# DEPARTMENT OF ECONOMICS, FINANCE AND ADMINISTRATION

## Implications of Sociological Research for Urban Passenger Transportation Policy

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TRANSPORTATION decisions are not based on purely economic motivations. For example, if economic factors were the determining elements in the movement of people into urban centers, without doubt, mass transportation facilities would be preferred. By most cost criteria (e.g. operating expenditures including parking, capacities of lanes of moving traffic, etc.) facilities used at one time by many persons (buses, streetcars and transit vehicles) are cheaper than those used by a few or even by individuals (private automobiles). Moreover, the community cost in terms of land utilization and improvements is lessened by fewer, constantly circulating vehicles than by numerous vehicles which are stationary for the bulk of the day. But regardless of community or individual expense, mass transportation performs a decreasing, though still large, share of the circulation function. For social rather than economic factors, the automobile has become the dominant means of passenger movement in the United States as a whole and in urban America as well.

While research attention has rightfully been devoted to technological and economic considerations of transportation, other types of investigation—those relating to the behavior and attitudes of people—are also required. This is not to minimize the excellent and necessary work that has been directed to the technological improvements in the design and engineering of roadway and vehicle, to the improvements in traffic regulation and circulation, to safety factors, including driver education, and to economic assessment of the relative merits of various forms of transportation. Nor are those psychological and sociological investigations already undertaken to be slighted. For example, the studies of a psychological nature aimed at the detection of the "accident-prone" individual or the studies on the circumstances conducive to accidents are very illuminating. Similarly, sociological analyses, mainly focussing on the journey to work and the relationship of the automobile to the growth of suburbs and decentralized activities are likewise informative. However, there has not been systematic sociological investigation of the impingement of transportation on the total social fabric of the country, and the social implications of the choices of alternative transportation patterns. Nor have sociological studies generally been geared to policy formulation. This paper, in tentative fashion, will indicate firstly, a few of the little explored aspects of the sociology of transportation (which may be of more interest and significance to the analyst of society than to the transportation professional), and secondly, potentially fruitful areas for sociological research on urban transportation as related to policy considerations.

## SOME FRUITFUL AREAS OF SOCIOLOGICAL INVESTIGATION ON URBAN PASSENGER TRANSPORTATION

The questions for investigation suggested below are illustrative but by no means definitive or all-inclusive areas in which transportation impinges on other aspects of social life. (These exclude the considerations discussed in later sections on policy determinations, e.g.

What is the meaning of driving to the individual: does the suburban wife-mother become in large measure an unpaid chauffeur? Does ferrying her family about deny her time she believes would be spent more advantageously on other activities of her choosing, or does the resulting contact with other aspects of the community expand what might be a privatized, lonely existence? For the adolescent boy has driving the family car become a sign of maturity as the wearing of long trousers used to be? Is driving regarded by the commuter as a skill in which pride of accomplishment may be measured, or is it a chore, denying the person time to spend, say, in reading the newspapers (which could be done on mass transportation facilities)?

To what extent are contacts with other persons minimized or maximized through transportation facilities? Does the automobile help to build family solidarity through shared experiences (in a confined space)? What types of conversations with how many persons can be carried on in one mode of transportation as contrasted with another? Do carpool riders build up a special feeling of identity and interaction with each other? Do people prefer to pool rides or to drive alone? How are reactions to minority groups likely to be structured--e.g. is there a qualitative difference in interaction on a mass transit vehicle and the attitudes engendered through private vehicle operation contact?

To what extent is commuting regarded as pleasant? What are the limits of tolerance in terms of commuting time, distance, noise, other irritants? Does commuting permit a transitional or adjustment period from one major role to another, say the shift from occupational role to parental role? (Sociological literature has indicated that individuals play many different roles—a person may be a plumber, a father, a Mason, a member of the school board, an Irishman, a taxpayer, a musician, a union member, a reader of a metropolitan newspaper.)

What effects does the separation of place of work from place of residence, or place of recreation from place of residence, etc. have? Does the individual enjoy being away from the surveillance of family and neighbors, or does he feel estranged by the fragmenting of his life? What kinds of concepts of the work of the father are conveyed to young children who do not see the place where their father works, or observe him at his tasks?

To what extent is motoring regarded as an adventure—e.g. for the hitchhiker or the speedster? To what extent a danger (against which small children must be constantly warned to guard against their being run over)?

To what extent has there been established an "etiquette" on the part of the users of transportation facilities—i.e. checks on the despoiling of the countryside or the subway car; "courtesies" afforded to other motorists (permitting another car to pass or turn, etc.) or to fellow passengers (not making undue noise); helpfulness—giving a stalled car a push or holding a package for a burdened fellow passenger?

To what extent do attitudes toward the law and authority relate to transportation? What is accepted as "permitted" lawbreaking, e.g. surpassing the speed limit, parking in a noparking zone, and how does this compare to law-breaking in other social spheres? Do more people try to "fix" traffic tickets than other law violations, and if so, why? Do they accept tickets with less guilt than detection of other law violations? What are the reactions of those who have been involved in (and survived) fatal accidents-do they regard themselves as approximating murderers? In what ways does juvenile delinquency find expression through use of automobiles-theft, destruction (e.g. the pastime of "crinkle-fender"), sexual adventures?

The questions raised above were not meant to have direct policy implications. Many do have such implications for urban passenger transportation. However, even where such questions do not have direct policy implications for traffic they do have implications for city planning, for law, for industrial plant location and for other activities. Both public policies and policies of private enterprise in respect to these other activities will in marked degree influence transportation. A discussion of certain sociological problems with particular import for urban passenger transportation follows.

## THE POLICY IMPLICATIONS OF THE AUTOMOBILE AS A SYMBOL OF STATUS

Presently there are more automobiles than households in the United States. More adults hold driver's licenses than library cards. In a study prepared by the Brookings Institution it is stated that one out of seven employed persons in the United States is engaged in various aspects of providing highway transportation.

Such indices point to the high valuation Americans place on automobiles as a consumer commodity. What are some of the attractions of the automobile for so many Americans? European observers are prone to link Americans' love of automobiles to our national character-i.e. we are energetic, technologically minded, materialistic, enthusiastic, competitive, stereotyped, practical, impatient, and so forth. There may be some validity in some of these generalizations. However, I suggest (along with other social analysts) that in large measure this attraction is related to the mobility characterizing American societymobility measured geographically ("horizontal" mobility) and in the social hierarchy ("vertical" mobility). The automobile embodies rapid change in its own emergent design and acceptance (it even conveys the idea of motion through "streamlining"); it also symbolizes the potentialities for rapid change or mobility in personal social status. The automobile has such characteristics in rural as well as urban America; the urban community on which this essay focuses is noted, however,-whether or not accuratelyas the main arena for exercising drives of social mobility.

The automobile conveys a concept of personal freedom and spontaneity—the ability to "pick up and go" unhampered by the institutional schedules of mass carriers. Whether for recreational or occupational motivations, a car-owner need not be tied to any one facility or plant in a city nor even to any one city. The car stretches the bounds of the geographic environment in which the owner may interact.

Moreover, the automobile is a means of stretching the social ranking of the owner; since it is the largest single purchase of a family outside of a house (both may be bought "on time") it serves as a tangible, visible indication of the assumed socio-economic level of the owner. Car-ownership is ipso facto evidence of having arrived at a certain property or income level. The visibility of the automobile is even greater than that of the houseand certainly greater than the contents of the house—since the car is "portable". It is also more "external" than paintings or fine silver or first editions or other possessions which would be revealed more usually to an intimate rather than a chance acquaintance. With the current widespread car ownership it is no longer car ownership per se that is rated by neighbors or strangers or friends-it is the subtle differential esteem attached to particular models, makes and other distinctions. Similarly, the one-, two- and three-car family may be differentiated.

But perhaps more sensitive distinctions should be made than the generalized "keepup-with-the-Joneses" analysis of car ownership. For what groups does the car serve primarily a utilitarian purpose of transport of the major wage-earner, for what group is family solidarity or recreation important? Is utility a prime consideration with perhaps overtones of status striving, or is status striving primary with use of the car flowing from the fact that it has already been purchased? More detailed investigation of the car as a status symbol would involve delineation of the majority evaluation (e.g. a Buick "rates" higher than a Ford) and how these evaluations vary with ethnic and other social group memberships. For example, how many are there like the Vermonter with an ideology of thrift who apologizes for his "conspicuous consumption"-the person who says he bought a new car only because the old one broke down; or the suburban family who was "forced" into maintaining two cars since the family activities diverged. Also, in what ways are foreign and sports car owners deviants from the majority? Do they feel identity with one another? Do "hot-rodders"? Are these latter expressing particular kinds of rebellion, perhaps similar to the behavior of modern "cowboys" of motorcycle enthusiasms?

We know relatively little about the shadings of meaning of car ownership, and how status strivings and aspirations are defined by different ethnic, age and geographic groups, and in addition how different personality attributes and ideological positions influence such attitudes. We also know relatively little about the status attached to various kinds of mass transportation facilities—it would seem for example, that the suburban train is more statusful than a streetcar, bus or subway. I would also postulate that there is more status gratification in riding on a sleek PCC car than an old-style trolley. I would further postulate that a fare differential (given prosperous economic conditions) might in certain situations result in a sizable number of persons choosing rather than rejecting the more expensive service.

Despite many lacks of knowledge, we already do have a sufficient evidence that people are not motivated solely by economic considerations. We might experiment to a greater degree in various aspects of urban transportation than we have done so far to see the boundary lines between economic and noneconomic behavior. Differential parking rates for proximity to central points of interest and toll roads testify that people will pay for speed and convenience, and that more people will pay than were usually anticipated (the facilities have created demand as well as responding to demand). Of course, status and utility so often blend into each other, that it is most difficult to distinguish them in all cases. The suggestion here, however, is that policy be concerned to a greater extent with services which appeal to status and other non-economic motivations.

## COMMUNITY SOCIAL BEHAVIOR PATTERNS AFFECTING OR AFFECTED BY TRANSPORTATION CHOICES

While status aspirations may directly affect the choice between alternative transportation facilities, with an automobile deemed as an "essential" consumer purchase (and once owned, future choices are weighted toward the automobile, since it depreciates whether used or not) there are of course other social behavior patterns which affect or are affected by transportation facilities. The following discussion will be based on the automobile, with contrasting relationships implied for mass transportation facilities use.

In the last two decades there has been tremendous growth in suburban areas, mostly in residential facilities but with ancillary commercial and industrial developments. There is obviously no one "cause" for the widespread swing to more decentralized patterns of living; equally obvious is the fact that the automobile did not in itself generate such a movement—the automobile made suburban living possible and the two are intertwined but generally motivations for moving to the suburbs were not because one could operate a car there more easily than in the more dense areas. Evidently there are other values involved here other preferences that operate upon and influence car ownership and use.

Other changes in consumer and social behavior are related to the automobile-the growth of "drive-in" establishments is one "Drive-in" movies, restaurants, example banks and even churches have developed over the country: the car occupants do not leave their vehicles for services. This may perhaps be related to social attitudes and behavior labeled "the cult of effortlessness" by some social scientists: technological ingenuity and capital are spent to relieve individuals of exertion, even exertion that may not be unpleasant in itself. "Improvements" within the automobile itself are likewise illustrative: push-button windows are offered when cranking a window is not particularly arduous, and so forth. Similarly, it has been noted that people in America do not like to walk further than 400 feet from parking place to destination: large shopping centers with acres and acres of parking have found that these spaces may be left vacant because of walking distances to the shops which are regarded as too great.

While a congeries of social attitudes and behavior contribute to the emergence of such phenomena as drive-ins, the instituting of these facilities in turn generates other social attitudes and behavior.\* The "privatization" of the vehicle-oriented facility on the one hand enables protective privacy: the old, the lame, the not-well-dressed, the bad-mannered child can be screened from public view and their own embarrassment. On the other hand, isolated by the automobile, the occupants are cut off from the social participation of a shared activity such as an audience experiences in a theater or a patron's experience in

<sup>\*</sup> The psychical consequences of facilities are not of concern in this paper. Drive-in theatres, for example, are more likely to create concentrated traffic problems than the more traditional theatres.

a restaurant. The subtle attractions for and implications of such phenomena would be of value to the policymaker in city planning who is engaged in advocating programs to either further or discourage centralization or decentralization of urban activities and who is thus making policy for transportation.

Shopping habits are another good example of activities affected by and affecting choice of transportation alternatives. Marketing once a week at a supermarket is hardly feasible without an automobile—but this pattern also implies an income large enough and steady enough to permit large grocery purchases for cash, an ability to plan purchases for at least a week's duration, storage and refrigerator space adequate enough to receive the purchases, among other things. This type of onestop, once-a-week, family buying has attractions for many: the supermarket is coming into built-up residential areas as well as in the newer suburban developments.

However, there may be a desire to carry this pattern over to other activities—witness the struggle of so many persons who wish to drive to central business districts and park (free) within easy access to department stores where comparison shopping for clothes, household goods and more durable items requires large and densely located facilities. Not only are driving and parking uncomfortable but they are out of the question for most persons entering the central business districts of large urban centers as we now have them. (If all travelled by automobile, the space required to move and park those vehicles would exceed the total area of the present districts.)

This is a much evident example of conflicting habits and desires. The policy maker concerned with suggesting a transportation program will have to reexamine those activities that can best be performed on a decentralized basis, and those which require centralization. The implications of such alternative land use and transportation proposals should be pointed out in social as well as economic terms.

One approach of the policy maker concerned with broad planning for transportation might be: What of the central business district, as we now know it, do we want to preserve? Or do we wish to dispense with the central business district and utilize the private automobile to go to a number of lesser centers? (An example of a poly-nuclear city rather than a centralized one is that of Los Angeles, although it is not suggested by this example that Los Angeles lacks a traffic movement and parking problem. Rather, there are a series of smaller centers articulated in a more dispersed, less dense fashion than in the pre-automobile settled urban centers.)

Policies directed to the furthering of centralization or decentralization of our urban patterns would have to ask first what are considered to be the benefits of the central business district, and by what groups? What are its liabilities? What would be altered or lost, should its nature be changed? What changes would occur in the life of the community as a whole? What would be the implications for social activities?

If centralization or decentralization is considered in a wider context to include industry and other facilities, this would require exploration of the possible unintended consequences of these alternative policies. What effect, for example, would either policy have on the labor supply? Another question raised would be that of how much land we are willing to devote to highways and streets in comparison with other uses? Do we wish to further the pattern of a continous area of small suburban holdings, which replaces agriculture and eliminates open spaces which might otherwise be retained for future flexibility of land uses? Are we perhaps on the East coast evolving a continuous urbanized band stretching from north of New Haven to south of Washington, D.C.?

However, alternative solutions of specialized purpose small centers (e.g. shopping centers) on the one hand, to which the individual can drive, and on the other hand, the dense and complex concentrated area with many services to which most individuals must travel by mass transportation, need not be provided in an all or none manner. In fact, what seems to be occuring in many large cities is that the central business district is not diminishing in size or in services rendered, but that new growth is occurring elsewhere.

Another major consideration that arises in this brief discussion of centralization-decentralization and some of its implications for transport, is whether in our largest cities, traffic congestion can ever be more than temporarily ameliorated. Does not one ameliora-

tive measure (such as the provision of a new parking lot or expresswav) merely generate more motor vehicle traffic among those who previously left their automobiles at home? In cities where over 50 percent of the persons entering the central business district do so by mass transportation, will not the easing of parking or the speeding of traffic by one way streets and other ameliorative devices, merely serve to encourage those who did not drive to work or shop in the central district previously. then to do so? Thus, no permanent traffic relief would be possible if as many persons were still drawn to the central business district, but more shifted to the use of the private motor vehicle because traffic conditions seemed to have been improved.

The stress in this essay so far has been on social behavior rather than on economic behavior (and related problems of technology). The two of course are very much intertwined and policy cannot effectively be formed without consideration of both. Just as we have little accurate knowledge on the "true" social preferences of people so to a large degree we do not have accurate knowledge on the "true" costs of forms of urban transportation, e.g. the automobile as against mass transportation.

Often in policy formation for communities we have not clearly distinguished between social ends and economic ends. Thus we have sometimes subsidized one form of transportation at the expense of another on the notion that the general welfare of the community was being furthered. Perhaps it was. Perhaps also, however, if transportation were treated in a market fashion—with users of both highways and transit paying full and direct charges with no subsidies—it might be possible to gauge clearly what are social preferences and what are economic preferences and to adjust policy in terms of both (something which is very difficult to do at present).

#### RECOMMENDATIONS

The point of decision on urban transportation development policy rests typically with the local planning body (often the city planning commission). City planning is (or should be) oriented to the making clear of alternative development patterns in a context of community goals. Policy considerations such as those discussed in this paper—for example, the encouragement of centralization or decentralization,—must be thoroughly examined. Not only must decisions be made, but they must be integrated with decisions for other aspects of community development. It is at this point that decisions are translated not into operating proposals, but into location and investment proposals. It is at this point, then, that policies are made as to what locations and what amount of funds ought to be devoted to highways and other forms of transportation. Such decisions can be made, and are typically made, largely on the basis of economic cost, technical and physical data.

It is also essential that these decisions be based on social information derived from adequate social research. Certain items of social research such as estimates of future population cannot be, and in general have not been ignored. However, what has been in large part neglected, and what this essay has stressed, is requisite sociological research on the meaning that different modes of transportation have for people, the functions that transportation itself performs for people in different social circumstances, and the other social functions that transportation facilitates such as family life, with its consumption, recreation and other patterns.

It is essential that this research be undertaken. Some of it should be the task of the local planning and transportation agency, perhaps working together with the guidance of colleges and universities. Some sociological research involves studies of such scope and of such widespread application that it should be done on a national basis. Naturally there are many alternative agencies that might be equipped to adopt the function of such sociological research. One possibility might be the expansion of the work of the Highway Research Board itself. Under whatever auspices such research were done, I for one feel strongly it would serve to sharpen policy for urban passenger transportation and also for other kinds of transportation policy.

#### NOTE ON LITERATURE

There is very little bibliographic material which directly relates sociology to urban passenger transportation (the sector of transportation selected for special emphasis in this essay) or for that matter to most other kinds of transportation. I have found the work of Emeritus Professor William F. Ogburn (University of Chicago) on the social effects of transportation to be most stimulating. The late Professor (William) Underhill Moore (Yale University Law School) wrote provocatively on the social behavior responses to traffic and other kinds of laws. Among the urban sociologists, the ecologists such as

Professor Amos Hawley (University of Michigan) seem to be making the greatest potential contribution in this subject area. On the journey to work, Kate Liepmann's study is the fullest. I am particularly indebted to insights over a long period of time from following the *American City, Traffic Engineering,* and the *Traffic Quarterly.*