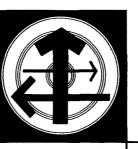


1963 CENSUS OF TRANSPORTATION

Volume II

TRUCK INVENTORY and USE SURVEY





U.S. DEPARTMENT OF COMMERCE John T. Connor, Secretary BUREAU OF THE CENSUS A. Ross Eckler, Director

BUREAU OF THE CENSUS

A. Ross Eckler, Director Howard C. Grieves, Assistant Director, Economic Fields

TRANSPORTATION DIVISION Donald E. Church, Chief

Acknowledgments

The 1963 Census of Transportation was conducted under the general direction of **Donald E. Church**, Chief, and **Walter F. Buhl**, Assistant Chief of the Transportation Division. Within this Division, responsibility was shared by the following individuals who contributed significantly to the entire program: **Kathryn C. Farmer**, Chief, Operations and Management Branch; **Caby C. Smith**, Chief, Survey Programs Branch; and **Kathleen E. Sier**, in charge of correspondence and review and analysis of reports. The publications program was developed in the Division under the direct supervision of **John C. Deshaies**.

Specific contributions to the Truck Inventory and Use Survey by other Divisions of the Bureau are acknowledged as follows: Systems and procedures were centered in the Economic Operations Division under M. D. Bingham, Chief, and Sol Dolleck, Assistant Chief for Systems. Electronic computer programing was developed and supervised by Richard M. Havens and Vincent T. Lauricella, Jr., under the direction of Jack A. Scharff. Important contributions in coordinating the planning and operating phases of the work were made by Max E. Van Horn and Jack Margolis. Quality control plans and procedures were developed by Maxwell D. Jeane under the supervision of Herman H. Fasteau. Clerical processing was supervised by Daniel J. McGillicuddy, Wilmetta M. Long, and Evelyn M. Hardesty.

Data processing and related operations were performed in the Data Processing Systems Division under **Robert F. Drury**, Chief, with major contributions in process planning and control made by **Linda E. David** and **Dorothy L. Brown**. In Statistical Research Division, advice on sampling and other technical statistical aspects was provided by **Max Bershad**. In Administrative Services Division, significant publication functions were undertaken by **Robert Brooks**, **Viola Rydberg**, and **Robert Makoff**. In Statistical Reports Division, editorial supervision and report planning were provided by **Geraldine Censky** and publication graphics and design were developed by **Stuart Freeman**.

Library of Congress Card No. A65–7762

Suggested Citation

U.S. Bureau of the Census, Census of Transportation, 1963

Volume II: TRUCK INVENTORY AND USE SURVEY

U.S. Government Printing Office, Washington, D.C., 1965

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, or any Department of Commerce field office. Price \$5.25

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. Results 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.

Contents

			Page
		Preface	
		Introduction: Summary of Findings Scope of Survey Survey Method Production Areas	1 3 3 6
	,	U.S. Summary Geographic Divisions States	9 47 175
FIGURE	1	Estimated Trucks by Major Use, Area of Operation, and Mainte-	
	2 3 4	nance Responsibility Major Use of Motor Trucks by Vehicle Size Motor Truck Mileage by Vehicle Size and by Major Use Annual Vehicle Miles by Area of Operation and by Major Use	2 4 7 8
MAPS		Distribution of Commercial and Private Motor Truck Registration —December 31, 1963 Selected Production Areas	11 18
		Geographic Divisions in the United States	48
	A B C	Explanation of Major Terms Census Report Forms Availability of Special Tabulations and Public-Use Tapes	687 691 697

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—US30

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—US1 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, \$3. \$8. \$9 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 according 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.

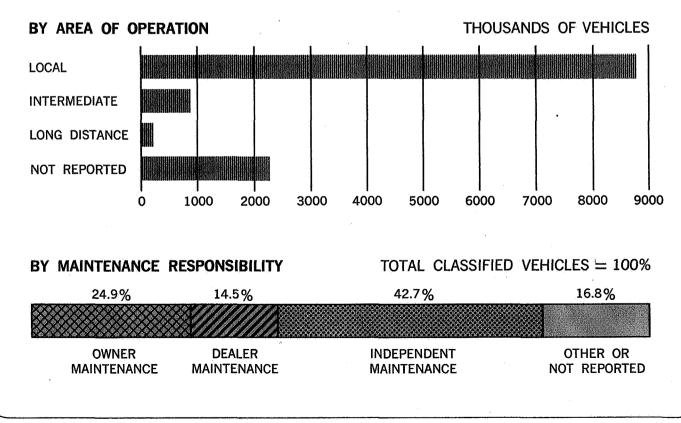
Virtually all motor trucks used for personal transportation (98 percent) and most of those used for agriculture have no fleet association. On the other hand, 7 out of 10 motor trucks classified as "for hire" transportation are associated with truck fleets.

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

(Miscellaneous Trucks not Included)

BY MAJOR USE (table 1) EACH SYMBOL = 200,000 VEHICLES						
AGRICULTURE	XXXXX XXXXX XXXXX XXXXXXXXXXXXXXXXXXXX					
PERSONAL	***					
FOR HIRE	, , , , , , , , , , , , , , , , , , , 					
CONTRACT CONSTRUCTION						
MANUFACTURING	528,000					
WHOLESALE AND RETAIL						
SERVICES	930,000					
OTHER						



1963 CENSUS OF TRANSPORTATION, U. S. Department of Commerce, Bureau of the Census

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 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

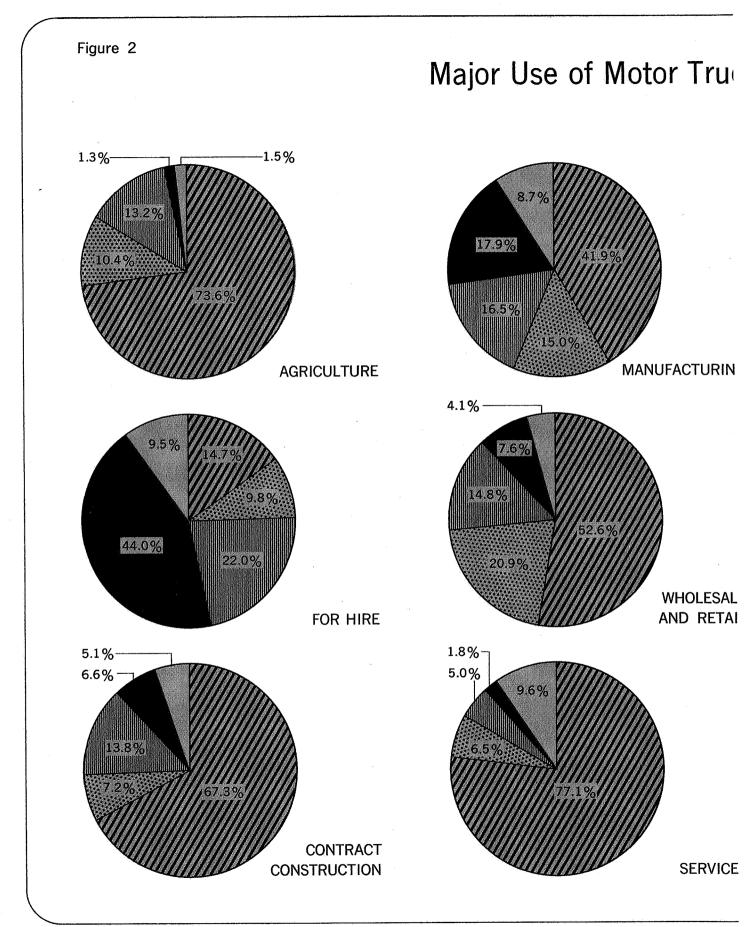
Description of Sample—A probability sample of license numbers for power units (i.e., straight trucks and truck-tractors) was drawn from the motor vehicle license files in each of the 50 States and the District of Columbia. A total of about 115,000 licenses was drawn for the United States as a whole from 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.

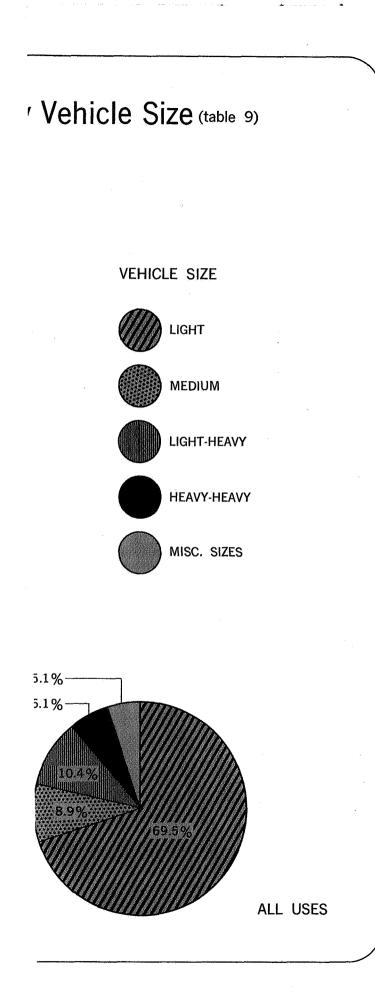
The estimates of the relative (or percentage) distributions of vehicles by body type or other classifications in each State were developed, in general, as follows: The original sample was drawn in such a manner that every truck license in the State motor vehicle registration file had a mathematically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

¹ See **Highway Statistics**, 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.



1963 CENSUS OF TRANSPORTATION, U. S. Department of Commerce, Bureau of th

.



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.

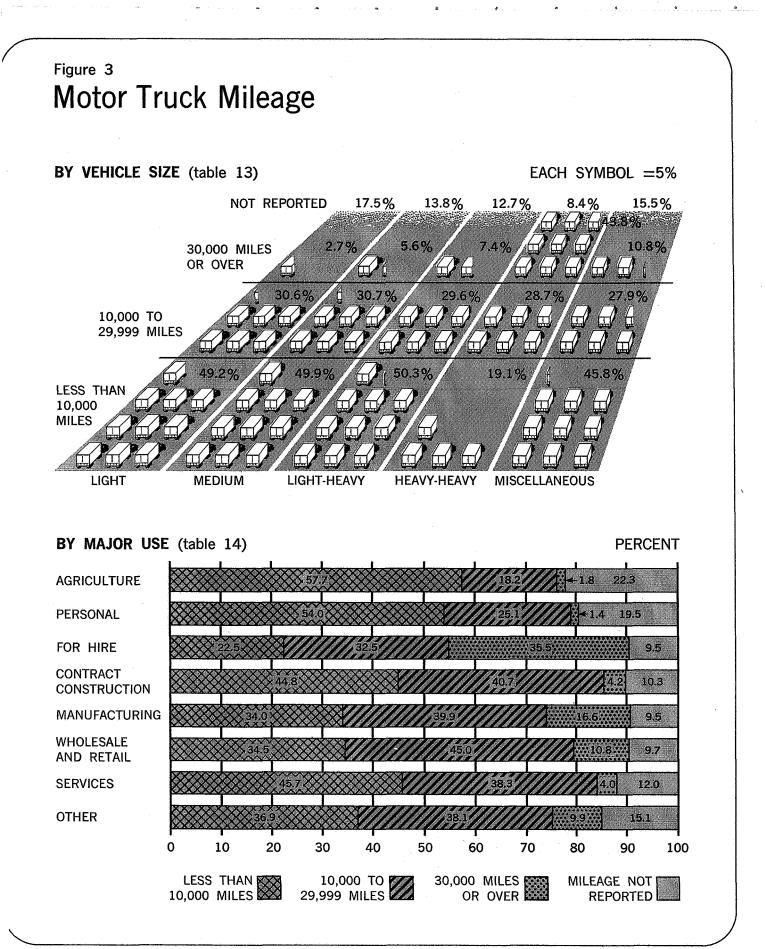
PRODUCTION AREAS

The map on page 18 identifies 25 production areas. The production-area concept was developed for the Census 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.

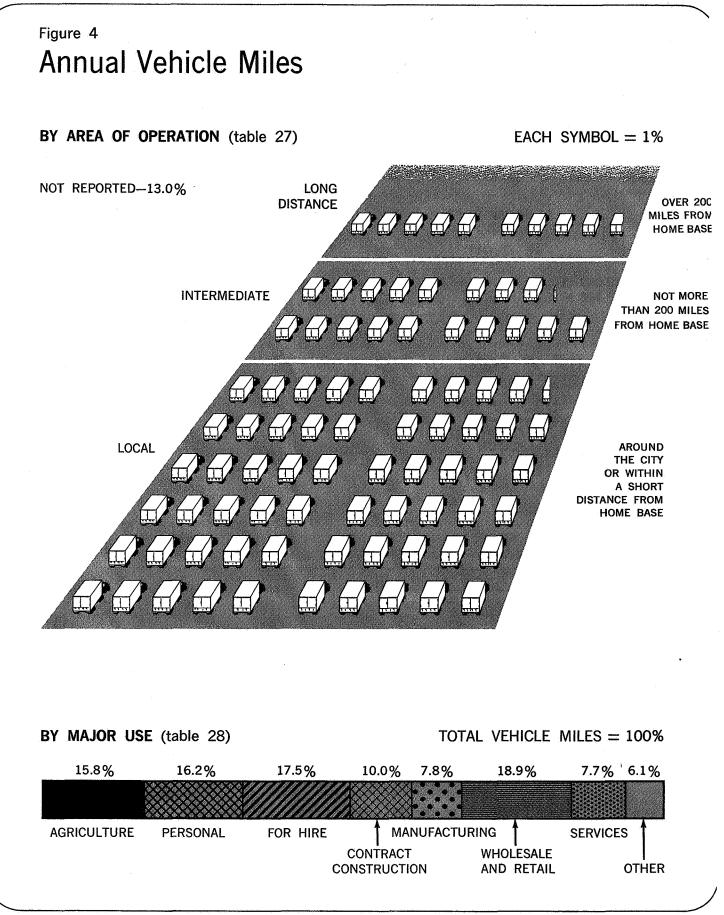
An SMSA is defined by the Bureau of the Budget as a county or group of contiguous counties (except in New England) which contains at least one central city of 50,000 or more inhabitants or "twin cities" with a combined population of at least 50,000. In addition to the county or counties containing such 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.

² Executive Office of the President, Bureau of the Budget, **Standard Metropolitan Statistical Areas**, 1964.



1963 CENSUS OF TRANSPORTATION, U. S. Department of Commerce, Bureau of the Census



1963 CENSUS OF TRANSPORTATION, U. S. Department of Commerce, Bureau of the Census

Oregon

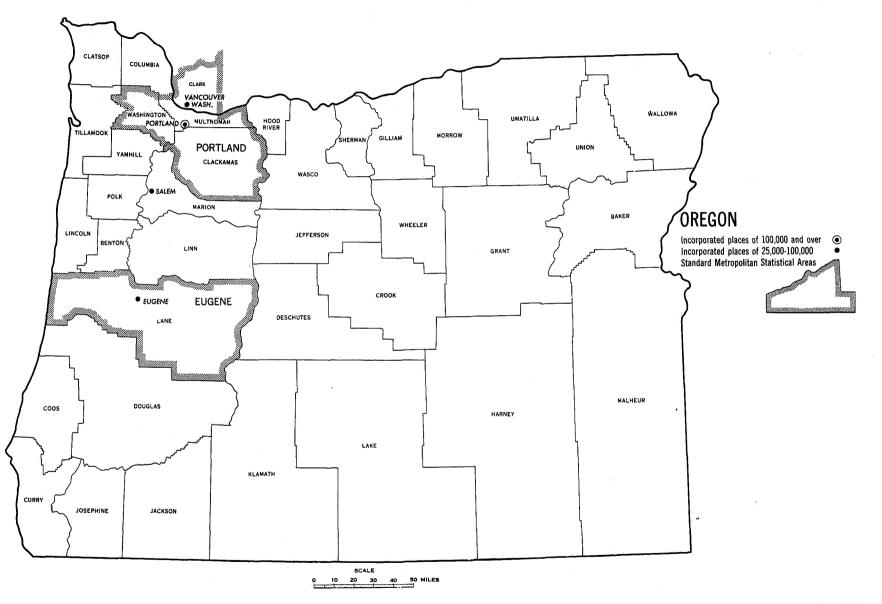
Contents

State map	548
State Private and Commercial Truck Registrations	549
Truck Inventory and Use Survey Sample.	
Sampling Variability of Data	549

Percent Distribution of Classified Motor Trucks for the Categories Shown Below. Data are as of July 1

TABLE	2 3	Year Model and Size Class of Truck: 1963 Area of Operation and Major Use of Truck: 1963 Size Class and Major Use of Truck: 1963 Size Class of Truck and Size of Truck Fleet: 1963	550 551
	5	Size Class of Truck and Type of Fuel: 1963	552
	6	Major Use and Body Type of Truck: 1963	552
	7	Annual Truck Miles and Size Class and Year Model of Truck: 1963	553
	8	Annual Truck Miles and Major Use and Size Class of Truck: 1963	554
	9	Driver Man-Hours and Major Use and Size Class of Truck: 1963	555
	10		

Page



BUREAU OF THE CENSUS

STATE PRIVATE AND COMMERCIAL TRUCK REGISTRATIONS

Total number on fileMiscellaneous types not classified by sizeTypes included in tables	175,515 12,125 163,390
TRUCK INVENTORY AND USE SAMPLE	
Number selected on sample Out-of-scope types and postmaster returns Unanswered questionnaires	1,584 147 76
Net number on sample	1,361 262 1,099

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:

ltem	Reported figure based on sample (1)	Sampling vari- ability ¹ (2)	łtem	Reported figure based on sample (1)	Sampling vari- ability1 (2)
BODY TYPE	(percent)	(percent)	LENGTH OF TRUCK ²	(percent)	(percent)
Pickups. Panel, walk-ins. Platform and cattle rack Van. Refrigerator. Dump. Tank. Cement mixers and "not reported"	8.0 17.1 4.2 0.8 3.1 2.6	1.1 0.9 0.8 0.4 0.2 0.3 0.4 0.6	Under 10 ft. long 10 to 15.9 ft. long 16 to 24.9 ft. long 25 to 34.9 ft. long 35 ft. long and over Length not reported ANNUAL MILEAGE	70.2 14.2 4.2 1.0 1.1 9.3	1.5 1.1 0.5 0.3 0.1 1.2
BODY SIZE Light Medium Light-heavy Heavy-heavy. MAJOR USE	9.1 9.9 5.6	1.3 1.0 0.8 0.4	Less than 5,000 miles 5,000 to 9,999 miles 10,000 to 19,999 miles 20,000 to 29,999 miles 30,000 miles and over Mileage not reported	27.2 27.4 21.0 4.5 4.4 15.5	3.3 2.3 2.2 0.5 0.3 2.5
Agriculture. Personal. For hire. Contract construction. Manufacturing. Wholesale and retail. Services Other business. Other uses. DRIVER MAN-HOURS	39.3 3.7 6.2 3.2 11.5 4.5 (X)	1.8 2.0 0.5 0.9 0.6 1.4 1.1 (X) (X)	AREA OF OPERATION Local Intermediate Long distance Not reported YEAR MODEL	70.0 (X) (X) 19.1	1.7 (X) (X) 0.9
Under 15 hours. 15 to 30 hours. 31 to 40 hours. 41 hours or more. Man hours not reported.	10.5 5.7 5.9	2.5 1.3 0.7 0.9 3.8	1962-63. 1960-61. 1955-59. 1950-54. Pre-1950.	10.8 12.7 25.8 31.0 19.7	0.6 0.8 2.4 1.0 1.1

X Not applicable. ¹Technically referred to as "one standard error." ²Includes only trucks for which information on length was requested.

TABLE 1.	Year	Model	and	Size	Class	of	Truck:	1963	

Size class	Total	1962-63	1960-61	1955-59	1950-54	Pre-1950
	Distribution by year model					<u></u>
All size classes	100.0	10,8	12.7	25,8	31. 0	19.7
Light trucks Medium trucks Light-heavy trucks Heavy-heavy trucks	100.0	12.0 6.2 4.9 13.4	12.9 10.5 12.2 14.3	24.9 29.9 27.4 29,3	32.1 20.9 32.8 28.7	18.1 32.5 22.7 14.3
	Distribution by size class					
All size classes	100.0	100.0	100.0	100.0	100.0	100.0
Light trucks Medium trucks Light-heavy trucks Heavy-heavy trucks	9.1 9.9	83.4 5.2 4.4 7.0	76.7 7.5 9.5 6.3	72.6 10.6 10.5 6.3	78.2 6.2 10.4 5.2	69.4 15.1 11.4 4.1

(Percent distribution)

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

Major use	Total	Local ^z	Intermediate and long distance ²	Not reported
	Distribution by area of operation			
All uses	100.0	70.0	10.9	19.1
Agriculture Personal For hire Contract construction Manufacturing Wholesale and retail business Services All other uses	100.0 100.0 100.0 100.0 100.0 100.0	75.3 66.5 52.1 83.7 49.3 71.5 92.9 44.7	4.3 7.7 40.7 12.6 31.2 16.1 6.7 37.2	20.4 25.8 7.2 3.7 19.5 12.4 0.4 18.1
	Distribution by major use			
All uses	100.0	100.0	100.0	100.0
Agriculture. Personal. For hire. Contract construction. Manufacturing. Wholesale and retail business. Services. All other uses.	39.3 3.7 6.2 3.2 11.5 4.5	30.3 37.4 2.7 7.4 2.3 11.8 6.0 2.1	11.0 27.6 13.9 7.1 9.1 17.1 2.8 11.4	30.1 53.2 1.4 1.2 3.3 7.5 0.1 3.2

¹Area of operation in or around the city and suburbs or within a short distance of the farm, factory, or the home base of the vehicle. ²Area of operation beyond the local area.

TABLE 3. Size Class and Major Use of Truck: 1963

(Percent	distribution)
----------	---------------

Major use	Total	Light	Medium	Light-heavy	Heavy-heavy
s second s		Distrib	ution by size	class	•
All uses Agriculture Personal For hire Contract construction Manufacturing Wholesale and retail business Services	100.0 100.0 100.0 100.0	75.4 63.7 99.8 12.9 64.0 43.4 54.3 94.5 54.9	9.1 15.5 9.1 8.3 11.6 26.0 2.7 12.7	9.9 18.7 0.2 21.5 19.2 16.1 11.1 1.2 21.8	¹ 5.6 2.1 56.5 8.5 28.9 8.6 1.6 1.0.6
	Distribution by major use				
All uses	100.0	100.0	100.0	100.0	100.0
Agriculture Personal For hire Contract donstruction Manufacturing Wholesale and retail business Services	39.3 3.7 6.2 3.2 11.5	23.8 52.1 0.6 5.3 1.8 5.6 2.5	47.7 3.7 5.7 4.1 32.8 1.4 4.6	53.1 0.7 8.1 12.0 5.2 12.9 0.5 7.5	10.8 37.6 9.5 16.6 17.8 1.3 6.4

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							
All fleets	100.0	75.4	9.1	9.9	5.6			
Trucks in fleets of — 1 truck 2 to 5 trucks 6 to 19 trucks 20 trucks or more	100.0 100.0 100.0 100.0	83.6 58.5 48.7 31.8	7.6 16.1 8.6 16.1	6.6 19.2 23.1 18.6	2.2 6.2 19.6 33.5			
	Dis	tribution by n	umber of trucks	s in truck flee	et.			
All fleets	100.0	100.0	100.0	100.0	100.0			
Trucks in fleets of— 1 truck 2 to 5 trucks 6 to 19 trucks 20 trucks or more	75.5 11.8 7.5 5.2	83.8 9.2 4.8 2.2	63.1 20.8 7.0 9.1	50.0 22.9 17.4 9.7	30.0 13.1 26.1 30.8			

1

TABLE 5. Size Class of Truck and Type of Fuel: 1963

Type of fuel	Total	Light	Medium	Light-heavy	Heavy-heavy			
	Distribution by size class							
All fuels	100.0	75.4	9.1	9.9	5.6			
Gasoline Diesel Not reported	100.0 100.0 100.0	76.9 0.9 80.9	9.3 0.9 10.4	10.1 1.7 5.2	3.7 96.5 3.5			
<u> </u>	Distribution by type of fuel							
All fuels	100.0	100.0	100.0	100.0	100.0			
Gasoline Diesel Not reported	97.0 2.0 1.0	98.9 - 1.1	98.6 0.2 1.2	99.1 0.4 0.5	64.0 35.4 0.6			

(Percent distribution)

TABLE 6. Major Use and Body Type of Truck: 1963

(Percent distribution)

Body type ²	Total	Agri- culture	Per- sonal	For hire	Contract construc- tion	Manu- fac- turing	Wholesale and retail business	Serv- ices	All other uses
	Distribution by major use of truck								
All types	100.0	28.1	39.3	3.7	6.2	3.2	11.5	4.5	3.5
Pickup. Panel, walk-in. Platform and cattle rack Vans. Refrigerator. Dump Tank. Other.	100.0 100.0 100.0 100.0 100.0 100.0 100.0	24.2 70.3 3.8 15.6 6.0	58.8 20.3 1.4 0.4 - - 25.0	- 3.8 4.3 37.7 32.6 14.0 16.1	4.8 14.5 5.2 1.3 29.7 3.4 11.5	1.8 6.9 5.5 14.0 8.7 4.0 15.4	5.6 31.3 6.4 43.2 48.7 13.4 61.8 13.4	2.9 25.2 2.8 1.7 2.3 0.7	1.9 4.9 2.7 6.4 4.7 16.3 8.0 34.7
				Distr	ibution by	body typ	es		
All types	100.0	100.0	100.0	100.0	100,0	100.0	100.0	100.0	100.0
Pickup Panel, walk-in. Platform and cattle rack Vans. Refrigerator. Dump. Tank. Other.	8.0 17.1 4.2 0.8 3.1	54.4 	94.7 4.1 0.6 - - - 0.6	8.2 19.6 42.5 6.7 11.5 11.5	48.5 18.6 14.3 0.9 - 14.6 1.4 1.7	36.2 37.1 7.2 3.3 8.3 3.3 4.6	30.9 21.7 9.6 15.7 3.2 3.6 14.2 1.1	41.2 44.6 10.6 1.6 1.6 0.4	34.7 11.7 13.7 8.0 1.1 14.9 6.3 9.6

¹Classifications 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.

TRUCK INVENTORY AND USE SURVEY

OREGON 553

*** se 16 au

TABLE 7. Annual Truck Miles and Size Class and Year Model of Truck: 1963

(Percent distribution)

Size class and year model	Total	Less than 5,000 miles	5,000 to 9,999 miles	10,000 to 19,999 miles	20,000 to 29,999 miles	30,000 miles or more	Mileage not reported
			Distribut	ion by tru	ck miles	•	L <u></u>
All trucks	100.0	27.2	27.4	21.0	4.5	4.4	15.5
Light trucks, total 1962-63 models 1960-61 models 1955-59 models Pre-1955 models	100.0 100.0 100.0 100.0 100.0	26.3 6.3 9.7 22.3 37.3	29.5 23.3 30.8 35.7 27.5	22.3 39.3 42.8 25.2 11.4	4.6 18.0 9.5 3.9 0.6	1.9 5.1 2.4 1.3 1.2	15.4 8.0 4.8 11.6 22.0
Medium trucks, total. 1962-63 models. 1960-61 models. 1955-59 models. Pre-1955 models.	100.0 100.0 100.0 100.0 100.0	31.0 6.3 16.6 23.3 41.0	22.5 37.4 29.8 28.0 16.3	16.8 40.6 31.4 31.8 3.0	4.5 3.1 1.9 0.7 7.2	7.4 12.6 20.3 13.6 0.7	17.8 2.6 31.8
Light-heavy trucks, total 1962-63 models 1960-61 models 1955-59 models Pre-1955 models	100.0 100.0 100.0 100.0 100.0	37.0 11.1 19.1 28.1 47.6	24.3 33.3 42.6 38.6 12.6	16.3 26.0 28.0 26.7 7.6	2.3 11.1 5.8 2.0 1.0	2.9 7.4 1.5 2.0 3.2	17.2 11.1 3.0 2.6 28.0
Heavy-heavy trucks, total 1962-63 models 1960-61 models 1955-59 models Pre-1955 models	100.0 100.0 100.0 100.0 100.0	15.2 4.8 8.7 28.0	11.8 11.1 12.0 15.6	19.4 11.9 33.2 21.7 15.6	8.3 2.4 11.1 9.8 8.2	36.0 49.9 42.4 41.3 26.0	9.3 31.0 2.2 6.5 6.6
		Distri	bution 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 1962-63 models 1960-61 models 1955-59 models Pre-1955 models	75.4 9.0 9.7 18.8 37.9	73.0 2.1 3.5 15.4 52.0	81.3 7.7 11.0 24.5 38.1	79.8 16.9 19.9 22.5 20.5	76.1 35.3 20.2 15.5 5.1	32.2 10.6 5.3 5.7 10.6	75.2 4.6 3.0 14.1 53.5
Medium trucks, total 1962-63 models 1960-61 models 1955-59 models Pre-1955 models	9.1 0.6 1.0 2.7 4.8	10.4 0.1 0.6 2.3 7.4	7.5 0.8 1.0 2.8 2.9	7.3 1.1 1.4 4.1 0.7	8.8 0.4 0.4 7.6	15.3 1.6 4.4 8.5 0.8	10.5 0.5 10.0
Light-heavy trucks, total 1962-63 models 1960-61 models 1955-59 models Pre-1955 models	9.9 0.5 1.2 2.7 5.5	13.5 0.2 0.8 2.8 9.7	8.8 0.6 1.9 3.8 2.5	7.7 0.6 1.6 3.5 2.0	5.0 1.2 1.5 1.2 1.1	6.5 0.8 0.4 1.2 4.1	11.0 0.3 0.2 0.5 10.0
Heavy-heavy trucks, total 1962-63 models 1960-61 models 1955-59 models Pre-1955 models	5.6 0.7 0.8 1.6 2.5	3.1 0.1 0.5 2.5	2.4 0.3 0.7 1.4	5.2 0.4 1.3 1.7 1.8	10,1 0.4 1.9 3.5 4.3	46.0 8.5 7.7 15.4 14.4	3.3 1.5 0.1 0.7 1.0

1 " an I was

Shower 200

TABLE 8. Annual Truck Miles and Major Use and Size Class of Truck: 1963

in the second second

(Percent distribution)

	and the second						
Major use and size class	Total	Total Less than 5,000 miles		10,000 to 19,999 miles	20,000 to 29,999 miles	30,000 miles or more	Mileage not reported
		D	istributio	n by annua	l mileage		
All uses Light and medium trucks Light-heavy and heavy-heavy	100.0 100.0	27.2 26.8	27.4 28.7	21.0 21.7	4.5 4.6	4.4 2.5	15.5 15.7
trucks	100.0	29.1	19.9	17.4	4.5	14.8	14.3
Agriculture. Personal. For hire. Contract construction Manufacturing. Wholesale and retail business Services. All other uses.	100.0 100.0	36.2 27.8 20.1 20.6 9.4 16.3 24.8 21.8	20.5 34.6 15.8 30.1 22.7 26.4 27.0 15.9	15.0 18.8 19.6 29.2 30.5 26.6 37.2 33.0	1.6 1.8 8.1 4.6 10.0 17.1 5.1 9.1	0.6 2.4 33.5 3.7 14.0 10.0 - 6.3	26.1 14.6 2.9 11.8 13.4 3.6 5.9 13.9
		Distri	bution by	major use	and size c	lass	
All uses Light and medium trucks Light-heavy and heavy-heavy trucks	100.0 84.5 15.5	100.0 83.4 16.6	100.0 88.8 11.2	100.0 87.1 12.9	100.0 84.9 15.1	100.0 47.5 52.5	100.0 85.7 14.3
Agriculture. Personal. For hire. Contract construction Manufacturing. Wholesale and retail business Services. All other uses.	28.1 39.3 3.7 6.2 3.2 11.5 4.5 3.5	37.5 40.2 2.7 4.7 1.1 6.9 4.1 2.8	21.1 49.8 2.1 6.8 2.7 11.1 4.4 2.0	20.1 35.4 3.5 8.6 4.7 14.6 8.0 5.1	10.5 15.1 6.6 6.2 7.0 43.0 5.0 6.6	3.6 21.2 28.5 5.3 10.2 26.4 - 4.8	47.4 37.1 0.7 2.8 2.6 1.7 3.0

TRUCK INVENTORY AND USE SURVEY

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 Light and medium trucks	100.0 100.0	39.8 40.7	10.5 9.9	5.7 4.1	5.9 2.9	38.1 42.4
Light-heavy and heavy-heavy trucks	1.00,0	34.9	13.8	14.1	22.6	14.6
Agriculture. Personal. For hire. Contract construction, Manufacturing. Wholesale and retail business. Services. All other uses.	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	51.5 37.4 12.0 51.7 26.7 28.0 29.2 44.7	6.8 2.4 12.9 25.2 28.8 25.8 25.3 16.4	0.1 1.2 24.8 10.0 12.8 18.3 17.4 10.1	5.0 - 42.6 3.1 22.2 14.8 1.6 8.0	36.6 59.0 7.7 10.0 9.5 13.1 26.5 20.8
		Distributi	on by major	use and si	ize class	······································
All uses Light and medium trucks Light-heavy and heavy-heavy trucks	100.0 84.5 15.5	100.0 86.4 13.6	100.0 79.7 20.3	100.0 61.4 38.6	100.0 41.1 58.9	100.0 94.1 5.9
Agriculture. Personal. For hire. Contract construction. Manufacturing. Wholesale and retail business. Services. All other uses.	28.1 39.3 3.7 6.2 3.2 11.5 4.5 3.5	36.4 37.1 1.1 8.1 2.1 8.1 3.3 3.8	18.3 8.8 4.6 15.0 8.8 28.4 10.9 5.2	0.3 8.2 16.3 11.0 7.2 37.3 13.8 5.9	23.8 - 26.6 3.3 12.0 28.7 1.2 4.4	27.0 60.9 0.7 1.6 0.8 4.0 3.1 1.9

Ŋ

OREGON 555

TABLE 10.	Load Length or Capacity and Body and	1
	Vehicle Type: 1963	

(Percent distribution)

	Distribution by length or capacity							
Body and vehicle type ⁴	Total	Under 10 ft. Iong	10 to 15.9 ft. Iong	16 to 24.9 ft. Iong	25 to 34.9 ft. long	35 ft. long and over	Length not reported	
All types ²	100.0	70.2	14.2	4.2	1.0	1.1	9.3	
Pickup Panel, walk-in Platform and cattle rack Van (open, closed, furniture) Single-unit truck Combination Refrigerator	100.0 100.0 100.0 100.0 100.0 100.0 100.0	88.2 82.4 13.8 17.3 22.6	0.6 10.9 58.2 41.1 53.0 1.8 41.7	0.3 3.6 15.8 16.6 17.7 12.7 9.3	0.2 2.7 9.3 1.1 36.4 4.7	- 1.6 9.8 0.6 40.0 42.0	10.9 2.9 7.9 5.9 5.0 9.1 2.3	
		Under	5 cubic y	ards	5 cub	ic yards or	over	
Dump	100.0		33.1		66,9			
		Under	3,000 gal	3,000 gallons or over				
Tank	100.0		65.8		34.2			
	Distribution by body and vehicle type							
			Distribution	ı by body and	vehicle type			
Body and vehicle type ¹	Total	Under 10 ft. Iong	Distribution 10 to 15.9 ft. long	1 by body and 16 to 24.9 ft. Iong	vehicle type 25 to 34.9 ft. long	35 ft. long and over	Length not reported	
Body and vehicle type ¹	Total 100.0	10 ft.	10 to 15.9 ft.	16 to 24.9 ft.	25 to 34.9 ft.	long	not	
		10 ft. Iong	10 to 15.9 ft. long	16 to 24.9 ft. Iong	25 to 34.9 ft. long	long and over	not reported	
All types Pickup Panel, walk-in Platform and cattle rack Van (open, closed, furniture) Single-unit truck Combination	100.0 63.3 8.0 17.1 4.2 3.2 1.0	10 ft. long 100.0 85.2 10.1 3.6 1.1 1.1 -	10 to 15.9 ft. long 100.0 2.9 6.6 75.1 13.0 12.9 0.1	16 to 24.9 ft. long 100.0 4.0 7.3 69.2 17.7 14.5 3.2	25 to 34.9 ft. long 100.0 - 2.00 51.0 43.1 3.9 39.2	long and over 100.0 - 26.8 41.1 1.8 39.3	not reported 100.0 78.9 2.7 15.4 2.8 1.8 1.8	
All types Pickup Panel, walk-in Platform and cattle rack Van (open, closed, furniture) Single-unit truck Combination Refrigerator	100.0 63.3 8.0 17.1 4.2 3.2 1.0 0.8	10 ft. long 100.0 85.2 10.1 3.6 1.1 1.1 1.1	10 to 15.9 ft. long 100.0 2.9 6.6 75.1 13.0 12.9 0.1 2.4	16 to 24.9 ft. long 100.0 4.0 7.3 69.2 17.7 14.5 3.2 1.8	25 to 34.9 ft. long 100.0 - 2.0 51.0 43.1 3.9 39.2 3.9	long and over 100.0 - 26.8 41.1 1.8 39.3 32.1	not reported 100.0 78.9 2.7 15.4 2.8 1.9 1.0 0.2	

(X) Not applicable. ¹Classifications 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 serv-ice. Similar differences in interpretation were found in several other vehicle types. ²This 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 trucks those 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 Cement mixers	_ Light _ Heavy-heavy
Panel : Under 9.9 feet 10 to 12.9 feet 13 feet or over	_ Medium
Multistop: Under 12.9 feet 13 to 15.9 feet 16 feet or over	Medium
Platform : Under 9.9 feet 10 to 12.9 feet 13 feet or over	Medium
Cattle rack: Under 9.9 feet 10 to 12.9 feet 13 feet or over	_ ivieaium

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	Light
7 to 12.9 feet	Medium
13 feet or over	Light-heavy
Refrigerated van:	
Ŭnder 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.

16.2

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.



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 the report, address your inquiry to: Bureau of the Census TRANS-EOD Washington, D.C., 20233

In any correspondence relating to your questionnaire, please include the State and license number of the vehicle

Budget Bureau No. 41-6262.1; Approval Expires June 30, 1964

CONFIDENTIAL - Response to this in Bureau is confidential and may be s tigation, or regulation. Copies retain	een only by sworn Ce	ensus e	employees. It ma	y not be	used for purpose		
FORM TC-200-2 U.S. DEPAR (1-24-63)	IMENT OF COMMERCE BUREAU OF THE CENSUS	Retu	rn to Washingto		C. not later than NTY DAYS AFTER RECEIPT		
1963 CENSUS OF TRANSP	OPTATION		(Please	correct if r	ame or address has	changed)	
TRUCK INVENTORY AND US							
IROCK INVENIORI AND US	JURTEI						
In correspondence pertaining to this re State and License number.	eport, please include]					
GENERAL INSTRUCTION	NS						
COMPLETE ALL SECTIONS of this report plates were on or assigned to a vehi	ort if the license cle on July 1, 1963.						
VEHICLE IDENTIFICATION and the inf address box were obtained from the			(PLEA	SE RE	TURN THIS	COPY)	
Registration records. Please correct vehicle identification or changes in	any errors in the		HICLE IDENTIFICAT	ION			
on July 1, 1963, the license plates w other than the one described, give th description.	vere on a vehicle	Mak	e			Year model	
make this notation across the front of	the license plates were not on or assigned to a vehicle, ake this notation across the front of the form, sign in em 21, and return it without further completion.		istered weight or	capacity	State	License No.	
Return the form to the Bureau of the ington 25, D. C., in the enclosed encourses no postage.			e make, year mode se fill in the bla			is not shown above,	
2. TYPE OF VEHICLE ("X" ONE box)		-	3. TYPE OF FUEL	("X" ONE	box)		
I 🗆 Truck 2 🗔	Truck-tractor		1 🗖 Gasolin	e	2 🗔 Die	esel	
Truck-tractor and semi-trailer registered as a unit			³ 🗔 Other (Describe)			
4 🗔 Other (Describe)	<u></u>						
4. NUMBER OF AXLES ON THE POWER UN (Do not include trailer. Report tar			ONE box in a, b, c	and c)		Ada <u>n - A</u> iring ang ang ang ang ang ang ang ang ang a	
a. Total number of axles ("X" ONE box)	b. Number of driving front ("X" ONE box	axles (j x)	powered) on	c. Nu rea	mber of driving axi r ("X" ONE box)	les (powered) on	
1 🗔 Two axles	1 🗔 None		/	1.1	🗀 One axle		
² Three axles (Also / complete b)	² One axle		Also complete c)	2	🗔 Two axles		
 Four axles 5. UNLOADED WEIGHT OF THE TRUCK OR 	3 Two axles	_				ounds	
			- 6 42	17		C sealing	
(Unloaded weight of truck or truck service, including fuel, water, access	sories and equipment	t.) .	<u></u>	uiy equip	pea 10r		
6. NUMBER OF AXLES ON THE TRAILING ((If the vehicle is a truck-tractor (or unit(s) most frequently used with	a straight truck draw	ving a	full trailer) mar	k a box fo	r the number of :	axles on the trailing	
a. Somi-trailer ONLY	 b. Full-trailer ONLY 				nd full-trailer, inclu er dolly	ding	
1 🗔 One axle	4 🗔 Two axles			7 🗆 🗄	Three axles		
2 🗔 Two axles	" 🗖 Three axle	es	•	8 🗆 1	Four axles		
> Three axles	6 🗔 Four axles	or m	ore	9 🗆 1	Five axles or mor	re	
7. UNLOADED WEIGHT OF THE TRAILING	I JNIT(S) (Semi-trailer and f	full-trai	ler(s))	i		ounds	
(Unloaded weight of the trailing us including accessories and equipment	nit, is the empty weigh	ht of 1	the vehicle fully	equipped	for service,		

8. TYPE AND SIZE OF BODY	
Mark one box to describe the type of body of the truck or combination. If the power unit is a truck-tractor, report body type of the combination most frequently used with the power unit.	For all types except winch or crane wreckers, pole or log- ging, or sute transport, also mark a box to classify the size of the body. If the vehicle is a tank describe the kind of tank.
a. Body type ("X" ONE box in this column)	b. Body size ("X" ONE box in this column to describe size of body)
01 🗔 Standard panel, sedan delivery, compact van	
o₂ □ Station wagon	Length of load space (Feet)
03 🖂 Pick-up	1 🗔 Under 7 6 🗔 20 to 24.9
⁰₄ 🗀 Multi-stop or walk-in	
10 🖂 Platform, stake, grain, or other platform type	≈ □ 7 to 9.9 7 □ 25 to 29.9
11 🖂 Cattle rack (hogs, calves, and other livestock)	
12 🖂 Open top van	≥ □ 10 to 12.9 ≉ □ 30 to 34.9
20 🖂 Furniture van	
21 🗀 Closed top non-refrigerated van, other than furniture van	4 □ 13 to 15.9
22 🗔 Refrigerated van	
30 🛄 Low-bed	5 [16 to 19.9 10 [140 and over
31 🗖 Depressed center	
40 🗀 Winch or crane, other than wrecker	
41 🖂 Wrecker	DO NOT SPECIFY BODY SIZE
42 Pole or logging	FOR THESE FOUR ITEMS
48 🛄 Auto transport	1
во 🗀 Dump	Capacity of dump (Water level without side boards) (Cubic yds.) 1 Under 5 2 7 to 9.9 2 5 to 6.9 4 10 or over
an a	Capacity of tank (Gallons)
so Tank	1 🗀 Less than 1,000 🗉 🗀 4,000 to 5,999
pose, insulated, refrigerated, stainless steel, glass lined, pressure vessel, etc.)	2 □ 1,000 to 1,999
	³ □ 2,000 to 2,999 7 □ 8,000 and over
	▲ □ 3,000 to 3,999
an a	Capacity of mixer (Cubic yds.)
70 🗔 Cement mixer	1 □ Less than 5 2 □ 6 to 6.9 2 □ 5 to 5.9 4 □ 7 or over
eo 🖂 Other (If the above descriptions do not satisfactorily de and size.)	scribe your vehicle, please enter identifying body type

9. MAJOR USE OF THIS TRUCK OR COMBINATION ("X" the ONE box that best describes your main use of this ve	hide during the past
12 months. If owned less than 12 months, check the major use during the time you owned the vehicle.)	nicie during me pass
1 For your farming, ranching or other agricultural activities - This use includes hauling your livestock, market; bringing back supplies and equipment; hauling around farm, and perhaps occasional or others. (Answer Question 12 next.)	
² Personal transportation - This is using the vehicle in place of an automobile to go from home to around home or summer place; going fishing or hunting, etc. (Answer Question 12 next.)	o work; doing odd jobs
3 🗔 Leased or rented to others without driverfor periods of less than 30 days. (Answer Question 12 next.)	
4 🗔 Leased or rented to others without driverfor periods of 30 days or more. (Answer Question 11 next.)	
5 State, county, municipal or other governmental operation. (Answer Question 12 next.)	
⁶ For-hire transportation - This use includes trucking services known as dravage, local cartage, ho	uschold goods
movers, common or contract motor carriers, commercial motor carriers, "Owner-operators" un contract. (Answer Question 10)	der lease or
7 [] Operated in connection with own business or occupation not specified above. (Answer Question 11 next.)	
8 Other - If none of the above applies to the use you make of the vehicle, describe the main use (Answer Question 12 next.)	of the vehicle here.
(Answer this question if the "For-hire transportation" box has been marked in Question 9.) 10. TYPE OF SERVICE	
a. Havling in - ("X" ONE box) 1 One State only 2 More than one State	
b. Is this service under an Interstate Commerce Commission authorization	
(either granted or pending)? ("X" ONE box)	.
3 No 4 Yes (If "Yes," enter the Interstate Commerce Commission Docket Number (this number must begin with the letters MC-))	-
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 person to whom you leased the vehicle.)	the
person to whom you leased the venicle.)	
1 Mining or quarrying	
2 Dividing or contract construction	
8 Manufacturing - (Describe class of industry such as furniture, petroleum, textile, etc.)	
4 🗔 Wholesale -	
(Describe class, such as groceries, machinery, hardware, etc.)	
5 Retail - (Describe class, such as drugs, apparel, etc.)	
6 🔲 Service -	
(Describe class, such as hotels, automobile repairs, laundries, etc.)	
7 For-hire carrier - (Describe major type(s) of products carried)	
8 Dother (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)	No. of days
I □ No 2 □ Yes (If "Yes," estimate the total number of days leased)	
13. 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 mileage shown on speedometer does not repre- sent 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)	
Image: Loaded in one direction, but returns empty (or almost empty) in the other direction 3 minimized Comments (If any)	······································
2 Daded in both directions	· · · · · · · · · · · · · · · · · · ·

FORM TC-200-2 (1-24 63

15. EMPLOYMENT	16. MAINTENANCE								
About how many total DRIVER man-hours are usually spent per week				When major repairs are needed on this vehicle, are they usually					
by all persons in operation of this vehicle. Include both driving				done by? - ("X" ONE box)					
and riding time of relief and part-time drivers. If the driver helps				1 Your own repair 4 C Other (Describe)					
load or unload the vehicle or is on duty include his time. Do not in-				shop					
clude time of non-driving employees. ("X" ONE box) 1 Less than 15 hours 4 741 to 60 hours				2 □Truck dealer o	or	•			
1 Less than 15 hours 4 1 to 60 hours 2 15 to 30 hours 5 61 hours or more				factory branch					
$3 \square 31$ to 40 hours				Independent g	arage	•			
17. BASE OF OPERATION				18. AREA OF OPERATION					
Where is the "home base" for this vehicle? (Principal place from which this vehicle operates)				Where is the vehicle operated? ("X" only ONE box)					
City or town				¹ Mostly in the local area (in or around the city and					
					suburbs, or within a short distance of farm, factory, mine, or "home base" shown in Ouestion 17.)				
County				² [Mostly over-the-road (beyond the local area) but					
1				usually not more than 200 miles one way from the "home base" shown in Question 17.					
State									
				³ Mostly over-the-road trips that usually are more than 200 miles one way from "home base" shown in Ques. 17.					
19. PERIOD OF OPERATION				b. "X" one or more boxes to indicate the quarter in which the vehicle is used. If the vehicle is used during each quarter, "X" only the "all year" box.					
a. What part of the week is vehicle usually used?									
("X" ONE box)				1					
 1 D Five-day week (Monday through Friday) 2 Six-day week, inclúding Saturday, but not Sunday 				1 [] All year 2 [] January - February - March					
² ⊡ Six-day week, including Saturday, but not Saturday ³ □ Six-day week, including Sunday, but not Saturday				April - May - J	-	marcu			
 Six-day week, including Sunday, Sit list Siturday Week-ends only (Saturday or Sunday) 				4 🗆 July - August -		nber			
5 🖾 Seven-day week				5 🖸 October - Nove	ember	Decembe	er		
20. NUMBER OF TRUC	KS, TRUCK	TRACTORS, AND	TRAILERS OPERATED	FROM "HOME BASE" AS O	F JULY	1, 1963			
				on the front page of this OME BASE shown in Q			uestion is	about OTHER	
							10/00		
("X" ONE box)	g ANI OI	NEK HUCKS, HUCK-H	actors, semi-trailers of	• full trailers from this home	Dase a	IS OF JULY	1, 19032		
	Yes (If "	Yes." nlease enter b	elow the number of tr	ucks by each body type, the	total nur	mber of true	ck-tractors.	and the number of	
	semi- PAGE	trailers and full tra	ilers. DO NOT INCLU	ucks by each body type, the IDE THE VEHICLE DESCRIBED	ON				
				TRUCK-TRACTORS					
·		TRUCKS		Total number of truck tractors owned					
tan .		Number		Total number of truck-tractors owned					
Туре		Owned Leased		The fail and fail the standard land 1					
Standard panel, sedan delivery, compact van, station wagon, pick-up, multi-stop, walk-in		11	21	- Total number of truck-tractors leased					
				SEMI-TRAILERS AND FULL TRAILERS					
						Number		nber	
				Туре		Owned		Leased	
Platform, stake, grain, open top van or cattle rack Closed top non-refrigerated or furniture van Refrigerated van Tank Dump		12	22 23 24 25	Platform, stake, grain, or open top van Closed top non-refrigerated van		52 62 53 63			
		18						63	
		14		 		54	·	64	
				Refrigerated van					
		15				55 65		65	
		1		Tank					
		16	26	<u>_</u>		56	56 66		
		1		Dump			l		
		}	27			57		67	
ł		17		Other semi-trailers or full trailers					
Other trucks		17							
	Name a			or full trailers	nis rep	ort	Telepho	ne No.	
Other trucks 21.	Name a				nis rep	ort	Telepho	one No.	
	Name a			or full trailers	nis rep	ort	Telepho	one No.	
21.		nd address of pe	rson who should b	or full trailers	nis rep	ort	Telepho	one No.	
	This repo		erson who should b	or full trailers e contacted regarding th					
21.		nd address of pe	rson who should b	or full trailers e contacted regarding th		ort f authoriz			
21.	This repo	nd address of pe	erson who should b	or full trailers e contacted regarding th					