THE DIRECTION OF THE TRENDS

In 1987, with the publication of the first Commuting in America, the trends in commuting were readily discernible and were summarizable as three dominant patterns: a boom in workers; the growing orientation to the suburbs; and to the auto. The trends seem less clear in some respects at this time, perhaps because the patterns are so much a part of us that they are no longer seen as exceptional.

But it is also true that the course of some of those patterns is no longer so clear. Further, new patterns are emerging that modify or may even replace the dominant patterns.

NEW COMMUTERS

The boom in workers is at an end. The two demographic surges that fed it: the babyboomers coming of working age; and the entry of large portions of the female population into the working world have run their course. This by no means suggests that there will be a sharp decline in annual increases in workers, only that the scale of the trend will not be so extreme, particularly as a proportion of the population. It will not stress the system so dramatically. There is discussion of the baby boom echo; but it is a pale shadow of the original. Expectations for the total numbers of workers added each decade in the future are not that different from past numbers.

Notions that there would be a great swing of women out of the labor force and back to the home have not been substantiated by events. It seems that it has been more a case of younger women drifting in and out of the labor force based on educational activities and child-bearing events rather than a permanent shift in labor force status.

The great question mark is the factor of immigration. This could change the number of commuters dramatically in some areas and modify the nature of commuter patterns. This is pursued below.

NEW AUTO USERS

There is little basis for adopting any view that suggests that there will be a significant reversal in the private vehicle orientation of commuters based on present patterns of behavior and demography. The dominant factor here is the continued dispersal of populations out from our metropolitan areas and the pressures of time on workers. As long as the private vehicle remains at all affordable to own and operate the pattern will continue. The shifts in age structure of commuters abet this trend.

This does not suggest that all is lost for public transit or other alternatives. The cases where transit, carpooling, walking and biking have been successful need to be studied and clues found regarding the appeal to the commuters that have proven effective. Those areas where transit is a major factor, predominantly in the center of our

major metropolitan areas, need to sustain and intensify services. Where transit use is significant, most users indicate happiness with the services provided, which is a sound starting point. This market needs to be preserved. Transit providers will need to be very innovative to sustain or gain in markets. Some of the innovative work responding to suburban demands in the Chicago, Philadelphia, and New Jersey areas may yield successful models.

It is difficult to be optimistic regarding a renaissance in carpooling. Most carpooling today is not carpooling in the sense we knew it just a few years ago - a voluntary arrangement among co-workers or neighbors. That is dying - most of the surviving "carpool" activity consists of family members with parallel destinations and timing. Maybe these need a new name - Fampools? The advantages in carpool lanes are significant where average traffic speeds are very poor, but as noted in Section 3 there are time costs to carpooling as well. Thus it is a changing environment which needs continuous effort, as jobs change, work patterns shift, and travel times change.

DENSITY AND DISPERSAL

Continued dispersal toward the fringes of our metro areas seems a given for both jobs and population. The cloaking of these patterns by the vagaries of redefinition of metropolitan boundaries has not helped our understanding of these trends. Rapid growth on the metropolitan fringes has been masked by definitional changes. Census modified definitions shifted 6 million of the new population growth in the eighties from the suburbs to the central city and four million from non-metro to metro areas.

Prospects for a reformation in land preferences toward higher densities are limited but have several avenues of potential development. The first is that there may be greater interest in higher density clusters, as the population ages, where walking is convenient and automobiles are not a mandatory appurtenance.

Developers have responded to this interest. They have responded, as well, to the need sensed for new family-oriented communities with greater walking and access opportunities and greater control of vehicles. These development ideas should be monitored carefully. If they are successful they will be quickly copied by the marketplace. Whether this becomes a minor market niche or the basis for retrofitting our suburbs remains to be seen. There still seems to be a strong aversion to high density on the part of most households which motivates behavior as soon as family finances permit.

The future of local <u>non-work</u> travel belongs to the auto and to walking. The American public will actively support those opportunities to visit areas where walking is pleasant and secure. Our malls, the new main streets of America, have responded to that need. These preferences could begin to have substantial bearing on work patterns as well.

VARIATIONS ON A THEME

We are becoming increasingly conscious of a set of developments that add to the volatility of commuting. Simply described, this is a tendency for greater variability in the location, path, time and mode of travel to work. It is difficult to say whether this tendency is increasing or that it has just become more evident to researchers in recent times

LOCATIONAL VARIABILITY

There have always been those whose workplace is not fixed. Construction workers and cleaning people come to mind. The new factor is the worker who occasionally works at home. Again there have always been those who work at home, and this group is growing, but the interest here is in those who have a workplace elsewhere, but might work at home, either as a regularly scheduled event, e.g. once a week, or sporadically as events demand. Much has been made in the press and elsewhere of the "boom" in telecommuting. Much of it has been overstated and exaggerated out of all sense of scale, raising very unrealistic expectations, but there is still an important element here that we need to get a better sense of, preferably without all the hyperbole. If 10 percent of workers worked at home once a week that would cut commuting flows by 2 percent. Such activity would reduce peak hour commuting conflicts - and contribute to greater dispersion.

As a phenomenon of our times, working at home, where home is not a farm, is a factor to be considered in future travel planning even when it is only an occasional activity. We need to know more about it. Part of the stimulus for working at home is that knowledge workers can function readily at home and may in fact be more productive there. Another factor is the number of women workers for whom day care is important. The costs and frustrations of commuting itself may be a factor for many, especially those commuting long distances. It has been noted that those with more than an hour's commute have a higher propensity to change jobs than others.

TIME

There is a sense, supported by limited research, that the public is increasingly aware of congestion bottlenecks and its effects. There are also increasingly better means to communicate emergencies and other incident-related congestion events affecting travel times to travelers. This has led to people starting for work and returning home at times that are more responsive to actual traffic patterns than to a fixed schedule.

PATH

The same point made just above can be said as well regarding the choice of path to work, specifically for private vehicles. People apparently, as they have become more

aware of the effects of congestion, are more able to consider alternate paths to work. This again is one of the elements of ITS technology, wherein new techniques would be employed to direct travelers to freer routes.

The more significant factor in path determination may be the phenomenon of trip chaining - the linking together of daily trips to meet household needs with the work trip. This has the effect of shifting the direction and paths of work trips as events dictate, creating situations, for instance where the trip to work and back to home are not symmetric. These trip patterns have proven highly time efficient to commuters and may be energy efficient and environmentally efficient as well. They are the key to understanding future commuting behavior.

MODE

Variability in modal choice is not a major factor in overall national patterns, but as a product of the increasingly disproportionate relative shares of travel obtained by the private vehicle, relatively small shifts out of the private vehicle even on the most sporadic and limited basis can have substantial effects on other modes. For instance, transit operators have long been aware that a large part of their ridership are not regular users but those who may use transit only a few times a year - when a household vehicle is needed for something else or is in repair, for example. This can be a significant part of transit ridership. Similar factors affect carpooling, and even walking and bicycling. If one percent of the vehicle fleet is in repair in a given day that can equal a 10-20 percent swing in transit use.

Planners need to be more conscious of these variabilities in behavior, whether they are tending to grow as a factor or not, and what implications they might have for transportation planning.

SOURCES OF CHANGE

ECONOMIC AND SOCIAL FACTORS

The nature of work is changing. More work can be done in small work units of a few people or even one. This adds to the potential for dispersal of jobs. It also adds to the greater freedom in many cases of people to set their hours of work to match their personal preferences.

Paralleling this factor is that many jobs are services oriented where workers must be available to customers, requiring odd hours of work and weekend schedules. This adds to the greater potential dispersion of jobs in time as well as space.

The powers of communications and data processing are only beginning to be felt. They are becoming ubiquitous.

[A personal recollection of the author involves a recent experience in which a large national "upscale" chain restaurant visited for dinner had to close because the "computers

were down." One wonders how many restaurants had computers ten or five years ago.] All of the power of telecommunications is accidentally focused on permitting greater dispersal of populations and jobs. It fundamentally reduces the penalty of distance.

The effects of women in the work place has been unmistakable and will further influence trends in the future. One of these effects is the growing humanization of work activities. There seems to be a greater understanding of people's needs to care for children, and to take time off for other family needs as well. This has led to greater work scheduling flexibility in many firms, both large and small. That flexibility supports variation in work arrivals, and departures, as well as work days. Certainly, part of this is the sharp competition among firms for highly skilled employees, many of them women.

It is to be expected that this willingness to be flexible on the part of management will only increase in the future as some skills become even scarcer and firms compete for the best. This also means that firms will tend to relocate where their scarcest resource, skilled employees, are located. Being a short commute away will be a benefit that firms can offer. This will tend to push firm locations to where people want to be, generally pushing employers toward higher income neighborhoods, and leading to longer commutes for lower income workers. Regionally, it means the outer edges of the metropolitan area; nationally, it means those areas that are pleasant and attractive to live in. This will keep national growth focused on the sunbelt and West. This could lead as well to increasing growth in smaller areas, university towns, for instance, rather than in the very large metropolitan areas of the nation.

IMMIGRATION

Immigration is the great wild card in all this. The scale of immigration, and in some respects its character, is a product of a stroke of a pen in Washington. Immigration will be the dominant population factor in many areas of the nation, in the large population centers in general, and in particular in the centers of the West and South. Material presented earlier shows that immigrants are heavily oriented to the labor force years. Their bimodal distribution in education will create strange frictions in the national labor force, competing both at the highest and lowest skill levels.

Not surprisingly, their orientation to the private vehicle is less than that of other Americans. The question is how long will it take before their behavior patterns are symmetric with others of similar income and age characteristics. Or, are there substantial cultural variations that will manifest themselves?

THE DEMOCRATIZATION OF MOBILITY

The private vehicle has become the tool of mass mobility. While we tend to think of auto ownership as all-pervasive in this society, this study has shown that this is strongly skewed by race and ethnicity, and other factors. One has to believe that the expansion of opportunity in America to immigrants and those born here will expand ownership and use of private vehicles as well. This will provide the great sources of growth of private vehicle ownership and travel in the coming years.

The growth in vehicle travel in the remaining years of this decade and into the next century will be predominantly a product of new access to personal vehicle use on the part of young people, the older population, women in general and racial and ethnic minorities - the mobility "have-nots" of our society.

Just as we have cited the competition for skilled workers at the high end of the job spectrum, there will likely be more workers than jobs at the low end. This will mean workers traveling great distances for not particularly attractive jobs. The dramatic growth in intermetropolitan travel and in reverse commuting from the city out to the suburbs are both products of that reality.

Society then is faced with an unpleasant challenge. So much of current public policy in commuting is aimed at suppressing auto ownership and use. Those policies are unintentionally aimed squarely at those on the margin of the ability to own and operate a vehicle, particularly those policies aimed at increasing the cost of driving. It is clear that those most affected by such policies will be those on the lower rungs of the economic ladder. Often these people will be those who are most auto-dependent.

PUBLIC POLICY AND COMMUTING

As noted just above, much of public policy today is focused on modifying societal behavior in commuting, specifically the preference for driving alone. These policies have proven at best dramatically ineffective. At worst they can be directly antagonistic to the goals they are intended to support.

The center of all of these issues is the burden of time pressures that most Americans feel. It is time pressures, particularly on women, that increases personal vehicle use trip chaining, and many of the other patterns we have examined. Decisions regarding household location and mode to work are not made frivolously. People have sound reasons for their choices.

Public policies that try to increase the costs of auto use or increase travel times and congestion to force behavioral shifts to more preferred modes of behavior or locational densities will simply force people to make painful decisions. Many of these will result in the shift of households and jobs to areas where congestion is less obtrusive

and where other costs are less; inevitably this will mean greater dispersion of the population, not less. The American commuter is a resilient and innovative character.

Those who see the solution of so many of our present ills by reorganizing society into living at higher densities miss the point. Residential density is one of the most fundamental of choices that households make. It is clear that most people, given the choice, opt for lower density living when income permits. As the society changes and choice patterns evolve, the market place must be ready to respond with development that is responsive to household choices. Any public policies that inhibit a market trend toward higher densities must be addressed. But the market place must be the final arbiter in a free society. People do not live "efficiently" in order to optimize some imposed societal goal, certainly not commuting.

In this environment transit has to compete with speed, reliability, and security. The focus of public policy in this area must be on improving commuting for all workers with better walking and biking opportunities, better transit, and better roads. My proposed goal would be to reduce commuting to an unimportant topic of conversation and public policy.

One effect that needs identification in closing is that many of these trends lead to room for greater optimism regarding commuting solutions. Technological responses increasingly respond effectively to energy and environmental concerns, and congestion, while still a major problem, in many areas is addressable in its new patterns. The beginning of the solutions lie in recognizing that the American public is in charge.

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