



**NATIONWIDE  
PERSONAL  
TRANSPORTATION  
STUDY**

**Availability of Public Transportation  
and Shopping Characteristics  
of SMSA Households**

REPORT NO. **5**  
JULY 1972

**U.S. Department of Transportation • Federal Highway Administration**

NATIONWIDE PERSONAL TRANSPORTATION STUDY

AVAILABILITY OF PUBLIC TRANSPORTATION  
AND SHOPPING CHARACTERISTICS  
OF SMSA HOUSEHOLDS

Report No. 5

Rolan M. Hatley  
Mathematician  
Program Management Division  
Office of Highway Planning

July 1972



U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
WASHINGTON, D.C. 20590

INTRODUCTION

This report presents data on the availability of public transportation to the main business district of the central city for households located in Standard Metropolitan Statistical Areas (SMSA's) and information on shopping characteristics of SMSA residents. These data were collected in the Nationwide Personal Transportation Study, conducted by the Bureau of the Census for the Federal Highway Administration in 1969-1970.

The first part of this report relates size of the SMSA and income of the households by race of household head and by the nearness of the households to public transportation to the main business district of the central city. The second part of the report discusses the frequency with which the heads of SMSA households shop in the main business district of the central city, including reasons for not shopping downtown. No attempts, however, have been made to relate the two parts of this report.

## HIGHLIGHTS

- . Public transportation to the main business district of the central city is available to nearly 87 percent of all SMSA households.
- . Fifty-two percent of all SMSA households live within a two-block radius of public transportation.
- . As income increases, the distance to a public transportation facility increases.
- . Only 22 percent of all SMSA households shop in the main business district of the central city.
- . Availability of goods locally and distance to the main business district of the central city cause persons in most SMSA households not to shop in the main business district of the central city.
- . As the size of the SMSA increases, the availability of goods locally becomes more of a factor in determining if a household head shops in the main business district of the central city.

## BACKGROUND AND PROCEDURES

### Background

The Nationwide Personal Transportation Survey was designed to obtain up-to-date information on national patterns of travel. Earlier surveys, limited primarily to automobile and truck travel, were conducted in a number of States between 1930 and 1940 and more recently between 1951 and 1959. In April 1961, a survey was conducted to determine on a national basis characteristics of travel and ownership and use of automobiles. In addition, in this national survey in 1961, family income data were available which could be related to travel patterns.

### Survey procedures

The survey was based on a multi-stage probability sample of housing units located in 235 sample areas, comprising 485 counties and independent cities, representing every State and the District of Columbia. The 235 sample areas were selected by grouping all the Nation's counties and independent cities into about 1,900 primary sample units (PSU's) and further forming 235 strata of one or more PSU's that are relatively homogeneous according to socio-economic characteristics. Within each of the strata, a single PSU was selected to represent the stratum. Within each PSU, a probability sample of housing units was selected to represent the civilian non-institutional population.

The households in the Nationwide Personal Transportation Survey comprised two outgoing panels in the "Quarterly Housing Survey" (QHS) conducted by the Bureau of the Census. One panel was interviewed in April, July, and October 1969, and January 1970; the second panel was interviewed only once in August 1969.

Experienced field staff of the Bureau of the Census were assigned to the survey. Training consisted of a one-day session for field supervisors by Washington office personnel, and a one-day session of training of the interviewers by field supervisors. In addition, interviewers were assigned home-study exercises to be turned in before each interview period. The interviewers were also observed periodically by field office supervisory personnel.

The completed questionnaires were edited first in the Census regional offices to clear up inconsistencies and omissions and later in the Washington office. The questionnaires were then edited, coded, etc., before being put on tapes. An edited tape for each of the months of the survey was furnished to the Federal Highway Administration for processing.

At the first visit to a selected household, in panel 1 during April 1969, and in panel 2 during August 1969, sections I through VII of the household questionnaire was completed as well as a control card. On the control card were entered data on characteristics of the household such as income, automobile ownership, and age and sex of persons in the households. Only sections VI and VII were completed at subsequent interviews at the households in panel 1.

Each of the tables in this report indicates a source tabulation of the Federal Highway Administration, showing the number of the report contributing to the estimates. These sample bases are identified in Appendix A. Section II of the survey questionnaire found in Appendix A is most germane to this report.

### Sampling Variability

The Nationwide Personal Transportation Survey is based on a probability sample and the estimates are subject to sampling variability. The term "sampling variability" refers to the expected differences between the results of the survey and those that would have been obtained had a complete census been taken.

Some items such as person or household characteristics or number of vehicles were collected only during the first visit to a household in April or August. Standard errors of estimates and measures of sampling variability were calculated from data collected those two months. Estimates of the standard errors for characteristics of vehicle trips and vehicle miles were determined from variance functions fitted to the data collected during the five months of interviewing.

Most of the data are presented as percentage distributions. The base value of each 100 percent figure is also indicated. Tables IIA-1 and IIA-2 in Appendix B give the standard errors for specified percentages and base values in this report. The appropriate standard error of estimate may be determined by interpolation. In general, the chances are about two out of three that the difference due to sampling variability between the estimates data and the figure that would have been obtained from a complete census does not exceed the standard error.

### Other possible sources of error

In addition to variability arising from the use of samples and household responses, errors may have been made by interviewers or by other personnel involved in the collection and processing of data. Quality controls at all levels of data collection and processing were exercised by the Bureau of the Census.

## AVAILABILITY OF PUBLIC TRANSPORTATION

In considering the results of the survey, the choices given the respondent should be kept in mind. When asked how far one's household was located from a public transportation line to the main business district of the central city, the respondent had the following choices: (1) less than one block, (2) one to two blocks, (3) three to six blocks, (4) over six blocks, (5) no public transportation available, and (6) lives in the main business district. No attempt was made in the instructions to differentiate between "public transportation greater than six blocks" and "public transportation not available;" the distinction was left solely to the respondent. Following is a discussion of the proximity of public transportation by SMSA size group, household income group, and race of the household heads.

### Distance to public transportation by SMSA size groups

Table 1 shows by SMSA size groups and race the distances to the nearest public transportation serving the main business district of the central city. Approximately 52 percent of all households live within a two-block radius of public transportation, and 21 percent of the households are located less than one block from a public transportation line to the main business district. Only in the smallest SMSA size group (under 250,000) and the largest SMSA size group (3,000,000 and over) are less than half of the households located within two blocks of public transportation. Almost 71 percent of all households have public transportation six blocks or less from home, and an additional 17 percent of the households must travel a distance of greater than six blocks from their home to reach a public transportation line to the main business district of the central city. At the other extreme, approximately 12 percent of the households have no available public transportation to the main business district of the central city. The number of households in the main business district is negligible.

The size of the SMSA may determine to some extent, the availability of public transportation. In the SMSA size group of less than 250,000 only 78 percent of the households have available public transportation. This availability increases to 95 percent for the 2,000,000 - 2,999,999 SMSA size group, but decreases to 92 percent for SMSA's of 3,000,000 and over population. Although some inconsistencies exist, an increase in the size of the SMSA generally implies a corresponding increase in availability of public transportation.

Half of the white households are located within two blocks of public transportation and 87 percent are accessible to some form of public transportation to the main business district (figure 1). White households fare best in SMSA's of 2,000,000 - 2,999,999 where 95 percent have some form of transportation available to them; this percentage decreases to 90 percent for SMSA's of 3,000,000 and over; white households fare worst in SMSA's of less than 250,000; however, the decrease in availability is not directly proportional to the size of the SMSA population group.

Table 1.--Percent of households in each SMSA size-group classified by distance to the nearest public transportation to the main business district of the central city

SMSA size group and race	Distance to public transportation - blocks					Households in main business district	Total	Total number of households (000)
	Less than 1	1 - 2	3 - 6	Over six blocks	None available			
Less than 250,000								
White	22.8	24.5	10.4	19.1	23.0	0.2	100.0	5,559
Negro & other races	36.7	28.0	15.8	6.5	13.0	0.0 <u>2/</u>	100.0	395
Total	23.7	24.7	10.8	18.3	22.3	0.2	100.0	5,954
250,000 - 499,999								
White	21.2	27.4	16.5	17.3	17.6	*	100.0	4,698
Negro & other races	38.6	46.1	8.9	4.2	2.2	0.0 <u>2/</u>	100.0	638
Total	23.2	29.7	15.6	15.7	15.8	*	100.0	5,336
500,000 - 999,999								
White	21.8	33.2	16.9	17.7	9.9	0.5	100.0	6,106
Negro & other races	20.8	37.3	8.2	10.6	23.1	0.0 <u>2/</u>	100.0	547
Total	21.6	33.6	16.2	17.1	11.0	0.5	100.0	6,653
1,000,000 - 1,999,999								
White	18.1	34.0	16.2	15.6	15.6	0.5	100.0	5,732
Negro & other races	30.8	39.5	20.6	3.4	5.7	0.0 <u>2/</u>	100.0	1,146
Total	20.2	34.9	16.9	13.6	14.0	0.4	100.0	6,878
2,000,000 - 2,999,999								
White	19.9	34.0	21.8	19.2	5.1	*	100.0	4,252
Negro & other races	31.3	54.3	7.2	3.7	1.5	0.0 <u>2/</u>	100.0	379
Total	20.7	35.6	20.7	18.0	5.0	*	100.0	4,601
3,000,000 and over								
White	18.8	25.7	26.1	19.4	9.6	0.4	100.0	9,064
Negro & other races	25.9	40.4	25.2	7.1	1.4	0.0 <u>2/</u>	100.0	1,804
Total	19.9	28.2	25.9	17.3	8.3	0.4	100.0	10,868
All SMSA's								
White	20.2	29.4	18.7	18.1	13.3	0.3	100.0	35,401
Negro & other races	29.4	40.6	18.0	6.0	6.0	0.0 <u>2/</u>	100.0	4,889
Total	21.3	30.8	18.5	16.7	12.4	0.3	100.0	40,290 <u>1/</u>

Source: Based upon unpublished table H10 from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-1970.

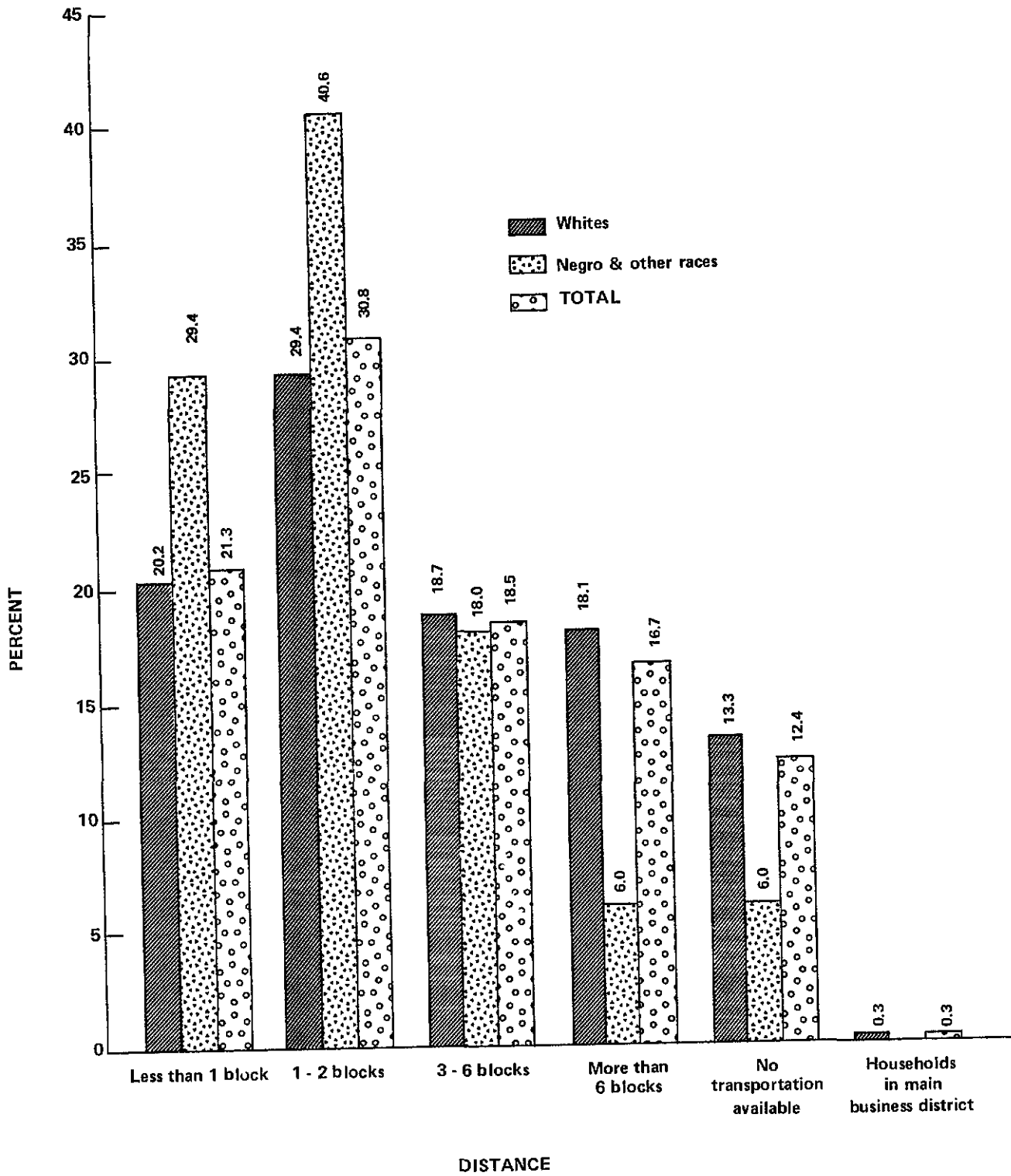
\* Less than 0.1

1/ Does not include households which did not respond.

2/ Sample showed no households.



**FIGURE 1 – SMSA households by race and distance to nearest public transportation to downtown shopping area.**



By and large, the households of Negro and other races live closer to a public transportation facility serving the main business district than white households. For example, 70 percent of the households of Negro and other races are located within two blocks of a public transportation facility compared to 50 percent of the white households. Even more interesting is the fact that 94 percent of the households of Negro and other races have public transportation available to them. This may be due in large part to the shift of the population within the SMSA's accelerated by the influx of Negro and other races into the central cities where long-established transportation facilities to the main business district have existed.

#### Distance by SMSA income groups

Table 2 indicates that for all households combined (1) the percentage of households living within two blocks of public transportation to the main business district decreases generally as income increases; (2) the percentage of all households with no available public transportation increases as income increases; and (3) the percentage of households, at all income levels, located in the main business district is negligible.

As indicated perviously, slightly more than half of all households are located two blocks or less from a public transportation system. This is true because of the high proportion of households in income groups of less than \$10,000 a year. More than 60 percent of households with income less than \$5,000 to \$10,000 are located within two blocks of a public transportation line. For households with more than \$10,000 income, 45 percent in the \$10,000 - \$15,000 income bracket and 37 percent in the \$15,000 and over income bracket live within the two-block radius; approximately 16 percent of the households in each of these income groups have no public transportation facilities available.

The relationship between income and the availability of the nearest public transportation facility to the main business district of the central city changes somewhat for Negro and other races. Whereas half of all white families live within a two-block radius of public transportation, the number increases to 70 percent for families of Negro and other races; families of Negro and other races in the \$10,000 income bracket fare best with approximately 83 percent of these households within two blocks of transportation. While about 14 percent of the white families do not have some form of public transportation available, for families of Negro and other races the number drops to 6 percent. Public transportation is least available for white households with annual incomes greater than \$6,000; households of Negro and other races with annual incomes of less than \$3,000 and from \$5,000 - \$5,999 have the greatest transportation problem. Otherwise nearly 94 percent of the households of Negro and other races as against 87 percent of the white households have available public transportation to the main business district of the central city.

Table 2.--Percent of SMSA households classified by distance to the nearest public transportation to the main business district of the central city within specified income classes and by race

Annual household income group and race	Distance to public transportation - blocks					Households in main business district	Total	Total number of households (000)
	Less than 1	1 - 2	3 - 6	Over six blocks	None available			
Less than \$3,000								
White	30.4	35.1	17.0	8.3	8.9	0.3	100.0	4,516
Negro & other races	29.6	40.4	14.8	4.6	10.6	0.0 <u>2/</u>	100.0	1,195
Total	30.1	36.3	16.5	7.6	9.2	0.3	100.0	5,711
\$3,000 - 3,999								
White	29.0	33.2	15.1	13.4	9.3	*	100.0	2,027
Negro & other races	24.4	40.2	30.2	2.4	2.8	0.0 <u>2/</u>	100.0	541
Total	28.0	34.6	18.3	11.2	7.9	*	100.0	2,568
\$4,000 - 4,999								
White	31.6	28.9	18.2	13.2	8.1	*	100.0	1,735
Negro & other races	41.1	32.9	20.0	3.2	2.8	0.0 <u>2/</u>	100.0	460
Total	33.6	29.7	18.6	11.1	7.0	*	100.0	2,195
\$5,000 - 5,999								
White	24.0	26.6	21.9	17.5	9.5	0.5	100.0	2,615
Negro & other races	25.4	37.6	13.8	7.9	15.3	0.0 <u>2/</u>	100.0	502
Total	24.2	28.4	20.5	16.0	10.4	0.5	100.0	3,117
\$6,000 - 7,499								
White	20.1	33.1	18.4	14.7	13.1	0.6	100.0	4,069
Negro & other races	28.5	49.1	15.2	5.1	2.1	0.0 <u>2/</u>	100.0	608
Total	21.1	35.3	17.9	13.5	11.6	0.6	100.0	4,677
\$7,500 - 9,999								
White	18.6	33.4	16.9	17.7	13.4	*	100.0	5,851
Negro & other races	25.0	44.3	23.9	4.4	2.4	0.0 <u>2/</u>	100.0	572
Total	19.1	34.3	17.5	16.6	12.5	*	100.0	6,423
\$10,000 - 14,999								
White	14.5	28.0	18.7	21.5	17.3	*	100.0	7,639
Negro & other races	32.2	50.6	11.1	6.1	*	0.0 <u>2/</u>	100.0	468
Total	15.5	29.3	18.3	20.6	16.3	*	100.0	8,107
\$15,000 and over								
White	11.8	23.3	20.5	26.2	17.1	1.1	100.0	3,628
Negro & other races	34.7	29.1	20.8	15.4	*	0.0 <u>2/</u>	100.0	256
Total	13.3	23.7	20.6	25.5	15.9	1.0	100.0	3,884
Not available								
White	18.0	20.2	22.0	25.6	13.8	0.4	100.0	3,337
Negro & other races	27.9	28.5	15.3	15.1	13.2	0.0 <u>2/</u>	100.0	287
Total	18.7	20.9	21.5	24.7	13.8	0.4	100.0	3,624
All households								
White	20.2	29.4	18.7	18.1	13.3	0.3	100.0	35,417
Negro & other races	29.4	40.6	18.0	6.0	6.0	.0 <u>2/</u>	100.0	4,889
Total	21.3	30.8	18.6	16.6	12.4	0.3	100.0	40,306 <u>1/</u>

Source: Based upon unpublished table, H10.1, from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-1970.

\* Less than 0.1

1/ Includes those households which withheld information on Table 1.

2/ Sample showed no households.

Table 3 indicates that as income increases, the distance to a public transportation facility increases. Households with incomes of \$7,500 - 14,999 had the largest proportions in each distance group living within available public transportation. For households with incomes of more than \$15,000, the smallest percentage live less than one block to public transportation, and the percentage increases as the distance to a public transportation facility increases. For households with incomes of less than \$7,500 annually, the majority live within six blocks of a public transportation line. Of households with no available transportation, 56 percent make over \$7,500, and an additional 11 percent have incomes of less than \$3,000 annually.

For households of Negro and other races in SMSA's, the more affluent the household, the shorter the distance to public transportation. This tendency is exactly opposite to that of the white households. Of the households of Negro and other races with no available transportation, some 43 percent earn less than \$3,000 annually and more than one-fourth, some 26 percent, earn between \$5,000 - 5,999 annually; the remainder is distributed among the various income groups below \$10,000 a year. Those households of Negro and other races with an average annual income of more than \$10,000 reported no households without public transportation. In addition, none of these households were located in the main business district.

More than 36 percent of households with annual incomes of \$15,000 and over and almost 25 percent of households with incomes from \$6,000 - 7,499 are located in the main business district. On the other hand households in the \$3,000 - 4,999 income range and those in the \$7,500 - 14,999 range generally are not located in the main business district of the central city.

Table 3.--Percent of SMSA households by race and income classes within a given distance to the nearest public transportation to the main business district of the central city

Annual household income group and race	Distance to public transportation - blocks					Households in main business district	Total
	Less than 1	1 - 2	3 - 6	Over six blocks	None available		
Less than \$3,000							
White	19.1	15.2	11.6	5.9	8.6	13.1	12.8
Negro & other races	24.6	24.3	20.1	19.1	42.6	0.0 <u>2/</u>	24.4
Total	20.0	16.6	12.6	6.4	10.5	13.1	14.1
\$3,000 - 3,999							
White	8.2	6.5	4.6	4.3	4.0		5.7
Negro & other races	9.2	11.0	18.6	4.5	5.1	0.0 <u>2/</u>	11.1
Total	8.3	7.2	6.2	4.3	4.1		6.4
\$4,000 - 4,999							
White	7.6	4.8	4.8	3.6	3.0	*	4.9
Negro & other races	13.1	7.6	10.4	5.1	4.3	0.0 <u>2/</u>	9.4
Total	8.6	5.3	5.5	3.6	3.1	*	5.4
\$5,000 - 5,999							
White	8.7	6.7	8.7	7.1	5.3	13.1	7.4
Negro & other races	8.9	9.5	7.9	13.7	26.0	0.0 <u>2/</u>	10.3
Total	8.8	7.1	8.5	7.4	6.5	13.1	7.8
\$6,000 - 7,499							
White	11.4	13.0	11.3	9.3	11.3	24.5	11.5
Negro & other races	12.0	15.1	10.5	10.6	4.4	0.0 <u>2/</u>	12.4
Total	11.5	13.3	11.3	9.4	10.9	24.5	11.6
\$7,500 - 9,999							
White	15.2	18.7	14.9	16.2	16.7	*	16.5
Negro & other races	9.9	12.7	15.5	8.7	4.7	0.0 <u>2/</u>	11.7
Total	14.3	17.8	15.0	15.8	16.0	*	15.9
\$10,000 - 14,999							
White	15.4	20.5	21.7	25.5	28.1	*	21.6
Negro & other races	10.5	11.9	5.9	9.8	*	0.0 <u>2/</u>	9.6
Total	14.6	19.1	19.8	24.9	26.4	*	20.2
\$15,000 and over							
White	6.0	8.1	11.3	14.8	13.2	36.4	10.2
Negro & other races	6.2	3.8	6.1	13.5	*	0.0 <u>2/</u>	5.2
Total	6.0	7.4	10.7	14.8	12.4	36.4	9.6
Not available							
White	8.4	6.5	11.1	13.3	9.8	12.9	9.4
Negro & other races	5.6	4.1	5.0	15.0	12.9	0.0 <u>2/</u>	5.9
Total	7.9	6.2	10.4	13.4	10.1	12.9	9.0
All households							
White	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Negro & other races	100.0	100.0	100.0	100.0	100.0	0.0 <u>2/</u>	100.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of households (000)							
White	7,174	10,414	6,607	6,420	4,695	106	35,416
Negro & other races	1,438	1,986	880	291	295	0.0 <u>2/</u>	4,890
Total	8,612	12,400	7,487	6,711	4,990	106	40,306 <u>1/</u>

Source: Based upon unpublished table, H10.1, from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-1970.

\* Less than 0.1

1/ Includes those which withheld information on table 1.

2/ Sample showed no households.

## Summary

Public transportation to the main business district of the central city is available to nearly 88 percent of all households--approximately 87 percent for white households and 94 percent for the households of Negro and other races. The availability of transportation is distributed more evenly for the white households, regardless of income or SMSA size group. The size of the SMSA may to some extent determine the availability of public transportation. In addition, those households which may need public transportation to the main business district, such as households of Negro and other races with an average annual income of less than \$3,000, do not have public transportation as available as other income groups.

## SHOPPING CHARACTERISTICS OF SMSA RESIDENTS

This part of the report provides data on shopping characteristics of households located in SMSA's. Specifically, the heads or members of the households were asked to indicate if they travel to the main business district of the central city to shop, and if so, the frequency of these trips during a three-month period.

Approximately twenty-two percent indicated that they shop in the main business district of the central city. The first section discusses the distribution of households that do shop in the main business district, and the frequency of these shopping trips during a three-month period. The second section investigates the reasons that the remaining seventy-eight percent of the households do not shop in the main business district of the central city.

### Shop in the main business district of the central city

Table 4 shows the percentages of households in two SMSA size groups which reported shopping in the main business district of the central city by the number of shopping trips made in a three-month period. The table is fairly self-explanatory and shows some consistency between the population groups of less than 1,000,000 and the population groups of 1,000,000 or more. Furthermore, for each of the size groups, the shopping frequency is fairly uniform, although more variation in the data is evidenced in the SMSA size group of 1,000,000 or more (figure 2).

It should be noted that for both population groups, the percent of households that make 7-8 shopping trips during a three-month period is low. This may be due to the limited size of the sample, the recall ability of the respondents, or that this category represents the breaking point between occasional and frequent downtown shopping.

### Do not shop in the main business district of the central city

The seventy-eight percent of the households that do not shop in the main business district of the central city were asked to indicate any or all of the following reasons that applied to them: (1) goods available locally, (2) too far away, (3) difficulty in parking, (4) difficulty of driving in congested area, (5) no automobile, and (6) other ... specify ... Some households gave only one reason, others two, and others three or more. An analysis of the responses follows.

#### One reason only

Table 5 shows percentage distribution of households, by SMSA size

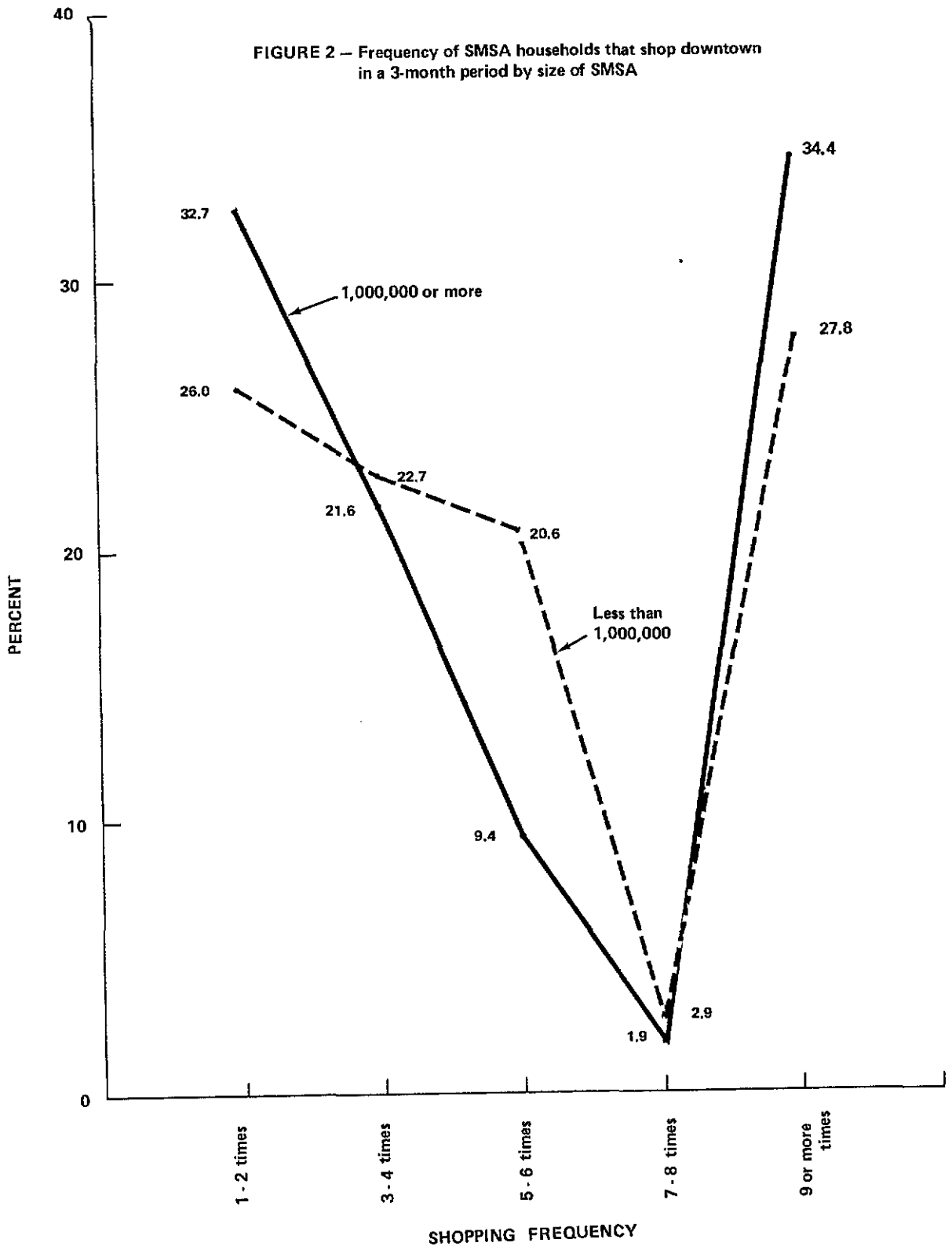
Table 4.--Percent of household heads that shop in the main business district of the central city by shopping frequency in a three-month period and by size of the SMSA

Shopping frequency	Size of the SMSA		Total
	Less than 1,000,000	1,000,000 or more	
1 - 2 times	26.0	32.7	29.3
3 - 4 times	22.7	21.6	22.2
5 - 6 times	20.6	9.4	15.0
7 - 8 times	2.9	1.9	2.4
9 or more times	27.8	34.4	31.1
Total	100.0	100.0	100.0
Number of households (000)	4,585	4,125	8,710

Source: Based upon unpublished table, H-11, from the **Nation-wide Personal Transportation Survey** conducted by the Bureau of the Census for the Federal Highway Administration, 1969-1970.



FIGURE 2 — Frequency of SMSA households that shop downtown in a 3-month period by size of SMSA



groups, which gave only one reason for not shopping in the main business district of the central city. The reason most given for not shopping in the main business district of the central city is that goods are available locally; nearly 45 percent of the households checked this category. Almost one-fourth of the households gave "other" reasons and 15 percent of the households indicated that the main business district of the central city was too far away. Interestingly enough, only 2 percent of the households gave the lack of an automobile as the single most important reason for not shopping in the main business district. Figure 3 presents this information graphically.

#### Two reasons only

The data presented in table 6 for responses given by households which supplied two reasons for not shopping in the main business district of the central city, are more evenly distributed than the data shown in table 5 for households which supplied only one reason. Again, the availability of goods locally is the major reason, nearly 33 percent of the responses included this as one of two reasons; the distance to the main business district of the central city accounted for 25 percent of the household responses and parking difficulty made up nearly 17 percent of the reasons given. The fact that some households have no automobile accounted for a relatively small number, a little more than 3 percent of the responses.

Table 7 shows that of all household responses which included "goods available locally" as a reason for not shopping in the main business district of the central city, "too far away" appeared 48.5 percent of the time as the related reason, "parking difficulty" 23.1 percent, "driving difficulty" 10.1 percent, etc. Likewise, of all household responses which included "too far away," "goods available locally" appeared 63.2 percent of the time, "parking difficulty" 9.5 percent, "driving difficulty" 6.5 percent, etc.

It may be observed that in table 7 definite relationships exist between several of the reasons for not shopping in the main business district of the central city. Specifically: (1) A high percentage of those households which cited "goods available locally" as a reason, also implied that the main business district of the central city was "too far away," and vice-versa; (2) Over 25 percent of the household responses that included "difficulty in parking" as a reason for not shopping in the main business district of the central city, "difficulty in driving" appeared as a supplementary reason. Conversely, nearly one-half of the responses which included "difficulty in parking"; (3) Nearly 93 percent of the time, households without an automobile selected "goods available locally" and "too far away" as their two reasons for not shopping in the main business district of the central city.

Table 5.--Percent of households which gave only one reason for not shopping in the main business district of the central city classified by size of SMSA, by reason given

Reason	Size of SMSA population group						Total
	Less than 250,000	250,000-499,999	500,000-999,999	1,000,000-1,999,999	2,000,000-2,999,999	3,000,000 and over	
Goods available locally	23.8	32.5	47.6	40.9	54.5	53.8	44.7
Too far away	6.9	8.0	8.6	16.9	16.0	20.4	14.4
Difficulty in parking	16.2	20.2	7.9	6.2	3.1	2.3	7.6
Difficulty in driving	*	5.4	4.3	5.4	2.3	1.7	2.9
No automobile	4.4	8.0	0.7	1.4	*	0.7	2.0
Other	40.9	17.5	27.6	25.8	21.0	16.8	23.7
Not available	7.8	8.4	3.3	3.4	3.1	4.3	4.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of households (000)	1,559	1,295	2,078	1,989	1,358	4,035	12,314

SOURCE: Based upon unpublished table, H-11, from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-1970.

\* Less than 0.1

FIGURE 3 - SMSA households which gave only one reason for not shopping downtown by SMSA size and reason given.

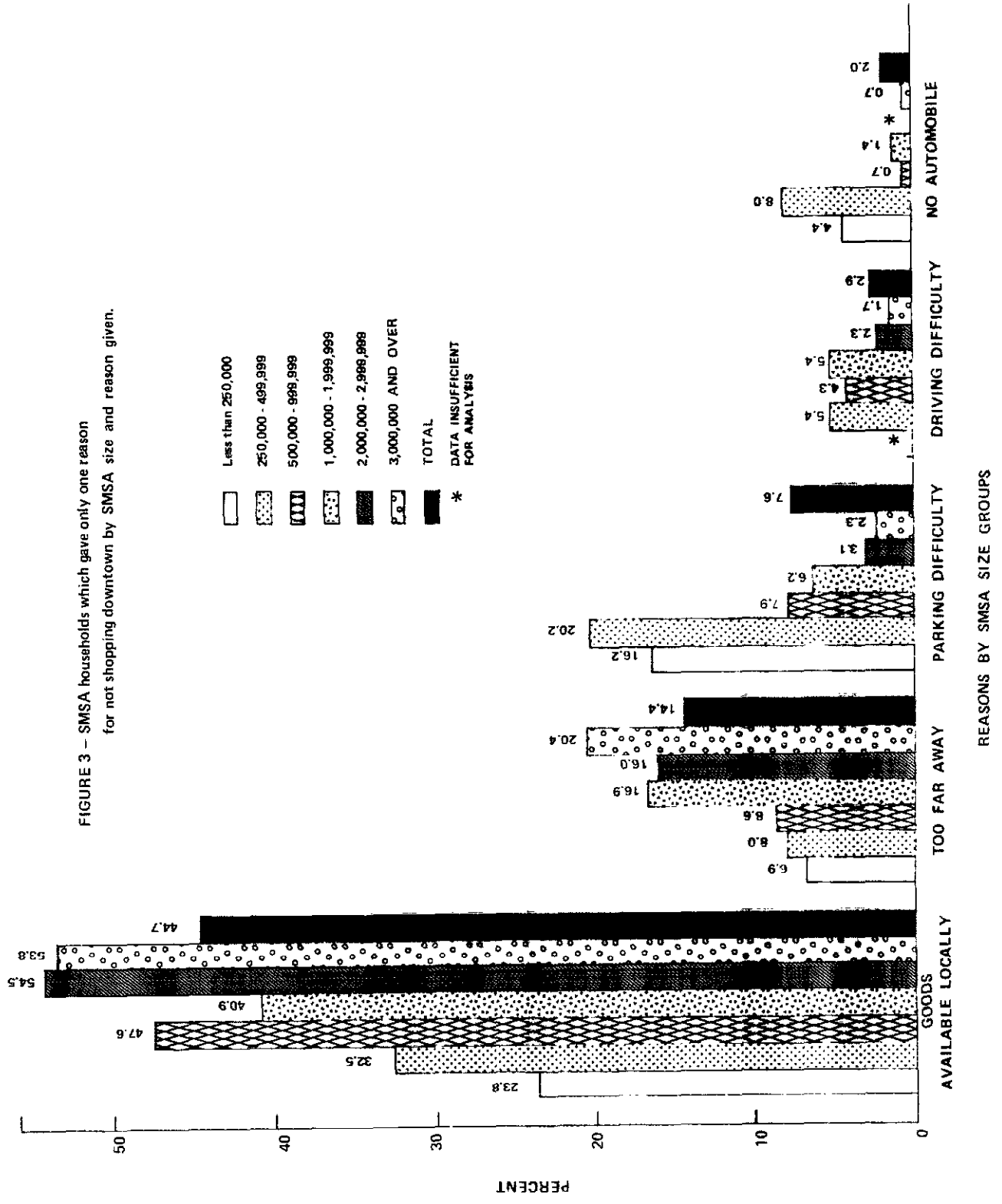


Table 6.--Percent of responses given by households which cited two reasons for not shopping in the main business district of the central city by SMSA size-groups and by reasons given

Reasons	Size of SMSA population group						Total
	Less than 250,000	250,000-499,999	500,000-999,999	1,000,000-1,999,999	2,000,000-2,999,999	3,000,000 and over	
Goods available locally	25.4	32.5	29.5	30.6	36.3	36.2	32.6
Too far away	10.2	19.7	21.0	26.0	22.2	35.1	25.0
Difficulty in parking	33.0	23.1	19.0	20.1	13.1	7.1	16.7
Difficulty in driving	11.2	12.9	10.0	11.8	12.0	7.4	10.4
No automobile	2.5	3.1	4.1	3.9	3.4	2.7	3.2
Other	17.7	8.7	16.4	7.6	13.0	11.5	12.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of responses (000)	1,672	2,314	3,125	3,239	2,367	5,297	18,014

SOURCE: Based upon unpublished table H-11 from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-70.

Table 7.--Percent of responses given by households which cited two reasons for not shopping in the main business district of the central city by "base" reason and by related reason

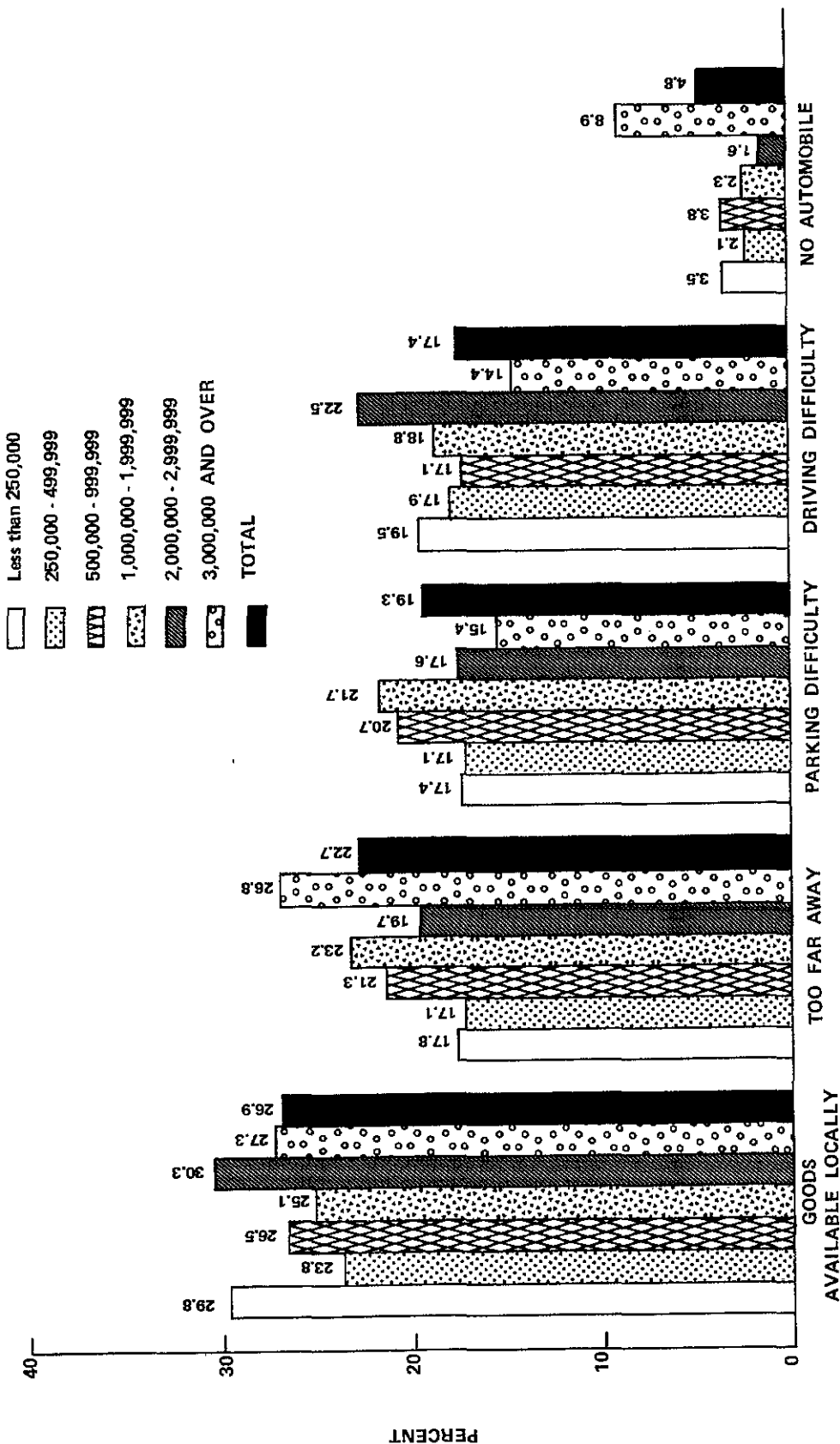
Base reason <sup>1/</sup>	Related reasons							Total	Number of responses (000)
	Goods available locally	Too far away	Parking difficulty	Driving difficulty	No automobile	Other	Total		
(1) Goods available locally	48.5	21.3	10.1	5.6	14.5	100.0	5,875		
(2) Too far away	63.2	9.5	6.5	4.8	16.0	100.0	4,514		
(3) Parking difficulty	41.5	29.1	*	*	15.1	100.0	3,012		
(4) Driving difficulty	32.0	47.2	*	*	5.1	100.0	1,860		
(5) No automobile	55.5	37.4	*	7.1	100.0	589			
(6) Other	39.4	21.0	4.4	1.9	100.0	2,164			
Total							18,014		

<sup>1/</sup> Each base reason in lines 1 through 6 is the reason to which all other reasons are related in turn.

\* Less than 0.1.

SOURCE: Based upon unpublished table H-11 from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-70.

FIGURE 5 — Percent of responses given by SMSA households which gave three or more reasons for not shopping downtown by SMSA size and reasons given.



REASONS BY SMSA SIZE GROUPS

Table 8 shows the distribution of the combination of reasons as a percent of the total reasons given by these households. The most important combination of reasons cited, "goods available locally" and the main business district is "too far away," appeared 32 percent of the time; "goods available locally" and "parking difficulty" 14 percent of the time; and "parking and driving difficulties" 10 percent; less than 4 percent of the responses included "no automobile" and "goods available locally" as the two reasons for not shopping in the main business district.

#### Three or more reasons

Table 9 presents data for those households which supplied three or more reasons for not shopping in the main business district of the central city. As illustrated in figure 5, the reasons are more evenly distributed than those shown in figure 4. Nearly 27 percent of the responses included the availability of goods locally as the most important reason. Some 23 percent of the responses indicated that the main business district of the central city is too far away. Difficulty in parking appeared nearly 20 percent of time and difficulty in driving appeared almost 18 percent of the time.

#### Summary

Only 22 percent of all households shop in the main business district of the central city. Those households which do not shop in the main business district tend to agree that the availability of goods locally, the distance to the main business district of the central city as well as parking and driving difficulties constitute the major reasons why they do not shop downtown. The lack of an automobile does not appear to affect downtown shopping patterns.



Table 8.--Percent of responses given by households which cited two reasons for not shopping in the central city classified by the two reasons

Reasons	Reasons						Total
	Goods available locally	Too far away	Parking difficulty	Driving difficulty	No automobile	Other	
Goods available locally		31.6	13.9	6.6	3.6	9.5	32.6
Too far away			4.8	3.2	2.4	8.0	25.0
Parking difficulty				9.8	0	5.0	16.7
Driving difficulty					0	1.1	10.4
No automobile						0.5	3.2
Other							12.1
Total							100.0*

\* 18,014,000 responses

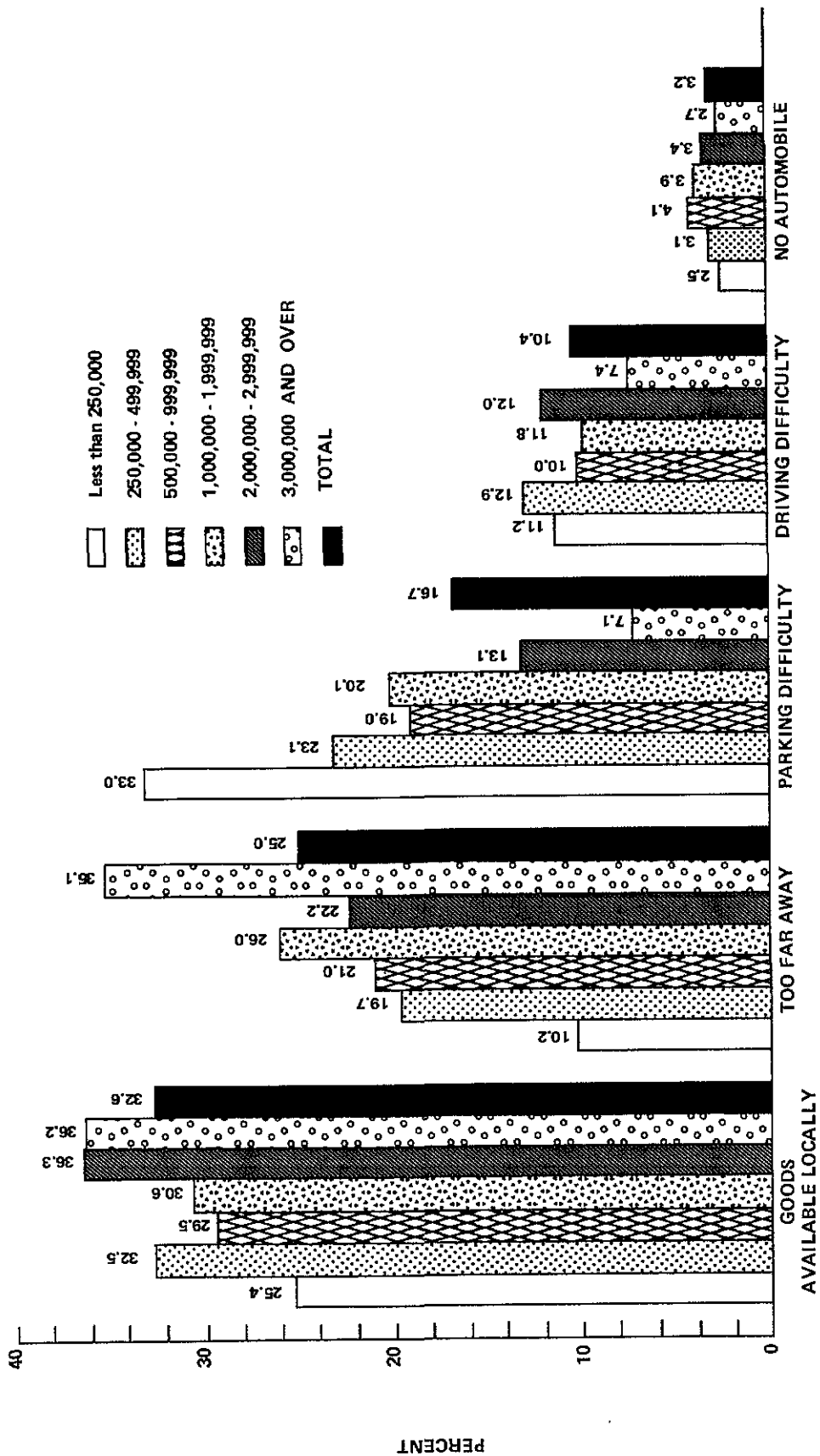
SOURCE: Based upon unpublished table H-11 from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-70.

Table 9.--Percent of responses given by households which cited three or more reasons for not shopping in the main business district of the central city by SMSA size groups and reasons

Reasons	Size of SMSA population group						Total
	Less than 250,000	250,000-499,999	500,000-999,999	1,000,000-1,999,999	2,000,000-2,999,999	3,000,000 and over	
Goods available locally	29.8	23.8	26.5	25.1	30.3	27.3	26.9
Too far away	17.8	17.1	21.3	23.2	19.7	26.8	22.7
Difficulty in parking	17.4	28.5	20.7	21.7	17.6	15.4	19.3
Difficulty in driving	19.5	17.9	17.1	18.8	22.5	14.4	17.4
No automobile	3.5	2.1	3.8	2.3	1.6	8.9	4.8
Other	12.0	10.6	10.6	8.9	8.3	7.2	8.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of responses (000)	825	1,388	2,518	2,859	1,659	4,692	13,941

SOURCE: Based upon unpublished table H-11 from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-70.

FIGURE 4 — Percent of responses given by SMSA households which gave two reasons for not shopping downtown by SMSA size and reasons given.



REASONS BY SMSA SIZE GROUPS

The larger the SMSA, the greater the distance to the main business district and the greater availability of goods locally; these two major reasons were cited by households for not shopping in the downtown business district. On the other hand, parking and driving difficulties become less a factor in determining if a household shops in the main business district of the central city.

## APPENDIX A

### Sample base for Nationwide Personal Transportation Survey

The following are the major series of tables and the sample base for tables developed from the survey. Each of the tables in any of these reports will indicate a reference source from which the sample base can be determined.

1. H-series, E-series, and T-9 through T-16

These tables relate to data collected in Sections I through V of the questionnaire. The tables are based upon a sample of approximately 6,000 households, approximately 3,000 from panel 1 interviewed in April 1969, and approximately 3,000 from panel 2 interviewed in August 1969. Each of these panels were expanded to national estimates. For purposes of all tables referred to in any of these reports, the expanded data from the two panels were averaged.

2. P-series and T-1 through T-8

These tables relate to data collected in Section VI. Data from four interviews at the identical households in panel 1, (approximately 3,000 households were interviewed in April, July, October 1969, and January 1970) were combined and expanded to represent annual estimates of trips and travel by automobile or other forms of public transportation.

## APPENDIX A

### Major sections of questionnaire

The following are the main sections of the questionnaire:

1. The data reported in items a through t above Section 1 of the questionnaire form were transcribed from the control card.
2. Section I - Automobile Record.
3. Section II - Shopping and nearness to public transportation to main business district by residents of Standard Metropolitan Statistical Areas.
4. Section III - Travel to work for all employed persons 16 years or older.
5. Section IV - Driver information or estimated annual miles driven by licensed drivers.
6. Section V - Travel to school for persons between 5 and 18 years of age and attending school. For panel 2 of the households interviewed in August 1969, the interviewer asked for the travel to school information for the preceding May.
7. Section VI - Travel day report. All one-way trips by motor vehicle or some form of public transportation taken by persons 5 years of age or older were reported for a pre-assigned reference day. The reference days were all in a one-week period in each of the months of interviewing and all weekdays and weekends were represented. Generally, the interviewer visited all households the first weekday after the reference day in order to minimize memory errors.
8. Section VII - Overnight travel record of all trips lasting one or more nights during the 7 days ending the day before the preassigned travel day. Insufficient data were collected in this section to permit detailed analyses.

BUDGET BUREAU NO. 41-569011  
APPROVAL EXPIRES DECEMBER 1970

NOTICE - All information which would permit identification of the individual will be held in strict confidence, will be used only by persons engaged in and for the purposes of the survey, and will not be disclosed or released to others for any purposes.

FORM NPT-2  
(7-10-69)

U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
ACTING AS COLLECTING AGENT FOR THE  
U.S. DEPARTMENT OF TRANSPORTATION

**HOUSEHOLD QUESTIONNAIRE - AUGUST 1969**  
**NATIONWIDE PERSONAL TRANSPORTATION SURVEY**

a. Ident. Code	b. Household No.	c. Control No.				PSU	Rot.	Segment	Serial	Str.
d. Type of structure		e. Race		f. SMSA		g. Place		h. State		
i. Subsample		j. Designated travel day Day of week			k. No. of hhd. members (all ages)		l. Number of automobiles			
m. Automobile				n. Principal user Line No.		o. (If no automobile) 1 <input type="checkbox"/> Auto available 2 <input type="checkbox"/> Not available		p. Income		r. OFFICE USE
Auto No.	Year	Make	Office use					q. Interviewer's code		
s. Date of interview		1. Noninterview reason		1 <input type="checkbox"/> NOH 2 <input type="checkbox"/> TA		3 <input type="checkbox"/> Ref. 4 <input type="checkbox"/> Other Type A		5 <input type="checkbox"/> Other type - Specify		

(Fill in a, b, c, f, g, h, i, j, q.)

**Section I - AUTOMOBILE RECORD**

Now I have some questions about your -- (first, second, etc., automobile)	Auto No.	Auto No. ← ②	Auto No.
1. Is it owned by somebody living here?	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (Go to Q. 3)	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (Go to Q. 3)	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (Go to Q. 3)
2a. Was it purchased new or used?	1 <input type="checkbox"/> New 2 <input type="checkbox"/> Used	1 <input type="checkbox"/> New 2 <input type="checkbox"/> Used	1 <input type="checkbox"/> New 2 <input type="checkbox"/> Used
b. In what month and year was it bought? (Examples: 10/67, 04/68)	Month Year	Month Year	Month Year
3. About how many thousand miles was it driven during the past 12 months?	Miles (Thousands)	Miles (Thousands)	Miles (Thousands)
4. Is it used at least once a week in going from home to work?	1 <input type="checkbox"/> Yes - Entire trip 2 <input type="checkbox"/> Yes - Part-way 3 <input type="checkbox"/> No (Go to next auto or Sec. II)	1 <input type="checkbox"/> Yes - Entire trip 2 <input type="checkbox"/> Yes - Part-way 3 <input type="checkbox"/> No (Go to next auto or Sec. II)	1 <input type="checkbox"/> Yes - Entire trip 2 <input type="checkbox"/> Yes - Part-way 3 <input type="checkbox"/> No (Go to next auto or Sec. II)
5. How many people are usually in the automobile going to work, including the driver?	Number	Number	Number
CODE KEY →			
1 - Commercial parking garage or lot			
2 - Employer provided space			
3 - Fringe parking			
4 - Other lot or garage			
5 - On the street			
6 - No all-day parking used			
7 - Other			
6a. What type of parking facility is usually used for the trip to work - the employer's lot, a commercial lot, on the street, or what?			
(If code 6, go to next auto or Sec. II)			
b. Is there a cost for parking?	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (Go to next auto or Sec. II)	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (Go to next auto or Sec. II)	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (Go to next auto or Sec. II)
c. How much?	\$ 1 <input type="checkbox"/> Day 2 <input type="checkbox"/> Week 3 <input type="checkbox"/> Month	\$ 1 <input type="checkbox"/> Day 2 <input type="checkbox"/> Week 3 <input type="checkbox"/> Month	\$ 1 <input type="checkbox"/> Day 2 <input type="checkbox"/> Week 3 <input type="checkbox"/> Month
d. Does ... pay by putting coins into a meter?	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No

**Section II - SHOPPING**  
ASK for SMSA residents only - 1 or 2 as second digit of identification code

Now we are interested in where people shop - (Ask 1 only for (1) wife or (2) female head or (3) male head)	1 <input type="checkbox"/> Yes → How many times? _____ (Go to Q. 3) 2 <input type="checkbox"/> No
1. During the past 3 months has ... gone to the main business district of _____ principally to shop?	
2. What were the reasons for not shopping there? (Mark all boxes that apply)	1 <input type="checkbox"/> Goods available locally 2 <input type="checkbox"/> Too far away 3 <input type="checkbox"/> Difficulty of parking 4 <input type="checkbox"/> Difficulty of driving in congested area 5 <input type="checkbox"/> No automobile 6 <input type="checkbox"/> Other - Specify
3. How far is it from home to the nearest public transportation line to go to the main business district of _____?	1 <input type="checkbox"/> Less than one block 2 <input type="checkbox"/> 1-2 blocks (less than 1/4 mile) 3 <input type="checkbox"/> 3-6 blocks (1/4 - 1/2 mile) 4 <input type="checkbox"/> Over 6 blocks (over 1/2 mile) 5 <input type="checkbox"/> No public transportation available 6 <input type="checkbox"/> Lives in main business district

3		Section III - TRAVEL TO WORK	
1. Line No.	2. CHECK ITEM		
	<input type="checkbox"/> This person is 16 years old or older and has an entry in Control Card question 16b <i>(Fill in Sec. III, IX, and X.)</i> <input type="checkbox"/> All others (Fill in Sec. IV, and X as appropriate)		
We are interested in where people work and how they get to work.		1 <input type="checkbox"/> Yes -> What city? _____	
3. Is the place where . . . works located in a city?		2 <input type="checkbox"/> No 3 <input type="checkbox"/> Don't know State? _____	
4. How far is it from home to the place where . . . works? (Actual travel distance)		Miles 1X <input type="checkbox"/> No fixed place } 2X <input type="checkbox"/> At home } (See VI) 3X <input type="checkbox"/> Less than 1/2 mile (5 blocks)	
5. How much time is usually required for . . . to get to work from the time he leaves until he arrives at work?		Minutes	
6. How does . . . usually get to work? <i>(Mark all boxes that apply.)</i>		1 <input type="checkbox"/> Bus or street car 2 <input type="checkbox"/> Commuter train, subway, elevated, etc. 3 <input type="checkbox"/> Automobile - with other persons 4 <input type="checkbox"/> Automobile - alone 5 <input type="checkbox"/> Truck 6 <input type="checkbox"/> Motorcycle 7 <input type="checkbox"/> Walk, bicycle, etc. 8 <input type="checkbox"/> Other, including bicycle, specify: _____	
7. How far is it from home to the nearest public transportation line that . . . uses (could use) to get to his place of work?		1 <input type="checkbox"/> Less than 1 block 2 <input type="checkbox"/> 1 to 2 blocks (less than 1/4 mile) 3 <input type="checkbox"/> 3 to 6 blocks (1/4 to 1/2 mile) 4 <input type="checkbox"/> Over 6 blocks (over 1/2 mile) 5 <input type="checkbox"/> None available	
<i>(Ask if boxes 1 and/or 2 - is not marked in Q. 6.)</i>			
8. What is the reason . . . does not use public transportation to go to work? Anything else? <i>(Mark all boxes that apply.)</i>		1 <input type="checkbox"/> None available 2 <input type="checkbox"/> Not convenient to get to 3 <input type="checkbox"/> Not convenient to place of work 4 <input type="checkbox"/> Too many transfers 5 <input type="checkbox"/> Too expensive 6 <input type="checkbox"/> Too crowded or uncomfortable 7 <input type="checkbox"/> Takes too long 8 <input type="checkbox"/> Need auto for work 9 <input type="checkbox"/> Other - specify: _____	
<i>(Ask if either box 1 or 2 - is marked in Q. 6.)</i>			
9. What is the reason . . . uses public transportation to get to work? Anything else? <i>(Mark all boxes that apply.)</i>		1 <input type="checkbox"/> No driver's license 2 <input type="checkbox"/> No car available 3 <input type="checkbox"/> No car pool available 4 <input type="checkbox"/> Cheaper than auto 5 <input type="checkbox"/> Safer than auto 6 <input type="checkbox"/> No parking problems 7 <input type="checkbox"/> No driving strain 8 <input type="checkbox"/> Faster 9 <input type="checkbox"/> Other - specify: _____	
<i>(Ask for persons 21 years old or older)</i>			
10a. Does . . . work at same location as 5 years ago?		1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No	
b. Does . . . live at same location as 5 years ago?		1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No	
c. Compared with the time it took . . . to get to work 5 years ago, is the time to work:		1 <input type="checkbox"/> About the same as 5 years ago 2 <input type="checkbox"/> At least 10 minutes more 3 <input type="checkbox"/> At least 10 minutes less	
Section IV - DRIVER INFORMATION			
<i>(Ask for licensed drivers only)</i>			
1. About how many thousands of miles did . . . drive during the past 12 months, including driving as part of work?		1 <input type="checkbox"/> None 2 <input type="checkbox"/> Under 5,000 3 <input type="checkbox"/> 5,000 - 9,999 4 <input type="checkbox"/> 10,000 - 14,999 5 <input type="checkbox"/> 15,000 - 19,999 6 <input type="checkbox"/> 20,000 - 24,999 7 <input type="checkbox"/> 25,000 - 29,999 8 <input type="checkbox"/> 30,000 and over	
Section V - TRAVEL TO SCHOOL			
<i>(Ask Sec. V for persons 5-18 years old)</i>			
Now I would like to ask some questions about transportation to school.			
1. Last May was . . . attending or enrolled in school?		1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (See VI)	
2. Was it a public or private school?		1 <input type="checkbox"/> Public 2 <input type="checkbox"/> Private	
3. What grade was . . . attending?		Grade _____ <i>(Enter "K" for kindergarten)</i>	
4. About how many miles was it from home to . . . 's school? <i>(If less than one mile enter "0")</i>		Miles	
5. About how long did it take . . . to get from home to school?		Minutes	
6. How did . . . usually get to school? <i>(Mark only one box)</i>		1 <input type="checkbox"/> School bus - No charge 2 <input type="checkbox"/> Public transportation - No charge 3 <input type="checkbox"/> School bus - Charge 4 <input type="checkbox"/> Public transportation - Charge 5 <input type="checkbox"/> Walk, bicycle 6 <input type="checkbox"/> Automobile - Driver 7 <input type="checkbox"/> Automobile - Passenger 8 <input type="checkbox"/> Motorcycle 9 <input type="checkbox"/> Other	
7. Was free school bus or free public transportation available?		1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No	



Section VI - TRAVEL DAY REPORT							
a. Line No.	b. Age	c. Sex 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female	d. Employment status (C.C. 16a) 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No	e. Occupation (C.C. 16b)	f. Retired Code (C.C. 17)	g. Licensed driver (C.C. 18) 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No	
<p>Now I have some questions about the trips taken on _____. A trip is anytime you went from one place to another by motor vehicle or some form of public transportation. For example, going to work by automobile would be one trip, going to lunch by automobile would be a second trip, returning to work from lunch would be a third trip.</p> <p>Reference day is from 4:00 a.m. to 3:59 a.m. the following day</p>							
1. Did ... go any place at anytime on _____?		1 <input type="checkbox"/> Yes - One or more trips not previously reported (Fill columns) 2 <input type="checkbox"/> Yes - All previously reported 3 <input type="checkbox"/> No					
2. At what time did ... start the (1st, next) trip he took on _____?		Trip 1		Trip 2		Trip 3	
		1 <input type="checkbox"/> a.m. 2 <input type="checkbox"/> p.m.		1 <input type="checkbox"/> a.m. 2 <input type="checkbox"/> p.m.		1 <input type="checkbox"/> a.m. 2 <input type="checkbox"/> p.m.	
3. How far is it from where ... started to where he went?		Miles 0 <input type="checkbox"/> Less than 1/2 mile (5 blocks)		Miles 0 <input type="checkbox"/> Less than 1/2 mile (5 blocks)		Miles 0 <input type="checkbox"/> Less than 1/2 mile (5 blocks)	
4. How long did it take to get there?		1 <input type="checkbox"/> 15 min. or less 2 <input type="checkbox"/> 16-30 min. 3 <input type="checkbox"/> 31-45 min. 4 <input type="checkbox"/> 46 min.-1 hr. 5 <input type="checkbox"/> Bet. 1 and 2 hrs. 6 <input type="checkbox"/> 2 hrs. or more		1 <input type="checkbox"/> 15 min. or less 2 <input type="checkbox"/> 16-30 min. 3 <input type="checkbox"/> 31-45 min. 4 <input type="checkbox"/> 46 min.-1 hr. 5 <input type="checkbox"/> Bet. 1 and 2 hrs. 6 <input type="checkbox"/> 2 hrs. or more		1 <input type="checkbox"/> 15 min. or less 2 <input type="checkbox"/> 16-30 min. 3 <input type="checkbox"/> 31-45 min. 4 <input type="checkbox"/> 46 min.-1 hr. 5 <input type="checkbox"/> Bet. 1 and 2 hrs. 6 <input type="checkbox"/> 2 hrs. or more	
5. What was the main reason for this trip? <i>(If "return home" enter the main purpose of the outgoing trip(s), plus "R.H.") (Enter one code.)</i>		<b>CODE KEY</b> → 1. To work                      5. To school or church                      9. Pleasure driving 2. Business, other than to work      6. To doctor or dentist                      10. Other social or recreational 3. Shopping                      7. Vacation                      11. Other 4. Other family or personal business      8. Visit friends or relatives                      Return home (reclassification required)					
		Trip 1		Trip 2		Trip 3	
		Code		Code		Code	
6. In addition to ... did anyone else living here go on this trip? <i>(List line numbers of other household members 5 years old or older who went on this trip.)</i>		0 <input type="checkbox"/> No others Line numbers		0 <input type="checkbox"/> No others Line numbers		0 <input type="checkbox"/> No others Line numbers	
7. What means of transportation were used for this trip? <i>(If more than one, cite the major means.)</i>		<b>CODE KEY</b> → 1. School bus                      5. Airplane                      9. Motorcycle or motor bike 2. Other bus and/or street car      6. Taxi                      10. Truck (including pick-up) 3. Elevated or subway                      7. Automobile - Driver                      11. Other 4. Other train                      8. Automobile - Passenger					
		Trip 1		Trip 2		Trip 3	
		Code		Code		Code	
8. Was public transportation for this trip available within 6 blocks (1/2 mile)?		1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Don't know		1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Don't know		1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Don't know	
9. What automobile was used? <i>(Complete questions 9-12 if code 7 or 8 was entered in Q. 7) (Transcribe automobile number from C.C.)</i>		Automobile No. or 9 <input type="checkbox"/> Not an auto listed on the C.C.		Automobile No. or 9 <input type="checkbox"/> Not an auto listed on the C.C.		Automobile No. or 9 <input type="checkbox"/> Not an auto listed on the C.C.	
10. Who drove the automobile for this trip?		Line No. 99 <input type="checkbox"/> Not a household member		Line No. 99 <input type="checkbox"/> Not a household member		Line No. 99 <input type="checkbox"/> Not a household member	
11. Was parking free for this trip?		1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Did not park 4 <input type="checkbox"/> Don't know		1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Did not park 4 <input type="checkbox"/> Don't know		1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Did not park 4 <input type="checkbox"/> Don't know	
12. How many people were in the automobile including the driver? <i>(Do not include children under 5 and non-household members.)</i>		Number 0 <input type="checkbox"/> Don't know		Number 0 <input type="checkbox"/> Don't know		Number 0 <input type="checkbox"/> Don't know	
13. Did ... go anywhere else on _____?		1 <input type="checkbox"/> Yes - One or more trips not recorded (Go to next column) 2 <input type="checkbox"/> Yes - All trips recorded (Go to Q. 14a) 3 <input type="checkbox"/> No		1 <input type="checkbox"/> Yes - One or more trips not recorded (Go to next column) 2 <input type="checkbox"/> Yes - All trips recorded (Go to Q. 14a) 3 <input type="checkbox"/> No		1 <input type="checkbox"/> Yes - One or more trips not recorded (Go to next column) 2 <input type="checkbox"/> Yes - All trips recorded (Go to Q. 14a) 3 <input type="checkbox"/> No	
14a. During the 7 days ending (the day before travel day) did ... return home from a trip after being away from home one or more nights?		1 <input type="checkbox"/> Yes - One or more trips not previously reported (Go to 14b) 2 <input type="checkbox"/> Yes - All trips previously reported } <i>Fill Sections III-VI for next person 5 years old or older</i> 3 <input type="checkbox"/> No					
b. How many such trips ended during the 7 days?		Number (Go to Sec. VII)					

**Section VII - OVERNIGHT TRAVEL**

OUTBOUND TRIP	Trip 1	Trip 2	Trip 3
	Line No. 9	Line No. 10	Line No. 11
1. How many miles is it from home to where . . . went? (To farthest point)	Miles	Miles	Miles
2. How much time did . . . spend getting there? (Total time from home to farthest point, not just travel time) (Enter nearest full hour or day)	1 <input type="checkbox"/> Hours 2 <input type="checkbox"/> Days	1 <input type="checkbox"/> Hours 2 <input type="checkbox"/> Days	1 <input type="checkbox"/> Hours 2 <input type="checkbox"/> Days
3. What time of day did the trip start?	1 <input type="checkbox"/> a.m. 2 <input type="checkbox"/> p.m.	1 <input type="checkbox"/> a.m. 2 <input type="checkbox"/> p.m.	1 <input type="checkbox"/> a.m. 2 <input type="checkbox"/> p.m.
4. On what day of the week did the trip start?	1 <input type="checkbox"/> Sun. 5 <input type="checkbox"/> Thurs. 2 <input type="checkbox"/> Mon. 6 <input type="checkbox"/> Fri. 3 <input type="checkbox"/> Tues. 7 <input type="checkbox"/> Sat. 4 <input type="checkbox"/> Wed.	1 <input type="checkbox"/> Sun. 5 <input type="checkbox"/> Thurs. 2 <input type="checkbox"/> Mon. 6 <input type="checkbox"/> Fri. 3 <input type="checkbox"/> Tues. 7 <input type="checkbox"/> Sat. 4 <input type="checkbox"/> Wed.	1 <input type="checkbox"/> Sun. 5 <input type="checkbox"/> Thurs. 2 <input type="checkbox"/> Mon. 6 <input type="checkbox"/> Fri. 3 <input type="checkbox"/> Tues. 7 <input type="checkbox"/> Sat. 4 <input type="checkbox"/> Wed.
5. What was the main reason for the trip? (Enter code)	Code Key →		
	1. To work 2. Business - Other than to work 3. Shopping 4. Other family or personal business 5. To school or church 6. To doctor or dentist 7. Vacation 8. Visit friends or relatives 9. Pleasure driving 10. Other social or recreational 11. Other		
6. What means of transportation were used? (Enter codes) <i>(Include all means such as transportation to and from terminals as well as major means, circle major means.)</i>	Code Key →		
	1. School bus 2. Other bus and/or street car 3. Elevated or subway 4. Other train 5. Airplane 6. Taxi 7. Automobile - Driver 8. Automobile - Passenger 9. Motorcycle or motorbike 10. Truck (including pick-up) 11. Other		
7. What automobile was used? <i>(If either code 7 or 8 has been entered in Q. 6 complete questions 7-9)</i> <i>(Transcribe automobile number from C.C.)</i>	Auto No. ----- or 9 <input type="checkbox"/> Not an auto listed on the C.C.	Auto No. ----- or 9 <input type="checkbox"/> Not an auto listed on the C.C.	Auto No. ----- or 9 <input type="checkbox"/> Not an auto listed on the C.C.
8. Who drove the automobile? <i>(If more than one driver, enter the line number of the person who drove the most miles)</i>	Driver Line No. ----- or 99 <input type="checkbox"/> Not a household member	Driver Line No. ----- or 99 <input type="checkbox"/> Not a household member	Driver Line No. ----- or 99 <input type="checkbox"/> Not a household member
9. How many people were in the automobile, including the driver? (Include children under 5 and non-household members)	Number	Number	Number
RETURN TRIP	Trip 1	Trip 2	Trip 3
10. How many nights were you away from home?	Number	Number	Number
11. How much time did . . . spend on the return trip? (Enter nearest full hour or day)	1 <input type="checkbox"/> Hours 2 <input type="checkbox"/> Days	1 <input type="checkbox"/> Hours 2 <input type="checkbox"/> Days	1 <input type="checkbox"/> Hours 2 <input type="checkbox"/> Days
12. What time of day did . . . start on the return trip?	1 <input type="checkbox"/> a.m. 2 <input type="checkbox"/> p.m.	1 <input type="checkbox"/> a.m. 2 <input type="checkbox"/> p.m.	1 <input type="checkbox"/> a.m. 2 <input type="checkbox"/> p.m.
13. On what day of the week did . . . start on the return trip?	1 <input type="checkbox"/> Sun. 5 <input type="checkbox"/> Thurs. 2 <input type="checkbox"/> Mon. 6 <input type="checkbox"/> Fri. 3 <input type="checkbox"/> Tues. 7 <input type="checkbox"/> Sat. 4 <input type="checkbox"/> Wed.	1 <input type="checkbox"/> Sun. 5 <input type="checkbox"/> Thurs. 2 <input type="checkbox"/> Mon. 6 <input type="checkbox"/> Fri. 3 <input type="checkbox"/> Tues. 7 <input type="checkbox"/> Sat. 4 <input type="checkbox"/> Wed.	1 <input type="checkbox"/> Sun. 5 <input type="checkbox"/> Thurs. 2 <input type="checkbox"/> Mon. 6 <input type="checkbox"/> Fri. 3 <input type="checkbox"/> Tues. 7 <input type="checkbox"/> Sat. 4 <input type="checkbox"/> Wed.
14. What means of transportation were used? (Enter codes) <i>(Include all means such as transportation to and from terminals as well as major means, circle major means.)</i>	Code Key →		
	1. School bus 2. Other bus and/or street car 3. Elevated or subway 4. Other train 5. Airplane 6. Taxi 7. Automobile - Driver 8. Automobile - Passenger 9. Motorcycle or motorbike 10. Truck (including pick-up) 11. Other		
15. Who drove the automobile? <i>(If more than one driver, enter the Line No. of the person who drove the most miles)</i>	Driver Line No. ----- or 9 <input type="checkbox"/> Not a household member	Driver Line No. ----- or 9 <input type="checkbox"/> Not a household member	Driver Line No. ----- or 9 <input type="checkbox"/> Not a household member
16. How many people were in the automobile on the return trip, including the driver? (Include children under 5 and non-household members)	Number	Number	Number
17. In addition to . . . , did anyone else living here go on this trip both outbound and return? (If outbound or return only, enter the trip in a separate column) <i>(List line numbers of other household members 5 years old or older who went on this round trip)</i>	Code Key →		
	a <input type="checkbox"/> No others o <input type="checkbox"/> No others 0 <input type="checkbox"/> No others		
	Line Numbers	Line Numbers	Line Numbers

APPENDIX B

Table II.A.-1.--Estimated standard errors for estimates for households

Estimated total (000)	Estimated standard error (1 sigma) (000)
25	25
50	29
100	40
150	49
200	57
250	64
300	70
500	90
750	110
1,000	127
1,500	155
2,000	178
3,000	217
5,000	276
7,500	333
10,000	378
15,000	447
20,000	496
25,000	532
30,000	556
35,000	571

## APPENDIX B

Table II.A.-2.--Estimated standard errors for percentages for households

Base of percentage (000)	Estimated percentage					
	1 or 99%	5 or 95%	10 or 90%	20 or 80%	25 or 75%	50%
100	-	-	-	16.1	17.5	20.2
150	-1	-	9.9	13.2	14.3	16.5
200	-	-	8.6	11.4	12.4	14.3
250	-	5.6	7.6	10.2	11.0	12.8
300	-	5.1	7.0	9.3	10.1	11.6
500	1.8	3.9	5.4	7.2	7.8	9.0
750	1.5	3.2	4.4	5.9	6.4	7.4
1,000	1.3	2.8	3.8	5.1	5.5	6.4
1,500	1.0	2.3	3.1	4.2	4.5	5.2
2,000	.9	2.0	2.7	3.6	3.9	4.5
3,000	.7	1.6	2.2	2.9	3.2	3.7
5,000	.6	1.2	1.7	2.3	2.5	2.8
7,500	.5	1.0	1.4	1.9	2.0	2.3
10,000	.4	.9	1.2	1.6	1.7	2.0
15,000	.3	.7	1.0	1.3	1.4	1.6
20,000	.3	.6	.9	1.1	1.2	1.4
25,000	.3	.6	.8	1.0	1.1	1.3
30,000	.2	.5	.7	.9	1.0	1.2
35,000	.2	.5	.6	.9	.9	1.1
50,000	.2	.4	.5	.7	.8	.9
63,000	.2	.4	.5	.6	.7	.8