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CURRENT TRAVEL PATTERNS OF OLDER PERSONS

The travel patterns of older persons—those who are 65 years of age or older—are different in a number of ways from the travel patterns of younger persons. Some of these distinctions are related to long-established travel patterns, which may differ from generation to generation; other distinctions stem more from trip purpose differences or from other factors. This chapter examines travel modes, travel frequency, and the meaning of mobility for older persons. A particular focus of this chapter is the use of public transit services by older persons.

TRAVEL MODE

Overall Patterns

Driving is currently the predominant mode of transportation for older persons in the

United States. The next most frequent mode of transportation is as an automobile passenger. Automobile trips, as driver or passenger, account for more than 90 percent of all trips by seniors. Transit, walking, taxi, and other modes are used for only a small fraction of the total trips taken by older persons.

The mode of travel typically changes as a person ages (Burkhardt, 1994; Rosenbloom, 1999; Straight, 1997). Although people in their 60s most often drive their own automobiles, reliance on the personal automobile decreases dramatically with increasing age. People in their 60s seldom rely on relatives, friends, or neighbors for their transportation, but this reliance on others increases substantially as a person ages and if health problems or a disability are present (Burkhardt, 1994; Glasgow and

Blakely, 1994). Eighty-seven percent of those in the 60-to-64 age group used their own automobiles for their usual means of travel, as did 48 percent in the 80-to-84 age group and 22 percent in the group 90 years and older.

Thompson's study (1996) in the New Haven area concurred that most former drivers prefer to travel as passengers in private automobiles followed by walking, paratransit, and public transit. The study also revealed that the preferred travel mode changes according to destination.

Driving

The two best sources of data regarding the travel patterns of older persons are the *Nationwide Personal Transportation Survey* (NPTS) and the *National Health Interview Survey on Disability, Supplement on Aging II* (SOA II). NPTS surveys have been conducted since 1969 (about every 5 years starting in 1977) for the purpose of describing travel throughout the United States. SOA II contains a broad range of information on health and disability including several variables on driving practices and limitations, the availability and use of public transportation, difficulties experienced in using transit, the availability and use of paratransit services, difficulty using such services, and willingness to use paratransit if it were available. The 1995 NPTS data include responses from 12,691 people 65 years of age and older; the 1994–95 SOA II data were collected from 9,447 people 69 years of age and older. NPTS collects information on driver licensing status instead of directly asking respondents, “Do you drive?” The NPTS driver licensing data have been discussed at length (Burkhardt et al., 1998) and show that the proportion of adults with a driver's license declines as age increases from

about age 60. The decline is becoming less noticeable over time. At this time, older women are much less likely to hold a driver's license than are older men; this difference is also decreasing over time.

The 1994–95 SOA II shows that, of the 21.8 million U.S. citizens age 69 and older, 65.3 percent (14.3 million people) drive. This includes those who seldom drive, those who drive occasionally, and those who drive daily (see Table 5). The table shows that the greatest reported frequency of driving (the “competing mode” with respect to transit) is found among people who are

- Younger;
- Male;
- White;
- At or above poverty levels;
- Living with others;
- Living in non-MSAs; and
- Not limited in their ADLs.

These results are as expected.

Table 6 presents an analysis based on asking those respondents who never drove if they never drove because of a health or impairment problem. If older persons do not drive, it is more likely to be related to health or impairment if they are

- Older than 74;
- Female;
- White;
- At or above poverty levels;
- Living with others;
- Living in MSA areas; and
- Functioning with three or more ADL limitations.

Conversely, if older persons with characteristics other than these do not

Table 5
Frequency of Driving Among People Age 69 and Over, 1994
(How frequently do you drive a car or other motor vehicle?)

Characteristic	Number and Percent of People Age 69 and Over Reporting Frequency of Driving									
	Total	Daily or Almost Daily			Occasionally		Seldom		Never	
	Number (100%)	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Total	21,755,849	10,740,160	49.4	2,675,659	12.3	783,438	3.6	7,489,260	34.4	
Age Groups (years)	69-74	10,084,516	6,250,449	62.0	1,096,370	10.9	398,632	4.0	2,339,065	23.2
	75-84	9,446,545	4,153,698	44.0	1,336,998	14.2	317,557	3.4	3,638,292	38.5
	85+	2,157,456	336,013	15.6	242,291	11.2	67,249	3.1	1,511,903	70.1
Gender	Male	8,713,257	5,961,183	68.4	850,722	9.8	245,486	2.8	1,655,866	19.0
	Female	12,975,260	4,778,977	36.8	1,824,937	14.1	537,952	4.2	5,833,394	45.0
Race	White, non-Hispanic	18,335,658	9,702,139	53.0	2,355,748	12.9	670,033	3.6	5,607,738	30.9
	Black, non-Hispanic	1,613,235	473,431	29.4	171,212	10.6	55,655	3.5	912,937	56.6
	Hispanic	1,089,598	350,199	32.1	104,518	9.6	28,144	2.6	606,737	55.7
	Other	496,222	148,501	29.9	31,890	6.4	29,606	6.0	286,225	57.7
NHIS Poverty Index	At or above	16,338,184	8,893,705	54.4	1,976,333	12.1	590,636	3.6	4,877,510	29.9
	Below	1,778,239	383,211	21.6	207,232	11.7	72,986	4.1	1,114,810	62.7
Living Arrangements	Living alone	7,480,683	3,158,704	42.2	993,436	13.3	224,454	3.0	3,104,089	41.5
	Living with others	14,207,834	7,581,456	53.4	1,682,223	11.8	558,984	3.9	4,385,171	30.9
Area of Residence	MSA*, Center City	6,423,699	2,643,597	41.2	682,862	10.6	179,761	2.8	2,917,479	45.4
	MSA, non-Center City	9,359,722	4,950,353	52.9	1,149,370	12.3	331,653	3.5	2,928,346	31.3
	Non-MSA	5,905,096	3,146,210	53.3	843,427	14.3	272,024	4.6	1,643,435	27.8
Number of ADL** Limitations	None	15,421,941	9,381,157	60.8	1,893,296	12.3	433,190	2.8	3,714,298	24.1
	One	2,236,084	815,622	36.5	346,284	15.5	104,584	4.7	969,594	43.4
	Two	1,234,635	253,177	20.5	176,063	14.3	58,912	4.8	746,483	60.5
	Three or more	2,761,210	280,679	10.2	257,970	9.3	186,752	6.8	2,035,809	73.7

Source: National Center for Health Statistics, 1994–1995 (Original tabulations from the 1994–1995 National Health Interview Survey). Weighted responses are shown. *MSA=Metropolitan Statistical Area.

**ADL=activities of daily living.

Table 6
Frequency of Non-Drivers Age 69 and Over Who Never Drive
Because of Health or Impairments, 1994
(Do you never drive because of an impairment or health problem?)

<i>Characteristic</i>	<i>Total</i>	<i>Number and Percent of People Age 69 and Over Who Reported Never Driving</i>			
		<i>YES</i>		<i>NO</i>	
	<i>Number (100%)</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>
Total	7,489,260	2,830,127	37.8	4,614,591	61.6
Age Groups (years)					
69-74	2,317,207	746,659	32.2	1,570,548	67.8
75-84	3,620,780	1,376,007	38.0	2,244,773	62.0
85+	1,506,731	707,461	47.0	799,270	53.1
Gender					
Male	1,646,025	1,037,359	63.0	608,666	37.0
Female	5,798,693	1,792,768	30.9	4,005,925	69.1
Race					
White, non-Hispanic	5,579,150	2,366,455	42.4	3,212,695	57.6
Black, non-Hispanic	909,864	254,527	28.0	655,337	72.0
Hispanic	596,186	122,992	20.6	473,194	79.4
Other	283,895	59,115	20.8	224,780	79.2
NHIS Poverty Index					
At or above	4,848,250	1,977,389	40.8	2,870,861	59.2
Below	1,107,325	325,728	29.4	781,597	70.6
Living Arrangements					
Living alone	3,089,593	1,049,626	34.0	2,039,967	66.0
Living with others	4,355,125	1,780,501	40.9	2,574,624	59.1
Area of Residence					
MSA*, Center City	2,896,518	918,666	31.7	1,977,852	68.3
MSA, non-Center City	2,908,872	1,127,877	38.8	1,780,995	61.2
Non-MSA	1,639,328	783,584	47.8	855,744	52.2
Number of ADL** Limitations					
None	3,695,965	791,412	21.4	2,904,553	78.6
One	958,812	369,774	38.6	589,038	61.4
Two	735,941	370,736	50.4	365,205	49.6
Three or more	2,030,924	1,288,586	63.5	742,338	36.6

Source: National Center for Health Statistics, 1994–1995 (Original tabulations from the 1994–1995 National Health Interview Survey). Weighted responses are shown. *MSA=Metropolitan Statistical Area.
 **ADL=activities of daily living.

drive, the reason is not so often related to health or impairment. Understanding how these characteristics influence travel choices can help us define potential target markets for enhanced transit services.

Public Transit

Overall Transit Use Patterns

The process of assessing public transit options for older persons of the future must start with the travel patterns of today's elderly population. In Table 7, data on whether or not people age 69 and older have used public transportation in the last 12 months are presented. The overall responses (SOA II) are powerful. Reporting on the last 12 months, 11.5 percent (2.5 million people) said that they had used public transportation, 53.8 percent said that they hadn't used public transportation, and 34.1 percent said that no public transportation system was available.

Similar responses are found in the 1995 NPTS data shown in Table 8. In the NPTS survey, 10.1 percent of all people age 65 and older were transit users, and 49.4 percent were not. Another 40.5 percent of the respondents reported that public transit services were not available to them.

Of course, the "no public system available" response means not available in the eyes of the respondents; indeed, they may not know of services that are in fact available. Nonetheless, the 34 or 40 percent affirmative response is still a substantial proportion of all older persons. This suggests that some older persons might make greater use of public transit services if public transit services were simply more often available to them. Whether or not they would make sufficient use of new transit services to

make the implementation of these services cost-effective is questionable.

Characteristics of Older Transit Users

According to the SOA II figures in Table 7, older persons who do use public transportation are generally

- In the younger age groups;
- Female;
- White;
- People with incomes at or above poverty levels;
- People who live in central cities; and
- People who have no ADL limitations.

(Note that on a proportional basis, older non-Whites use transit much more frequently than older Whites, older persons in central cities make much greater use of public transit than older persons elsewhere, and older persons with below poverty incomes make somewhat greater use of transit than do older persons with incomes at or above poverty levels.)

Of all the demographic characteristics presented, place of residence was the most reliable indicator of whether or not public transportation was available and used. Older persons without public transit are much more likely to be living in non-MSA areas than in more urbanized areas, and older persons who do use public transit are more likely to be center city residents. Finally, older persons who say that they have no public transportation available are also much more likely to be White than to be of any other racial or ethnic background.

Travel frequencies for those older persons who do use public transportation are shown in Table 9 for the SOA II survey. Not quite

Table 7
Frequency of People Age 69 and Over Who Have Used Public Transportation
in the Last 12 Months, 1994
(During the past 12 months, have you used local public transportation,
such as a regular bus line, rapid transit, subway, or streetcar?)

Characteristic		Number and Percent of People Age 69 and Over Who Have Used Local Public Transportation							
		Total		YES		NO		No Public System Available	
		Number (100%)	Number	Percent	Number	Percent	Number	Percent	
Total		21,755,849	2,492,929	11.5	11,712,023	53.8	7,423,362	34.1	
Age Groups (years)	69-74	10,059,058	1,288,295	12.8	5,221,027	51.9	3,549,736	35.3	
	75-84	9,429,461	1,068,814	11.3	5,198,326	55.1	3,162,321	33.5	
	85+	2,139,795	135,820	6.4	1,292,670	60.4	711,305	33.2	
Gender	Male	8,688,753	904,894	10.4	4,659,770	53.6	3,124,089	36.0	
	Female	12,939,561	1,588,035	12.3	7,052,253	54.5	4,299,273	33.2	
Race	White, non-Hispanic	18,279,521	1,710,462	9.4	9,909,108	54.2	6,659,951	36.4	
	Black, non-Hispanic	1,612,138	400,565	24.9	796,076	49.4	415,497	25.8	
	Hispanic	1,086,629	220,375	20.3	624,663	57.5	241,591	22.2	
	Other	496,222	135,039	27.2	290,589	58.6	70,594	14.2	
NHIS Poverty Index	At or above	16,292,742	1,823,324	11.2	9,088,753	55.8	5,380,665	33.0	
	Below	1,771,790	270,296	15.3	780,077	44.0	721,417	40.7	
Living Arrangements	Living alone	7,456,960	1,069,486	14.3	3,939,027	52.8	2,448,447	32.8	
	Living with others	14,171,354	1,423,443	10.0	7,772,996	54.9	4,974,915	35.1	
Area of Residence	MSA*, Center City	6,416,903	1,522,648	23.7	4,307,284	67.1	586,971	9.2	
	MSA, non-Center City	9,337,143	882,339	9.5	5,927,113	63.5	2,527,691	27.1	
	Non-MSA	5,874,268	87,942	1.5	1,477,626	25.2	4,308,700	73.4	
Number of ADL** Limitations	None	15,377,101	1,965,566	12.8	8,112,822	52.8	5,298,713	34.5	
	One	2,231,296	284,985	12.8	1,173,943	52.6	772,368	34.6	
	Two	1,230,656	78,308	6.4	738,953	60.1	413,395	33.6	
	Three or more	2,754,614	164,070	6.0	1,658,625	60.2	931,919	33.8	

Source: National Center for Health Statistics, 1994–1995 (Original tabulations from the 1994–1995 National Health Interview Survey). Weighted responses are shown. *MSA=Metropolitan Statistical Area.
 **ADL=activities of daily living.

Table 8
Transit Usage

Transit Usage Among Different Age Groups			
Age Group	Use Transit	Never Use Transit	Transit Not Available
65 and under	14.9%	47.1%	38.0%
Over 65	10.1%	49.4%	40.5%
All age groups	14.2%	47.4%	38.4%
Transit Use for Those with Access to Transit Services			
Age Group	Use Transit	Never Use Transit	Transit Not Available
65 and under	24.0%	76.0%	N/A
Over 65	16.9%	83.1%	N/A

Source: U.S. Department of Transportation, 1995 (Original tabulations from the Nationwide Personal Transportation Survey).

15 percent of persons age 69 and older who used public transportation (1.6 percent of all persons age 69 and older) used transit daily or almost daily. Almost 50 percent used transit occasionally, and 36 percent seldom used transit. Those who use transit daily or almost daily are likely to be

- Among the youngest of the elderly;
- Female;
- White;
- At or above poverty thresholds;
- Living in center cities; and
- People having no ADL limitations.

(Again, on a proportional basis, older non-Whites use transit more frequently on a daily basis than older Whites, and older persons with below-poverty incomes make much greater daily use of transit than do older persons with incomes at or above poverty levels.)

Numerically speaking, older transit users who seldom use public transit are likely to be

- Female;
- White;
- At or above poverty levels;

- Not living alone;
- Living in center cities; and
- People having no ADL limitations.

(On a proportional basis, those seniors likely to seldom use transit are older, male, White, at or above poverty thresholds, living with others, not living in center cities, and having three or more ADLs.)

Although these results generally conform to overall demographic patterns, the results also confirm the notion that transit has a difficult time attracting older riders who have a choice of travel modes. It is also important to note that transit is most often used where it is most often available—in center cities.

Table 10 shows the frequency of transit use according to the NPTS data, also breaking down the figures for drivers and non-drivers. Among all older persons who use transit, about one-third use transit 2 days or more a week, one-sixth use it once a week, about one-quarter use it several times a month, and about one-fifth use it less than once a month. These figures show a slightly higher usage of transit than the figures shown in the SOA II sample.

Table 9
Frequency of Use of Local Public Transportation in the Last 12 Months, 1994
(During the past 12 months, how often did you use the local public transportation service?
Would you say . . .)

<i>Characteristic</i>		<i>Number and Percent of People Age 69 and Over Using Local Public Transportation in the Past 12 Months</i>						
		<i>Total</i>	<i>Daily or Almost Daily</i>		<i>Occasionally</i>		<i>Seldom</i>	
		<i>Number (100%)</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>
Total		2,492,929	342,232	13.7	1,183,620	47.5	900,091	36.1
Age Groups (years)	69-74	1,252,517	199,531	15.9	567,990	45.4	484,996	38.7
	75-84	1,042,206	139,402	13.4	539,229	51.7	363,575	34.9
	85+	131,220	3,299	2.5	76,401	58.2	51,520	39.3
Gender	Male	858,934	113,262	13.2	376,512	43.8	369,160	43.0
	Female	1,567,009	228,970	14.6	807,108	51.5	530,931	33.9
Race	White, non-Hispanic	1,660,119	197,705	11.9	757,415	45.6	704,999	42.5
	Black, non-Hispanic	389,645	70,600	18.1	221,264	56.8	97,781	25.1
	Hispanic	214,652	33,476	15.6	130,901	61.0	50,275	23.4
	Other	135,039	40,451	30.0	49,609	36.7	44,979	33.3
NHIS Poverty Index	At or above	1,768,784	236,568	13.4	844,894	47.8	687,322	38.9
	Below	267,047	68,347	25.6	144,141	54.0	54,559	20.4
Living Arrangements	Living alone	1,038,942	173,549	16.7	562,921	54.2	302,472	29.1
	Living with others	1,387,001	168,683	12.2	620,699	44.8	597,619	43.1
Area of Residence	MSA*, Center City	1,482,795	268,956	18.1	755,800	51.0	458,039	30.9
	MSA, non-Center City	865,583	69,065	8.0	392,806	45.4	403,712	46.6
	Non-MSA	77,565	4,211	5.4	35,014	45.1	38,340	49.4
Number of ADL** Limitations	None	1,910,256	292,347	15.3	918,552	48.1	699,357	36.6
	One	277,761	31,431	11.3	134,655	48.5	111,675	40.2
	Two	76,186	10,163	13.3	45,353	59.5	20,670	27.1
	Three or more	161,740	8,291	5.1	85,060	52.6	68,389	42.3

Source: National Center for Health Statistics, 1994-1995 (Original tabulations from the 1994-1995 National Health Interview Survey). Weighted responses are shown. *MSA=Metropolitan Statistical Area.
 **ADL=activities of daily living.

<i>Frequency of Use</i>	<i>Older Drivers</i>	<i>Non-Drivers</i>	<i>Totals</i>	<i>Percents</i>
2+ days/wk	307	767	1,074	33.74%
Once a week	228	307	535	16.81%
1-2 days per month	506	368	874	27.46%
Less than once per month	589	111	700	21.99%
Totals	1,630	1,553	3,183	
	51.21%	48.79%	100.00%	100.00%

Source: U.S. Department of Transportation, 1995 (Original tabulations from the Nationwide Personal Transportation Survey).

Effects of Health Limitations

Table 11 presents data compiled from older transit users' responses to the question of whether they have difficulty using local transit service because of an impairment or health problem. Almost 90 percent of those interviewed did not have any such problems. Those transit users who had difficulty using transit because of an impairment or health problem tended to be

- In the 75- to 84-year-old age group;
- Female;
- At or above the poverty index;
- Living alone;
- Living in center cities; and
- People having three or more ADL impairments.

(On a proportional basis, those seniors likely to have difficulty using transit because of an impairment or health problem are likely to be older, female, below poverty thresholds, living alone, living in center cities, and people having one or more ADL limitations.)

Older Persons Not Using Public Transit Because of Health Reasons

People who are non-users of public transportation because of impairments or health problems (see Table 12) are likely to be

- Older;
- Female;
- White;
- At or above poverty threshold;
- Living with others;
- Living in metropolitan areas, but not necessarily in center cities; and
- People having three or more ADL impairments.

(On a proportional basis, those seniors likely not to use transit because of an impairment or health problem are likely to be older, female, non-White, below poverty thresholds, living alone, living in center cities, and people having one or more ADL limitations.)

Table 11

Frequency of Recent Difficulties Using Local Public Transportation Among Transit Users Age 69 and Over, 1994

(Because of an impairment or health problem, during the past 12 months, did you have any difficulty using the local public transportation service?)

Characteristic		Total	Number and Percent of People Age 69 and Over Reporting Difficulty Using Local Public Transportation Service				
			Number (100%)	YES		NO	
				Number	Percent	Number	Percent
Total		2,492,929	225,517	9.0	2,206,357	88.5	
Age Groups (years)	69-74	1,252,928	94,604	7.6	1,158,324	92.5	
	75-84	1,045,396	101,637	9.7	943,759	90.3	
	85+	133,550	29,276	21.9	104,274	78.1	
Gender	Male	862,813	60,234	7.0	802,579	93.0	
	Female	1,569,061	165,283	10.5	1,403,778	89.5	
Race	White, non-Hispanic	1,674,844	160,098	9.6	1,514,746	90.4	
	Black, non-Hispanic	391,216	34,066	8.7	357,150	91.3	
	Hispanic	216,946	18,618	8.6	198,328	91.4	
	Other	124,948	6,470	5.2	118,478	94.8	
NHIS Poverty Index	At or above	1,772,421	131,902	7.4	1,640,519	92.6	
	Below	267,047	36,009	13.5	231,038	86.5	
Living Arrangements	Living alone	1,046,809	130,217	12.4	916,592	87.6	
	Living with others	1,385,065	95,300	6.9	1,289,765	93.1	
Area of Residence	MSA*, Center City	1,487,455	180,850	12.2	1,306,605	87.8	
	MSA, non-Center City	866,854	40,067	4.6	826,787	95.4	
	Non-MSA	77,565	4,600	5.9	72,965	94.1	
Number of ADL** Limitations	None	1,912,286	62,347	3.3	1,849,939	96.7	
	One	280,973	55,692	19.8	225,281	80.2	
	Two	76,186	22,938	30.1	53,248	69.9	
	Three or more	162,429	84,540	52.1	77,889	48.0	

Source: National Center for Health Statistics, 1994–1995 (Original tabulations from the 1994–1995 National Health Interview Survey). Weighted responses are shown. *MSA=Metropolitan Statistical Area. **ADL=activities of daily living.

Table 12
Number of Non-Transit Users Who are Prevented or Limited from Using Public Transportation
Because of an Impairment or Health Problem, 1994

**(Does an impairment or health problem prevent or limit
your use of the public transportation service?)**

<i>Characteristic</i>	<i>Total</i>	<i>Number and Percent of People Age 69 and Over Prevented or Limited from Using Public Transportation</i>				
		<i>Number (100%)</i>	<i>YES</i>		<i>NO</i>	
		<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	
Total	11,839,558	1,809,048	15.3%	9,323,522	78.7%	
Age Groups (years)	69-74	5,199,463	435,815	8.4	4,562,613	87.8
	75-84	5,150,922	904,527	17.6	4,013,933	77.9
	85+	1,264,375	468,706	37.1	746,976	59.1
Gender	Male	4,641,350	519,039	11.2	3,959,483	85.3
	Female	6,973,410	1,290,009	18.5	5,364,039	76.9
Race	White, non-Hispanic	9,830,260	1,366,985	13.9	8,025,838	81.6
	Black, non-Hispanic	787,383	224,590	28.5	544,210	69.1
	Hispanic	617,304	130,951	21.2	472,963	76.6
	Other	288,226	73,131	25.4	204,901	71.1
NHIS Poverty Index	At or above	9,003,793	1,239,084	13.8	7,424,254	82.5
	Below	769,780	217,339	28.2	477,914	62.1
Living Arrangements	Living alone	3,888,371	721,907	18.6	2,995,577	77.0
	Living with others	7,726,389	1,087,141	14.1	6,327,945	81.9
Area of Residence	MSA*, Center City	4,241,791	850,397	20.1	3,358,529	79.2
	MSA, non-Center City	5,895,902	826,752	14.0	4,769,894	80.1
	Non-MSA	1,477,067	131,899	8.9	1,195,099	80.9
Number of ADL** Limitations	None	8,098,000	265,912	3.3	7,572,863	93.5
	One	1,158,479	247,134	21.3	858,079	74.1
	Two	715,617	285,866	40.0	377,297	52.7
	Three or more	1,614,984	1,002,488	62.1	497,215	30.8

Source: National Center for Health Statistics, 1994–1995 (Original tabulations from the 1994–1995 National Health Interview Survey). Weighted responses are shown. *MSA=Metropolitan Statistical Area. **ADL=activities of daily living.

Older Persons Not Driving Because of Health Reasons

Disabilities more frequently limit driving than they limit transit use. As shown in Table 13, the proportion of people who never drive because of an impairment or health problem is more than twice as large as the proportion of people who never use public transit because of an impairment or health problem. Furthermore, the number of seniors age 69 and older who never drive because of an impairment or health problem—2,830,127—is 56 percent greater than the number of seniors age 69 and older who never use public transit because of an impairment or health problem, which is 1,809,048.

Overall Results

These data suggest that transit has significant difficulty serving older persons who are in

the oldest age groups, are riders by choice, live outside of central cities, and have multiple impairments.

Finding cost-effective means of tapping into these target markets will be a primary challenge for public transit providers.

Survey respondents in the Baltimore elderly travel survey indicated that improvements in local bus service would be needed to enhance their travel abilities (KETRON, 1999). Focus group respondents in the Baltimore elderly travel survey reported that concerns about “lack of good public transportation” and “safety/security for senior citizens/crime” were the factors impeding their use of public transportation. Ignorance of how to use public transit was one major impediment to its use by older people. Other major impediments were concerns about safety and security, working elevators and escalators, and frequency of

Table 13
Travel Limitations of the Elderly Because of Impairment or Health Problems

<i>Characteristic</i>	<i>Number</i>	<i>Percent of Total</i>	<i>Percent of Those Not Using This Mode</i>
Total Elderly			
Total elderly persons 69+	21,755,260	100.0	N/A
Automobile Drivers			
Automobile drivers who never drive	7,489,260	34.4	100.0
Elderly who never drive because of impairment or health problem	2,830,127	13.0	37.8
Transit Users			
Persons age 69+ for whom transit is available	13,204,952	65.3	N/A
Elderly who use transit	2,492,929	11.5	N/A
Elderly who never use transit	11,712,023	53.8	100.0
Elderly who never use transit because of impairment or health problem	1,809,048	8.3	15.4

Source: National Center for Health Statistics, 1994–1995 (Original tabulations from the 1994–1995 National Health Interview Survey).

service. Seniors also expressed a need for more park-and-ride lots, more feeder buses, more travel information and more accurate travel information, and finally, volunteers to help seniors learn about and use transit.

Older Persons Who Are Neither Drivers Nor Transit Riders

A very large number of older persons neither drive nor use public transit. The vast majority of these people travel as automobile passengers. In fact, automobile passenger is the second largest travel mode for older persons, far surpassing transit use in popularity. Using NPTS data, Eberhard (2000) has shown that the combination of the transportation modes of automobile driver and automobile passenger accounts for about 90 percent of all trips by seniors in all age groups in urban areas and 94 percent of all trips by seniors in rural areas. (The figures for the group 85 years and older are slightly lower—85 percent and 83 percent, respectively.)

Data from the NPTS and the NHIS SOA II presented in Table 14 demonstrate the large numbers of older persons who neither drive nor use public transit. (It should be remembered that the NPTS data are for people age 65 and older, whereas the SOA II data are for people age 69 and older. Sixty-one percent of the SOA II respondents were drivers; 74 percent of the NPTS respondents were drivers.)

According to the NHIS SOA II survey, (1) there are 21.8 million people age 69 and older in the United States (see Table 5); (2) 14.2 million people 69 years of age and older do have transit services in their communities (65 percent of the 21.8 million); (3) 2.5 million use transit; and (4) 4 million do not drive AND do not use transit.

The data reveal that 4.0 million of the 5.5 million people age 69 and older who do not drive also do not use transit (73.5 percent).

Data on driving and transit use from the 1995 NPTS are similar but not quite the

	1994 SOA II Survey (69+)			1995 NPTS Survey (65+)		
	Transit Users	Non-Users	Totals	Transit Users	Non-Users	Totals
Drivers	1,037,914 7.32%	7,667,479 54.04%	8,705,393 61.36%	1,630,000 8.77%	12,101,000 65.13%	13,731,000 73.90%
Non-Drivers	1,453,923 10.25%	4,028,137 28.39%	5,482,060 38.64%	1,553,000 8.36%	3,296,000 17.74%	4,849,000 26.10%
Totals	2,491,837 17.56%	11,695,616 82.44%	14,187,453 100.00%	3,183,000 17.13%	15,397,000 82.87%	18,580,000 100.00%

Sources: National Center for Health Statistics, 1994–1995 (Original tabulations from the 1994–1995 National Health Interview Survey). U.S. DOT, 1995 (Original tabulations from the Nationwide Personal Transportation Survey).

same. (The differences may be because of the age groups included—people age 69 and older for SOA II and people age 65 and older for NPTS—or different sampling procedures.) The NPTS figures (representing 18.6 million people age 65 and older who have transit available in their communities) indicate that there are 3.3 million people age 65 and older who do not drive and do not use transit. (This figure is lower than the comparable SOA II figure, which is higher but represents a smaller group of people.) In percentage terms, NPTS reports that 68 percent of the 4.8 million people age 65 and older who do not drive also do not use transit.

One conclusion that can be drawn from either the NPTS or SOA II figures is that a potentially large number of older persons could be ready for and accepting of good transit services. Even after subtracting older persons with transportation-related disabilities—those elders who do not use transit because of a disability (see Table 11) and an estimated 25 percent of those elders who do not drive because of a disability (see Table 6)—the potential older persons' market for good transit services is still somewhere between 2.5 million and 3.0 million people, which is greater than the number of current older transit riders.

TRAVEL FREQUENCY

People 65 years of age and older travel frequently, making both local and long-distance trips (the focus of this research is local travel). The amount of travel declines with age (which may be only a surrogate for other factors such as health and income), decreases with increasing disability, increases with increasing

income, and increases with automobile ownership.

Projecting the amount of travel by older persons is fraught with uncertainty. However, based on changes to lifestyles, patterns of residential development, and driving behavior, the expectation that older persons of the future will travel more than older persons do now is probably valid. These expectations are discussed further in Chapter 3.

From 1983 to 1990, the total annual person-miles of travel for people age 65 or older increased almost 26 percent, in contrast to a 14-percent increase for the population as a whole (Hu and Young, 1992). This overall increase for seniors in travel miles is due to a 6-percent increase in the number of trips and a 19-percent increase in the average trip length. The average trip lengths for older persons are coming closer to those of the overall population, as are total miles traveled. Spain (1997) reports that the 1995 NPTS data show 31.4 miles per day as an average for the general population, 35.2 miles for men, and 27.8 miles for women. For the 65-to-74-year age group, the average number of miles traveled per day is 26.3 miles for men and 19.4 miles for women. For people 75 and older, the miles per day drop to 19 for men and 10.9 for women. Projections of the number of miles driven by older men and women have been discussed at length by Burkhardt (Burkhardt et al., 1998).

Rosenbloom has noted a substantial growth in the travel of older persons:

Between 1983 and 1995, older Americans increased their travel activity on every index: they made 77 percent more vehicle

trips, spent almost 40 percent more time driving, and drove 98 percent more miles than they had in 1983. They also increased the numbers of trips made in private vehicles by 13 percent and increased all trip lengths by 11 percent. In fact, older people had the largest increase of any age group on almost all these indicators. (Rosenbloom, 1999)

Older persons do travel less than younger persons, according to Rosenbloom (1999):

An NPTS report found that older persons make 3.43 trips per day or 22.4 percent less than those under 65. The common assumption that the drop in trip-making at retirement is also a drop in mobility obscures how active the elderly really are. In fact, trip rates of older persons are not substantially lower than those of younger persons until after age 75.

Examining non-work trips, Rosenbloom found that older men under age 85 take more non-work trips than younger men; older women take fewer trips than younger women but not many fewer until after age 75. These data suggest that older persons are very active and mobile after they reach age 65—and even age 75—and that these travel boundaries may well extend as even more active (and automobile-dependent) people age in the coming decades.

No age cohort of the elderly takes more than 2.3 percent of all their trips by transit. The most striking finding is how few differences there are between younger and older persons regarding mode choices for each kind of trip purpose.

Area of residence makes a big difference. Older persons in center cities are much more likely to take transit or to walk and are less likely to use cars for their trips

than the elderly in suburban or rural areas (Rosenbloom, 1999).

MOBILITY CHANGES: THEIR MEANING FOR THE ELDERLY

Mobility Declines Associated with Driving Cessation

In the study *Mobility and Independence: Changes and Challenges for Older Drivers* (Burkhardt et al., 1998) the authors reported that definite mobility changes occur when older drivers reduce or cease driving. In a majority of cases, mobility—whether measured in quantitative or qualitative terms—declines. Specific mobility declines that were noted were the following:

- Fewer trips will be taken (older drivers make about six trips per week in contrast to about two trips per week for older non-drivers (Straight, 1997));
- Shorter distances will be traveled;
- Fewer or no trips will be taken under certain conditions; and
- The older person will be more often traveling according to the schedules and convenience of others instead of their own desires.

For older persons who are former drivers, it requires a great deal of planning to get to and from a destination without personally driving. In focus groups, seniors who were reducing their driving mentioned with some frequency mobility changes such as having to plan their lives around other people's schedules and the reduction or total loss of recreational activities (e.g., going out to eat, going to the movies, and socialization—especially at night). Still, very few

individuals made no trips at all, and most found ways to make “necessary” trips, even if at higher monetary and psychological trip costs. Overall, “life maintenance trips” were still made, but “life enriching” trips, for the most part, were not. Metz maintains that travel benefits that could be considered to be “destination-independent” (such as trips taken just for the sake of “getting out and about” as well as trips resulting in community involvement) should also be considered as mobility measures, as should the ability to make a trip even if that trip is not made (Metz, 2000, p. 150).

After driving, the most common transportation mode is riding in an automobile as a passenger. Asking for and accepting rides from family and friends is difficult for most older individuals, particularly those raised in the tradition of independence and self-sufficiency. As a woman in one of the focus groups for *Mobility and Independence* explained, “You really get humble, you hate to ask” (Burkhardt et al., 1998). Seniors who do not drive are hesitant to ask for additional rides because they are often unable to reciprocate by providing a ride or other services.

Mobility remains important for older persons, even as it declines:

Remaining mobile is a critical aspect of independence and is important to the welfare of people, including those with functional limitations. Access to services, activities, and other people is essential to maintaining one’s well-being and quality of life. (OECD, 2001)

There is some evidence that mobility declines can lead to depression (Marottoli

et al., 1995), reduced life satisfaction (Cutler, 1975), health problems (Dobbs, 1998), and isolation and loneliness (Russell et al., 1997). There appear to be few benefits from reduced or limited mobility. Specific connections between mobility levels and factors such as health and life satisfaction clearly deserve substantially more investigation.

Some in the older persons’ focus group were able to meet their transportation needs for grocery shopping, medical appointments, and other basic errands reasonably well after they stopped driving. These people have one or more of the following attributes:

- They live in communities with viable non-driving transportation options.
- They are physically able to use public transportation.
- They have spouses or significant others who drive.
- They live with children or have children in the area.
- They have sufficient financial resources to purchase transportation.
- They are heavily involved with a religious institution.
- They have reduced their activities and their expectations to fit their present circumstances.

Mobility Improvements Associated with Specialized Transportation Services

A wide variety of human service agencies sponsor or operate specialized transportation services for their clients. (Some of these services are operated by or coordinated with public transit operations.) The Administration on Aging (AoA) funds transportation services for seniors through its Grants for State and

Community Programs on Aging (known as the Title III Program).

AoA's Performance Outcomes Measures Project examined the perspectives of older consumers on the care that they were receiving from AoA-sponsored services that provided transportation to older adults. Using telephone and mail surveys, State Units on Aging and Area Agencies on Aging in Arizona, Florida, Georgia, Hawaii, Indiana, Iowa, Kentucky, and Ohio assessed client satisfaction with transportation services provided through AoA-funded programs. A total of 1,057 interviews were conducted. Initial tabulations (Burkhardt, 2001) showed the following:

- Older consumers were, in general, highly satisfied with the AoA-funded transportation services that they have received.
- Although about half of those interviewed used these services for just a few of their trips, one-fifth of the respondents used the services for nearly all of their trips.
- Even with such services available, 13 percent of those who had used these services did not leave their home for any reason for the previous 2 weeks.
- On average, riders of these services made about six trips per month on these services.
- The most frequent recommendation for transportation service improvements, reported by half of the respondents, was to increase the hours of service.
- Sixty percent of the riders reported that they traveled more now than before they had access to these AoA-sponsored transportation services, and 61 percent reported that their social activities had increased since they started using the AoA-funded transportation services.

Besides assessing the quality of the services, respondents were asked what difference these services had meant to them. The actual question was, "How has your life

changed since you started using this service?" Although some respondents (those who had multiple travel options or made little use of the AoA-sponsored services) reported few changes, if any, those seniors who really depended on the AoA-funded services for their mobility had very dramatic responses:

- "A blessing to have the bus. I do not feel like a shut-in. It gives me the freedom to come and go and do for myself."
- "I would be dead without this service."
- "I depend on this bus, now that my husband went to heaven. I wondered how I was going to get around, but I do not have to worry now."
- "I feel very independent not bothering my family for transportation."
- "This is what keeps me out of that nursing home."
- "It's like letting a bird out of a cage."

The themes of mobility, independence, self-sufficiency, comfort, dependability, and even joy recurred in a large number of the interviews. Clearly, access to high-quality transportation services means a great deal to older persons, whether they provide their own means of access or rely on others to meet their travel needs.

CONCLUSION

Automobiles currently play a large part in the travel patterns of older persons, accounting for about 90 percent of all trips made. Transit is used by about 11 percent of older persons; transit trips represent about 3 percent of all trips by older persons. Between 34 and 40 percent of all seniors report that they have no transit services available to them. (Public transit services are used by nearly 18 percent of those

seniors who have public transportation services available to them.) Transit usage is closely related to residential location, with older center city residents using transit much more frequently than those residing elsewhere. Transit currently has problems serving older persons who are in the oldest age groups, have multiple travel options, live outside of central cities, and have

multiple impairments. The large numbers of people who do not drive and do not use public transportation should be considered as potential riders for new or improved transit services. New or improved transit services could help older persons continue to live independently in their own homes for longer periods of time, thus benefiting both the older persons and society as well.