



**1977
NATIONWIDE
PERSONAL
TRANSPORTATION
STUDY**

**USERS' GUIDE FOR THE
PUBLIC USE TAPES**

APRIL 1980

NOTE: On July 21, 1981, as a result of a review of the Census Bureau disclosure policy, additional geographic detail on the location of many NPTS households was provided to the Federal Highway Administration.

This added data has been incorporated into the public use tape and has resulted in the following change: User's Guide page 72, Appendix C. 1977 NPTS Record Layout and Documentation - SEGMENT #1: Household Record, P-2. Field 24-27 SMSA Code has been changed. The new record layout should read:

Field 24-26 SMSA Code See list attached to back cover.

Field 27* Census Region Code (Blank, 1, 2, 3, 4)
1 - Northeast
2 - North Central
3 - South
4 - West
Blank - Region not disclosed

* Field 27 was previously included in the SMSA Codes and was always zero, therefore, having no significance.

Attachment 1

| <u>SMSA</u> | <u>Code</u> |
|----------------------------|-------------|
| Akron | 008 |
| Allentown-Bethlehem-Easton | 024 |
| Albany-Schenectady-Troy | 016 |
| Atlanta | 052 |
| Baltimore | 072 |
| Birmingham | 100 |
| Boston | 112 |
| Chicago | 160 |
| Cincinnati | 164 |
| Cleveland | 168 |
| Dallas | 192 |
| Dayton | 200 |
| Detroit | 216 |
| Flint | 264 |
| Fresno | 284 |
| Grand Rapids | 300 |
| Hartford | 328 |
| Houston | 336 |
| Indianapolis | 348 |
| Jersey City | 364 |
| Kansas City | 376 |
| Lansing | 404 |
| New York | 560 |
| Philadelphia | 616 |
| Pittsburg | 628 |
| Portland | 644 |

| <u>SMSA</u> | <u>Code</u> |
|---------------------------------|-------------|
| Rochester | 684 |
| St. Louis | 704 |
| San Bernadino-Riverside-Ontario | 728 |
| San Diego | 732 |
| Syracuse | 816 |
| Toledo | 840 |
| Washington, D.C. | 884 |
| Youngstown-Warren | 932 |

| <u>Region</u> | <u>Code</u> |
|---------------|-------------|
| Northeast | 1 |
| North Central | 2 |
| South | 3 |
| West | 4 |

Field

| Location | Length | Item Description | Value Range and Codes |
|----------|--------|------------------|--|
| 24-26 | 3 | SMSA Code | See list attached to back page |
| 27 | 1 | Census Region | (Blank, 1, 2, 3, 4) 1 - Northeast 2 - North Central 3 - South 4 - West Blank - Region not disclosed |

1977 Nationwide Personal Transportation Study
Users' Guide for Public Use Tapes

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I. Introduction

This guide presents information on the 1977 Nationwide Personal Transportation Study (NPTS). The 1977 NPTS was designed to update the earlier study done in 1969 to provide comprehensive data on travel and transportation patterns in the United States. This guide describes the background, scope and purpose of the study; provides information on the sampling methods, and collection and processing procedures; describes the NPTS estimating procedures used to create weighted data and includes documentation of each of the eight tape files made available on the public use tape. In addition, recoding and triplinking procedures for use in recoding of the 1977 NPTS trip purposes for comparability with the 1969 trip purposes and for preparing data summaries for the two periods are also included. A Glossary of Technical Terms (Appendix A) defines concepts and/or terms used in the documentation. Copies of the questionnaire and an order form with description and price of the public use tapes are also found in the Appendix. Standard errors of estimates and measures of sampling variability calculated from data collected for this Study will be available in early Summer 1980.

Sponsorship

The 1977 NPTS was conducted by the Bureau of the Census under the sponsorship of the Department of Transportation (DOT) as part of the expanded scope of the National Travel Program. The National Travel Program is part of the Census of Transportation, which is conducted every five years by the Bureau of the Census and includes the National Travel Survey (NTS). In 1977, the National Travel Program also included the 1977 NPTS and provided profiles of the volume and characteristics of travel by the civilian population.

Purpose

The purpose of the 1977 NPTS was to address the full range of trips and travel in the United States, along with the related social and economic characteristics of the tripmaker.

The 1977 NPTS was designed to collect information on all trips taken during a designated 24-hour period and some additional detail on trips and of 75 miles-or-more during the preceding 14-day period. The 1977 NPTS collected information on the use and availability of public transportation facilities, types of motorized vehicles available to the household, characteristics of the trips taken, including mode, purpose, miles traveled, time required and persons on the trip. The additional information obtained for trips of 75 miles-or-more included stops during the trip and uses of additional modes of transportation. One of the most unique features of the 1977 NPTS was the attempt to estimate the amount of travel in urban and rural areas by the use of mapping during the home interview. (See discussion of the NPTS Questionnaire, NTS-2a; Section VII - Mapping of Private Motor Vehicle Trips.)

Scope

The 1977 NPTS is similar to but more comprehensive than the 1969 NPTS. The scope of the 1977 NPTS was expanded from the 1969 NPTS to include the following:

1. Detailed trip purpose information for 21 trip purposes. Among the trip purposes added in 1977 were conventions, sightseeing, entertainment, recreation (participant), overnight lodging, social, return home, change of vehicle without change of mode, change means of transportation and pickup or leave off passengers.
2. Detailed motorized vehicle information for each motorized vehicle owned or available for use by members of the household. This includes type of vehicle, model year, make and model, the presence/absence of air conditioning, number of cylinders, etc. See NPTS Questionnaire NTS-2; Section I - Motorized Vehicle Record. In addition, where available, the Federal Highway Administration (FHWA) personnel added the following information for each vehicle to the Public Use Tape (Segment 3): curb weight, shipping weight, inertia weight, import code, city miles per gallon (mpg), highway mpg, and combined mpg.
3. Detailed trips and travel information for persons who drive as an essential part of their job. See NPTS Questionnaire, NTS-2; Section IV - Driver Information.
4. Long trip information including stops made enroute to the destination for trips of 75 miles-or-more (one way) that ended during a designated 14-day travel period. Thus, trips and travel information in the 1977 NPTS was collected for a 15-day period: the travel day for all travel regardless of trip length, and the 14 days immediately preceding the travel day for trips of 75 miles-and-longer only.
5. Identification of the urban/rural split of travel for all trips made by private motorized vehicles. This was accomplished by the use of maps which identified the urban boundary for each geographical area in the sample. The respondent was asked to trace on the map all private motor vehicle trips made on the travel day or during the 14-day travel period. The information obtained from the mapping was later used to estimate the urban/rural split of travel.

Sample Design

The 1977 NPTS was based on a national probability sample of 24,466 households selected from each of the 50 States and the District of Columbia and representing the total civilian noninstitutional population of the United States. Of the 24,466 households, 3,433 units were found to be vacant, demolished, converted to nonresidential use, or otherwise ineligible for the survey. Some 3,084 households were not interviewed because the occupants were not at home after repeated calls, refused to participate in the survey, or were unavailable for some other reason.

All of the sample units consisted of households that had previously been interviewed for the Current Population Survey (CPS). The CPS is a stratified multistage cluster sample. In the first stage, the United States was divided into 1,030 primary sampling units (PSU's) consisting of counties, groups of counties, or independent cities, which were grouped into 376 strata. Among these strata, 156 consisted of a single PSU, designated as self-representing (SR) areas, and generally contained the larger metropolitan areas. The remaining 220, contained one or more PSU's that are relatively homogeneous according to socio-economic characteristics. From each stratum, a single PSU was selected for the sample with a probability proportionate to its 1970 census population. These PSU's are referred to as non-self representing (NSR). The CPS portion of the NPTS was selected from these 376 PSU's (156 SR and 220 NSR).

Survey Methodology

As indicated previously, the 1977 NPTS was conducted as part of the expanded scope of the National Travel Program which also included the National Travel Survey (NTS). The NTS/NPTS included a common sample of 13,365 households interviewed from April-November 1977 and January 1978; these households are hereafter referred to as the basic sample, and were interviewed four times for NTS data and once for NPTS data. An additional 4,584 addresses, hereafter referred to as the supplemental sample, were divided into three equal parts and were interviewed in December 1977, February 1978 and March 1978. This arrangement spread the total NPTS data collection over a 12-month period from April 1977-March 1978, with approximately 1500 households to be interviewed each month.

The households within each monthly each monthly sample were divided into 14 equal parts, with each part assigned to one of the first 14 days of the interview month. The assigned day will be referred to as the designated travel day.

Interviewing Procedures--Interviewing was accomplished primarily by personal visit with the household. A letter informing each household about the 1977 NPTS was sent prior to the interviewer's visit to the household. Interviewers were instructed to contact the household the day following the travel day to complete the household interview; if this was not possible all interviews for the household were to be completed within 4 days of the travel day to minimize recall problems. All household members, 14 years of age-and-older were interviewed only once and asked to report all trips taken during a 24-hour period, as well as trips of 75 miles-and-longer during the 14-day period immediately preceding the travel day. A knowledgeable adult household member was asked to report all trips (excluding bicycling and walking trips) taken by household members between the ages of 5-13 years.

Data Collection--Data collection was conducted by the Census Bureau's permanent professional field staff, located in 12 Regional Offices throughout the United States. Interviewers, where possible, were selected from the current surveys interviewing staff.

Each staff member was thoroughly trained prior to beginning work on the survey. Interviewers received about three days of classroom training plus self-training materials. Additional home study materials and classroom training were planned throughout the interviewing period. Formal training was supplemented by on-the-job training sufficient to insure job performance at the level of established standards. Quality control measures, such as editing returns, observing interviews and reinterviewing selected sample households were employed throughout the survey.

Data Processing

The major steps performed by the Bureau of the Census for the 1977 NPTS included clerical editing and coding of the NTS-2 Questionnaire, (Sections I-VI); (the NTS-2A (Section VII) was edited and coded by the FHWA DOT personnel); full transcription of the data to magnetic tapes; computer edit of the data to ensure completeness and consistency; calculation of the weighting factors for each household; and computation of variance and calculation of statistical reliability of the data. The FHWA tabulated the data upon receipt of the edited, weighted data tapes from the Bureau of the Census.

As indicated above, the NTS-2A (Section VII) clerical editing and coding was done by the FHWA DOT personnel. For a complete description of these procedures see Chapter II, NPTS Questionnaire - NTS-2A: Section VII: Mapping of Private Motor Vehicle Trips.

Special Tabulations

There are some applications that require the use of data items on the Census base file such as those related to place of residence of individual respondents, that cannot be included on the public use tape without possible disclosure of the individual respondents. If disclosure can be avoided, the Bureau of the Census will undertake special tabulations in accordance with its policy that "Special tabulations or transcriptions of data in the files of the Bureau of the Census will be undertaken on a cost basis, insofar as Bureau facilities are available. Those requesting special tabulations should understand that the data are based on surveys paid for by public funds and, therefore, are public property. The purpose for which such tabulations are obtained must not be contrary to the public interest, or be used to give unfair commercial or other advantage to any person or group."

Requests for special tabulations should be addressed to: Chief, Demographic Surveys Division, Bureau of the Census, Washington, D.C. 20233.

II. 1977 NPTS Questionnaire

The NPTS questionnaire consists of two parts: the NTS-2: Detailed Personal Interview (Sections I-VI) and the NTS-2A: Detailed Personal Interview (Section VII: Mapping of Private Motor Vehicle Trips). Copies of the NTS-2 and the NTS-2A are included in Appendix B to aid the user.

A brief description of the main sections of the NTS-2 and the NTS-2A follows.

NTS-2

Cover Page--Provides demographic data for each member of the household, including birthdate, age, marital status, sex, race, origin or descent, education, armed forces status, as well as family income during the past 12 months.

Section I: Motorized Vehicle Record--Provides information about the number and kind of licensed motorized vehicles owned or available for use by members of the household. Characteristics of each vehicle including model year, make and model, number of cylinders, presence of accessories such as air-conditioning and automatic transmission, vehicle ownership, date of purchase, whether purchased new or used, and whether used to go to work were obtained. The mileage the vehicle was driven during the past 12 months (or from date of purchase, if less than 12 months) is also included, as well as the estimated monthly expense for gasoline for all vehicles available for use by the household.

Section II: Availability of Public Transportation--Includes information about the proximity of the household to public transportation such as bus, train, streetcar, subway rail, and highway facilities, such as freeway, or expressway.

Section III: Occupation and Travel to Work--Identifies household members 16 years of age and older who were employed, unemployed or retired. For those who were employed and did not work at home, information is obtained about their home-to-work trip, mode of transportation, carpooling, distance to work and time required to travel to place of work. Respondents were asked about changes in the mode of transportation used for the journey to work during the past 12 months and the reasons motivating the change.

Section IV: Driver Information--This section collects the average number of miles driven in the last 12 months by persons who are licensed drivers and the estimated number of miles driven by persons who drive as an essential part of their job. The NTS-2 questionnaire used from April-December 1977 was set up to obtain travel characteristics of workers involved in traveling as part of their regular work, such as bus drivers, truck drivers, cab drivers, etc. However, an error in the screening questions used by the interviewers to determine which questions should be asked, where there was an option, was discovered. As a result, much of the work-related stop information made by these drivers was not obtained for the first 3 quarters, from April-December 1977. The questionnaire was subsequently revised, and beginning with the January 1978 survey month (or the 4th quarter), information was obtained as to the number of work-related stops made by the drivers during their working hours on travel day and the distance traveled between stops. In addition, since many of these workers spend their working day driving to a variety of destinations, to be asked for a detailed description of all these trips, in terms of urban/rural mileages, would be burdensome and annoying. Therefore, to obtain an estimate of urban/rural mileages, it was decided that workers who drove a private motor vehicle and made 4 stops or less, would be asked to trace their trips; those who made more than 4 stops were asked to estimate the percent of urban/rural travel.

Section V: Travel Day--Includes information about all travel (regardless of trip length) on the designated travel day. Information about the trip length, time and purpose of trip, number of persons on the trip, means of transportation used, use of parking facilities, and reasons for use or non-use of public transportation was collected from each person 14 years and older; information about trips (excluding walking and bicycling) made by persons from 5-13 years of age was asked of an adult household member. For the purposes of this section, a trip is defined as "any travel from one place to another by private motor vehicle, public transportation, bicycling, or walking," that ended on the designated travel day.

Section VI: 14-Day Travel Period--This section was designed to obtain information about trips of 75 miles-or-more (one-way distance) that ended during the designated 14-day travel period. For the purposes of this section, a trip is defined as "one-way travel to a destination (the farthest point of travel) which is located at a distance of 75 miles or more from the starting point". In Part A, information was obtained about the trip length, purpose and time of trip, means of transportation used, type of lodging stayed in, and number of persons on trip. In Part B, similar information was obtained about stops that were made enroute to the destination.

NTS-2A

Section VII: Mapping of Private Motor Vehicle Trips--This section was designed to obtain information on the distribution of travel performed by the tripmaker in a private motor vehicle so that the urban/rural split of travel could be determined. Specifically, an NTS-2A was completed by the interviewer for each household where one or more members made a trip by private motor vehicle either on the designated travel day (Segment 5, Columns 87-89, codes 001-007), or during the 14-day travel period (Segment 6, Columns 135-137, codes 001-007).

A map of the area in which the household was located and on which the urban/rural boundary was marked, was used to determine the route of travel for each trip and the total distance traveled. Based on the route information given by the respondent, the interviewer determined whether the trip was on the map and wholly within an all urban or all rural area, was on the map and crossed the urban/rural boundary marked on the map, was partially off the map, or was entirely off the map. The interviewer then assigned a trip code to each trip based on the trip description as indicated below and took the required action:

| <u>Trip Code</u> | <u>Description</u> | <u>Action Required</u> |
|------------------|---|---|
| 1 | Entire trip on map and wholly within an urban area. | No mapping required |
| 2 | Entire trip on map and wholly within a rural area. | No mapping required |
| 3 | Entire trip on map and crossed an urban/rural boundary marked on the map. | Mapping required |
| 4 | A portion of the trip was off the map | That portion of the trip that was on the map was traced. Where the trip went off the map, the respondent supplied the main routes followed to point of destination as well as cities and States passed through. The interviewer recorded this information in Columns 70e and 70f of the NTS-2A. |

| <u>Trip Code</u> | <u>Description</u> | <u>Action Required</u> |
|------------------|----------------------------|--|
| 5 | Entire trip is off the map | None of the trip was mapped. All the information necessary to reconstruct this trip, from point of origin to destination, was completed by the interviewer from information obtained from tripmaker and entered in Columns 70e (main routes taken) and Column 70f (main cities and States passed through) of the NTS-2A. |

If the trip code indicated that mapping was required (ie: code 3 and 4 trips), the respondent was asked to map the trip by tracing the route(s) taken. For trips that were partially (code 4 trips) or wholly (code 5 trips) off the map, the respondent supplied the main routes taken and main cities passed through; the interviewer entered this information in columns 70e and 70f of the NTS-2A respectively. In addition, for all trips, regardless of the trip code, the interviewer transcribed the trip distance information as supplied by the respondent from item 37 for travel day trips, and from items 61a or 61b for travel period trips. The NTS-2A was then sent to the FHWA (DOT) in Washington, D.C. for additional coding, analysis, and for estimating the urban/rural split of travel.

To determine the urban/rural split of travel, the following procedure was used by the FHWA personnel:

1. For code 1 and 2 trips, the respondent's trip mileage estimate was accepted for allocation purposes.
2. For code 3, 4, and 5 trips, the respondent's trip distance estimate was not used. Instead, for code 3 trips, the FHWA personnel carefully measured the distances from the routes traced on the map to obtain the urban-rural split of travel. For code 4 trips, the FHWA personnel traced and measured the distances for that portion of the trip that was on the map. Where the trip went off the map, the FHWA personnel reconstructed, traced and measured the distance for the remainder of the trip from the information supplied in Columns 70e and 70f on the NTS-2A. For code 5 trips, the FHWA personnel followed the same procedures as for that portion of code 4 trips that went off the map. The FHWA personnel then used all the trip data to obtain an estimate of mileage driven through each type of area.

Once the urban/rural split of travel was determined, the following additional information was added to the NTS-2A. (See Segment 5, Columns 175-207).

- Allocation of trip mileages to the rural and four urban population size-groups:

- rural
- urban - less than 50,000
- urban - 50,000 - 199,999
- urban - 200,000 - 999,999
- urban - 1,000,000 and over

- Home-urban mileage for all trips coded 1, 3, 4, or 5 which originated, passed through and/or ended at the respondent's home-urban area
- Population size-group of the home-urban area
- Urban/rural distribution of the trip routes. Each trip was assigned one of the following codes based on the point of origin, areas passed through and destination of trip:

| <u>Code</u> | <u>Definition</u> |
|-------------|-------------------|
| 1 | urban-urban-urban |
| 2 | rural-rural-rural |
| 3 | urban-rural-urban |
| 4 | rural-urban-rural |
| 5 | urban-rural |
| 6 | rural-urban |
| 9 | unknown |

- International boundaries crossed

1. none crossed
2. boundary crossed
3. trip information incomplete, but limited information indicated an international boundary was not crossed
4. trip information incomplete, but limited information indicated an international boundary was crossed.

Editing Procedures

Editing of the NTS-2 data was done in four operations, which were performed in the order listed below. For each editing operation, a brief description of the edits performed and an example is provided. A more detailed discussion of certain types of edits, such as allocated data and edited values, as well as skip patterns, is also contained in this section.

Description of Edits Performed--The four editing operations were:

1. Range Check. Range limits were established for certain items. If the value of a response was not in the specified range, the response was either a) changed to a blank, or b) changed to fall within the range. (See discussion of edited values on pages 13 & 14).

Example - Changed to blank: If the number of days a week that a person drives as an essential part of his/her work (item 30d) exceeded 7, the response was changed to a blank.

Example - Changed to fall within range: If the time that a trip started (item 34) was given as 11:65, it was changed to 11:59.

2. Completeness and Consistency Edit. This series of edits was done to insure that a response was entered for 8 specific items, known as "must" items; these items could not be left blank or contain a "no answer" response. (See discussion of Allocated Data on pages 13 & 14. Also, certain responses for a household were checked against other responses for the same household to obtain internal consistency.

Example - "Must" item: If Armed Forces status (item 11) is blank and the person is older than 13, a response of "no" is entered.

Example - Internal consistency: If a household consists of 4 persons (item 5), but the number of household members excluding the respondent who were on a trip (item 36) is reported as 5, then item 36 was changed to 3.

3. NA/Recode Edits. These edits were performed to change the response to certain items to "NA" if the original response was "out of range" or if the responses to related questions indicated that "NA" was an appropriate entry for that item.

Example - If there was no entry in vehicle ownership code (item 141) for a vehicle listed as owned or used by members of the household (item 14c), the response to item 141 is changed to 99 (NA).

4. Blanking Edits. These edits were performed to make the responses conform to the skip patterns on the questionnaire. (See discussion of Skip Patterns on page 14).

Example: Information on educational level (items 10a and 10b) was not collected for children below the age of 5.

Allocated Data and Edited Values--If a response was not given for certain questions, the Bureau of the Census imputed (or allocated) the response based on a probability model. These questions, which are called "must items", included: family income, age, marital status, sex, race, origin or descent, highest grade completed, and armed forces status. In cases where the respondent's answer was recorded, "0" was entered in the allocation code field to indicate "data not allocated". In cases where the data are imputed, "1" is entered in the allocation code field to indicate "data are allocated".

There are other fields in which "edited values" have been substituted for the response given. This occurred primarily in fields where a response was not in the acceptable range. For example, the acceptable range for model year of a vehicle was from 1930-1978; if a model year was reported as 1925, it was "edited" to the lowest value in the range: 1930, and "1" was entered in the edited data field to indicate that the data were edited to conform to the range. The following fields are examples where these edits occur: (See NPTS Tape Record Layout and Documentation for acceptable ranges).

| | |
|---------------------------------|--|
| Household Vehicles Information: | model year date vehicle purchased |
| Occupation and Travel to Work: | number of persons in carpool number of household members in carpool number of persons in previous carpool number of household members in previous carpool |
| Driver Information: | licensed driver miles driven as part of work on average work day |
| Travel Day Trips: | time trip started non-household members on trip number of persons in vehicle |

| | |
|----------------------|-------------------------------------|
| Travel Period Trips: | nights spent enroute to destination |
| | nights spent at destination |
| | nights spent by type of lodging |
| | month/date trip began |
| | time trip began |
| | non-household member(s) on trip |
| | number of persons in vehicle |
| | rental vehicle used |
| | nights spent in lodging |

In cases where the data shown in a field are what the respondent answered, the "allocation code" field or the "edited data" field will always be "0". This includes cases where the actual response was "don't know" or "no answer".

Skip Patterns--A skip pattern is a question or series of questions that are not asked because of a) an answer given to a previous question, or b) a characteristic of the respondent. An example of the first reason for a skip pattern occurs in Section I of the questionnaire; if the vehicle type is a motorcycle, questions are not asked regarding make and model year, automatic transmission, number of cylinders and air-conditioning. In Section II, if the respondent states that public transportation is not available, then the questions on distance to public transportation and the type of public transportation are not asked.

Examples of skip patterns that occur because of a characteristic of the respondent are:

- marital status is collected only for persons older than 14 years of age
- highest grade completed is collected for persons older than 5 years
- driving done as an essential part of work is only asked of licensed drivers.

The skip patterns are indicated on the questionnaire. In most cases, the response to questions not asked as part of a skip pattern will be blank on the public use tapes. However, a "skipped" response may also contain the following values on the tape:

- 0 (in cases where a zero has no meaning other than blank)
- 89 or 899, etc. (don't know)
- 99 or 999, etc. (no answer).

All of the above values are valid responses for skip patterns.

III. 1977 NPTS Record Layout and Documentation

The 1977 NPTS data is contained on four tapes, each tape covering one quarter or three months of data of the survey periods as follows:

| | |
|-------------|------------------------------------|
| 1st quarter | April 1977 through June 1977 |
| 2nd quarter | July 1977 through September 1977 |
| 3rd quarter | October 1977 through December 1977 |
| 4th quarter | January 1978 through March 1978 |

Each of the four tapes contains eight files or segments; a description of the data contained in each segment follows:

| <u>File or Segment Number</u> | <u>Data Description</u> |
|-------------------------------|--|
| 1 | Household characteristics |
| 2 | Household members and their characteristics |
| 3 | Household vehicle information |
| 4 | Worker occupation and travel to work data |
| 5 | Travel day trip data |
| 6 | 14-day travel period trip data |
| 7 | Stop data for 14-day travel period trips |
| 8 | Annual long trip data from the National Travel Survey (NTS) for the 13,365 households common to both NPTS and NTS. |

The first 16 characters of each segment are unique for a particular household and include a 6-digit serial number for identification purposes. The number of household records for each segment varies except for Segment 1, which only has one record per household. Appendix C contains the record layout for each of the segments and shows the field locations; field length; source code, where applicable, for relating back to the questionnaire; description of the data; the range of acceptable values; and code definitions of the values found in each field.

Some fields are marked with an allocation or edit code. Allocated means that the value for a particular field was imputed by the Bureau of the Census based on other characteristics. Edited means that the value for a particular field was outside the range of valid codes and was adjusted to the universe (usually the outer limits of the range).

IV. Weighting Specifications for Data from the 1977 NPTS

Introduction

This section contains the instructions for the application of the weighting specifications to 1977 NPTS data from April 1977 through March 1978. The weighting factors described in the weighting specifications are needed to make estimates of NPTS characteristics for different time periods. Separate instructions are given for weighting the data from the travel day and the 14-day travel period. It is important to note that estimates from the travel day and travel period are not additive since both are independent estimates of total national travel.

For the travel day and the 14-day travel period, directions are given for the user who wants to obtain an estimate of vehicle trips, vehicle miles of travel, person trips and person miles of travel for day(s), month(s), quarter(s) or a year. In addition, instructions for expansion of the household/person characteristics are provided; these allow the user to obtain characteristics of traveling and non-traveling household/persons for a specified time period. Special formulae are provided for obtaining weighted estimates of household/person characteristics in those cases where the time period being considered requires combining data from the basic and supplemental samples.

Each household, person and trip reported for NPTS was assigned a weight known as W_0 , which differs, depending upon the attributes of the household, person or trip. In addition, each household was assigned a BW(PSU) weight, based on the Primary Sampling Unit (PSU) in which the household is located, so that all households in the same PSU have the same BW(PSU) weight. The BW(PSU) weight is used only when making an estimate of households/persons from the combined basic and supplemental samples.

For each quarter of NPTS data, application of the weighting procedures will yield estimates of the total number of households in the United States, total number of persons in the United States, and total travel occurring during that quarter. If all four quarters are being analyzed, the "weighted" data for persons and households must be summed and divided by four; the weighted data for trips and travel need only to be summed for all four quarters to obtain annual estimates.

To assist the user in the application of the weighting factors, Table 4 on page 29 contains the estimates of selected control totals for variables from the travel day when the weighting factors are applied correctly. Estimates of travel period trips and miles of travel have not been included for a number of reasons, including the high proportion of trips which have invalid dates and unknown distances. In addition, a summary of the statistical procedures for estimating vehicle/(person) trips, vehicle (person) miles of travel and household/person characteristics from the travel day and travel period for selected time periods is given in Table 5 on pages 30, 31 and 32.

Definitions of the Key Terms Used in the Estimating Procedure

Basic sample--The basic sample consists of those households interviewed from April-November 1977 and January 1978.

BW(PSU) weight--The BW(PSU) weight is the weight assigned to each household based on the probability of selection; it varies by the PSU of the household. The BW(PSU) weight is used only when obtaining estimates of households or persons from the combined basic and supplemental samples.

Covered day--A covered day is a day that has been reported for by NPTS households. This applies to a designated travel day or the days from the 14-day travel period.

Household--The household is the basic sampling and reporting unit for collecting trips and travel and other information in the survey.

Household trip--A household trip is each time one or more household members go on a trip. For example: If three household members go on the same trip, it is counted as one household trip; however, if three household members each go on separate trips, it is counted as three household trips.

Person miles--Person miles are the sum of miles traveled by each person on a trip. Thus, the number of person miles for a given household trip is equal to the weighted number of person trips for the trip multiplied by the one-way trip distance for the trip. The number of person miles for a given person trip is the number of one-way trip miles traveled by that one person on the trip.

Person trip--A person trip is a trip taken by an individual. If three persons from the same household go on one trip together, this travel is counted as one household trip and three person trips. On the other hand, if one person took three different trips, he or she would have taken three household trips and three person trips.

P_i -- P_i is a factor to be applied to travel period trips, depending on the day of the month the trip took place. This factor allows for differences in sample size reporting travel period trips for any given day.

Supplemental sample--The supplemental sample consists of those households interviewed during December 1977, and February and March 1978.

Time inflation factors--Time inflation factors are used to expand estimates of trip characteristics from covered days to form monthly, quarterly or annual estimates. Different factors are used to expand travel day and travel period trips.

Travel day--Travel day is a designated 24-hour period during the first 14 days in a month assigned to a household for reporting trips and travel.

Travel period--The travel period is the 14 days preceding the travel day assigned to households for reporting trips and travel of 75 miles-and-longer (one way).

W_0 -- W_0 represents the weight for a specific travel day trip, person, or household estimate. These weights vary depending on the attributes of the variable.

Travel Day Estimating Procedures

Procedures for estimating household trips, vehicle miles, person trips, and person miles--Segment 5 of the NPTS data tape contains W_0 household trip weight (columns 376-387) which should be used for estimating household trips and vehicle miles for travel day trips, and a separate W_0 person trip weight (columns 220-375) for each person trip associated with a travel day trip, which should be used for estimating person trips and person miles for travel day trips.

1. Covered travel days. To form any household trip estimate from travel day trips, the W_0 household trip weights should be summed for all travel day trips being considered. The same procedure should be followed for person trips except that the W_0 person trip weights should be summed for each travel day person trip being considered. In order to form a vehicle miles travel day trip estimate, the vehicle miles associated with each travel day trip must be multiplied by the W_0 household trip weight. Similarly, a person mile travel day trip estimate can be formed by multiplying the person miles associated with each person trip by the W_0 person trip weight.
2. Monthly, quarterly, or annual estimates. To form a household trip estimate from travel day trips for a given month, apply the travel day time inflation factors shown in Table 1 on page 19 to the W_0 household trip weights for each travel day trip in that month. For example, to create an estimate of travel day trips for the month of May, the W_0 's for travel day trips for the 4, 5, 6, 7, 11, 12, 13, and 14 of May should receive a factor of 2 and those of the 1, 2, 3, 8, 9, and 10 of May should receive a factor of 5/2.

The same procedure should be followed for a monthly estimate of person trips, vehicle miles, or person miles from travel day trips. To create quarterly or annual estimates, obtain an estimate for each month separately, using the procedure described above, and sum monthly estimates for months under consideration.

Table 1: Travel Day Time Inflation Factors

| <u>Dates</u> | <u>Factors</u> | |
|--|----------------|---|
| 4,5,6,7,11,12,13,14 of April | } | |
| 4,5,6,7,11,12,13,14 of May | | |
| 3,4,5,6,7,10,11,12,13,14 of June | | |
| 5,6,7,12,13,14 of July | | |
| 4,5,6,7,11,12,13,14 of August | | |
| 3,4,6,7,10,11,13,14 of September | | |
| 4,5,6,7,11,12,13,14 of October | | |
| 3,4,5,6,7,10,11,12,13,14 of November | | |
| 4,5,6,7,11,12,13,14 of December | | |
| 4,5,6,11,12,13 of January | | |
| 1,2,3,4,5,6,7,8,9,10,11,12,13,14 of February | } | |
| 4,5,6,7,11,12,13,14 of March | | |
| 1,8 of April | | |
| 1,2,3,8,9,10 of May | | |
| 1,2,8,9 of June | | |
| 1,2,3,8,9,10 of July | | |
| 1,2,3,8,9,10 of August | | |
| 1,2,8,9 of September | | |
| 1,2,8,9 of October | | |
| 1,2,8,9 of November | | |
| 1,2,3,8,9,10 of December | } | |
| 3,10 of January | | |
| 1,2,3,8,9,10 of March | | |
| 10 of October | | |
| 10 of April (Easter) | | |
| 4 of July | | |
| 5 of September | | |
| 1,2 of January | | |
| 11 of July | | } |
| 12 of September | | |
| 3 of October | | |
| 7,8,9,14 of January | | |
| 2,3,9 of April | } | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Note that these factors should be applied to the W_0 trip weight factors.

Procedures for estimating household or person characteristics--
Segment 1 of the NPTS data tape contains the W_0 household weight (columns 115-126) and the BW(PSU) weight (columns 103-114).

Segment 2 of the NPTS data tape contains the W_0 person weight (columns 57-68) and the BW(PSU) weight (columns 45-56).

1. Covered travel day(s). To form an estimate of household (or person) characteristics of traveling and non-traveling households (persons) for a specific travel day, the W_0 weights for each household (person) assigned the specific travel day should be summed. For example, to estimate the total number of traveling households on June 1, the W_0 weights should be summed for all households with a June 1 travel day that made a trip.

To estimate the total number of non-traveling households on June 1, the W_0 weights should be summed for all households with a June 1 travel day that did not make any trips.

2. Monthly or quarterly or annual estimates for households or persons from the basic or supplemental sample. To estimate monthly, quarterly or annual household (person) characteristics from the basic or supplemental sample, a factor of $\frac{1}{d}$ (where d =number of covered travel days in the month(s)) should be applied to the W_0 weights.

For example: To estimate the total number of households that made one or more travel day trips during April, May, and June (all months from the basic sample), a factor of $1/42$ should be applied to the W_0 household weights (Segment 1, columns 115-126) for all households reporting trip(s) in April, May, and June.

To estimate the total number of households that made one or more travel day trips during December only (a month from the supplemental sample), a factor of $1/14$ should be applied to the W_0 household weights for all households reporting trips during December.

3. Monthly, quarterly, or annual estimates for households or persons from the basic and supplemental sample. To estimate household (person) characteristics of traveling and non-traveling households (persons) for more than one month covered by both the basic and supplemental samples, different factors are applied to the households (or persons) depending on whether they are from the basic or supplemental sample.

Households (persons) assigned travel days covered by the basic NPTS sample should receive a factor equal to:

$$(W_o) \left[\frac{562,803.7842}{(d_1 \times 562,803.7842) + (d_2 \times BW(PSU))} \right]$$

Where: d_1 = number of days covered by basic sample

d_2 = number of days covered by supplemental sample

BW(PSU) = basic weight shown in Segment 1, 2, 5 and 6 and assigned to the households (or persons) from the basic sample.

Households (persons) assigned travel days covered by supplemental sample should receive a factor equal to:

$$(W_o) \left[\frac{BW(PSU)}{(d_1 \times 562,803.7842) + (d_2 \times BW(PSU))} \right]$$

Where d_1 and d_2 are same as defined above and BW(PSU) is the basic weight assigned to households from the supplemental sample.

For example: To estimate the number of households which took travel day trips during October, November and December, the following procedure should be followed:

Households from the basic sample (October and November) which took travel day trips in October and November should have the following factors applied:

$$(W_o) \left[\frac{562,803.7842}{((2 \times 14) \times 562,803.7842) + ((1 \times 14) \times BW(PSU))} \right]$$

Households from the supplemental sample (December) which took travel day trip(s) in December should have the following factors applied:

$$(W_o) \left[\frac{BW(PSU)}{((2 \times 14) \times 562,803.7842) + ((1 \times 14) \times BW(PSU))} \right]$$

Travel Period Estimating Procedures

Procedures for estimating households trips, vehicle miles, person trips, and person miles--Segment 6 of the NPTS data tapes contains the W_0 household trip weights (columns 400-411) for each travel period trip, which should be used for estimating household trips and vehicle miles for travel period trips. Segment 6 also contains a separate W_0 person trip weight (columns 244-399) for each person trip associated with a travel period trip, which is to be used for estimating person trips, person nights and person miles for travel period trips. In addition, columns 105-109 indicate the month and day in which a travel period trip occurred. Since the sample size reporting travel period trips varies by the day in a month, different factors, depending on the day of the month must be applied to travel period trips. These factors, known as P_i are defined as follows:

$$P_i = \frac{14-i}{14} \quad \text{for } 1 \leq i < 13 \text{ where } i = \text{number of the day of the month the trip began}$$

$$P_i = \frac{14-n+i}{14} \quad \text{for } n-13 \leq i \leq n \text{ where } n = \text{number of days in the month}$$

Thus, the W_0 weight for each travel period trip should be multiplied by a P_i factor that depends on the day of the trip. The P_i factor for each day of the month that a travel period trip took place is given in Table 2 on pages 24 and 25.

In addition, since travel period trips are reported only for the first 13 days in a month and the last 14 days in a month, time inflation factors are also needed to form travel period trip estimates for the full month. These time inflation factors, which are also based on the day the travel week trip is reported to have occurred, are shown in Table 3 on page 24.

For example, if an estimate of travel period trips is needed for the month of June (not just the first 13 days and the last 14 days), the time inflation factors shown on page 26 would have to be applied to the W_0 household trip weights and P_i factors (Table 2) on page 24 and 25 for these trips.

Specifically:

June 1 - $(W_0)(P_1 = \frac{13}{14})(\frac{5}{4})$ (inflation factor)

June 2 - $(W_0)(P_1 = \frac{12}{14})(\frac{5}{4})$ (inflation factor)

June 3 - $(W_0)(P_1 = \frac{11}{14})(1)$ (inflation factor)

June 28 - $(W_0)(P_1 = \frac{12}{14})(\frac{4}{3})$ (inflation factor)

June 29 - $(W_0)(P_1 = \frac{13}{14})(\frac{5}{4})$ (inflation factor)

June 30 - $(W_0)(P_1 = \frac{14}{14})(\frac{5}{4})$ (inflation factor)

As shown, each travel period day is counted separately in order to determine the P_1 and time inflation factors.

Table 2:

 P_i Factors to be Applied to W_0 Household Travel Period Trip Weights

| Day of the Month the Trip Took Place | P_i Factors | | |
|--|-------------------------------------|--|-----------------|
| | April, June, September, November | January, March, May, July, August, October, December | February |
| 1 | $\frac{13}{14}$ | $\frac{13}{14}$ | $\frac{13}{14}$ |
| 2 | $\frac{12}{14}$ | $\frac{12}{14}$ | $\frac{12}{14}$ |
| 3 | $\frac{11}{14}$ | $\frac{11}{14}$ | $\frac{11}{14}$ |
| 4 | $\frac{10}{14}$ | $\frac{10}{14}$ | $\frac{10}{14}$ |
| 5 | $\frac{9}{14}$ | $\frac{9}{14}$ | $\frac{9}{14}$ |
| 6 | $\frac{8}{14}$ | $\frac{8}{14}$ | $\frac{8}{14}$ |
| 7 | $\frac{7}{14}$ | $\frac{7}{14}$ | $\frac{7}{14}$ |
| 8 | $\frac{6}{14}$ | $\frac{6}{14}$ | $\frac{6}{14}$ |
| 9 | $\frac{5}{14}$ | $\frac{5}{14}$ | $\frac{5}{14}$ |
| 10 | $\frac{4}{14}$ | $\frac{4}{14}$ | $\frac{4}{14}$ |
| 11 | $\frac{3}{14}$ | $\frac{3}{14}$ | $\frac{3}{14}$ |
| 12 | $\frac{2}{14}$ | $\frac{2}{14}$ | $\frac{2}{14}$ |
| 13 | $\frac{1}{14}$ | $\frac{1}{14}$ | $\frac{1}{14}$ |
| 15 | - | - | $\frac{1}{14}$ |

Table 2 (continued):

P_i Factors to be Applied to W₀ Household Travel Period Trip Weights

| Day of the Month the Trip Took Place | P _i Factors | | |
|--|-------------------------------------|--|-----------------|
| | April, June, September, November | January, March, May, July, August, October, December | February |
| 16 | - | - | $\frac{2}{14}$ |
| 17 | $\frac{1}{14}$ | - | $\frac{3}{14}$ |
| 18 | $\frac{2}{14}$ | $\frac{1}{14}$ | $\frac{4}{14}$ |
| 19 | $\frac{3}{14}$ | $\frac{2}{14}$ | $\frac{5}{14}$ |
| 20 | $\frac{4}{14}$ | $\frac{3}{14}$ | $\frac{6}{14}$ |
| 21 | $\frac{5}{14}$ | $\frac{4}{14}$ | $\frac{7}{14}$ |
| 22 | $\frac{6}{14}$ | $\frac{5}{14}$ | $\frac{8}{14}$ |
| 23 | $\frac{7}{14}$ | $\frac{6}{14}$ | $\frac{9}{14}$ |
| 24 | $\frac{8}{14}$ | $\frac{7}{14}$ | $\frac{10}{14}$ |
| 25 | $\frac{9}{14}$ | $\frac{8}{14}$ | $\frac{11}{14}$ |
| 26 | $\frac{10}{14}$ | $\frac{9}{14}$ | $\frac{12}{14}$ |
| 27 | $\frac{11}{14}$ | $\frac{10}{14}$ | $\frac{13}{14}$ |
| 28 | $\frac{12}{14}$ | $\frac{11}{14}$ | 1 |
| 29 | $\frac{13}{14}$ | $\frac{12}{14}$ | |
| 30 | 1 | $\frac{13}{14}$ | |
| 31 | | 1 | |

Table 3: Travel Period Time Inflation Factors

| <u>Dates</u> | <u>Factors</u> |
|---|----------------|
| 3,10,18,25 of March | $\frac{9}{8}$ |
| 1,2,8,9,22,23,29,30 of April | $\frac{5}{4}$ |
| 3,10,24,31 of May | |
| 1,2,8,9,22,23,29,30 of June | |
| 1,8,22,29 of July | |
| 1,2,3,8,9,10,22,23,24,29,30,31 of August | |
| 1,2,8,9,22,23,29,30 of September | |
| 1,2,8,9,22,23,29,30 of November | |
| 1,2,8,9,22,23,29,30 of December | |
| 3,10,24,31 of January | |
| 1,2,8,9,23,24,30,31 of March | |
| 7,21,28 of April | $\frac{4}{3}$ |
| 1,2,8,9,22,23 of May | |
| 7,21,28 of June | |
| 7,9,10,21,23,24,28,30,31 of July | |
| 7,21,28 of August | |
| 7,21,28 of September | |
| 7,21,28 of October | |
| 7,21,28 of November | |
| 7,21,28 of December | |
| 7,8,9,21,22,23,28,29,30 of January | |
| 7,21,28 of February | |
| 7,21 of May | $\frac{3}{2}$ |
| 1,2,3,29,30,31 of October | |
| 3,10 of December | |
| 7,22,29 of March | |
| 3,4,5,6,10,11,12,13,17,18,19,20,24,25,26,27 of April | 1 |
| 4,5,6,11,12,13,18,19,20,25,26,27,28,29,30 of May | |
| 3,4,5,6,10,11,12,13,17,18,19,20,24,25,26,27 of June | |
| 2,3,4,5,6,11,12,13,18,19,20,25,26,27 of July | |
| 4,5,6,11,12,13,18,19,20,25,26,27 of August | |
| 3,4,5,6,10,11,12,13,17,18,19,20,24,25,26,27 of September | |
| 4,5,6,8,9,10,11,12,13,18,19,20,22,23,24,25,26,27 of October | |
| 3,4,5,6,10,11,12,13,17,18,19,20,24,25,26,27 of November | |
| 4,5,6,11,12,13,18,19,20,24,25,26,27,31 of December | |
| 1,2,4,5,6,11,12,13,18,19,20,25,26,27 of January | |
| 1,2,3,4,5,6,8,9,10,11,12,13,15,16,17,18,19,20,22,23,24, 25,26,27 of February | |
| 4,5,6,11,12,13,19,20,21,26,27,28 of March | |

Note that these factors should be applied after the W_0 trip weight and P_1 factors have been applied.

Procedure for estimating household or person characteristics--

1. Specific travel period. To obtain an estimate of traveling or nontraveling household (person) characteristics for a specific 14-day travel period, the W_0 weights for each household (Segment 1, Columns 115-126) or person (Segment 2, Columns 57-68) being considered in the estimate for the specific 14-day travel period should be summed.

For example: To estimate the number of traveling households for the travel period from May 19-June 1, sum the W_0 weights for all households making a travel period trip during that 2-week period from those households interviewed on June 2.

2. Monthly or quarterly estimate for households (persons) from the basic or supplemental sample (but not both). To obtain a monthly estimate of travel period household characteristics, a factor of $\frac{1}{d}$ (d =number of covered days) is applied to the W_0 weights of households with a travel day in the month of interest. The traveling or nontraveling status of the household will be based on the 14-day travel period of the household - but the travel day determines the month of travel.

For example: To estimate the number of households which made travel period trips during July, August and September, the W_0 weights should be summed and divided by 3×14 or 42 for all households with a travel day in July, August, and September and reporting one or more travel period trips.

3. Monthly, quarterly or annual estimates for households or persons from the basic and supplemental sample combined. To obtain an estimate of travel period household (person) characteristics for more than 1 month covered by both the basic and supplemental sample, follow the same estimating procedure as for travel day household (person) characteristics covered by both the basic and supplemental sample. Different factors are applied to the household (persons) depending on whether they are from the basic or supplemental sample. For travel period estimate: The households upon which these estimates should be based are those households with a travel day in the months under consideration; the traveling or nontraveling status is based on the 14-day travel period for the household.

For example: To estimate the number of households which took a travel period trip during the NPTS travel year (April 1977-March 1978):

For all households with a travel day in April-November and January (basic sample) which made one or more trips during the 14-day travel period, should receive a factor equal to:

$$(W_0) \left[\frac{562,803.7842}{\begin{array}{c} (d_1 \times 562,803.7842) + (d_2 \times BW(PSU)) \\ \text{or} \\ 9 \times 14 \qquad \qquad \qquad 3 \times 14 \end{array}} \right]$$

For all households with a travel day in December, February and March (supplemental sample) which made one or more trips during the 14-day travel period, should receive a factor equal to:

$$(W_0) \left[\frac{BW(PSU)}{\begin{array}{c} (d_1 \times 562,803.7842) + (d_2 \times BW(PSU)) \\ \text{or} \\ 9 \times 14 \qquad \qquad \qquad 3 \times 14 \end{array}} \right]$$

Table 4. Estimates of Selected Control Totals for
Variables from the 1977 NPTS

| Variables | Estimates | Remarks |
|---------------------------------|---------------|---|
| Travel Day Estimates (000) | | |
| Annual vehicle trips | 129,768,000 | Includes all trips on record made in a household vehicle. |
| | 129,185,000 | Includes only trips made in a household vehicle for which distance was known. |
| Annual vehicles miles of travel | 880,163,000 | Includes only travel made in a household vehicle for which distance was known. |
| Annual person trips | 217,617,000 | Includes all person trips on record. |
| | 216,200,000 | Includes only person trips for which distance was known. |
| Annual person miles of travel | 1,872,529,300 | Includes only travel made by a mode for which distance was known. |
| Total licensed drivers | 115,684 | Includes all licensed drivers on record, including those under 16 years of age which under strict interpretation of the guidelines should have been excluded. |
| | 115,557 | Includes only licensed drivers 16 years of age and older. |
| Total households | 75,412 | Includes all households. |
| Total vehicles | 120,098 | Includes all vehicles on record. |
| | 107,940 | Includes only vehicles for which mileage driven was known. |
| Total persons | 213,141 | Includes all persons. |

Travel Period Estimates

Travel period trips and miles of travel have not been included for a number of reasons, including the high proportion of trips which have invalid dates and unknown travel distances.

Table 5. Statistical Formulae to Produce Estimates of Trips (Vehicle/Person), Miles of Travel (Vehicle/Person) and Characteristics (Household/Person) for Different Time Periods

A. Using Data from the Travel Day

| Variable | Formulae | Definition of Terms |
|--|--|--|
| To produce estimates for one covered travel day(s) | | |
| Trips (Vehicle/Person) | $\frac{d}{\sum_{i=1}^d \sum_{v=1}^{V_i} W_{ovi}}$ | $W_{ovi} = W_o$ weight for the vth trip on the ith day $V_i =$ Total number of covered trips on the ith covered day |
| Miles of Travel (Vehicle/Person) | $\frac{d}{\sum_{i=1}^d \sum_{v=1}^{V_i} W_{ovi} M_{vi}}$ | $M_{vi} =$ Miles associated with the vth trip taken on the ith day $d =$ Number of covered days |
| Characteristics (Household/ Person) | $\frac{H}{\sum_{h=1}^H W_{oh}}$ | $W_{oh} = W_o$ weight for the hth household $H_i =$ Number of households for the covered travel day |
| To produce estimates for a month(s) quarter(s) or year | | |
| Trips (Vehicle/Person) | $\frac{d}{\sum_{i=1}^d \sum_{v=1}^{V_i} W_{ovi} T_i}$ | $\left. \begin{array}{l} W_{ovi} \\ M_{vi} \\ V_i \\ d \end{array} \right\} \text{As defined above}$ |
| Miles of Travel (Vehicle/Person) | $\frac{d}{\sum_{i=1}^d \sum_{v=1}^{V_i} W_{ovi} M_{vi} T_i}$ | |
| | | $T_i =$ Time inflation factor for travel day trips |

Table 5. Statistical Formulae to Produce Estimates of Trips
(Vehicle/Person), Miles of Travel (Vehicle/Person) and
Characteristics (Household/Person) for Different Time Periods

A. Using Data from the Travel Day
(Continued)

| Variable | Formulae | Definition of Terms |
|--|---|---|
| To produce estimates for month(s) quarter(s) or year | | |
| Characteristics (Household/ Person) | | |
| a. More than one day covered by the basic <u>OR</u> Supplemental Sample (<u>NOT</u> both) | | |
| | $\frac{1}{d} \sum_{i=1}^d \sum_{h=1}^{H_i} W_{ohi}$ | W_{ohi} = W_o weight for the hth household for the ith covered day d = Number of covered days H_i = As defined previously |
| b. More than one day covered by the basic <u>and</u> supplemental sample | | |
| | $\sum_{i=1}^{d_1} \sum_{h=1}^{H_i} \frac{562,803.7842}{(d_1 \times 562,803.7842) + (d_2 \times BW(PSU))} W_{ohi}$ | Applied to households from the basic sample |
| | $\sum_{i=1}^{d_2} \sum_{h=1}^{H_i} \frac{BW(PSU)}{(d_1 \times 562,803.7842) + (d_2 \times BW(PSU))} W_{ohi}$ | Applied to households from the supplemental sample |
| | | d_1 = Number of days covered by basic sample d_2 = Number of days covered by supplemental sample |

Table 5. Statistical Formulae to Produce Estimates of Trips (Vehicle/Person), Miles of Travel (Vehicle/Person) and Characteristics (Household/Person) for Different Time Periods

B. Using Data from the Travel Period

| Variable | Formulae | Definition of Terms |
|---|--|--|
| To produce estimates for covered travel period | | |
| Trips (Vehicle/Person) | $\sum_{i=1}^d \sum_{l=1}^L P_l W_{ovi}$ | V_i = Total number of covered travel period trips for the i th travel day of the travel period |
| Miles of Travel (Vehicle/Person) | $\sum_{i=1}^d \sum_{l=1}^L P_l M_{vi} W_{ovi}$ | W_{ovi} = W_0 weight for the v th travel period trip on the i th travel day of the travel period P_l = Factors defined on pages 24 and 25 M_{vi} = Number of miles associated with v th travel period trip on the i th travel day of the travel period |
| Characteristics (Household/ Person) | $\sum_{h=1}^H W_{ohi}$ | W_{ohi} = W_0 weight for the h th household reporting travel period trips for the i th travel period H_i = Number of households reporting trips for the i th travel period |
| To produce estimates for a month(s), quarter(s) or year | | |
| Trips (Vehicle/Persons) | $\sum_{i=1}^d \sum_{l=1}^L P_l W_{ovi} T_i$ | T_i = Time inflation factor for the i th day that a travel period trip took place |
| Miles of Travel (Vehicles/Persons) | $\sum_{i=1}^d \sum_{l=1}^L P_l W_{ovi} T_i M_{vi}$ | W_{ovi} V_i } As defined above |
| Characteristics (Household/ Person) | These estimates can be represented by the same formulae as for travel day. However, the traveling or nontravel status of the household or person is based on its <u>travel period trip</u> not its travel day trips. | |

V. Comparison of 1977 NPTS with the 1969 NPTS

As indicated previously, the scope of the 1977 NPTS was expanded from the 1969 NPTS. Part A of this section details the additional information collected in 1977 that was not collected in 1969. Part B concentrates on the expanded trip purpose information collected in 1977, from 11 trip purposes in 1969 to 21 trip purposes in 1977. The recoding and trip linking procedures developed by the FHWA for use in comparing changes between the two survey periods is also detailed.

Expanded Scope of the 1977 NPTS (Part A)

The scope of the 1977 NPTS was expanded to collect certain information that was not part of the 1969 survey. The additional information includes:

Trip Purposes--The number of trip purposes was expanded from 11 in 1969 to 21 in 1977. The trip purposes added in 1977 were conventions, sightseeing, entertainment, recreation (participant), overnight lodging, social, return home, change of vehicle without change of mode, change means of transportation and pickup and leave off passengers.

Vehicle Record--The types of household vehicles was expanded in 1977 to include van, pickup truck, other truck (personal use), motorcycle, self-contained recreational vehicle, taxi (personal use) and MOPED, as well as automobile. Questions were added regarding the vehicle characteristics (i.e., automatic transmission, air conditioning, number of cylinders and average monthly gas expense for all household vehicles.

Travel as an Essential Part of Work--Information was collected on trips and travel for persons who drive as an essential part of their job (e.g., truck drivers).

Trips of 75 Miles-or-more (One-Way)--Long trips, which may occur infrequently, were underreported in the 1969 NPTS. In 1977, information on trips of 75 miles-or-more was specifically collected over a 14-day period. In 1969, trip information was collected for a 1-day period, for all trip lengths.

Urban/Rural Split of Travel--In the 1969 NPTS, travel was related to the place of residence of the tripmaker. In 1977, a portion of the home interview was devoted to having the tripmaker trace all private motor vehicle trips on a map of the area in which the household was located and on which the urban/rural boundary was marked. These maps were later used to calculate the urban/rural split of travel.

Recoding and Triplinking Procedures (Part B)

In order to compare changes between the two survey periods, recoding and/or triplinking of the 21 trip purposes used in 1977 to the 11 trip purposes used in 1969 is necessary for data comparability. This section contains a description of the recoding and triplinking procedures developed

by FHWA for use in comparing the 1977 trip purposes with the 1969 trip purposes. Use of FHWA developed recoding and triplinking procedures is at the user's discretion. Further, there is nothing that restricts the user from developing and applying a different trip recoding and/or triplinking scheme. The description of the FHWA procedures and the inclusion of the recoded trip purpose codes on the tapes is done as a service for those who wish to utilize them.

Table 6 details the trip purpose recode procedure that FHWA developed for use in recoding of the 1977 NPTS trip purposes for comparability with 1969. This procedure involves the addition of a recode field at the end of each trip record. Thus, the trip record includes the original 1977 trip purpose codes (columns 49-51 in Segment 5 and columns 55-57 in Segment 6), as well as the recoded 1969 trip purpose codes (columns 388-390 and columns 412-414 respectively). This will provide maximum flexibility in the data record tape.

Some of the 1977 NPTS trip purposes are directly comparable to the 1969 NPTS trip purposes and no recode procedures were required; the 1977 trip purpose code was transferred to the recode field using the comparable 1969 code. These include the trip purposes shown in Group A and Group C of Table 7.

The 1977 trip purposes included in Group B were recoded to agree with the 1969 code because these 1977 trip reasons are all subgroups of the 1969 trip code. The remaining 1977 trip reasons, i.e. those in group D, required special handling, since there were no comparable 1969 trip reasons. The recoding procedure outlined in Table 6 is concerned with this group of 1977 trip purposes and was applied in sequence (Rules 1-10; see page 36).

In addition, the procedures include a method for handling work trips (rules 11, 12, and 13), since fewer work trips were recorded in the 1969 NPTS than in the 1977 NPTS. Rules 11, 12, and 13 set forth procedures for handling the following situations:

1. The 1969 NPTS edit procedures limited number of work trips to two: one initial trip "to work" and the other "return from work." All other trips involving work were coded "work-related." In 1977 any trip to place of employment was coded as a work trip with no restriction as to number of acceptable work trips.
2. In 1969, trips to-and-from-lunch during the work day were coded as "personal business," since there was no "eat meal" category. In 1977 the trip to lunch was coded as "eat meal" the return trip was coded "to work."

In addition, a procedure for linking trips coded 15 (change vehicle without change of mode), 16 (change mode of transportation), and 17 (pick-up or leave-off passengers) was developed, since these trip purposes were never considered in 1969 and were therefore "lost." Like the recoding procedure, this procedure involves an additional field at the end

of the trip record (columns 391-393 in Segment 5 and columns 415-417 in Segment 6) for each household member. Trip purpose codes other than 15, 16, and 17 contain a zero in this field. Trip purpose codes 15, 16, and 17, contain the number of the trip to which these are linked in this field. The trip linking procedure is as follows:

If the original trip code was 15, 16, or 17, the trip number of the next acceptable trip (or non-15, 16, and 17) was entered. If there was no acceptable trip, the trip number of the last trip processed was entered.

Table 6. Recode and Trip Linking Rules to Change 1977 NPTS Trip Purpose Codes to 1969 Trip Purpose Codes.

If there is more than one original trip code of 18 (return home), treat each group of trips ending with the code 18 trip as a separate entity for purposes of recoding.

1. If the original trip code was 03 (convention), then code 02 (business other than work) was added as the recode.
2. If the original trip code was 05 (eat meal) and it followed a trip recode of 01 (work), then code 04 (family or personal business) was added as the recode.
3. If the original trip code was 05 (eat meal) and it did not follow a trip recode of 01 (work), then code 10 (other social or recreational) was added as the recode.
4. If the original trip code was 11 (sightseeing), 12 (entertainment), or 13 (recreation), then code 10 (other social or recreational) was added as the recode.
5. If the original code was 19 (lodging), then code 11 (other) was added as the recode.
6. If the original trip code was 15, 16, or 17, then the recode was stored until a following trip recode was designated.
7. If the original trip code was 15, 16, or 17, and no acceptable* original trip codes followed, then code 11 (other) was added as a recode.
8. If the original trip code was 18 (return home) and there was a previous trip recode of 01 (work), then code 01 (work) was added as the recode.
9. If the original trip code was 18 (return home), and there was no previous trip recode of 01 (work), but there was a preceding trip, the recode of the preceding trip was added to the record.
10. If the original trip code was 18 (return home), and there were no previous trips, then code 11 (other) was added as the recode.

*Acceptable trip codes for purposes of this procedure are the following 1977 trip codes: 01, 02, 04, 06, 07, 08, 09, 10, 14, and 21; and in addition trip codes 05, 11, 12, 13, and 20 which were recoded to 10.

11. If the original trip code was 01 (work) and there were no previous 01 (work) trips, then code 01 (work) was added to the record.
12. If the original trip code was 01 (work) and there was a previous 01 (work) trip, and the preceding trip was not recoded as 01 (work), then the recode of the preceding trip was added to the record.
13. If the original trip code was 01 (work), and it was followed by one or more successive 01 (work) trips, then a recode of 02 (business other than work-related) was added to the second as well as subsequent 01 (work) trips.

Table 7. 1977-1969 NPTS Trips Purposes and Codes

| Group | Code | 1977 Trip Purposes | Code | 1969 Trip Purposes |
|-------|------|---------------------------------------|-------------|-----------------------------------|
| A | 01 | To place of work | 01 | To work |
| | 02 | Work-related business | 02 | Business other than to work |
| | 03 | Shopping | 03 | Shopping |
| | 04 | Family or personal business | 04 | Other family or personal business |
| | 04 | Civic, educational or religious | 05 | To school or church |
| | 06 | Doctor or dentist | 06 | To doctor or dentist |
| | 14 | Vacation | 07 | Vacation |
| | 09 | Visit friends or relatives | 08 | Visit friends or relatives |
| | 10 | Pleasure driving | 09 | Pleasure driving |
| | B | 11 | Sightseeing | 10 |
| 5 | | Eat meal | | |
| 12 | | Entertainment | | |
| 13 | | Recreation (participant) | | |
| 20 | | Social | | |
| C | 21 | Other | 11 | Other |
| | 03 | Convention | | |
| D | 15 | Change vehicle without change of mode | | |
| | 16 | Change means (mode) of transportation | | |
| | 17 | Pick-up or leave-off passenger | | |
| | 18 | Return home | | |
| | 19 | Lodging | | |

Appendices

Appendix A: Glossary of Terms Used In NPTS

This glossary provides the most common terms used in the NPTS survey and the definition of these terms. These definitions are provided to assist the user in the interpretation of the data. Terms related to statistical procedures are found in Chapter IV. Weighting Specifications for Data from the 1977 NPTS.

Airport--A commercial facility that services regularly scheduled airlines.

Carpool--A regularly scheduled traveling arrangement whereby 2 or more persons ride together in the same vehicle, sharing the driving and/or the cost of the trip, or simply riding together regularly with one or more persons doing the driving. If 2 or more household members regularly ride to work in the same vehicle, it is also considered a carpool.

Destination--For travel period trips, the destination is the farthest point of travel from the point of origin of a one-way trip of 75 miles or more.

In travel day trips, the destination is the point at which there is a break in travel.

Driver--A person who operates a motorized vehicle. If more than one person drives on a single trip, the person who drives the most miles is classified as the principal driver. If one or more household members share the driving, the percent of driving done by each household member is recorded separately. If non-household members share the driving, the total percent of driving done by all non-household members is recorded.

Employed--A person is considered employed if there is a definite arrangement for regular full-time or part-time work for pay every week or every month. A formal, definite arrangement with one or more employers to work a specified number of hours a week, or days a month, but on an irregular schedule during the work month is also considered employment. A person who is on call to work whenever there is a need for his (her) services, is not considered employed.

Education Level--The number of years of regular schooling completed in graded public, private, or parochial schools, or in colleges, universities, or professional schools, whether day school or night school. Regular schooling is that which advances a person toward an elementary or high school diploma, or a college, university or professional school degree.

Family Income--The money income of all persons in a household, including those temporarily absent. Includes wages and salary (before deductions), commission, tips, cash bonuses; net income from a person's own

(unincorporated) business, professional practice, or farm (gross receipts minus business expenses); pensions, dividends, interest, unemployment or workmen's compensation, social security, veterans' payments, rent received from owned property (minus the operating costs), public assistance payments, regular gifts of money from friends or relatives not living in the household, alimony, child support, and other kinds of periodic money income other than earnings. Excludes income in kind, such as room and board, insurance, payments, lump-sum inheritances, occasional gifts of money from persons not living in the same household, money received from selling one's house, car, or other personal property, withdrawal of savings from banks, and tax refunds.

Federal-aid urban area--An urban place of 5,000 or more population as determined by the Bureau of the Census.

Federal-aid rural area--Any area outside of federal-aid urban areas.

Freeway, tollway, or expressway--A divided arterial highway for through traffic with full or partial control of access and grade separations at major intersections.

Head of household--The one person who is regarded as the head by the members of the household. In most cases the husband is the head, if living in the household. In some cases, the head may be a parent of the chief wage earner or the only adult member of the household. An Armed Forces member is considered as the head only if he lives at home and is a household member. Only one head is designated for each household.

Household--A group of persons whose usual place of residence is a specific housing unit; these persons may or may not be related to each other. The total of all U.S. households represents the total civilian non-institutionalized population.

Household trip--One or more household members traveling together.

Household vehicle--A motorized vehicle that is owned, leased, rented or company-owned and left at home to be regularly used by household members during the reference period. Includes vehicles used solely for business purposes if kept at home, e.g., taxicabs, police cars, etc., which may be owned by, or assigned to, household members for their regular use. Includes vehicles brought home by a car sales person or auto mechanic, only if the vehicle was available for use by him (her) during the entire reference period. Includes all vehicles that were owned or available for use by members of the household during the reference period even though a vehicle may have been sold before the interview. Excludes vehicles that were not working and not expected to be working within 60 days, and vehicles that were purchased or received after the designated travel day.

Licensed driver--Any person who holds a valid driver license from any State.

Means of transportation--A personal mode used for going from one place (origin) to another (destination). Includes private and public motorized modes, as well as walking. For all travel day trips, each change of mode constitutes a separate trip. The following personal transportation modes are included:

- Automobile: A privately owned and/or operated licensed motorized vehicle including cars, jeeps, dune buggies and stationwagons. Also includes leased and rented cars if they are privately operated and not picking up passengers in return for fare.
- Vanbus/Minibus: Privately owned and/or operated vans and buses designed to carry from 5 to 13 passengers; for example, a Volkswagen bus.
- Pickup truck/other van: A small open-body motorized vehicle, privately owned and/or operated, with 4 to 6 tires, built on a chassis comparable to that of a passenger car. Accomodates fewer than 5 passengers. Includes travel trucks (service trucks) when they are not being used for commercial purposes.
- Other truck (personal use): The private use, either as a passenger or driver, of all other types of trucks, i.e.: dump trucks, trailer trucks, etc., when they are not being used for commercial purposes.
- Motorcycle: Includes Harley-Davidson, Hondas, Vespas, etc. Does not include minibikes, etc., which cannot be licensed for highway use.
- Self-contained recreational vehicle: Includes recreational vehicles that are operated as a self-contained unit without being hitched to another vehicle; for example, a Winnebago motor home.
- Taxi (personal use): The use of a passenger vehicle either by a driver or a passenger, which does not involve the duties of a professional driver for the payment of a fare by a passenger.
- Bus: Includes Greyhounds, Trailways, etc.; mass transit systems and shuttle buses that are available to the general public. Also includes Dial-A-Bus and Senior Citizen buses that are available to the public. Does not include shuttle buses operated by a government agency or private industry for the convenience of employees, contracted or chartered buses or school buses. These latter types are included in "other."
- Train: Includes commuter trains and passenger trains other than elevated trains and subways.
- Streetcar: Includes trolleys, streetcars, and cable cars.
- Elevated rail or subway: Includes elevated train and subway trains.

--Airplane: Includes commercial airplanes and smaller planes that are available for use by the general public in exchange for a fare. Private planes and helicopters are included under "other."

--Taxi (commercial use): The use of a taxicab by a driver for hire or by a passenger for fare. Also includes airport limousines. Does not include rental cars if they are privately operated and not picking up passengers in return for fare.

--Truck (commercial use): Includes the commercial use, either as a driver or a passenger, of pickups, dump trucks, trailer trucks, being operated for business-related purposes.

--Bicycles: Includes bicycles of all speeds and sizes and minibikes.

--Walk: Includes jogging, walking, etc., provided the origin and destination are not the same.

--Schoolbus: Includes county school buses, private school buses, and buses chartered from private companies for the express purposes of carrying students to/or from school and/or school-related activities. Does not include school buses chartered or reserved for other trips, such as church outings; these are included under "other."

--Motorized bicycle/(often called a Moped): Includes bicycles equipped with both pedals and a small engine, typically a horsepower or less.

--Other: Includes any types of transportation not included above.

Motorized vehicle: Includes all vehicles that are licensed for highway driving. Specifically excluded are snow mobiles, minibikes, etc.

Origin: Starting point of a trip.

Owned vehicle: Any vehicle that one or more household members have purchased for private use regardless if paid for in full, or a gift or legacy to a household member for private use.

Passenger: For a specific trip, any occupant of a motorized vehicle, other than the driver.

Person (household member): All people, whether present or temporarily absent, whose usual place of residence is the sample unit, or people staying in the sample unit who have no other usual place of residence elsewhere.

Person miles: A measure of person travel. When one person travels one mile, one person mile of travel results. Where 2 or more persons travel together in the same vehicle, each person makes the same number of person miles as the vehicle miles. Therefore, four persons traveling five miles in the same vehicle, make 4 times 5 person miles or twenty person miles.

Person nights: The number of nights spent by each person away from home on a travel period trip. For example, two persons on a trip spending 5 nights away from home would result in ten person nights.

Person trip: A unit of person travel. When two or more persons travel together in the same vehicle, each person is counted as making one person trip.

Standard Metropolitan Statistical Area (SMSA): Except in the New England States, a standard metropolitan statistical area is a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more, or "twin cities" with a combined population of at least 50,000. In addition, contiguous counties are included in an SMSA if, according to certain criteria, they are socially and economically integrated with the central city. In the New England States, SMSA's consist of towns and cities instead of counties.

Rural area: Any area outside of an urban place.

Station wagon: A passenger vehicle, having an enclosed body of paneled design with two or more seats, where the rear seats can be removed or folded down to create larger luggage or freight compartments.

Train station: A depot where regularly scheduled trains may be boarded for travel to cities at least 30 miles away.

Stop: For travel period trips, a break in travel other than for gasoline, rest and food. For travel day trips, each stop is treated as a separate trip.

Travel day: A 24-hour period from 4:00 a.m. to 3:59 a.m. designated by the Bureau of the Census as the reference period for studying trips and travel of a particular household.

Travel period: The fourteen days immediately preceding the travel day of the same household.

Traveler: A person reporting a travel day and/or travel period trip(s).

Traveling household: A household reporting at least one travel day and/or travel period trip.

Trip: A travel day trip is defined as any one-way travel from one address (place) to another by private motor vehicle, public transportation, bicycle, or walking. Jogging and walking for exercise are excluded, as well as all bicycling and walking for individuals under 14 years of age. When travel is to more than one destination, a separate trip exists each time one or both of the following criteria is satisfied:

- a. The travel time between two destinations exceeds five minutes.
- b. The purpose for travel to one destination is different from the purpose for travel to another.

The one exception is travel within a shopping center or mall. It is to be considered travel to one destination, regardless of the number of stores visited.

Trip: A travel period trip is one-way to a destination which is 75 miles-or-more from place of origin.

Trip duration: For travel period trips, the number of nights spent away from home on a single trip, including time (nights) spent enroute and at the destination. For travel day trips, usually measured in minutes.

Trip purpose: The main reason that motivated the trip. For purposes of this survey, there are 21 trip reasons. If there are more reasons than one, and the reasons do not involve different destinations, then only the main reason is chosen. If there are two or more reasons, and they each involve different destinations, then each reason is classified as a separate trip. The 21 trip reasons are defined as follows:

- To place of work: Includes travel to a place where one reports for work. It does not include any other work-related travel.
- Work-related business: Trips related to business activities except to the place of work; for example, a plumber drives to a wholesale dealer to purchase supplies for his business.
- Convention: Trips made to attend business, professional, special interest, and other types of conventions; for example, Shriners, etc.
- Civic/Education/Religious: Trips to political rallies, legislative hearings, voting places, etc.; to school, college, or university for class(es), PTA meetings, seminars, etc.; to church services or to participate in other religious activities. Social activities that take place at a church or school are not classified as religious or educational.
- Eat Meal: Trips taken to eat a meal in a public place. Trips taken to a friend's house for dinner are classified "visit friends or relatives."

- Doctor or dentist: Trips made for medical, dental or psychiatric treatment or other related professional services.
- Shopping: Includes "window-shopping" and purchases of commodities, such as groceries, furniture, textiles, etc., for use or consumption elsewhere.
- Family or personal business: Trips taken to attend organized functions of the family or friends, such as weddings, graduations, reunions, etc. Includes purchase of services such as cleaning garments, beauty parlor treatments, servicing of an auto, etc.
- Visit friends or relatives: Trips made to visit friends or relatives but not prompted by organized family affairs or an emergency.
- Pleasure driving: Includes driving trips made with no other purpose listed here but to "go for a drive" with no destination in mind; for example, a Sunday drive in the country.
- Sightseeing: Trips taken to sightsee or tour with a particular place planned to visit. This distinguishes "sightseeing" from "pleasure driving."
- Entertainment: Trips taken to go to a movie, the theatre, opera, concert, discotheque, cabaret, spectator sports, such as a ball game, races, track meet, or an amusement park.
- Recreation (participant): Trips taken to participate in sporting or outdoor activities, such as fishing, hunting, golf, swimming, picnicking, skiing, etc., also, trips to participate in outdoor activities, such as skating, bowling, basketball, etc.
- Vacation: Trips reported by the respondent as "vacation."
- Change of vehicle: Trips made specifically to change from one vehicle to another within the same "means of transportation" category. (For example, transferring from one bus to another, one plane to another, or from one passenger car to another).
- Pick up or leave off passenger: Trips that are made to serve a passenger. For example, a trip by Mrs. Columbo to pick up her mother and drive her to the store on travel day would be reported as two trips: the trip to her mother's home for the purpose of picking up a passenger and the trip to the store for the purpose of shopping. If Mr. Hersholt drives from Washington to Chicago during the 14-day travel period and stops in Baltimore to pick up his son, the purpose of his first stop on his trip to Chicago will be reported in Part B of Section VI as "picking up a passenger."

--Return home: The trip made to the residence of the respondent at the time of the trip. In the case of a college student who lives on campus and is interviewed at school, trips to the dormitory or other living quarters on campus are considered "return home."

--Lodging: Trips made for the purpose of taking overnight accommodations. This category is also used in lieu of "return home" when return trips are to this lodging.

--Social: Trips taken to enjoy some form of social activity involving friends or acquaintances, such as a party, playing cards, dancing, etc.

--Other: Any purpose for a trip that does not fit into one of the above categories.

Vehicle mile: A unit to measure vehicle travel made by a household vehicle: automobile, vanbus/minibus, pickup truck/ other van, other truck (personal use), motorcycle, self-contained recreational vehicle, and taxi (personal use).

Vehicle occupancy: The number of persons, including driver and passenger(s) in a vehicle; also includes persons who did not complete a whole trip.

Vehicle trip: A trip by a single vehicle regardless of the number of persons in the vehicle. For purposes of this study, a vehicle trip is a trip made in a household vehicle.

Vehicle type: For purposes of the Study, one of the twelve vehicle types used for coding purposes in the household motorized vehicle record of the NTS-2 Questionnaire.

Urbanized area: Defined by the Bureau of the Census as:

1a. A central city of 50,000 inhabitants or more in 1960, or in a special census conducted by the Census Bureau since 1960, or in the 1970 census; or

b. Twin cities, i.e. cities with contiguous boundaries and constituting for general social and economic purposes, a single community with a combined population of at least 50,000, and with the smaller of the twin cities having a population of at least 15,000.

2. Surrounding closely settled territory, including the following: (but excluding the rural portions of extended cities)

a. Incorporated places of 2,500 inhabitants or more.

b. Incorporated places with fewer than 2,500 inhabitants provided that each has a closely settled area of 100 housing units or more.

c. Small parcels of land, normally less than one square mile in area, having a population density of 1,000 inhabitants or more per square mile. The areas of large nonresidential tracts devoted to such urban land uses as railroad yards, airports, factories, parks, golf courses, and cemeteries are excluded in computing the population density.

d. Other similar small areas in unincorporated territory with lower population density provided that they serve

- to eliminate enclaves, or

- to close indentations in the urbanized areas of one mile or less across the open end, or

- to link outlying enumeration districts of qualifying density that are not more than 1 1/2 miles from the main body of the urbanized area,

Type Z non-interview: A person in an interviewed household for which trip information is incomplete but for which certain demographic information is available.

Urban place: Defined by the Bureau of the Census as follows:

a. A place of 2,500 inhabitants or more incorporated as a city, borough, village, or town, (except towns in New England, New York, and Wisconsin);

b. The densely settled fringe, whether incorporated or unincorporated, of urbanized areas;

c. Towns in New England and townships in New Jersey and Pennsylvania that contain no incorporated municipalities as subdivisions and have either 25,000 inhabitants or more, or a population of 2,500 to 25,000 and a density of 1,500 persons or more per square mile;

d. Counties in States other than the New England States, New Jersey, and Pennsylvania that have no incorporated municipalities within their boundaries and have a density of 1,500 persons or more per square mile; or

e. Unincorporated places of 2,500 inhabitants or more.

U.S. DEPARTMENT OF COMMERCE
FORM NTS-2 (11-8-77)

**DETAILED PERSONAL INTERVIEW
(Sections I-VI)
NATIONAL TRAVEL SURVEY
1977 CENSUS OF TRANSPORTATION**

a. Questionnaire of _____ of _____
b. Interviewer Identification
 Code Name _____
c. Record of Interview
 Line number of household respondent (205) _____ Date completed _____
d. Background characteristics
 Name _____
 Street _____
 City of the _____
 State _____
 Zip _____
e. Background characteristics
 Name _____
 Street _____
 City of the _____
 State _____
 Zip _____

1a. Control number _____
 Check _____
1b. Address (Sheet _____ Line _____) What is your exact address?
 (Include house No., St., Apt. No., or other identification)

1c. Type of structure (CC 9)
 1 No one home
 2 Temporarily absent
 3 Refused
 4 Unable to locate
 5 Other - occ.
1d. Type of structure (CC 9)
 1 Single family detached
 2 Single family attached to 1 or more structures
 3 Single family trailer or mobile home
 4 Multi-family 2-4 units
 5 Multi-family over 4 units
 6 Other - Specify _____

Place, State and ZIP code _____
2. NONINTERVIEW STATUS
TYPE A
 1 Vacant-storage of household furniture
 2 Vacant-storage of household furniture
 3 Temporarily occupied by persons with URE
 4 Unfit or to be demolished
TYPE B
 10 Under construction, not ready
 11 Converted to temporary business or storage
 12 Unoccupied tent site or trailer
 13 Other site, permit granted, construction not started
TYPE C
 14 Demolished
 15 House or trailer moved
 16 Converted to permanent business
 17 Married or storage
 18 Condemned
 19 Other
 Interview not obtained for: _____
 Line numbers - (206) _____ (207) _____ (208) _____ (209) _____ (210) _____ (211) _____

3. TYPE Z _____
4. LINE NO. (CC 8) _____
5a. NAME (Last name first) (CC 9a) _____
5b. HOUSEHOLD HEAD (CC 9b) _____
5c. OFFICE ONLY
 Month _____ Day _____ Year _____
6a. BIRTH DATE (CC 11) Enter in numerals
6b. AGE (CC 12) Enter in numerals
6c. MARITAL STATUS (CC 13) Enter code
 1 - M 4 - Sep. 2 - Female 3 - D
 2 - Wd. 5 - NM 3 - D
6d. SEX (CC 14) Enter code
 1 - Male 2 - Female 3 - Other
6e. RACE (CC 15) Enter code
 1 - White 2 - Negro 3 - Other
6f. ORIGIN OR DESCENT (CC 16) Enter code
6g. EDUCATION (CC 17a) Enter code
 Highest grade completed
 1 - Yes 2 - No
6h. ARMED FORCES (CC 18) Enter code
 1 - Yes 2 - No
6i. 12. TOTAL FAMILY INCOME IN PAST 12 MONTHS (CC 28)
 Under \$2,000
 \$2,000 - \$2,999
 3,000 - 3,999
 4,000 - 4,999
 5,000 - 5,999
 6,000 - 7,499
 7,500 - 9,999
 10,000 - 11,999
 12,000 - 14,999
 15,000 - 19,999
 20,000 - 24,999
 25,000 - 34,999
 35,000 - 49,999
 50,000 - 99,999
 100,000 and over
6j. 13. TOTAL NUMBER OF HOUSEHOLD TRIPS
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047 1048 1049 1050 1051 1052 1

Section 1 - MOTORIZED VEHICLE RECORD

READ - Now I would like to ask you some questions about motor vehicles owned or used by members of this household.

14a. How many licensed motorized vehicles were owned, or available for use on a regular basis, by members of this household during the period from (1st day of 14-Day Travel Period) through (Travel Day)? Include leased or company-owned licensed motorized vehicles. Also include motorized bicycles (MPCEDS) whether licensed or not.

(215)

o Note - SKIP to Section 11

Number of vehicles

Ask item 14c and enter all vehicle types. Then complete 14d through n for the first vehicle before recording the information for the second vehicle, etc.

| Vehicle Number | What type(s) of vehicle is it (are they)? (Use codes below) | What is the make and model? Example: Dodge, Coronet | Does it have automatic transmission? Circle 1 - Yes 2 - No | How many cylinders does it have? (Indicate "if" or "Reley") | Is it air conditioned? Circle 1 - Yes 2 - No | Who owns the vehicle? (Use codes below) | Ask for household-owned vehicles only (Entry of "1" in column i) | | Is this vehicle used at least 4 times a month to go to work? Circle 1 - Yes 2 - No - SKIP to 14n | Is it used to go ALL the way to work or PART way? Circle 1 - All the way 2 - Part way | About how many miles was this vehicle driven during the last 12 months? (Or from the date of purchase if less than 12 months ago?) |
|----------------|--|--|---|--|---|--|---|--|---|--|---|
| | | | | | | | i. Was it purchased, or received, new or used? | j. What was the date of purchase (or receipt)? (For vehicles purchased within the last 12 months enter MONTH and year. For others, enter year only) (Enter numerals) | | | |
| | | | f. Yes No | f. Yes No | | 1. Owned by member of household | k. New Used | l. Yes No | m. All Part | | |
| 1 | 1 Automobile | | 1 2 | 1 2 | 1 2 | 1 | 2 | 1 2 | 1 2 | | |
| 2 | 2 Station wagon | | 1 2 | 1 2 | 1 2 | 1 | 2 | 1 2 | 1 2 | | |
| 3 | 3 Vanbus/Minibus | | 1 2 | 1 2 | 1 2 | 1 | 2 | 1 2 | 1 2 | | |
| 4 | 4 Other van | | 1 2 | 1 2 | 1 2 | 1 | 2 | 1 2 | 1 2 | | |
| 5 | 5 Pickup with camper | | 1 2 | 1 2 | 1 2 | 1 | 2 | 1 2 | 1 2 | | |
| 6 | 6 Other truck | | 1 2 | 1 2 | 1 2 | 1 | 2 | 1 2 | 1 2 | | |
| 7 | 7 Motorized camper-couch | | 1 2 | 1 2 | 1 2 | 1 | 2 | 1 2 | 1 2 | | |
| 8 | 8 Taxi | | 1 2 | 1 2 | 1 2 | 1 | 2 | 1 2 | 1 2 | | |
| 9 | 9 Motorized bicycle | | 1 2 | 1 2 | 1 2 | 1 | 2 | 1 2 | 1 2 | | |
| 10 | 10 Other - Specify | | 1 2 | 1 2 | 1 2 | 1 | 2 | 1 2 | 1 2 | | |

15. (Ask only if one or more vehicles were reported in 14a) In the last year, what has been the average monthly expense for gasoline for all vehicles owned or leased by this household?

\$ _____ monthly
 Part-time

Section II - AVAILABILITY OF PUBLIC TRANSPORTATION

READ - Now I would like to ask about transportation in the area.

16. Is public transportation, other than taxis, available within 2 miles of your home?

- 402 1 Yes
 2 No
 x Don't know } SKIP to 18

17a. How far from your home is the NEAREST public transportation stop - (other than taxis)?

- 403 1 Less than 3 blocks (Less than 1/4 mile)
 2 3-6 blocks (1/4-1/2 mile)
 3 7-12 blocks (More than 1/2 mile, but not more than 1 mile)
 4 13-24 blocks (More than 1, not greater than 2 miles)
 x Don't know - SKIP to 18

b. What type of transportation is it?

- 404 1 Bus
 2 Train
 3 Streetcar
 4 Subway or elevated rail
 5 Other - Specify _____

18. How far is it from your home to the nearest point where you can get on or off a freeway, tollway or expressway?
 (A divided highway which goes under or over all crossing roads and can be entered or left only at selected points by way of a ramp)

- 405 1 Less than 1 mile
 2 1-2 miles
 3 More than 2, less than 5, miles
 4 5 miles or more
 x Don't know

19. For traveling to cities 30 miles or more away, how far is it from your home to the nearest -

a. inter-city bus terminal?

- 406 _____ Miles
 o Less than 1/2 mile
 x Don't know
 999 None available

b. train station?

- 407 _____ Miles
 o Less than 1/2 mile
 x Don't know
 999 None available

c. airport served by scheduled airlines?

- 408 _____ Miles
 o Less than 1/2 mile
 x Don't know
 999 None available

51

Section III - OCCUPATION AND TRAVEL TO WORK
ASK all household members 16 years or older

Household member line number

501

CHECK
ITEM A

Is this person

READ - Now I would like to ask you some questions about your occupation.

20a. What were you doing most of LAST WEEK - (working, keeping house, going to school) or something else?

502

- 1 Working - SKIP to 20d
- 2 With a job but not at work - SKIP to 20d
- 3 Looking for work
- 4 Keeping house
- 5 Going to school
- 6 Unable to work - SKIP to Section IV
- 7 Retired
- 8 Other - Specify _____

b. Did you do any work at all LAST WEEK, not counting work around the house?

503

- 1 Yes - SKIP to 20d
- 2 No

c. Did you have a job or business from which you were temporarily absent or on layoff last week?

504

- 1 Yes
- 2 No - SKIP to Section IV

d. For whom did you work? (For Armed Forces, enter the particular branch)

e. What kind of business or industry is this? (For Armed Forces, enter "Same as above")

505

□ □ □

f. What kind of work were you doing? (For example, electrical engineer, stock clerk, typist, farmer, Armed Forces)

NOTE: Single word entries seldom give sufficient description.

506

□ □ □

g. What were your most important activities as a (read entry from 20f)? (For example, typing, keeping account books, selling cars, Armed Forces).

h. Were you -

507

- 1 An employee of a PRIVATE company, business, or individual for wages, salary, or commissions?
- 2 A GOVERNMENT employee (Federal, State, county, or local)?
- SELF-EMPLOYED in OWN business, professional practice or farm?
(Mark "No," for farmers without milking)
is it incorporated?
3 Yes
- 4 No
- 5 Working WITHOUT PAY in family business or farm?

21. What is your principal means of transportation to work?

(Enter code from H73-6, page 8)

508

□ □ ← Enter code

- Other - Specify _____
- 99 Work at home - SKIP to Section IV

CHECK
ITEM B

22a. Is this a regular arrangement of 2 or more persons traveling to work together - (carpool)?

0 No - SKIP to 23
 YES - How many persons, including you? _____ Persons

23. What is your main reason for not riding in a carpool?

01 Irregular or unusual work hours
 02 Irregular work location
 03 Need car for work or errands
 04 It is out of my way to pick people up
 05 Riders are not dependable and require extra waiting
 06 Prefer to have car available for emergencies and occasional overtime or errands
 07 Like privacy
 08 Don't know of anyone to ride with
 09 Don't trust others' driving
 10 Just don't want to call others about carpooling
 11 Other - Specify _____

24a. In the last year have you changed your principal means of transportation to work?

1 Yes
 2 No - SKIP to 27
 3 Did not work last year - SKIP to 27
 4 Worked at home last year - SKIP to 27

b. What was your reason for changing?
 Any other reason?
 (Mark ALL that apply)

1 Change of residence
 2 Change of job location
 3 Previous means unsatisfactory
 4 Previous means no longer available
 5 Public transportation has become available
 6 Other - Specify _____

25. What was the principal means of transportation to work before this change?
 (Enter code from NTS-6, page 6)

1 _____ ← Enter code
 2 _____ Other - Specify _____

CHECK ITEM C

26a. Was this a regular arrangement of 2 or more persons traveling to work together - (carpool)?

0 Yes
 1 No - SKIP to 27

b. How many of these persons were members of this household?
 (include the respondent)

c. Did you share driving, drive others only or ride only?

1 Share driving
 2 Drive others only
 3 Ride only

27. What is the one-way distance from your home to your present place of work?

0 Miles
 1 Less than 1/2 mile
 99 No fixed place - SKIP to Section IV

28. How long does it usually take you to get from home to work?

_____ Minutes

Section IV - DRIVER INFORMATION
Ask all household members 16 years or older.

Household member
line number

(If respondent has already indicated that he drives, verify and mark appropriate box)

29a. Are you a licensed driver?

- 521 Yes
 No - SKIP to Section V

b. About how many thousands of miles did you, personally, drive during the last 12 months, including miles driven as part of your work?

522 _____ Miles

CHECK
ITEM D

30a. As an essential part of your work do you drive a motorized vehicle, such as a car, bus, van, truck, taxi or motorcycle?

- 523 No - SKIP to Section V
 YES - Which type of vehicle?
(Enter code from NTS-6, page 8)

SHOW CALENDAR

b. Did you drive this vehicle as part of your work on (Travel Day)?

- 524 No
 YES - About how many miles?
_____ Miles

c. Approximately how many miles do you drive on an average work day, not counting driving to and from your place of work?

525 _____ Miles

d. On the average, how many days a week do you drive as part of your work?

526 _____ Days a week

e. You said you drove _____ miles (entry in 30b) as part of your work on (Travel Day). How many work-related stops did you make?

527 _____ Stops (Each of these stops is a trip)

f. What was the longest distance you traveled between 2 consecutive work-related stops?

528 _____ miles
 Less than 1/2 mile

CHECK
ITEM G-1

| | | |
|--|---|--|
| CHECK ITEM D-2 | to the entry in 30b 4 stops or less? | <input type="checkbox"/> Yes - Complete Part A of the NTS-2A for each of these trips when you complete the NTS-2A for this respondent. Now SKIP to the Introduction marked READ, above Item 31. <input type="checkbox"/> No |
| SHOW MAP 30g. You said you traveled _____ miles (entry in 30b) as part of your job on (Travel Day). Was all this travel within the area on this map? | | 529 1 <input type="checkbox"/> No - SKIP to the introduction marked READ, above Item 31 2 <input type="checkbox"/> Yes |
| CHECK ITEM D-3 | Does the PSD urban/rural map for this household have an urban/rural boundary(ies) marked on it? | 530 1 <input type="checkbox"/> No - SKIP to the introduction marked READ, above Item 31 2 <input type="checkbox"/> Yes - Show map to the respondent and ask 30h |
| h. About how many of these miles were within the URBAN boundary(ies) shown on this map? | | 531 _____ Miles |
| READ - Now I would like to ask about any OTHER trips you took that ended on (Travel Day). A trip is anytime you went from one address to another by car or bus, by walking or bicycling or by some other means. For example, your trip from home to your place of work would be one trip, a side-trip made during work hours would be a second trip, driving or walking to lunch would be a third trip, a trip made after work would be a fourth trip, and so on. | | |
| NOTE: Reference period is from 4:00 a.m. on Travel Day to 3:59 a.m. on following days: | | |
| 31. Did you make any trips, other than those already reported, on (Travel Day)? | | 532 1 <input type="checkbox"/> Yes - SKIP to Item 32b 2 <input type="checkbox"/> No - SKIP to Section VI |
| NOTES | | 533 _____ |
| | | 534 _____ |
| | | 535 _____ |

Section V - TRAVEL DAY

INTERVIEWER INSTRUCTION

Ask of all household members 14 years and over. For persons 5-13 years of age, ask household members and enter the line number of the person for whom information is being obtained.
 Reference day is from 4:00 a.m. to 3:59 a.m. the following day.
 Include as trips all walking or bicycling where the destination and origin are not the same address. Do NOT include these as trips for persons under 14 years of age.

Household member line number

READ - Now I have some questions about all trips taken or ending on (Travel Day). A trip is anytime you went from one address to another by car or bus, by walking or bicycling or by some other means. For example, driving a car from your home to work would be one trip, walking from work to lunch would be a second trip, walking back from lunch to work would be a third trip, etc.

PGM 6 ↓

Enter trip number

| | TRIP | TRIP | TRIP | TRIP | TRIP | TRIP |
|--|--|---|---|---|---|---|
| SHOW CALENDAR | (601) _____ | (601) _____ | (601) _____ | (601) _____ | (601) _____ | (601) _____ |
| 32a. Did you go any place on (Travel Day)? | (602) <input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to Section VI | | | | | |
| b. Where did you go first? | | | | | | |
| 33a. Did this trip begin at home? | (603) <input type="checkbox"/> Yes - SKIP to 34 <input type="checkbox"/> No | | | | | |
| b. What was your main reason for being away from home when you began this trip? (Enter code from NTS-6, page 11) | (604) <input type="checkbox"/> _____ ← Enter code "Other" - Specify _____ | | | | | |
| c. In what city, or place, and State was this? | (605) <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> City _____ State _____ | | | | | |
| 34. What time did you start your trip to _____? | (606) _____ a.m. (607) _____ p.m. | (606) _____ a.m. (607) _____ p.m. | (606) _____ a.m. (607) _____ p.m. | (606) _____ a.m. (607) _____ p.m. | (606) _____ a.m. (607) _____ p.m. | (606) _____ a.m. (607) _____ p.m. |
| (If respondent has already mentioned the reason, verify and enter the code) | (608) <input type="checkbox"/> _____ ← Enter code | (608) <input type="checkbox"/> _____ ← Enter code | (608) <input type="checkbox"/> _____ ← Enter code | (608) <input type="checkbox"/> _____ ← Enter code | (608) <input type="checkbox"/> _____ ← Enter code | (608) <input type="checkbox"/> _____ ← Enter code |
| 35. What was the main reason for the trip? (Enter code from NTS-6, page 11) | | | | | | |

| | | | | | | |
|--|--|--|--|--|--|--|
| <p>36. Did anyone else living in this household go on the trip? (List line number(s) of other household members who went on the trip.)</p> | <p>609 <input type="checkbox"/> No others YES - Who? Enter line numbers</p> <p>610 _____ 611 _____ 612 _____ 613 _____ 614 _____ 615 _____</p> | <p>609 <input type="checkbox"/> No others YES - Who? Enter line numbers</p> <p>610 _____ 611 _____ 612 _____ 613 _____ 614 _____ 615 _____</p> | <p>609 <input type="checkbox"/> No others YES - Who? Enter line numbers</p> <p>610 _____ 611 _____ 612 _____ 613 _____ 614 _____ 615 _____</p> | <p>609 <input type="checkbox"/> No others YES - Who? Enter line numbers</p> <p>610 _____ 611 _____ 612 _____ 613 _____ 614 _____ 615 _____</p> | <p>609 <input type="checkbox"/> No others YES - Who? Enter line numbers</p> <p>610 _____ 611 _____ 612 _____ 613 _____ 614 _____ 615 _____</p> | <p>609 <input type="checkbox"/> No others YES - Who? Enter line numbers</p> <p>610 _____ 611 _____ 612 _____ 613 _____ 614 _____ 615 _____</p> |
| <p>37. What was the total distance from where you started to (destination)?</p> | <p>622 Miles _____ <input type="checkbox"/> Less than 1/2 mile</p> | <p>622 Miles _____ <input type="checkbox"/> Less than 1/2 mile</p> | <p>622 Miles _____ <input type="checkbox"/> Less than 1/2 mile</p> | <p>622 Miles _____ <input type="checkbox"/> Less than 1/2 mile</p> | <p>622 Miles _____ <input type="checkbox"/> Less than 1/2 mile</p> | <p>622 Miles _____ <input type="checkbox"/> Less than 1/2 mile</p> |
| <p>38. Approximately how long did it take to get there?</p> | <p>623 Minutes _____</p> | <p>623 Minutes _____</p> | <p>623 Minutes _____</p> | <p>623 Minutes _____</p> | <p>623 Minutes _____</p> | <p>623 Minutes _____</p> |
| <p>39. What was the main means of transportation used for this trip? (Enter code from NTS-6, page 3)</p> | <p>624 <input type="checkbox"/> Other - Specify _____ Enter code</p> | <p>624 <input type="checkbox"/> Other - Specify _____ Enter code</p> | <p>624 <input type="checkbox"/> Other - Specify _____ Enter code</p> | <p>624 <input type="checkbox"/> Other - Specify _____ Enter code</p> | <p>624 <input type="checkbox"/> Other - Specify _____ Enter code</p> | <p>624 <input type="checkbox"/> Other - Specify _____ Enter code</p> |
| <p>CHECK ITEM E One of the codes 01-07 is entered One of the codes 08-13 is entered One of the codes 14-19 is entered</p> | <p>ASK 40a SKIP to 4b SKIP to 4c</p> | <p>ASK 40a SKIP to 4b SKIP to 4c</p> | <p>ASK 40a SKIP to 4b SKIP to 4c</p> | <p>ASK 40a SKIP to 4b SKIP to 4c</p> | <p>ASK 40a SKIP to 4b SKIP to 4c</p> | <p>ASK 40a SKIP to 4b SKIP to 4c</p> |
| <p>40a. Was a household vehicle used for this trip? (Ask only if more than 1 vehicle was reported for this household. Mark No.)</p> | <p>625 <input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 41</p> | <p>625 <input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 41</p> | <p>625 <input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 41</p> | <p>625 <input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 41</p> | <p>625 <input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 41</p> | <p>625 <input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 41</p> |
| <p>40b. Which vehicle? (Ask only if more than 1 vehicle was reported for this household. If only 1 vehicle enter "1" without asking.)</p> | <p>626 Vehicle number _____</p> | <p>626 Vehicle number _____</p> | <p>626 Vehicle number _____</p> | <p>626 Vehicle number _____</p> | <p>626 Vehicle number _____</p> | <p>626 Vehicle number _____</p> |
| <p>41. Were there any non-household members on the trip?</p> | <p>627 <input type="checkbox"/> No YES - How many? _____</p> | <p>627 <input type="checkbox"/> No YES - How many? _____</p> | <p>627 <input type="checkbox"/> No YES - How many? _____</p> | <p>627 <input type="checkbox"/> No YES - How many? _____</p> | <p>627 <input type="checkbox"/> No YES - How many? _____</p> | <p>627 <input type="checkbox"/> No YES - How many? _____</p> |
| <p>42. Total number of ALL persons in the vehicle. (Interviewer - Verify that the sum of entries in items 36 and 41, plus the respondent was the total number of persons.)</p> | <p>628 Persons _____</p> | <p>628 Persons _____</p> | <p>628 Persons _____</p> | <p>628 Persons _____</p> | <p>628 Persons _____</p> | <p>628 Persons _____</p> |
| <p>43a. Who was the driver on the trip? (Ask only if the respondent was not alone in the vehicle.)</p> | <p>629 <input type="checkbox"/> Not a household member Household member - _____ Line No. _____</p> | <p>629 <input type="checkbox"/> Not a household member Household member - _____ Line No. _____</p> | <p>629 <input type="checkbox"/> Not a household member Household member - _____ Line No. _____</p> | <p>629 <input type="checkbox"/> Not a household member Household member - _____ Line No. _____</p> | <p>629 <input type="checkbox"/> Not a household member Household member - _____ Line No. _____</p> | <p>629 <input type="checkbox"/> Not a household member Household member - _____ Line No. _____</p> |

Section V - TRAVEL DAY - Continued

Household member line number

PGM 7

Enter trip number

| | TRIP | TRIP | TRIP | TRIP | TRIP | TRIP |
|--|---|---|---|---|---|---|
| | 701 | 701 | 701 | 701 | 701 | 701 |
| CHECK ITEM F | <input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 44b | <input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 44b | <input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 44b | <input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 44b | <input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 44b | <input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 44b |
| 43b. Did anyone share the driving? <i>(Enter the line number(s) of household member(s).)</i> | <input type="radio"/> No <input type="radio"/> YES - Who? What percent of the driving? 703 _____ 704 _____ % 705 _____ 706 _____ % 707 _____ 708 _____ % 709 _____ 710 _____ % 711 _____ 712 _____ % <input type="radio"/> Non-household member(s) 714 _____ % | <input type="radio"/> No <input type="radio"/> YES - Who? What percent of the driving? 703 _____ 704 _____ % 705 _____ 706 _____ % 707 _____ 708 _____ % 709 _____ 710 _____ % 711 _____ 712 _____ % <input type="radio"/> Non-household member(s) 714 _____ % | <input type="radio"/> No <input type="radio"/> YES - Who? What percent of the driving? 703 _____ 704 _____ % 705 _____ 706 _____ % 707 _____ 708 _____ % 709 _____ 710 _____ % 711 _____ 712 _____ % <input type="radio"/> Non-household member(s) 714 _____ % | <input type="radio"/> No <input type="radio"/> YES - Who? What percent of the driving? 703 _____ 704 _____ % 705 _____ 706 _____ % 707 _____ 708 _____ % 709 _____ 710 _____ % 711 _____ 712 _____ % <input type="radio"/> Non-household member(s) 714 _____ % | <input type="radio"/> No <input type="radio"/> YES - Who? What percent of the driving? 703 _____ 704 _____ % 705 _____ 706 _____ % 707 _____ 708 _____ % 709 _____ 710 _____ % 711 _____ 712 _____ % <input type="radio"/> Non-household member(s) 714 _____ % | <input type="radio"/> No <input type="radio"/> YES - Who? What percent of the driving? 703 _____ 704 _____ % 705 _____ 706 _____ % 707 _____ 708 _____ % 709 _____ 710 _____ % 711 _____ 712 _____ % <input type="radio"/> Non-household member(s) 714 _____ % |
| 44a. Where did you park when you got to (destination)? <i>(Enter code from NTS-6, page 13)</i> Codes 5-7 - SKIP to 44c Codes 8-11 - SKIP to 46a | 713 ← Enter code | 715 ← Enter code | 713 ← Enter code | 715 ← Enter code | 715 ← Enter code | 715 ← Enter code |
| b. Was the reason you were able to park there because of: carpool membership, minimum purchase, physical disability, job status, or another similar reason? | <input type="radio"/> No <input type="checkbox"/> 1 Carpool <input type="checkbox"/> 2 Minimum purchase <input type="checkbox"/> 3 Physical disability <input type="checkbox"/> 4 Job status <input type="checkbox"/> 5 Other - Specify | <input type="radio"/> No <input type="checkbox"/> 1 Carpool <input type="checkbox"/> 2 Minimum purchase <input type="checkbox"/> 3 Physical disability <input type="checkbox"/> 4 Job status <input type="checkbox"/> 5 Other - Specify | <input type="radio"/> No <input type="checkbox"/> 1 Carpool <input type="checkbox"/> 2 Minimum purchase <input type="checkbox"/> 3 Physical disability <input type="checkbox"/> 4 Job status <input type="checkbox"/> 5 Other - Specify | <input type="radio"/> No <input type="checkbox"/> 1 Carpool <input type="checkbox"/> 2 Minimum purchase <input type="checkbox"/> 3 Physical disability <input type="checkbox"/> 4 Job status <input type="checkbox"/> 5 Other - Specify | <input type="radio"/> No <input type="checkbox"/> 1 Carpool <input type="checkbox"/> 2 Minimum purchase <input type="checkbox"/> 3 Physical disability <input type="checkbox"/> 4 Job status <input type="checkbox"/> 5 Other - Specify | <input type="radio"/> No <input type="checkbox"/> 1 Carpool <input type="checkbox"/> 2 Minimum purchase <input type="checkbox"/> 3 Physical disability <input type="checkbox"/> 4 Job status <input type="checkbox"/> 5 Other - Specify |

58

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <p>44c. Was parking free?</p> | <p>717 <input type="checkbox"/> Yes - SKIP to 45a NO - How much did it cost? (Enter total amount)</p> <p>718 \$ _____</p> <p>719 <input type="checkbox"/> Don't know <input type="checkbox"/> Fee previously reported - SKIP to 45a</p> | <p>717 <input type="checkbox"/> Yes - SKIP to 45a NO - How much did it cost? (Enter total amount)</p> <p>718 \$ _____</p> <p>719 <input type="checkbox"/> Don't know <input type="checkbox"/> Fee previously reported - SKIP to 45a</p> | <p>717 <input type="checkbox"/> Yes - SKIP to 45a NO - How much did it cost? (Enter total amount)</p> <p>718 \$ _____</p> <p>719 <input type="checkbox"/> Don't know <input type="checkbox"/> Fee previously reported - SKIP to 45a</p> | <p>717 <input type="checkbox"/> Yes - SKIP to 45a NO - How much did it cost? (Enter total amount)</p> <p>718 \$ _____</p> <p>719 <input type="checkbox"/> Don't know <input type="checkbox"/> Fee previously reported - SKIP to 45a</p> | <p>717 <input type="checkbox"/> Yes - SKIP to 45a NO - How much did it cost? (Enter total amount)</p> <p>718 \$ _____</p> <p>719 <input type="checkbox"/> Don't know <input type="checkbox"/> Fee previously reported - SKIP to 45a</p> | <p>717 <input type="checkbox"/> Yes - SKIP to 45a NO - How much did it cost? (Enter total amount)</p> <p>718 \$ _____</p> <p>719 <input type="checkbox"/> Don't know <input type="checkbox"/> Fee previously reported - SKIP to 45a</p> | <p>d. What time period did the cost of parking cover? (Enter the number of minutes, hours, days, etc.) (Make only one entry)</p> <p>720 _____ Minutes(s) 721 _____ Hour(s) 722 _____ Day(s) 723 _____ Week(s) 724 _____ Month(s) 725 <input type="checkbox"/> Don't know</p> | <p>720 _____ Minutes(s) 721 _____ Hour(s) 722 _____ Day(s) 723 _____ Week(s) 724 _____ Month(s) 725 <input type="checkbox"/> Don't know</p> | <p>720 _____ Minutes(s) 721 _____ Hour(s) 722 _____ Day(s) 723 _____ Week(s) 724 _____ Month(s) 725 <input type="checkbox"/> Don't know</p> | <p>720 _____ Minutes(s) 721 _____ Hour(s) 722 _____ Day(s) 723 _____ Week(s) 724 _____ Month(s) 725 <input type="checkbox"/> Don't know</p> | <p>720 _____ Minutes(s) 721 _____ Hour(s) 722 _____ Day(s) 723 _____ Week(s) 724 _____ Month(s) 725 <input type="checkbox"/> Don't know</p> | <p>720 _____ Minutes(s) 721 _____ Hour(s) 722 _____ Day(s) 723 _____ Week(s) 724 _____ Month(s) 725 <input type="checkbox"/> Don't know</p> | <p>720 _____ Minutes(s) 721 _____ Hour(s) 722 _____ Day(s) 723 _____ Week(s) 724 _____ Month(s) 725 <input type="checkbox"/> Don't know</p> | <p>45a. Was public transportation, other than taxis, available for the trip within 1/2 mile from where you started and also from where you were going?</p> <p>726 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know } SKIP to 47</p> | <p>726 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know } SKIP to 47</p> | <p>726 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know } SKIP to 47</p> | <p>726 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know } SKIP to 47</p> | <p>726 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know } SKIP to 47</p> | <p>726 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know } SKIP to 47</p> | <p>726 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know } SKIP to 47</p> | <p>c. Do you know the bus schedule?</p> <p>(Do not ask for persons under 15 years of age)</p> <p>727 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No - SKIP to 47</p> | <p>727 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No - SKIP to 47</p> | <p>727 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No - SKIP to 47</p> | <p>727 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No - SKIP to 47</p> | <p>727 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No - SKIP to 47</p> | <p>727 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No - SKIP to 47</p> | <p>727 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No - SKIP to 47</p> | <p>46. If you had driven and not used public transportation, would parking have been free?</p> <p>728 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know</p> | <p>728 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know</p> | <p>728 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know</p> | <p>728 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know</p> | <p>728 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know</p> | <p>728 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know</p> | <p>728 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know</p> | <p>47. Where did you go next?</p> <p>ASK only if CBD is marked on map SHOW MAP (Ask this question for EACH trip that has been recorded above and mark a box in EACH trip column.) Was any part of your trip to (destination) within the Central Business District outlined on this map?</p> <p>729 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know</p> | <p>729 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know</p> | <p>729 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know</p> | <p>729 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know</p> | <p>729 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know</p> | <p>729 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know</p> | <p>729 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No x <input type="checkbox"/> Don't know</p> |
|-------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|

Section V - TRAVEL DAY - Continued

Household member
line number

CHECK
ITEM G

Was public transportation used on any of these trips?
Number on Item 50 that describes reasons
is one of the scales 10-13 selected?

49a. You used public transportation on (some of) these trips. What were your reasons for using it?

Any other reason?

(Mark ALL that apply)

801

- 1 No driver's license
- 2 No car available
- 3 Cheaper than auto
- 4 No parking problems
- 5 No driving strain
- 6 Faster than auto
- 7 Other - Specify _____

b. Could you have made these trips without using public transportation?

802

- 1 Yes
- 2 No } SKIP to Section VI

50. You did not use public transportation on any of these trips. What were your reasons for not using it?

Any other reasons?

(Mark ALL that apply)

803

- 11 None available
- 12 Schedule is inconvenient
- 13 Location is inconvenient
- 14 Too many transfers
- 15 Too expensive
- 16 Takes too long
- 17 Preferred to use car
- 18 Need auto for work
- 19 Had too much to carry
- 20 Physical and/or mental impairment
- 21 Not familiar with transit system
- 22 Wasn't traveling far enough
- 23 Other - Specify _____

INTERVIEWER: Enter total number of Travel Day trips reported by this respondent. →

804

_____ Trips

Section VI - 14-DAY TRAVEL PERIOD - Continued

Household member
line number

| PGM 9 | | RCD T | RCD T | RCD T | RCD T | RCD T | RCD T | | | | | |
|--|-----------------|---|-------|---|-------|---|-------|---|-----|---|-----|---|
| 54. What was the main purpose for the trip? <i>(Enter code from NTS-8, page 11)</i> | 916 | TRIP | 916 | TRIP | 916 | TRIP | 916 | TRIP | 916 | TRIP | 916 | TRIP |
| | 917 | Enter code | 917 | Enter code | 917 | Enter code | 917 | Enter code | 917 | Enter code | 917 | Enter code |
| 55. Was this a weekend (or long weekend) trip? | 918 | 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No | 918 | 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No | 918 | 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No | 918 | 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No | 918 | 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No | 918 | 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No |
| 56. Did you start the trip from this address? | 919 | 1 <input type="checkbox"/> Yes NO - From what city or place, and State, did you start the trip? | 919 | 1 <input type="checkbox"/> Yes NO - From what city or place, and State, did you start the trip? | 919 | 1 <input type="checkbox"/> Yes NO - From what city or place, and State, did you start the trip? | 919 | 1 <input type="checkbox"/> Yes NO - From what city or place, and State, did you start the trip? | 919 | 1 <input type="checkbox"/> Yes NO - From what city or place, and State, did you start the trip? | 919 | 1 <input type="checkbox"/> Yes NO - From what city or place, and State, did you start the trip? |
| | 920 | _____ | 920 | _____ | 920 | _____ | 920 | _____ | 920 | _____ | 920 | _____ |
| 57. Did you spend any nights away from home enroute to (destination)? | 921 | 0 <input type="checkbox"/> No YES - How many? _____ Total number of nights | 921 | 0 <input type="checkbox"/> No YES - How many? _____ Total number of nights | 921 | 0 <input type="checkbox"/> No YES - How many? _____ Total number of nights | 921 | 0 <input type="checkbox"/> No YES - How many? _____ Total number of nights | 921 | 0 <input type="checkbox"/> No YES - How many? _____ Total number of nights | 921 | 0 <input type="checkbox"/> No YES - How many? _____ Total number of nights |
| | CHECK ITEM J | | | | | | | | | | | |
| 58a. How many nights did you spend at your destination? | 922 | Number of nights _____ | 922 | Number of nights _____ | 922 | Number of nights _____ | 922 | Number of nights _____ | 922 | Number of nights _____ | 922 | Number of nights _____ |
| | | 0 <input type="checkbox"/> None - SKIP to 58 | | 0 <input type="checkbox"/> None - SKIP to 58 | | 0 <input type="checkbox"/> None - SKIP to 58 | | 0 <input type="checkbox"/> None - SKIP to 58 | | 0 <input type="checkbox"/> None - SKIP to 58 | | 0 <input type="checkbox"/> None - SKIP to 58 |

| | | | | | | |
|---|--|--|--|--|--|--|
| <p>58b. What type(s) of lodging did you stay in at your destination? (Mark ALL that apply)</p> <p>1 <input type="checkbox"/> With friends or relatives 2 <input type="checkbox"/> Rental accommodations 3 <input type="checkbox"/> Own cabin, campsite, vacation home 4 <input type="checkbox"/> Camping in public (gov't) campground 5 <input type="checkbox"/> Camping in commercial campground 6 <input checked="" type="checkbox"/> Other - Specify</p> | <p>923 * <input type="checkbox"/> With friends or relatives 2 <input type="checkbox"/> Rental accommodations 3 <input type="checkbox"/> Own cabin, campsite, vacation home 4 <input type="checkbox"/> Camping in public (gov't) campground 5 <input type="checkbox"/> Camping in commercial campground 6 <input checked="" type="checkbox"/> Other - Specify</p> | <p>923 * <input type="checkbox"/> With friends or relatives 2 <input type="checkbox"/> Rental accommodations 3 <input type="checkbox"/> Own cabin, campsite, vacation home 4 <input type="checkbox"/> Camping in public (gov't) campground 5 <input type="checkbox"/> Camping in commercial campground 6 <input checked="" type="checkbox"/> Other - Specify</p> | <p>923 * <input type="checkbox"/> With friends or relatives 2 <input type="checkbox"/> Rental accommodations 3 <input type="checkbox"/> Own cabin, campsite, vacation home 4 <input type="checkbox"/> Camping in public (gov't) campground 5 <input type="checkbox"/> Camping in commercial campground 6 <input checked="" type="checkbox"/> Other - Specify</p> | <p>923 * <input type="checkbox"/> With friends or relatives 2 <input type="checkbox"/> Rental accommodations 3 <input type="checkbox"/> Own cabin, campsite, vacation home 4 <input type="checkbox"/> Camping in public (gov't) campground 5 <input type="checkbox"/> Camping in commercial campground 6 <input checked="" type="checkbox"/> Other - Specify</p> | <p>923 * <input type="checkbox"/> With friends or relatives 2 <input type="checkbox"/> Rental accommodations 3 <input type="checkbox"/> Own cabin, campsite, vacation home 4 <input type="checkbox"/> Camping in public (gov't) campground 5 <input type="checkbox"/> Camping in commercial campground 6 <input checked="" type="checkbox"/> Other - Specify</p> | <p>923 * <input type="checkbox"/> With friends or relatives 2 <input type="checkbox"/> Rental accommodations 3 <input type="checkbox"/> Own cabin, campsite, vacation home 4 <input type="checkbox"/> Camping in public (gov't) campground 5 <input type="checkbox"/> Camping in commercial campground 6 <input checked="" type="checkbox"/> Other - Specify</p> |
| <p>c. How many nights did you spend in each type of lodging?</p> <p>Number of nights Friends or relatives Rent. accom. Cabin, campsite, vacation home Camp. in public (gov't) campground Camp. in comm. campground Other</p> | <p>924 925 926 927 928 929</p> | <p>924 925 926 927 928 929</p> | <p>924 925 926 927 928 929</p> | <p>924 925 926 927 928 929</p> | <p>924 925 926 927 928 929</p> | <p>924 925 926 927 928 929</p> |
| <p>59. What day of the month did the trip begin? (Enter in numerals the month and date)</p> <p>INTERVIEWER - Refer to calendar and enter the day of the week without asking.</p> | <p>Month _____ Date _____ 930 _____ 931 _____</p> | <p>Month _____ Date _____ 930 _____ 931 _____</p> | <p>Month _____ Date _____ 930 _____ 931 _____</p> | <p>Month _____ Date _____ 930 _____ 931 _____</p> | <p>Month _____ Date _____ 930 _____ 931 _____</p> | <p>Month _____ Date _____ 930 _____ 931 _____</p> |
| <p>60. What time did the trip begin?</p> | <p>932 _____ a.m. _____ p.m. 933 _____ a.m. _____ p.m. x <input type="checkbox"/> Don't know</p> | <p>932 _____ a.m. _____ p.m. 933 _____ a.m. _____ p.m. x <input type="checkbox"/> Don't know</p> | <p>932 _____ a.m. _____ p.m. 933 _____ a.m. _____ p.m. x <input type="checkbox"/> Don't know</p> | <p>932 _____ a.m. _____ p.m. 933 _____ a.m. _____ p.m. x <input type="checkbox"/> Don't know</p> | <p>932 _____ a.m. _____ p.m. 933 _____ a.m. _____ p.m. x <input type="checkbox"/> Don't know</p> | <p>932 _____ a.m. _____ p.m. 933 _____ a.m. _____ p.m. x <input type="checkbox"/> Don't know</p> |
| <p>61a. Do you know the EXACT distance from where you started to (destination)?</p> | <p>934 <input type="checkbox"/> No 935 <input type="checkbox"/> YES - How many miles? Miles - SKIP to 62</p> | <p>934 <input type="checkbox"/> No 935 <input type="checkbox"/> YES - How many miles? Miles - SKIP to 62</p> | <p>934 <input type="checkbox"/> No 935 <input type="checkbox"/> YES - How many miles? Miles - SKIP to 62</p> | <p>934 <input type="checkbox"/> No 935 <input type="checkbox"/> YES - How many miles? Miles - SKIP to 62</p> | <p>934 <input type="checkbox"/> No 935 <input type="checkbox"/> YES - How many miles? Miles - SKIP to 62</p> | <p>934 <input type="checkbox"/> No 935 <input type="checkbox"/> YES - How many miles? Miles - SKIP to 62</p> |
| <p>61b. APPROXIMATELY how many miles was it?</p> | <p>935 _____ Miles</p> | <p>935 _____ Miles</p> | <p>935 _____ Miles</p> | <p>935 _____ Miles</p> | <p>935 _____ Miles</p> | <p>935 _____ Miles</p> |

Section VI - 14-DAY TRAVEL PERIOD - Continued

Household member line number

| PGM 9 | 2 RCD T | | 2 RCD T | | 2 RCD T | | 2 RCD T | | 2 RCD T | | 2 RCD T | |
|---|---------|---|---------|---|---------|---|---------|---|---------|---|---------|---|
| | TRIP | | TRIP | | TRIP | | TRIP | | TRIP | | TRIP | |
| 62. What was the main means of transportation used for the trip? (The means used to travel the longest distance) <i>(Enter code from NTS-6, page 8)</i> | 936 | _____ | 936 | _____ | 936 | _____ | 936 | _____ | 936 | _____ | 936 | _____ |
| | 937 | □□ ← Enter code "Other" - Specify | 937 | □□ ← Enter code "Other" - Specify | 937 | □□ ← Enter code "Other" - Specify | 937 | □□ ← Enter code "Other" - Specify | 937 | □□ ← Enter code "Other" - Specify | 937 | □□ ← Enter code "Other" - Specify |
| CHECK ITEM K | | | | | | | | | | | | |
| 63a. Was a household vehicle used? | 938 | 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No - SKIP to 64 | 938 | 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No - SKIP to 64 | 938 | 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No - SKIP to 64 | 938 | 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No - SKIP to 64 | 938 | 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No - SKIP to 64 | 938 | 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No - SKIP to 64 |
| ASK only if more than 1 vehicle was reported in Item 14a for this household b. Which vehicle? | 939 | Vehicle number _____ | 939 | Vehicle number _____ | 939 | Vehicle number _____ | 939 | Vehicle number _____ | 939 | Vehicle number _____ | 939 | Vehicle number _____ |
| 64. Were any non-household members in the vehicle? | 940 | 0 <input type="checkbox"/> No YES - How many? _____ | 940 | 0 <input type="checkbox"/> No YES - How many? _____ | 940 | 0 <input type="checkbox"/> No YES - How many? _____ | 940 | 0 <input type="checkbox"/> No YES - How many? _____ | 940 | 0 <input type="checkbox"/> No YES - How many? _____ | 940 | 0 <input type="checkbox"/> No YES - How many? _____ |
| 65. Total number of persons in the vehicle - <i>INTERVIEWER - Verify that the sum of the numbers entered in items 53 and 64 plus the respondent is the total number of persons that were in the vehicle.</i> | 941 | Total number of persons _____ | 941 | Total number of persons _____ | 941 | Total number of persons _____ | 941 | Total number of persons _____ | 941 | Total number of persons _____ | 941 | Total number of persons _____ |
| ASK only if respondent was not alone in the vehicle. 66a. Who was the principal driver for the trip? (The one who drove for the longest distance) | 942 | 0 <input type="checkbox"/> Not a household member Household member - Line No. _____ | 942 | 0 <input type="checkbox"/> Not a household member Household member - Line No. _____ | 942 | 0 <input type="checkbox"/> Not a household member Household member - Line No. _____ | 942 | 0 <input type="checkbox"/> Not a household member Household member - Line No. _____ | 942 | 0 <input type="checkbox"/> Not a household member Household member - Line No. _____ | 942 | 0 <input type="checkbox"/> Not a household member Household member - Line No. _____ |
| b. Did anyone share the driving? <i>(Enter the line number(s) of the household member(s).)</i> | 943 | 0 <input type="checkbox"/> No YES - Who? → What percent of the driving? | 943 | 0 <input type="checkbox"/> No YES - Who? → What percent of the driving? | 943 | 0 <input type="checkbox"/> No YES - Who? → What percent of the driving? | 943 | 0 <input type="checkbox"/> No YES - Who? → What percent of the driving? | 943 | 0 <input type="checkbox"/> No YES - Who? → What percent of the driving? | 943 | 0 <input type="checkbox"/> No YES - Who? → What percent of the driving? |
| | 944 | _____ | 944 | _____ | 944 | _____ | 944 | _____ | 944 | _____ | 944 | _____ |
| | 945 | _____ % | 945 | _____ % | 945 | _____ % | 945 | _____ % | 945 | _____ % | 945 | _____ % |
| | 946 | _____ | 946 | _____ | 946 | _____ | 946 | _____ | 946 | _____ | 946 | _____ |
| | 947 | _____ % | 947 | _____ % | 947 | _____ % | 947 | _____ % | 947 | _____ % | 947 | _____ % |
| | 948 | _____ | 948 | _____ | 948 | _____ | 948 | _____ | 948 | _____ | 948 | _____ |
| | 949 | _____ % | 949 | _____ % | 949 | _____ % | 949 | _____ % | 949 | _____ % | 949 | _____ % |
| | 950 | _____ | 950 | _____ | 950 | _____ | 950 | _____ | 950 | _____ | 950 | _____ |
| | 951 | _____ % | 951 | _____ % | 951 | _____ % | 951 | _____ % | 951 | _____ % | 951 | _____ % |
| | 952 | _____ | 952 | _____ | 952 | _____ | 952 | _____ | 952 | _____ | 952 | _____ |
| | 953 | _____ % | 953 | _____ % | 953 | _____ % | 953 | _____ % | 953 | _____ % | 953 | _____ % |
| | 954 | 0 <input type="checkbox"/> Non-household member(s) | 954 | 0 <input type="checkbox"/> Non-household member(s) | 954 | 0 <input type="checkbox"/> Non-household member(s) | 954 | 0 <input type="checkbox"/> Non-household member(s) | 954 | 0 <input type="checkbox"/> Non-household member(s) | 954 | 0 <input type="checkbox"/> Non-household member(s) |
| | 955 | _____ % | 955 | _____ % | 955 | _____ % | 955 | _____ % | 955 | _____ % | 955 | _____ % |

| 67a. Was a rental vehicle used during this trip? | <input type="checkbox"/> No - SKIP to 68 <input type="checkbox"/> YES - For how many miles? _____ Miles | <input type="checkbox"/> No - SKIP to 68 <input type="checkbox"/> YES - For how many miles? _____ Miles | <input type="checkbox"/> No - SKIP to 68 <input type="checkbox"/> YES - For how many miles? _____ Miles | <input type="checkbox"/> No - SKIP to 68 <input type="checkbox"/> YES - For how many miles? _____ Miles | <input type="checkbox"/> No - SKIP to 68 <input type="checkbox"/> YES - For how many miles? _____ Miles | <input type="checkbox"/> No - SKIP to 68 <input type="checkbox"/> YES - For how many miles? _____ Miles |
|---|---|---|---|---|---|---|
| b. Was this an auto or a truck or some other type of vehicle? | <input type="checkbox"/> 1 Auto <input type="checkbox"/> 2 Truck <input type="checkbox"/> 3 Other - Specify _____ | <input type="checkbox"/> 1 Auto <input type="checkbox"/> 2 Truck <input type="checkbox"/> 3 Other - Specify _____ | <input type="checkbox"/> 1 Auto <input type="checkbox"/> 2 Truck <input type="checkbox"/> 3 Other - Specify _____ | <input type="checkbox"/> 1 Auto <input type="checkbox"/> 2 Truck <input type="checkbox"/> 3 Other - Specify _____ | <input type="checkbox"/> 1 Auto <input type="checkbox"/> 2 Truck <input type="checkbox"/> 3 Other - Specify _____ | <input type="checkbox"/> 1 Auto <input type="checkbox"/> 2 Truck <input type="checkbox"/> 3 Other - Specify _____ |
| 68. Did you make any stops other than for gasoline, rest and food? (include stops for lodging, change of transportation means, sightseeing, visiting friends and relatives, business, etc.) | <input type="checkbox"/> No <input type="checkbox"/> YES - How many? _____ Stops | <input type="checkbox"/> No <input type="checkbox"/> YES - How many? _____ Stops | <input type="checkbox"/> No <input type="checkbox"/> YES - How many? _____ Stops | <input type="checkbox"/> No <input type="checkbox"/> YES - How many? _____ Stops | <input type="checkbox"/> No <input type="checkbox"/> YES - How many? _____ Stops | <input type="checkbox"/> No <input type="checkbox"/> YES - How many? _____ Stops |
| CHECK ITEM I. | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| CHECK ITEM II | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| CHECK ITEM III | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Notes | | | | | | |

FORM **NTS-2A**
10-1-77U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS**DETAILED PERSONAL INTERVIEW**
(Section VII)
NATIONAL TRAVEL SURVEY
1977 CENSUS OF TRANSPORTATION**NOTICE** - Your report to the Census Bureau is confidential by law (Title 13, U.S. Code). All identifiable information will be used only by persons engaged in and for the purposes of the survey, and may not be disclosed or released to others for any purpose.

a. Control Number

NTS Serial | Check | PSU | Segment | Serial | Panel

b. Questionnaire _____ of _____ questionnaires

Section VII - MAPPING OF PRIVATE MOTOR VEHICLE TRIPS**INTERVIEWER NOTE****PROCEDURE FOR COMPLETING SECTION VII**

1. Enter in 70b or 71b the number of the trip that was made by private motor vehicle.
2. Enter the destination of the trip in 70c or 71c.
3. Show map and ask 70a or 71a.
4. Refer to Trip Description Codes *shown to the right* for appropriate code and enter the code in 70d or 71d.
5. If mapping is required, ask respondent to help you map the trip by tracing the routes taken. Label the endpoints of the trip, as described in c. below.

MAPPING INSTRUCTIONS

- a. Use a separate map for each respondent.
 - b. Trace the route carefully. A reader of the map should know exactly the route taken.
 - c. Use the following code to label trips traced on the map:
 - (1) the code for the Section in which the trip was reported (TD for Travel Day; TW for 14-Day Travel Period), followed by
 - (2) the Trip Column number (for example, TD-3; TW-5).
 - d. If the entire trip is on the map and crosses the urban/rural boundary, trace the trip and label both ends.
 - e. If a portion of the trip is off the map, trace the portion that is on the map and label the endpoint which shows on the map.
6. Complete columns e and f if code 4 or 5 is entered in column d.
 7. For return trips ask whether the same route was followed, and if no additional mapping is required, label the endpoints again to indicate the return trip.
 8. Enter in column g the distance of the trip as reported by the respondent on the NTS-2.
 9. Repeat the sequence for the next trip by private motor vehicle.
 10. Enter the Control Number and the Line Number of the respondent in the upper right hand corner of the map. DO NOT write the respondent's name on the map.

TRIP DESCRIPTION CODES

- 1 - Entire trip on map and wholly within URBAN area - NO MAPPING REQUIRED.
- 2 - Entire trip on map and wholly within RURAL area - NO MAPPING REQUIRED.
- 3 - Entire trip on map and crosses the URBAN/RURAL boundary marked on the map - MAP TRIP.
- 4 - A portion of the trip is off the map - MAP THE PORTION WHICH IS ON THE MAP AND COMPLETE column e and column f.
- 5 - Entire trip is off the map - COMPLETE column e and column f.

