Defining "Intercity" for Transportation **Purposes**

JOHN NOLEN, JR.

Director of Transportation Planning, Office of Transportation, Housing & Home Finance Agency

The changing character and extent of urban America and particularly the growth of the metropolitan complex, together with concomitant changes in travel patterns and modes, have confounded the meaning of the term "intercity" as applied to transportation since the turn of the century. The basis of the dilemma is not only in the form of transportation provided but also in the form and extent of the urban communities which are served.

The evolution of the problem is traced and the concepts used to define and measure intercity and other travel are discussed. It is concluded that the problem is to find a series of common denominators or criteria that would take into account and identify the extent of the urban or metropolitan complex and the travel of a daily character associated with that complex in order to distinguish this type of travel and the service provided from that which is characteristic of movement between separated urban centers or aggregates. The SMSA is suggested as the geographical unit with which to associate metropolitan statistical compilations on travel.

•THE DAYS when the American city was a well-defined geographic or physical entity contained within its own political boundaries have long passed. Gone also are the days when the suburbs of the city were recognized as distinct communities, separated by distance and open space from the central city, though economically dependent on it. In their places compact metropolitan urban complexes have appeared in which city and suburb are physically amalgamated, with the daily activities of each dominated by interlocking streams of transportation in every form. Now the megalopolis is developing as a chain of metro complexes.

In this evolving environment, transportation facilities and service have been seeking to meet the changing requirements for moving both people and goods throughout and between these expanding urban complexes. Clearly, urban economic and social activities are highly interdependent, generating a wide variety of transportation needs which are increasingly difficult to define, separate, and measure. This paper is directed principally to a discussion of the changing factors which bear on the problem and to a review of the criteria used to distinguish or identify the so-called intercity passenger travel from urban travel in general.

GENESIS OF PROBLEM

The problem of defining intercity for transportation purposes has its roots in the successive changes which have taken place in the form and extent of urban settlements, whether they be large or small cities, suburban communities, isolated towns, or non-farm sprawl and scattering. These changes, which have transpired over a period of more than half a century, have to a large extent been made possible, if not actually been caused by, progressive changes in the forms of transportation and the patterns of travel within and between urban areas of varied size and complexity.

Paper sponsored by Committee on Intercity Highway Freight Transportation and presented at the 44th Annual Meeting.

Until shortly before the turn of the century, travel within cities, as they were then constituted, depended on the carriage and the horsecar. Intercity travel was almost entirely by steam railroad which in the larger cities provided the beginnings of commutation service. After the turn of the century, the electric interurban railway became a system reality, reaching development on a statewide basis about a decade before the rise of the motor vehicle as a means of both urban and interurban transportation. During the 20 years of effective operation of the interurban railways, the groundwork was laid for the spread of urbanization around the larger cities and dispersion into smaller communities which the Federal-Aid Highway System later accelerated and extended.

The flexibility of the motor vehicle and its improvement as an economic means of both individual and mass transportation began to have its effect in consolidating urbanization around cities as centers of metropolitan development in the decades following World War I and the depression. Transportation routes and services, originally conceived as intercity or interurban, soon became so dominated by wholly metropolitan movements that the statistical basis for measuring and comparing travel became confused and even completely changed.

While these changes in the form of urbanization and in transportation were taking place, governmental interests in regulating and controlling public transportation were also changing. As motor bus routes and service began to replace the interurban electrics and new systems and services were organized, the states took over the regulation of intercity and, at first, even interstate operations. Indeed, much of the city-suburban movement was included whenever cities were not given control of operations beyond their boundaries. For a decade or more, as service and systems evolved, the need for and practice of regulation increased. The Motor Carrier Act of 1935 settled the question for the carriers in interstate service but the intercity vs local service issue was left undefined, with operations subject to varied classification.

This is the basis of the present problem of defining intercity for transportation purposes. Its roots are not only in the type of transportation service provided but also in the form and extent of the urban communities being served.

DEFINING URBAN COMPLEX

Since the political boundaries of a city constitute too limited a concept to identify intercity travel, some other basis of demarcation is needed which will take the city as a nucleus and group together the closely populated areas associated with it. A review of the methods developed to define and measure these urban complexes or aggregations may be of value in helping to differentiate between intercity operations and those associated with the internal life of the metropolitan community.

In 1910, the U. S. Bureau of the Census established the metropolitan district in an attempt to embrace an urban aggregate that was larger than the city and an appropriate unit for demographic and ecological analysis. By 1940, the limited criteria of size and density for creating a census metropolitan district had become outmoded and quite in-adequate to delimit the expanding metropolitan community.

Two changes were made for the 1950 census in an effort to define and measure the population within the areas of continuous urban settlement. First, criteria were established for mapping and compiling statistics for urbanized areas. Each urbanized area so classified had to have at least one city of 50,000 inhabitants or more in 1940 and the surrounding closely settled incorporated places and unincorporated areas had to meet certain size, density and contiguity criteria. Since the boundaries by the definition could not always conform to political subdivisions, and would change from census to census, statistics pertaining to these urbanized areas were extremely limited and were only related to one point in time.

In an effort to eliminate this inherent weakness and broaden the basis of statistical comparison, the Bureau of the Budget created the Standard Metropolitan Statistical Area (SMSA). As constituted in 1960, there were 212 SMSA's, embracing 112, 885, 178 people or about 63 percent of the population of the United States at the time.

The general concept of an SMSA is one of an integrated economic and social unit with a large population nucleus. Each must contain at least one city with 50,000 or more in-

TABLE 1				
URBAN	POPULATION	CLASSIFICATIONS		

Area	Number	Population	% of Total
Urban	5445 ^a	125, 268, 750	69.9
Urbanized	213	95, 848, 487	53.5
SMSA	212	112, 885, 178	63.0

^aIncludes only places of 2,500 or more representing 63.9 percent of total population. habitants and include the county of the central city and adjacent counties found to be metropolitan in character and economically and socially integrated with the county of the central city. In New England, towns rather than counties are used as the basic statistical unit. The criteria of metropolitan character relate primarily to the attributes of the county as a place of work or as a home for concentration of nonagricultural workers. The criteria of integration relate primarily to the extent of economic and social communication between the outlying counties and the central county.

Table 1 gives the relative number of places and people in the several census classifications or groupings of the urban population. It indicates that the SMSA is a possible successor unit to the city for distinguishing intercity travel from that which primarily serves the metropolitan area. The SMSA meets the requirement of including all the contiguous urban area associated with the central city and has a definite and generally fixed legal boundary which might be satisfactory from a regulatory standpoint and is certainly statistically significant.

DEFINITIONS IN CURRENT USE

As previously indicated, the present definitions have been developed largely for separate regulatory purposes and have no intended coordinate relationships. The most important sources of these are: (a) the Interstate Commerce Commission (ICC), (b) decisions of the courts relating to jurisdiction and the applicability of Federal and state laws, and (c) exemptions from the Highway Revenue Act of 1956. In its annual reports, the ICC gives the following definitions:

> Local service for the purpose of accounting and compiling statistical data means transportation performed within a city or town including the suburban area contiguous thereto. Intercity service means transportation performed beyond the limits defined for local service.

Obviously, these general definitions leave indeterminate the statistical boundary line between local and intercity service with regard to both periodic comparisions and the applicability of the definition territorially.

In its quarterly reports, the ICC gives the following slightly different definitions:

Local and suburban schedules shall include schedules (other than charter or special service) operated within a municipality and the trading and suburban residential area thereto. Intercity schedules shall include all schedules (other than charter or special service) operated beyond the limits defined for local and suburban schedules.

In reporting operations for Class I motor carriers (i.e., those having gross operating revenues of \$200,000 or more annually), the ICC tabulates statistics for both intercity schedules and local and suburban schedules according to these schedule definitions, but when the carrier reports operating both schedules it classifies the carrier as intercity if the average revenue per passenger is in excess of \$0.20. This arbitrary fixed limit has not been changed for many years in spite of rising fares; therefore, some Class I carriers performing essentially a local service in a metropolitan area would be classified as intercity though reporting divided operations according to the definition.

The National Association of Motor Bus Owners, which annually publishes Bus Facts, states that approximately half of the 1,450 intercity bus companies are in interstate service, but that there are no comprehensive data available for those intercity carriers operating intrastate service only, presumably because these are not covered uniformly by any single agency such as the ICC. Thus, the available statistics for intercity travel are probably not complete or entirely comparable for lack of a generally accepted definition and a single official source of compilation. Further elaboration of the definition issue will clarify this phase of the problem.

Oklahoma statutes provide the following often quoted definition under Title 47, Chapter 56, \$161, paragraph (d):

The term 'intercity' as used in this Act is defined as describing transportation of either passengers or property, when such transportation is from one incorporated city or town to or through another incorporated city or town or through two or more incorporated cities or towns, regardless of the point of origin or destination.

In a Florida decision, quoting Webster's New International definition and the Oklahoma statute, the court termed the Oklahoma statute definition as adequately reflecting the commonly accepted understanding of the word intercity. Interestingly enough, it also states that the word most often used to describe this type of transportation is interurban.

Seemingly contrary in its effect, if not actually so, is a decision of the Circuit Court of Appeals in Ohio involving the Valley Motor Transit Company which was engaged in interstate commerce between Steubenville, Ohio, and Beaver, Pa. It involved an exemption from the requirements of Section 13 of the Fair Labor Standards Act of 1938. The decision of the Court was that, in spite of the fact the service was provided over a 42-mile route between cities in different states, the Valley Motor Transit Company was a local motor bus carrier because it rendered a local service along the route involving 239 stops and charged fares according to zones. Furthermore, only three passengers of the 12,000 carried per day traveled the entire distance. The court stated that the distinguishing characteristics between local and long-distance carriers were fivefold: (a) traffic, (b) service, (c) equipment, (d) fare structure, and (e) wages and working conditions. Notable in this decision is the fact that neither the termini of the route nor its length nor the character of the territory traversed were the distinguishing characteristics.

Federal highway legislation deals with intercity problems in connection with the Highway Revenue Act of 1956. As in all revenue legislation the provisions of the law are complicated. For the purpose of this discussion it is sufficient to say that exemptions from the imposition of a portion of the gasoline tax and of the tax on the transportation of persons are provided in the case of the use of any bus which is of a transit type (rather than of the intercity type). Here again the distinction between local and intercity is in the type of service rendered (as exemplified by the transit bus) rather than any direct relation to the route.

A valuable contribution to this subject, including impact of the term intercity on freight transportation, are the following separate definitions of intercity travel for passenger and freight provided by the former Deputy Undersecretary for Transportation of the Department of Commerce, E. G. Plowman.

> By intercity personal transportation is meant those travel movements that are not patterned on a daily commuter basis and that are between urban centers rarely less than 40 miles apart, measured between their downtown 'central business districts'. Since this definition excludes daily commuter travel, data collection is complicated by such movements up to, but rarely beyond 100 miles. Furthermore, automobile, bus, rail and air transportation may serve both commuter and intercity travel needs within each urban area.

By intercity freight transportation is meant all shipments except those that are handled by a private or for-hire truck that is operated on a planned daily route pattern and that returns to its base each evening. In general, daily truck route patterns do not extend beyond about 150 miles for the round trip. Within this radius of any urban center there are both intercity and local movements, sometimes in the same vehicle, complicating the statistical problem.

INTERCITY TRAVEL MODES AND PATTERNS

Total intercity travel has been estimated by The National Association of Motor Bus Owners and the Transportation Association of America to comprise some 841 billions of passenger miles in 1963, of which almost 90 percent was by automobile. Excluding travel by automobile, intercity movement is now dominated by the airlines which carry about 50 percent of the passengers; the other 50 percent is almost equally divided between the railroads and the intercity bus, the latter having remained nearly constant at 25 or 26 percent of the total for the last five years.

Of particular interest in the definition problem is the fact that for the Class I intercity bus industry, two-thirds of the passengers carried in regular route service are classified as intercity and one-third as local and suburban. These figures apply to only 161 of the 1,450 companies estimated by The National Association of Motor Bus Carriers as in intercity service.

The 1963 census of transportation covering national travel during the first six months of 1963 provides some recent statistics on the distribution of travel by method of transportation and the distance and duration of trip. Trips were counted if they involved being out of town overnight or on a one-day trip 100 miles or more from home. This was not intended to represent the dividing line between intercity and local travel, however, but only to serve as a basis for measuring the travel industry. Of bus trips, 29 percent were under 50 miles, 16 percent were 50 to 99 miles and 55 percent were more than 100 miles. Trips by auto had higher proportions only for the 50- to 199-mile distances.

More directly related to the definition problem is the fact that the survey also showed that for all trips of more than one day duration, the bus was used less than the auto for one or two overnight trips, but for longer durations the bus had increasing use. This again emphasizes a dominant characteristic of its intercity service.

SUMMARY

The foregoing discussion singles out some of the many variables in need of reconciliation or evaluation in order to define the term intercity for transportation purposes. The difficulty is to find a series of common denominators or criteria that would take into account and identify the extent of the urban or metropolitan complex and the travel of a daily character associated with that complex in order to distinguish this type of travel and the service provided from that which is characteristic of movement between separated urban centers or aggregates. Clearly, the term intercity is outmoded and, in lieu of interurban, perhaps the concept of extra-urban is more applicable. And, for travel within or between the complex metro-urban aggregations, perhaps the SMSA should be the geographical unit most practical for statistical compilations.