

## Driver Education Found Increasing Teen Licensing And Fatal Crashes

Driver education for teenagers greatly increases the number of licensed drivers, but is failing to reduce driver involvement in fatal crashes. These are the conclusions of a study by Dr. Leon S. Robertson and Dr. Paul L. Zador of the Insurance Institute for Highway Safety.

“The net effect is much higher death involvement rates per 10,000 population, on average, in states with greater proportions of 16-17 year olds receiving driver education,” the researchers report. “At least 2,000 fatal crashes per year that would not otherwise occur are attributed to increased licensure of 16-17 year olds because of driver education.”

The study deals with the fatal crash involvement of teenagers per licensed drivers and per population in 27 states, as related to the proportions of teenagers who received driver education. Because of differences in reporting systems for property damage and nonfatal injuries, the research was confined to fatal crashes. Reports of state police or motor vehicle administrations were examined to determine the extent of fatal crash involvement.

### SURVEY DATA DRAWN FROM 27 STATES

The study looked at driver education experience in 27 states during a number of past years. Allowances were made for differences between states that might affect their auto crash rates, such as the proportion of miles driven on rural roads and annual precipitation patterns.

Results of the study indicate “that 80 percent of the 16-17 year olds who took driver education, obtained licenses when they would otherwise not have obtained licenses until they were at least 18 or 19 years old.” But the study finds of 18-19 year olds that “70 percent of those who had driver education would have been licensed when they were 18-19 irrespective of whether they had driver education.”

The study also says that laws requiring driver education as a prerequisite to receipt of a license by a 16-17 year old “had no effect, per se, on the proportion licensed during the years studied. The data show that it is the proportion who received driver education, rather than its requirement if a license is to be granted, that determined the proportion licensed.”

“If the age of licensure were raised to age 18, the adverse effects of driver education would be removed,” the researchers report. “However, driver education would not be of any demonstrated benefit in reducing crash involvement. If driver education is continued without raising the age of licensure to age 18, any possible benefits obtained from having younger teenagers learn to drive will continue to be gained at a large cost in human life.”

## RESULTS CONSISTENT WITH BRITISH FINDINGS

The findings, the Institute researchers report, are consistent with those of a recent study in England. There, a large-scale controlled study of driver education found no difference in subsequent crashes per miles driven between groups that had various combinations of classroom, simulator and off-road training and those who had no driver education. "However, the total crash involvement per person was higher among those who had 30 classroom hours and 5 hours of on-road training," said Robertson and Zador, "apparently because they more often obtained driver's licenses and drove as a result of having been in the driver education course."

Based on the results of driver education in the U.S., the report observes, proposals to increase motorcyclist training in high schools "would likely worsen the present situation substantially." Motorcycles and mopeds, the researchers point out, have much higher death rates per vehicle than do automobiles.

"It is obvious that no one should operate a motor vehicle on public roads without first learning to drive," the researchers comment. "Most of the basic skills involved in vehicle operation are usually learned easily, but the role of length and type of experience, attitudes and physical and emotional maturity as factors in crash involvement are not well understood. The lack of effect of presently used driver education programs should not deter the search for means of improving the skills, knowledge and attitudes of drivers. However, programs aimed at such improvement should be demonstrated to be effective in scientifically well-designed experiments before they are adopted for widespread use."

## NO EVIDENCE OF ADVANCED TRAINING EFFECTS

The report points out that there is no evidence "that so-called advanced driver education has any effect on crash involvement." Studies by the North Carolina Highway Safety Research Center and by the California State Department of Motor Vehicles are cited, showing that students trained on multiple-range driving courses and by commercial schools of driving have crash rates similar to those of students who learned to drive in high school driver education courses.

The researchers conclude, "Any educational or other program that has the potential for increasing exposure to hazards should be evaluated on the basis of total reduction of injury, not just injury per exposure as is commonly done. Programs that increase confidence that risk has been reduced, when in fact it has not, are far worse than no programs at all. Such is the case with driver education."

Copies of the study, "Driver Education and Fatal Crash Involvement of Teenaged Drivers," may be obtained by writing: "Teenaged Driver Education," Insurance Institute for Highway Safety, Watergate Six Hundred, Suite 300, Washington, D.C. 20037.

## NHTSA Prepares 'Master Plan' For Rulemaking

The National Highway Traffic Safety Administration (NHTSA) for the first time since 1971 is preparing a "master plan" giving advance notice of motor vehicle safety rulemaking activities it plans to initiate in the next fiscal year. Originally projected for publication in October, the plan now is expected to appear within the next few weeks.

NHTSA spokesmen will not comment on its substance, but Transportation Secretary Brock Adams, in a recent speech to Ford Motor Co. executives meeting in Washington, revealed that the new rulemaking plan is being prepared. "We intend to include not only a schedule of any rulemaking actions," he said, "but to identify as well those areas where additional rulemaking appears to be unnecessary."

Adams listed three areas of motor vehicle safety that NHTSA will be concentrating on in the months ahead:

- Better protection to drivers and passengers in side crashes and rollovers than that which will be provided by mandated occupant restraint systems.
- Adaptation of passenger car safety standards to the increasingly popular vans and light trucks.
- Sharper focus on protection of the pedestrian, the victim of 20 percent of highway accidents.

In a Department of Transportation internal memorandum addressing NHTSA program directions for the 1979 fiscal year, Joan Claybrook, NHTSA administrator, termed the job "to effectively set priorities" as the "major challenge" facing the agency. "There has been a tendency to continue rulemaking actions, research activities and demonstration projects far beyond the time when major improvements or advances were possible," she said. "With a larger agency, 'fine tuning' in many areas would have been justified. However, in an agency with relatively limited resources both in terms of dollars and staff, it is essential to concentrate attention on a limited number of problems."

Publication of a new master plan, in a sense, will be a return to the strategy employed in NHTSA's early days. The first "program plan" was issued by NHTSA's predecessor, the National Highway Safety Bureau, in August 1970 and revised later that year. (See *Status Report*, Vol. 5, No. 13, Aug. 3, 1970.) In 1971, after the bureau had been redesignated as NHTSA, a new plan was published, calling for the organization of individual standards into two basic categories: "crashworthiness systems," covering protections required to reduce death and injury in a crash, and "operating systems," concerned with crash avoidance. (See *Status Report*, Vol. 6, No. 16, Sept. 7, 1971.)

(Cont'd on Page 4)

### ***NHTSA Expands Parts Return Program***

In order to gather information on possible safety-related defects in automobile components, the National Highway Traffic Safety Administration (NHTSA) is expanding its search for defective parts. Following a recommendation from the National Motor Vehicle Safety Advisory Council, NHTSA now is appealing for cooperation from automobile dealers, operators of high-mileage fleets and auto parts suppliers.

For the past six years the parts return program, administered by NHTSA's Office of Defects Investigation, has worked through independent auto repair shops, which were asked to submit voluntarily any defective parts for analysis and possible defect identification. However, a NHTSA review has indicated that this procedure has revealed information primarily about cars that were from three to seven years old. Early this year the Insurance Institute for Highway Safety told the safety advisory council that fleets such as police departments and taxi companies "can in one year generate as many miles as the average private passenger car in a lifetime." By expanding the parts-return sources to include new-car dealers and high-mileage fleets, NHTSA expects to uncover more information on potential safety-related defects in newer vehicles.

Auto dealers, fleet administrators and parts suppliers interested in participating in the parts return program should contact Bruce Beddow, Program Manager, Kappa Systems, Inc. (an NHTSA contractor), 1501 Wilson Blvd., Arlington, Va. 22209, telephone 703-527-4500 or 703-524-0900.

In some respects the new master plan would appear to be a response to sharp criticism of NHTSA operations made in Congress a year ago. At that time the Subcommittee on Oversight and Investigations of the House Committee on Interstate and Foreign Commerce found a "virtual halt" of the federal motor vehicle safety program and recommended drastic changes. They included transfer of NHTSA from the Department of Transportation into an independent regulatory agency where it would be combined with the Food and Drug Administration and the Consumer Product Safety Commission. (See *Status Report*, Vol. 11, No. 17, Nov. 2, 1976.) The subcommittee reported that after "an initial burst of activity in the first three years of its existence" NHTSA actions "fell off precipitously." The result, the subcommittee charged, was that, "What NHTSA had not done speaks louder than the few regulatory agency actions it has produced in recent years."

## **FHWA Officials Condemn Proposed Standards**

A proposal by the Federal Highway Administration (FHWA) to use lower design standards for federal-aid "3-R" highway projects has drawn criticism from many quarters, and some of the bitterest opposition has developed inside FHWA itself.

"Repugnant." "Backward." "Moral bankruptcy." These are some of the charges leveled against the relaxed standards as key FHWA officials have responded with written comments to the advance notice of proposed rulemaking that would have federal-aid "resurfacing, restoration, rehabilitation" projects follow weak new guidelines prepared by the American Association of State Highway and Transportation Officials (AASHTO).

One of the most outspoken critics has been Howard L. Anderson, the FHWA associate administrator for safety. A check of the public docket for the proposed rulemaking revealed his detailed criticism. "I am vehemently against the adoption of the standards as written," Anderson wrote, "and in fact see no need whatsoever to change our present procedures."

### **LIABILITY ISSUE SEEN AS A FACTOR**

Anderson emphasized that his views expressed are "personal opinions" and do not necessarily reflect the position of the FHWA offices he supervises. He dismissed the argument that the reduced standards are designed primarily to stretch available federal-aid funds and noted, "There remains the possibility that if federal standards can be reduced low enough or eliminated by the R-R-R process, then the state's tort liability in case of accidents can also be eliminated. This is advocated by some states as a solution to the rising number of court suits, but I do not believe that the FHWA should be a part of this type of philosophy. The highway engineer, and particularly the federally employed highway engineer, must when reviewing the proposed standards decide whether his job is to protect the highway department from suit or is it to protect the traveling public from being killed or injured."

Other specific points made by Anderson included:

- "The publication (the AASHTO standards) time after time states that it is satisfactory to leave deficient vertical curves, deficient horizontal curves, and deficient bridges in place if signing is placed at those locations . . . . Signing is not an adequate substitute for safety or for adequate design."
- "The Interstate freeway system would not have the outstanding safety record it has today if adequate shoulders were not provided. Yet this section is advocating the use of shoulders as small as two feet regardless of number of lanes and volume and speed of traffic. This is totally incomprehensible in light of today's state of knowledge."
- "On 'superelevation' (banking) it is advocated that the present design practice be modified from the use of normal design speed values, which is 85 percentile speed, to a new design practice based not on

## ***Questions Are Raised Over AASHTO Policy Role***

Concern over the FHWA's proposed adoption of AASHTO design standards for federal-aid R-R-R projects has focused attention on the relationship of the federal agency and the organization of state highway officials.

"I am not convinced that our close relationship on the committee structure of AASHTO is in the overall public interest," Howard L. Anderson, FHWA associate administrator for safety, observed in docket comments. "We have a regulatory relationship with the state highway organizations. It certainly would not be in the public interest to have the Bureau of Motor Carrier Safety personnel act as members or secretaries to committees of the American Trucking Association, Inc., nor on the Teamster committee structure. Certainly the Interstate Commerce Commission should not be on those associations either. How does AASHTO differ?"

"It would be my recommendation that FHWA withdraw as members or secretaries from *all* committees of AASHTO and that we become no more than interested observers. Our role as regulators, in my opinion, demands it."

### **DEPARTMENTS LARGELY 'SELF-REGULATED'**

The Center for Auto Safety (CAS) has been even more blunt in its criticism. Sally Free of the CAS staff recently testified before the Subcommittee on Surface Transportation of the House Public Works Committee, "Instead of independently establishing design criteria, FHWA simply adopts AASHTO design policies. This presents a rather disturbing situation, since the state highway departments as a result remain largely 'self-regulated,' writing standards through their 'trade' association. These standards are far from optimal — much of the time the needs and safety of the driver are largely neglected in favor of wording that is excessively protective of the highway officials and departments because they fear that explicit standards will be used against them in liability suits."

The relationship of FHWA and AASHTO already has been questioned in the courts in the CAS suit on Certification Acceptance (see Page 7). CAS has argued in that suit that FHWA's extensive consultation with AASHTO during preparation of the Certification Acceptance rules and prior to their publication violated federal laws on so-called "advisory committees" and their relationship to government agencies. The U.S. District Court for the District of Columbia agreed with the CAS position and ordered that all future meetings between Department of Transportation officials and AASHTO be open to the public.

That decision has been appealed to the U.S. Court of Appeals, and in an appeals court brief CAS has argued that, since the beginning of the federal-aid highway program in 1916, AASHTO has played a central role in developing all highway design standards, has strongly influenced federal highway legislation and funding authorizations, and has helped formulate federal highway program policy and regulations.

design speed but rather on running speed, which is average speed. This concept automatically assumes that about 50 percent of the traveling public is expendable.”

- “There is no reference in the proposed standard to the types of surface required to achieve even a reasonable degree of safety at the reduced superelevation recommended. Skidding is a serious accident causation that will be increased many fold by this standard.”

- “Consistency in design standards is the heart of safe standards. A 12-14 foot bridge on a 30-foot highway improvement project does not meet these criteria. To approve a standard as poor as this would assure the construction of projects that will increase fatalities and accidents – but it may relieve tort liability on the part of engineers.”

- “A worrisome possibility of the R-R-R adoption proposal is that all standards may be compromised at once, compounding geometrically the accident problems. A one-lane bridge, at the end of a steep downgrade, around a sharp curve, on a narrow highway with no superelevation can remain in place with full FHWA blessing under this proposal.”

#### ‘AN ACT OF MORAL BANKRUPTCY’

In a docket filing, James J. Stapleton, FHWA assistant chief counsel for motor carrier and highway safety law, also was critical of several of the proposed R-R-R design standards, including reduced superelevation, reduced lane and shoulder widths, and substitution of signing for adequate geometric design. He too saw liability as a key issue. “The adoption of lower safety standards in a misguided attempt to minimize exposure to tort liability,” he commented, “when the states know or should know that the reduced level of safety will result in increasing deaths and injuries on our highways, would be an act of moral bankruptcy to which FHWA should not be a party.”

Trying to avoid tort liability in this fashion might backfire, Stapleton warned. If the proposed standards are adopted for R-R-R projects, he said, “I believe there is a good likelihood that courts would find the Federal Government, as well as the state, liable for injuries or deaths resulting from failure to correct highway hazards in accordance with current state of the art in highway safety.”

Robert A. Kaye, director of FHWA’s Bureau of Motor Carrier Safety, termed the proposed standards “not acceptable” in a docket filing and commented, “it appears that by adopting their guideline, it is in effect lowering some of the standards that may be critical at a particular location without justification for lowering the standard to which it was originally built.”

Kaye also expressed concern over narrower lanes and shoulders and substandard bridges, and explained, “Superelevation is critical for motor carrier vehicles in the transportation of bulk liquids, swinging meats, and other commodities with high center of gravity or subject to surge. The tremendous differences in superelevation rates are not conducive to safety to meet existing traffic needs, let alone future traffic requirements.”

#### ***Quoted Without Comment***

“President Carter asks: ‘Why not the best?’ I hope the FHWA response with regard to R-R-R standards will not be: ‘Why not the least?’ ”

*James J. Stapleton, FHWA assistant chief counsel for motor carrier and highway safety law, in a letter to the FHWA docket*

The following editorial is reprinted with permission from *The New York Times*, Nov. 22, 1977:

## Paving the Way for Accidents

Traffic safety groups are on a collision course with state highway officials over an issue that could affect virtually every motorist: the design standards to be required when highways (other than freeways) are rehabilitated or resurfaced with Federal aid. The safety groups fear that the proposals of the American Association of State Highway and Transportation Officials could allow some weakening of highway safety features, thus adding to the carnage on the nation's roads. Their concerns are justified.

The dispute arose after Congress, at the pleading of financially pressed states, expanded the scope of Federal aid. Money that had been available only for new construction or major rebuilding under Federal standards is now available as well for "resurfacing, restoration and rehabilitation." State officials fear that Federal safety standards would limit their flexibility in using the newly offered funds. So they have drawn up their own standards and now seek their approval by the Federal Highway Administration. These standards would in fact allow them to leave a rebuilt road less safe than it had been. They

would allow traffic lanes to be nine feet wide—only six inches wider than the narrowest buses. Shoulders could be as narrow as two feet. And the offered standard for "banking" on curves would be so lax, some experts say, that vehicles might actually be propelled off the road.

The state officials insist that they have no intention of diminishing the quality of existing roadways; they say they want only to avoid costly upgrading. But no one seems to know how much money would be saved by allowing highways to meet the proposed standards instead of the higher ones. Nor are there reliable estimates of how the accident rate might be affected. The National Transportation Safety Board asserts: "The proposed standards will increase hazards and accidents."

Any change in the existing standards, therefore, should be grudging. At a minimum, there should be no lowering of the safety features of existing highways. It would be wise, also, to require the upgrading of roads with high accident rates. Otherwise, the Federal Government will be paving roads, not with its good intentions, but with still more wrecked vehicles.

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## Court Orders 'Reconsideration' Of CA Application

A Federal District Court has ordered the Federal Highway Administration (FHWA) to undertake "a full and complete reconsideration of (its 1974) conclusion that . . . the state of Georgia had the capability" under FHWA's Certification Acceptance program "to ensure enforcement of its highway laws and standards."

The order is the latest development in the suit by the Center for Auto Safety challenging FHWA's implementation of the program which permits states to carry out federally funded highway projects under their own laws and standards, as long as the state standards "will accomplish the policies and objectives" of federal highway law. (See *Status Report*, Vol. 11, No. 5, March 19, 1976.) The suit charges that the Certification Acceptance (CA) regulations were promulgated without proper public participation, that they did not set forth adequate criteria for judging an applicant state's eligibility, and that Georgia had not demonstrated a capability to manage its federal-aid highway program properly under the plan.

The court's order gave FHWA specific criteria that must be addressed in the agency's reconsideration of Georgia's CA application, including the state's "past performance, on highways built with and without direct federal supervision;" the state's "present and projected financial resources; the number and qualification of (its highway) personnel; the training opportunities provided for (its highway) personnel; and whether an adequate mechanism to assure that advances in highway technology are quickly incorporated into (Georgia's) standard plans and operation." FHWA was further ordered to submit to the court "a clear articulation of the underlying reasons for its conclusion" resulting from such a reconsideration.

Earlier this year, the same court ordered FHWA to explain "the precise basis" for its 1974 conclusion that Georgia had the capability to enforce its highway standards. The agency's response to that order was, in the opinion of the court, "wholly inadequate." For that reason, the court said, FHWA must now re-evaluate Georgia's 1974 CA application, using the criteria described in the latest court order.

The case is *Center for Auto Safety v. Tiemann*, U.S. District Court for the District of Columbia, No. 74-1992.

## Pennsylvania Study Endorses Helmet Law

Motorcycle helmets are effective safety devices with no proven adverse effects to the users, Pennsylvania's Highway Safety Group has concluded after an exhaustive analysis of the question. The findings were included in a report requested by the state Governor's Traffic Safety Council.

The council has been concerned over efforts in both houses of the Pennsylvania legislature to repeal the state's mandatory helmet law, following a trend set in other states. (See *Status Report*, Vol. 12, No. 15, Oct. 13, 1977.) The group's report suggests, "If a determination to retain or repeal Pennsylvania's helmet use law is based only on facts, it appears that the logical conclusion is to retain the law in order to reduce accident costs to the public as a whole."

Based on the analysis, the safety group reported, "it becomes apparent that many of the issues raised and claims made are designed to appeal more to emotion than logic. That the need for protecting one's head and that helmets can provide a large measure of protection cannot be realistically questioned. There are no *facts* to dispute this."

### MAJORITY AGREES HELMETS EFFECTIVE

An overwhelming majority of Pennsylvanians (92 percent) agrees on the helmet's effectiveness, the researchers found, and even 79 percent of the state's motorcyclists accept this view. State surveys also revealed that 87 percent of the general public and 55 percent of the motorcyclists believe the government should require mandatory use of helmets.

Among other findings, the Highway Safety Group reported:

- Effects of Mandatory Helmet Use Laws – "There is no *conclusive* proof that enactment of a mandatory helmet use law will significantly reduce motorcycle fatalities and serious injuries although all available evidence is highly suggestive that this has occurred when the law has been enforced." (The Insurance Institute for Highway Safety studied effect of helmet use laws in eight states in 1975 and found the average fatal involvement rate declined from more than 10 per 10,000 registered motorcycles the year before the law's enactment to about 7 per 10,000 registered motorcycles, both in the years of enactment and the following years. See *Status Report*, Vol. 10, No. 18, Nov. 5, 1975.)
- Constitutionality of the Helmet Use Law – Both U.S. and Pennsylvania court decisions indicate that the mandatory use law is "constitutionally sound, particularly in Pennsylvania."
- Societal Costs – "Serious head injuries require medical expenditures of a magnitude beyond the personal resources of almost all motorcyclists and require significant extra expenditures by society in general through increased hospital and insurance costs and public expenditures for support and rehabilitation. The lack of no-fault insurance for motorcyclists probably increases these societal costs."
- Discrimination of Helmet Laws – Motorcyclists are treated differently but, "This differential treatment does not appear to be discriminatory, however, as there are sufficient accident data and experiences to indicate that a particularly high-risk situation exists in motorcycling which requires greater than normal efforts at self-protection."

The study, "Analysis of the Mandatory Motorcycle Helmet Issue," was prepared by Harry Balmer, Jr., of the Highway Safety Group, a Pennsylvania agency, at the direction of the Governor's Traffic Safety Council.



## Studies Measure Drug, Alcohol Effects On Driving

Studies at the Southern California Research Institute have shown that moderate doses of two commonly used drugs, a tranquilizer and an antihistamine, impair skills needed for driving and, when taken in combination with alcohol, produce even greater impairment.

Dr. Herbert A. Moskowitz, professor of psychology at California State University at Los Angeles, has made preliminary reports on studies of the effects of both diazepam (Valium), a tranquilizer, and diphenhydramine hydrochloride (Benadryl), an antihistamine. The studies are two of a series sponsored by the Insurance Institute for Highway Safety to examine the effects of typical dosages of commonly used drugs, both in combination with alcohol and by themselves, upon driving-related behavior.

The studies have significance for the general public in that they deal with doses usually prescribed of two of the most widely-used drugs and their effects in combination with moderate intakes of alcohol, equal roughly to two drinks.

### MORE STUDIES ARE INDICATED

In a report to the September meeting of the American Association for Automotive Medicine, Moskowitz said of diazepam, "The results . . . clearly suggest that this CNS depressant, used alone or in combination with alcohol, will impair driving performance. It would appear important that other members of the class of minor tranquilizers be evaluated for possible dangers in driving, industrial or recreational situations."

Moskowitz made a preliminary report on the diphenhydramine studies recently to the Food and Drug Administration (FDA) docket as testimony on a drug application. Interpretation of the test data, he said, "clearly indicates that on tracking, reaction time and ability to recognize a response to potential dangers there is a significant decrement due to diphenhydramine." A full report is expected to be published soon.

Twelve male test subjects were used in each of the studies, and they were given various combinations of the specific drug, alcoholic beverages and placebos under controlled laboratory conditions. In the diazepam experiments, the doses for a participant of average weight consisted of five milligrams of the tranquilizer and four ounces of 86-proof alcoholic beverage. For the diphenhydramine study the doses were 50 milligrams of the drug and four ounces of 86-proof alcohol. (Cont'd on Page 10)

## APHA Applauds Action On Passive Restraints

A recent resolution of the Governing Council of the American Public Health Association endorses Transportation Secretary Brock Adams' decision to require passive restraints in all new automobiles by the 1984-model year, and commends Congress for supporting the decision. (See *Status Report*, Vol. 12, No. 16, Nov. 8, 1977.) The resolution directs the association staff "to monitor any future attempts to overturn the Secretary's decision and to give continued support for the passive restraint standard."

The association points out that 10,000 of the annual motor vehicle deaths and "a substantial proportion" of the injuries "could be prevented if cars were equipped with air bags or other similarly effective passive restraints," and that the effectiveness of seat belts is severely limited by the low number of motorists who utilize them.

## VARIETY OF SKILLS TESTED

A battery of tests for the studies included a tracking task, a tracking task and a visual search task performed simultaneously, a test of information processing rate, and an examination of eye movements while performing the visual search task.

The aspects of behavior studied by the tests “are known to be important elements in the production of accidents,” Moskowitz commented to the FDA. “Attention and decision-making factors are the most important of the human factors which are the cause of accidents,” he observed. “. . . Accordingly, the study . . . clearly indicates that important variables, known to affect the production of automobile accidents, are adversely affected by diphenhydramine hydrochloride alone and in combination with alcohol.”

## UPDATE . . .

**MOPED STANDARDS:** In a move to bring more uniformity to state regulation of mopeds, the Vehicle Equipment Safety Commission (VESC) this month is publishing a set of minimum requirements for construction and equipment of the small vehicles. Like the federal government, VESC classifies mopeds as “motor driven cycles” and the regulations incorporate portions of the federal motor vehicle safety standards applying to motorcycles. In addition, they deal with areas not covered by federal standards, such as wheels, steering systems, seats, horns and maximum vehicle size. A hearing on the proposed standards was held last May. (See *Status Report*, Vol. 12, No. 5, March 15, 1977.) The proposed standards were adopted with only minor changes.

The VESC is a compact consisting of 43 states and the District of Columbia. Several of the member states can adopt VESC standards by administrative action and in others the regulations serve as models for legislation.

## In A Crash, Moped Hazards Same As Motorcycles?

Moped drivers are less likely to be in a crash than motorcyclists, but when they are, their risk of injury is almost identical, a German engineer recently reported to the 21st Stapp Car Crash Conference in New Orleans. The report by Klaus Langwieder of the department of automotive engineering, Association of German Automobile Insurers, was based on a detailed study of collision characteristics of motorcycles and mopeds.

“The lower speed of mopeds does not lead to a reduction in injury risk in a collision,” said Langwieder, “consequently the same safety criteria, especially the wearing of helmets, must be postulated for both motorcyclists and moped drivers.”

The injury risk for the driver of a motorized two-wheeler in a crash is at least 10 to 15 times higher than for car passengers, the researcher explained. He found that 34 percent of the motorcyclists/moped drivers in crashes sustained head injuries and 60 percent had injuries to the legs. He suggested more attention

be given to eliminating protrusions on automobile bodies that might pose hazards to cyclists – and pedestrians – in crash situations.

Langwieder was emphatic in calling for mandatory use of helmets by cyclists. He observed, “The present analysis also shows that the risk of serious head injuries is double, and of critical and fatal injuries three times as high for drivers without helmets than for drivers wearing helmets. . . . An extension of the regulations governing the compulsory wearing of helmets for motorcyclists *and* moped drivers therefore constitutes a major safety demand.”

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# Status Report

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