

Status Report

Vehicle Standards Pay Off In Fewer Deaths

Some 37,000 lives were saved between 1975 and 1978 because of federal automobile safety standards, a new study of the effectiveness of those standards has revealed.

The research, conducted by Leon S. Robertson of Yale University and supported by a grant from the Insurance Institute for Highway Safety, showed that there were substantial reductions in car occupant deaths per 100 million vehicle miles travelled for passenger cars built after the initial federal vehicle safety standards took effect. Some reductions also were found in fatal collisions of the regulated vehicles with pedestrians, motorcyclists, and bicyclists. A full report of the research has been published in the August issue of the American Journal of Public Health.

Automatic Protection Needed As Small Car Deaths Rise

The automatic restraint standard should be implemented without further delay — and if anything its schedule should be accelerated — because of the growing number of small cars and a corresponding increase in the highway death rate, the Insurance Institute for Highway Safety has urged federal vehicle safety officials.

Since 1975, the death rate in small cars has been about 2.5 deaths per month per 100,000 registered cars, compared to 1.2 for large cars, William Haddon, Jr., M.D., president of the Institute, said in an Aug. 5 hearing before the National Highway Traffic Safety Administration (NHTSA).

"In other words, for every 100,000 small cars registered, we can expect twice as many occupant deaths each year as there are for every 100,000 large cars registered, not to mention the numerous additional injuries," Haddon told NHTSA administrator Raymond Peck.

The agency is considering three alternative
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Robertson studied data from the Fatal Accident Reporting System (FARS) of the National Highway Traffic Safety Administration. Data on 236,205 vehicles, their drivers, and occupants and nonoccupants killed in crashes involving the vehicles were studied for the four-year period. On the basis of information derived from this study, Robertson estimated that the numbers of deaths avoided by the federal standards in those years added up to 26,500 occupants, 7,600 pedestrians, 1,000 pedalcyclists, and 2,000 motorcyclists.

"It should be noted that the observed reduction in occupant deaths associated with federal safety standards occurred despite the fact that the average size of cars on the road was becoming smaller during part of the period that vehicles were regulated," Robertson said.

Automobiles were essentially unregulated before the 1964 model year. Then from 1964 through the 1967 model years auto makers had responded to state laws by installing seat belts as standard equipment in some seating positions, and with the 1966 models some crash protection — including energy-absorbing steering columns and penetration-resistant windshields — appeared in

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Vehicle Standards Pay Off In Fewer Deaths (Cont'd from page 1)

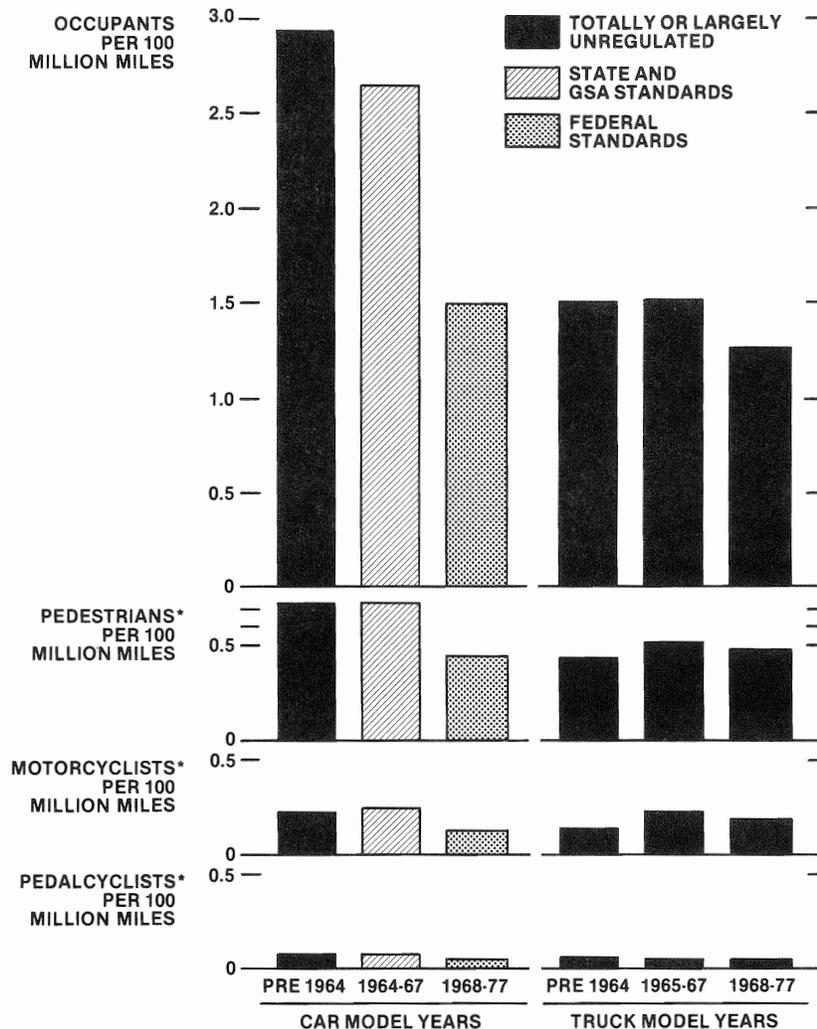
response to safety standards issued by the General Services Administration for federal government purchases. The initial federal standards issued under the National Traffic and Motor Vehicle Safety Act of 1966 applied to cars manufactured in 1968 and later years.

A more modest reduction in fatalities for truck occupants per 100 million miles was reported, trucks having remained exempt from many vehicle standards.

Earlier Findings Confirmed

The finding of substantial reductions in passenger car occupant fatality rates for the regulated vehicles confirmed trends Robertson had found in a study in 1976. At that time, 10 years after passage of the federal law authorizing the program of safety standards, Robertson did a smaller study based on data from Maryland. (See *Status Report*, Vol. 11, No. 7, May 3, 1976.)

Average Annual Fatal Crashes Per 100 Million Miles, U.S. 1975-1978



*In collisions with car and truck models in the years specified.

Economic savings from the federal standards have been substantially greater than their costs, Robertson said, adding: "A former automobile company executive who developed a research safety vehicle that provides crashworthiness far in excess of any proposed standard has estimated that, in mass production, the car could be profitably marketed at about the cost of currently priced compact cars. Apparently, the cost of these innovations does not explain their lack of availability in the market. Other explanations involving ideology and management norms may be more plausible."

Copies of the study, "Automobile Safety Regulations and Death Reductions in the United States" by Leon S. Robertson, are available by writing the Insurance Institute for Highway Safety, Watergate 600, Washington, D.C. 20037.

No Shift In Auto Recall Policy, NHTSA Head Says

Raymond Peck, head of the National Highway Traffic Safety Administration (NHTSA), has denied the agency has adopted a new policy against informing the public about motor vehicle recall campaigns.

But out of 75 voluntary recalls this year – nine of which were influenced by NHTSA – only one press release announcing a recall has been issued by the agency. And that announcement was put together while Joan Claybrook, the previous administrator, was still in office, Peck said.

The controversy arose in the wake of published reports that Ford and Chrysler executives said that routine press releases are no longer being issued by them to announce recall campaigns because of a new Administration policy.

The answer to the question of whether NHTSA has made a policy change is "a flat, unequivocal no," Peck said.

Peck defended the agency's silence on recalls this year, saying, "There has not been a public recall of a major safety concern." Peck said the agency had issued 16 press releases on recall campaigns in 1978, five in 1979, and two in 1980.

("It's a lot more than that," Claybrook told *Status Report*.)

A NHTSA spokesman said Peck's count included only those press releases issued on recall campaigns where the agency was sure the manufacturer did not also announce the recall. The count did not include numerous agency press releases when manufacturers also issued their own recall announcements, the spokesman said.

Some of the recalls that have not been publicized were significant, Claybrook said. One case involved 133,000 Volkswagen Rabbits and pickups with fuel line problems that could allow pressure to increase in hot weather. Under such circumstances, it was possible for gas to spurt from the filler neck, causing a possible fire hazard, safety officials said.

Other cases include:

- The recall of 112,000 1981 Ford Escorts and Mercury Lynx because of an ungrounded fuel inlet. A static charge could accumulate, which could cause possible ignition during refueling, even though fuel tank contents could not ignite due to lack of oxygen, NHTSA said.

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- The recall of 50,000 General Motors X-body cars for possible rear brake lock-up during moderate-to-hard braking.
- The recall of 110,000 of Volkswagen's 1977-80 Rabbits and 1976-80 Scirocos for accelerator linkage problems.

Clarence Ditlow, director of the Center for Auto Safety, estimated that one-fourth of the owners of possibly defective cars do not receive recall notices mailed by manufacturers because they've either moved or the car has been sold.

The head of NHTSA's defect investigation office, George Anikis, said with or without publicity the recall rate averages 50 to 60 percent of affected vehicles ever being actually fixed. Even with all the publicity on Pinto fuel tank problems, Anikis said, less than 60 percent were fixed.

DOT Library Services Are Curtailed

Researchers are finding access to Department of Transportation (DOT) records hampered by recent budget cuts, *Status Report* has learned.

The Maritime Administration will be moving from the Commerce Department to the Department of Transportation and the DOT library will lose half its floor space. While library workers are weeding out and boxing up some of the department's collection, callers are temporarily being turned away by a telephone recording.

Materials that have not been used in five years, along with duplicate copies of documents and reference materials, are being pulled out of circulation, said a DOT spokesman. The interruption could take several months, he said. However, technical reports will continue to be available through the National Technical Reference Service.

Other economies have forced the National Highway Traffic Safety Administration (NHTSA) to eliminate some of its research services. Among the changes are these:

- NHTSA films will no longer be circulated and they are being sent to a federal records center. Only staff members will have access to them, said a NHTSA spokesman.
- Computer searches for reference materials, previously available to the public for a fee, have also been discontinued.

Other economies have been proposed. Further information can be obtained by writing Albert Lawrence, director of management services, National Highway Traffic Safety Administration, 400 Seventh St., S.W., Washington, D.C. 20590.

Highway Design Criteria, Statistical Reporting Under Review

Design criteria for federally-funded new highway construction and federal guidelines for reporting highway-related statistics are among the 30 regulations and nine "paperwork" requirements added to the Administration's regulatory "hit list," Vice President George Bush announced August 12.

Bush said the Presidential Task Force on Regulatory Relief targeted the regulations for "in-depth agency reconsideration" as a result of a review.

"Current FHWA regulations promulgate standards and guidelines for new construction of federal-aid highways," the task force explained. "These rules apply to such matters as highway geometry, location of signs, bridge design, and location of traffic barriers. The review will address the complexity of these rules, as well as the appropriate responsibilities of state and local governments."

An FHWA official interpreted the statement to mean "the states ought to set their own standards." In effect they do, the official said. "They're developed by AASHTO (American Association of State Highway Transportation Officials) and we endorse them."

The "Guide to Reporting Highway Statistics" will also be reviewed, the task force said. The forms used for collecting data will be reviewed by FHWA, "... both as to their specific requirements and whether such information should even be collected by the federal government."

The task force said the annual burden in time spent filling out the forms amounts to 66,000 hours. But the FHWA official said the estimate lumps in police hours spent filling out accident report forms and state handling of motor vehicle registrations. These are reporting activities that will have to continue, he said, with or without any federal requirements.

NHTSA Rejects Windshield Deregulation Petition

The National Highway Traffic Safety Administration (NHTSA), while noting the "significant potential benefits" of a European windshield that reduces the danger of lacerations, has refused to take a deregulatory action that could hasten the product's introduction in American cars.

Such action had been petitioned by the Insurance Institute for Highway Safety in April. (See *Status Report*, Vol. 16, No. 6, April 27, 1981.) The Institute had asked NHTSA to immediately rescind a requirement that the interior surfaces of windshields withstand an abrasion test designed for the windshield technology of the mid-1960's, and incorporated in the relevant federal standard that has been in force since 1968.

The Securiflex windshield, made by a major international company, Saint Gobain Vitrage of France, has a plastic film bonded to the inner surface of the laminated glass. In a crash the plastic acts as a safety net to shield vehicle occupants from lacerations. The plastic film has a unique self-healing property that obliterates scratches.

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The Laceration Problem

In a "request for proposal" issued early in August for a lengthy research project to study windshield characteristics, NHTSA noted these statistics defining the windshield problem:

"... (M)ore than 210,000 laceration injuries to passenger car occupants are occurring per year in the United States due to broken windshield glass, with an additional 100,000 laceration injuries involving broken side window glass."

NHTSA Rejects Windshield Deregulation Petition (Cont'd from page 5)

The makers of the Securiflex windshield have petitioned for NHTSA acceptance of their product, and the agency issued an advance notice of proposed rulemaking in January. (See *Status Report*, Vol. 16, No. 2, Feb. 9, 1981.) Despite the fact that the agency has pointed out that more than 575 passenger car occupants suffer lacerations from windshield glass alone each day in vehicle crashes in the United States (see accompanying box), the agency has not yet completed the slow rulemaking process.

While NHTSA has expressed concern about the inner-surface plastic film, Securiflex windshields have been in use without problems for a number of years on tens of thousands of European vehicles.

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proposals to alter the existing standard, which would have gone into effect starting with 1982 large cars, had the agency not granted a one-year delay. (See *Status Report*, Vol. 16, No. 6, April 27, 1981.) The proposals are:

- Changing the standard's implementation schedule so small cars would be required to comply beginning with the 1983 model year, with mid-size cars then large cars following in the 1984 and 1985 model years.
- Requiring all cars to be equipped with automatic restraints beginning in March 1983.
- Rescinding the automatic restraint requirement.

Haddon said the success of automatic seat belts ultimately will depend on whether vehicle occupants use them, and the usage rate will, in turn, depend on whether manufacturers utilize designs that are both easy to use and difficult to disconnect permanently.

Even if automatic seat belts succeed in raising the belt use rate, air cushions still provide the "single most effective approach" to occupant restraint, Haddon said, since they automatically deploy in frontal crashes. Haddon urged Peck to seek approaches to getting air cushion technology into the marketplace.

Many other witnesses testified during the two-day hearing. Some of the highlights include:

- "By law, by common sense, and by what is right, we cannot and should not avoid – or delay – the fulfillment of our commitment to greater safety on our highways. That commitment outweighs our need to respond to the perceived current favoring less government regulation in general. With respect at least to the standard before us, that commitment can never be traded in for political and symbolic efforts to help our automobile industry grapple with its competitive disadvantages – even if that conflict existed, and I believe it does not." - **Rep. Timothy Wirth**, chairman, Subcommittee on Telecommunications, Consumer Protection, and Finance of the House Committee on Energy and Commerce.

- "It is not just scofflaws who don't wear seat belts. Nine Americans out of 10 don't wear them, and a wide variety of efforts to increase voluntary use have had only minimal or brief effects, or none at all. Even among the people who are most likely to understand the importance of seat belt use, it is not the norm. Yesterday morning, I observed belt use by drivers on their way into the parking lot in the Department of Transportation's Nassif Building. Of the drivers whose cars were equipped with combined lap-shoulder belts, 74 percent (121 out of 163) were not using their belts. And at the parking lot for the Johns Hopkins School of Hygiene and Public Health, 71 percent (36 out of 51) were not using available lap-shoulder

belts. . . . The point is, that if the great majority of people at the Department of Transportation and the School of Public Health do not routinely use seat belts, it would be folly to assume that the entire American public can ever be persuaded to do so.” - **Susan P. Baker, MPH**, American Public Health Association.

- “. . . [T]he passive restraint rule is, from an economic point of view, as important as any environmental, health, or safety rule on the books. If the estimates of the impact on fatalities and injuries are accurate, a rescission would be equivalent to repealing a law that cuts in half the homicide rate.” - **William Nordhaus**, professor of economics, Yale University, former member of the Council of Economic Advisers.

- “While we are sensitive to the difficulties confronting the auto industry, we believe that the safety of the American people should not – and legally cannot – be sacrificed because of the current problems that the American auto industry faces.” - **Donald P. McHugh**, vice president and general counsel, State Farm Mutual Automobile Insurance Co.

- “For the department to eliminate FMVSS 208 and its passive protection requirements is to, in effect, pronounce death warrants on 9,000 to 12,000 citizens who are unable to truly judge the importance of what advanced restraint technology can do for them and their families. The science of auto safety by the route of automatic restraint protection is beyond the understanding of many new car purchasers. Few of them are aware that automatic passive protection already exists in their new cars. Very few know of the automatic protection offered by the steering wheel and column, or the laminated windshield, or the passive value of safety door latches, visors, arm rests, and the padded instrument panel top.” - **Jack E. Martens**, Automotive Occupant Protection Association.

- “Based on 1979 industry data, we now show that annual savings would have been \$4.2 billion that year if all cars had been air bag-equipped, and that saving is from casualty insurance alone.” - **Douglas M. Fergusson**, director of safety services, Nationwide Mutual Insurance Co.

- “Ford urges abandonment of the myth that readings from crash test dummies relate to occupant protection, along with the myth that adequate occupant protection can be achieved by ‘means that require no action by vehicle occupants,’ – i.e., so-called ‘passive protection.’ ” - **Roger Maugh**, director, automotive safety, Ford Motor Co.

- “In our May 26, 1981, response to the current proposal, GM recommended rescission, based on our evidence that the passive restraint rule would not work, and our belief that a voluntary belt use program was a viable alternative.” - **David E. Martin**, director of automotive safety, General Motors Corp.

- “We expect the public to reject passive belts just as it did the interlock – and Congress to kill the standard if NHTSA doesn’t.” - **Christopher M. Kennedy**, director federal government affairs, Chrysler Corp.

- “. . . [S]ince 1969 we have invested approximately \$11.7 million, not including the cost of money. We’ve invested the talents of our highly trained personnel, who have not been available for other programs during this 12-year period. There is an extensive subcontractor investment which has been lost, and we have no way of really assessing that totally. . . . Further, we do not anticipate, have not had any indications, that any automobile manufacturer will proceed with an air bag program without a federal passive restraint mandate of some description. . . . Without a firm decision, we feel that we would lose all of the component manufacturers or suppliers which we have. Without a firm decision, we feel it would be impossible for us to continue to justify our present hold program, which we now have our program in, of trying to maintain our talent, trying to maintain our facilities, [while] waiting for a decision on the mandate.” - **George Kirchoff**, Thiokol Chemical Corporation.

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