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BEFORE THE
HOUSE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE
SUBCOMMITTEE ON CONSUMER PROTECTION AND FINANCE

HEARINGS ON
THE PASSIVE RESTRAINT DECISION BY
THE U. S. DEPARTMENT OF TRANSPORTATION

SEPTEMBER 12, 1977
Congress is being asked to overturn the Department of Transportation (DOT) decision to require, starting in the early 1980’s, that new cars be equipped with automatic protection — passive restraints — to reduce death and injury in frontal car crashes (Attachment 1).

Those who ask Congress to do this oppose the Department’s decision because, at heart, they do not agree with the philosophy behind it — that is, the philosophy that government has a right and a duty to require levels of safety in motor vehicles that, despite the availability of appropriate technology, auto manufacturers refuse to provide on their own initiative. To support their philosophical opposition, opponents are arguing on fallacious technical grounds against passive restraints.

The basis for the philosophy underlying the Department’s passive restraint decision is not, however, to be found in the decision itself; it is embodied in the law of the land, the National Traffic and Motor Vehicle Safety Act of 1966, reported by your Committee, unanimously passed by the Congress, and signed into law by the President. From that law have flowed requirements for new or improved levels of safety in new cars, trucks, buses and other motor vehicles — the passive restraint rule being but one of the most recent. The requirements have preserved thousands of lives otherwise lost in car crashes and prevented countless injuries otherwise suffered (Attachment 2).

It is the adequacy under the 1966 Act of the DOT’s passive restraint rule that should be at issue here — not the philosophical objections of some opponents.
The Department's rule is that passive protection for front seat automobile occupants in frontal crashes is to be phased in during the model years 1982-84. The rule — as the Act requires — leaves to manufacturers complete discretion in selecting technologies for complying with it. At present, air bags and passive belts are two systems likely to be used.

By meeting the new rule, manufacturers will be building cars in which crash forces — now too often seriously or fatally injurious — are substantially, automatically reduced for front-seat occupants in frontal crashes. (Frontal crashes account for the majority of occupant fatalities in auto crashes.) (Attachment 3.) DOT calculates that its new rule, by eventually bringing about such passive protection in all cars on the highways, will reduce crash deaths by 9,000 a year and severe crash injuries by hundreds of thousands.

In issuing its passive restraint rule, DOT has done nothing more than comply with the 1966 Act's mandate that the Secretary "shall" issue motor vehicle standards that are "practicable," that "meet the need for motor vehicle safety," and that are "stated in objective terms," to the end of reducing "deaths and injuries to persons resulting from traffic accidents." Indeed, DOT's compliance is long overdue and, in the standard's phasing-in, lead time and crash test aspects, very modest. Air bag technology able to meet this rule has been on hand for nearly a decade, as DOT, air bag suppliers, auto makers and the courts have long known and stated (Attachment 4). And, although more recent in its availability, a passive belt system complying with the rule already
has shown, in its three years of availability in the American marketplace, impressive effectiveness in reducing the frequency of injury claims (Attachment 5).

Yet auto manufacturers have with too few exceptions refused to make passive restraints available to their customers, even as options, despite the availability of air bag technology and, more recently, passive belt systems — and despite their own clear promises in the early 1970's to do so on a widespread basis (Attachments 6 and 7). Left by DOT's past inaction to choose on their own whether or not to save lives and prevent injuries through the offering of passive restraints, the auto companies by and large chose not to.

Instead, auto company efforts that could have helped to phase passive restraints into new cars earlier were invested in legal maneuvering, advertisements, public relations and procedural tactics directed to denying such life-saving protection to Americans for even more years to come. And that is the case even today, when with the exception of the Volkswagen passive belt it is impossible to find one current-model automobile sold in the United States with front-seat air bag or passive belt protection available as standard or optional equipment.

DOT's rule will remove from the auto companies, starting in 1981, the ability to withhold frontal-crash passive restraint protection from Americans any longer. As a result, thousands of men, women and children who would otherwise die or be seriously injured in crashes will continue to live and be healthy. Already, air bags, provided in about 10,000 cars made by General Motors a few years ago and 800 made by Ford, have
minimized injury to small children in violent frontal crashes, including children who have been out of position at the time of the crash. I emphasize the importance of this point because this successful real-world experience is directly contrary to the speculations of some opponents.

In illustration, on May 21, 1975, in Landover, Md., Mrs. Lucinda Harris and her two small daughters crashed into the side of another car at a speed estimated by DOT crash investigators as 45 miles per hour. All three were unbelted. All three received nothing but the most minor injuries. Mrs. Harris described what happened in an interview with ABC, in which you also will see her youngsters and the crashed air-bag car.

(ABC FILM CLIP HERE)

On July 27, 1977, in Cocoa, Fla., Mrs. Jimmie C. Daniel, with her two small grandchildren, a boy, 4, and a girl, 6, crashed front-into-side with a van in an intersection after her vehicle passed through a malfunctioning traffic light at approximately 45 miles per hour. Both children reportedly were unbelted, as was Mrs. Daniel. Both children were out of position. The little girl was sitting on the console between the bucket seats, and the little boy, on the right, was standing on the floor.

(FILM HERE)

Here is the car after the crash. Mrs. Daniel and her granddaughter were so well protected by the GM air bags that they received nothing more than minor, nonconfining injuries in this severe crash. Her grandson also received minor injuries and, in addition, numbness of the left arm which is still being diagnosed. The car was a total loss.
Because of DOT's rule, adults as well as children who are unprotected by safety belts, for whatever reason, will be much better shielded in frontal crashes from death and serious injury — better even than had they been wearing both their lap and their shoulder belts (Attachment 8). As the latest government study shows, lap and lap-shoulder safety belt use by drivers in even the newest, 1977-model cars is less than 20 percent — and these cars supposedly are equipped with the easiest-to-wear belt systems (Attachment 9). The passive restraint rule seeks to bring protection to all drivers and front seat passengers.

A Member of the House, Rep. Bud Shuster, has erroneously alleged that belt use in America today is 44 percent. That is not so. The government figures he cites were for belt use predominantly in autos equipped with ignition interlocks, which were required by DOT at the insistence of Ford Motor Company (Attachment 10). Since Congress voted to repeal the interlock rule, belt use has plummeted in those same cars to less than 30 percent.

Children in cars are even less protected by belts or child restraints than adults — more than 90 percent are unrestrained or improperly restrained (Attachment 11). Passive restraints go a long way to remedy that lethal lack of protection (Attachment 12).

Because of DOT's rule, one of the most thoroughly researched and tested automobile safety systems ever developed — air bags — will become available in increasing numbers. During nearly a decade of laboratory, test track, and real-world experience that already has totalled one-third of a billion (not million) miles of driving on American roads,
air bags have been exposed to a very wide range of operating and crash conditions, and have been shown to work effectively under all of them.

For instance, this very brief several-years-old General Motors film indicates the comprehensive range of conditions under which GM had tested air bags.

(FILM HERE)

A second segment of GM film, submitted to DOT in 1973, shows how well the air bag works in a multiple impact — a crash in which the air-bag equipped car first strikes another vehicle and then, a moment later, collides with a fixed object some distance away. In the real world, the air bag has worked equally well to protect people in multiple impacts (Attachment 13).

(FILM HERE)

How air bags work at speeds greater than the 30-mile per hour front-barrier crash test speed specified in the DOT rule is shown in this next piece of film. Here, in a series of Institute tests, you will see Oldsmobiles with and without air bags crashed into a concrete barrier at speeds above 35 miles per hour.

(FILM HERE)

Air bags also will perform impressively in the very smallest of cars now being manufactured in this country. This film, produced for DOT by Minicars (a California research firm), shows a 1976 Chevrolet Vega, equipped with a driver-side air bag, being crashed into a barrier at 32 mph.

(FILM HERE)
The role of companies standing ready to supply air bag systems or components to automobile manufacturers includes, in this country alone, Allied Chemical Corp., Eaton Corp., Thiokol Corp., Talley Industries of Arizona, Inc. and Rocket Research Corp. (Attachment 14). In sum, their testing, along with the laboratory and real-world experience of GM, Ford and Volvo air-bag cars in crashes, has shown conclusively that the system works not only under the range of normal driving conditions but also at extreme temperatures; at high mileages (older vehicles); at crash speeds higher than DOT's compliance test speed; in multiple impacts, and for unbelted adults and out-of-position children.

The most outspoken opponent in Congress of the DOT passive restraint rule is Rep. Bud Shuster. His basic position is philosophical; he has stated that he contests the rule because it "chips away needlessly at our individual freedom." From that viewpoint, of course, all motor vehicle safety standards issued under the 1966 Act, as well as the Act itself, are contestable.

But Rep. Shuster also has attempted to shore up his opposition to the DOT passive restraint rule with unfounded technical claims that cannot be permitted to remain on the record uncorrected. In addition to disseminating preposterously inflated information concerning belt use levels in America, he has relied on an unscientific and discredited study, written by a private consulting firm whose clients include the American Safety Belt Council, as the basis for his incorrect claims that air bags are less effective than lap-shoulder belts in crashes.*

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This study is utterly worthless: it is not based on an evaluation of
the known crashes involving air bag cars but on crashes and injuries
that the authors of the study speculate might have taken place in such
cars; it ignores well known biases in the data — for example, it is
well known that the violence of crashes and occupant death rates are
much higher in rural than urban areas. Yet despite the fact that 45
percent of the air bag crashes have occurred in rural areas, the authors
have used for comparisons a group of crashes involving lap-shoulder
belted and unrestrained occupants that were overwhelmingly in urban
areas — only 12 percent of the comparison crashes occurred in rural
areas. The failure of the study to correct for this and other biases
results in a gross overestimate of belt effectiveness and a gross underestimate
of air bag effectiveness.

Indeed the methodology of the study is so inept that, using the
same data and approach, one would have to conclude erroneously that
lap belts alone are almost twice as effective as lap and shoulder belts
in crashes! This conclusion is, of course, absurd, and it clearly shows
that the comparisons made in the study are scientifically indefensible.
Yet it is on the strength of just such a study that Rep. Shuster has
based his central case.

Rep. Shuster is also attempting to overturn the DOT passive restraint
rule on the basis of an additional, technological red herring, specifically,
by reference to one of the substances that can be used to inflate air
bags — a compound called sodium azide (Attachment 15).

Although Rep. Shuster suggests that even though "sodium azide
does not appear to present a danger when enclosed inside the air bag
canister and when properly activated to inflate the air bag," he says it would present a "danger" if the canister were opened and contact, by ingestion or inhalation, were made with the substance. If Rep. Shuster's position toward sodium azide is valid, America should ban the automobile entirely, for that is the only way to eliminate the hazards to people who might eat the paint, drink or inhale fumes from the gasoline, ingest or touch the battery acid, drink the anti-freeze, chew on the vinyl, eat the rubber tires, or ingest pieces of the window glass or frame. Those hazardous activities, incidentally, would be a good deal easier than breaking the car apart to find a sodium azide container and then breaking apart the sturdy container itself in order to get at the contents.

CONCLUSION

Were the passive restraint issue not of such overriding importance for the health and safety of the American people, the groundless technical claims by which opponents seek to undermine DOT's rule might be amusing. But the issue is far too grave, and the outcome of any reversal of the rule far too perilous, for amusement. If Congress were actually to revoke the DOT passive restraint rule, it would be going out of its way to send thousands of Americans each year to hospital beds, wheelchairs and graves.

As a last argument against the DOT passive restraint requirement, opponents say that air bags would not stop all death and injury in car crashes because they are not designed to protect in side impacts and rollovers — that they would protect "only" in frontal crashes, which
account for a majority of occupant crash deaths. Would opponents overturn requirements for fuses, circuit breakers and sprinkler systems just because those requirements do not eliminate each and every fire? Would they withdraw the requirements for energy absorbing steering assemblies in new cars simply because the requirements provide protection "only" for drivers, and "only" in frontal crashes?

If today's automobiles do not provide sufficient protection for occupants in side and rollover crashes — which they do not — the answer is not to withhold automatic frontal crash protection from future automobiles. The answer is for manufacturers, on their own initiative (or, failing that, under government requirement), to develop and apply technologies for automatically and substantially reducing death and injury in side and rollover impacts (Attachment 16). By doing so, they would be saving additional lives and preventing additional serious injuries.

Appended to this testimony is a summary of data and findings* relevant to the issues I have raised as well as to other issues — which time precludes me from covering — including the comparative effectiveness of air bags, belts, and no restraints in actual crashes; passive protection below air bag deployment speeds; passive belt and air bag costs; unsuccessful attempts to increase belt use, and public opinion polls showing approval of passive protection in new cars.

We will be happy to answer any questions.

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