



**NATIONWIDE  
PERSONAL  
TRANSPORTATION  
STUDY**

**Transportation Characteristics  
of School Children**

REPORT NO. **4**  
JULY 1972

U.S. Department of Transportation • Federal Highway Administration

NATIONWIDE PERSONAL TRANSPORTATION STUDY

Transportation Characteristics  
of School Children

Report No. 4

Darrell A. Beschen, Jr.  
Program Assistant  
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 travel patterns to school of students between 5 and 18 years of age in kindergarten through grade 12. Only students living at home at the time of the survey were included in the data. These data were collected in section V of form NPT-2 used in the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration in 1969-1970.

For the analysis in this report, students were classified according to three grade levels: elementary (kindergarten through sixth); intermediate (seventh and eighth), and senior (ninth through twelfth). For each grade level, home-to-school travel by various modes of transportation is analyzed in terms of distance to school (miles) and time from home-to-school (minutes). These comparisons are shown separately for residents of all areas and places, all unincorporated areas, and all incorporated places. Limited data are also shown separately for students attending public and private schools, by grade level and distance from home-to-school.

### HIGHLIGHTS

- Walk/bicycle and school bus were the most widely used modes of transportation for students; 42 percent walked/bicycled; approximately 38 percent of all students used the school bus; 16 percent were driven to school; 3 percent used public transportation; and 2 percent of the students drove to school.
- Over two-thirds of all students made the one-way trip to school in less than 20 minutes.
- As students progressed from elementary to intermediate to senior grade levels, the distance and travel time from home-to-school increased.
- For each of the three grade levels, students who resided in incorporated places traveled shorter distances and took less time to get to school than did students from unincorporated areas.

## 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 1930-1940 and more recently between 1951-1959. In April, 1961, a national survey was conducted to estimate characteristics of travel and ownership and use of automobiles. In this national survey, family income data were available which could be related to travel patterns.

### Survey procedures

Data for the Nationwide Personal Transportation Survey were collected in 1969-1970 by the Bureau of the Census of the Department of Commerce for the Federal Highway Administration of the Department of Transportation.

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 containing one or more PSU's that were 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-institutionalized 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 field offices to clear up inconsistencies and omissions and

later in the Washington office. The data were then coded, put on tapes and mechanically edited. 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 were 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 of the questionnaire were completed at subsequent interviews at the households in panel 1.

Each of the tables in this report will indicate a reference source to a particular table from which the sample base can be determined. These sample bases are identified in Appendix A. A copy of the questionnaire is also found in the Appendix.

### 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, 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 I.A.-1 and I.-A.2 in Appendix B give the standard errors for specified percentages and base values. The appropriate standard error may be determined by interpolation. In general, the chances are about two out of three that the difference due to sampling variability between the estimated value 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, coding, and editing were exercised by the Bureau of the Census.

## TRANSPORTATION CHARACTERISTICS OF SCHOOL CHILDREN

### Modes of transportation to school

The modes of transportation used by children to get to school include the school bus, public transportation, walk/bicycle, and the automobile (as a driver or passenger). The school bus and public transportation may be either "charge" or "no charge." Where a community school bus was tax supported or when there was no separate fee for the service, the school bus was considered "no charge." Where a bus facility was available for an increase in general school fee, or when the student was charged for the service by an agent other than the school, the school bus was considered as "charge." Free or "no charge" public transportation is government or commercially provided without receipt of payment from the student; public transportation was not free when the privilege must have been paid for by the ride or some other arrangement.

Figure 1 depicts the distributions of the modes of travel to school for all population groups, independent of distance traveled from home to school. Approximately 38 percent of all students used the school bus, 3 percent used public transportation, 42 percent walked/bicycled, 14 percent were driven to school and 2 percent of the students drove to school. Thus, these data indicate that 62 percent of the students (comprised primarily of the 42 percent who walked/bicycled and 16 percent who rode in an automobile) made their way to school without using the school system's transportation facilities. Table 1 shows in greater depth the transportation modes used by all school children, classified by grade level and distance to school.

The percentage of students that rode the "no-charge" school bus remained relatively constant, averaging approximately 38 percent, varying little over the three grade levels. On the other hand, the percentage of students that walked/bicycled dropped from 49 percent for elementary school children to 26 percent for senior high students. As would be expected, the percentage of children who used the school bus varied directly with the distance from home to school; the percentage of students that walked/bicycled to school varied inversely with distance. Automobile passenger, the third most frequently occurring transportation mode, remained at 12 percent for both elementary and intermediate levels. At the senior level, the number of automobile passengers increased to 20 percent and the automobile driver made a showing, although only 8 percent of the students drove themselves.

### Time and distance to school

Tables 2A and 2B display school trip distributions for students residing in all areas and places classified by one-way mileage distance and travel time from home-to-school, respectively. Separate tables are shown for residents of all incorporated places (tables 3A and 3B) and unincorporated areas (tables 4A and 4B).

FIGURE 1.  
 MODES OF TRAVEL USED BY ALL STUDENTS

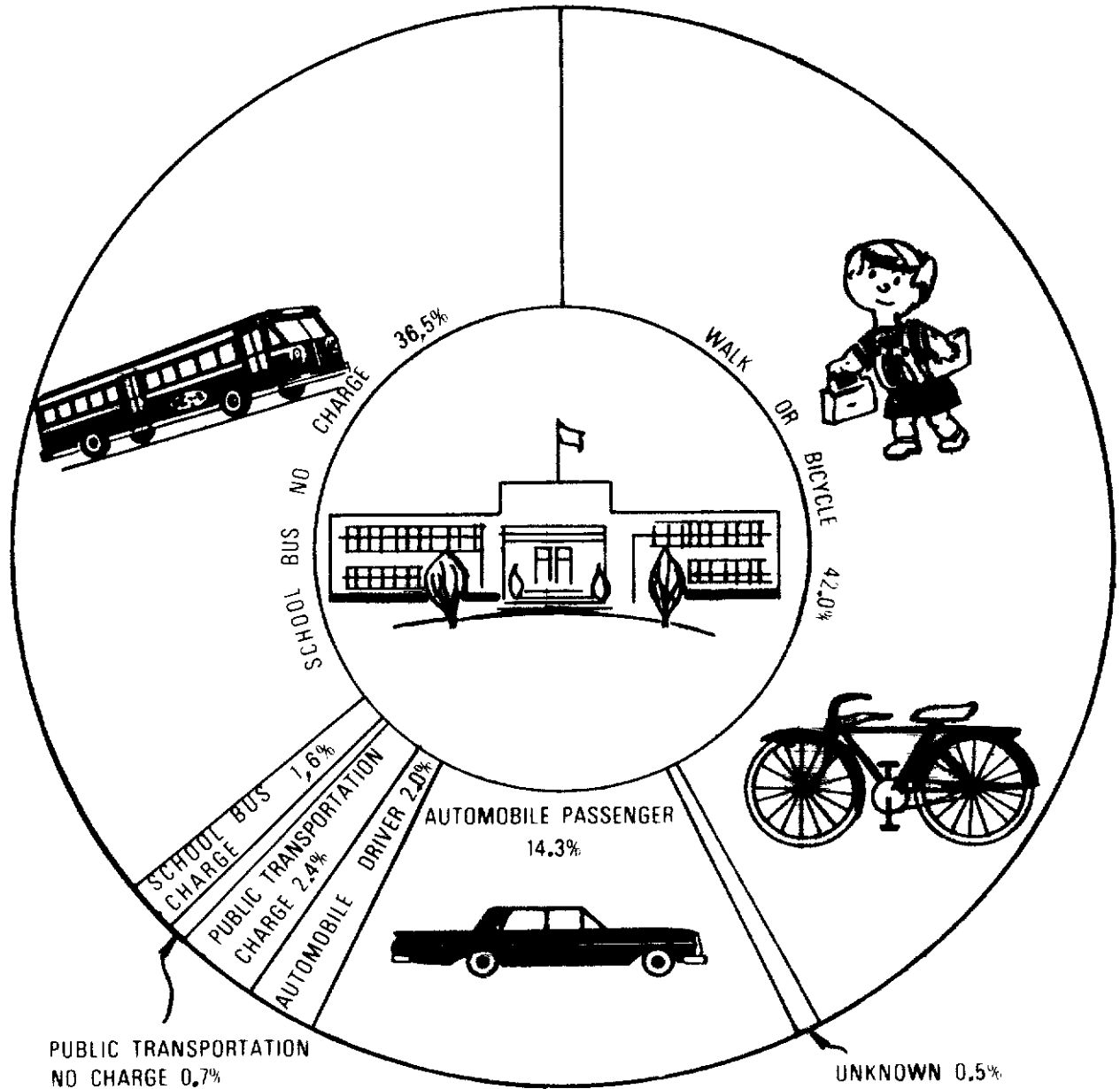




Table 1.--Percentage of students by mode of transportation classified by grade level and distance from home-to-work. Residents of all areas and places.

Grade level and distance to school in miles	Modes of transportation								
	School bus		Public transportation		Automobile		Walk/ bicycle	Other modes/ unknown	All modes
	No charge	Charge	No charge	Charge	Passenger	Driver			
<b>Elementary</b>									
Less than 1	5.1	0.2	*	*	7.0	**	87.5	0.2	100.0
1.0 to 1.9	34.1	2.1	0.3	0.6	16.0	**	46.1	0.8	100.0
2.0 to 2.9	62.0	2.1	0.4	3.1	21.2	**	11.2	*	100.0
3.0 and over	80.0	2.5	0.5	0.7	14.7	**	1.1	0.5	100.0
Total	35.9	1.4	0.2	0.6	12.2	**	49.3	0.4	100.0
Total number of students (000)									29,002
<b>Intermediate</b>									
Less than 1	1.2	*	*	*	6.7	**	90.5	1.6	100.0
1.0 to 1.9	19.8	2.4	*	0.7	12.8	**	63.4	0.9	100.0
2.0 to 2.9	42.3	5.0	1.2	1.9	15.0	**	32.5	2.1	100.0
3.0 and over	78.3	1.0	*	5.4	14.8	**	*	0.5	100.0
Total	40.6	1.7	0.2	2.5	12.3	**	41.6	1.1	100.0
Total number of students (000)									7,663
<b>Senior</b>									
Less than 1	3.0	*	*	2.4	9.3	4.4	80.9	*	100.0
1.0 to 1.9	13.5	0.6	0.7	3.0	23.3	10.9	47.5	0.5	100.0
2.0 to 2.9	27.8	2.7	1.1	11.4	29.2	9.0	17.7	1.1	100.0
3.0 and over	58.0	3.2	3.4	6.5	18.3	7.2	3.2	0.2	100.0
Total	35.5	2.2	1.9	6.2	19.8	7.6	26.4	0.4	100.0
Total number of students (000)									13,218
<b>All grades</b>									
Less than 1	4.4	0.2	*	0.3	7.2	0.6	87.0	0.3	100.0
1.0 to 1.9	26.6	1.8	0.3	1.2	17.3	2.7	49.3	0.8	100.0
2.0 to 2.9	46.6	2.9	0.7	5.7	22.9	3.1	17.3	0.8	100.0
3.0 and over	71.3	2.5	1.5	3.7	16.1	2.8	1.7	0.4	100.0
Total	36.5	1.6	0.7	2.4	14.3	2.0	42.0	0.5	100.0
Total number of students (000)									49,883

\* Less than 0.1.

\*\* Not applicable.

Source: Based upon unpublished table E-2 from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-1970.

Figure 2 and table 2A show that approximately one-third of all students, regardless of grade level, lived within one mile of their school; one-third lived between one and three miles; and one-third lived three miles or more from school. The distance from home to school for all school children increased as students progressed from elementary to intermediate to senior grade levels; however, this may be due to the structuring of the school system, which has more and smaller elementary schools and fewer and larger senior high schools. A smaller percentage of senior level students lived less than one mile and a greater percentage lived three miles or farther from school than either elementary or intermediate school students. In incorporated places the greatest percentage of all students lived within a mile of school, and in unincorporated areas the greatest percentage of students at all grade levels lived three miles or more from school (tables 3A and 4A). At all school levels for residents of all areas and places, the travel time range of 10 through 19 minutes contained the largest percentage of all students (table 2B and figure 3).

#### Elementary

The distribution of mileage for all elementary level children, as shown in table 2A, indicates that 45 percent of the students lived within one mile of school, 18 percent lived between one and two miles, 12 percent lived between two and three miles, and the remaining 25 percent lived three miles or more from school.

In table 2B the distribution of the travel times to school for all elementary grade students indicates that the largest number, some 44 percent, spent from 10 to 19 minutes traveling. Thirty percent spent less than 10 minutes and 26 percent spent more than 20 minutes in their one-way travel to school.

#### Intermediate

A greater percentage of intermediate students traveled longer distances to school than did elementary students. Table 2A shows that only 26 percent of the intermediate students, compared to 45 percent of the elementary students, lived within one mile of school; an additional 37 percent of the intermediate students, compared to 25 percent of the elementary school children, lived three miles or farther from school; the mileage distance from home-to-school for the balance of the intermediate students is divided almost equally between the 19 percent who lived from one to two miles and the 18 percent who lived from two to three miles from school.

Table 2B indicates that home-to-school travel time for intermediate students increased compared to the travel time for elementary school children. While 31 percent of the elementary level students spent less than 10 minutes traveling, the percentage decreased to 22 percent for the intermediate level. The greatest number of students in both groups spent

**FIGURE 2. DISTRIBUTION OF STUDENTS BY DISTANCE FROM HOME-TO-SCHOOL**

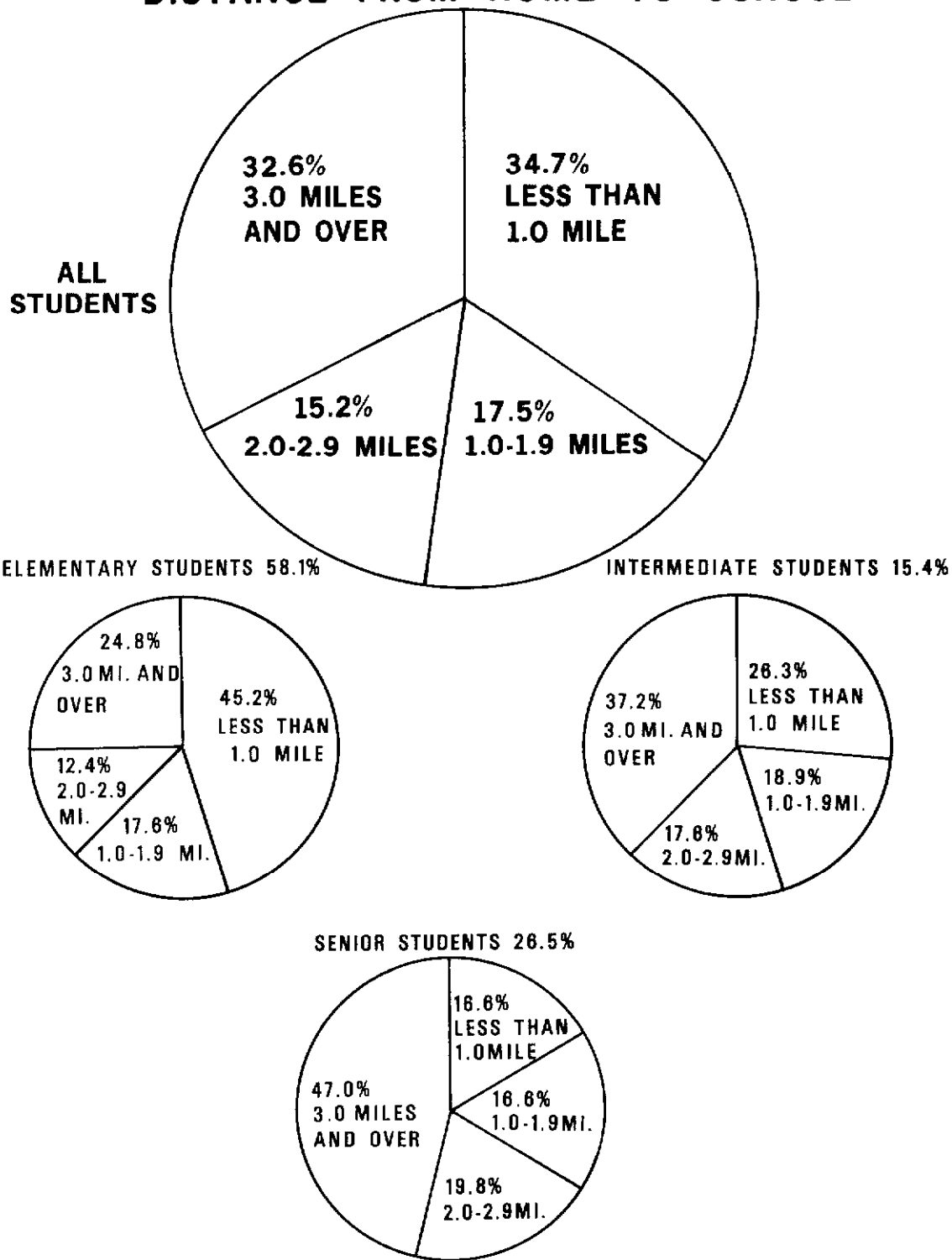


Table 2A.--Percentage of students by distance from home-to-school, classified by grade level and travel time from home-to-school. Residents of all areas and places.

Grade level in school and distance to school in miles	Travel time from home-to-school - minutes						All students
	Less than 10	10-19	20-29	30-44	45-60	61 and over	
<b>Elementary</b>							
Less than 1	73.0	47.6	14.2	5.1	*	19.4	45.2
1.0 - 1.9	15.8	21.3	22.9	8.2	1.3	*	17.6
2.0 - 2.9	6.4	14.8	16.7	17.3	9.1	*	12.4
3.0 and over	4.8	16.3	46.2	69.4	89.6	80.6	24.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of students (000)							29,002
<b>Intermediate</b>							
Less than 1	58.3	28.8	11.2	3.0	*	*	26.3
1.0 - 1.9	22.1	22.6	22.8	8.2	4.8	*	18.9
2.0 - 2.9	12.7	20.5	20.0	18.2	9.8	*	17.6
3.0 and over	6.9	28.1	46.0	70.6	85.4	100.0	37.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of students (000)							7,663
<b>Senior</b>							
Less than 1	43.8	17.4	5.3	1.2	2.1	6.4	16.6
1.0 - 1.9	23.6	19.7	16.9	7.5	*	*	16.6
2.0 - 2.9	23.1	24.9	13.7	16.7	3.9	*	19.8
3.0 and over	9.5	38.0	64.1	74.6	94.0	93.6	47.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of students (000)							13,218
<b>All grades</b>							
Less than 1	65.6	37.1	10.6	3.5	0.7	12.4	34.7
1.0 - 1.9	18.1	21.1	20.8	8.0	1.6	*	17.5
2.0 - 2.9	10.4	18.2	16.2	17.3	7.5	*	15.2
3.0 and over	5.9	23.6	52.4	71.2	90.2	87.6	32.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0 <sup>1/</sup>
Total number of students (000)							49,883

<sup>1/</sup> Includes only those for which distance information was available; thus percentages differ from those shown in table 5.

\* Less than 0.1.

Source: Based upon unpublished table E-2 from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-1970.

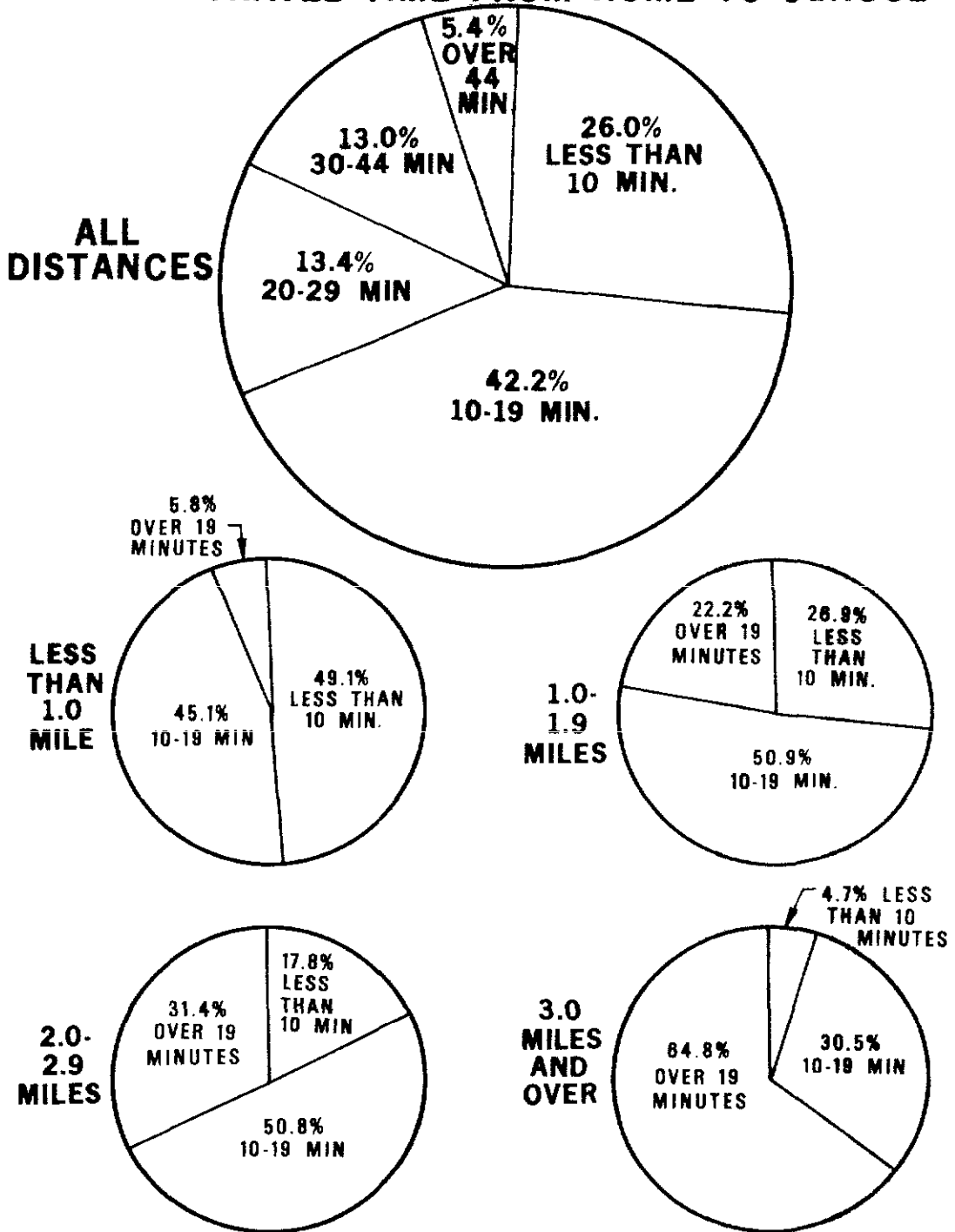
Table 2B.--Percentage of students by travel time from home-to-school classified by grade level and distance from home-to-school. Residents of all areas and places.

Grade level in school and distance to school in miles	Travel time from home-to-school - minutes						All students
	Less than 10	10-19	20-29	30-44	45-60	61 and over	
<b>Elementary</b>							
Less than 1	49.2	45.8	3.5	1.2	*	0.3	100.0
1.0 - 1.9	27.4	52.8	14.5	5.0	0.3	*	100.0
2.0 - 2.9	15.7	51.8	14.9	15.0	2.6	*	100.0
3.0 and over	5.9	28.4	20.7	30.2	12.6	2.2	100.0
Total	30.5	43.5	11.1	10.8	3.5	0.6	100.0
Total number of students (000)							29,002
<b>Intermediate</b>							
Less than 1	48.1	43.5	6.5	1.9	*	*	100.0
1.0 - 1.9	25.4	47.5	18.3	7.2	1.6	*	100.0
2.0 - 2.9	15.7	46.3	17.3	17.1	3.6	*	100.0
3.0 and over	4.0	30.1	18.8	31.4	14.9	0.8	100.0
Total	21.7	39.8	15.2	16.5	6.5	0.3	100.0
Total number of students (000)							7,663
<b>Senior</b>							
Less than 1	49.1	42.9	5.7	1.1	0.7	0.5	100.0
1.0 - 1.9	26.6	48.6	17.7	7.1	*	*	100.0
2.0 - 2.9	21.8	51.6	12.0	13.4	1.2	*	100.0
3.0 and over	3.8	33.2	23.7	25.2	11.4	2.7	100.0
Total	18.6	41.0	17.4	15.9	5.7	1.4	100.0
Total number of students (000)							13,218
<b>All grades</b>							
Less than 1	49.1	45.1	4.1	1.3	0.1	0.3	100.0
1.0 - 1.9	26.9	50.9	15.9	5.9	0.4	*	100.0
2.0 - 2.9	17.8	50.8	14.3	14.8	2.3	*	100.0
3.0 and over	4.7	30.5	21.5	28.5	12.5	2.3	100.0
Total	26.0	42.2	13.4	13.0	4.5	0.9	100.0
Total number of students (000)							49,883

\* Less than 0.1.

SOURCE: Based upon unpublished table E-2 from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-70.

**FIGURE 3 DISTRIBUTION OF STUDENTS BY TRAVEL TIME FROM HOME-TO-SCHOOL**



10 through 19 minutes traveling, some 44 percent at the elementary level and 40 percent at the intermediate level. The remaining 38 percent of the intermediate level students, compared to 25 percent of the elementary students, spent over 20 minutes in travel time, of which 15 percent spent from 20 through 29 minutes, 17 percent traveled from 30 through 44 minutes, and less than 7 percent traveled the one-way distance in over 45 minutes.

### Senior

Table 2A indicates that travel time continued to lengthen in the senior level grades as the distance from home-to-school increased. When compared to lower grade levels, the percent of senior level students who lived less than one mile from school decreased to 17 percent, while the number of senior level students who lived three miles or more from school increased to 47 percent. Almost 17 percent of these students lived between one and two miles of school and the remaining 20 percent lived between two and three miles of school.

Again, as with elementary and intermediate grade level students, table 2B shows that the largest number of senior level students, approximately 41 percent, traveled from 10 through 19 minutes to school; of the senior level students 19 percent spent less than 10 minutes, 17 percent spent from 20 through 29 minutes and 16 percent spent from 30 through 44 minutes traveling to school.

### Incorporated places and unincorporated areas

Data on distance and travel time characteristics of students residing in incorporated places and unincorporated areas are presented in tables 3A, 3B, 4A, and 4B. Comparisons of these data indicate that for each of the three grade levels, students who resided in incorporated places traveled shorter distances and took less time to get to school than did students from unincorporated areas (figures 4 and 5).

Tables 3A and 4A show that 58 percent of all the elementary students from incorporated places lived within one mile of school, whereas less than 24 percent of the students from unincorporated areas lived within a mile of the elementary school they attended. Some 12 percent of elementary students from incorporated places traveled three miles or more to school, whereas 46 percent of elementary students from unincorporated areas traveled that distance.

Approximately 37 percent of intermediate students from incorporated places traveled less than one mile compared to 8 percent of the students from unincorporated areas who traveled the same distance. Only one-fifth of the intermediate students who lived in incorporated places traveled three miles or more to school compared to more than three-fifths of the intermediate students from unincorporated areas.

**FIG. 4. STUDENTS FROM INCORPORATED PLACES AND UNINCORPORATED AREAS BY DISTANCE FROM HOME - TO - SCHOOL.**

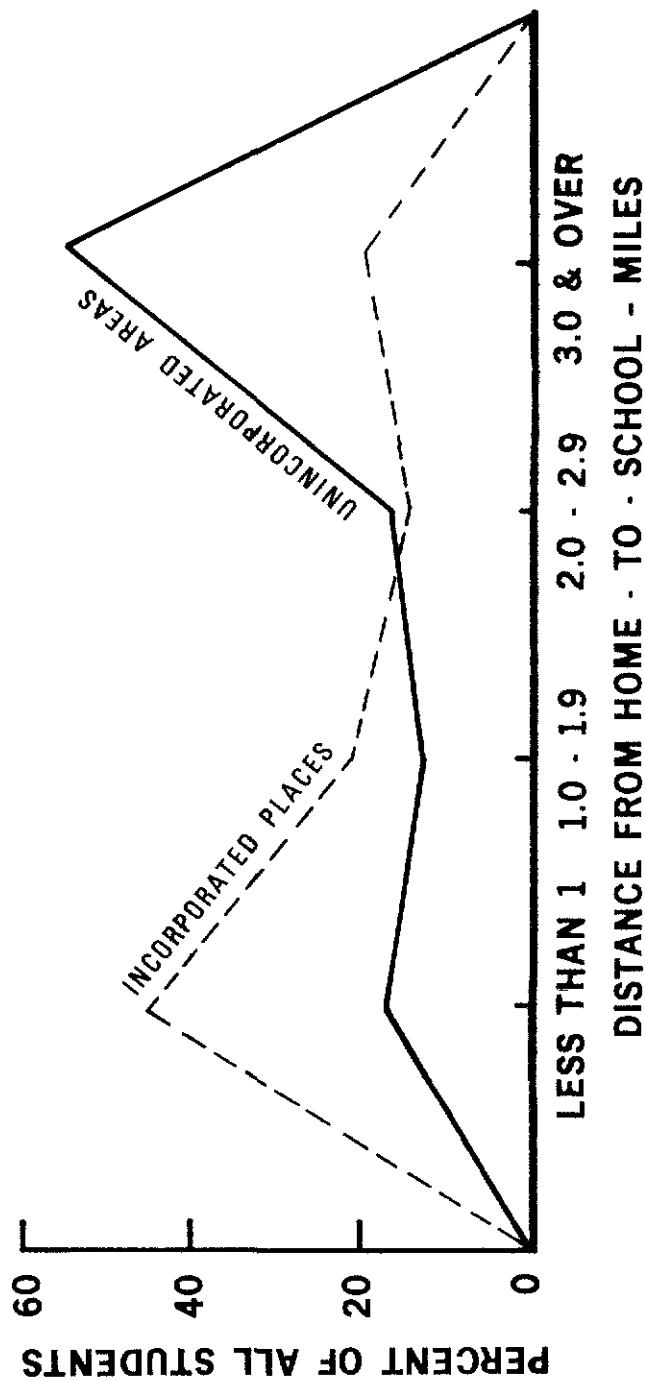




FIG. 5. STUDENTS FROM INCORPORATED PLACES AND UNINCORPORATED AREAS BY TRAVEL TIME FROM HOME - TO - SCHOOL.

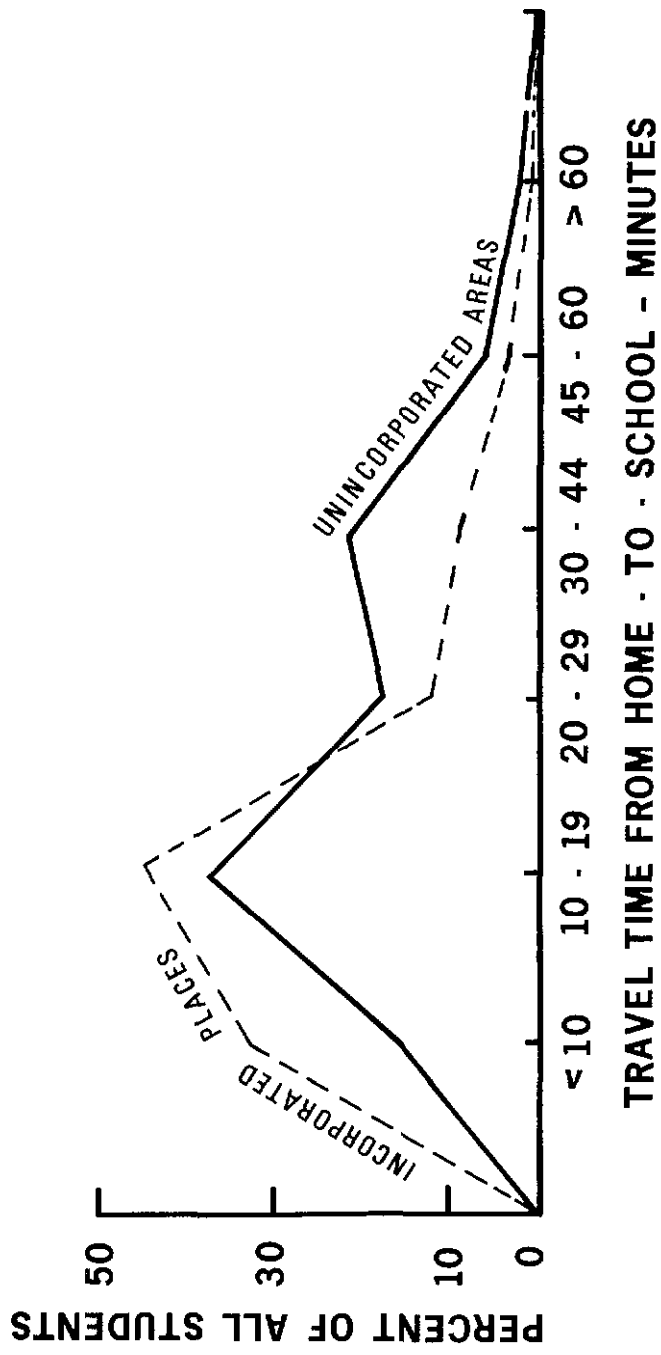


Table 3A.--Percentage of students by distance from home-to-school,  
classified by grade level and travel time to school.  
Residents of incorporated places.

Grade level in school and distance to school in miles	Travel time from home-to-school - minutes						All students
	Less than 10	10-19	20-29	30-44	45-60	61 or more	
<b>Elementary</b>							
Less than 1	77.4	57.7	21.9	10.0	*	*	58.2
1.0 - 1.9	14.3	22.9	37.2	2.7	4.0	*	19.8
2.0 - 2.9	5.5	10.8	17.4	21.1	18.2	*	10.1
3.0 and over	2.8	8.6	23.5	56.2	77.8	100.0	11.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of students (000)							18,117
<b>Intermediate</b>							
Less than 1	65.8	37.8	17.4	4.4	*	*	37.2
1.0 - 1.9	22.1	22.9	37.2	16.4	*	*	23.4
2.0 - 2.9	12.1	17.7	23.1	33.4	*	*	18.5
3.0 and over	*	21.6	22.3	45.8	100.0	*	20.9
Total	100.0	100.0	100.0	100.0	100.0	*	100.0
Total number of students (000)							4,757
<b>Senior</b>							
Less than 1	48.4	22.3	8.4	*	4.3	*	22.7
1.0 - 1.9	26.4	25.9	18.9	11.9	*	*	21.8
2.0 - 2.9	20.9	23.2	11.9	25.3	8.1	*	20.2
3.0 and over	4.3	28.6	60.8	62.8	87.6	100.0	35.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of students (000)							8,102
<b>All grades</b>							
Less than 1	70.4	45.8	16.0	5.1	1.9	*	45.7
1.0 - 1.9	17.6	23.6	30.3	13.1	1.6	*	20.9
2.0 - 2.9	9.3	15.0	16.5	25.3	11.0	*	14.0
3.0 and over	2.7	15.6	37.2	56.5	85.5	100.0	19.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of students (000)							30,976

\* Less than 0.1.

SOURCE: Based upon unpublished table E-2 from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-70.

Table 3B.--Percentage of students by travel time to school,  
classified by grade level and distance from home-to-school.  
Residents of incorporated places.

Grade level in school and distance to school in miles	Travel time from home-to-school - minutes						All students
	Less than 10	10-19	20-29	30-44	45-60	61 or more	
<b>Elementary</b>							
Less than 1	50.3	45.5	3.1	1.1	*	*	100.0
1.0 - 1.9	27.3	52.9	15.5	3.9	0.4	*	100.0
2.0 - 2.9	20.7	49.1	14.2	12.7	3.3	*	100.0
3.0 and over	8.6	33.2	16.3	28.8	11.9	1.2	100.0
Total	37.8	45.9	8.3	6.1	1.8	0.1	100.0
Total number of students (000)							18,117
<b>Intermediate</b>							
Less than 1	45.5	46.4	6.7	1.4	*	*	100.0
1.0 - 1.9	24.3	44.7	22.7	8.3	*	*	100.0
2.0 - 2.9	16.9	43.9	17.8	21.4	*	*	100.0
3.0 and over	*	47.2	15.2	25.8	11.8	*	100.0
Total	25.8	45.7	14.3	11.8	2.4	*	100.0
Total number of students (000)							4,757
<b>Senior</b>							
Less than 1	51.3	41.8	6.0	*	0.9	*	100.0
1.0 - 1.9	29.0	50.5	14.0	6.5	*	*	100.0
2.0 - 2.9	24.8	48.8	9.5	15.1	1.8	*	100.0
3.0 and over	2.9	34.5	27.8	21.5	11.2	2.1	100.0
Total	24.0	42.5	16.2	12.1	4.5	0.7	100.0
Total number of students (000)							8,102
<b>All grades</b>							
Less than 1	49.9	45.1	3.9	1.0	0.1	*	100.0
1.0 - 1.9	27.3	50.8	16.3	5.4	0.2	*	100.0
2.0 - 2.9	21.5	47.9	13.2	15.4	2.0	*	100.0
3.0 and over	4.5	36.2	21.6	24.8	11.5	1.4	100.0
Total	32.4	45.0	11.2	8.5	2.6	0.3	100.0
Total number of students (000)							30,976

\* Less than 0.1.

SOURCE: Based upon unpublished table E-2 from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-70.

At the senior level, more than one-fifth of the students in incorporated places traveled less than one mile to school, but only 7 percent of the senior level students from unincorporated areas traveled less than a mile to school. The relationship continued for senior level students living three miles or more from school; more than one-third of senior students from incorporated places compared to two-thirds of senior students from unincorporated areas traveled three miles or more to school. Independent of grade level, only 19 percent of the students from incorporated places traveled three or more miles to school, whereas in unincorporated areas that number jumps to over one-half of all the students, 54 percent.

Generally students from unincorporated areas traveled farther to school, and it also took them longer to reach their destination, tables 3B and 4B. For example, 77 percent of all students from incorporated places arrived at school within 20 minutes, of which 32 percent arrived in school in less than 10 minutes, and 45 percent in 10 through 19 minutes. On the other hand, only 53 percent of all students from unincorporated areas were able to make the trip to school in less than 20 minutes, of which less than 16 percent completed that trip in less than 10 minutes and 38 percent in 10 through 19 minutes. An additional 37 percent of the students from unincorporated areas took from 20 through 44 minutes, of which 17 percent traveled from 20 through 29 minutes and 20 percent traveled from 30 through 44 minutes in their trip to school.

#### Public school versus private school

The private and public school data are insufficient for comparison as the private school sector accounts for only 11 percent of all students. Of some interest is the indication in table 5 that 72 percent of all senior students who attended private school lived three miles or more from their school.

Table 4A.--Percentage of students by distance from home-to-school, classified by grade level and travel time to school. Residents of unincorporated areas.

Grade level in school and distance to school in miles	Travel time from home-to-school - minutes						All students
	Less than 10	10-19	20-29	30-44	45-60	61 or more	
<b>Elementary</b>							
Less than 1	57.8	28.1	7.4	2.5	*	22.1	23.6
1.0 - 1.9	20.8	18.3	10.5	5.7	*	*	13.8
2.0 - 2.9	9.5	2.6	16.1	15.1	4.8	*	16.3
3.0 and over	11.9	31.0	66.0	76.7	95.2	77.9	46.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of students (000)							10,885
<b>Intermediate</b>							
Less than 1	37.3	6.3	2.5	1.9	*	*	8.4
1.0 - 1.9	22.2	21.9	2.7	1.7	6.3	*	11.6
2.0 - 2.9	14.4	27.4	15.8	6.0	12.8	*	16.2
3.0 and over	26.1	44.4	79.0	90.4	80.9	100.0	63.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of students (000)							2,906
<b>Senior</b>							
Less than 1	26.6	8.9	1.2	2.2	*	9.5	7.1
1.0 - 1.9	13.3	8.8	14.3	3.7	*	*	8.3
2.0 - 2.9	31.1	27.9	16.0	9.3	*	*	19.1
3.0 and over	29.0	54.4	68.5	84.8	100.0	90.5	65.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of students (000)							5,116
<b>All grades</b>							
Less than 1	49.2	20.1	4.8	2.3	*	15.6	16.8
1.0 - 1.9	19.7	16.1	10.5	4.4	1.7	*	12.0
2.0 - 2.9	14.1	24.7	16.0	11.8	5.6	*	17.0
3.0 and over	17.0	39.1	68.7	81.5	92.7	84.4	54.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of students (000)							18,907

\* Less than 0.1

SOURCE: Based upon unpublished table E-2 from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-70.

Table 4B.--Percentage of students by travel time to school,  
classified by grade level and distance from home-to-school,  
Residents of unincorporated areas.

Grade level in school and distance to school in miles	Travel time from home-to-school - minutes						All students
	Less than 10	10-19	20-29	30-44	45-60	61 or more	
<b>Elementary</b>							
Less than 1	44.7	46.8	5.0	2.0	*	1.5	100.0
1.0 - 1.9	27.6	52.6	12.1	7.7	*	*	100.0
2.0 - 2.9	10.6	54.7	15.6	17.3	1.8	*	100.0
3.0 and over	4.7	26.4	22.5	30.8	12.9	2.7	100.0
Total	18.3	39.4	15.8	18.6	6.3	1.6	100.0
Total number of students (000)							10,885
<b>Intermediate</b>							
Less than 1	66.9	22.6	5.1	5.4	*	*	100.0
1.0 - 1.9	28.7	56.7	3.9	3.6	7.1	*	100.0
2.0 - 2.9	13.4	50.9	16.4	8.9	10.4	*	100.0
3.0 and over	6.2	20.9	20.8	34.3	16.5	1.3	100.0
Total	15.1	30.0	16.8	24.2	13.1	0.8	100.0
Total number of students (000)							2,906
<b>Senior</b>							
Less than 1	38.1	48.4	3.3	6.9	*	3.3	100.0
1.0 - 1.9	16.4	40.8	33.1	9.7	*	*	100.0
2.0 - 2.9	16.7	56.5	16.2	10.6	*	*	100.0
3.0 and over	4.5	32.0	20.2	28.4	11.5	3.4	100.0
Total	10.2	38.6	19.3	22.0	7.5	2.4	100.0
Total number of students (000)							5,116
<b>All grades</b>							
Less than 1	45.7	45.2	4.8	2.8	*	1.5	100.0
1.0 - 1.9	25.6	51.0	14.8	7.5	1.1	*	100.0
2.0 - 2.9	12.9	54.7	15.9	14.0	2.5	*	100.0
3.0 and over	4.9	27.2	21.4	30.7	13.1	2.7	100.0
Total	15.6	37.7	16.9	20.4	7.7	1.7	100.0
Total number of students (000)							18,907

\* Less than 0.1.

SOURCE: Based upon unpublished table E-2 from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-70.

Table 5.--Percent of students by grade levels classified by public and private school and distance from home-to-school. All areas and places.

School type and distance to school in miles	Grade levels			All grades
	Elementary	Intermediate	Senior	
	Percent	Percent	Percent	Percent
<b>Public</b>				
Less than 1	46.2	25.0	15.7	34.6
1.0 - 1.9	17.5	18.5	17.7	17.7
2.0 - 2.9	12.0	18.3	20.9	15.4
3.0 and over	24.3	38.2	45.7	32.3
Total	100.0	100.0	100.0	100.0
<b>Private</b>				
Less than 1	35.6	36.1	13.1	31.4
1.0 - 1.9	18.8	24.0	5.3	17.0
2.0 - 2.9	16.6	12.1	10.0	14.7
3.0 and over	29.0	27.8	71.6	36.9
Total	100.0	100.0	100.0	100.0
<b>All</b>				
Less than 1	44.9	26.1	15.5	34.2
1.0 - 1.9	17.6	19.1	16.7	17.6
2.0 - 2.9	12.6	17.7	20.0	15.3
3.0 and over	24.9	37.1	47.8	32.9
Total	100.0	100.0	100.0	100.0 <sup>1/</sup>
Total number of students (000)	29,002	7,663	13,218	49,883

<sup>1/</sup> Includes only those for which school type information was available; thus, percentages differ from those shown in table 2B.

SOURCE: Based upon unpublished table E-2 from the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for the Federal Highway Administration, 1969-70.

## SUMMARY

One-third of all students, regardless of grade level, lived within one mile of their school, one-third lived between one and three miles and one-third lived three miles or more from school. The percentage of students that traveled a greater distance from home to school increased as the students progressed from elementary to intermediate to senior grade levels. Students who resided in unincorporated areas traveled farther to school than students from incorporated places, specifically over half of the unincorporated area students lived three miles or farther from school.

Walk/bicycle and no-charge school bus were the most widely used modes of transportation for students, with the percentage of students who used the school bus remaining fairly constant through all three grade levels; the percentage that walked/bicycled almost halved between the elementary and senior grade levels. The automobile as a third mode of transportation gained importance at the senior grade level.

Over two-thirds of all students made the one-way trip to school in less than 20 minutes of which 42 percent of the students traveled from 10 through 19 minutes, and approximately 25 percent traveled the necessary distance in less than ten minutes.



## 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 (interviews 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 on 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.

APPENDIX A

<p><b>NOTICE</b> - 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.</p> <p>FORM NPT-2 (7-10-69)</p> <p>U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS ACTING AS COLLECTING AGENT FOR THE U.S. DEPARTMENT OF TRANSPORTATION</p> <p><b>HOUSEHOLD QUESTIONNAIRE - AUGUST 1969</b></p> <p><b>NATIONWIDE PERSONAL TRANSPORTATION SURVEY</b></p>				<p style="text-align: center;">①</p> <p style="text-align: center;"><b>BUDGET BUREAU NO. 41-S69011</b> <b>APPROVAL EXPIRES DECEMBER 1970</b></p>							
				a. Ident. Code	b. Household No.	c. Control No.			PSU	Rot.	Segment
d. Type of structure		e. Race		f. SMSA		g. Place		h. State			
i. Subsample		j. Designated travel day			k. No. of hhd. members (all ages)		l. Number of automobiles				
		Day of week			Mo./day						
m. Automobile				n. Principal user Line No.		o. (If no automobile)		p. Income		r. OFFICE USE	
Auto No.	Year	Make	Office use			1 <input type="checkbox"/> Auto available 2 <input type="checkbox"/> Not available		q. Interviewer's code			
s. Date of interview		t. Noninterview reason		3 <input type="checkbox"/> Ref.		4 <input type="checkbox"/> Other Type A		5 <input type="checkbox"/> Other type - Specify		7	
		1 <input type="checkbox"/> NOH 2 <input type="checkbox"/> TA									
(Fill a, b, c, f, g, h, i, j, q.)											
<b>Section I - AUTOMOBILE RECORD</b>											
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		5 - On the street		6 - No all day parking used			
				2 - Employer provided space		3 - Fringe parking		4 - Other lot or garage			
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?											
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			
<b>Section II - SHOPPING</b>											
ASK for SMSA residents only - 1 or 2 as second digit of identification code											
Now we are interested in where people shop - (Ask 1 and 2 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	

Note: Fill remaining pages for household members 5 years old or over.

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, IV, and V as applicable)</i> <input checked="" type="checkbox"/> All others <i>(Fill in Sec. IV and V as applicable)</i>	
We are interested in where people work and how they get to work.		
3. Is the place where . . . works located in a city?	<input type="checkbox"/> Yes → What city? _____ <input type="checkbox"/> No <input type="checkbox"/> Don't know	State? _____
4. How far is it from home to the place where . . . works? <i>(Actual travel distance)</i>	Miles <i>(Enter nearest full mile)</i>	1X <input type="checkbox"/> No fixed place } <i>(Go to Sec. IV)</i> 2X <input type="checkbox"/> At home 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 appropriate boxes)</i>	<input type="checkbox"/> Bus or street car <input type="checkbox"/> Commuter train, subway, elevated, etc. <input type="checkbox"/> Automobile - with other persons <input type="checkbox"/> Automobile - alone <input type="checkbox"/> Truck	<input type="checkbox"/> Motorcycle <input type="checkbox"/> Walk only <i>(Go to Q. 10a)</i> <input type="checkbox"/> Other - including bicycle - Specify <u>7</u>
7. How far is it from home to the nearest public transportation line that . . . uses (could use) to get to his place of work?	<input type="checkbox"/> Less than 1 block <input type="checkbox"/> 1 to 2 blocks <i>(less than 1/4 mile)</i> <input type="checkbox"/> 3 to 6 blocks <i>(1/4 to 1/2 mile)</i>	<input type="checkbox"/> Over 6 blocks <i>(over 1/2 mile)</i> } <i>(Go to Q. 10a)</i> <input type="checkbox"/> None available
<i>(Ask if boxes 1 and/or 2 - is not marked in Q. 6)</i>	<input type="checkbox"/> None available <input type="checkbox"/> Not convenient to get to <input type="checkbox"/> Not convenient to place of work <input type="checkbox"/> Too many transfers <input type="checkbox"/> Too expensive	<input type="checkbox"/> Too crowded or uncomfortable <input type="checkbox"/> Takes too long <input type="checkbox"/> Need auto for work <input type="checkbox"/> Other - Specify <u>7</u> <i>(Go to 10a)</i>
<i>(Ask if either box 1 or 2 - is marked in Q. 6)</i>	<input type="checkbox"/> No driver's license <input type="checkbox"/> No car available <input type="checkbox"/> No car pool available <input type="checkbox"/> Cheaper than auto <input type="checkbox"/> Safer than auto <input type="checkbox"/> No parking problems	<input type="checkbox"/> No driving strain <input type="checkbox"/> Faster <input type="checkbox"/> Other - Specify <u>7</u>
9. What is the reason . . . uses public transportation to get to work? Anything else? <i>(Mark all boxes that apply)</i>		
<i>(Ask for persons 21 years old or older)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not working 5 years ago <i>(Go to Sec. IV)</i>
10a. Does . . . work at same location as 5 years ago?		
b. Does . . . live at same location as 5 years ago?		
c. Compared with the time it took . . . to get to work 5 years ago, is the time to work:	<input type="checkbox"/> About the same as 5 years ago <input type="checkbox"/> At least 10 minutes more <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?	<input type="checkbox"/> None <input type="checkbox"/> Under 5,000 <input type="checkbox"/> 5,000 - 9,999 <input type="checkbox"/> 10,000 - 14,999	<input type="checkbox"/> 15,000 - 19,999 <input type="checkbox"/> 20,000 - 24,999 <input type="checkbox"/> 25,000 - 29,999 <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?	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Go to Sec. VI)</i>	
2. Was it a public or private school?	<input type="checkbox"/> Public <input type="checkbox"/> Private	
3. What grade was . . . attending?	Grade	<i>Enter "0" for kindergarten or 1-12, 13</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>	<input type="checkbox"/> School bus - No charge <input type="checkbox"/> Public transportation - No charge <input type="checkbox"/> School bus - Charge <input type="checkbox"/> Public transportation - Charge <input type="checkbox"/> Walk, bicycle <input type="checkbox"/> Automobile - Driver <input type="checkbox"/> Automobile - Passenger <input type="checkbox"/> Motorcycle <input type="checkbox"/> Other	
7. Was free school bus or free public transportation available?	<input type="checkbox"/> Yes <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 _____?		<input type="checkbox"/> Yes - One or more trips not previously reported (Fill columns) <input type="checkbox"/> Yes - All previously reported <input type="checkbox"/> No (Go to Q. 14a)						
2. At what time did . . . start the (1st, next) trip he took on _____?		Trip 1 1 <input type="checkbox"/> a.m. 2 <input type="checkbox"/> p.m.		Trip 2 1 <input type="checkbox"/> a.m. 2 <input type="checkbox"/> p.m.		Trip 3 1 <input type="checkbox"/> a.m. 2 <input type="checkbox"/> p.m.		Trip 4 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 <input type="checkbox"/> Less than 1/2 mile (5 blocks)		Miles <input type="checkbox"/> Less than 1/2 mile (5 blocks)		Miles <input type="checkbox"/> Less than 1/2 mile (5 blocks)		Miles <input type="checkbox"/> Less than 1/2 mile (5 blocks)
4. How long did it take to get there?		<input type="checkbox"/> 15 min. or less <input type="checkbox"/> 16-30 min. <input type="checkbox"/> 31-45 min. <input type="checkbox"/> 46 min.-1 hr. <input type="checkbox"/> Bet. 1 and 2 hrs. <input type="checkbox"/> 2 hrs. or more		<input type="checkbox"/> 15 min. or less <input type="checkbox"/> 16-30 min. <input type="checkbox"/> 31-45 min. <input type="checkbox"/> 46 min.-1 hr. <input type="checkbox"/> Bet. 1 and 2 hrs. <input type="checkbox"/> 2 hrs. or more		<input type="checkbox"/> 15 min. or less <input type="checkbox"/> 16-30 min. <input type="checkbox"/> 31-45 min. <input type="checkbox"/> 46 min.-1 hr. <input type="checkbox"/> Bet. 1 and 2 hrs. <input type="checkbox"/> 2 hrs. or more		<input type="checkbox"/> 15 min. or less <input type="checkbox"/> 16-30 min. <input type="checkbox"/> 31-45 min. <input type="checkbox"/> 46 min.-1 hr. <input type="checkbox"/> Bet. 1 and 2 hrs. <input type="checkbox"/> 2 hrs. or more
5. What was the main reason for this trip? (If "return home" enter the main purpose of the outgoing trip(s), plus "R.H.") (Enter one code.)		<b>CODE KEY</b> → 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 Return home (reclassification required)						
		Code		Code		Code		Code
6. In addition to . . . did anyone else living here go on this trip? (List line numbers of other household members 5 years old or older who went on this trip.)		<input type="checkbox"/> No others Line numbers		<input type="checkbox"/> No others Line numbers		<input type="checkbox"/> No others Line numbers		<input type="checkbox"/> No others Line numbers
7. What means of transportation were used for this trip? (If more than one, circle major means.)		<b>CODE KEY</b> → 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 motor bike 10. Truck (including pick-up) 11. Other						
		Code		Code		Code		Code
		(If code 1-5 only go to Q. 13)		(If code 1-5 only go to Q. 13)		(If code 1-5 only go to Q. 13)		(If code 1-5 only go to Q. 13)
8. Was public transportation for this trip available within 6 blocks (1/2 mile)?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
9. What automobile was used? (Transcribe automobile number from C.C.)		Automobile No. or <input type="checkbox"/> Not an auto listed on the C.C.		Automobile No. or <input type="checkbox"/> Not an auto listed on the C.C.		Automobile No. or <input type="checkbox"/> Not an auto listed on the C.C.		Automobile No. or <input type="checkbox"/> Not an auto listed on the C.C.
10. Who drove the automobile for this trip?		Line No. <input type="checkbox"/> Not a household member		Line No. <input type="checkbox"/> Not a household member		Line No. <input type="checkbox"/> Not a household member		Line No. <input type="checkbox"/> Not a household member
11. Was parking free for this trip?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not park <input type="checkbox"/> Don't know		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not park <input type="checkbox"/> Don't know		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not park <input type="checkbox"/> Don't know		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not park <input type="checkbox"/> Don't know
12. How many people were in the automobile including the driver? (Include children under 5 and non-household members.)		Number <input type="checkbox"/> Don't know		Number <input type="checkbox"/> Don't know		Number <input type="checkbox"/> Don't know		Number <input type="checkbox"/> Don't know
13. Did . . . go anywhere else on _____?		<input type="checkbox"/> Yes - One or more trips not recorded (Go to next column) <input type="checkbox"/> Yes - All trips recorded } Go to Q. 14a <input type="checkbox"/> No		<input type="checkbox"/> Yes - One or more trips not recorded (Go to next column) <input type="checkbox"/> Yes - All trips recorded } Go to Q. 14a <input type="checkbox"/> No		<input type="checkbox"/> Yes - One or more trips not recorded (Go to next column) <input type="checkbox"/> Yes - All trips recorded } Go to Q. 14a <input type="checkbox"/> No		<input type="checkbox"/> Yes - One or more trips not recorded (Go to next column) <input type="checkbox"/> Yes - All trips recorded } Go to Q. 14a <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?		<input type="checkbox"/> Yes - One or more trips not previously reported (Go to 14b) <input type="checkbox"/> Yes - All trips previously reported } Fill Sections III-VI for next person 5 years old or older <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. <b>9</b>	Line No. <b>10</b>	Line No. <b>11</b>
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? <i>(Include children under 5 and non-household members)</i>	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? <i>(Include children under 5 and nonhousehold members)</i>	Number	Number	Number
17. In addition to . . . did anyone else living here go on this trip both outbound and return? <i>(If outbound or return only, enter the trip in a separate column)</i> <i>(List line numbers of other household members 5 years old or older who went in this round trip)</i>	0 <input type="checkbox"/> No others		
	Line Numbers	Line Numbers	Line Numbers

## APPENDIX B

## NATIONWIDE PERSONNEL TRAVEL SURVEY

Table I.A.-1.--Estimated standard errors for estimates for all persons or white persons 5 years or older

Estimated total (000)	Estimated standard error (1 sigma) (000)
100	68
150	83
200	96
250	107
300	118
500	152
750	185
1,000	214
1,500	261
2,000	300
4,000	420
5,000	466
6,000	507
7,500	562
10,000	638
12,500	702
15,000	755
20,000	840
25,000	903
35,000	975
50,000	976

APPENDIX B

Table I.A.-2.--Estimated standard errors for percentages for all persons or white persons 5 years or older

Base of percentage (000)	Estimated percentage					
	1 or 99%	5 or 95%	10 or 90%	20 or 80%	25 or 75%	50%
300	-	-	-	15.7	17.0	19.6
500	-	-	9.1	12.2	13.2	15.2
750	-	5.4	7.4	9.9	10.7	12.4
1,000	-	4.7	6.4	8.6	9.3	10.7
1,500	1.7	3.8	5.3	7.0	7.6	8.8
2,000	1.5	3.3	4.6	6.1	6.6	7.8
4,000	1.1	2.3	3.2	4.3	4.7	5.4
5,000	1.0	2.1	2.9	3.8	4.2	4.8
6,000	.9	1.9	2.6	3.5	3.8	4.4
7,500	.8	1.7	2.4	3.1	3.4	3.9
10,000	.7	1.5	2.0	2.7	2.9	3.4
12,500	.6	1.3	1.8	2.4	2.6	3.0
15,000	.6	1.2	1.7	2.2	2.4	2.8
20,000	.5	1.0	1.4	1.9	2.1	2.4
25,000	.4	.9	1.3	1.7	1.9	2.1
50,000	.3	.7	.9	1.2	1.3	1.5
75,000	.2	.5	.7	1.0	1.1	1.2
100,000	.2	.5	.6	.9	.9	1.1
125,000	.2	.4	.6	.8	.8	1.0
150,000	.2	.4	.5	.7	.8	.9
179,000	.2	.4	.5	.6	.7	.8