CHAPTER 4
Curbing High-Risk Driving Behaviors

KEY TOPICS

- aggressive driving
- excessive speeding
- red light running
- road rage

GOALS

- Define high-risk and aggressive driving behaviors.
- Raise public awareness of aggressive driving behaviors and more self-awareness of high-risk driving behaviors.
- Reduce the occurrence of high-risk driving crashes that cause death, injury, and property damage.
- Implement multidiscipline initiatives to curb high-risk driving through improving public awareness of high-risk driving behaviors and enforcing laws prohibiting these behaviors.
- Continue to provide timely road and traffic conditions information to assist drivers in making safe driving decisions.
- Enact or enhance appropriate laws and policies to deter high-risk driving behaviors.
- Improve roadway elements that may trigger driver frustration leading to high-risk or aggressive driving behavior.

BACKGROUND

Several driving behaviors are recognized by the public and by transportation officials as high-risk driver actions that endanger the public and may cause or increase the severity of crashes. The behaviors described in this chapter are not the result of simple driver error such as mistiming a traffic signal or not seeing icy conditions. These high-risk driving behaviors are the result of drivers deciding to take risks or not understanding the risk of their driving behavior.

Speed variance is the difference in travel speeds between vehicles on the road. Under ideal conditions, all vehicles would be traveling at the same speed and changing lanes and rear-end collisions would be at a minimum. Differences in travel speeds may lead to aggressive driving behaviors when slower vehicles impede the flow of traffic or cause perceived conflicts to aggressive drivers. The more contrast there exists between speeds traveled by vehicles sharing roadways, the more potential there is for aggressive driving and speed-related conflicts.

One of the pressing needs prior to setting strategies to reduce high-risk driving has been to develop definitions of the terms. The Iowa Safety Management System (Iowa SMS) Coordination Committee adopted the following definitions for dangerous driver behaviors:

Aggressive Driving

Aggressive driving is the operation of a motor vehicle without regard for other roadway users' safety, which at times is a result of anger or frustration (adopted from the American Automobile Association [AAA]).

The National Highway Traffic Safety Administration (NHTSA) defines aggressive driving as "the operation of a motor vehicle in a manner that endangers or is likely to endanger persons or property." Aggressive driving is a traffic offense, not a criminal offense like road rage (NHTSA, *Aggressive Driving Prosecutors' Planner*).

Although there have always been aggressive drivers, incidents leading to crashes, injuries, and even fatalities are becoming more prevalent. Aggressive driving manifests itself as a combination of reckless operating characteristics resulting in highway behavior dangerous to other roadway users, and contributes to needless losses. These behaviors include a list of "symptoms" that create serious risk when combined with other variables such as vehicles, other drivers, traffic congestion, visibility, and road conditions.

Some of these aggressive driver behaviors include excessive speeding, tailgating, erratic lane-changes, excessive acceleration and braking, unsafe passing, intentional red light running, passing off the traveled portion of highway, lane change violations, speeding beyond the traffic flow, failure to yield at ramps or intersections, and railroad crossing violations.

NHTSA's aggressive driving web site reports that the gravity of this issue can be demonstrated by doing an Internet search for the words "aggressive driving." More than three million hits appear, ranging from congressional testimony to articles in newspapers and magazines. This area of concern requires an equally "aggressive" multidisciplinary approach to effectively

confront and change driver attitudes and behaviors with respect to aggressive driving and other high-risk driving behaviors.

Road Rage

Road rage is a deliberate attempt to harm other persons or property arising from an incident involving use of a motor vehicle (adopted from AAA).

Note: This is a criminal matter and thus will not be addressed further in this chapter.

Excessive Speeding

Excessive speeding is driving considerably (greater than 10 mph) faster than other vehicles in the traffic flow. Excessive speeding is also defined statistically as traveling faster than 85% of all other traffic. Excessive speeding is not always the same as driving above the posted speed limit, but it is typically faster than other motorists find safe or prudent for the conditions.

Excessive speeding—exceeding the posted speed limit by more than 10 mph or driving too fast for traffic or roadway conditions—is one of the most prevalent factors contributing to traffic crashes. According to NHTSA, speeding has been cited as a contributing factor in nearly half of all fatal motor vehicle crashes.

In May 2001, speed-monitoring cameras gained national attention when House Majority Leader Dick Armey, citing privacy concerns, called for a ban of these cameras on federal roads. A recent camera test on the George Washington Parkway recorded that half of the 24,000 vehicles passing in one day traveled at least 10 mph above the posted 40-mph speed limit. Parkway Superintendent Audrey Calhoun responded, "If you don't speed, the camera never takes a photo. If you don't violate the law, you don't have anything to worry about."

Red Light Running

Red light running in this context means entering an intersection after the traffic signal has changed to red. Drivers may run red lights because of impatience, a reaction to dense traffic, delays, frustration, inattention, or many other reasons. This definition does not include cases where the driver

enters the intersection when the light is yellow or where inadequately timed lights make completing travel through the intersection during the phase difficult.

NATIONWIDE

National Facts

$28 billion per year—$53,243 per minute or $887 per second—is the estimated economic cost to society of speeding-related crashes.

NHTSA reported the following data for 1999 (*Traffic Safety Facts—Speeding*):

- 36% of male drivers 15–20 years old involved in fatal crashes were speeding.
- 86% of speeding-related fatalities occurred on roads that were not interstate highways.
- Over one-third of the fatal crashes in construction/maintenance zones involved speeding.

Aggressive Driving Enforcement Handbook

Many of the strategies in the NHTSA's *Aggressive Driving Enforcement: Strategies for Implementing Best Practices* handbook are included in this chapter. The NHTSA guide assists law enforcement leaders in how to plan for an aggressive driving enforcement program and reviews a number of exemplary programs that concentrate on corridor enforcement, media, justice, and legislative cooperation.

The eight steps for planning and executing strategies given in the handbook are as follows: (1) define aggressive driving, (2) conduct a legislative review, (3) involve prosecutors, judges, and law enforcement agencies, (4) collect data, (5) form communitywide partnerships, (6) conduct media and outreach activities, (7) introduce the aggressive driving program to the public, and (8) evaluate the program and write for grants and resources. Media promotion is vital in raising awareness of the issue and increasing the impact of enforcement efforts.

Stop Red Light Running Program

The goal of the Federal Highway Administration's (FHWA) Stop Red Light Running (SRLR) Program is to reestablish respect for traffic signals to enhance the safety of drivers and pedestrians in communities nationwide while reducing the number of trauma center admissions caused by this traffic problem.

Former U.S. Transportation Secretary Rodney E. Slater reported that the results of a survey conducted during the 1999 SRLR campaign revealed that "98% of Americans agree that red light running is dangerous, but over half admit deliberately running red lights because they are in a hurry."

National Public Opinion

American Automobile Association Surveys
AAA conducted a scientific survey of its membership in both 1997 and 1998 on driving behaviors. Key results are given here.

1997 Survey:

Which one of the following factors most endangers your highway safety?

Aggressive drivers	45%
Drunk drivers	32%
Traffic congestion	10%
Road conditions	7%

1998 Survey:

Which one of the following factors most endangers your highway safety?

Tailgating	35%
Excessive speeding (greater than 10 mph over)	26%
Excessive lane changing	23%
Driving slowly in the left lane	14%
Passing on the right	2%

How often do you witness other motorists engaging in these behaviors?

Daily	41%
Several times a week	36%
Once a week	18%
Seldom/never	4%

Thinking about your own driving history, please mark any of the following driving behaviors that you have engaged in within the past 12 months (check all that apply):

Excessive speeding (greater than 10 mph over)	27%
Tailgating	11%
Gesturing at another driver	10%
Excessive/rapid lane changes	6%
Slowing down or speeding up to get even with another driver	6%
None of the above	55%

NHTSA National Telephone Survey
In January 1999, NHTSA published a survey to document the public's experiences and beliefs about unsafe and aggressive driving.

- 61% said that speeding by other people is a major threat to themselves and their families.
- 66% said that unsafe driving actions by other people are a major threat to themselves and their families.
- 75% felt that doing something about unsafe driving was very important.
- On photo enforcement of aggressive driving: more than 7 in 10 thought it was a good idea to use photo enforcement to reduce speeding, running red lights, and running stop signs; 8 in 10 support photo enforcement at high crash sites; and 9 in 10 support photo enforcement in school zones.

IOWA

Iowa is not immune to high-risk driving behaviors. In fact, there is growing sensitivity in Iowa to aggressive driving. Excessive speeding and red light running are two of Iowa SMS's aggressive driving areas of concern.

Iowa news reports and editorials have reflected an increase in the occurrence and awareness of aggressive driving on Iowa roadways. In recent years, two much-publicized cases illustrate the problem. In a Des Moines

freeway incident, a passenger was killed in the crash caused by her spouse's aggressive driving behavior against another motorist. On Des Moines's south side, unsafe passing and excessive speeding by an impatient driver resulted in a head-on collision and the deaths of a parent and child in the other vehicle (the aggressive driver recovered from his minor injuries).

It is a challenge for state and local highway officials to choose and post appropriate travel speed limits in road segments that will promote the smoothest flow of traffic with the fewest conflicts between motorists and roadway factors, based on traffic volumes, environmental conditions, roadway elements, access, and other factors. In addition to posted speed limits, enforcement of posted limits and driver behavior influence the effectiveness of posted speed limits in reducing aggressive driving and speed-related conflicts.

Iowa Facts
The Iowa Governor's Traffic Safety Bureau (Iowa GTSB) reported the following data from the Iowa Department of Transportation (Iowa DOT) and NHTSA (*Speed Fact Sheet*):

- Excessive speed or driving too fast for conditions was cited as a contributing factor in 11% of Iowa's 1999 fatal crashes.
- Speed ranks behind only alcohol and stop sign violations as a contributing factor in fatal crashes in Iowa.
- In 1999, over 200 persons suffered serious injuries in speed-related crashes in Iowa.
- On selected roadways, the 85th percentile speed has increased over the previous year.

Special Traffic Enforcement Program

The Iowa GTSB successfully uses the Special Traffic Enforcement Program (STEP) to conduct public awareness and enforcement campaigns in select locations, using multidiscipline or multi-agency steps similar to the aggressive driving strategies cited here. Speeding, seat belt compliance, and impaired driving are typically targeted in these efforts. This program is a good model for addressing other high-risk driver behaviors.

Red Light Running in Iowa

The study *Red Light Running in Iowa: The Scope, Impact, and Possible Implications* used video cameras to measure the actual incidence of signal violations at selected intersections in cooperating Iowa cities. Violations recorded ranged from less than one every 10 hours to an average of almost 10 per hour. Violations summarized in relation to traffic volumes ranged from less than 1 to over 38 violations per every 1,000 vehicles. The report was sponsored by the Iowa DOT Office of Traffic and Safety and was prepared by the Center for Transportation Research and Education (CTRE) at Iowa State University.

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.

Goals:

- 75% said "reduce aggressive driving" should receive high emphasis over the next five years.
- Only "reduce drunk or impaired driving" rated higher among driver-related goals.

Strategies:

- 92% support the strategy of practicing more vigorous enforcement to stop aggressive driving.
- 90% support the strategy of making aggressive driving illegal (by defining specific or combined behaviors).
- 78% said that red light running is a serious and dangerous practice in their community.
- 79.5% said that they would support the use of cameras to reduce red light running.
- 56.1% said they would support a civil citation (fine) for violations documented using videotape evidence.
- 37.8% said they would support a criminal citation (moving violation) for violations documented using videotape evidence.

- In open comments, several respondents also suggested a stepped approach with the first offense as a civil violation, with additional violations becoming criminal violations.

Red Light Running in Iowa

This report noted that "There is substantial indication that … Iowa's general population view[s] red light running as a serious problem in their communities. Responses from the surveys agree and indicate that support exists for enabling legislation permitting red light cameras to be used to help reduce red light running."

POTENTIAL STRATEGIES

Legislation, Policy, and Enforcement

- Pilot and support aggressive driver enforcement initiatives, including unmarked patrols and nontraditional vehicles in high-incident locations and corridors (Police Department, St. Petersburg, Florida; Department of Public Safety, Arizona; and other models).
- Re-enforce aggressive driving and/or road rage as legal violations.
- Establish penalties and encourage police officers to cite violators.
- Increase fines for red light running, speeding, and running stop signs (see Successes and Strategies Implemented section in this chapter regarding 2001 legislation).
- Allow intelligent transportation systems (ITS) applications (such as automated speed and red light running enforcement by using video camera images) to be legal forms of enforcement.
- Review studies and apply findings; provide findings to appropriate policy or lawmakers regarding automated enforcement strategies for red light running, speeding in work zones, etc. (CTRE and other states' experiences).
- Promote multidisciplinary and multi-agency programs to coordinate efforts from design and public awareness through adjudication. Use a multidisciplinary team approach or safety audit model.
- Make drivers responsible for their actions through consistent enforcement and adjudication.
- Encourage police officers to ticket for aggressive driving or road rage related offenses when appropriate by ensuring administrative and judicial support.
- Enact a provision that three citations in aggressive driving behavior areas would result in an additional "aggressive driving" charge.

- Expand or use STEP as a model for aggressive driving enforcement and public awareness initiatives.
- Consider the use of unmarked enforcement vehicles equipped with cameras and supported by marked enforcement vehicles.
- Establish a roadside assistance program to quickly resolve vehicle mechanical problems and restore the free flow of traffic on freeways (see Successes and Strategies Implemented section in this chapter).

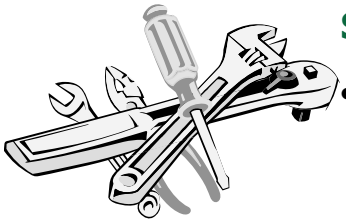
Education and Public Awareness

- Raise public awareness by defining high-risk driving behaviors, aggressive driving, and road rage and by demonstrating why, when, and where these occur most often.
- Build support for mitigation strategies.
- Continue to empower drivers with timely information about roadway and traffic conditions and ways to reduce their risks under various conditions (see Successes and Strategies Implemented section in this chapter).
- Empower drivers with strategies to avoid aggressive drivers by educating them about the times, routes, and behaviors that may provoke aggressive driving or road rage.
- Use multiple media to convey the types and frequency of occurrence of high-risk or aggressive driving behaviors in Iowa.
- Develop a televised public information and education campaign.
- Monitor and support the Iowa DOT's efforts to educate the public on red light running and other high-risk driving behaviors.
- Remind motorists that "other" road users do have certain rights that should be respected in courteous roadway driving behavior. Include motorcyclists, bicyclists, motor carriers, and slow-moving agricultural vehicles often perceived as "in conflict" with other motorists.

Design and Technology

- Encourage "slower traffic keep right" policies and signage applicable to interstates, freeways, and expressways.
- Conduct pilot projects evaluating engineering-based solutions such as signal timing, railroad crossings, and signs.
- Monitor developing ITS applications to improve traffic flow.
- Promote traffic calming strategies in Iowa models where appropriate (e.g., I-235 pilot efforts and four-lane-to-three-lane conversions).

- Mitigate nondriver-related aggressive driving causes such as roadway designs that cause congestion and conflict in traffic.
- Identify and encourage highway engineering practices that facilitate efficient traffic flow, thereby reducing high-risk and aggressive driving behaviors. Some examples needing improvements are signal timing, road construction configurations, traffic congestion, and access control.
- Use pilot programs to study possible technology-based enforcement applications that may reduce aggressive driving behaviors and be appropriately used in Iowa.
- Support the testing and implementation of ITS applications that can be used to increase driver safety awareness and/or curb or eliminate aggressive driving.
- Establish an autodial "star" number (e.g., *511) code for reporting aggressive driving behaviors (Colorado Department of Public Safety model) (see Chapter 26, Using Intelligent Transportation Systems [ITS] to Improve Highway Safety).
- Utilize #511 as the phone number for Iowa traffic information. (This number was set aside nationwide by the Federal Communications Commission (FCC) in 2000 to provide universal access to local traffic information for motorists wishing to avoid congested areas.)



SUCCESSES AND STRATEGIES IMPLEMENTED

- The Iowa DOT, the Iowa State Patrol, and other entities provide the motoring public with current construction and road and weather conditions by telephone and the Internet to assist them in making risk-reducing decisions. Iowa SMS has approved funding for a road conditions information system. See road condition web sites listed in the Resources section of this chapter.
- Revised fine structure for traffic violations was proposed in the 2001 Iowa Legislature.
- The Iowa DOT, often in concert with local officials, announces roadway construction plans, road closings, flood closings, winter roadway conditions, and construction progress through various print and electronic media.
- An Iowa red light running study completed by CTRE for the Iowa DOT in 2000 reflects a growing need for enforcement and a possible use of camera enforcement as a viable solution.
- Iowa SMS produces an annual speed limit report documenting Iowa's travel patterns, crash data, and related information for decision makers, media, and public reference.

- Law enforcement training includes identification of aggressive driving risk behavior.
- Special enforcement efforts funded through the Iowa GTSB (i.e., STEP) have been effective in targeting and publicizing a range of driver behaviors.
- An Iowa SMS work plan for curbing aggressive driving using multidiscipline and multi-agency approaches was drafted in June 1998. The strategies listed in this chapter include those developed for the Iowa SMS work plan, as well as many from other sources.
- Traffic-calming strategies are being selectively implemented and shared with Iowa transportation professionals.
- Beginning in 2001, Iowa DOT Highway Helpers assist motorists on Des Moines metropolitan interstates. They remove stalled vehicles from the roadway, assist stranded motorists, and aid authorities with incident management. Highway Helpers create safer roadways and maintain efficient traffic flow.
- 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.

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:** Daron Van Helden (primary), Denny Beckman, Scott Falb, Jan Goldsmith, Jack Latterell, Craig Markley, Loren Muench, Mary Stahlhut, and Bob Thompson.

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