The highway system of the United States is very closely associated with the economic and social interest of every American. All of us realize, in a general way, the important role played by our national highways in our daily lives. No one disputes the value of an adequate highway system to the welfare of the nation. The only difficulty is in the securing of the public funds needed to make this system possible. The drastic curtailment of federal highway aid, which is the backbone of highway financing today, is now being considered by Congress. While the majority of Congressmen are well aware of the vast benefits which accrue to all people from our highway system, there are many who remain doubtful of the relative importance of expenditures for roads as compared with those for other public undertakings.

Therefore, it would be wise to consider our highway system and its meaning to the average American. Shortly after President Roosevelt requested a cut in federal highway appropriations, he sent another message to Congress asking for increased military and naval appropriations. He emphasized the importance of preparedness in the event of another war. The shortsightedness of this policy becomes obvious when we remember that a large part of the increased funds for national defense will be expended on motorized tanks and other highly mobile equipment. How can the President justify the expenditure of huge sums for this armament at the same time that he proposes to make its transportation difficult and perhaps even impossible by the abridgment of our highway program? National defense is of the utmost importance, particularly in view of the tense situation in Europe and the Orient. We cannot fight a war without arms. That is quite true. But the most modern and efficient of armament becomes useless if it is in a part of the country far distant from the place attacked—unless good roads make possible rapid transportation between the two points.

That our highway system will never be called into service for a war on American soil is the hope of all of us. But since such an emergency may sometime arise, it is imperative that our highways be ready.

The peacetime role of our highway system is equally important. The plight of the American farmer has been given serious consideration by the present Congress and innumerable plans for helping him have been presented. But one of the most important ways of aiding our farm population both economically and socially would be destroyed by the curtailment
of federal highway appropriations. At the present time 60 per cent of the 30,000,000 farm people in this country live on unimproved earth roads which bad weather often makes impassable. This means that during the rainy season they are unable to take their produce, much of which is perishable, to market or to send their children to school. The construction and maintenance of a good system of farm-to-market roads would be of immeasurable benefit to the entire rural population of this country. No program of farm relief could outrank in importance to the farmer the federal secondary-road program.

HIGHWAY SAFETY

In any consideration of our road program, it is impossible to overemphasize the necessity for building safety into our highways. In 1936, 37,800 people were killed in automobile accidents. During the past twelve months the traffic accident toll mounted to nearly 40,000. Experts predict that this figure will continue to increase year by year unless action is taken to bring our highways up to date.

This conclusion is inevitable since many of the roads now in common use were constructed nearly a century ago. Since their construction the number of motor vehicles on the roads has increased by several millions and the power and speed of these cars have been more than doubled. Is it any wonder that these antiquated roads fail to meet the demands of modern traffic? The result of this failure is the startling number of highway accidents which cost more than 100 lives every day.

Our highway engineers have prepared a program which would, if put into effect, materially reduce the number of accidents. Their plans provide for the construction of four-lane highways with central parkways to separate opposing streams of traffic; the elimination of railroad grade crossings and blind intersections; the leveling of steep hills; the widening and strengthening of all shoulders; the straightening and banking of sharp curves; and the illumination of heavily-traveled roads for night driving.

It has been argued that the real cause of most of our accidents is careless driving and that, therefore, the expenditure of public funds for building safety into our highways could do little to help the situation. To refute this argument the American Road Builders’ Association appointed a committee to study the cause of accidents. This committee examined hundreds of accidents and proved very clearly that faulty highway design was to blame for a large majority of them.

From the report of this committee I have taken several typical examples which demonstrate the responsibility of the highway in automobile accidents. For instance, a 35-degree curve, on the approach to a railroad overpass, experienced ten accidents in three and one-half years. The outside portion of the curve was widened and no accident occurred during the
Following two years. In another case, a large intersection, 110 feet wide and formed by the merging of five roadways, reported thirty-five accidents in twelve months. The construction of a channelizing island eliminated the large intersection area and only four accidents occurred in the next twelve months.

It would be possible to continue for hours to enumerate similar examples of places where accidents were substantially decreased or entirely eliminated through the building of safety into the highways. In fact, experts estimate that our national highway-death rate could be reduced by as much as 50 per cent by the application of the recommendations of our highway engineers. This would mean the saving of more than 20,000 lives annually. It would mean the annual saving also of hundreds of thousands of dollars which must now go to pay for hospitalization, automotive repairs, and damage suits which result from auto accidents. What other public enterprise could be considered more worthy of public money than the preservation of the lives and property of such a large group of its citizens?

INFLUENCE OF FEDERAL AID

It might be well to review briefly the history of federal aid. Twenty-five years ago, our highways were a matter of purely local concern. The amount of money which should be appropriated for their construction and maintenance was determined by the individual states or counties. In recent years, however, the highway system has become truly interstate in scope and can no longer be dealt with by the states as separate units. Since 1916 the highway program has more and more centered around the federal aid. In the beginning the national government contributed only 7 or 8 per cent of the total highway appropriations. This amount has been steadily increasing until in recent years federal aid has constituted as much as 45 per cent of the total federal and state construction program.

Federal aid has had a tremendous influence on our highway program, not only because of its financial contribution, but because it has also brought about a greater standardization and unification of road building throughout the forty-eight states. It has been responsible for the creation of a national system to furnish facilities for our national needs. Federal appropriation bills called for the establishment of a highway commission in every state, with certain standards and specifications, and the national government has forced the states to maintain these standards.

The Bureau of Public Roads, the life blood of the federal-aid act, has co-operated with all the states and groups of states in solving the problems which arise in connection with their highway program. It has carried on and completed, for the benefit of all the states, research which no single state would have been able to conduct alone. Under the administration of
the bureau, the construction of federal highways makes use of
the contract system of labor. Use of the contract system is of
benefit not only to the highway industry but to state and na­
tional governments, since it assures better highways at the
lowest cost.

Most important of the benefits which result from federal
aid is the weapon it furnishes against our common enemy—
diversion. Section 12 of the Hayden-Cartwright Road Act of
1934 provides that states which practice diversion of highway
revenues to purposes unrelated to highways shall be penalized
by withholding from them a portion of federal highway funds.
As a result of this provision and of increased public agitation
against this diversion, which reached a new high of $169,-
344,000 in 1936, several states have taken positive action to
bring this practice to an end. A number of states have passed
or are considering passage of constitutional amendments pro­
hibiting diversion, while other states have adopted general
laws against it. If federal aid were to be cancelled, it would
mean not only the loss of the $200,000,000 actually contributed
by the federal government, but also of great losses to state
funds through the diversion which would undoubtedly follow
the removal of federal influence.

The possibility that federal aid may be discontinued, there­
fore, comes to us as a great surprise and shock. For, year after
year since 1916, we have received federal aid from the govern­
ment until we felt that, whatever else might happen, federal
aid would be held inviolate. Then suddenly in 1933 and 1934
no federal aid was authorized. This was an awakening. How­
ever, because of the previously authorized federal aid which
had not been spent and the emergency funds, this skip of fed­
eral aid was not seriously felt in the highway program. After
that period an increased federal aid plus the emergency funds
raised our highway program so that 1937 proved to be an
active year in highway work.

THE FUTURE HIGHWAY PROGRAM

Nineteen hundred thirty-eight was looked forward to with
satisfaction even though it was known that new federal aid
for 1940 and 1941 must be authorized by Congress. Taking
into consideration the history of the past few years and the
fact that the economic value of a continued highway program
to cope with present-day traffic demands as well as the value of
highway work as a relief remedy has been clearly demon­
strated, no real concern was felt for the immediate future of
the highway program.

In November there was estimated for the new year pro­
gram a total of more than $950,000,000. Federal aid funds
available for 1938 amounted to $181,000,000. The funds include
the funds for approved projects and the unobligated balance
from the regular federal aid, secondary, and grade-crossing
funds. State funds necessary to match the federal aid and secondary-road funds would amount to $138,000,000. The total of the 1938 federal funds and funds necessary for matching would be $319,000,000.

The 1939 federal-aid authorizations made available $125,000,000 for regular federal aid, $25,000,000 for secondary roads, and $50,000,000 for grade crossings. With $150,000,000 in state funds for matching, the total from the 1939 authorizations would amount to $350,000,000. At least $100,000,000 should be available in additional state funds, and the maintenance program would amount to an additional $200,000,000.

Then, on November 27, President Roosevelt sent a message to Congress asking the cancellation of the 1939 federal-aid authorizations prior to January 1, 1939, and requesting that Congress limit "to not more than $125,000,000 per annum all public-road authorizations for the fiscal year 1940 and for each of the next few succeeding years." This message was greeted with a storm of protests. On December 16 Congressman Cartwright, chairman of the House Committee on Roads, wrote to the President giving it as his opinion that the committee would never favorably report a proposal to cancel highway authorizations for 1939. He further explained that a majority of the members of the committee were opposed to his calling a meeting to act on the President's proposal at that time.

The President's reply to this letter insinuated that the unwillingness of Congress to cut road appropriations was due to the anxiety of members to get a "slice of the Government's expenditures for one's own projects." His chief arguments in support of his proposal to slash federal aid were the necessity of balancing the budget and the need to eliminate the expenditures which provide the least work and favor those which give the most work.

**THE HIGHWAY BUDGET**

The fallacy of the first part of this argument becomes obvious when we consider the fact that the highway budget is not only balanced but has always shown a profit in favor of the government. During the period from 1918 to 1930, federal excise taxes on automotive products of one sort or another returned varying sums ranging as high as $160,000,000 in 1924. During 1931 and 1932 these taxes were discontinued, but they were re-established in 1933. In that year alone they paid the government more than $180,000,000. This total has risen rapidly until, during the fiscal year 1937, the federal take on automotive taxes of every sort amounted to about $365,000,000, which is some $20,000,000 more than the federal highway expenditures in that year of peak spending. The cancellation of the 1939 federal authorizations for highways or any curtailment of such funds for the years 1940 and 1941 would be tantamount to diversion, which Congress condemned as "unfair and
unjust” in the Hayden-Cartwright Act, on the part of the United States Government. It is wholly reasonable to ask that the Federal Government itself observe a principle that it has so clearly enunciated and written into law and under which it has already penalized some of the states for misspending their highway revenues. Let us not forget that, even with the continuance of federal aid on the present basis, the federal treasury would still show a profit of upwards of $150,000,000 annually from the diversion of motorists’ taxes.

The second half of the President’s argument is equally inconsistent. There are few public projects which lead to the employment of more men than our highway program. During the fiscal year which ended June 30, 1937, the total job-site employment on highway construction supervised by the United States Bureau of Public Roads was 1,792,760 man-months, or the equivalent of an average full-time employment each month of 149,400 men. The number of persons actually employed, some on a part-time basis, averaged approximately 209,000 individuals each month at the site of construction. Due consideration must also be given to the amount of employment created away from the site of highway projects and to the amount of employment created as a direct consequence of the increased spending power which results from the payment of wages to persons employed both directly and indirectly on highway projects.

INFLUENCE OF HIGHWAYS ON BUSINESS

Highways, however, are much more important to industry and labor than is shown by these figures on employment in highway construction. Probably no form of business or industrial activity contributes more effectively to the generation of a higher national income than does highway transportation.

During 1936, motor transportation, in all its phases, provided more than six million jobs. That was one out of every seven of all those who were gainfully employed. One out of every seven loads of carload freight on the railroads was of automotive products. One out of every five retail dollars results from automotive products. In fact, the entire edifice of useful and productive employment for both labor and capital is founded upon the public highway facilities of the nation.

After the publication of the President’s letter, the matter appeared to be closed. Congress adjourned without taking any action on his recommendations, and we believed that the question of federal aid was settled. But on December 31 Secretary of Agriculture Wallace wrote to the governors of the forty-eight states asking that they defer the submission of road projects under the 1939 apportionment until Congress had had further opportunity to consider President Roosevelt’s recommendation that these authorizations be cancelled. This was followed by the budget message on January 5 in which the
President renewed his request for drastic curtailment of highway expenditures and declared that the states also should be encouraged to bring their highway budgets back "to a more normal figure."

NEW FEDERAL AID BILL

Congressman Cartwright, on January 6, introduced a bill in the House of Representatives to provide for the continuance of federal aid on the present basis through the years 1940 and 1941. Hearings are at present being conducted to consider both this bill and the President's recommendations. That is the situation as it stands today. If the Cartwright bill is passed, we will be assured of sufficient funds to construct and maintain highways and secondary roads adequate to meet the demands of modern traffic for the next four years. If, on the other hand, the President's proposal receives favorable consideration, it will mean the loss of nearly 40 per cent of our highway program. Not only are these funds necessary because of their face value, but the matching clause also serves to obligate many millions of state funds which would otherwise be used for non-highway purposes.

It is therefore essential that there be complete co-operation among all the organizations interested in the continuation of an adequate highway program to insure the passage of the Cartwright bill. We who have made a thorough study of the highway problem sincerely believe that, if all conditions are properly appraised and highway expenditures credited with all the benefits and rewards derived from completed highways, everyone, including our state and federal lawmakers, will immediately sanction the continuance and even the increase of appropriations for the highway program.

EFFECTS OF ROAD IMPROVEMENT UPON RURAL COMMUNITY AND FAMILY LIFE

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To tell the story of man's progress in methods of transporting himself and his goods would be almost identical with giving the history of the development of civilization itself. Indeed, man's physical and even spiritual needs and ambitions are so definitely dependent upon adequate transportation facilities that no phase of his educational, cultural, religious, or recreational life, or physical well-being, can be studied intelligently without a knowledge of the effects of transportation upon them.

The deeply religious Egyptians have baffled present scientific knowledge with their actual solution of a prodigious prob-
