TRAFFIC SAFETY EDUCATION

A GUIDEBOOK

FOR STATE AND CIVIC OFFICIALS

A PUBLICATION OF

THE ENO FOUNDATION FOR HIGHWAY TRAFFIC CONTROL

SAUGATUCK, CONNECTICUT

CONTENTS

The Purpose of This Guidebook

THE Eno Foundation for many years has been interested in various activities to reduce traffic accidents and at the same time make the movement of traffic more efficient. Specifically, the subject of safety education has long been on the Foundation's agenda. But not until the 1945 Eno Conference was it decided to appoint a Committee on Traffic Safety Education in the Community to carry on research and prepare a Guidebook that would be useful to the average community.

This Committee consisted of leaders richly experienced in community work as educators, police officers, members of local safety council education staffs, and active state and college leaders in safety education. The complete list of contributors to the Guidebook is included under ACKNOWLEDGMENTS.

Following are the four specific purposes of the book:

1. To show the importance of traffic accidents in the average community;
2. To determine the educational activities that have been most effective in reducing accidents;
3. To show the relationship that should exist between engineering, enforcement, and educational activities in the community, and
4. To serve as a guide to towns and cities in organizing and projecting a well-rounded program.

The Eno Foundation wishes to express its appreciation to the Committee and to others who contributed. We hope that communities throughout the country will use this Guidebook in developing a well-organized program for traffic safety education.

The Eno Foundation
for Highway Traffic Control

Acknowledgments

THE Chairman wishes to acknowledge the assistance given by members of the Committee who aided in the preparation of this manual. These included the following: John V. Conover, New Jersey State Police; Harold R. Danford, National Conservation Bureau; William M. Greene, Connecticut State Traffic Commission; Raymont M. Johnson, Washington State Patrol; Arthur Morr, Montclair State Teachers College; Dr. Charles H. Prohaska, Connecticut State Department of Education; Fred Roff, President, International Association of Chiefs of Police; Don Cash Seaton, formerly Illinois State Department of Education; Dr. Nathaniel O. Schneider, Newark Safety Council; W. Graham Cole, Metropolitan Life Insurance Company; Donald S. Berry, National Safety Council; and Associate Dean Roscoe Ellard, Columbia University, representing the Eno Foundation.

He wishes also to acknowledge the help of Fellows and Associates at the Center for Safety Education, including Milton D. Kramer, John Fitzpatrick, Dr. Tobias Wagner, John Grimaldi, William H. Hollis, and Harold Gray.

In addition, recognition should be given to various national safety agencies whose publications have been reviewed in the preparation of this report. Among these are the National Safety Council, the National Conservation Bureau, the American Automobile Association, the National Commission on Safety Education of the N.E.A., the American Association of School Administrators, the President's Highway Safety Conference, the National Committee for Traffic Safety, and the American Association of Motor Vehicle Administrators. Various state and city reports were also studied.

The manuscript was reviewed by the following representatives of safety councils: Ralph Ellis, Hampden County, Massachusetts; James Corr, Buffalo, New York; James Ashton, Wilmington, Delaware.

We also wish to express our appreciation to representatives of communities who have given us data used in this study, and to

Colonel Robert C. F. Goetz, and other members of the Board of Directors of the Eno Foundation, for the sponsorship of this study, and to Dean Ellard for editing the manuscript and directing the various stages of its publication.

Herbert J. Stack
Chairman of the Committee

September, 1946

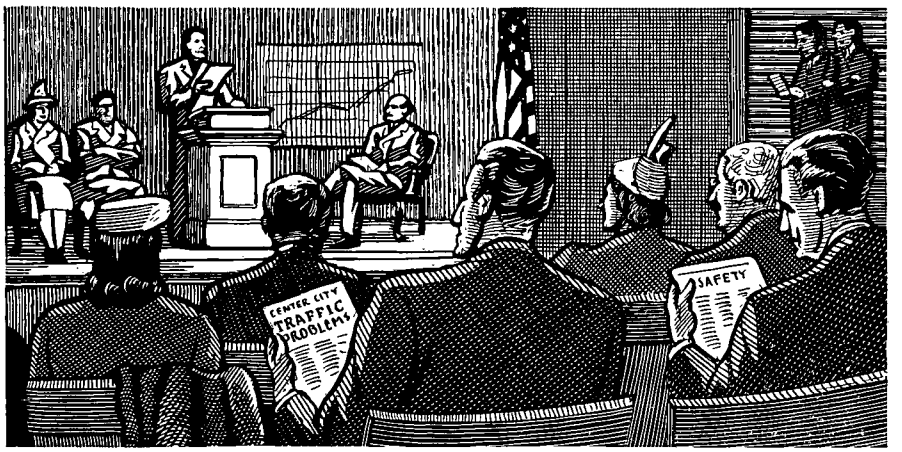
CHAPTER I

Traffic Accidents : A Community Problem

GENERAL PHILIP B. FLEMING, Federal Works Administrator, has described traffic accidents as the scandal of our nation. President Truman called a national conference to consider the traffic problem. And economic losses from traffic accidents are expertly figured at $1,250,000,000 a year.

Yet the ultimate solution for unsafe traffic lies not in statistics or public statements, however arresting both may be. Motor vehicle casualties are finally a community problem and a personal problem, not only a problem for metropolitan communities but for smaller communities—so-called *average* communities—also.

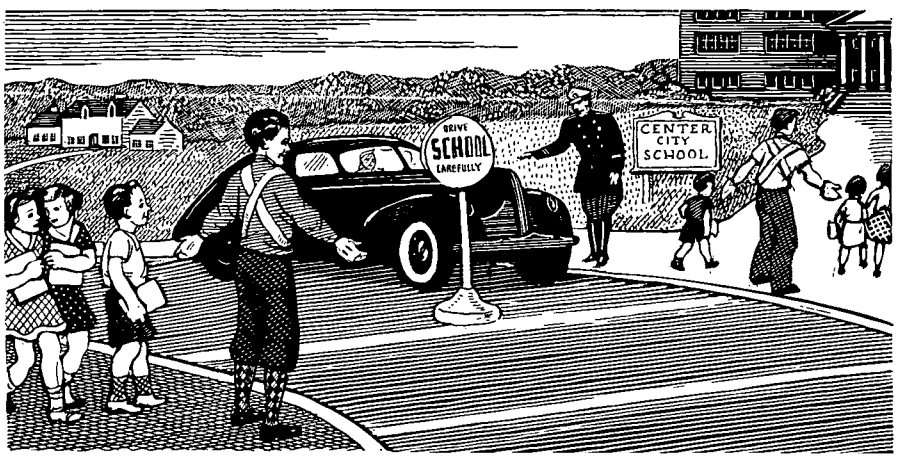
Suppose we analyze an average American community from the traffic problem standpoint. Let's call our community Center City, U.S.A.



Center City isn't a bit more sleepy or a bit more industrious than any other average community. Main street divides it down the middle and the city spreads out on both sides. But the community holds together, as it were, by the concrete solidness of Main Street—like the pages of an open book peopled and teeming with life, held firm by the starched webbing and stitched canvas back.

Main Street in fact is not only the spine of Center City: it is the heart as well—its heart, its artery and its stomach. All its 50,000 people draw life from it. The Bijou Theatre, newly redecorated, is there. Important food markets, dress shops, cigar stores, push their proud, but average windows against the crowds that stroll its sidewalk on shopping night.

It is on these shopping nights that Main Street's narrow sides are most jammed with cars: Center City's people converge on this center of produce and entertainment. But the jamming traffic is bad at more times than the weekly shopping night. Business has been good. Out-of-town industries, attracted by this peaceful, wholesome community have established plants and offices there. So during the day, too, the overloaded streets of the business section are filled with crawling, turning, jamming, honking cars, peppered here and there with a pedestrian.



The townspeople, like all average townsfolk, are not too critical of the faulty traffic situation. These complain to themselves or a neighbor, when a jam immediately affects them. But usually they feel it is the other fellow's problem—and not too important a problem at that. Center City's acceptance of the situation is not entirely due to indifference. They know that planning has been done to eliminate the possibility of accidents on their streets.

The newer of the town's high schools has been placed so that the youngsters will not have to cross the busier streets; and only the four oldest of the elementary and junior high schools are situated in traffic-crowded sections. Yes, consideration was given the traffic problem when new schools were being built.

Residents can see and appreciate, too, the traffic lights which mechanically guard the busier central intersections. They may be secretly pleased that few lights and no policemen watch over residential crossings. People are occasionally reminded of the efficiency of Captain Eddie Bink's police department when they scoot through those lights.

Indeed, Center City is an average American community—comfortable, hardworking, and satisfied with itself. An observer might assume that only a major tragedy could shock it out of its inertia. His interpretation of the seriousness of a traffic incident would vary, depending, in general, on his past experience. But tragedy, by any standard, was stalking the people of Center City. In fact, it had visited them often—unrecognized.

This is always possible when people live close to an unpleasantness, too close to step back and objectively view each sad detail. Everything seems as it should be. Because it is accustomed, it is accepted. But when one day the truth is exposed—as traffic truth inevitably is—the effect is sharp and upsetting.

That day finally came to Center City. The easy-going complacency of the contented community was ruptured by a blunt editorial in the *Daily Gazette and Courant.*

That editorial appeared in the afternoon edition. By night it had exploded in every home. It roused the town's leaders to action. It rasped against the sensibilities of the most callous. Telephone calls were made. Meetings were called. Plans were drawn.

The people of Center City were going to do something about it.

Look At This Record

We in Center City have been killing more children in traffic accidents than any other community of comparable size.

In the past year two of our youngsters, each less than 15 years old, were struck down and killed by motorists in our streets.

That isn't all—we have killed three times as many adults. A total of 9 lives lost unnecessarily. The national death rate by traffic accidents for a city of our size is 11.4, ours now is 18. Last year it was 15. The situation obviously is growing worse.

In addition, 306 people were injured; 500 cars were smashed. The cost of these tragic numbers is reckoned not only in victims' pain and suffering: they are costing all of us cold, hard cash.

Let us look at the figures based on National Conservation Bureau Studies:

9 persons killed at a cost to the community estimated by the National Safety Council to be $10,000 per person; a total of	$ 90,000
306 persons injured, an average medical cost of $92 a person or a total of	28,000
Salary loss of 218 injured persons who were employed (@ $170) plus 1800 non-injured people (@ $4.50) who were employed	35,000
2580 damaged cars, costing an average of $78 each for repairs or replacement	200,000
Approximate cost of maintaining police department directly chargeable to traffic policing	150,000
Cost of maintaining traffic court	27,000
Miscellaneous costs (ambulance, emergency, clinic, etc.)	15,000
A total of	$545,000

This is money negatively spent—for accidents, and for arresting and prosecuting the violators of public safety rules. There is nothing gained, nothing constructive in this expenditure.

On the other hand, our city spends $500,000 a year to support its entire public school educational program.

The first sum represents only heartache, the second is an investment that will return dividends to the community and the nation. Center City's unwholesome record is our responsibility—for we are Center City. It is a biting criticism of our thinking and behavior.

What are we going to do about it, Center City?

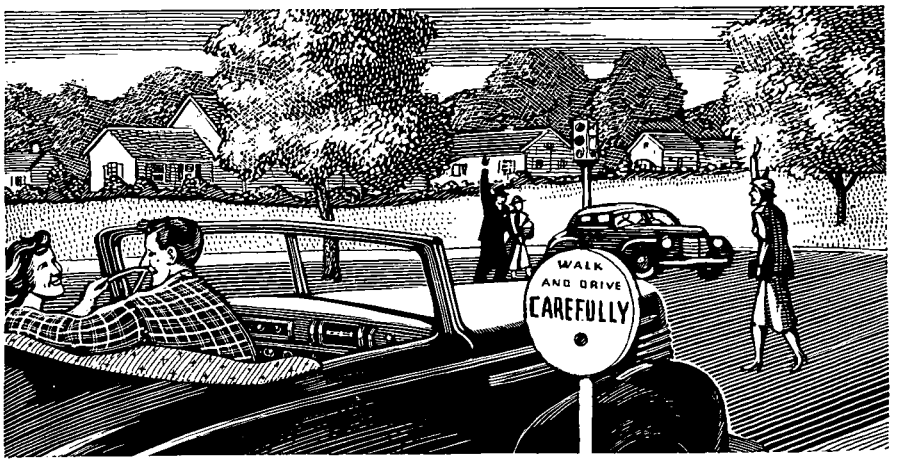
CHAPTER II

Center City Attacks Its Traffic Problem

THE first day after the *Gazette and Courant's* editorial, Center City became a dynamic, vital community. It was concerned with a problem. There was more activity than at any time since word got around that Ed Baksi, the town's hero of Guadalcanal, was coming home

That was an occasion for planning parades and celebrations. But this was a day for solemnity and thoughtful organization. Townspeople had been jolted into an awareness of the costly consequences of accidents. They realized that preventing accidents is not a job that can be accomplished by half-hearted attempts or depending on someone else to do it. Instead it is a community responsibility.

Now it would be a misrepresentation if the impression were given that every last soul with a reasonable amount of adult intelligence recognized the part he should play in the prevention of Center City's accidents. Remember that Center City is an average



community; it harbors the average number of "indifferents" and "do-nothings"—people who contribute little constructive effort to the community, but have a strong influence on its life.

As always, a relatively small group of public-spirited citizens

took time to think and to initiate the activity evident in Center City that day. The rest, while interested in doing something about correcting the conditions permitting accidents, would not have moved as a body if they had not been exposed to the organizing efforts of the town's leaders. Just why it is that people as individuals will not do what they know should be done unless they become part of a mass movement is difficult to understand. But such behavior is not peculiar to Center City only. In any large collection of people there are the "do-nothings," the "can't-decides," and the "go-getters."

The "can't-decides" suffer from a psychological complex that is almost universal. They will follow whichever group exerts the greater force. The "do-nothings" call loudly for something to be done.

Their disinclination to think, but eager readiness to express opinions, surrounds them with self-assurance. This and their noise is too often mistaken for leadership.

Center City's disgraceful accident record resulted partly from this confused state of the undecided citizens. To many of them, accident prevention was nothing but a necessary bother to be attended to by timid drivers or by the professional specialist. Thus many who understood the value of safety recognized it without enthusiasm, and consequently did nothing to advance it. And so the townspeople never before developed a sensitivity to the need for the prevention of accidents.

City Manager Langan had been caught napping. He knew it, and saw that his standing in the community would be substantially lowered should he fail to take speedy action to correct Center City's accident problems. The *Gazette and Courant* had never been too friendly toward him. He envisioned editorial denunciations of his administration.

But he knew the way to overcome that: Call a public meeting, arrange for the formation of an Accident Control Planning Committee, and issue a "sock 'em and rock 'em" statement to the press that would leave the usual stuffy editorial with as little appeal and sparkle, by comparison, as last night's left-over root beer.

He did just that. He asked for the leading public-spirited citizens to meet with him that afternoon in the Central High School auditorium. He didn't have to get in touch with them. They had been ringing his phone all morning.

When every seat in the lecture hall was taken, Langan climbed to the stage. With proper solemnness and geniality, he welcomed all, and expressed his sorrow for having to call a meeting about so unpleasant a business. The crowd was moved. When Langan placed his prepared statement on the speaker's table before him, explaining that because of the importance of the gathering he would like to read his message to them rather than speak extemporaneously, all the audience was on his side.

He read, and because of their common concern with the problem and the well-planned brevity of the message, they listened.

"The importance of accidents," Langan said, "is reckoned by the amount of damage they cause. Accidents are serious only in so far as they are harmful. Harm is measured not so much by intensity of the accident, such as fire or explosion, as from the perishables involved in it.

"This is an important factor in accident prevention," Langan declared. "Suppose, for example, the atomic bomb experiment was conducted over Center City instead of the Bikini atoll. The explosion would be the same, but the seriousness would be increased a millionfold.

"The most harmful note in accidents of any type is their damage to people, because people are the one irreplaceable thing in the entire world. Property damage can be rectified; financial loss can be compensated for, but physical injury and death are offered no replacement.

"You would assume, therefore, that people would be anxious to take part in any kind of program that would insure their safety. Yet we are our own worst enemies. As a group we are continually responsible for death and misery to ourselves and our neighbors. If we are to have safety we must do two things: one, protect people from themselves through engineering and enforcement; and two, encourage people to think properly so that they can avoid accident-causing situations. That is the job before us."

Langan then asked several of the leading citizens, namely the Superintendent of Schools, the President of the Center City Savings Bank, Captain Binks of the Police Department, and the president of the Chamber of Commerce for their cooperation in selecting an active committee to draw up plans for improving Center City's accident record. This group, with the addition of the editor of the *Gazette and Courant,* Mr. L. J. Marlin of Marlin's Department Store, and Mrs. R. W. Winslow, District President of the P.T.A., became the steering committee.

But the committee knew little about the methods of organizing for safety. It soon became apparent that unless expert assistance came from somewhere, all their good intentions would accomplish nothing. They searched the town library and found only a few booklets on street and highway safety. They considered writing other cities which may have had a similar problem to learn what methods were used in combating it. Finally they decided to write one of the national organizations which are prepared to provide such assistance and to ask if a specialist might come to Center City to work with the committee.

When he arrived, his first suggestion was to organize a safety council. This was done by establishing a budget of $5,000, to be met by contributions from public-spirited businessmen. Its organization was simple. An assistant secretary of the Chamber of Commerce was assigned by the Chamber to work part time with the new Council. He was paid a small salary by the Council, in addition to what he had been receiving from the Chamber of Commerce. John Russell Lowe, the town's leading citizen and a retired jurist, was asked to assume the duties of Managing Director without financial compensation.

The Committee, now moving rapidly in its organizational procedures, established subcommittees to promote the many special tasks that would have to be accomplished. These subcommittees were:

PUBLICITY	EDUCATION
ENGINEERING	ENFORCEMENT

Noticeable progress was made. The newspaper publicized the

efforts. It assigned an artist to design a huge spot map showing where each reported traffic accident had occurred in the past year. This was hung over the main door of its office building.

From the amount of mail commending the newspaper's crusade and the committee's efforts, it was obvious that Center City was developing an interest in things pertaining to safety. Its Engineering, Education and Enforcement subcommittees were working industriously and recommendations and ideas came in quantity.

At the committee's request the Police Department put on a drive to summon traffic violators to court. The schools assigned school safety patrols to selected crossing intersections and motion pictures on traffic were shown on the Bijou's screen between showings of the feature pictures.

The Engineering Committee, with the assistance of a representative of the State Highway Department, made traffic counts and surveyed the arrangement of the streets and highways as a preliminary to suggesting improvements.

All seemed to be well. But two months later, the accident rate was not much better than at the start. Although no children were killed, three adults died in crashes. Of course, not all the intersections had been equipped with satisfactory traffic lighting, and the corner at Jackson Boulevard and South Twelfth Street where a fatality occurred a month previously was still a blind intersection. There should have been a greater improvement in Center City's accident report.

A special meeting was called. Reasons for the disheartening results were discussed. Those present agreed, and rightly so, that one of the reasons was they had been trying to carry the whole burden of accident prevention themselves, except for the assistance of the newly formed and struggling Safety Council.

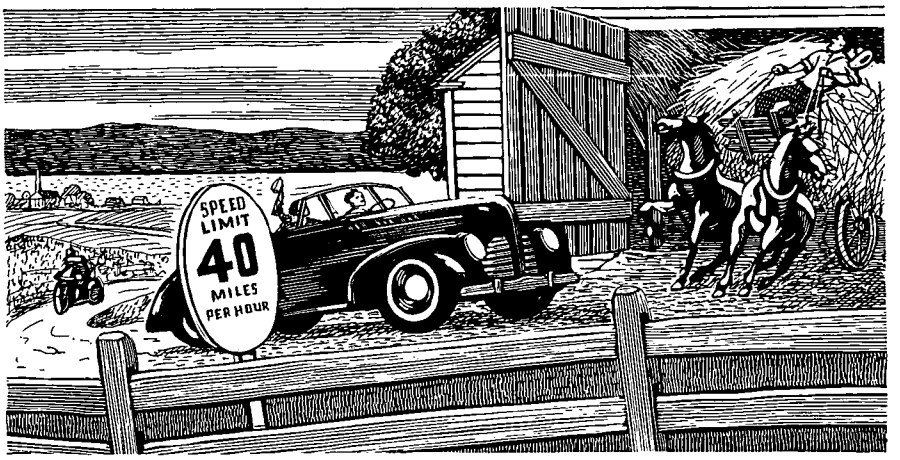
Then, too, they intelligently decided that they had expected too much in a short time. For years, Center City had been building incorrect traffic habits. Such habits could not be overcome in a short time; it would take more organizational and individual cooperation to accomplish results.

The committee's decision to seek the aid of public-interested organizations was quickly acted on and a list was drawn including these organizations—

BOY SCOUTS
CAMP FIRE GIRLS
CHAMBER OF COMMERCE
FRATERNAL ORGANIZATIONS
GIRL SCOUTS
INSURANCE CLUBS
LABOR GROUPS
LUNCHEON CLUBS
PARENT AND TEACHER ORGANIZATIONS
PATRIOTIC GROUPS
RED CROSS CHAPTERS
VARIOUS BUSINESS AND COMMERCIAL ORGANIZATIONS
WOMEN'S ORGANIZATIONS

Upon being consulted, each agency was ready to do whatever it could to assist.

In addition, the committee once again invited the safety specialist to visit them, analyze what had been done, and recommend any



further measures that might be taken. He found that the committee and Safety Council had made truly fine progress.

They had well established organizations and it would be only a matter of time before the so-eagerly-looked-for results would become apparent. He complimented them on their fine work and emphasized that, by all means, as many cooperating agencies as possible should be asked to take part, for that way a string of "outposts" would spread throughout the city.

He pointed out that their errors in judgment came from inexperience. He recommended the correction of one serious mistake in the program. The Engineering, Education and Enforcement subcommittees had been doing good work as individual groups. They had tackled their respective jobs with vigor and sincerity. Many of their recommendations were in operation already—but they were not working as a team.

"It has been demonstrated by careful study," the safety specialist explained, "that each of the three 'E's'—Engineering, Enforcement and Education—is dependent on the other. Each must have support from the other two.

"For example, it is easy to recognize that your work in accident prevention will be furthered when an educational program is undertaken to explain *why* the newly energized enforcement drive has been started. People must feel that they are a part of this movement. These new engineering features are fine; but people must learn to use them properly. Your changes in regulations are good, but the public must know about them. The E's should not operate independently, but like the backs on a football team, in support of one another."

What followed during the next few months? Here are a few things that were done:

Newspapers carried stories of changes in regulations, arrests and convictions, and a box score of accidents.

The monthly and daily accident record was pictured by a clock in front of City Hall.

The Police Department painted crosswalks on all downtown streets.

Parking was restricted in front of school buildings and playgrounds.

The high school started a course in driver education, and the evening school a similar course for adults.

Motion pictures on safety were shown at luncheon clubs and before other civic organizations.

Arrests for traffic violations increased 50 per cent.

A standard accident-reporting system was adopted.

Safety patrols were organized in all schools that did not have them.

Two teachers' conferences were held; one for elementary, the other for secondary teachers.

A pedestrian protection program was carried on by the Police Department.

An attractively illustrated digest of the local traffic ordinances was published and distributed.

Then Center City began to get results. For the next five months there were no fatalities, and traffic accidents decreased 35 per cent. The Safety Council Committee met monthly to project activities. Accidents were on the way out.

The newspaper reflected a local feeling of pride in the City's record. The Associated Press and United Press carried some of the news stories. Representatives of three neighboring cities spent several days studying the program. The State Motor Vehicle Department and Highway Commission representatives talked about Center City's work on their visits to other cities. The Superintendent of Schools was asked to address the State Teachers Convention, and the City Manager the Regional Convention of City Managers.

Center City's citizens were proud of their accident record. To and from work, they saw the daily and monthly record on the accident clock in front of City Hall. Station KYW ran two 15-minute radio programs a week.

There was a noticeable improvement in the courtesy and care shown by drivers. Pedestrian obedience likewise improved; "jaywalking" became a rarity. Parent-teacher associations devoted one of their monthly meetings to safety problems. Arrests for violations, which had increased in the early days of the campaign, were now moving downward. The ratio of convictions to arrests, however, still remained high.

Let us see what had happened with accident statistics during the nine months that the program had been under way.

During comparable nine months in preceding years, there had been seven fatalities and 212 injuries. The death rate (per 100,000 population) for Center City was 18.0. Since the Council was organized, in the nine-month period fatalities had dropped to 2, personal injuries to 130.

This meant approximately a 70 per cent drop in fatalities and a 40 per cent decrease in injuries. This was a real saving in lives and economic costs. The program had certainly paid rich dividends.

The *Gazette and Courant* ran a half-page story about the achievement that inspired a congratulatory letter from the Governor. Center City was getting results.

CHAPTER III

We Are a Nation of 'Center Cities'

WHAT happened in Center City can happen in many other American cities. For there are thousands of cities in the United States much like Center City; not only those of similar size, but cities of any size. For many of the characteristics of this city would be found in others except on a larger or smaller scale. There are many that were much like Center City before the citizens were rudely awakened from their complacency.

Let us take, for example, the cities of from 50,000 to 100,000 population in the country. Of those that have reported motor vehicle deaths in *Accident Facts, National Safety Council,* there is a wide variation in death rates. The average for all cities is 12.0, but there are several in which the rate exceeds 20.0, and many with rates above 15.0. In some cases this bad record has been maintained over several years, while in others there has been an unusually good death rate; for example, Lakewood, Ohio, with 2.0; Galveston, Texas, with 2.7; Medford, Massachusetts, with 1.6; Passaic, New Jersey, with 1.6; and Lancaster, Pennsylvania, with 4.9.

In the cities of 100–250,000 population there are the same striking differences. The average rate for this size city is 13.6, yet there are many in which the rate is over 20.0. On the other hand the rate in Camden, New Jersey, was 6.8; in Des Moines, Iowa, 7.5; in Omaha, Nebraska, 7.1; in Wichita, Kansas, 4.5; and in Trenton, New Jersey, 3.2.

What is there about these cities that makes them so much safer from the standpoint of traffic deaths than those others with death rates from five to ten times higher?

Is it because these cities are aware of their traffic problems and have an organized community movement? In the case of all of the cities mentioned above, there is some type of local safety organization. Do they have more efficient police departments, or are their schools doing more safety work? This would be difficult to prove.

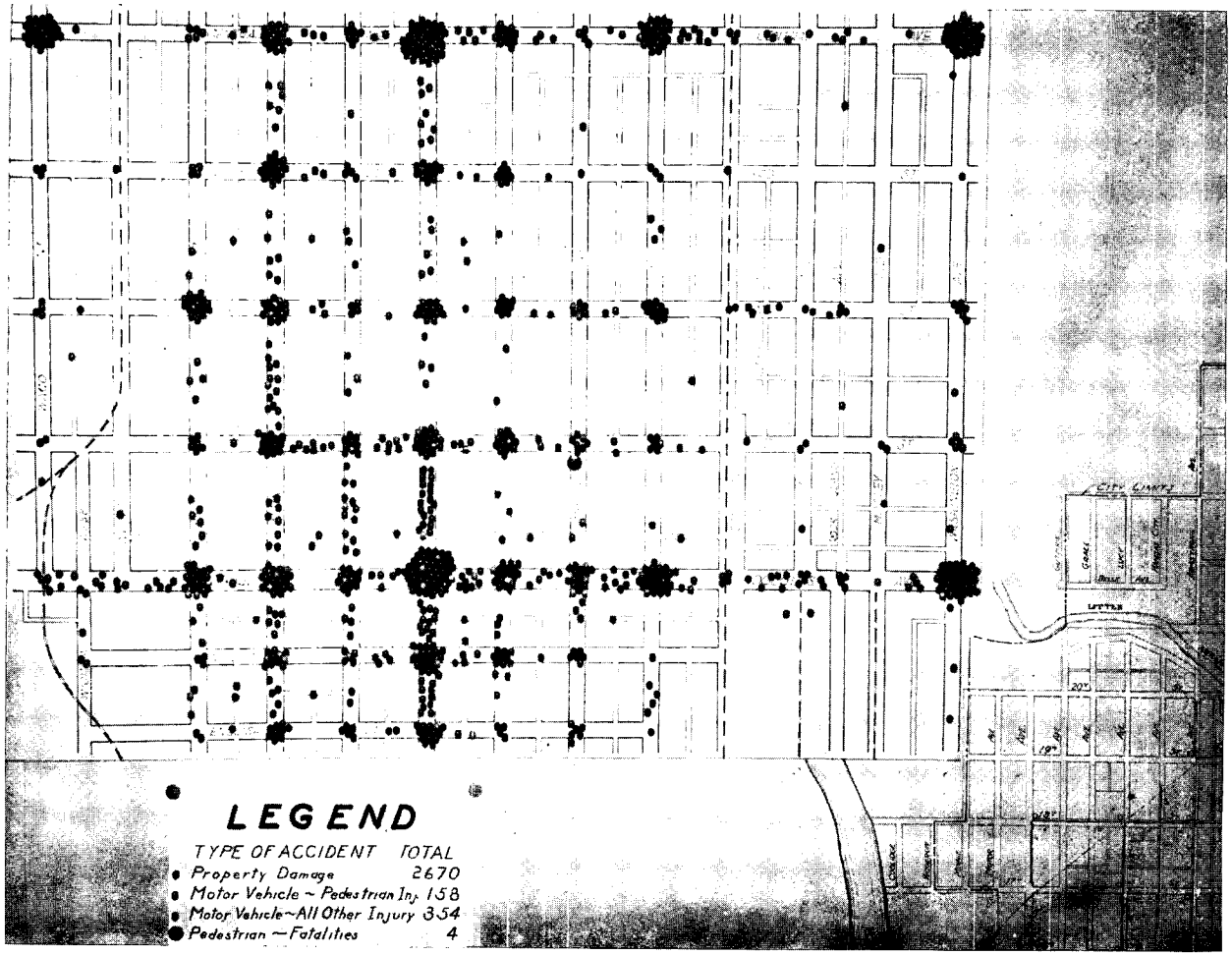
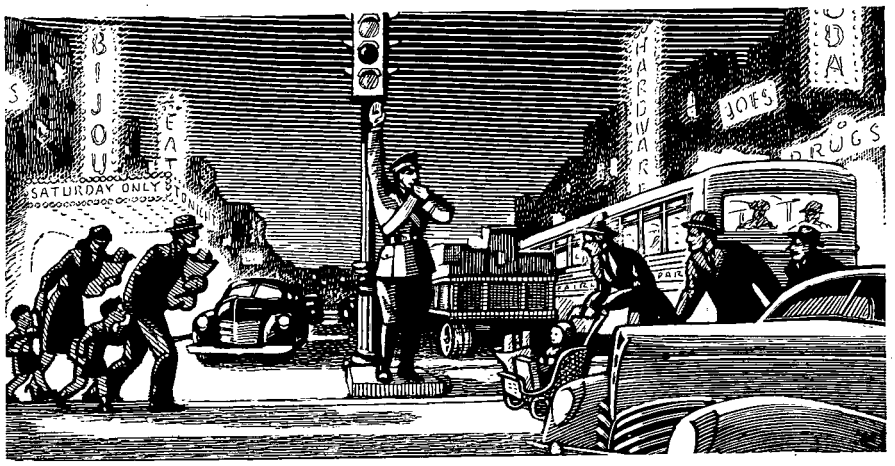


Figure 1. Spot Map Shows Locations

Measuring Results

It must be emphasized at this time that in the case of smaller cities, fatalities are not sound measures of the success of a safety program. The more reliable measure includes all types of accidents, for a single bad accident in a small city may result in several deaths and distort the accident rate for the year. Center City's reduction of



fatalities in the first year of its program is a far less reliable measure of achievement than the striking drop in non-fatal accidents. For the rate of fatalities to non-fatal injuries is approximately 1 to 35 or 38. The fatal accident is thus an unusual type of accident in which a person was killed rather than injured.

National Accident Facts

The President's Highway Safety Conference and the National Committee on Traffic Safety have published basic factual materials on accidents during the year. Similarly, the National Safety Council has provided a yearly picture of the problem in its publication *Accident Facts.*

The following is a brief analysis of the facts:

TABLE I

Motor Vehicle Deaths by Years

1936	38,089
1938	32,582
1939	32,386
1940	34,501
1941	39,969
1942	28,309
1943	23,823
1944	24,300
1945	28,600
1946	34,000
Total	316,559

Figures for 1937 were not available.

Thus, in the ten years there have been 316,559 traffic fatalities. The estimated cost, according to the National Safety Council, for the year 1945 was $1,450,000,000, a figure considerably lower than in 1936, a peak year.

Other facts available from the National Safety Council show that in an average year:

Two out of three deaths in cities under 10,000 were pedestrians; one in four in villages and rural areas.
Drinking is reported in one out of four fatal accidents.
Driver reported violating law in seven out of ten fatal accidents.
A speed violation is reported in one out of three fatalities.
The proportion of drivers involved in accidents is highest in the teen-age group.
The driver's vision was obscured in one out of every four fatal accidents.
Three out of five fatalities occurred at night.
Defective vehicles were involved in 17 per cent of fatal accidents. This is noticeably higher than the 8 per cent in the last pre-war year.
Approximately two-thirds of the pedestrians killed were either violating a law or committing an unsafe act.

Unsafe Acts of Motorists and Pedestrians

Accidents for the most part are the result of unsafe acts and bad practices. If we wish to reduce accidents, we must correct and eliminate the unsafe acts that cause them.

TABLE II

Pedestrian Actions, Fatalities in 1945

Actions	*Per Cent*
Crossing between intersections	33
Crossing at intersections	26
Walking in roadway	18
Playing in roadway	5
Stepping from behind cars	8
All others	10
Total	100

TABLE III

Driver Actions, Fatalities in 1945

Actions	*Per Cent*
Exceeding speed limit	15
On wrong side of road	9
Exceeding safe speed	8
Under influence of alcohol	8
Not right of way	7
Disregarded signs	5
Other improper driving	17
Total	69*

* 69 per cent of accidents involved a driver violation.

Underlying Causes of Accidents

What are the real causes of certain types of accidents? For example, 9 per cent of the accidents listed above were ascribed to "the wrong side of the road." This could be said to be the unsafe act that contributed to the accident. Yet the true cause is more likely to be much deeper. Why was the driver "on the wrong side of the road"?

Was it due to faulty attitudes or bad practices? Was it because he consistently violated center line regulations, or was he attempting to pass on a narrow road? Was the violation the only *cause* of the accident, or were there underlying causes?

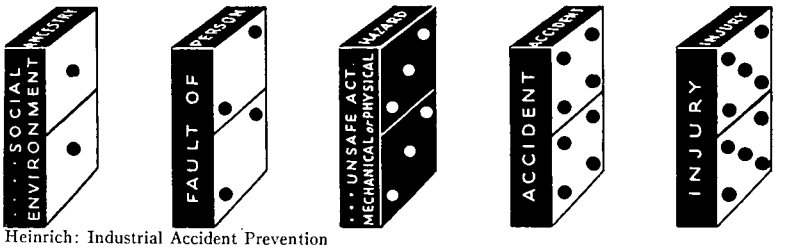
We must therefore add to our conception of accident causes these background causes that are not immediately apparent—that cannot be observed by a police officer, that sink deeper into the fabric of the personality of the driver. This conception is explained in the figure below.

It will be noted from the above that the unsafe act domino is in the middle of the series, but two others precede it. Among the explanations for the first two dominoes in the series are the following:

1. *Social Environment and Ancestry*
   Living conditions; schooling; training; nourishment; associates; inherited traits; acquired characteristics; family relations.

2. *Fault of Person*
   Emotional instability; timidity; anger; impatience; bravado; daydreaming; anxiety; fear; intelligence; accident-prone personality; abnormal blood pressure; poor psychophysical aptitudes, such as hearing, vision, reaction and the like; alcoholism.

Thus it can be readily seen that in a majority of accidents recorded as "driving on the wrong side of the road," we know little



Heinrich: Industrial Accident Prevention
McGraw Hill Book Company

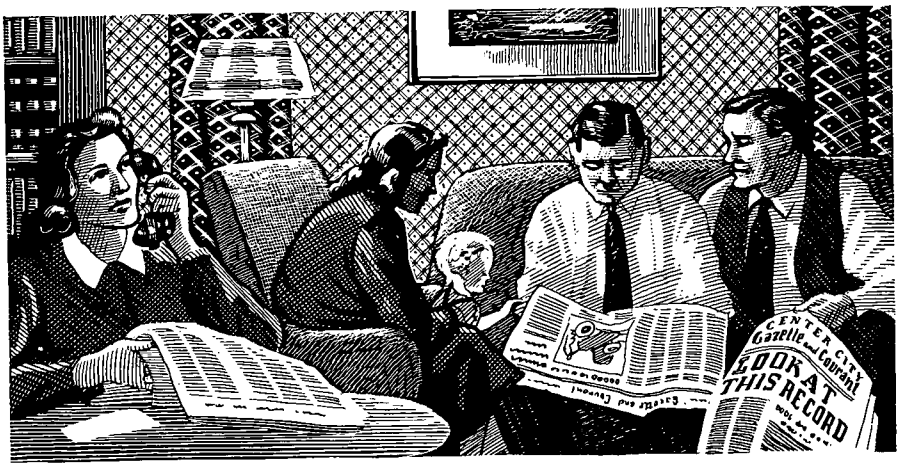
Figure 2. The Five Factors in the Accident Sequence

about the underlying or contributing causes. These cannot be photographed or recognized by a police officer conducting an investigation. It is important that we know about such causes, because herein lies a great field for improving practices through education and training. As a specific example, it is useful to have persons take a series of tests which will inform them regarding deficiencies in hearing, eyesight, reaction, and other psychophysical aptitudes, so that these deficiencies may be corrected in some instances or compensated for. One state reports over 200,000 high school youngsters as having been given such tests. Individuals who are well informed about their weaknesses tend to compensate for them and drive more

carefully. State records show that even drivers with hearing and orthopedic defects tend to be safer drivers than normal persons.

Traffic accidents are commonly and correctly ascribed to direct or proximate causes—the unsafe acts in the third domino of the Heinrich Sequence. These, however, are merely the result of other underlying causes, such as those shown under the first and second dominoes.

A parallel case exists in the field of medicine, where we may



compare specific diseases which cause death with specific unsafe driving practices which result in injury, death, or property damage. The physician, of course, treats the illness after it occurs, just as the police or traffic authorities jail or fine the traffic offender after he violates the safe driving practice. However, preventive medicine tries to get at the underlying causes that contribute to disease and apply correction or remedy. In just the same way the ideal attack on accidents should be made on the underlying or contributing causes that precede the unsafe act. Herein lies a remarkable opportunity for research and education.

Recently the National Committee for Traffic Safety made a study of the public's attitudes toward traffic problems. This study was conducted by the Opinion Research Corporation and sponsored

by the National Safety Council. The survey was conducted in all sections of the country and the complete report covers 63 pages. The following are some of the more significant findings:

61 per cent of the people believe that traffic accidents can be reduced

7 out of 10 are in favor of stricter enforcement

78 per cent believe that high schools should give courses in the principles of good driving

60 per cent say they think that high school students should be given actual driving lessons

66 per cent of the public would set the maximum speed at 50 miles per hour

90 per cent are in favor of regular motor vehicle inspections

Copies of the complete report of this study may be secured from the National Safety Council.

The Purpose of This Guidebook

This Guidebook will attempt only to provide a program for the educational side of traffic safety. It will discuss those practices which Center City and the many other cities have found productive. It will present in the following chapters those educational methods that are commonly used in the country that can be adapted to the average community program.

CHAPTER IV

Organizing the Program

IN order to determine the most common practices used in certain cities that have had continued success in traffic-safety education, a study was conducted of these cities. Some ascribe the success of their work to a few activities, such as newspaper publicity, school safety patrols, and the like. It is difficult to evaluate the effectiveness of any specific activity because of many other influences which are constantly at work and because certain activities prove much more effective in some communities.

The Action Program of the President's Highway Safety Conference and the report of the Committee on Education outline the steps that can be taken to organize the program. These reports have been used by the Eno Committee in preparing the material in this and the following chapters.

The following observations can be made from the first part of this study:

1. The community programs are organized under the direction of a local safety council or citizens' traffic committee.
2. There are ordinarily four or more subcommittees in the local program: (1) Engineering, (2) Enforcement, (3) Education, and (4) Accident Facts. In the larger cities there may be a school and college committee and one on public education, together with committees on finance and membership.
3. Programs operate most successfully when there is paid leadership, such as a local council manager or a secretary of the Chamber of Commerce.
4. Where there are local safety councils, traffic safety is but a part of the community safety program. Safety in the home, in industry, public safety, fire prevention and others would also be included. In this type of program, the education committee would obviously include the educational features of the complete program.
5. No matter what size the city is, funds should be available for carrying on basic activities. Effective programs cannot be projected on shoestring budgets.
6. Education committees should meet regularly, once a month or once in two months, to approve plans and project activities.

Organization of the Safety Education Committee

Membership on committees varies widely in communities. In general, however, the following are included:

Small Cities	*Larger Cities*
Superintendent of Schools	Superintendent of Schools or his Representative
Editor of Newspaper	Manager of Automobile Club
Parent-Teacher Representative	Editor of Newspaper
Red Cross	Representative of Parent-Teacher Associations
Representative of Police Department	Representative of Insurance Companies
Representative of Fire Department	Representative of Service Clubs
Representative of Service Clubs	Representative of Veterans Associations
Representative of Veterans Organization	Representative of Police Department
Representative of Scout Organizations	Representative of Fire Department
	Executives of Scout Organizations
	Red Cross
	Supervisory School Officials and Teachers
	Representative of Radio Stations
	Representative of Local Colleges
	Liaison Representatives of Other City Committees
	Representative of City Engineering Department

SUMMARY OF PRACTICES REPORTED BY CITIES WINNERS OF AWARDS

National Traffic Safety Contest and National Pedestrian Protection Awards

A check list was submitted in July, 1946 to get additional data from cities which had won honors in the most recent awards for traffic safety and pedestrian protection.

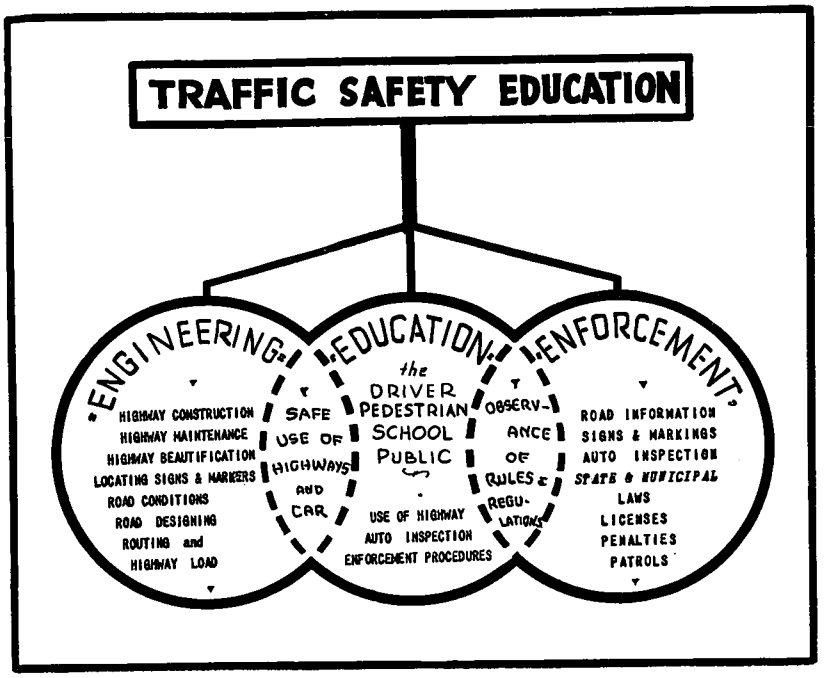


Figure 3

Findings are summarized below. The reports came in from cities of various sizes.

School Safety	*Per Cent Cities Indicating Yes*
What percentage of your elementary schools have safety patrols?	90
Do you have driver education in your high schools?	60
Is actual road instruction being offered?	15
Do the police visit schools to give talks?	100
Do you have someone responsible for school safety in the community?	92
If so, who? Police 70 per cent, schools remainder	
Do schools use lesson plans and posters on traffic safety?	100
If so, where are these obtained? Evenly divided between the A.A.A. and National Safety Council	
Do you have bicycle testing and licensing?	70
Is safety taught in all grades of the elementary schools?	100

Public Education

How often do news stories on safety appear in your local newspaper?

Regularly	
Daily	40 daily
Weekly	50 weekly
Semi-annually	10 occasionally
No record	

Are motion pictures on safety shown to luncheon clubs and the like? . . . 85

Do you have a local radio station? . . . 70

Does this station include traffic in its program? . . . 70

What type of programs are used?

Spot announcements	40
Talks	30
Plays and interviews	30

Do parent-teacher associations emphasize safety at their meetings? . 100
How many times a year, each group? Average 3 times a year.

Do luncheon clubs devote one or more meetings a year to traffic safety? . . . 84

Do you have exhibits in store windows or in other public places? . 90

Other Pedestrian Education

Are crosswalks at important street crossings painted regularly? . . 100
Indicate percentage: Average 90 per cent of important crosswalks.

Are outdoor posters displayed regularly? . . . 60

Are pedestrians who violate regulations given tickets? . . . 23

Are traffic officers especially active at important crossings trying to reduce pedestrian violations? . . . 92

Does the Police Department have cars equipped with loud speakers for use in pedestrian safety? . . . 30

Are booklets, tests, and similar materials given out at public meetings? . . . 77

Are there warning signs in the vicinity of all school buildings? . . 92

Are one or more officers in the Police Department assigned to supervision of patrols? . . . 70

Organizations

Do you have a local community organization or committee responsible for traffic safety? . . . 46

If so, what kind of organizations? Community Safety Council . . 100

Does this organization have a committee on safety education or traffic education? . . . . . Yes, when there is a Council.

A further explanation of the activities of various cities will be

found in a recent publication prepared by the National Safety Council, "America's Traffic Safety Champions."

Analysis of Activities and Responsibilities of Agencies

DIGEST OF DATA RECEIVED

1. *Collection and Utilization of Accident Facts*

   The Police Department should assemble accident facts regularly and make them available to the safety committee, the Superintendent of Schools, the newspapers, and other agencies. In larger cities, these are mimeographed and made available to all schools.

   The schools should also have an accident reporting system, reporting all accidents and furnishing monthly summaries to the superintendent.

   Accident facts are essential in organizing a program. They are evidences of educational shortages and show where corrective measures should be applied.

2. *Improving Pedestrian Practices Among Children*

   This is the prime responsibility of the schools themselves and will be discussed in a later chapter.

   The Police also have the responsibility of providing traffic officers for crossings, assisting in the supervision of patrols, and aiding the schools in carrying on protective measures.

3. *The Education of Young Drivers*

   This is the responsibility of the high school. It is undoubtedly the best way of preparing young people for their responsibilities as drivers.

4. *Adult Pedestrian Education*

   This is the joint responsibility of the Community Committee, police, and other agencies. For this reason a subcommittee should be set up developing a continuing program such as described in a later chapter.

On the subcommittee the following are represented:

Newspapers, radio stations, motion picture theatres, automobile club, schools, and police.

5. *Adult Driver Education*

This is an important activity but often neglected because it is more difficult to organize and show benefits.

The following are mentioned in reports:

Adult evening school training
Schools for violators
Commercial driving schools
Courses for fleet supervisors and drivers
Newspaper releases
Radio programs
The use of traffic safety motion pictures
Exhibits and demonstrations.

6. *Educational Programs in Relation to Enforcement and Engineering*

These include the following:

Press releases by the Police Department showing changes in regulations
Releases and stories on accidents, arrests, convictions, revocations and suspensions
Educational materials on inspection of vehicles
Publicity materials on brake inspection campaign
Informational materials on seasonal driving hazards, needed legislation, parking problems, accident facts, and civic meetings.

7. *Activities of Community Agencies*

These should be tied up to the citywide program rather than isolated campaigns. For example, the Automobile Club may wish to furnish posters and lesson plans for the schools. The American Legion may wish to aid the Police Department in organizing bicycle activities. All of these and many others should be a part of the community program, so as to prevent duplication and overlapping.

8. *Speakers' Bureau*

   Many communities have found this one of the best ways to get the subject before various meetings and conferences. Speakers should be furnished factual materials and suggested outlines of talks. This is especially true if police officers visit schools to give talks. Such talks should be carefully prepared to fit the needs and interests of the audience.

Activities of the Education Committee

This committee meets monthly, or in some instances once in two months. Early in the year a working program is adopted showing major activities of the year. Progress in these activities is reported at meetings.

In larger cities it has been found useful to have the following subcommittees: (a) schools, (b) public education, (c) speakers' bureau. Some communities have a special committee on pedestrian education or control.

The objectives and activities of the committee are established and approved by the officials of the community safety organization. Since most of the leadership will be volunteer, activities are broken down so that each committee member will be given something to do.

New projects are approved by the committee as a whole. Efforts are made to prevent overburdening the schools with essay and poster contests. Organizations in the city that have some money to spend will generally make better use of these funds by aiding the schools in the work they are trying to do by helping them purchase posters, visual aids, books, and other instructional tools, rather than attempting to organize contests that have doubtful value. This does not mean that many such contests are not valuable; it means that there is danger of introducing too many contests into the school program.

Selective education has a parallel in selective enforcement in the Police Department. It means determining the needs, based upon accident experience, and concentrating on education to meet these needs.

If, for example, a city finds that accidents involving "children playing in the streets" have shown a marked increase, remedial efforts should be applied in this direction. If there are altogether too many mishaps involving teen-age drivers, remedies should be applied. An education program does not mean striking out vigorously in all directions; it means applying pressure where it is needed.

The National Traffic Safety Contest

For many years the National Safety Council has conducted an annual contest between the states and the competing cities. This contest has been used in stimulating interest of the states and cities to find successful solutions of their vehicular and pedestrian problems. Over one thousand cities participate in this contest. It will be noted in the basis for scoring below that education is given a total of 26 out of the 100 points.

Basis for Scoring 1945 Contest

	POINTS
Motor Vehicle Traffic Death Record	30
Accident Records and Reporting	12
Traffic Engineering	16
Traffic Law Enforcement	16
School Child Safety	10
Public Safety Education	16
Total	100

The cities are divided into six population groups and awards are made to leaders in each group. In the past five years it is significant to note that several cities have consistently won awards. Aberdeen, South Dakota, for example, won honors for three successive years, and Stillwater, Oklahoma, for two, in the 10,000 to 25,000 group. During the same period Detroit, Michigan, won first place twice among the larger cities; Wichita, Kansas, also won two firsts in its group, while Lansing, Michigan, and Greenwich, Connecticut, carried off top honors twice in their respective groups.

Pedestrian Protection Awards

The American Automobile Association has also been stimulating the work of cities in awards for pedestrian protection. Over 1,000 cities participate in this contest. Cities submit records and exhibits showing the nature of this program. Phases of the pedestrian program which are given major credit include: (1) Organization for traffic safety. (2) Enforcement. (3) Physical improvements. (4) School safety. (5) Public education.

This contest is also organized on a population basis with six groups. Several awards are given in each group together with honorable mentions. As in the National Traffic Contest there have been several repeaters in the various groups: Detroit, winning three times; Milwaukee, twice; Cincinnati, twice; Lakewood, Ohio, twice; Appleton, Wisconsin, three times; Aberdeen, twice; and Manistee, Michigan and Wood River, Illinois, both cities under 10,000, twice.

The National Safety Council will, on request, prepare a written analysis of information which cities of over 10,000 population submitted on their street traffic contest report form, and will either send or present this report personally to the city. In 1946 approximately 100 cities used this contest analysis service.

CHAPTER V

Safety Education in Elementary Schools

THE most effective work has been done in the elementary schools, for in the 10-year period from 1930 to 1940, there is clear evidence of an actual saving of 26,000 child lives largely as a result of traffic safety education. No better statement of the recommendations for action in the schools has been found than that approved in 1946 by the President's Conference on Highway Safety. The highlights of the report of the Education Committee of the Conference feature the following:

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.
2. Day-by-day instruction should be based on immediate needs and local situations.
3. Situations should be set up which afford individual practice in meeting those problems most likely to be encountered.
4. The instructional program should include use of vicarious experiences.
5. The school administration should assume the responsibility for establishing a safe environment.
6. Group activities emphasizing traffic safety should be encouraged.
7. School safety patrols should be established where traffic surveys indicate a need.
8. Where feasible and needed, Junior Safety Councils or similar organizations should be established.
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.
10. A definite program should be established for coordinating the work of school, home, and community.
11. Wherever and whenever possible, the work of the school, home, and community should be coordinated by having properly qualified supervisory personnel.

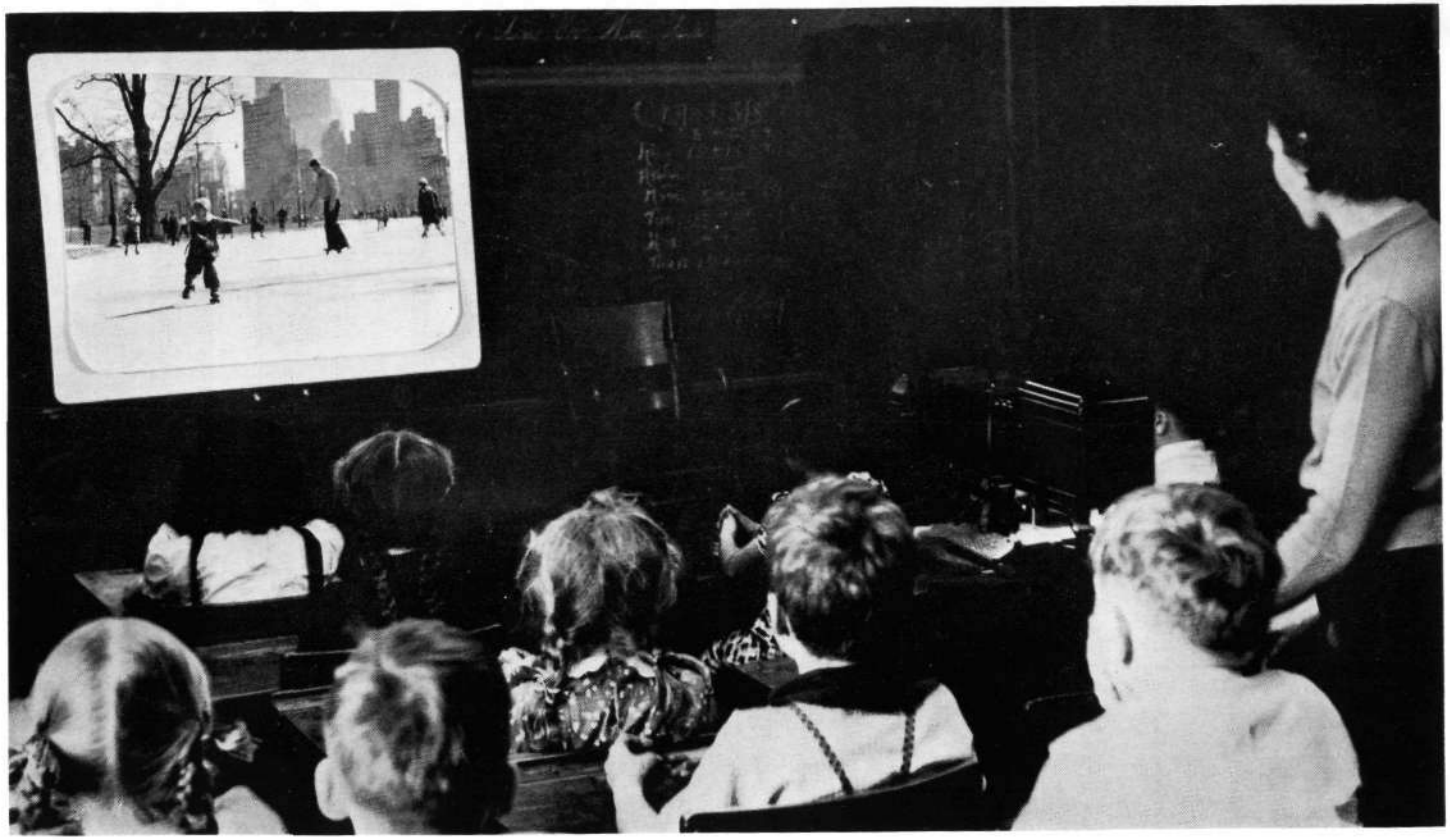


Figure 4. Proper Use of Visual Aids Is Effective

Organizing the Program

The school traffic-safety education program may be planned and sponsored by a school safety subcommittee under the direct supervision of the school administrator. Its functions would be to work with the curriculum committee in determining the content and placement of traffic-safety education, and to help control school traffic problems. This latter function includes the problems within the building, on the grounds, and on the surrounding streets.

Library and classroom materials, including visual aids, should be provided. There is a good assortment of free or inexpensive safety material available, including books, tests, and pamphlets.

Traffic Education in Every Grade

Because of the importance of traffic education, with its variety of aspects, and the nature of children at that age, certain phases should be taught in every grade. Highway safety is a problem common to all communities, urban or rural.

In general, pedestrian practices, including the learning of the meaning of various traffic signals, patrol and traffic officer functions, and the safest methods of going to and from school should be stressed on the primary level.

On the intermediate level, the child should be introduced to the social aspects of what the community does to protect him. Special emphasis should be placed on teaching safe cycling and skating during this period. At this age, he begins to use public carriers and should be instructed in their safe use.

During the upper elementary grades or junior high school, pre-driver education can be begun. This is particularly true in states where the legal driving age is unusually low. Bicycling and pedestrianism should continue to be stressed on this level.

The School Safety Patrol

The results obtained by the safety patrols in reducing child traffic accidents have been outstanding. Properly conducted, their use by a school not only provides excellent protection for the children, but

affords a splendid school project for the development of leadership qualities and safety awareness among pupils. Schools should adhere closely to the standards of organization and operation for patrols accepted by the National Safety Council, the National Congress of Parents and Teachers, and the American Automobile Association.

Municipal and state police have rendered a conspicuous service in the aid they have given to schools in patrol work. Automobile Clubs have been active in equipping and training patrols, as have parent-teacher associations, state highway patrols, state motor vehicle departments and veterans' organizations. Some patrols also serve on or about school playgrounds; others aid on school buses.

There are certain precautions in this operation of patrols that are most important. Many patrols fail to do good work because of a lack of supervision and recognition on the part of the school itself. It should be borne in mind that the patrol is an extension of the educational arm of the school. While a certain amount of supervision can be provided by the police and other agencies, each patrol should have immediate supervision by a responsible teacher or principal.

This tends to strengthen the prestige and the satisfaction that youngsters get from their membership. They should be well equipped and trained and follow prescribed regulations and practices. They should not take the place of traffic officers, but should operate from the curb. (Exceptions to this are included in the national standards.)

Rewards for good service in the form of recognition at the school assembly, attendance at football games or free movies, together with patrol hikes, camps, or parades give youngsters a recognition and feeling of satisfaction that is healthy for patrol morale.

The Cycle Problem

Children are not only pedestrians, but the majority are "on wheels" many times during the day. In the lower grades they skate and ride tricycles, wagons and scooters, and in the upper grades the bicycle.

Figure 5. Patrol on Duty

It is recommended that the uniform code for the improvement of bicycle legislation developed by the National Conference on Street and Highway Safety be adopted in all communities.

The registration, licensing, and testing of bicycles is undoubtedly of benefit in reducing accidents and in educating bicyclists in the proper operation of their vehicles. The licensing system should be a school and police cooperative program, including education, testing, licensing and enforcement.

Bicycle clubs can do much to promote safe bicycling. Safety Councils and veterans' organizations have played a leading role in their development throughout the country. The Cycle Trades Association has a variety of literature explaining tests and licensing systems. Several state departments also have publications, as do the National Safety Council and the National Conservation Bureau. Several good motion pictures are also available for school assemblies. (See Visual Aids list.)

Cities report that one of their most difficult problems is that of maintaining interest over a period of years. The first year, most of the youngsters come out for tests and secure licenses. The second year, interest wanes — the novelty wears off. Some cities have attempted to keep it alive by having different grades of tests, culminating in the "expert cyclist" award. Others have their cycling clubs.

Junior Safety Council

Many cities have had unusual success with Junior Safety Councils. While these include all phases of safety in their program, traffic is generally given appropriate attention. Councils are usually made up of representatives of home rooms, and meet regularly to discuss ways and means of improving safety, show motion pictures, arrange programs for the school assembly and correspond in many ways to the community safety council. In some cities the patrol is an activity of the Council.

Some cities also report Traffic Courts, often run as an aid to the work of the patrol. Under good supervision, such courts may have considerable value.

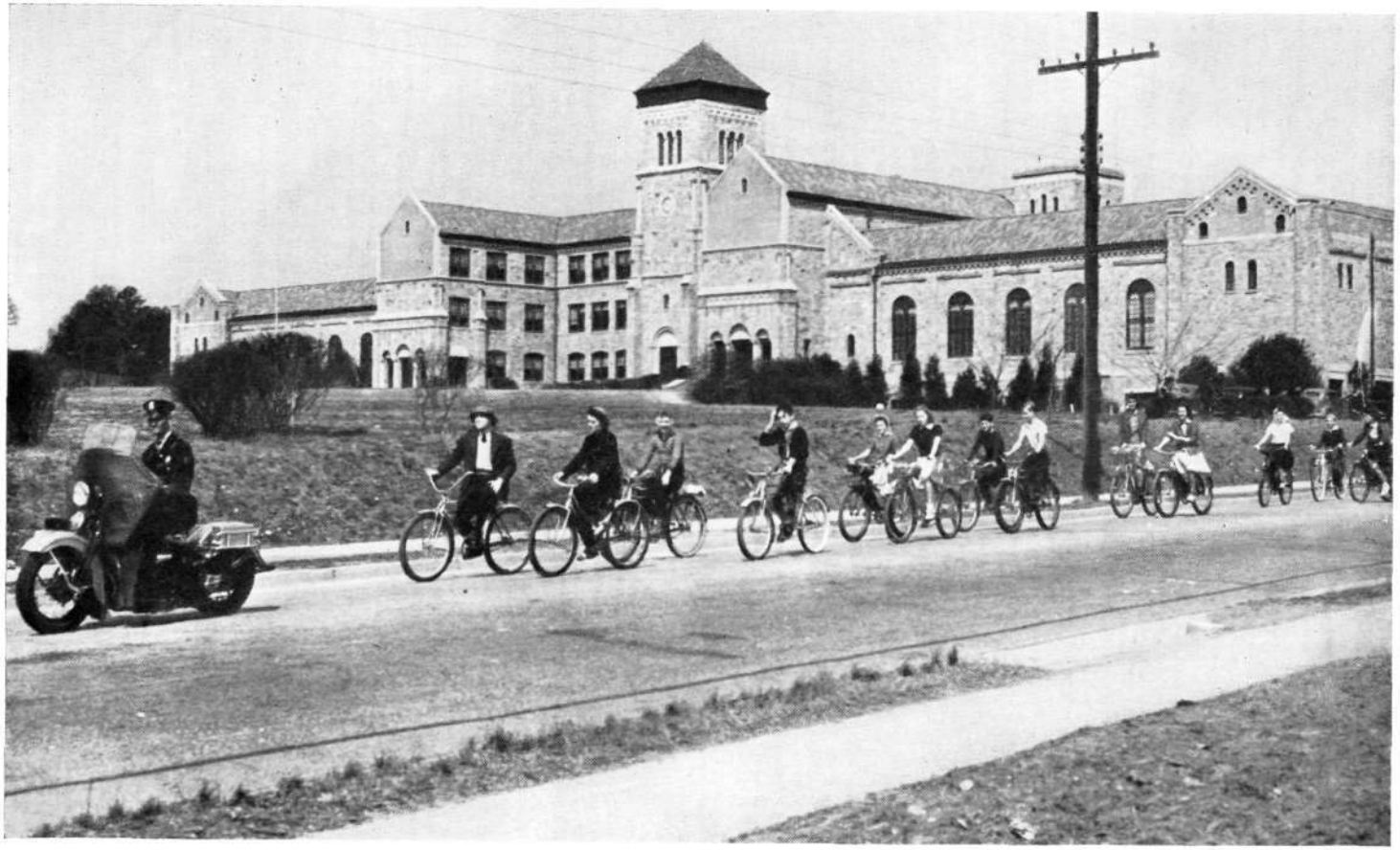


Figure 6. A Saturday Morning Spin and Instruction for the Bicycle Club

Methods and Materials

Traffic safety lends itself well to a variety of methods and devices for successful teaching. The excursion, dramatization, and visual aids methods are particularly well adapted for instruction in the elementary grades. By simply counting the number of vehicles that fail to stop for a stop street, a group of pupils will become far more impressed with this laxity and its dangers than by just reading from a text. Then if the danger to the pedestrian and bicyclist is cleverly pointed out by the teacher, a very valuable lesson is learned.

The alert teacher will utilize many of the following forms of methodology; personal experiences (pupil and teacher), excursions, dramatizations, visual aids, and composition of original stories and poems. Negative lessons are necessary occasionally.

CHAPTER VI

High School Driver Education

THE automobile has become on integral part of our way of life, bringing its many advantages of efficient, low cost transportation to millions. Yet, it has been used with a marked degree of inefficiency, for in the past fifteen years drivers have made so many mistakes that nearly half a million people have been killed on our streets and highways, and over ten million have been injured. This toll is not the result of unavoidable occurrences.

It is mainly due to the fact that since the turn of the century our drivers have formed their habits through trial-and-error learning. The automobile will perform as it is directed by the operator, and his control will be efficient and dependable to the degree that he possesses good attitudes, proper understanding, and adequate skills. These elements may or may not be possessed by the haphazardly trained driver. But they *can* be developed in the driver-to-be through sound instruction in the high school.

Younger drivers between the ages of 16 and 20, on the average, are involved in more fatal accidents than drivers in any other age

Figure 7

group. Yet training for citizenship logically requires that high school graduates be prepared to live safely in a society that utilizes motor cars so extensively in its every day living. Driver education courses provide the only means by which high school students can acquire the basic attitudes and understanding that are needed by the citizen driver of today and tomorrow.

Three out of four high school students will be operating cars by the time they are graduated from school, or within five years after being graduated. It is in the formative years of youth that the schools prepare for good citizenship. Accident-prevention education is an essential of good citizenship which is in complete harmony with the objectives of modern education.

The School's Responsibility

The support and endorsement of educators has resulted in notable progress in the past ten years. An overview reveals the following:

Several thousand high schools include classroom driver education in the curriculum. In most of these schools this instruction is given as a separate 20-hour to 60-hour course, or as a distinct unit in connection with another subject. Over 25 State departments of education have prepared and distributed courses of study in safety education and driver training. In one state a course in classroom driver education must be successfully completed as a requirement for graduation. Over fifty teacher-preparing institutions now offer teacher-training credit courses in safety and driver education.

The need for driver education has been formally recognized by the National Education Association. The Association organized in 1944 a National Commission on Safety Education. In 1940, the Yearbook of the American Association of School Administrators was devoted to Safety Education.

The responsibility for teaching driver education has been viewed as properly belonging to the schools. This opinion is held because:

The high school affords the best opportunity for reaching the greatest number of "pre-license age" drivers.

The high school age, during which students reach the legal driving age, is the most appropriate time for educating drivers.

Only competent teachers conducting properly organized courses can provide the learning experiences that will result in the formation of the good habits and attitudes.

The content of driver education is closely interwoven with other instructional materials and subjects designed to prepare for modern living.

Drivers who receive scientific education attain superior attitudes and skills, and can make a valuable personal and social contribution to accident prevention on the highways.

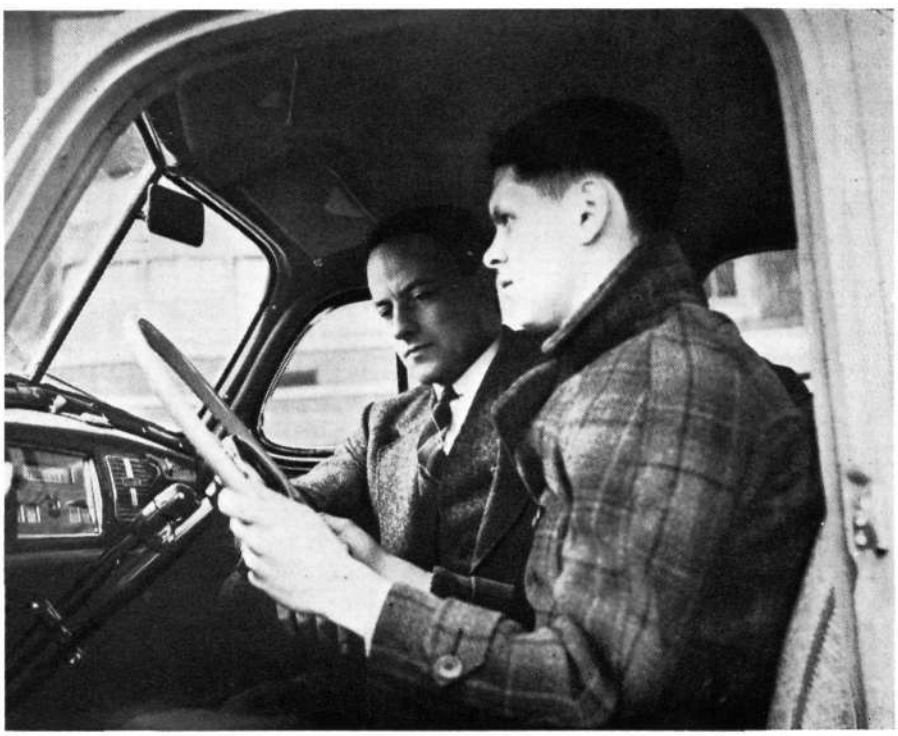


Figure 8. First Lessons Behind the Wheel

Organizing the Course

High school courses in driver education are concerned in a broader sense with the development of *character*, and with the stimulation of the adolescent to have and display good attitudes of cooperation and consideration. Mere skill in maneuvering the vehicle is not among the primary objectives of the course, nor is merely "safety" per se. Course content is designed to orientate the student to live

safely, though adventurously, through skillful and efficient behavior on streets and highways.

Classroom instruction is *basic* in the school's driver-education program. This has been recognized by the 5,000 schools that have instituted classroom courses, even though they do not yet provide behind-the-wheel training. Through discussion and reading, and by the use of visual aids and other devices, classroom instruction provides the basic understanding, judgment, and attitudes so necessary in learning to drive and for expert vehicle operation.

The addition to the program of road training in dual-control cars is a most desirable objective, and one which the school should attempt to achieve as soon as conditions permit. However, the introduction of a classroom course should not be delayed due to lack of road-training facilities.

Schools have placed the course in the curriculum when its application would be most significant in terms of student needs and state requirements for a license. In most states the course is scheduled during the first, second, or third year of high school, just prior to or at the time of the state's minimum age for obtaining an operator's license.

Courses have been fitted into the curriculum in the following ways:

As a separate, full-time course.

As a distinct unit in connection with civics or social science, or physical and health education, or science education, or industrial arts.

As a substitute for study hall periods.

Offering the work as a separate course or as a distinct unit of another course is the best procedure. (The technique of integration is helpful but gives no assurance that this training will receive the attention it merits.) Time allotment varies with local provisions. Most courses cover about 30 to 45 periods, although some schools brief the course to 20 periods. Others give a thorough treatment of content covering 45 to 60 periods.

Instructors are usually selected by administrators from among the following:

a. Teachers with backgrounds in one of these general fields: social studies, industrial arts, sciences, health and physical education. Other subject teachers have also proved to be capable teachers of driver education.

b. Instructors who have satisfactorily completed a course in driver education in a college or university.

c. Teachers who have attended intensive short courses in driver education and training.

d. Persons who have had no formal training in driver education, but who have, in the opinion of school administrators, adequate qualifications in regard to a satisfactory driving record, interest in the subject, initiative, and instructional ability. Such persons have been urged to attend intensive or special training courses, for the teacher who has received special training can naturally do a superior job.

Content of the Course

The following are the major units which receive treatment in these courses:

The Development and Social and Economic Influence of the Automobile
The Automobile: Its Construction, Operation, and Maintenance
The Physical and Mental Qualifications of the Driver
Psychophysical Tests for Drivers and Corrections and Compensations for Personal Limitations
The Driver's Social and Legal Responsibilities
The Fundamentals of Driving: Personal Traits and Operational Maneuvers
Legal Requirements; Traffic Rules; Regulations and the Police; Securing an Operator's License
Sound Driving Practices in the City; Rural Driving Practices; Natural Laws Affecting Vehicle Operation
Engineering for Safety: the Car and the Highway; Society's Safeguards; Benefits of the Safety Movement; Liability for Accidents
The Pedestrian and the Bicyclist.

Detailed treatment of the content of each of these units can be found in any one of the many texts, teachers' manuals, and courses of study available in this field. A discussion of road-training methods and lessons is also covered in detail in a number of sources.

Securing Assistance

A number of State and national organizations can provide information helpful in instituting and conducting driver education courses, such as printed materials, consultative and teacher-training services, course outlines, testing devices, and other aids. Here is a partial list of such organizations that cooperate with the schools:

American Association of Motor Vehicle Administrators, Washington
American Automobile Association, Washington
Automotive Safety Foundation, Washington
Center for Safety Education, New York University, New York
National Commission on Safety Education, N.E.A., Washington
National Conservation Bureau, New York
National Safety Council, Chicago
Insurance Companies and Automobile Manufacturers
State Departments of Public Instruction
State Motor Vehicle, Highway, and Police Departments
State and Local Safety Councils.

School-community cooperation should be developed to assure the success of the program. The support of the Police Department and the P.T.A. is needed so that the educational activity of the school will receive official and parental support.

Home-school cooperation should be utilized for educating drivers-to-be where road training cannot be provided. This can be done by distribution of a manual on the teaching of driving. The pamphlet "Behind the Wheel" is in use in such home-school training plans in 36 states. The plan calls for the school to provide classroom instruction, and the parents to provide road training.

While enforcement efforts and engineering improvements will do much to curb accident occurrence, the rising toll of traffic deaths points inescapably to the fact that safety will be attained in satisfactory amount when driver *behavior* is improved. Education alone provides the chief means by which this may be done. Driver-education courses afford the schools a splendid and unique opportunity to make a significant contribution to safety.

CHAPTER VII

Educating Teachers

THE practices and attitudes of young people depend to a large extent on the instruction they receive in the schools. If safety education is given adequate stress in the school program and if teachers are well prepared, it will be expected that there will be fewer accidents. It can readily be seen that if high school youngsters are to become good drivers, they should have well-trained teachers.

This becomes a responsibility of the local school superintendent.

The motor car has had a phenomenal growth in the last generation. The schools, like other institutions in our community, have not been able to keep up with this growth. Safety education is relatively new in the school curriculum, and many teachers completed their college training before safety was included in their courses. For example, driver education in the high schools is scarcely ten years old. Many of the teachers who are now offering this instruction have not had adequate preparation.

Suggested Program For In-Service Training

It is the responsibility of the state and local school authorities to provide adequate in-service training for teachers. Administrators are urged to hold conferences, provide courses, workshops, and institutes in accordance with the following suggestions:

1. Colleges and school administrators should cooperate in the organizing of extension courses, workshops, short courses, and conferences for the preparation of teachers. In such training, data concerning the traffic accident problem of the community and the schools should be emphasized.

2. School administrators, i.e., superintendents and principals, responsible for the supervision of teachers should hold periodic conferences to discuss the safety-education program and to suggest methods by which it might be strengthened.

3. Periodic analyses of available records and reports of traffic accidents should be made by local school administrators to determine

principal causes and to develop recommendations for preventive measures. Such information should be made available to all schools.

4. School administrators should encourage teachers to participate in the development of courses of study, programs in pupil transportation, school safety councils, safety patrols, driving clubs, and bicycle clubs. Where local safety councils or other safety agencies exist, teachers should be encouraged to participate in their work.

5. Adequate instructional materials, such as textbooks, posters, workbooks, bulletins, visual aids, exhibits, references, and pamphlets, should be provided for the schools.

6. Teacher-preparing institutions should also develop safety-education programs. Courses of study should be written, evaluated, and revised, depending upon requests and needs.

These suggestions agree generally with the recommendations of the President's Highway Safety Conference.

CHAPTER VIII

Improving Pedestrian Practices

VISITORS to many cities, especially cities in the Southern states, are impressed with the pedestrian practices at crossings in business districts. For the most part there are few "jay walkers" and but little crossing against lights. "Why cannot other cities get the same results?" they ask. "You ought to see how pedestrians act in my town."

Certainly, other cities can get the same results if they really want to, if they organize programs for pedestrian protection. It isn't an easy task, however, as the national Capital found. It takes time. However, Washington was able to reduce its pedestrian accidents by concerted action. Other cities have accomplished the same thing. There are scores of cities that during the past two years have clearly demonstrated that it can be done.

During the past fifteen years, 190,000 pedestrians lost their lives —a number equal to the population of such cities as Long Beach, California; Des Moines, Iowa; or New Haven, Connecticut. An analysis of these fatalities yields the following facts:

Pedestrian fatalities rank highest as a single type of fatal traffic accident.

The severity rate is three times higher than that of motor vehicle collision accidents.

Two out of three urban and one out of four rural traffic deaths are pedestrians.

In one out of five fatalities, the pedestrian has been drinking.

There is a high correlation between these fatalities and each of the following: extreme youth, old age, the hours of darkness, violations of traffic rules, and the performance of unsafe acts.

As approximately two thirds of the pedestrians killed by motor vehicles each year are either violating traffic laws or committing unsafe acts, such as crossing between intersections, crossing against lights, or walking in the roadway, a brief review of causes of accidents is in order. The reasons for unsafe acts may be placed under four general headings:

1. Improper attitude, which means the pedestrian did not have an understanding of the value of correct attitudes
2. Lack of knowledge or skill in correct walking practices
3. Mental and bodily defects, such as nervous instability or impaired hearing
4. Safe practices difficult or impossible under the circumstances

Figure 9. The Left Side Is the Right Side

Procedures for Pedestrian Control

Obviously, the first step in any program of this type is to get the facts regarding accidents and violations and determine where emphasis is needed. The second step is to organize the program, combining the three approaches—engineering, enforcement, and education. While this manual is devoted to education, mention should be made of engineering and enforcement features that have been found successful. Among these are:

1. Enactment and enforcement of pedestrian regulations, after proper educational program.
2. The painting of crosswalks and pedestrian waiting zones for surface transportation.
3. Painting of markings on streets in the vicinity of schools and playgrounds.
4. Installation of pedestrian signals. Washington has had good experience with this type of signal.

5. Setting aside play streets in thickly populated districts. In some cases these are entirely closed to traffic; in a majority, traffic is restricted through the use of warning signs at both ends of the street. New York City has had experience with this method.
6. Construction of walks or paths along highways in suburban or rural districts.
7. Statewide program calling for walking on the left side of highway facing traffic. Use of signs and educational program. This is now in use in many states and has been found effective. It is strengthened by having special attention given to enforcement by highway patrol and state and municipal police.
8. State laws requiring a complete stop when approaching a school bus discharging or taking on passengers.
9. Signs and warning devices at school zones.
10. Traffic officers at important street intersections.
11. Setting aside streets for coasting. This has been found effective in many cities.
12. Building playgrounds that will tend to keep children off the street.
13. Speed restrictions in both business and residential districts.
14. Arrests and warnings for violators. Warnings have been used* in many cities, and arrests for violations in others. Many safety leaders feel that the latter will be necessary to actually get good pedestrian control.
15. Underground and overhead passages for pedestrians.

Figure 10. Pedestrian Education

* See the *Model Pedestrian Ordinance*, National Conference on Street and Highway Safety.

Pedestrian Education

In cities that have been studied, the following educational methods have been used. There is no evidence available as to the effectiveness of the various methods. Thorough pedestrian educational programs are essential prior to carrying on any accelerated enforcement activities.

1. Special stress on pedestrian practices in the schools of the community.
2. The use of police cars equipped with loudspeakers.
3. The use of signs and posters, especially in business districts where pedestrian traffic is heavy. These may be placed on poster boards or attached to posts or other elevations along the street.
4. The use of motion pictures or other visual aids. New Jersey has utilized motion pictures extensively in theatres, schools, and before other audiences, in the effort to improve skills and attitudes.
5. Talks before all types of civic organizations. This has been found especially helpful, particularly at Parent-Teacher Associations. Efforts should be made to reach older persons, since in many cities altogether too large a percentage of the accidents involve persons in this group.
6. Radio publicity through spot announcements and other types of programs.
7. Enlisting the cooperation of all civic groups, stores, theaters, churches, and fraternal organizations.
8. A continued program of education in local newspapers.
9. Exhibits in store windows and at other public places.
10. Spot maps showing where accidents are occurring.
11. Utilizing Boy and Girl Scouts to give out educational leaflets at crossings.
12. Securing the cooperation of drivers of commercial fleets and bus companies for more care and courtesy on the part of drivers.
13. Box score of accidents in the daily newspaper. Many cities have been able to maintain a long record of days without a pedestrian fatality.
14. The utilization of posters, both indoors and outdoors.
15. Publicity regarding motorists who have violated regulations that would endanger the safety of pedestrians—stop signs, school zones, right and left turns, driving after drinking, and the like.

CHAPTER IX

Reaching the Public

ASSUMING that the school program is progressing satisfactorily, what can be done to reach the adults? This is a more difficult problem, yet one with which many cities have had a fair measure of success. We have previously discussed some of the elements of the pedestrian program, so that this section will deal largely with the motorist.

It should be emphasized at the outset that long term planning and continuous action are necessary to get results. There should also be a division of responsibility on the safety committee so that no one individual will be given too heavy a load.

From an analysis of reports that have been studied by the Committee preparing this manual, there are certain types of activities that are most frequently observed. These are listed below and will be discussed briefly. There is no evidence available to show the relative value of each, except the opinions of local leaders.

Methods Used in Public Education

1. Systematic releases to newspapers.
2. Radio programs.
3. Distribution of publications, tests, brake inspection leaflets and the like.
4. Motion pictures and sound film slides.
5. Posters, charts, and photographs.
6. Exhibits, demonstrations, clinics, motor vehicle inspection lanes.
7. Safety conferences.
8. Schools for drivers—voluntary; violators; courses for drivers of commercial fleets.
9. Talks at civic, fraternal, and other community organizations.

As has been emphasized throughout this manual, the accident facts of the community should determine the need for stress; this is what has been referred to as *selective education.*

Figure 11. Good News Releases Are Valuable

Projecting the Program

Let us assume that the education committee has ten members. Among these are the editor of the local newspaper, manager of the theater, a representative of the P.T.A., an insurance agent, and others representing civic clubs, schools, police, Boy Scouts, the utilities, the American Red Cross, and the Automobile Club, with the manager of the Council an *ex-officio* member. The committee has been furnished a complete analysis of the state and local accident facts for the preceding year, together with a copy of *Accident Facts, National Safety Council*, and state accident facts. Working with the manager, each member is asked to assume responsibility for one or more of the activities that will be discussed below.

Newspaper Publicity

It is advisable that all news releases go through the publicity representative, in this case the editor of the local newspaper. What kinds of releases can be used?

1. Statement from the Police Chief regarding problems of enforcement, or from the City Engineer regarding engineering recommendations.
2. Monthly reports of recommendations and activities of the local committee.
3. Special releases on local ordinances, vehicular inspection, new regulations, unusual accidents, care used in driving in inclement weather, etc.
4. Mats, news and photograph services are generally used by local newspapers. These are sent out from the National Safety Council, the National Committee for Traffic Safety, state motor vehicle administrators, state traffic commissions, the National Conservation Bureau, the American Automobile Association, the Automotive Safety Foundation, and others. Many of these are very good. But it must be kept in mind that newspaper offices are cluttered with all kinds of releases, competing for the attention of the editor. In addition, there has hardly been a time when national and world affairs call for so much space that otherwise might be given over to traffic safety.
5. Box scores of accidents, or accident-free days.
6. News stories of arrests, convictions, violations, suspensions, and revocations. These come from either traffic or police records, or from the State Driver's License Bureau. Stories of arrests and convictions of drunken or "hit-and-run" drivers are especially valuable.
7. Announcements and reports of safety conferences, meetings, campaigns, and the like. As a rule, city safety councils report that good newspaper support is their most valuable aid in public education.

Certain state agencies, such as the Connecticut State Traffic Commission, the Wisconsin Motor Vehicle Department, and the Iowa State Safety Council have an established policy of furnishing community organizations with monthly releases. An analysis of these releases indicates that they are well prepared and should be useful in local publicity.

These states report a fine cooperation on the part of daily and weekly papers. The Minnesota Highway Patrol has an excellent barometer of the news value of their releases: A clipping service keeps a record of how many papers print their releases. As might

be expected, the barometer runs high on releases that are timely and have good news value, and sinks to a low point when news value is negligible.

Figure 12

Radio Programs

There are several types of programs now being utilized. The first is a weekly interview or discussion. Another program that is popular is the "quiz" type. A third that has been used in but a few cities is the drama. The most common type is the "spot" announcement.

It is clear that good radio programs to hold a listener need to be

carefully prepared, rehearsed, and put on in as nearly a professional way as possible. Some communities use local announcers to conduct such programs; others find radio talent among their own membership. Discussion-interview programs should not run too long; fifteen minutes appears to be best. Iowa records programs of this type and circulates recordings among local stations.

Quiz type programs present the greatest difficulty. Good radio talent is scarce, especially on a volunteer basis. Scripts must be prepared and interest maintained to compete with the commercial programs that flood the ether. Some cities have utilized Little Theater groups or Drama Leagues for a few programs.

For all practical purposes, the spot announcement appears to be a natural for smaller cities. Ideas for such announcements can be secured from national safety agencies and from state motor vehicle and highway departments. Some states report that 75 per cent of the local stations are using such announcements. Wisconsin has had unusual success with a series of programs called "*Know Your Traffic Laws.*"

Booklets, Pamphlets, and Tests

The larger safety councils prepare their own leaflets and publications for distribution to their membership. But smaller communities do not have an adequate budget for this, and must use either free materials or those purchased from national safety agencies. Such materials, when not used as "throw-aways," can be valuable. For example, booklets such as "Behind the Wheel," a publication of General Motors and the Center for Safety Education, are widely used. Several of the insurance companies, especially The Travelers, the Aetna, the Metropolitan Life, have a number of publications that are widely used. The same could be said of several of the automobile manufacturers and the oil companies. The National Safety Council, the A.A.A., the National Conservation Bureau, and the Automotive Safety Foundation also have a variety of pamphlets. The International Association of Chiefs of

Police provided large quantities of leaflets and stickers in connection with the recent brake-check campaign. All pamphlets should be examined by the Committee before being imprinted and distributed.

Motion Pictures, Posters, and Other Visual Aids

At one time there were comparatively few good motion pictures available; today there are some excellent films, most of which can be secured for transportation costs only. Some of these can be used in motion picture theaters. For example, the most recent New Jersey Motor Vehicle Department film, "X Marks the Spot," has been used in a large percentage of the theaters of the state. A complete list of the films available is included in the Appendix.

Sound-slide films, such as the National Safety Council production "Traffic Jam Ahead," are also available for civic, fraternal, and other clubs. Colored lantern slides or film strips showing local problems are also useful; in fact, a good set of slides accompanied by a well-prepared talk has been found to be as useful as showing one of the well-known motion pictures. The use of 2 x 2 color film has increased rapidly since the end of the War and is excellent for showing pictures of local traffic problems.

Posters may be secured from the National Safety Council and the A.A.A. A limited supply is also available through insurance companies and other industries. Outdoor poster boards are used extensively by councils and are one of the better ways of keeping safety before the motoring public.

The Mass Marketing Institute and the Outdoor Advertising Industry have developed a complete 3-year program of cooperation, utilizing large outdoor poster boards. These agencies are securing the support of various traffic organizations and national and state agencies to assist in an attack on traffic accidents through the use of outdoor traffic safety posters. Complete details regarding this activity may be secured from national safety agencies or from industries themselves.

Figure 13. Safety Education Exhibits

Exhibits, Demonstrations, and Clinics

During the course of a year, many local councils arrange for exhibits either in connection with conferences, or in store windows and other public places. Others utilize apparatus for psychophysical tests. In some cases this apparatus is borrowed from the State Motor Vehicle Department; in others, from national safety agencies or insurance companies.

Vehicle inspection lanes are not only of value as a periodic check of the physical condition of cars; they are useful also in convincing motorists of the importance of inspection.

Safety Conferences

The President's Conference on Highway Safety emphasized in its recommendations the need for followup conferences on the state and local level. Safety councils in larger cities have been holding such conferences for years. If smaller cities cannot plan to hold one or two-day sessions, they can have afternoon and evening meetings at least once a year.

Schools for Drivers

Some public evening schools have classes for beginner drivers. A few communities ran classes up until the war years, but discontinued them because of gasoline restrictions and for other reasons.

Schools for violators have been in operation for several years in West Coast cities. When a driver who has been arrested appears in court and is found guilty, he is either assigned to attend the violator school, or given a choice of attending or paying a fine. Often he elects to attend the school. These schools have proved valuable in cities where they have been operated.

Local councils also encourage inter-fleet contests among the commercial fleets of the city. Many of the fleets run training courses for their operators. Supervisors of these fleets are trained in one-week courses at the various colleges. These are sponsored by the National Committee for Motor Vehicle Fleet Supervisors. Local committees should urge supervisors to attend such courses.

Talks at Local Meetings

These may also be one of the valuable parts of the education program, chiefly because they serve to interest leaders in the community to support the local safety movement. If a speakers' bureau is set up, efforts should be made to reach as many of the local meetings as possible. Unfortunately, however, a talk of this kind reaches only a small percentage of the motorists, probably the ones who need it least.

Responsibilities of Members of the Committee

The question as to which members of the Committee should take on the responsibility of the various activities that have been described will depend upon the personnel available. It would be expected that the local manager would carry out many of the details.

Figure 14. Amputee Veterans Can Be Trained to Make Safe Drivers

But the more that he is able to get members to take over responsibility and throw their weight behind the program, the greater the strength and accomplishments. The wise manager will see to it also that credit is given where credit is due. Volunteer leadership wants something to do, a certain amount of freedom of action, and flourishes best when there is a feeling of satisfaction for services that are appreciated.

Magazines such as the National Safety Council's "Public Safety" and "Safety Education" have useful articles on specific programs and should be read by members of the Committee.

Training for Disabled Veterans and Other Civilians

In every community there are many people who have some disability that has kept them from applying for driver's licenses. It has been clearly demonstrated, however, that many disabled persons can operate cars efficiently and safely if their cars are properly equipped.

Army and Navy hospitals have trained several thousand amputees, paraplegics, and others with orthopedic disabilities. These veterans have been licensed, and many have already secured cars with special equipment to operate the brake, clutch, and other parts. Following research by a special committee of the Society of Automotive Engineers, many of the car manufacturers have designed and installed such equipment. Dr. Joseph Elkow at New York University has also prepared tests and a training program.

What should be the attitude of the local community regarding this problem? If disabled persons can demonstrate that they can drive safely, can pass required tests, why then should they not be encouraged to drive? And as far as certain research studies have shown, many of the disabled (especially the orthopedics) have as good safety records as normal drivers.

APPENDIX

Visual Aids in Motion Pictures

SOUND MOTION PICTURES

These are all one reel 16mm films unless otherwise noted

ELEMENTARY

Title	*Produced by and/or distributed by*
Bicycling with Complete Safety	Cycle Trades Association of America, 122 East 42nd Street, New York City
How Patrols Operate	American Automobile Association, Washington, D. C.
Learn to Live	Aetna Life Insurance Company, Hartford, Conn.
On Guard for Safety	American Automobile Association, Washington, D. C.
*On Two Wheels	General Motors Corporation, New York City
*Once Upon a Time	Metropolitan Life Insurance Co., New York City
Safety Patrol	General Motors Corporation, New York City
Safety to and from School	Young America Films, Inc., 18 East 41st Street, New York City

HIGH SCHOOL AND ADULT

**Always Trust a Lifeguard	Goodyear Tire and Rubber Company, Akron, Ohio
Behind the Wheel	General Motors Corporation—2 reels
And Sudden Death	Films, Inc., 300 West 42nd Street, New York City
Drunk Driving	Metro-Goldwyn-Mayer, regional offices of Loew's, Inc.
*Formations	General Motors Corporation, New York City
Heedless Hurry—Endless Worry	Welsh Studios, Philadelphia, Pa.

* Available in both 35 and 16mm.
** Available only in 35mm.

Traffic with the Devil	Metro-Goldwyn-Mayer Teaching Film Custodians, 25 West 43d Street, New York City
Highway Mania	N. J. Motor Vehicle Department and Walter O. Outlohn, Inc., 35 W. 45th Street, New York City
Highway Sabotage	Aetna Life Insurance Company, Hartford, Conn.
Horse Sense in Horse Power	Chrysler Corporation, New York City
It's Wanton Murder	American Transit Association, New York
Learn to Live	Aetna Life Insurance Company, Hartford, Conn.
Limited Ways	Portland Cement Association, Chicago, Ill.
Pennsylvania Turnpike	Portland Cement Association, Chicago, Ill.
Safe Roads	General Motors Corporation, New York City
*Saving Seconds	Aetna Life Insurance Company, Hartford, Conn.
Teach Them to Drive	American Legion and Automotive Safety Foundation, Washington, D. C.
The Chance to Lose	Chrysler Corporation, New York City
The Tip Off	General Motors Corporation, New York City
The Truck and the Driver	Safety Engineering Magazine, 75 Fulton Street, New York City
Tomorrow's Drivers	Center for Safety Education, 8 Fifth Avenue, New York, and Welsh Studios, Philadelphia, Pa.
**Turnabout Man	Chevrolet Motor Division, Detroit, Mich.
*We Drivers	General Motors Corporation, New York City

These films are available in various film depositories throughout the country. They may be secured from state motor vehicle departments, highway departments, state university extension services, the National Safety Council, the American Automobile Association, the National Conservation Bureau, and some may also be secured from the producers. The Y. M. C. A. Motion Picture Bureau also has copies of many of these.

* Available in both 35 and 16mm.
** Available only in 35mm.

35mm Sound Slide Films

These consist of 35mm film strips accompanied by a recording on a disk record

ELEMENTARY

Title	*Produced by*
Are Your Feet Killing You?	National Safety Council, Chicago, Ill.
Six Steps to Safety	Superior Coach Co., Lima, Ohio
Stop, Look, and Live	American Legion, Indianapolis, Ind.

HIGH SCHOOL AND ADULT

Behind the Wheel	Chrysler Corporation
Death Takes No Holiday	Nation Conservation Bureau, 60 John Street, New York City
Defensive Driving	National Safety Council
If It Happens	National Safety Council
Inertia	American Legion
Making Your City Safe	National Safety Council
Mary Jones Goes to Court	National Safety Council
Night Driving	American Legion
No Time for Goofers	National Safety Council
No Use Skidding	National Safety Council
On Record	National Safety Council
Pilots of the Highway	National Safety Council
Priceless Cargo	Jam Handy Organization for the Superior Coach Corp., Lima, Ohio
Selective Enforcement	Northwestern University Traffic Institute
Testing the Drinking Driver	National Safety Council
The Other Fellow	American Legion
Traffic Jam Ahead	National Safety Council
Triangle for Safety	Pontiac Motor Division

Throughout the country there are various depositories that have copies of the above films. Among these are the state motor vehicle and/or highway departments. In addition, the National Safety Council, local councils, and insurance companies have copies. The American Automobile Association and the National Conservation Bureau also have prints of many of these available. The Center for Safety Education also has renting service for the metropolitan area only.