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REMARKS BY ALAN S. BOYD, UNDER SECRETARY OF COMMERCE FOR TRANSPORTATION FOR DELIVERY BEFORE THE ASSOCIATION OF AMERICAN RAILROADS, DATA SYSTEMS DIVISION, STATLER-HILTON HOTEL, WASHINGTON, D.C., OCTOBER 17, 1966

The transportation industry has been called the "industry nobody knows." Both public and private officials agree that there is a desperate need for improved information concerning the transportation sector of our economy, a sector which contributes over $100 billion annually to our gross national product, about one-sixth of the total. Economists point out that while the quantitative and qualitative measurements of activity in other economic sectors -- manufacturing, trade, agriculture, construction, and others -- have improved steadily over the years, our information about transportation is less satisfactory today than it was fifty years ago when regulated carriers dominated the national transportation scene. As more and more traffic has been taken over by the unregulated (and largely unreported) carriers, our information on passenger and freight movement activity has shrunk accordingly.

This is not to imply that our transportation information needs can be met through a mere increase in reporting activity. We do not need more data so much as we need better data and more coordination between the organizations and agencies which collect it. Filling these needs is a big order.

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More than thirty governmental units at the Federal level alone have statistical programs which are concerned with one or more aspects of transportation. Of course, fragmentation of statistical programs merely reflects the multiplicity of Federal activities concerned with transportation, ranging from the regulatory agencies such as the ICC to the promotional agencies such as the BPR to our most recently created agency which is concerned with highway and traffic safety. Such a complex structure, evolving in response to highly specific needs over a long period, tends to provide elaborate and detailed information in some areas and leave complete voids in others. It would be only an accident if such a structure could produce data that permitted a unified, systematic view of transportation as a whole. In fact, A House Subcommittee four years ago characterized the general area of transportation statistics as "one of the most poorly organized of the Federal statistical fields."

This same diversity of special interest has also had its impact on the data collected by State and local governments, by trade associations, and by private carriers and shippers. This shows up in a lack of consistency in statistical concepts, wide variations in the comprehensiveness and reliability of data collection techniques, and a general lack of comparability between data presumably measuring the same phenomena. The result is that our public and private organizations taken together do not provide much of the information we need to understand the interrelationships of the various transport modes with each other, with the various regional and industrial sectors of the economy, with the economy as a whole and with the rest of the world.

Nevertheless, these organizations do generate a large and valuable body of transportation information. We in government and you in industry share a common need to make that information both more usable and more useful.

It is both intelligent and necessary that government view the various modes of transport as parts of a system which has interrelations and feedback connections with the entire fabric of American life. These basic interrelationships are inherent in the public's choice of modes of transportation. Moreover, they should be reflected in our public decisions to build roads, to urge or discourage mergers, to subsidize, to lessen or increase regulation, or to aid in the solution of labor and management problems in transportation.

The appreciation, study, and understanding of the systems effects of transport are impeded by our lack of adequate supporting data. This deficiency in data thus limits both our public and our private ability to make informed choices among transport alternatives. Even worse, it conceals the full spectrum of possible choices which would be revealed if our analyses could be founded upon an adequate information base. A variety of analytical techniques are at hand to

explore the consequences of a large number of possible choices, but we cannot utilize them fully because of a lack of data inputs.

In particular, we lack data on the indirect or "hidden" benefits and costs of transport activity. These benefits and costs are hidden because they are not usually expressed in dollar terms, nor do they appear in private or business income statements. Among the hidden costs of our transport system are those due to accidents, the personal impact of congestion, smog and other pollution, deterioration of the central city, hidden subsidies, and so forth. Hidden benefits may include improved physical access, increased property values, and greater economic activity and efficiency.

Let me be more specific about some of our common data needs.

Nowhere do the data needs of government and industry coincide more closely than in the area of technological change. In order to understand the forces affecting the introduction of new technology and new methods, we need much more information on the socio-economic characteristics of the transportation labor force, the productivity of labor and capital, managerial attitudes toward the introduction of changes, and the social and private costs associated with innovation.

The advent of inter-modal containerization, super-sonic aircraft, and inter-city high speed ground transport are but cases in point. Information needed to understand the probable direction of future development includes data on important technological changes which have occurred in the past; techniques which are ready for introduction but not yet in use because of managerial, labor, or financial resistance; and techniques and methods still in the developmental phase. Without this kind of information, fruitful study of possible rates and patterns of the development and diffusion of innovations is extremely difficult.

Data that relate transportation services to other types of economic activity and to the spatial and temporal considerations in economic analysis are surprisingly meager. Flow data by routes or between regions and origin and destination data for the movement of goods are generally inadequate or non-existent. Some origin-destination and flow data for the movment of people are being collected; but much more needs to be done, and all modes of transportation should be covered simultaneously -- both where they offer alternatives and where they are combined to form a complete trip.

The time required for people and goods to move from initial origin to ulitmate destination is also unknown. This is an important element in quality of service, in measuring reliability, and in appraising substitutability. The value of data on both spatial and temporal flow would be much improved, moreover, if a common classification of commodities could be adopted by each of the

principal modes of transportation and utilized by all government regulatory functions.

For government as well as industry, one of the most important characteristics of any transportation system is its capacity. This is difficult to determine for a single carrier. It is infinitely more difficult when one looks at our transportation system as a whole. Obviously, no single measurement of capacity is adequate.

Also related to capacity is the question of the utilization of capacity. Any appraisal of the performance of a particular operation, or a particular mode of transport, or of the transport system as a whole obviously requires (a) data which measure capacity and utilization and (b) data for use in the analysis of the operational factors which influence capacity and its utilization. With the exception of information on major items of equipment, most of these kinds of data are not available.

We in government and you in the railroad industry share a number of more specific common data problems. Let me discuss just two of these briefly here.

All commerical carriers of cargo, the railroads included, suffer from a lack of data adequate to describe the market environment for which they must design and in which they must sell their services. You need better data on present commodity movements by all modes, both commercial and privately-operated. You need these data broken down more carefully by commodity and related more precisely to the geography of their origins and destinations. You need to have these data, moreover, in a form which makes them readily comparable to data on the geographical distribution of economic activity and the location and composition of population.

Those of us in government concerned with public policy on transportation matters operate at a serious disadvantage because of the lack of these same data. In discharging their functions, the regulatory agencies need much better information on the structure of the market for cargo transportation and the actual volumes of movement by mode which grow out of this market. In the executive branch of government, we are trying to rationalize our decisions on investment in facilities such as highways based on our expectation of the growth in both passenger and freight movement; but since we know so little about what this movement is today, we have great difficulty in forecasting what it might be tomorrow.

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Both you in the commercial transportation business and we in government, therefore, end up looking for the same non-existent data.

The adequacy of our national supply of freight cars and of the way in which we use them is a matter of intense and continuing concern to you in the railway industry. I can assure you that it is also a matter of great concern to those of us in the Federal Government. The Congress has given the Interstate Commerce Commission a legal responsibility to worry about this problem. The executive branch with its over-all responsibility for Federal transportation policy cannot help but worry about the problem, too. From your standpoint this problem is in no small measure one of developing data adequate for control of the present car fleet and the rationalization of your investment in additions to it. From our standpoint it is entirely a problem of developing and analyzing those selfsame data.

It is clear that the railroads need better data on how cars move, where they are, and where they are needed before our recurrent problems with car shortages, however real or unreal these may be, can be licked. At the same time, government is helpless in dealing intelligently with this problem -- if indeed they need to deal with it at all -- so long as data which describe the problem in any comprehensive way are largely lacking. These data can come in the last analysis, only from the railroads themselves.

I realize, of course, because I have talked with many railroad men about the problem, that developing these data is no simple matter. Like many others looking in on this problem from the outside, for instance, I recognize as you do that this job probably cannot be done well until the industry has installed automatic car number recognition equipment. I am told that this organization is in the forefront of that problem, and I am hopeful that you will be successful in solving it very soon.

I recognize, moreover, that most of the people who are in the forefront of the battle on this freight car movement and utilization data problem are in this very room today. I want you to realize that you are not merely the key to solving the car supply problem for the railroad industry; you are the key to solving the problem for the Federal Government and the public as well!

Lest you think we intend to do nothing more than cheer you on, however, I want you to know that I have already talked to the leaders in your industry, including not unimportantly Carl Byham, and advised them of our interest in making research money available under our High Speed Ground Transportation Research and Development Program to help find a solution to the over-all problem of adequately controlling the national car fleet.

More specifically, if research is needed on the development of a national information gathering and analysis system, this could offer us a legitimate opportunity to contribute resources which you could put together with your own funds in attacking the problem. I am hopeful that something might work itself out along these lines.

The crucial point here, in any case, is that if we can help the railroad industry to solve its own problems in this area, then the government's problems will go away.

Let me go on to discuss in a more general way how the Federal Government can work with the entire transportation industry, including the railroads, to attack their common problems and needs. More specifically, let me discuss briefly two new activities of the Federal Government which bear directly on the subject at hand today: The first, our program in national transportation statistics and the second, the new Department of Transportation whose creation was established by law only 48 hours ago.

When President Johnson signed the High Speed Ground Transportation Act of 1965 just one year and a few days ago, there was created, among other things, a program designed to improve in all its aspects our reservoir of data and information on transportation problems. The responsibility for carrying out this program now resides in the Office of Transportation Data Systems which was established in the Department of Commerce last fall.

It is the job of this office to identify and correct to the maximum extent possible the inadequacies in transportation data which are of mutual concern to industry and to government at all levels. This office, which is only now getting up a head of steam, is to serve as a focal point for all those concerned with this data problem. It is not intended that the office develop its own collection and data handling capability, but rather that it work with and through existing statistical and data collection groups so as to eliminate duplication and strengthen those efforts, public and private, which are already under way.

In getting its feet on the ground, this office has already had extensive contacts with data users and data collectors in the Federal Government and with many in industry besides. It has already become clear that the major effort of this office should be focused on the improvement of statistics which deal with inter-city freight and passenger movements. Among other things, this has already led this office to look carefully at the problems of commodity codes, and more recetly at geographic codes as well. These highly technical but absolutely fundamental problems are, of course, of great interest to those of you here today; and so I am confident that you will encounter our Office of Transportation Data Systems more and more frequently in the months and years ahead.

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I want to make it absolutely clear that we have no illusions about how easily or how quickly we can make major inroads upon our collective needs for transportation data. Progress in so complex an area is necessarily slow, difficult, and expensive. With the cooperation of groups such as yours, this progress will be made!

The work we have underway in our Office of Transportation Data Systems is but an expression in detail of the kind of objectives which the President and the Congress have set for us in the new Department of Transportation. For this new Department takes as its basic theme the total view of transportation as a unified system that I have been discussing all along here in the context of our common information needs.

Unfortunately, the concept of transportation as a single system has not yet been completely grasped by many people, including those who work in transportation. We do not lack railroad or air transport, or shipping experts; but we do lack transportation experts.

Perhaps this is because transportation, as such, is an abstraction, whereas trucks, or railroad cars, or airplanes are not.

Certainly the Department of Transportation will have to make a major educational effort to explain the significance of systems engineering to the transportation community. Since we have all been accustomed to thinking in terms of separate modes, this educational project faces an uphill course.

But I am convinced that the efficiencies to be gained from intermodal cooperation will ultimately prove to be vastly beneficial to every element of the system. The transportation task that lies ahead of us is so great that everyone will have to contribute if we are to get the job done.

In conclusion, it seems clear to me that in approaching the problems of our national transportation system, we in government and you in the transportation industry jointly face a series of more and more rational decisions which point toward the ultimate transformation and improvement of our economy and the society which it serves. I would assert that, just as we can no longer approach our Federal transportation policies on a disjointed modal basis, so can we no longer approach our data problems and statistical programs as simply an exercise in fact-gathering

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What the transportation executive needs, be he public or private, is the help of the analyst and the information specialist in explaining the dynamics of change and of the relations between demand, performance, and the impact of transportation upon its environment -- also that better management and more sensible public policy can be developed.

This is the challenge that faces us in government and you in private industry. It is a challenge particularly worthy of a pace-setting organization such as this one assembled here today.

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