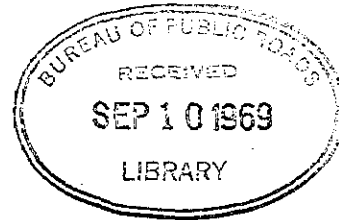


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Testimony of

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S. 1245 - To authorize appropriations for the fiscal years 1970 and 1971 for the purpose of carrying out the provisions of the National Traffic and Motor Vehicle Safety Act of 1966, and to amend the definition of "motor vehicle equipment" in that Act.

Prepared for delivery before the Committee
on Commerce of the United States Senate.

April 14, 1969

Mr. Chairman and members of the Committee:

I am Frank Turner, Federal Highway Administrator.

With me today is Dr. Robert Brenner, Acting Director of the National Highway Safety Bureau in the Federal Highway Administration. We are here this morning in response to your invitation to testify with respect to authorizations of appropriations for the National Traffic and Motor Vehicle Safety Act of 1966 for fiscal years 1970 and 1971 and to review the implementation of that Act. The Safety Bureau is the agency in the Administration responsible for implementing that legislation.

With your permission, I propose to mention some accomplishments in traffic safety thus far achieved under this Act, to comment on proposals for future funding, and to recommend new proposals to strengthen the effectiveness of the National Traffic and Motor Vehicle Safety Act of 1966. Following my remarks, I would like to have Dr. Brenner -- who has been with the Bureau since its inception -- discuss

in depth the progress and certain problems of the vehicle safety program. At the conclusion of his remarks we shall both endeavor to answer any question you may have.

While I am new to the position of Federal Highway Administrator, my involvement in highway safety matters is of long-standing. Throughout my career in the Bureau of Public Roads, the design and construction of ever safer highways has been a prime goal of the agency. And it is with no little pride that I can say that the modern Interstate highway system, designed under that Bureau's guidance, is the safest in the Nation and in the world.

I of course recognize that a safer highway is only part of the solution; the motor vehicles which operate upon it must also be made safer if the highway death rate is to be reduced. Safe highways and safe vehicles are interrelated aspects of a single problem. My experience in designing highways to fit the operational capabilities of cars, trucks and drivers has necessarily given me considerable insight into the problems of motor vehicle design and operation. I intend to bring that experience and insight to bear on the problem which deeply concerns all of us here today: the high death and injury toll on the Nation's highways.

It was to combat this disturbing phenomenon that this Committee recommended to the Congress in 1966 enactment of the National Traffic and Motor Vehicle Safety Act which, along with the Highway Safety Act as companion legislation, created what is now the National Highway Safety Bureau.

In the two years since passage of the legislation -- a very short time in the life of Federal agencies -- there have been a number of accomplishments under both Acts to make automobiles safer to drive and to reduce the likelihood of death or injury in the event of a crash. Possibly the most encouraging evidence available so far relates to increased crash survivability due to the important features now covered by Federal standards, such as the energy-absorbing steering assembly, new high penetration resistant windshields, and safety belts.

In the case of the high penetration resistant ("HPR") windshields now required by a Federal standard, we have a recent analysis of 2,292 crash cases involving 1964 to 1967 models. The analysis showed that the passenger head injury fatality rate due to windshield contact was 32 percent less in cars equipped with HPR windshields than in cars without such windshields.

Another important new safety feature required by Federal standards is the energy-absorbing steering column assembly. Early research has shown that impact with the prior type of steering assembly accounted for over 40 percent of all crash injuries to drivers. Recent investigation by trained teams of medical and engineering researchers shows that there were no fatal or dangerous injuries resulting from drivers striking an energy-absorbing steering column at vehicle crash impact speeds up to 50 miles per hour. Based upon early statistical data and admittedly small samples, we nevertheless now estimate that upwards of 50 percent of the drivers killed in vehicle crashes prior to introduction of the energy-absorbing steering assemblies would have survived if the vehicles had had this new safety feature.

In the case of safety belts, the payoff evidence is equally striking. A study in Sweden of 28,000 crashes involving over 37,000 vehicle occupants revealed that combination lap belts and upper torso shoulder harnesses reduced minor injuries about 30 percent and fatal injuries about 80 percent. Even for only lap belts, data from two States indicate that the death rate per crash is 56 percent higher for occupants who do not wear such belts.

Notwithstanding the demonstrated effectiveness of these and other safety improvements, we recognize the disappointing fact that there has not been a decline in the absolute number of people killed on the highways each year. To the contrary, preliminary tabulations indicate that over 55,000 deaths occurred in 1968. If present trends continue, another 1/4 million people will have died on our Nation's highways by 1972. This would bring the total traffic deaths since the turn of the century to two million.

We can offer several tentative explanations for both the increase in traffic deaths in 1968 and the disturbing projection:

First, the number of passenger miles being driven on our roads is constantly increasing, with the number of vehicle registrations increasing at a fairly steady rate in excess of 4 percent annually.

Secondly, the number of vehicle miles being driven at very high speeds is also increasing markedly. These increases, far in excess of those predicted by earlier trends, produce a corresponding increase in the number of fatalities. There is no doubt that the likelihood of surviving a crash goes down in a geometric ratio as the speed at the time of the crash goes up.

We firmly believe that the death tolls would have been much higher -- and future projections much more unfavorable -- were it not for the gains that the new safety standards are beginning to produce. It must be remembered that most of the 100 million vehicles in use today were manufactured prior to January 1, 1968, when the initial Federal standards went into effect. Thus they do not contain the new life-saving features which I have just described.

As the normal replacement of old vehicles continues, the percentage of vehicles on the roads with the new life-saving features will of course increase. We can accordingly expect them to produce an increasingly greater effect upon safety. However, all of the vehicles manufactured before 1968 will not be off the roads until the early 1980's.

Thus, it is unmistakably clear that much more has to be done if the grim projections of additional millions of Americans killed on the highways are to be prevented from becoming a reality. In this connection, the Department already has under consideration a number of additional safety standards and regulations.

In the past we concentrated our available resources in large measure on passenger cars, the predominant vehicle type on the roads. We are now turning greater effort to truck and bus problems. We have under consideration a

number of additional safety standards relating to such matters as truck braking systems, truck rear underride guards, truck uphill performance, and truck coupling problems.

With respect to passenger vehicles, we are working on "crash-survivability". We think this is an area which will produce large returns in passenger safety in the immediate future. Work is also progressing on child restraint standards. Considerable effort has already been devoted -- in the industry as well as with Government resources -- to developing practicable passive restraint devices such as the "air bag". In addition, we are working on improved braking system standards for passenger cars, new fuel tank requirements, and tire quality grading standards. We also expect to issue further consumer information regulations to enable people to take safety factors into consideration when buying motor vehicles.

AUTHORIZATIONS

Like most things, however, success in our endeavors depends substantially on the resources provided for our efforts. With this in mind, I turn specifically to our recommendations for funding authorizations to carry out the motor vehicle safety program in the coming years. These recommendations to you are naturally limited to our programs under the National Traffic and Motor Vehicle Safety Act of

1966. The National Highway Safety Bureau also administers related programs under the Highway Safety Act. That legislation, as you are aware, falls under the legislative jurisdiction of another committee. Authorizations under that Act for fiscal years 1970 and 1971 were contained in section 5 of the Federal-Aid Highway Act of 1968.

We recommend the following: To carry out Titles I, II, and IV of the National Traffic and Motor Vehicle Safety Act of 1966 (relating to motor vehicle safety standards, tire safety, and the National Driver Register, respectively), out of general funds in the Treasury, \$23 million for fiscal year 1970 and \$35 million for fiscal 1971. We additionally recommend the authorization of appropriations of \$10 million, to remain available until expended, for planning and designing highway safety research and test facilities, including engineering studies and site surveys.

Our recommendations differ from S. 1245, which was introduced at the request of the previous Administration, in two principal respects. We do not favor shifting the financing of programs under the National Traffic and Motor Vehicle Safety Act to the Highway Trust Fund. Second, we recommend \$35,000,000 rather than \$40,000,000 as the appropriate authorization level for fiscal year 1971. To implement these recommendations Secretary Volpe transmitted an appropriate draft bill for consideration of the Congress on

April 2nd. A copy of that bill, a section-by-section analysis explaining its provisions, together with a table which breaks down our authorization requests into particular program areas for fiscal years 1970 and 1971 and explains the need for increased funding in fiscal year 1971, are appended to my testimony for your convenience.

The authorization provided in the 1966 Act established a pattern of modest growth during the first three years as the operation of the traffic and motor vehicle safety program evolved. The authorization requested for fiscal year 1970 is at the same general level of the fiscal year 1969 authorization. It represents, however, a realistic growth for the FY 1969 actual program. The fiscal year 1971 authorization request continues the logical growth rate established in the initial Act.

The authorization requested for planning and design of research facilities reflects recommendations in the report submitted to Congress as required by the basic Act. The report outlines a program for providing the facilities needed to apply the full potential of modern science and technology to reducing deaths and injuries on the Nation's highways. This safety facilities program, including the increment of detailed engineering design for which authorization is being requested, is consistent with a master plan now being developed by the Department. That plan calls

for meeting the research and testing facilities requirements of all units of the Department in an orderly, integrated manner.

No proposed authorizations for construction of new facilities or modifications of existing facilities or any related site acquisitions have been included in this authorization request. Instead, the Department proposes to submit separate requests for construction authorizations on a line item basis as the detailed planning and design efforts, for which the present authorization is being requested, produce precise specifications and site criteria for each facility requirement.

A requirement of high priority is for a facility to test motor vehicles and equipment, including tires, for compliance with the Federal safety standards that already are in effect. This vital aspect of the Bureau's regulatory program is now being conducted by private testing laboratories under contract to the Government. While the work is being performed adequately under this arrangement, we feel that the Government should have its own more suitable facilities, for many of the testing laboratories are performing similar compliance testing for industrial clients as well.

LEGISLATIVE PROPOSALS

We have now completed more than two years of operation under the National Traffic and Motor Vehicle Safety Act. As with any legislation which breaks new ground, there are some shortcomings in the scope of the Act which prevent the full accomplishment of its stated goal -- reducing traffic accidents, injuries and deaths. We invite your attention to one such shortcoming and urge that the Act be amended to change the definition of motor vehicle equipment.

Definition of Motor Vehicle Equipment

Our first legislative proposal concerns motorcyclist headgear. The laws of 39 States now require these protective helmets to be worn by motorcycle drivers and riders. This requirement has been included among the Highway Safety Program Standards issued by the Department under the Highway Safety Act of 1966 in order to upgrade highway safety in all the States. States implementing the headgear requirement show an overall decrease of 30 percent in motorcycle death rates. The initial evidence of this standard's effectiveness makes it likely that additional States will put motorcycle helmet requirements into effect in the foreseeable future.

Clearly, unless a helmet is properly designed and manufactured it will not afford much protection to one who wears it. At present there is no uniform standard governing

these protective devices. Because of this, the motor-cycling public cannot be certain it is getting the protection it is paying for. Most States do not have research and testing facilities designed or equipped to evaluate the effectiveness of the "crash" helmets presently being marketed. Understandable confusion, therefore, exists among the public, the States and the industry over what constitutes an "approved" helmet.

This is an obvious safety problem which could be eliminated by a uniform Federal motor vehicle safety performance standard. Unfortunately, because the Traffic Safety Act was drafted without this particular problem in mind, the Secretary was authorized to set safety standards only for items of "motor vehicle equipment" which comprise a "system", "part", or "component" of, or "an accessory or addition to", the vehicle. (Section 102(4), 15 U.S.C. 1391(4).) Helmets, however, are designed for and worn by the driver and passengers and are outside the Secretary's standard setting authority.

This unfortunate, inadvertent gap in the traffic safety legislation should be closed. To do so, we recommend the broadening of the definition of motor vehicle equipment in section 102(4) of the Act to include devices, articles or apparel which are manufactured and sold to the public for the purpose of safeguarding vehicle drivers, passengers, and

other highway users from risk of accident, injury or death. Section 4 of the bill which Secretary Volpe submitted (and which is appended to this statement) was drafted to accomplish this purpose.

The steadily mounting number of motorcyclists make this proposal one of immediate significance. Motorcycle registrations nearly quadrupled between 1960 (574,080) and 1967 (1,953,022) and the trend continues. The numbers of dead and injured mirror the increase in the motorcycle population. During the 5 years preceding 1967 motorcycle deaths increased roughly 200 percent.

Not only would this proposal provide additional crash protection to the motorcycling public by allowing them to know and buy safety equipment which meets meaningful standards, it would also have the additional advantage of creating uniformity. This would eliminate the present situation which requires manufacturers and vehicle operators to conform to differing State standards.

For these reasons we strongly urge its enactment.

Mr. Chairman, this closes my prepared statement to your Committee. I would now like to let Dr. Brenner, the Acting Director of the National Highway Safety Bureau, address you with respect to other facets of the Bureau's operations and programs. And as I stated at the outset, following his testimony we shall both endeavor to answer any questions you may have. Thank you for your attention.

A B I L L

To authorize appropriations for the fiscal years 1970 and 1971 for the purpose of carrying out the provisions of the National Traffic and Motor Vehicle Safety Act of 1966, and to amend the definition of "motor vehicle equipment" in the National Traffic and Motor Vehicle Safety Act of 1966.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SEC. 1. This Act may be cited as the "National Traffic and Motor Vehicle Safety Act of 1969".

AUTHORIZATIONS

SEC. 2. There is hereby authorized to be appropriated for the purpose of carrying out the provisions of Titles I, II, and IV of the National Traffic and Motor Vehicle Safety Act of 1966, as amended (80 Stat. 718; 15 U.S.C. 1381, et seq.), not to exceed \$23,000,000 for fiscal year 1970 and \$35,000,000 for fiscal year 1971.

SEC. 3. For the purposes of carrying out the provisions of Title III of the National Traffic and Motor Vehicle Safety Act of 1966 (80 Stat. 729), there is hereby authorized to be appropriated \$10,000,000, to remain available until

expended, for planning and design of highway safety research and test facilities, including engineering studies and site surveys.

DEFINITION OF MOTOR VEHICLE EQUIPMENT

SEC. 4. Section 102(4) of Title I of the National Traffic and Motor Vehicle Safety Act of 1966 (80 Stat. 718; 15 U.S.C. 1391(4)) is amended to read as follows:

"(4) 'Motor vehicle equipment' means any system, part, or component of a motor vehicle as originally manufactured or any similar part or component manufactured or sold for replacement or improvement of such system, part, or component or as any accessory, or addition to the motor vehicle, and any device, article, or apparel not a system, part, or component of a motor vehicle, which is manufactured, sold, delivered, offered, or intended for use wholly or in part to safeguard motor vehicles, drivers, passengers, and other highway users from risk of accident, injury, or death."

SECTION-BY-SECTION ANALYSIS OF A PROPOSED
"National Traffic and Motor Vehicle
Safety Act of 1969"

Section 1. Short Title

Section 1 cites this Act as the "National Traffic and Motor Vehicle Safety Act of 1969".

Section 2. Authorizations - Titles I, II and IV

Section 2 would authorize appropriations for Titles I, II and IV of the National Traffic and Motor Vehicle Safety Act of 1966. These titles cover motor vehicle safety standards (including necessary safety research and development), tire safety, and the National Driver Register, respectively. For these purposes, \$23,000,000 would be authorized for fiscal year 1970 and \$35,000,000 for fiscal year 1971.

Section 3. Authorization for Research and Test Facility

This section would authorize an appropriation of \$10,000,000 to remain available until expended, for carrying out planning and design of contemplated highway safety research and test facilities, including engineering studies and site surveys under Title III of the National Traffic and Motor Vehicle Safety Act of 1966.

Section 4. Definition of Motor Vehicle Equipment

Section 4 would broaden the definition of "motor vehicle equipment" as presently defined in section 102(4) of the National Traffic and Motor Vehicle Safety Act of 1966. That term, as presently defined means:

". . . any system, part, or component of a motor vehicle as originally manufactured or any similar part or component manufactured or sold for replacement or improvement of such system, part, or component or as any accessory, or addition to the motor vehicle." (80 Stat. 718, 15 U.S.C. 1391(4)).

It was the intent of that Act to have the Secretary of Transportation set minimum safety performance standards for items of "motor vehicle equipment". Section 4 amends this definition to include devices, articles or apparel which, though not directly "a system, part, or component of" or "any accessory or addition to" a motor vehicle, are nonetheless manufactured and sold to the public for the purpose of safeguarding vehicle

drivers, passengers, and other highway users from risk of accident, injury, or death. The primary reason for this amendment is to enable the Secretary to set safety performance standards for motorcycle headgear. Helmets are worn by the driver and passengers and are neither a "system", "part", or "component of" nor "an accessory or addition to" the vehicle. As a consequence, they appear to be outside the definition of "motor vehicle equipment" and thus the Secretary lacks authority to establish a uniform Federal safety standard applicable to these articles.

BREAKDOWN OF AUTHORIZATION REQUESTS
FOR FISCAL YEARS 1970 and 1971

<u>Total Authorizations Requested</u> (in millions of dollars)	<u>FY 1970</u>	<u>FY 1971</u>	<u>Increase</u>
	<u>\$23.0</u>	<u>\$35.0</u>	<u>\$12.0</u>
<u>New Vehicle & Equipment Safety</u> (including tire safety)	15.8	20.0	+4.2

1. Increase in staffing and research requirements for standards setting process. Program will be moving into more complex second and third generation standards requiring more difficult engineering and broader research. (1.2)

2. Increase in compliance activity because of (1) more audits required as the result of increasing numbers of standards, (2) the necessity for additional testing on initial standards to insure continued compliance. (1.5)

3. Contract to design experimental safety vehicle to be let in 1970; contract to build limited number of these vehicles to be let in fiscal year 1971. (1.5)

<u>Used Vehicle Safety</u>	1.2	2.0	+0.8
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Increase in staffing and in supporting research activities which are now extremely limited.

NOTE: These funds are for standards development. Repair technology and inspection fall under the Highway Safety Act.

<u>Accident Investigation and Information Analysis</u>	4.4	11.0	+6.6
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1. Accident Investigation -- increase the size, number and supervision of the medical-engineer accident investigation teams; set up teams in most of 50 States; expand technology development (crash recorder program).

(.8)

2. Expand Driver, Vehicle and Accident Data Registers by acquisition of additional data, perform increased mathematical analysis of available data.

(0.5)

3. Provide initial operational increment of a National Safety Data Network.

(5.3)

Program Direction and Coordination 1.6 2.0 +4

Planning and Design of Highway Safety
Research and Testing Facilities

Design

Vehicle and Highway Safety Proving Ground	\$ 6,200,000
Driving Simulation Laboratory	1,800,000
Applied Research Laboratory	300,000
Human Performance Laboratory	475,000
Vehicle Performance Laboratory	700,000
<u>Advance Planning Studies</u>	
Master Plan, Proving Ground	350,000
Injury Research/Treatment Facilities	<u>175,000</u>
Total Request	\$10,000,000