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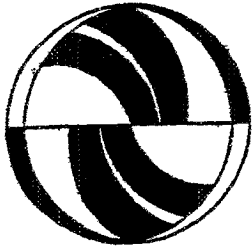
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**Driven to Travel: The Identification of  
Mobility-Inclined Market Segments**

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**Driven to Travel: The Identification of Mobility-Inclined Market  
Segments**

Ilan Salomon

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## CHAPTER TWENTY-TWO

# Driven to Travel

### *The Identification of Mobility-Inclined Market Segments*

Ilan Salomon  
and Patricia L. Mokhtarian

#### INTRODUCTION

It is a truism repeated countless times in the course of a transportation professional's career: "Travel is a derived demand"—that is, derived from the demand for spatially separated activities. Belief in this truism underlies a number of transportation policies designed to reduce motorized travel (whether to reduce congestion, improve air quality, or reduce the consumption of non-renewable energy). For example, much attention has been given to land use policies designed to bring origins (residences) closer to destinations (work, shopping, entertainment). "Neo-traditional" developments, which mix diverse land uses and maintain higher densities than the typical suburban sprawl, are often suggested as a potential scheme to reduce motorized travel.

But what if a significant segment of the population enjoys traveling and would therefore be inclined to evade policies designed to facilitate less motorized travel? In fact, there are a number of indications to support the hypothesis that some people assign positive utilities to travel, independently of the utility of performing the activity at the trip destination.

There are two forms of travel that raise some doubts about the validity and utility of the derived demand assumption. The first is the phenomenon of joyriding, in

which the activity itself is the travel, and consequently, it could in principle be analyzed under the derived demand assumption (where the activity is not confined to a specific location as it is in other cases). This type of travel has received little if any attention in trip generation models, implying that its magnitude is too small to be of importance, or that we lack the ability to model it because of its complexity and variation. The second type of travel that poses a problem *vis-à-vis* the derived demand assumption is the excess travel that is embedded within routine trips to work, shopping, or leisure activities. Research suggests that some excess travel can be attributed to the desire to travel and the benefits of travel aside from getting to the destination.

In recent years there has been a growing quest among transportation planners and environmentalists to address transportation problems through improvements in accessibility rather than mobility. Presumably (given travel as a derived demand), if changes in the spatial distribution could significantly enhance access to activities, the amount of travel could be reduced. This quest is part of a broader debate about transportation/land use interactions in which a central theme is whether increased density should be a policy objective for achieving transporta-

tion goals (Newman and Kenworthy, 1989; Steiner, 1994; Handy, 1996).

Improvements in accessibility can be accomplished through many different policy instruments. In addition to land use policies, which take a long time to implement and may involve high capital costs, there are some other, less costly options. For example, telecommunication-based versions of various activities (telecommuting, teleconferencing, teleshopping) are promoted in the hope that they will substitute for a trip to engage in the "equivalent" activity—that is, that they will increase accessibility by offering "virtual mobility" (Mokhtarian and Salomon, forthcoming). The implicit assumption that travelers are cost-minimizers also underlies various pricing strategies (congestion pricing, higher fuel taxes, higher parking fees) designed to reduce the net attractiveness of more distant destinations by increasing the cost to get there. While pricing policies are generally geared toward reducing mobility, they may also affect accessibility. In fact, from a political perspective, pricing policies may be more attractive if they are supplemented by changes in accessibility. Pricing policies differ in their spatial effects: congestion pricing and parking fees are usually applied to a specific area, whereas increased fuel taxes do not affect a specific location. Consequently, the latter type of pricing policy only reduces mobility, whereas the former alters the relative accessibilities of affected and unaffected locations.

The context of transatlantic comparative studies is uniquely relevant for researching the relationship between mobility and accessibility. The difference in urban structure, travel patterns, culture, and policy processes offers an opportunity to view the role of some of these factors and, through the understanding of the differences, provide important input to policy-making in both the North American and European contexts.

#### ATTITUDES AND EXCESS TRAVEL

While we acknowledge the general truth that travel is a derived demand, our study in progress contests that conventional wisdom as an *absolute* behavioral dictum. Specifically, we suggest that some people have an intrinsic urge to travel for travel's own sake, beyond the utility of the destination itself, although this urge may be stronger in some people and for some circumstances than others. The question has important implications: If, in fact, some

people are utility-maximizers rather than cost-minimizers, and if travel has an intrinsic utility, then policies seeking to motivate travel reductions may not have as large an effect as desired or expected. Our premise is neither new nor restricted to the United States. Despite Americans' alleged "love affair with the automobile," we believe a thirst for mobility to be universal—and note that similar observations have been made for at least a quarter-century, by scholars from different countries and representing different disciplines (Reichman, 1976; Jones, 1978; Hupkes, 1982; Marchetti, 1994).

Conventional economic thought assumes that travelers weigh the disbenefit of distance or travel time against the benefit of the destination when assessing alternative destinations. For example, as Goodwin and Hensher (1978: 25) express it, the nature of travel as a derived demand implies that the decision to travel or not involves "a simple trade-off between the advantages or benefits to be derived from being at a destination and the disadvantages or costs involved in traveling to that destination." In fact, much transportation development is based on the argument that travelers seek to save travel time, and that their value of time is the justification for investments in transportation infrastructure.

But there are a number of indications that people travel more than would be expected if the fulfillment of activity demand could be satisfied only through accessibility. If true, this phenomenon has obvious implications for environmentally oriented policies intended to reduce travel. We will refer to this phenomenon as excess travel, meaning travel that exceeds what could be a minimum satisfying level. The evidence for excess travel is arising in a variety of different contexts.

The concept of excess or wasteful commuting, for example, has received much attention over the last fifteen years (e.g., Small and Song, 1992), where excess commuting is defined as the amount exceeding that predicted by standard location models. In general, some of this apparently excess travel may be due to ignorance with regard to the network structure or available services, some due to constraints on the individual (such as the need to consider two careers in choosing a residential location), some due to the omission of factors increasing the utility of more distant destinations, and some due to a utility for travel itself. In the current context we refer to the latter condition.

A 1997 study demonstrates that worldwide increases in

real income are associated with a transition from slower (transit) to faster (automobile and airplane) modes, with the consequence that per capita distances traveled are increasing (Schafer and Victor, 1997). An Australian study found that given the current urban structure, satisfaction with one's commuting time peaked at a travel time of fifteen minutes—not zero minutes, as the derived demand principle implies (Young and Morris, 1981). Some of our earlier work on the demand for telecommuting illustrates that not everyone who is able to telecommute wants or chooses to do so (Mokhtarian and Salomon, 1996).

There is a large body of literature on attitudes toward, and use of, the automobile (see, e.g., Wachs and Crawford, 1992; Webber, 1992). Automobile advertisements frequently play to the drive for mobility, as these recent examples illustrate: "It's an unrestricted round trip ticket to anywhere" (Acura Integra); it "takes me places roads don't even go" (Ford Explorer); "you should go to the amazing places on earth which are by definition *far*" (Isuzu Trooper); "a car so advanced, it might set telecommuting back a few years" (Honda Accord).

Following Jones (1978), we suggest that the utility of engaging in an activity requiring travel can be usefully decomposed into three components: the (net) utility of the activity at the destination, the *disutility* (negative aspects) of travel to the destination (generalized cost), and the *utility* (positive aspects) of travel to the destination (usually unobserved subjective factors). While destination choice models explicitly trade off the first two components, mode choice models ignore the utility of the destination (which is assumed to be fixed and constant across all mode alternatives) and compare just the observed disutilities of each mode (through measures of travel time and cost), assuming that the alternative with the least negative observed disutility has the highest probability of being chosen. The third component—the positive aspect of travel—is seldom addressed quantitatively.

This multi-component nature of the utility of an activity/trip combination illustrates the extreme that (contrary to the implication of Goodwin and Hensher's statement) a trip can be made even when the utility of the activity itself is zero or even negative, as long as the positive utility of travel outweighs the combined magnitudes of the other two components. In these cases the demand for travel (which appears to be excess travel if the third component is unmeasured) is *not* derived from the demand for the activity, as is universally assumed, but from

the demand for travel per se (Reichman, 1976; Hupkes, 1982). The more common case is one in which the third component increases the total utility of a more distant destination beyond what it would otherwise seem to be, again resulting in apparently excess travel when that more distant destination is chosen.

Building on the previous work described above, we have identified a number of character traits or desires that are likely to be associated with a positive utility for travel:

- *Adventure-seeking*: The quest for novel, exciting, or unusual experiences will in some cases involve travel as part or all of the experience itself, not just as a means to the end ("getting there is half the fun").
- *Variety-seeking*: A more mundane version of the adventure-seeking trait, the desire to vary from a monotonous routine may lead one, for example, occasionally to take a longer route to work or visit a more distant grocery store.
- *Independence*: The desire to get around on one's own is a common manifestation of this trait.
- *Control*: This trait is likely to partially explain travel by car when reasonable transit service is available.
- *Status*: Traveling a lot, traveling to interesting destinations, and traveling "in style" (e.g., in a luxury car) can be symbols of a desired socioeconomic class or lifestyle.
- *Buffer*: A certain amount of travel can provide a valued transition between activities such as home and work.
- *Exposure to the environment*: "Cabin fever" is one manifestation of the desire to leave an enclosed building and "go somewhere," just to experience something of the outdoors. Microsoft's ad campaign "Where do you want to go today [on the Internet]?" elicited this response in a letter to *Newsweek*. "How about 'outside'?" When Ted Leonsis, president and CEO of AOL Studios, was asked who was the biggest competitor to AOL, he replied, "Nice weather."
- *Escape*: Related but not identical to the "exposure" desire is the need to get away from an oppressive aspect of the current environment. There may or may not be a specific destination involved, and (if there is) it may be indoors or out.
- *Scenery and other amenities*: These may lead someone, for example, to take a longer route than necessary to a destination.
- *Synergy*: The ability to conduct multiple activities at or

Table 22.1 Hypothesized Relationships among Travel Liking, Perceived Mobility, and Satisfaction

		TRAVEL LIKING	
		Dislike	Like
PERCEIVED MOBILITY	Low	Balanced	Deprived
	High	Surfeited	Balanced

on the way to a more distant destination, or the ability to be productive while traveling may result in apparently excess travel.

The premise of this research, based on Ramon (1981), is that an individual's decision about engaging in travel is moderated by a number of factors beyond the utility of reaching the destination where the ostensible purpose of the trip can be accomplished. Specifically, we identify the following factors as important to the travel and mobility choices made by individuals:

- *Travel liking (TL)*: One's general affinity for travel, measured on a semantic scale from "strongly dislike" to "strongly like." In Ramon's survey of 474 adults in Jerusalem in 1977, three out of five people expressed some degree of affinity for traveling.
- *Objective mobility (OM)*: The amount one travels, measured by number of trips and/or distance.
- *Perceived mobility (PM)*: One's view of the amount traveled, rated on a semantic scale from "a little" to "a lot."
- *Satisfaction (S)*: One's satisfaction with the amount traveled, measured by the response to the statement "I would like to travel [much more than / the same amount as / much less than] I do now." One out of

three respondents to Ramon's survey said they wanted to travel more or much more than they presently did

Those individuals wanting to travel more than now are considered "deprived," those wanting to travel the same amount are classified as "balanced," and those wanting to travel less are considered "surfeited." Individuals who feel surfeited are likely to exploit access-enhancing policies, and their responses are in the "right" direction. However, the balanced and particularly the deprived groups are not likely to respond in the desired direction, especially if they perceive the marginal costs of travel to be very low. If these two groups are sufficiently large, it may offset the benefits accrued from the accommodation of the desire to reduce travel of the surfeited group.

As attitudes toward travel vary across individuals, so may their preference toward reducing or increasing their amount of travel. We have hypothesized, as shown in Table 22.1, that individuals who like to travel and perceive their current mobility as low would prefer alternatives requiring more travel over closer, neighborhood-based alternatives.

#### WHAT CAN BE LEARNED FROM A NORTH AMERICAN AND EUROPEAN COMPARISON?

The differences in urban structure, urban travel patterns, and planning procedures between Europe and North America raise some interesting issues with regard to accessibility enhancement as a policy objective. Generally, European cities are characterized by a number of dimensions that seem to better correspond to the idealized land use patterns sought by American planners and researchers. They tend to be more densely populated, with residential land uses within the central cities being occupied by the middle and upper social classes, while the share of suburban residences is smaller than in American cities. Mixed land uses are also more prevalent in European cities. All of this is also associated with a significantly higher share of public transport use in Europe.

In view of Europe's apparent achievement of the ideal sought by American planners, it would seem that the potential for land use policies as measures to reduce motorized travel may be of less interest to European policy-makers. However, there are a number of reasons why both European and American planners and policy-makers



should gain from comparative research along the lines suggested in this chapter.

While seemingly so different in accessibility and modal shares, some trends in Western Europe are indicating a transition toward American patterns. Increases in auto ownership, decreasing use of public transport, and increasing suburbanization reflect some preferences of contemporary Europeans. This putative imitation of the "American" dream may in fact be a manifestation of a basic desire for increased mobility by some market segments, irrespective of the urban structure.

Thus, there may be a greater need than first imagined for European planners to consider new accessibility-enhancing policies. Indeed, European planning procedures provide greater capacity to affect land use patterns than is the case in North America. On the other hand, it is relevant to assess the extent to which such policies are counter to, rather than consistent with, prevailing trends and basic human desires, and the nature of transatlantic similarities and differences in those trends and desires.

#### THE AMERICAN CONTEXT: PRELIMINARY FINDINGS

We have designed a questionnaire that measures the above-mentioned characteristics as well as attitudes toward various aspects of travel, lifestyle and personality traits, amount of travel, and demographic information. Our purpose is first of all to measure the affinity for travel in the sample, and secondly to relate that liking to the characteristics described above. Some 8,000 questionnaires were sent to randomly selected households in three communities in the Bay Area, representing a variety of land use patterns. With an overall response rate of 25 percent, after discarding responses with too much missing data we retained about 1,900 cases for further study.

Some of the initial analyses support the hypothesis that travelers are not cost (or distance) minimizers. For example, consonant with the Australian study mentioned earlier, workers' reported ideal one-way commuting time is just over sixteen minutes. Only 3 percent desire a commute of zero to two minutes, suggesting that entirely eliminating the commute does not resonate with most people as a desirable aspect of telecommuting. Almost half of the respondents prefer a commute of twenty minutes or more. In subsequent analysis, we model the ideal

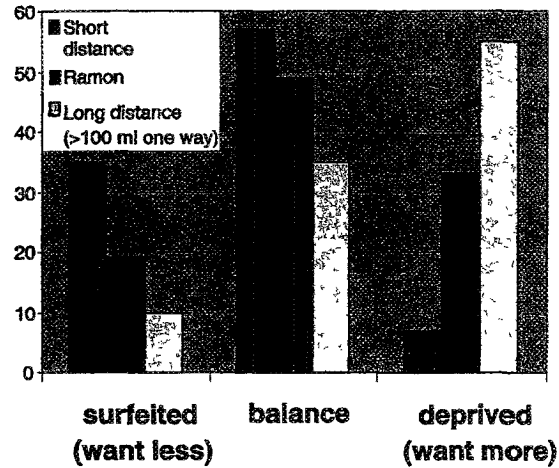


Figure 22.1 Travel Satisfaction

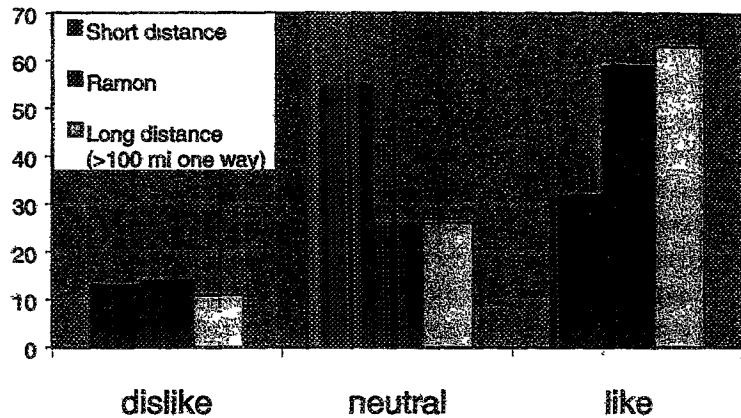
commute time as a function of objective variables such as the actual time and demographics, as well as the subjective measures described above (Redmond and Mokhtarian, 1999).

More than three-quarters of the respondents indicate that they "sometimes" or "often" divert to longer routes to observe scenery, explore new places or routes, or travel just for fun. More than a fifth sometimes or often engage in at least ten such indicators of excess travel.

To measure satisfaction, respondents were asked whether they wanted to travel less or much less (surfeited), about the same (balanced), or more or much more (deprived) than they were traveling now. A distinction was made between short-distance and long-distance (more than 100 miles one way) travel, and within each category the question was asked overall as well as by purpose and mode. Here we focus on the "overall" responses.

Figure 22.1 shows a clear difference between satisfaction with short- and long-distance travel. For short-distance travel, respondents are five times as likely to be surfeited (35%) as deprived (7%), although a majority (57%) are balanced. For long-distance travel, on the other hand, a majority (55%) are deprived, and relatively few (10%) are surfeited. It is noteworthy that Ramon's study of 474 Jerusalem residents more than twenty years ago, using a

Figure 22.2 Travel Liking



similar measure of satisfaction but not distinguishing between short-distance and long-distance travel, found a distribution of responses similar to the average of our short-distance and long-distance ratings.

Respondents were also asked to rate their travel liking on a five-point scale (strongly dislike to strongly like), with the same distinctions by distance, purpose, and mode. Again, clear differences between overall ratings for short- and long-distance travel emerge, as shown in Figure 22.2. Levels of dislike are similar for both short-distance (13%) and long-distance (11%) travel. But a majority (55%) of respondents are neutral about short-distance travel, whereas an even larger majority (63%) are positive about long-distance travel.

Thus, there is clearly a stronger affinity for long-distance travel, but even short-distance travel is not viewed negatively. This suggests that, despite the expressed desire to reduce short-distance travel shown in Figure 22.1, people may in fact not be highly motivated to do so. For this measure of travel liking, it is noteworthy that Ramon's data coincide almost exactly with our long-distance distribution, suggesting that one's perception of long-distance travel dominates the reported liking for travel generally.

Further analyses of the data will help to identify the magnitude and characteristics of those market segments who, because of being mobility-oriented, are less respon-

sive to accessibility-enhancing improvements. We believe these insights can help inform the development of more effective transportation policies.

#### NOTE

Parts of this article draw from Ilan Salomon and Patricia L. Mokhtarian, "What Happens When Mobility-Inclined People Face Accessibility-Enhancing Policies?" *Transportation Research D* 3, no. 3 (1998): 129-140; and Patricia L. Mokhtarian and Ilan Salomon, "How Derived Is the Demand for Travel? Some Conceptual and Measurement Considerations," forthcoming in *Transportation Research A*. The research described here is funded by the University of California Transportation Center and Daimler-Chrysler.

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