

Status Report

Bumper Standard Rolled Back

The National Highway Traffic Safety Administration (NHTSA) has issued a final rule abolishing the current 5 mph "no damage" bumper standard, and substituting a requirement for a 2.5 mph front and rear test that also will allow unlimited damage to the bumper and its components.

The new standard will go into effect 45 days after publication, the agency said on May 15.

In a related "notice of intent," NHTSA administrator Raymond Peck said the agency in the future may allow an even weaker standard for some cars. The agency also said it may test bumper systems at speeds greater than 2.5 mph to see which ones exceed the 2.5 mph standard. This would aid consumers in purchasing new cars with bumpers "suitable to their needs," NHTSA said.

According to Ford, General Motors, Volkswagen, and Toyota the adoption of a 2.5 mph front and rear bumper standard would result in actual price reductions of only \$20 to \$40 for new cars. The direct weight savings associated with the weakened standard were estimated to range from 8 to 30 pounds. For each pound of weight saved, NHTSA estimated there will be an associated savings of one gallon of gasoline over a ten year lifetime of the auto. Thus, for a 30-pound weight reduction, consumers could expect to save approximately three gallons of gasoline a year.

Insurance Cost Increases

Insurance company executives predicted the rollback to a 2.5 mph standard would cause insurers to raise insurance premiums for collision coverage by 15 percent to meet the increased cost of repairing damage caused by low-speed impacts. Allstate estimates that increase will average \$257 in higher insurance premiums over the ten-year lifetime of a car. Consumers can also expect the reduced effectiveness of the 2.5 mph bumpers will increase the likelihood of damage in low-speed impacts, Allstate said, forcing them to pay the deductible portion of their insurance coverage — typically \$100 — more often.

NHTSA based its decision on the latest of a series of conflicting cost-benefit analyses, in which this time the agency concluded there would be \$93 in vehicle price and fuel savings over the life of a new vehicle equipped with bumpers meeting the new standard. This would be partially offset, NHTSA contended, by

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IIHS Film Featured At World's Fair

Insurance Institute for Highway Safety public service announcements promoting child restraint use are being exhibited at the Knoxville, Tenn., World's Fair in an exhibit sponsored by the American Academy of Pediatrics.

The exhibit officially opened May 15 and is focused on raising public awareness of the need to protect children in cars. Crashes are the leading cause of death among children under age 13.

The Institute has provided a laser disc video display featuring two public service announcements produced by the Institute which show what can happen to infants and children in a car crash. A third TV spot, produced by the Ten-

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Teenaged Drivers and Alcohol Use

Teenaged drivers who drink alcoholic beverages are more likely than older drivers who drink to be involved in vehicle crashes, Insurance Institute for Highway Safety researchers have reported as the result of a review of existing knowledge on this subject. A brief summary of key facts has been published by the Institute in a new series of "Research Notes."

The study indicates that while teenagers drink and drive less often than older drivers, their crash risk is higher when they do drink, possibly as the result of their relative inexperience with both drinking and driving. Research has also generally shown that teenaged drivers in both fatal and nonfatal crashes are less likely to have been drinking than adults.

Lowering the drinking age for teenagers does cause their involvement in alcohol-related fatal crashes to increase, Institute researchers note, while raising the drinking age reduces such involvement.

Copies of "Research Notes: Teenaged Drivers and Alcohol Use" are available from the Insurance Institute for Highway Safety, Watergate 600, Washington, D.C. 20037.

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an increase of \$65 in higher repair, insurance, and other costs, leaving a net benefit of \$28 over the life of the car. These values were figured in current dollars, with costs and benefits discounted over time.

The new rule, established under Part 581 of the Motor Vehicle Information and Cost Savings Act of 1972, will require bumpers to protect the auto body only in 2.5 mph front and rear barrier and pendulum impacts and 1.5 mph corner pendulum impacts. Height limitations will remain the same, the agency said.

There will be no limitation on the amount of damage which may be incurred by the bumper and its components during the tests, the agency said. This could reduce the energy-absorbing capability of new bumpers considerably below that of bumpers meeting the current 5 mph "no damage" standard, which since the 1980 model year effectively required bumpers and their components to withstand 5 mph barrier and pendulum impacts and 3 mph corner pendulum impacts without damage. (See *Status Report*, Vol. 16, No. 15, Oct. 6, 1981.)

In its final rule, NHTSA said it disagreed with suggestions that public opinion ought to be considered. "First, the level of bumper standards established by the agency under the Act cannot be determined merely on the basis of what members of the public understand to be the relevant facts and issues, or what they themselves would prefer," the agency said, adding the decision must be based on statutory criteria.

NHTSA said petitions for reconsideration of the agency's decision should be submitted not later than 30 days from the date of publication of its notice in the Federal Register on May 20, 1982. Petitions should refer to Docket No. 73-19, Notice 29, and be addressed to: Administrator, National Highway Traffic Safety Administration, 400 Seventh St., S.W., Washington, D.C. 20590.

For further information, contact Michael Brownlee, Office of Automotive Ratings, NHTSA, 400 Seventh St., S.W., Washington, D.C. 20590, (202) 426-1740.

Researcher Examines Incidence of Facial Injuries

The high incidence of facial injuries suffered in motor vehicle crashes — estimated to total 625,000 hospital-treated cases in the United States each year — has been examined in detail in a population-based research study in Wisconsin.

A preliminary report on the study by Trudy A. Karlson of the University of Wisconsin was issued in March 1981, and this has been expanded in a report published in the April 1982 issue of *The Journal of Trauma*. (See *Status Report*, Vol. 16, No. 4, March 17, 1981.)

Karlson had access to the emergency department records in all five hospitals in Dane County, which includes Madison, Wis., as well as the closest hospitals in neighboring areas. She found an annual incidence rate of hospital-treated facial injuries of 14 per 1,000, of which 20 percent were associated with vehicle crashes. *Vehicles accounted for the largest proportion of both the most severe facial lacerations and facial fractures.*

Young men had the highest incidence of facial injuries resulting from vehicle crashes, as well as the highest incidence of severe lacerations and fractures. The researcher classified the facial fractures and lacerations in four groups, ranging from minor, through moderate and severe, to most severe.

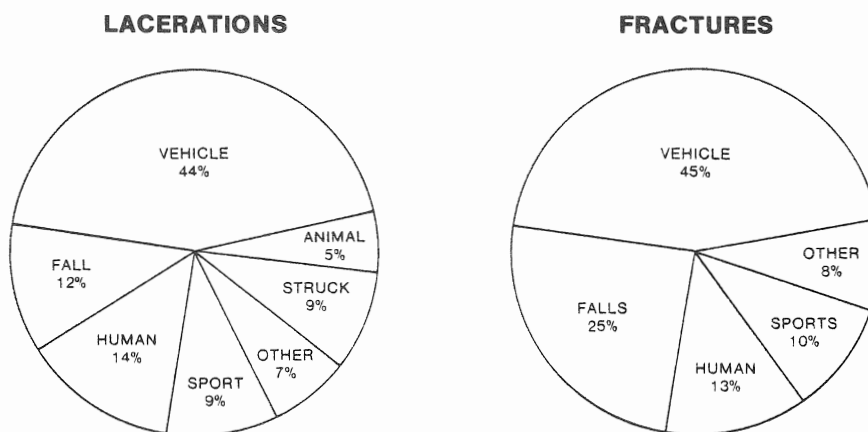
Steering Wheels, Windshields Cause Injuries

Automobile drivers most often received their facial injuries from impact with the steering wheel, while for passengers the major sources of injury were the windshield and instrument panels. While automobile occupants accounted for half of the annual incidence of facial injuries, other groups included in the vehicle category were motorcyclists, bicyclists, and pedestrians struck by vehicles.

Based on the research findings, Karlson discussed the known ways to prevent facial injuries in vehicles. “To protect the face during a crash in a vehicle with an occupant compartment, two strategies emerge: keeping the face from striking objects in the occupant compartment, and altering objects in the occupant compartment so they will dissipate forces rather than localize them,” she said. “Technical means for substantially achieving these strategies exist, such as seatbelts, air bags, and nonlacerating windshields; but the first is used by less than 15 percent of the public, and the other two — both of which provide protection automatically — are not available in vehicles currently manufactured for sale in the United States.”

(The Federal Motor Vehicle Safety Standard requiring automatic restraints in some vehicles starting in the 1983 model year has been rescinded but the action is being challenged in federal court. See *Status Report*, Vol. 17, No. 4, March 15, 1982. NHTSA has yet to act on petitions to permit use of a new windshield technology designed to be highly effective in reducing facial lacerations. See *Status Report*, Vol. 16, No. 6, April 27, 1981.)

Reprints of the study, “The Incidence of Hospital-treated Facial Injuries from Vehicles,” are available from Trudy A. Karlson, Center for Health Systems Research and Analysis, University of Wisconsin-Madison, 1225 Observatory Drive, Madison, Wis. 53706.



Source of mechanical energy associated with the most severe facial lacerations (left) and most severe facial fractures.

New Associate Administrator For Safety Named

Marshall Jacks, Jr., a Federal Highway Administration (FHWA) career employee, has been named Associate Administrator for Safety.

Jacks, formerly director of the Office of Traffic Operations, replaced Lorenzo Casanova, a Carter appointee. He began his FHWA career in 1968 as an engineer in traffic operations and later served as division administrator for the District of Columbia before returning to FHWA headquarters to serve as Chief of Program Development in the Office of Highway Safety.

Jacks will preside over three offices as head of FHWA's safety operations. The Office of Traffic Operations will be transferred from an area administered by the Associate Administrator for Engineering and Traffic Operations to the Associate Administrator for Safety. The Bureau of Motor Carrier Safety and the Office of Highway Safety are already part of Jacks' area of responsibility.

Jacks acknowledged administration plans to drop funding for highway safety improvements after 1983.

"If there's no new funding," said Jacks, "hard decisions are going to have to be made as to how you're going to use the remaining funds." But he doesn't see a return to earlier times in terms of practices already adopted by the states. "We're not going back to installing non-frangible (non-breakaway) signposts," said Jacks. "We've developed practices which the state agencies have adopted and the public expects."

"We're not going back to an era when safety was not a factor—or as much of a factor—in design," Jacks said.

Connecticut Raises Legal Drinking Age

Gov. William A. O'Neill has signed into law a measure raising the legal drinking age for beer, wine, and hard liquor from 18 to 19 years of age. The law will become effective July 1.

Measures to raise the legal drinking age have been repeatedly introduced and turned back, a spokeswoman in the governor's office told *Status Report*. During the most recent legislative session, the state senate voted to raise the drinking age to 20, but the bill was defeated in the house. The legislators then compromised on setting the limit at 19 on the premise such an age limit would keep alcohol out of the state's high schools.

Groups such as Mothers Against Drunk Drivers, individuals, and school superintendents supported the legislation, citing studies which demonstrated that in states where the legal minimum drinking age had been raised, fatality rates fell. (See *Status Report*, Vol. 16, No. 10, July 15, 1981.)

IIHS Research Chief Tells NAI: Safety Will Sell

Marketing of available occupant protection technology by auto makers is long overdue, an Insurance Institute for Highway Safety executive told the recent 28th Annual Workshop of the National Association of Independent Insurers (NAII) in Phoenix, Ariz.

Brian O'Neill, research vice president of the Institute, urged that the marketplace respond to the continuing toll of motor vehicle crash deaths and injuries, and attacked "the enduring myth" that "safety does not sell."

The myth, O'Neill said, started in "Detroit folklore" about the 1956 model year, when Fords were facing stiff competition from restyled Chevrolets, and Ford decided to stress safety in its advertising campaign. "The relatively poor showing of the 1956 Fords is invariably attributed to the advertising campaign," O'Neill said, "even though it

was reported that Ford officials themselves estimated without the campaign about 200,000 fewer Fords would have been sold.”

Safety Options Successful

Often overlooked in the 1956 Ford experience, O’Neill explained, was the unusual record of two safety options. A Ford executive said in Congressional testimony in 1957, optional seat belts created a demand “considerably higher than originally anticipated,” and the company could not keep up with the demand. And interior crash padding had the greatest first-year sales of any option with 43 percent of all Fords of that year ordered with the option.

Turning to today’s situation, O’Neill said, “The growth of small car sales makes it urgent that technology to improve the capability of passenger cars to protect their occupants be offered in the marketplace. This technology has been long available, and much of it is not particularly expensive.”

Specifically, O’Neill suggested auto makers concentrate on three areas:

- **Occupant ejection** — “The designs of locks, latches, and window glass are crucial.”
- **Occupant compartment intrusion** — “The strengthening of the compartment and energy-absorbing characteristics of its surrounding structure are critical.”
- **Occupant impact with hostile structures inside the compartment** — “Steering column, windshield, and dashboard designs, together with occupant restraints, both manual and automatic, are important.”

O’Neill said the most encouraging recent sign of marketplace recognition of safety’s value has come as the result of the United Services Automobile Association (USA) publicizing the Highway Loss Data Institute results concerning small cars. General Motors was inspired to advertise these results in more than 330 newspapers and magazines with an estimated readership of over 100 million.

“Let us hope that these ads mark the beginning of the end of the myth that safety doesn’t sell,” O’Neill said, “and that the marketplace will soon offer occupant protection features such as air bags, anti-lacerative windshields, and other occupant protection features.”

Senate Votes Danforth Plan to Curb Drunk Driving

By unanimous voice vote on May 11, the Senate adopted a bill that would encourage state adoption of suggested drinking-driving statutes, and establish an improved National Driver Register (NDR) to speed up identification of problem drivers.

The bill, S. 2158, would establish a \$75 million “bonus” incentive grant program for alcohol safety projects during fiscal years 1983-84 under Section 402 of the Highway Safety Act. This would double the states’ available federal highway safety allocations, the bill’s chief sponsor, Sen. John Danforth (R.-Mo.), told colleagues.

Under the bill, those states enacting specified alcohol safety program laws would automatically qualify for the incentive grants; other states could gain approval by federal review even if lacking some of those statutes. These are the specific criteria set by the legislation:

- Administrative automatic suspension of the license of any driver who either fails a chemical sobriety test or refuses to take one. For first-time offenders, there would be a 90-day suspension and for second offenders a year’s suspension of driving privileges.
- Ninety-day impoundment of a driver’s vehicle if he ignores his license suspension.
- Acceptance of a 0.10 blood alcohol test result as per se evidence of intoxication.

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Senate Votes Danforth Plan to Curb Drunk Driving (Cont'd from page 5)

- Adoption of an alcohol traffic safety program setting a mandatory 48-hour prison sentence for repeat offenders, alcohol treatment programs, and a readily-accessible driver record system for identifying repeat offenders.

The criteria for incentive grant eligibility were made considerably more flexible by an amendment offered by Sen. Dennis DeConcini (R.-Ariz.) and accepted by Danforth which would allow states not meeting all the above standards to appeal for review by the National Highway Safety Advisory Committee. The committee would then make a recommendation to the Secretary of Transportation as to whether the states' laws meet or exceed the general requirements of the bill.

Improved Driver Register Envisioned

Under Title II of the Danforth bill, the National Driver Register (NDR) would receive a one-time allocation of \$2 million in FY 1983 to permit development of on-line computer access to its reference files by the states. Operating levels would be set at \$1.2 million in FY 1983, \$1.5 million in FY 1984, and \$2.1 million in FY 1985. State licensing agencies whose records are computerized could link up with the NDR in order to quickly weed out license applicants with suspended or revoked licenses in other states. The legislation also directs the Secretary of Transportation to maintain an index of the records contained in the NDR to permit the states to exchange information directly. (States whose records are not maintained on computer would still be able to process applicants through the mails.)

The bill would also permit employers to screen commercial drivers applying for jobs through state motor vehicle administrators in order to weed out drivers with poor records. (Frequently, commercial drivers obtain multiple licenses in order to spread punitive "points" and evade suspension. See *Status Report*, Vol. 16, No. 10, July 15, 1981.) Commercial drivers would also be permitted access through state agencies to ensure the accuracy of the data kept on their driving records.

The legislation would also allow the National Transportation Safety Board and the Federal Highway Administration access to driver records through the NDR during accident investigations.

In addition, the bill would establish a four-state pilot program to help DOT demonstrate an effective system for the electronic referral and relay of data on individual driving records.

House Bills Consolidated

Similar language is contained in the House Public Works Committee's four-year, federal-aid highway bill, H.R. 6211, which was reported favorably to the floor on May 12. (See accompanying story, this issue.)

The House bill was amended to incorporate several pending bills, including the Howard-Barnes bill, establishing a \$125 million incentive grant alcohol safety program, \$50 million more than the Danforth plan, over a longer period — three years instead of two. H.R. 6211 was also amended to incorporate the Rhodes-Oberstar bill, upgrading the National Driver Register. The House and Senate language on the NDR is virtually identical, an Oberstar staff member told *Status Report*. (See *Status Report*, Vol. 17, No. 6, April 27, 1982 and Vol. 16, No. 20, Dec. 21, 1981.)

Four-Year Highway Safety Authorization Recommended

The House Public Works Committee has favorably reported a bill authorizing \$71.1 billion for the federal-aid highway and mass transit system over the next four years. The bill, H.R. 6211, also was amended to incorporate several pending bills, including the Howard-Barnes bill, H.R. 6170, establishing a \$125 million incentive grant program for alcohol safety, and the Rhodes-Oberstar bill, H.R. 2052, upgrading the National Driver Register. (See report on Page 5 and *Status Report*, Vol. 17, No. 6, April 27, 1982, and Vol. 16, No. 20, Dec. 21, 1981.)

The bill also would set uniform size and weight standards for trucks operating on the interstate system. In addition, the bill would:

- Limit total obligations by the National Highway Traffic Safety Administration (NHTSA) under Section 402 state and community highway safety-related grants, to \$125 million during fiscal year 1983, \$150 million for 1984 and 1985, and \$100 million in 1986.
- Set aside \$200 million for each of the four years for highway safety construction to eliminate hazards. Both the House and Senate bills contain four-year funding authorizations, apparently foreclosing administration plans to phase out a set-aside for highway safety construction by 1984.
- Establish uniform maximum size and weight standards for trucks using the interstate highway system, with a weight limit of 80,000 pounds, a width limit of 102 inches, and a 48-foot maximum length for semi-trailers. (Parts of the interstate system built since 1955 have 12-foot (144 inches) lanes but older sections incorporated into the system may have 11-foot lanes, a Federal Highway Administration official told *Status Report*.)

Several states with laws permitting larger trucks would be allowed to have heavier rigs continue operation. But states with maximum weight limits below the 80,000 pound mark — Missouri, Illinois, and Arkansas — would find their laws no longer apply on interstate roads within their borders.

- Authorize \$1.5 billion in 1983 for bridge replacement and repair, \$1.6 billion for 1984, \$1.7 billion for 1985, and \$2.1 billion in 1986. The bill would also give the Secretary discretionary authority to obligate \$200 million each year for projects costing more than \$10 million or, in special cases, to assist states with work on less costly bridge projects.

- Set authorizations at \$4 billion each year for interstate construction. Interstate 4-R (reconstruction, rehabilitation, resurfacing, and repair) funding levels would be set at \$2.1 billion in fiscal year 1983, \$2.4 billion in 1984, \$2.8 billion for 1985, and \$3.1 billion in 1986. Primary road funding would be set at \$2 billion in 1983 and would rise to \$2.5 billion in 1986. Secondary road funding would be set at \$600 million in each of the four years and \$800 million would be set aside for the urban secondary system. (For a report on the Senate authorizations bill, S. 2315, see *Status Report*, Vol. 17, No. 6, April 27, 1982.)

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nessee Department of Public Health, has Tennessee State football coach John Merritt telling viewers that just as he makes sure his players are protected by safety equipment during games, he sees to it his baby rides protected by an approved child restraint in cars.

The video unit will operate continuously over the six-month duration of the fair. Visitors will have an opportunity to look over child and infant safety seats and carriers and see whether a child restraint law has been adopted in their home state.

Since 1980, the Academy of Pediatrics has been involved in efforts to establish child safety seat loan programs through hospitals and public service organizations, and its members have been instrumental in urging state legislatures to adopt child restraint use laws throughout the country. Tennessee was the first state to adopt such a law. (See *Status Report*, Vol. 17, No. 6, April 27, 1982.)

Status Report Index Available

An index of the contents of *Status Report* for 1981, Volume 16, is now available at no charge. Requests should be directed to Status Report Index, Insurance Institute for Highway Safety, Watergate 600, Washington, D.C. 20037. A limited number of earlier indexes, 1977 through 1980, also are available on request.

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