insurance institute for highway safety

the highway loss reduction

Status Report

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Proposed NHTSA Budget Cut Nearly In Half

The Reagan Administration has announced it will seek a 48 percent reduction in the National Highway Traffic Safety Administration's (NHTSA) 1982 budget (starting Oct. 1, 1981). The revised budget would cut the agency's current operating level of \$325 million down to \$170 million, should Congress go along with the administration's proposal. Under the Carter Administration, \$357 million had been sought for next year's budget.

The majority of the cuts are proposed for the agency's Section 402 and 403 safety grant programs for state and local governments, as previously announced in February. (See *Status Report*, Vol. 16, No. 3, Feb. 25, 1981.) Those programs are slated to be reduced by a total of \$168 million. The agency's operations and research budget will be sliced by \$19 million.

The agency also is expected to lose nearly a quarter of its work force between now and the end of fiscal 1982.

Transportation Secretary Drew Lewis said the cuts would come from the following program areas:

• \$19 million from operations and research, with \$17 million to be sliced from fuel economy, safety research and demonstration, and the data collection program. The remaining \$2 million reduction would be (Cont'd on next page)

Study Determines Incidence Of Facial Injuries In Crashes

(EDITOR'S NOTE: The following is the text of "The Incidence of Severe Facial Fractures and Lacerations From Motor Vehicle Crashes, A Preliminary Report" by Trudy A. Karlson, M.S., of the Center for Health Systems Research & Analysis, University of Wisconsin-Madison, and by William Haddon, Jr., M.D., president of the Insurance Institute for Highway Safety. Because such information has not been available, the preliminary report and the data it contains are being released at this time. Later this year the first of a series of reports giving the detailed findings will be issued.)

It is well known that severe facial injuries occur in motor vehicle crashes, in interpersonal violence, and in other situations. There is an extensive literature on the diagnosis and treatment of such injuries. Nonetheless, no information has been available as to the incidence of such injuries and the contributions of their various sources.

The data are now being analyzed from a one-year, large scale study of all facial injuries diagnosed in the hospitals, including their emergency departments, of Dane County, Wiscon(Cont'd on next page)

Proposed NHTSA Budget Cut Nearly In Half (Cont'd from page 1)

derived from employee and travel cutbacks.

- \$40 million earmarked for enforcement of the 55 mph speed limit.
- \$10 million from "transportation systems management" program grants jointly managed by NHTSA, the Federal Highway Administration, and the Urban Mass Transit Administration. Those funds had been designated for fuel conservation and clean air enforcement assistance to state and local governments.
- \$4 million from driver licensing programs and \$10 million in driver education assistance. Those two areas are the responsibility of state and local governments, Lewis said.
- \$12 million from emergency medical services through the elimination of funds designated for the purchase of ambulances. Training funds for EMS crews still will be available, Lewis said.
 - \$17 million in field office reductions.
- The remainder represents funds that had been authorized for expenditure but not yet designated, Lewis said.

According to NHTSA officials, there will be a 22 percent staff reduction of 151 positions between now and the end of fiscal 1982. About 40 staff positions will be eliminated by the end of this fiscal year, with the remainder falling to the budget ax by October 1982.

The agency expects to retain police training and alcohol safety programs, along with traffic records assistance for state and local governments, Lewis said.

Study Determines Incidence Of Facial Injuries In Crashes (Cont'd from page 1)

sin, which includes Madison, the state capital. This report gives the initial findings with respect to the severe facial fractures and lacerations produced motor vehicle crashes.

The results show conclusively that among all sources of injury, severe facial lacerations and fractures come predominantly from motor vehicle crashes. The overwhelming majority of these injuries are sustained by drivers and other vehicle occupants, although motorcyclists and pedestrians struck by vehicles also are involved.

Drivers' faces are most commonly fractured or lacerated by steering wheels. Windshields are also prominently involved. For passengers, windshields are the primary source of severe facial injury. Instrument panels and other occupant compartment structures are also involved.

The annual incidence of severe facial lacerations and severe facial fractures from motor vehicle crashes for Dane County residents was 50 per 100,000 and 11 per 100,000, respectively. If these injury rates are used to estimate the approximate numbers of severe facial injuries occurring in the United States annually, the result is U.S. totals of about 114,000 severe motor vehicle facial lacerations and 25,000 severe fractures each year.

Considering *all* severities of injuries, it is estimated that Americans sustain about 266,000 facial lacerations and about 52,000 facial fractures annually from motor vehicles.

IIHS Opposes Restraint Rule Delay Unless Schedule Reversed

Only by tying the proposed one-year delay of the automatic restraint requirement for large cars to a reversal of the phasing-in schedule for intermediate and small cars, could it be justified, the Insurance Institute for Highway Safety has told the Department of Transportation. Here are the Institute's comments:

Gentlemen:

The Insurance Institute for Highway Safety files these comments in response to the notice of proposed rulemaking in 46 Federal Register 12033, February 12, 1981.

- 1. There is no justification for the delay in the effective date of the automatic restraint provisions of Federal Motor Vehicle Safety Standard (FMVSS) No. 208, as that delay is proposed in the notice.
- 2. The need for FMVSS 208's automatic restraint provisions, and the clear and long-standing ability of car manufacturers to meet them, has been thoroughly and repeatedly demonstrated to the Department of Transportation, the courts, and the Congress. A further delay in the face of such a record would be an inexcusable breach of trust with the public, the suppliers of automatic restraint equipment, and the manufacturers themselves. Moreover, further denial of this standard's benefits to the public will simply mean additional needless death and injury to motorists in crashes, and additional waste of national economic, medical, and related resources. (For a chronological history of the series of delays, dating from the late 1960's, to which this standard already has been subjected, see the attachment to this letter.)
- 3. Only one new issue that is relevant to the Department's rulemaking authority under the National Traffic and Motor Vehicle Safety Act of 1966 has developed in this matter since the standard was adopted in its present form in 1977. That is the issue of small, less crashworthy cars and their introduction into the population of motor vehicles at a rate even more rapid than was anticipated in 1977. As is well known to the Department, the effects already are showing up in increased highway crash death and injury levels; insofar as FMVSS 208 is concerned, the clear lesson is that automatic crash protection for American motorists is even more urgently needed today than when the rule was adopted four years ago. This issue, however, is not addressed in the current proposal which is to delay the effective date of the standard for large cars only.
- 4. As a minimum, the Department can meet its statutory obligations and its commitment to the public under FMVSS 208 only by leaving the present standard including its effective dates intact and undisturbed.
- 5. As the notice and the regulatory analysis also suggest, the Department can also meet those obligations and that commitment by modifying the standard so as to bring more cars, and in particular small cars, under its effect sooner. That would be the result of the so-called "reversal" plan suggested in the notice and the analysis. Under the plan, the smallest cars those now brought under the standard in the 1984 model year would come under the standard starting in the 1983 model year, and all cars would be covered by the 1984 model year.
- 6. The net effect of the above-described "reversal" and the proposed one-year delay of the present standard's effective date for large cars only would be to speed up the standard's application to the cars most needing it -a net effect, in other words, of providing more crash protection sooner for the motoring public.

Only if the proposed one-year delay is inseparably and simultaneously bound together with such a "reversal" can it be justified.

Sincerely,

William Haddon, Jr., M.D.

President

Escort Proves Best In Bumper Tests; Tercel Worst

The Ford Motor Co.'s new Escort proved to have the best-performing bumper system of any of four popular 1981 subcompacts in a series of low-speed crash tests conducted by the Insurance Institute for Highway Safety. In contrast, Toyota's new imported model, the Corolla Tercel, had by far the worst bumper protection.

For more than a decade the Institute has been carrying out an annual series of crash tests to determine how well the new model bumper designs protect the cars against costly damage in minor collisions. This year the tests again emphasized the substantial differences in the protection different bumper systems offer. All four vehicles tested this year have been certified by their manufacturers as meeting the standard of sustaining no damage in a 5 mph frontal barrier crash and a 3 mph corner pendulum impact.

Institute Tests

To the modest Federal requirements the Institute added several more realistic tests to determine how the cars will perform in common real-world traffic situations. The seven Institute tests were a 5 mph front-into-barrier impact, a 5 mph front-into-angle barrier impact, a 5 mph rear-into-pole impact, a 5 mph front-into-side impact, both 5 mph and 10 mph front-into-rear impacts, and a 10 mph front-into-barrier impact.

In announcing the 1981 test results in a New York City briefing for media representatives, Ben Kelley, senior vice president of the Institute, said, "In six of seven tests, the tested 1981 Ford Escort damage totalled only \$815 for all seven tests — including the relatively severe 10 mph front-into-barrier impact test."

By contrast, the Tercel sustained repair damage in four of the seven tests and for all seven tests had \$1,879 damage, or well over twice that of the Escort.

The other two subcompacts tested were the Ford Mustang and the Plymouth Reliant. The group was selected because each car is expected to be a leading competitive model in the small-car field during the early 1980's. No General Motors model was tested, because the Chevrolet Chevette has been tested before and is about to be phased out. Its successor in the GM lineup, the "J" car, is not yet available for sale.

Heavier Doesn't Mean Better

Critics of the federal bumper standard have frequently contended that bumpers must weigh more in order to better resist damage. But the Escort and Tercel crash test results counter this argument. The Tercel's bumper systems, combined front and rear, weigh 62 pounds, or 3.1 percent of the car's total weight. The Escort front and rear bumper systems, on the other hand, total only 53 pounds, or only 2.4 percent of the car's weight. A check of similar data for the other two models tested underscores the considerable variations in weight involved in different engineering approaches to the bumper requirements: the Mustang bumpers total 105 pounds or 4.0 percent of the car's weight, and the Reliant's bumpers total 72 pounds, or 2.9 percent of the car's weight.

"Ford Motor Co. is to be commended for giving its Escort customers a bumper system that not only meets the modest federal standard, but over and above the standard provides superior protection in a range of low-speed impacts representative of the kind of so-called 'minor' collisions that cars encounter by the millions, all over the country, all the time," Kelley said.

The current federal bumper standard became effective with the 1980 models after years of controversy and delay. Last year the standard was under heavy attack in Congress, with congressional foes demanding it be rolled back to require only a 2.5 mph front-into-barrier crash test and a 2.5 mph corner pendulum impact test. The standard survived intact when the congressional session ended in a stalemate over the Department of Transportation funds authorization bill.

Insurance Institute for Highway Safety
1981 Model Low Speed Crash Test Results 1,2,3

	5 mph front into barrier	5 mph front into angle barrier	5 mph rear into pole	5 mph front into rear			5 mph front into side			10 h	10 mph front into rear			total
				front damage	rear damage	damage do both	front damage	side damage	damage to both	10 mph front into barrier	front damage	rear damage	damage to both	1 1
SUBCOMPACTS (Wheelbase ≤ 101 in.)														
Ford Escort 2-door	\$0	\$ 0	\$ 0	\$0	\$0	\$0	\$0	\$360	\$ 360	\$ 455	\$ 0	\$ 0	\$ 0	\$ 815
Ford Mustang 2-door	0	24	53	0	0	0	0	292	292	380	0	204	204	953
Plymouth Reliant 4-door	0	171	90	0	0	0	0	221	221	519	0	0	0	1001
Toyota Corolla Tercel 2-door	0	252	149	0	0	0	0	415	415	1030	0	33	33	1879
Averages	\$0	\$112	\$ 73	\$0	\$0	\$0	\$0	\$322	\$322	\$ 596	\$ 0	\$ 59	\$ 59	\$1162

Using a labor rate of \$15 per hour, slightly lower than the prevailing average labor rate in the U.S.

Rounded to nearest dollar.

 $^{^{3}}$ Criteria for bumper face bar damage were based on the DOT Part 581 Bumper Standard.

Vehicle Occupants Killed In Falls And Jumps

Of the 1978 vehicle toll of more than 50,000 people killed in the United States, 345 fell or jumped to their deaths from non-crashing vehicles.

An Insurance Institute for Highway Safety study has classified these falls and jumps according to whether the fatally injured people had been traveling in or on the outside of vehicles, and whether they reportedly jumped or fell. Until now, such non-crash-related highway deaths "have been widely overlooked," said researchers Allan Williams and Sharon Goins.

Classification of the 345 fatalities indicates that 144 persons had been riding inside vehicles, and 201 had been on vehicle exteriors. Two-thirds of those on exteriors were riding on trucks. Fifty of the 345 involved people jumped from motor vehicles, and 221 fell. It was not known whether the other 74 persons jumped or fell.

"Seventy-seven percent of those who fell from passenger compartments were males," the report said. "Among those who jumped from the inside of vehicles, 62 percent were women, and almost all of these women were passengers in cars driven by men." Males comprised 79 percent of those who had been traveling on vehicle exteriors before they fell or jumped.

Reducing Falls and Jumps

Falls and jumps from the exterior of vehicles could be reduced by reducing the number of people riding in this manner, according to the researchers. Several states have laws prohibiting travel on hoods and trunks. However, no state has adopted legislation prohibiting travel in cargo areas such as truck beds, where more than half of those who jumped or fell from vehicle exteriors had been traveling.

Falls and jumps from inside vehicles could be prevented by modifications in vehicle design, the researchers said. "It is technologically feasible to design vehicles so that doors cannot be opened when the vehicle is in motion," they explained. "Such design would eliminate virtually all falls and jumps from passenger compartments." If this is not done, the researchers suggested modifying rear doors so that they are difficult for children to open from the inside and for adults to open inadvertently — but so that they are still readily accessible for escape or rescue.

Preventing Children From Falling

Of the 221 persons who reportedly fell from motor vehicles in 1978, the research showed that 79 fell from inside vehicles. Thirty-five of those who fell from passenger compartments were three years old or younger. The five fatal falls that occurred while backing out of driveways at the start of trips all involved children one or two years old.

Even if doors open inadvertently, falls could be prevented by using seat belts or child restraints, the study said, adding that "child restraint laws and education by pediatricians regarding the necessity of protecting children in vehicles have been moderately successful and should be encouraged."

The Role of Alcohol

The study suggested that alcohol consumption by occupants contributed to the toll of fatalities by making people more susceptible to falling from vehicles, or more inclined to jump. Police reports used in the study indicated that 26 adults who fell or jumped from vehicles had been drinking. "This figure probably greatly understates the role of alcohol," the researchers said, noting that blood samples to allow ac-

curate determinations of alcohol consumption usually were not obtained.

This study has appeared in the February 1981 issue of the *American Journal of Public Health*. Copies of the study, "Fatal Falls and Jumps from Motor Vehicles," by Allan F. Williams and Sharon Goins, are also available from the Insurance Institute for Highway Safety, Watergate 600, Washington, D.C. 20037.

Oberstar Asks National Driver Register Reforms

A bill to revamp a records system for preventing the licensure of problem drivers has been introduced in the House of Representatives by Rep. James L. Oberstar (D.-Minn.). The bill would implement reforms generally consistent with those advocated in a recently-released study of the system ordered by Congress. The bill was co-authored by Rep. John J. Rhodes (R.-Ariz.) and an identical measure was filed in the Senate by Sen. Claiborne Pell (D.-R.I.).

To help states identify and avoid issuing drivers' licenses to applicants whose driving privileges have been withdrawn in other states, Congress in 1960 passed a law establishing the National Driver Register. Maintained by the National Highway Traffic Safety Administration (NHTSA), the register lists names, supplied voluntarily by the states, of drivers whose licenses have been suspended or revoked for moving violations.

Although the system is successfully used to prevent the licensure of problem drivers, many observers agree it isn't working nearly as well as it should. The system is voluntary, and in many instances state officials don't check the register, saying the process is too time-consuming and that register data is often insufficient to deny an applicant a license.

Rep. Oberstar first introduced legislation to reform the register in 1977. Rather than adopt Oberstar's bill, Congress referred the issue of register reform to the National Highway Traffic Safety Administration for study, with a view toward possible future legislation.

Computerized System Would Be Used

Consistent with the study's findings (see *Status Report*, Vol. 15, No. 14, Sept. 17, 1980), the new Oberstar bill calls for conversion to a computerized rapid-response system linking register files to state licensing offices. Under the proposed system, notification that a license applicant has a record of unsafe driving in another state would be provided "within 60 seconds versus the 10 to 14 days under the present system," Oberstar said. To help remedy the problem of incomplete or outdated register data, the system would enable the inquiring official to check quickly and directly, via computer, with the originating state the driving record of an applicant whose name is found in the register.

Access to register files, which currently is limited to state licensing officials and certain federal officials, would be widened under the bill. Trucking companies would, through state licensing officials, be able to consult the register in order to check the nationwide driving record of prospective or current employees. The Federal Aviation Administration also would be allowed to check the register in evaluating applications for pilot's licenses. In addition, the National Transportation Safety Board would be given access in conducting crash investigations. However, the Bureau of Motor Carrier Safety would not specifically be granted access for similar studies, nor would the U.S. Coast Guard to aid in evaluating maritime pilots. Both measures were advocated by the NHTSA study and the Insurance Institute for Highway Safety.

Another feature of the bill would expand the categories of problem drivers included in the register. Currently, the names listed are only of persons whose driving privileges have been withdrawn. Oberstar also would include drivers who still have licenses but who have been convicted of drunk or reckless driving, a traffic offense associated with a fatal crash, or racing on the highways.

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