

# They Lie About Buckling Up

By H-JOOST POLAK  
Newhouse News Service

American motorists not only are not using their seat belts—they're lying about it.

A new safety study of motorists in "real-world driving situations" shows they are actually buckling up less than half as often as they claim to.

The study by the industry-backed Insurance Institute for Highway Safety found that only 16 percent of big city motorists—and 9 percent of smaller city drivers—were actually wearing their belts while driving.

The National Safety Council, citing previous studies based mostly on asking drivers whether they wore belts, has held that seat belts are used "about 40 percent of the time, on the average.

"A significant proportion of people who claim they use seat belts 'always' do not have the belts fastened when actual-

ly observed in their vehicles," the Insurance Institute study says.

Institute safety analysts went out into the streets in one city of 10,000 people, a larger one of 100,000 people, and a major—but unnamed—city to "unobtrusively" watch motorists actually driving out of shopping centers, off freeways and out of parking lots.

Using tape recorders, they noted the sex and approximate age of the drivers of over 1,000 cars, whether they were wearing belts, and the cars' license numbers.

Then after tracing the tag numbers, they interviewed the drivers by telephone to try to find out why they did or didn't have their belts on.

Among the factors that seemed to be "strongly related" to belt use, says Dr. Leon S. Robertson who conducted the study for the Insurance Institute, are belt convenience,

education, having a friend or relative injured — but not killed—in an auto accident, and smoking.

For reasons that Robertson said were "not easily explainable," but might be related to a belted-in driver's difficulty in reaching an ashtray, a high proportion of the belt-using motorists said they did not smoke while driving.

Two factors that seemed to have little bearing on belt use were whether the driver himself had been injured in a previous accident and having a friend or relative killed in an auto wreck.

Robertson said the lack of use by drivers who previously had been injured was unexplainable and the greater use by motorists who had known injured—rather than killed—drivers might mean "the possibility of disfigurement or disability is more conscious and motivational than the fear of death in a crash."

# Study Finds TV Campaign Fails To Increase Use of Seat Belts

6/19/72

By JOHN D. MORRIS

Special to The New York Times

WASHINGTON, June 18—Motorists who do not use their seat belts are unlikely to heed television commercials urging them to buckle up for safety's sake, according to a research report.

The findings, published last week by the Insurance Institute for Highway Safety, were based on a nine-month "saturation campaign" urging viewers of cable television in a medium-sized American city to use seat belts.

The researchers concluded that the use of seat belts was unaffected by the television campaign.

Publication of their report coincided with the announcement by the American Safety Belt Council of "an extensive campaign to get more Americans to save themselves from injury and death by using automobile seat belts."

The project includes supplying broadcasters and newspapers with materials promoting the voluntary use of seat belts and a drive for state legislation making their use mandatory.

## Australian Law Cited

The insurance institute also published preliminary results of a survey showing a "significant" decrease in traffic fatalities in the Australian state of Victoria after enactment of a 1970 law requiring the use of seat belts.

In nine months, it said, the number of occupant fatalities in metropolitan areas of the state dropped 24 per cent and the number of such fatalities in rural areas dropped 13 per cent.

The institute's study of the effect of television messages on seat belt usage was a follow-up of a 1971 study indicating that only 16 per cent of late-model automobile drivers in large metropolitan areas used their lap belts and only 6 per cent used their shoulder belts. In small cities, 9 per cent were found to use lap belts and 1 per cent to use shoulder belts.

Six messages prepared by an advertising agency were used to test the effect of television ads. They were broadcast in a city that is frequently used for test marketing. The insti-

tute said its contract with the cable television station prohibited identification of the city.

The messages emphasized the possibility of injury from failure to use seat belts and appealed to the viewers' family responsibility, confidence in physicians' advice and similar themes.

"The messages were given a level of exposure equivalent to that of major advertising efforts used by companies to promote new products," the institute said. "Unlike many public service announcements, they were broadcast during periods that are considered prime time."

The institute's researchers estimated that 6,500 subscribers to the cable system saw an average of one or more of the messages two to three times a week in 1971 and early 1972.

From observations made of cars at various locations in the city, the researchers concluded that the messages had no effect. Observed usage actually declined during the nine-month period, but the researchers speculated that this was not related to the television campaign. They suggested that it may have been caused by the wearing of bulky winter clothing that added to the inconvenience of buckling seat belts.

## Title of Report

The project report, entitled "A Controlled Study of the Effect of Television Messages on Safety Belt Use," was written by the institute staff under the direction of Leon S. Robertson, its senior behavioral scientist.

The study "adds to the growing body of evidence that behavior modification is an inefficient and often ineffective means of reducing highway losses," the report said.

The most recent national television campaign to encourage seat belt use was sponsored in 1968-69 by the National Safety Council. A council spokesman said \$60-million worth of air time was donated by broadcasters.

Legislation for compulsory seat belt usage was introduced in seven state legislatures this year. The legislatures of Arizona, New York, Rhode Island and West Virginia adjourned without passing bills. Bills are pending in Michigan, New Jersey and Ohio.

# Personal Health | Jane E. Brody

## Seat belts can lessen injuries in a crash, but their use is declining.

**"BUCKLE up and live."** You've undoubtedly heard this or a similar slogan a dozen times if you've heard it once. Yet only one in 10 Americans heeds its advice. If anything, the use of seat belts is declining (one in eight used them as recently as three years ago) at a time when motor-vehicle injury and fatality rates are rising.

Based on past experience, the arrival of cold weather and bulky clothing will further reduce the use of seat belts, particularly among men, and increase the likelihood of a holiday-season tragedy.

Of course, neither American automobile manufacturers nor Federal regulations have helped much to increase the acceptance of seat belts, which many motorists and passengers find to be uncomfortable and difficult to use properly.

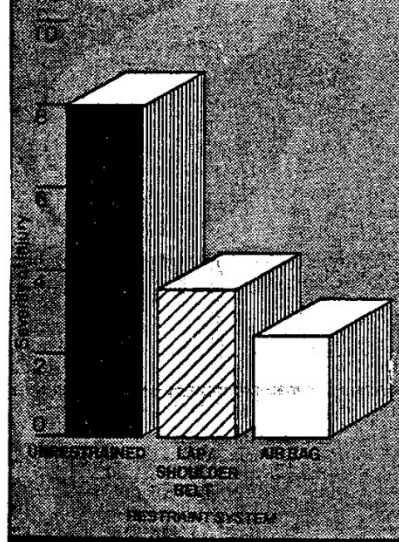
Manufacturers have long resisted and delayed improvements in auto safety, particularly in protecting occupants from injury and death during crashes. The National Highway Traffic Safety Administration's recommendations to improve seat belts have been ignored by manufacturers, according to the agency's former chief, Joan Claybrook.

Most recently, industry studies convinced the Reagan Administration to abandon a regulation that would require new cars to be equipped with passive restraints, such as air bags and automatic safety belts, a combination of shoulder harness and lap belt. The Administration contends that car owners would disconnect the belts, which are designed to wrap around the driver automatically as the door is closed. The insurance industry, contending that an easily disconnected belt would not satisfy the regulation in the first place, has sued the Government to reinstate the regulation that would greatly enhance protection of motor-vehicle drivers and passengers.

Studies have shown that air bags provide the greatest protection in accidents that throw the body forward, with about a 40 percent reduction in accident fatalities. Automatic safety belts are almost as good.

According to the contested regulation, both would have to meet crash-test standards, which are not required of current seat belts. Accidents involving cars (such as the Volkswagen Rabbit) equipped with automatic seat belts had substantially lower rates of insurance claims for injuries. The best protection is offered by a combination of air bag and automatic shoulder-lap belt.

### Comparison of Protection in Severe Frontal Crashes



Source: Insurance Institute for Highway Safety

While they are far from perfect, the shoulder-lap belts now found in American and most foreign cars offer much more protection than many people realize. Belted accident victims are half as likely to die from injuries as those who are not buckled in.

In a study of 1,126 accidents in which one or more victims were hospitalized, those wearing seat belts had 86 percent fewer life-threatening injuries. Only 28 percent of unbelted occupants escaped injury, compared with 42 percent of those wearing seat belts. Nearly a quarter of those thrown from the vehicle were killed (they accounted for half the deaths in the study), and severe injury to the head and spine was twice as common among those not wearing belts.

In a Swedish study of 23,780 people involved in car accidents, unbelted occupants died in crashes with closing speeds as low as 12 miles an hour, whereas no person wearing a shoulder-lap belt was fatally injured in crashes under 60 miles an hour.

Unbelted vehicle occupants not only endanger themselves, they also can injure other passengers. A Michigan study of more than 4,000 accidents showed that occupant-to-occupant collisions caused or aggravated injuries in 22 percent of the crashes. Thirteen percent of the human collisions contributed to severe or fatal injuries.

People who try to justify their unwillingness to use seat belts often express fear of being "trapped" in a car that bursts into flame or sinks in water. In fact, these are rare occurrences that are far outweighed by the protection afforded by seat belts in more frequent kinds of accidents.

Others cite cases in which the occupant would have been killed had he or she not been thrown from the car. Again, the far more frequent event is a fatality or crippling brain or spinal injury when the force of a crash ejects the occupants or throws them against the windshield.

Still others cite injuries caused by the seat belts themselves. These include damage to abdominal organs, broken ribs and injury to the spinal column and pelvis. In a study of 3,325 car occupants wearing belts at the time of an accident, 30 percent sustained some injury, but in fewer than 1 percent were the injuries severe. In many of the cases, these victims would have been severely injured or killed in the accident had they not been wearing belts.

Although seat-belt injuries have occurred to the fetus when pregnant women were involved in accidents, a study by the University of Oklahoma Medical School showed that fetal and maternal death were far more likely to occur if pregnant women did not use seat belts. Ejection from the car resulted in a fetal death in 47 percent of cases and in maternal death in 33 percent. Failure to wear a seat belt far outweighs the risk to the fetus from the seat belt itself, the researchers concluded.

Many seat-belt injuries are caused by improper use. The lap belt should be worn like a bikini — at or below the protrusion of the hip bone. The belt should be comfortably tight and not twisted or snagged on the seat. The diagonal shoulder belt should never be worn without the lap belt.

The most common objections to seat belts surround the difficulties of finding or reaching the belts, extending them across one's body and buckling them into the latch plate; annoyances with belts that get twisted or fail to retract after use; improper fit of the belt, and pressure of the shoulder harness on the occupant. Such problems would be practically eliminated by automatic seat belts.

Studies have shown that the people who most need seat belts (as judged by their accident rates) are least likely to use them, namely drivers who take risks. A study by Johns Hopkins University showed that drivers who run red lights are less likely to buckle up. Another study conducted by General Motors showed that drivers who tailgate other cars on freeways are less likely to wear seat belts.

In general, female drivers use seat belts more often than do male drivers, drivers use them more than passengers and children, occupants of small cars use them more than those in large cars, West Coast drivers use them more than drivers in the north central and southwestern states, and residents of large cities use them more than those living in small cities.

Millions of dollars have been spent on public-health campaigns to increase seat-belt use, without any tangible effect. Numerous studies in communities large and small have failed to uncover any tactics that would increase seat-belt use for more than a few weeks or months.

Based on these failures to motivate individuals to protect themselves, experts from the Insurance Institute for Highway Safety emphasize the need for a public-health measure comparable to chlorination of drinking water and pasteurization of milk.

As Leon S. Robertson, an institute researcher who advocates passive protection systems, asks: "Would we require pasteurization of milk before it was sold, or would we pass a law that each family had to boil their milk before it was consumed?"

RICHMOND TIMES-DISPATCH June 17, 1984

"Not even more insurance benefits will get motorists to buckle up"

**By Anne Hazard**

**Times-Dispatch consumer columnist**

Offering increased benefits to insurance holders killed or injured in car crashes while wearing seat belts did not increase their use, according to a study recently submitted to the Department of Transportation.

The study was cited in a recent newsletter published by the Insurance Institute for Highway Safety. Based on the results, study author and Yale University researcher Leon Robertson concluded that economic incentives would have little effect in increasing seat belt use.

Transportation Secretary Elizabeth Dole is scheduled to decide in July whether the federal government will require new cars to be equipped with automatic seat belts or air bags. She has requested information on how economic incentives affect belt use.

The study was done in Connecticut and involved offers to Nationwide Insurance Co. policyholders. In 1963, Nationwide began offering a 50 percent increase in compensation to clients injured or killed while wearing seat belts. Early last year, the company said it would double the compensation for injured victims and would add a \$10,000 death benefit to any policyholder killed while wearing a seat belt.

Nationwide advertised the programs in direct mailings to policyholders, information placed in policyholders' bills and local media advertisements.

Drivers were checked for seat belt use at two Connecticut sites earlier this year. Driver's license information was traced to determine each driver's insurer.

Study data collected for 1,049 drivers showed that the use of seat belts among Nationwide policyholders was nine percent compared to 13 percent for the policyholders of other companies.

Based on the results, Robertson speculated that a new program by General Motors will have little effect on seat belt use.



# Crashing Through the Loopholes

NY Times 10/31/82 Section 11, p 26

By SUSAN MUENCHOW  
and MARY ELIZABETH LANG

**M**OTOR vehicle injuries claim more children's lives each year than do all diseases combined.

In an attempt to save some of those lives, Connecticut joined 22 other states last spring in enacting a child auto restraint law. Since Oct. 1, state law has made it illegal to let a child under 4 years old travel in an automobile unless secured in a federally approved safety seat or a seat belt.

Will the new law actually reduce the number of deaths and injuries to children on the highways?

Although an estimated 50 to 70 percent of these tragedies could be averted by the use of safety seats, the Connecticut law will be effective only if serious loopholes are closed.

The law currently requires special safety seats for only one small group — infants 1 year old and younger. Children ages 1 to 4 are allowed to wear seat belts instead, provided they ride in the back seat. But for this vulnerable age, says Dr. William Frazier, a trauma surgeon at Yale-New Haven Hospital, adult lap belts are totally inadequate protection in a crash.

"Young children are positioned and configured differently than adults," he explains. A 3-year-old's center of gravity is high in the chest, rather

than at the waist, as in an adult. In a crash, a child's head becomes a deadly projectile, hurtling him in the direction of the impact at a force of over 300 pounds. That is why the unrestrained child is most likely to strike the dashboard — or the pavement — headfirst.

And seat belts do not rule out this danger, because small children can slip out or over an adult seat belt. During a crash, a poorly fitting adult lap belt or lap/sash belts on a child can also cause internal injuries, neck and spinal chord impairment, or even strangulation.

In another disturbing loophole, Connecticut's law does not require children even to wear a seat belt after their fourth birthday.

Leon Robertson, formerly a researcher at the Insurance Institute for Highway Safety in Washington and now working at Yale's Institution for Social and Policy Studies, wonders why the law leaves older children totally unprotected.

"I want to know what makes a 6-year-old any less valuable than a 2-year-old," he has said. While some children over 4 have outgrown toddler safety seats, they are best off in a federally approved booster seat combined with a seat belt.

The new law also excludes children riding in recreational vehicles, thereby allowing the dangerous practice of piling children into the back of a camper truck or van to continue. And although the law does not permit children to ride unrestrained in the cargo area of a station wagon, it does seem, by exclusion, to sanction tossing them loose in the back of an open truck.

Such exemptions have been shown to severely hamper the effectiveness

of automobile restraint laws in other communities. In Tennessee, the first state to pass a child restraint law, an exemption allowing children to ride on the laps of adults — the "babes in arms" amendment — was added as a rider to the law just before it was passed.

Legislators mistakenly believed, as most of us do, that the safest place for an infant is in its mother's arms. But after several children were torn from their parents' grasp and crushed against the dashboard or thrown through the windshield, the exemption was quickly stricken from the law.

"It became known instead as the 'child crusher amendment,'" said Dr. Leonard Krassner, a pediatrician and the chairman of the Connecticut Accident Committee of the American Academy of Pediatrics. The corrected Tennessee law is now credited with reducing motor vehicle injury rates in children by 30 percent, and death rates by more than half.

Similarly, an exemption in the child restraint laws of two Australian states rendered them virtually useless.

Acting on the common belief that the back seat is safer than the front, lawmakers there allowed children riding in rear seat positions to travel unrestrained. To the dismay of the Australians, motor vehicle death rates for children continued at nearly the same level after the law requiring front seat child restraints went into effect. The only major difference in the statistics was that more children were dying in the back seat and fewer in the front seat. Drivers were choosing to place children in the back seat rather than to restrain them.

Loopholes also hamper the actual enforcement of motor vehicle safety laws, according to Mr. Robertson.

When some people are not required to comply, many others do not bother. In those countries where adults are required to wear seat belts, he found, "compliance with the laws is greater when there are fewer exemptions."

In the United States, the problem is compounded by the considerable variations in child restraint laws from state to state. "As it now stands," says Dr. Krassner, "you can be arrested in one state for doing what is perfectly legal in another." What is ultimately needed, then, is a model law based on the experiences of several states, which can then be adopted on a state-by-state basis.

Until such a model law is developed Connecticut citizens can take immediate action to be sure the current law has the desired effect — to reduce traffic fatalities and injuries among children.

Well-planned public education and enforcement efforts by state agencies and community groups should receive unanimous public support.

Parents and others transporting children should be sure that the themselves follow the spirit rather than the letter of the law, by using child restraints where only seat belt are required, and by buckling up their older children.

Careful records should be kept at the state level, and research should be done on the effectiveness of the law.

Finally, it should be remembered that if loopholes in the law remain, it is our children and not ourselves who will slip through them. And since they do not have power or the experience or the knowledge to protect themselves, it would seem a tragic injustice for children to pay the penalty for our legislative sins of omission.

Susan Muenchow and Mary Elizabeth Lang are research associates at the Bush Center in Child Development and Social Policy at Yale University, where Mrs. Muenchow is also on the faculty.

# We Need Air Bags and Seat Belts

*Leon S. Robertson*

The basic recalcitrance of the motor vehicle industry toward improved safety of cars and trucks is a major health scandal.

The auto companies and the federal government argue that seat belts are enough protection if everyone would use them. The U.S. Department of Transportation has announced that if states containing two-thirds of the population enact laws requiring seat-belt use, it will not require further upgrading of occupant protection standards. As a result, the auto companies have lobbied the state legislatures, successfully in Connecticut and elsewhere, to require seat-belt use by law to avoid the imposition of automatic safety devices such as air bags.

While the seat-belt law would help, many more lives could be preserved by the use of long available technology that is not being used.

The argument by the automakers and the federal Department of Transportation that the same number of lives would be saved by seat-belt laws as by air bags is simply not true. Further, more often than not, the lives saved by air bags and other technologies would not be the same lives that would be saved by seat belts.

In the countries that have seat-belt laws, the reduction in deaths has varied from 10 percent to 25 percent of vehicle occupants. If two-thirds of the U.S. population were covered by a seat-belt law and a 25 percent reduction in occupant deaths could be achieved, fewer than 4,000 deaths per year would be prevented, compared to 9,000 deaths per year prevented if all cars had air bags.

The transportation department's own studies show that about half the deaths preventable by seat belts occur in side and rollover crashes. Air bags do not prevent deaths in such crashes, so seat-belt laws are still needed. This also means that of the 9,000 deaths that would be prevented by air bags, only 2,000 of those same deaths would be prevented by seat-belt laws.

In frontal crashes, air bags prevent deaths at much higher speeds than seat belts. Despite the propaganda from the auto industry that air bags are mere substitutes for seat belts, they clearly are not.

To scare people regarding costs, auto executives like to point to the \$750 air bags available as an option on the Mercedes Benz. But anyone who understands economies of scale knows that a million copies of anything costs a fraction per unit to manufacture compared to a few thousand copies.

Only the auto executives themselves know the motives for these deceptions. Perhaps they have deceived themselves into believing what they say. Their behavior, however, is resulting not only in the needless deaths of thousands every year, but it is also jeopardizing the long-term viability of their companies. All

over the country, people injured in frontal crashes have filed lawsuits against the manufacturers of their vehicles for not providing air-bag protection.

A congressman from Hawaii recently filed suit asking \$5 million from General Motors Corp. for failing to provide air bags in a car in which he was injured. The Ford Motor Co. has already settled one case out of court in Alabama for \$1.2 million.

Are we watching a repeat of the asbestos scandal on a larger scale? Manufacturers are knowingly keeping life-saving technology from the public. They are being aided and abetted by the government agency charged with protecting the public. When the lawsuits mount to the point of engulfing the companies financially in future years, look for another appeal for a government bailout, and insurance rates in the stratosphere.

*Leon S. Robertson teaches public health at Yale University and was on the Trauma Committee of the National Research Council/Institute of Medicine, whose report, "Injury in America," was just published.*



'They open automatically upon collision with the Department of Transportation.'

The issue is not just air bags. In the 1970s, the Department of Transportation supported the development of research safety vehicles that would reduce deaths by about 18,000 per year. (There are about 22,000 car occupant deaths a year.) The research safety vehicles are designed so that the front and sides have the ability to absorb crash forces before they reach passengers. These vehicles are far superior to any being manufactured today.

The issue is not cost. Engineers who developed one of the research safety vehicles say that in mass production those vehicles could be profitably sold for about the price of current compact cars.

# Seat Belt Findings Disputed by New Study

Newhouse News Service

WASHINGTON — An auto industry advertising campaign has failed to increase seat belt use, says an insurance group that favors air bags or other automatic devices.

"The industry's assertion that the number of people who buckle up increased to 41 percent from 29 percent as a result of the multimedia campaign is a myth, says Dr. Leon S. Robertson, senior behavioral scientist for the Insurance Institute for Highway Safety.

Robertson said Motorists Information Inc. (MII) — an organization formed by U.S. car manufacturers to promote seat belt use — has failed to note that people who claim to use seat belts often are seen now wearing them.

OBSERVATIONAL surveys conducted by the institute in Baltimore, Detroit, Houston and Los Angeles last year found shoulder belt use ranging from 10 percent to 18 percent, Robertson said.

"Those who want to verify firsthand that shoulder belt use is so low can easily do so by randomly choosing 10 or so sites in their own communities and counting shoulder belt use or non-use of drivers and front-seat passengers in 100 consecutive cars in each site," he said.

The campaign by MII used television, radio, newspaper and outdoor advertising in April and May in Grand Rapids. In June, MII reported that telephone interviews with a random sample of drivers in Grand Rapids had increased to 41 percent from 29 percent in just two months.

To compare results, MII also interviewed a random sample of drivers in Milwaukee, where there was no advertising campaign. There, 48 percent of the drivers said they used their belts "always" or "most of the time."

**BUT ROBERTSON** based on direct observations by teams of researchers in both cities in July, came up with significantly different results.

He said shoulder belt use was only seven percent in both cities and even less among passengers. More than 2,000 drivers were observed.

"It is reasonable to conclude that there is no difference in belt use between Grand Rapids and Milwaukee," Robertson

The researcher said his survey illustrated that advertising campaigns cannot persuade motorists and their passengers to wear seat belts.

said. "No pre-campaign observations were obtained and, therefore, it is impossible to say what effect, if any, the campaign had on belt use in Grand Rapids.

"It is clear, however, that belt use in Grand Rapids was as abysmally low, despite the advertising campaign, as in Milwaukee, where no campaign was conducted."

Robertson added that his research had further illustrated that advertising campaigns cannot persuade motorists and their passengers to wear seat belts.

THE INSURANCE institute, which is supported by several insurance associations and individual companies, has long been at odds with the auto industry over passive vs. active protection systems.

Transportation Secretary Brock Adams has ordered that passive (meaning no action need be taken by an auto's occupant) carash protection systems must be installed in 1982 standard and luxury cars and phased into other models the following two years.

Air bags (which automatically deploy to cushion front seat occupants in a crash), passive belts (which automatically strap an occupant in when the door is closed) or some other device that does not require the active participation of the car's occupant may be used, under Adam's decision.

The automakers have asked for reconsideration on the grounds that the benefits of passive systems have been overstated and those of manual seat belts have not been properly assessed.

Toronto Globe 2nd Mail  
Thursday, June 24, 1976  
p. 5.

## Accuracy of U.S. study on low seatbelt use challenged by Snow

Transportation and Communications Minister James Snow has challenged the accuracy of a U.S. firm's study showing that seatbelt use in Ontario has dropped by a third since the beginning of the year.

Mr. Snow told reporters outside a Cabinet meeting yesterday that there is no possible way of proper survey of belt use can be done using the firm's method of spotters standing on street corners.

He said the spotters could have seen only shoulder belts, not lap belts. Noting that his ministry changed the law several months after its introduction to require only lap belt use where lap and shoulder belts are separate, he suggested that many persons may have discontinued wearing shoulder belts between February and June, when the study showed there was a drop in seatbelt use.

The study, under the direction of Leon Robertson, senior behavioral scientist for the Washington-based Insurance Institute for Highway Safety, involved observing 18,000 drivers and 4,400 front seat passengers in three cities in December (just before seatbelts became compulsory), February and June. The insurance institute is financed by the U.S. automobile casualty insurance industry and monitors highway safety developments throughout the world.

In a telephone interview yesterday, Mr. Robertson said his spotting method is 85 per cent accurate. Spotters stand at stop lights or yield signs and observe cars as they slow down. He said he tested the method in Washington by having a fleet of 150 messenger trucks drive past his spotters. (Since spotters note licence numbers as well as belt use, their observations could be checked against the prearranged positions of the drivers' belts.)

He asserted that by standing close enough to the curb, his spotters could see whether people were wearing seat belts.

His Ontario survey showed that 23 per cent of car occupants observed were wearing seatbelts in December, 75 per cent in February, and only 51 per cent in June. (Teen-age drivers showed almost no improvement over the six months.)

Mr. Robertson said the findings were in keeping with a similar study in Puerto Rico, after seatbelts were made mandatory in 1974. During one year, belt use rose from 5 to 28 per cent, then fell to 10 per cent, he said.

Mr. Snow said his ministry has not surveyed seatbelt use since early this year—when it was found to be 80 per cent. The ministry has no immediate plans for another survey, he said, because "we have more important things to do than have our staff out monitoring how many people are wearing seatbelts . . . I don't get uptight over some academic in Washington doing a survey. This group is pushing air bags. They'd like to see legislation requiring every auto manufacturer to put air bags in cars."

He said the air bags—which inflate in the front seat when a car crashes—would add \$400 or \$500 to the already high price of a car. Legislating their installation would be a federal responsibility, he said.

Mr. Robertson said he feels seatbelts and air bags complement one another.

"I'd like to see a seatbelt law in every state along with more use of air bags."

He said he did not want to get into a shouting match with Mr. Snow because he admires the Ontario Government for going ahead with a seatbelt law.

He wrote to Mr. Snow before beginning his study, he said, to ask if the Ministry of Transportation and Communication would supply him with the models and years of cars observed in the December and February surveys (using licence numbers noted by spotters). The ministry complied, he said.

# Saturation safety campaign in U.S. 'no effect whatsoever'

A NINE-MONTH saturation campaign of television commercials urging seat belt use in the United States had "no effect whatsoever" according to a recently completed research project to evaluate the effectiveness of public service television announcements.

The study, conducted by the Insurance Institute for Highway Safety in a medium-sized American city "adds to the growing body of evidence that behaviour modification is an inefficient and often ineffective means of reducing highway losses" according to the authors of the project report. "Passive approaches, those which reduce the frequency and severity of damage to people and property irrespective of voluntary action, show greater promise of reducing highway losses," the researchers concluded.

The report states "Campaigns promoting the use of safety belts have been based on inadequate knowledge of the factors contributing to lack of use. Slogans such as 'buckle up for safety,' 'lock it to me,' 'what's your excuse?' and the like have been the hallmarks of these campaigns. If the campaigns have been evaluated at all in terms of effectiveness, the evaluations have been faulty in design and execution."

## Declined

According to the report, even allowing for public ser-

vice time and space contributed by TV, radio and newspapers, the cost of these campaigns has usually been high and the results inconclusive. During a nine-month period in 1971 and 1972 the Institute sponsored a TV advertising campaign consisting of six professionally produced commercials. During the same period observations were made of cars at numerous locations throughout the city in which the campaign was conducted to determine whether safety belt use levels changed from previously observed levels and whether any changes that might occur could be attributed to the television campaign. At the end of the nine-month period the

researchers concluded that the television campaign did not affect the use of safety belts — in fact they pointed out, during the time of the campaign the observed level of belt use actually declined. They did suggest, however, that the decline was not related to the campaign, but may have been due to seasonal conditions that caused added inconvenience in that belts would have sometimes had to be adjusted to fit over bulky winter clothing.

Current US research also suggests that the American public approves of air-bags being fitted to cars. A poll indicates that young adults from 18 to 29 years of age are strongest in their support of air-bags. This age group, which has a high injury and death rate on the highways, voted 65 per cent to 27 per cent in favour of air-bags. This compares to 31 per cent of those 50 years and older who favour air-bags and 44 per cent who disapprove. Women of all ages support the air-bag plan by the substantial margin of 51 per cent to 27 per cent. Men apparently voted against it by a 47 per cent to 42 per cent margin.



## Only New Laws Will Spur Seat-Belt Use

By PAUL SLOVIC

Legislators in some 40 states are or soon will be debating the pros and cons of laws requiring motorists to wear seat belts. Having spent several frustrating years developing messages designed to motivate people to wear seat belts, I favor such legislation.

Seat belts work. A Department of Transportation study found that mandatory seat-belt legislation was by far the most promising of some 200 possible highway-safety measures in terms of expected number of lives saved and cost per fatality averted. If used consistently by the American driving public seat belts could save up to 9,000 lives annually, and surveys show that most people recognize that seat belts are effective. The problem is that only about 10% of motorists use them.

My own involvement in this problem was stimulated by "The Great Seat-Belt Campaign Flop," a Journal of Communication article by safety analyst Leon Robertson. Mr. Robertson reported the results of a remarkable study in which seven carefully designed TV messages were broadcast 943 times over cable television, in prime time, to 6,400 households during a nine-month period.

This equivalent of a multimillion-dollar educational campaign had no discernible effect on observed seat-belt use. A subsequent check of the literature showed that several other studies also had failed to design effective messages.

My colleagues, Sarah Lichtenstein and Baruch Fischhoff, and I found that the messages used in the various studies failed to emphasize what our research showed to be a key motivator for protective action: the perceived probability of a loss.

It occurred to us that a person may not wear seat belts because his perceived probability of being in an accident is extremely low. A little calculation showed that the risks of being injured in an automobile trip were indeed minuscule—about one trip in four million ends in a fatal accident and one trip in 100,000 produces a disabling injury. The problem is that we take so many automobile trips, about 50,000 in an average lifetime. Over that many trips, the probabilities add up to a risk that is not trivial. One out of every 100 people dies in a car accident; one out of every three suffers an injury that is "disabling" for one day or more.

We reasoned that if we could get motorists to look at the cumulative risk of driving, they would recognize the probability of a serious accident as high enough to justify

making a "once-and-for-all" decision to always wear a seat belt. A pilot study showed us that college students thought such a "lifetime risk message" made sense and made them more favorably inclined toward wearing seat belts.

The promising results of this test and a few additional pilot studies helped my colleague Norman Schwalm and me to persuade the National Traffic Safety Administration to award us a sizable contract to develop and test psychologically based seat-belt messages. We supplemented the lifetime-risk message with additional messages based on themes designed to enhance one's perception of risk from driving without a seat belt.

A total of 12 messages were produced and evaluated. On the basis of responses from several hundred people, we selected three messages for a second round of testing. These messages were made into polished TV announcements in each of two formats.

The six announcements were then viewed by several thousand people at a "screening house." Viewers of a message not only answered questionnaires about it, they manipulated an "interest dial" indicating their continuous reactions throughout the time they were viewing the message. Finally, the actual seat-belt use of the viewers was observed when they arrived at the site and when they departed, after seeing a seat-belt message (and other commercials). The results from all six messages looked promising.

The three that looked most effective (one was the lifetime-risk theme; another attempted to convey an intuitive appreciation of the tremendous physical forces involved in even moderate-speed collisions; the third drew an analogy between using seat belts and other repetitive protective actions that almost everyone takes) were selected for a final round of testing, in which study participants were repeatedly exposed to each message and their actual seat-belt use was recorded. The results showed no effect of the messages on seat-belt use, adding one more flop to the list of impressive failures compiled by Mr. Robertson and others.

There seems to be no form of educational campaign or message that will persuade more than a small percentage of American motorists to voluntarily wear seat belts.

People's attitudes and behaviors reflect their experiences. Fortunately, the overwhelming majority of driving experiences are accident free. But each safe trip rewards the nonuse of seat belts; the bother

of buckling up has been avoided without injury. On the other hand, motorists who do use belts put forth that effort without any noticeable reward.

Moreover, the feedback we receive about our own driving skill is misleading. We can drive in an unsafe manner, yet still make trip after trip safely. People recognize that accidents do occur, but consider themselves personally invulnerable. All too often, in the course of 50,000 trips, this belief proves false.

The government generally should not intrude into the private lives of its citizens. But in those cases in which people do not and cannot appreciate the risk from a particular hazard, and thus fail to protect themselves, government has a duty to protect them. This seems to be such a case.

*Mr. Slovic is a Eugene, Ore., psychologist. During 1983-84 he served as president of the Society for Risk Analysis.*

WASHINGTON POST  
January 30, 1985  
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## Seat-Belt Bill Gains In Virginia

### Panel Rejects Move To Weaken Measure

By Tom Sherwood  
Washington Post Staff Writer

RICHMOND, Jan. 29—A Virginia House committee, given graphic details of automobile deaths and injuries, approved a bill today that would make seat-belt use mandatory, after turning aside a strong move to cripple it by Del. Robert E. Harris (R-Fairfax).



## Car buzzers zapped

# Was the public stung?

Detroit News 9-13-72

By ROBERT W. IRVIN  
News Automotive Writer

Those buzzers and warning lights on 1972 model cars designed to make people wear their seat belts are a failure, according to the Insurance Institute for Highway Safety.

Dr. William Haddon Jr., institute president, and Dr. Leon S. Robertson, senior behavioral scientist for the institute, said their findings are based on more than 60,000 observations of cars on the road.

Of drivers in vehicles with

the buzzer-warning light device, 18 percent were using belts while in cars not so equipped, only 16 percent were using their belts.

"The slight difference between 16 and 18 percent falls short of the usually accepted standards for statistical significance," they said.

The 1972 models built after Jan. 1 had to have the warning system. It is activated if the driver and front seat passenger don't buckle up.

The researchers said more than 5,000 of the cars they

checked were 1972 models. Of these, 2,664 had the buzzer-light system and 2,795 were without it.

Comparing the two sets of cars, they said the belt use levels were "virtually identical." Thus, they concluded, the federal standard intended to force people to wear belts is "a public health failure. It has had no statistically significant effect."

If the device is worth \$10 a car, and sales this year are close to 11 million units, this would mean a waste of \$110 million.

Haddon and Robertson charged federal safety officials put the rule into operation based on faulty research on what it would accomplish. They said a survey of government workers was questionable because they had been ordered to wear the belts and could hardly admit to doing otherwise.

They said a Ford Motor Co. study of drivers in Houston and Minneapolis was faulty, too, because those tested got the idea they were supposed to wear the belts and were only trying to cooperate by doing so.

## Safety Belt Buzzers And Lights Labeled 'Public Health Failure'

ATLANTIC CITY—Buzzer-light systems designed to increase motorists' use of safety belts and lessen accident injury and death "can only be described as a public health failure," it was reported here.

Leon S. Robertson, PhD, senior behavioral scientist at the Insurance Institute for Highway Safety, said it is "unlikely" the warning device "will contribute to a reduction in overall frequency or severity of injuries associated with motor vehicle crashes, which was its purpose" under federal safety regulations which became effective in January 1972.

Dr. William Haddon, Jr., president of the Washington-based institute, collaborated on the presentation, delivered at the 100th annual meeting of the American Public Health Association here. Dr. Haddon formerly was director of the National Highway Safety Bureau.

Highway fatalities in the United States average approximately 55,000 a year, with nearly 10,000 injuries a day, Dr. Robertson said.

The federal guidelines allowed auto manufacturers an option between "passive" restraints, such as inflatable bags which activate on impact from under the dashboard, or installation of a buzzer-light system "to induce occupants of front outboard seats to fasten their safety belts."

The manufacturers all chose to install the warning device rather than passive restraints, he said.

The federal standard was developed "in the absence of suitable scientific evidence that it would accomplish its purpose, and without sufficient real-world testing," Dr. Robertson added. Further, the buzzer-light system "can be deactivated, including ways permanently rendering the belts unusable, or can be ignored by vehicle occupants."

Observations of motorists in large and small towns in Maryland, Pennsylvania, Virginia and West Virginia showed that 18 per cent of drivers in buzzer-light warning equipped cars were using seat belts, while 16 per cent of drivers in cars without the system were using belts.

"Lap and shoulder belts combined were used by 2 per cent of the observed drivers," he said.

Two previous studies, on which the

federal guidelines were based, were conducted by the federal government among General Services Administration drivers and by the Ford Motor Company among selected drivers and showed a much higher use of seat-belts. In both cases, he said, results were affected by known expectations of survey officials.

"Previous scientific evidence that approaches directed toward changing driver behavior have little, if any, effect is augmented by the present study," Dr. Robertson said.

"On the other hand, initial standards that require passive approaches to protect crash-involved vehicle users, such as by converting steering assemblies and windshields into energy absorbing systems have been shown to be substantially successful.

"It is evident that passive approaches must be pursued more vigorously. Of course, specific passive devices must also be researched properly before they are generally applied.

"Hopefully the armchair approach and inept science illustrated by the buzzer-light case will soon be replaced by competent science," he said.



Dr. Leon S. Robertson

"LETTER TO THE EDITOR"

WALL STREET JOURNAL, October 15, 1979, :

## ***Gimcrack From Ford?***

Under Notable & Quotable (Oct. 2), you quote Lee Iacocca, formerly of Ford Motor Co., as saying ". . . the regulators got carried away and came up with some gimcrack devices like five-mile-an-hour bumpers and the ignition interlock. The public was so outraged at having to buckle up a bag of groceries on the front seat before they could start the car that they forced Congress to throw the interlock out."

Doesn't Mr. Iacocca know that the buzzer-light and interlock systems were developed by Ford Motor Company and ordered by the Nixon White House after Henry Ford asked the President to do so to avoid the automatic restraint standard? Wasn't Mr. Ford talking to Mr. Iacocca in those days? Or did Mr. Ford and Mr. Iacocca deliberately push a system that the public wouldn't like so that they could subsequently say that the public doesn't want regulation to improve motor vehicle safety?

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