

Traffic Engineering's Place in the Indiana Traffic Safety Program

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It is a sincere pleasure to talk about traffic engineering and its place in the Indiana traffic safety program before a group which has done so much to further the cause of traffic safety in Indiana.

It appears quite obvious that the major responsibility for effective traffic safety must be assumed by government at all levels, with, of course, complete citizen co-operation. I say this because the safety, welfare and health of all our citizens is primarily the concern of government. On the other hand, traffic safety is also an individual problem, and it will always remain so.

Last year in Indiana, we killed 1,276 persons on our streets and highways. This number is just one less than the figure for 1952. We injured 33,650 persons in the more than 100,000 traffic accidents that were reported. Motor vehicle mileage in Indiana during 1953 amounted to more than 17 billion miles—an increase of 8.4 per cent over 1952. Indiana motor vehicle registrations in 1953 were over 1,700,000, which is just about double the number in 1933 and is a 5.3 per cent increase over the previous year.

Traffic accidents during 1953 cost the people of Indiana over \$121 million in medical and hospital costs, wage losses and property damage, not to mention the vast cost in human suffering, delay and congestions.

It has long been a disappointment to me that we have not placed the proper emphasis on the factors of congestion costs and the consequent inefficiencies of highway use in our efforts to promote traffic safety. Certainly, people are interested in the accident phase of safety work, but I feel that they must become even more interested in certain of these other factors, which include traffic facilitation and making effective use of our streets and highways. Here, certainly, is where the traffic engineering responsibility must be even more clearly realized and implemented.

Both safety and facilitation have become increasingly important aspects of the general traffic problem and the growing seriousness of each seems to warrant all the competent attention that can be brought to bear on either one. Certainly safety and facilitation are not mutually exclusive considerations in arriving at decisions concerning improvements in our traffic conditions. We know that the ever increasing losses from both accidents and congestion is having a serious impact on our national economic strength.

You may be sure, in our statewide traffic safety program in Indiana, that both safety and facilitation will receive the attention which each deserves and that both will be considered as vital in our efforts to improve traffic conditions.

In our efforts to develop a successful statewide traffic improvement program, we are keeping the following question constantly in mind. How can we move some 55 million motor vehicles safely and efficiently over our streets and highways? You will notice that safety and efficiency are both included in this question.

The march in technological progress has broadened our concept of the engineer's responsibility far beyond the early idea of building roads that would stand up under flood, frost and traffic. Today we know that a vital part of this responsibility lies in designing and maintaining highways for drivers as they are and not as we think they ought to be. In other words, the traffic engineers must include the problem of driver behavior in his kit of tools if his work is to be successful. The traffic engineer, in one sense, must also be a human engineer, since he is dealing with the human actions of millions of motorists who use the highways.

Causes of traffic accidents lie in human behavior and in external conditions. The latter are particularly susceptible to engineering attack, but this approach cannot prove effective alone. Driver behavior must be considered as a vital and important part of the traffic engineer's responsibility.

These are a few of the basic concepts which we are using in our statewide traffic safety program in Indiana. There is one other broad but important concept which I should like to discuss briefly before going into the specific objectives and activities of this program.

We have long discussed traffic safety needs as being made up of the three E's of Education, Enforcement and Engineering. While this trilogy is excellent in some ways to present the problem in its simplest manner, it is becoming more and more evident that such an analysis represents an oversimplification of what is actually needed.

The really important need today is for a better balance between the three E's and a combining of the most effective resources offered by each in a realistic and unified attack on the problem. Too often, in the past, we have seen only a series of independent and uncoordinated efforts, which give only lip service to the three E's as an idealistic goal or objective. Just as our military establishment in the federal government has recognized the necessity for unifying its three major branches into one effective force, so must we follow a similar pattern in our war on traffic accidents and congestion.

Such a concept of unified effort involves many problems, since it includes vast changes in operational methods and in the attitudes of many persons. It applies at all levels of government and is vital if any realistic effort is made to seek solutions to our traffic problems.

This concept is based on the reasoning that we now know how to reduce accidents and congestion and that any state or city can have just about as much traffic safety as it is willing to work and pay for. If this reasoning is valid, our next big task is one that involves such items as developing public action and legislative interest in providing the necessary manpower, tools and money for doing the job.

This concept of unified and co-ordinated effort is basic in the operations and activities of the statewide traffic safety program in Indiana. Its need was recognized by the 1953 General Assembly and the position of State Traffic Safety Director was established by the Legislature to carry it out.

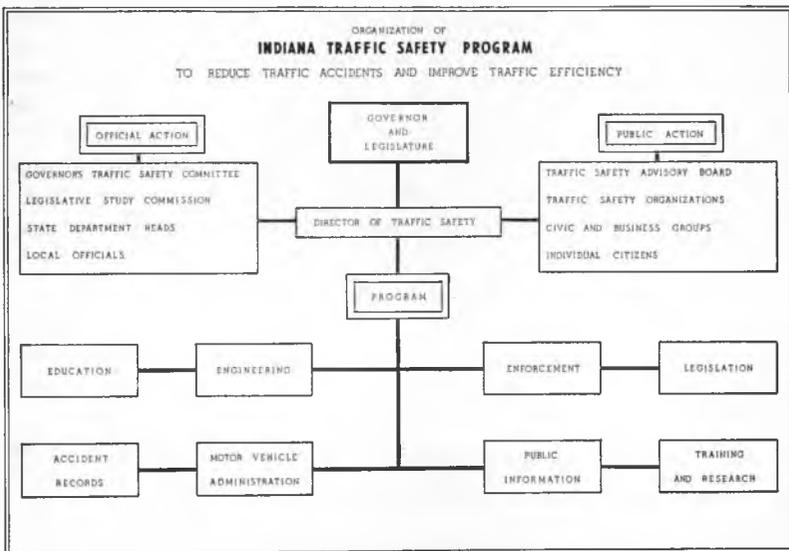


Fig. 1. Organization of Indiana traffic safety program.

The Traffic Safety Director serves as the administrative head of the Office of Traffic Safety and is a member of the Governor's Cabinet.

The Director is charged with the following basic responsibilities:

1. To work closely with various governmental departments and agencies on the development and conduct of effective traffic safety activities and to co-ordinate these activities into a strong and unified attack on the traffic problem.
2. To develop, in co-operation with various individuals, organizations and media groups, effective programs of public information and education designed to improve driver attitudes and encourage individual acceptance of responsibility for safe and efficient use of highways.

To effectively co-ordinate this entire program, the General Assembly established three important agencies, which work closely with the Director of Traffic Safety.

1. The Governor's Traffic Safety Committee, which serves to co-ordinate the traffic safety programs and activities of the various state departments, decides on basic policy matters, develops and approves all important plans and activities for the statewide traffic safety program.
2. The Legislative Study Commission on Traffic Safety, which serves as a clearing house for legislative proposals, studies various measures and problems dealing with traffic laws and makes recommendations to the General Assembly.
3. The Traffic Safety Advisory Board, which is composed of eleven of the state's leading citizens and represents various organizations and media groups. This Board serves in an advisory capacity in regard to the statewide traffic safety program and assists in the development of public support and public educational activities.

Effective traffic accident prevention involves adequate legislation, sound administration and intensive education. These factors are all considered in the basic objectives of the Indiana traffic safety program which follow:

1. Adequate legislation, based on recognized uniform standards and realistic appraisal of the needs of present day traffic. Such legislation is necessary to provide the facilities and basic pattern to be used as a guide for effective administration.
2. Impartial and competent analyses of traffic safety problems in order that every state and local agency may know exactly what

needs to be done to achieve a reduction in traffic accidents and an improvement in traffic efficiency. An integral part of such an analysis is complete and factual traffic accident records based on uniform accident reporting and scientific accident investigation.

3. More effective driver licensing and control over the issuance and renewal of driver licenses, more adequate driver examinations and the removal of habitually reckless drivers from the highways by suspension of the driving privilege.
4. Improved traffic law enforcement by the police and the courts. Our traffic police must be carefully selected, professionally trained, paid adequate salaries and be sufficient in number to deal with modern traffic control and enforcement problems. Standards of practice and procedures in traffic courts—the court where most people receive their impressions of judicial processes—must contribute to improved traffic safety and a better understanding of democracy in action.
5. Application and effective use of the best principles of highway and traffic engineering for the modernization of streets and highways and improved control of vehicular and pedestrian traffic. This also involves the use of uniform traffic control devices, including signs, signals, and markings.
6. The development of trained drivers through high school driver education and adult education courses. Children must acquire an attitude for street and highway safety from early home training and early school experience. The logical culmination of this training is through high school driver education.
7. The expansion of public educational programs and activities through the use of every medium of public information. Also, increased stimulation of public action on the part of civic, service, religious, farm, labor, business and other organizations interested in traffic safety.

Each of these broad objectives, which make up the statewide traffic safety program in Indiana, has many components. In the field of traffic engineering alone, it would not be possible to review in a talk of this nature, all of the many elements of such a program. A few of these important objectives are included in the list which follows:

1. Elimination of railway grade crossings on a priority basis and provision of adequate protection where grade crossings are not feasible.

2. Maintenance of roadways so that they will be safe for year round travel. Have skid resistant surfaces, smooth usable shoulders and adequate drainage.
3. Provision of adequate sidewalks, walk-wait signals and other pedestrian protection facilities.
4. Provision of modern street and highway lighting on main urban streets and on the more hazardous sections of suburban and rural highways.
5. Full utilization of factual data on traffic operations in the design of new roadways and as a basis for other improvements, such as channelization, one way streets, loading islands, and provision of off-street parking.
6. Use of factual data in the identification and elimination of special hazards.
7. Full utilization of uniform warrants and standards for all signs, signals and markings.
8. More research into the problems of driver behavior as a factor in effective traffic engineering.

I think you can see from this factual list that traffic engineering does have a vital part to play in the Indiana safety program.

I feel that we have the potential in Indiana for getting this job done in a manner that will result in fewer traffic accidents and in a much more efficient use of our streets and highways. We know that many of our efforts will not be applauded, especially by those who have to give up something in order to get something better. But such a program can be made popular with its greatest beneficiaries—the people of Indiana.