

CHAPTER 2

Increasing Safety Belt and Child Restraint Usage

KEY TOPICS

- air bags
- child seat education and outreach
- compliance rates
- seat belt laws

GOALS

- Continue to improve Iowa's seat belt and occupant restraint laws, especially for persons under the age of 18 and for use of child safety seats.
- Continue to implement periodic, intensive, coordinated enforcement, public information, and education initiatives.
- Continue to develop statewide availability of certified child seat technicians and fitting stations to assist Iowa families in selecting, installing, and using child restraint devices correctly.

BACKGROUND

Safety Belts

The National Highway Traffic Safety Administration (NHTSA) estimates that “safety belts, when used, reduce the risk of fatal injury to front-seat passenger car occupants by 45%, and the risk of moderate-to-critical injury by 50%. For light truck occupants, safety belts reduce the risk of fatal injury by 60% and moderate-to-critical injury by 65%.”



The NHTSA study *Crash Outcome Data Evaluation System (CODES)* linked traffic and medical records in seven states to assess total costs of injury from motor vehicle crashes. The study found that the average inpatient costs for crash victims who were not using safety belts were 55% higher than for those who were belted.

Seat Belt Laws

Standard laws allow an officer to stop a vehicle when a seat belt violation is observed. *Secondary laws* do not allow an officer to stop a vehicle for a seat belt violation only. In secondary law states, an officer must observe another traffic law violation, such as expired plates, failure to use turn signal, or

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speeding, in order to stop a vehicle; then the officer may issue a citation for non-seat belt use.

Sixteen states, including Iowa, plus the District of Columbia, have standard or primary seat belt laws. Thirty-three states have secondary laws, and one state (New Hampshire) has no seat belt law. Belt use rates in standard law states were at least 15% higher than those for secondary law states. In fact, nine of the top 10 belt use states have standard laws.

Child Restraints

An estimated 4,500 lives were saved by child restraints from 1975 through 1999. Since 1985, all states and the District of Columbia have child restraint use laws in effect. Child safety seats reduce fatal injury by 71% for infants and by 54% for toddlers. In 1999, the highest nationwide rate of occupant restraint use was reported was for children four and under, at 73%.

Air Bags

On a related note, NHTSA (*Traffic Safety Facts—Occupant Protection*) estimated 1,263 lives were saved by air bags in 1999 and an estimated 4,969 lives were saved by air bags from 1987 to 1999. Air bag overall fatality-reducing effectiveness is estimated at 11%.

NATIONWIDE

National Facts

The use of occupant protection systems—including seat belts and child safety seats—has saved over 134,000 lives since 1975, based on estimates from NHTSA.

IOWA

Safety Belts

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 regarding seat belt use (*Seat Belt Fact Sheet*):

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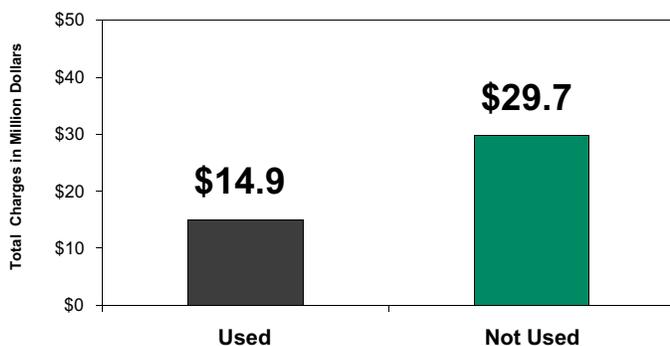
- In 1985, Iowa's seat belt use rate was just 18%. Current Iowa seat belt usage is 78%, the second highest use rate among the 12 states in the greater Midwest. Iowa's seat belt use rate is also among the top 10 states in the nation.
- In July 1987, the Iowa Insurance Division ordered insurance companies to cut auto liability premiums five percent because Iowa's seat belt law had reduced insurance losses. The change saved Iowans an estimated \$11 million per year in insurance premiums.
- More than 80,000 seat belt violation convictions were recorded in Iowa during 1999.

See the figure of Iowa hospital costs by safety equipment use for the period of 1996–1998.

Seat Belt Law

Iowa's standard law allows stricter enforcement of seat belt violations and contributes to higher compliance rates than states without a standard law. The Iowa DOT's *Traffic Fatality Count in Iowa and Iowa Life Toll* counts over 4,600 persons spared death or life threatening injury in Iowa because of seat belt use since Iowa's law was enacted in 1986 (as determined by the investigating law enforcement officer at the time of the crash). Iowa crash data for 1987–2000 support the motto "seat belts save lives."

Iowa Hospital Costs by Safety Equipment Use 1996–1998*



*Based on 6,004 crash records linked to hospital discharge records in the CODES.

Iowa has been a national leader in promoting cooperative multi-agency enforcement events such as checkpoints, saturation patrols, and corridor enforcement events. Iowa continues to aggressively enforce seat belt laws.

During 2000, special emphasis was given to lower belt use areas of the state in an effort to boost statewide seat belt use to 80%. Iowa's benchmark goal in the state's 402 highway safety plan is 85% seat belt use and 80% child safety seat use.

Iowa's seat belt law does not apply to rear seat passengers, and the fine for seat belt violations has recently been increased from just \$10 to \$25. In addition, no restraints are required when passengers ride in the cargo area of pickup trucks and vans. These elements of our current law could be strengthened or improved.

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Child Restraints

Iowa's current law requires that children under three years old be in an approved child safety seat and that all children under age six be restrained, regardless of seating position.

Iowa's child restraint use rate, based on a 2000 Iowa DOT statewide survey, is 79% (as reported by the Iowa GTSB in its *Child Restraint Fact Sheet*):

A study completed in 1988 by Dr. Jack Beno, professor of safety education at Iowa State University, identified the following frequently observed types of misuses or non-use of child safety restraints:

- Safety harness too loose or not attached
- Child safety seat not properly attached
- Child sitting on lap
- Child safety seat facing in wrong direction
- Child standing on seat

To counter the types of safety restraint errors cited in the Iowa State University study, the Iowa GTSB and its partners are working to establish a child restraint fitting station in each of Iowa's 99 counties.

Iowa Public Opinion

Iowa SMS Public Opinion Survey

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

- 54% said that the goal to “increase seat belt use” should receive high emphasis over the next five years.

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POTENTIAL STRATEGIES

Legislation, Policy, and Enforcement

- Retain Iowa's standard seat belt enforcement law.
- Strengthen Iowa's law by requiring all children under 13 to be restrained (see Successes and Strategies Implemented section in this chapter).
- Require restraint use for all seating positions (see Successes and Strategies Implemented section in this chapter).
- Increase penalties for seat belt and child restraint noncompliance (see Successes and Strategies Implemented section in this chapter).
- Consider incorporating elements of NHTSA's Click It or Ticket program and other seat belt use campaigns into Iowa's seat belt utilization efforts (see Successes and Strategies Implemented section in this chapter).
- Continue to promote and expand Iowa's successful Special Traffic Enforcement Program (STEP) (see Successes and Strategies Implemented section in this chapter).

Education and Public Awareness

- Promote occupant protection public awareness.
- Continue to coordinate public information and education initiatives with periodic, intensive, coordinated enforcement (see Successes and Strategies Implemented section in this chapter for information regarding STEP).
- Educate people about the value of proper air bag use including "no kids in the front seat" and that air bags are most effective in conjunction with seat belts.
- Create improved awareness of air bag safety effectiveness.
- Educate Iowans in the correct use and potential misuse of child safety seats (see Successes and Strategies Implemented section in this chapter).
- Continue to train child safety seat technicians and instructors so every Iowa family has access to expert assistance in selecting, installing, and using child restraint devices correctly (see Successes and Strategies Implemented section in this chapter).
- Increase public awareness of new vehicle safety technologies and improvements.
- Continue law enforcement education and training (see Successes and Strategies Implemented section in this chapter for information regarding the Iowa Law Enforcement Academy).

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- Promote use of local child seat fitting stations and other resources (see Successes and Strategies Implemented section in this chapter).
- Promote proper child restraint fitting through vehicles sales businesses (see Successes and Strategies Implemented section in this chapter).

Design and Technology

- Continue to monitor the effectiveness of air bags.
- Continue implementation of roadside improvements that—combined with occupant vehicle safety features—reduce personal injury, including safer signs, guardrails, and other roadway features.
- Continue child seat education and re-education efforts including recalls, new features, and revised standards for child restraints.
- Note that vehicle occupant restraint design issues are generally outside Iowa SMS scope and are effectively addressed at the national level.

Other Initiatives

- Continue promoting the goal to establish a child safety seat fitting station in each of Iowa's 99 counties (see Successes and Strategies Implemented section in this chapter).
- Ensure access to safety seats for all young children (see Successes and Strategies Implemented section in this chapter).
- Increase seat belt use on rural roadways and in all agricultural vehicles.
- Support Farm Safety Just 4 Kids and other safety-related efforts that include seat belt or child restraint emphasis (see Successes and Strategies Implemented section in this chapter).

SUCCESSES AND STRATEGIES IMPLEMENTED

- Legislation was proposed in the 2001 Iowa legislative session to strengthen Iowa's law by requiring all children under 13 to be restrained.
- Legislation was enacted in the 2001 Iowa legislative session to require restraint use for all seating positions.
- A two-hour continuous loop video of traffic safety public service announcements, including seat belt use, is shown in driver's license stations.
- Legislation was proposed in the 2001 Iowa legislative session to adjust traffic violation/citation fines for seat belt and child restraint noncompliance.



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- Iowa has implemented periodic intensive enforcement with complimentary public information and education efforts.
- Iowa is one of 20 states to participate in the Special Traffic Enforcement Program. STEP (administered by the Iowa GTSB) involves coordinated statewide seat belt enforcement efforts targeted at pre-selected weeks throughout the year. During the past three years, over 200 local police departments and sheriff's offices, as well as the Iowa State Patrol, have participated in STEP. Eleven STEP waves over the past three years have generated more than 20,000 seat belt enforcement actions. Local radio, television, and newspapers have been active participants in the STEP effort, interviewing local officers and elected officials and the motoring public. These efforts resulted in raising seat belt use from 67% to 79% in participating areas.
- All Iowa GTSB enforcement contracts require seat belt enforcement activity and complimentary public information and education efforts. This has included more than 200 law enforcement agencies throughout Iowa.
- Iowa now has 20 child safety seat fitting stations—using local partnerships with fire departments, law enforcement and emergency response entities, auto-related commercial businesses, and local volunteers. As of March 2001, Iowa has 246 child safety seat technicians and nearly 20 certified child safety seat instructors. Hundreds of Iowans have learned the correct use of child restraints through Iowa's fitting stations and the Safe Kids Buckle Up van. These multidisciplinary successes are brought about through the Iowa GTSB, Iowa Department of Public Health, and National Safe Kids Campaign.
- The Iowa Law Enforcement Academy, local law enforcement agencies, and the Iowa State Patrol have provided ongoing leadership and occupant protection training opportunities for the state's peace officers.
- Farm Safety Just 4 Kids has partnered with the Iowa GTSB to conduct a number of occupant protection awareness programs in rural communities with local youth organizations and schools. These efforts focused on raising awareness of special risks of driving on rural roadways and the need to increase seat belt use in pickups and rural areas.

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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 Beckman, Scott Falb, Jan Goldsmith, Jack Latterell, Craig Markley, and Daron Van Helden.

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

Farm Safety 4 Just Kids

The mission of Farm Safety 4 Just Kids is to promote a safe farm environment to prevent health hazards, injuries, and fatalities to children and youth.
www.fs4jk.org/

Iowa Department of Transportation Office of Driver Services

www.dot.state.ia.us/mvd/ods

2000 Traffic Fatality Count in Iowa and Iowa Life Toll:

www.dot.state.ia.us/mvd/ods/fatal2000.htm

Iowa Governor's Traffic Safety Bureau

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

Seat Belt Fact Sheet (Jan. 2001):

www.state.ia.us/government/dps/gtsb/gtsft_1.htm

Child Restraint Fact Sheet (Jan. 2001):

www.state.ia.us/government/dps/gtsb/gtsft_2.htm

Iowa Safety Management System

www.IowaSMS.org

Iowa Strategic Highway Safety Plan (Aug. 1999):

www.iowasms.org/pdfs/ishsp.pdf

Iowa Strategic Highway Safety Plan Goals and Strategies: Statewide Survey of Adults (Oct. 2000):

www.iowasms.org/pdfs/publicopinionsurveyexecsumm.pdf

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National Highway Traffic Safety Administration

www.nhtsa.dot.gov

Crash Outcome Data Evaluation System (1996)

Customer Satisfaction Survey (1997)

Traffic Safety Facts—Occupant Protection (1999):

www.nhtsa.dot.gov/people/ncsa/pdf/OccPrt99.pdf

Traffic Tech, NHTSA Technology Transfer Series No. 200 (May 1999):

www.nhtsa.dot.gov/people/outreach/traftech/pub/tt200.html

National Safe Kids Campaign

safekids.org/state_display.cfm