



National Transportation Safety Board

Washington, D.C. 20594
Safety Recommendation

Date: March 11, 1993

In reply refer to: H-93-1 through -9

To the Governors and Legislative Leaders
of the States, the Commonwealth of Puerto
Rico, the Territories, and to the Mayor of the
District of Columbia
(See attached mailing list)

YOUTH ACCIDENT EXPERIENCE

On November 10, 1991, an 18-year-old swimmer celebrating a swim meet was provided fortified wine by a teammate's 21-year-old girlfriend. He quickly drank 1.5 bottles and drove through a residential section of Mesa, Arizona, at over 80 miles per hour (mph) in a 30-mph zone. His car struck and killed a 22-year-old college student and seriously injured a 16-year-old girl as they were walking in a crosswalk. The driver left the scene, but turned himself in to police the next day. As a result of the elapsed time, police were unable to obtain breath, blood, or urine specimens to determine a blood alcohol concentration (BAC). The driver was convicted of manslaughter and aggravated assault and sentenced to 10 years in prison. The 21-year-old provider of alcohol was convicted of a misdemeanor and sentenced to 6 months in jail.

On May 12, 1989, four teens (ages 16 and 17) in Montgomery County, Maryland, attended a high school graduation party at which kegs of beer were available. According to news reports, none of the four had been invited to the party, but all four had paid for admission. No adult continuously supervised the party and police had responded to a complaint about the party. One of the four was the designated driver who was to be alcohol-free. According to police, after leaving the party, the designated driver was speeding on a wet country road, lost control of the vehicle, and hit an on-coming car. Two passengers were killed while the driver and another passenger were seriously injured. The designated driver had a 0.05 percent BAC. Media reports stated that the driver's BAC was below the 0.08 percent level for a driving under the influence of alcohol violation, however, effective January 1, 1989, Maryland law prohibited drivers under the age of 21 from driving with a BAC of 0.02 percent or more.

Fatal crashes also involve teenage drivers with a high BAC. On March 21, 1992, a 17-year-old student at Bethlehem High School in Albany County, New York, died in a

crash involving a car driven by an 18-year-old whose BAC was 0.11 percent. A 16-year-old friend of the dead student asked that their high school hold assemblies on alcohol problems. None were held. On August 26, 1992, this student was offered a ride from a schoolmate and joined other students in the back of a pickup truck. The driver was speeding at more than 80 mph and swerving around cars when he lost control, hit a utility pole, and rolled the pickup truck. The student who had shown interest in alcohol education was killed, and three other teenagers were injured. More than 2 hours after the crash, the driver's BAC was 0.15 percent. The driver had purchased six six-packs of beer from a 25-year-old. The 17-year-old driver was found guilty of criminally negligent homicide and sentenced to 1.5 to 4 years in jail, and the 25-year-old was charged with providing alcohol to a minor, a misdemeanor.

On September 7, 1991, at 5:29 a.m., a 17-year-old driver ran a red light at a busy intersection in Phoenix, Arizona and struck another vehicle, killing its driver. The 17-year-old had a 0.32 percent BAC. He pleaded guilty to manslaughter; sentencing was delayed so that he could be sentenced as an adult.

The examples above are neither unique nor isolated. In 1991, 9,156 persons died in traffic crashes involving 8,207 15- to 20-year-old drivers. Of the 8,207 drivers, both surviving and fatally injured, an estimated 2,419 had a positive BAC. Among fatally injured 15- to 20-year-old drivers, an estimated 40 percent (1,421 of 3,568) had a positive BAC. Although this is less than the positive test rate for drivers of all ages (44 percent in 1991), alcohol is illegal for persons under age 21 and any BAC should be prohibited. As high as these numbers seem, there has been a significant reduction in both youth¹ alcohol-related fatal crashes and alcohol-related fatalities.

According to the Insurance Institute for Highway Safety (IIHS), 53 percent of the teenage drivers who died in highway crashes in 1980 had a BAC of 0.10 percent or higher. By 1987, the 53-percent figure had dropped to 28 percent, a reduction of nearly half. However, by 1989, the percentage of fatally injured teenage drivers with a BAC of 0.10 or higher had increased to 33 percent.² IIHS analysis of Fatal Accident Reporting System (FARS) data indicate that 33 percent of fatally injured 16- to 20-year-old drivers had a BAC of 0.10 percent or higher in both 1990 and 1991.³

The reduction in alcohol-related fatal crashes involving teenage drivers during the 1980's has been attributed to raising the legal minimum age for the sale of alcohol to 21

¹ In this letter, the terms "youth" and "young" are defined as a person under the age of 21. The term "young novice driver" is defined as a person who is in the first year of licensed driving, usually at age 15, 16, or 17.

² Insurance Institute for Highway Safety, *Status Report*. Vol. 27 No. 14, November 21, 1992. Arlington, Virginia. Source Data: National Highway Traffic Safety Administration.

³ The Fatal Accident Reporting System is operated by the National Highway Traffic Safety Administration.

in all States.⁴ By the early 1980's, overwhelming evidence emerged that laws enacted in the early 1970's to lower the drinking age had resulted in a sharp increase in alcohol-related traffic fatalities among youth. In those States that subsequently reinstated the 21 drinking age in the late 1970's, reductions in these fatalities were realized.⁵

As a result of its research, in 1982 the National Transportation Safety Board issued a recommendation asking each State to raise its drinking age to 21 (Safety Recommendation H-82-18). The National Minimum Drinking Age Act of 1984 required the States to enact laws prohibiting the purchase and public possession of alcoholic beverages by minors or face the loss of Federal-aid highway funds. By 1988, the drinking age was 21 in all 50 States and the District of Columbia. Puerto Rico, Guam, and American Samoa have not enacted an age 21 law.

The National Highway Traffic Safety Administration (NHTSA) has estimated that the age 21 laws have saved more than 12,000 lives since States started raising the minimum drinking age. While the minimum drinking age law changes did not stop teenage drinking and driving, they made it more difficult for those under 21, and especially those under 18, to obtain alcohol.⁶ However, the recent increases in the percentage of alcohol-related fatal crashes among drivers under 21 indicate a need for new efforts to reduce alcohol-related crashes of drivers in this age group.

The following discussions summarize youth alcohol consumption patterns and indicate that deficiencies in, and enforcement of, State minimum drinking age laws may have a role in these youth fatal crashes.

YOUTH ALCOHOL CONSUMPTION

In 1988, 25.2 percent of youth aged 12 to 17 and 57.9 percent of youth aged 18 to 20 reported using alcohol in the last month.⁷ In 1989, 33 percent of high school

⁴ Drinking-Age Laws: An Evaluation Synthesis of Their Impact on Highway Safety. GAO/PEMD-87-10. U. S. General Accounting Office. 1987. Washington, D.C.

⁵ Wagenaar, Alexander C., Effects of an Increase in the Legal Minimum Drinking Age. *Journal of Public Health Policy*. Vol. 2. No. 3. 1981. Washington, D.C. and U. S. General Accounting Office. Drinking-Age Laws: An Evaluation Synthesis of Their Impact on Highway Safety. GAO/PEMD-87-10. U. S. General Accounting Office. 1987. Washington, D.C.

⁶ Youth aged 16 to 18 are more likely to obtain alcohol from older friends where the minimum drinking age is 18 than where it is 21, although some 16- to 18-year-olds are still able to obtain alcohol. Source: Drinking Age 21: Facts, Myths and Fictions. U. S. Department of Transportation. National Highway Traffic Safety Administration 1985. Washington, D.C.

⁷ Healthy People 2000 National Health Promotion and Disease Prevention Objectives. U. S. Department of Health and Human Services, Public Health Service. 1991. Washington, D.C.

seniors and 41.7 percent of college students reported recent occasions of heavy "binge" drinking (five or more drinks on one occasion within the last 2 weeks).⁸ Of the nearly 90 percent of students who report having tried alcohol by the 10th grade, 69 percent reported that they first used alcohol before the 9th grade. There are approximately 20.7 million students in grades 7 through 12; 51 percent of those students have drunk alcohol and 39 percent report drinking at least weekly. This pattern increases through the teen years until age 21 when 61 percent of 18- to 21-year-olds are regular (monthly or more often) alcohol drinkers. Further, consumption appears to be related to the ease of purchase or availability of alcoholic beverages.⁹

Young drivers are over-represented in traffic crashes and deaths. Thus, they continue to be a major traffic safety concern. In 1990, according to the NHTSA, drivers aged 15-20 years comprised only 7.1 percent of licensed drivers (11.9 million of 168.99 million), but accounted for 14.9 percent of all driver fatalities (3,568 of 23,904 driver fatalities). Further, while young drivers do only 20 percent of their driving at night, over half the crash fatalities of adolescent drivers occur during nighttime hours.¹⁰ A large proportion of teen fatalities (ages 15 to 17) occur on Friday, Saturday, and Sunday (46 percent in 1988). First-year drivers (primarily ages 16 and 17) have twice the average number of crashes and, on a miles-driven basis, four times the number of crashes involving more experienced drivers.¹¹

Nearly 20 years ago, safety researchers identified two major factors that contribute to the high fatality rate among youth: their lack of driving experience and their tendency to engage in risk-taking behavior. When alcohol is added to this already dangerous situation, the traffic risks are greatly enhanced.¹²

⁸ Healthy People 2000.

⁹ General Reports on Youth and Alcohol. Youth and Alcohol: A National Survey. Drinking Habits, Access, Attitudes, and Knowledge. U. S. Department of Health and Human Services. Office of Inspector General. 1991. Washington, D.C.; and National Household Survey on Drug Abuse. National Institute on Drug Abuse. In: Center for Substance Abuse Prevention Teen Drinking Program. 1992. Rockville, Maryland.

¹⁰ Adolescent Health. U.S. Congress, Office of Technology Assessment. 1990. Washington, D.C.

¹¹ Drinking Age 21: Facts, Myths and Fictions. U.S. Department of Transportation, National Highway Traffic Safety Administration. 1985. Washington, D.C.

¹² "Because of the relative lack of driving experience and emotional lability, the use of psychotropic drugs would be expected to have a particularly significant impact upon young drivers." Voas, R. B. Alcohol, Drugs, and Young Drivers. U. S. Department of Transportation. 1974. Washington, D.C.

POLICY AND LEGISLATIVE APPROACHES

The Safety Board believes that there are two general types of legal and policy approaches that can be taken to reduce traffic crashes among youth: those designed to reduce youth access to alcohol; and, those designed to reduce driving by youth or to restrict the circumstances under which they drive.

Reducing Alcohol Availability (Age 21 Law Deficiencies)

Surgeon General Antonia C. Novello of the U.S. Public Health Service, in releasing a 50-State survey of State alcohol beverage control and enforcement, stated that the minimum drinking age of 21 is largely a myth because State laws are riddled with "loopholes, laxity and lip service."¹³

Although the National Minimum Drinking Age Act of 1984 (NMDA) included provisions prohibiting the purchase and public possession of alcohol, not the sale of alcohol to minors, it resulted in a uniform national age for sale of alcohol. Five States and the District of Columbia do not prohibit the purchase of alcohol by minors. One State and the District of Columbia do not prohibit the public possession of alcohol by minors. Notwithstanding the NMDA purchase and public possession provisions, these six States and the District of Columbia were certified by the NHTSA as being in compliance with the act. In addition, 35 States allow one or more exceptions to possession of alcohol by minors.¹⁴

Neither the NMDA nor State laws uniformly prohibit the attempt by minors to purchase alcohol, the sale of alcohol to minors, or the consumption of alcohol by minors. (For more detail on State laws, see figure 1). A summary of State law deficiencies includes:

- 23 States do not prohibit minors from attempting to purchase alcohol,¹⁵ and 6 States have no laws with which to prosecute minors who purchase alcohol (Delaware, District of Columbia, Florida, Montana, New Hampshire, and New York);

¹³ *The Washington Post*, September 12, 1991, p. A1. Washington, D.C.

¹⁴ Youth and Alcohol: Laws and Enforcement. Compendium of State Laws. U. S. Department of Health and Human Services, Office of Inspector General. 1991. Washington, D.C.

¹⁵ The following States do not prohibit a minor from attempting to purchase alcohol: AK, AR, DE, DC, FL, GA, HI, IL, IA, LA, ME, MD, MI, MS, MT, NV, NH, NY, SC, TX, UT, VT, VA.

- 21 States do not have laws that specifically prohibit alcohol consumption by minors,¹⁶ and 2 States have no laws against minors possessing alcohol (District of Columbia and West Virginia);
- 16 States have no laws prohibiting minors from misrepresenting their age to purchase alcohol,¹⁷ and 19 States have no laws against minors presenting false identification¹⁸; and,
- Many States exempt possession of alcohol by minors in certain settings.¹⁹

As noted above, once an underage person obtains alcohol, many States have unusual provisions related to consumption or otherwise do not prohibit its consumption. For example, New Jersey, New York, and Rhode Island prohibit minors from consuming alcohol in licensed establishments, apparently permitting consumption at other public locations.

Most State laws appear to place responsibility for underage drinking on the seller of alcohol, but not on the underage purchasers who also should be responsible for their actions. Both the NMDA and State laws misplace responsibility, send a mixed message to youth, and impede enforcement. With such deficiencies, it is no surprise that alcohol is readily available to minors and that, as a consequence, alcohol-related crashes involving drivers under age 21 continue to occur. To maximize the lives saved from the establishment of a minimum drinking age, it is essential to reduce alcohol availability and traffic fatalities, improve State minimum drinking age laws and enforce these laws.

The Safety Board believes that States should enact comprehensive laws to prohibit the attempt by minors to purchase alcohol or the purchase of alcohol by minors, the public possession of alcohol by minors, public consumption of alcohol by minors, and the misrepresentation of age and use of false identification by minors to purchase alcohol. Uniform laws may also help to reduce travel by underage persons to States with more permissive laws.

¹⁶ The following States do not prohibit consumption of alcohol by minors: AR, CO, CT, FL, GA, HI, IA, KY, LA, MA, MS, MO, NE, NH, NM, NC, OR, SC, VT, WV, and WY.

¹⁷ The following States do not prohibit minors from misrepresenting their age to obtain alcohol: AR, CA, CO, HI, KY, LA, ME, MI, NM, NY, NC, OK, SD, VA, WA, and WY.

¹⁸ The following States do not prohibit the use of false identification: AL, AR, CO, DE, DC, IA, KS, LA, MD, MN, MT, NJ, OR, PA, SC, UT, VA, WA, and WI.

¹⁹ Youth and Alcohol: Laws and Enforcement, Compendium of State Laws. U. S. Department of Health and Human Services, Office of Inspector General. 1991. Washington, D.C.

State	Sale	Attempt	Purchase	Possess	Consume	MisrepAge	Fake ID
Alabama	21	21	21	21	21	YES	NO LAW
Alaska	21	NO LAW	21	21	21	YES	YES
Arizona	21	21	21	21	21	NO LAW	YES
Arkansas	21	NO LAW	21	21	NO LAW	NO LAW	NO LAW
California	21	21	21	21	21	NO LAW	YES
Colorado	21	21	21	21	NO LAW	YES	NO LAW
Connecticut	21	21	21	21	NO LAW	YES	YES
Delaware	21	NO LAW	NO LAW	21	21	YES	NO LAW
D.C.	21	NO LAW	NO LAW	NO LAW	21	YES	NO LAW
Florida	21	NO LAW	NO LAW	21	NO LAW	YES	YES
Georgia	21	NO LAW	21	21	NO LAW	YES	YES
Hawaii	21	NO LAW	21	21	NO LAW	NO LAW	YES
Idaho	21	21	21	21	21	YES	YES
Illinois	21	NO LAW	21	21	21	YES	YES
Indiana	21	21	21	21	21	YES	YES
Iowa	21	NO LAW	21	21	NO LAW	YES	NO LAW
Kansas	21	21	21	21	21	NO LAW	NO LAW
Kentucky	21	21	21	21	NO LAW	YES	YES
Louisiana	21	NO LAW	21	21	NO LAW	NO LAW	NO LAW
Maine	21	NO LAW	21	21	21	NO LAW	YES
Maryland	21	NO LAW	21	21	21	YES	NO LAW
Massachusetts	21	21	21	21	NO LAW	YES	YES
Michigan	21	NO LAW	21	21	21	NO LAW	YES
Minnesota	21	21	21	21	21	YES	NO LAW
Mississippi	21	NO LAW	21	21	NO LAW	YES	YES
Missouri	21	NO LAW	21	21	NO LAW	YES	YES
Montana	21	NO LAW	NO LAW	21	21	YES	NO LAW
Nebraska	21	21	21	21	NO LAW	YES	YES
Nevada	21	NO LAW	21	21	21	YES	YES
New Hampshire	21	NO LAW	NO LAW	21	NO LAW	YES	YES
New Jersey	21	21	21	21	21	YES	NO LAW
New Mexico	21	21	21	21	NO LAW	NO LAW	YES
New York	21	NO LAW	NO LAW	21	21	NO LAW	YES
North Carolina	21	21	21	21	NO LAW	NO LAW	YES
North Dakota	21	21	21	21	21	YES	YES
Ohio	21	21	21	21	21	YES	YES
Oklahoma	21	21	21	21	21	NO LAW	YES
Oregon	21	21	21	21	NO LAW	YES	NO LAW
Pennsylvania	21	21	21	21	21	YES	NO LAW
Rhode Island	21	21	21	21	21	YES	YES
South Carolina	21	NO LAW	21	21	NO LAW	YES	NO LAW
South Dakota	21	21	21	21	21	NO LAW	YES
Tennessee	21	21	21	21	21	YES	YES
Texas	21	NO LAW	21	21	21	YES	YES
Utah	21	NO LAW	21	21	21	YES	NO LAW
Vermont	21	NO LAW	21	21	21	YES	YES
Virginia	21	NO LAW	21	21	NO LAW	NO LAW	NO LAW
Washington	21	21	21	21	21	NO LAW	NO LAW
West Virginia	21	21	21	NO LAW	NO LAW	YES	YES
Wisconsin	21	21	21	21	21	YES	NO LAW
Wyoming	21	21	21	21	NO LAW	NO LAW	YES

FIGURE 1: State Laws Related to Underage Alcohol Use.

Underage Alcohol Enforcement

According to the Surgeon General, the ease with which underage persons are able to purchase alcohol is a national problem.²⁰ Attempts to determine the effectiveness of minimum drinking age laws led to research using "decoy" or "sting" operations in which an underage person, usually a young looking underage person, attempts to purchase alcohol, but does not use false identification or lie about his age. A successful purchase is one in which the decoy leaves the store with alcohol (usually beer).

Research on alcohol purchase attempts by a 19-year-old minor in 7 of 19 cities studied in 1992 indicated the following successful purchase rates: New York City (91 percent), Milwaukee (66 percent), Philadelphia (61 percent), Charlotte (57 percent), Atlanta (55 percent), Metro Miami (44 percent), and Indianapolis (44 percent).²¹ A 1990 IIHS study showed that 97 out of 100 attempts by 19- and 20-year-old decoys were successful when attempting to purchase beer in Washington, D.C. The IIHS study also showed that while in Westchester County, New York, 80 percent of the underage purchasers were successful, in Albany and Schenectady Counties, New York, underage purchasers were successful in 44 percent of their attempts to buy beer. IIHS researchers attributed the lower purchase success rate to recent Albany police efforts to enforce the purchase age laws.²² Montgomery County, Maryland's "Drawing the Line on Underage Alcohol Use Program" reported an even lower rate (40 percent) of successful purchase by decoys.²³

The Safety Board believes that tighter enforcement of the alcohol purchasing laws is required. States that qualify for grants under 23 United States Code 410, as administered by the NHTSA, are authorized to use these grant funds for underage purchase sting operations. The Safety Board supports the use of Section 410 funds for sting operations.

Successive sting operations have had a positive effect. In June 1992, Denver police cadets under age 21 were able to purchase alcohol in 59 percent of attempts. Widespread media coverage, warning letters to beer vendors, followup stings and prosecutions, as well as thank you letters to vendors refusing to sell to minors reduced the successful purchase rate to 32 percent between June and October 1992; a third sting

²⁰ *The Washington Post*, September 12, 1991, p. A1. Washington, D.C.

²¹ Doctors & Lawyers for a Drug Free Youth. 1992. Champaign, Illinois.

²² Preusser, David F. and Williams, Allan F. Sales of Alcohol to Underage Purchasers in New York and Washington, D.C. Insurance Institute for Highway Safety. 1991. Arlington, Virginia.

²³ Montgomery County, Maryland Comes Together to Fight Underage Drinking. In: National Commission Against Drunk Driving NewsNotes. Fall 1992. Washington, D.C.

operation in October 1992 showed a further reduction in the successful purchase rate to 26 percent.²⁴ Other research found cities in which the successful purchase rate was less than 20 percent.²⁵

Many States conduct sting or decoy operations on underage purchase to prosecute vendors. Although solid research is not available, anecdotal information indicates difficulty in successfully convicting, fining, and revoking permits of alcohol beverage vendors who sell alcohol to underage persons. Further, underage purchase enforcement efforts tend to be hampered by limited police and alcohol beverage control (ABC) agency resources. The Inspector General of the U.S. Department of Health and Human Services has raised concerns over the ease with which minors are able to purchase or otherwise obtain alcohol, the low priority of youth alcohol enforcement, and the lack of ABC jurisdiction over minors.²⁶ Thus, ease of alcohol purchase by minors as well as a low likelihood of enforcement, successful prosecution, and sanction combine to minimize efforts to deter underage purchase and alcohol-impaired driving.

Delaware and Oklahoma station police or ABC investigators in restaurants and stores where youth frequently attempt to purchase alcohol. An attempt to purchase alcohol by a minor results in prosecution and the loss of the minor's driver's license. Delaware sheriffs report that alcohol beverage vendors support the "Cops in Shops" program because it places responsibility for alcohol purchase with youth as well as with the vendor. Successful purchase rate data are not available for Delaware. Oklahoma reported expending 1,300 enforcement hours to obtain 443 arrests of minors who attempted to purchase alcohol.²⁷

The variation in successful purchase rates indicates that lower levels of successful purchase can be achieved. Enforcement strategies need to be compiled and evaluated for effectiveness and disseminated so that local jurisdictions can reduce underage alcohol purchase and alcohol-impaired driving. Both the U. S. Department of Health and Human

²⁴ Hurley, Charles A. Insurance Institute for Highway Safety. Statement before U.S. House of Representatives, Committee on Public Works and Transportation, Subcommittee on Surface Transportation. October 1, 1992.

²⁵ Doctors & Lawyers for a Drug Free Youth. 1992. Champaign, Illinois.

²⁶ Youth and Alcohol: Laws and Enforcement. Is the 21-Year-Old Drinking Age a Myth? U. S. Department of Health and Human Services. Office of Inspector General. 1991. Washington, D.C.

²⁷ Radecki, Dr. Thomas. Doctors & Lawyers for a Drug Free Youth. Personal communication on research in progress. January 5, 1993.

Services and Doctors & Lawyers for a Drug Free Youth are developing drinking age enforcement guides that may assist community enforcement.²⁸

Young Driver Restrictions

Some innovative State efforts to reduce youth highway crashes, youth fatal crashes, and youth alcohol-related fatal and injury crashes include: a lower BAC for young drivers, enforcement of DWI laws for young drivers, a provisional licensing entry system to more rapidly identify young problem drivers and to reward young safe drivers, and restrictions on high risk driving, such as nighttime driving.

Lower BAC Limits for Young Drivers

Even though no State allows the sale of alcohol to persons under age 21, most States still permit a driver under age 21 to drive legally with alcohol in their system, as long as their BAC does not exceed the State's adult legal limit (usually 0.10 percent). Young persons are overrepresented in both fatal crashes and motor vehicle fatalities.²⁹ Research has shown that young drivers are particularly susceptible to impairment by small amounts of alcohol.³⁰ For example, male drivers aged 16 to 20 have 6 times the driver fatality risk in single vehicle crashes at BACs from 0.01 to 0.04 percent compared to male drivers age 25 and older at these low levels.³¹ One study indicates that the risk of a crash, especially a fatal crash, increases with increasing BAC levels, but that "drivers age 16-19 have a higher risk of fatal crash than older drivers at all BACs."³² Further, the study noted that drivers age 16 and 17 at low BACs (0.01 to 0.049 percent) have a crash risk three times that of drivers age 18 to 24 at the same BAC levels. The report's summary on young drivers and alcohol states that: "Although young people drink and drive less often than people of other age groups, the young who do choose to drink and

²⁸ Stewart, Kathryn. Guide to Enforcement of Minimum Purchase Age Laws. Draft in review. Pacific Institute for Research and Evaluation (under contract to U.S. Department of Health and Human Services). 1993. Bethesda, Maryland; and Radecki, Dr. Thomas E. Community Guide to the Enforcement of the 21-Year-Old Drinking Age Law (draft). Doctors & Lawyers for a Drug Free Youth. 1993. Champaign, Illinois.

²⁹ Hingson, R., Heeren, T., and Morelock, S. Effects of Maine's 1982 .02 Law to Reduce Teenage Driving After Drinking. In: *Alcohol, Drugs and Driving*. Vol. 5. No. 1. 1989.

³⁰ Hingson, R. and Howland, J. Prevention of Drunk Driving Crashes Involving Young Drivers: An Overview of Legislative Countermeasures and Conclusions of the Symposium. In: *Proceedings of International Symposium on Young Drivers Impaired by Alcohol or Other Drugs*. 1986. Amsterdam, The Netherlands.

³¹ Zador, Paul L. Alcohol-Related Relative Risk of Fatal Driver Injuries in Relation to Driver Age and Sex. In: *Journal of Studies on Alcohol*. Vol. 52. No. 4. 1991.

³² Simpson, H. Polydrug Effects and Traffic Safety. In *Alcohol, Drugs, and Driving: Abstracts and Reviews*. Vol. 1. No. 2. p. 24. 1985.

drive are at significantly higher risk of fatal crash than other age groups of drinking drivers.³³

To combat the underage drinking-driving problem, 15 States have laws to prohibit vehicle operation by underage drivers with a BAC level lower than the BAC level specified for drivers over 21. The lower BAC levels and age of application vary substantially from State to State.³⁴

A law lowering the BAC for underage drivers has been found to be effective in reducing nighttime fatal crashes among teenagers in Maine, even though only 40 to 50 percent of teenagers knew about the law.³⁵ A study of the Maryland 0.02 percent BAC law found statistically significant reductions (a minimum 11 percent reduction) in alcohol-related crashes in the affected age group. When combined with a public information and education campaign, the Maryland law resulted in a nearly 50 percent reduction in underage alcohol-related crashes over a 2-year period, 1989-1990.³⁶

Laws reducing the legal BAC for youth can be strengthened by imposing administrative license revocation³⁷ when they are arrested with any measurable BAC.³⁸ Often, when impaired driving law sanctions are implemented through the judicial process, penalties are imposed very slowly or not at all, especially where juvenile courts have jurisdiction. A substantial body of research supports the effectiveness of both administrative adjudication and license revocation in reducing crashes among drivers of all ages. The driver's license is an important possession for a young person, and it is reasonable to expect a significant benefit from revoking the license of underage drivers caught driving with any measurable BAC.

³³ Simpson, H. p. 33.

³⁴ 0.00 BAC--Arizona (under 21), North Carolina (under 19), Oregon (under 21), Utah (under 21), and Wisconsin (under 18); 0.01 BAC--New Jersey (under 21); 0.02 BAC--Maine (under 21), Maryland (under 21), Ohio (under 18), and Vermont (under 18); 0.04 BAC--Rhode Island (under 21) and New Hampshire (under 21); 0.05 BAC--California (under 18) and New Mexico (under 18); and 0.06 BAC--Georgia (under 18).

³⁵ Hingson, R., Heeren, T., and Morelock, S. Preliminary Effects of Maine's 1982 0.02 Law to Reduce Teenage Driving After Drinking. In: *Proceedings of International Symposium on Young Drivers Impaired by Alcohol or Other Drugs*. 1986. Amsterdam, The Netherlands.

³⁶ Blomberg, Richard D. Lower BAC Limits for Youth: Evaluation of the Maryland .02 Law. U.S. Department of Transportation, National Highway Traffic Safety Administration. 1992. Washington, D.C.

³⁷ The term "revocation" as used in this letter refers to both license suspension, where a driver's license is automatically returned after the suspension has been served, and license revocation, where a person must reapply for a driver's license.

³⁸ Preusser, D.F., Ulmer, R.G., and Preusser, C.W., Obstacles to Enforcement of Youthful (Under 21) Impaired Driving. U.S. Department of Transportation, National Highway Traffic Safety Administration. 1992. Washington, D.C.

Twice in the last decade, the Safety Board has recommended enactment of laws to administratively revoke the license of a driver who refuses to take or who fails a chemical test for alcohol (Safety Recommendations H-84-13, H-89-2 and -8). Similarly, the Safety Board believes that administrative license revocation should apply to a low or zero percent BAC limit law for youth.

The Uniform Vehicle Code published by the National Committee on Uniform Traffic Laws and Ordinances contains a model law, Section 6-208, that provides guidance to the States in drafting license revocation legislation for persons under 21. However, the Safety Board supports a zero alcohol tolerance for young drivers rather than the 0.02 percent level contained in Section 6-208. States that have laws with a BAC of 0.00 or 0.02 percent for young drivers are significantly more effective in reducing youth fatalities than are States that have laws with higher BACs (0.04, 0.05 or 0.06 percent). States that have laws with a 0.00 percent BAC for underage drivers appear to be more effective in reducing youth fatalities than States with a 0.02 percent BAC law for young drivers.³⁹

The U. S. Department of Health and Human Services has defined a national health goal for the year 2000 to extend to all 50 States "legal blood alcohol concentration tolerance levels of 0.00 percent for those younger than 21."⁴⁰ The Surgeon General, the NHTSA, Mothers Against Drunk Driving, Students Against Driving Drunk, Remove Intoxicated Drivers, National Commission Against Impaired Driving, National Coalition to Prevent Impaired Driving, and many other organizations support this type of legislation.

The Safety Board believes that underage drivers with any measurable alcohol should not drive. The Safety Board believes that appropriate State laws should be enacted to administratively suspend or revoke the driver's license of an alcohol-positive driver who is under the age of 21. Further, enforcement and public information efforts should accompany implementation of these laws.

Enforcement of DWI Laws for Young Drivers

One study that examined DWI arrest data for young persons determined that they are arrested for DWI at rates far below their incidence in the driving population, based on roadside survey data, in non-fatal alcohol-related crashes, and in alcohol-related driver fatal crashes.⁴¹ He noted that the lower DWI arrest rate can be attributed to barriers to efficient enforcement. Barriers include drinking patterns and driving patterns that are

³⁹ Hingson, R. Personal communication on research in progress, December, 1992.

⁴⁰ Healthy People 2000, National Health Promotion and Disease Prevention Objectives. U. S. Department of Health and Human Services. 1991. Washington, D.C.

⁴¹ Preusser, D.F., Ulmer, R.G., and Preusser, C.W., Obstacles to Enforcement of Youthful (Under 21) Impaired Driving. U.S. Department of Transportation, National Highway Traffic Safety Administration. 1992. Washington, D.C.

different from those of older drivers, thus limiting the effectiveness of traditional DWI enforcement strategies; low BACs and different DWI cues that may affect police ability to detect young impaired drivers; a lack of DWI adjudication because of low BACs; juvenile court processing of juvenile offenders; and the combination of alcohol with other drugs.

Provisional Youth Licensing and Driving Restrictions

The IIHS reports that "In every country in the world where cars are a common means of transportation, teenagers are disproportionately involved in motor vehicle crashes. . . . Policies that limit the driving exposure of teenagers are effective, but such policies are not widely applied in the United States."⁴² Research has indicated that all novice drivers, especially young novice drivers under 20, have a higher crash rate than more experienced drivers.⁴³

A strategy to reduce crashes involving young novice drivers has been the use of a provisional license system in which the license can be revoked if certain conditions are violated. A provisional license for teenage novice drivers combines restrictions so that their driving takes place in less dangerous circumstances (daytime and with adult supervision) until the driver has had an opportunity to gain experience. Restrictions are gradually lifted after the successful completion of the learning period.

The American Association of Motor Vehicle Administrators and the NHTSA recommend that States improve the driver entry system for young novice drivers. They recommend an improved system with the following characteristics:

- a provisional license system to ease the young novice driver into the mainstream, including restricted nighttime driving before full licensure;
- a learner's permit with a specific period of validity;
- parent/adult supervised practice driving especially during high-risk hours;
- zero BAC limit for young drivers;
- prompt, youth-oriented driver improvement actions;
- mandatory safety belt usage; and,
- demonstrated safe driving performance for specific periods in order to progress to full licensure.⁴⁴

⁴² Teenage Drivers. Insurance Institute for Highway Safety. 1992. Arlington, Virginia.

⁴³ Mayhew, D. and Simpson, H. New to the Road: Young Drivers and Novice Drivers--Similar Problems and Solutions? Traffic Injury Research Foundation of Canada. 1990. Ottawa, Ontario, Canada.

⁴⁴ An Improved Driver Entry System for Young Novice Drivers. U.S. Department of Transportation, National Highway Traffic Safety Administration. 1989. Washington, D.C.

Crashes and violations should result in extension of the provisional license period. The key point of all the recommendations is that because driving patterns are formed early, driver improvement actions for youthful drivers need to be identified and acted on more rapidly than for adult drivers.

Provisional licensure has been implemented in New Zealand and in the State of Victoria in Australia. The provisional license includes restrictions on the number and age of passengers a young novice driver can carry (to reduce possible peer pressure to engage in risky driving), nighttime driving restrictions, lowered legal BAC levels, speed restrictions, compulsory seat belt use, and a special removable license plate that must be used when the vehicle is operated by a novice driver.

Evaluation of the New Zealand program shows dramatic decreases in crashes among 15- to 17-year-olds (the main target of the program). While injury crashes have dropped about 12 percent overall in New Zealand, crashes among these young drivers have dropped by 40 percent--from an average of about 120 per month to about 70 per month.⁴⁵ A similar, but less extensive, youth driver improvement program in Maryland resulted in a 5-percent reduction in crashes and 10-percent reduction in violations.⁴⁶ A California youth license control project is credited with reducing the rate of crashes involving 15- to 17-year-old novice drivers by 5.3 percent.⁴⁷

Nighttime Driving Restrictions

A 1985 NHTSA report on provisional licensing recommended nighttime driving restrictions for young drivers. At least eight States have placed nighttime driving restrictions on young novice drivers, prohibiting them from driving during high-risk nighttime hours.⁴⁸ One study analyzed up to 5 years of crash data in four States and determined that nighttime driving restriction laws resulted in substantial crash reductions among young drivers during nighttime driving restriction hours in the following States: Pennsylvania (69 percent), New York (62 percent), Maryland (40 percent), and Louisiana

⁴⁵ *New to the Road: Prevention Measures for Young or Novice Drivers*. Insurance Bureau of Canada and Traffic Injury Research Foundation. 1991. Toronto and Ottawa, Ontario, Canada.

⁴⁶ *Maryland Youth License Control Project*. In: *An Improved Driver Entry System for Young Novice Drivers*. U.S. Department of Transportation, National Highway Traffic Safety Administration. 1989. Washington, D.C.

⁴⁷ *California Provisional Licensing Program*. In: *An Improved Driver Entry System for Young Novice Drivers*. U.S. Department of Transportation, National Highway Traffic Safety Administration. 1989. Washington, D.C.

⁴⁸ Idaho (under 16, daytime only), Illinois (under 17, 11-6 am Mon-Thurs, 12-6 am Sat-Sun), Louisiana (age 15, 11-5 am Mon-Thurs, 12-5 am Fri-Sun), Maryland (age 16, 12-5 am), Massachusetts (under 18, 1-4 am), New York (age 16, 9-5 am), Pennsylvania (under 18, 12-5 am), South Dakota (under 16, 8-6 am). "Teenage Drivers". Insurance Institute for Highway Safety. 1992. Arlington, Virginia. Note: see State laws for conditions and exemptions.

(25 percent). The 16-year-old driver crash involvements in States with nighttime driving restrictions were estimated to be reduced by 831 crashes in Louisiana, 338 crashes in Maryland, 2,725 crashes in New York, and 3,432 crashes in Pennsylvania. Similar data for comparison States without nighttime driving restrictions indicated that these States had substantially greater crash involvements than States with nighttime driving restrictions. For example, 14 percent of New York crashes during restricted hours involved 16-year-old drivers compared with 28 percent of these crashes in Ohio, a comparison State. States where the nighttime driving restrictions start earlier have achieved greater success than in States where the nighttime driving restrictions start later. Further, fewer crashes involving young novice drivers occurred during other times of the day in States with nighttime driving restrictions.⁴⁹

CONCLUSIONS

The Safety Board concludes that despite improvements in the 1980's, highway crashes among young drivers, including alcohol-related crashes, continue to be a serious and persistent problem. Research indicates that several legislative and policy actions can be effective in reducing the crashes. These include:

- Enacting laws establishing lower BAC levels for youth and administrative license revocation for low BAC alcohol-related youth traffic violations;
- Eliminating deficiencies in, and providing for more vigorous enforcement of, minimum purchase age laws, and decreasing alcohol availability to youth;
- Developing carefully targeted multi-media community information and education campaigns and programs directed at youth, and
- Enacting laws establishing a provisional license system in conjunction with nighttime driving restrictions for young novice drivers.

The Safety Board's experience indicates that the most effective combination is tough, fair laws, vigorous enforcement, and intensive and targeted educational campaigns.

⁴⁹ Prausser, D. F., Williams, A.F., Zador, P. L., and Blomberg, R.D. The Effect of Curfew Laws on Motor Vehicle Crashes. *Law and Policy*. Vol. 6. No. 1. 1984.

RECOMMENDATIONS

Therefore, the National Transportation Safety Board recommends that the Governors and legislative leaders of the 50 States, the Commonwealth of Puerto Rico, the Territories, and the Mayor and City Council of the District of Columbia:

Review your drinking age (age 21) laws to determine if they prohibit persons under the age of 21 from attempting to purchase, purchasing, publicly possessing, or consuming alcoholic beverages and prohibits the sale of alcoholic beverages to persons under the age of 21. Enact laws to include these provisions and to eliminate deficiencies that may exist. (Class II, Priority Action) (H-93-1)

Vigorously enforce the minimum drinking age laws to achieve a significant reduction in the rate of alcohol purchase by underage persons. (Class II, Priority Action) (H-93-2)

Vigorously enforce youth drinking and driving laws to increase the percentage of alcohol-impaired young drivers who are arrested. (Class II, Priority Action) (H-93-3)

Vigorously enforce the minimum drinking age laws by taking driver license action against underage purchasers and vendor license action against those who sell to persons under the minimum purchase age. (Class II, Priority Action) (H-93-4)

Enact comprehensive laws that prohibit drivers under the age of 21 from driving with any measurable blood alcohol concentration (any level above 0.00 BAC), to include:

- (a) provisions for administrative license revocation (Class II, Priority Action) (H-93-5);
- (b) a period of extended license suspension/revocation (including a period of loss of driving privileges without exemption) for underage offenders in addition to any criminal sanctions that may be specified (Class II, Priority Action) (H-93-6); and,
- (c) public information programs targeted to youth to enhance the effect of the new law. (Class II, Priority Action) (H-93-7)

Enact laws to provide for a provisional license system for young novice drivers. (Class II, Priority Action) (H-93-8)

Enact laws that prohibit driving by young novice drivers between certain times, especially midnight to 5 a.m. (Class II, Priority Action) (H-93-9)

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility ". . . to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). The Safety Board is vitally interested in any actions taken as a result of its safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendations in this letter. Please refer to Safety Recommendations H-93-1 through -9 in your reply.

VOGT, Chairman, Vice Chairman COUGHLIN, and Members LAUBER, HART, and HAMMERSCHMIDT concurred in these recommendations.


By: Carl W. Vogt
Chairman