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94-H51 NATIONAL CENTER FOR STATISTICAL ANALYSIS OF HIGHWAY OPERATIONS

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HEARING

BEFORE THE

MMITTEE ON TRANSPORTATION

OF THE

MITTEE ON PUBLIC WORKS

NITED STATES SENATE

NINETY-FOURTH CONGRESS

SECOND SESSION

ON

S. 2606

A BILL TO PROVIDE FOR THE ESTABLISHMENT OF A
NATIONAL CENTER FOR STATISTICAL ANALYSIS OF
HIGHWAY OPERATIONS

JULY 20, 1976

SERIAL NO. 94-H51

Printed for the use of the Committee on Public Works



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CONTENTS

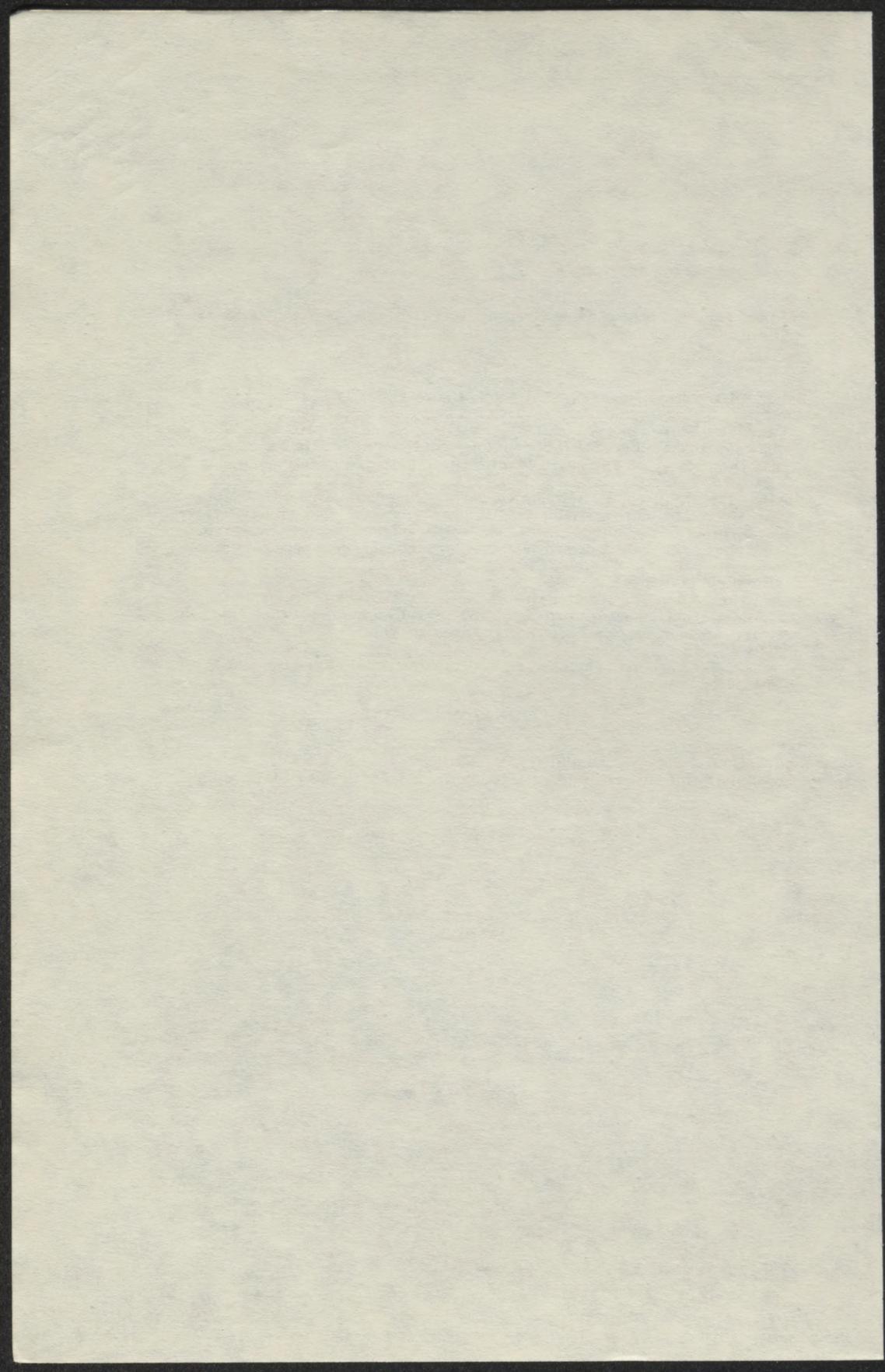
Burdick, Hon. Quentin N., U.S. Senator from the State of North Dakota, opening statement of-----	Page 1
---	-----------

LIST OF WITNESSES

Baker, Mrs. Susan, member, National Highway Safety Advisory Com- mittee-----	24
Prepared statement-----	26
Hathaway, Hon. William D., U.S. Senator from the State of Maine-----	6
Heins, Edward, chief engineer, advance programs and safety planning, Chrysler Corp-----	52
Martin, David, director, automotive safety engineers, General Motors Corp.; accompanied by Arline R. Rininger, engineer, field accident re- search programs; John Versace, executive engineer, safety research, Ford Motor Co.; and Edward Heins, chief engineer, advanced program and safety planning, Chrysler Corp-----	27
Prepared statement-----	29
Snow, Hon John W., Administrator, National Highway Traffic Safety Administration; accompanied by Steve Wood, Assistant Chief Coun- sel for Legislation, and Bill Scott, Director, Office of Statistics and Analysis-----	14
Versace, John, executive engineer, safety research, Ford Motor Co-----	43
Prepared statement-----	45

ADDITIONAL MATERIAL

S. 2606, reprint of-----	3
Snow, Hon. John W., Administrator, National Highway Traffic Safety Administration, responses to written questions from Senator Stafford---	22



NATIONAL CENTER FOR STATISTICAL ANALYSIS OF HIGHWAY OPERATIONS

TUESDAY, JULY 20, 1976

U.S. SENATE,
COMMITTEE ON PUBLIC WORKS,
SUBCOMMITTEE ON TRANSPORTATION,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to call, in room 4200, Dirksen Senate Office Building, the Honorable Quentin N. Burdick presiding.

Present: Senators Burdick and Stafford.

OPENING STATEMENT OF HON. QUENTIN N. BURDICK, U.S. SENATOR FROM THE STATE OF NORTH DAKOTA

Senator BURDICK. Today the Subcommittee on Transportation holds a day of hearings on S. 2606, a measure introduced by Senator Hathaway to establish a National Center for the Statistical Analysis of Highway Operations.

For some time now members of Congress and outside groups concerned with highway safety have called for a more efficient method of data gathering to determine the cause of highway accidents.

In the 1973 Highway Act, we included a provision calling for a feasibility study for a National Center on Highway Operations to give us a more objective view of accident cause and prevention.

That feasibility study was submitted to the Congress in February of this year and endorsed the concept of a National Center, to be located within the National Highway Traffic Safety Administration.

We expect our witnesses today to respond to some of the central issues surrounding this important matter. We will want to know whether the Center, if established, should be located within the Department of Transportation or operated as an autonomous, independent agency.

We are interested in the budget for such a center, its staff requirements, its links to experts in business and industry. More importantly, I think, we will want to know what practical effect the Center would have on cutting down highway accidents, and that means nothing less than the means employed to follow through on some of the data acquired to assure us that it does not simply accumulate in research volumes with no impact on the safety of the motoring public.

It makes little sense, in my view, to set up yet another data center if we do not build into the legislation an effective mechanism to translate the data gathered into an effective force for highway safety.

The concept of the Center has gained wide acceptance, in and out of Government. It is certainly important to have a central location to analyze the causes of accidents, to utilize advanced statistical procedures, and to project ways in which this Congress, the States and the local communities can make our highways and our motor vehicles safer for travel. Too often in the past Federal officials have been accused of setting safety standards without an adequate data base to support them. I believe that even our Federal witnesses will agree that some of these accusations are not without foundation.

We look forward to hearing from these distinguished witnesses today, and the chairman would like to announce that others not appearing as witnesses will have an additional 10 days to file statements for the hearing record.

[The bill, S. 2606, follows:]

94TH CONGRESS
1ST SESSION

S. 2606

IN THE SENATE OF THE UNITED STATES

NOVEMBER 3, 1975

Mr. HATTAWAY introduced the following bill; which was read twice and referred to the Committee on Public Works

A BILL

To provide for the establishment of a National Center for Statistical Analysis of Highway Operations.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "National Center for
4 Statistical Analysis of Highway Operations Act of 1975".

5 SEC. 2. (a) The Secretary of Transportation shall estab-
6 lish within the National Highway Traffic Safety Administra-
7 tion a National Center for Statistical Analysis of Highway
8 Operations and through such center shall acquire, store,
9 retrieve, and analyze highway accident data and promote
10 the standardization of information and procedures for report-
11 ing accidents on a nationwide basis.

1 (b) Such center shall—

2 (1) be established and expanded according to a
3 phased and justified growth plan from the existing
4 statistical and analytical effort within the National
5 Traffic Highway Administration;

6 (2) be initiated on a modest basis working initially
7 to develop a few key data bases in order to facilitate
8 future data base development by the experience gained
9 with the initial bases, and expanded as justified by user
10 demands;

11 (3) function as a complete service and support
12 organization and liaison for the highway safety com-
13 munity;

14 (4) make major use of statistical sampling meth-
15 ods in obtaining nationally representative data, includ-
16 ing maximum utilization of existing national and other
17 statistical center services and facilities;

18 (5) cooperate with various State and other Fed-
19 eral agencies in a Federal-State-local cooperative pro-
20 gram in order to promote definition and standardization
21 of data requirements for the various government levels;

22 (6) aid in identification of problem areas and pro-
23 vide information for countermeasure development to
24 remove or lessen the consequences of such accidents;

1 (7) assist in evaluation of existing and proposed
2 countermeasures, including cost evaluation of those
3 measures and the development of alternative measures;

4 (8) produce statistical and analytical reports on a
5 continuous periodic basis which portray the magnitude
6 and nature of the national highway safety problem; and

7 (9) maintain an adequate staff to develop, imple-
8 ment, and maintain improved national data bases and
9 related services and otherwise carry out the provisions
10 of this Act.

11 SEC. 3. The Secretary of Transportation shall establish
12 an Advisory Board for the National Center for Statistical
13 Analysis of Highway Operations. Such Board shall be made
14 up of representatives of public and private entities which
15 use such National Center and shall serve to advise on and
16 to promote the proper utilization of the Center's services
17 and data by appropriate public and private entities.

18 SEC. 4. In carrying out the provisions of this Act the
19 Secretary shall—

20 (1) establish appropriate procedures and mecha-
21 nisms to assure the protection of individual privacy;
22 and

23 (2) make an annual report to the Congress sum-
24 marizing current achievements, fully detailing and jus-

- 1 tifying any request for additional resources, and contain-
- 2 ing a report from the Advisory Board established pur-
- 3 suant to section 3 with respect to its activities.
- 4 SEC. 5. There are authorized to be appropriated such
- 5 amounts as are necessary to carry out the provisions of this
- 6 Act.

Senator BURDICK. Our first witness this morning is the author of the legislation, the distinguished Senator from Maine, Mr. Hathaway.

**STATEMENT OF HON. WILLIAM D. HATHAWAY, U.S. SENATOR
FROM THE STATE OF MAINE**

Senator HATHAWAY. Mr. Chairman, I am pleased to appear before the Transportation Subcommittee today to speak about S. 2606. I introduced this bill last November and am pleased that your committee is interested in implementing it.

Briefly, the bill establishes a National Center for the collection, analysis, and evaluation of highway statistics, which analysis will provide the necessary empirical basis for effective highway safety programs.

The need for effective highway safety programs may be illustrated with a few figures. In 1972, the fatality rate for motor vehicle accidents ranged between 55,000 and 56,000 people killed annually. Non-fatal injuries were estimated at 3,800,000 with an additional 24,000,000 vehicles involved in property-damage-only accidents.

An estimated cost of these accidents on the highway was put at \$46 billion annually, with the major share of the costs, 60 percent, allocated to nonfatal injury accidents.

Although these figures have declined since the oil embargo and institution of the 55-mile-per-hour speed limit, they do give a picture of the magnitude of the societal and human costs of highway accidents.

The figures for 1974 and 1975, for example, showed a reduction in fatalities of between 9,000 and 10,000 lives. The figures for the first 4 months of 1976, however, increased by 2 percent over the first 4 months of 1975.

I know that you on the committee are all deeply concerned with the significance of these problems and are aware of the tremendous potential there is in reducing the costs, both human and financial, of these accident rates.

There are several unresolved questions for the future which are of concern to advocates of a sound highway safety program. It appears that institution of the 55-mile-per-hour speed limit has had beneficial results in terms of both lives saved and gasoline conserved.

The precise relationship between the reduction in the speed limit, its enforcement and the reduction in fatalities needs to be determined, however. Means of enforcing the 55-mile-per-hour limit must also be investigated, for if it is the effective cause of the reduction in fatalities, it will continue to be of benefit only to the extent of compliance with it.

Senator BURDICK. Senator, do you have any recommendations for enforcement?

Senator HATHAWAY. Not specific ones. The present monitoring devices that are used is one method of enforcement. Most States do not have very good monitoring devices for their major highways. We might be of some help to those States if they cannot afford to have the monitoring devices for speeders. That is the only specific suggestion that comes to me immediately.

I know that the State of Maryland, for example, has conducted extensive campaigns from one time to another, such as having numerous police officers on 495 and other major highways, making sure that people stayed down to the 55-mile-per-hour limit.

Programs such as that of Maryland in other States throughout the country would be extremely beneficial. I suppose also that suspension of licenses by the courts would be of great help, especially if this gets a great deal of publicity. I think the scare factor is probably the one thing that is going to do the best job.

I think that you and I have both noticed where the 55 miles an hour has been in effect—at least in this area and I can say in Maine also, which are the two places where I do most of my driving—that vehicles are going much slower than they were previously.

Maine previously had a 70-mile-an-hour speed limit on its major arteries through the State. Of course, it has been reduced to 55. My travels up there indicate that most people are staying well under 60 anyway.

I notice that in the Washington area just going back over the parkway every day, in and out—of course, in the morning and some hours out at night they can't go as fast as 55 miles an hour—it seems at the times when they can, most people are adhering to that.

Senator BURDICK. I ask the question seriously. I wonder, should we put more responsibility on the States? Do you recommend that?

Senator HATHAWAY. I think we have to put more responsibility on the States. I don't think that the Federal Government would get very far in trying to impose a Federal policing mechanism when the States have traditionally had this responsibility.

The Federal Government's major role, I would think, would be in offering whatever financial and data support that it can to the States to help them enforce it.

Senator BURDICK. Would you assess any penalties for lack of enforcement?

Senator HATHAWAY. I suppose we could tie it in as we have with highway funds, and then you would have to have some kind of a device or procedure to determine whether or not each State had enforced the 55-mile-an-hour limit.

It is one thing to say you can't get your highway money unless you have such a law on the books. It is another thing to say you can't get your money if you don't enforce such a law.

It may be very difficult to determine whether or not a State is enforcing its laws, especially the speed limit law.

Senator BURDICK. I don't want to interrupt your statement any more, but I thought the 55 limit, when talking about safety instances, it is a pretty important edge on this whole thing.

Senator HATHAWAY. I think in the long run, Mr. Chairman, that education in the public and private school system will go a long way toward making people realize that driving over that speed limit is dangerous. As we all know, we don't have enough police officers in the country to enforce all of the laws that we have on the books. We really depend upon the honesty and dedication of most of our citizens to adhere to those laws.

We are not going to get that kind of dedication unless we get understanding of the people for the purpose and the underlying principle behind the law. Hopefully that is being done in the driver education programs, at least in the school systems today.

Future energy needs may also result in an overall shift to more economical vehicles and result in smaller, lighter, yet equally safe vehicle design. New mixes in transportation modes, increased use of bicycles, motorized bicycles, motorcycles, mass transportation, or even the commercial introduction of electric vehicles, for example, will also place demands on the development and implementation of effective highway safety programs.

Finally, uncertainty as to future congressional action regarding highway safety programs, and more specifically the uniform standards program, poses a challenge to all safety officials as to the most effective approach to future Federal programs.

Although we made a national commitment to highway safety over a decade ago, emphasis was placed in 1966 on the development of national uniform standards themselves. Lacking at that time, and regrettably still lacking today, is a similar national commitment to development of the type of statistical analysis, definition, and evaluation of highway accidents which would provide the empirical basis for such standards.

The need to develop such a sound research base for safety programs has been sporadically advocated by various groups involved in highway safety and, in 1973, Congress recognized this need when it specifically authorized a study of the feasibility of establishing a National Center.

In February 1975, this study was sent to Congress by the National Highway Traffic Safety Administration (NHTSA) and found that such a center was indeed both feasible and highly desirable. The NHTSA report noted that "other large-scale Federal programs (such as health, crime, economics, labor/employment, census, et cetera) are based on nationally representative and statistically sound data systems. Highway safety programs have never had this type of data support."

In essence, the process of developing sound highway safety programs had been turned on its head; the program preceded the necessary research and development which would have assured that the most cost-effective programs were established as the result of a sound empirical analysis.

As a result of this reverse process in the development of the national safety programs, the past decade has seen these programs, particularly the uniform State standards provisions, assailed from every side.

Criticism has come from the States, citing bureaucratic rigidity in the present standards and programs, the unnecessarily harsh sanction provision of the act, and from groups involved in highway safety for lack of adequate enforcement of the intent and provisions of the uniform standards program.

This range of controversy has surrounded the uniform standards particularly, and these standards are by no means radical. For example, they require that States have programs for aspects of highway safety such as driver licensing and education, vehicle registration, judicial and law enforcement recordkeeping, vehicle inspections, uniform traffic laws within the State, and programs relating to safe highway design and engineering.

To most, I think these standards appear intuitively reasonable. Yet several States still do not have vehicle inspection programs, for example, and several inspection programs which do exist consist of only the briefest of safety checks.

Why have uniform standards which appear so elementary and reasonable met with opposition and controversy? There appear to be two likely answers: Their implementation and the fact that they are only "intuitively" reasonable.

Underlying this range of criticism is the continuing lack of a sound objective base by which to develop and evaluate all of the varied safety programs relating to the driver, the vehicle, and the highway itself.

With this background in mind, I introduced S. 2606 last fall which would implement the recommendations of the NHTSA report on the establishment of such a long-needed center.

The purpose of this bill, of course, is to provide a legislative mandate for the development of a strong statistical and evaluation program and to focus all of the dispersed efforts in highway data collection, which are now distributed through many agencies and segments of the Government, into one coordinated effort.

The Center would be located within NHTSA itself as the lead agency for highway safety programs, although a good argument could also be made for location of the Center as an independent entity within the Department of Transportation.

Location in NHTSA would, however, permit easy growth of the present Office of Statistics and Analysis which is within NHTSA, and upgrading of NHTSA as the lead agency for highway safety programs appeared to be the most feasible, and the most administratively efficient, way of establishing the National Center.

The Center would receive both the inputs of private and public user groups, as well as provide information to all such groups, including reporting to Congress and to the public in progress being made in the area of highway safety.

The logical question might seem to be as to why a national center is needed. There are several reasons which indicate the need for such a center. Obviously many of our highway safety problems are national in scope; although they may vary in detail from State to State and

locality to locality, they all combine the three significant factors of driver, vehicle, and highway, which gives them underlying commonality. This is the reason that the highway safety programs themselves could be justified on a national scale some 10 years ago.

Second, a national center can most efficiently carry out a coordinated effort which will be able to identify the common elements in traffic accidents and permit the development of generalized programs to deal with these problems.

Finally, a national center will give all of the highway safety programs, whether carried out at the local, State or Federal level, an objective underpinning which will give them the credibility, prestige and public acceptance which they might not otherwise have.

Assuming the premise that there is an appropriate role for highway safety programs at the national level, recent congressional action indicates that a strong national data program, including some form of a uniform standards program which will prevent the highway safety programs from being just another form of revenue sharing, is essential if the national commitment is to be continued in the future.

As I am sure you know, Mr. Chairman, on May 5, the 1976 Federal Aid Highway Act became law. As finally passed, Public Law 94-280 made several changes in the sanction provisions of the section 402 uniform standards program, and effectively continued the moratorium on the promulgation of new standards until a report is made to Congress by July 1, 1977.

Language in these 1976 amendments fairly characterizes the problems which have surrounded the uniform standards since inception: "Implementation of a highway safety program * * * shall not be construed to require the Secretary (of Transportation) to require compliance with every uniform standard, or with every element of every uniform standard, in every State."

Regrettably, this legislative language summarized very well the current uncertain status of these national standards.

The original direction taken in the Senate bill regarding these safety programs reflects clearly what may be expected in the future if a sound empirical basis is not developed as the basis for national programs.

The Senate bill, in essence, turned control of the uniform standards program back to the States through a waiver provision which, in my mind, imposed an unrealistically high burden of proof on the Secretary of Transportation to show the superior efficacy of the national standard.

The fundamental basis for including this provision was, I assume to ensure that NHTSA would promulgate standards which were empirically defensible. The underlying equity for this position was the relative expenditures on highway safety related matters spent by State and local governments compared with those of the Federal Government.

Significantly, however, the Senate bill did recognize that standards relating to the generation and collection of data, as well as alcohol safety, should be nonwaivable provisions and continue to be part of a national program.

Without becoming embroiled in the relative merits of the State versus Federal control argument, it is apparent that any national

program can be effective only to the degree that there is State, local, and public acceptance of programs designed to promote safer travel.

Public acceptance is particularly necessary in the area of highway safety where the Federal Government may be perceived as impinging on traditional local law enforcement activities, or on personal freedoms. A rigid Federal safety program overly concentrated at the national level is, I think, doomed to failure by continual public resistance and lack of enforcement.

The effectiveness of public resistance in obtaining change in programs is well illustrated by the success of the movement against mandatory helmet laws in both the House and Senate this past session.

This year, both highway bills made State compliance with the helmet standard voluntary, and on the Senate floor this antihelmet amendment succeeded despite the fact that the Senate bill already contained the strong waiver provision.

The fate of the helmet laws points up another factor of significance: Even with a national data center and the development of a strong empirical base for programs, such a center will not be a panacea and, in individual instances, a given program may meet with such resistance that it will not be sustained.

But I should note here again that a sound objective basis is a prerequisite for any successful national effort.

As to future direction for the standards part of our safety program in January, NHTSA outlined in the Federal Register a proposed revision in the promulgation of the section 402 standards program.

The orientation of this proposed revision is one which in this case is legislatively mandated and is gaining currency in several Federal programs—an orientation toward performance criteria.

There are two obvious advantages to such an orientation: Performance criteria permit the maximum degree of flexibility to the State and local agencies in implementation of any national standards, and they also focus on the selection of the most cost-effective countermeasures to reach the goal.

Emphasis on performance, then, should both enhance the public acceptability of safety measures and result in implementation of those measures which result in the greatest safety payoff.

In addition, it permits the continuation of the legitimate Federal role in establishing standards in order to insure the accountability for payment of taxpayer dollars, while moving away from the kind of bureaucratic rigidity which may result in compliance with detailed rules at the sacrifice of the overall goal of improving highway safety.

The need for sound data analysis both to precede and to supplement the development of performance criteria in all areas and levels of highway safety is evident. Performance criteria will be meaningful only if there is necessary statistical analysis at both the input and output extremes of standard development for all aspects of highway safety.

We will need to know the predominant factors in accident causation, identify common patterns of accidents, establish the interrelationship of the three factors of the driver, automobile, and highway, and their causal relationship with traffic accidents, and identify the common areas of failure, thereby suggesting the appropriate countermeasures.

Effective data collection and analysis will also aid in establishing

the priority areas in need of immediate attention, as well as permit highway safety to be dealt with as a whole rather than in isolated parts.

At the output end of the implementation of performance criteria, sound statistical analysis is imperative if we are to evaluate the effectiveness of various countermeasures and to maintain flexibility in implementation. It will also serve as a means of broad dissemination of information as to the relative degree of efficiency of various approaches, as well as serve as the basis for innovative approaches, both as to specific measures and as to the appropriate role of the respective levels of government.

In summary then, national highway programs are presently in flux and have been since 1973 when Congress placed a moratorium on the uniform standards program. The degree of Federal involvement in highway safety programs is strongly questioned, and there appears to be a considerable sentiment toward disengaging the Federal Government from this particular aspect of our national life.

Yet the overall problems of highway safety are not unique from area to area, and they may appropriately be addressed on a national scale. What is lacking is an objective and rational basis for these national programs which can be justified both on the grounds of need and on the grounds of cost and safety effectiveness.

The commitment made by the Highway Safety Act of 1966 needed, but lacked, this kind of empirical basis, and this same need continues to exist if a national commitment to highway safety is to be retained on a meaningful basis.

I hope you will agree with me that a decade is adequate time to allow, and the time has arrived to insist that the necessary statistical spade work and evaluation be accomplished.

Mr. Chairman, I thank you very much for listening so patiently to my testimony. If there are any questions, I would be happy to try to answer them.

Senator BURDICK. Senator, I want to thank you for a very good statement and your fine contribution this morning. You no doubt have spent a good deal of time on this question, because your statement reveals it. I just have a few things that come to mind.

I would think that safety, if I want to capsulize it, depends on three things: condition of the road, condition of the vehicle, and condition of the operator. Most of these elements are defined at least by various State laws.

In the State of North Dakota—I am sure in the State of Maine—we have what we call in our State a Safety Responsibility Division that compiles all of the statistics on causes of accidents, whether it is driving while intoxicated or driving with excessive speed or whatever it is. We have the data compiled now in the various statehouses of the Nation.

Would your suggestion be a duplicating effort? How would you bring it together? Why would you need another Federal agency to do this job that is being done?

Senator HATHAWAY. All of this data that is now collected in the various States—some States do a good job of this and some States don't do a very good job at all of it—would be at the National Center.

But in addition to that, all of this data would be analyzed so that the factors of causation would show up. I don't think it is enough to say that in the State of Maine, for example, 25 people were killed last year because of drunken driving. It is certainly helpful to have that data. But if we don't have the cause and effect, if we don't analyze them further to find out in 15 of those it was a rainy night and the signs on the road were not well lit and so forth, we are not going to get the entire picture.

If we don't get the entire picture, if we are not able to pin down the causes, then I don't think we are going to be able to come up with very realistic highway safety standards. So just having the data available in certain places is not enough. It won't really be duplicative, however, because under the bill, the States would give whatever data they have to the National Center. And as I say, further analysis of this data would take place at the Center.

Senator BURDICK. What else would they do besides collect the data from the 50 States? What else would they do?

Senator HATHAWAY. They would analyze the data and perform whatever additional investigations were needed to find out just what the causes that brought about the data were.

Senator BURDICK. There is an accident on Main Avenue and 23d Street in Fargo. The local police is called out there after the accident to take the data and the facts, the distances and conditions, the statements, and so forth, around the accident.

Now, that is gathered at the time. There is no further evidence that I know that can be gathered 6 or 12 months later. That is the data. There it is. What else could this agency get but that data that is picked up by the Fargo police?

Senator HATHAWAY. They would get all of that data, to be sure. And then they would be able to analyze it at the Center as to what really the cause or causes were of this particular accident.

In other words, to be sure, there are going to be a lot of accidents that are never reported in some States with inadequate reporting systems, or just because of inadequate enforcement of the existing reporting systems. The National Center is not going to be able to get data from those sources, that is true.

But I think that there is probably a fairly good data base throughout the country, although I think that the National Center would have to set up one of its own where there are not standardized or sufficient data bases or reporting centers.

Senator BURDICK. Then in essence your agency would coordinate, collect, and evaluate these various data facts that come in from the 50 States. That is in essence what it would do.

Senator HATHAWAY. That is correct.

Senator BURDICK. It is to advocate some policies.

Senator HATHAWAY. Yes. That is correct, Mr. Chairman.

Senator BURDICK. Thank you very much.

Senator HATHAWAY. Thank you.

Senator BURDICK. Our next witness is the Honorable John W. Snow, Administrator of the National Highway Traffic Safety Administration.

Welcome to the committee, Mr. Snow.

STATEMENT OF HON. JOHN W. SNOW, ADMINISTRATOR, NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, ACCOMPANIED BY: STEVE WOOD, ASSISTANT CHIEF COUNSEL FOR LEGISLATION, AND BILL SCOTT, DIRECTOR, OFFICE OF STATISTICS AND ANALYSIS

Mr. SNOW. Thank you, Senator. Senator, let me introduce my colleagues. On my left is Steve Wood, Assistant Chief Counsel for Legislation; and on my right is Bill Scott, the Director of the Office of Statistics and Analysis in the National Highway Traffic Safety Administration.

Mr. Chairman, it is a pleasure to appear before you today and present the views of the Department of Transportation on S. 2606.

I want to commend Senator Hathaway and this committee for focusing attention on the critical issue of improving highway safety data. Good data and better data than we have today must underlie our National, State, and local safety effort.

Let me assure you that we are committed to the objective of getting better data.

S. 2606 would direct the Secretary of Transportation to establish a National Center for Statistical Analysis of Highway Operations within the National Highway Traffic Safety Administration.

The Center would be responsible for acquiring, storing, retrieving, and analyzing highway accident data, in addition to standardizing the information and procedures for reporting accidents on a nationwide basis.

The bill is an outgrowth of the feasibility study for such a Center which the Secretary of Transportation was directed to conduct under the Highway Safety Act of 1973. In requiring this study, the Congress recognized the need to develop a nationwide highway accident data base which would be an effective support for the present and future highway safety program efforts on the Federal, State, and local levels.

I am in strong agreement with Congress judgment about the value of obtaining better data. Effective implementation of the Nation's motor vehicle and highway safety programs requires comprehensive, up-to-date, and accurate information indicating the causes of accidents, resulting injuries and fatalities, and the impact of countermeasures taken to reduce their occurrence.

We need early identification of trends so that we can take appropriate steps before problems assume critical proportions. This level of information is necessary for the development of individualized remedies and programs for reducing accidents and mitigating their effects.

As you know, Senator, the National Highway Traffic Safety Administration operates pursuant to a broad statutory mandate to take appropriate steps and actions to reduce accidents and injuries on our Nation's highways.

Data obtained from a representative nationwide sample of accidents will aid our efforts to develop appropriate highway safety program standards and Federal motor vehicle safety standards and any amendments needed to refine those standards. Such data, moreover,

is crucial to the development of a strong administrative record that will enable our standards to withstand judicial scrutiny. For this reason, our rulemaking activity is one of the critical determinants of our data needs.

In addition, better highway and vehicle safety data will assist Secretary Coleman's policies for improving the analysis and review of regulations issued by the Department. Our analyses of the increased and improved data will enable us to keep our existing regulations effective. It will also insure that new regulations and programs are sound and do not impose unnecessary burdens on the private sector, on consumers, or on Federal, State, and local governments.

In its February 14, 1975, report to the Congress, the Department concluded that a National Center is feasible, and provided considerable information concerning how such a Center could be made operational.

I should add that beginning in 1973, the National Highway Traffic Safety Administration initiated its own redirection of its data gathering effort. This redirection was based on the recognition of certain deficiencies, critical deficiencies, in the prior data systems. In view of this redirection of effort by the National Highway Traffic Safety Administration toward the establishment of a national accident data system, the Department recommended that Congress await the outcome of that effort before authorizing the creation of a National Center.

During the past several years, the NHTSA has made considerable progress in providing a more effective highway safety data base. This progress is highlighted by a reorientation of program emphasis, increased resources, and our development of three major statistical data bases: first, the Fatal Accident Reporting System (FARS); second, the Pedestrian-Bicyclist Accident Data Sampling and Analysis Program (PADSAP); and third, the National Accident Sampling System (NASS). The last two data bases represent a reorientation of program emphasis from a primarily clinical or case-by-case approach to a statistical approach based upon probability samples of a national population of accidents. Linking this statistical approach with detailed information about accidents facilitates the development of more accurate data, predictions, and evaluations in a more timely and cost-effective manner.

At the heart of the NHTSA data programs will be the national accident sampling system, or NASS—the most recent and most comprehensive accident data project under way. This system will provide representative and detailed data describing the magnitude and character of the national accident picture. The data base will include a certain level of detail on all accidents in the sample, from those involving property damage to those involving fatalities.

Through analyses of the precrash, crash, and postcrash events, the program will relate accident severity to injury severity. A pilot program for the part of NASS which addresses this objective is embodied in the National Crash Severity Study. This study is currently being placed in operation and will continue for 2 years.

Field teams of trained investigators under contract will insure that data are of sufficient quality and content for tracking trends; identifying safety programs, and evaluating countermeasures. The

design system for NASS has been reviewed by a national review panel of 14 outside experts, and a comprehensive pilot test of the system is scheduled for fiscal year 1977. Complete implementation of the system is expected by fiscal year 1980.

The fatal accident reporting system, which became operational in the spring of this year, is a census of all fatal motor vehicle accidents occurring throughout the Nation. This system replaced our previous highway fatality statistics and fatal accident file, bringing together information from police accident reports, driver licensing files, motor vehicle registration files, State and Federal highway department files, and medical records. It is particularly useful in helping to standardize and make more comprehensive our reports in this area. Privacy of individuals is protected by converting the data at an early stage to prevent identification of individuals.

The third major data base is the pedestrian-bicyclist accident data sampling and analysis program, PADSAP. Data on pedestrian and bicycle accidents are collected via supplemental reports used by sampled police agencies throughout the country. This program has gone through the initial phase of system design. Its pilot test, the second phase of the program, is nearing completion.

Other current data collection and analysis efforts include multidisciplinary accident investigation, which use sophisticated investigation techniques and computer-aided reconstruction to achieve the most in-depth investigation of "high interest" crashes. Serious school bus-crashes and catastrophic crashes are often investigated in this manner. This techniques is also used to investigate air bag deployments and other special systems.

In addition to data collection, the NHTSA also has the responsibility to provide statistical and informational services to the general public and interested parties. We regard this as an important part of our mission. An NHTSA Fact Book providing comprehensive current highway accident information for management personnel, statisticians, analysts, and engineers has been published and plans for its annual revision and publication have been made.

The NHTSA also responds to inquiries covering the broad range of data and information available on highway safety, vehicle safety and accident research. In 1973, for example, 563 requests for information were processed, 365 of which were governmental requests and 198 were from the private sector.

I might note the number of information requests processed continues to increase. In 1975, for instance, 744 requests were received, 485 of which were from governmental agencies and their contractors and 259 from the private sector. Projections for 1976 indicate such requests will continue to increase.

Our efforts to establish the various national data systems are being supplemented by our work with the States under the Highway Safety Act in collecting, standardizing, and analyzing highway safety information. Under section 402 of the act, the NHTSA promulgated two standards which have promoted the standardization of information and procedures for reporting highway accidents. Highway Safety Program Standard No. 10, "Traffic Records," specifies certain minimal data on drivers, vehicles and highways and on traffic accidents for use

in highway safety analyses and evaluations. Highway Safety Program Standard No. 18, "Accident Investigation and Reporting," defines a uniform, comprehensive motor vehicle traffic accident investigation program for gathering information, standardizing definitions, classifications, and a format for data input into statewide traffic records systems.

From the foregoing description of these data collection and dissemination programs, I hope that I have made the point that NHTSA is working toward fulfilling the major recommendations of the feasibility study and the major proposals of S. 2606.

In summary, NHTSA is amplifying existing data bases and developing new ones as experience and need dictate. It is making major use of statistical sampling methods. It is involved in standardizing information and procedures for accident investigations. And it is providing various information to the highway safety community. Both budget and staff have been increased in the last year by the Department in support of improving our data base and our data analysis. The funding is now at a level approximating that suggested in the feasibility study for the initial operation of a national center.

While the Department sees great merit in establishing a national data center within the NHTSA, we do not believe this legislation is necessary to accomplish this purpose. The Department already has sufficient statutory authority to carry out all of the data collection and statistical analysis functions of such a center. The Department of Transportation Act, title 23 of the United States Code, and the National Traffic and Motor Vehicle Safety Act give the Department far-reaching authority to collect, analyze and distribute data, studies, and information concerning highway safety. The Department intends to use its existing authority to establish a national data center in the NHTSA, and I am pleased to be able to advise you of that, today.

The agency's existing statistical collection and analysis programs will serve as the nucleus for the Center. From this base, the Center will be developed in accordance with a carefully phased and flexible plan, as provided for in the feasibility study and in S. 2606. As I have stated, the test stage of some of these programs has not yet been completed. Since we will be adjusting our plans to reflect the results of these developmental and testing efforts, our completion of the plan for the Center will take some time. But I want to assure you the effort is well underway.

I recognize the desire expressed in S. 2606 for enhancing the accessibility of the State and local governments as well as the highway safety community to highway safety data. The data collected by the Center will aid the State and community highway safety programs and motor vehicle safety regulatory program as well. Some of the data, such as that in NASS, will be national data. It will not give States a picture of their own unique and particular problems. However, that data will serve as the core around which the States and localities can build supplementary data systems. As we move ahead with the development of the Center, we will continue our efforts to improve data collection and analysis at the State and local levels.

The creation of a national center within the NHTSA will require coordination between the NHTSA and the Federal Highway Administration. Although the Center will serve some of the FHWA's data

needs, it will not meet the need for assisting the States in identifying and correcting highway hazards at specific locations.

Under a joint State/FHWA program, the States collect and analyze highway-related data to identify high accident or potentially hazardous locations, as well as other unique requirements at the State and local levels, and to design effective countermeasures.

This program, which is specifically directed at onsite problem identification and correction, is primarily a State responsibility. FHWA will continue to conduct this program.

Mr. Chairman, this concludes my prepared testimony. We look forward to reviewing with you and this committee our plans for implementing the center in NHTSA and obtaining the benefit of your views on how to do so in a fully effective manner.

My colleagues and I will be happy to respond now to any questions you or members of the subcommittee might have, or try to provide written responses if that is preferable. Thank you.

Senator BURDICK. I thank you for your contribution this morning. The summary of your testimony would indicate that S. 2606 has some very desirable features, but that you have the authority to do all those things now.

Mr. SNOW. Yes, sir, Senator. We are well on the way, and we are going to implement the feasibility study and the major recommendations of that legislation on our own initiative.

Senator BURDICK. In short, you think the legislation is unnecessary then?

Mr. SNOW. Yes, Senator. That is correct.

Senator BURDICK. I notice in your testimony, referring to the fatal accident reporting system, you say, "FARS, which replaced our previous highway fatality statistics and fatal accident file, brings together information from police accident reports, driver licensing files, motor vehicle registration files, State and Federal highway department files, and medical records. It is particularly useful in helping to standardize and make more comprehensive our records in this area."

These are the things that I asked Senator Hathaway about, as you will recall. You don't have any trouble getting those facts and figures and data from the States now, do you?

Mr. SNOW. Senator, we have good access to States' data. The problem is the lack of standardization and the lack of common definition of terms associated with the use of that data.

Part of the program which we are involved in now at NHTSA is to standardize that data. NHTSA has contract relationships with the 50 States to provide all highway fatality accident data to us. We are in the process of trying to standardize that data to make it more useful for purposes of analysis.

Senator BURDICK. In other words, there is a different definition of driving while intoxicated in the 50 States; is that right?

Mr. SNOW. Yes; there is.

Senator BURDICK. Then there is this sentence: "Privacy of individuals is protected by converting the data at an early stage to prevent identification of individuals."

What privacy are we talking about?

Mr. SNOW. We are talking about the identity of parties involved in accidents.

Senator BURDICK. This all comes from the State reports. They are public records.

Mr. SNOW. Senator, that is correct. One can go to a police court and find out who has been involved in an accident. The data we collect, process, store, analyze and retrieve do not, however, contain any personal identifiers, such as name, social security number, or registration. Such privacy safeguards are required of course, under the Privacy Act.

Senator BURDICK. If anything is a public record, it is available to the public in the locality.

Mr. SNOW. It is my understanding that medical records are not part of the public domain.

Senator BURDICK. If they have been in a lawsuit, they are.

Mr. SNOW. If they are in a lawsuit; but otherwise they are not. Insofar as it is in the public domain, that problem doesn't exist.

Senator BURDICK. This may not be germane to what we have testified to this morning. One of the things that seems to trouble me is that in the testimony of Senator Hathaway, and I read about it in other journals, the American automobile is going to be smaller and lighter as the years go by because of the consumption of gasoline.

Isn't it also more important than ever that a smaller and lighter vehicle is going to be more prone to accidents and less protective to the driver than a heavier automobile? Doesn't the 55-mile-speed-limit enforcement become very important then as the vehicles become lighter?

Mr. SNOW. I think that is true, Senator. There is no doubt about the fact that the physics of crashes involving smaller cars and large cars indicates that the occupants of smaller cars are subject to higher risks.

As smaller cars become a larger proportion of the total vehicle population, we certainly need to be alert to countermeasures, such as effective enforcement of the national 55-mile-per-hour speed limit and possibly other countermeasures, to assure that the safety record of this country doesn't suffer.

Senator BURDICK. You are doing something about it?

Mr. SNOW. On the national speed limit? Yes; we are.

Senator BURDICK. Have you been on the highway lately?

Mr. SNOW. Enforcing the 55-mile-per-hour speed limit is primarily a State responsibility. The States are required, though, to certify to the Secretary that they are effectively enforcing the national speed limit.

Our statistics indicate that while compliance with the national speed limit is certainly not uniform, the average driving speeds have fallen. FHWA maintains data on this. We are encouraged by the fact that the average speed on the highway does appear to be down and that there does appear to be a relationship between lower average speeds and reduction in fatalities and reduction in the severity of injury.

Ultimately, I think observance of the national speed limit as does observance of other national laws, depends upon the public. The Department, the Congress, and the administration, have put considerable effort into providing public information on the national speed limit and on enforcement programs for it. We are very alert to that danger Senator.

Senator BURDICK. I am a little nervous about what is going to happen because of the gasoline shortage. We are going to have smaller cars. If we are going to use these small cars with little protection, carrying on down the highway at 70 miles an hour, I am a little worried about what will happen to highway safety in this country. I really am. So we have to keep on top of this, I think.

Mr. SNOW. We share that concern. Of course, in the National Highway Traffic Safety Administration we have authority also over motor vehicle safety standards, damageability standards, highway safety program standards, and so on. We are alert to the need to enhance those standards in response to problems such as the one you are pointing out.

Senator BURDICK. You point out your agency is undertaking administrative efforts to analyze accident data, that you do not need a national center. Yet isn't it also true data is collected and analyzed by a large number of Government agencies, such as the Federal Highway Administration, the National Transportation Safety Board, among others, and that a national center could do much to prevent overlapping and duplicating of effort and focus more attention on the problems that you face?

Mr. SNOW. I think it could contribute to that objective. It could contribute, also, to the objective of better highway data and better accessibility to highway data through consolidating in one place the retrieval of such data.

We have already talked to the Federal Highway Administration on this point. The implementation of a center would call for FHWA to work cooperatively with NHTSA in making data available to the Center and providing a common point of retrieval.

FHWA maintains data on motor carrier safety, on highway speeds, and a number of other matters which are significant in the highway safety picture. That data would be consolidated in a common place. We would hope to do the same thing with other agencies.

Senator BURDICK. You don't think that S. 2606 would prevent overlapping and duplicating of efforts of what you are doing now?

Mr. SNOW. No more than what we are doing now, Senator.

Senator BURDICK. You say that you are already expanding your staff and your efforts.

Mr. SNOW. Yes; we have. We have had a rather substantial increase in the staffing for that office. In fact, the staffing now, as I mentioned in my testimony, is pretty much on a par with what is called for in the initial phase of the feasibility study. We now have 54 people, an increase of 9 over the previous 45. The plans call for a continuing expansion of that office in line with its enhanced responsibilities.

Senator BURDICK. Would you care to tell us how much is budgeted for your data gathering effort?

Mr. SNOW. Yes, Senator. The budget for this program has gone up substantially. For fiscal year 1976, the funding level was \$7.2 million, and \$9 million is planned for fiscal year 1977. That is up from a level of \$4 million in 1973.

Senator BURDICK. Do you consider that adequate?

Mr. SNOW. I think that is adequate for the stage we are in. We are in a developmental stage. We are in the initial implementation stage. Certainly as the program progresses we would anticipate further funding, and we would anticipate additional personnel.

Senator BURDICK. On this question of budget, I think we should recognize that we are not just dealing with vehicle safety or with highway safety or driver safety, but with all three, in the potential creation of a national center. What kind of budget would be necessary to analyze the volumes of data that must come in regarding all these areas?

Mr. SNOW. Senator, part of the universe you speak of, the highway part, is primarily the responsibility of the Federal Highway Administration. We have primary responsibility in the other two areas.

As I have mentioned, FHWA already has a substantial data collection program. In the implementation of this center, FHWA would make available their data base as appropriate to the center so that it would become the agency which houses the data for common retrieval.

Since we will be building on existing programs, we do not foresee a significant increase in budget or people in the near term. We should not have many startup problems.

Senator BURDICK. The agency did say that the establishment of a national Center was feasible, but only as your current data gathering activities are assessed. Now you talk about the startup period. How long do you anticipate this will all take?

Mr. SNOW. We would anticipate making the Center operational in the very near term. We will be looking forward to getting your views and the views of the subcommittee on how to make it fully operational. But we are talking about making it operational in the near term.

NASS, the national accident sampling system, will take about 4 years to become fully operational. There are various other programs, as I mentioned in my testimony, which will take a year or two to become fully operational, but the NASS is really the core of the program. It lies at the heart of what we are trying to do: use sampling survey techniques and assist the sample survey to yield representative national data. Through application of expert analysis, we will then have a better sense of what is happening out there in the accident universe. NASS will be fully operational within 4 years. I think we are right on the timetable with the feasibility study.

Senator BURDICK. You may have answered this next question; in case you want to add to it, you may. If the center is feasible and useful, as the report indicates, why not take the preliminary steps to start up the planning for it in the next year or two?

I think you are taking steps now.

Mr. SNOW. I think we are there, Senator.

Senator BURDICK. As you know, Congress took away from your agency the power to impose very strict sanctions for failure to meet Federal safety standards. Is it your view that with proper data, which is expected by the outside parties, there would be a stronger case for sanctions in the future?

Mr. SNOW. Definitely, Senator. I think that better data has to underlie our entire safety effort, both the motor vehicle side and the State highway safety side. Only through sounder analysis, better data, and a public perception in the safety community and in the public at large that this agency and the Department of Transportation really understand the accident universe and are developing countermeasures which are precisely fitted to their problems, that we understand the problem and understand the countermeasure relationship to the problem, are we going to be credible. If we are not credible, I think the safety countermeasure suffers enormously. So my answer is an enthusiastic yes.

Senator BURDICK. Since your answer is an enthusiastic yes, then why not establish a prestigious national center to gather the data?

Mr. SNOW. That is what we are going to do, Senator.

Senator BURDICK. In other words, you come back to the premise you are doing it.

Mr. SNOW. I think there is great merit in what you just said. By establishing the Center through an act of the Secretary, the Center will have priority, added direction will be given to its implementations and public attention will be called to its establishment. I think it is going to enhance the whole data program.

Senator BURDICK. Senator Stafford, do you have any words at this point?

Senator STAFFORD. Thank you, Mr. Chairman; no. I was unable to be here to hear the testimony of the Administrator. I do have questions, but they might duplicate questions that have already been asked. What I will do is submit them to you for written responses for the record, and those that are redundant can be disregarded.

Mr. SNOW. Fine. Thank you.

Senator BURDICK. Thank you, gentlemen, for your contribution. I will leave you now in the tender care of the great Senator of the Northeast.

Mr. SNOW. Thank you.

[Senator Stafford's questions follow:]

Question 1. Mr. Snow, one of the witnesses today will suggest that the National Center should be established as an entity separate from NHTSA. I think one reason for this is the notion that regulatory and evaluation functions of agencies should be separated. Would you comment on the desirability of a Center which is independent of NHTSA?

Answer. I do not believe that it would be at all desirable to have a Center that is independent of the NHTSA. As pointed out on page 14 of the Feasibility Study's Technical Report, the NHTSA would be the prime user of the Center. We look upon the National Center not merely as a source of evaluation of the effectiveness and appropriateness of our standards but as an integral part of our entire highway and vehicle safety program. As an integral part of our program, the Center will better enable us to discover highway and vehicle safety problems, the magnitude of those problems, and the best possible countermeasures in attacking those problems.

Question 2. Do you believe that legislative creation of a National Statistical Center and separate authorizations might provide more visibility and funding for such a Center?

Answer. This is a difficult question to answer because of the many variables which make predicting the future of any organization precarious, especially one which has yet to be established in fact. However, I do believe that the establishment of the Center through an act of the Secretary will give it sufficient priority to call the public's attention to its implementation. In addition, of course, the mission of the Center will provide public visibility. The question of the Center's future funding is to a large extent dependent upon how successfully the Center carries out its mission. We think that it will be a great asset to our highway and vehicle safety programs and to the entire highway safety community. Once its effectiveness is apparent, funding the Center should not be a problem.

Question 3. Can you describe what success NHTSA is having in trying to standardize data collection by States? Is there anything in addition to the mere existence of Safety Standards which might encourage States to upgrade and standardize their data?

Answer. Our efforts to standardize data collection by the States have focused primarily on the States' implementation of the Highway Safety Program Standards. Each of our 18 Highway Safety Program Standards contain uniform program elements to be implemented by the States. With respect to data collection specifically, Standard No. 10, Traffic Records, requires each State, in cooperation with its political subdivisions, to maintain a traffic records system that includes certain basic minimum data regarding drivers, vehicles, accidents, and highways.

Such information, moreover, is required to be compatible for purposes of analysis and correlation.

Since the Traffic Records Standard is the NHTSA's basic mechanism for promoting intrastate standardization of data collection, I have attached a chart showing the number and percentage of States which have implemented each of the elements of this standard. Although the chart indicates substantial implementation by the States of the standard's elements, with the one exception of the element concerning analysis and statistical treatment of the data being collected, much in the way of upgrading and standardizing data collection efforts, of course, remains to be accomplished.

In addition to the Highway Safety Program Standards, we have published a Design Manual for State Traffic Records Systems which specifies the data content of a uniform and model State traffic records system. Seven States have adopted this manual as their basic design document for their traffic records system.

We are also demonstrating the benefits to be derived from data standardization by the States. For example, the NHTSA has funded a project which successfully transferred a traffic records system from one State (West Virginia) to another (Idaho) which was seeking a modern computerized system. The cost savings of this model system transfer was demonstrated, too, and now other States are also considering similar systems transfers.

Our personnel are active members of national committees engaged in developing data collection standards, such as the American National Standards Institute (ANSI) Committees on the Model Motorist Data Base (ANSI Standard D-20) and the "Manual on Classification of Motor Vehicle Traffic Accidents" (ANSI Standard D-16.1). The NHTSA's Design Manual for State Traffic Records Systems mentioned above has been adopted by the ANSI as the basic document for a future ANSI Standard D-20. In this connection, it should be noted that 36 States have adopted the ANSI Standard D-16.1 "Manual on Classification of Motor Vehicle Traffic Accidents," which the NHTSA endorses.

Finally, it is clear that an answer to the second part of this question would not be complete if we failed to mention the National Center. The establishment of the Center should significantly enhance our efforts to assist the States and their political subdivisions in promoting identification and standardization of data requirements for highway and vehicle safety data systems.

TRAFFIC SAFETY PROGRAMS MANAGEMENT INFORMATION SYSTEM

Standard 10: Traffic Records	Highway safety program standards implementation status as of January 1975	
	Number of States implemented	Percentage of States
Paragraph:		
10.I.A.....	52	100
10.I.B.....	52	100
10.I.C.....	52	100
10.I.D.....	52	100
10.I.E.....	52	100
10.I.F.....	52	100
10.I.G.....	50	96.15
10.I.H.....	42	80.77
10.I.I.....	44	84.62
10.I.J.....	47	90.38
10.I.K.....	46	88.46
10.I.L.....	46	88.46
10.I.M.....	49	94.23
10.II.A.....	50	96.15
10.II.B.....	51	98.08
10.II.C.....	52	100
10.II.D.....	48	92.31
10.II.E.....	49	94.23
10.II.F.....	49	94.23
10.II.G.....	47	90.38
10.II.H.....	50	96.15
10.III.A.....	50	96.15
10.III.B.....	52	100
10.III.C.....	52	100
10.III.D.....	51	98.08
10.III.E.....	51	98.08
10.III.F.....	47	90.38
10.IV.....	30	57.69
10.V.....	49	94.23

Question 4. Do you have any breakdown of the subject matter of requests received by the "Hot Desk"?

Answer. Only the source of requests received by the "Hot Desk" is presently recorded. A breakdown of the requests by subject matter has not been kept.

Question 5. A representative from one of the auto companies suggests that the Statistical Center should have a permanent User Board to advise on the types of data to be collected. Are there any plans to incorporate such a group in the new data unit of NHTSA?

Answer. Plans are already underway to establish a User's Committee with respect to the National Accident Sampling System (NASS), the data base which will constitute the core of the NHTSA data program for the National Center. Committee members will be from the NHTSA program offices of Motor Vehicle Programs, Traffic Safety Programs, and Research and Development, as well as from the Federal Highway Administration's Office of Safety.

There are also plans underway to establish an advisory committee to assist the NASS project. This committee will include representatives from the vehicle manufacturers, independent research organizations, and consumer groups.

Question 6. What computer facilities are currently available to the Office of Statistical Analysis? Are there plans to acquire a computer in the foreseeable future?

Answer. Current computer support to the Office of Statistics and Analysis is provided by contracts with time-sharing computer companies. Remote terminals are located within the Office.

Although we presently do not have plans for acquiring a computer facility for the Center, we will be reevaluating our needs in this regard as the Center develops.

Senator STAFFORD [presiding]. The Chair will ask Mrs. Susan Baker, a member of the National Highway Safety Advisory Committee, to come forward.

We welcome you to the subcommittee's hearings, Mrs. Baker. I know that you have a prepared statement. The Chair will invite you to either speak extemporaneously and put the statement in the record or use the statement, whichever you prefer.

STATEMENT OF MRS. SUSAN BAKER, MEMBER, NATIONAL HIGHWAY SAFETY ADVISORY COMMITTEE

Mrs. BAKER. Why don't I then submit the prepared statement for the record? It is a very brief one. I will summarize by saying that the National Highway Safety Advisory Committee, of which I am a member, has been most interested in seeing the establishment of a national data center that would help us to set priorities to determine the most likely effective countermeasures and to evaluate their effectiveness.

The committee, of course, has not had an opportunity to consider Mr. Snow's testimony this morning in which he stated that such a center would be established within the Department of Transportation.

However, we have been most favorably impressed by the Office of Statistics and Analysis in the NHTSA, especially by their national accident sampling system; I had the privilege of being chairman of the review panel of outside experts that examined that national accident sampling system.

I do believe that it meets many of the objectives of the Hathaway bill, and that what the NHTSA has in their informative statement will meet the objectives of the bill.

Senator STAFFORD. Thank you very much, Mrs. Baker.

Does the Advisory Committee believe that placing the National Center within NHTSA is a sound idea or would a separate organization within the Department of Transportation be more desirable?

Mrs. BAKER. At the time that the Advisory Committee had the honor to hear Senator Hathaway speak on the bill, he spoke in terms of it probably being located within NHTSA, and my impression of the Committee's response is that it would like to see it in NHTSA.

Senator STAFFORD. Do you see developing within the Department of Transportation a closer relation between data collection and analysis and issuance of regulations?

Mrs. BAKER. Yes; I do. For instance, with regard to the 55-mile-an-hour speed limit, which has received a great deal of priority from the Department in terms of trying to get the States to enforce this measure, a great deal of data has been collected and analyzed to determine to what extent the 55-mile-an-hour limit has been observed, to what extent it has been effective. In other words, I see knitting together of information and policy.

Senator STAFFORD. Thank you.

Would you agree, Mrs. Baker, that any national center for highway safety would have to pay considerable attention not just to the problems of highway construction but also to questions affecting driver behavior and the safety of the vehicle?

Mrs. BAKER. Absolutely. For instance, the national accident sampling system pays a great deal of attention to vehicle characteristics as well as to highway configuration and what information can be gathered about the driver and about his injuries.

Senator STAFFORD. As you know, in the last highway bill the Congress took away from NHTSA considerable power to impose sanctions for the States which were not meeting Federal standards on safety. There has been some criticism of that.

Do you believe Congress did the right thing in taking some of these sanctions away unless and until NHTSA has the data base to issue realistic standards?

Mrs. BAKER. No, sir, I do not believe that the Congress should have removed those sanctions. I think we have had a great deal on which to base many of the measures.

An example would be the motorcycle helmet law for which we had excellent data that the law was effective not only in causing persons to wear their helmets but in reducing fatalities. So that in this particular instance there were good data to support the standard, and yet that particular standard was singled out by the Congress, and the Department of Transportation was not allowed to require States to have such a law.

Senator STAFFORD. Thank you very much, Mrs. Baker. Is there anything that you wish to add?

Mrs. BAKER. No, sir, I don't know of anything. Thank you for the privilege of being here.

Senator STAFFORD. For the subcommittee, then, let me express our gratitude at your willingness to come here and help us on this important matter.

Mrs. BAKER. Thank you.

Senator STAFFORD. Thank you very much.

[Mrs. Baker's statement follows:]

TESTIMONY OF THE NATIONAL HIGHWAY SAFETY ADVISORY
COMMITTEE ON S.2606

(A bill providing for the establishment of a National Center
for Statistical Analysis of Highway Operations)

Before The Transportation Subcommittee of the
Senate Committee on Public Works

July 20, 1976

My name is Susan Baker. I am here today as a member and representative of the National Highway Safety Advisory Committee, a group created by the Highway Safety Act of 1966. Members are appointed by the President to advise the Secretary of Transportation on matters relating to all highway safety programs carried out by the Department.

The Committee is comprised of both public members and members representing a wide variety of private interests. Despite the diversity of our professional backgrounds, interests and objectives, the Committee has consistently agreed that reliable statistics are needed for the development and evaluation of successful programs to reduce highway deaths and injuries. On April 2, 1976, the National Highway Safety Advisory Committee voted its strong support for the concept of the National Center for Highway Safety Statistics, and recommended that the Department of Transportation support Senate Bill S.2606.

The Committee, in its efforts to study and address highway safety problems, has often been frustrated by inadequate data. The basic needs are for data to help in identifying problem areas and to evaluate the need for and effectiveness of highway safety programs, standards, or other countermeasures. It is important that the collection and analysis of such data are always assured high priority.

The Office of Statistical Analysis of the National Highway Traffic Safety Administration has begun to address many of the objectives of S.2606. In particular, plans for a National Accident Sampling System (NASS) are well developed; this program will provide quality data from a carefully developed, nationally representative sampling of motor vehicle accidents. Establishment of the proposed data center in NHTSA should help to ensure the growth and permanence of the NASS and other statistical and analytical programs relevant to Senate Bill S.2606.

The Committee believes that the thoughtful collection and interpretation of data related to highway and motor vehicle safety are essential, and that establishment of the proposed data center will give needed stature and priority to this function.

Attachment: NHSAC position on S.2606

**U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY SAFETY ADVISORY COMMITTEE
WASHINGTON, D.C. 2059**

POSITION

APRIL 2, 1976

The National Highway Safety Advisory Committee strongly supports the concept of a national data center for the collection of highway safety statistics and therefore recommends that the Department of Transportation support the Hathaway Bill (S.2606), a bill for the establishment of a National Center for Statistical Analysis of Highway Operations. The Committee further recommends the Department consider the feasibility of including in a national data center the safety data of other transportation modes.

The Committee further recommends that, in response to Senator Hathaway's explicit request, the Secretary authorize and arrange for the National Highway Safety Advisory Committee Chairman or his representative to appear before the appropriate Committee of Congress to express the support of the National Highway Safety Advisory Committee for this approach.

Senator STAFFORD. The Chair understands we now will have the benefit of testimony from a panel consisting of Mr. David Martin, director, automotive safety engineers, General Motors; accompanied by Arline R. Rininger, engineer, field accident research programs; Mr. John Versace, executive engineer, safety research, Ford Motor Co.; and Edward Heins, chief engineer, advanced program and safety planning, Chrysler Corp.

If you are all here, the Chair invites you to come to the table as a panel.

Ladies and gentlemen, the Chair will invite you to proceed in whatever order you determine. Whether you deliver your prepared statements or submit them for the record and summarize is up to you.

STATEMENTS OF DAVID MARTIN, DIRECTOR, AUTOMOTIVE SAFETY ENGINEERS, GENERAL MOTORS, ACCOMPANIED BY: ARLINE R. RININGER, ENGINEER, FIELD ACCIDENT RESEARCH PROGRAMS; JOHN VERSACE, EXECUTIVE ENGINEER, SAFETY RESEARCH, FORD MOTOR CO.; AND EDWARD HEINS, CHIEF ENGINEER, ADVANCED PROGRAM AND SAFETY PLANNING, CHRYSLER CORP.

Mr. MARTIN. Mr. Chairman, I am David Martin of General Motors Corp. With me is Mrs. Arline R. Rininger. I believe it appropriate in the interest of time to go ahead and summarize our statement which has been submitted for the record.

Senator STAFFORD. The written statements will be made a part of the record. [See p. 29.]

Mr. MARTIN. I think the point that I would emphasize in our written testimony is that, number one, with regard to the formation of the center, that perhaps the standardization of the data such that it can be representative and compared from region to region should be underlined. Formulation of the motor vehicle safety standards on the basis of fact rather than personal judgments and intuition is also exceedingly important.

I think a point that I have not heard expressed in the testimony so far today is that the formulation of a field relevant test standard or a field relevant test procedure has not been given proper focus.

In addition, identifying safety needs of a general type—for example, improved restraint or improved performance characteristics of the vehicle in other areas—is one important feature of such data.

But today, the laboratory tests that form the basis of the performance requirements of a standard are not necessarily related to the injury mechanisms that occur in the field.

So we believe that the acquisition of uniform data that describes how a person is injured, under what circumstances he is injured, and how frequently, can help us formulate laboratory tests that will closely correspond to what happens in the field. This is included in our testimony, but I would just single it out for emphasis.

The other point I would emphasize is that the development of these data is very urgent; and perhaps more important than where it is located, is response to this need, and in the most rapid pace possible.

Thank you.

Senator STAFFORD. Thank you very much, Mr. Martin.

[Mr. Martin's statement follows:]

Statement
of
General Motors Corporation

Presented to the
Subcommittee on Transportation
of the
Senate Committee on Public Works

on

S. 2606--National Center for Statistical
Analysis of Highway Operations Act of 1975

Washington, D.C.

July 20, 1976

Mr. Chairman, on behalf of General Motors Corporation, I wish to express our appreciation for this opportunity to present our views on proposed legislation to establish a National Center for Statistical Analysis of Highway Operations.

My name is David E. Martin. I am director of Automotive Safety Engineering for General Motors' Environmental Activities Staff. With me today is Arline R. Rinninger who is responsible for our field accident research programs.

At the outset, we want to register our full support for the concept embodied in this legislation, which is to establish a National Center to systematically acquire, store, retrieve and analyze highway accident data. We are pleased to note also that this concept would promote the standardization of information and procedures for reporting accidents on a nationwide basis. This uniformity alone will greatly increase the amount and usefulness of the data.

The development and implementation of cost effective motor vehicle and highway safety measures depend on the availability and application of accident data that are comprehensive, reliable and current. It must also be an accurate representation of the national experience. Regrettably, such data are not available today in a form suitable for most rulemaking purposes.

Incidentally, we are faced with the same problem in terms of the health considerations as they apply to the requirements

of the Clean Air Act. We cannot afford to continue to spend the public's money in the cause of safety, clean air or any other area without the benefit of data to indicate clearly that a convincing need for more demanding standards exists.

In the absence of reliable data, it is not surprising that standards often have reflected intuitive judgments or assumptions, either of which can be faulty. Standards based on misjudgments or faulty premises can be wasteful of the economic resources of both government and industry. These cost penalties ultimately are passed on to the consumer, who may receive only marginal, if any, benefit in return.

For example, it was largely on the basis of an assumed safety need that the air brake standard--MVSS 121--was developed and implemented for trucks and buses. The stringent requirements that originally were imposed could be met only at considerable cost to the consumer and with new equipment technology of unproven reliability.

Although the standard has since been relaxed, the sequence of rulemaking events was disruptive to the market and resulted in a substantial economic burden to the entire industry. Meanwhile, the safety need upon which rulemaking should logically proceed has yet to be confirmed.

The establishment of a sound accident data base, as contemplated by this legislation, should go a long way toward improving our understanding of highway accidents and greatly assist in the proper identification of a safety need.

Moreover, the availability of such data will contribute to the development of cost effective countermeasures. In the case of motor vehicle safety standards, there are little, if any, available data by which to correlate laboratory tests with what occurs in the real world. Today, after successfully completing a laboratory test as set forth in a safety standard, generally we are assured of only one thing: that the product has been designed to meet that laboratory test. In many cases, it cannot be said with confidence that meeting the standard will provide the desired benefit to the public. Much less can the extent of the benefit be defined with any precision.

For example, few would argue with the need to provide protection for vehicle occupants in the case of an accident. Nevertheless, today there is neither a test procedure nor an available test dummy with sufficient human-like characteristics to reliably predict from laboratory tests how different restraint systems will perform in the real world.

While sufficient accident data have been accumulated to confirm the effectiveness of the present safety belt systems,

consideration is being given to new requirements for passive restraints that have not yet been proven through field accident data.

A better understanding of how, when and where people are being injured in the field will help in developing laboratory tests that are relevant to those circumstances. Moreover, once a standard has been implemented, the continued accumulation of field data can be used to verify that the test procedures are indeed relevant and that the observed benefits are consistent with those which were anticipated.

Thus, we believe the need for improved accident data is clearly evident in order to determine whether a standard should be implemented and, once implemented, whether it subsequently should be retained, modified or deleted. There is an urgent need for such data to reduce reliance on personal judgments and assumptions in the rulemaking process--from the identification of safety needs to the promulgation of standards to meet those needs in the most cost effective manner.

In fairness, it should be noted that the importance of improved accident data has not gone unrecognized in the past, either within industry, the Department of Transportation or the Congress. Let me call attention to three such instances:

-- In 1973, General Motors proposed a joint industry-government program to establish a National Accident Data System. This proposal outlined the need for such a system, including basic objectives with respect to the quality of data that would be required. In addition, the proposal included suggested methods whereby the necessary data could be obtained. A copy of this proposal is included with this statement as it may provide the Subcommittee with additional useful information on the subject.

-- In the 1973 Highway Safety Act, Congress required the DOT to conduct a study of the feasibility of establishing a National Center with responsibilities generally along the lines provided for in the legislation now under consideration. In authorizing this study, the Congress recognized the paucity of accident data upon which to base sound safety measures.

-- In February 1975, the DOT published the detailed results of its feasibility study. The study acknowledges earlier Departmental efforts to generate improved accident data and recommends the establishment of a Center that would appear to accomplish, as minimum, the requirements set forth in the current legislation. Subsequently, the DOT contracted for the development of a specific plan for implementing a national program along the lines outlined in the feasibility study.

Thus, it is apparent that there is agreement between the Administration and the Congressional sponsors of S. 2606 on the need for improved accident data and, in addition, there is apparent agreement on the organizational approach whereby such data would be obtained. Furthermore, General Motors has reviewed the DOT feasibility study and finds it to be a generally satisfactory approach to a most complex matter.

We are particularly gratified to note that both the legislation and the DOT study view the National Center as a comprehensive service to the safety community--both its public and private sectors. Every effort should be made to foster the widest interchange of this type of information among governmental, academic and private interests, including the auto industry.

This could be accomplished in a variety of ways. For instance, having access to the data files for on-line analysis would be most beneficial for those who are willing to pay for such service.

With respect to funding the National Center, we would like to point out that the DOT's \$20 million estimate for operating the Center in the sixth year is only about 1% of what it would cost the public for one year's production of air cushion restraints on all new cars. Viewed in this way, the anticipated cost for the Center to provide the kind of information upon which to base multibillion dollar regulatory decisions is a bargain the nation can ill-afford to pass up.

In conclusion, we want to express once again our full support for the implementation of a National Center for the collection and analysis of representative accident data along the lines expressed in S. 2606, and as more fully detailed in the DOT feasibility study.

This concludes our statement. If you have any questions we will be glad to answer them here or provide written answers later.

Environmental Activities Week



NATIONAL ACCIDENT DATA SYSTEM

C. Thomas Terry — Section Engineer

Richard W. Schneider — Senior Project Engineer

Safety R & D Laboratory

GM Environmental Activities Staff

Automotive Safety Seminar • GM Training Center • General Motors Corporation • Warren, Michigan • June 20-21, 1973

National Accident Data System

C. Thomas Terry - Section Engineer
 Richard W. Schneider - Senior Project Engineer
 Safety R & D Laboratory
 GM Environmental Activities Staff

Field accident data which reflect what is truly happening in the field today are necessary (1) for the automobile industry to evaluate performance and guide future designs and (2) for the NHTSA to evaluate standards and guide future rule making. This type of data system is not available now. The multilevel system recommended by GM to accomplish this would use the expertise already available in many of the NHSTA-Sponsored multidisciplinary accident investigation teams. The system consists of several study areas which include exposure data and levels 1, 2 and 3 accident data. Another requirement of the system would be a central facility which would process the data and make it available to both NHTSA and industry.

On June 12, 1970, at a Data Accident Investigation workshop* in Brussels, Belgium, GM outlined why field accident data is needed by automobile manufacturers. These needs to collect accident data are:

Data Needs

1. Evaluate present safety systems.
2. Predict performance of proposed safety systems.
3. Identify problem areas & evaluate solutions on cost/benefit basis.
4. Estimate human tolerances to impact

1. Evaluation of Production Safety Systems

Early accident investigators saw the results of automobile accidents and identified those vehicle components which were producing frequent and severe types of trauma. This early work supported the introduction of items such as the high penetration resistance (HPR) windshield in 1966 and energy absorbing steering columns in 1967. These investigators were able to measure the relatively large performance improvements of those safety systems. More subtle changes in safety performance can be found only by data collection programs that are refined enough to exhibit statistical trends. For example, it is generally agreed that further changes made to the present windshield will result in a smaller improvement in injury reduction compared to that made in 1966. Measuring this potential change in performance will require a sophisticated accident data collection program.

*R. A. Wilson & C. T. Terry, NATO Accident Investigation Workshop, FIELD ACCIDENT RESEARCH - GM'S APPROACH, unpublished presentation, Brussels, Belgium, June 12, 1970

2. Prediction of Proposed Safety Systems

Before implementing any change to safety systems already in the field, the performance of the new safety systems must be predicted. This is the second principle way in which accident data is used.

If the prototype safety system is an improvement on a production item such as the current windshield, then the field data gathered in evaluating the current windshield's performance is used as the injury pattern baseline. The modified system is then tested in the laboratory to compare its performance with the present system. This laboratory comparison provides data to subjectively project how the new windshield might modify the present injury pattern in the field. In this way, the prediction can be made with some confidence as to the performance in the field of the proposed new system.

If a completely new safety system, such as the air cushion restraint system is proposed, the injury patterns which the new system could somehow influence must be identified. In the case of the air cushion restraint, available accident data might be used to identify the injury patterns in frontal collisions where the air cushion is envisioned to be most useful. The air cushion's effectiveness, as determined from laboratory tests, could then be used to predict how the present injury patterns could be modified by the introduction of this new restraint system.

3. Identification of Problem Areas and Evaluation of Proposed Solutions on a Cost/Benefit Basis

This identification of problem areas requires an over-view of the total injury picture. The over-view consists of the frequency of particular injuries caused by various components and the severities of these injuries. The areas where the most improvement can and should be made are generally where the highest frequency of most severe injuries occur. A relationship between frequency and severity should indicate the areas of high payoff - those areas where the most good can be done. Once these high payoff areas are identified, the priorities of safety development can be established by cost/benefit studies.

As solutions to the more obvious problem areas are incorporated, the identification of the less obvious problem areas becomes more difficult. To identify the less obvious problem areas will require incorporating even more rigorous data collection programs. It may be possible that a point of diminishing returns will be reached. That is, the time and cost of acquiring even more detailed information may not justify the insignificant amount of improvement made from the data derived. To reach this point is a noble goal indeed.

4. Estimation of Human Tolerances to Impact

The three uses of the field accident data discussed above are specifically aimed at changing the design of the vehicle to reduce the frequency and severity of injuries. A different use of the data is to isolate particular accident situations so that information concerning human tolerances to impact can be generated.

Occasionally, from a large source of accident data, a particular occupant injury in a well-defined automobile accident situation can be attributed to a particular vehicle component. When this infrequent situation arises, and the mechanism of injury is understood, correlation of the accident or "field experiment" with a similar laboratory experiment is attempted. If the "field experiment" can be correlated to the laboratory, the occupant's impact situation might be quantified and the human tolerance to a particular type of trauma can be estimated. For example, an instrument panel may be identified as the cause of a particular type of head injury. A series of similar instrument panels are impacted in the laboratory until the damage to the instrument panel in the accident case is reproduced. The forces and accelerations to produce the damage in the laboratory are then correlated to the injury produced in the field. In this way, the human tolerance is quantified for this particular type of injury.

These needs remain as valid today as they did three years ago. Further mentioned were the qualities of a good field accident data system:

Data Qualities

1. Rapid feedback
2. Random data sample
3. Current model data
4. Data compatibility

1. Rapid Feedback

A prime goal in automotive safety is the reduction of injuries and deaths due to automobile accidents. The more injuries prevented and lives saved, the better the job is done. Improved safety systems must be incorporated as rapidly as practicable to achieve this goal. An orderly implementation of improved safety systems depends in large measure on the collection and assessment of field accident data. Only after a sufficient amount of statistical and in-depth data is collected can problem areas be identified and further improvements be recommended and implemented.

2. Random Data Sample

Besides the quantity of data gathered, a random sample is essential to insure its quality. Basically, random data is needed so that conclusions aren't erroneously based on the consequences of a unique accident, or limited number of accidents. False accident and injury patterns can be created by generalizing from a small sample of non-random cases. In the past, most sources of accident data have not been random. Most accident investigations typically have been biased by geography, injury level, damage level, or other accident selection techniques. A valid data sample must be representative of the real world.

3. Current Model Vehicles

Each year safer automobiles are produced. Measuring these advances in safety performance from one year to the next requires a valid data baseline. It should be realized that resources are limited and it would be virtually impossible to collect enough data on the total vehicle population in one year. The most efficient use of resources is to concentrate investigation on the most useful data source - current model vehicles. Of course, as current model data is collected each year, in time, a data bank will be built which will allow a comparison of newer automobiles with trends based on many years.

4. Compatibility of Format

If various data sources are ever to be combined to form large data banks, they must, at least, be in the same basic format. This means that the same information is recorded for each accident and some means of easily combining information from different sources is provided. This is particularly important when in-depth data is being collected because of its inherent complexity.

However, even when it is physically possible to combine data from various sources, it is not always advisable. Each investigator tends to bias his accident selection in some manner such as injury only, rural only, etc. Since the data base for each investigator is usually different, a direct statistical comparison of their data is not advisable.

Again, these characteristics are still desirable today as they were three years ago. There is no known source today which satisfies all of these qualities. The one key quality which bears emphasis is the random data sample. The random data sample criteria implies that the accident cases selected are representative of the national accident experience. This representativeness is critical for sound decision making regarding automobile design and government rule making.

Making decisions with national implications in highway safety using only data from rollover accidents in North Carolina is no more valid than predicting the Gross National Product from monitoring only the construction industry in Utah.

Current Data Status

In the three years since that NATO workshop, some other factors have become obvious regarding the value of accident investigation.

1. The information received not only can be used by the industry for evaluation and direction, but also can apply to Government at all levels for rule making.
2. Variation in the interpretation of current accident data results from two factors:
 - a. Different analysis techniques
 - b. Different data sources

Variation of results due to the first cause i.e., different analysis techniques, is healthy and promotes various problem solving strategies to be explored and compared. However, differences due to the second source are generally inefficient and result in problems of interpretation. This problem will remain unsolved until the many various data collection efforts are coordinated so that their results can be combined. This combination into a representative data set will then allow the safety experts to base decisions on a sound technical basis.

These previously stated needs and system characteristics coupled with the conflicting conclusions which result from the uncoordinated data collection activities around the country have led CM to propose what is called a National Accident Data System.

Before outlining the proposal for such a system, one point should be stressed: the system being proposed is not the best system that theoretically could be designed. In fact, it is several steps away from being an optimum design. But it is also many steps closer to an optimum system than anything that exists today. Rather than wait for that perfect system to be implemented, it is imperative that the obvious contradictory nature of various data sources be eliminated now so that valid cost/benefit studies can be used in achieving the goal of reducing injury and death on the highway. Each change made to the system after it is begun should be directed toward the desired optimal system.

The proposal itself tries to incorporate many of the data collection activities that are now in existence while eliminating other unnecessary ones. But the design is primarily dictated by

the desire to establish a coordinated National Accident Data System in a relatively short period of time.

DATA COLLECTION

The proposed system involves designating certain geographic regions of the country as sample areas where extensive surveying and profiling will be conducted. This is analogous to taking a Gallup Poll of the nationwide accident experience. Since many of the existing Multidisciplinary Accident Investigation (MDAI) teams sponsored by the NHTSA are somewhat randomly located and because expertise already is available from the teams, we are proposing that selected MDAI teams would form the nucleus for the data collection system. This proposal would convert existing MDAI teams into multi-level programs such that each team has the responsibility of coordinating the gathering of the following levels of information within their specific regions:

1. Exposure data (non-accident)
2. Level I accident data
3. Level II accident data
4. Special accident studies

Teams which could not reliably supply all these levels of information would not be included in this program.

Exposure Data

Exposure data is profile information on the number and types of people, vehicles and roads in the area. This information is used to define the universe in which the accidents are recorded. Ideally, when all the regions are combined, the exposure should be "representative" of the total United States. Capturing data of this nature allows the various combinations of vehicles/drivers/roads to be described whether in an accident or not. Most of this information is available in existing state operational files. The system should allow specific surveys of additional data to also be conducted. For example, it may be necessary to establish how many miles various age groups drive annually.

Level I Accident Data

This level requires collecting a standard police report on *all* accidents in the region which meet a predetermined severity threshold. An alternate to the standard form would be a form with a common core of information with other elements defined upon by the local jurisdictions. This level of information briefly defines the nature of all accidents in the area. This information, coupled with the exposure data, make possible the computation of accident rates, such as

fatalities/miles driven, accidents/make and model, or accident/driver age. Since the accidents described in this file contain both injury and no-injury cases, computing the probability of an injury occurring is also possible. Definitions or specifications of variables within each region and from region to region must be consistent. *This standardization of definitions between regions is imperative, and will provide the program with one of its greatest challenges and one of its greatest advantages over current programs.* Emphasis upon the training of the police investigation people is important for this level of data. Definition of what an accident is or of what the various injury levels are must be explicitly stated and uniformly interpreted. Again, flexibility should allow specific, supplemental information to be collected when needed. As an example, the police could be asked to ascertain whether the head restraint was in the "up" or "down" position in a rear end accident.

Level II Accident Data

This level of data would collect information on all accidents in the region which involve a recent model vehicle and an injury. Information on all vehicles involved in the accident would be required. The injury may in fact occur in an older vehicle which impacted the recent model vehicle. This level data has been most valuable from the manufacturer's viewpoint and has historically been the source of injury causation information. Extending the coverage to include older vehicles would allow comparison of vehicles of different ages. In the past, information of this type collected by GM and other has led to improved vehicle design, examples being HPR windshields and the energy absorbing steering assembly. The information gathered would define the injury severity, the causes of the injury, the accident description, a measure of its severity, and some information relative to the cause of the accident. This information will allow the assessment of new safety systems as they are introduced such as air cushion restraint or starter-interlock webbing systems. Gathering the data on all accident modes and injuries will allow relevant safety evaluation tests to be specified. By combining this data with the Level I Accident Data, it may be possible to evaluate the relative safety performance of various makes and models of vehicles. The current thinking is that the information would be gathered on a modified version of the GM Field Form by investigators working for the MDAI teams. As with the present Field Form, a series of photographs will be required to supplement the information. The form would be expanded to collect information on pre-crash and post-crash phases of the accident which are not presently addressed on our existing form. This part of the system would also allow extra information to be

collected on items of specific interest which are not in the GM Field Form. For example, the investigators may be asked to see if the starter interlock system has been defeated or if it had any effect on the occupant's usage.

Level III Accident Data

These special studies are performed to see why particular problem areas exist. The special studies conducted are based on the Level I or Level II information already gathered. For example, a special investigation could be undertaken to more closely examine why a particular class of vehicles is "over-represented" in a particular type of accident. The investigation may find that this type of vehicle is popular for owner modification which could result in unstable handling characteristics.

DATA COMPILATION

The next logical question is what to do with the data after it is collected in its relatively rough form i.e., police reports, GM Field Form, and photographs. To keep the interpretation of raw data consistent from area to area, it is proposed that the data be collected in a central location. At this location, the Level I data would be entered directly into a data bank. The information from the detailed Field Form and photographs in the Level II system would be analyzed and the final information entered into an automated data system. By centralizing this function, the number of subjective judgments are made more or less to be consistent because of the relatively few number of people involved. This situation is similar to that which is now used with the General Motors-MIC program, and has been found to be quite satisfactory. We feel the overall quality of data will be enhanced by increasing the consistency of the data. This central facility would not only provide common data entry and storage facilities, but would also offer a retrieval system for interested data users.

PROGRAM IMPLEMENTATION

Since this program should benefit the industry as well as the Government, it is recommended that joint Government/industry support for the implementation and annual operation of this program be solicited. The industry support could logically be under the auspices of either MYMA or SAE. Specifically, it is felt that the program offers a great opportunity for joint efforts between Government and the industry toward achieving a common goal. There are actions required of both industry and government to implement the proposed program. The program is a national goal and therefore should be funded with Federal monies. However, the

industry should be willing to participate in initiating the program and continue support to the end that the data will be valid and available.

After this program is initiated, data acquisition could begin in less than a year. As shown in Figure 1.

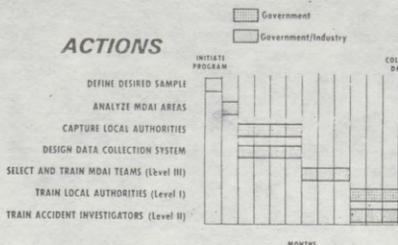


Figure 1

SUMMARY

Although this system is not a new idea, it is the basic simplicity which is most appealing. The program has been outlined in general terms only, although it has been given much more detailed thought as this general outline was developed. Rather than explore the details at this time, support is being solicited for the overall plan of action in the hope of gaining cooperation from other groups in the detailed planning phases of the program. Again, the payoff from such a system would be high, and achievable in a relatively short period of time.

It is GM's intent to act as a catalyst in the design and implementation of a National Accident Data System and encourage any of you today to accept this challenge with us.



C. Thomas Terry

C. Thomas Terry is a Section Engineer responsible for the Field Accident Research activity at the Safety Research and Development Laboratory located at the GM Proving Ground.

His responsibilities include the collection and analysis of field accident data.

He received a Bachelor of Science Degree in Civil Engineering from Rose Polytechnic Institute, Terre Haute, Indiana, and a Master of Science in Engineering Mechanics from Wayne State University, Detroit, Michigan. Mr. Terry joined General Motors in 1969 and was assigned to the biomechanics area with responsibilities in human simulation and volunteer testing. He was chairman of the SAE Crash Test Dummy Subcommittee during this time.

Mr. Terry then joined the Field Accident Research group in 1970 and was promoted to his present position in 1971. In 1972 he assumed the role of Chairman of the Motor Vehicle Manufacturers Data Collection Co-ordinating Subcommittee.

Among his publications are:

"Radiological Studies of Organ Displacement Due to Vertical Accelerations" presented at the 18th Annual Conference of Engineering in Medicine and Biology, November 1965, Philadelphia, Pennsylvania.

"Review of Mathematical Models of Response to Acceleration," presented at the Winter Annual Meeting of the American Society of Mechanical Engineers, November 1966, New York, New York.

"A viscoelastic Model of the Human Spine Subjected to 1-g Accelerations," Journal of Biomechanics, Vol. 1, pp 161-168, Pergamon Press.

"Field Accident Research - GM's Approach," R. A. Wilson, C. T. Terry, presented at NATO Accident Investigation Workshop, Brussels, Belgium, June 12, 1970.

"Benefits of the In-Depth Case Study," presented at 1972 Annual Meeting of Society of Automotive Engineers, January 10-14, 1972.

"National Accident Data System," C. T. Terry, R. W. Schneider, GM Automotive Safety Seminar, June 20-21, 1973.



Richard W. Schneider

Richard W. Schneider graduated from Grinnell College where he received the degree of B.A. in 1969 and a Masters Degree of Business Administration in 1971. He joined General Motors Proving Ground in 1971 where he was involved with field accident research. Mr. Schneider is currently senior project engineer with the Safety Research and Development Laboratory at the Proving Ground and active in the area of field accident research. He is a member of Operations Research Society of America.

Senator STAFFORD. Who will be next?

STATEMENT OF JOHN VERSACE, EXECUTIVE ENGINEER, SAFETY RESEARCH, FORD MOTOR CO.

Mr. VERSACE. I will give you an abbreviated version of my testimony. My name is John Versace. I am Chairman of a staff group at Ford Motor Co. which does safety research. I was a member of the NHTSA national accident sampling system review panel. I am here today to express the support of Ford Motor Co. for this bill, S. 2606.

The conclusion of my testimony is as follows: Ford has long pushed for more and better data to be based on detailed and accurate accident descriptions obtained by trained investigating teams, data which accurately reflect the true range of accidents.

Mass accident data acquisition, processing, analysis, and dissemination requires great effort and much resource. Only the Government has the necessary physical resource and funds to do this effectively, and the access to the various agencies around the country to really obtain that information.

We frequently urged the establishment of a national accident data system. We believe the subject is important enough to justify an administrative organization in its own right, one with a dedicated mission to build a factual and adequate body of continuously updated information, an organization whose objectivity and independence is assured, an organization which is positioned to allow for an appropriate level of attention not only to vehicle factors but also to highway, traffic, and driver factors.

We stongly recommend that any such organization should be explicitly required to consider and evaluate highway input.

The exact organizational structure of the Data Center should be determined by the Secretary of Transportation. However, we would think that a reporting relationship is best which provides substantial autonomy to the Data Center and which gives it proportional involvement in the several facets of the traffic safety system.

We would expect that organization, such as the proposed National Center for Statistical Analysis of Highway Operations, would have better prospects of maintaining, on a continuing basis, an effort of sufficient scale than would a program, excellent as it may be in its plans, that is obscured by its placement at some low level in the agency.

We believe that in accordance with NHTSA's present intentions, that a permanent User Board, a Board of Advisers, should be assembled and would be a board adjunct to this system.

We would also expect, and NHTSA has indicated their desire to go along with this, that data users, such as the automotive manufacturers and others, should be explicitly free to access the data, both in its elemental form immediately upon being filed as well as in tabulations and summaries prepared later, to the extent consistent with the rights of privacy of individuals.

We believe that any incremental increase in expense for a data center of this sort will certainly be very worthwhile. The amount of expense presently incurred by vehicle purchasers is about \$3 billion a year to meet requirements of NHTSA's standards. It doesn't take very many pennies in the cost of a car to support a major accident collection activity.

Any funding needed to establish and operate a data center would be justified by the potential offsets that may be achieved. Identification of these offsets should be a major goal of a data center which is organized to take a total system view of the whole traffic safety complex.

In short, I believe that the essence of our interest in this particular bill is that a national data operation of some kind should have high visibility; it should have an insured continuity; and it should be arranged to provide a very broad perspective over the whole traffic safety situation.

Thank you, sir.

Senator STAFFORD. Thank you very much.

[Mr. Versace's statement follows:]

STATEMENT OF
JOHN VERSACE
EXECUTIVE ENGINEER, SAFETY RESEARCH
FORD MOTOR COMPANY

BEFORE THE
TRANSPORTATION SUBCOMMITTEE
SENATE PUBLIC WORKS COMMITTEE

JULY 20, 1976

My name is John Versace. I'm in charge of a staff group at Ford Motor Company which does safety research. I was a member of the NHTSA National Accident Sampling System review panel. I am here today to express the support of Ford Motor Company for this bill, S. 2606.

Much of the research I direct depends critically on having good accident statistics. Ford has been a user of accident data and a determined supporter of data collection activities. Since that day in 1955 when we gave the first \$100,000 to the Cornell Medical School -- also supported by Chrysler and the Armed Forces Epidemiological Board -- to conduct field investigations, in-depth, with a team of trained experts, and to establish computerized files, we have continued support of such activities right up to the present (since 1958 through the Automobile Manufacturers Association, now MVMA) and we expect to continue in the future.

These early accident statistics showed some unexpected things: that being "thrown clear" of the car is extremely dangerous with risk of fatality greater than in any other classification. New door latch designs were developed; a 40 percent reduction in ejections followed. The prevalence and character of disfiguring facial injuries led to development in the early 1960's of a new type of windshield which cushions impacts, thereby almost eliminating a whole sub-specialty of plastic surgery. These changes, by the way, along with others, were made before the Safety Act and the regulation of vehicles came into existence, and were the direct consequence of revelations from this early gathering of accident data.

A Greater Quantity of Data Are Needed

The need for accident data has not diminished. There are new designs and new questions. A clear determination of safety need so often cannot be made with the available data, even though there are now several hundred thousand cases on file. Most of them are old, many of them are inadequately detailed, and most of those with high detail were collected because they were "interesting" rather than because they were representative of the accident population.

And that raises another point: accidents are so rare, relatively speaking, that it takes a lot of accident chasing to find two of a kind. There are so many makes and models and option combinations, and number and variety of roadway and traffic circumstances, and driver condition. When accidents are spread out among so many classifications, there end up being so few of a kind in the present file that findings often lack statistical confidence. The current plans NHTSA has for its excellently-conceived National Accident Sampling System partially meet this need, but an even greater scope of data acquisition is needed.

Other Data Needs

Another area of considerable need is for better data on exposure and risk, to be sure that we're comparing things with "all else equal." For example, suppose we observe, that vehicle "A" is apparently more often involved than vehicle "B" in, say, rollover accidents. We can't really evaluate that unless we know that the amount of traffic exposure was the same, that the age and condition

of the drivers was the same, that the type of road conditions were the same, etc. Provisions must be made for the collection of data on all the ancillary and exogenous factors affecting risk.

There has been a lot of research, using accident data, on injury causation. We have learned a lot about it. In addition, however, there's a whole series of Federal Motor Vehicles Standards on things relating to accident prevention: tires, brakes, lights, visibility, controls, etc. But there are hardly any accident data adequate to determine the parameters of need for such standards, much less information from which to measure any safety benefit resulting from those standards. Admittedly, accident prevention is a conceptually difficult area in which to establish conclusive findings, particularly of the kind which would permit quantifying the parameters of a regulation. This is a very neglected field, even to defining the classes of accident data that must be collected for this purpose.

Another lack in existing highway safety information is of information that would clearly show the relative proportions of the fatality rate reduction over the last twenty years that are attributable to freeway construction, improvement of other highways, automotive design improvements, driver training and other factors. If such data were available, they would help show the relative safety effectiveness of various programs and thus enable better decisions on how limited funds should be allocated.

Benefit-cost analyses are mainly intended to evaluate alternative future actions. But how can the real-world effectiveness of designs and standards which have not yet been implemented -- or

perhaps even invented -- be determined? We cannot look at accident data directly to find out because there aren't any cars on the road designed so as to meet some hypothetical requirement. So we must resort to calculation to anticipate the likely result, calculations usually requiring a lot of traffic event data. Because these kinds of calculations are sensitive to those data, they must be obtained with high accuracy. That accuracy has been very poor. Although it would be a major undertaking, these kinds of data are so important to us and to the regulators it should be a major responsibility of an accident data center.

Discussion and Conclusion

Ford has long pushed for more and better data, to be based on detailed and accurate accident descriptions obtained by trained investigating teams, data which accurately reflect the true range of accidents. Mass accident data acquisition, processing, analysis, and dissemination requires great effort and much resource. Only the government has the necessary physical resource and funds to do this effectively.

Ford has frequently urged the establishment of a national accident data system. We believe the subject is important enough to justify an administrative organization in its own right, one with a dedicated mission to build a factual and adequate body of continuously updated information, a body whose objectivity and independence is assured, an organization which is positioned to allow for an appropriate level of attention not only to vehicle factors, but also to highway, traffic, and driver factors. It is strongly recommended that any such body be explicitly required to consider and evaluate highway input.

The exact organizational structure of the data center should be determined by the Secretary of Transportation. However, we would think that a reporting relationship is best which provides substantial autonomy to the data center and which gives it proportional involvement in the several facets of the traffic safety system.

We would expect that organization, such as the proposed National Center for Statistical Analysis of Highway Operations, would have better prospects of maintaining, on a continuing basis, an effort of sufficient scale, than would a program, excellent as it may be in its plans, that is obscured by its placement at some low level in the agency.

A permanent User Board, such as NHTSA is assembling for its National Accident Sampling System, should be explicitly provided. Users of accident data and those affected by any findings, such as the automobile manufacturers as well as the regulators, should be consulted on the data to be collected. Not only in order to utilize available expertise, but so all are assured of the inclusion of variables which might otherwise be neglected but which are important for them.

Data users, such as the automotive manufacturers and others, should be explicitly free to access the data, both in its elemental form immediately upon its being filed, as well as in tabulations and summaries prepared later, to the extent consistent with the rights of privacy of individuals.

We believe any incremental increase in expense for a data center should be reasonable. The accident statistics activity in

NHTSA currently runs at something more than \$10 million, including contract work, and this we see as being transferred to the new data center. The value of the required expenditure, however, is easy to visualize: mandated safety and vehicle protection standards are already costing the consumer more than three billion dollars every year, with clear prospects of very large further increases. It is not clear the public gets that much back in benefits. Any funding needed to establish and operate a data center would be justified by the potential offsets that may be achieved. Identification of these offsets should be a major goal of a data center which is organized to take a total system view of the whole traffic safety complex.

References

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- . J. C. Eckhold, Ford Motor Company, Re: Advance Notice of Standards Revision - Highway Safety Program Standards. (Docket 76-2; Notice 1) April 21, 1976.
- . Susan P. Baker (Chairman), Recommendations of the National Review Panel for the National Accident Sampling System. Addressed to V. J. Esposito, NHTSA, March 31, 1976.

Senator STAFFORD. Now, Mr. Heins, do you care to comment?

**STATEMENT OF EDWARD HEINS, CHIEF ENGINEER, ADVANCE
PROGRAMS AND SAFETY PLANNING, CHRYSLER CORP.**

Mr. HEINS. Yes. I am Edward Heins from the Chrysler Corp. I will summarize mine very, very briefly since my colleagues have stated some of the points we were bringing out.

First I would like to say that we do endorse the type of center this bill would create. We do have two recommendations which we would like to see written into the bill. They were briefly touched on before.

One is that we would like to see it written in that the private sector be able to set up the type of systems to be used and the type of data to be collected. Second, we would like to have direct access to the data bank so that our computers on a time-sharing basis could plug in and receive the information directly. Perhaps the type of data we in the automotive industry are seeking from this may be somewhat different than what NHTSA would be after.

We are also interested in creating safer automobiles. Whether we would be legislated to do that is not important. We are interested in saving lives. We think this data center would do that.

Thank you.

[Mr. Heins' statement follows:]

COMMENTS BY CHRYSLER CORPORATION RELATIVE TO SENATE BILL S.2606
TO PROVIDE FOR THE ESTABLISHMENT OF A NATIONAL CENTER FOR
STATISTICAL ANALYSIS OF HIGHWAY OPERATIONS- JULY 20, 1976

My name is Edward Heins. I am Chief Engineer, Advance Programs and Safety Planning for Chrysler Corporation. My organization includes a safety technical analysis section with responsibility to analyze field accident data and statistics and to use such information to evaluate and improve the safety of our corporate products.

For years we have sought better vehicle accident data and have advocated that the Federal government fund and operate the type of accident data collection center this Bill would create. In 1965 we recommended to the Sub-Committee on Executive Reorganization of the U. S. Senate Committee on Government Operations that a Federally funded center for the study of accident and injury causation be established. We have repeated that recommendation many times and in 1973 we stated to the Administrator of the NHTSA that one of the problems facing both the NHTSA and industry was the accumulation of accurate in-depth accident data. We pointed out that the most efficient way to attack the vehicle safety problem was to put emphasis in the area which would provide the most benefit commensurate with cost. It was mentioned that in-depth accident studies by multidisciplinary teams were needed

to set priorities and to determine the effectiveness of existing safety regulations, and that sufficient data must be accumulated in order to draw conclusions with confidence. We recommended that this be a high priority item within the NHTSA.

Although the NHTSA has substantially improved their accident data collection program during the last few years, we are still operating with accident data sources which are limited in size and scope and quite often inadequate for our purposes. Only through a national effort of the type envisioned by this Bill do we feel sufficient amounts of data as well as the right kinds of data will be obtained to satisfy our needs and that of the safety community.

We feel that Bill S.2606 accomplishes the major objectives we have been seeking. We would, however, like to offer the following recommendations which would make the Bill more beneficial to our company.

First, we recommend that the Bill be broadened to include cooperation with the private sector concerning the type of data to be collected and the development of the system to be used. The information generated can be very useful to automobile manufacturers, for example,

as well as government. Only through the collection of relevant and meaningful data can the automotive industry make use of such information to create safer vehicles.

Second, we recommend that the Bill clearly indicate that the private sector be permitted to have direct access to the data bank. This is similar to the arrangement we now enjoy with the data collection agencies under contract to the Motor Vehicle Manufacturers Association.

In conclusion, we feel that enactment of Bill S.2606 will be a major step toward the better understanding of motor vehicle accidents and in the improvement of highway safety. We enthusiastically endorse its enactment and urge that the aforementioned recommendations be included. Thank you.

Senator STAFFORD. We thank you all.

The subcommittee has a few questions which we will ask generally and invite any member of the panel who wishes to, to respond.

Mr. Martin, you said that access to the National Center's data files could be beneficial for those willing to pay for such service. Could you describe some ways such access might be used; and then what others would care to comment.

Mr. MARTIN. Yes. This is giving emphasis to the same point Mr. Heins made. We would like to have direct access to the data, and we have suggested this be on a user fee basis.

Characteristically, we would look at our data as a means of identifying the type of tests that we should be conducting on the vehicle. We look at it as a means of evaluating what features have been changed in the vehicle.

For example, one of the things that has been mentioned earlier today is the importance of determining the influence of the size and weight of the vehicle on the accident severity and in terms of injury frequency. We believe that there is a great deal of confusion today regarding the future trend toward smaller cars, and it is important to the number of injuries that may occur on the highway.

The type of data we see coming from the center of this sort would help identify the real causes. Today when we look at the injury frequency on cars of different sizes we must recognize those cars are being driven by different people under different circumstances.

So it is very difficult to sort out the influence of the driver and the influence of the road and where the car has been driven and the influence of the car itself. So the type of data we see emerging from a center of this sort will allow us to identify the real causal factors with greater fidelity. These are just a few examples.

Senator STAFFORD. Do any other members care to comment?

Mr. VERSACE. That is essentially the same view we take.

Senator STAFFORD. Mr. Versace, in your statement you described the national accident sampling system as excellently conceived, but note that now an even greater scope of safety data is needed. You go on to list where better information is needed.

Do you see any indication that NHTSA is beginning to focus on any of these areas?

Mr. VERSACE. Yes, sir, they certainly are. I believe that the plans they have are very good. But I believe they have been thinking along the lines of the kind of project which they could contain within their organization. Perhaps they haven't thought big enough.

Senator STAFFORD. Do you have any recommendations as to a desirable and realistic funding level for a national statistical center? I might direct that to all three of you.

Mr. VERSACE. I don't know that I could indicate a particular figure at this point. I believe that the OSA is presently operating at about \$10 million. Indications are that the NASS system, when it finally is underway, is perhaps another \$9 million or \$10 million.

That would seem at this point in time to be a realistic level of operation. Perhaps it ought to be a bit above that.

Mr. MARTIN. If I may, I would endorse Mr. Versace's remarks. Some time ago General Motors proposed a national data system in the paper which was published in the safety seminar we held in 1973.

At the time of that study, we estimated that a comprehensive national accident data system would cost in the order of \$10 million per annum.

In coming up with this estimate, we did not suppose that it was exactly \$10 million. We just felt that it was certainly in excess of \$1 million, in the order of \$10 million, and considerably less than \$100 million.

I would like to emphasize that whether it is \$10 million or \$20 million is perhaps not important. The motor vehicle safety regulations do impose costs on the vehicle, just for one standard, that exceed the costs that have been discussed with regard to this data center.

For example, side-door beams each year cost in the order of the cost of the National Accident Center being discussed today. From the data that is now available in the field, we cannot measure whether or not those side-door beams are providing a consumer value.

So just that one thing, the proposal for a mandated passive restraint, is a proposal—again, one standard—that would cost the public in the order of \$2 billion a year. So here we are talking about 1 percent of the cost of one proposed standard that would be added for successive years.

Senator STAFFORD. Mr. Heins, do you have an additional comment?

Mr. HEINS. No, sir.

Senator STAFFORD. Mr. Versace, you seem to differ from your colleagues in General Motors in your prepared statement in calling for a largely autonomous center, perhaps free from existing bureaucratic structures. Would you care to comment on your reasons?

Mr. VERSACE. My main concern there is for the very explicit inclusion of highway-related matters into the Center. I think it is very natural that within NHTSA, since they are responsible for drivers and vehicles, that there will tend to be, even though it won't be deliberate, some tendency toward parochialism when it comes to highway matters.

We believe that resources in the Nation are limited, resources among the manufacturers are limited, and a most efficient allocation of the resources is one which can only be accomplished if there is an integrated view of the total safety problem.

It is our concern not so much that the Data Center be outside of NHTSA but, rather, that wherever it is placed, it have a specific involvement with highway matters.

I don't believe it can be so disjointed that FHWA would have certain responsibilities, NHTSA other responsibilities, without some kind of knitting together of these matters.

Senator STAFFORD. Thank you.

Mr. Martin, on page 2 of your prepared testimony you seem to indicate that no standard for safety should be issued until the Center or something like it comes up with definitive data.

Does that mean you would halt the issuance of safety standards until this happens; because I do not believe that this is the view of the drafters of this legislation, nor of NHTSA.

Mr. MARTIN. No, sir, I think we would certainly view that any motor vehicle safety standards should be based on sound facts.

Now, this does not mean that there are no facts available today upon which to operate. What we are simply emphasizing is the need, particularly when there are significant lost implications, with unknown benefits, to make sure we are progressing on the basis of facts.

Senator STAFFORD. One final question for all three. All of you seem to suggest that the automobile industry should have substantial input into the activities of the National Center, not just in the final stages of its reporting but in analyzing its data.

Would each of you care to be a little more specific about what kinds of expertise your industry could bring to the Center's activities and at what levels?

Mr. MARTIN. I think that our emphasis here in access to the data is not a suggestion we be the only people who analyze the data or determine its end use. We would simply like to be able to access the data independently rather than wait upon the NHTSA or whatever agency would administer the program, to get answers to our particular questions.

It is not a suggestion that we analyze the data, but that we be able to access it ourselves and analyze it independently, not waiting for the NHTSA.

Senator STAFFORD. Do you other gentlemen care to comment?

Mr. VERSACE. I agree with Mr. Martin's statement. With regard to advisers to the Data Center, first, all of us have within our own companies data analysis operations. We have experts, people who have become experts in the analysis of data. We also have, of course, engineers who combine their engineering expertise with accident data analysis expertise.

We believe that accident data, if it is going to be collected in a form that will be most useful to everybody, should be collected in a way so we are best able to extract out the information which is latent at the accident, that which is going to be most useful.

We think that we have a role because of our familiarity with the engineering matter; second, because we have an interest in the outcome of any analysis. We want to be sure the variables which are of concern to us, but which may not happen to have been thought of by the people constructing the accident investigation forms at the time they were doing it, are in there.

To echo what Mr. Martin said, we certainly feel that a great many other people—from the insurance industry, people from the highway industry, and other agencies of Government, and other consumer groups—would certainly have an interest in having inputs of this information.

Senator STAFFORD. Mr. Heins?

Mr. HEINS. Let me follow that with an example. We offer several types of door handles on our vehicles. We have reason to believe that some of those in a roll-over accident will open up by the inertial force more so than others.

We have researched data to try to find the answer to that. We were not very successful. We would like to have more detailed information that would give us that kind of an answer so that we on our own can select the proper design of door handle that should be used.

That is an important detail to us. It may not be that important to other people, but it is to us. This is the kind of information we are seeking.

Senator STAFFORD. Gentlemen, the subcommittee is very grateful to you for being with us today on this matter. Is there anything you wish to add to the record before we close today's hearing?

If not, we appreciate your attendance very much indeed.

The subcommittee will be in adjournment subject to the call of the Chair.

[Whereupon, at 11:35 a.m., the subcommittee was recessed, to reconvene subject to the call of the Chair.]



