

CHAPTER 6

Reducing Impaired Driving

KEY TOPICS

- administrative license revocation (ALR)
- blood alcohol concentration (BAC)
- operating while intoxicated (OWI)

GOALS

- Reduce alcohol-related crashes and related deaths and injuries.
- Reduce the incidence of drinking and driving in the 21 to 34 age group.
- Further discourage impaired drivers from driving with stricter laws and enforcement.
- Reduce the number of repeat offenders and keep habitual offenders from driving.
- Maintain access to federal safety funding and pass state legislation when appropriate.

BACKGROUND

Impaired driving is the most frequently committed violent crime in America. Every 33 minutes, someone in this country dies in an alcohol-related crash.

National Highway Traffic Safety Bureau (NHTSA), *Setting Limits, Saving Lives*

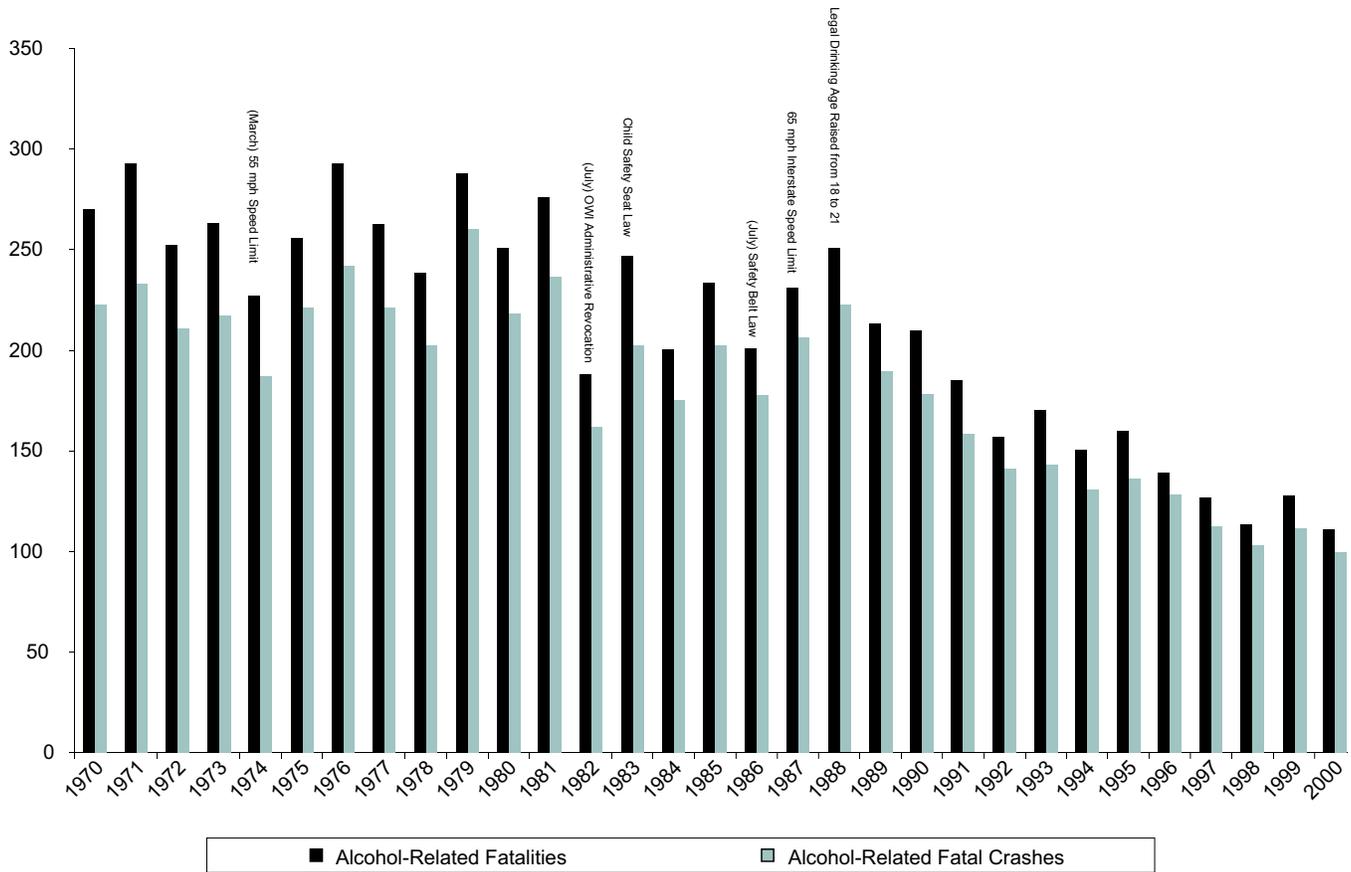
Among all traffic safety issues, impaired driving has the highest profile, and combating it has been vigorously pursued for decades with aggressive campaigns in both the public and private sectors. Private citizen initiatives such as Mothers Against Drunk Driving (MADD) and Students Against Destructive Decisions (SADD) have been a dynamic part of the public discussion. Public awareness campaigns have influenced and changed cultural perceptions of impaired driving. An example of this success is that MADD is now recognized by over 50% of Americans surveyed.

Nationally, the efforts of law enforcement, state legislatures, and citizens' organizations helped reduce the 1999 alcohol-related fatality rate 30% from its 1989 level. From 1989 to 1999 intoxication rates decreased for drivers of all age groups involved in fatal crashes. This reduction is a laudable achievement, but still there were 15,786 alcohol-related traffic deaths nationally in 1999.

In Iowa, alcohol-related fatalities have declined even more dramatically, falling from 210 in 1990 to a preliminary figure of 110 in 2000—a drop of 48%. See chart for a demonstration of the decline since the 1970s.

6. Reducing Impaired Driving

Iowa Alcohol-Related Fatal Crashes and Fatalities 1970–2000



Despite all these efforts, impaired driving remains a priority issue. “Drunk driving” continues to be a serious concern for the general public and still receives high-priority ranking in surveys. Habitual operating while intoxicated drivers present perhaps the most difficult driver behavior challenges faced by transportation safety officials.

Blood Alcohol Concentration

The amount of alcohol present in a person’s body, the blood alcohol concentration, is measured by the weight of the alcohol in a certain volume of blood. This is an objective measure and can be effectively tested by blood, breath, urine, or saliva.

NHTSA defines a traffic crash as being alcohol-related if either a driver or a non-occupant (e.g., a pedestrian) had a blood alcohol concentration of 0.01 or greater.

An illegal “per se” law makes it illegal to drive at or above the set BAC limit whether or not a driver exhibits signs of intoxication. Iowa’s BAC laws are “per se.”

NATIONWIDE

National Facts

Numerous statistics are generated on the various issues associated with alcohol and driving. The large numbers and percentages are often staggering, and 1999 was no exception (as reported in the NHTSA *Traffic Safety Facts—Alcohol* and *Traffic Safety Facts—Children*):

- 38% of fatal crashes involved alcohol.
- An alcohol-related fatality occurred every 33 minutes (on average).
- 21% of the children younger than 15 years old killed in crashes were killed in alcohol-related crashes.
- 308,000 injuries from crashes where alcohol was present were reported.
- One person was injured every two minutes in an alcohol-related crash (on average).
- Three in every 10 Americans will be involved in an alcohol-related crash in their lifetime if this rate continues.
- 1.5 million individuals were arrested in 1999 for driving under the influence of alcohol or drugs, an arrest rate of almost 1 for every 121 licensed drivers in the United States.
 - o Approximately one-third of these 1.4 million arrested were repeat offenders.
 - o It has been estimated that another 2,000 alcohol-impaired driving trips occur for every arrest made.
- The highest intoxication rates in 1999 fatal crashes were recorded for younger drivers:
 - o 27% of drivers 21–24 years old were intoxicated
 - o 24% of drivers 25–34 years old were intoxicated
 - o 21% of drivers 35–44 years old were intoxicated
- If present trends continue, during the next 10 years approximately 40,000 persons age 25 and under will die in alcohol-related crashes in the United States, with over 400 of those deaths occurring in Iowa.

6. Reducing Impaired Driving

Other national data regarding BAC limits have been compiled by NHTSA and reported by the Iowa Governor's Traffic Safety Bureau (Iowa GTSB) (*BAC Fact Sheet*):

- All states and the District of Columbia have set a BAC limit of 0.02 or lower for drivers under the age of 21. NHTSA estimates that minimum drinking age laws have saved 19,121 lives since 1975.
- 29 states (including the four of the five most populous states and several Midwestern states, including Illinois, Kansas, Missouri, and Nebraska) have enacted 0.08 BAC limit per se legislation with a number of additional states expected to adopt legislation in 2002.
- National studies show that 300 to 500 lives are currently being saved annually because of 0.08 laws, and 900 to 1,400 lives could be saved annually if all 50 states enacted 0.08 laws.
- Many states (including Illinois) currently have a 0.08 BAC per se level and show a significant statistical correlation in lowered alcohol-related fatalities after the 0.08 went into effect.
- Federal incentives were announced in September 2000 encouraging states to enact laws against driving with a 0.08 BAC.
- At 0.08 BAC, a person is three times more likely to be involved in a crash than if they had not been drinking.
- At 0.10 BAC, a person is 12 times more likely to be involved in a crash than if they had not been drinking.
- 0.08 does not mean “two beers or two drinks and you're over the limit.” A 170-pound male would need to consume four drinks within one hour to reach 0.08; a 135-pound female would need to consume three drinks within one hour.
- Only 12% of the drivers with a BAC over 0.10 who were killed in 1999 crashes had a prior conviction for OWI.

National Public Opinion

As noted in NHTSA, *Setting Limits, Saving Lives*, “The American public overwhelmingly supports legislation and programs to curb impaired driving. In a poll conducted for MADD, the Gallup Organization found that the vast majority of the American public considers drunk driving the number one major highway safety problem and most support tough laws and sanctions to reduce impaired driving.”

IOWA

Iowa's traffic safety and enforcement professionals have made great strides in reducing alcohol-related traffic fatalities and injuries. Iowa now has the second lowest percentage of alcohol-related fatalities in the nation, based on 2000 data.

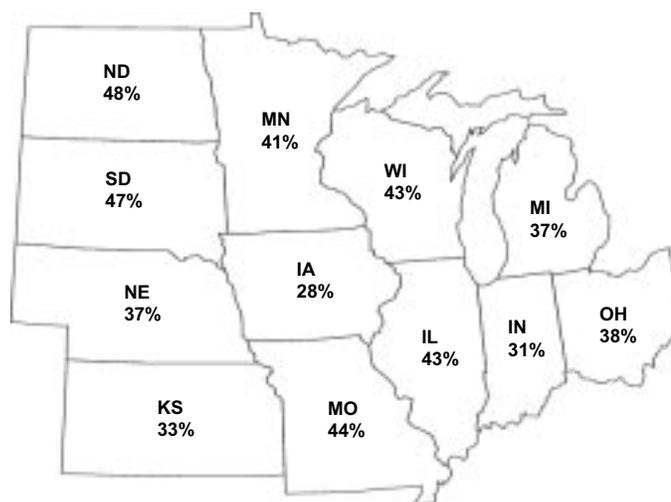
While Iowa's experience is better than the national average, there is still room for improvement. For example, Iowa does not have a 0.08 BAC law or mandatory BAC testing for drivers involved in fatal crashes.

Iowa Facts

Iowa's experience is better, statistically, than the national averages. The number of alcohol-related fatalities reported in 1995–1999 represents the

lowest five-year period on record. Alcohol was involved in 27%—a total of 132—of the fatal crashes in 1999, the third lowest year on record. Alcohol-related traffic injuries totaled 2,554 in 1999, down 35% from 1990 totals. See map for a comparison of 2000 rates in the Midwest.

Percent of Traffic Fatalities That Are Alcohol Related (2000)



OWI arrests in Iowa increased significantly between 1974 and 1993, from about 4,000 to an estimated 20,000 in 1993. Since that time, OWI arrests have leveled and currently stand at about 19,000 (2000 estimate). The impact of enhanced OWI legislation is apparent in the 20-year chart of Iowa traffic fatalities found in Appendix A, Iowa Data and Analysis. The top three counties for OWI revocations and alcohol-

and drug-related injuries and fatalities are given below (from Iowa GTSB, *Iowa Problem Identification FY 2002*).

Iowa OWI Revocations: Top Counties 1997–1999

County	1997	1998	1999	Average
Polk	2,222	2,549	2,250	2,340.3
Linn	1,745	1,713	1,712	1,723.3
Scott	1,014	920	948	960.7

6. Reducing Impaired Driving

Alcohol- and Drug-Related Injuries: Top Counties 1997–1999

County	1997	1998	1999	Average
Polk	379	417	379	391.67
Scott	178	190	202	190.00
Linn	123	140	140	134.33

Alcohol- and Drug-Related Fatalities: Top Counties 1997–1999

County	1997	1998	1999	Average
Black Hawk	7	6	5	6.0
Polk	4	5	7	5.3
Scott	7	3	5	5.0

Iowa OWI revocation data show that most OWI revoked drivers do not become repeat offenders. An average of 20,587 drivers receive OWI convictions every year (based on five years of Iowa OWI revocation data). Of these, 77% are first offenders, 18% are second offenders, 4% are third offenders, and only about 1% have more than three offenses, as indicated in the figure.

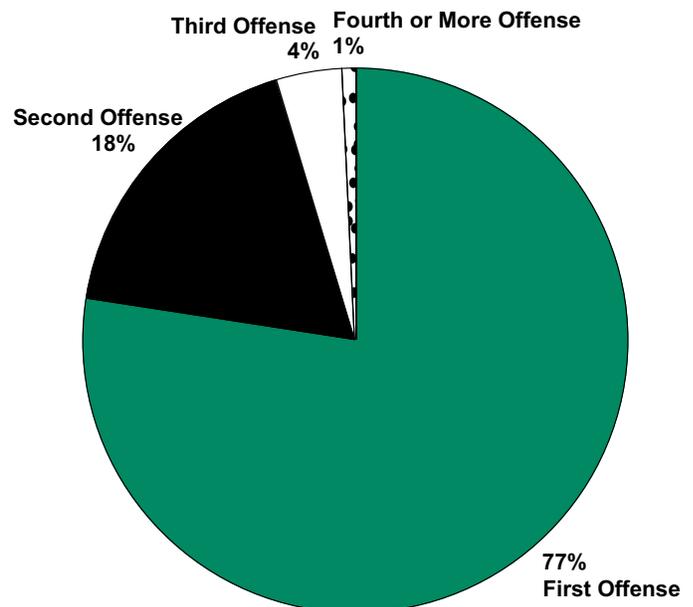
Intoxicated drivers 16–25 years old accounted for nearly 30% of all fatal alcohol-related crashes in Iowa from 1992 to 1999. This group is especially at risk because they are relatively inexperienced drivers operating at higher risk times such as late at night.

The Iowa GTSB reported the following data from the Iowa DOT or NHTSA (*BAC Fact Sheet*):

- National studies indicate that Iowa could save 10–16 lives per year if Iowa enacted such legislation because of the reduced drinking and driving results of this increased level of deterrence.
- Iowa could gain four million dollars in federal safety incentive funds in the next two years if 0.08 legislation is passed.

NHTSA (in *Setting Limits, Saving Lives*) recommends that every state passes four key laws. Iowa has enacted forms of all but one of these laws (see table for details).

Iowa OWI Revocations by Number of Offenses (1996–2000)



Test of Iowa's Laws to Reduce Impaired Driving

Law	Enacted in Iowa?
Illegal per se	Y
Administrative license revocation	Y
Zero tolerance	Y
0.08 BAC	N

Safety Practitioner Observations

The Iowa Safety Management System (Iowa SMS) supports efforts to explore new ideas—as well as look at other states' or countries' programs—that demonstrate effective ways to save lives and reduce injuries from impaired drivers. There is no single answer to this unsafe behavior, and best solutions will likely involve a number of disciplines and agencies collaborating to provide consistent programs throughout the state and across various agencies.

Here are some observations from safety practitioners:

- Because many impaired drivers are habitual offenders, efforts to deter this behavior are most effective when a range of prevention, deterrence, and punishment solutions are coordinated.
- There is national recognition that impairment can begin with a BAC as low as 0.04, as enforced through administrative license revocation (ALR) of a commercial driver license (CDL).
- Strong legislation can act as a *deterrent* to those that might consider driving after consuming alcohol or drugs and has the potential to reduce the needless loss of life—or risk of serious injury—due to impaired driving crashes.
- Because impairment starts well below 0.08, lowering Iowa's legal BAC to 0.08 would have the potential to reduce alcohol-related death and injury.
- New Mexico showed a 19.25% decrease in drunk driving fatalities following passage of a “bundle” of OWI law reforms (at the same time, five surrounding states showed a 3.52% increase in fatal drunk driving crashes). The omnibus bill included 0.08 BAC, 0.02 BAC for those under 21, new aggravated OWI at 0.15 BAC or over, increased penalties for driving on a revoked license, increased alcohol taxes, increased penalties for serving minors, and sobriety checkpoint blitzes.

In January 2001, Iowa officials planning for 2002 budgets publicly discussed the real costs of substance abuse including its related costs in social services and health programs for treatment. Similar costs and program

6. Reducing Impaired Driving

requirements in law enforcement and traffic-crash costs are also apparent to highway safety practitioners.

Iowa Public Opinion

Iowa SMS Public Opinion Survey

The 1999 Iowa SMS *Iowa Strategic Highway Safety Plan* included a number of potential strategies for dealing with these safety elements. The Iowa SMS public opinion survey asked over 1,000 Iowans whether they would support these strategies.

Goal:

- 80% of respondents said reducing drunk or substance impaired driving should receive high emphasis over the next five years.

Strategies:

- The strategy for Iowa lowering the BAC from 0.10 to 0.08 ranked first in priority among eight suggested driver-related strategies.
- More than half of respondents support the strategy of lowering the BAC from 0.10 to 0.08.
(Note that this survey was completed prior to recent public discussions and the federal announcements of incentive funding available to Iowa.)

POTENTIAL STRATEGIES

Legislation, Policy, and Enforcement

- Encourage adoption of a 0.08 BAC law. National studies estimate that 900 to 1,400 additional lives could be saved annually because of reduced alcohol-related crashes.
- At least 15 states have enacted mandatory BAC testing for all drivers involved in fatal crashes. Iowa should consider doing the same.
- Administratively revoke the driver's license of anyone attempting to use it to purchase alcohol for anyone under age. Illinois has a law that revokes the driving privilege for one year if a state-issued driver's license or identification card is used to purchase alcohol under the legal age. Iowa could investigate a similar strategy.
- Maintain Iowa's current ALR law.
- Mandate server education for grocery and liquor store workers.
- Promote saturation patrols, corridor enforcement, and vehicle safety checkpoints with frequency and high profile publicity.



6. Reducing Impaired Driving

- Enact necessary changes to Iowa's OWI law to re-establish compliance with the Transportation Equity Act for the 21st Century Section 164 repeat offenders statutes.
- Enact a bundle of OWI-related laws at once for increased deterrence (New Mexico omnibus model).
- Maintain the Drug Recognition Expert (DRE) Program (see Successes and Strategies Implemented section in this chapter).
- Promote education and enforcement regarding Iowa's 0.02 BAC law for persons under 21.
- Conduct well publicized special enforcement efforts to enforce the 0.02 BAC law for young drivers.
- Discourage repeat offenders. Promote substance abuse evaluation for all first-offense OWI offenders (Iowa law requires evaluation for first offenders with a BAC of 0.15 or above). (Consider tax on liquor sales as funding mechanism.)
- Continue and enhance strong enforcement such as the Iowa GTSB's Special Traffic Enforcement Program (STEP) (see Successes and Strategies Implemented section in this chapter).
- Increase fines for hit-and-run crashes. Law enforcement officers report that impaired drivers choose to leave crash scenes and pay a small fine rather than risk an OWI citation. (See Successes and Strategies Implemented section in this chapter regarding the 2001 Iowa legislative session.)
- Require mandatory sentencing in vehicular homicide cases.
- Continue to monitor and update laws and policies to reflect changes in drug use trends and activities in Iowa.
- Consider alternative Alcoholic Beverage Division enforcement such as creating and funding inspector positions at the Alcoholic Beverage Division to ensure continual and consistent enforcement throughout the state.
- Require immediate seizure and sale of the vehicle the person was driving at the time of an OWI second offense or any driving while revoked offense following an OWI second offense.
- Make vehicle owners responsible for ensuring that only drivers with valid licenses operate their vehicles and cite them with a serious misdemeanor for allowing a suspended, revoked, or barred driver to operate their vehicle.
- Use alternative transportation (Aspen, Colorado, model).

6. Reducing Impaired Driving

Education and Public Awareness

- Implement a comprehensive public awareness campaign.
- Educate our youth to the fact that drinking under the legal age is no longer socially acceptable, and that drinking and driving is never acceptable.
- Develop partnerships among stakeholders who have a mutual interest in preventing impaired driving. Include those who deal with the impaired driver and victims (law enforcement officers, emergency room doctors and nurses, clergy), those that are financially affected (insurance companies, employers), and those that rely on safe roads (trucking personnel).
- Identify and promote little-known partnership programs (e.g., Trauma Injury Prevention Strategies [TIPS]) that are available to all related interest groups.
- Focus on new and innovative programs that target the 21–34 age group in cooperation with schools, private businesses, media, and governments using incentive funds and local funding available from business, nonprofit groups, and community efforts.
- Expand private-sector partnerships in promotion/awareness efforts regarding the 25–34 age group.

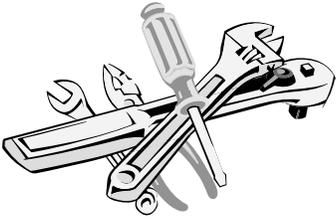
Design and Technology

- Acquire funding and replace the older evidentiary breath testing devices used statewide to measure BAC (see Successes and Strategies Implemented section in this chapter).
- Study the effects of self-testing BAC technology used in bars and disposable BAC testing consumer products available in Europe (Denmark model).
- Use the University of Iowa simulator for more research and public awareness.
- Use global positioning system (GPS) with wristband for monitoring chronic offenders after other attempts fail.
- Consider more widespread use of new technologies, such as passive alcohol sensors, to assist detection of violations.

Other Initiatives

- Promote education of local law enforcement regarding the importance of beverage retail compliance.

- Collaborate with substance abuse prevention and treatment and other and health care professionals in addressing root causes of impaired driving.
- Create more effective ways to eliminate repeat OWI offenders.
- Continue Iowa's DRE Program (see Successes and Strategies Implemented section in this chapter).



SUCCESSES AND STRATEGIES IMPLEMENTED

- Iowa's use of ignition interlock devices has allowed those legally able to drive to safely resume driving. Iowa is a leader in this area, and there is potential for expanding and improving this strategy with new innovations.
- Iowa currently has 61 law enforcement officers trained as drug recognition experts located in and near major population areas. Nine of these officers are trained DRE instructors who generally work the streets full time and donate their time and expertise as instructors with the support of their departments.
- Iowa's outdated evidentiary BAC testing equipment is being replaced through a number of federal funding sources.
- The Alcohol Server Training Program teaches alcohol servers about signs of intoxication and how to safely intervene so the intoxicated customer does not drive home. Some insurance companies offer businesses a reduced rate if all or most of the servers are trained.
- Special multidisciplinary and multi-jurisdictional enforcement efforts funded through the Iowa GTSB (i.e., STEP) have been effective in targeting and publicizing a range of driver behaviors.
- Legislation rewriting 805.8 passed in the 2001 Iowa legislative session. This addressed a range of changes made through the years by reorganizing the chapter and changing some fines and fees.

6. Reducing Impaired Driving

NOTE

The potential strategies in this chapter do not represent specific recommendations of the Iowa SMS Coordination Committee or any agency, group, or individual represented in Iowa SMS. The strategies represent a range of alternatives for legislators, department or agency directors, local governments, and citizen groups to consider when they elect to address a specific highway safety concern.

This toolbox is a living document that will continue to provide information, direction, and ideas for highway safety decision makers. Any strategies selected for implementation by Iowa SMS or any other entity will require further development through identifying potential partners, entities impacted, potential funding, steps for implementation, evaluation, and other pertinent tasks.

RESOURCES

Information in this chapter is drawn from many individuals and sources. Known sources are listed here. **Contributors:** Bob Thompson (primary), Denny Becker, Russ Belz, Scott Falb, Jan Goldsmith, Jack Latterell, Craig Markley, and Mary Stahlhut.

American Association of State Highway and Transportation Officials

Strategic Highway Safety Plan (Sept. 1997):

A comprehensive plan to substantially reduce vehicle-related fatalities and injuries on the nation's highways.

safetyplan.tamu.edu/plan/toc.asp

Centers for Disease Control

Impaired Driving Fact Sheet:

www.cdc.gov/ncipc/factsheets/driving.htm

Des Moines Register

MADD Marks Its 20th Year; Sees Improvements in Laws (Sept. 7, 2000)

Iowa Governor's Traffic Safety Bureau

www.state.ia.us/government/dps/gtsb/index.htm

Alcohol Fact Sheet (2000):

Data from Iowa DOT and NHTSA.

www.state.ia.us/government/dps/gtsb/gtsft_3.htm

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Data from Iowa DOT and NHTSA.

www.state.ia.us/government/dps/gtsb/gtsft_9.htm

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