MOBILITY

CHAPTER

3

An auto is a headache. There is always something wrong with it. I would be immobilized without my car.

The automobile is the only reliable local transport, but the roads are so congested that much time is lost driving.

The automobile provides excellent mobility for all members of *my family. However, because* of it, *there is no alternative type* of *transportation, so we are stuck* if *the car breaks down.*

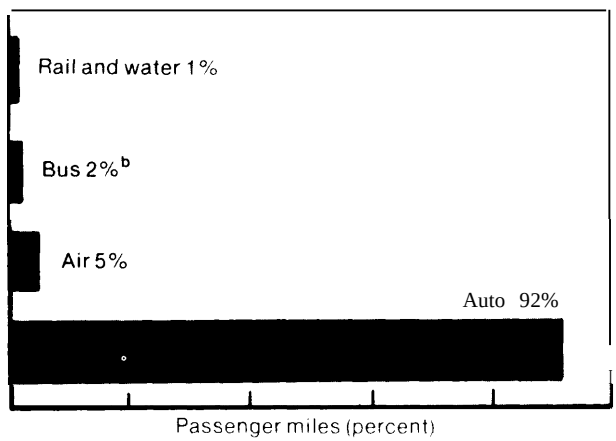
The auto provides the lowest cost transport for my *family, but it still costs too much* for us.

The car is part of our *American heritage. It is the symbol* of freedom *and independence.*

We are slaves to this gas-guzzling, air-polluting, noisy monster of technology.

These are a few of the commments heard throughout the country about the advantages and disadvantages of the automobile. They typify the competing needs and the conflicting values individuals sometimes hold. Social and economic well-being are primary goals commonly held by Americans. Essential to the attainment of these goals is the ability to reach jobs, consumer goods and services, recreation areas, and other desired activities— in short, mobility. It became apparent, in listening to the comments of individuals in many parts of the United States, that American society is not having a love affair with the car so much as it is having a love affair with mobility. To the extent that the car provides that highly valued service, it, too, is a target of much American affection (see figure 2).

Figure 2.—Modes of Personal Transportation [a]



[a] 1975 data
[b] Excludes school buses.

SOURCE: *National Transportation Trends and Choices (to the Year 2000)* (Washington, D.C.: U.S. Department of Transportation), p. 85.

Mobility, of course, is the basic purpose of the automobile, and the widespread desire for mobility provided the impetus for the rapid and widespread development of the automobile transportation system. The magnitude of the effects of this system cannot be measured solely in terms of mobility, though. It is one of the largest employers in the country. It is the largest consumer of petroleum. It is a major land user and contributor to air pollution in urban areas. Traffic crashes are a leading cause of death and injury nationally.

Because the system is so pervasive, to lack an automobile in the United States today is to lack mobility. The problem is particularly acute for four segments of the population-the old, the poor, the handicapped, and the young-who do not have or cannot use a car and who are sometimes referred to as the "transportation disadvantaged." Their incomes are typically low. With the possible exception of the young, many live in areas served poorly, or not at all, by public transportation. Where public transportation is available, service is infrequent, physically inaccessible, too costly, or not close to desired destinations. Estimates of the size of this segment of the public range as high as *40* percent of the population,

While concern was expressed for the needs of the "transportation disadvantaged" during the public participation effort, attention was focused mostly on the transportation needs of society in general. "When my car breaks down, I am 'transportation disadvantaged, ' too, " a labor union official told us. "When my husband takes the car to work, my kids and I are without transportation, " said an Ohio homemaker. "The rich can afford any kind of transportation they want. The Government subsidizes transportation for the poor. What about the middle-income people, like me, who are barely able to make ends meet in the face of rising car costs, bus fares, housing, etc.?" asked another.

Discussion frequently centered on whether mobility is a right or a privilege. The consensus appeared to be that mobility should be a right of the American public. In the midst of one such discussion, however, a Massachusetts resident asked, "Are we just assuming we must be mobile? To get a promotion, people often must move. The Government is guilty of this, as is industry. Why must one move to advance in employment?" In Alaska, a woman remarked, "Too much mobility traps us—really takes up time. " An elderly Iowan suggested that, perhaps, "mobility should be redefined. "

For the auto assessment, no attempt was made to redefine mobility; rather, the staff accepted the traditional definition of personal mobility as the physical movement of people from place to place. In considering mobility, some technological substitutes for physical movement were examined, such as telecommunications, and lifestyle and land use changes that might reduce the need or desire to travel.

Photo credit Sylvia Johnson 19799

Mobility: a right or a privilege?

Most of the respondents felt that it was not cost-efficient to retrofit mass transportation systems with equipment to make them more accessible to the handicapped or infirm. This was also the feeling of many of the elderly and handicapped people to whom we spoke. Common views were that needed equipment changes should be incorporated as existing systems are updated or replaced; separate and more flexible transportation services (such as dial-a-ride and minibuses) should be made available for people with special needs, and "transportation stamps" or a similar fare subsidy be provided to low-income people. It was never once suggested by any of the 1,300 people we heard from that subsidies for the "transportation disadvantaged" be discontinued. Instead, respondents concerned themselves with the problem of how to increase mobility for everyone.

Ironically, many of the middle-aged, middle-income, and nonhandicapped people we talked

to stressed the need for public transportation for the "transportation disadvantaged, " while many of the latter felt that public transportation was more appropriately the mode for the former. A wheelchair-bound California woman told us that even if buses were easier for her to board, she probably wouldn't use them. Why? "Because by the time I wheeled uphill several blocks to the bus stop, I would be too tired to get on the bus, " she explained. Her car, on the other hand, was far easier and less time-consuming for her to use. Elderly people said they felt safer from crime when using their own cars than they did when walking to and from and riding the bus. Low-income people pointed out that the public transportation systems that do exist were designed to move higher income suburbanites to downtown areas. Rarely were these systems able to accommodate the destination requirements of inner city, suburban, or rural poor.

In a number of places the OTA staff visited, there was debate about the seeming discrepancies between the beliefs and actions of individuals. While there was almost unanimous desire expressed for alternative modes in addition to or in place of the car, there was less agreement about who would use these modes. "Sure, people want buses—for somebody else, " a shopkeeper claimed. "There ought to be more buses. No, I can't use the bus because . . . . ," quite a few people said.

Despite these types of comments, it must be kept in mind that the overwhelming majority of the respondents indicated a desire, and more importantly, a need for additional modes of travel or ways to increase accessibility to their various activities. It is also necessary to remember that there is currently very little public transportation available, and what does exist, for the most part, does not even come close to offering the amenities of an automobile—convenience, comfort, availability, and more. As respondents were fond of pointing out, there really aren't any "viable" alternative modes at present, certainly not on a large scale.

A variety of reasons were offered for the present popularity of the car. The main one was, as previously mentioned, "There are no alternatives. " "It is a necessity, especially for emergencies, " is another comment we heard frequently. "It allows me to live and work where I choose, and to travel to places inaccessible by other means of transport. " "Riding public transportation rather than using a car is a step down in status." Industry or Government has "forced us to depend heavily on the car. " "We have cars because we want them. " "It beats walking. " Some people we heard from said they had to use the car because they were physically unable, due to age or handicap, to ride public transportation.

In some States, people commented that racist attitudes often guided modal choice and development. The ' respondents who made this claim —all of whom were white—said that public transportation has evolved in a "Catch 22" atmosphere. On the one hand, they said, public transportation was viewed as a welfare issue, and since "it is commonly believed that only minority races are on welfare, white {officialdom ignores public transportation, just as they ignore minorities. " On the other hand, "The public transportation systems that have been developed have been designed to meet the needs of higher income whites, rather than the lower income of any race. Those whites, then, won't ride public transport t ion because they consider it beneath them, so public transportation fails all the way around. "

The most frequentl, mentioned attribute of the car was convenience. In the words of one person, "You can go where you wish to go when you wish to. " "The car is there when you need it, the bus isn't, " said another. Despite time-consuming traffic delays, respondents noted that a major advantage of the car over other available modes was that car travel is faster. Additional attributes listed were flexibility, comfort, freedom, privacy, and independence. Many people said they liked the autonomus feeling of traveling in their own cars.

The load-carrying capacity of autos was often mentioned. Architectural students who had large projects to transport to and from class, homemakers who shopped for their families, traveling salespeople who carried samples of their wares, all appreciated the space a car provided for their "freight, "

Ease and dependability were also favorite attributes, as were route choice and choice of company. The **latter** evoked an array of complaints about "gum chewing, " "foul smelling, " "impolite" individuals with whom the respond-

Phota Credit Sylvia Johnson 1979

The load carrying capacity of autos is a help to this suburban homemaker

ents had had to share public transportation at one time or another. Many people claimed that the car provided the most economical form of travel. Those who made this claim invariably added that they traveled in groups, i.e., with their families on vacations or in carpools for commuting.

For many of the respondents, efficiency, cleanliness, and adaptability were important aspects of a car. A handful of individuals, mostly homemakers, claimed additionally that a drive in the car was the only place "to get away from it all."

In describing those aspects of the car they appreciated the most, people commonly coupled their remarks with, "I need the car for work." This was particularly true for commuters who lived at the fringe of suburbia or residents of rural areas where distances between home, employment, and recreation areas are great, and public transportation is either unavailable, minimal, or poor. Others indicated a need for the car to carry out the responsibilities of their jobs.

Occasionally, pleasure was cited as a plus for automobiles. The pleasure derived from the

Table 1.—Passenger Car Use*

Purpose of travel	Percent distribution: Percent of trips	Percent of travel (VMT)	Average trip length one-way (miles)
Work, including commuting	36	42	*10.2*
Family business, including Shopping	31	19	5.6
Educational, civic, or religious	9	5	4.7
Social and recreational	23	33	13.1

'1969 data

SOURCE Federal Highway Administration Nafionwide Personal Transportation *Study* Report No 10. Purposes of Automobile Trips and Travel 1974 p 13

"pride" or "luxury" of ownership, "ego satisfaction," "power behind the wheel," "pleasant sensations when driving," and "prestige of owning a fancy vehicle." An Ohio businessman told us, "It's fun to drive and be in command of my Spaceship Capri with all its gadgets—CB, AM/FM radio, central window and door lock controls, odometer . . . ."

A similar viewpoint which surfaced repeatedly in the discussions on mobility focused on the "psychology of mobility." "We must understand why mobility is so highly valued in order to develop viable alternatives to the car should it be-

come necessary to do so. " "Is mobility fun in itself, or just a way of getting from one place to another?" "Attitudes should be examined. " "The influence of affluence should be considered. " "What is the collective interest as opposed to the collective individual interest?" "social contact is lost in cars. " "Teenage morals are lost in cars. " "The little car is destroying us socially. I can't stand my kids on long trips in a small car. " "Our inclination is to say that the individual car is here to stay and should be, but we're not sure — is Detroit influencing our wants and desires?"

A related perception was the need to understand the "psychology of automobility, " or-, as one person succinctly put it, the "you-are-what-you-drive syndrome. " A vehicle's size and style often compose a partial profile of the owner. For example, "I believe in conservation and helping to improve the environment, so I drive a Volkswagen and carpool to work, " an urban New Englander told us. A young Maryland man stated, "I want to impress my friends with my toughness, so I drive a 'muscle' car. " A midwesterner said, "I *grew* up in a poor section of town and have worked my way up. My old friends and family know I'm making i t when drive i n my expensive, new car. "

The OTA staff did not attempt to do a detailed behavioral analysis during the assessment of the future of the automobile, nor were the various amenities compared —beyond the mobility offered by each—of currently available modes. As a frame of reference in the technical part of the analysis, the staff developed a "base case" which projected general automobile system characteristics and use under two assumptions: 1) the automobile has a continuing role in satisfying travel demand, and 2) current Federal Government policies and programs would continue in substantially their present form until 2000. This allowed the staff to estimate adverse and beneficial effects that could result from pursuing present policy and provided a reference point for comparing alternatives to current policy. It was not intended that the base case be

Photo credit. New York City Transit

Public transportation in New York City

interpreted as the auto staff's idea of a probable, or even possible, future.

Some of the base case projections were that:

- the automobile would remain the dominant form of transportation,
- the number of autos would increase by 50 percent,
- vehicle miles traveled (VMT) would increase 75 percent,
- road construction would diminish substantially, and
- congestion would triple.

To enhance mobility, the following policy options were considered:

- increase in funding for public transportation, including paratransit,
- auto disincentives to encourage public transportation ridership,
- implementation of transportation system management techniques (such as improved vehicular flow and increased ridesharing) to reduce congestion, and
- change in land use development patterns to minimize travel requirements.

To a limited degree, the potential impact of technological substitutes for travel (such as telecommunications) and lifestyle changes (such as alternative work schedules) were considered also,

A major finding of the technical analysis was that only a severe petroleum shortage or gasoline rationing would result in major reductions in automobile travel. A fivefold increase (over 1975 levels) in Federal funding assistance to public transit could increase transit ridership by up to 50 percent in dense urban areas. Current ridership is so low, however, that even a **SO** percent increase would have little overall impact on auto travel. (Mass transportation now accounts for less than 2 percent of total passenger miles traveled. A ridership increase of 50 percent would raise that total to only about 3 percent.)

Perhaps, as a Virginia respondent suggested, the goal here should be to decrease congestion by *50* percent, rather than to concentrate on increasing transit ridership by 50 percent. By focusing on lowering congestion, she claimed, there would probably be more efficient utilization of existing facilities without the necessity of major capital expenditures. In her opinion, the existing facilities that could be used more effectively included transit (higher ridership; better intermodal interface) as well as highways (increased ridersharing; improved traffic flow, especially for high-occupancy vehicles). OTA's study of this question concluded that transportation system management, which is essentially what the Virginia respondent had in mind, would have useful application only in the short run, and even then, would have minimal impact on reducing auto travel. Respondents, in general, appeared to feel otherwise.

Like the elderly Iowan who suggested that a redefinition of mobility might be in order and the Virginian who implied a need for redefinition of goals, many respondents said that the Federal Government should "rethink its approach" to transportation. Our current approach, as interpreted by these respondents, is "to concentrate on modes and not needs. " The Government tends, they claim, to concentrate "on how much money to give a particular mode, " instead of "how much money or other support is necessary to ensure mobility, regardless of the mode. " More simply, the travel needs of people should dictate the approach to transportation system development, rather than the capital needs of various modes. "Transportation planning should not be done in Detroit, " stated a Tennessee man.

It was also apparent from the responses of many people that they felt a variety of actions was needed to alleviate the adverse effects of auto travel and to facilitate overall mobility. The actions they suggested ranged from nontransportation options (land development changes, alternative working patterns, improved communications) to a multiplicity of modal options (from improved cars to advanced public transportation systems).

The OTA technical assessment concluded that changes in lifestyle, land use patterns, or the development of advanced communications systems as a substitute for travel could have significant impacts on auto travel, but probably not before *2000.* This is due, mainly, to the long leadtimes needed to implement such changes on a large enough scale to have a major impact.

Many respondents interpreted the phrase—"change of lifestyle''—as meaning a "decrease in

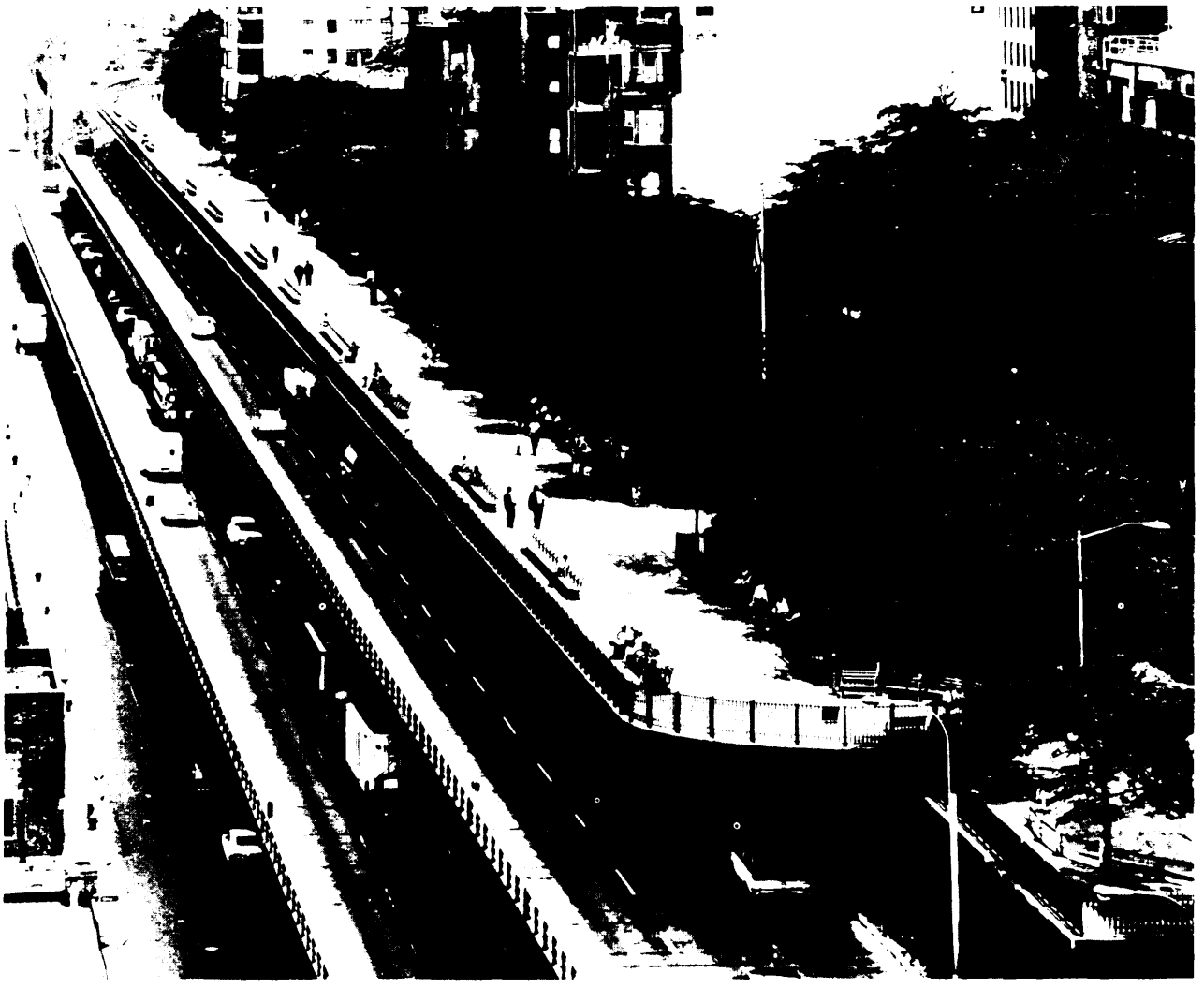


Photo credit David Plowden

Land use planning—The Brooklyn-Queens Connecting Highway at Columbia Heights, N.Y. No extra land in addition to the freeway right-of-way had to be bought to create the promenade in Brooklyn— and the right-of-way for the freeway itself is only 50 feet wider than the old street over which the entire structure is set

the comfort index. " They viewed it, for the most part, as a lowering of their standard of living, a "return to primitive living. " They did not think that any reduction in "quality of life" was necessary insofar as mobility and the adverse impacts of automobility are concerned.

Technology was not the constraint, they maintained, to the alleviation or resolution of societal problems, such as mobility. It is, instead, institutional arrangements (Government regulations, for example) and a lack of basic understanding of human behavior and needs that constrain the availability of mobility. "The Federal Government must do away with barriers to innovation, " a city dweller in Alaska said. "Carpools are not active here due to insurance restrictions, " said another person. "All of us need to be thinking about the psychology of mobility, " stated a Portland, Oreg., resident. "Kids shouldn't be expected to ride buses, if adults won't. "

Because mobility and automobility have become almost synonymous, attempts to restrict use of the automobile have been regarded generally as infringements on mobility. It is now recognized, however, that unrestrained automobility may conflict with other national goals and that reducing automobile travel may be an important means of achieving major energy, environmental, and safety benefits.

Respondents in a variety of locations stated that the "reasons for the search for alternatives to the automobile are congestion, pollution, and land waste. " We were often told that more is at issue than roads in the many highway fights throughout the country. In one area, a resident said that neighborhood cohesion and the sense of community were at stake, The controversial highway "would create a Chinese wall in the midst of the community . . . local streets would be cut off and the neighborhood chopped in half. " In other places, respondents said it was "corporate economic interests vs. people's interests; " "urban vs. rural interests;" "suburbanites pitted against city dwellers;" "entrenched roadbuilding bureaucrats vs. fanatic environmentalists;" or, "the perpetuation of the automobile to the detriment of transportation. "

The prospect of reducing automobility to promote other social goals raises many questions. Can the American public modify its preference for automobility —a preference encouraged by the Government for decades and fostered through billions of industry advertising dollars? Will the intended reductions in automobile usage actually occur, and will projected energy, environmental, and safety benefits materialize? Will, for example, parking restrictions for commuters merely result in more auto trips by family members using; the cars that are left at home? Will a higher gasoline tax or a special tax on fuel-inefficient cars discourage their purchase, but actually increase the distances driven per car owner as consumers begin switching to fuel-efficient automobiles? Knowledge of how the automobile best functions in a transportation system is imperfect, and it is not known at what point increased automobile use becomes self-defeating or, conversely, at what point decreased automobility might lead to increased mobility.

Limiting automobility and increasing overall mobility are not necessarily incompatible goals, particularly in urban areas where two-thirds of the population now lives. "All reports, from the local to the national level, conclude that something has to be done about transportation problems, so it's just a matter of what and when, " a Tennessee man told us.

The overwhelming consensus of the respondents was that there must be "viable alternatives" to the automobile transportation system. By "viable" they meant additional modes that were "truly competitive with the automobile" in terms of availability, comfort, and cost. "We should never get tied to one system, because when it breaks down, we are in serious trouble. "

While there was strong support for alternatives, opinion diverged on whether or not the alternatives should be developed as "supplements" to automobile transportation, as an Ohio transit official felt, or as actual "substitutes" for auto travel, as other respondents (including many car enthusiasts) advocated. The respondents were almost unanimous in their support for a multimodal system, however, and the multimodal system often included an "improved car. "

OTA's study of trends in automotive technology indicates that the car of *2000* will be smaller (due to downsizing for energy efficiency) and lighter (due to materials substitution). The use

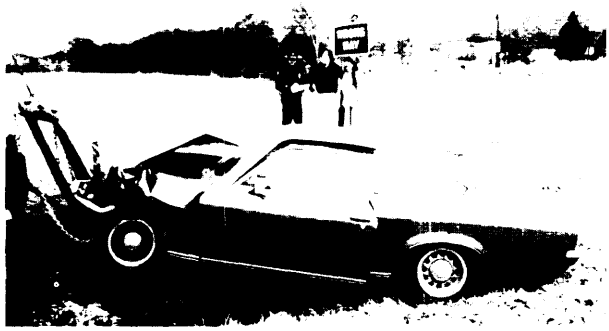


Photo credit University 01 Tennessee

Photo crdit: Sylvia *Johnson 1979*

Mobility at a standstill
The risks involved--accidents and parking violations— note the boot on the front wheel of the car on the right for violating parking restrictions in an urban neighborhood

of plastics and aluminum will increaser while the use of steel and cast iron will decrease. Fuel economy is expected to increase, averaging 27.5 mpg by the year 2000 (the fleetwide average is now 15 mpg). Production of alternative fuels probably will be limited, so gasoline would remain the predominant form of energy needed Additionally, if manufacturers meet emission standards specified by the Clean Air Act, the "improved car" would also be cleaner in 2000, but pollution would continue to be a problem in congested urban areas.

"We are not married to the Detroit auto, " said an auto club official. The "improved car" of the future, according to the respondents, should be smaller, lighter, safer, energy efficient (preferably fueled by something other than gasoline), nonpolluting, cheaper, and more durable. Objecting to the trend of downsizing, an Alaska respondent quipped, "Next year I'm gonna buy a small car, and the following year, I'm gonna buy one for the other foot. "

Worried about the use of lighter weight materials in automobiles, a California fleet manager said he hoped more thought would be given to safety because "building foam rubber dodgem cars won't protect us" from bad drivers. He noted, however, that "3, **000** lbs of machinery to move a 200-lb person horizontally in a seated position represents the ultimate in overkill. " On the east coast, a similar comment was made by a young art student: "It is silly to have **2** tons of metal to move 100 pounds of me. "

A variety of owner-ship arrangements was discussed by respondents. *Some* individuals preterred a rental car option. Others suggested municipal or neighborhood ownership of a car fleet. Still others mentioned the possibility of wide-scale joint ownership of vehicles (a practice that appears to be slowly growing now, especially in the purchase of recreation vehicles, such as boats and campers). Most of the respondents who talked about an improved car said they felt either that it should be or that it would continue to be an individually owned mode. As one person said, "People will drive as long as fuel is available. " "Americans are willing to risk the hazards and expense of driving for the convenience, " a businessman told us.

Photo credit Sylvia Johnson 1979

A **sightseeing shuttle bus is one transportation alternative for tourists**

Should the auto be the major form of transportation in 2000? Yes and no was the "clearcut" answer we received. Of those who responded affirmatively, more than half said, in essence, "yes, but . . . ." Some of the more common sentiments were:

- The car should be part of a multimodal transportation system.
- The car will dominate, but it will be an improved car.
- The car will continue to be the major mode in rural areas, but certainly not in cities.
- Autos shouldn't be the major mode, but probably will be.
- Cars should be used for recreation, not cormmuting.
- If substitute fuels are found and costs are lowered, autos will continue to be the majpr mode.
- Cars will be the major mode unless something better is found.

The "something better" most frequently su - gested was a form of mass transportation. "Americans enjoyed the privilege off commuting by mass transportation before autos infested our country, " a railroad buff wrote us. Both respondents who said that the automobile would continue to dominate and those who said that the automobile should not be the dominant mode stressed the need for a for a multimodal system.

When asked how they would design the personal transportation system of 2000, about half of the respondents described a multimodal system with a car (in some, the automobile dominated; in others, mass transportation dominated). About half described a multimodal sys-

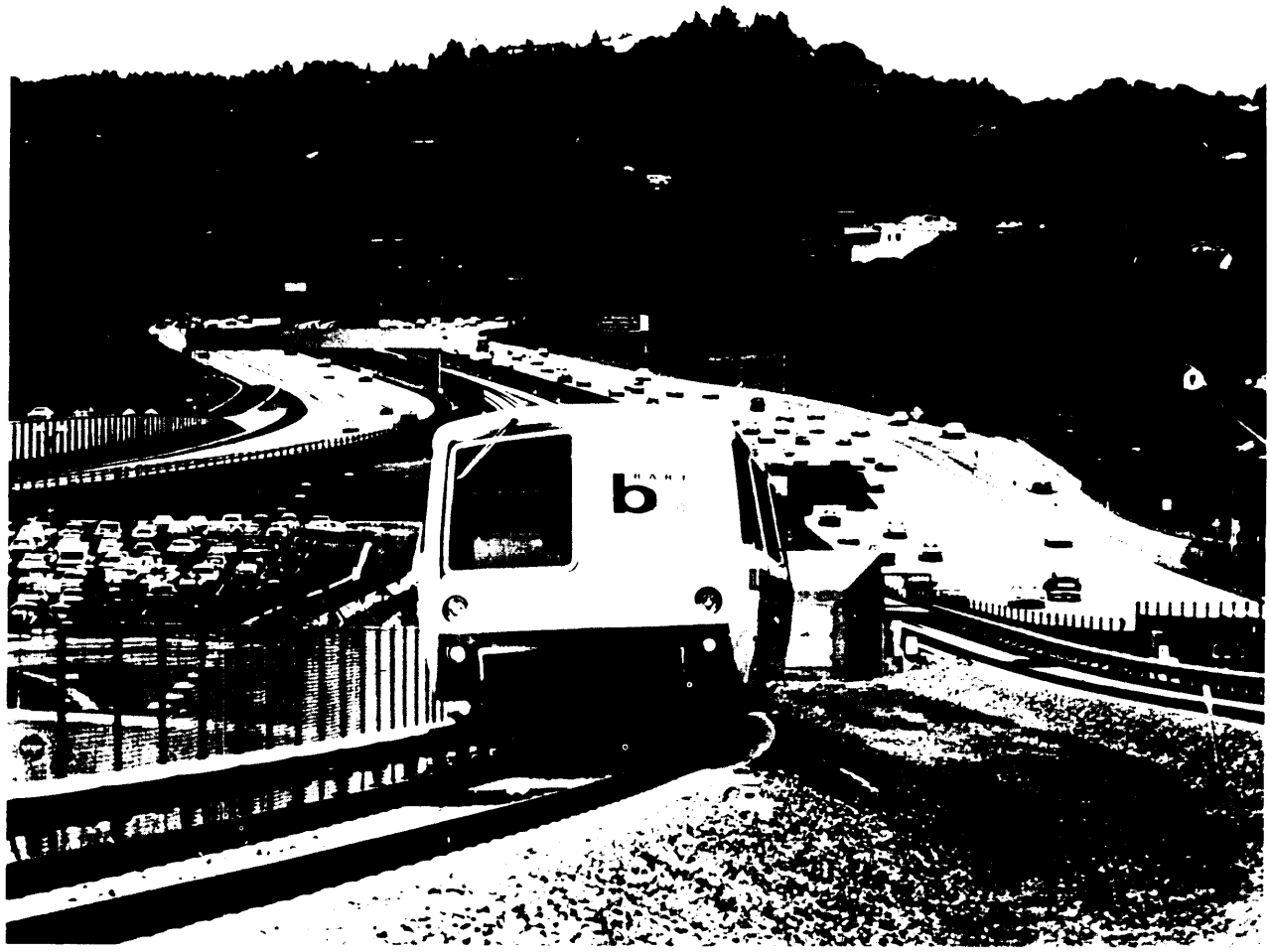


Photo credit: U.S. Department of Transportation

Subway systems: "something better?"

tern without a car. A very small number of respondents said the system should remain as it is now. Whatever the components, plans should be designed "for moving people, not moving vehicles, " according to most respondents.

In general, the respondents—pro-car, no-car, and those who took the middle ground—emphasized the desire for increased mobility for all segments of society. They stressed the importance of good intermodal connections. "If a transbus can accommodate wheelchairs, why not bicycles?" a group of cyclists asked. "All the time I save flying from one city to another is lost in trying to get from the airport to my place of business, " a salesman noted.

Clear and concise information about fares and routes would be readily available and easily obtained in these futuristic systems. Vehicle designs would be more practical and changed less. Buses, for example, would have "wider doors and seats, lower steps and floors, and windows that open but don't blow you out of your seat. " A surprising number of people said they would separate cars and trucks.

The mass transportation of their collective design would be economical, environmentally sound (quieter and nonpolluting), widely available, efficient, frequent, convenient, demand-responsive, fast, safe, clean, comfortable, and dependable.

Of the additional or substitute modes suggested, fixed guideway systems appeared to be most popular. A wide variety was mentioned—conventional train, rapid transit, trolleys, advanced group rapid transit, monorails, and automated highways. "Railroads were viable

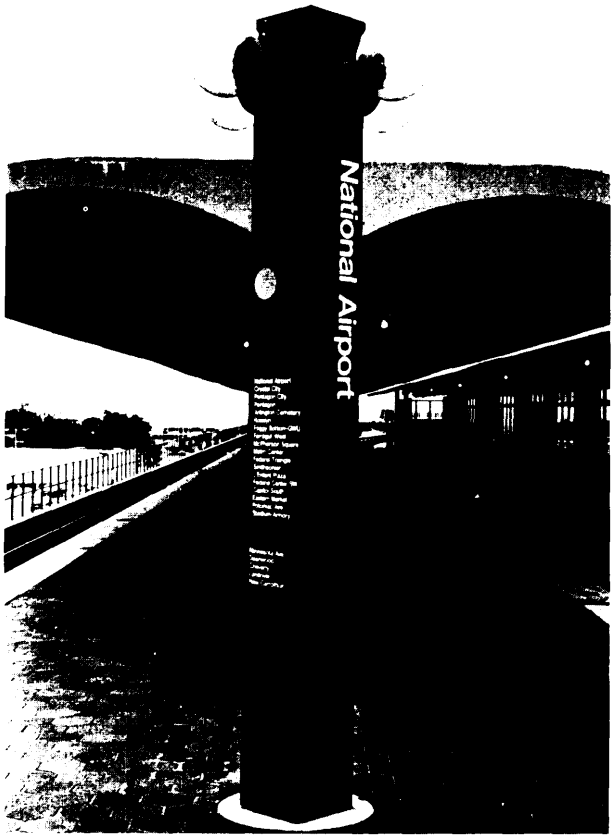


Photo credit Sylvia Johnson 1979

A route sign for public transportation, National Airport, Northern Virginia

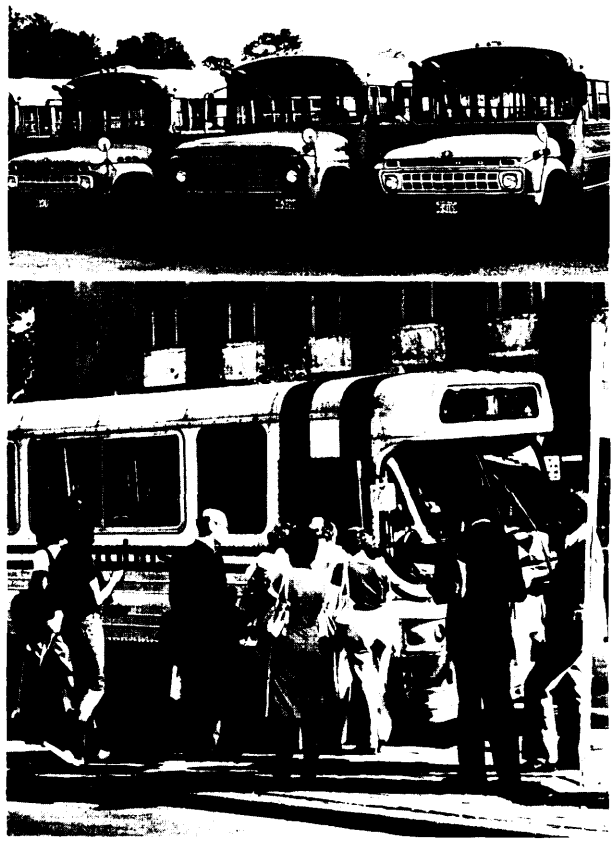


Photo Credit Sylvia Johnson 1979

A popular mode: buses. School buses could be used to meet general transportation needs

when we had less population, " a northwesterner pointed out, "but opponents today would have us believe that present high densities are not enough to support rail. "

The next most popular mode was buses. Recognizing the need to reduce congestion, officials from one State auto club said they were encouraging members to ride a bus at least once a week. "You may like it, " they are telling members. Just as they stressed the need for improvements in the car, respondents stressed the need for improved buses.

"A bus is just a bus now. There's no choice in types and styles like cars and trains. Maybe we need a variety of buses—some with champagne service, for instance, and some without, " an urban designer said. Buses shouldn't be on "wandering goat routes" either, a New Mexico man complained. Many respondents claimed that advertising for buses was needed to counteract the "sex appeal advertising for cars. " Much to the amusement of those around her, one workshop participant wondered aloud what a "sexy bus would look like. " Other respondents felt that more use should be made of school buses for general transportation. A southerner suggested a "quick change" bus—one that could be used for carrying people during the day and converted to a freight carrier during the night.

Air transport was the third most favored form of future travel. "Hovercraft," "flying cars, " "commuter helicopters, " and "antigravity machines, " were among the new forms suggested by respondents, in addition to expanded use and improvement of conventional modes currently available.

Cycles—primarily bikes, but also motorcycles and mopeds—were frequently included in the future transportation system designs. "A bicycle with a bubble to protect me from rain and cold weather would be ideal, " a Washington, D, C., woman said. There was considerable discussion about whether there should be separate pathways for bikes and motorized vehicles. Cyclists argued that separate pathways would limit their travel, unless the network was

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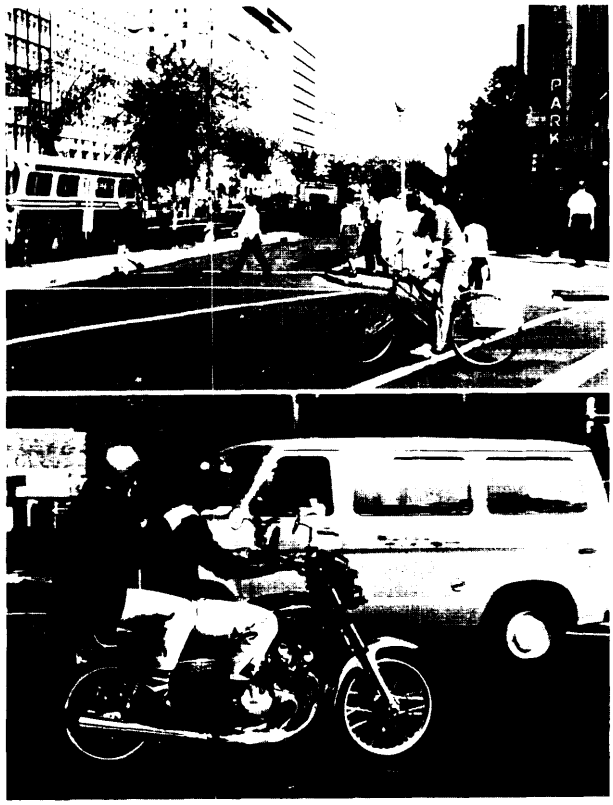


Photo credits *Sylvia Johnson, 1979*

Cyclists, pedestrians, and motorists

as extensive as roadways, They seemed to favor dedicating more existing road space to cyclists, rather than using up additional land for bike traffic. In making provision for increased biking in their year *2000* plans, respondents often noted the physical benefits that would derive from cycling.

For the same reason, walkways were often included in the respondents' plans. The following brief exchange, which took place in Alaska, was similar to what we heard in other parts of the country:

First person:	"Walking is a viable alternative now. "
Second person:	"No, it's not, not now. It's very dangerous. "
First person:	"Yes it is. Inconvenient, yes, but also viable. "
Third person:	"Well, kids walk all over the place. The viability of walking is probably more a matter of attitude than space. "
Second person:	"But providing space might change those lazy attitudes . . . ."

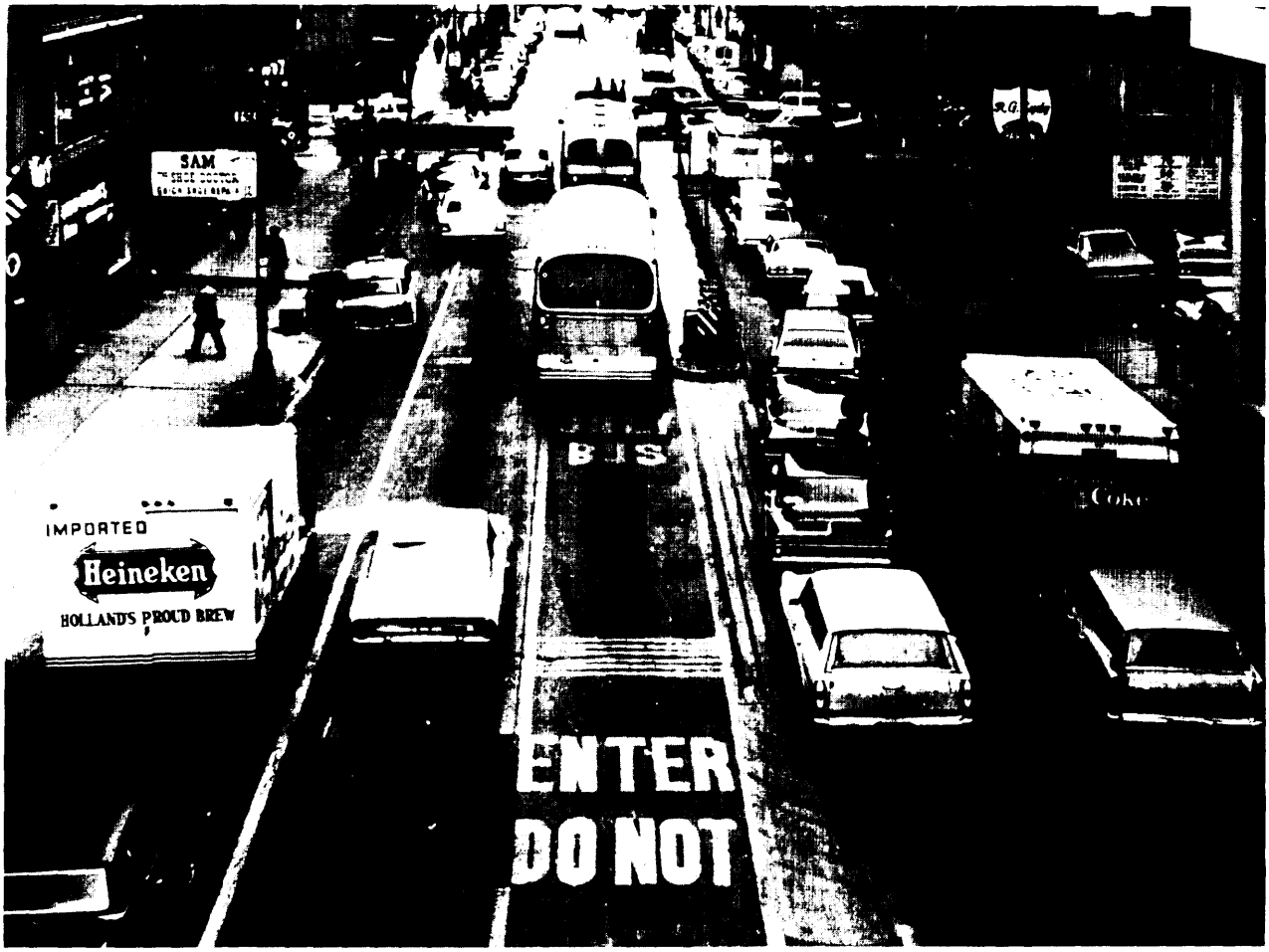
Non-transportation options were invariably part of the schemes. Of these, "land use change" was the most frequently mentioned. "We need a Marshall Plan for the United States. We're a mess, d sprawling mess, " an Oregon respondent stated. Other options often discussed were alternative working patterns and telecommunications.

Not surprisingly, congestion was eliminated in all personal transportation schemes for the future. "Let's not waste time trying to cure congestion after the fact, let's prevent it in advance, " said one individual, reflecting the views of many respondents.

The OTA study projected that congestion would almost triple by the year 2000, despite improvements in traffic management. Buses probably will remain the backbone of urban public transportation and the principal alternative, though a limited one, to the automobile for intercity travel. There will be some minor improvements in comfort and ride quality, and some advances in increased accessibility (lower steps and wider doors, for instance) for the handicapped and elderly. In general, however, no major changes in bus technology are expected. Some shift from heavy to light rail for new urban transit systems may occur. Automated guideway transit will see only limited application by 2000. Overall, the technical research findings show that an auto-dominated system (with some improvements in engine technology, fuel efficiency, and pollution control) will continue in the year 2000.

Whatever the system, respondents insisted on a "consistent mobility policy, " not a "continuation of the car vs. transit policy. " "There is no such thing as private transportation any more, " a northern man remarked. "The car is not private transportation. Even though private individuals may own them, the public pays for them—from the subsidies for research to improve them; to the roads they ride on; to the bad effects of their usage, such as natural resource exhaustion, pollution, and congestion .-We have to have public consistency in our transport policy, " he explained.

The OTA technical analysis indicated that the major threat to mobility was the supply of affordable energy. The majority of the respondents, however, viewed cost as the principal threat to mobility. As one individual said, "Economics got us into the car; economics will drive us out. "



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A "consistent mobility policy" is needed, not a "car vs. transit" policy