 million in 1979 to 1.92 million in 1983 and remained at over 1.70 million every year through 1990.

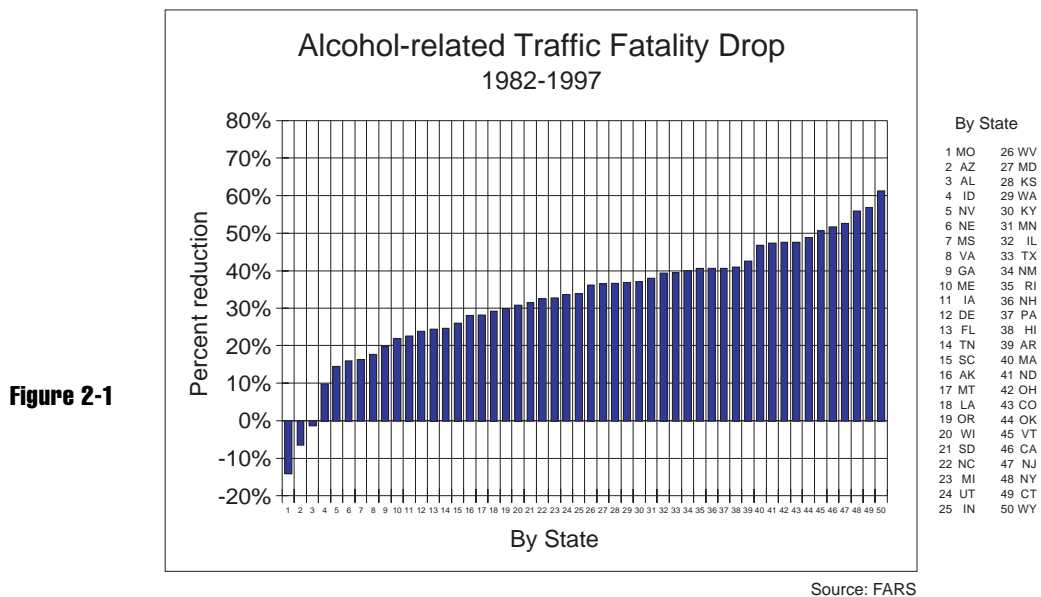
NHTSA played a major role in the 1980s as it assisted MADD and RID, helped to plan and guide the Surgeon General’s Workshop, implemented the Section 408 grants, advised and assisted state programs, developed law enforcement training, and conducted extensive research on drunk driving issues.

In the 1990s, states continued to implement the laws and programs developed in the 1980s. The one new law was zero tolerance for youth; Maryland enacted the first state zero tolerance law in 1990 and by the end of 1998 all 50 states and the District of Columbia had zero tolerance laws in effect. Thirteen states and the District of Columbia lowered their BAC limits to 0.08 in the 1990s, joining the four states that had established 0.08 limits in the 1980s. Congress replaced the Section 408 grant program with the similar Section 410 grants and NHTSA continued its programs of extensive research, program development, and technical assistance. In

1995, NHTSA sponsored Partners in Progress, a national meeting of over 30 organizations to review progress in reducing drunk driving, establish goals, and plan actions for achieving further reductions.

Drunk driving changes by state

From 1982 to 1997, alcohol-related traffic fatalities nationwide dropped by 36%, but this reduction varied substantially by state. As Figure 2-1 shows, during this period six states reduced their alcohol-related traffic fatalities by more than 50%, while in three states alcohol-related traffic fatalities increased.



A recent study for NHTSA (Ulmer et al, forthcoming) investigated the reasons underlying these substantial differences in performance. Since alcohol-related traffic fatalities have changed little since 1997, the observations and conclusions summarized below are equally relevant today.

The factors influencing state alcohol-related traffic fatalities fall into three broad categories, of which two are easy to measure and were evaluated using statistical models. The first is growth: States with greater growth in either vehicle travel or employment showed smaller alcohol-related fatality decreases. The second is laws: some laws, in particular administrative license revocation and zero tolerance laws for youth, helped some states to reduce alcohol-related fatalities.

The third category contains more subjective data. To investigate effectiveness, the report looked at five successful states: California, Colorado, New Jersey, Ohio, and Oklahoma. Each state reduced alcohol-related traffic fatalities more than predicted by its travel and economic changes and also substantially exceeded the average state reduction in alcohol-related traffic fatalities from 1982 to 1997. Data from seven states that did not perform as well were aggregated to serve as a comparison.

Information on study and comparison states was obtained from published sources and interviews.

Both the successful and the comparison states reduced alcohol-related traffic fatalities. The successful states had an average reduction of 48% and the comparison states 14%. Every state passed and enforced impaired driving laws, educated the public, and conducted impaired driving prevention programs. The key differences were effective leadership, secure funding, and fortunate circumstances.

EFFECTIVE LEADERSHIP.

Each of the five successful states enjoyed effective leadership at a critical time. Typically a high-profile drunk driving bill in the legislature served as the rallying point for action. Leadership in the state highway patrol and highway safety office was critical in implementing effective drunk driving enforcement, education, and prevention programs. State leadership established drunk driving as a high priority on the public agenda, captured media attention, promoted legislation, provided necessary funding, and got results. Comparison states appeared to exhibit considerably less leadership on drunk driving issues.

SECURE FUNDING.

Four of the five successful states have provided dedicated, off-budget funding to enforcement and treatment. In contrast, none of the comparison states appeared to have substantial resources dedicated to drunk driving programs. The limited dedicated funds in comparison states were devoted almost exclusively to alcohol screening and treatment rather than to drunk driving prevention or enforcement.

FORTUNATE CIRCUMSTANCES.

Even after statistically controlling for travel, population, and employment, these factors each grew more than twice as fast in the comparison states than in the successful states. Certain aspects of a state's geography, road system, or population affected outcomes in several comparison states, some of which appeared to do everything right to reduce drunk driving but still failed to achieve substantial reductions.

Enforcement also was important but was difficult to evaluate. DWI arrests dropped in three of the five successful states during the study period and remained roughly constant in the other two. In contrast, arrests were relatively stable in all the comparison states. In addition, the average arrest rate per population was higher in the comparison states than in the successful states. All successful states employed highly visible DWI enforcement. Some used checkpoints extensively; others did not. The comparison states as a whole appeared not to conduct coordinated, statewide, high-visibility DWI enforcement as effectively as did the successful states.

CONCLUSIONS.

Once a state has effective laws, high-visibility enforcement, and substantial public education, it appears that no single law, enforcement practice, or education

strategy is critical. Rather, precisely what a state does is less important than how well it is done — with leadership, commitment, and adequate funding.

Comparison with Canada.

The Canadian experience provides an interesting comparison to drinking and driving control practices and results in the United States. Simpson et al (1994) review the record from 1973 through 1991, while Mayhew et al (2000) provide a brief update through 1997. Canada had a BAC limit of 0.08 throughout this period, so 0.08 BAC is used to define drunk driving in the Canadian data.

Since 1982, the percentage of Canadian driver fatalities that were drunk has dropped fairly steadily except for a two-year rise in 1992 and 1993. The same measure in the United States dropped from 1982 to 1985, remained essentially flat through 1990, dropped again through 1994, and has remained flat since then. Figure 2-2 compares the two trends, using Canadian data from the seven provinces with complete information in the TIRF database from 1982 to date. It shows that the proportion of drunk drivers among driver fatalities is slightly higher in Canada (as might be expected, since the BAC limit is lower in Canada). The year-to-year changes differ somewhat, but the overall decrease from 1982 to 1998 is quite similar. Figure 2-3 illustrates the latter two patterns more vividly. It plots the change since 1982 in the percentage of driver fatalities who were drunk. From 1982 to 1998, this proportion dropped by about 35% in each country.

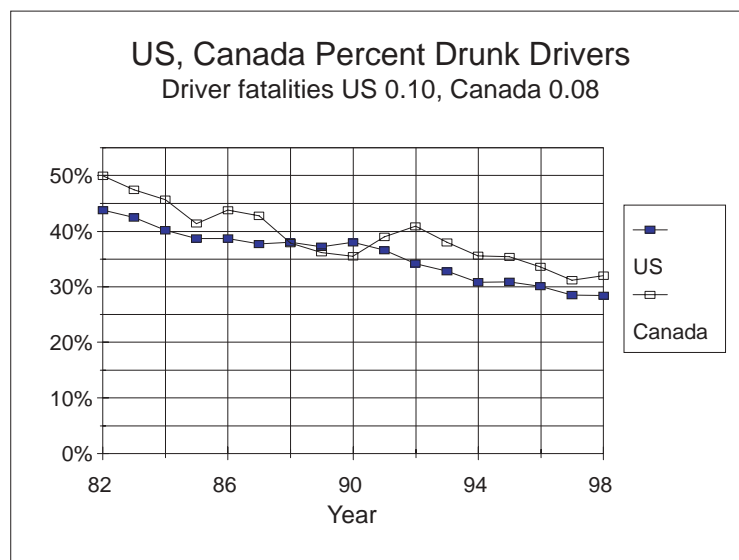


Figure 2-2

Sources: US – FARS, Canada – TIRF

The same factors operated in Canada as in the United States: active citizen groups, stronger drunk driving legislation, more active enforcement, and vigorous public education (Simpson et al, 1994). However, as in the United States, no one factor is responsible for the drop. In particular, the reasons for the two-year rise in 1992 and 1993 are not understood.

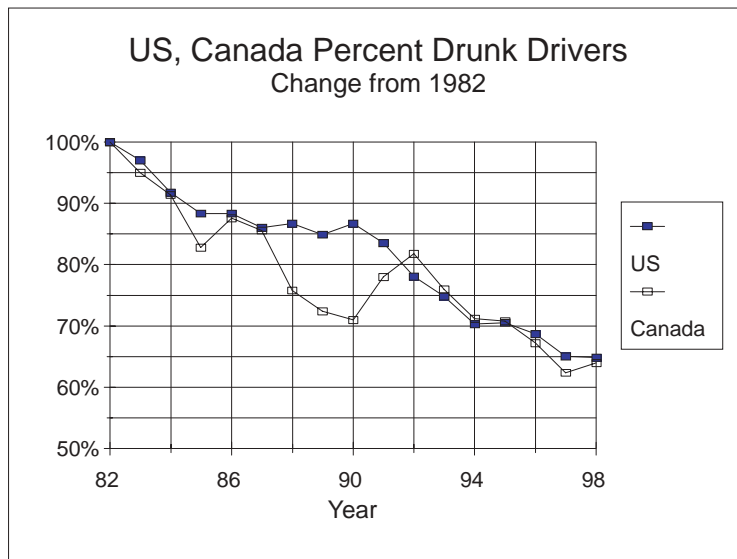


Figure 2-3

Sources: US – FARS, Canada – TIRF

Drivers under the age of 21

The age distribution of drinking drivers in FARS changed considerably between 1982 and 1999. The number of drinking drivers under the age of 21 in fatal crashes dropped by 62%, from 4,393 in 1982 to 1,687 in 1999. In comparison, drinking drivers aged 21-34 dropped by 50% while drinking drivers aged 35-54 increased by 3%.

A second study for NHTSA (Hedlund et al, 2001) investigated the drop in young drinking drivers in more detail. Its results, summarized below, provide useful background information for the consideration of overall drunk driving strategies.

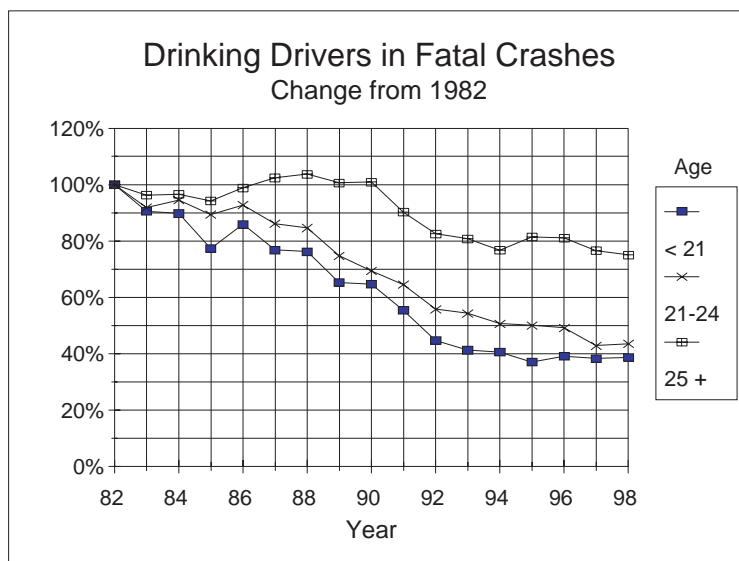


Figure 2-4

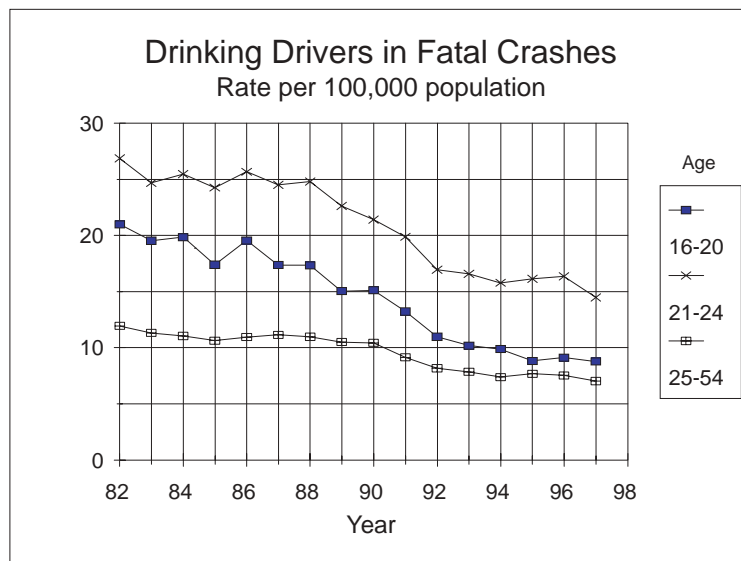
Source: FARS

Figure 2-4 shows the percentage drop by age group over time. Drinking drivers under 25 years of age decreased substantially from 1982 until 1990, while drinking drivers over 25 remained roughly constant. Drinking drivers in all age groups decreased between 1990 and 1994 but have changed little since then. Young drivers of all ages below 21 reduced their drinking and driving by similar amounts.

Young drinking drivers' involvement in fatal crashes decreased substantially in all regions of the country and in most states, in contrast to the substantial state-to-state differences observed for all drinking drivers. Drinking driver involvements per population aged 15-20 decreased by more than 50 percent in 45 states.

Some of the decrease occurred simply because there were fewer young drivers. Between 1982 and 1998, the United States population aged 16 to 20 dropped by 6%, while the population aged 25 to 54 rose 31%. Figures 2-5 and 2-6 control for these changes by plotting drinking drivers per 100,000 population. Figure 2-5 shows that the fatal crash involvement rate for drinking drivers aged 16 to 20 is still higher than for older drivers but has dropped substantially since 1982. Figure 2-6 quantifies this drop; the involvement rate for drivers aged 16-20 in 1998 was only 41% of its 1982 level, while the rate for drivers aged 25-54 was 57% of its 1982 level.

Figure 2-5



Source: FARS

Youth drinking also decreased from 1982 to 1998 but not by as much as youth drinking and driving. Evidence from Monitoring the Future (Johnson et al, 1999) and other surveys shows a consistent drop in self-reported drinking across the country by both high school and college students. However, while most young people drink less than they used to, they do continue to drink. A majority drink at least monthly and a substantial minority binge drink regularly.

This decline in drinking accounts for some, but by no means all, of the decline in drinking and driving. Young people separated their drinking from their driving

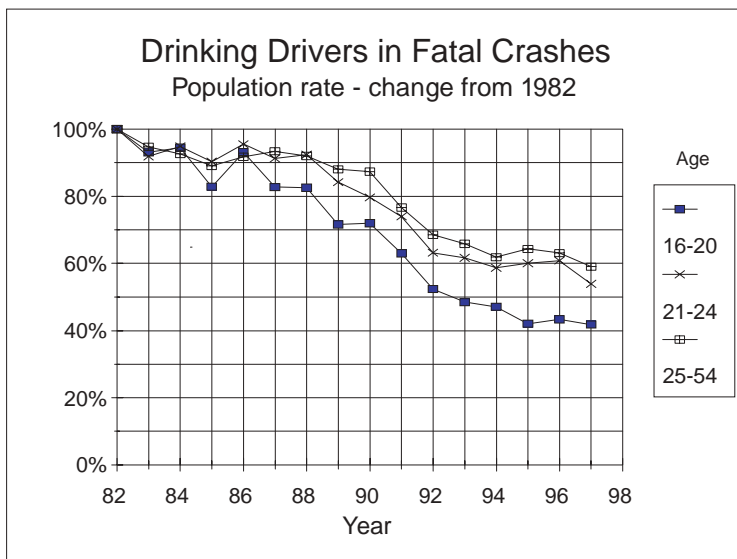


Figure 2-6

Source: FARS

more in 1998 than they did in 1982 and more than have drivers over 21. Drinking and driving has become less socially acceptable among young people as measured by student attitudes and by the use and acceptance of designated drivers.

Figure 2-7 illustrates these conclusions. Beginning in 1984, the Monitoring the Future surveys included questions on drinking and driving behavior. These data make it possible to compare self-reported drinking, self-reported drinking and driving, and fatal crash involvement. Figure 2-7 shows that self-reported drinking and driving followed the fatal crash involvement trend very closely through about 1995. Since 1995, self-reported drinking and driving has increased somewhat but fatal crash involvements have not. Both have decreased considerably more than has drinking.

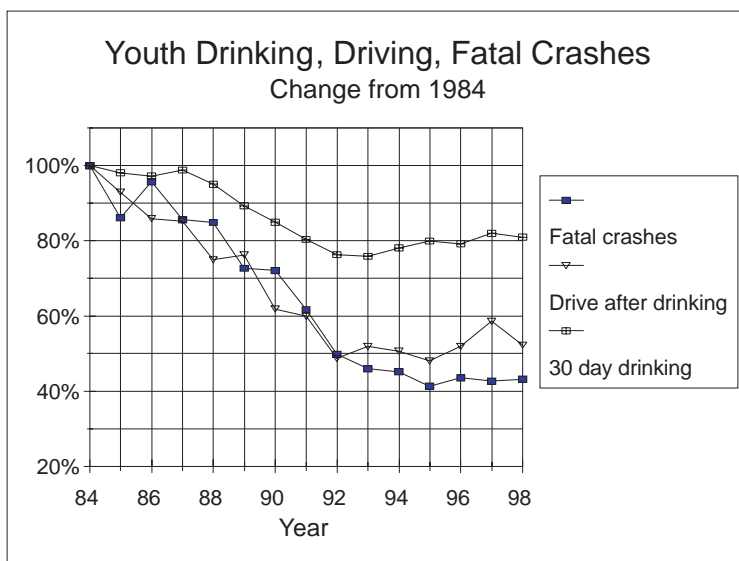


Figure 2-7

Source: FARS

Two laws affecting young people helped to reduce their drinking and driving. Between 1983 and 1987, 36 states raised their minimum legal drinking age to 21 (the other 14 states had age 21 laws in effect before 1983). By 1988, all states had a legal drinking age of 21. These laws reduced youth drinking and driving (USGAO, 1987 and Toomey et al, 1996) even though young people can still obtain alcohol relatively easily and underage drinkers are rarely detected and punished. However, age 21 laws could not have been the only influence during the 1980s: Youth drinking and driving decreased substantially more than youth drinking, and throughout the 1980s both youth drinking and driving after drinking decreased in states that had age 21 laws.

Zero tolerance laws establish a maximum BAC of 0.02 or less for youth and suspend or revoke an offender's driver's license. Between 1990 and 1998, all states adopted zero tolerance laws covering all drivers under the age of 21. Zero tolerance laws also helped to reduce youth drinking and driving (Zwerling and Jones, 1999).

States, communities, and private organizations such as SADD (Students Against Driving Drunk, now Students Against Destructive Decisions) conducted extensive anti-drinking and driving programs aimed at young people during the past two decades. Few of their programs have been evaluated and there is no direct proof that most of the youth traffic safety programs that do not involve laws and enforcement had any direct effect on youth drinking and driving. However, there also is no proof that they did not. The accumulation of information, skills, role models, and the like may have been a crucial influence in the changes in young people's attitudes, behavior, and crash statistics .

In general, states that reduced overall drinking and driving the most from 1982 to 1998 also reduced youth drinking and driving the most. This suggests that effective measures to reduce overall drinking and driving also affect youth drinking and driving. In addition, the travel, employment, and unemployment trends that influenced overall drinking and driving probably also influenced youth drinking and driving.

Decreases in youth drinking and driving in Canada, measured both by fatal crash data and surveys, were very similar to those in the United States as Figure 2-8 shows. However, the Canadian drinking age did not change and Canadian zero tolerance laws were implemented after the reduction had occurred. The changes must have resulted from some combination of the difficult-to-assess educational and motivational programs and from other factors not related to traffic safety. These same causes probably produced a substantial portion of the United States reduction.

In all, three influences on youth drinking and driving are well documented and understood: changes in population, increases in the legal drinking age, and zero tolerance laws. However, these three account for only part of the observed decrease in

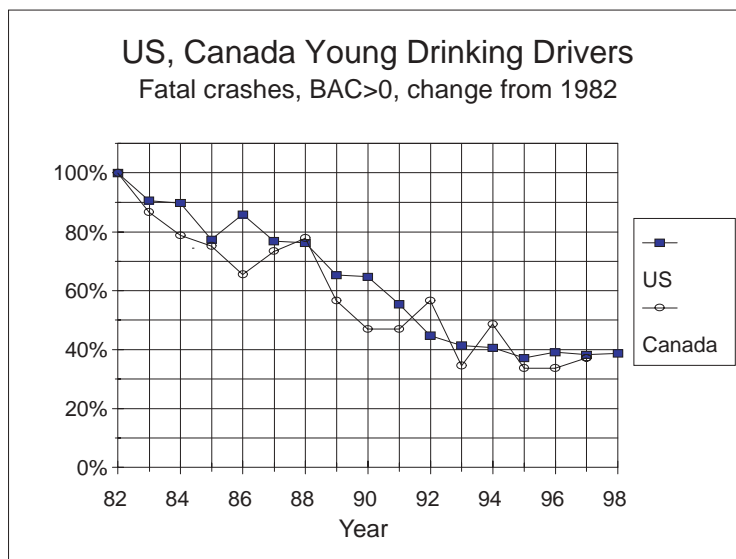


Figure 2-8

Sources: US – FARS, drivers in fatal crashes, age under 21
 Canada – TIRF, Driver fatalities, age 16-19

youth drinking and driving. Other factors, such as youth programs, other drunk driving measures, and factors unrelated to driving or drinking, must also have been important even though their effects have not been measured.

Conclusions

The different experiences across states and age groups suggest three important conclusions.

INTANGIBLE INFLUENCES.

Not all important factors have been measured and evaluated. Some, such as population changes, economic influences, laws, sanctions, and enforcement activity, are measurable, but other factors that cannot be quantified or evaluated as precisely must also have been influential. The state comparisons explicitly concluded that leadership, funding, and overall commitment to reducing drunk driving were important. The age group comparisons showed that Canadian reductions in youth drinking and driving were very similar to those in the United States but cannot be explained by drinking age or zero tolerance laws, the two factors given credit for much of the decrease in the United States. Recommendations for future policies and programs should build on measures with solid evidence of effectiveness but must also include intangible factors such as leadership and commitment.

MULTIPLE STRATEGIES.

There is no single solution to drunk driving. No one law, policy, or program will “solve” the problem. No single factor explained why some states were more successful than others or why drinking and driving decreased more among young people than among adults. Progress was, and will continue to be, made through the accumulated effects of many strategies, each adding its bit to the whole.

PUBLIC PRIORITY.

The most critical factor may be public priority and urgency. During the 1980s, reducing drunk driving became a key social priority. Media attention, political leadership, legislation, funding, and increased law enforcement soon followed. There are complex causal relationships among these forces; for example, social priorities influence media attention and political leadership, which in turn influence media coverage. The single most important conclusion from the drunk driving experiences of the past 20 years may well be that the best way to achieve substantial reductions is to make drunk driving once again a burning, urgent social issue.

CHAPTER 3

Status — Drunk driving in the United States 2000

This chapter describes the current drunk driving problem in the United States and examines how it has changed over the past 20 years. The chapter is based on data from fatal crashes, DWI offenders, and roadside and telephone surveys.

Fatal crash data

The most extensive data on drunk drivers come from NHTSA's FARS and describe drivers involved in fatal crashes. These data provide the best evidence on drunk driving levels and trends from 1982, when FARS began reporting alcohol information on all fatal crashes, through 1999, the last year available. FARS uses actual BAC test data when available and estimates BAC levels in three categories, 0.00, between 0.01 and 0.09, and 0.10 and above, for drivers and non-occupants with no known BAC test results. See Klein (1986) for details on FARS estimation methods.

FARS reports alcohol involvement in several ways. The broadest is by counting all alcohol-related traffic fatalities — those in which at least one driver or non-occupant (usually a fatally injured pedestrian) was estimated to have a positive BAC. In 1999, 38% of all traffic fatalities were alcohol-related as shown in Figure 1-2.

Since this report studies drunk drivers, a more useful way is to count drunk drivers in fatal crashes. The best approximation of drunk drivers in FARS is those drivers with a BAC of 0.10 or above. In 1999, 17% of all drivers in fatal crashes had a BAC of 0.10 or above as shown in Figure 1-4.

DRUNK DRIVERS IN FATAL CRASHES, 1982 AND 1999.

Drunk drivers in fatal crashes had a higher average age in 1999 than they did in 1982 but were otherwise quite similar. Table 3-1 compares drunk drivers in fatal crashes in 1982 and 1999. The table gives both the absolute number of drunk drivers in each category and also the distribution of drunk drivers across the categories.

The greatest change from 1982 to 1999 was a substantial decrease in young drunk drivers, as noted in Chapter 2. The number of drunk drivers under the age of 21 in fatal crashes fell by 64% from 1982 to 1999 and the number of drunk drivers

Drunk Drivers in Fatal Crashes (BAC ≥ 0.10), 1982 and 1999

Table 3-1

Driver Characteristics	Number of Drivers		Driver Distribution		
	1982	1999	1982	1999	
<i>Age:</i>	< 21	3,100	1,110	19 %	12 %
	21-34	8,793	4,281	54 %	45 %
	35-54	3,386	3,440	21 %	36 %
	≥ 55	1,069	741	7 %	8 %
<i>Gender:</i>	male	14,377	8,126	87 %	85 %
	female	2,016	1,470	13 %	15 %
<i>Prior DWI:</i>	0	14,230	8,313	91 %	89 %
	1	1,179	899	8 %	10 %
	≥ 2	285	167	2 %	2 %

Drinking Drivers in Fatal Crashes (BAC > 0.00), 1982 and 1999

Table 3-2

Driver Characteristics	Number of Drivers		Driver Distribution		
	1982	1999	1982	1999	
<i>Age:</i>	< 21	4,393	1,687	21 %	13 %
	21-34	11,144	5,583	53 %	44 %
	35-54	4,240	4,367	20 %	34 %
	≥ 55	1,430	1,079	7 %	8 %
<i>Gender:</i>	male	18,531	10,702	87 %	84 %
	female	2,738	2,062	13 %	16 %
<i>Prior DWI:</i>	0	18,683	11,226	92 %	90 %
	1	1,378	1,060	7 %	8 %
	≥ 2	316	194	1 %	2 %

aged 21 to 34 dropped by 51%, while the number of drunk drivers aged 35-54 rose by 2%. In 1999, less than one-eighth of drunk drivers in fatal crashes were under 21 years old.

Table 3-2 provides similar data for drivers in fatal crashes that have any positive BAC. The trends are virtually identical as are the distributions. Note that the number of drivers in each category of Table 3-1 is about three-quarters as large as the corresponding number in Table 3-2 in both 1982 and 1999. This means that about three-quarters of the drinking drivers in fatal crashes had a BAC of 0.10 or above. As expected, the youngest drivers more frequently had low BACs, while drivers with prior DWI convictions more frequently had high BACs.

The prior DWI data in these tables require some explanation. FARS counts only DWI convictions. It does not count drivers who were arrested but not convicted or those convicted of some lesser offense. In addition, it counts only convictions on the state's records for the preceding three years. States that record DWI convictions over a longer period of time or convictions for lesser offenses can show considerably higher repeat offender levels. For example, California reported that 28% of all drivers in alcohol-related fatal crashes in 1997 had a prior conviction for DWI or alcohol-related reckless driving (Tashima and Helander, 2000).

Both the number of drinking drivers in fatal crashes and the proportion of all drivers in fatal crashes who had been drinking dropped substantially from 1982 to 1999. However, the BAC distribution of drinking drivers changed very little as the comparison of Tables 3-1 and 3-2 suggests. To investigate the BAC distributions more closely, Table 3-3 gives data for drivers aged 21 and older from 15 states that consistently report high BACs.

BAC Levels for Driver Fatalities (Age ≥ 21), 1982 and 1999, 15 Good Reporting States

Driver BAC	Number of Drivers			Driver Distribution	
	1982	1999	% Change	1982	1999
.01 - .09	444	291	- 34 %	18 %	20 %
.10 - .14	398	247	- 38 %	16 %	17 %
.15 - .19	604	352	- 42 %	24 %	24 %
≥ .20	1035	598	- 42 %	42 %	40 %

Table 3-3

Table 3-3 shows that the reductions for drivers age 21 and older occurred at all BAC levels. The number of drivers at high and low BAC levels decreased at similar rates, with the number of high-BAC drivers decreasing slightly more.

In summary, while the number of drunk drivers involved in fatal crashes was substantially less in 1999 than in 1982, driver characteristics over this period were largely unchanged. The one substantial difference was the remarkable drop in young drunk drivers.

DRUNK DRIVERS IN FATAL CRASHES BY STATE, 1999.

Drunk driver involvement in fatal crashes differed substantially from state to state. In 1999, only 9.1% of drivers in fatal crashes in New York State were drunk (with a BAC of 0.10 or above). Table 3-4 shows that seven states had proportions below 15%: five along the eastern seaboard from New York to Florida, Iowa in the mid-west, and Utah in the mountains. Most are fairly large states measured both by land area and population.

In contrast, Montana had the highest proportion at 31.5%, over three times that

Drivers Involved in Fatal Crashes, by State and Alcohol Involvement, 1999

State	Total	Drunk	Pct	State	Total	Drunk	Pct
1 New York	2,077	190	9.1	27 Oregon	568	106	18.7
2 Utah	434	47	10.8	28 Missouri	1,489	278	18.7
3 Maryland	859	103	12.0	29 Rhode Island	117	22	18.8
4 Georgia	2,077	280	13.5	30 Alabama	1,513	286	18.9
5 Florida	4,201	587	14.0	31 Tennessee	1,748	332	19.0
6 Iowa	701	98	14.0	32 Nebraska	398	76	19.1
7 North Carolina	2,114	309	14.6	33 District of Columbia	57	11	19.3
8 New Jersey	989	150	15.2	34 Idaho	347	67	19.3
9 Arkansas	784	120	15.3	35 Pennsylvania	2,124	415	19.5
10 California	4,590	712	15.5	36 Illinois	2,030	401	19.8
11 South Carolina	1,410	219	15.5	37 New Hampshire	188	38	20.2
12 Indiana	1,395	217	15.6	38 Connecticut	397	82	20.7
13 Minnesota	912	142	15.6	39 Wyoming	210	45	21.4
14 Ohio	2,014	315	15.6	40 Massachusetts	570	123	21.6
15 Oklahoma	961	154	16.0	41 Mississippi	1,214	262	21.6
16 Arizona	1,383	226	16.3	42 Washington	841	185	22.0
17 Kansas	700	115	16.4	43 New Mexico	559	125	22.4
18 Colorado	839	138	16.4	44 Louisiana	1,208	275	22.8
19 Delaware	152	26	17.1	45 Wisconsin	1,012	233	23.0
20 Virginia	1,159	199	17.2	46 Texas	4,782	1,102	23.0
21 Maine	256	44	17.2	47 Hawaii	141	33	23.4
22 Michigan	2,000	347	17.4	48 South Dakota	193	49	25.4
23 Vermont	112	20	17.9	49 North Dakota	143	37	25.9
24 Nevada	458	82	17.9	50 Alaska	101	27	26.7
25 Kentucky	1,057	193	18.3	51 Montana	254	80	31.5
26 West Virginia	513	95	18.5				
				United States	56,351	9,818	17.4

Table 3-4

of New York. Seven states had proportions above 23%: four across the northern border from Wisconsin to Montana, Texas in the southwest, and Alaska and Hawaii in the Pacific Rim. The four states with the highest proportions have small populations (each well under 1 million) spread thinly across large geographic areas.

Many states acquire BAC test data only for a small portion of surviving drivers in fatal crashes. Thus, the results for individual states may not be completely accurate. However, the patterns in Table 3-4 suggest that there are geographic and demographic differences between states with low and high proportions of drunk drivers in fatal crashes, in addition to the factors of drunk driving laws, enforcement, education, leadership, and commitment that were identified in Chapter 2.

Roadside survey data

Three national roadside surveys over the past 25 years have provided the best objective data on drunk drivers who were not involved in crashes (Voas et al, 1998). The surveys were conducted in 1973, 1986, and 1996 in similar locations across the country selected through a multistage probability sample. In each location, each survey interviewed and breath-tested a random sample of drivers between 10:00 pm and 3:00 am on Friday and Saturday nights when heavy drinking is most likely to occur and when alcohol-related crashes are most frequent. The 1996 survey obtained breath tests for 96% of the 6,298 drivers who were stopped. Passive alcohol sensor readings were used to estimate BAC levels for those drivers for whom breath tests were not obtained.

**Driver BAC Levels, Weekend Nights, 1986 and 1996,
National Roadside Surveys**

Table 3-5

BAC Interval	Percent of Drivers	
	1986	1996
< 0.004	74.1 %	83.1 %*
0.005 - 0.04	17.6 %	9.2 %*
0.05 - 0.09	5.2 %	5.0 %
≥ 0.10	3.2 %	2.8 %

* p<0.05, 1986 v. 1996

Table 3-5 compares the 1986 and 1996 survey results. The number of drinking drivers decreased substantially, from 25.9% in 1983 to 16.9% in 1996, but most of the change was at BAC levels below 0.05. The proportion of drivers above 0.05 decreased only slightly, and the change was not statistically significant. Table 3-5 also shows that in 1996 about 16% of the drivers with any positive BAC had a level of 0.10 or above.

**Driver BAC Levels by Age, Weekend Nights, 1986 and 1996,
National Roadside Surveys**

Table 3-6

Driver Age	Percent of Drivers			
	BAC ≥ 0.05		BAC ≥ 0.10	
	1986	1996	1986	1996
< 21	4.6 %	2.8 %	2.7 %	0.3 %*
21-34	9.9 %	11.3 %	3.3 %	3.8 %
35-44	9.4 %	6.9 %	4.7 %	3.7 %
≥ 45	6.8 %	5.2 %	1.8 %	1.7 %

* p<0.05, 1986 v. 1996

The roadside surveys recorded drivers' ages. Table 3-6 compares the proportions of drinking drivers by age in 1986 and 1996. Table 3-6 shows a very substantial and statistically significant decrease in the proportion of drivers under the age of 21 with BACs above 0.10, with no significant changes for other age groups. This adds to the evidence from FARS that drunk driving has dropped more among drivers under the age of 21 than among older drivers.

DWI offender data

Between 1995 and 1997 the Bureau of Justice Statistics (USDOJ, 1999) conducted nationwide personal interview surveys of DWI offenders on probation, in

local jails, and in state prisons. The Bureau also reported national and statewide DWI arrest data.

The number of DWI arrests nationwide dropped 24% from 1,810,800 in 1990 to 1,384,600 in 1994. Arrests have increased steadily since then to 1,549,500 in 1999, still 14% below the 1990 level. Across the states, arrests per 100,000 licensed drivers in 1997 ranged from 306 to 1385. Arrest rates per licensed driver decreased from 1991 to 1997 in 30 of the 33 states with available data.

The Bureau of Justice Statistics estimated that 513,200 DWI offenders were on probation or incarcerated in 1997, compared to 1,477,300 DWI arrests. The Bureau's survey results thus describe the approximately one-third of DWI offenders who received the most severe sanctions.

In 1997, one-third (33%) of all DWI offenders on probation or in jail reported at least one prior DWI conviction. Based on their reported drinking prior to their DWI arrest, their average estimated BAC level when arrested was about 0.20.

About 37% of all offenders reported signs of alcohol dependency, determined by three or more "yes" responses on the CAGE scale used to screen for drinking problems (defined in the Glossary). Many had a history of alcohol problems not related to driving; over three-quarters had been arrested or detained at a police station because of drinking, and about 60% had received some form of alcohol treatment or had participated in a self-help program.

More detailed studies have found higher alcohol dependency rates among DWI offenders. For example, Lapham et al (forthcoming) found that 85% of all female

DWI Offender BAC Levels and Prior Offenses, State Data

State	Year	Population	BAC ≥ 0.10	Average BAC	Prior DWI
California	1997	Convicted	95 %	0.16	29 %
Connecticut	1997	Arrested		0.17	
Delaware	1999	Arrested	93 %		
Illinois	1998	Arrested	92 %	0.16	
Maine	1998	Arrested		0.16	
Minnesota	1999	Incidents:			
		10 years			35 %
		Lifetime			43 %
New York	1999	Arrested	91 %		
		Convicted			27 %
Wisconsin	1999	Arrested	95 %		
		Convicted			35 %

Table 3-7

and 91% of all male convicted DWI offenders in Bernalillo County, New Mexico, were or had been alcohol abusers or alcohol dependent.

State data provide additional information on these issues. Table 3-7 presents data from eight arbitrarily selected state annual reports. The data show that virtually all drivers arrested for or convicted of DWI had BAC levels above 0.10, with an average BAC across the states of about 0.16. The proportion with a prior alcohol-related offense ranged from about 25% to 45%. Some of this variation is caused by differing procedures among the states, including how long records are retained, whether a DWI conviction can be removed in certain circumstances, and whether lesser offenses to which a DWI charge may be reduced or implied consent violations are recorded as prior offenses. Proportions of BAC levels and prior offenses generally agree with the Bureau of Justice Statistics survey results. Minnesota reported that 10% of all licensed drivers had one or more impaired driving incidents on their record (Minnesota, 2001).

Telephone survey data

NHTSA has conducted a national telephone survey of drinking and driving attitudes and behavior every two years since 1991. The 1999 survey report (Royal, 2000) provides a snapshot of the public's current views and how they have changed over the past eight years. Reported drinking and driving frequencies may be underestimated if some respondents have not answered accurately.

DRINKING AND DRIVING FREQUENCY AND CHARACTERISTICS.

About 21% of the respondents reported that they had driven after drinking in the preceding two hours at least once in the past year, and 12% reported driving after drinking in the previous month. As a comparison, 27% of the respondents reported driving after drinking in the previous year in the 1996 household survey of drug abuse (Townsend et al, 1998). In 1999, drinking drivers made an estimated 957 million drinking-driver trips.

Most of the drinking drivers reported drinking in amounts that produce BAC levels below legal limits. Royal estimated that 5% of the drinking drivers would have been at or above 0.08 BAC the last time they drove after drinking and another 8% would have been between 0.05 and 0.08. (Townsend, et al., estimated that 7% of the drivers exceeded 0.08.) Measured by trips instead of drivers, 10% of the drinking-driver trips were at or above 0.08 BAC and another 8% were between 0.05 and 0.08. Drivers with a BAC of 0.08 or above made about 82 million trips in 1999.

About 23% of the drinking drivers, or about 5% of all drivers, were estimated to be problem drinkers, determined by two or more "yes" responses on the CAGE scale or by frequent binge drinking. They accounted for 41% of all drinking-driver trips. The proportion of drinking drivers aged 16-64 who are problem drinkers has risen steadily and substantially from 12% in 1993 to 18% in 1995 and 1997 to 23% in 1999.

DRINKING AND DRIVING ATTITUDES AND BELIEFS.

About three-quarters of respondents believed that drunk driving prevention and control was an extremely important use of tax dollars. Drunk driving ranked slightly behind education, violent crime, and spousal and child abuse. About 7% believed drunk driving was the most important problem facing the country, behind moral decline, general crime and violence, and drugs but ahead of issues such as education, poverty, and health care.

Almost half of all previous-year drinking drivers and 85% of problem drinkers reported that they had avoided driving at least once because they felt they might have drunk too much to drive safely. Of the respondents who drank, about two-thirds believed they should not drive after drinking more than two drinks. Only 9% thought they could drive safely after five drinks.

DWI LAWS AND ENFORCEMENT.

Of all drivers, 58% believed that it was at least somewhat likely that they would be stopped by police if they drove after drinking too much, 65% believed that it was very likely they would be arrested if stopped, and 62% believed that those arrested were very likely to be convicted. Put differently, 39% believed it was unlikely that they would be stopped (20% said very unlikely), 15% believed that it was unlikely they would be arrested if stopped (10% very unlikely), and 15% believed that a conviction was unlikely (8% very unlikely).

About one-third of all drivers had seen a sobriety checkpoint in the previous year and 19% had been stopped at a checkpoint at least once. Nearly two-thirds agreed that checkpoints should be used more frequently. Only 4% believed that drunk driving sanctions are too severe. About 3% of drinking drivers and 8% of problem drinkers had been arrested for DWI in the previous two years. By comparison, in a national household survey 13% of white men, 19% of Hispanic men, and 11% of black men reported having a lifetime DWI arrest (Caetano and Clark, 2000).

Only 27% of drivers knew their state's BAC limit. Most drivers who thought they knew their state's BAC limit underestimated the number of drinks needed to reach the limit.

Drunk driving priority as a social issue

To the public, drunk driving in the 21st century is not the headline social issue it was in the 1980s. The NHTSA survey confirms that the public is more concerned with drugs and crime. Even within traffic safety, injuries and fatalities caused by air bags, aggressive driving, cell phone use, drowsy driving, and most recently tire defects have been in the spotlight. For example, in a recent survey (Bureau of Transportation Statistics, 2000), respondents said their greatest safety concern when traveling was aggressive and similar driver actions (39%), followed closely by fear of crashes at

38%; drunk drivers were a distant third at 11%. Drunk driving makes the local news when individuals are killed or seriously injured by drunk drivers, but there is no state or national feeling of outrage or crisis. National announcements that total drunk driving fatalities have dropped again, even if only slightly, may reinforce this view that the drunk driving problem is solved, or at least under control, and that new programs or resources for reducing drunk driving are not needed.

Despite the public's reduced attention and despite the substantial drunk driving reductions of the past 20 years, drunk driving remains a major traffic safety and overall societal problem. In 1999, drunk drivers killed 11,198 people — over one-quarter of all traffic fatalities. In comparison, as of April 1, 2001, NHTSA had confirmed 175 fatalities caused by air bags since 1990, with another 61 fatalities under investigation (NHTSA, 2001c). In 2000, 6.5 million tires were recalled after being associated with 174 traffic fatalities in the United States (Garsten, 2001). Each of these high-profile issues is responsible for less than 2% of the annual drunk driving toll. Viewed more broadly, the 11,137 drunk driving fatalities in 1998 rank sixth among all classes of injury death, behind only other motor vehicle fatalities (31,054), firearm suicide (17,424), other unintentional injuries (13,984), falls (12,595), and firearm homicide (12,102) (CDCP, 2000). If the scope is expanded by including traffic fatalities involving drivers with lower BAC levels and fatally injured pedestrians who had been drinking, those 15,985 alcohol-related traffic fatalities rank third on this list.

Conclusions

The data reported in this chapter suggest several conclusions. Table 3-8 summarizes key observations: Each row presents information on drivers of a specific type from a single source. The first column lists the driver types, ranging from drivers convicted of DWI to all drivers on the road. The second column lists the data source for each row. The remaining columns give, respectively, the proportion of drivers with a BAC of 0.10 and above, the proportion of drivers with a prior DWI, and the proportion of drivers who are problem drinkers. Since not all sources provided information in each of these areas, some cells are blank.

DRINKING DRIVERS IN FATAL CRASHES.

Since 1995, the FARS data show little change in the number of drinking drivers or drivers with a BAC of 0.10 or above who were involved in fatal crashes.

DWI ARRESTS.

DWI arrest levels have risen moderately since 1995. The likelihood of arrest on any drunk driving trip is very low. DWI arrests in 1999 were 12% higher than in 1995 but still 14% lower than in 1990. With an estimated 82 million trips at a BAC of 0.08 or above and 1.55 million DWI arrests in 1999, the chances of arrest on any drunk driving trip are less than 1 in 50. Almost no arrests are made at BAC levels less

Summary of Driver BAC Levels, Prior Offenses, and Drinking Problems

Driver Type	Data Source	BAC \geq 0.10	Prior DWI or Alcohol Incident	Problem Drinker
<i>DWI Convictions</i>	BJS (1995-97) (probation, jail)	most (.20 mean)	33 %	37 % (3 CAGE)
<i>DWI Arrests or Convictions</i>	Seven states (1997-99)	91-95 % (0.16-0.17 mean)	29-44 %	
<i>Drinking Driver Fatalities</i>	FARS (1999)	80 % (age \geq 21)	12 % (3 yr)	
	California (1997)		28 % (DWI or incident)	
<i>Drinking Drivers</i>	Roadside survey (1996) (Fri & Sat nights)	16 %		
	Telephone survey (1999)	5 % (\geq 0.08) (last drinking trip)	3 % (2 yr arrest)	23 % (2 CAGE or frequent binge)
<i>All Licensed Drivers</i>	Roadside survey (1996) (Fri & Sat nights)	3 %		
	Telephone survey (1999)	1 % (\geq 0.08) (last drinking trip)	0.6 % (2 yr arrest)	5 % (2 CAGE or frequent binge)
	Minnesota (1999)		10 % (lifetime incident)	

Table 3-8

than 0.08 (for example, only 4% of California drivers convicted of DWI had a BAC less than 0.10 and just 0.6% had a BAC of less than 0.08).

THREE KEY GROUPS.

Three groups stand out in drunk driving fatalities and DWI arrests: drivers with high BACs, problem drinkers, and repeat offenders. Over half the drivers arrested or convicted of DWI and 64% of drinking drivers who were fatally injured had BACs of 0.15 or above. The 1999 NHTSA survey estimated that about 23% of drinking drivers may have a drinking problem. In a survey of DWI offenders on probation or in jail, it was estimated that 37% had a drinking problem using a stricter definition, while in-depth studies have found even higher rates. Fewer than 1% of all drivers have had a recent DWI and perhaps 10% have had a DWI incident in their lifetimes, but about 30% of those convicted of DWI are repeat offenders. FARS data show that 12% of drinking driver fatalities had a DWI in the past three years. California reported that 27% of all drivers in alcohol-related fatal crashes had a prior traffic offense involving alcohol.

PUBLIC KNOWLEDGE AND ATTITUDES.

The public supports DWI laws, sees DWI being enforced regularly, and believes that driving drunk often results in arrest and conviction. The NHTSA survey shows that a majority of the driving public sees checkpoints fairly regularly and has an unrealistically high belief that drunk drivers will be stopped, arrested, and convicted. The public strongly supports drunk driving laws and enforcement. However, a substantial minority believes they will not be stopped, arrested, or convicted if they drive after drinking too much. The public does not believe that drunk driving is as important a problem as it was in the 1980s.

WHAT THIS ALL MEANS.

These observations suggest that the DWI control system has deterred many drivers from drinking and driving. They know and fear the consequences of a DWI arrest; they drink and drive seldom (about once a month on the average in the NHTSA survey) and at lower BAC levels (0.03 on the average; only 10% over 0.08). However, some still continue to drive drunk. In particular, many problem drinkers or drivers with a high BAC have not been deterred. These drivers undoubtedly belong to the substantial minority who believe that drunk driving is unlikely to result in arrest or conviction.

An effective drunk driving control system must influence the entire range of drunk drivers, from “social drinkers” who very rarely drive drunk, through higher-BAC drunk drivers who have avoided arrest or sanction, to repeat offenders who continue to drive drunk. It is not enough to concentrate on one group. A strong comprehensive system can affect every potential drunk driver.

CHAPTER 4

Strategies — Methods for controlling drunk driving

There is no single method that will prevent drunk driving. Furthermore, as the data in Chapter 3 suggest, drunk drivers are not alike. This chapter discusses basic strategies, concludes that deterrence offers the best opportunity for near-term progress, and examines how deterrence can affect three broad target groups of drunk drivers.

Drunk driving control strategies

Controlling drunk driving requires influencing the behavior of individual drivers. Four broad strategies have been used, with varying degrees of success.

- *Deterrence:* Deterrence involves passing laws that prohibit drunk driving, enforcing these laws, and punishing offenders. The fear of being arrested and punished for DWI convinces some drivers not to drive drunk.
- *Treatment:* This strategy addresses the drinking problem that causes some people to drive drunk. Unless treated, alcohol abuse or dependency may overwhelm all other efforts to change drinking and driving behavior.
- *Information and education:* The mass media, school classrooms, and other information outlets can be used to influence the public's drinking and driving behavior. Strategies include instilling fear of the crash and injury risk caused by drunk driving, providing information on health risks caused by alcohol, illustrating healthy role models, and showing that safety practices such as using designated drivers are widely accepted.
- *Prevention:* Alcohol control policies can be introduced to reduce access to and consumption of alcohol, especially in situations that may lead to drinking and driving. Examples include setting a minimum drinking age, regulating the places and times when alcohol can be purchased, and increasing the price of alcohol through taxes.

The goal is to change social norms so that drunk driving becomes socially unacceptable. In the past few decades these norms have indeed changed substantially.

For example, 30 or 40 years ago a visibly drunk person was an object of humor, someone who wore a lampshade as a party hat. A standard remark at the end of a party or social gathering was “Have one for the road.” Today, drunks are more scorned than humored in many social settings, and the common party phrase has become “Designated driver.”

However, changing social norms requires more than these strategies (though some information and education is directed explicitly at changing social norms). Changes in norms will result from actions taken to implement these four strategies. Social norms also define and limit what actions are effective or even possible within the four strategies. For example, drunk driving laws should establish penalties that are neither too severe nor too lenient when judged by prevailing social norms.

The four strategies are complementary rather than competitive. Drunk driving arrests can identify people who need alcohol treatment. Alcohol control measures assist deterrence by reducing the availability of alcohol. Information and education are integral to both deterrence and prevention.

Nevertheless, a generation of research on drunk driving shows that deterrence — good laws, strongly enforced, with meaningful penalties for offenders — is the foundation of drunk driving control. Wagenaar et al (2000b) reviewed the entire drunk driving control literature from 1960 through 1991 (125 studies that evaluated various deterrence measures and that met basic scientific standards). They concluded that six measures clearly are effective (ALR, illegal *per se* laws, mandatory license suspension, selective enforcement patrols, regular enforcement patrols, and checkpoints). They also concluded that four other measures may be effective, but there were no evaluations of them that controlled for other effects. Recent reviews have confirmed these findings for specific measures (Peek-Asa, 1999; MMWR, 2001; and Shults et al, 2001 on checkpoints) and added other measures (Zwerling and Jones, 1999; MMWR, 2001; and Shults et al, 2001 on zero tolerance for young drivers and USGAO, 1999; MMWR, 2001; and Shults et al, 2001 on 0.08 BAC laws).

Information and education are critical in making deterrence and prevention programs effective, but most evaluations have found that information and education alone have little or no effect (Williams, 1994). Murry et al, (1993) provides the most positive evidence. A six-month paid advertising campaign (which would cost \$25 million if implemented nationally), based on solid market research, reduced drinking and driving on the part of young males.

Treatment can be effective for some offenders (Wells-Parker et al, 1995), especially when it is combined with sanctions (Nichols, 1990). Several interviewees urged that treatment be integrated more closely into the drunk driving control system. However, treatment within the system can affect only those who have been arrested for DWI and referred for treatment — a small proportion of drunk drivers on the road or in crashes. In addition, even the best treatment frequently fails to change

long-established patterns of alcohol dependence or abuse.

Prevention methods can make a difference, but small measures, such as programs that train alcohol servers in responsible service practices, typically have at best only limited results (Alcohol Epidemiology Program, 2000 and Shults et al, 2001). A major change, implemented forcefully, is needed to produce a substantial effect. The best example is the 21-year minimum drinking age, which reduced drinking and driving by young people but required the threat of Federal sanctions before it was adopted by all states (USGAO, 1987; Toomey et al, 1996; and Voas et al, 1999b). No similar major change is likely in the near future. The only reasonable candidate would be a large increase in alcohol taxes, which currently average about 2.5 cents per drink for beer and 4.1 cents for spirits across the 50 states. State alcohol taxes have dropped by about two-thirds in real terms for both beer and spirits since 1968 (Alcohol Epidemiology Program, 2000). It is highly unlikely that states will increase these taxes in the next few years by enough to produce a noticeable effect on drinking or drunk driving. Interviewees seldom suggested alcohol tax increases or other major prevention initiatives as a useful drunk driving control strategy over the next several years.

The best strategy for progress in the near term is through improved deterrence, assisted by related activities from the other three strategies. Persons interviewed for this study at local, state, and national levels almost unanimously advocated improved deterrence as the key to further drunk driving reductions. This report concentrates on deterrence and discusses education, prevention, and treatment measures as they relate to deterrence.

Deterrence

Deterrence is based on the observation that behavior can be changed if its consequences are certain, swift, and severe (Ross, 1982). If the public believes that drunk drivers are likely to be detected, arrested, convicted, and punished, then some drivers will be deterred from driving drunk.

A driver may be deterred from driving drunk by the danger of being arrested and convicted and by fear of the consequences. If the perceived risk is high, the driver will refrain from driving after drinking. Deterrence is based on the observation that behavior can be changed if its consequences are certain, swift, and severe (Ross, 1982).

Most members of the general public who drink and drive do so because drinking is a pleasant part of their social lives. They know drunk driving is illegal. Some think they still can drive safely, regardless of whether they think they have drunk enough to exceed their state's BAC limit. Others know their driving ability is impaired but do not believe they will be detected or punished or that the punishment will be serious enough to make it worth changing their habits. Most probably have driven drunk

many times without crashing or being arrested; as they continue to drive drunk without any consequences, the threats of arrest and punishment become weaker. They could change their drunk driving behavior if they wanted to by finding a designated driver or by changing their drinking behavior. Even the minority with a drinking problem might change their behavior if the chances of arrest are high and the likely punishment is tough enough (Wiliszowski et al, 1996).

The deterrence strategy is straightforward: increase the public's perception of the risks of detection, arrest, and appropriately severe punishment for drunk driving. Use measures proven to be effective: *per se* laws, strong and visible enforcement through regular or special patrols, and prompt and certain sanctions beginning with ALR and other driver license penalties. Build on and encourage a common understanding that drunk driving is socially unacceptable.

Drivers who have been arrested and convicted of DWI or a related lesser offense present special challenges and opportunities. They are a small minority of all drivers (each year's DWI arrests involve less than 1% of licensed drivers) but make up a substantial portion of the drivers arrested or convicted of DWI (29-44% across seven states and 30% in the Bureau of Justice Statistics survey of offenders on probation or in jail) or involved in fatal crashes (12% in FARS, using only offenses in the past three years, and 28% in California).

Convicted DWI offenders obviously have driven drunk: They have been caught driving drunk and have suffered the consequences. Further, through their sentence they can be required to take certain actions intended to change their behavior: for example, surrender their driver's license for a period of time, attend alcohol treatment, and serve time in jail. The ability of the DWI control system to convince offenders not to repeat their offense is called specific deterrence. Its ability to convince the general public not to drive drunk is called general deterrence (Ross, 1982).

Many DWI offenders share one or more of three characteristics: higher BAC levels, frequent drunk driving, and drinking problems. Over half of all drivers arrested for DWI had a BAC over 0.15. With the chances of arrest on any drunk driving trip being less than 1 in 50, it is obvious that most DWI offenders drove drunk many times before they were arrested. Both surveys (USDOJ, 1999) and detailed studies (Lapham, et al, forthcoming, and Wiliszowski et al, 1996) report a high proportion of drinking problems among DWI offenders that often have consequences unrelated to driving, such as arrests for drinking. Several judges and prosecutors noted that most DWI offenders and virtually all second offenders had a drinking problem.

Changing this behavior is difficult. The specific deterrence strategy is to use the court's control over the offender to both punish and rehabilitate, to establish penalties for a repeat offense that will deter further drunk driving once the offender has served his or her sentence, and to back up these penalties with effective enforcement.

The strategy includes several critical elements:

- Punish all offenders with consistent and certain sanctions and increase the severity for second and subsequent offenses.
- Assess all offenders for alcohol problems and assign treatment as appropriate.
- Control offenders so that assigned sanctions, treatment, and other court-ordered requirements are completed satisfactorily.
- Maintain good records so repeat offenders are identified accurately.

General and specific deterrence should not be thought of as different strategies directed at different populations but as components of the overall deterrence system of effective laws, enforcement, adjudication, sanction, and rehabilitation. A weakness at any point affects the overall system. A strong system increases both the perception and the reality that drunk drivers will frequently be detected, arrested, convicted, and punished. A weak system sends the opposite message; drunk driving is not a serious problem, drunk drivers usually won't be caught, and those caught will not be punished.

Young people under the age of 21

The drunk driving control system treats drivers under the age of 21 differently from those over 21 in several respects. Under minimum drinking age laws, it is illegal for anyone under 21 to drink, while under zero tolerance laws it is illegal for anyone under 21 to drive after drinking any alcohol. Many drivers under 21, and most under the age of 18, attend high school or college. These settings provide opportunities for education and information and for policies regarding alcohol use.

In 1999, only 13% of drinking drivers in fatal crashes were under the age of 21. However, young drivers may be the most important target for drunk driving prevention and control measures. Today's youth are tomorrow's adults. Habits formed today carry over to tomorrow: safe driving, drinking practices, respect or disrespect for the law. The evidence in Chapter 2 shows that young people have adopted the ideas of not drinking and driving far more than have their elders. Nevertheless, young people continue to drink, in large numbers in defiance of the minimum drinking age.

The laws, programs, and educational efforts directed at young people clearly have had an effect, but they must be continued. Each year brings a new cohort of beginning drivers who must decide for themselves whether or not to drink and drive.

Zero tolerance laws provide a special opportunity. The typical punishment for violating a zero tolerance law is suspension or revocation of the driver's license. The driver's license is a precious symbol of independence and mobility for young people;

losing it is a severe penalty. And parents can enforce driver's license suspensions very effectively. Active enforcement of zero tolerance laws has the potential to reduce youth drinking and driving substantially.

The broader and equally critical issue is to reduce young people's drinking. Too many communities still do not take underage drinking seriously. Communities should make a concerted effort to establish community norms that underage drinking is not tolerated and to support a wide variety of activities to implement these norms: minimum drinking age policies and practices among all who sell or serve alcohol, special attention to controlling drinking in high schools and colleges, and parental agreement not to condone drinking.

Summary

While deterrence, treatment, education, and prevention strategies all play roles in reducing drunk driving, improving deterrence offers the greatest opportunities for making progress in the near term. A strong deterrence system of laws, enforcement, adjudication, sanction, and rehabilitation affects all drivers. As the public realizes that drunk drivers are likely to be detected, arrested, convicted, and punished, fewer people will drive drunk. Reducing drinking among drivers under the age of 21 requires giving special attention to enforcing the minimum drinking age of 21 and zero tolerance laws, and to establishing community norms that do not tolerate underage drinking.

CHAPTER 5

System — Drunk driving control operations and problems

Drunk driving prevention and control in the United States follows the federal model, in which the individual states and communities have authority and responsibility for most activities. The Federal government can provide leadership, funding, information, data, and assistance of various sorts to the states. Non-governmental organizations — associations, industry groups, corporations, and citizen groups — can influence Federal, state, and local government actions, conduct their own programs, and communicate directly with citizens.

State and community drunk driving control systems

Drunk driving laws are enacted by the states, as are all other traffic laws. States and communities enforce these laws using both state and local law enforcement personnel. Community and state courts adjudicate offenders, sentence those who plead or are found guilty, and monitor any conditions of probation. State motor vehicle departments suspend, revoke, and restore driver's licenses and maintain driver license records.

Education and prevention programs complement this system of laws, enforcement, and sanction. Public information and education ranges from direct publicity of drunk driving laws and enforcement to information on the overall effects of alcohol. Research shows that publicity tied directly to drunk driving laws and enforcement can be quite effective (Stewart, 1999 and Blomberg, 1992). General alcohol information and education programs have not been demonstrated to have had a direct effect on drunk driving but serve a critical function in raising public concern for drunk driving and laying a foundation for public support of drunk driving control laws and programs (Williams, 1994).

LAWS AND SANCTIONS.

The general principles are the same in each state: It is illegal to drive while impaired by alcohol, and in all states except Massachusetts it is illegal to drive with a BAC exceeding either 0.08 or 0.10. Punishment for first and subsequent DWI offenses generally includes suspending or revoking the driver's license and levying fines. Repeat offenders often face jail or community service and may be subject to vehicle sanctions. Forty-one states and the District of Columbia provide for adminis-

trative license revocation or suspension (ALR), under which the motor vehicle department removes the driver's license quickly and administratively from any person found driving with a BAC exceeding the state's *per se* limit (NHTSA, 2001a).

At their best, sanctions punish offenders and deter the offenders and others from future drinking and driving. Suspending or revoking drivers' licenses is clearly effective (Simpson et al, 1996; Jones and Lacey, 2000; and Wagenaar et al, 2000b). Evidence is growing that vehicle or license plate actions — plate confiscation and vehicle immobilization, impoundment, or forfeiture — also can be effective if implemented effectively (Rodgers, 1994; Jones and Lacey, 2000; Safir et al, 2000; and Voas and DeYoung, 2001). Wiliszowski et al (1996) report that stiffer sanctions for repeat offenders help to deter some from driving drunk again.

ENFORCEMENT.

Laws and sanctions must work hand in hand with active, well-publicized enforcement. The research literature shows that regular and selective drunk driving enforcement and checkpoints all reduce drunk driving (Wagenaar et al, 2000b). Half of the DWI offenders interviewed by Wiliszowski et al (1996) reported that they stopped drinking completely for a period after their arrest because they feared the consequences of another arrest.

ADJUDICATION.

The prosecutors and judges of the courts set the tone for the entire drunk driving control system. They determine when to dismiss, when to offer plea bargains, and when to prosecute. They establish sentencing guidelines within legal limits. They establish and monitor probation conditions. Without strong support from prosecutors and judges, drunk driving laws will not be enforced vigorously.

ADMINISTRATIVE ACTIONS.

State motor vehicle departments operate a parallel system to the courts for sanctioning and controlling drunk drivers. In all states, they issue and withdraw driver's licenses and vehicle license plates. In some states, they may oversee alcohol treatment and education programs for offenders and may administer sanctions against an offender's vehicle, such as license plate impoundment.

MONITORING.

This is perhaps the most overlooked area of the system. Without close monitoring through probation offices or courts, offenders all too easily fail to satisfy their sentence or probation requirements. In particular, many continue to drive even after their licenses are suspended or revoked. Some types of probation, such as intensive supervision and electronic monitoring, have shown promise in helping to achieve this control (Jones and Lacey, 2000). An alcohol interlock on the offender's vehicle is highly effective in preventing drunk driving while it is installed and also helps probation officers to monitor the offender's driving practices (Coben and Larkin, 1999; Voas et al, 1999a; and Jones and Lacey, 2000). For repeat offenders with serious

alcohol problems, dedicated detention facilities provide 24-hour supervised detention, alcohol treatment, and counseling leading to work-release and aftercare (Century Council, 1997).

TREATMENT.

Alcohol screening and assessment is critical for all DWI offenders, not just for repeat offenders. Since the chances of being arrested on any given drunk driving trip are so small, it is highly likely that even first offenders have driven drunk many times before they are arrested. The earlier an alcohol problem is detected, the easier it is to treat. The first DWI arrest provides an excellent opportunity for directing drivers to treatment when needed. A comprehensive review (Wells-Parker et al, 1995) concludes that treatment by itself, across all the types and settings that have been evaluated, reduces DWI recidivism by a modest amount.

System problems

Many state systems do not detect, arrest, convict, sanction, or monitor drunk drivers as intended. The problems range from broad failures to carry out the intent of state DWI laws to specific issues noted in the research literature and in the interviews conducted for this study. These problems hinder drunk driving control in several ways. Most obviously, drunk drivers learn that the likelihood is low that they will be detected, arrested, convicted, or punished. They assume that they can “beat the system.” This encourages them to drink and drive again, and it encourages their friends to do the same. These failures also send a message that the community is not serious about controlling drunk driving. They make it more difficult for drunk driving control activities to receive the priority or resources they deserve. If drunk driving charges are frequently dismissed in court or diverted to a minor traffic offense, it is difficult to justify assigning additional police to drunk driving control.

The following discussion highlights the major problems, as determined from the research literature and from interviews at community, state, and national levels. Not every community or state faces every problem. Rather, these are problems that occur frequently enough that all communities and states should consider whether they should be addressed, and national organizations should seek ways to address them.

LAWS.

State DWI laws are complicated; many contain inconsistencies and deficiencies. Some states report that their DWI laws occupy 20 pages while their homicide laws occupy only two pages. This complexity burdens the arresting officer and allows experienced drunk drivers to exploit inconsistencies and escape conviction. For example, in some states, the penalty for refusing to take a BAC test is less than the penalty for taking and failing the test (NHTSA, 2001a). In some states, the fact that a driver has refused a BAC test is not admissible in court, so at trial the lack of BAC evidence appears to result from the arresting officer’s incompetence rather than the

offender's refusal (NHTSA, 2000b, and interviews). In some states, ALR hearings have been subverted from their intended purpose of establishing the basis for an administrative license action and instead give defense attorneys the opportunity to discover the evidence against their client before trial (Jones et al, 1998, and interviews).

ARREST RATES.

Between 1990 and 1999, the number of DWI arrests decreased by 14%, while the number of licensed drivers increased by over 10% (USDOJ, 1999).

LAW ENFORCEMENT RESOURCES.

Interviewees reported that resources for traffic law enforcement appear to have decreased in many areas of the country. Some agencies are losing staff and have difficulty finding replacements. Some have shifted staff hours previously allocated to DWI enforcement to other concerns such as gun registration, gang activities, and domestic violence. Even Federal funds specifically designated for DWI enforcement may not be achieving their intended results. Some of these funds may merely supplant a state's own DWI enforcement resources, allowing the state to shift DWI resources to other enforcement activities.

ARREST PROCEDURES.

DWI arrest procedures are often time-consuming and complicated. Many people familiar with DWI arrests urge that the processing time and paperwork be reduced. However, the problem may be getting worse rather than better because of complicated state laws and administrative requirements. Many states report that a DWI arrest can take up to four hours of an officer's time — hardly an incentive to encourage greater DWI enforcement (see also Jones et al, 1998).

PLEA BARGAINS AND DIVERSION.

Many arrested drunk drivers are not convicted of DWI. Interviewees reported that some courts routinely plea bargain DWI charges to a lesser offense, such as reckless driving, which does not appear on the offender's record as an alcohol-related offense. Courts in some states divert first-time DWI offenders, whose charges are dropped if they agree to participate in some form of alcohol education (Century Council, 1997). Some jurisdictions report a significant problem with offenders who avoid prosecution by failing to appear at their arraignment.

State annual reports and data files show a wide range of conviction rates. The rates cannot be compared directly as they are affected by plea bargains, pre-trial diversion practices, offenders who fail to appear, and other state and local procedures (see Wiliszowski et al, 1999). Connecticut reports (2000) that in 1998, 72% of DWI arrests were adjudicated "other than guilty." Washington (2001) reports that in 1999, 51% of all DWI cases were found guilty, 23% were dismissed, and 25% were resolved through a deferred prosecution system. California (Tashima and Helander, 2000) reports that 74% of DWI arrestees were convicted in 1998. Minnesota (2001)

reports an 83% conviction rate in 1999. New York reports that 85% of all DWI arrests were convicted of an alcohol-related driving offense, either DWI or Driving While Ability Impaired (New York, 2000). Wisconsin (2000) reports that, of all adjudicated DWI citations in 1999, 92% were found guilty.

SANCTIONS.

Convicted drunk drivers frequently avoid mandatory sanctions. Interviewees reported that driver license suspensions could be avoided through easily obtained “hardship” licenses. Mandatory jail sentences are often avoided because jails are full or because judges believe that drunk drivers should not be jailed. Interviewees described how many “mandatory” requirements of state drunk driving laws are not applied consistently. Prosecutors, judges, and researchers agree: The key to reducing DWI recidivism is “certain, consistent, and coordinated sentencing” (NHTSA and NIAAA, 1996).

IDENTIFYING REPEAT OFFENDERS.

Many state record systems are so inefficient that neither law enforcement officers at the roadside nor prosecutors or judges in the courtroom can easily identify a DWI driver’s prior offenses. In other instances, prosecutors fail to check an offender’s records. In other instances, prosecutors fail to check an offender’s records. When a driver’s record is not known, a repeat offender is likely to be considered once again as a first offender and once again to be diverted or sentenced to measures that already have failed to change his or her behavior

PROBLEM DRINKERS.

Problem drinkers frequently are not identified or treated effectively. About two-thirds of the states reported that they screen all offenders for alcohol problems (Century Council, 1997). The screening is usually conducted after conviction, so offenders who plea to a lesser charge may not be assessed. The remaining states use different practices. Some screen only repeat offenders or offenders above a specific BAC limit, some screen only offenders applying for license reinstatement (providing another reason for offenders not to reinstate their licenses), some screen only offenders wishing to participate in a diversion program, and some leave screening to the judge’s discretion. Screening may be cursory and inaccurate. Treatment can be intensive and effective; it also can be superficial and useless.

MONITORING CONVICTED OFFENDERS.

Offenders frequently are not monitored closely to ensure that they fulfill their sentences, attend assigned treatment, or complete assigned community service. Perhaps the most commonly violated sanction is driver’s license suspension or revocation. The large majority of drivers with suspended or revoked licenses continue to drive (Griffin and DeLaZerda 2000; DeYoung et al, 1997; Wiliszowski et al, 1996; and Ross and Gonzales, 1988). Many also fail to reinstate their licenses when they become eligible to do so.

COURT AND MOTOR VEHICLE DEPARTMENT RESOURCES.

Courts, probation, and motor vehicle departments lack necessary resources to deal effectively with DWI arrests. Court dockets and probation caseloads are frequently so heavy that offenders cannot be evaluated, sentenced, or monitored with much individual attention. A prosecutor's workload may include 1,200 cases per year (Jones et al, 1998). Interviewees reported that probation officers may handle as many as 300 cases at a time. Motor vehicle departments have been assigned increasing responsibilities for sanctioning and monitoring drunk driving offenders because their administrative actions are usually quicker and more consistent than court proceedings. However, in many cases the resources provided to motor vehicle departments have not kept pace with their increased responsibilities.

DATA.

Poor data systems make it impossible to determine the extent of these problems. Few states have good systems to track individual offenders from the time of arrest to the final disposition of all sanction requirements. In addition, few states have systems that allow the drunk driving control system's performance to be measured or analyzed — for example, by examining conviction rates for those arrested for DWI or the differences in conviction rates by county or by individual judge within a state (NHTSA, 1997a and 1997b).

A recent three-part series in the Washington Post (Shaver and Fallis, 2000) provided a detailed picture of many of these issues in one Maryland jurisdiction's courts.

- *Laws:* Some judges and prosecutors were not aware of mandatory sentencing requirements or of the state law allowing an offender's vehicle to be impounded. Refusing to take a breath test carried no criminal penalty. An offender's breath test refusal could not be presented in court.
- *Conviction rates and sentences:* Two-thirds of drivers who pled guilty were diverted to "probation before judgment," which requires only that an offender attend an alcohol treatment program and which is not recorded as a drunk driving offense. Probation before judgment was assigned even to drivers who had other pending drunk driving arrests, who had killed people in drunk driving crashes and who had BAC levels as high as 0.35. One-fifth of drunk drivers who killed someone received no jail time.
- *Records and prior offenses:* Most repeat offenders were not identified because their prior offenses had been plea bargained to lesser offenses or because the interval between offenses was more than three years. Three offenders were sentenced without the prior drunk driving fatalities on their records being known to the judge.
- *Offender monitoring:* Almost one-fifth of offenders (some with multiple DWI convictions) were assigned "unsupervised probation" so that for all practical purposes

they were not monitored. Those assigned to supervised probation often received no more than 10 minutes of probation contact each month. Probation violations were not reported to judges for months and often resulted in nothing more than further probation.

- **Resources:** Probation caseloads averaged 230 with some probation officers assigned as many as 700 offenders. Prosecutors were responsible for up to 200 cases a week, including drunk driving and other offenses.

A five-part series in the *Deseret News* (Dillon et al, 2001) reported similar problems in Utah. Law enforcement and courts do not have easy access to accurate driver records. Police complain of clogged courts, plea bargains, and lenient sentences. As in Maryland, judges often fail to impose mandatory sentences. While a new Utah law requires ignition interlocks on the vehicles registered to repeat DWI offenders, only about 50 interlocks have been installed. A Salt Lake attorney summarized the views of many: “The current system is sufficient and effective. The problem is soft judges.”

A six-part series in the *St. Paul Pioneer Press* (Linsk et al, 2001) focused on repeat offenders, who made up 49% of the 30,673 drivers arrested in Minnesota for DWI in 2000. It profiled 10 drivers, each of whom had 19 or more alcohol-related incidents on his record and all but one of whom had more than six incidents in the previous 10 years. The series called attention to spotty DWI enforcement, weak laws under which even repeated DWI offenses are misdemeanors, “revolving-door justice,” and few checks on bars and taverns that serve drunk drivers.

Because of these problems, state DWI control systems deter far fewer drunk drivers than they could. If everyone believed that most drunk drivers would be arrested, convicted, and punished, then drinking and driving would be reduced dramatically. The further a DWI control system lies from this ideal, the less likely it is to reduce drinking and driving. The problems noted above mean that drinking drivers are rarely detected; when detected, are often not arrested; when arrested, are often diverted or plea to a lesser offense; when convicted of DWI, are often not sanctioned appropriately; and when sanctioned, are often not monitored to the completion of their sentences. The solution is to use all reasonable means to increase and publicize the likelihood that drunk drivers will be arrested and, once arrested, will be punished consistently and with appropriate severity.

Summary

Research and interviews identified a range of problems in some state and community drunk driving control systems: complicated laws with inconsistencies and other difficulties, decreased drunk driving enforcement, time-consuming arrest procedures, inadequate record systems permitting prior DWI offenses to go undetected, frequent plea bargains and diversion out of alcohol-related offenses, inconsistent sentencing,

limited screening and treatment for alcohol problems, minimal offender follow-up, overburdened courts and motor vehicle departments, and insufficient resources. Drunk drivers do not believe that they face swift, certain, or severe consequences, so they continue to drive drunk. States and communities must take the lead in examining their drunk driving control systems, assessing their problem areas, and taking measures to improve them.

CHAPTER 6

Institutions — National drunk driving control activities and policies

The Federal government and other national organizations play critical roles in assisting and influencing state DWI control systems. This chapter describes the key organizations and their activities. It then reviews the two most important current policy initiatives.

Organizations that affect drunk driving

CONGRESS.

Congress affects drunk driving control in four principal ways: through regular funding for states; incentive funding to encourage states to adopt specified laws or programs; sanctions for states that do not meet specified criteria; and funding and oversight for NHTSA, the Federal agency with primary responsibility for drunk driving control.

Congress provides regular funding for state traffic safety activities through the Section 402 grant program. The annual Section 402 appropriation is allocated among the states using a formula based on population and road mileage. States have substantial flexibility in spending these funds. A typical state will spend about one-quarter specifically on drunk driving control and another one-third or more on law enforcement, a portion of which is directed to DWI (LaHeist, 1998). Congress intended that Section 402 funds be used only for innovative programs, with each new activity limited to three years of funding. However, in recent years, some states appear to have used their funds less for truly innovative programs and more for routine drunk driving control activities. Section 402 funds have played an important role both in supplementing state funds and in encouraging states to implement new drunk driving control programs (LaHeist, 1998).

Starting in 1982, Congress also provided grants to states that met certain criteria, such as enacting specified laws or operating certain programs. These grants were designed as incentives for states to improve their drunk driving control. The current incentive grant program, Section 410, rewards states for activities such as enacting administrative license revocation laws, performing special DWI enforcement, and instituting programs directed at young adults aged 21-34. Section 163 grants reward states that have enacted 0.08 BAC laws.

States appreciate the funds that are available through these incentive grant programs, which provide valued additional resources for drunk driving control activities. Incentive grant funds have been used to increase DWI enforcement, equip and train police officers, educate the public on DWI issues, and improve prosecutorial and judicial training and support (Leaf and Preusser, 1998). However, it appears that incentive grant funds have had only a modest effect in encouraging states to enact the laws or implement the programs intended by Congress. Most states qualified for Section 410 funds with existing laws and programs rather than by enacting new laws or implementing new programs (Leaf and Preusser, 1998). More recently, only three out of 34 states enacted 0.08 BAC laws after 1998, when Section 163 grant funds became available, but before Congress instituted sanctions in 2000. States tend to resist taking direction from Congress, especially in an area such as drunk driving legislation that is a state rather than a Federal responsibility. In addition, the amount of incentive funds available to any state is relatively small compared to the state's overall transportation and public safety budget.

Congress can also punish states that do not adopt certain laws or programs by reducing the amount of Federal-aid highway construction funds that they receive. Since these Federal-aid construction funds come from the Federal gasoline tax collected by each state from its drivers, states view their Federal-aid construction funds as an entitlement. Therefore, losing them is considered a sanction.

Congress has used these sanctions twice in the past to establish uniform laws affecting drunk driving: a national minimum drinking age of 21 and a legal BAC limit of 0.02 or less for drivers under the age of 21. In both cases, all states enacted the law before any funds were lost. In 2000, Congress enacted a similar sanction for states that fail to lower their BAC limit to 0.08.

Congress has also adopted a weaker version of this sanction: States failing to meet specified requirements do not lose construction funds but must transfer a portion of their construction funds to highway safety activities. In the 1998 transportation agency reauthorization bill, the Transportation Equity Act of the 21st Century (PL 105-178, commonly called TEA-21), Congress enacted a transfer for states that lack specified penalties for repeat DWI offenders (Section 164). By the end of 2000, 23 states and the District of Columbia had qualifying repeat offender laws in place. Only five states had their laws in place prior to TEA-21; the remaining 18 states and the District of Columbia amended or enacted laws in response to TEA-21.

States dislike Congressional sanctions intensely, but sanctions have been effective in convincing all states to enact minimum drinking age 21 and zero tolerance laws. In each case, the law had substantial public support and was already in place in many states. Also, the highway construction funds that would have been lost were large enough to attract states' attention. The eight states that had not yet raised their drinking age to 21 stood to lose a total of \$72.1 million in fiscal year 1987. Potential losses for individual states ranged from \$4.2 million in South Dakota to \$16.3

million for Ohio (USGAO, 1987). Transfer penalties have been less effective in encouraging state action.

NHTSA.

The National Highway Traffic Safety Administration (NHTSA) is the executive agency primarily responsible for Federal activities to control drunk driving. NHTSA oversees states' use of their Federal grant funds (under Sections 402, 410, and 163), maintains national data systems such as FARS, conducts research, develops and evaluates programs, provides training and technical assistance, and assists states in various other ways.

While NHTSA has the responsibility for Federal drunk driving control, the authority to pass and enforce laws stays with the states. NHTSA can set national goals, develop programs, and create education and information materials, but the actions to meet the goals, implement the programs, and disseminate the materials must be taken by others. NHTSA can exert leadership only through influence and persuasion, not through direction.

Several NHTSA drunk driving control activities over the past decade show the range of its activities. The 1991 Traffic Safety Summit II for judges and prosecutors concentrated on drunk driving issues (NHTSA, 1991, and NHTSA, 1994). It generated a DWI sentencing guide (NHTSA and NIAAA, 1996) and a study of data systems (NHTSA, 1997a and 1997b). With the National Transportation Safety Board, NHTSA formed and led the ALR Coalition to assist states that wished to consider introducing administrative license revocation laws. NHTSA regularly produces and distributes education and program materials for states, communities, and other organizations with themes such as the National Drunk and Drugged Driving Awareness Month and Safe & Sober. NHTSA regularly conducts research on drunk driving and published over 80 studies between 1987 and 1997 (NHTSA, 1997c).

In 1995, NHTSA sponsored "Partners in Progress, a meeting called by Secretary of Transportation Peña of over 30 organizations that were active in reducing drunk driving. The meeting established an ambitious goal — reducing alcohol-involved traffic fatalities to no more than 11,000 by 2005 — and outlined activities to achieve this goal (NHTSA, 1995).

Perhaps NHTSA's greatest effect is through its guidance to states under the Section 402, 410, and 163 grant programs. NHTSA manages the requirements for qualifying for and administering these grants. In the 1970s and 1980s, NHTSA reviewed and approved all state grant expenditures. In recent years, NHTSA has reviewed overall state goals and plans but not specific activities. NHTSA still influences how states set priorities across various traffic safety areas and how they allocate their resources within these areas. NHTSA established guidelines for state impaired driving programs and can encourage states to raise or lower their priority for drunk driving control activities.

NHTSA's recent drunk driving control activities drew some critical comments from people interviewed for this study, who pointed out that the initiatives have not had a major impact. NHTSA appears to have fewer staff devoted to drunk driving issues now than a decade ago. Some believe that NHTSA's staff and other resources are spread too thinly, as the agency tries to deal with a host of new partners instead of concentrating its efforts where they can be most effective. While drunk driving research continues, new NHTSA program materials for states and communities consist largely of public information campaigns rather than more substantive activities. NHTSA's drunk driving program guidance to states is limited, so many states have little outside incentive or accountability for establishing or meeting worthwhile goals.

Most importantly, a number of those interviewed for this study noted a lack of drunk driving leadership from NHTSA. It is clear to everyone that NHTSA's recent top priorities have been elsewhere: concerns about air bag injuries, safety belt use rates, and most recently tire defects, not drunk driving.

OTHER FEDERAL GOVERNMENT ORGANIZATIONS.

Numerous other agencies and boards play important but lesser roles in drunk driving control. Additional information on these and other Federal organizations active in traffic injury prevention may be found in Bonnie et al (1999).

The National Transportation Safety Board (NTSB) is an independent Federal agency with responsibility for investigating transportation accidents, studying transportation safety issues, and evaluating the effectiveness of government transportation safety agencies. The Board has no direct authority, but its recommendations to government agencies, states, and private organizations carry considerable weight. The Board has recommended that states adopt specific legislation such as administrative license revocation and plea bargaining restrictions. Its most recent report on DWI issues recommended a model program for hard core drinking drivers (NTSB, 2000).

Within the Department of Health and Human Services, the National Center for Injury Prevention and Control of the Centers for Disease Control and Prevention (CDCP) includes drunk driving within its overall injury prevention mission. It concentrates on research, epidemiology, evaluation, and public education. It recently synthesized the research evidence on several drunk driving topics such as checkpoints, zero tolerance laws, and BAC limits (MMWR, 2001, and Shults et al, 2001). The National Institute for Alcohol Abuse and Alcoholism includes drunk driving issues within its research and programs (see NHTSA and NIAAA, 1996 and 1999), as does the Substance Abuse and Mental Health Administration (Townsend et al, 1998, and Fell, 2000).

In the Department of Justice, the Office of Justice Programs provides funding for drug and alcohol courts and for underage drinking prevention activities. Its Bureau of Justice Statistics provides regular data on DWI offenders (USDOJ, 1999).

ASSOCIATIONS.

Each state has a designated Governor's Highway Safety Representative responsible for administering the state's highway safety grant funds and for directing the state's highway safety office. The National Association of Governor's Highway Safety Representatives (NAGHSR) represents the states and their views and serves as their principal contact with Congress, NHTSA, and other national associations and organizations. The American Association of Motor Vehicle Administrators (AAMVA) similarly represents the leaders of the state motor vehicle administration departments.

Law enforcement officials are represented by the International Association of Chiefs of Police and the National Sheriffs Association. Both associations have active traffic safety committees. Prosecutors are represented by the National Association of Prosecutor Coordinators and National District Attorneys Association, which also houses the National Traffic Law Center (NTLC). Begun as a result of recommendations made at NHTSA's Traffic Safety Summit II, NTLC provides information and education on traffic safety issues, especially those related to drunk and drugged driving, to prosecutors and judges across the country. Judges also can receive training in drunk driving issues at the National Judicial College.

ADVOCACY AND MEMBER ORGANIZATIONS.

Mothers Against Drunk Driving (MADD) and Remove Intoxicated Drivers (RID) have been catalysts for progress against drunk driving over the past 20 years. Both began as organizations of victims whose lives had been affected by a drunk driver. In the 1980s, MADD generated national outrage over drunk driving. MADD organized citizens across the country through its state chapters, assisted drunk driving victims and their families, lobbied for better laws, monitored courts, and conducted workshops. RID conducted similar activities in several states. MADD helped to convince Congress to enact the national minimum drinking age, zero tolerance, and 0.08 BAC legislation and to establish and fund drunk driving grant programs. More than any other organization, MADD has been responsible for changing the public's view of drunk drivers from ordinary citizens whose actions may accidentally produce unfortunate consequences to criminals whose premeditated and irresponsible behavior deserves harsh punishment.

MADD has changed, both in fact and in the perception of people active in drunk driving control. As it has grown and matured, it is no longer seen as an organization of volunteers but as a big business with a multi-million dollar annual budget and a substantial fundraising program. Some interviewees feel that MADD should concentrate on its traditional core activities of legislative advocacy, victim services, and court monitoring rather than expand into other areas. MADD can be a difficult partner in collaborative activities. While MADD is still "the most recognized brand in the drunk driving field," it appears to have lost some of its position as the nation's conscience and leader on drunk driving that it had in the 1980s.

Students Against Destructive Decisions (SADD), formerly Students Against

Driving Drunk, was founded in 1981 as a high school program to reduce youth drinking and driving. By 1994, SADD chapters were established at an estimated 16,000 of the nation's high schools. SADD offers alcohol-free activities such as prom and graduation parties and conducts other programs to reduce student drinking and driving after drinking.

Advocates for Highway and Auto Safety, funded by major insurers, is an active lobbying force in Congress and in state legislatures for drunk driving legislation such as 0.08 BAC limits. The National Safety Council also plays an important role in these legislatures. The Insurance Institute for Highway Safety, also funded by major insurers, conducts and disseminates research on drunk driving and other highway safety issues.

The American Automobile Association (AAA), a member organization with clubs in every state, educates its members about highway safety issues and advocates traffic safety legislation. AAA helped encourage many states to adopt graduated licensing requirements for young drivers. However, AAA has not been active in drunk driving issues recently. With its extensive membership and broad recognition, it could become a more important influence. Through its AAA Foundation for Traffic Safety, AAA funds research on drunk driving issues, including this study (see also Griffin and DeLaZerda, 2000, and Chang et al, 2001).

THE ALCOHOL AND HOSPITALITY INDUSTRIES.

The alcohol industry has many disparate interests and voices, beginning with alcohol producers and distributors. Alcohol retailers include liquor and package stores, convenience stores, grocery stores, and other outlets, depending on the laws regulating alcohol sales in each state. The hospitality industry includes a wide variety of establishments that serve alcohol, such as restaurants, taverns, casinos, theatres, and sports arenas. All of these industries have trade associations active at national, state, and local levels. The alcohol and hospitality industries are very influential in national and state legislatures.

Some portions of the alcohol and hospitality industries have supported alcohol education, responsible alcohol service, and drunk driving legislation. Over the past 20 years, members of these industries have also fought and blocked critical local, state, and national drunk driving laws and policies.

Beer is the drink of choice among many drinking drivers, especially young males. The three major brewers each conduct extensive advertising and marketing activities to promote their products. They also publicize messages urging responsibility, such as the use of designated drivers or "know when to say when," sponsor research, and conduct activities promoting healthy lifestyles for young people. The Beer Institute is their trade organization.

The Century Council, funded by major distillers, was founded in 1991 to

reduce drunk driving and underage drinking. The Council advocates state legislation such as administrative license revocation, supports minimum drinking age law enforcement, develops and implements youth education programs, and sponsors research (see Century Council, 1997).

Other organizations representing or serving various facets of the alcohol industry include the Distilled Spirits Council of the United States (DISCUS), the Wine Institute, the National Beer Wholesalers Association, the National Association of Beverage Retailers, the Licensed Beverage Information Council, and the American Beverage Institute.

Current drunk driving policy initiatives

Two issues have dominated the recent national debate about drunk driving: the 0.08 BAC limit and hard core drunk drivers. In many ways these two issues pull in opposite directions and emphasize quite different approaches to reducing drunk driving.

0.08 BAC.

All states have long-standing laws prohibiting driving while impaired by alcohol or other substances. In the 1960s, states began enacting *per se* laws that make it illegal to drive with a BAC level higher than a certain level. The early laws established BAC limits ranging from 0.10 to 0.15. In time, based on extensive scientific evidence of the effects of alcohol impairment, states lowered their limit to 0.10. In 1983, Oregon and Utah lowered it further, to 0.08. Other states followed gradually: two more in the 1980s, seven between 1990 and 1994, and eight and the District of Columbia between 1995 and 2000, bringing the total as of January 1, 2001, to 19 states and the District of Columbia.

In the 1990s, MADD campaigned extensively, first to encourage states to adopt 0.08, then to provide Federal funding incentives for 0.08, and finally to impose Federal sanctions on states that failed to adopt 0.08. In Section 163 of TEA-21, Congress provided incentives in the form of additional grant funds for fiscal years 1998-2003 to states that enact and enforce 0.08 BAC laws. Most recently, the Fiscal Year 2001 Department of Transportation Appropriations bill requires states to enact a 0.08 BAC *per se* limit or lose a portion of their highway construction funds. Funds will be withheld beginning in fiscal year 2004 and funds will be lost beginning in 2007. In part as a result of this legislation, 10 states enacted a 0.08 law through July 15 of 2001 (NHTSA, 2001d).

Many people in the alcohol and hospitality industries have vigorously opposed 0.08 limits. They claim that a 0.08 limit unfairly targets social drinkers, who pose little risk of causing crashes, injuries, or fatalities. They also claim that 0.08 diverts attention and resources away from the higher-BAC problem drinkers who constitute the bulk of the drunk driving problem.

HARD CORE DRINKING DRIVERS.

Simpson and Mayhew (1991) popularized the term “hard core drinking driver” to describe people who drink and drive at high BAC levels. Over the past decade, researchers have examined what is known about hard core drinking drivers (under various definitions that use some combination of high BAC, repeated DWI offenses, and problem drinking) and what can be done about them (TRB, 1995; Simpson et al, 1996; and Jones and Lacey, 2000).

Recently, three organizations developed similar strategies for addressing hard core drinking drivers, defined more precisely as people who drive at BAC levels of 0.15 and above or who have a prior DWI offense. In 1997, the Century Council produced *Combating Hardcore Drunk Driving: A Sourcebook of Promising Strategies, Laws and Programs* (Century Council, 1997). The sourcebook contains information from the research literature and from a survey of current state practices on identification, law enforcement, prosecution and sentencing, sanctioning, and treating hardcore drunk drivers. In 1999, MADD issued its recommended program for controlling what it calls the “higher risk driver” through restrictions on driving, restitution to victims and the community, and recovery through probation and treatment (Voas, 1999). Finally, in 2000, the National Transportation Safety Board (NTSB) issued a report, recommendations, and model state program to reduce crashes involving hard core drinking drivers (NTSB, 2000).

The three recommended strategies are quite similar. They may grow even closer over time; for example, MADD reduced the BAC level in its definition of a higher risk driver from 0.16 to 0.15 to conform with the value adopted by the Century Council and NTSB (MADD, 2001).

Congress also began to address hard core drunk drivers in TEA-21. Incentive grants and transfer provisions (under Sections 410 and 164) encouraged states to adopt special provisions and programs for higher-BAC and repeat offenders. Almost every state requires more severe penalties for repeat than for first-time offenders (NHTSA, 2001a), and 29 states provide additional or more severe penalties for offenders at some BAC level above the state’s *per se* limit (McCartt, 2001).

Critics claim that the hard-core proposals, by defining the drunk driving problem as being caused by a small minority of “real drunks,” allow most drivers to escape any responsibility for preventing drunk driving. They give legislators an easy way to “get tough on drunk driving” by enacting even stiffer sanctions for repeat and higher-BAC offenders — sanctions that may have little deterrent effect on many drunk drivers who do not have a prior DWI arrest or who do not believe their BAC level is high enough to warrant the additional penalties.

EXCLUSIVE OR COMPLEMENTARY STRATEGIES?

The 0.08 and hard-core initiatives appear to be very different strategies to reduce drunk driving. The 0.08 law suggests a single remedy directed at the general driving

public. MADD and other proponents clearly recognized that other measures are needed as well — see for example MADD’s higher risk driver policies — but the rhetoric surrounding 0.08 often ignored everything else and made 0.08 support the “litmus test” for any drunk driving control proposal. The hard core proposals are directed only at a minority of those who drink and drive. The two initiatives have tended to divide the drunk driving movement and dissipate its energy, focus, and impact.

Recent events suggest a growing understanding that the 0.08 and hard-core initiatives both are valuable parts of a comprehensive drunk driving strategy. The threat of Federal sanctions and the growing evidence of the effectiveness of the 0.08 law have strengthened support for 0.08. On April 10, 2001, in a joint press conference with MADD and Secretary of Transportation Mineta, the Century Council and DISCUS announced that the distilled spirits industry supported 0.08 as part of a comprehensive strategy for fighting drunk driving (Century Council, 2001). Scientific evidence and Federal sanctions produced broad national consensus on minimum drinking age and zero tolerance laws; the same appears increasingly likely for 0.08.

Consensus on hard core drunk drivers also is increasing. MADD, NTSB, and the Century Council have formed a coalition to help states implement their common recommendations and already have formed state-level coalitions in three states to support hard core drunk driver legislation. Ten states have enacted higher BAC legislation since 1998, with little significant opposition, and five additional states have strengthened their higher BAC laws (McCartt, 2001).

Summary

While the states are responsible for most drunk driving control activities, Congress, NHTSA, other Federal agencies, associations, corporations, and citizens’ organizations can provide leadership, funding, information, and assistance. These national organizations can also help raise the priority given to controlling drunk driving.

Drunk driving is no longer the headline social issue that it was in the 1980s. By suggesting strategies restricted to a single law on the one hand and directed at a small minority of “real drunks” on the other, the 0.08 and hard core initiatives have divided rather than united the drunk driving movement. Recent broadening of support for both initiatives suggests a growing awareness that both are critical parts of a comprehensive drunk driving control strategy.

CHAPTER 7

Solutions — Recommendations for improvement

Chapter 5 documented problems in state drunk driving control systems. This chapter discusses the solution: improving the system, which will increase the likelihood that drunk drivers will be detected, arrested, convicted, and appropriately sanctioned, which in turn will deter drunk driving.

This strategy for improving the drunk driving control system has three important implications. First, it does not imply that the system is fundamentally flawed and should be scrapped. Rather, it concludes that the system uses effective principles and appropriate methods but that it could be considerably more effective if some specific changes were made. Second, it does not involve any single “silver bullet” initiative that will produce major drunk driving reductions: no one law to pass, no one technological change. Instead, it recommends that the best way to make progress is to improve the system, from detection to rehabilitation, so that it is open, effective, consistent, and accountable. Finally, authority and responsibility for making these changes do not rest in a single place but are spread across many different organizations and levels of authority.

Some of the recommended improvements are specific, where the problem and solution both are clearly identified. Others are more general, stated as goals or performance criteria that can be met in more than one way. In particular, states will need to address issues that are relevant to them in ways that are compatible with their unique conditions and capabilities.

The recommended improvements are organized by the basic system components: laws, enforcement, adjudication and administration, offender follow-up, and support. While these boundaries are not always distinct, this categorization provides a reasonable path to follow in thinking about the issues and potential improvements.

Laws

State DWI laws are the foundation for the entire drunk driving control system. As each state’s laws have developed over the years, many have become excessively complex or have developed inconsistencies or loopholes. These recommendations address both the overall complexity of the DWI laws and specific problems identified in some state laws.

MODERNIZE AND SIMPLIFY.

Review State DWI laws, bring them up to date, and simplify them as needed.

State DWI laws may not be quite as complicated and arcane as the United States tax code, but they are not far behind. The public does not understand them. For example, only 27% of driving-age people know their state's BAC limit (Royal, 2000). Complex and inconsistent laws make DWI enforcement, prosecution, and conviction more difficult. Judges, prosecutors, and law enforcement officers routinely note problems and inconsistencies in their states' laws. Some specific issues emerge regularly and should be addressed in each state where they occur, but almost every state would profit from a thorough, bottom-up review of its entire DWI code, as is currently being done in Virginia.

Fortunately, states now have an up-to-date model against which to compare their DWI laws. The National Committee on Uniform Traffic Laws and Ordinances (NCUTLO), a membership organization including representatives from 20 states, recently released a model state DWI law (NCUTLO, 2000), which has been incorporated into the Uniform Vehicle Code. The new model law is the first serious revision to the Uniform Vehicle Code's DWI laws since the 1940s. It addresses BAC testing, BAC test refusals, higher penalties for high-BAC offenders, ALR hearing procedures, alcohol and drug problem evaluation, and many other specific issues raised by people familiar with state DWI laws.

Reviewing and modernizing a state's DWI laws sounds like a bureaucratic and tedious process rather than a simple active step to reduce drunk driving. However, unless the DWI laws work well, the entire system of enforcement and sanction cannot hope to work well. Piecemeal fixes to specific issues may create more problems than they solve. If the devil is in the details, a state's DWI laws are the place where the details begin.

BAC TEST REFUSAL PENALTIES.

Establish penalties for refusing to take the BAC test that are more severe than the penalties for taking and failing the test.

In a recent highly publicized case, a driver with 11 DWI convictions crashed into a stationary car in Maryland, failed roadside sobriety tests, and was arrested for DWI. He refused to take a BAC test. At trial he was acquitted of DWI (Fallis, 2000). The Maryland penalty for test refusal is a 120-day license suspension, compared to the 1-year suspension and 48-hour jail penalty required for a second DWI offense.

Judges and prosecutors have reported similar incidents in other states where penalties for BAC test refusal are low. One judge commented that increasing the penalties for BAC test refusal is the single most important step that should be taken to reduce drunk driving.

BAC test refusal rates vary substantially by state. For example, in Minnesota, where the penalties for test refusal can include up to 90 days in jail (and up to one year in jail for repeat offenders) the rate is 14% (Minnesota, 2001). In Illinois, the prescribed penalty is a 6-month license suspension but offenders may receive a restricted license immediately; the test refusal rate is 38% (Voas et al, 2000). Some states report refusal rates of up to 50% for drivers with a prior DWI (Jones and Lacey, 2000).

As states consider stiffer sanctions for drivers with high BAC levels, as recommended by the various hard core drunk driver proposals and by NCUTLO's model law, the problem of test refusals will become more acute unless states take action. The model law recommends that the penalty for test refusal should be double the penalty for test failure. States also should provide that a driver's refusal to take a BAC test is admissible in court.

DIVERSION.

Eliminate diversion programs that allow offenders to escape license suspension and to have the DWI offense removed from their driving record.

The Century Council's survey of the states found that 16 states and the District of Columbia have some form of diversion program in state law or practice (Century Council, 1997). Diversion typically defers sentencing while offenders participate in some form of alcohol treatment or education. In many states, charges are dropped or the offender's DWI record is erased if the offender completes the assigned program (NTSB, 2000). In these states, if the offender is arrested again, he or she is once again treated as a first offender and may again be eligible for diversion. NTSB's review found no evidence that diversion programs reduce DWI recidivism.

Diversion programs allow offenders to avoid license suspension and other DWI sanctions. By eliminating the offender's DWI charge they allow second offenders to avoid the more severe sanctions prescribed for repeat offenders. State laws and practices should ensure that all DWI offenses are retained on a driver's record. States may wish to reduce the license suspension or other penalties if convicted drunk drivers participate in alcohol treatment or satisfy the state's requirements for a hardship license, but the penalties should not be eliminated altogether. Every convicted drunk driver should have his or her driver's license suspended for at least 30 days, as recommended by the model DWI law (NCUTLO, 2000). Drivers should not be able to receive a hardship or work-related license immediately, as they can in some states.

Enforcement

Regular, high-visibility drunk driving enforcement is critical to preventing drunk driving. Enforcement's goal is to deter drunk driving by convincing the public that drunk drivers are very likely to be detected, arrested, and sanctioned. This means that effective drunk driving enforcement involves both actual enforcement levels —

police on the road looking for and being ready to arrest drunk drivers — and effective publicity for this enforcement. Enforcement without publicity does not deter other drivers who have not been detected and arrested. Publicity without enforcement to back it up quickly is seen as an empty threat.

Regular, statewide, high-visibility DWI enforcement campaigns reduce drunk driving. Tennessee provides the best-documented recent example. Aided by a NHTSA grant, Tennessee conducted highly publicized checkpoints in at least four of the state's 95 counties each weekend from April 1994 through March 1995. On five weekends, checkpoints were conducted in almost all counties. The program reduced alcohol-related crashes by an estimated 20% (Lacey et al, 1999). Program costs were estimated at \$928,000 or about \$0.24 per licensed driver in Tennessee. Ross (1992), Peek-Asa (1999), MMWR (2001), and Shults et al (2001) summarize other checkpoint studies.

British Columbia's "CounterAttack" checkpoint program provides additional information about the effectiveness and costs of even more intensive checkpoint operations. During the 1997 campaign, approximately 23% of the resident population encountered a checkpoint each month for seven consecutive months. The campaign reduced alcohol-related crashes by about 27% over this period (ICBC, 1998). It cost about \$7.5 million (Canadian) for a population of about three million licensed drivers or about \$1.75 (US) per licensed driver.

A tempting DWI enforcement recommendation would be for all states to follow the examples of Tennessee, California, Colorado, North Carolina, or several other states with excellent DWI enforcement programs (Ulmer et al, forthcoming). However, intensive enforcement is difficult to mount or sustain. Even with substantial Federal funding available to assist them, few states have conducted enforcement campaigns at these levels (Fell, 2000, and Fell et al, 2001). In Tennessee, the number of checkpoints fell by 72% in the year following the Federally funded demonstration (Lacey et al, 1999). So a recommendation to increase DWI enforcement must be tempered by the understanding that states are unlikely to provide substantially more funds for DWI enforcement. In fact, a recommendation that state and community drunk driving enforcement resources should be no lower than they were a decade ago would not be out of line.

There is another way to increase DWI enforcement — instead of working harder, work smarter. Working smarter uses law enforcement time more effectively, with more public contact and less paperwork and processing (Jones et al, 1998). It also can give officers greater incentive to arrest drunk drivers. In the context of checkpoints, a simple step is to conduct checkpoints with four or five officers instead of the 15 or more used by some agencies. These smaller checkpoints can have just as great a deterrent effect as larger ones at a much lower cost (Stuster and Blowers, 1995). This section points out other ways in which DWI enforcement can work smarter and more efficiently.

ARREST PROCEDURES AND PAPERWORK.

Reduce the time required to process a DWI arrest so officers can spend more time on the road instead of filling out forms.

Many state DWI arrest procedures could profit from an overall review aimed at simplification and streamlining. Improved records, equipment, and training would also help, as would simplifying unnecessarily complex or confusing state DWI laws.

DRIVER AND VEHICLE RECORD SYSTEMS.

Provide law enforcement officers with real-time access to accurate and up-to-date driver and vehicle records.

In some states, a law enforcement officer in a patrol car can check license information electronically, determining within seconds if the vehicle and driver are properly registered. Officers can use either a radioed request to a data center or direct computer access to state files. Additional technology being implemented in some states will allow immediate verification of a driver's identity through a touch-pad fingerprint identification system.

EQUIPMENT AND TRAINING.

Provide law enforcement personnel with the tools and knowledge they need for effective DWI enforcement.

A DWI enforcement van, equipped with evidentiary breath test equipment and sometimes even a magistrate, can dramatically cut arrest processing time in check-point or saturation patrol operations. One state reports an average time of 17 minutes using a DWI enforcement van. In-car police videos can document a DWI offender's performance at the time of arrest. Prosecutors report that many offenders are very willing to plead guilty rather than have the video evidence presented in court. One judge noted that he has never seen a DWI case lost if there was an in-car video of the arrest.

Basic law enforcement training in DWI arrest procedures is essential. This goes beyond the Standardized Field Sobriety Tests (SFSTs) used at the roadside. Many states should consider reviewing their training for DWI stop and arrest procedures to be sure that it is accurate and is presented to every officer who may encounter a DWI.

The Preliminary Breath Test instrument (PBT) has great potential to assist law enforcement in DWI arrests. This hand-held device is used at the roadside to provide evidence for a DWI arrest but not to establish the suspect's BAC level. Evaluations show PBTs when used in this fashion have a noticeable effect on drunk driving (Wagenaar et al, 2000b, and Century Council, 1997). Technology has advanced so that current PBTs are as accurate as evidentiary breath test instruments in establishing a BAC level. If they could be used in this way for DWI enforcement, as they are

in California for enforcing the zero tolerance law (Ferguson et al, 2000), they could simplify arrest procedures, reduce the time required for a DWI arrest, and solve a major problem of drunk driving control in rural areas, where the nearest evidentiary BAC test equipment may be many miles from a DWI arrest site.

LAWS APPLYING TO YOUNG PEOPLE UNDER 21.

Enforce zero tolerance and minimum drinking age 21 laws.

Additional enforcement of these two laws would be especially valuable. Both laws apply in every state and are effective (USGAO, 1987; Toomey et al, 1996; Voas et al, 1999b; and Zwerling and Jones, 1999). However, neither is enforced with much vigor for a variety of reasons.

Zero tolerance law procedures differ substantially from state to state. Enforcement is substantially easier in states that have simple requirements for evidence, procedures, and paperwork. For example, in California, a law enforcement officer at the roadside can use PBT breath test evidence to issue a citation and take the driver's license away (Ferguson et al, 2000). Enforcement is difficult in states that require a DWI arrest, an evidential BAC test, and extensive paperwork. States may wish to review their zero tolerance law provisions in light of their enforcement experiences.

The zero tolerance message — no drinking before driving — is easy to understand, but many drivers, including those under 21, are not aware of their state's law. In the NHTSA survey (Royal, 2000), 85% of drivers did not know that the BAC limit was different for young people. Ferguson and Williams (2001) reported that one-third of teens in California and New York and two-thirds in New Mexico were unaware of their state's law, and in each state almost half the teens who knew about the laws thought they were not enforced very frequently. Blomberg (1992) showed how additional knowledge can increase the effectiveness of a zero tolerance law; while the law alone reduced drinking-driving crashes by 21%, the addition of an extensive public information campaign produced an additional 30% reduction.

If zero tolerance laws are actively enforced and publicized, the results could be dramatic. As one defense attorney commented, if a single high school student has his license suspended for a zero-tolerance law violation, everyone in his school will know about it the next day.

In enforcing the minimum drinking age, all alcohol sellers and servers should verify the age of all young customers. Retail establishments can require that identification be checked, but many do not do so; for example, a 1991 study found that 97 out of 100 liquor outlets in Washington, DC sold alcohol to people aged 19 and 20 (Preusser and Williams, 1991).

Wolfson et al, (1995) investigated minimum drinking age law enforcement in four states. They reported that drinking age law enforcement is not a community

priority; indeed, they found general acceptance of youth drinking in the communities that they investigated. When young people were arrested for violations, the penalties were mild and were applied unevenly.

Several interviewees noted that minimum drinking age law enforcement must begin with a broad community commitment not to tolerate illegal drinking by young people. If this commitment is sincere, then everyone's role is clear; retail businesses will check identification, high schools and colleges will establish and enforce appropriate policies, parents will not condone drinking by their children and friends, and law enforcement will be supported. If there is no commitment, then illegal underage drinking will continue. Wagenaar et al (2000a) presented an excellent example of a community-wide strategy that reduced alcohol sales to young people and reduced youth drinking.

Adjudication and administration

The judges and prosecutors of the courts form the core of the drunk driving control system. Many interviewees who know the drunk driving control system well said they believe that the courts are the weak link, the place where laws fail to achieve their intended results. The issues mentioned most frequently were plea bargains that reduced DWI charges to non-alcohol offenses and excessive judicial discretion in sentencing those who are convicted. Courts in many states are overloaded, with heavy prosecutorial and judicial caseloads that encourage uninformed plea bargains and other methods for settling cases quickly. Many courts also lack good record systems for identifying prior offenses.

As motor vehicle departments have assumed a greater role in punishing and attempting to control drunk drivers, similar problems have emerged: inefficient procedures, poor record systems, and insufficient resources.

The cumulative effect of these problems is that many DWI offenders escape significant punishment. This does not just affect the offenders themselves — it affects everyone who learns directly or indirectly that drunk driving is not punished.

ADMINISTRATIVE LICENSE REVOCATION HEARINGS.

Conduct ALR hearings efficiently. Hearings should not interfere with criminal proceedings.

Under ALR, the arresting police officer confiscates the license of a driver who fails or refuses a BAC test. This provides a swift and severe penalty for drunk driving. Numerous evaluations (summarized in Wagenaar et al, 2000b) have shown that ALR reduces drunk driving.

Drivers may appeal their license suspensions at an administrative hearing. If the state has structured its hearing process properly, then the hearing deals only with the

issues relevant to the administrative suspension: whether there was probable cause to stop the driver and whether the driver failed or refused the BAC test. In these states, hearings are rarely requested and when hearings are held the license suspension is rarely overturned. For example, California reported that, in the first five years of its ALR law, less than 10% of offenders requested a hearing and the suspensions were upheld in more than 80% of the hearings (Rogers, 1995). Recent California data show that 94% of all offenders received an ALR suspension (Tashima and Helander, 2000). However, in other states the ALR hearing has become an opportunity for defense lawyers to uncover evidence relevant to the criminal DWI charge (Jones et al, 1998). This prompts more offenders to request hearings, requires more of the arresting officer's time, and makes DWI convictions more difficult to obtain.

Nine states do not have ALR laws. Some of these states use different methods to remove an offender's license immediately, such as arraignment and license suspension within 24 hours. Others do not. All states should either enact ALR laws or should employ some other method for promptly removing offenders' licenses.

PLEA BARGAINS AND SANCTIONS.

Make it impossible to plea bargain a drunk driving charge down to a non-alcohol offense, and apply mandatory minimum sanctions to those convicted.

Plea bargaining DWI charges down to some lesser charge or lesser penalties can have unfortunate effects. Like formal diversion programs, plea bargains reduce the offender's punishment. Offenders may feel that they have "beaten the system" and escaped license suspension, jail, or other sanctions that should follow a DWI conviction. This sends a message to the offender and to society that DWI laws do not mean what they claim to mean, which in turn diminishes the DWI system's ability to deter drunk drivers. As with diversion, a plea bargain may also wipe the offender's record clean of any DWI arrest or conviction.

Only 16 states have laws restricting plea bargaining and some of these apply only in certain situations (NTSB, 2000). Other states may limit plea bargaining in other ways; for example, New Jersey prohibits plea bargaining by mandate of the Chief Justice (NHTSA, 1997b). All the plea bargaining laws that have been evaluated were implemented in combination with other drunk driving control activities, so the effects of plea bargain restrictions by themselves cannot be estimated unambiguously. Wagenaar et al (2000b) reviewed 52 studies of plea bargaining restrictions combined with other policies and found crash and injury reductions that averaged 11%. This suggests that restrictions on plea bargaining are a useful part of a successful drunk driving control strategy.

Plea bargains are an integral part of an efficient judicial system. However, DWI plea bargains should always have two essential features. First, the final charge must be recognized as an alcohol-related traffic offense so if the driver is arrested again he or she will be charged as a repeat offender. Second, the penalty must be appropriately

severe so the offender does not feel that he or she has escaped without any noticeable consequences.

Plea bargains are only one way to avoid the sanctions intended for DWI offenses. People familiar with the drunk driving control system provided many other examples. In some states, DWI charges are dropped routinely if BAC levels are not well above the state's *per se* limit. In some courtrooms, even people convicted of DWI are not sentenced to the required "mandatory" license suspension or other sanction for a variety of reasons. A judge may believe that the prescribed sanctions are too harsh. An offense may carry a sanction of jail time, but the jails may be full. Regardless of the reason, if intended sanctions are not applied regularly and consistently, the DWI laws are diluted, offenders soon learn that the consequences of driving drunk are not severe, and drunk driving continues.

Court monitoring programs are an effective way to increase the consistency of sentencing. In a court monitoring program, citizens observe, track, and report on DWI court activities. They follow DWI cases from arrest through disposition, record how many cases are dismissed or pled down to lesser offenses, how many result in convictions, what sanctions are imposed, and whether these sanctions are in fact carried out. Probst et al (1987) identified over 300 court monitoring programs in the mid-1980s. They contacted judges, prosecutors, and other officials in 51 court monitoring program communities. Most officials believed that the programs had a positive impact on DWI by increasing arrests, decreasing plea bargaining, and increasing guilty pleas. While some officials had suggestions for improving the programs, none believed that court monitoring should be eliminated.

Shinar (1992) studied the effects of court monitoring by reviewing all 9,137 DWI arrests in the state of Maine in 1987 and comparing the experiences of those offenders whose cases were monitored with those whose cases were not monitored. Court monitored cases produced higher conviction rates and stiffer sentences than unmonitored cases.

OFFENDER RECORD SYSTEMS.

Establish and maintain good record systems to help courts and probation officers.

Courts need good record systems for three reasons. First, they must be able to identify the offender's prior DWI record to establish the appropriate charge. Second, courts and probation offices should be able to track each offender from arrest through dismissal or sentence completion. Third, the record system should serve as a management information tool, enabling judges, prosecutors, legislators, and the public to learn how the overall system is performing and to evaluate its individual components. This means recording overall arrests, charges, convictions, plea bargains, sentences imposed, fines and fees collected, sentences completed, etc., as well as comparing the performance of different courts, judges, and prosecutors. This information in the record system should be accurate, timely, and easily accessible by all who need to use it.

These needs have long been recognized. Judges and prosecutors at NHTSA's Traffic Safety Summit II 10 years ago made such a system one of their top 10 recommendations (NHTSA, 1991). To describe the needs more precisely, NHTSA defined the characteristics of a model DWI record and information system (NHTSA, 1997a), surveyed the states to determine what record systems were in use, and conducted case studies of seven states with the best systems (NHTSA, 1997b).

The case studies were especially revealing. Only seven states had record systems that served even some of the essential functions. Some systems produced statistical reports but did not track individual offenders; others did the opposite. No system did both.

If states are to be serious about reducing drunk driving, they must establish and maintain good record systems and make the information in these systems easily available to everyone with a need to know.

ALCOHOL SCREENING.

Screen all offenders for problems with alcohol and refer them to appropriate treatment if warranted.

Many DWI first offenders and almost all repeat offenders have alcohol problems. Early and accurate assessment of alcohol problems is critical to identifying and treating these problems. Wells-Parker et al (1995), MacDonald and Mann (1996), Simpson et al (1996), and the Century Council (1997) contain detailed discussions of the role that alcohol problems play in drunk driving, the value of assessment and treatment, and examples of assessment and treatment programs. Chang et al, (2001) inventory the screening instruments used by the states and review the research studies that evaluate their effectiveness. Assessment and treatment is a key component of the hard core drinking driver programs of the Century Council (1997), MADD (2001), and NTSB (2000).

DRIVER'S LICENSE SUSPENSION.

Enforce the suspension of drivers' licenses through sanctions on the drivers and their vehicles.

The basic sanction for DWI, applied either administratively or judicially, suspension or revocation of the driver's license. Evaluations show that license suspension reduces alcohol-related crashes and DWI recidivism (see Wagenaar et al, 2000b, who reviewed 28 studies of license suspension implemented alone and another 192 studies of license suspension implemented with other drunk driving control actions). However, DWI offenders frequently drive while their licenses are suspended, perhaps less frequently and more carefully than they did before their suspension, but nevertheless in violation of the law (Griffin and DeLaZerda, 2000; Wiliszowski et al, 1996; and Ross and Gonzales, 1988). Many people interviewed noted that the inability to control driving without a valid license is a major problem.

Three general methods are used to limit driving with a suspended license.

- *Laws prohibiting driving with a suspended license.* All states of course require drivers to have a valid license, but the penalties for violations are often relatively mild. About half of the states allow additional penalties if the license was suspended for DWI, for example, canceling the offender's vehicle's registration or impounding the vehicle. These typically apply only in limited circumstances, such as for offenders with multiple prior DWIs (NHTSA, 2001a). The Uniform Vehicle Code recommends immobilization of the offender's car (through impoundment, license plate removal, or other means) as a sanction for driving after a DWI suspension (NCUTLO, 1998).

- *Vehicle sanctions for DWI.* If the offender's vehicle is seized or immobilized, he or she obviously cannot drive it (though of course he or she can still drive other vehicles). Revoking a vehicle's registration and taking away the license plates also effectively prevent it from being driven. Some states allow special license plates to be used on the offender's vehicle. These allow police to stop the vehicle to verify that the offender is not driving.

- *Driver controls.* Methods to restrict or monitor a driver's actions, such as incarceration, house arrest, or electronic monitoring, provide various degrees of control. Frequent meetings with probation officers can provide a less accurate control.

Laws requiring a valid license are difficult to enforce. Since police require a valid reason for a traffic stop, a driver with a suspended license who is careful to obey all traffic laws is extremely unlikely to be stopped except at a checkpoint. Further, the laws will have little impact unless they carry an appropriately severe penalty that is applied consistently. Driver controls are typically imposed only on repeat offenders.

A strategy of impounding or immobilizing an unlicensed driver's vehicle or of taking the vehicle's license plate shows the most promise for attacking these problems. Vehicle impoundment is severe enough to deter many who may otherwise choose to drive unlicensed. When applied administratively, at the time of arrest, it is also swift. Voas and DeYoung (2001) reviewed evaluations of 10 different vehicle sanction programs and found strong evidence that vehicle seizure or immobilization reduces both driving with a suspended license and DWI.

In addition to license actions, DWI sanctions may include fines, community service, jail or other confinement, and probation. These penalties increase for repeat offenders. All states permit substantial penalties; most states appear to require them. For example, 47 states require at least 48 hours of jail (or an equivalent, such as home confinement) for a second DWI offense (NHTSA, 2001a). However, many interviewees noted that these sanctions were not applied consistently, either by allowing offenders to plead to a lesser offense or by failing to impose the mandatory sanctions. Consequently, these apparently stiff sanctions fail to deter many drunk

drivers. The solution is not to require even stiffer sanctions. Rather, it is to make sure that current mandatory minimum sanctions are applied as consistently as possible and also to use other penalties, such as vehicle sanctions, that will be applied consistently and that are sufficiently severe to deter drunk drivers.

Offender followup

Sentences serve little purpose if their requirements are not followed. Violations of driver license suspensions, discussed previously, are but one example. DWI offenders often fail to complete their required treatment or community service obligations. Too often their only penalty is that they cannot reinstate their driver's license. So they continue to drive unlicensed, thereby compounding the problem. The solution is to monitor all DWI offenders closely.

PROBATION.

Control DWI offenders closely during probation. Use home detention, electronic monitoring, or jail as appropriate.

Probation is the most common monitoring method: requiring periodic visits to a probation officer who monitors progress and refers any problems back to the courts. Very frequent probation contact may be necessary for offenders just beginning assigned treatment or community service. This is impossible as long as probation caseloads are in the hundreds, as is far too often the case. Some jurisdictions have used an "intensive probation" system with low caseloads (30 or so) and very frequent contact with encouraging results (Jones and Lacey, 2000). For high-risk offenders, more direct control such as house arrest, perhaps including work release or electronic monitoring, also appears promising. Individual courts have developed their own monitoring systems, again with very good results (Jones and Lacey, 2000). For multiple offenders, special dedicated detention facilities combine confinement with counseling and alcohol treatment, leading to work release (Century Council, 1997).

DATA.

Establish and maintain data systems to track each DWI offender.

Monitoring the system's overall performance and identifying problems requires good data. Every court should be able to track the progress of each offender from the time of arrest to the final disposition of all sanction requirements and re-licensing. This helps the judicial system both to identify those individuals who are not progressing as expected and to monitor the system's overall performance.

INTERLOCKS.

Consider expanding the use of interlocks for DWI offenders.

Vehicle ignition interlocks both control and monitor offenders' driving after they reinstate their licenses. An interlock requires the driver to pass a BAC breath test

before the car can be started. An interlock permits the car to be driven but guarantees that the driver will be sober. While interlocks cannot prevent the offender from driving some other car, evaluations show that interlocks reduce DWI recidivism substantially while they are installed on an offender's vehicle (Coben and Larkin, 1999; Voas et al, 1999; and Marques, forthcoming).

DWI COURTS.

Consider establishing special DWI courts.

A systematic approach to the whole process of sentencing and monitoring offenders has been developed and used with drug offenders. Drug courts are built around the principles of punishing the offense while identifying the offender's underlying drug problem or addiction, treating the problem, and monitoring the offender closely for a long time to help him or her rejoin society. More than 600 drug courts are operating currently. Evaluations have shown that they are effective in reducing drug use and criminal behavior, both while offenders are under the supervision of the court and subsequently (Belenko, 1999). Several jurisdictions have included DWI and other alcohol crime offenders in their drug courts or have established separate DWI courts that follow the same model. What limited evaluation evidence is available shows that it is likely that close monitoring, alcohol treatment, and other features of DWI courts can reduce DWI recidivism substantially (NDCI, 1999; Jones and Lacey, 1998; and Jones and Lacey, 2000).

System support

PUBLIC EDUCATION.

Expand public education on drinking and driving issues.

Education is especially critical for young people. Many excellent programs inform children and young people about alcohol issues, provide positive peer models, and involve parents and communities in building healthy lifestyles. They form a key part of the foundation of the drunk driving control system and cannot be ignored.

Publicizing DWI enforcement, adjudication, and sanctions is especially important. Publicity is essential to deterrence. A law that nobody knows about cannot influence behavior. Enforcement conducted in secret may catch violators but will not deter anyone. Penalties will deter only if the public knows about them. The enforcement community acknowledges this principle; checkpoints were designed precisely to provide broad publicity for DWI enforcement, not to increase arrests. States, communities, law enforcement, and media must make every effort to publicize their DWI laws, enforcement, and sanctions.

RESOURCES.

Provide law enforcement, courts, probation, treatment, and motor vehicle departments with adequate resources.

Drunk driving control costs money — for law enforcement staff and equipment, for court record systems, for motor vehicle department hearings, for probation officers, and for treatment programs. States must provide adequate and steady funding that is not dependent on Federal grants or other temporary sources. Steady funding was a key characteristic of those states that have reduced drunk driving substantially over the past 20 years (Ulmer et al, forthcoming). If funding levels are inadequate, the consequences will not only include higher drunk driving crash, injury, and fatality tolls but also high direct and indirect costs to states, communities, and individuals. Miller et al (1998) estimated that traffic crashes involving drivers with a BAC of 0.08 or higher cost the nation \$41 billion in direct monetary expenses in 1995 or \$229 per licensed driver.

Several states have established dedicated funding methods for drunk driving control activities. New York's STOP-DWI (Special Traffic Operations Program for Driving While Intoxicated) is one of the most successful and well known (and is mentioned by name, often enviously, by interviewees from other states). Established in 1981, STOP-DWI sends funds collected from mandatory DWI fines directly to each county for use in DWI enforcement, prosecution, rehabilitation, and treatment (NHTSA, 1997b). In recent years, STOP-DWI has provided the counties with between \$18 and \$20 million annually (New York, 2000). Evaluation data show that STOP-DWI funds helped to reduce drunk driving crashes and injuries (McCartt and Dowling, 1985).

RESEARCH AND EVALUATION.

Explore new strategies for controlling drunk driving, evaluate current drunk driving laws and programs, and collect complete and accurate data on drunk driving (TRB, 2000, and TRB, 2001).

Various new technologies suggest many research possibilities. For example, the technology now exists for drivers' licenses to include bar-coded or electronic chip information that identifies the driver and the license status. If a valid license were required to start and operate a car, just as a bank card is used to withdraw funds from an automated teller, driving with an invalid license would be reduced dramatically. Alternatively, a driver's license status could be monitored from a device outside the car, in much the same way that an "EZ-Pass" toll reader records information from a car passing through a tollbooth. Research is needed to investigate whether such methods are technically feasible and cost-effective and to consider issues of personal privacy and government monitoring. Automated in-vehicle crash warning or crash avoidance systems, which are soon to be included in production vehicles, should reduce crash and injury risks for everyone, including drunk drivers (Economist, 2001).

Evaluation is critical. Drunk driving control actions are often difficult to evaluate because they are put into place in the real world under constantly changing circumstances, often in conjunction with other actions and far from the controlled

conditions of a scientific experiment. Nevertheless, the actions must be evaluated to the fullest extent possible so that effective strategies can be encouraged and ineffective ones abandoned. Evaluation should not be an afterthought but an essential part of program implementation.

Tracking the overall drunk driving problem and evaluating specific programs require good data. For the past 20 years, most basic data have come from FARS fatal crash records. FARS, in turn, depends on state BAC tests for data on drivers involved in fatal crashes. Nationwide, in 1999, 62% of the fatally injured drivers and only 25% of the surviving drivers in fatal crashes had a recorded BAC test result (NHTSA, 2000a). The testing rate has increased only slightly since 1982 when 54% of the fatally injured drivers and 16% of the surviving drivers were tested. In 1999, seven states and the District of Columbia tested less than half of their fatally injured drivers and nine states tested less than 10% of the surviving drivers. There is no reason why all states cannot join the 21 that test more than 80% of their fatally injured drivers and the nine testing more than 50% of surviving drivers.

OVERSIGHT AND LEADERSHIP.

Provide high-level state oversight, visibility, and leadership of drunk driving control activities.

States establish, direct, and operate the key drunk driving control activities: enacting laws, enforcing them, adjudicating violations, and sanctioning convicted drunk drivers. States control many of the resources needed to perform these activities. High-level state oversight, visibility, and leadership are critical in monitoring these operations, identifying and fixing problems, ensuring that programs receive necessary resources, and in publicizing the results.

Leadership and oversight can occur in different ways. In some states, the Governor, Attorney General, Secretary of Transportation, or other high-ranking official has taken a personal interest in drunk driving control. In others, the Governor's Highway Safety Representative plays this role. However, in many states, the Governor's Representative does not have a sufficiently close relationship with the Governor or with key components of the drunk driving control system — the highway patrol, motor vehicle department, and attorney general — to command the necessary leadership. Law enforcement, courts, and motor vehicle departments must understand and accept their responsibilities for drunk driving control and must have the resources to carry out these responsibilities.

In many states, drunk driving task forces have played critical roles in uncovering and clarifying drunk driving issues, drafting and supporting legislation, and focusing the public's attention on drunk driving. In California, a task force in the early 1980s reviewed the state's drunk driver control system and developed and implemented major improvements (Peck, 1987). Minnesota's task force has been active since 1982 and has been instrumental in enacting innovative DWI legislation, including the

criminalization of implied consent refusals, administrative license plate impoundment, and intensive probation for repeat offenders. New York's task force in 1980 and 1981 developed a systematic approach that led to important DWI legislation such as plea bargain restrictions and mandatory minimum penalties, improved record systems, and dedicated funding through STOP-DWI (New York, 1981).

Task forces were active in at least 12 of the 20 states in which assessments of impaired driving programs were conducted in the early 1990s: Colorado, Georgia, Hawaii, Illinois, Maryland, Michigan, Minnesota, Montana, Oregon, Texas, Virginia, and West Virginia. Other states had task forces with a more limited scope, such as youth impaired driving or repeat offenders (NHTSA, 1991-1998). Utah recently formed a new task force (Dillon et al, 2001). These task forces typically include representatives from all major public and private sector constituencies.

States should use the most appropriate means for their structures and needs when establishing high-level oversight and leadership. Without this, drunk driving will fail to achieve the priority, public attention, and resources needed to make progress.

Summary

Drunk driving laws, enforcement, adjudication, and system support can be improved to address problems. The recommendations in this chapter suggest which specific issues need to be addressed. Many effective laws, enforcement practices, courts, probation offices, and support systems are operating in states and communities across the country and can serve as best practice examples.

CHAPTER 8

Action — Implementing the recommendations

Chapter 7 recommended 20 actions to improve state drunk driving control systems. While far from being unanimously approved, these recommendations are supported by a broad consensus of drunk driving control experts and by the people interviewed for this study. The actions address well-documented system weaknesses. They are practical: most are in place currently in some states and communities. They are short-term: each can be implemented within the next few years. Each contributes to the overall goal of improving the drunk driving control system, increasing the likelihood that drunk drivers will be detected, arrested, and punished, which in turn deters more people from driving drunk.

Deciding what to do may be easier than deciding how to get it done and identifying who should do what. This chapter suggests three specific strategies at the community, state, and national level that can be used to implement the action recommendations.

The three strategies provide the essential ingredients that states, communities, and national organizations need to put the action recommendations into practice. The first — system monitoring — supplies information on the performance of state and community drunk driving control systems that is needed to identify and address problems. The second — state task forces — establishes a management structure within each state with the responsibility, authority, and scope to address a broad range of system issues. The third — Federal reauthorization — ensures the critical funding that states and communities will need to implement system improvements.

As with the action recommendations, the three strategies are practical, short-term, and effective. Collectively they address all of the specific action recommendations. While they are far from unique, they establish a proven structure that in turn will supply the information, management, and funding needed to put the action recommendations into practice.

Drunk driving control system monitoring program

Any effort to improve a state's drunk driving control system must begin with good information about its performance. What is working well and what is not? Do

problems with DWI laws hinder enforcement and adjudication? Are DWI arrest levels rising or falling? Is BAC test refusal a problem? Are DWI arrests regularly pleaded down or dismissed? Are probation violations detected and dealt with promptly?

Some states collect some of this information regularly and report it to the public. Others do not, or report only a portion. The information provided is rarely up to date or available for individual communities in a disaggregated form.

While the judges and prosecutors of the courts are at the core of the drunk driving control system, there is little public information available on their performance, successes, or problems. Partly as a result, the courts have not received the public attention, encouragement, or resources that they need.

A drunk driving control system monitoring program in each state could provide this information. In states with good records from law enforcement, motor vehicle departments, courts, probation, and treatment, some of the information could come directly from these records. In many states, though, some direct data collection, analysis, and reporting at the community level will be necessary.

A system monitoring program can be designed nationally and applied locally. It can build on the court monitoring programs that operated so effectively in many communities in the 1980s. MADD appears eager to resume active court monitoring. AAA clubs could join with them in an expanded system monitoring program, as could AARP (the American Association of Retired Persons) and community service organizations. MADD, AAA, NAGHSR, AAMVA, NHTSA, and the Office of Justice Programs in USDOJ could work together to design a drunk driving control system monitoring program and to assist states and communities in implementing it.

Media will eagerly report the results of system monitoring and may even participate in its design and operation. Coverage in the *Deseret News*, *St. Paul Pioneer Press*, and *Washington Post* illustrates how system monitoring can produce front-page news (Dillon et al, 2001; Linsk et al, 2001; and Shaver and Fallis, 2000). Equally important, the media can highlight outstanding judges, prosecutors, law enforcement and probation officers and recognize their excellent public service.

Issues revealed by system monitoring should easily gain the attention of public officials and legislators. System monitoring results can also be the basis of a new message from the drunk driving prevention community — a message that is local (individual successes and failures and local statistics), state (compares system performance across states), and national (common problem areas where national attention is needed).

State Drunk Driving Task Forces

A state drunk driving task force is an excellent way for a state to review its drunk driving control activities, identify necessary improvements, and take action. A state task force can include representatives from all constituencies affected by or responsible for some part of drunk driving control: law enforcement, courts, probation, treatment, highway safety, motor vehicle administration, alcohol control, alcohol distributors and retailers, schools and colleges, community organizations, citizen groups, the legislature, and others. The task force can have high-level access to and authority from the governor and the legislature and easily can publicize its activities, findings, and recommendations. Most important, by being inclusive and authoritative, a task force can get things done. During the past 20 years, many states have at some time had drunk driving task forces that played major roles in improving drunk driving legislation and systems. Some are still active.

The time is ripe for states to reinvigorate their existing task forces or to appoint new ones. The task forces should be charged with reviewing the existing system and recommending improvements in six key areas:

- *Drunk driving laws and procedures.* Consider BAC limits, BAC test refusal, zero tolerance law provisions, ALR procedures, diversion, alcohol problem screening and assessment, and the entire range of offender sanctions and requirements, including vehicle sanctions, alcohol treatment, and interlocks.
- *Driver and offender record systems.* Consider whether driver license records are accurate, up-to-date, and easily accessible by all who need them, as well as whether DWI offenders are tracked individually from arrest through sentence disposition and, if so, whether these records are accurate, timely, and accessible.
- *Drunk driving enforcement operations.* Decide if law enforcement puts a high enough priority on drunk driving, training and equipment, processing policies and procedures, and enforcement practices for minimum drinking age and zero tolerance laws.
- *Court and probation operations.* Review caseloads, plea arrangements, diversion and conviction rates, and sentences imposed and served.
- *Resource needs and funding streams for all drunk driving control components.* Review funding and operations of motor vehicle departments, law enforcement, courts, probation, and treatment. States should carefully consider the overall costs and benefits of increased or decreased spending and should explore all potential funding sources, including dedicated DWI offender fines or fees and Federal grants for infrastructure improvements or operations.
- *Authority, responsibility, and coordination among the state agencies dealing with*

some aspect of drunk driving control. Review the participation of and coordination among the highway safety office, highway patrol, Attorney General, Department of Health, Department of Motor Vehicles, and others.

Peck (1987) describes how California conducted such a review 20 years ago that led to improvements in California's DWI control system. New York did the same in 1980-81 (New York, 1981). NHTSA's new State Alcohol Forums provide states with an excellent means for beginning their reviews.

State drunk driving grant reauthorization

Federal grants have become a critical component of the nation's drunk driving control program, both by supplying funds for state operations and by encouraging states to adopt successful strategies. The current grant programs of TEA-21 are somewhat successful on both counts but could be improved substantially. They are overly bureaucratic, involving far too much paperwork; they are at the same time too controlling (specifying very precise measures that many states find illogical, unproven, and burdensome, such as the requirement for an interlock on each car owned by a repeat drunk driving offender) and too lax (with few requirements and virtually no accountability as to how states use their Section 402 funds).

To be most effective, the grant program should follow several basic principles.

- *Reward and encourage:* Reward states for reducing drunk driving or for sustaining an excellent record but at the same time encourage weaker states to improve.
- *Flexible and accountable:* Recognize that all states are not the same, that the same measures may not apply equally well nationwide, but at the same time hold each state responsible for the wise use of its funds.
- *Procedurally simple:* Make application, renewal, and reporting procedures as simple as possible to minimize the time and paperwork needed by all, while at the same time ensuring that states satisfy all requirements.
- *Steady funding:* Ensure long-term funding levels for states in return for steady performance, so that states can plan intelligently for several years in advance (drunk driving is a long-term problem and requires a long-term commitment).

The following specific suggestions are appropriate for drunk driving grant programs in the reauthorization to succeed TEA-21.

- Use performance-based criteria. Do not specify what laws or programs states should adopt, especially when the laws or programs are not backed up with solid research evidence. Instead, hold states accountable for monitoring and reporting on their drunk driving control activities and their bottom-line results.

- Make initial funding available to all states but provide subsequent funding only if performance goals are reached.
- Require states to establish or continue drunk driving task forces with broad representation and high-level access.
- Provide substantial funding for states to improve their traffic record and offender tracking systems — a long-term infrastructure investment that is essential for drunk driving control.
- Require USDOT, USDOJ, and USDHHS to work together in designing and operating these grant programs to ensure cooperation among the Federal agencies that must cooperate to address drunk driving in the states.

Many interviewees pointed out that current grant programs fall short of meeting many of these principles. Everyone recognizes that grant programs must successfully balance many different interests, not the least of which is their ability to be enacted by Congress and signed by the President. The principles and suggestions listed above may guide lawmakers and others in the difficult task of revising grant programs for the next reauthorization bill.

Supporting activities

The primary responsibility for system monitoring belongs to citizen groups, for task forces to states, and for reauthorization to Congress. Other organizations also have important roles to play. NHTSA in particular can provide critical assistance at all levels. The following suggestions outline some possible steps.

SYSTEM MONITORING.

NHTSA, MADD, AAA, NAGHSR AAMVA, and USDOJ should collaborate to design and help states implement a strategy for monitoring the drunk driving control system.

STATE DRUNK DRIVING TASK FORCES.

NHTSA should lead or facilitate activities with USDOJ, USDHHS, NAGHSR, AAMVA, law enforcement, court, probation organizations, and citizen groups to:

- Define a model for state drunk driving control programs, perhaps starting with existing guidelines for Section 402 drunk driving activities.
- Establish performance measures for state drunk driving enforcement and adjudication.
- Establish methods by which states can assist each other in assessing their drunk driving laws or court procedures, perhaps using NHTSA's existing state drunk driving and other traffic safety program assessments as models.
- Establish a clearinghouse for standards and improvements in state records systems.

STATE GRANT REAUTHORIZATION.

To assist reauthorization considerations, NHTSA should:

- Report annually on the performance of state Section 402 grant programs, showing each state's performance targets, activities, and achievements in drunk driving and other traffic safety areas.
- Define drunk driving performance measures that can be used to establish state goals and monitor effectiveness.
- Encourage states to increase their BAC testing rates, thus improving one method for measuring state drunk driving control performance.

All organizations involved in drunk driving prevention and control should begin planning for reauthorization and should consider seriously how the current grant programs can be improved.

Concluding thoughts

There are many ways to improve state drunk driving control systems along the lines suggested in Chapter 7. The most effective ways are likely to follow several principles. They will invest authority and responsibility in people and organizations at all levels, local to national, because drunk driving control requires action at all levels. They will operate in the public eye, using the media to report on problems and solutions, because ultimate decisions on drunk driving control priority and resources must have public support. They will not promise an instant solution based on a single action but rather look to the long run by taking steady steps to improvement. And they will establish mechanisms for identifying and solving problems rather than attempting to apply one-size-fits-all solutions whether they make sense or not. The three specific action recommendations are one way to turn these principles into action.

Drunk driving control is a long, slow process of changing social norms and practices regarding drinking and driving. These norms and practices already have changed substantially, and these changes are evident in the substantial reduction in drunk driving crashes, injuries, and fatalities. Very few social problems have been reduced by 37% over 18 years as has drunk driving (measured by alcohol-related traffic fatalities). Advocates for other issues that have had similar success might be pleased to declare victory and merely maintain their gains. Drunk driving control advocates are not. The goal is a drunk driving control system, extending from detection to rehabilitation, that is open, effective, consistent, and accountable. The result will be further reductions in alcohol-related deaths and injuries and increasing recognition that drinking and driving is socially unacceptable. All that is needed is leadership and commitment.

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APPENDIX B. Glossary of terms and abbreviations

AAA American Automobile Association.

AAMVA American Association of Motor Vehicle Administrators.

Alcohol-related traffic fatality

A traffic fatality in which at least one driver or non-motorist was estimated to have a positive BAC (as reported by FARS).

ALR Administrative License Revocation.

ASAP Alcohol Safety Action Project.

BAC Alcohol concentration in the body, originally measured using alcohol in blood (BAC stands for Blood Alcohol Concentration, expressed in milligrams of alcohol per 100 milliliters of blood), now typically measured using alcohol in breath.

CAGE A four-question scale used to screen for problem drinkers: “Cut down” (Have you felt you should cut down on your drinking?), “Annoyed” (Have people annoyed you by criticizing your drinking?), “Guilty” (Have you felt guilty about your drinking?), and “Eye-opener” (Have you had a drink first thing in the morning?).

CDCP Centers for Disease Control and Prevention.

Drinking driver

A driver with any positive BAC.


Drunk driving

Driving with a BAC level exceeding a state’s *per se* level or while sufficiently impaired by alcohol to be guilty of DWI.

DWI The offense of driving while impaired by alcohol. The formal offense differs from state to state (Driving While Impaired, Driving While Intoxicated, and Driving Under the Influence are common). In this report, DWI is used to describe each state’s primary impaired driving offense.


FARS Fatality Analysis Reporting System, NHTSA’s database of all traffic crashes on public roadways in the United States that produced at least one fatality within 30 days of the crash.

<i>ICBC</i>	Insurance Corporation of British Columbia.
<i>MADD</i>	Mothers Against Drunk Driving.
<i>NCUTLO</i>	National Committee on Uniform Traffic Laws and Ordinances.
<i>NDCI</i>	National Drug Control Institute.
<i>NHTSA</i>	National Highway Traffic Safety Administration.
<i>NIAAA</i>	National Institute on Alcohol Abuse and Alcoholism.
<i>NTSB</i>	National Transportation Safety Board.
<i>Per se</i>	A law prohibiting driving with a BAC exceeding a specified level.
<i>RID</i>	Remove Intoxicated Drivers.
<i>SADD</i>	Students Against Destructive Decisions, formerly Students Against Driving Drunk.
<i>TIRF</i>	Traffic Injury Research Foundation.
<i>TRB</i>	Transportation Research Board.
<i>USDHHS</i>	United States Department of Health and Human Services.
<i>USDOJ</i>	United States Department of Justice.
<i>USDOT</i>	United States Department of Transportation.
<i>USGAO</i>	United States General Accounting Office.

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