U.S. Department of Justice
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Problem-Oriented Guides for Police
Problem-Specific Guides Series
No. 36

Drunk Driving

by
Michael S. Scott

with

Nina J. Emerson
Louis B. Antonacci
Joel B. Plant

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About the Problem-Specific Guides Series

The *Problem-Specific Guides* summarize knowledge about how police can reduce the harm caused by specific crime and disorder problems. They are guides to prevention and to improving the overall response to incidents, not to investigating offenses or handling specific incidents. The guides are written for police—of whatever rank or assignment—who must address the specific problem the guides cover. The guides will be most useful to officers who:

- **Understand basic problem-oriented policing principles and methods.** The guides are not primers in problem-oriented policing. They deal only briefly with the initial decision to focus on a particular problem, methods to analyze the problem, and means to assess the results of a problem-oriented policing project. They are designed to help police decide how best to analyze and address a problem they have already identified. (A companion series of *Problem-Solving Tools* guides has been produced to aid in various aspects of problem analysis and assessment.)

- **Can look at a problem in depth.** Depending on the complexity of the problem, you should be prepared to spend perhaps weeks, or even months, analyzing and responding to it. Carefully studying a problem before responding helps you design the right strategy, one that is most likely to work in your community. You should not blindly adopt the responses others have used; you must decide whether they are appropriate to your local situation. What is true in one place may not be true elsewhere; what works in one place may not work everywhere.

- **Are willing to consider new ways of doing police business.** The guides describe responses that other police departments have used or that researchers have tested. While not all of these responses will be appropriate to your particular problem, they should help give a broader view of the kinds of things you could do. You may think you cannot implement some of these responses in your jurisdiction, but perhaps you can. In many places, when police have discovered a more effective response, they have succeeded in having laws and policies changed, improving the response to the problem.

- **Understand the value and the limits of research knowledge.** For some types of problems, a lot of useful research is available to the police; for other problems, little is available. Accordingly, some guides in this series summarize existing research whereas other guides illustrate the need for more research on that particular problem. Regardless, research has not provided definitive answers to all the questions you might have about the problem. The research may help get you started in designing your own responses, but it cannot tell you exactly what to do. This will depend greatly on the particular nature of your local problem. In the interest of keeping the guides readable, not every piece of relevant research has been cited, nor has every point been attributed to its sources. To have done so would have overwhelmed and distracted the reader. The references listed at the end of each guide are those drawn on most heavily; they are not a complete bibliography of research on the subject.

- **Are willing to work with others to find effective solutions to the problem.** The police alone cannot implement many of the responses discussed in the guides. They must frequently implement them in partnership with

other responsible private and public entities including other government agencies, non-governmental organizations, private businesses, public utilities, community groups, and individual citizens. An effective problem-solver must know how to forge genuine partnerships with others and be prepared to invest considerable effort in making these partnerships work. Each guide identifies particular entities in the community with whom police might work to improve the overall response to that problem. Thorough analysis of problems often reveals that entities other than the police are in a stronger position to address problems and that police ought to shift some greater responsibility to them to do so.

The COPS Office defines community policing as "a policing philosophy that promotes and supports organizational strategies to address the causes and reduce the fear of crime and social disorder through problem-solving tactics and police-community partnerships." These guides emphasize *problem-solving* and *police-community partnerships* in the context of addressing specific public safety problems. For the most part, the organizational strategies that can facilitate problem-solving and police-community partnerships vary considerably and discussion of them is beyond the scope of these guides.

These guides have drawn on research findings and police practices in the United States, the United Kingdom, Canada, Australia, New Zealand, the Netherlands, and Scandinavia. Even though laws, customs and police practices vary from country to country, it is apparent that the police everywhere experience common problems. In a world that is becoming increasingly interconnected, it is important that police be aware of research and successful practices beyond the borders of their own countries.

The COPS Office and the authors encourage you to provide feedback on this guide and to report on your own agency's experiences dealing with a similar problem. Your agency may have effectively addressed a problem using responses not considered in these guides and your experiences and knowledge could benefit others. This information will be used to update the guides. If you wish to provide feedback and share your experiences it should be sent via e-mail to cops_pubs@usdoj.gov

For more information about problem-oriented policing, visit the Center for Problem-Oriented Policing online at www.popcenter.org. This website offers free online access to:

- the Problem-Specific Guides series
- the companion Response Guides and Problem-Solving Tools series
- instructional information about problem-oriented policing and related topics
- an interactive training exercise
- online access to important police research and practices.

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The *Problem-Oriented Guides for Police* are very much a collaborative effort. While each guide has a primary author, other project team members, COPS Office staff and anonymous peer reviewers contributed to each guide by proposing text, recommending research and offering suggestions on matters of format and style.

The principal project team developing the guide series comprised Herman Goldstein, professor emeritus, University of Wisconsin Law School; Ronald V. Clarke, professor of criminal justice, Rutgers University; John E. Eck, professor of criminal justice, University of Cincinnati; Michael S. Scott, clinical assistant professor, University of Wisconsin Law School; Rana Sampson, police consultant, San Diego; and Deborah Lamm Weisel, director of police research, North Carolina State University.

Cynthia Pappas oversaw the project for the COPS Office. Stephen Lynch edited the guide. Research for the guides was conducted at the Criminal Justice Library at Rutgers University under the direction of Phyllis Schultze.

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The Problem of Drunk Driving

This guide begins by describing the problem of drunk driving[§] and reviewing the factors that increase its risks. It then identifies a series of questions that can help analyze local drunk driving problems. Finally, it reviews responses to the problem of drunk driving and examines what is known about the effectiveness of these responses from research and police practice.[§§]

Simply put, drunk driving is a police concern because alcohol increases the risk that drivers will get in traffic crashes and kill or injure themselves or others. Alcohol impairment is the primary factor in traffic fatalities.[1] In the United States, where drunk driving is among the most common types of arrest made by police, the number of alcohol-related crash deaths[§§§] is roughly the same as the number of homicides.[2] In addition, vehicle crashes are the leading cause of death in young people ages 15 to 20; many of these are alcohol-related.[3]

Related Problems

Drunk driving is one of a number of problems police confront that relate to impaired and dangerous driving. Others, which may require separate analysis and response, include:

- driving under the influence of controlled substances[§§§§]
- underage drinking
- street racing
- speeding
- aggressive driving
- driving with a suspended or revoked license
- hit-and-run crashes.

§ Various terms are used to describe the problem: "drunk driving," "drunken driving," "drink driving," "driving under the influence" (DUI), "driving while intoxicated" (DWI), and "operating while intoxicated" (OWI) are among the most common.

§§ The Century Council, a non-profit organization funded by U.S. alcohol distillers, publishes a sourcebook on combating drunk driving that also surveys relevant research and practice (Century Council 2003). The sourcebook can be accessed online at http://dwidata.org/

§§§ It is important to bear in mind that alcohol-related crashes and crashes caused by drunk driving are not necessarily the same thing. Alcohol-related crashes are typically defined as those in which a driver or injured pedestrian has any measurable blood alcohol, many of which will fall below legal levels for drunk driving.

§§§§ Much, but not all, of the information in this guide also pertains to the problem of driving under the influence of other controlled substances.

Harm Caused by Drunk Driving

Drunk driving harms individuals and communities in many ways.

- Drivers, passengers, and pedestrians are killed and injured.
- Injured persons, their families, and their employers suffer financial losses when an injured person cannot work.
- Vehicles are damaged and destroyed.
- Other property, such as trees, utility poles, highway signs, and buildings, are damaged and destroyed.
- Motor vehicle insurance rates rise.
- Traffic flow is impeded by crashed vehicles.
- Other drivers, fearing for their safety, may avoid driving at certain times.
- Police resources are consumed enforcing drunk driving laws, thereby reducing the resources that are available for other public safety problems.
- Police, fire, emergency medical, and hospital resources are consumed treating the victims of drunk driving crashes.
- Court and jail resources are consumed prosecuting and incarcerating drunk drivers.

Drunk Drivers

One of the reasons drunk driving is of such concern to police is that it is an offense committed by a broad spectrum of the population, including those who are otherwise generally law-abiding. An estimated one-fifth to one-fourth of U.S. drivers admit to having driven after drinking at least once within the past year,[4] and about five percent estimate that they were legally impaired.[5] Drunk

drivers come from all parts of the population spectrum, but are more likely to be male,[6] white or Hispanic,[7] between 25 and 44 years of age,[8] unemployed or working class,[9] and unmarried.[10] Drunk drivers are more likely to be heavy drinkers or to have drinking problems.[11] Drinking drivers under 21 years of age are about twice as likely as older drivers to be involved in fatal vehicle crashes.[12]

Recent roadside surveys in the United States indicate that about three percent of drivers at any particular time are legally impaired. On weekend evenings the number of drunk drivers rises significantly: about eight percent of all drivers have blood alcohol concentrations greater than .05, and an additional nine percent of drivers have had at least one drink, meaning that on weekend evenings around 17 percent of all drivers are operating their vehicles under the influence of at least some alcohol.[13,§] Considering the high traffic volume during this period, it is clear that there are a lot of impaired drivers, especially compared to the limited law enforcement resources that are available to investigate suspected incidents of drunk driving.

Although the general public and the police are perhaps most concerned about wholly innocent persons who are killed in alcohol-related crashes, it is in fact the drunk driver or his passenger who is most likely to be killed. In recent years, significant reductions have been achieved in the number of young drivers killed in alcohol-related crashes, due largely to higher legal drinking ages, greater licensing restrictions on young drivers, and stricter enforcement of juvenile drunk driving laws.[15,§§]

§ Blood alcohol concentration is typically measured as a ratio of grams of alcohol per deciliter of blood or per 210 liters of breath.

§§ For further information about how to develop a comprehensive approach to juvenile drunk driving, see Strategies for Success: Combating Juvenile DUI (National Highway Traffic Safety Administration, Police Executive Research Forum, and U.S. Office of Juvenile Justice and Delinquency Prevention, 1999).

Milford Community Fire Department

Alcohol is a primary factor in a large number of fatal traffic accidents. In fact, the number of U.S. alcohol-related traffic deaths is roughly the same as the number of homicides.

Repeat Offenders

By most estimates, although repeat drunk drivers comprise a relatively small proportion of the total population of drivers, they are disproportionately responsible for alcohol-related crashes and other problems associated with drunk driving.[16] In fact, anywhere from one-third to three-fourths of drivers arrested for drunk driving have previously been charged with the offense.[17] Those who drink and drive at least twice per month account for about 90 percent of all drunk driving trips.[18] In the United States, one-third to one-half of those charged with drunk driving will be charged with it again in the future.[19] However, even though repeat offenders are disproportionately involved in traffic crashes, most alcohol-related crashes are caused by drivers who have not previously been charged with drunk driving, so police must pay attention to both repeat and first-time offenders.

Blood Alcohol Levels

Perception and motor skills are impaired by a blood alcohol concentration of as low as .05, which is typically two or three drinks for the average adult.[20] Although drivers with blood alcohol concentrations of .15 and above are much more likely to be involved in serious or fatal traffic crashes,[21,§] drivers with lower concentrations remain at a substantial risk for less serious crashes.[22] In addition, many drivers are impaired by alcohol in combination with other controlled substances. Low blood alcohol concentrations of obviously impaired drivers are often due to the presence of substances other than alcohol.[23]

§ Although blood alcohol concentration affects individual drivers differently, on average, the risk of a driver getting in a serious vehicle crash roughly doubles when his blood alcohol concentration reaches .05, increases ten-fold at .08, twenty-fold at .10, and by a factor of hundreds at .15 and above (Ross, 1992).

Drinking Locations

A relatively high percentage of drunk drivers—perhaps one-third to one-half—consume their alcohol in a licensed establishment such as a bar or restaurant.[24] Nearly one-half of drivers with measurable levels of alcohol in their systems claim to have been drinking at the home of a friend, making social hosts an important factor in controlling drunk driving.[25] In addition, a significant amount of drinking is done in vehicles themselves, especially by underage drivers who are not permitted in licensed establishments and by drivers with serious alcohol problems.[26]

Factors Contributing to Drunk Driving

Understanding the factors that contribute to drunk driving in your jurisdiction can help to frame local analysis, to identify effective remedial measures, to recognize key intervention points, and to select appropriate responses.

Cultural and Economic Factors

Drunk driving is very much the result of a cultural norm that emphasizes drinking alcohol as a form of entertainment and driving as both transportation and entertainment.[27] Cultural drinking habits also shape drunk driving patterns. For example, drunk driving will be more concentrated on weekend nights in countries where such nights are considered prime time for heavy drinking. The extent of drunk driving also depends, obviously, on the availability of vehicles, so it is less likely in societies and communities where vehicles are prohibitively expensive.

Low Risk of Apprehension

Perhaps the single most significant factor in explaining why people drive while impaired is that they believe that there is little risk that they will be caught by police—and statistically, they are correct. By some estimates, the average drunk driver will drive while impaired between 80 and 2000 times for every time he is apprehended, depending on the enforcement capacity of the local police.[28] In fact, most drivers believe they are more likely to be involved in a crash than they are to be stopped by police.[29]

Even the most committed police agencies and officers can stop or arrest only a very small percentage of the impaired drivers who are on the road at any one time—probably less than one percent. There are several reasons this is so:

- At least in the United States, police must ordinarily reasonably suspect a driver is impaired or has committed some other traffic violation in order to stop and detain the driver, and some drunk drivers are able to operate a vehicle without displaying obvious indicators of intoxication such as weaving or crossing the center line of the road.
- There are far fewer police officers on duty at any one time than the public commonly imagines.
- There are many competing priorities for police attention, particularly at times when drunk driving is at its peak.
- Processing a drunk driving arrest is time-consuming, typically taking two to four hours.

The low probability that they will be stopped or arrested by the police on any particular trip undoubtedly leads many drivers to conclude that they can drink and drive without getting caught.

Detecting drunk driving is not as easy as it might seem. Those without specialized training in detecting alcohol impairment—even medical professionals—are notoriously poor at estimating alcohol impairment. For police, detecting drunk driving typically requires two separate judgments: first, that a vehicle is being operated by an impaired driver; and second, that the driver is impaired by alcohol or another controlled substance. Each judgment is in turn subject to two kinds of errors: first, that the driver is impaired by alcohol when in fact he is not (false positive); and second, that the driver is not impaired by alcohol when in fact he is (false negative).

Compounding the difficulty of estimating impairment is the fact that some police officers try to arrest only those drivers who they believe have high blood alcohol concentrations, either because they prefer to prosecute only strong cases or because they do not want to be criticized for wasting scarce police resources on borderline cases. Consequently, some officers systematically fail to arrest impaired drivers because they are only searching for the most impaired.

Drunk Busters

Although police want to create the impression that all drunk drivers will be arrested, in reality only a small percentage of drunk drivers on the road at any particular time will in fact be stopped or arrested.

Overserving

Serving obviously intoxicated guests and patrons increases the risk of drunk driving, especially when drinking occurs at a location that most guests and patrons must drive to. Absent adequate enforcement of the laws that prohibit serving intoxicated patrons, overserving is notoriously

common. The combination of the social pressure put on servers by patrons and the economic pressure to maximize profit can often overwhelm a server's better judgment.

Community Design

Perhaps obviously, drunk driving is more common where licensed establishments are located far from where people live and work. Accordingly, drunk driving is likely to be more common, proportionate to the number of drinkers, in rural or suburban settings. Where people can easily walk or take public transportation in order to drink at a licensed establishment, drunk driving is proportionately less common.[30]

Understanding Your Local Problem

The information above is only a generalized description of drunk driving. You must combine the basic facts with a more specific understanding of your local problem. Analyzing your local problem carefully will help you to design a more effective response strategy.

Stakeholders

In addition to criminal justice and alcohol regulatory agencies, the following organizations and entities have an interest in curtailing drunk driving and may be able to make a valuable contribution to efforts to alleviate the problem, both as sources of information on the extent of the problem and as partners in implementing solutions to it:

- driver and vehicle licensing bureaus
- insurance companies
- motor vehicle clubs and associations
- drunk driving victims groups
- tavern and liquor sales industry groups
- alcohol taxation authorities
- personal injury attorneys
- alcohol dependence assessment and treatment organizations
- transportation businesses, such as taxi, limousine, and bus companies
- traffic engineering departments
- community planning organizations
- schools
- large employers
- emergency medical providers, such as hospital workers and ambulance crews.

Asking the Right Questions

The following are some critical questions you should ask in analyzing your local drunk driving problem. The answers to these and other questions will help you choose the most appropriate set of responses later.

Incidents

- How many alcohol-related crashes occur in your jurisdiction? In what percentage are one or more of the drivers legally intoxicated?
- What proportion of all vehicle crashes in your jurisdiction is alcohol-related?
- What other factors play a significant role in alcohol-related crashes and injuries? Weather? Roadway design? Traffic volume? Seat belt use?
- How many drunk driving trips do you estimate occur in your jurisdiction? On a typical weekend evening? On a typical weekday evening?
- In what percentage of crashes does a suspected drunk driver leave the scene before police arrive?
- What specific driving behaviors commonly cause alcohol-related crashes? Running stop signals? Speeding? Failing to yield the right-of-way? Following too closely? Swerving?
- What is the typical blood alcohol concentration of at-fault drivers in fatal crashes? Serious injury crashes? Minor injury crashes? Non-injury crashes? Arrests involving no crash?
- How concerned is the general public about drunk driving?
- What is the estimated total economic cost to the community for alcohol-related crashes (including, for example, property damage, lost wages, medical or funeral costs, and insurance pay-outs and premium increases)?

Victims

- How many people are killed and injured in alcohol-related crashes?
- How many and what proportion of crash victims are at-fault drivers? Not-at-fault drivers? Passengers of at-fault drivers? Passengers of not-at-fault drivers? At-fault pedestrians? Not-at-fault pedestrians?
- What is known about the demographic profile of persons injured in alcohol-related crashes in your jurisdiction? Age? Gender? Race or ethnicity? Employment status? Residence?
- To what extent were persons injured in alcohol-related crashes also intoxicated?

Offenders

- What proportion of persons arrested for drunk driving in your jurisdiction have previously been charged with drunk driving?§
- What is the driving history of those arrested for drunk driving? Do persons arrested for drunk driving typically have worse driving histories than those not arrested for drunk driving?
- Are persons arrested for drunk driving also involved in other criminal conduct?
- What is known about the demographic profile of drunk drivers in your jurisdiction? Age? Gender? Race or ethnicity? Employment status? Residence?
- How intoxicated are persons arrested for drunk driving?
- What proportion of arrested drunk drivers were driving while their licenses were suspended or revoked?

§ Note that if state driver histories are purged after a certain time period, the proportion of repeat offenders may be underestimated.

Locations/Times

- Where do drunk drivers report having done their drinking?
- Are certain establishments commonly reported as the source of a drunk driver's last drink?
- Are there certain areas within your jurisdiction where a high proportion of drunk driving or drunk driving arrests occur? If so, what explains this concentration?
- When does most drunk driving occur? When do most alcohol-related crashes occur? Days of the week? Times of the day? Weeks of the year?

Current Responses to the Problem

- How many drunk driving arrests are made in your jurisdiction? Has this number changed in recent years?
- What proportion of drunk driving arrests is reactive (i.e., made as a result of a vehicle crash or citizen complaint)? What proportion is proactive (officer initiated)?
- How long does it typically take for an officer to process a drunk driving arrest?
- Which police officers and units make the most drunk driving arrests? Do regular patrol officers place a high priority on drunk driving arrests? Does a special drunk driving enforcement unit exist?
- In what proportion of drunk driving arrests does the offender refuse to take a blood alcohol test?
- Do police officers have authority to demand blood alcohol tests of all drivers involved in serious or fatal crashes, or must they first have probable cause to believe that the driver is intoxicated?
- What are the legal consequences for an offender who refuses to submit to a blood alcohol test?

- What are the typical sentences imposed on convicted drunk drivers? On first-time offenders? On repeat offenders? On those convicted of vehicular homicide? Do offenders typically comply with the terms of their sentences? Are there legal consequences for failing to comply with court orders?
- What options are available to a police officer who stops a suspected drunk driver? Is arrest mandatory? Are alternatives to arrest authorized? Do officers resort to alternatives even if not officially authorized? If so, which ones are effective? Can an officer be exposed to civil liability in relation to drunk driving enforcement?

Measuring Your Effectiveness

Measurement will allow you to determine the degree to which your efforts have been successful and can also suggest how your responses can be modified to produce the intended results. Measuring the extent of your problem before you implement remedial responses will allow you to determine how serious the problem is; it will also give you a baseline against which to measure the effectiveness of the strategies that you choose to implement. All remedial measures should be implemented in both the target area and the surrounding area.§

§ For more detailed guidance on measuring effectiveness, see the companion guide to this series, *Assessing Responses to Problems: An Introductory Guide for Police Problem-Solvers.*

The following are potentially useful measures of the effectiveness of responses to drunk driving:

- reduced number of alcohol-related crashes
- reduced proportion of all crashes that is alcohol-related
- reduced number of injuries and fatalities caused by alcohol-related crashes

- reduced proportion of all crashes that result in injuries or fatalities
- reduced severity of alcohol-related crash injuries
- reduced damage to property from alcohol-related crashes.

Reducing the number of drunk drivers on the roads is an important means of achieving the ultimate objective of reducing the harm caused by drunk driving.

Responses to the Problem of Drunk Driving

Analyzing your local drunk driving problem will give you a better understanding of the factors that contribute to it. Once you have analyzed your local problem and established a baseline for measuring effectiveness, you can consider possible responses to the problem.

The following strategies provide a foundation for addressing local drunk driving problems. These strategies are drawn from a variety of studies and police reports; several may apply in your community. It is critical that you tailor your response to local circumstances and that you can justify each response based upon reliable analysis. In most cases, an effective strategy will involve implementing several different responses, because law enforcement alone is seldom effective in reducing or eliminating the problem. Do not limit yourself to considering what police can do; instead, carefully consider who else in your community shares responsibility for the problem and can help address it.

General Considerations for an Effective Response Strategy

Drinking and driving is greatly influenced by contemporary social attitudes towards the practice. And although laws and law enforcement can help change social attitudes, the reverse is much more likely: that is, that changes in social attitudes will lead to stricter laws and law enforcement. The general trend in social attitudes—at least in the United States, Canada, Europe, Scandinavia, Australia, New Zealand, and Japan—has been toward a lessened tolerance for drinking and driving.

There is a broad range of social policy changes that can significantly reduce drunk driving—tax policy, urban planning, roadway design, vehicle safety, alcohol advertising, and emergency medical care, among others—but for the most part police can only influence these policies indirectly, through advocacy.[§] The responses below are those that police have some capacity to influence directly, at least at the local level.

§ See Ross (1992) for a comprehensive review of social policy affecting drunk driving.

As is often the case, a combination of responses is likely to prove more effective than any single response.[31] Legislatures and police agencies commonly implement a combination of responses that are effective in the aggregate, making it difficult or impossible to know which particular responses were effective and which were not.[32]

Responses may work more or less well when applied to high-risk drunk drivers (those who are highly committed to driving while impaired) than when applied to occasional drunk drivers.

Specific Responses to Reduce Drunk Driving

Legislation

1. **Reducing the legal limit of per se violations.** Most jurisdictions have enacted laws specifying that certain measurable levels of alcohol are per se violations of the law, irrespective of proof that the alcohol actually impaired the ability of the driver to operate the motor vehicle.

   1a. **Reducing the legal limit of per se intoxication for adult drivers.** Most countries and U.S. states set the level of per se intoxication at a BAC of .08.[§§] Reducing the legal limit of intoxication and vigorous enforcement of drunk driving laws have been shown to reduce the

§§ The legal limits are often even lower for drivers of commercial vehicles. See, for example, the U.S. Code of Federal Regulations 49 CFR 382.201.

number of alcohol-related traffic fatalities, especially when combined with administrative license suspensions (see Response 12 below).[33]

1b. **Reducing the legal limit of per se intoxication for repeat offenders.** Some jurisdictions set lower per se intoxication levels for persons who have previously been convicted of drunk driving. There is some evidence that this is effective.[34]

1c. **Reducing the legal limit of per se violations for underage drivers.** Many countries and U.S. states have enacted laws that prohibit underage drivers from having any measurable level of alcohol in their systems (so-called zero tolerance laws). Although zero tolerance laws are usually not strictly enforced, they do appear to have some deterrent effect on young drivers.[35]

2. **Requiring drivers to submit to blood alcohol testing if arrested for drunk driving.** Nearly all jurisdictions require drivers to submit to blood alcohol testing when asked by police. In the United States, such requests can only be made if police have probable cause to believe that a driver is intoxicated. In Europe and Australia, however, such requests can be made without any prior evidence of intoxication. So-called random breath testing has proven to be effective in reducing drunk driving in Australia, not merely because it increases the risk of detection, but because it also reduces the social pressure to drink and drive by giving people a ready justification for not doing so.[36]

3. **Raising the minimum legal drinking age.** The legal drinking age in all U.S. states is now 21 years of age and there is evidence that these laws have helped reduce the number of underage drivers who are involved in alcohol-related crashes.[37] It is likely that standardizing the minimum legal drinking age has also helped reduce the number of alcohol-related crashes that occur near the borders of states that formerly had different minimum drinking ages.[38]

4. **Prohibiting open alcohol containers in moving vehicles.** Drinking while driving is especially risky because freshly imbibed alcohol is likely to cause maximum impairment to the driver. Prohibiting open containers in moving vehicles serves to restrict the availability of alcohol to drivers. There is some evidence that prohibiting open containers of alcohol in vehicles helps reduce the number of alcohol-related crashes.[39]

5. **Requiring drivers and passengers to wear seat belts.** Although it has no particular effect on drunk driving itself, requiring drivers and passengers to wear seat belts helps reduce the severity of injuries in vehicle crashes.[40] Drunk drivers and drunk passengers, however, are less likely than others to wear seat belts,[41] and because drunk drivers are more likely to drive recklessly, they and their passengers are at higher risk of injury than non-drinking drivers and passengers.

Enforcement

The main goal of drunk driving enforcement should be to raise the perception among drinking drivers that they will be stopped and investigated for drunk driving. This can be achieved in two ways: first, by increasing the total number of drivers stopped by police; and second, by improved detection of alcohol impairment once a stop is made. There is some evidence that the latter method is more efficient and effective.[42] Training police officers in drunk driving enforcement is therefore critical, but the value of the training depends upon whether the police agency supports drunk driving enforcement by its officers.[43]

6. **Increasing the number of police stops of suspected drunk drivers during high-risk periods.** Because convincing drivers that they will get caught is perhaps the most important factor in deterring drunk driving, police should significantly increase the number of stops of suspected drunk drivers, particularly during times when the drunk driving crash risk is at its highest. This can be done by increasing the patrol time of officers looking for drunk drivers, streamlining the arrest process,[§] encouraging citizens to report drunk drivers, and increasing the emphasis that is placed on drunk driving interdiction and enforcement.

§ The procedural requirements for processing a typical drunk driving arrest—and consequently, the overall time it takes police to make an arrest—have increased steadily over the years, serving as a disincentive to officers to make a formal arrest (see Simpson and Robertson, 2001).

Emphasizing enforcement may require police departments to authorize officers to use alternatives to arrest once they have determined that a driver has been drinking, lest scarce enforcement resources be exhausted by time-consuming arrests. A variety of alternatives exist, the effectiveness of which will depend on the particular circumstances of each incident. These alternatives include:

- warning the driver
- requiring a sober passenger to drive
- allowing the driver to call a sober driver to pick him up
- giving the driver a ride home or to some other safe place
- following the driver home to ensure his safety
- confiscating the keys to the vehicle
- requiring the driver to take alternative transportation such as a taxi or bus.

The use of such alternatives can create a dilemma for police departments, because in some circumstances authorizing officers to not make drunk driving arrests when there are grounds to do so can expose the department to civil liability;[§] on the other hand, however, mandating that an arrest be made every time there are grounds to do so can discourage officers from stopping suspected drunk drivers out of a concern that processing the arrest will leave them unavailable for other duties, thereby undermining the goal of convincing drunk drivers that they are at risk of being stopped by police.[46] Police should consult local legal counsel to craft policies that will enable officers to remove drunk drivers from the roads safely without resorting to arrest, while at the same time protecting officers and departments from potential civil liability.

7. **Conducting sobriety checkpoints.** Sobriety checkpoints have been shown to reduce the incidence of drunk driving and alcohol-related crashes anywhere from 15

§ Much of the police concern about civil liability for failing to arrest drunk drivers emanated from a Massachusetts Supreme Judicial Court opinion holding that police have a "special relationship" to motorists injured by a known drunk driver who police failed to take into custody (see Harvey and Caldwell, 1984).

to 25 percent.[47] Their use is generally supported by the public.[48] Sobriety checkpoints can be either selective or random: that is, all drivers on a particular roadway can be checked for sobriety or only those who meet certain criteria. Some jurisdictions conduct them regularly; others only during special enforcement periods.[49] To be most effective, checkpoints should be highly visible, so that drivers perceive that their risk of being stopped and arrested has increased.[50] Police should consult with counsel to determine the legality of and conditions under which sobriety checkpoints may be conducted.§

§ The U.S. Supreme Court upheld the legality of sobriety checkpoints in Michigan Department of State Police v. Sitz, 496 U.S. 444 (1990), but some states prohibit them either by statute or state constitution. Police can conduct breath tests on any driver without cause in some countries, including Australia.

In the United States, once a driver is stopped at a sobriety checkpoint, police must decide whether there are grounds to test him for alcohol impairment. By some estimates, police fail to detect signs of impairment in one-half of drivers with blood alcohol concentrations higher than the legal limit, so sobriety checkpoints are hardly foolproof.[51] Sobriety checkpoints are typically costly, although even regularly conducted operations that require only a few officers can be effective.[52] Sobriety checkpoints are not necessarily the most efficient method of detecting and apprehending drunk drivers: regular or saturation police patrols in which drunk driving is a high priority often yield more arrests for the resources invested.[53] However, sobriety checkpoints often produce the added benefit of apprehending drivers for violations other than just drunk driving.

State of Colorado Department of Transportation

Publicizing sobriety checkpoints can aid in convincing drivers that their risk of being stopped and arrested has increased.

8. **Training police officers to detect impaired drivers.** Specialized training—including understanding the physical and verbal cues that indicate alcohol impairment[§]—can help improve the ability of police officers to detect drunk drivers. The Standardized Field Sobriety Test (SFST) appears to be the most accurate of the tools that have been developed to assist police in recognizing indications of alcohol impairment. Endorsed by the U.S. National Highway Traffic Safety Administration, the SFST includes a horizontal gaze nystagmus test, a walk-and-turn test, and a one-leg stand test. A combination of tests is usually called for, because some drinkers, particularly serious alcoholics, can perform certain tasks even while profoundly impaired.[§§]

§ See National Highway Traffic Safety Administration (1997) for detailed information about known cues for detecting drunk driving among truck and car drivers and National Highway Traffic Safety Administration (1992) for information regarding motorcycle riders.

§§ Police officers can also receive training through the Drug Evaluation and Classification Program, a protocol that enables officers to rule out certain medical factors and establish probable cause that drivers are under the influence of drugs other than alcohol (American Prosecutors Research Institute, 2004; National Highway Traffic Safety Administration, n.d.; International Association of Chiefs of Police, 2004).

Deseret News

Training officers to recognize the physical and verbal signs of intoxication is critical for detecting drunk drivers.

9. **Using preliminary breath testing devices.** Preliminary breath testing devices (PBT) are typically small and easy to operate. Some devices are passive sensors that can detect the presence of alcohol from within a few inches of a driver's face. Passive devices ordinarily do not require an officer to meet any evidentiary standard over and above the one required to stop the vehicle in the first instance.

Other devices, which require a driver to blow into a tube or other aperture, ordinarily do require that the officer first have reason to believe that the driver has been drinking. Both types of devices aid officers in the field in determining that there is probable cause to believe that a driver is alcohol-impaired, usually with the net effect of increasing the likelihood of arrest. There is some evidence that jurisdictions that use PBT have lower alcohol-related fatality rates than those that do not.[54]

Random breath-testing—whereby police have the legal authority to stop and demand an alcohol breath test from any driver at any time—has been demonstrated to be particularly effective,[55] but is impermissible in the United States as a constitutional matter.

Breathe E-Z System, Inc.

Police use of preliminary breath-testing devices such as the one pictured above increase the probability that a suspected drunk driver will be arrested.

Curtailing Driving Privileges

10. **Suspending or revoking driver licenses administratively.** Suspending or revoking the licenses of those convicted of drunk driving is one of the most effective methods for reducing alcohol-related crashes, but its effectiveness is limited by the capacity of police and others to enforce the conditions of suspension and revocation; moreover, this method is only effective, if at all, during the period of suspension or revocation.[56] Administrative license suspensions—suspensions imposed by a licensing agency rather than by the courts—have proven more effective than judicial sanctions in some states, but not others.[57]

    By some estimates, over three-fourths of drivers with suspended or revoked licenses continue to drive.[58] In fact, many drivers with suspended or revoked licenses never even bother to apply for license reinstatement when they are eligible to do so. One of the unintended consequences of mandatory license suspension and revocation laws is that judicial and law enforcement resources are consumed dealing with those who continue to drive under suspension or revocation.[59]

11. **Imposing graduated licensing systems for young drivers.** Several U.S. states have enacted so-called graduated licensing for young drivers. Typically, these systems grant young drivers limited privileges in their early driving years, such as restricting the number of passengers, the hours of operation, the use of cell phones while driving, or the types of vehicles that may be driven. These systems have been shown to have a

positive effect on young drivers' attitudes about drinking and driving, on their willingness to either drink and drive themselves or ride in vehicles with drinking drivers, and on reducing their involvement in fatal and injury crashes.[60]

12. **Impounding, immobilizing, or confiscating the vehicles of drunk drivers.** Impounding the vehicles of drivers whose licenses have been suspended or revoked—for whatever reason, including drunk driving—is effective in reducing the likelihood that a driver will be charged with driving offenses, including drunk driving, or will be involved in a traffic crash.[61] However, the mere threat of impoundment does not deter driving after suspension or revocation: a vehicle must actually be impounded to influence a driver's behavior.[62] In some jurisdictions, police return the vehicle to its owner if the offender satisfactorily completes an alcohol treatment program and reimburses the government for the costs associated with impoundment.[63] Impoundment or forfeiture is often complicated by the fact that the vehicle used by a habitual drunk driver is owned by someone else or that other members of the drunk driver's family might be inconvenienced by the loss of the vehicle.

An alternative to impoundment is temporary immobilization by the use of a device that either prevents the motor from operating or locks the vehicle's wheels.

Devices such as the "boot" shown above can be used to temporarily immobilize a drunk driver's vehicle. http://www.expo1000.com/parking/Interviews/superboot.jpg

In some jurisdictions, police and prosecutors apply for judicial forfeiture of the vehicle, thereby permanently depriving the offender of its use. There is some evidence that impoundment and immobilization are as effective as forfeiture as well as less costly and time-consuming for enforcement officials.[64]

In spite of the availability and apparent effectiveness of these responses, they are often not employed by police and prosecutors.[65]

13. **Confiscating license plates from convicted drunk drivers.** Confiscating the license plates of convicted drunk drivers is an effective way to discourage them from further drunk driving because it raises the probability that they will be stopped by police.[66] Confiscation is a judicial

sanction in some U.S. states and an administrative one in others. There is some evidence that confiscation of license plates would be more effective if it were more widely used and more widely publicized.[67] Alternatively, some jurisdictions require convicted drunk drivers to display specially-marked license plates on their vehicles.[68]

Michael Scott

In some states, special license plates are issued to convicted drunk drivers to discourage them from driving

Sanctioning Convicted Drunk Drivers

There is an obvious case to be made for tailoring the sanctions imposed upon a convicted drunk driver to the likelihood that he will repeat the offense in the future. The challenge for the courts is to determine which offenders are likely to become repeat drunk drivers. Many courts require even first-time offenders to undergo alcohol assessments to determine whether they are social or problem drinkers. There is evidence that high blood alcohol concentration and a prior history of drunk driving or other traffic violations are significant predictors that an offender is likely to drink and drive again.[69] In jurisdictions where they are in use, the data from alcohol ignition interlocks (see Response 14 below) can be useful in predicting who is likely to continue drinking and driving.

§ Ignition interlock devices require the driver to blow into a device that is connected to the vehicle's ignition. If the driver's blood alcohol concentration is above a set point, usually around .02, the vehicle will not start.

14. **Requiring convicted drunk drivers to install electronic ignition locks on their vehicles.** Electronic ignition locks ("interlocks") have been shown to be effective in reducing the likelihood that a convicted drunk driver will be rearrested for drunk driving, at least while the ignition lock requirement remains in effect.[71,§] However, the deterrent effect does not necessarily last once the requirement is lifted.[72] Drivers ordered to use ignition locks are commonly charged for their installation and maintenance. Where interlocks are optional, any alternative sanction should be sufficiently harsh to motivate the offender to use the interlock.[73] Where the device requires a driver to periodically retest in order to keep the engine running, an offender is less likely to enlist a sober person to start the vehicle. One of the advantages of interlocks over license revocation and vehicle confiscation is that it allows the offender and his family to continue to use the vehicle for legitimate purposes such as employment. Obviously, this response will not be effective where a convicted driver has access to other vehicles that are not equipped with interlocks.

Ontario Ministry of Transportation

Ignition interlock devices require the driver to periodically retest to keep the engine running and have been shown to reduce the likelihood that a convicted drunk driver will be rearrested.

15. **Requiring convicted drunk drivers to complete alcohol assessment, counseling, or treatment programs.** There is some evidence that successful completion of mandatory alcohol assessment and treatment programs can reduce the likelihood that those with clinically diagnosed alcohol problems will be rearrested for drunk driving.[74] Depending on the quality of the program, the incidence of repeat drunk driving and alcohol-related crashes can be reduced by as much as 5 to 10 percent.[75] There is some hope that new pharmaceutical treatments for alcoholism may also help reduce drunk driving by hard-core drunk drivers; as of yet, however, such treatments have not been widely tested.[76]

16. **Confining convicted drunk drivers to their homes.** In lieu of incarceration, some jurisdictions sentence convicted drunk drivers to home confinement. Compliance is typically monitored electronically. There is conflicting evidence regarding the effectiveness of home confinement.[77]

Monitoring Drunk Drivers

17. **Closely monitoring high-risk drunk drivers.** Closely monitoring drivers who have demonstrated that they are at high risk for driving while impaired has the potential to reduce the likelihood that they will be involved in alcohol-related traffic crashes.[78] Such monitoring can be done by police, corrections officials, or treatment providers.

    However, at least one intensive supervision program—a day treatment center that provided supervision, reporting, employment, counseling, education, and community resource referrals in a nonresidential facility—did not prove to be any more effective at reducing repeat offending than did a standard probation program.[79]

Reducing Alcohol Consumption

18. **Reducing the consumption of alcohol.** Reducing the total volume of alcohol consumed in a community can have a number of positive effects on public safety, including a reduction in drunk driving.[§] This is especially true when young drivers are denied alcohol.[80,§§] Alcohol consumption can be reduced in a variety of ways, including:

    - increasing the price of alcohol by raising taxes or prohibiting discount sales[81]
    - restricting the number of bars and liquor stores[§§§]
    - strict enforcement of the drinking age
    - regulating drink specials
    - raising public awareness through educational campaigns.

19. **Suing alcohol beverage servers for serving intoxicated patrons who then drive and cause traffic injuries.** Lawsuits brought against persons and establishments that serve alcohol to patrons who then drive while

§ See the POP Guides on *Assaults in and Around Bars* and *Underage Drinking* for further information about ways to reduce alcohol consumption.

§§ See the POP Guide on *Underage Drinking* for further guidance on controlling minors' access to alcohol.

§§§ However, too few sales outlets may result in drinkers driving farther to get alcohol, thereby increasing the risk they will be involved in alcohol-related crashes.

intoxicated and cause injury (so-called dram shop liability) can potentially discourage overserving patrons, thereby reducing drunk driving. However, the effectiveness of this response is limited because such suits are relatively rare, some jurisdictions protect licensed servers from such liability, and liability awards are often paid by insurance companies rather than by the offender directly.[83] Liability insurers sometimes offer lower premiums to establishments that adopt responsible service practices, but some owners choose not to purchase liability insurance and either close their businesses or declare bankruptcy if they are sued.[84]

§ The states of Oregon and Wisconsin mandate such server training.

Suits against private individuals are even more rare and difficult to win than suits against business owners.[85] For a variety of reasons, both licensed servers and private hosts are reluctant to intervene in the drinking habits of their guests and patrons.

20. **Training alcohol beverage servers to recognize signs of impairment and enforcing laws prohibiting serving impaired patrons.** Beverage server training programs have shown some positive effects in reducing alcohol-related traffic crashes in the jurisdictions where they have been adopted, but mandatory programs do not appear to be any more effective than do optional ones.[86,§] Servers learn how to promote eating, to slow drinking, to call for alternative transportation, to stop serving, and to have drinkers wait before driving. Sufficiently strict enforcement of laws prohibiting serving intoxicated patrons is essential in motivating servers to heed the advice of these programs; otherwise, the pressure to continue serving intoxicated patrons can be too great for many servers to resist. One of the dilemmas of mandatory training is that in jurisdictions where successful completion of a training program confers

immunity on a server, its net effect may be to shield servers from dram shop liability without substantially reducing the likelihood that intoxicated patrons will be served.[87] On balance, however, responsible beverage service training appears to be a good idea.[88]

21. **Enforcing laws prohibiting serving minors and intoxicated persons.** Enforcement of laws that are designed to prohibit serving minors and intoxicated persons in licensed establishments can help control a range of alcohol-related problems, including drunk driving.[89] Enforcement efforts should be targeted at establishments where a high proportion of drunk drivers were last drinking.[90] Unfortunately, such enforcement is rare in most jurisdictions, especially as it relates to serving intoxicated persons. This may be because police and other enforcement agents feel that they lack the resources to devote to this activity, perceive that provable cases are difficult to make, or are reluctant to face resistance from the restaurant and tavern industry.[91]

Public Education

22. **Discouraging drinking and driving through public education and awareness campaigns.** It is difficult to change public attitudes and behaviors with respect to drinking and driving through public education campaigns, at least in the short-term. This is especially true among those at highest risk for drunk driving. Nonetheless, such programs can help build public support for addressing the problem and can help publicize changes in drunk driving laws.[92] When they are used, public education and awareness campaigns to discourage drinking and driving should be tailored to particular segments of the population.[93] Although young drivers are especially difficult to persuade, such campaigns are more likely to be effective if they exploit the influence of peers on the

behavior of young drivers and emphasize the negative social consequences of drinking and driving rather than the health and legal risks.[94] Programs that seek to correct young people's misperceptions about how much their peers drink (so-called social norming) hold promise for reducing alcohol consumption.[§] Messages that focus on alternate forms of transportation, knowing when one has reached the point of intoxication,[§§] helping out friends who are too drunk to drive, and the provisions and enforcement of new drunk driving laws are most likely to be effective.[95] Teaching young people how to keep their peers from driving while intoxicated is effective,[96] as are school-based programs intended to discourage students from riding with drunk drivers.[97] Young people are more willing to intervene effectively to prevent their peers from driving while intoxicated than are adults. The use of celebrities and appeals to fear and emotion are not particularly effective among young people.[98]

§ See the *Underage Drinking* POP Guide for further information on reducing young people's alcohol consumption.

§§ The Wichita, Kansas, Police Department (1998) offered free alcohol breath tests to drinking patrons at bars, clubs, concerts, and festivals as part of an effort to teach young drinkers to recognize when their intoxication was approaching the level at which it was unlawful for them to drive.

University of Oklahoma Police Department

While it is difficult to change public behaviors with respect to drinking and driving, publicity campaigns can help build support within the community for addressing the problem.

Alternative Transportation

23. **Providing alternative transportation options to drinking drivers.** Alternative transportation options include designated drivers and free taxi or limousine rides. There is evidence that drinking drivers, even heavy drinkers, will use alternative transportation if it is made readily available.[99] There is also evidence that alternative transportation programs can significantly reduce the incidence of drunk driving and alcohol-related traffic crashes and injuries. Such programs are most successful when drivers are not forced to leave their vehicles at the drinking location: the best programs take the drinker to the drinking location and then return him to his home.[§]

    Designated driving is now a well-established method for avoiding drunk driving, particularly among U.S. college students.[101] However, there are any number of ways in which designated driving plans can go awry: the designated driver can change his mind and drink; the vehicle owner can change his mind and refuse to allow the sober person to drive; the drinkers in the group can drink more heavily than they would otherwise, which in turn can cause other problems.[102] To date, there is insufficient evidence of the effectiveness of designated driver campaigns, either those directed at the general population or those targeting patrons of particular drinking establishments.[103] However, designated driving appears to be a good idea that should continue to be promoted even if it is not as effective as was originally hoped.

§ A pilot program in Wisconsin used business marketing principles to develop and promote taxi and limousine transportation to, from, and between bars in a rural community. Rather than trying to discourage drinking, the initiative acknowledged the local bar culture and sought to address patrons' specific reasons for driving after drinking (Karsten and Rothschild, 2003). An initiative in Wisconsin known as SafeRide that provides funding assistance to taverns to promote alternative transportation for patrons is partially funded by a surcharge on drunk driving convictions. An evaluation of the initiative concluded that it is cost-effective (Wisconsin Department of Transportation, 2005).

Environmental Design

24. **Locating licensed establishments in areas that reduce the need for patrons to drive.** Limiting the number of licensed establishments that are only accessible by car seemingly has the potential to reduce drunk driving; however, the effectiveness of this response has not been properly evaluated.[104] Obviously, there are practical limits as well, especially in rural areas. There are, however, strong arguments in favor of distributing licensed establishments throughout a community and sufficiently close to residential areas so that at least some patrons can walk—or at least not drive far—to these establishments.

25. **Relaxing or staggering mandatory bar closing times.** As may also be the case with other alcohol-related problems, relaxing or staggering mandatory closing times has the potential to lower the concentration of impaired drivers on the roads immediately after all the bars close. However, whether the net effect of this measure would be to increase overall alcohol consumption or to encourage drinkers to drive in search of a bar with a later closing time has not been studied.

Responses With Limited Effectiveness

26. **Increasing the severity of penalties for drunk driving.** By itself, increasing the severity of penalties for drunk driving does not appear to have a significant deterrent effect.[105] This is so for several reasons:

    - Most drunk drivers do not believe they are likely to get caught on any particular trip, so they tend not to take the severity of the punishment into account.
    - If police officers believe that the potential punishment is unduly harsh, they may be less likely to arrest drunk drivers. So too with judges and jurors, who may be less likely to convict or impose stiff penalties.
    - Incarcerating more drunk drivers or incarcerating them for longer periods can so overburden existing jail resources that police are forced to curtail drunk driving enforcement.[106]

27. **Incarcerating convicted drunk drivers.** Although the general public is likely to insist upon punishing drunk drivers—particularly repeat offenders—research suggests that conventional punishments such as fines and incarceration are among the least effective methods of controlling drunk driving.[107] In addition, using jail resources for drunk drivers becomes more difficult to justify as those resources become scarce. The threat of incarceration, however, is often useful as leverage to compel convicted drunk drivers to accept alternate sanctions such as alcohol treatment, alcohol ignition interlocks, or vehicle forfeiture.

    Even where jail time is required by law, many offenders do not actually spend the mandatory minimum time in jail. There are a variety of ways around mandatory minimums: for example, some offenders are credited

with having served a full day in jail even if they are only incarcerated for a few hours. Moreover, mandatory minimum jail sentences raise the stakes of drunk driving convictions, which in turn leads to more vigorous legal defenses, delays in case processing, fewer guilty pleas, jail and court crowding, and so forth, all of which creates a counter-pressure to process drunk driving cases more quickly.[108]

28. **Fining convicted drunk drivers.** Fining convicted drunk drivers has not shown any significant deterrent effect, either on the offender or the general public.[109] There is typically a high rate of failure to pay fines by convicted offenders. The primary purpose of fines is to offset the cost of enforcing drunk driving laws and of processing cases.

29. **Recovering costs from drunk drivers.** Some jurisdictions allow the police to recover the costs of processing drunk driving arrests.[110] Although the effectiveness of this response has not been adequately evaluated, there is little reason to believe that it has any greater deterrent effect than does the imposition of fines. It does have the advantage, however, of channeling revenue back to police, which should reinforce enforcement efforts.

30. **Requiring drunk drivers to listen to victim impact panels.** Victim impact panels force convicted drunk drivers to listen to testimony—from the victims of drunk driving, their family members, the police, and medical professionals—regarding the impact that drunk driving has on individuals and society. In spite of the powerful and immediate emotional impact of these panels, their effectiveness seems to be short-lived: the evidence is that they only prevent offenders from being rearrested in the short term, usually within two years.[111] Moreover, their

impact appears to depend heavily upon the particular testimony of the panelists, something that is difficult to standardize.[112]

31. **Prohibiting drive-up alcohol sales.** Although permitting drivers to purchase alcohol through drive-up windows appears to be a bad idea for a number of reasons, there is inconclusive evidence that the practice has any significant effect on alcohol-related crashes.[113] This is probably because it is relatively easy to purchase alcohol—even if a driver has to step out of his vehicle to do so—as most convenience stores and many gas stations sell alcoholic beverages.

32. **Providing driver education courses in high schools.** One unfortunate effect of providing driver education courses in high schools is that it encourages more young drivers to get their licenses, which in turn leads to more young drivers getting in alcohol-related crashes.[114] This is not to say that driver education courses do not have positive effects, but rather that their effectiveness in reducing drunk driving appears to be limited.

Appendix: Summary of Responses to Drunk Driving

The table below summarizes various responses to drunk driving, the mechanisms by which these responses are intended to work, the conditions under which they should work best, and factors that should be considered before a particular response is implemented. It is critical that you tailor responses to local circumstances and that you can justify each response based upon reliable analysis. In most cases, an effective strategy will involve several different responses, because law enforcement alone is seldom effective in reducing or solving the problem.

Response No.	Page No.	Response	How It Works	Works Best If…	Considerations
Legislation					
1.	18	Reducing the legal limit of per se violations	Increases the probability of successful prosecution of drunk driving charges; subjects more dangerous drivers to legal sanctions; communicates societal intolerance for drinking and driving	… reinforced by adequate enforcement at the lower limits	Police officers may be unwilling to enforce if they do not understand the risk of driving at lower limits; enforcement at lower limits will increase the number of cases in the courts

Response No.	Page No.	Response	How It Works	Works Best If…	Considerations
2.	19	Requiring drivers to submit to blood alcohol testing when arrested for drunk driving	Increases both the certainty of arrest when a stop is made and the probability of successful prosecution; provides drivers with social justification for not drinking	… police have the authority to demand testing of drivers stopped at random	In the United States, police must establish probable cause in order to demand testing
3.	20	Raising the minimum legal drinking age	Reduces the overall alcohol consumption of inexperienced, high-risk drivers	… enforcement levels are high enough to convince underage drivers that they face a substantial risk of arrest; legislation and enforcement is supported by parents	Strict enforcement can substantially increase court caseloads
4.	20	Prohibiting open alcohol containers in moving vehicles	Reduces the likelihood that a driver will consume alcohol while driving	… adequately enforced; prohibition applies equally to drivers and passengers	Provides police with additional justification for stopping suspected drunk drivers
5.	20	Requiring drivers and passengers to wear seat belts	Reduces the risk of serious injury when a crash occurs	… adequately enforced	Some jurisdictions may not authorize police stops solely on the basis of seat belt violations
Enforcement					
6.	21	Increasing the number of police stops of suspected drunk drivers during high-risk times of day	Increases the perceived risk of apprehension among drinking drivers	… police officers have viable alternatives to custodial arrest for some stopped drivers; police officers have sufficient resources to make a high number of stops	Competing priorities for police attention may limit the number of stops officers can realistically make; police officers must believe that their reasonable exercise of discretion in employing alternatives to arrest will be supported

Response No.	Page No.	Response	How It Works	Works Best If…	Considerations
7.	22	Conducting sobriety checkpoints	Increases the perceived risk of apprehension among drinking drivers	… the public supports the practice; officers are properly trained to detect impaired drivers	Legal requirements must be met; checkpoints should be highly visible to maximize their general deterrent effect; because they can be costly to conduct, checkpoints are not necessarily the most efficient method of stopping drunk drivers
8.	24	Training police officers to detect impaired drivers	Increases the probability of arrest once a stop is made; increases the likelihood of successful prosecution	… police officers believe that enforcement is valued by the department	Officers should also be trained to detect impairment from substances other than alcohol
9.	24	Using preliminary breath testing devices	Increases the probability of arrest once a stop is made; increases the likelihood of successful prosecution	… officers are properly trained in their use; can be administered to drivers stopped at random (where legal) or at sobriety checkpoints	Legal requirements for demanding tests must be met; costs to purchase and maintain devices
Curtailing Driving Privileges					
10.	26	Administrative suspension and revocation of driver licenses	Reduces the likelihood that convicted drunk drivers will drive while intoxicated during periods of suspension; deters drivers through threatened loss of driving privileges	… jurisdiction has adequate resources to process cases; suspensions are routinely and promptly imposed by an administrative agency rather than by the courts	Most suspended or revoked drivers continue to drive; high volume of cases arising from operators who drive while suspended or revoked can drain criminal justice resources; the large number of suspended or revoked drivers can increase the volume of police pursuits if drivers attempt to avoid apprehension

Response No.	Page No.	Response	How It Works	Works Best If…	Considerations
11.	26	Imposing graduated licensing systems for young drivers	Reduces opportunities for inexperienced drivers to drive under high-risk conditions	… legislation and enforcement is supported by parents	Creates hardships for young drivers and their parents
12.	27	Impounding, immobilizing, or confiscating the vehicles of drunk drivers	Reduces opportunities for convicted drunk drivers to continue driving; deters drivers through threatened loss of driving privileges	… vehicle is actually impounded or immobilized; threats alone are an insufficient deterrent	High costs can be incurred impounding, immobilizing, and storing vehicles; third parties who depend on use of the vehicle are also penalized
13.	28	Confiscating license plates from convicted drunk drivers	Increases the probability that a convicted driver will be stopped by police	… more widely used and publicized	Specially-marked license plates indicating the vehicle is likely being operated by a convicted drunk driver is a similar alternative
Sanctioning Convicted Drunk Drivers					
14.	30	Requiring convicted drunk drivers to install electronic ignition locks on their vehicles	Prevents intoxicated drivers from operating their vehicles	… alternative sanctions are severe enough to persuade drivers to use the devices; drivers must periodically retest to keep the vehicle running; drivers cannot readily use other vehicles	Deterrent effect not likely to last beyond period when device is installed; minimizes inconvenience to others who are dependent upon the vehicle

Response No.	Page No.	Response	How It Works	Works Best If…	Considerations
15.	31	Requiring convicted drunk drivers to complete alcohol assessment, counseling, or treatment programs	Reduces alcohol consumption of those convicted of drunk driving	… the treatment program is of high quality and demonstrated effectiveness	Not all drunk drivers benefit from these programs; program costs can be high
16.	31	Confining convicted drivers to their homes	Reduces opportunities for offenders to continue driving; deters drivers through threatened loss of driving privileges	… monitoring is effective	Electronic monitoring is more efficient than personal monitoring
Monitoring Drunk Drivers					
17.	32	Closely monitoring high-risk drunk drivers	Reduces opportunities for convicted drunk drivers to continue driving	… highest risk drivers are selected for intensive monitoring	Labor intensive
Reducing Alcohol Consumption					
18.	32	Reducing the consumption of alcohol	Reduces intoxication levels of drivers, thereby reducing the risk of vehicle crashes	… reductions in consumption levels are substantial	Public support for measures to reduce consumption may be difficult to obtain in some jurisdictions

Response No.	Page No.	Response	How It Works	Works Best If…	Considerations
19.	32	Suing alcohol beverage servers for serving intoxicated patrons who then drive and cause traffic injuries	Discourages serving intoxicated patrons, thereby reducing alcohol consumption	… plaintiffs prevail often enough so that alcohol beverage servers perceive their potential liability to be significant; liability results in actual costs to alcohol beverage servers	Some insurance companies cover full costs of liability; some alcohol beverage servers avoid liability by becoming judgment proof; social norms often work against intervening in the drinking habits of others
20.	33	Training alcohol beverage servers to recognize signs of impairment and enforcing laws prohibiting serving impaired patrons	Reduces the alcohol consumption of potential drunk drivers	… reinforced by the owners of licensed establishments; reinforced by adequate enforcement of alcohol service laws	Mandatory programs have not been shown to be more effective than voluntary ones; compliance with training regulations may provide servers with a defense against liability
21.	34	Enforcing laws prohibiting serving minors and intoxicated persons	Reduces alcohol consumption of potential drunk drivers	… enforcement is sufficient to create a significant perception of risk among servers; known problem establishments are targeted	Enforcement resources and priorities are often inadequate; enforcement efforts are often resisted by alcohol service industry
Public Education					
22.	34	Discouraging drinking and driving through public education and awareness campaigns	Discourages drinkers from driving and drivers from drinking; builds public support for a wide range of drunk driving countermeasures	… education and awareness messages are carefully targeted to particular audiences	Can be costly to develop and run; difficult to measure effect on behavior

Response No.	Page No.	Response	How It Works	Works Best If…	Considerations
Alternative Transportation					
23.	36	Providing alternative transportation options to drinking drivers	Reduces need for drinkers to drive	… transportation is provided to, from, and among drinking establishments so that drinkers are not compelled to leave their vehicles at a drinking establishment; costs to drinkers are reasonable	Transportation services can be costly to operate
Environmental Design					
24.	37	Locating licensed establishments in areas that reduce the need for patrons to drive	Reduces the need for drinkers to drive	… the public understands and supports locating drinking establishments in certain areas	Less viable in rural areas where driving is almost unavoidable; the public may resist locating bars and taverns near residential areas
25.	37	Relaxing or staggering mandatory bar closing times	Reduces the concentration of drunk drivers on the road; reduces excessive alcohol consumption at closing time	… bars and taverns are located where drinkers do not need to drive to reach them	Net effects not demonstrated conclusively

Response No.	Page No.	Response	How It Works	Works Best If…	Considerations
Responses With Limited Effectiveness					
26.	38	Increasing the severity of penalties for drunk driving			Typically, certainty of apprehension is too low for severity of penalties to have much deterrent effect; if penalties exceed what police deem fair, they may be less willing to enforce drunk driving laws; raising the stakes of conviction often slows down the adjudication process, thereby undermining deterrence
27.	38	Incarcerating convicted drunk drivers			Consumes scarce jail resources; threat of incarceration can be effective incentive for alternative sanctions
28.	39	Fining convicted drunk drivers			High rates of failure to pay fines are typical
29.	39	Recovering law enforcement costs from convicted drunk drivers			Effects not demonstrated conclusively; high rates of failure to pay are typical
30.	39	Requiring drunk drivers to listen to victim impact panels			Deterrent effect is short-lived; effectiveness heavily dependent upon skills of speakers, which is difficult to standardize
31.	40	Prohibiting drive-up alcohol sales			Typically, alcohol can easily be purchased elsewhere
32.	40	Providing driver education courses in high schools			Encourages more young people to get their licenses, which increases the risk of crashes

Endnotes

1 National Highway Traffic Safety Administration (2002).

2 Cavaiola and Wuth (2002).

3 National Highway Traffic Safety Administration, Police Executive Research Forum, and the U.S. Office of Juvenile Justice and Delinquency Prevention (1999).

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Recommended Readings

- ***A Police Guide to Surveying Citizens and Their Environments***, Bureau of Justice Assistance, 1993. This guide offers a practical introduction for police practitioners to two types of surveys that police find useful: surveying public opinion and surveying the physical environment. It provides guidance on whether and how to conduct cost-effective surveys.

- ***Assessing Responses to Problems: An Introductory Guide for Police Problem-Solvers***, by John E. Eck (U.S. Department of Justice, Office of Community Oriented Policing Services, 2001). This guide is a companion to the *Problem-Oriented Guides for Police* series. It provides basic guidance to measuring and assessing problem-oriented policing efforts.

- ***Conducting Community Surveys***, by Deborah Weisel (Bureau of Justice Statistics and Office of Community Oriented Policing Services, 1999). This guide, along with accompanying computer software, provides practical, basic pointers for police in conducting community surveys. The document is also available at www.ojp.usdoj.gov/bjs.

- ***Crime Prevention Studies***, edited by Ronald V. Clarke (Criminal Justice Press, 1993, et seq.). This is a series of volumes of applied and theoretical research on reducing opportunities for crime. Many chapters are evaluations of initiatives to reduce specific crime and disorder problems.

- ***Excellence in Problem-Oriented Policing: The 1999 Herman Goldstein Award Winners.*** This document produced by the National Institute of Justice in collaboration with the Office of Community Oriented Policing Services and the Police Executive Research Forum provides detailed reports of the best submissions to the annual award program that recognizes exemplary problem-oriented responses to various community problems. A similar publication is available for the award winners from subsequent years. The documents are also available at www.ojp.usdoj.gov/nij.

- ***Not Rocket Science? Problem-Solving and Crime Reduction***, by Tim Read and Nick Tilley (Home Office Crime Reduction Research Series, 2000). Identifies and describes the factors that make problem-solving effective or ineffective as it is being practiced in police forces in England and Wales.

- ***Opportunity Makes the Thief: Practical Theory for Crime Prevention***, by Marcus Felson and Ronald V. Clarke (Home Office Police Research Series, Paper No. 98, 1998). Explains how crime theories such as routine activity theory, rational choice theory and crime pattern theory have practical implications for the police in their efforts to prevent crime.

- ***Problem Analysis in Policing***, by Rachel Boba (Police Foundation, 2003). Introduces and defines problem analysis and provides guidance on how problem analysis can be integrated and institutionalized into modern policing practices.

- ***Problem-Oriented Policing***, by Herman Goldstein (McGraw-Hill, 1990, and Temple University Press, 1990). Explains the principles and methods of problem-oriented policing, provides examples of it in practice, and discusses how a police agency can implement the concept.

- ***Problem-Oriented Policing and Crime Prevention***, by Anthony A. Braga (Criminal Justice Press, 2003). Provides a thorough review of significant policing research about problem places, high-activity offenders, and repeat victims, with a focus on the applicability of those findings to problem-oriented policing. Explains how police departments can facilitate problem-oriented policing by improving crime analysis, measuring performance, and securing productive partnerships.

- ***Problem-Oriented Policing: Reflections on the First 20 Years***, by Michael S. Scott (U.S. Department of Justice, Office of Community Oriented Policing Services, 2000). Describes how the most critical elements of Herman Goldstein's problem-oriented policing model have developed in practice over its 20-year history, and proposes future directions for problem-oriented policing. The report is also available at www.cops.usdoj.gov.

- ***Problem-Solving: Problem-Oriented Policing in Newport News***, by John E. Eck and William Spelman (Police Executive Research Forum, 1987). Explains the rationale behind problem-oriented policing and the problem-solving process, and provides examples of effective problem-solving in one agency.

- ***Problem-Solving Tips: A Guide to Reducing Crime and Disorder Through Problem-Solving Partnerships*** by Karin Schmerler, Matt Perkins, Scott Phillips, Tammy Rinehart and Meg Townsend. (U.S. Department of Justice, Office of Community Oriented Policing Services, 1998) (also available at www.cops.usdoj.gov). Provides a brief introduction to problem-solving, basic information on the SARA model and detailed suggestions about the problem-solving process.

- ***Situational Crime Prevention: Successful Case Studies***, Second Edition, edited by Ronald V. Clarke (Harrow and Heston, 1997). Explains the principles and methods of situational crime prevention, and presents over 20 case studies of effective crime prevention initiatives.

- ***Tackling Crime and Other Public-Safety Problems: Case Studies in Problem-Solving***, by Rana Sampson and Michael S. Scott (U.S. Department of Justice, Office of Community Oriented Policing Services, 2000) (also available at www.cops.usdoj.gov). Presents case studies of effective police problem-solving on 18 types of crime and disorder problems.

- ***Using Analysis for Problem-Solving: A Guidebook for Law Enforcement***, by Timothy S. Bynum (U.S. Department of Justice, Office of Community Oriented Policing Services, 2001). Provides an introduction for police to analyzing problems within the context of problem-oriented policing.

- ***Using Research: A Primer for Law Enforcement Managers***, Second Edition, by John E. Eck and Nancy G. LaVigne (Police Executive Research Forum, 1994). Explains many of the basics of research as it applies to police management and problem-solving.

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