THE ECONOMIC IMPACT OF THE NATIONAL HIGHWAY PROGRAM ON THE STATE OF KENTUCKY

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The title which has been announced for my remarks here today would lead you to believe, I am sure, that I intend to tell you how the National Highway Program will contribute, in the future, to the economy of the State of Kentucky. If you believe that, you are correct.

It may surprise you that I propose to begin this look into the future by looking at the past. To see the highway program in proper perspective, I propose that we take a brief look at the history of transportation in Kentucky, in order to see how economic progress and development in Kentucky have moved hand in hand with the development of roads, railways and waterways, and how this relationship is being affected by the development of air transportation. It happens that the history of Kentucky affords an excellent example of the way in which the various modes of transportation can be inter-related for the benefit of the total economy.

The early settlers of Kentucky came both by land and by water. The great Ohio River, said to have been discovered by LaSalle in 1669, provided a natural “main street” for access to the rich lands of the Ohio Valley. Other settlers, following the route of Daniel Boone, came through the Cumberland Gap and followed the course of the early Indian trails through the Kentucky territory.

The river, in those early days, was the best friend of the settlers. The keelboat was the first boat on the inland waterways of America designed for use in commerce. These boats distributed goods from the larger towns along the river to the smaller settlements and played a large role in stimulating economic growth.

Kentuckians were quick to recognize the importance of supplementing water transportation with adequate roads to reach areas not on navigable streams. To find the beginning of highway legislation in Kentucky, we have to go back to 1793, when the State Legislature passed an act providing for the clearing of a “wagon-road from Frankfort to Cincinnati.” By that early date, wagons were moving in considerable numbers along the early Indian trails leading back from the river. Lexington had grown to a city of 1,800 population by 1795, with much of its growth due to the fact that it was the terminus of the “Limestone Road”, over which traffic moved from the river. These early roads were little better than trails, but it is interesting to note that they accommodated substantial movements of freight. Even coal—floated down the Kentucky and Ohio Rivers—was trans-shipped to interior points by means of the Conestoga Wagons, drawn by six-horse teams.

While, as we have seen, the State of Kentucky began investing in public roads in 1793, most of the early highways in Kentucky, as elsewhere, were toll roads. The early 1800’s were the hey-day of the turnpikes, many of them built with State aid. Lexington is perhaps the prime example of a city that grew as a highway hub. In 1837, there were 343 miles of macadamized turnpikes in central Kentucky, centering around Lexington.

Incidentally, Kentucky has given us an early example of thinking in the direction of Federal aid for highway construction. In 1830, Congress approved a bill authorizing the U. S. Government to subscribe $150,000 for the construction of a turnpike between Maysville and Lexington. Although the bill was vetoed by President Andrew Jackson, it stands as a monument to the initiative of the Ken-
tuckians who sponsored it, and as an indication that Kentuckians were thinking well ahead of their time.

Meanwhile, river traffic was booming. The ports along the Ohio grew from log cabin villages to brisk little towns. Kentucky and Ohio farmers came into towns from the outlying farmlands with great wagons creaking with the heavy corn, wheat, flax, wool, hides, furs and tobacco. Cincinnati was called Porkopolis by Easterners: hogs by the hundreds were slaughtered there, and most of the meat shipped south by river to New Orleans.

Then came the railroads. Although the Lexington and Ohio Railroad Company opened a six-mile line running westward from Lexington in 1832, railroads did not become an important factor in Kentucky's economy until after 1850. There were 534 miles of railroad in the State in 1860, almost double that mileage in 1870, and more than 3,000 miles in 1900. With the coming of the railroads, many river towns did a sort of municipal about-face, turning away from the river toward the new highways of steel. New towns sprang up along the railways, while other towns faded away. The river city of Paducah welcomed the railroad and subsequently prospered; the nearby river port of Smithland spurned the railroad and suffered a decline in importance.

The railroads reached into the Eastern Kentucky coal fields and tapped this rich mineral resource in a way that the early barges and the Conestoga wagons could not begin to do. Because of the long delays and hazards on the river, the train was found to be faster and safer than the steamboat, and commerce along the Ohio dwindled.

In the present century, we have seen the railroads of Kentucky maintaining their important position in the economy of the State; while, at the same time, Kentucky waterways and highways have moved into a new plane of development, and air transport has developed into a major industry for the movement of people and freight.

The improvement of air transportation is closely linked with the continued improvement of highway transportation, because the most practical way of measuring air travel time is to measure from point of origin to point of destination, not from take-off to landing. Unless the traveler can move with reasonable speed between the airports and the cities they serve, on modern access highways, the high speeds of modern aircraft are of no practical purpose.

Seven commercial airlines serve the State of Kentucky. With the expansion of airport facilities within the State, and the improvement of the access roads connecting airports with Kentucky cities, we can expect that the usefulness of the airplane to the economy of the State will increase, just as the usefulness of waterways and the usefulness of highways are being increased.

Beginning in 1910, a long-range program for the improvement of the Ohio River was undertaken, with the object of maintaining a channel about 300 feet in width with a minimum depth of nine feet throughout the length of the river. This system of locks and dams was justified on a traffic expectancy of 13 million tons a year. Today, the river is carrying approximately six times this tonnage, and the program of improving the navigability of the Ohio and its Kentucky tributaries is continuing under the auspices of the Corps of Engineers.

The highways of the State of Kentucky have been developed into a system of 63,256 miles of public roads, of which about 19,000 miles constitute the State primary system. Kentucky today is in the midst of the largest road-building and improvement program in its history. From the beginning of the Federal-aid program, in 1916, up to the passage of the 1956 Highway Act, the total Federal contribution to the Kentucky highway program was $181.5 million. Since 1955, a total of $191.4 million has been apportioned for Kentucky highways, or almost $10 million more than the total apportionments for the first 40 years. In 1959, your State Highway Department, aided by increased Federal assistance, let a record-breaking $114 million of construction contracts—much more than twice the 1957 total and triple the average for the years 1951 through 1956.
The direct impact alone of this amount of construction activity is remarkable. The U.S. Department of Labor has estimated that each billion dollars spent on highway construction will result in 102 million man hours of employment on the site of the construction, and 126 million man hours off the site. This means that a program the size of Kentucky's annually generates 11.6 million man hours of work on the site of construction plus 14.3 million man hours elsewhere, a total of almost 26 million man hours.

It is true that the off-site man hours of employment are not all within the State of Kentucky, but will be spread wherever equipment and materials are produced. We will be safe in saying, however, that Kentucky, as a producer of petroleum products, will get its share of the off-site construction dollar, for petroleum is the source both of asphalt paving and the fuel used in construction machinery and motor vehicles.

Because the direct impact of highway construction activity on the economy is so strong, Congress decided, last spring, to authorize an emergency highway program as a measure to combat the recession. Congress appropriated $400 million to be allocated to the States on a two-thirds Federal, one-third State matching basis, for the acceleration of the regular Federal-aid program on the primary and secondary systems. Because this was an emergency measure, it was stipulated that the States, to share in the program, had to place all work under contract by December 1, 1958. The requirement was met in every State. Ample engineering and contracting capacity was found in every State to carry out the work without adding to the pressures of inflation. The success of the program illustrated again that when a governmental stimulus to business activity is needed, expansion of highway construction activity is an excellent way to provide the stimulus while, at the same time, adding constructively to the capital investment in highways of our State and Federal governments.

With the needs of the economically depressed area of eastern Kentucky in mind, Senator Cooper, with Senator Morton as a co-sponsor, has introduced a bill to authorize $90 million for highway construction in depressed areas, the money to come from the general fund of the Treasury, not from funds earmarked for the long-range national highway program. An identical bill was introduced in the House by Representative Siler. I am not competent to discuss the general philosophy of "depressed area" legislation, but I am convinced that it is sound thinking to recognize that adequate roads are an important ingredient in building up the economy of any area and that road building is a fast and effective method of stimulating an ailing economy.

With these comments on the value of roads in general, let me now turn to the subject of the importance of the Interstate Highway System, authorized by Congress in 1956 and scheduled for completion by 1972. The direct impact of the Interstate Highway program on the State of Kentucky will be to supplement the existing highway net work with 650 miles of controlled-access, high standard highways, criss-crossing the State on four routes. Completion of these routes will give Kentucky four strategic mid-continent links in the nation's trunk system. I prefer not to stress particular segments of the Interstate System because the whole idea of the System is to provide a unified and interlocking network of highways to serve the economic and defense needs of the United States. Because the welfare of the entire United States is the primary consideration, Congress has made provision that the Federal Government shall bear 90% of the cost of the System, as opposed to the standard 50-50 cost-sharing pattern generally employed on other Federal-aid highways.

It has been estimated that motor vehicle traffic by the year 1975 will reach the staggering total of one trillion vehicle miles annually, an increase of more than 50% over present traffic. We are counting on the 41,000-mile Interstate System to carry 20% of the 1975 traffic load, or 200 billion vehicle miles per year. Altogether, we must increase our highway capacity by at least 350 billion vehicle miles. Simple arithmetic shows more than half of this expected increase is to be
absorbed by the Interstate System. We believe that it will do the job at low cost, with maximum efficiency, and with a great improvement in our highway safety record.

The potential annual savings to users of the Interstate System have been estimated at $2 billion annually, divided as follows:

- $500 million in reduced passenger vehicle operating costs.
- $750 million in reduced truck operating costs.
- $750 million in reduced accident costs.

The safety improvements engineered into the Interstate design will reduce the accident frequency rate 66 2/3 per cent, and the fatality rate 50 per cent, for the vehicles using the system.

These savings can be classified in four categories:

1. Savings in fuel costs, through reducing the requirement in tractive effort.
2. Savings in equipment, through longer life of brakes, clutches, tires and other parts which are subject to unusual punishment under poor road conditions.
3. Savings in time, which may be either unimportant or extremely important, depending on the use to which the vehicle is being put. In commercial operations, where drivers' wages and maximum utilization of the vehicle are important cost factors, the time saving will be relatively important.
4. Savings through safety. The human life cannot be assigned a dollars-and-cents value, but, quite aside from that, the cost accountant will be sure to note that the favorable accident record achieved on modern highways results in a direct savings in insurance premiums.

In addition to these impressive savings, the tremendous value of the strategic Interstate System to the economy of the country can hardly be over-estimated. Connecting 42 of our State capitals and all but 23 of our cities of more than 50,000 population, the new highways will generate new industrial activities wherever they go.

In this connection, the new Interstate System will make a most important contribution to our national defense by providing an important factor in broadening our industrial base, on which we must depend for the tools and materials of war.

Kentucky is in a particularly good position to take advantage of the economic benefits of an expanded national highway program. The resources of the State, the improvements to navigation on the Ohio and its Kentucky tributaries, the hospitable attitude of the State Government toward new industry, and the big road-building program that the State has undertaken have already paid large dividends in the form of new industry.

In 1937, the U.S. Bureau of the Census assessed the entire value of the State of Kentucky at $2.4 billion. This included all property—agricultural, industrial and commercial. Since 1947, the new capital investments in manufacturing alone—money spent to purchase new industrial plants and equipment—equal the 1937 assessed value of the entire State. In the past three years, industry has invested or made commitments to invest more than a quarter billion dollars in some 200 new or expanded manufacturing plants in the Commonwealth.

It is especially interesting to note the accelerated interest of industry in communities located away from the Ohio River. The natural trend, in the past, has been for industry to concentrate along the waterways. The cheapness of water transportation, coupled with the easy availability of coal, made it economically desirable to bring heavy raw materials to plants located along Kentucky waterways.

In an ideal situation, a manufacturing plant will take advantage of several different kinds of transportation. Water and rail transportation are appropriate methods of bringing large shipments of heavy raw materials and fuel from the source of these materials to the plant site. The distribution of the finished product from the plant to thousands of destinations is a function for which highway transportation is particularly well suited. The various modes of transportation comple-
ment each other. As a distributive network, the expanded national highway system will meant letter living for every American citizen.

We can compare the highway system to the human blood stream. Blood is pumped out from the heart through the great arteries, the “trunk lines” which perform the same service for the human body that the Interstate Highways will perform for the country. The trunk arteries do not feed each individual cell along their routes. Smaller blood vessels branch off from the main arteries, and still smaller blood vessels branch off again, until the final distribution is made through microscopic capillaries. Our controlled-access express highways will carry people and freight from terminal point to terminal point, just as a railroad train moves from station to station.

From the terminal points, traffic will move over smaller supporting highways to final destinations. It seems self-evident that the realization of the full value of the Interstate System depends on developing with it the supporting roads which will serve as the collectors and distributors of the Interstate System traffic. Construction of our primary and secondary road systems must keep abreast of Interstate construction to insure a properly balanced overall road system.

With its magnificent waterways, its fine rail network, its air transport facilities, and with its constantly improving system of highways, Kentucky is in an enviable position to take full advantage of the economic benefits that will result from the completion of the Interstate Highway System and the balanced expansion of the supporting Federal-aid and local systems of roads.