

FEDERAL TRADE COMMISSION
WASHINGTON, D. C. 20580

OFFICE OF THE SECRETARY

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Congressman John D. Dingell
Chairman, Committee on Energy and Commerce
U.S. House of Representatives
Rayburn House Office Building
Room 2125
Washington, D.C. 20515

Dear Mr. Chairman:

We are pleased to respond to your request for the views of the Federal Trade Commission on the proposed study of the feasibility of developing a system for annual crashworthiness rating of all new automobiles. This proposal is contained in S. 863, the "National Highway Traffic Safety Administration Authorization Act of 1985," which was passed by the Senate on May 15, 1986.

Quite clearly, reliable crashworthiness information could have great value, at least to some consumers. The central issue that would need to be addressed by the proposed study is whether auto crashworthiness tests would provide consumers with enough additional information, beyond that already available, to justify their expense. We think that the study should address several factors. Some of these appear to be covered by section 303 of S. 863. Others, however, may not be covered.

Existing Information

The study should begin by evaluating existing information, which then should be compared with the types of information that would be obtained from the proposed program. Some information about vehicle performance in accidents is already available to consumers. For example, the Highway Loss Data Institute publishes data on the relative frequency of injuries and relative severity of repairs for different vehicle models.¹ In addition, some auto manufacturers advertise the safety features of their

¹ See, e.g., "HLDI Injury and Collision Loss Experience: Cars by Make and Model," pamphlet published by the Highway Loss Data Institute, August 1985.

automobiles.² Clearly there are limitations to the usefulness of these other sources. Insurance data, for example, will be affected by the driving habits of the people who purchase a particular model.³ However, the mere fact that there are limitations to the usefulness of existing data does not necessarily establish a need to expend resources to produce additional information.

Usefulness of Additional Information

A study of the desirability of a testing program should seek to identify the ways in which consumers would benefit from the improved data on crashworthiness and to determine the value consumers place on these improvements. While we do not know at this point exactly how useful additional information on crashworthiness would be to consumers, we can identify a number of ways in which they could potentially be benefited. Consumers might find it easier to learn about the relative safety of various makes and models of automobiles and would not need to spend as much time and effort learning about safety. With improved information on vehicle safety, consumers may also be able to more accurately identify the cars that most closely satisfy their preferences for vehicle safety. Further, the availability of better information on vehicle safety may encourage manufacturers to provide safer cars. To the extent

² Car size also provides some evidence about relative safety since consumers appear to be aware that, while there are exceptions, large cars generally provide greater protection than small cars.

³ If fewer owners of sports cars than of four-door sedans use seat belts or if drivers of sports cars drive less cautiously, this will tend to make sports cars appear to be less crashworthy than would a comparison based solely on the characteristics of the car. In addition, insurance data cannot be available at the time new models are introduced. This, however, may not be a serious shortcoming. In their 1985 pamphlet on the crashworthiness of different vehicles, the Highway Loss Data Institute states:

"The injury and collision loss experience of the cars shown in [this pamphlet] is based on model years 1982-84 but provides a good prediction of the experience of current models of the same cars. This is because the loss experience of particular cars generally is consistent from one model year to another."
(Ibid.)

consumers used accurate information to purchase safer cars, benefits would presumably include lower injury and fatality rates. Any study should consider how and to what degree each of these benefits would be realized as a result of a mandatory testing program.

Adequacy of Testing Procedure

To be useful to consumers, comparative crashworthiness tests must provide consumers with an adequate level of information concerning a vehicle's likely performance in actual accidents. If the tests conducted do not sufficiently reflect comparative performance in real world crashes, publication of such test results may cause consumers to choose vehicles that provide a different level of safety than they desire.⁴ This could substantially reduce the benefits of any testing program, perhaps even making the benefits negative. Thus, an important focus of any study of the desirability of a mandatory crash testing program should be on the ability of any test procedure to provide results that are well correlated with real world crash experience.

Limitations on Test Results

Consumers must be made aware of any significant limitations associated with the test results. Even if the results provide information about the performance of vehicles in real crash situations, there will be limitations to the precision of these estimates and to the uses to which this information should be put. For example, as we understand it, the crashworthiness results of the experimental New Car Assessment Program, currently conducted by the National Highway Traffic Safety Administration (NHTSA), can be used only to compare vehicles of the same size. The results cannot be used to compare the performance of a large car with that of a smaller car. In addition, it is unclear whether test results are valid across body types (such as two-

⁴ This could occur if consumers mistakenly rely on the results of the required crashworthiness tests rather than on other, more accurate, information available to them. If consumers are aware that the results of the required tests do not provide information about the performance of vehicles in real accidents, then they will not use this information in making purchase decisions and will therefore not be led to make a wrong decision. However, in this case, there would be no benefit from the testing program.

door and four-door versions of the same model).⁵ There may also be variability in test results between two vehicles of the same make, model, and body type.⁶

If consumers are unaware of significant limitations on test results they may rely too heavily on the tests and discount other evidence that is more reliable.⁷ As a result they may not purchase the vehicle that best satisfies their preferences. Thus any study will need to evaluate the limitations of the testing procedure and will need to assess how these limitations can be communicated to consumers. It is not necessary, however, that all variability in test results or other limitations on the usefulness of crash test data be eliminated before the data can be of value to consumers. It is only necessary that consumers know of the limitations of the data so that they can determine how much reliance to place on it.

The Costs of Crashworthiness Testing

A study of the feasibility of requiring a crashworthiness testing program should consider the costs of the program and attempt to estimate the magnitude of these costs. The first cost that should be considered is the direct cost of conducting the tests. Based on the costs of NHTSA's current experimental New Car Assessment Program, it appears that the direct costs of performing the tests would be over \$5 million per year, assuming

⁵ Hearing before the Subcommittee on Telecommunications, Consumer Protection, and Finance of the Committee on Energy and Commerce, U.S. House of Representatives, 98th Congress, 2nd Session, on H.R. 6076, August 8, 1984 (Serial No. 98-165) (Hereafter "Hearings"), p. 215. Thus, tests may have to be performed on all, or a large number of, models to ensure accurate results.

⁶ The National Highway Traffic Safety Administration has confirmed that there is variability in the results of their current testing procedures and has identified several factors that can cause this variability. See Hearings, pp. 245-247.

⁷ This may be particularly likely to occur in a program where the government is endorsing the testing. Consumers may believe that the results are more reliable because of the government support of the program.

that a single test for each model and body type offered would provide adequate information on crashworthiness.⁸

However, it is not clear that a single test would be sufficient to produce reliable information on crashworthiness. If there are significant variations in test results between two vehicles of the same make, model, and body type, it may be necessary to perform multiple tests to obtain reliable estimates of the average crashworthiness of the vehicle.⁹ In addition, testing in a single crash configuration -- e.g. crashing the vehicle into an immovable barrier at 35 miles per hour, which is the test configuration used by NHTSA in its New Car Assessment Program -- may not provide sufficient information about safety in the variety of crash situations encountered in the real world. It may therefore be necessary to conduct several crash tests and combine the results into an index based on the likelihood and seriousness of each type of accident. If it is necessary to conduct multiple tests of each vehicle model and body type, the direct costs of the tests, of course, would be some multiple of the cost estimated above.

There would also be costs involved in disseminating the results of the tests to consumers. These costs should be estimated as part of a feasibility study. The mandatory testing program might also result in delays in introducing new vehicles if the testing program requires significant amounts of time to complete.

⁸ NHTSA estimates that it costs \$20,000 per vehicle, including the cost of purchasing the vehicle, to conduct this test. (Hearings, p. 263). For the 1984 model year, there were 277 different combinations of models and body types of cars sold in the U.S. (Hearings, p. 248.) Therefore, if the crashworthiness testing program had been required for 1984, and if adequate data could be generated by testing only one vehicle of each model and body type, the total cost of the crashworthiness program would have been in excess of \$5.5 million.

⁹ The number of tests needed to obtain a reasonable estimate of the average performance of a particular model would depend upon the amount of variability in the test results and the degree of uncertainty that is judged to be acceptable in the published test results. The number of tests may also depend on the degree to which any variability in results is the same for all models. If the variance of test results is not the same from one model to the next, it may be necessary, at a minimum, to conduct several tests on each model in order to determine whether the results for this model are subject to large or small variations.

Effect on Number of Models Available

It is important to note that the costs of the tests would not impact equally on every car sold. Rather, the costs would be the same for each model offered. As a result, the costs per vehicle would be higher for models that sell in lower quantities. If the cost of testing an additional model is great enough, manufacturers may not find it profitable to offer as many models as they currently do. Thus, a study of mandatory crash testing should consider whether the testing program would lead to a decrease in the number of models of vehicles offered and the value consumers place on the availability of any models that might be discontinued.

Potential Inhibition to Future Improvements in Safety

A serious concern, which would be difficult to quantify, is the danger that government adoption of a testing procedure for determining crashworthiness may inhibit rather than promote future improvements in auto safety. There are several ways in which such a problem might arise. If a standardized way of determining crashworthiness is established, this could create incentives for manufacturers to concentrate on making changes that will improve their vehicles' performance on that particular test, rather than on making possibly more important safety changes that involve aspects of the vehicles' performance that are not covered by the tests.¹⁰ Adoption of a standard test may similarly reduce innovation in procedures for testing vehicle safety. Governmental adoption of a particular approach to testing may reduce the incentive to develop alternative testing procedures even though the new procedures could provide a better measure of real world experience.

Potential Effect on Tort Law

The proposed study should also consider the consequences of the proposed crashworthiness tests for our system of tort law. If the crashworthiness index were to be interpreted by state courts as informing purchaser expectations about automobile safety, for example, it might measurably hinder a product liability action on the part of the driver of a relatively unsafe

¹⁰ Of course, if a manufacturer develops a safety feature not measured by the tests, it can petition the government to change the tests or can advertise the feature as providing additional protection. The counterweight to the concern expressed in this paragraph is that to the extent manufacturers make safety-enhancing design changes that would not have been made but for the existence of the test, positive benefits would result.

car, or might measurably support a warranty action against the manufacturer of a supposedly safe car that failed to perform as expected.

Why are the Tests Not Voluntarily Conducted?

A final issue that should be considered by those examining the desirability of mandatory crash testing is why the proposed crashworthiness tests are not voluntarily conducted by insurance companies, auto producers, or other private parties who could then benefit by selling the information on relative crashworthiness or by advertising the attributes of their particular vehicles. For example, if consumers would value the results of this type of testing, one might expect manufacturers with relatively safe vehicles to conduct the tests and use the results to promote their vehicles. Why does this not happen more frequently? Is it because these tests cannot be reliably performed? Is it an indication that the tests provide little information about relative safety beyond that already available? Or is there some problem that keeps these tests from being provided by the market even though consumers would value the information? We do not know the answer to these questions, and they should be examined by the proposed study.

Conclusion

We recommend that the proposed study carefully evaluate the concerns that we have identified. We hope that you will find these thoughts helpful in your deliberations concerning this proposal. Please contact us if we can be of further assistance.

By direction of the Commission.



Benjamin I. Berman
Acting Secretary