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PRELIMINARY REVISED  
REPORT OF COMMITTEE ON  
**EDUCATION**

*The President's* HIGHWAY  
SAFETY CONFERENCE

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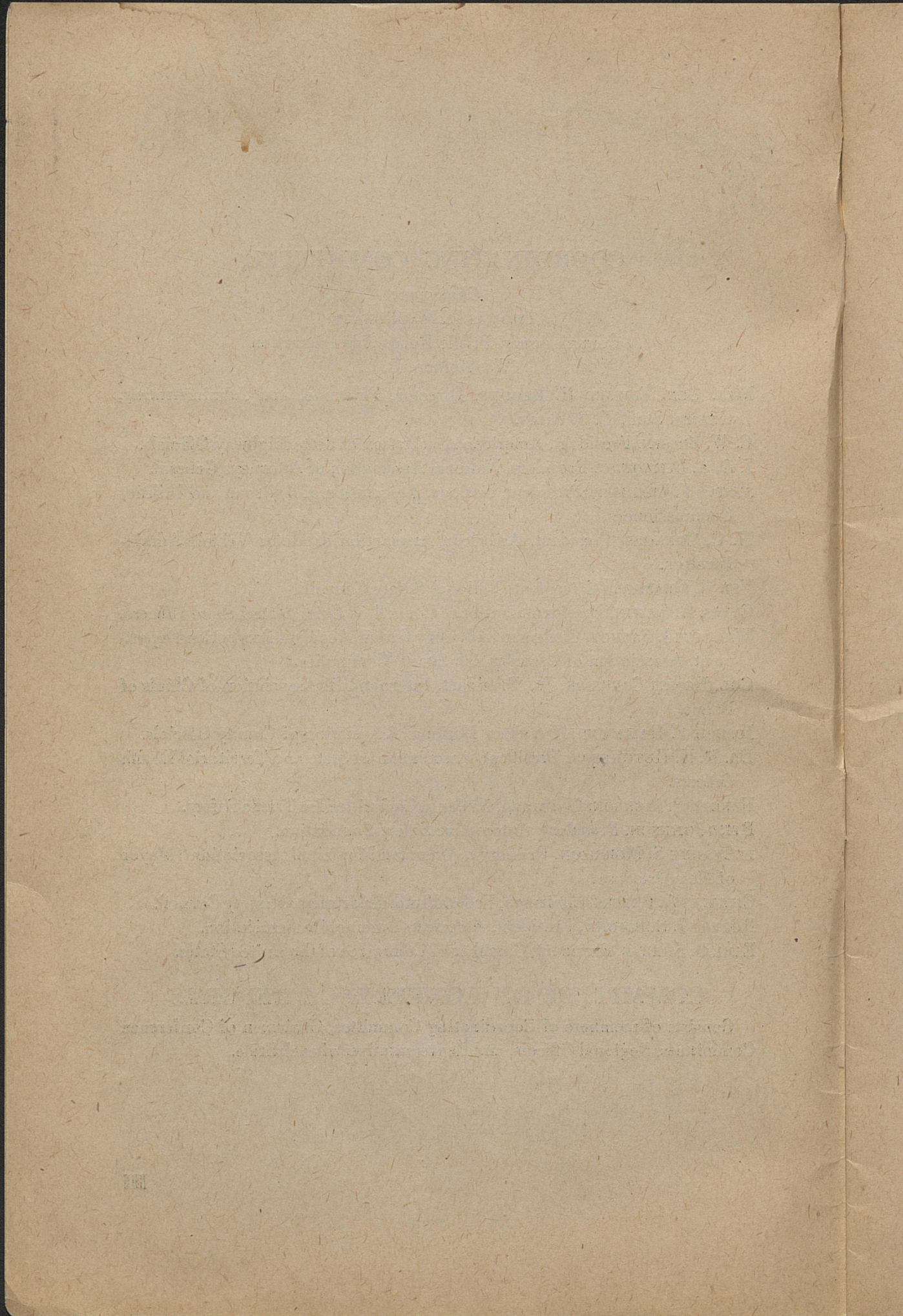
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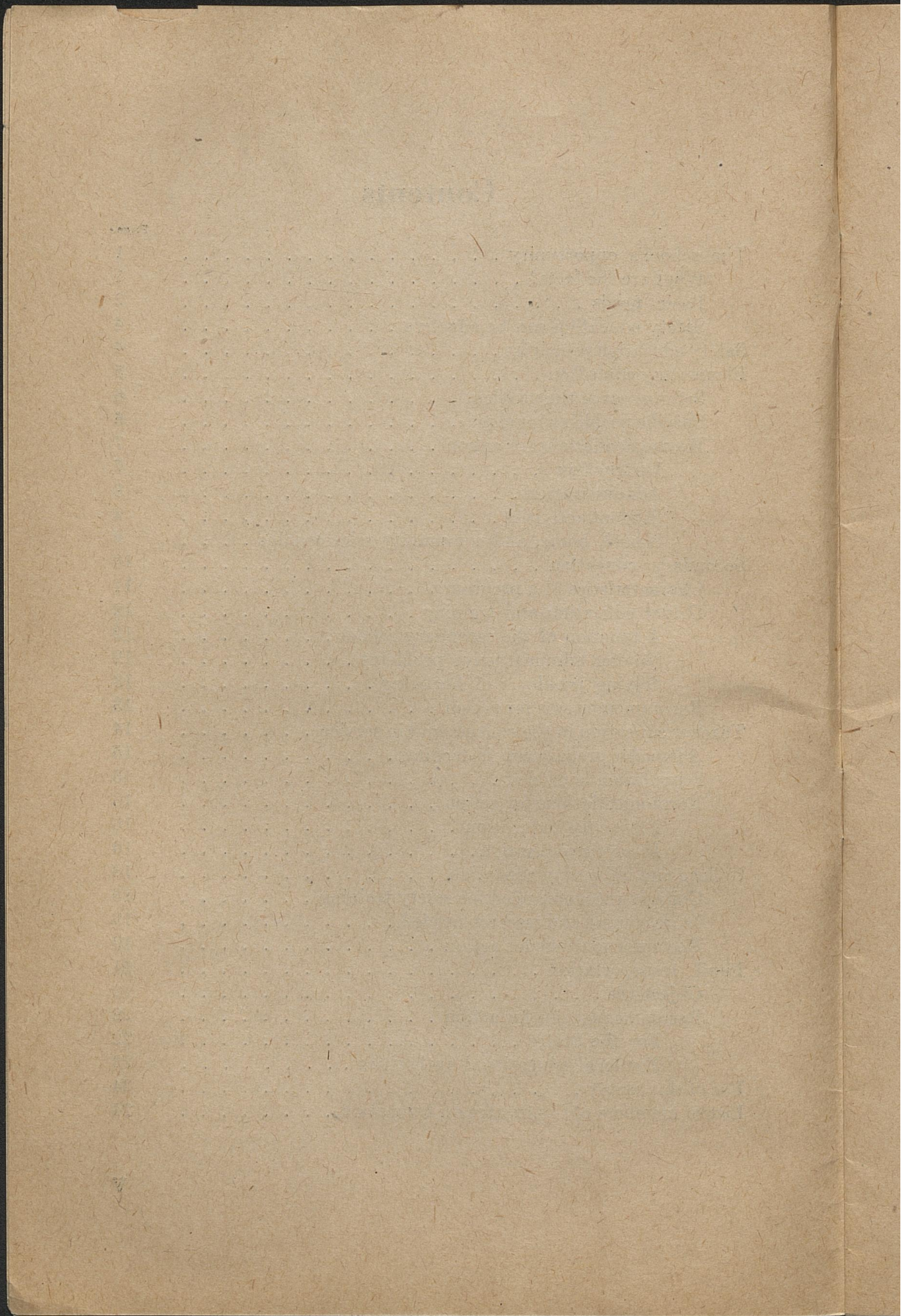
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# *Report of Committee on* **Education**

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## **THE SCHOOL'S OPPORTUNITY**

In the more than 30 million young people enrolled in the schools of the Nation lies our greatest hope for a solution of the mounting traffic problem. Their minds are receptive to new ideas. They are at an age when habits and skills can successfully be established. Attitudes developed during these early years will influence their behavior through life.

These young people represent one large united body. They are "reachable." They should be given guidance in accident prevention. As educators, it is our job to assist in equipping them fully. For upon their ability to shoulder their responsibilities involving traffic will depend the success or failure of traffic-accident prevention for years to come.

The need of these young people presents the school with a challenging opportunity. In 1947 almost 20,000 persons in the United States between the ages of 5 and 24 were killed in all kinds of accidents, and tens of thousands were injured.<sup>1</sup> Efficient preventive measures adopted now can help to reduce these losses. The schools reach, under controlled conditions, the largest number of persons in this age group. They can do more to reduce these tragic figures than any other agency. The schools, with their long record of achievement, have here a cause commensurate with their fullest capacities, the conservation of human life. The time is now! The schools of America will respond.

### ***What Are the Facts?***

Traffic accidents in the United States cause more deaths than any other type of accident. In 1947 they resulted in 32,000 persons killed and over 1,000,000 injured.

Among school-age groups 5 to 24 years of age, traffic accidents

<sup>1</sup> Statistical information in this report is from 1948 *Accident Facts*, National Safety Council, unless otherwise noted.

cause as many fatalities and injuries as all other types of accidents combined. (See table 1.)

Fifty percent of the accidental deaths among the 5 to 24 age group result from traffic accidents.

Pedestrians comprise 53 percent of the traffic fatalities in the 5-to-14 age group, and 10 percent in the 15-to-24 age group. Table 2 shows pedestrian actions resulting in traffic accidents in 1947.

Accidents are the fourth leading cause of death in the United States. In 1947 there were 100,000 accidental deaths and 10,000,000 injuries.

In the 5-to-9 age group, accidents are the *chief cause of death*, and are responsible for one-third of all deaths for this group.<sup>2</sup>

Among children 5 to 9 years of age, accidents cause five times as many deaths as pneumonia, second ranking cause of death for this age group.<sup>2</sup>

Among children 10 to 14, accidents cause five times as many deaths as heart disease, second ranking cause of death for this age group.<sup>2</sup>

Among children 15 to 19, accidents cause three times as many deaths as tuberculosis, second ranking cause of death for this age group.<sup>2</sup>

TABLE 1.—Accidental deaths by age groups and type, 1946

Age	Motor vehicle	Falls	All burns	Drownings	Railroad	Firearms	Poison gases	Poison (except gas)	Totals
0-4.....	1,568	440	1,730	700	96	116	550	70	7,949
5-14.....	2,508	420	910	1,250	209	621	60	50	6,545
15-24.....	7,445	930	800	1,570	695	793	110	220	13,366

Data from *Accident Facts*, 1948, p. 13.

### Basic Needs

Current traffic accident statistics point to a critical need for a more effective safety education program in schools and colleges. Moreover, there is every indication that the traffic safety problem will become increasingly critical in the months and years ahead. It is expected that the next few years will witness a considerable increase in the number of cars on the streets and highways.

Essentials for an effective program are: (1) A serious consideration of the traffic safety problem leading to action by organized education from the elementary through the university level; (2) safety-conscious administrators who will exercise leadership in defining and placing responsibility for the safety program of their school systems and institutions; (3) trained teachers; (4) well-organized and planned instructional programs; (5) an adequate accident reporting system; (6) a plan for evaluating program results; and (7) broadly based community support of the entire traffic safety education effort.

<sup>2</sup> *United States Summary of Vital Statistics, 1946*, National Office of Vital Statistics, Federal Security Agency.



TABLE 2.—Pedestrian actions, motor vehicle traffic accidents, 1947

Actions	Killed			Injured			Details for killed and injured (20 States)												
	Total (29 States)	Urban (296 Cities)	Rural (12 States)	Total (28 States)	Urban (296 Cities)	Rural (12 States)	Age						Sex		Light conditions				
							0-4	5-14	15-24	25-44	45-64	65 and over	Male	Female	Day	Dusk	Night		
							Per- cent 100	Per- cent 100	Per- cent 100	Per- cent 100	Per- cent 100	Per- cent 100	Per- cent 100	Per- cent 100	Per- cent 100	Per- cent 100	Per- cent 100	Per- cent 100	Per- cent 100
Total pedestrians.....	23	40	10	32	43	10	11	18	35	42	46	48	31	36	27	37	36		
Crossing at intersection.....	2	6	(*)	6	12	(*)	1	2	6	9	11	10	5	8	5	4	5		
With signal.....	5	5	1	10	7	1	3	6	15	16	15	14	5	5	4	4	6		
Against signal.....	15	25	8	15	22	8	6	9	12	16	18	21	18	20	15	25	23		
No signal.....	3	5	1	3	2	1	1	1	2	2	3	5	5	5	3	3	4		
Diagonally.....	37	38	37	29	31	33	31	31	28	29	31	32	28	28	30	25	31		
Crossing between intersections.....	8	6	7	13	10	12	17	16	7	6	6	6	14	15	17	13	9		
Coming from behind parked cars.....	14	6	25	3	4	19	1	2	8	4	5	5	7	6	4	7	11		
Walking in roadway.....	1	1	(*)	1	1	1	(*)	(*)	1	1	1	1	1	1	1	1	2		
With traffic—walks available.....	8	16	1	12	1	1	1	1	5	2	3	3	4	5	2	5	5		
With traffic—no sidewalks.....	1	1	(*)	1	(*)	1	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)		
Against traffic—walks available.....	4	8	1	5	1	5	2	1	1	1	1	1	2	2	1	1	5		
Against traffic—no sidewalks.....	1	1	(*)	1	(*)	1	(*)	(*)	2	2	2	1	2	1	2	2	3		
Standing in safety zone.....	(*)	(*)	(*)	1	1	(*)	(*)	(*)	2	2	2	1	2	1	2	2	1		
Getting on or off street car.....	1	1	(*)	1	1	(*)	(*)	(*)	1	1	1	1	1	1	1	1	1		
Getting on or off other vehicles.....	4	1	7	3	1	6	(*)	(*)	5	5	3	2	4	1	2	2	3		
Working in roadway**.....	6	2	3	12	5	7	32	29	5	(*)	(*)	(*)	6	6	12	8	2		
Playing in roadway.....	1	1	(*)	1	(*)	(*)	1	1	2	1	(*)	(*)	(*)	(*)	1	(*)	(*)		
Hitching on vehicle.....	1	1	(*)	(*)	(*)	(*)	1	1	1	(*)	(*)	(*)	1	(*)	1	(*)	1		
Lying in roadway.....	1	1	(*)	(*)	(*)	(*)	1	1	1	(*)	(*)	(*)	1	(*)	1	(*)	1		
Not in roadway.....	4	3	3	4	3	6	6	2	5	5	4	4	3	4	3	3	2		

\* Less than half of 1 percent.  
 \*\* Certain State reports which show more detail indicate that about half of all persons injured while working in the roadway were pushing or working on vehicles.  
 Data from *Accident Facts*, 1948, p. 63.

Source: Reports of State and city traffic authorities. In some instances the number of accidents indicated by the urban percentage and by the rural percentage do not add to a total equivalent to the "total" percentage shown. Where this occurs it is because either the urban or rural data are not exactly representative.

## ***Safety Education Can be Effective***

The lives of 280,000 children were saved during the first 25 years of the organized safety movement, according to National Safety Council estimates.

In the period from 1930 to 1940, when traffic accidents to adults steadily increased, such accidents among elementary school children markedly declined. This resulted in an estimated saving of 26,000 child lives and the prevention of several hundred thousand nonfatal injuries to children.

While the 5-to-14 year age group was showing a 27 percent decrease in the motor-vehicle death rate from 1922, the beginning of the organized safety movement, to 1947, the rate in the 15-to-24 age group, which includes the majority of secondary school students, increased 181 percent. This indicates that a major portion of the traffic accident problem on the secondary and college level can be solved by a well-organized program of driver instruction. In a recent Nation-wide survey reaching thousands of people throughout the entire country, the Opinion Research Corporation learned that "60 percent of the people (polled) say they think 'students in high schools should be given lessons in actually driving a car'."

### **SAFETY EDUCATION PRINCIPLES**

Safety is an essential element in man's adjustment to his environment. It is necessary for survival. It involves foresight and interplay of skills, cautions, attitudes, and efficiencies which enable the individual to meet life's demands for safe living.

Education for safety is an essential part of the modern school's program for producing good citizens. Accidents are preventable, and experience shows that a program of education is one of the more effective methods of achieving safety.

The committee wishes to present the following guiding principles<sup>3</sup> for the organization and administration of safety education:

1. The school has an essential function to perform in regard to safety education:

Systematic instruction in all aspects of safety is the direct responsibility of the school.

Teaching youth to be safe and intelligent operators of motor cars is a joint responsibility of the school and the community.

Leadership in adult education, which is primarily a responsibility of the community and the State, should be furnished by the school.

<sup>3</sup> These principles are adapted from *Safety Education*, 18th yearbook of the American Association of School Administrators, and from *Safety Education for Teachers*, prepared by the American Association of Teachers Colleges and the National Commission on Safety Education of the National Education Association.

Determination of the character and extent of the school safety program, and the selection of teaching methods to be used, are professional responsibilities of educators.

Safety education programs should be based on school and community needs.

Safety education programs should be a cooperative enterprise, with the school and the community working together to prevent accidents.

2. Responsibility for the school safety program should be centered in one executive head, implemented by :

Definite arrangement for adequate financing.

Delegation of specific responsibilities to school personnel.

Safety coordination in an individual school program or school system.

Safety councils or committees as liaison between school and community.

3. The safety education program requires careful planning on such matters as :

Definition of educational objectives.

Determination of program to meet environmental conditions and students' needs.

Development of instructional program.

In-service education of teachers.

Coordination of safety activities with other agencies of the community.

Maintenance of safe buildings, grounds, and equipment.

Development of an accident record system.

Evaluation of the program through research and experience.

These principles should be applied to each of the following sections of this report.

## ELEMENTARY EDUCATION

The elementary school child is exposed to many traffic hazards. He travels to and from school and to recreational activities, runs errands, and attends church and community gatherings. He is beginning to roller skate, ride a bicycle and coast a wagon, and to experience the thrills, adventure, and independence of determining his own course of action. To carry out these activities safely, he should acquire a knowledge of rules of the road and traffic signs and signals which will enable him to evaluate and appreciate reasons for safe conduct at all times. He should develop habits and skills of safe action, many of which will operate instinctively for his safety. As a walker on the streets and highways and as a rider in the family car and in public

vehicles, he should learn to respect the rights and privileges of others and to conduct himself in a manner which will prevent accidents.

### ***Seriousness of the Problem***

The need for traffic safety education is emphasized by the fact that accidents are the first ranking cause of death among young people. Each year almost 4,000 boys and girls between the ages of 1 and 14 die from traffic accidents. In the 1-to-4 year age group, traffic accidents account for 28 percent of all accidental deaths; in the 5-to-14 year age group, 38 percent.<sup>4</sup>

These deaths represent a tragic loss to families, to communities, and to the Nation. Equally critical is the large number of children and youths seriously injured in traffic who must go through life with such physical, emotional, and psychological limitations as loss of limb or sight, disfiguring scars, or some type of paralysis.

### ***Specific Problems Involved***

Progress is being made in the education of children for safe living. This is shown by the year-to-year reduction in accidents to children of elementary-school age. Evidence of effective traffic safety instruction is observed in many schools and through the examination of State and local curriculum guides. However, the accident problem still exists, and there are many schools which need to give more careful consideration to developing programs to meet this problem.

The school should initiate practical instruction to help the child meet competently the various traffic situations he encounters. For example, at the beginning of his school life, he should learn the safest route between his home and school, his name and address, where to play, and to share with others the use of sidewalks and highways. In not providing such instruction, the schools are failing to give attention to a need which is as important as the teaching of reading, writing, and arithmetic.

In planning a traffic safety program, consideration must be given to the physiological, psychological, and emotional make-up of pupils of elementary school age. It is characteristic of this group that they lack experience in crossing the street alone, in judging speeds and distances of cars, and in understanding traffic signs and signals which would enable them to evaluate each situation correctly. The average child constantly meets new situations, is sometimes confused, desires to reach his goal too quickly, and is tremendously interested in the activity of the moment. He may suffer from faulty hearing or vision, or improper neuromuscular coordination.

<sup>4</sup> These figures obtained from *United States Summary of Vital Statistics, 1946*, National Office of Vital Statistics, Federal Security Agency.

He may be one of the severely handicapped for whom special aid, including special consideration in safety, is recommended. In addition, such factors as fatigue, worry, extreme anger, grief, or joy; rebelliousness, adventurousness; or lack of intelligence may contribute to traffic accidents and should be considered in the safety program. The child may be one who has been retarded or who has been brought back—over-aged—by an attendance law, one who may not attend high school and whose imminent vocational activities may include driving a vehicle.

In some situations also, authorities do not consider environment in relation to the pupils' safety. These are examples of oversights which may lead to traffic accidents: failure to provide bicycle racks or adequate space for parking, to designate an area for school busses, to plan for fire drills, to provide fenced space for playgrounds, to control traffic on the streets and highways children must cross, to consider location of new schools in relation to traffic, to provide special facilities such as handrails or bus seat straps for crippled children, or to provide supervision of school or bus patrols.

### ***Recommendations for Action***

#### ***Instruction***

1. State departments of education and local school systems should prepare or revise courses of study or guides in safety for elementary schools with sufficient stress on traffic problems.

These helps should be adaptable to the needs of each community by including outlines and objectives for different age groups and different subjects, illustrative units of work, and sources of subject matter.

A course or guide should provide techniques for study of accident reports, outline means of surveying transportation facilities, highways, and sidewalks, state principles for selection of content, and indicate methods of evaluating the program.

Appropriate stress should be placed on traffic safety education as it may be integrated into practically all subjects in the elementary curriculum.

The material should be positive and preventive in its approach and based on age level and learning skills of the pupils. It should serve as a guide toward making the individual conscious of traffic safety.

Information should be included on State laws governing traffic and how to obtain information on highway regulations of the community. Emphasis should be placed on the protective features, what they involve, and their relationship to each other.

2. Day-by-day instruction should be based on immediate needs and local situations.

The school through planning and coordination of activities provides practical experiences in safe living. For example, such experiences as riding the school bus, traffic in the corridor, and use of bicycles afford opportunities for teaching traffic safety.

Instruction given in the field of traffic safety should encourage the learner to probe for cause and effect. If a child is struck by a bicycle, the cause of the accident should be determined in order to prevent similar accidents.

Topics should be presented repeatedly with emphasis on the needs of particular groups. Monotony should be avoided by varying the method of presentation and by adapting the content to the activities and interests of pupils at each level.

The type of traffic safety instruction should be determined by (a) the needs of the community and (b) the age, sex, mental readiness, and needs of the children, such as the present need for training in habits or skills, information, or attitudes.

3. Situations should be set up which afford individual practice in meeting those problems most likely to be encountered.

Adequate time should be provided for the establishment of skillful habits in meeting various situations involving traffic. Emphasis should be placed on oral instruction, group discussion, graphic presentation, and practice under actual conditions. Programs should be provided that will influence children to become interested in protecting others against accidents.

4. The instructional program should include use of vicarious experiences.

Opportunities should be provided for boys and girls in the early elementary level to watch people as they cross the street, drive a car, and participate in highway safety activities. The pupils should also be given the opportunity to dramatize and pantomime traffic situations.

Traffic safety education may be presented through pictorial and graphic means, such as films, maps, diagrams, and blueprints. Each child may chart his routes to and from school, to community gatherings, and the like. Reading and dramatizations are other suggested activities.

### ***Administration***

5. The school administration should assume the responsibility for establishing a safe environment.

Provision should be made for safe loading and unloading zones, bicycle paths and racks, properly fenced or guarded playing fields if near a main thoroughfare, no-parking zones adjacent to school grounds, adequate space for children during fire drills, and special precautions and facilities for the handicapped.

Consideration should be given to the selection of new school sites away from heavy traffic areas.

### ***Student Activities***

6. Group activities emphasizing traffic safety should be encouraged.

Safety lends itself to group activity. Pupil clubs and group activities have a recognized function in our schools today—conserving life through prevention of accidents and elimination of dangerous practices, making attractive the idea of thoughtfulness for others, and influencing proper behavior.

Such groups as nature study clubs, day camps, hiking clubs, bicycle clubs, excursion groups, and others, even though they are not organized primarily for traffic safety, can contribute to the program.

7. School safety patrols should be established where traffic surveys indicate a need.

Although assistance in establishing, maintaining, and training patrols is often given by organizations outside the educational field, the patrol is primarily an educational function and as such is a responsibility of school officials.

In communities which do not have patrols and where traffic conditions warrant, steps should be taken to organize them in accordance with "Standard Rules for the Operation of School Safety Patrols."

8. Where feasible and needed, Junior Safety Councils or similar organizations should be established.

The purpose of the Junior Safety Council is to create interest in school safety, to provide an opportunity for group activities, and to give pupils experience through contact with adult safety groups, whereby, through democratic procedures and life situations in the school, pupils learn to make decisions for themselves.

9. Consideration should be given to publicity outlets such as school newspapers, posters, and essays, to develop an awareness of the need for traffic safety among pupils.

### ***School, Home and Community Relationships***

10. A definite program should be established for coordinating the work of school, home, and community.

Support of parent-teacher and home-school groups should be enlisted to recognize the need for protection, guidance, and control of pupils who are learning how to use streets and highways.

A concept of safety for young children should be jointly developed, understood, and practiced in the school and home.

The public should support a program which will enable schools to teach children to live safely in a rapid-transportation era.

The community should provide police control or traffic lights at busy intersections which the children use.

11. Wherever and whenever possible, the work of the school, home, and community should be coordinated by having properly qualified supervisory personnel.

Communities have found that the appointment of supervisors of safety education or the designation of committees of teachers and administrators have helped to make safety activities continuously vital.

## SECONDARY EDUCATION

Youth's record of traffic deaths and injuries and traffic-law violations offers the secondary school a real challenge in training individuals to accept in fullest measure the responsibilities of living in a motorized era. On the basis of miles driven, teen-age drivers have the highest accident rate. From 1922 to 1947, according to available information, the 15- to 24-year-olds showed an increase in traffic deaths of 181 percent, the highest of any age group. Yet this group is receptive to instruction and has quick reflexes and great capacity for developing skills. It has potentially the best drivers. Proper training can make them so.

During this period when traffic deaths were on the increase among secondary school youth, traffic deaths among children aged 5 to 14 showed a marked decrease. Since most of these children are in the elementary schools, it can be assumed that the reduction in traffic accidents for this group reflects the more fully developed safety program of the elementary schools.

The secondary school, the parents, and the community, therefore, have a definite responsibility for developing a program to reduce the toll of traffic deaths among its youth.

The problem requires serious thought and planning. These young people are not quite grown up, but they no longer think of themselves as children. The simple warnings which influence small children to act safely are laughed off by these adventurous youngsters. Motivation must be in terms of their age and interests.



Analysis of traffic accidents involving all drivers, and especially the secondary-school age group, shows as underlying causes unsafe behavior, insufficient or improperly developed skills, and incorrect attitudes.

A sound, comprehensive traffic safety program can prepare the individual to take his place in traffic as an intelligent and skillful driver, bicyclist, or pedestrian. It should develop an appreciation of the need for judicious legislation, effective administration of traffic codes, and sound engineering practices. The emphasis of such education should be directed toward the pupil as an individual and as a member of a group.

The need for a well-planned program of traffic safety instruction for secondary school students is urgent. This program should be based on the natural venturesomeness of youth and their desire to adapt themselves adequately to the demands of a rapid-transportation era, and in a manner which they consider to be adult. This over-all program should include normal activities such as riding a bicycle and operating a motor-bike, and should lead to safe driving of an automobile.

### *Characteristics of a Program*

The program should be a participative undertaking of administrators, supervisors, teachers, and students. To maintain interest and to attain continuing action, all of these groups must cooperate in the instructional program and in joint community-school activities. It is also realized that the best results are obtained in safety education when programs result from voluntary action by school authorities rather than by legislation.

The scope, content, and organization of the program should be based on the interest, activities, and future needs of the learner. Social studies may contribute specifically to desirable attitudes, interests, and understandings of the need for improving traffic conditions through the personal and community approach. This may be accomplished through analysis of local traffic problems, evaluation of driver and pedestrian practices, and through appraisal of traffic accident records. Science classes may contribute through study of the effects of gravity, friction, and inertia. First-aid training may contribute to accident prevention by developing an interest in correct traffic behavior through a knowledge of the results of unsafe acts. Experiments involving measurement of the speeds at which bicycles or other vehicles are operated, and the distances required for coming to a complete stop at various speeds, are effective means for learning. Health and physical education classes may contribute to the relationship of driving and general health, fatigue, coordination, and the effect of alcoholism. Shop classes may contribute through study of

the design and mechanics of the automobile. Such information guides students in a review of their conduct in relation to personal, school, and community responsibilities.

### ***Driver Education and Training***

Studies of successful programs in driver education and training show that this single area of traffic safety education in the secondary school is unquestionably the most fertile territory for the motivation of desirable habits, skills, and attitudes related to traffic. Therefore it deserves special consideration.

### ***A Function of the Secondary School***

The principle is reaffirmed that beginning drivers in every community should receive planned instruction designed to make them safe, skillful, and intelligent operators of motor vehicles.

The secondary school years, when students ordinarily reach legal driving age, are most suitable for training drivers. The secondary school, therefore, offers the best known opportunity for reaching the largest number of youths about to begin driving.

The content of driving courses is practical and is closely related to the content of other subjects designed to teach students how to live successfully.

Competent and trained secondary school teachers, conducting well-organized courses, can provide learning experiences that are superior to those customarily received outside the school.

Drivers who receive organized training for driving attain superior skills, develop more desirable attitudes, and make a valuable personal and social contribution to traffic accident prevention. An analysis of accident records of over 3,200 secondary school students revealed that those who received driver education and training in the high school had only one-half as many accidents as those who did not receive this training.

Driving courses are concerned primarily with the development of character, through stimulating the student to adopt and display attitudes of cooperation and consideration for others. They are designed to orient the student to live safely and with greater pleasure, through skillful and efficient behavior on streets and highways. The growing need for trained operators of busses, trucks, and other commercial vehicles, further warrants the inclusion of such instruction in the secondary schools, especially in the vocational units.

### ***Solving Administrative Problems***

The fact that no single blueprint will fit every school situation is sometimes viewed as an obstacle in driver education and training. Actually, this fact should be accepted by the school administrator as

a challenge to his ingenuity in discovering or devising ways of adjusting the course to fit the requirements of his own program, as in other fields of learning.

Experience shows that schools desiring such a course can schedule it in a way that is administratively feasible, and make it a worthwhile curriculum. New plans will be devised as the number of schools offering driving instruction increases.

Effective driver education and training programs for high-school students have been operating for a number of years. Suggestions as to administrative procedures, equipment, and instructional materials are available from a number of sources. School authorities should secure and study these materials for guidance in the development of sound driver education and training programs.

Many teachers are trained to teach driving in secondary schools. This number will increase as teacher-preparing institutions provide the necessary training. In turn, the use of these trained teachers' services will increase in proportion to the growth of public support for traffic safety education.

### ***Solving Problems of Financing***

Financing is frequently mentioned as a handicap to the adoption of a complete course in driving. Several ways in which the financing of such a course is now being handled offer proof that the problem need not be serious.

The soundest plan is for the school to take the lead in building strong public support for a driving course so that the community will provide for it through the school budget. Only on this basis will instruction in driving maintain its place in the school. In situations where public support for financing programs is lagging, worthwhile instruction may appropriately be provided through the aid of nonschool agencies. In some communities, parent groups, service and civic organizations, and motor clubs have made training cars and testing equipment available to the schools.

School shops have contributed by making driver testing equipment. A few schools have paid the teacher of the course in driving for the use of his own automobile as a training car. Other schools have bought new or used cars, equipped them for training, and maintained them as they do electric power tools, cooking equipment, and printing presses.

The need for training young drivers will grow with the inevitable increase in the number of motor vehicles.

### ***Recommendations for Action***

It is recommended that school administrators:

1. Work for adequate public assistance and support by informing

the community about the aims, nature, and scope of the school traffic-safety program. Enlist the aid of community organizations which have an interest in the program and helpful resources.

2. Immediately determine adequacy of instructional programs and practices in relation to traffic safety needs.

3. Provide a supervisor of safety education or committees of teachers or individual school safety coordinators.

4. Plan for driver instruction, the utilization of co-curricular activities and student organizations, and the correlation of traffic safety instruction with courses presently offered.

5. Interpret the driver instruction program to staff members and students and delegate authority for its conduct to a qualified staff member.

6. Provide driver education and training as an integral part of the curriculum, when students are as near driving age as practicable. This work may be organized as a separate course, or as a distinct unit within an existing course. When organizing such instruction, the following should apply:

Standards for instruction which will enable students to exceed the requirements for State driver examinations.

Utilization of sound instructional materials, such as visual aids, psychophysical testing devices, and a motor vehicle.

Where provision is made for road training, the car should be in safe operating condition, equipped with dual control, and adequately insured.

7. Provide driver education and training courses whenever possible as a service during the summer, at night sessions, and for adults in the community.

8. Work cooperatively with other State officials to make available adequate traffic accident statistics that will guide in the development of traffic safety education programs.

9. Conduct experimental activities in driver education and training to help determine the most effective and economical ways of providing this instruction.

10. Provide information whereby teachers and students may learn about and take advantage of safety resources available to schools.

11. Set up a State-wide reporting system to collect pertinent data on the extent and nature of driver education programs.

### **TEACHER EDUCATION IN THE COLLEGES AND IN SERVICE**

The strength and effectiveness of the school safety program depends ultimately on teacher preparation. Whether or not children in the elementary schools develop safe practices and attitudes as pedestrians

or bicyclists is determined to a large extent by the day-by-day efforts and attitudes of teachers. If secondary school students are to become skilled auto drivers, they must be taught by competent, well-prepared teachers. Safety is not alone a problem of teaching a recognition of traffic hazards and safe practices; it is most of all a problem of cultivating the attitudes and habits necessary for living safely in a world where there are so many inherent dangers.

There was a time when teachers relied primarily on such devices as hackneyed safety rules, slogans, and jingles. A "Safety Week" or an assembly program was expected to provide sufficient education to keep pupils accident free for the remainder of the year. Today educators know that safety instruction requires a year-round effort in all grades. They know, too, that greatly improved methods of teaching have been developed.

### *Adequate Preparation Is Lacking*

Several problems arise in connection with the improvement of classroom teaching. First of all, a large proportion of teachers have had but meager preparation in safety education. They completed their training at a time when little attention was given to this subject. Whatever they have learned in the teaching profession has been largely through experience, reading, conferences, supervision, and extension courses. Few teachers colleges, particularly those which have a 2-year curriculum, provide instruction in safety education. Yet graduates of these schools often obtain positions where they are responsible for safety education.

A second problem is the lack of qualified teachers of driver education and training. If secondary schools are to provide this instruction, more work must be done in teacher preparation. It must not be assumed that because teachers are certificated to teach other secondary school subjects they can do an effective job in driver education without additional training. Traffic safety is a subject that goes far beyond the mere acquisition of information about driving rules, regulations, and safe practices. It extends into the teaching of skills and the development of good attitudes. Only a capable and resourceful teacher can provide the kind of instruction needed. Nothing less than a vitalization of the whole teacher-preparing program will meet the needs of today, as far as traffic safety education is concerned.

### *Stimulation Is Needed*

A third problem arises in many school systems due to the lack of an organized safety program. Administrators freely admit that safety is basic in the school curriculum and agree in principle with the recommendations of "Safety Education," 18th yearbook of the American Association of School Administrators. Yet, in many cases, they have

provided little stimulation or guidance to their staffs. Instructional tools—textbooks, readers, lesson plans, visual aids—and other equipment often are lacking. These shortages are particularly characteristic of rural schools, yet safety education is equally as important in rural areas as in cities.

Undoubtedly the most effective method of insuring qualified instructors is through State certification. At present, a number of States have specified requirements for certification of teachers of driver education and training; some have requirements for teachers of general safety education. In other subjects it has been found that certification has tended to improve the teaching service. It is recommended that all States include safety education in their certification requirements.

### ***Recommendations for Action***

#### ***Preservice Education***

1. The president of the college, working in cooperation with faculty and student committees, should prepare a program to safeguard members of the college community and those of the general public using college facilities.

This program would include the construction and maintenance of proper roads, walks, and parking spaces, and the placing of signs and safety devices.

In addition, rules and regulations for the facilitation of traffic and the protection of pedestrians and bicyclists should be developed and applied.

2. Each teacher-preparing institution should develop a safety education program in accordance with its pattern of administration and curriculum organization.

Where safety education is organized as a separate course, or made a part of several courses, traffic safety and driver education should be included.

Provision should be made for instruction in the methods of developing traffic safety programs in elementary and secondary schools.

A demonstration program should provide students with opportunities to observe and participate in traffic safety programs.

3. Colleges should cooperate with school administrators in organizing extension courses, short courses, workshops, and conferences to aid in the in-service training of teachers.

4. Advanced study and research opportunities should be provided.

#### ***In-Service Education***

5. It is a responsibility of the State, city, and county superintend-

ents, and supervisory officers of all schools, to organize activities for the in-service training of teachers in traffic safety education.

6. Administrators are urged to bring to the attention of teachers the recommendations of this Conference.

Following the Conference, local school administrators should transmit to their staffs the recommendations of this report. Plans should be made for their adoption as soon as feasible.

Administrators should also be responsible for a continuous in-service teacher education program including the following: Information on State laws and local ordinances pertaining to traffic, pupil transportation needs and practices, student accident reporting values and methods, safety patrol requirements, the value of police and parent cooperation, and seasonal or newly created traffic problems.

Traffic safety education should be included in regularly scheduled State and regional teacher conferences. Officials responsible for setting up such conferences are urged to plan for the adoption of the program recommended in this report.

7. Additional training for teachers of driver education and traffic safety should be provided through courses, workshops, and institutes. Whenever possible, courses should be organized so that teachers will receive college credit.

In-service teacher education courses offered by colleges either on the campuses or as extension courses should be made available. These courses may be limited to driver education.

State administrators have found useful a series of 1-week intensive courses or 1-day refresher institutes held at regional centers.

Visits to schools having outstanding safety programs are helpful.

8. School administrators should provide essential instructional materials.

These materials will include textbooks, readers, visual aids, illustrative lesson bulletins, posters, supplementary library references, and exhibits.

Bibliographies of published materials and visual aids should be utilized.

Testing equipment to determine driver handicaps is available from State agencies and national organizations; however, many colleges are purchasing such equipment or securing blueprints and having it constructed in college shops.

9. Teachers should be encouraged and given opportunity to participate in school safety activities.

These may include courses of study committees, and supervision of safety organizations such as safety patrols, bus patrols, school safety councils, and bicycle clubs.

10. Teachers should be encouraged to participate in community safety activities.

It has been found, for example, that both teachers and police benefit from cooperation on bicycle instruction and inspection programs.

## COLLEGE AND UNIVERSITY EDUCATION

In a national program designed to conserve life on the streets and highways, the colleges and universities of the country occupy a unique and important position. Through specialized training programs in divisions of adult education, off-campus training, extension service, special bureaus, training centers, and institutes, colleges and universities are in a singularly favorable position to provide carefully planned, scientific education for training the personnel of Federal, State, municipal, and private organizations which are legally responsible for or have assumed an obligation for the reduction of street and highway accidents.

Further, many colleges and universities can create, through interested and qualified teaching personnel, traffic-safety consciousness in their undergraduate and graduate student bodies by emphasizing the accident-prevention material contained in the science, social science, engineering, psychology, health, and related courses offered in their curricula.

### *Colleges Recognize Need for Safety Training*

The critical need for specially trained enforcement officers, traffic engineers, fleet supervisors, and others has resulted in formal recognition for specialized traffic training by some colleges and universities. To meet society's accident prevention problem, colleges and universities have initiated courses and curricula for safety personnel in such areas as traffic engineering, school safety, motor-vehicle fleet supervision, traffic law enforcement, and general motor-transportation. By establishing these courses, many institutions of higher learning have recognized that safety training of a professional kind must be organized and provided.

Many training programs are going forward today. The Yale Bureau of Highway Traffic trains traffic engineers of State and municipal agencies. Courses in the Traffic Institute of Northwestern University prepare city and State law-enforcement officers.

The Institute of Transportation and Traffic Engineering at the University of California, and Institutes of Public Safety at Purdue



University and The Pennsylvania State College offer varied programs in traffic accident prevention. The Center for Safety Education at New York University provides similar training, in addition to its graduate teacher-training and research program. The Institute of Government of the University of North Carolina has trained hundreds of enforcement officers. Safety training is also provided by the School of Government at the University of Southern California, and the research and training program at Iowa State College has contributed to work in traffic accident prevention. Other colleges and universities also offer various safety training courses.

Many colleges and universities also have cooperated with the Federal Bureau of Investigation in traffic-accident prevention courses offered by the Bureau as a portion of its police program. Short courses co-sponsored by the National Committee for Motor Vehicle Fleet Supervisor Training have been conducted in over 30 cooperating colleges and universities throughout the Nation in the past few years. Supported by State, municipal, and private motor-transport organizations, they usually are conducted by the extension division, engineering division, or special-service division of the institution.

### ***More Courses and Research Needed***

Established and acceptable as these efforts may be, they are not yet broad enough in scope and variety to meet demands for the number and kinds of trained personnel now required for solution of the ever-growing traffic accident problem. More adequate and accessible training facilities should be provided.

Research has provided much of the fundamental data and procedures upon which effective programs of social and economic improvement have been based in the past. Provisions should be made for more of it. In many instances, research should be conducted in cooperation with private and governmental agencies.

It is desirable that State universities or some other institution in each State organize and conduct safety training and research programs on the State level. This program should provide such training as will upgrade the quality of safety personnel of both official and private organizations.

### ***Recommendations for Action***

The college and university, to the degree that conditions, facilities and personnel permit, should:

1. Organize and conduct its own institutional safety program. Included in such a program of the college and university should be:

- a. Conferences or seminars on traffic-safety education materials and methods for faculty members.

*b.* Designation of an individual to conduct the program with authority and responsibility delegated to him.

*c.* Development of safety-consciousness among faculty and students.

*d.* Emphasis upon traffic safety in such courses as the sciences, education, social sciences, vocational subjects, psychology, sociology, health and physical education, etc.

*e.* Driver education and training for faculty and students.

*f.* Elimination of traffic hazards on the campus, and adoption of a practical program to reduce accidents on and near the campus.

2. Conduct training courses for prospective and in-service safety personnel of public and private agencies in such fields as:

Traffic engineering, motor-vehicle fleet supervision, traffic law enforcement, highway engineering, safety teaching, safety supervision and safety administration, driver-licensing procedures, accident recording, reporting, and statistical analysis, driver education and training.

3. Provide the above training through utilization to the fullest possible extent of present and contemplated administrative and instructional media.

Safety-training should be organized in light of nature and scope of work to be covered, personnel to be trained, available time of students, scheduling considerations, and so forth. Training needs have been successfully met through utilization of the following:

Seminars, conferences, short courses, extension courses, undergraduate courses, graduate courses, special service courses, intensive courses, workshops, intensive training programs, continuation courses, certificate courses, terminal courses, institutes, and correspondence courses.

4. Expand research activities. It is recognized that the college and university is an especially appropriate place for basic studies. Means should be provided for increasing the amount of fundamental research for street and highway accident prevention in the areas of engineering, enforcement, and education and in related fields such as psychology, supervision, and administration. Closer cooperation between the institution and national, State, and municipal government and private agencies should be utilized to facilitate and expand research. The findings of such research should be made available to concerned organizations.

5. Cooperate with official highway-transportation and safety agencies of Federal, State, and local governments and with those pri-

vate and public organizations concerned with traffic accident prevention.

Examples of such agencies and organizations are State police, highway, and motor-vehicle departments; civic organizations, city school systems, and State departments of education; safety divisions of various Federal bureaus and departments; safety councils; motor-transportation associations; and municipal and State traffic engineering bureaus.

Illustrative of some specific types of activities furthered through cooperation are the items given in these recommendations.

6. Engage in public education in traffic safety through special forums, agricultural and general university extension, off-campus activities, press releases, radio programs, and the preparation and distribution of training aids, and visual and audio-visual aids.
7. Encourage authors and publishers to develop and include safety materials and subject matter in their publications and textbooks.
8. Award scholarship and fellowship grants, when possible, to individuals desiring advanced instruction in safety education.

To assure effective results from its traffic-safety activities, the college or university should give continuous support to its program. The administrative officers should advise their staff and student body of the purpose of the safety program. Through effective media colleges should make known to the public their training programs and safety education curricula. Sufficient funds should be allocated for the program.

Whenever possible, and particularly if the institution offers several courses dealing with different aspects of traffic safety, the college or university might well organize a Safety Bureau, Institute Department. Such an administrative unit provides a means through which safety courses may be offered, as well as a medium for carrying on activities in traffic safety.

A safety-training advisory committee could well be organized by the college or university. Such a committee can be comprised of representatives of the faculty, of industry and government, and of other State and local, public and private agencies. It can provide guidance and support for the institution, and thus assist the college or university to realize greater success from its contribution to traffic-accident prevention.

## **PUPIL TRANSPORTATION**

Pupil transportation continues to grow rapidly. There are now more than 5,000,000 pupils transported to and from school daily at public expense. The number of school busses now in operation is

greater than the total number of all other kinds of passenger-carrying motor busses. Much has been done to protect the children who ride school busses, but to insure maximum safety for them will require continuing study and action on the part of State and local school administrators responsible for the program.

### ***Objectives***

To promote safety of pupils transported to and from school through provision of (a) standard vehicles maintained in safe operating condition; (b) drivers selected on the basis of general physical, mental and emotional qualifications, experience and examinations; (c) proper training for drivers; (d) safe operating or transit practices; (e) instruction of pupil passengers; and (f) adequate supervision of transportation personnel.

### ***Recommendations for Action***

To promote the safety of pupils transported to and from school in vehicles owned or contracted for by boards of education, this program is recommended to State and local educational authorities.

#### ***For the States***

1. Provide administrative or supervisory personnel charged with responsibility for the development of a complete safety program in pupil transportation.

2. Adopt vehicle standards recommended by the 1948 National Conference on School Transportation.<sup>5</sup>

These standards should be so enforced that no substandard and unsafe vehicles are permitted to operate. New vehicles should be required to meet these standards and should be inspected periodically to keep them up to standards.

3. Promote, through suitable standards, advice and assistance, the establishment in each transportation unit of safe operating procedures and of an inspection and maintenance program to keep all vehicles in safe operating condition.

4. Establish standards and procedures which will insure the selection of reliable and qualified school bus drivers.

To assure the selection of competent drivers, applicants must pass medical examinations and tests of knowledge and driving ability as they relate to school bus operation. Experience should be considered, but more important are the applicant's physical, moral, and mental qualifications. Suggested standards for school bus drivers will be found in the recommendations of the 1948 National Conference on School Transportation.<sup>5</sup>

<sup>5</sup> Distributed by National Education Association, 1201 16th St. NW., Washington 5, D. C.

5. Cooperate with other official agencies, such as the motor vehicle department and the State highway patrol or police, in the enforcement of school transportation standards.

6. Promote the enactment of uniform State laws regulating traffic which require special caution when passing school busses. The 1948 National Conference on School Transportation approved a model provision for the control of traffic approaching or passing school busses.<sup>6</sup>

7. Sponsor training institutes and courses for school bus drivers and maintenance personnel, and assist local units in setting up instructional programs.

It will be necessary to determine the kind and extent of training needed to assist drivers and maintenance personnel to meet their various responsibilities. In driver training emphasis should be placed on the development of proper attitude and driving skills. In the training of maintenance personnel emphasis should be placed on preventive maintenance.

Valuable suggestions for instituting and operating programs of school-bus driver training will be found in the recommendations of the 1948 National Conference on School Transportation.<sup>7</sup>

8. Encourage institutions of higher learning to include instruction on pupil transportation problems in school administration courses. These courses should cover responsibilities of both State and local administrators.

#### ***For Local Educational Authorities***

9. Vest in one administrator definite responsibility for the administration and supervision of pupil transportation.

10. Adopt and enforce the requirements of the State education authority.

11. Assume direct responsibility for training programs of operating and maintenance personnel.

12. Provide special care for the handicapped.

13. Provide sufficient vehicles to prevent overloading.

14. Develop detailed operating or transit practices for the guidance of school bus drivers. These will include such items as:

Routing of busses to avoid, when possible, hazardous traffic; operation of busses on schedules which permit drivers sufficient time for careful operation; establishment of a maximum speed limit lower than the State limit to meet local conditions; and designation of safe loading zones and bus stops.

<sup>6</sup> Sec. 109.5 of Act V of the *Uniform Vehicle Code* (revised) for sale by the Superintendent of Documents, Washington 25, D. C., price 20 cents.

<sup>7</sup> Distributed by the National Education Association.

15. Provide continuous supervision of operating and maintenance personnel.

16. Provide training for transported pupils on safe practices when entering and leaving school busses, hazards involved in pupil transportation, and proper conduct.

17. Encourage the organization of school bus patrols.

18. Provide the State supervisor of transportation with pertinent data, such as information on accidents to pupils being transported, which will contribute to greater safety and efficiency in pupil transportation.

19. Seek the cooperation of all agencies, including community groups, interested in pupil transportation. Local safety programs should be geared to reach the parents and encourage their cooperation.

### USE OF THIS REPORT

This report was prepared for school administrators, supervisors and faculty members responsible for traffic safety education programs in schools, colleges, and universities.

It should create awareness of the problem and serve as a guide in defining responsibilities and suggesting principles for organizing and supervising a sound program of traffic safety education.

Responsible authorities should find this report helpful in their approach to the development of more effective programs.

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