

Bumper Film Shown On Nine-City Tour

Two Insurance Institute for Highway Safety executives have completed a nine-city tour introducing a recently-released film, "Report on Bumpers," to the media and representatives of the insurance industry.

Ben Kelley and Brian O'Neill, senior vice presidents of the Institute, demonstrated the effects of the federal government's decision to lower the bumper standard from 5 mph "no damage" crash protection to a 2.5 mph rule. (See *Status Report*, Vol. 18, No. 3, March 1, 1983.) The new Institute film traces the development of increasingly effective bumper system designs that had resulted from the federal standard and the costly effects of manufacturer decisions to use weaker systems now permitted under the revised rule. (See *Status Report*, Vol. 18, No. 6, April 22, 1983.) *(Cont'd on page 5)*

Corvette, Porsche Have Worst Theft Experience

Large variations in auto theft losses have been reported for 1980-82 models. Those with the worst records experienced losses as much as 200 times worse than those with the best, the Highway Loss Data Institute (HLDI) has found.

The Chevrolet Corvette had the worst theft loss experience among 1981 and 1982 models and the Porsche 911 had the worst experience among 1980 models. The Porsche's relative average loss payment per insured vehicle year was the worst theft loss result ever reported, HLDI said.

(Cont'd on page 4)

Insurance Groups Argue For 5 MPH Bumpers On Safety, Cost Grounds

Representatives of organizations who have challenged the rollback of the 5 mph no-damage bumper standard have argued their case on both safety and economic grounds in briefs filed in the U.S. Court of Appeals for the District of Columbia.

The filings are in legal actions brought by the State Farm Mutual Automobile Insurance Co., Allstate Insurance Cos., and the Center for Auto Safety, asking the court to review the Department of Transportation rollback order.

Three main arguments are made by all of the petitioners in their legal demand for restoration of the 5 mph standard:

- The National Highway Traffic Safety Administration (NHTSA) violated its duty under the Safety Act by ignoring the safety benefits of the stronger bumpers.
- NHTSA also failed in its duty under the Cost Savings Act by manipulating data to produce favorable cost-benefit results for the 2.5 mph standard.
- The agency also deliberately slanted its analysis of alternatives to the 5 mph standard, particularly one proposal for 5 mph front bumpers and 2.5 mph rear bumpers, so as to eliminate all of the options except the rollback to 2.5 mph.

"What is truly astonishing about the current rulemaking is the agency's apparent attempt to deny the virtually axiomatic perception that *safety equipment affects traffic safety*," argued the insurance companies' attorneys. "Unable to demonstrate that low-speed collisions do not impair the vital safety-related components in question, NHTSA instead attacked the underlying premise by suggesting that it is not, after all, very important to protect those components. This is not

(Cont'd on page 5)

Official Position Still Undecided On Alcohol Program Incentives

Although supportive of new anti-drunk and drugged driving legislation, the Administration is undecided whether to spend more money to encourage state adoption of tougher laws, a federal official has told the Senate Commerce Committee.

Charles Swinburn, a deputy to Transportation Secretary Elizabeth Dole, said the Administration has not decided whether it will support new categorical grant programs outlined in an omnibus highway safety bill, S. 1108. (See *Status Report*, Vol. 18, No. 6, April 22, 1983.)

Under Title II of the bill, a \$30 million incentive grant program would be established to help states enforce laws raising to 21 the minimum age at which persons can purchase alcoholic beverages and an additional \$75 million in grant funds would be made available for computerizing and updating state traffic records.

The bill is co-sponsored by Senators John Danforth (R.-Mo.), Claiborne Pell (D.-R.I.), Orrin Hatch (R.-Utah), and Bob Packwood (R.-Ore.). Packwood is chairman of the Commerce, Science, and Transportation Committee, and Danforth is chairman of the Surface Transportation Subcommittee.

Confidence in Dole

Danforth told the administration he wanted to "accentuate the positive" in negotiations over the bill. "I am absolutely confident that Secretary Dole is a strong supporter of highway safety," said Danforth. "She has stated that to me privately and repeatedly in various circumstances."

Sen. Frank Lautenberg (D.-N.J.) said while he was "encouraged by the tone" of the administration's position, he would like a more positive response. "There's a lot of competition for few resources," he noted. "Yesterday, we voted to afford the MX missile which, ultimately, could snuff out multiple millions of young lives. It would be a travesty, I think, if we couldn't find the resources available to save a few hundred thousand a year from death or injury."

John Volpe, chairman of the Presidential Commission on Drunk Driving, said the commission "strongly supports" a uniform minimum alcoholic beverage purchase age of 21. He noted that such laws would go a long way toward lowering the mortality rate for the affected age group. In general, life expectancy has increased for Americans over the last 75 years except for those aged 15 to 24, he noted. In that group,

the death rate has actually risen because of involvement in motor vehicle crashes in which alcohol is a factor, he said.

Larry Karsten, deputy director of the Kentucky highway safety office and vice chairman of the Association of Governors' Highway Safety Representatives, told the committee that one key to more effective enforcement would be creation of computer software that would link state accident files with enforcement and adjudication files in order to allow the files to "talk to each other."

He said that New York has established a Traffic Safety Law Enforcement and Disposition (TSLED) system that uses pre-numbered traffic tickets which are distributed to police agencies throughout 10 counties by the Department of Motor Vehicles. Through the numbering system the DMV can track each ticket from issuance through ultimate disposition in the courts. Through compilation of the statistics generated, the system allows the police to deploy enforcement officers more effectively, Karsten said, and permits streamlining of other enforcement activities.

Many States Won't Qualify

Urging a flexible approach to providing incentives, Philip Haseltine, chairman of the governors' representatives group said that under provisions established under P.L. 97-364, "most, if not all, of the most populous states, many with excellent alcohol safety programs, will not qualify" for the special incentive grants established under Sec. 408, a new section added to title 23, the Highway Safety Act.

Other witnesses supportive of the legislation included Sen. Claiborne Pell, Delaware officials, the National Safety Council, Citizens for Safe Drivers, Mothers Against Drunk Drivers, the Insurance Information Institute, Government Employees Insurance Co., and the Highway Users Federation. Only the National Licensed Beverage Association said it would oppose the bill.

Update

Child restraint use laws have been adopted by 20 states since the first of the year, the National Safety Council has reported, bringing to 40 the total number of jurisdictions with such laws. The latest states to enact such legislation include: Arizona, Washington, New Hampshire, Mississippi, Maine, Arkansas, Nebraska, Nevada, Montana, and New Mexico. The governors of Colorado and Hawaii reportedly have not yet signed the legislation.

TABLE 1
Lap/Shoulder Belt Use by Car Size
For 1974-1980 Model Year Domestic and Imported Cars

Car Size	Imported Cars		Domestic Cars		All	
	No. Observed	% Belt Use	No. Observed	% Belt Use	No. Observed	% Belt Use
Small Subcompact	15,023	22	7,451	12	22,474	19
Subcompact	4,284	22	5,113	13	9,397	17
Compact	1,814	28	27,176	11	28,990	12
Intermediate	—	—	38,584	9	38,584	9
Full Size	—	—	16,036	9	16,036	9
All	21,121	23	94,360	10	115,481	12

Research Casts Doubt On Belt-Use Theory

The National Highway Traffic Safety Administration (NHTSA) has claimed that belt-use rates in small cars are about twice that of large cars, but an Insurance Institute for Highway Safety review of NHTSA data indicates belt use is not necessarily tied to car size.

In the May 1983 issue of the *American Journal of Public Health*, Institute researchers report that the reason for the differences may be tied to imports and geographic location rather than car size.

They noted that NHTSA has hypothesized that the difference in belt-use rates was the result of a possible perception of small car occupants that they are at greater risk on the road. That hypothesis played a role in NHTSA's 1981 decision to drop requirements for

air bags or automatic seat belts in cars, even though there was no scientific evidence to support it, the researchers said.

A review of belt-use data collected for NHTSA between November 1977 and November 1979 showed "there is no clear relationship between driver lap/shoulder belt use and car size per se," they reported. "In fact, virtually all of the differences in belt use that previously have been attributed to car size can be explained by higher use in imported cars, and by geographic differences in belt use in domestic cars."

The data showed that the highest rate of belt use in imports was observed in the largest models, the researchers noted.

Requests for "Passenger Car Size and Driver Seat Belt Use," by Brian O'Neill, Allan F. Williams, and Ronald S. Karpf, should be directed to: "Car Size," Communications Dept., Insurance Institute for Highway Safety, Watergate 600, Washington, D.C. 20037.

TABLE 2
Per Cent Lap/Shoulder Belt Use by Car Size and Region
For 1974-1980 Model Year Domestic and Imported Cars

Car Size	Region						All	
	New England	Middle Atlantic	South East	South West	North Central	West		
Domestic Models	Small subcompact	9	12	11	9	9	16	12
	Subcompact	10	10	13	11	10	17	13
	Compact	6	9	11	10	8	16	11
	Intermediate	6	7	10	7	7	15	9
	Full Size	4	5	10	8	6	15	9
	All	6	8	10	8	7	16	10
Imported Models	Small subcompact	26	25	19	17	18	24	22
	Subcompact	18	20	18	23	21	27	22
	Compact	23	21	26	26	31	32	28
	All	24	24	20	19	19	25	23

Corvette, Porsche Have Worst Theft Experience (Cont'd from page 1)

Among 1982 high volume models, the Ford Escort station wagon and four-door Chevrolet Chevette had the lowest average loss payments per insured vehicle year. (See table.)

In general, sports and specialty models accounted for the lion's share of theft losses, HLDI said. Among 1982 models, they accounted for only 19 percent of the total exposure, but were responsible for over 53 percent of the theft claim payments.

On the other hand, station wagons and four-door models had the best records, particularly among smaller cars.

The worst theft claim frequencies were reported for 1981 and 1982 BMW 320i models. Overall, the average loss payment per theft claim climbed almost 50 percent for 1982 models, compared to 1980 models.

HLDI also reviewed theft records for vans, pickup trucks, and utility vehicles, comparing them to automobiles. In general, it found that vans, standard-sized pickups, and small to intermediate-sized utility vehicles had higher theft losses than cars of the same model year.

Pickups, particularly small ones, had lower than average claim frequencies, HLDI said, but higher than average theft claim payments. (Claim frequency refers to how often a theft is reported, theft claim payment refers to the average payment on a claim.)

HLDI's report was based on comprehensive coverage and theft loss data supplied by 11 insurers, with losses ranging from the theft of items from the vehicle to theft of the vehicle itself.

For copies of the report, "Insurance Losses, Theft Coverages: Passenger Cars, Vans, Pickups, and Utility Vehicles," HLDI research report T82-1, write "Theft Losses," c/o Communications Dept., Insurance Institute for Highway Safety, Watergate 600, Washington, D.C. 20037.

Research Shows Low Bumpers Cut Injuries

Lower automobile bumpers capable of deforming as a result of relatively mild impacts could cut serious pedestrian leg injuries by about 40 percent, a Swedish researcher has reported.

Olle Bunketorp of the University of Goteborg said experiments simulating 10 - 20 mph impacts between bumpers and pedestrian legs revealed "serious injuries to the lower leg and knee could be avoided in most cases if the bumper was compliant and energy-absorbing and if it struck at mid-tibia level." Plastic or rubber material would deform and bounce back in such an impact, experts say.

Bunketorp also conducted a retrospective study of adults who had received automobile-inflicted leg injuries. Bumpers mounted 15.75 inches or more from the ground appeared to cause more severe knee injuries and long-term walking impairment, he said.

Relative Average Loss Payments Per Insured Vehicle Year for 1982 Model Year Cars With the Best and Worst Theft Loss Experience*

	Best			Worst		
High Volume (At least 1% of total exposure)	Ford Escort	S.W.	14	Chevrolet Monte Carlo	Sp.	236
	Chevrolet Chevette	4 Dr.	15	Pontiac Grand Prix	Sp.	233
	Toyota Corolla Tercel	2 Dr.	16	Mazda RX-7	Sp.	223
	Ford Escort	2 Dr.	16	Chevrolet Camaro	Sp.	205
	Ford Escort	4 Dr.	17	Buick Regal	2 Dr.	200
Low Volume (Less than 1% of total exposure)	Chevrolet Chevette	2 Dr.	22	Chevrolet Corvette	Sp.	1996
	Buick Century	4 Dr.	22	Cadillac Eldorado	Sp.	956
	Honda Prelude	Sp.	26	BMW 320i	Sp.	883
	Toyota Corolla Tercel	4 Dr.	30	Datsun 280 ZX	Sp.	504
	Pontiac J2000	4 Dr.	35	Audi 5000	Sp.	409

*100 represents the average loss payment per insured vehicle year of \$25.6 for all 1982 cars.

Taken together, the studies show that bumper impacts at or just below the knee are correlated with "great risk of serious knee injuries," he said. Some of the injuries could have been caused by protruding hood edges as well, he noted.

He recommended that an "impact protection zone" be designed into the front ends of cars that would consist of lower bumpers capable of gently absorbing and spreading an impact with a human leg. He also suggested that hoods be designed to take into account pelvic injury tolerances of adults, and head and chest injury tolerances of children.

The title of the report is "Pedestrian Leg Protection in Car Accidents, An Experimental and Clinical Study," ISBN: 91-7222-607-2, by Olle Bunketorp.

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only irrational, but is directly contrary to the intent of both the Safety Act and the Cost Savings Act."

The plaintiffs' briefs were equally critical of the cost-benefit studies on which NHTSA based its roll-back decision. The plaintiffs argued that, "... the cost-benefit analysis which purports to impart rationality to that decision is flawed from stem to stern and, as such, the agency's decision must be reversed as arbitrary and capricious. NHTSA adopted a cost-benefit methodology that is utterly at odds with its obligation to impel automobile manufacturers to develop new technologies and to promulgate bumper standards that maximize future cost savings for consumers. In addition, in its analysis, NHTSA consistently *over*estimated the costs associated with 5 mph bumpers and *under*estimated the considerable benefits associated with those bumpers. In sum, the record before NHTSA provides no basis for the agency's decision to gut the 5 mph no-damage bumper standard."

Quoted Without Comment

Many of us concerned with motor vehicle injury prevention conclude that the maximum practical protection should be built into vehicles by their manufacturers, in ways that would require their users to do as little as possible. Consider the alternatives in the case of seat belts that the user must fasten; to obtain for all drivers and passengers the protection belts provide would require some 100 billion individual harnessings and unharnessings annually in the United States alone. The alternative would be one-time decisions by a handful of public and private executives to install equivalent "passive restraints" and ancillary passive protection.

— *William Haddon, Jr., M.D., president of the Insurance Institute for Highway Safety, speaking at the American Medical Association Conference on Prevention of Disabling Injuries, Miami, Fla., May 20, 1983.*

The demands for court review of the NHTSA roll-back action were filed in the Court of Appeals after the agency had, after months of delay, rejected a petition for reconsideration of the action filed by the Insurance Institute for Highway Safety. (See *Status Report*, Vol. 17, No. 19, Dec. 22, 1982.) The three petitions for review have been joined for the court's consideration, and the matter is expected to be set for oral argument in the fall.

Bumper Film Shown On Nine-City Tour (Cont'd from page 1)

James E. Reagan, senior vice president of Government Employees Insurance Company (GEICO), noted at a Washington, D.C., presentation that "it will take several years for the effects of the 2.5 mph bumpers to be fully reflected in industry loss experience and future rates." But he noted, in states where GEICO has a discount for 5 mph bumpers, collision premiums on cars with weaker bumpers have been increased 11 percent due to the loss of the discount.

Local television and radio stations and newspapers provided widespread coverage of the tour and film highlights. For example, KHJ-TV in Los Angeles interviewed Kelley on "Mid-Morning LA," and Atlanta's CBS affiliate WHEA-TV and two radio stations covered the story. In Chicago, ABC affiliate WLS-TV and three radio stations carried interviews with O'Neill.

The nine cities visited included New York, Atlanta, Columbus, Chicago, Washington, San Francisco, Los Angeles, Philadelphia, and Boston. Sponsors of the tour included the Insurance Information Institute, Nationwide Mutual Insurance Co., Allstate Insurance Co., GEICO, Fireman's Fund Insurance Cos., and the Insurance Federation of Pennsylvania.

On The Inside

- **AN INSTITUTE FILM** titled "Report on Bumpers" has been shown to media and insurance representatives in a nine-city tour. ...Page 1
- **SAFETY AND ECONOMIC GROUNDS** for restoration of 5 mph bumpers are argued in briefs filed with the U.S. Court of Appeals ...Page 1
- **LARGE VARIATIONS** in auto theft losses for 1980-82 models have been reported in a new research study from HLDI. ...Page 1
- **ADMINISTRATION OFFICIALS** are undecided on whether to support new incentive grants for state alcohol enforcement programs. ...Page 2
- **UPDATE:** The list of states that have adopted child restraint use legislation has grown to 40. ...Page 2
- **SEAT BELT USE** is not necessarily related to car size, IIHS researchers report after re-analyzing NHTSA data. ...Page 3
- **SWEDISH RESEARCH** suggests that lower, more pliable vehicle bumpers could reduce serious pedestrian leg injuries. ...Page 4
- **QUOTED WITHOUT COMMENT:** William Haddon, Jr., M.D., IIHS president, stresses the benefits of automatic protection. ...Page 7

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