

## HIGHWAY ACCIDENTS IN RELATION TO ROADSIDE BUSINESS AND ADVERTISING

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For many years an increasing number of sensitive and conscientious American citizens have been deeply concerned, even shocked by the very rapidly increasing occupancy of our roadsides by outdoor advertising and business, often producing rural slums.

The rural slums adjacent to nearly every American City are fast becoming a national disgrace, until now the situation is so appalling and universal that the American public is aroused as never before to the situation and is determined to check this menace to the otherwise good life in these United States. With this development or along with it, is the even greater increase in the sale and use of automobiles and automotive travel, until now more than 37 million Americans travel 300 billion mi. over United States Highways each year.

This national disgrace was emphatically brought to our attention recently by the National Council of the Federated State Garden Clubs.

Highway engineers rightfully claim we have in the United States, the finest highway system in the world, and we kill many times more people yearly than are killed normally in all of continental Europe. More than one-half of the world automobiles are owned and operated in the United States.

Highway fatalities and accidents are rapidly increasing and will continue to mount unless something is done to improve driving conditions and lessen the hazards of driving in the United States.

Nearly 40,000 Americans will probably be killed on the highways of the United States during 1949 and nearly, if not more

than, 1-½ million accidents leading to serious personal injury, not to mention the economic loss or cost of perhaps more than one billion dollars annually. The National Roadside Council is another National organization vitally concerned with the disgraceful roadside conditions and is eager to further any move aimed to lessen or improve present conditions.

Last night I saw in this weeks "Life", the statement about New York's Thruway which when finished it said "will be one of the longest, nearly 500 mi. when finished, in the world, of 4 - 6 lane divided limited access highway from New York to Albany thence to Buffalo, and will have among other things, a minimum of 1000 ft. of driving sight distance for motorists, not of advertising. But, no traffic lights, no billboards, roadside stands, or business, or grade crossing or intersections from end to end." What a high standard for other states to shoot at.

It is all very well to cry "wolf, wolf" and to shudder at the devastation of the once fair scenery of our countryside, and to assail the presently legitimate roadside business. But to date we have not based our horror on anything but generalities and personal opinion. Even the great body of national organizations and millions of other incensed citizens are eagerly awaiting facts and figures. This is why we of the Roadside Committee welcomed the help and sponsorship of the Highway Research Board in promoting this work and these studies.

Therefore, last year with the help of the Iowa State Highway Commission and the Iowa Safety Council, a study was undertaken to ascertain some facts about

highway accidents and some of the possible causes. Mr. Wm. A. Rusch was assigned the task to work not only with the highway Commission and the Safety Council, but to make a sound, unbiased study and to follow the latest psychological and statistical procedures and methods in the study as well as to make a first hand reconnaissance in the field of the selected areas chosen for this study.

Mr. Rusch had from the start of the study, the experienced guidance and council of Dr. Lauer, *Head of our Dept. of Psychology* and of Dr. Jessen, *Head of our Statistics Dept.*, at *Iowa State College*, and Mr. Mark Morris of the *Iowa State Highway Dept.*

No experienced or able research student starts out to prove forgone and other conclusions as personal opinions which he may wish to justify or verify. A good research man has simply an insatiable yearning for facts and the truth, so with the further help and encouragement of the head of our Depts. of Civil Engineering and Economics, this study was begun to find out what, if any, evidence could be found for the rapid increase in highway accidents in Iowa.

Iowa has, as some of you know, one of the first completely concreted primary highway systems in the United States. Being one of the first states to completely pave its primary system it is now, after 25 - 30 years use, needing rebuilding and replacement. We killed about 500 in Iowa in 1948, and probably more will be killed on our highways this year and in 1950.

Therefore, the Highway Commission is very anxious to know what changes in their plans and regulations should be proposed for the future expanded system in Iowa and perhaps elsewhere. The Commissions Director of Research, Mr. Mark Morris, therefore was most helpful in promoting this study and carrying on this study, otherwise it would not have been possible.

It should be noted that Iowa has an evenly distributed population with no very large cities, the capitol, Des Moines, having less than 200,000. Also we must remember that to an easterner,

our countryside seems relatively undefiled by rural slums and billboards and advertising signs. But our cities, small as they are, will grow, and already are showing the awful effects of rural blight and slums.

Furthermore, it should be remembered that Iowa's greatest industry is agriculture and its greatest resource is its black soil. Twenty-five percent of the nations Class A land is in the State of Iowa. Anything that endangers the countryside of Iowa is harmful to all the people in the state. In other words, Iowans resent anything that injures the countryside or the interests of the farmer or agriculture.

In undertaking this study we had no great expectation that we would find any answers to this, the greatest nightmare of the planners. The two top planning problems facing modern planners throughout the world today are first, the decaying heart or core of our cities. These cities are being studied and plans are being prepared on a nationwide basis for their redevelopment. Second, but not less important, though perhaps less spectacular, is the development and gradual growth of rural slums on the areas adjoining our towns and cities. However, we just can't let things continue their present rate of growth and increase if we are to survive as a civilized people or if we are to preserve America the Beautiful. But, sentiment and opinions of idealists and wishful thinkers will never cure this evil and loathsome disease. We must have facts, we must analyze the facts before we can plan any course of action. The five essential steps in all planning are: (1) the survey and fact findings, (2) analysis of facts, (3) preparation of plan, (4) carrying out the plan, (5) operation and maintenance of the improved facility.

This study we present this evening is but a first step, feeble though it may be. We hope you will pick it apart and help us make the next one better and more fruitful in future years. We hope it will eventually mean safer, more economical and convenient and more beautiful highways in

America. If we prove nothing more than the fact that more than one-half our accidents happen just outside our cities in these fringe areas infested with business and signs and billboards, it should have proven well worthwhile. Then what is the next step in our forward

march toward preserving and cleaning up our roadsides?

Now, may I present Mr. Wilmer A. Rusch who made the study, and who will now explain how it was set up and how organized, the methods used, as well as explain some of the results. Mr. Rusch.....

## HIGHWAY ACCIDENT RATES AS RELATED TO ROADSIDE BUSINESS AND ADVERTISING

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Many persons have expressed the opinion that roadside business and advertising are causes of highway accidents. Proof of these accusations has been wanting. It is difficult to attribute any motor vehicle accident to any one direct cause. Such accidents are more often the result of two or more contributing causes, and individual influences bearing on the accident concerned are difficult to ascertain. This study is an attempt to classify accidents by location and by cause in order to determine whether a relationship exists between the number, location, and character of accidents and the immediate presence of roadside business and advertising. The study covers State and Federal highways only.

### LIMITATIONS OF THIS STUDY

1. Since not all accident reports were complete, a final disposition of all assigned causes could not be made.
2. The assignment of cause to any accident long after it occurred and by one person only must be kept in mind. The accident report was the only data available, and assignment of cause depended on personal interpretation of the facts presented.
3. This study contains information based on accidents occurring over a period of two years only.
4. This study was completed under very similar conditions for each approach. Perhaps studies in other States would

reveal new or different data when reduced to this basis.

### THE STUDY SAMPLE

The observed highways for this study were the immediate approaches to certain cities in Iowa. Since time available for the study was limited, it was necessary to choose a sample of cities. Cities with a 1940 population of 5,000 and above were included in the original group--44 cities in all. The State was then divided into four geographical units labelled A, B, C, and D. This division was necessary to enable a fair distribution over the entire State with an equal number of cities in each division.

The cities were classified in four groups according to population. The largest group contained 12 cities in the 5,000 to 10,000 population class, three in each geographical unit. The 10,000 to 25,000, 25,000 to 50,000, and over 50,000 groups were evenly distributed, one of each class in each geographical unit. Where a selection from a group of cities was necessary, cities were chosen by a table of random numbers to prevent personal bias from entering the procedure. The final sample selected for study contained 24 cities of over 5,000 population.

### DEFINITION OF APPROACH DISTANCES

It should be kept in mind that this study was limited to the State of Iowa.