

Trends and Changing Priorities in Specialized Transportation: Elements of a Policy Agenda for the Eighties

WILLIAM G. BELL and JOSEPH S. REVIS

ABSTRACT

To contribute to a reappraisal of policy direction for specialized transportation in the United States, recently acquired data and developments deemed to have an impact on state and local planning for the remainder of the 1980s are reviewed. The intent is twofold: first, to identify and analyze recent social and demographic changes germane to the elderly and to transportation services designed for their use and second, to estimate the policy and program implications of these developments for the transportation network for the rest of this decade.

This paper is an abbreviated version of a monograph (1) prepared for the Technology Sharing Branch, U.S. Department of Transportation. Descriptive material is drawn largely from two major sources: (a) demographic and social data on those 65 years old and older compiled by the 1980 U.S. Census of Population (2) and (b) findings and recommendations emerging from the 1980 Mini-Conference on Transportation for the Aging (3).

BACKGROUND

Beginning in the early 1970s there was a major effort in the United States to respond to two key transportation issues of concern to the elderly: personal mobility and accessibility of transportation resources. A number of studies, service demonstrations, and advocacy efforts kept the need for increased specialized transportation resources before Congress, the federal government, and the transportation industry. Special legislation was generated, fresh federal funding sources developed, and new programs initiated. As a consequence, local transportation services had grown markedly in number and scope by the end of the 1970s.

At the beginning of the 1980s there was in place a substantial infrastructure capable of delivering a significant volume of specialized services to transport the elderly and other transportation-disadvantaged groups. One study prepared for the U.S. Administration on Aging (AOA) estimated that between 2,800 and 3,000 local transportation programs for the elderly were being funded under Title III of the Older Americans Act alone (4, p. 1). That estimate did not include specialized transportation programs for which primary funding was provided by other major federal sources such as Section 18 of the Surface Transportation Assistance Act, Section 16(b)(2) of the Urban Mass Transportation Act, and transport services funded with the assistance of Titles XIX

and XX of the Social Security Act. Nor does the estimated number of specialized programs funded by AOA include such other local programs as those offered by public transit agencies in the form of modified services for special groups, local paratransit services, and service provided by private providers.

In early 1980 the arrival of a new administration in Washington coupled with other unrelated economic developments foretold that a series of changes lay in store for the specialized transportation network. Some of these new influences were being felt in the early 1980s at state and local levels, others were to exercise their effect later. Among these major developments, to be discussed more fully in a later part of this paper, were the following:

1. Stringent national resources and a subsequent constraint on funding domestic public programs,
2. Inflation and its effect on levels of service,
3. Higher energy costs and their impact on operational budgets,
4. More sustained effort to increase participation of the private sector,
5. Diminution of effort within the U.S. DOT [based on proposed new regulations specifying substantive and procedural requirements to assure non-discrimination against the handicapped in the use of federal transportation funds (5)] to enforce provisions of Section 504 of the Rehabilitation Act of 1973, and
6. Stronger demand for use of volunteers as a cost-cutting measure.

One of the few programs that gained strength in the early 1980s was funding for rural public transportation subsequent to passage of Section 18 of the Surface Transportation Assistance Act of 1978, with funding effective in 1979. Since 1980 states have received an annual allocation based on a formula reflective of each state's nonurban population. The authorized level of national funding for 1981-1983 was about \$75 million per year. In January 1983 Congress authorized continuation of funding for Section 18 at about \$80 million per year for 1984-1986. Currently Section 18 tends to concentrate on supporting rural transportation services already in operation. New projects are difficult to initiate and implement, though it is widely acknowledged that rural transportation service is not comparable to that found in urban parts of the United States.

Because of the recently imposed limitations on federal funding for transportation in general, state and local governments are placed in the position of having to reevaluate their role vis-à-vis specialized transportation services. States have to make two critical decisions: (a) whether and how to replace funding from federal sources either to sustain existing levels of service or to initiate new services and (b) if federal funds are to be replaced, determine the extent to which state and local fiscal resources can or should be used to fund specialized transportation.

The status of specialized transportation is linked intrinsically to demographic changes associated with the population of aging persons in the United States. Despite the mythology about the unchanging quality of the elderly, the demographic characteristics of older Americans are dynamic and changing rather than static and unyielding. The decennial census of the U.S. population, as well as other sources, generates reliable data periodically on the composition of the aging population, thus enabling policymakers to update their perceptions of this growing population group in the United States.

CHANGES IN THE DEMOGRAPHICS OF THE AGING

Data from the 1980 U.S. Census of Population affirmed a recent trend discernible with each succeeding census: The United States is steadily becoming an aging society. Not only is the aging population increasing, it is increasing at a faster rate than the general population. Moreover, within the group 65 years old and older, the group 85 years old and older is growing at a more accelerated rate than the group as a whole.

Analyses of the composition and characteristics of the population of older Americans in 1980 reveal significant differences from their 1970 counterparts. Demographic changes within the aging population include shifts in the age structure, in the male-to-female ratio, in educational attainment, in labor force participation, in economic position, in the percentage classified as poor, and in the growth of the number of minority elderly. The conclusion is inescapable: The elderly of the 1980s differ markedly from the elderly of the 1970s and will make new planning demands on specialized transportation services.

Between 1970 and 1980 the number of Americans 65 years old and older increased both absolutely and as a percentage of the general population. As of April 1980 the elderly in the United States totaled ap-

proximately 25.5 million or 11.3 percent of the population. In contrast in April 1970 the elderly population totaled just under 20 million or 9.3 percent of the national population. The increase in the number of elderly persons during the decade takes on added meaning when it is recognized that in the 10-year period under analysis the U.S. population increased by 11.4 percent but the aging population increased almost 2.5 times more, by 27.9 percent.

The number of elderly people is increasing at the rate of approximately 600,000 per year. It is estimated that by 1985 the population 65 years old and older will reach 27.4 million; by 1990 the total may rise to 30.5 million and represent an estimated 12.3 percent of the total population in the United States.

In the 1980 Census, the aging of the older population is underscored by the increase in the population aged 85 years and older (Table 1). While the age groups 65+, 65-74, and 75-84 years old, between the two most recent census periods, measured at about the same rate, from 25 to 28 percent, the number of people 85 years old and older increased at more than double that rate, by an impressive 59 percent.

Some planners refer to the elderly 75 years old and older as the frail elderly, though there is no assurance that frailty arrives inevitably with one's 75th birthday. It follows, therefore, that persons who live an additional 10 years are more likely to be beset with physical limitations and physical frailty, suggesting the use of assistive devices such as wheelchairs and walkers. These impaired riders will require the attention of specialized transportation providers.

Changes in Male-to-Female Ratios

When data by sex in the two census periods were compared, both sexes displayed increased rates of survival, reasserting the long-standing demographic dominance of females over males in the aging popula-

TABLE 1 Resident Population 65 Years and Older in the United States, by Age and Sex, April 1, 1980, and April 1, 1970^a

Age and Sex	Population		Percent distribution		Population change 1970-80	
	1980	1970	1980	1970	Number	Percent
Total both sexes	25,544,133	19,972,336	100.0	100.0	5,571,797	27.8
65 to 74 years	15,577,586	12,442,573	61.0	62.3	3,135,013	25.2
75 to 84 years	7,726,826	6,121,627	30.2	30.6	1,605,199	26.2
85 years and over	2,239,721	1,408,136	8.8	7.1	831,585	59.1
Male	10,302,601	8,366,945	100.0	100.0	1,935,656	23.1
65 to 74 years	6,755,199	5,440,350	65.6	65.0	1,314,849	24.2
75 to 84 years	2,865,974	2,437,244	27.8	29.1	428,730	17.6
85 years and over	681,428	489,351	6.6	5.9	192,077	39.3
Female	15,241,532	11,605,391	100.0	100.0	3,636,141	31.3
65 to 74 years	8,822,387	7,002,223	57.9	60.3	1,820,164	26.0
75 to 84 years	4,860,852	3,684,383	31.9	31.8	1,176,469	31.9
85 years and over	1,558,293	918,785	10.2	7.9	639,508	69.6

^aAdapted from Population Profile of the United States: 1980 (2, Table 4, p. 9).

tion. The older women become, the more they outnumber their male peers.

The data in Table 1 indicate that at each year of age beyond 65, females outnumber males. This phenomenon is most striking in the age group 85 years old and older. By 1980 the number of males in the 85+ year old group increased by 39.3 percent compared with 1970, but the number of females in this age group increased by almost 70 percent. The results suggest that specialized transportation programs of the late 1980s can anticipate serving a growing number of clients who are more than 85 years old and that a majority of these riders will be female and probably widows.

Changes in Educational Levels

In 1980 two of five older Americans had achieved at least a high school education, compared with the period 10 years earlier when fewer than one in three elderly persons could make that claim (2, Table 18, p. 25). High school graduates among the elderly are slightly more likely to be female than male but are certain to be preponderately white rather than Black or of Hispanic origin. The chance of encountering a 65 year old white person who has completed 4 years of high school is 70 percent better than that of encountering an elderly Black person or an elderly person of Hispanic origin who has done so.

Another educational change shown by the 1980 Census is the growing ratio of elderly with one or more years of college. An estimated 25 percent of the elderly in 1980 reported at least one year of university education in contrast with 1970 when the rate was less than 20 percent.

Educational attainment is as significant for elderly people as it is for other members of industrial society. The correlation between educational background and subsequent income that in turn may translate to an improved capacity to purchase health care, housing, and transportation, among other essentials, has been sufficiently documented in the social science literature to require no more than mention here.

Changes in Employment Status

The number and proportion of older persons, both male and female, in the labor force exhibited a decline between 1970 and 1980. The decline was sharper for males than for females--from 26.8 percent to 19.1 percent for the former and from 9.7 percent to 8.1 percent for the latter (2, Table 21, p. 33).

Forecasts suggest a continuation of the trend of self-separation by the aging from the labor force. There are, however, a number of offsetting factors that could change the pattern. These factors include (a) the improved educational level of the elderly that indicates that older people are not necessarily in low-skill positions or in employment categories being phased out by technological changes; (b) presumed better health as a consequence of improved economic position, which suggests the capacity to stay on the job longer; and (c) passage of the 1978 amendments to the Age Discrimination in Employment Act, which only recently raised the mandatory retirement age from 65 to 70 years and may not have had sufficient time to exercise its influence on retirement patterns.

Perhaps the long-run trends of labor market participation by the elderly may change as the pressure for retirement eases because of these and other influences. However, at the beginning of the 1980s there were fewer civilian noninstitutionalized older

Americans of both sexes in the labor force than there were in the 1970s. About one in five older men and one in twelve older women were working in April 1980 compared with April 1970 when one in four elderly males and almost one in ten elderly females were gainfully employed.

Changes in Economic Status

Two somewhat contrasting trends emerge from the 1980 Census report detailing the poverty status of the elderly in 1979 and 1969 (Table 2). The economic position of older people has improved considerably in the 10-year period; this is supported by the data on improved educational attainment discussed earlier. Not all the elderly in the United States were able to reap the rewards of improved educational levels. A hard core of the elderly, about one in six or seven or 15.1 percent fell below the poverty line in 1979. This was a considerable drop compared with 25.3 percent in 1969. Given the inflation of recent years and the consequent drop in purchasing power, the 15.1 percent identified as poor are probably worse off economically than were their counterparts in 1969.

As is the case of younger age groups, poverty among the elderly is associated with race. Black elderly persons are about 2.5 times more likely to be poor than are white elderly. Hispanic elderly are about twice as likely to be poor as are whites.

White elderly persons clearly improved their economic position between 1969 and 1979, both in absolute numbers and in the ratio of their peers falling below the poverty level, despite the substantial increase in the aging population in this period.

The economic position of elderly Blacks is less clear. Although the ratio of Blacks who are poor decreased, the actual numbers of Blacks falling below the poverty line increased between 1969 and 1979.

Though not covered by the data in Table 2, there is a sex differential among the elderly poor; more aging women than men fall below the poverty line, and many of them are widows.

Summary of Demographic Changes

The changes in demographic characteristics of older Americans in the 1980s compared with those of the 1970s can be summarized as follows: Older Americans are far larger in number and their number is increasing as a ratio of the total population; more of them are female, particularly in the upper ranges of the age spectrum; their survival rate has increased, resulting in far more people in the age group 85 years and older; their participation in the labor force has decreased regardless of sex; they are better off financially than they were 10 years ago and are better educated; a hard core of about one-sixth of the elderly, composed largely of minority females, is still living below the poverty line.

A note of clarification is in order here. The emphasis on the increasingly aged quality of the elderly population of the 1980s needs to be balanced to avoid a presentation that inadvertently distorts policy conclusions derived from findings of the 1980 Census. As Neugarten points out appropriately, given the diversity and irregularity of the aging process, mere age by itself tends to be irrelevant as a basis for social policy.

[T]he thesis is that older persons are a heterogeneous, not a homogeneous group; that in a society in which age is becoming in-

TABLE 2 Poverty Status of Persons by Family Status, Race, and Spanish Origin, 1969 and 1979^{a,b}

Characteristics	Total	1979			Total	1969		
		Below Poverty Level Number	Percent of Total	Percent Distribution		Below Poverty Level Number	Percent of Total	Percent Distribution
All Races								
All persons	217,848	25,343	11.2	100.0	199,517	24,147	12.1	100.0
65 years and over	23,743	3,586	15.1	14.1	18,899	4,787	25.3	19.8
In families	191,418	19,394	10.1	76.5	184,891	19,175	10.4	79.4
Householder	58,426	5,320	9.1	21.0	51,588	5,008	9.7	20.7
65 years and over	8,792	797	9.1	3.1	7,208	1,276	17.7	5.3
Unrelated individuals	25,585	5,600	21.9	22.1	14,626	4,972	34.0	20.6
65 years and over	7,656	2,243	29.3	8.8	5,716	2,703	47.3	11.2
White								
All persons	188,048	16,823	8.9	100.0	175,349	16,659	9.5	100.0
65 years and over	21,446	2,840	13.2	16.9	17,370	4,052	23.3	24.3
In families	165,277	12,213	7.4	72.6	162,779	12,623	7.8	75.8
Householder	51,389	3,515	6.8	20.9	46,261	3,575	7.7	21.5
65 years and over	7,916	587	7.4	3.5	6,604	1,036	15.7	6.2
Unrelated individuals	22,095	4,351	19.7	25.9	12,570	4,036	32.1	24.2
65 years and over	6,928	1,837	26.5	10.9	5,173	2,322	44.9	13.9
Black								
All persons	25,385	7,838	30.9	100.0	22,011	7,095	32.2	100.0
65 years and over	2,019	716	35.5	9.1	1,373	689	50.2	9.7
In families	22,133	6,614	29.9	84.4	20,192	6,245	30.9	88.0
Householder	6,042	1,666	27.6	21.3	4,889	1,366	27.9	19.3
65 years and over	789	205	25.9	2.6	547	224	41.0	3.2
Unrelated individuals	3,104	1,143	36.8	14.6	1,819	850	46.7	12.0
65 years and over	667	390	58.5	5.0	485	355	73.2	5.0
Spanish Origin								
All persons	13,244	2,863	21.6	100.0	(NA)	(NA)	(NA)	(NA)
65 years and over	563	147	26.1	5.1	(NA)	(NA)	(NA)	(NA)
In families	12,202	2,555	20.9	89.2	(NA)	(NA)	(NA)	(NA)
Householder	3,100	610	19.7	21.3	(NA)	(NA)	(NA)	(NA)
65 years and over	212	40	19.0	1.4	(NA)	(NA)	(NA)	(NA)
Unrelated individuals	957	273	28.6	9.5	(NA)	(NA)	(NA)	(NA)
65 years and over	141	72	51.1	2.5	(NA)	(NA)	(NA)	(NA)

^aNumbers in thousands, persons as of March of the following year, noninstitutionalized population.

^bAdapted from Population Profile of the United States: 1980 (2, Table 30, p. 51).

creasingly irrelevant as a predictor of lifestyle or as a predictor of need, policies and programs formulated on the basis of age are falling increasingly wide of the mark; and that income and health care and housing and other goods and services should be provided, not according to age, but according to relevant need.

. . . But the policy issues are complex and do not, in the actual instance, take the form of simple either-or decisions. It is usually some combination of age and need, as well as other economic and political factors, that policymakers are struggling with, and it is not always an easy matter to disentangle the issue of age irrelevancy (6, pp. 27-28).

TRANSPORTATION IMPLICATIONS OF DEMOGRAPHIC, ECONOMIC, AND SOCIAL CHANGES

As is well illustrated by the demographic data cited, the past decade produced significant shifts in the composition of the aging population. The elderly of the 1980s and 1990s will differ appreciably from their earlier counterparts in several ways. Although the implications of these changes have yet to unfold fully, their consequences for planning and programming transportation for the elderly are already identifiable. These changes point to the major policy areas that will need to be considered by state and local jurisdictions during the remainder of this decade.

Changes in Age Structure of the Elderly Population

Unquestionably the most significant change that has

already occurred and will continue in the 1980s and presumably the 1990s is the increasing survival rate for older Americans. As has already been noted, the rising proportion of the population over 75, particularly women, is expected to have profound implications for meeting the health and related requirements of this population. However, in the immediate future certain transportation aspects will have to be taken into account.

The demands of the elderly for specialized transportation will increase in the 1980s. This is apparent from the sheer rise in the numbers of older people, the high costs of fuel, the increase in costs of purchasing and owning an automobile, and an established and growing demand for mobility among the elderly.

Most of the riders of specialized transportation services are likely to be female, of advanced age, and members of minority groups. The economic position of about one-sixth of the aging population, approximately 5 million persons, will create a core group who are likely to be transportation disadvantaged, in the full sense of that term, and candidates for specialized transportation services.

Specialized transportation programs will need to consider serving an older, probably less physically able, population than heretofore. The marked growth of the 85 years and older population will place increasing demands on the specialized transportation network. That network will need to take into account a group of riders who will have some difficulty in ambulation yet be desirous of maintaining a measure of mobility and independence.

Work-oriented trips on the part of the elderly will be on the decrease both for specialized transportation programs and mass transportation. With diminishing numbers of older persons of both sexes

in the labor force a larger proportion of older people will be seeking trips to destinations that are more varied than employment locations.

Car ownership will be maintained by a high proportion of older people but they will make frequent to occasional use of specialized transportation as an alternative for selected trips. Given the alternative life-styles of older people of the 1980s and the high costs of fuel, owning and operating an automobile, and parking costs in urban areas, older people will make selective use of specialized transportation for some trips, reserving the automobile for hard-to-reach locations and places to which specialized transportation is unavailable or awkward to use.

A related factor will be the high incidence of licensed drivers among the elderly, particularly among women, in the future. The elderly population 65 or older previously included women who had never learned to drive and were not licensed drivers. They were from a generation for which driving was not a tradition and they were accustomed to having someone drive them. They were also accustomed to using public transportation. Though the loss of mobility associated with aging and increasing dependence on others was a threat, it was not as serious as it will be psychologically and in terms of real mobility for the elderly of the 1980s and 1990s. The elderly of the next two decades will come from a population that has always driven regardless of sex. Since World War II, the proportion of male and female drivers has been roughly the same and a large part of the adult population of the late 1940s and 1950s will be in the elderly population of the 1980s and 1990s. The demands of those unable to drive for physical or economic reasons are likely to be for a substitute for the automobile; however, conventional public transit may not satisfy their needs as well as personalized dial-a-ride or specialized systems.

Accessibility is likely to be an important issue for the elderly in view of the expected increased limitations on mobility. Given the high proportion of women who have driven previously, the high incidence of frail elderly, the greater emphasis on group living and home-delivered services to maintain independence as long as possible, there is likely to be some preference for a combination of personalized specialized accessibility instead of lift-equipped or related conventional transit accessibility. In light of the driver licensing characteristics previously described, the emphasis on automobile-like transportation will be especially evident among the women who numerically dominate the age group. This may also result in increasing conflict between the elderly disabled and the younger disabled for whom mainstreaming is an important issue.

Though the rural elderly have participated in the migration to the Sunbelt states, they have not done so in the same numbers or at the same rate as the urban elderly. One consequence is that the rural elderly who remain behind are often the poorest and most vulnerable members of their communities. It seems quite evident that for the rural elderly, during the remainder of the 1980s and into the 1990s, the need for transportation is likely to continue and be at a higher level than that of their urban counterparts. Their needs will be compounded by lower incomes, lower available public budgets, a more dispersed population, difficulties associated with trip making, and the lack of a developed state or local network even vaguely comparable to those of urban areas.

Changes in Educational Level

As noted earlier, between 1970 and 1980 older Americans exhibited a marked improvement in their educational levels. That trend, if continued during the next decade, carries considerable significance for transportation.

To the extent that education and income are correlated, the elderly of the 1980s and 1990s will be able to better afford, own, and operate automobiles. If this is true, automobile ownership and usage are likely to be greater among the elderly than in the past. To the extent that this is not affected adversely by inroads from inflation, the elderly in the next two decades are likely to make different demands on specialized or public transit services. Obviously, if, because of energy or environmental issues, major urban policy shifts with respect to transit use are implemented during the decades, this projected increased automobile use by the elderly will not materialize.

Although it is true that there is likely to be a larger proportion of the population 75 years and older, the evidence makes it quite clear that they are likely to be healthier and stronger--particularly the age group 65-74. Personal vehicles are likely to be operated for longer periods and physical limitations will be less significant than during the past two decades.

To the extent that the rural elderly have lower educational attainment and income, their position will worsen vis-à-vis the urban elderly. Although rural public transportation programs have been developed, the funding levels are well below the needs and, perhaps more important, these funds have been largely used for funding transportation projects already operating rather than for developing statewide or interconnected rural systems. This is due partly to budget constraints but it is also partly due to shortsightedness. Given that framework, unless changes occur, the transportation conditions in rural areas, though improving, are likely to be relatively worse than those in urban areas.

Employment and Retirement

Employment data described earlier indicate that, from 1970 to 1980, the share of the elderly aged 65 years or older in the labor force declined, with a substantially smaller rate of participation and decline reflected in the data for women. These declining labor participation rates, if continued, will have transportation impacts.

However, there may be forces that may alter the pattern of what has been called by one observer "a linear life plan"--that is, a straight-line progression from extended schooling during youth, through some 40 consecutive years of work or homemaking or both in middle life, to retirement in old age. The present projections for early retirement are extrapolations of past trends, and there are a number of factors that may cause these trends to change. Among the possible forces for change that have been suggested are (a) mandatory retirement prohibited before age 70; (b) liberalized Social Security retirement tests that would permit greater earnings; (c) increased efforts to create a climate favorable to the employability of older persons; (d) wider use of a variety of techniques and practices that would enable a greater number of older persons to be gainfully employed (e.g., training, retraining); (e) more flexible working arrangements (e.g., part-time, longer vacations); and (f) continued trends in the increased cost of living. None of these forces of

change are particularly unusual and most are already present or under way in American society.

There are also a number of other demographic, economic, and social factors that could contribute to a turnaround as older people increasingly choose work over retirement. Changes in the age of retirement as a result of shortages in specific skills and the added cost of longer retirement periods, for example, may make it necessary for people to continue to work after age 65. Present trends toward early retirement at some income levels may become a growing source of social tension for some elderly persons and require return to work in the face of inflation. If sharply increased taxes are necessary to maintain existing social benefits in the face of budgetary constraints, pressures may grow to reduce benefits or increase the age of retirement. Those pressures and forces have already become manifest.

In addition, the improved physical well-being of the elderly and the fact that the physical demands of work are declining may also encourage some to postpone retirement. There is already some evidence that part-time work represents a major activity for workers 65 years or older; there are initial indications that part-time work could become an important component of employment and income for older people. The transportation implications in this case are quite different than they are for early retirement.

If early retirement trends continue, the elderly in the 1980s and 1990s are likely to exhibit trip patterns quite similar to those of the previous decade. There will be decreasing concern for work trips. Increasingly, the network of private and public transit and paratransit systems will have to focus on serving the elderly for their personal trips related to recreation, shopping, personal services, access to agencies and activity centers; trips to visit friends and family; and trips to church and other social activities. These are largely the trip purposes being served most frequently by present systems, be they transit, specialized, or paratransit services, serving the elderly.

The intercity transportation needs of the elderly are likely to increase significantly as better health and higher incomes generate more desire for travel for recreation and to visit family and friends. This pattern is already discernible and suggests that greater concern will have to be focused on these intercity needs. Because many of the rural elderly move their residences only short distances in retirement, the need for better local, regional, and intrastate bus services appears likely to be important during the next decade.

If retirement is postponed or delayed, different transportation implications emerge. Jobs held by the elderly may have locational characteristics somewhat different than those of the labor force as a whole. For example, to the extent that the elderly work more part time, especially in service and domestic jobs, their work trips will involve access to locations not well served by transit and, typically, require a "reverse commute" trip (i.e., service in a direction counter to the main flow of users and often with poorer service).

To the extent that jobs for the elderly are more dispersed than those of the nonelderly, they will have greater difficulties finding ways not only to go to work but to seek work. Interviews become 2- or 3-hr treks that would discourage even the most hearty and enthusiastic.

Part-time work represents a major source of work activity among workers 65 years or older. Studies related to part-time work indicate that about half of the employed persons in the age category 65 years or older worked part time in 1975--46 percent of the

men and 56 percent of the women (7, pp. 28 ff.). The same study noted that nine of ten older men and women indicated that their part-time status was voluntary.

There is a significant concentration of employment of the elderly, especially women, in the services, sales, and clerical sectors. In 1973 about 65 percent of the women and 30 percent of all employed persons 65 or older were in these occupational groups (7, Table 6, p. 34).

Data suggest that the service, sales, and clerical occupations tend to be more dispersed in their locations than other occupational groups (i.e., more dispersed origins and destinations). Many service and sales jobs are not well served by central-business-district-oriented public transportation systems. In addition, the work hours of service jobs are more varied, so the lack of good off-peak service makes public transportation even more difficult to use--especially for women who are particularly dependent on public transportation because fewer are licensed drivers. The three factors of job location dispersion, off-peak hour working times, and the low incidence of driver's licenses for women, in combination, undoubtedly result in greater transportation difficulties for many of the working elderly. In the future the latter condition is likely to change; increased numbers of women are learning to drive and the difference in the number of men and women with driver's licenses is expected to narrow sharply.

A review of driver licensing and renewal procedures in the United States in 1975 indicated that there is a substantial degree of nonstatutory discretion in the administrative practices and procedures connected with the process, especially as it relates to the driving examiner (8). There also appears to be evidence of a lag between driver licensing and renewal procedures and knowledge about the driving performance and safety record of elderly drivers.

The private automobile is the most important form of transportation presently being used by working elderly for searching for and getting to work. Unless major policy changes occur at the local level in land use patterns or in the role of the automobile, the pattern of dependency on the automobile is likely to persist over a relatively long period of time.

Given the long-term nature and difficulty of changing land use and the location of employment centers and the patterns of use of the private automobile, improved transportation to and from work places for older workers will require a form of transport that is a variant of the automobile. This suggests that the development of paratransit systems will be essential for improving transport for working older Americans in the future.

In view of the fact that large urban areas tend to have better transportation facilities than small urban areas, in most small and medium-sized cities the working elderly are vulnerable because of the lack of good public transportation. Furthermore, the evidence indicates that the rural working elderly (as are other rural elderly) are doubly vulnerable: There is frequently no public transportation of any kind available, and employment opportunities are substantially fewer and more widely dispersed.

Given the importance of driving and the automobile for working older Americans (and older Americans generally), it is not surprising that the loss of the driver's license is considered synonymous with a major loss of independence. If the working careers of older people are to be promoted over longer periods, some effort must be made to assure that driver licensing and license renewal procedures

are based on proven relationships between age and driving ability. Though older drivers tend to drive somewhat differently than younger drivers, the evidence does not indicate that they are less safe or are involved in a larger number of accidents. There appears to be a great deal of discretion left to individual driver examiners, and study is needed to determine whether, in fact, the procedures discriminate at the examiner level.

Shift to Suburban Residential Locations

In general, the elderly population has been becoming increasingly suburbanized, and the decade of 1970-1980 was no exception. The pattern of elderly moving out of central areas since the 1930s was continued over the last decade. In 1970 about 65 percent of the elderly 65 years or older lived in suburban or nonmetropolitan residential locations. By 1979 that share had increased to about 70 percent (9, Table 49). This suggests increasing concentrations of the elderly in suburban locations that are probably not well served by public transit. If this suburbanization continues, a number of transportation issues will need to be considered.

Because suburban locations are generally less well served by transit than are central city locations, the elderly will have greater need for transit systems that are circumferential in nature in contrast with radially oriented systems focused on central business districts and work locations.

If the elderly's suburban trips are focused largely on social, recreational, personal, and service agency needs, there will be fewer trips to central areas and more to local neighborhood and regional facilities. This suggests that future planning considerations must take into account this increasing need for neighborhood and localized transportation services (10).

Because conventional transit services do not easily (cost efficiently) serve the trip patterns of localized and neighborhood trips and circumferential travel to more dispersed (noncorridor) trip destinations, the pressure for specialized paratransit services will be further intensified.

Although it is difficult to fully assess the income potential of the future elderly for using private transportation services, current pricing practices and resistance to shared-riding in many locations keep the cost of private services too high for many elderly. The development of more universal shared-ride systems and pricing; shared vehicle renting and leasing by the elderly, especially in congregate housing; and other forms of shared ownership and use are likely to represent important options for the elderly and opportunities for the private sector.

Because the elderly's suburban residential locations are lower in density and their destinations more dispersed, the suburban elderly are likely to try to keep using their personal automobiles as long as possible. Under the circumstances, the issue of fair and adequate driver license renewal procedures, described earlier, will become an important issue during the next decade and into the 1990s.

IMPLICATIONS OF NATIONAL TRENDS FOR STATE AND LOCAL PLANNING

The major transportation implications expected to result from demographic, social, and economic changes during the past decade have been reviewed. There remains for consideration the more general forces that have significance for state and local

planning of transportation for older Americans. These are forces that are, to a considerable extent, subject to national policies and economic conditions.

Inflation

The impact of inflation on the economy is well understood although efforts at strong and sustained monetary controls are of somewhat more recent origin. Setting aside for the moment the issue of the economic consequences associated with efforts to control inflation, the decade of the 1970s saw consumer price increases significantly greater than those of previous decades. Consumer prices increased at a rate of about 1 percent per year over the first half of the 1960s and at a rate of about 5 percent per year in the last half of that decade. During the 1970s, consumer prices increased at an average rate of about 7 percent per year from 1970 to 1975 and by the second half of the decade the average annual rate had increased to more than 10 percent and was rising rapidly. By 1980 double-digit inflation consumer price increases were the rule rather than the exception.

By mid-1983 efforts to get inflation under control were beginning to produce significant results. By early 1983 the Consumer Price Index was showing rates of increase well under 10 percent. However, the lower inflation rates of 1982 were accompanied by substantially reduced levels of industrial activity and higher levels of unemployment. Though all economists by no means agree, it is generally accepted that "squeezing out inflation" requires some sacrifice that is measured in unemployment. Differences in opinion are focused on the two key issues, aside from technical questions, of how to control and how much control needs to be exercised.

Not all aspects of the factors discussed in this section are the exclusive domain of national administrators. Some can be dealt with at the local and state levels. However, it is important to keep in mind that the federal government plays an important policy role in helping to control these factors as they relate to transportation. The questions of how much unemployment is acceptable to the public to achieve reductions in inflation and whether price levels can be held down while achieving reasonable levels of growth and employment are not simple and make up the heart of the controversy among economists at the technical and professional levels and among policymakers at the political level.

It is not the purpose of this paper to enter into this controversy. The primary objective is to note that inflation is an important consideration at state and local levels in planning for specialized transportation services. No clear answer has yet emerged. Though inflation, at the time of writing, appears to be under control, the extent to which the associated unemployment has been tolerated has yet to be tested beyond the public opinion polls that suggest that the public's tolerance is nearly exhausted.

The second issue still remains. Can recovery, which in early 1983 had begun to show signs of life, continue during a long period without accompanying price increases? The issue is somewhat confused by the fact that the U.S. economy is undergoing some of the most profound structural changes in its history and these cloud the patterns of economists' forecasts and expectations. In the next decade, it may well be that inflationary rates above 10 percent will be avoided. But it is, at this juncture, by no means a certainty. If the economy grows rapidly and if major new investments and associated increases in savings are made to provide a future competitive

base for the U.S. economy, significant inflationary pressures will be present during the decade. Holding price increases in the range of 8-10 percent per year would not only have to be considered reasonable but a good achievement.

In that context, state and local jurisdictions would do well to hedge their bets and protect their planning and programming of transportation services by using more conservative assumptions about anticipated inflation rates. Trend rates of 8-10 percent would not be unreasonable, and if actual rates fell below that level it would have the effect of leaving some margin to adjust budgets downward--an easier process than is the reverse.

Energy

The 1970s were characterized by fuel scarcity and price increases that resulted in sharp increases in the costs of transportation. In fact, energy cost increases were an important contributor to the rising cost of transportation during the decade. For example, the special Consumer Price Index (CPI) on energy increased from 107.0 in 1970 (1967 = 100) to 275.9 in 1979 and 381.7 in 1980--an increase of about 3.6 times. The comparable increase in the Consumer Price Index as a whole for the period 1970-1980 was about 2.2 times (from 116.3 to 246.8). Not surprisingly, transportation costs increased at rates comparable with the CPI: from 111.1 to 249.2 from 1970 to 1980 (about 2.2 times) for private transportation and from 128.5 to 251.6 (2.0 times) over the same period for public transportation.

As in the case of inflation, all forms of transportation were affected by these changes in energy availability, either directly in the form of sharply increased costs or, in more acute situations, by the lack of availability of energy (fuel) for transportation services. A wide range of activities has been implemented to conserve energy, and these successful efforts have led to a decline in fuel costs and increased availability of fuel and related energy sources. Unquestionably, national policies on energy use and conservation will have important consequences for the cost and availability of fuel for transportation in the years ahead. Even though fuel supplies are presently plentiful and prices have stabilized (and even declined), during the next decade one must assume that new shortage situations will occur. Their scope and intensity will depend on national policy and decisions. There is a variety of programs at the state and local levels that can and should be undertaken for conserving energy to assure the availability of transportation services developed to serve the elderly.

During the energy crisis of the 1970s, priority allocation of fuel was to those transportation services that served the elderly. In the 1980s, the same energy impacts are likely to continue though not with any clear pattern of predictability. This suggests that careful planning, programming, and priority setting are even more important in the provision of transportation to the elderly in both the public and private sectors.

Funding Limitations and Related Considerations

If one accepts the assumption that the next decade is likely to be characterized by (a) strong efforts to promote economic growth within acceptable levels of inflation, (b) reductions in current federal deficits as a major policy target with any growth of the deficit limited to real economic growth, and (c)

intermittent but somewhat unpredictable energy shortages, then one must also accept the fact that the federal funding constraints that have marked the period since 1979 will persist throughout the 1980s.

Closer attention is likely to be given to issues of cost-effectiveness and to the links between the federal budget and national objectives and policies. In a recent report on public works infrastructure and policy considerations for the 1980s, the Congressional Budget Office (CBO) noted with respect to transit that

Adjustment in federal policies to improve the cost effectiveness and targeting of spending could permit transit needs to be met within current federal spending, and might even allow a reduction in the penny of the new tax on motor fuel that goes to transit. Such changes could include lowering the federal matching ratio, revising the distribution formula to favor cities that rely most heavily on transit, disbursing federal monies in transit block grants with few federal stipulations as to their use, and permitting experimentation with nontraditional modes (11, p. 37).

The strategies and policies posited by the CBO are not new and represent directions already initiated by previous congresses and presidents. In the context of transportation for the elderly, the suggestion by the CBO that nontraditional transportation modes be developed and encouraged is a step in the right direction. Conventional transit has, generally, not well served the elderly because its focus has been and continues to be on work trips. The same CBO report comments that ". . . mass transit's benefits to disadvantaged groups, such as the poor, elderly, and the disabled, are often taken for granted. Though this assumption appears valid for highly specialized public transportation services, such as 'dial-a-ride' vans, most forms of mass transit serve predominantly higher-income persons of working age" (11, p. 49).

In light of the scarcity of national budgeted resources there are a number of important issues that will need to be considered by the states and by local jurisdictions in planning their transportation services during the next decade.

In an environment of scarce resources and tight budgets, planning and priority setting are even more important than when budgets are more plentiful. Greater efforts will be needed by state and local jurisdictions on the planning and priority ordering of both system design and service.

Greater levels of local and state fiscal support will be required in the 1980s if transportation services are to be maintained. Some services may warrant reduction or discontinuance; these are issues that will need to be faced as part of the priority-setting process. It will also be essential to measure fiscal capacity and innovative sources of fiscal support at the state and local levels. Some states have already taken initial steps in this direction.

Human service agency transportation funds, particularly those of Section 18 and Section 16(b)(2) of the UMTA transportation program, provide important sources of funding for such services. However, funding by human service agencies for transportation for the elderly (and other clients) has already become somewhat more constrained and is likely to be worse over the decade for the reasons noted. Though coordination of these transportation services is not easy or without its costs, the need for coordination

will be more and more important, especially if transportation services by agencies being funded by state and local sources are to be effectively used to serve the elderly. Integration of these transportation services needs to be coupled with a multifaceted approach that includes a variety of transportation services, such as dial-a-ride, cooperative ownership and vehicle use, and pooling, that are tailored to the specific needs of clients and are reasonably cost-effective.

Studies of transportation services for the elderly, especially specialized services, indicate a considerable use of volunteers and contracting with the private sector (4). Interest in these two areas has intensified during the last several years; neither is without problems and difficulties. They are not a panacea for providing transportation to the elderly or for solving all the related problems. However, they do represent a potential that needs to be tapped more intensively than in the past, and the stimulus of constrained budgets at the state and local levels should encourage greater exploration of efforts in these directions.

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Marketing Functions in Human Service Agency Transportation

ARTHUR SALTZMAN*

ABSTRACT

Human service agency transportation (HSAT) is the title given to a family of specialized transportation services that have been developed to provide better mobility for clients of human service agencies. Historically, marketing for nonprofit organizations such as HSAT has either been ignored or reduced to a minor function. More recently it has been recognized that even organizations that are not in the private sector need to have a consumer orientation. They should identify their potential customers, analyze the needs of their clients, design an attractive product, and then promote this product. In short, the nonprofit sector needs a marketing program. The first objective is to describe the origin, development,

and current status of HSAT and how these factors affect the marketing environment. The other major objective is to describe how marketing functions are conducted by these transportation systems.

A wide range of nonprofit agencies is responsible for the delivery of social, health, and welfare services to special groups such as the elderly, the handicapped, the developmentally disabled, and the poor. Many of these human service agencies have determined that transportation for their clients is a

*When this work was done the author was Director of the Transportation Institute, North Carolina A&T State University, Greensboro.