# 1963 

CENSUS OF TRANSPORTATION


II
TRUEK INUENTORY AND USE SURVEY

# 1963 CENSUS OF TRANSPORTATION 

Volume II

## TRUCK INVENTORY and USE SURVEY


U.S. DEPARTMENT OF COMMERCE John T. Connor, Secretary bureau of the census
A. Ross Eckler, Director

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## Preface

The census of transportation, together with the censuses of business, manufactures, and mineral industries, comprise the economic census program of the Bureau of the Census. This program is required by law under Title 13 of the United States Code, sections 131 and 224. The present economic census collects statistics for the year 1963. The next such census will cover the year 1967 and future censues are scheduled for 5 year intervals after that year.

A large segment of transportation data is available from regulatory bodies, other government agencies, and private organizations. For that reason, the statutory provisions concerning the census of transportation directed the Bureau to collect the kinds of data that were not publicly available from other sources. The objective was to avoid duplication and fill important gaps in transportation information.

The 1963 Census of Transportation is the first census of this type to be taken in the United States. The present census was taken under four separate surveys-Passenger Transportation, Truck Inventory and Use, Commodity Transportation, and Motor Carrier. The first three surveys were taken on a sample basis; the motor carrier survey was taken partly by sample and partly by a complete census (the universe of bus carriers was enumerated). These four transportation surveys are independent of each other and the results are published in four distinct series of reports. Generally, the data are published initially in preliminary or advance reports and later issued in a bound volume.

## 1963 Census Of Transportation Publication Program

The 1963 Census of Transportation is comprised of four major surveys. Each survey, described below, was conducted separately and independently.

## PASSENGER TRANSPORTATION SURVEY (Volume 1)

This survey consists of two parts, as follows:
Part 1-National Travel was based on quarterly interviews in 1963 with a nationwide probability sample of about 6,000 households. Data were obtained and tabulated for each of the four quarters in 1963, and an aggregation of these data was prepared to show travel for the whole calendar year. In addition, a fixed panel of households remaining in the survey throughout the four quarterly interviews served as a basis for analysis of annual travel patterns. The purpose of the national travel survey was to estimate the volume and describe the characteristics of out-of-town travel by the U.S. population during the calendar year 1963. Resuits are published in four preliminary advance reports. Final data are included in volume 1 of the 1963 Census of Transportation.

Part 2-Home-to-Work Travel was based on a one-time interview conducted in October 1963 with a nationwide probability sample of approximately 6,000 households. The purpose of the survey was to obtain data on repetitive home-to-work movement of the American work force. The chief objective was to examine the requirements this movement exerted on existing local transportation resources. Results are published in one advance report. Final data are included in volume 1 of the 1963 Census of Transportation.

## TRUCK INVENTORY AND USE SURVEY (Volume 2)

A probability sample of motor truck licenses was drawn in each of the 50 States and the District of Columbia to describe the characteristics
and uses of the Nation's truck resources. Results are published in separate advance reports for each of the 50 States, the District of Columbia, the 9 geographic divisions, and the United States as a whole. Final results are contained in volume 2 of the 1963 Census of Transportation.

## COMMODITY TRANSPORTATION SURVEY (Volume 3)

The shipping document files of approximately 10,000 manufacturing establishments selected on a probability sample basis were used to obtain information on the flow of commodities from the manufacturers to the market or redistribution points. The data were classified for shipper groups, selected production areas, and commodity groups and are tabulated by tons and ton miles, means of transport, distances, origins, and destinations. Results are published in three series of reports-Shipper Series, Production Area Series, and Commodity Series. Preliminary reports are published for the Shipper Series and advance reports, for the Production Areas. Final data for all series are included in volume 3 of the 1963 Census of Transportation.

## MOTOR CARRIER SURVEY (Volume 4)

All bus carriers and a probability sample of truck carriers were used to estimate the size and characteristics of "for hire" highway carriers that are not subject to Interstate Commerce Commission regulations. Information was obtained on the form of ownership, principal type of service, total operating revenues, expenses, and selected nonfinancial statistics. The tabulations are similar to the major items shown by the Interstate Commerce Commission for small carriers under its jurisdiction. Results of this survey are published in final form only.

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## Finding Guide

Data in most of the tables of htis report are expressed in percent distributions. The guide below shows the cross tabulations of categories covered and the tables in which they appear. The prefix "US" indicates a U.S. Summary table, " $D$ " indicates a Geographic Division table, and " S " indicates a State table.

## Annual mileage:

Major use-US14, D10, S8
Miscellaneous trucks-D14
Number of trucks-US1
Production areas-US3
Size class-US13, D9, D10, S7, S8
Type of fuel-US15
Year model-US13, US15, D9, S7
Annual use-US18
Annual vehicle miles:
Area of operation-US27, US29, US31, D15
Major use-US28, US31, D16
Size class-US27, US28, US29, D15, D16
Type of fuel-US29, US30, US31
Vehicle type-US3O

## Area of operation:

Annual vehicle miles-US27, US29, US31, D15
Major use-US6, US21, US31, D2, S2 .
Number of trucks-US1
Production areas-US3
Size class-US20, US27, US29, D15
Truck fleets-US8, D3
Type of fuel-US27, US20, US21, US29, US31

Body type:
Load length or capacity-US19, D13, S10
Major use-US12, D7, S6
Number of trucks-US1
Production areas-US3
Type of fuel-US23
Vehicle type-US19, US23, S10

## Driver man-hours:

Major use-US16, D8, S9
Miscellaneous trucks-D14
Number of trucks-USI
Size class-D8, S9
Load length or capacity-US19, D13, S10
Maintenance responsibility:
Number of trucks-US1
Size class-US25, D11
Truck fleets-US25, US26, D11
Type of fuel-US26

## Major use:

Annual mileage-US14, D10, S8
Annual use-US18
Annual vehicle miles-US28, US31, D16
Area of operation-US6, US21, US31, D2, S2
Body type-US12, D7, S6
Driver man-hours-US16, D8, S9
Miscellaneous trucks-D14
Production areas-US3

Major use-continued
Size class-US9, US28, D4, D8, D10, D16, S3, S8, S9
Truck fleets-US24, D12
Number of trucks-US1
Type of fuel-US21, US31
Weekly use-US17
Miscellaneous trucks-US1, D14

## Production areas-US3

Size class:
Annual mileage-US13, D9, D10, S7, S8
Annual vehicle miles-US27, US28, US29, D15, D16
Area of operation-US20, US27, US29, D15
Driver man-hours-D8, D9
Maintenance responsibility-_US25, D11
Major Use-US9, US28, D4, D8, D10, D16, S3, S8, S9
Number of trucks-US1
Production areas-US3
Truck fleets-US11, US22, US25, D6, D11, S4
Type of fuel-US10, US20, US22, US29, D5, S5
Year model-US5, US13, D1, D9, S1, S7

## Truck fleets:

Area of operation-US8, D3
Maintenance responsibility-US25, US26, D11
Major use-US24, D12
Number of trucks-US2
Size class-US11, US22, US25, D6, D11, S4
Type of fuel-US22, US26
Trucks, number of-US1, US2
Type of fuel:
Annual mileage-US15
Annual vehicle miles-US29, US30, US31
Area of operation-US7, US20, US21, US29, US31
Body type-US23
Maintenance responsibility-US26
Major use- US21, US31
Number of trucks-US1
Truck fleets-US22, US26
Size class-US10, US20, US21, US22, US29, D5, S5
Vehicle type-US4, US23, US30
Year model-US4, US15
Vehicle type:
Annual vehicle miles-US30
Body type-US19, US23, S10
Load length or capacity-US19, D13, S10
Type of fuel-US4, US23, US30
Year model-US4
Weekly use-US17
Year model:
Annual mileage-_US13, US15, D9, S7
Miscellaneous trucks-D14
Production areas-US3
Size class-US5, US13, D1, D9, S1, S7
Type of fuel-US4, US15
Vehicle type-US4

## Introduction

## SUMMARY OF FINDINGS

General-Of the 12.7 million private and commercial motor trucks registered in the United States during 1963, roughly 70 percent are classed as light vehicles consisting largely of pickup or panel trucks, 9 percent are classed as medium, 10 percent as light-heavy and 6 percent as heavy-heavy which consists mostly of tractor-semitrailer combinations. About 5 percent of the motor trucks cannot be associated with size classes because of miscellaneous characteristics and, therefore, are not classified in this report.

More trucks are used for agriculture than for any other purpose. When motor trucks are examined in terms of size class, however, agriculture is the main use for only medium and light-heavy vehicles. The principal use of light trucks is for personal transportation (as a substitute for an automobile) while heavy-heavy trucks are used predominantly as "for hire" transportation. The primary use for miscellaneous size classes is for "other businesses." These vehicles are composed largely of utility, beverage, and other trucks not classified ac cording to size.

Fifty-six percent of the U.S. truck population is made up of pickup trucks. With respect to major uses, pickup trucks is the major body type for all classes except "for hire" transportation, "other businesses," and "other uses." Vans are the most prevalent body type used by "for hire" transportation and "other uses." Miscellaneous trucks are used mostly by "other businesses."

Truck Mileage-Heavy-heavy trucks are operated more extensively than any other size class of truck. Although constituting 6 percent of the truck population, heavy-heavy trucks provided 21 percent of the total truck miles in the United States during 1963. Moreover, when area of operation is compared for size classes, heavy-heavy trucks are responsible for roughly 8 out of 10 vehicle miles driven in the "long-distance" area ( 200 miles or more away from the home base).

It is interesting to note that virtually all the annual vehicle miles used for personal transportation are accounted for by light motor trucks. Light vehicles also account for the greatest proportion of truck miles for agriculture ( 77 percent), for services ( 78 percent), and for contract construction ( 69 percent). Heavy-heavy trucks, on the other hand, account for 67 percent of the total annual truck miles by "for hire" transportation.
Type of Fuel-About 97 percent of the motor trucks use gasoline and 2 percent, diesel fuel.

Roughly 1 percent of the truck owners failed to report the type of fuel used.

Heavy-heavy motor trucks, combinations (largely tractor semitrailer), long distances, and "for hire" transportation are associated with the use of diesel fuel. This conclusion is supported by the following findings:

Some 82 percent of the trucks using diesel fuel are heavy-heavy trucks; 15 percent are miscellaneous size trucks, and 3 percent are distributed among the other size classes.
Approximately 86 percent of the diesel driven vehicles are combinations. They were driven approximately 21 percent of the total vehicle miles and 93 percent of the miles by all diesel driven motor trucks during 1963.
Within the local area, virtually all trucks, regardless of use, are operated on gasoline. In the intermediate area (outside the local area but within 200 miles of home base), 90 percent of the motor trucks are operated on gasoline. It is only in the long-distance area of operation that diesel fuel is used to any significant extent. Approximately 47 percent of the trucks hauling over a long-distance area of operation are fueled with diesel; of these, 7 out of 10 are "for hire" trucks.
Finally, motor trucks fueled with diesel were used more extensively than trucks fueled with gasoline. Approximately onethird of the diesel fueled trucks were driven 80,000 miles or more during 1963. Of all trucks driven 80,000 miles or more, 60 percent used diesel fuel.

Truck Fleets-Seventy percent of the trucks in the United States are individually operated units with no truck fleet association, 17 percent are in small fleets containing 2 to 9 trucks, 8 percent are in fleets of 10 to 49 trucks, and 4 percent are in large fleets of 50 or more trucks.

Virtually all motor trucks used for personal transportation ( 98 percent) and most of those used for agriculture have no fleet association. On the other hand, 7 out of 10 motor trucks classified as "for hire" transportation are associated with truck fleets.

Owners of individually operated motor trucks usually have their major repairs done by independent garages or employ "other" repair services. Owners of trucks associated with fleets have a tendency to provide their own repair service rather than to contract with independent garages. The tendency for the owner to repair his own trucks increases as the size of the fleet increases. For example, approximately 89 percent of the trucks in fleets of 100 to 149 trucks and 82 percent of those in fleets of 150 trucks or more were maintained by the owner. At the other extreme, only 19 percent of individually operated trucks are repaired by the owner.

Figure 1

## Estimated Trucks <br> (Miscellaneous Trucks not Included)



Another important distinction between individual trucks and those associated with truck fleets is the range of sizes. In general, the proportion of light trucks decreases and the proportion of heavy-heavy and miscellaneous trucks increases as the size of the fleet increases.

Heavy-heavy trucks in larger fleets tend to be powered with diesel fuel to a greater extent than heavy-heavy trucks with no fleet association, or with a small truck fleet association. For example, less than one-quarter of the individually operated heavy-heavy trucks or those operated in association with small fleets (under 10 vehicles) are diesel powered. As the size of the fleet increases, there is a progressive increase in the proportion of heavy-heavy trucks operated on diesel fuel. In fact, about 60 percent of the heavy-heavy trucks in fleets of 150 or more trucks use diesel fuel.

## SCOPE OF SURVEY

The Truck Inventory and Use Survey was undertaken specifically to obtain data on the characteristics and use of commercial and private trucks in the 50 States and the District of Columbia. The number of private and commercial truck registrations (or licenses) has long been a measure of the Nation's truck inventory and the growth of trucking resources, because all vehicles must be licensed as a prerequisite for operation on public roads. Truck registration data, issued annually by State motor vehicle authorities, have been compiled and published by the Bureau of Public Roads for many years. ${ }^{1}$ However, since registration records do not supply essential information about the characteristics and uses of vehicles, the Bureau of the Census was authorized to obtain information needed to fill this gap. Truck registrations for 1963 as published by the Bureau of Public Roads were adopted as the best measure of total truck inventory-the "universe". The results of the Census Bureau survey, based on a sample, were used to distribute that universe by the various classifications shown in the tables of this report.

The term "truck" is used here in the generic sense to include both the "straight truck" and the "combination". The former is a single, self-contained vehicle such as a pickup or panel delivery truck. The latter is a combination of two or more vehicles: One vehicle is the power unit (usually a truck-tractor but sometimes a straight truck) and the other is the trailing unit (usually a semitrailer but sometimes a full trailer). The most frequent combination is a truck-tractor with a semitrailer. Other combinations are straight truck-full trailer, truck-full

[^0]trailer, truck tractor-semitrailer-full trailer, and other arrangements of power units and property-carrying trailing vehicles.

Some classes of property-carrying vehicles are not included in this survey. Probably the largest class of those excluded consists of vehicles owned by Federal, State, and local government agencies. Another class is usually called off-highway vehicles, including vehicles such as logging trucks that operate solely on company property, farm trucks that are not driven off the farm, and material-handling equipment used around a factory. These off-highway vehicles are not required to be licensed. They were excluded principally because no feasible method has been found to locate and enumerate them. The remaining major class of vehicle, not counted in this survey, was the trailing unit (semitrailer or full trailer) other than the power unit normally used in combinations.

## SURVEY METHOD

Description of Sample-A probability sample of license numbers for power units (i.e., straight trucks and truck-tractors) was drawn from the motor vehicle license files in each of the 50 States and the District of Columbia. A total of about 115,000 licenses was drawn for the United States as a whole from a total universe of about $12,700,000$ licenses on file. The sample was stratified by State, and varied from about 1,500 sample vehicles in small States and 3,000 in medium States to 6,000 in the largest State. The sample also was stratified by size of truck, with two-thirds of the sample comprised of large trucks and one-third of small trucks.

The specific license number, make, year model, and registered weight for each vehicle on the sample and the owner's name and address, were obtained from the State record. This identifying information was entered in item 1 of the questionnaire (see appendix B) prior to mailing. The owner was requested to supply the essential additional information for the specified vehicle.

The samples were drawn shortly after the close of the annual reregistration date in each State in order to have a "live" list of license numbers and related mailing addresses. Since the timing of the reregistration cycle differs from State to State, three inventory dates were used-April 1, July 1, and October 1.

The estimates of the relative (or percentage) distributions of vehicles by body type or other classifications in each State were developed, in general, as follows: The original sample was drawn in such a manner that every truck license in the State motor vehicle registration file had a mathematically known chance of being selected. That mathematically known chance is commonly called the sampling rate. The specific information obtained from the

Figure 2


## Major Use of Motor Tru



SERVICE

## - Vehicle Size (table 9)

VEHICLE SIZE


LIGHT


MEDIUM




MISC. SIZES


ALL USES
truck owner for a specified vehicle was multiplied by the reciprocal of the sampling rate for that vehicle. Those expanded values were aggregated to the universe represented by the sample. The percentage distributions were computed from the universe aggregates.

Sampling Variability-The percentage distributions shown in this report are based on probability samples and therefore are subject to sampling variability. The term "sampling variability" refers to the differences that would be expected between results of a sample survey and the results that would have been obtained from a complete enumeration of all vehicles. For most of the major items on a total U.S. basis, the sampling variability does not exceed plus or minus two-tenths of 1 percent, indicating that the chances are about 2 out of 3 that the percentage shown for most major items in this report would not differ by more than plus or minus 0.2 from the percentage that would have been found by asking the same question of all truck owners under essentially the same conditions.

The sampling variability for geographic divisions and States tends to increase as the size of the sample decreases. Estimates of the variability in each State and division is shown in the respective section of this report.

The estimates of the actual number of vehicles (in contrast to percentage distributions) are based upon data from two sources. The total vehicles in each State or other area are based on the total number of truck registrations during the year as reported by the Bureau of Public Roads. Those figures are based on total counts and consequently are not subject to sampling variability, although they are subject to possible reporting errors. The estimates of the number of vehicles by body type and other characteristics were derived by distributing the total number of truck registrations in each State in accordance with the percentage distributions found in the survey. For that reason, the estimates of the actual number of vehicles (other than total) are subject to approximately the same sampling variability as those shown for the percentage distributions in the variability table in each section.

Other Potential Sources of Error-The estimates of sampling variability do not include allowances for possible errors arising from other causes. For example, the descriptive terms used for body types (item 8 on the questionnaire) conform to normal trade terminology. However, some misinterpretations were found in the answers to this and other questions.

A different type of potential error arises from an unintentional failure to sample the entire truck universe. The failure occurs because blocks of records are sometimes out of the file at the time of sampling, or are filed in the auto-
mobile or other essentially "nontruck" license series. Steps were taken to recognize and correct those situations, but some omissions may not have been detected.

In general, the extent of response errors cannot be measured statistically by available data. However, the rate of response was high (over 90 percent in almost all States), and the general quality of the results appears to be good.

Method of Applying Sample Results to Total Truck Registrations-Tables 1 and 2 in the U.S. Summary section show the estimated absolute number of truck registrations distributed by selected characteristics and uses. In table 1, data are presented for the United States, geographic divisions, and States. In table 2, data are presented only for the United States and geographic divisions since the sample was too small in many States to distribute truck fleet data.

The data in the above tables were derived by applying the percent distribution for each State to the total registrations reported for that State. Geographic division distributions represent the sum of the data for each of the States in the respective divisions. U.S. distributions are totals of data for the 50 States and the District of Columbia.

Column 1 of table 1 contains the total motor trucks registration counts for each State, the District of Columbia, each geographic division, and the United States. Column 2 contains an estimate of the trucks which could not be classified in one of four specific size classes and are therefore tabulated as "miscellaneous sizes". These miscellaneous sizes are subtracted, on all geographic levels, to obtain the figure in column 3 which is the total number of trucks classified by size. The distribution represented in the other columns adds to the total classified motor trucks (column 3). Also,
the base total in table 2 is the number of classified trucks in the United States. The percentages in other tables in the U.S. section are based on total motor truck registrations. Tables in the geographic division and State sections of this volume are based on the total number of trucks classified by size.

## PRODUCTION AREAS

The map on page 18 identifies 25 production areas. The production-area concept was developed for the Censuis of Transportation chiefly to pin-point traffic-flow data for the Commodity Transportation Survey. The areas are essentially single standard metropolitan statistical areas (SMSA's) ${ }^{2}$ or clusters of SMSA's selected to represent relatively large but geographically compact concentrations of industrial activity. To increase the extent of geographic dispersion, a number of rather small areas are also included.

An SMSA is defined by the Bureau of the Budget as a county or group of contiguous counties (except in New England) which contains at least one central city of 50,000 or more inhabitants or "twin cities" with a combined population of at least 50,000 . In addition to the county or counties containing such a city or cities, contiguous counties are included in an SMSA if, according to certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city. In New England, towns and cities rather than counties are the units used in defining an SMSA.

Production-area data are shown in table 3 of the U.S. Summary section. The footnote to the table identifies the SMSA's included in each of the 25 production areas shown.

[^1]Figure 3

## Motor Truck Mileage

BY VEHICLE SIZE (table 13)
EACH $S Y M B O L=5 \%$



Figure 4

## Annual Vehicle Miles



BY MAJOR USE (table 28)
TOTAL VEHICLE MILES $=100 \%$


## Tennessee

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TENNESSEE Incorporated places of 100,000 and ver Incorporated places of 25,000-100,000 Standard Metropolitan Statistical Areas


STATE PRIVATE AND COMMERCIAL TRUCK REGISTRATIONS

| Total number on file ...................... . . . . . . . . . | 247,138 |
| :--- | :--- | ---: |
| Miscellaneous types not classified by size . . . . . . . . . | 10,227 |
| Types included in tables . . . . . . . . . . . . . . . . . . | 236,911 |

TRUCK INVENTORY AND USE SAMPLE
Number selected on sample . . . . . . . . . . . . . . . . . . . . . . . 1,920
Out-of-scope types and postmaster returns . . . . . 177
Unanswered questionnaires ................ . . . 100
Net number on sample . . . . . . . . . . . . . . . . . . . . . . . . . $\quad$ 1,643
Miscellaneous types not classified by size . . . . . . . . . . . . 125
Number on sample included in tables . . . . . . . . . . . . . . . 1,518

## SAMPLING VARIABILITY OF DATA

Data are based on a probability sample and are subject to sampling variability. The term "sampling variability" refers to the differences that would be expected between results of a sample survey and results that would have been obtained from a complete enumeration of all vehicles. A more complete description of sampling variability is included in the Introduction to this report. Estimates of sampling variability for this State are as follows:

| Item | Reported figure based on sample (1) | Sampling variability ${ }^{1}$ <br> (2) | Item | Reported figure based on sample (1) | Sampling variability ${ }^{1}$ <br> (2) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BODY TYPE | (percent) | (percent) | IENGITH OF TRUCK ${ }^{2}$ | (percent) | (percent) |
| Pickups. | 58.8 | 1.3 | Under 10 ft . long. . . . . . . . . . . . . . . | 61.4 | 1.0 |
| Panel, walk-ins. | 5.8 | 0.5 | 10 to 15.9 ft. Iong. ................ | 18.7 | 1.4 |
| Platform and cattle rack. | 19.6 | 1.9 | 16 to 24.9 ft. long. . . . . . . . . . . . . . | 2.4 | 0.4 |
| Van... | 7.5 | 0.4 | 25 to 34.9 ft. long. . . . . . . . . . . . . | 1.8 | 0.2 |
| Refrigerator. | 1.6 | 0.3 | 35 ft. long and over................ | 3.1 | 0.1 |
| Dump.................................... | 3.8 | 0.4 | Length not reported................. | 12.6 | 1.0 |
| Tank............. | 2.0 | 0.4 |  |  |  |
| Cement mixers and "not reported".... BODY SIZE | 0.9 | - | ANNUAL MILEAGE |  |  |
| Light. | 69.2 | 1.4 | Less than 5,000 miles............... | 22.9 | 1.3 |
| Medium. | 10.7 | 0.9 | 5,000 to 9,999 miles. . . . . . . . . . . . . | 21.9 | 1.9 |
| Light-heavy. | 11.2 | 1.7 | 10,000 to 19,999 miles. . . . . . . . . . . | 18.7 | 1.0 |
| Heavy-heavy. . . . . . . . . . . . . . . . . . . . . | 8.9 | 0.8 | 20,000 to 29,999 miles. . . . . . . . . . . . | 7.0 | 0.8 |
| MAJOR USE |  |  | 30,000 miles and over............... | 7.9 | 0.6 |
| Agriculture. | 4.4 | 1.3 | Mileage not reported................. | 22.6 | 1.3 |
| Personal... | 17.0 | 1.7 | AREA OF OPERATION |  |  |
| For hire..... | 5.5 | 0.5 |  |  |  |
| Contract construction. | 6.6 | 0.4 | Local. . . . . . . . . . . . . . . . . . . . . . . . . | 64.1 |  |
| Manufacturing . . . . . . . . . . . . . . . . . . . | 4.9 | 0.8 | Intermediate................................ | (X) | (X) |
| Wholesale and retail................. | 12.8 | 1.0 | Long distance.............................. | (X) | (X) |
| Services....... | (x) | (X) | Not reported. ........................ | 26.3 | 1.4 |
| Other uses $\qquad$ DRIVER MAN-HOURS | (X) | (X) | YEAR MODEL |  |  |
| Under 15 hours. | 35.5 | 0.9 | 1962-63............................. | 14.0 | 0.4 |
| 15 to 30 hours. | 17.2 | 0.8 | 1960-61. . . . . . . . . . . . . . . . . . . . . . . . | 11.2 | 0.8 |
| 31 to 40 hours. | 7.4 | 0.5 | 1955-59. . . . . . . . . . . . . . . . . . . . . . . . | 26.9 | 2.1 |
| 41 hours or more. . . . . . . . . . . . . . . . . | 10.5 | 0.7 | 1950-54................................ . | 33.0 | 2.4 |
| Man hours not reported.. ............. | 35.4 | 0.8 | Pre-1950............................... | 14.9 | 1.1 |

[^2]table 1. Year Model and Size Class of Truck: 1963
(Percent distribution)

| Size class | Total | 1962-63 | 1960-61 | 1955-59 | 1950-54 | Pre-1950 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Distribution by year model |  |  |  |  |  |
| All size classes..................... | 100.0 | 14.0 | 11.2 | 26.9 | 33.0 | 14.9 |
| Light trucks. | 100.0 | 12.9 | 10.2 | 26.5 | 35.8 | 14.6 |
| Medium trucks................................... | 100.0 | 14.7 | 11.4 | 23.0 | 32.1 | 18.8 |
| Light-heavy trucks............................ | 100.0 | 12.9 | 11.4 | 26.0 | 28.8 | 20.9 |
| Heavy-heavy trucks.................... . . . . . . | 100.0 | 22.1 | 19.3 | 35.9 | 18.0 | 4.7 |
|  | Distribution by size class |  |  |  |  |  |
| All size classes. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Light trucks. | 69.2 | 64.2 | 62.4 | 68.1 | 74.9 | 68.0 |
| Medium trucks., .............................. | 10.7 | 11.3 | 10.9 | 9.2 | 10.4 | 13.5 |
| Light-heavy trucks. . . . . . . . . . . . . . . . . . . . . | 11.2 8.9 | 10.4 | 11.4 15.3 | 10.8 11.9 | 9.8 4.9 | 15.7 2.8 |
| Heavy-heavy trucks. . . . . . . . . . . . . . . . . . . . | 8.9 | 14.1 | 15.3 | 11.9 | 4.9 | 2.8 |

table 2. Area of Operation and Major Use of Truck: 1963
(Percent distribution)

| Major use | Total | Local ${ }^{1}$ | Intermediate and long distance ${ }^{2}$ | Not reported |
| :---: | :---: | :---: | :---: | :---: |
|  | Distribution by area of operation |  |  |  |
| All uses.. | 100.0 | 64.1 | 9.6 | 26.3 |
| Agriculture. | 100.0 | 63.3 | 1.5 | 35.2 |
| Personal.... | 100.0 | 59.5 | 4.2 | 36.3 |
| For hire...... | 100.0 | 52.8 | 39.2 | 8.0 |
| Contract construction. | 100.0 | 77.9 | 10.3 | 11.8 |
| Manufacturing. . . . . . | 100.0 | 61.1 | 32.8 | 6.1 |
| Wholesale and retail business. | 100.0 | 72.6 | 18.0 | 9.4 |
| Services........ | 100.0 | 66.6 | 11.2 | 22.2 |
| All other uses.. | 100.0 | 54.2 | 32.7 | 13.1 |
|  | Distribution by major use |  |  |  |
| All uses... | 100.0 | 100.0 | 100.0 | 100.0 |
| Agriculture.... | 44.4 | 43.8 | 6.8 | 59.5 |
| Personal..... | 17.0 | 15.7 | 7.4 | 23.5 |
| For hire..... | 5.5 | 4.5 | 22.5 | 1.7 |
| Contract construction. | 6.6 | 8.0 | 7.0 | 3.0 |
| Manufacturing.. | 4.9 | 4.7 | 16.7 | 1.1 |
| Wholesale and retail business. | 12.8 | 14.5 | 23.9 | 4.6 |
| Services......... | 6.4 | 6.7. | 7.5 | 5.4 |
| All other uses.. | 2.4 | 2.1 | 8.2 | 1.2 |

[^3]table з. Size Class and Major Use of Truck: 1963
(Percent distribution)

| Major use | Total | Light | Medium | Light-heavy | Heavy-heavy |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Distribution by size class |  |  |  |  |
| All uses. | 100,0 | 69.2 | 10.7 | 11.2 | 8.9 |
| Agriculture................................ | 100.0 | 73.9 | 11.9 | 11.6 | 2.6 |
| Personal................................. | 100.0 | 99.4 | 0.5 | 0.1 | - |
| For hire................................. | 100.0 | 11.0 | 11.3 | 16.9 | 60.8 |
| Contract construction................... | 100.0 | 69.5 | 9.9 | 12.7 | 7.9 |
| Manufacturing............................. . | 100.0 | 38.6 | 8.9 | 24.5 | 28.0 |
| Wholesale and retail business.......... | 100.0 | 49.9 | 21.4 | 14.0 | 14.7 |
| Services.................................... | 100.0 | 83.1 | 8.1 | 7.0 | 1.8 |
| A11 other uses............................ | 100.0 | 26.5 | 16.0 | 35.7 | 21.8 |
|  | Distribution by major use |  |  |  |  |
| All uses. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Agriculture................................ | 44.4 | 47.5 | 49.2 | 45.8 | 12.9 |
| Personal.................................. | 17.0 | 24.4 | 0.8 | 0.1 | - |
| For hire.................................. | 5.5 | 0.9 | 5.8 | 8.3 | 37.5 |
| Contract construction. . . . . . . . . . . . . . . | 6.6 | 6.6 | 6.1 | 7.4 | 5.9 |
| Manufacturing............................ | 4.9 | 2.7 | 4.1 | 10.7 | 15.3 |
| Wholesale and retail business.......... | 12.8 | 9.2 | 25.5 | 15.9 | 21.1 |
| Services................................... | 6.4 | 7.7 | 4.9 | 4.0 | 1.3 |
| All other uses............................... | 2.4 | 1.0 | 3.6 | 7.8 | 6.0 |

table 4. Size Class of Truck and Size of Truck Fleet: 1963
(Percent distribution)

| Size of truck fleet | Total | Light | Medium | Light-heavy | Heavy-heavy |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Distribution by size class |  |  |  |  |
| A1l fleets. | 100.0 | 69.2 | 10.7 | 21.2 | 8.9 |
|  |  |  |  |  |  |
| 1 truck............. | 100.0 100.0 | 79.2 50.3 | 8.5 19.5 | 9.1 13.5 | 3.2 16.7 |
| 6 to 19 trucks. | 100.0 | 42.2 | 11.3 | 22.3 | 24.2 |
| 20 trucks or mor | 100.0 | 23.1 | 19.3 | 17.7 | 39.9 |
|  | Distribution by number of trucks in truck fleet |  |  |  |  |
| All fleets. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Trucks in fleets of - |  |  |  |  |  |
| 2 to 5 trucks. | 10.9 | 7.9 | 19.8 | 13.1 | 20.4 |
| 6 to 19 trucks. | 7.9 | 4.8 | 8.4 | 15.8 | 21.5 |
| 20 trucks or more. | 7.0 | 2.4 | 12.6 | 11.0 | 31.3 |

table 5. Size Class of Truck and Type of Fuel: 1963
(Percent distribution)

| Type of fuel | Total | Light | Medium | Light-heavy | Heavy-heavy |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All fuels. | Distribution by size class |  |  |  |  |
|  | 100.0 | 69.2 | 10.7 | 11.2 | 8.9 |
| Gasoline. | 100.0 | 71.6 | 11.1 | 11.1 | 6.296.0 |
| Diesel. | $\begin{aligned} & 100.0 \\ & 100.0 \end{aligned}$ | 16.8 | 0.5 | 1.5 |  |
| Not reported. |  |  | - | 58.0 | 25.2 |
|  | Distribution by type of fuel |  |  |  |  |
| All fuels. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Gasoline. . | 96.5 | 99.8 | 99.9 | 96.2 | 67.1 |
| Diesel. | 2.9 | 0.1 | 0.1 | 0.4 | 31.0 |
| Not reported. . . . . . . . . . | 0.6 | 0.1 | - | 3.4 | 1.9 |

table 6. Major Use and Body Type of Truck: 1963
(Percent distribution)

${ }^{1}$ Classifications of vehicle types were intended to conform to normal trade terminology. However, some misinterpretations were found. The term "pickup" was intended to include only small single-unit, two-axle trucks with a box back, but some owners interpreted it to mean any vehicle used in pickup and delivery service. Similar differences in interpretation were found in several other vehicle types.
table 7. Annual Truck Miles and Size Class and Year Model of Truck: 1963
(Percent distribution)

| Size class and year model | Total | Less <br> than <br> 5,000 <br> miles | $\begin{gathered} 5,000 \\ \text { to } \\ 9,999 \\ \text { miles } \end{gathered}$ | $\begin{gathered} 10,000 \\ \text { to } \\ 19,999 \\ \text { miles } \end{gathered}$ | $\begin{gathered} 20,000 \\ \text { to } \\ 29,999 \\ \text { miles } \end{gathered}$ | $30,000$ <br> miles or more | Mileage not reported |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Distribution by truck miles |  |  |  |  |  |  |
| All trucks. | 100.0 | 21.9 | 21.9 | 18.7 | 7.0 | 7.9 | 22.6 |
| Light trucks, total...................... | 100.0 | 21.4 | 24.8 | 18.8 | 5.8 | 2.4 | 26.8 |
| 1962-63 models........................ | 130.0 | 3.7 | 25.4 | 30.8 | 16.0 | 5.8 | 18.3 |
| 1960-61 models. . . . . . . . . . . . . . . . . . . | 100.0 | 10.3 | 15.3 | 25.9 | 23.0 | 4.2 | 21.3 |
| 1955-59 models. | 100.0 | 17.8 | 25.6 | 24.3 | 2.4 | 2.9 | 27.0 |
| Pre-1955 models. | 100.0 | 30.1 | 26.3 | 11.3 | 1.5 | 0.9 | 29.9 |
| Medium trucks, total..................... | 100.0 | 23.4 | 19.0 | 21.9 | 9.6 | 8.6 | 17.5 |
| 1962-63 models........................ | 100.0 | 7.2 | 6.3 | 31.1 | 25.0 | 17.9 | 12.5 |
| 1960-61 models. | 100.0 | - | - | 61.9 | 15.0 | 21.9 | 1.2 |
| 1955-59 models. | 100.0 | 12.6 | 42.4 | 14.3 | 14.7 | 14.9 | 1.1 |
| Pre-1955 models. | 100.0 | 38.3 | 16.4 | 13.6 | 1.5 | - | 30.2 |
| Light-heavy trucks, total............... | 100.0 | 33.2 | 14.6 | 18.8 | 10.2 | 11.7 | 11.5 |
| 1962-63 models....................... | 100.0 | 1.0 | 8.7 | 21.4 | 22.3 | 37.9 | 8.7 |
| 1960-61 models. | 100.0 | 8.8 | 3.3 | 31.8 | 34.1 | 19.8 | 2.2 |
| 1955-59 models. | 100.0 | 22.4 | 14.9 | 36.2 | 11.6 | 8.2 | 6.7 |
| Pre-1955 models. | 100.0 | 52.9 | 18.7 | 6.0 | 0.7 | 4.7 | 17.0 |
| Heavy-heavy trucks, total............... | 100.0 | 9.1 | 11.5 | 13.9 | 9.0 | 45.5 | 11.0 |
| 1962-63 models......................... | 100.0 | 2.1 | 4.3 | 16.4 | 8.6 | 60.0 | 8.6 |
| 1960-61 models. | 100.0 | 2.5 | 4.9 | 18.7 | 11.5 | 59.9 | 2.5 |
| 1955-59 models. .. . . . . . . . . . . . . . . . . | 100.0 | 12.3 | 10.6 | 14.1 | 11.9 | 46.7 | 4.4 |
| Pre-1955 models........................ | 100.0 | 16.6 | 25.5 | 6.9 | 2.7 | 17.3 | 31.0 |
|  | Distribution by size class and year model |  |  |  |  |  |  |
| All trucks.......................... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Light trucks total. | 69.2 | 67.8 | 78.5 | 69.6 | 57.5 | 21.1 | 81.7 |
| 1962-63 models....................... | 8.9 | 1.5 | 10.4 | 14.7 | 20.5 | 6.6 | 7.2 |
| 1960-61 models. | 7.0 | 3.3 | 4.9 | 9.7 | 23.2 | 3.7 | 6.6 |
| 1955-59 models. | 18.3 | 14.9 | 21.5 | 23.9 | 6.2 | 6.8 | 21.9 |
| Pre-1955 models. | 35.0 | 48.1 | 41.7 | 21.3 | 7.6 | 4.0 | 46.0 |
| Medium trucks, total..................... | 10.7 | 17.5 | 9.3 | 12.5 | 14.7 | 11.5 | 8.3 |
| 1962-63 models......................... | 1.6 | 0.5 | 0.5 | 2.6 | 5.7 | 3.5 | 0.9 |
| 1960-61 models. | 1.2 | - | $\overline{7}$ | 4.0 | 2.6 | 3.4 | 0.1 |
| 1955-59 models......................... . | 2.5 | 1.4 | 4.7 | 1.9 | 5.2 | 4.6 | 0.1 |
| Pre-1955 models.. | 5.4 | 9.6 | 4.1 | 4.0 | 1.2 | - | 7.2 |
| Light-heavy trucks, total............... | 11.2 | 17.0 | 7.5 | 11.3 | 16.3 | 16.4 | 5.7 |
| 1962-63 models........................ | 1.5 | 0.1 | 0.6 | 1.7 | 4.6 | 6.9 | 0.6 |
| 1960-61 models.......... .............. | 1.3 | 0.5 | 0.2 | 2.2 | 6.3 | 3.2 | 0.1 |
| 1955-59 models. | 2.9 | 3.0 | 2.0 | 5.6 | 4.8 | 3.0 | 0.9 |
| Pre-1955 models. | 5.5 | 13.4 | 4.7 | 1.8 | 0.6 | 3.3 | 4.1 |
| Heavy-heavy trucks, total............... | 8.9 | 3.7 | 4.7 | 6.6 | 11.5 | 51.0 | 4.3 |
| 1962-63 models.............................. | 2.0 | 0.2 | 0.4 | 1.7 | 2.4 | 14.9 | 0.7 |
| 1960-61 models......................... | 1.7 | 0.2 | 0.4 | 1.7 | 2.8 | 12.9 | 0.2 |
| 1955-59 models.. | 3.2 | 1.8 | 1.5 | 2.4 0.8 | 5.5 0.8 | 18.8 4.4 | 0.6 2.8 |
| Pre-1955 models....................... | 2.0 | 1.5 | 2.4 | 0.8 | 0.8 | 4.4 | 2.8 |

table 8. Annual Truck Miles and Major Use and Size Class of Truck: 1963
(Percent distribution)

| Major use and size class | Total | Less than 5,000 miles | $\begin{gathered} 5,000 \\ \text { to } \\ 9,999 \\ \text { miles } \end{gathered}$ | $\begin{gathered} 10,000 \\ \text { to } \\ 19,999 \\ \text { miles } \end{gathered}$ | $\begin{gathered} 20,000 \\ \text { to } \\ 29,999 \\ \text { miles } \end{gathered}$ | $\begin{gathered} 30,000 \\ \text { miles or } \\ \text { more } \end{gathered}$ | Mileage not reported |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Distribution by annual mileage |  |  |  |  |  |  |
| All uses | 100.0 | 21.9 | 21.9 | 18.7 | 7.0 | 7.9 | 22.6 |
| Light and medium trucks.. | 100.0 | 21.7 | 24.1 | 19.2 | 6.3 | 3.2 | 25.5 |
| Light-heavy and heavy-heavy trucks. | 100.0 | 22.5 | 13.2 | 16.6 | 9.7 | 26.7 | 11.3 |
| Agriculture. | 100.0 | 33.0 | 20.2 | 14.3 | 1.9 | 1.4 | 29.2 |
| Personal.. | 100.0 | 18.5 | 34.4 | 11.7 | 3.5 | 0.5 | 31.4 |
| For hire. | 100.0 | 8.5 | 9.0 | 21.0 | 11.8 | 36.9 | 12.8 |
| Contract construction. | 100.0 | 14.8 | 26.2 | 32.1 | 8.2 | 6.7 | 12.0 |
| Manufacturing. | 100.0 | 10.1 | 20.5 | 23.2 | 15.6 | 22.8 | 7.8 |
| Wholesale and retail business | 100.0 | 9.6 | 16.1 | 29.7 | 14.2 | 20.8 | 9.6 |
| Services... | 100.0 | 9.2 | 22.6 | 24.0 | 18.9 | 10.8 | 14.5 |
| A11 other uses............................ | 100.0 | 11.5 | 13.8 | 25.4 | 23.0 | 13.2 | 13.1 |
|  | Distribution by major use and size class |  |  |  |  |  |  |
| All uses. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Light and medium trucks....... | 79.9 | 79.3 | 87.8 | 82.1 | 72.2 | 32.6 | 90.0 |
| Light-heavy and heavy-heavy trucks. | 20.1 | 20.7 | 12.2 | 17.9 | 27.8 | 67.4 | 10.0 |
| Agriculture.............................. | 44.4 | 67.2 | 41.0 | 33.9 | 12.3 | 7.7 | 57.3 |
| Personal. | 17.0 | 14.4 | 26.6 | 10.7 | 8.4 | 1.1 | 23.5 |
| For hire.. | 5.5 | 2.1 | 2.3 | 6.2 | 9.3 | 25.6 | 3.1 |
| Contract construction. | 6.6 | 4.4 | 7.9 | 11.3 | 7.7 | 5.5 | 3.5 |
| Manufacturing. | 4.9 | 2.3 | 4.6 | 6.1 | 10.9 | 14.0 | 1.7 |
| Wholesale and retall business | 12.8 | 5.6 | 9.4 | 20.3 | 26.0 | 33.4 | 5.4 |
| Services................................ | 6.4 | 2.7 | 6.6 | 8.2 | 17.4 | 8.7 | 4.1 |
| All other uses............................ | 2.4 | 1.3 | 1.6 | 3.3 | 8.0 | 4.0 | 1.4 |

table 9. Driver Man-Hours and Major Use and Size Class of Truck: 1963
(Percent distribution)

| Major use and size class | Total | Under 15 hours | 15 to 30 hours | 31 to 40 hours | 41 hours or more | Man-hours not reported |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Distribution by driver man-hours |  |  |  |  |  |
| All uses... | 100.0 | 35.5 | 11.2 | 7.4 | 10.5 | 35.4 |
| Light and medium trucks........... | 100.0 | 38.3 | 11.3 | 4.9 | 5.4 | 40.1 |
| Light-heavy and heavy-heavy trucks. | 100.0 | 25.1 | 10.8 | 17.2 | 30.5 | 16.4 |
| Agriculture..................................... | 100.0 | 48.2 | 6.7 | 0.5 | 0.4 | 44.2 |
| Personal....................................... | 100.0 | 30.9 | 5.2 | 1.0 | - | 62.9 |
| For hire...................................... | 100.0 | 5.6 | 11.5 | 28.4 | 43.5 | 11.0 |
| Contract construction, ..................... | 100.0 | 28.0 | 21.7 | 20.0 | 15.9 | 14.4 |
| Manufacturing. . . . . . . . . . . . . . . . . . . . . . . . . | 100.0 | 18.4 | 23.4 | 16.1 | 33.7 | 8.4 |
| Wholesale and retail business............. | 100.0 | 23.1 | 17.7 | 16.9 | 33.0 | 9.3 |
| Services........................................ | 100.0 | 39.8 | 23.9 | ${ }^{9.5}$ | 10.3 | 16.5 |
| All other uses.................................. | 100.0 | 16.8 | 12.6 | 24.1 | 13.2 | 33.3 |
|  | Distribution by major use and size class |  |  |  |  |  |
| All uses................................ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Light and medium trucks............ | 79.9 | 85.8 | 80.5 | 53.1 | 41.3 | 90.7 |
| Light-heavy and heavy-heavy trucks................................. | 20.1 | 14.2 | 19.5 | 46.9 | 58.7 | 9.3 |
| Agricuiture...................................... | 44.4 | 60.0 | 26.9 | 2.8 | 1.7 | 55.6 |
| Personal. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 17\%0 | 14.8 | 7.9 | 2.3 | - | 30.2 |
| For hire....................................... | 5.5 | 0.9 | 5.6 | 21.1 | 22.6 | 1.7 |
| Contract construction....................... | 6.6 | 5.2 | 12.7 | 17.7 | 10.0 | 2.7 |
| Mamufacturing. . . . . . . . . . . . . . . . . . . . . . . . . | 4.9 | 2.5 | 10.2 | 10.7 | 15.8 | 1.2 |
| Wholesale and retail business.............. | 12.8 | 8.3 | 20.3 | 29.2 | 40.3 | 3.3 |
| Services....................................... | 6.4 | 7.2 | 13.7 | 8.2 | 6.3 | 3.0 |
| A11 other uses................................. | 2.4 | 1.1 | 2.7 | 8.0 | 3.1 | 2.3 |

## table 10. Load Length or Capacity and Body and Vehicle Type: 1963

| (Percent distribution) |
| :--- |

(X) Not applicable.
${ }^{1}$ Classifications of vehicle types were intended to conform to normal trade terminology. However, some misinterpretations were found. The term "pickup" was intended to include only small single-unit, two-axle trucks with a box back, but some owners interpreted it to mean any vehicle used in pickup and delivery service, Similar differences in interpretation were found in several other vehicle types.
${ }^{2}$ This total includes only motor trucks for which information was requested on body length.

## Appendix A

## EXPLANATION OF MAJOR TERMS

Motor trucks-The basic unit of measurement used in this report is the registered "power unit" (i.e., single-unit truck or tractor). Only private and commercially owned motor trucks are included in the universe. Official trucksthose owned by Federal, State, or municipal governments-were not convassed.

In terms of tabular presentation, the motor truck total upon which the U.S. tables are based differs from that used in State and geographic division tables. The U.S. summary tables include in their base the total commercial and private trucks registered and operated in 1963. The State and division tables include only motor trucks that could be classified by vehicle size. So-called "miscellaneous size" trucks are, therefore, included in the U.S. base, but excluded from State and geographic division data.

Annual vehicle miles-Annual vehicle miles consists of the estimated sum of all miles driven during a 12 -month period by all operational private and commercial motor trucks registered in the 50 States and the District of Columbia in 1963. This total base was derived by applying the expansion factor for the sample truck by the number of miles the truck was driven during the 12 -month period. Since the purpose of deriving this unit of measurement was to distribute major items rather than to present a quotable universe figure, the trucks of owners who failed to report annual vehicle miles were not included in the total. Therefore, the tables based on "annual vehicle miles" may contain a small and undefinable bias.

Vehicle type-Two vehicle types are differentiated by the survey-single-unit trucks and combinations. The latter includes trucks or truck tractors with a trailing unit.

Year model-The year model of the vehicle was designated by manufacturer and included on the State motor registration record. In preparing the questionnaire for mailing, the year model (as well as make, weight, and license number) was posted in item 1. The respondent was requested to make corrections, where necessary.

Length or capacity-Length or capacity is defined in terms of load space or load capacity of the motor truck. Load space is shown for pickup; platform; panel, walk-in; vans (open, closed, or furniture); and refrigerated motor trucks, while capacity is shown for dump and tank trucks.

Size class-The size classification was developed on the basis of structural characteristics of trucks. Such a basis was required because gross vehicle weight (GVW) is not uniformly available in State registration records. The lack of uniformity created a need to develop a classification system that would function independently of GVW, or other units of registered weight, such as unladen weight and rated capacity.

The classification system was developed by matching the GVW class (in States which recorded GVW) against clusters of structural characteristics. The object of this crossclassification was to isolate the characteristics associated, to a significant extent, with one of four GVW groupings: Light ( 10,000 pounds or less), medium ( 10,001 to 19,500 pounds) light-heavy ( 19,501 to 26,000 pounds), and heavy-heavy ( 26,001 pounds or more).

The first step in developing the classification was to isolate the trucks which could not be placed into a specific size class. These trucks consisted of the following body types: Low-bed depressed center, winch or crane, wrecker, pole or logging, auto transport, and trucks not classified by body type. These trucks were labeled "miscellaneous" and included as a fifth category in the size classification.

The second step in developing the classification system based on structural characteristics was to allocate all combinations and threeaxle single-unit trucks to the heavy-heavy size class, irrespective of other characteristics. The classification for single-unit two-axle trucks is based on the body type and length or capacity of load space, as indicated in the following summary:

| Body type and length or capacity of single-unit two-axle trucks | Size class |
| :---: | :---: |
| Pickup trucks | Light |
| Cement mixers. | Heavy-heavy |
| Panel: |  |
| Under 9.9 feet | Light |
| 10 to 12.9 feet | Medium |
| 13 feet or over | Light-heavy |
| Multistop: |  |
| Under 12.9 feet | Light |
| 13 to 15.9 feet | Medium |
| 16 feet or over | Light-heavy |
| Platform: |  |
| Under 9.9 feet | Light |
| 10 to 12.9 feet | Medium |
| 13 feet or over | Light-heavy |
| Cattle rack: |  |
| Under 9.9 feet | Light |
| 10 to 12.9 feet | Medium |
| 13 feet or over_ | Light-heavy |


| Body type and length or capacity of single-unit two-axle trucks | Size class |
| :---: | :---: |
| Open van: |  |
| Under 7 feet | Light |
| 7 to 12.9 feet | Medium |
| 13 feet or over- | Light-heavy |
| Furniture van: |  |
| Under 9.9 feet | Light |
| 10 to 19.9 feet | Medium |
| 20 feet or over. | Light-heavy |
| Closed-top van: |  |
| Under 7 feet |  |
| 7 to 12.9 feet. | Medium |
| 13 feet or over. | Light-heavy |
| Refrigerated van: |  |
| Under 7 feet | Light |
| 7 to 12.9 feet. | Medium |
| 13 feet or over_ | Light-heavy |
| Dump: |  |
| Under 10 cubic yards. | Light-heavy |
| 10 cubic yards or over. | Heavy-heavy |
| Tank: |  |
| Under 2,000 gallons. | Medium |
| 2,000 to 2,999 gallons | Light-heavy |
| 3,000 gallons or over- | Heavy-heavy |

Major use-Major uses are classified into nine categories as follows:

Agriculture which includes own farming, ranching, or other agricultural activities such as hauling own livestock, produce, and farm equipment or occasional hauling for other people.
Personal which includes using the truck in place of an automobile for commuting from home to work, doing odd jobs around home or the summer place, and for recreational activities such as fishing, hunting, and the like.
For hire which includes trucking service known as drayage, local cartage, household goods movers, common or contract motor carriers, commercial motor carriers, "owner operators" under lease or contract, trucks leased on a long-term basis to a for-hire carrier, and the like.

Contract construction which includes trucks used in own building or contract construction business. Also includes vehicles leased on a long-term basis ( 30 days or more) to a person using the truck for construction purposes.
Manufacturing which includes trucks used in own manufacturing business or leased on a long-term basis to a manufacturer.
Wholesale and retail which includes trucks used in own wholesale or retail business
and those leased on a long-term basis to persons engaged in such businesses.
Services which includes trucks used in own service business or leased on a longterm basis to a person engaged in a service business.

Other businesses which includes trucks used in own business, not described above, or leased on a long-term basis to a person using it for a business other than any of the specific categories described. Also includes trucks reported as being used for business or long-term lease for which no information was provided on the nature of the business.

Other uses which includes uses not classifiable in the categories described above or use that was not reported.

Area of operation-The area in which the truck is usually operated is classified into one of three categories, as follows:

Local which includes the area in or around the city or suburbs or within a short distance from the place where the vehicle is based or located.

Intermediate which extends beyond the local area, but usually not more than 200 miles, one way, from the place where the vehicle is based or located.

Long-distance which includes trips that are usually more than 200 miles, one way, from the place where the vehicle is based or located.

Annual truck miles-This category consists of the total number of miles the truck was driven during the past 12 -month period. When the actual figures were not available or the vehicle had less than 1 year's use by the current owner, the respondent was requested to estimate the probable miles for a full year.

Driver man-hours-This category consists of the total man-hours usually spent per week by drivers of motor trucks. It includes both driving and riding time of relief and part-time drivers. If the driver helped to load or unload the vehicle or was otherwise on duty, his time is included. The time of nondriver employees was excluded.
Maintenance of truck-Maintenance of the truck, in terms of major repairs, is classified into four categories: Own repair shop, truck dealer or factory branch, independent garage, and other. The "other" category also includes maintenance not reported.

Truck fleets-The size of the truck fleet is based on the total number of owned power units operated out of the home base of the vehicle. This definition was used to obtain data on fleets as operational units. Significantly different results would have been obtained had the fleet size been based on total number of trucks owned, irrespective of the physical location of the vehicles. For example, assume that one company owns 100 trucks, of which 20 are operated out of headquarters, 15 are assigned to one of the company's manufacturing plants, . 40 are operated out of another plant, and the remaining 25 are assigned to a pool operated from the warehouse. As defined in this survey, four fleet sizes would be involved-20, 15, 25, and 40 vehicles-in contrast to one fleet size
of 100 vehicles, on an ownership basis. If the respondent did not answer the question on truck fleet, it was assumed that the vehicle was not associated with a fleet and was therefore classified in "fleets of 1 ".

Type of fuel-The survey differentiated two types of fuel-gasoline and diesel. A small number of respondents also reported using propane and butane fuel; these fuels were included in the "fuel not reported" category.

Period of operation-Inquiries on period of operation were made with regard to the number of days a week or the season of the year that the vehicle was operated.

## Appendix B

## CENSUS REPORT FORMS

Although each respondent received only one census report form, it was necessary to develop six variations of the questionnaire to reflect three inventory dates and two different licensing procedures. The licensing procedures which differed among States related to the disposition of the license plate when the vehicle was sold. In about half the States the license plate stayed with the original owner to be used on another vehicle or not used at all. In the other States, the plates remained with the vehicle when it was sold.

The six variations of the questionnaire used in the survey are the following:

> TC-200-1-for April 1 inventory date and license plate that remained with the original owner
> TC-200-2-for July 1 inventory date and license plate that remained with the original owner
> TC-200-3-for October 1 inventory date and license plate that re-
mained with the original owner
TC-200-4-for April 1 inventory date and license plate that remained with the vehicle
TC-200-5-for July 1 inventory date and and license plate that remained with the vehicle
TC-200-6-for October 1 inventory date and license plate that remained with the vehicle.

The items appearing on the questionnaire are the same for each variation. The only differences relate to the information in the "General Instructions" block on the first page, top left part of the form, and the inventory date in item 20 on page 3. The "General Instructions" indicates the inventory date and explains that the form is to be filled in completely if, on the inventory date, the vehicle was owned by or registered to the person, regardless of the disposition of license plates if the truck had been sold since that date.

A facsimile of the TC-200 questionnaire is presented on the following pages.

OFFICE OF THE DIRECTOR

## U.S. DEPARTMENT OF COMMERCE

bureau of the census
WASHINGTON, D.C. 20233
Form TC-202a

Dear Sir:
The Bureau of the Census is collecting information about the use of motor vehicles as part of the 1963 Census of Transportation. The principal objective is to obtain data on the number of vehicles in the Nation, classified by physical characteristics, use, area of operation and other related aspects.

Because there are about 12 million registered trucks in the United States it has been necessary to limit this survey to a small scientifically selected sample of such vehicles. While you may receive more than one form if you own several trucks, it is unlikely that you will be asked to supply information for more than a small fraction of such vehicles. Please answer all questions on each form you receive.

Please complete the enclosed form, TC-200, TRUCK INVENTORY AND USE SURVEY, for the vehicle described in Item 1 of the form even though you may have sold, traded or otherwise disposed of it. Correct any errors in name and address or the vehicle description. If the license plates were not on or assigned to a vehicle on the date shown in the "Instruction" section of the form, write "License Not in Use" across the front of the form, sign Item 21, and return the form without answering other questions.

Response to this inquiry is required by Act of Congress (Title 13, U.S. Code). The report you submit to the Census Bureau is confidential and may be seen only by sworn Census employees. It may not be used for purposes of taxation, investigation, or regulation. The information provided by you will be used solely for statistical purposes and will be released only in tabulated form that does not reveal the operations of any individual or company.

Please complete and return the report within 20 days. A return envelope, which requires no postage, is enclosed for this purpose.

Sincerely yours,


Richard M. Scammon
Director
Bureau of the Census
Enclosures
If you have any questions regarding
Bureau of the Census TRANSEOD
the report, address your inquiry to:
Washington, D.C., 20233
In any correspondence relating to your questionnaire, please include the State and license number of the vehicle

CONFIDENTIAL - Response to this inquiry is required by Act of Congress (13 U.S.C.). The report you submit to the Census Bureau is confidential and may be seen only by sworn Census employees. It may not be used for purposes of taxation, investigation, or regulation. Copies retained in your files are also immune from legal process.

\begin{tabular}{|c|c|c|}
\hline \multirow[t]{2}{*}{\(\underset{\substack{\text { FORM TC-200-2 } \\(1-24-63)}}{ } \quad\) U.s. DEPARTMENT OF
BUEEAU OF THE CENSUS
1963 CENSUS OF TRANSPORTATION
TRUCK INVENTORY AND USE SURVEY} \& \multicolumn{2}{|l|}{Return to Washington, D. C. not later than TWENTY DAYS AFTER RECEIPT} \\
\hline \& \multicolumn{2}{|l|}{(Please correct if name or address has changed)} \\
\hline \multicolumn{3}{|l|}{In correspondence pertaining to this report, please include State and License number.} \\
\hline \multicolumn{3}{|l|}{} \\
\hline \multirow[t]{2}{*}{Registration records. Please correct any errors in the vehicle identification or changes in name or address. If on July 1, 1963, the license plates were on a vehicle other than the one described, give the correct vehicle description.} \& \multicolumn{2}{|l|}{1. VEHICLE IDENTIFICATION} \\
\hline \& Make \& Year model \\
\hline If the license plates were not on or assigned to a vehicle, make this notation across the front of the form, sign in Item 21, and return it without further completion. \& \begin{tabular}{|l|l}
\hline Registered weight or capacity \& State
\end{tabular} \& License No. \\
\hline Return the form to the Bureau of the Census, Washington 25, D. C., in the enclosed envelope which requires no postage. \& \multicolumn{2}{|l|}{If the make, year model, or weight of the vehicle is not shown above, please fill in the blank for the missing item.} \\
\hline \multirow[t]{4}{*}{2. TYPE OF VEHICLE ("X" ONE box)

Truck $\square$ Truck-tractor

Truck-tractor and semi-trailer registered as a unit
Other (Describe) $\qquad$} \& \multicolumn{2}{|l|}{3. TYPE OF FUEL ("X" ONE box)} <br>
\hline \& 1 $\square$ Gasoline \& iesel <br>
\hline \& $\pm \square$ Other (Describa) \& [__ <br>
\hline \& \& <br>
\hline \multicolumn{3}{|l|}{4. NUMBER OF AXLES ON THE POWER UNIT (Truck or truck-tractior) (" $X^{\prime \prime}$ ONE box in $a$, $b$, and $a$ ) (Do not include trailer. Report tandem axles as two axles.)} <br>

\hline  \& | axles (poworad) on |
| :--- |
| c. Number of driving rear ("X" ONE b $\square$ $\square$ One axle |
| $2 \square$ $\square$ Two axles | \& axles (powared) on ) <br>

\hline \multicolumn{3}{|l|}{(Unloaded weight of truck or truck-tractor is the empty weight of the vehicle fully equipped for service, including fuel, water, accessories and equipment.)} <br>

\hline \multicolumn{3}{|l|}{| 6. NUMBER OF AXLES ON THE TRAILING UNIT(S) (Semi-trailer and full-frailer(s)) |
| :--- |
| (If the vehicle is a truck-tractor (or a straight truck drawing a full trailer) mark a box for the number of axles on the trailing unit(s) most frequently used with the power unit.) ("X"ONE box only) |} <br>


\hline | a. Semi-frailer ONLY |
| :--- |
| b. Full-trailer ONLY | \& \multicolumn{2}{|l|}{1c. Semi - and full-trailer, including converter dolly} <br>

\hline $1 \square$ One axle \& $7 \square$ Three axles \& \multirow[b]{3}{*}{nore} <br>
\hline $2 \square$ Two axles $\quad 3 \square$ Three axle \& s $\quad 18 \square$ Four axles \& <br>
\hline $8 \square$ Three axles $6 \square$ Four axles \& or more $\quad 9 \square$ Five axles or \& <br>

\hline \multicolumn{2}{|l|}{| 7. UNLOADED WEIGHT OF THE TRAILING UNiI(5) (Semi-trailer and fulltrailer(s)) |
| :--- |
| (Unloaded weight of the trailing unit, is the empty weight of the vehicle fully equipped for service, including accessories and equipment.) |} \& Pounds <br>

\hline
\end{tabular}



Bo $\square$ other (If the above descriptions do not satisfactorily describe your vehicle, please enter identifying body type and size.)

```
9. MAJOR USE OF THIS TRUCK OR COMBINATION ("X" the ONE box that best describes your main use of this vehicle during the past
    12 months. If owned less than }12\mathrm{ months, check the major use during the time you owned the vehicle.)
```

```For your farming, ranching or other agricultural activitiss. This use includes hauling your livestock, crops or products to market; bringing back supplies and equipment; hauling around farm, and perhaps occasional hauling for neighbors or others. (Answer Question 12 next.)
2
```

```Personal transportation - This is using the vehicle in place of an automobile to go from home to work; doing odd jobs around home or summer place; going fishing or hunting, etc. (Answer Question 12 next.)
```

```Leased or rented to others without driver--for periods of less than 30 days. (Answer Question 12 nexf.)
4
```

```Leased or rented to others without driver -- for periods of 30 days or more. (Answer Question 11 next.)
```

```State, county, municipal or other governmental operation. (Answer Question 12 next.)
```

```For-hire transportation - This use includes tucking services known as drayage, local cartage, household goods movers, common or contract motor carriers, commercial motor carriers, "Owner-operators" under lease or contract. (Answer Question 10)
7 Operated in connection with own business or occupation not speciffed above. (Answer Question 11 next.)
```

```Other - If none of the above applies to the use you make of the vehicle, describe the main use of the vehicle here. (Answer Question 12 next.)
```

(Answer this question if the "For-hire transportation" box has been marked in Question 9.)

## 10. TYPE OF SERVICE

a. Hauling in - (" $x^{\prime \prime}$ ONE box) $\quad \square$ One State only $2 \square$ More than one State
b. Is this service under an Interstate Commerse Commission authorization (either granted or pending)? ("X" ONE box)


Answer this question if either the 4 box or the 7 box has been marked in Question 9.
11. BUSINESS OR OCCUPATION - (Mark the ONE box below that most nearly describes your business or the business of the person to whom you leased the vehicle.)

1 [Mining or quarrying
2Building or contract constructionManufacturing
(Describe class of industry such as furnifure, potroleum, textile, etc.)
$4 \square$ Wholesale -
(Describe class, such as groceries, machinery, hardware, efc.)
\% Retail .

© $\square$ Service -
(Describe class, such as hotels, aufomobile repairs, laundries, etc.)
7 For-hire carrier -
(Deseribe major type(s) of products carried)
a $\square$ Other (Describe)
12. VEHICLE LEASED TO OTHERS
Did you lease this vehicle WITH DRIVER to others any time
during the past 12 months? ("X" ONE box)
I No $\square \square$ Yes (If "Yes," estimate the total number of days leased) . . . . . . . . . .
33. VEhicle miles Miles
a. Total miles this vehicle was driven during the past 12 months. If book figures are not available, estimate the total miles driven or if you have owned the vehicle less than 12 months, estimate the probable miles for a full year . . . . . . . . . . . . . . . . . . . . . . . . . b. Total miles this vehicle has been driven since new. If milcage shown on speedometer does not represent the life-time miles by this vehicle, estimate the total mileage

## 14. TYPICAL LOADS

On a round trip basis, how does the truck or combination usually move? ("X"ONE box)
$1 \square$ Loaded in one direction, but returns empty
(or almost empty) in the other direction
$2 \square$ Loaded in both directions



[^0]:    ${ }^{1}$ See Highway Statislics, table MV-1, published annually by the Bureau of Public Roads. Because registration practices and the timing of the reregistration cycles differ greatly among the States, the Bureau of Public Roads adjusts information obtained from the various State authorities to achieve maximum comparability among States.

[^1]:    ${ }^{2}$ Executive Office of the President, Bureau of the Budget, Standard Metropolitan Statistical Areas, 1964.

[^2]:    X Not applicable.
    ${ }^{1}$ Technicaily referred to as "one standard error."
    ${ }^{2}$ Includes only trucks for which information on length was requested.

[^3]:    ${ }^{1}$ Area of operation in or around the city and suburbs or within a ahort distance of the farm, factory, or the home base of the vehicle.
    ${ }^{2}$ Area of operation beyond the local area.

