

# New Trucking Data from 1963 Census of Transportation

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New data on trucks and trucking are being collected by three of the four major surveys in the 1963 Census of Transportation. The Truck Inventory and Use Survey will be the source of data showing the number of trucks and combinations classified by physical characteristics, occupational use, rough measures of the intensity of vehicle utilization, geographic distribution of vehicles, and related facts. The Bus and Truck Carrier Survey will produce data on for-hire carriers that are not subject to Interstate Commerce Commission economic regulation. Census information maybe added to corresponding data collected from federally regulated carriers to estimate the national universe for all for-hire carriers. The Commodity Transportation Survey is designed primarily to measure the physical and geographic distribution of commodities shipped by manufacturing establishments. Because the basic data on shipments will be classified by means of transport, this survey will be a source of new data on the truck share of traffic originated by industrial plants.

Data will be published on a flow basis as significant segments of each survey are completed. The first reports will contain data for selected state or regions from the Truck Survey and probably truck traffic flow data from the Commodity Transportation Survey will be published last.

This report is concerned largely with the general tabulation plans and nature of data. However, the discussion is supplemented by copies of questionnaires, punch-card layouts, and related technical materials.

•THREE ASPECTS of the nation's trucking activities are being surveyed by the 1963 Census:

1. The Truck Inventory and Use Survey measures physical equipment.
2. The Commodity Transportation Survey is primarily concerned with the total volume and characteristics of shipments originated by the industrial sector and with the role played by each major type of carrier. For-hire motor carriers and private trucking are treated as two separate types of transportation. Additional categories include rail, air, water, and "other."
3. The Truck Carrier Survey collects information concerning business enterprises primarily engaged in rendering for-hire trucking services.

Whereas these three surveys are related in the sense that all deal with selected aspects of trucks and trucking activity, they differ strikingly in other respects such as sources of information, survey methods, timing, and kinds of data. Therefore, they will be discussed on the basis of methodology rather than subject matter.

## TRUCK INVENTORY AND USE SURVEY

Data on the inventory and use of trucks are being collected by mail from owners of a sample of about 100,000 trucks and truck tractors. This probability sample, classified by vehicle size and state, was drawn from motor vehicle license records from

every state. In general, it consists of roughly 4,500 power units in large states, 3,000 in the intermediate states, and 1,500 in small states. This allocation was made to obtain a sufficient number of observations to support summary data on major aspects for each of the small states and to provide greater detail for larger states, regions of the country, and the nation as a whole (1). The sample also is classified by vehicle size, as indicated by the weight or size information on the registration record. In most states, two size classes are used, heavy and light, with roughly two-thirds of the observations drawn from the heavy vehicle category and one-third from the light. This allocation is made largely to meet the need for more detailed information on heavy vehicles.

The survey will provide a wide range of facts concerning the nation's trucking resources, as outlined in Appendix A. The data tend to fall into five subject-matter classes:

1. Physical characteristics of vehicles, such as body type, body size or capacity, and number of axles;
2. Major occupational use, such as for farming, lease or rental, for-hire trucking service, and use in connection with own business;
3. Rough indicators of intensity of vehicle utilization, such as annual mileage, life-time miles, whether usually operated loaded in both directions or normally returned empty, and number of driver man-hours usually spent per week;
4. Geographic area of operation, such as mostly local, mostly over-the-road but within a 200-mile radius of home base, or mostly for longer hauls; and
5. Size and composition of fleets defined in terms of the number of vehicles operated out of a home base.

The data collection phase is nearing completion. The coding, editing and punching are in full operation. The computer programs are being tested with the expectation that preliminary reports will be prepared on a flow basis starting in the second quarter of 1964. These will be issued principally on a state or regional basis and will be followed by a national report.

#### COMMODITY TRANSPORTATION SURVEY

The main purpose of the 1963 Commodity Transportation Survey is to obtain traffic flow data showing the total volume of commodities shipped by the industrial sector of the national economy, classified by transport, length of haul, origin-destination areas, commodity description, and size of shipment.

Manufacturing establishments (in the Census of Manufactures) have been divided into 25 major classes corresponding to the major segments of the Federal Reserve Board index of industrial production. Each of these groups is further divided into two to five subgroups, called shipper groups, which are the smallest units for presenting traffic flow data on an industry or shipper basis. There are 87 such shipper groups.

The basic information for this survey will be obtained from a probability sample of manufacturing establishments by sampling bills of lading (or other shipper papers) normally kept by traffic departments (see Appendix B).

Shipments will be coded in terms of commodities using the new five-digit Commodity Classification for Transportation Statistics Code prepared by the Office of Statistical Standards of the Bureau of the Budget. This code is identical to the first five digits of the new Standard Transportation Commodity Code adopted by the Association of American Railroads and is compatible with the other codes now in use (or to be adopted shortly) by the Interstate Commerce Commission (ICC) and the Industry and Foreign Trade Divisions of the Bureau of the Census.

From the standpoint of trucking, the principal new data to be produced by this survey will be the relative share of total tonnage moved by for-hire motor carriers and private trucks as compared with the shares handled by rail, air, water and "other" types of transport. The principal tables will show distributions of traffic originated by each shipper group, classified by length of haul and means of transport, and by origin and destination areas. A similar set of tables will be prepared on a commodity basis.

The extent of geographic and commodity detail will be limited largely by sampling variability and the legal requirement to avoid disclosure of activities of individual shippers. The degree of detail doubtless will vary among shipper and commodity groups, depending on the distributions found in the preliminary tabulations of the actual survey results.

The collection of data for this report has just been started and will continue at least through October 1964. Although it is hoped that preliminary reports for some shipper groups can be completed before the end of the year, the main flow of shipper-group reports is scheduled for 1965 and will be followed by commodity tabulations.

### TRUCK CARRIER SURVEY

Statistics on the business of trucking will be obtained through the Truck Carrier Survey (see Appendix C). The primary purpose of this phase is to obtain national aggregate measures of the total for-hire trucking industry. ICC collects annual data from carriers subject to its economic regulation. The Bureau of the Census' survey will collect corresponding statistics on key factors from carriers that are not subject to the Commission's reporting requirements.

The survey will be based on a probability sample of for-hire carriers drawn from businesses classified as being primarily engaged in trucking service under the Social Security program. Among the major items of information are the principal type of operation (common or contract carriage), principal type of service (local or intercity), form of ownership, type of carrier (general freight, household goods, carrier of exempt products, other), operating revenues, expenses, number of employees, number of vehicles owned or leased, and the following selected facts on intercity operations: freight revenue, truck and tractor miles operated, and tons of revenue freight carried. From the standpoint of geographic distributions, the form contains the location of the carrier's home office but no details on the geographic nature of its service area.

### CONCLUSIONS

The Census program has been designed to collect information about selected aspects of trucking, and transportation in broader terms, for which available data are either wholly missing or are inadequate. The tabulation program is designed to produce tables of major general public interest within the limits of funds available for this project. We have not, by any means, exhausted the potential values that can be derived from the raw materials but will retain the schedules and computer tapes for later use in connection with research projects or for special tabulations under the Bureau's program for rendering special services.

### REFERENCE

1. New Data on Trucks and Trucking in the 1963 Census of Transportation. U. S. Bureau of the Census, Transportation Div., Washington, D. C., April 1963.

## *Appendix A*

### SELECTED TECHNICAL ASPECTS OF TABULATION PROGRAM FOR TRUCK INVENTORY AND USE SURVEY

#### Raw Data

The basic information is being obtained from replies to Form TC-200 (Fig. 1) mailed to owners of a probability sample of trucks and truck tractors. Two punch cards are being prepared. One contains the details for the specified vehicle (Items 1 through 19), and the other contains fleet data (Item 20). Computer tapes are being

**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.

FORM TC-200-2 (1-24-63) U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS

Return to Washington, D. C. not later than **TWENTY DAYS AFTER RECEIPT**  
(Please correct if name or address has changed)

**1963 CENSUS OF TRANSPORTATION TRUCK INVENTORY AND USE SURVEY**

In correspondence pertaining to this report, please include State and License number.

**GENERAL INSTRUCTIONS**

COMPLETE ALL SECTIONS of this report if the license plates were on or assigned to a vehicle on July 1, 1963.

VEHICLE IDENTIFICATION and the information in the address box were obtained from the State Motor Vehicle 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.

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.

Return the form to the Bureau of the Census, Washington 25, D. C., in the enclosed envelope which requires no postage.

**YOUR FILE COPY**  
**PLEASE COMPLETE AND RETURN THE FORM WHICH SHOWS YOUR NAME AND ADDRESS**

**1. VEHICLE IDENTIFICATION**

Make	Year model
Registered weight or capacity	State License No.

If the make, year model, or weight of the vehicle is not shown above, please fill in the blank for the missing item.

**2. TYPE OF VEHICLE ("X" ONE box)**

1  Truck                      2  Truck-tractor

3  Truck-tractor and semi-trailer registered as a unit

4  Other (Describe) \_\_\_\_\_

**3. TYPE OF FUEL ("X" ONE box)**

1  Gasoline                      2  Diesel

3  Other (Describe) \_\_\_\_\_

**4. NUMBER OF AXLES ON THE POWER UNIT (Truck or truck-tractor) ("X" ONE box in a, b, and c)**  
(Do not include trailer. Report tandem axles as two axles.)

<b>a. Total number of axles ("X" ONE box)</b>	<b>b. Number of driving axles (powered) on front ("X" ONE box)</b>	<b>c. Number of driving axles (powered) on rear ("X" ONE box)</b>
1 <input type="checkbox"/> Two axles	1 <input type="checkbox"/> None	1 <input type="checkbox"/> One axle
2 <input type="checkbox"/> Three axles (Also complete b)	2 <input type="checkbox"/> One axle (Also complete c)	2 <input type="checkbox"/> Two axles
3 <input type="checkbox"/> Four axles	3 <input type="checkbox"/> Two axles	

**5. UNLOADED WEIGHT OF THE TRUCK OR TRUCK-TRACTOR** Pounds  
(Unloaded weight of truck or truck-tractor is the empty weight of the vehicle fully equipped for service, including fuel, water, accessories and equipment.)

**6. NUMBER OF AXLES ON THE TRAILING UNIT(S) (Semi-trailer and full-trailer(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)

<b>a. Semi-trailer ONLY</b>	<b>b. Full-trailer ONLY</b>	<b>c. Semi- and full-trailer, including converter dolly</b>
1 <input type="checkbox"/> One axle	4 <input type="checkbox"/> Two axles	7 <input type="checkbox"/> Three axles
2 <input type="checkbox"/> Two axles	5 <input type="checkbox"/> Three axles	8 <input type="checkbox"/> Four axles
3 <input type="checkbox"/> Three axles	6 <input type="checkbox"/> Four axles or more	9 <input type="checkbox"/> Five axles or more

**7. UNLOADED WEIGHT OF THE TRAILING UNIT (S) (Semi-trailer and full-trailer (s))** Pounds  
(Unloaded weight of the trailing unit, is the empty weight of the vehicle fully equipped for service, including accessories and equipment.)

Figure 1. Form TC-200-2.

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 logging, or auto 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 <input type="checkbox"/> Standard panel, sedan delivery, compact van	<p style="text-align: center;"><b>Length of load space (Feet)</b></p> <p>1 <input type="checkbox"/> Under 7                      6 <input type="checkbox"/> 20 to 24.9</p> <p>2 <input type="checkbox"/> 7 to 9.9                      7 <input type="checkbox"/> 25 to 29.9</p> <p>3 <input type="checkbox"/> 10 to 12.9                      8 <input type="checkbox"/> 30 to 34.9</p> <p>4 <input type="checkbox"/> 13 to 15.9                      9 <input type="checkbox"/> 35 to 39.9</p> <p>5 <input type="checkbox"/> 16 to 19.9                      10 <input type="checkbox"/> 40 and over</p>
02 <input type="checkbox"/> Station wagon	
03 <input type="checkbox"/> Pick-up	
04 <input type="checkbox"/> Multi-stop or walk-in	
10 <input type="checkbox"/> Platform, stake, grain, or other platform type	
11 <input type="checkbox"/> Cattle rack (hogs, calves, and other livestock)	
12 <input type="checkbox"/> Open top van	
20 <input type="checkbox"/> Furniture van	
21 <input type="checkbox"/> Closed top non-refrigerated van, other than furniture van	
22 <input type="checkbox"/> Refrigerated van	
30 <input type="checkbox"/> Low-bed	<p>DO NOT SPECIFY BODY SIZE FOR THESE FOUR ITEMS</p>
31 <input type="checkbox"/> Depressed center	
40 <input type="checkbox"/> Winch or crane, other than wrecker	
41 <input type="checkbox"/> Wrecker	
42 <input type="checkbox"/> Pole or logging	<p>Capacity of dump (Water level without side boards) (Cubic yds.)</p> <p>1 <input type="checkbox"/> Under 5                      3 <input type="checkbox"/> 7 to 9.9</p> <p>2 <input type="checkbox"/> 5 to 6.9                      4 <input type="checkbox"/> 10 or over</p>
50 <input type="checkbox"/> Dump .....	
60 <input type="checkbox"/> Tank .....	<p>Capacity of tank (Gallons)</p> <p>1 <input type="checkbox"/> Less than 1,000                      5 <input type="checkbox"/> 4,000 to 5,999</p> <p>2 <input type="checkbox"/> 1,000 to 1,999                      6 <input type="checkbox"/> 6,000 to 7,999</p> <p>3 <input type="checkbox"/> 2,000 to 2,999                      7 <input type="checkbox"/> 8,000 and over</p> <p>4 <input type="checkbox"/> 3,000 to 3,999</p>
Kind of tank (Describe, such as dry cargo, general purpose, insulated, refrigerated, stainless steel, glass lined, pressure vessel, etc.)	
_____	
_____	
70 <input type="checkbox"/> Cement mixer .....	<p>Capacity of mixer (Cubic yds.)</p> <p>1 <input type="checkbox"/> Less than 5                      3 <input type="checkbox"/> 6 to 6.9</p> <p>2 <input type="checkbox"/> 5 to 5.9                      4 <input type="checkbox"/> 7 or over</p>
80 <input type="checkbox"/> Other (If the above descriptions do not satisfactorily describe your vehicle, please enter identifying body type and size.)	
_____	

Figure 1. Continued.

**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 months, check the major use during the time you owned the vehicle.)

- 1  For your farming, ranching or other agricultural activities - 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.)
- 3  Leased or rented to others without driver -- for periods of less than 30 days. (Answer Question 12 next.)
- 4  Leased or rented to others without driver -- for 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 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 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 of the vehicle here. (Answer Question 12 next.)

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

**10. TYPE OF SERVICE**

a. Hauling 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-))

MC-

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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
- 2  Building or contract construction
- 3  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 class or class of products carried) \_\_\_\_\_
- 8  Other (Describe) \_\_\_\_\_

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**12. VEHICLE LEASED TO OTHERS**

Did you lease this vehicle WITH DRIVER to others any time during the past 12 months? ("X" ONE box)

1  No      2  Yes (If "Yes," estimate the total number of days leased) . . . . .

	No. of days

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**13. VEHICLE 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 represent the life-time miles by this vehicle, estimate the total mileage . . . . .

	Miles

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**14. TYPICAL LOADS**

On a round trip basis, how does the truck or combination usually move? ("X" ONE box)

1  Loaded in one direction, but returns empty (or almost empty) in the other direction      3  Comments (If any) \_\_\_\_\_

2  Loaded in both directions \_\_\_\_\_

Figure 1. Continued.

<p><b>15. EMPLOYMENT</b></p> <p>About how many total DRIVER man-hours are usually spent per week by all persons in operation of this vehicle. Include both driving and riding time of relief and part-time drivers. If the driver helps load or unload the vehicle or is on duty include his time. Do not include time of non-driving employees. ("X" ONE box)</p> <p>1 <input type="checkbox"/> Less than 15 hours      4 <input type="checkbox"/> 41 to 60 hours          2 <input type="checkbox"/> 15 to 30 hours      5 <input type="checkbox"/> 61 hours or more          3 <input type="checkbox"/> 31 to 40 hours</p>	<p><b>16. MAINTENANCE</b></p> <p>When major repairs are needed on this vehicle, are they usually done by? - ("X" ONE box)</p> <p>1 <input type="checkbox"/> Your own repair shop      4 <input type="checkbox"/> Other (Describe) _____          2 <input type="checkbox"/> Truck dealer or factory branch _____          3 <input type="checkbox"/> Independent garage _____</p>																																																											
<p><b>17. BASE OF OPERATION</b></p> <p>Where is the "home base" for this vehicle? (Principal place from which this vehicle operates)</p> <p>City or town _____</p> <p>County _____</p> <p>State _____</p>	<p><b>18. AREA OF OPERATION</b></p> <p>Where is the vehicle operated? ("X" only ONE box)</p> <p>1 <input type="checkbox"/> 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 Question 17.)          2 <input type="checkbox"/> Mostly over-the-road (beyond the local area) but usually not more than 200 miles one way from the "home base" shown in Question 17.          3 <input type="checkbox"/> Mostly over-the-road trips that usually are more than 200 miles one way from "home base" shown in Ques. 17.</p>																																																											
<p><b>19. PERIOD OF OPERATION</b></p> <p>a. What part of the week is vehicle usually used? ("X" ONE box)</p> <p>1 <input type="checkbox"/> Five-day week (Monday through Friday)          2 <input type="checkbox"/> Six-day week, including Saturday, but not Sunday          3 <input type="checkbox"/> Six-day week, including Sunday, but not Saturday          4 <input type="checkbox"/> Week-ends only (Saturday or Sunday)          5 <input type="checkbox"/> Seven-day week</p>	<p>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.</p> <p>1 <input type="checkbox"/> All year          2 <input type="checkbox"/> January - February - March          3 <input type="checkbox"/> April - May - June          4 <input type="checkbox"/> July - August - September          5 <input type="checkbox"/> October - November - December</p>																																																											
<p><b>20. NUMBER OF TRUCKS, TRUCK-TRACTORS, AND TRAILERS OPERATED FROM "HOME BASE" AS OF JULY 1, 1963</b></p> <p>All previous questions have been about the vehicle described on the front page of this report. This question is about OTHER trucks and combinations you may be operating from the HOME BASE shown in Question 17.</p> <p>Were you operating ANY OTHER trucks, truck-tractors, semi-trailers or full trailers from this home base as of July 1, 1963? ("X" ONE box)</p> <p><input type="checkbox"/> No      <input type="checkbox"/> Yes (If "Yes," please enter below the number of trucks by each body type, the total number of truck-tractors, and the number of semi-trailers and full trailers. DO NOT INCLUDE THE VEHICLE DESCRIBED ON PAGE 1.)</p>																																																												
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="3" style="text-align: center;">TRUCKS</th> <th colspan="2" style="text-align: center;">TRUCK-TRACTORS</th> </tr> <tr> <th rowspan="2" style="width:20%;">Type</th> <th colspan="2" style="text-align: center;">Number</th> <th rowspan="2" style="width:20%;">Total number of truck-tractors owned</th> <th rowspan="2" style="width:10%; text-align: center;">30</th> </tr> <tr> <th style="text-align: center;">Owned</th> <th style="text-align: center;">Leased</th> <th rowspan="2" style="text-align: center;">Total number of truck-tractors leased</th> <th rowspan="2" style="text-align: center;">40</th> </tr> <tr> <td>Standard panel, sedan delivery, compact van, station wagon, pick-up, multi-stop, walk-in</td> <td style="text-align: center;">11</td> <td style="text-align: center;">21</td> <td colspan="2" style="text-align: center;"><b>SEMI-TRAILERS AND FULL TRAILERS</b></td> </tr> <tr> <td></td> <td></td> <td></td> <th colspan="2" style="text-align: center;">Number</th> </tr> <tr> <td></td> <td></td> <td></td> <th style="text-align: center;">Owned</th> <th style="text-align: center;">Leased</th> </tr> <tr> <td>Platform, stake, grain, open top van or cattle rack</td> <td style="text-align: center;">12</td> <td style="text-align: center;">22</td> <td style="text-align: center;">52</td> <td style="text-align: center;">62</td> </tr> <tr> <td>Closed top non-refrigerated or furniture van</td> <td style="text-align: center;">13</td> <td style="text-align: center;">23</td> <td style="text-align: center;">53</td> <td style="text-align: center;">63</td> </tr> <tr> <td>Refrigerated van</td> <td style="text-align: center;">14</td> <td style="text-align: center;">24</td> <td style="text-align: center;">54</td> <td style="text-align: center;">64</td> </tr> <tr> <td>Tank</td> <td style="text-align: center;">15</td> <td style="text-align: center;">25</td> <td style="text-align: center;">55</td> <td style="text-align: center;">65</td> </tr> <tr> <td>Dump</td> <td style="text-align: center;">16</td> <td style="text-align: center;">26</td> <td style="text-align: center;">56</td> <td style="text-align: center;">66</td> </tr> <tr> <td>Other trucks</td> <td style="text-align: center;">17</td> <td style="text-align: center;">27</td> <td style="text-align: center;">57</td> <td style="text-align: center;">67</td> </tr> </table>		TRUCKS			TRUCK-TRACTORS		Type	Number		Total number of truck-tractors owned	30	Owned	Leased	Total number of truck-tractors leased	40	Standard panel, sedan delivery, compact van, station wagon, pick-up, multi-stop, walk-in	11	21	<b>SEMI-TRAILERS AND FULL TRAILERS</b>					Number					Owned	Leased	Platform, stake, grain, open top van or cattle rack	12	22	52	62	Closed top non-refrigerated or furniture van	13	23	53	63	Refrigerated van	14	24	54	64	Tank	15	25	55	65	Dump	16	26	56	66	Other trucks	17	27	57	67
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<p>21.</p>	<p>Name and address of person who should be contacted regarding this report</p> <p>Telephone No. _____</p>																																																											
<p><b>CERTIFICATION</b></p>	<p>This report is substantially accurate.</p> <p>Date _____ Title _____ Signature of authorized person _____</p>																																																											

Figure 1. Continued.

prepared which combine the two related cards into a single record and supply additional information needed for estimating "universe" totals, sampling variability, etc.

### Tabulation Program

The first step in the tabulation program will be the series of computer runs outlined in Table 1. These runs will be used to analyze the nature of the statistical distributions and relative magnitudes of sampling variability. They also will be used as a partial basis for judging the probable nature and extent of response errors.

The specifications for the published tables will be based largely on the results of these preliminary analyses. In general, national aggregates are expected to show essentially the full detail indicated by the "stubs" (Table 2) and "spreads" (Table 3) in the runs, except for some collapsing of small cells to higher levels of summarization. Since the size of samples for large states and major regions are smaller than for the nation as a whole, the tables for these areas will show considerably less detail than the national aggregates. Still less detail will be shown for smaller areas.

The degree of summarization will be governed largely by the results of the preliminary runs. However, since all tabulations will be obtained by summarizing the standardized computer accumulations outlined, data for any specified area will be comparable with each of the other areas at specified levels of summarization.

### Selected Terms

The terms runs and computer accumulations are used to avoid possible confusion with the final tabulations. The runs represent the most detailed display of data (i.e., accumulations) that is currently planned to be developed from the basic reports. Fol-

TABLE 1  
COMPUTER ACCUMULATIONS BY STATES FOR USE IN SUMMARIZING DATA  
FOR TABULATIONS BY STATES, REGIONS AND NATION<sup>a</sup>

Run	Description
Run 1.0 <sup>b</sup>	By make (Stub 1)
	By year model (Spread 1)
Run 1.1	By weight class (Stub 2)
	By year model (Spread 1)
Run 1.2	By body and vehicle type (Stub 3)
	By length of load space or capacity (Spread 2)
Run 1.3	By body and vehicle type (Stub 3)
	By number of axles, inc. trailing unit and number of powered axles (Spread 3)
Run 1.4	By body and vehicle type (Stub 3)
	By type of fuel and vehicle weight class (Spread 4)
Run 2.1	By occupational use (Stub 4)
	By vehicle type and weight class (Spread 5)
Run 2.2	By body and vehicle type (Stub 3)
	By occupational use (Spread 6)
Run 2.3	By type of vehicle and weight class (Stub 5)
	By number of vehicles leased to others with driver and number of days leased (Spread 7)
Run 3.1	By year model and weight class (Stub 6)
	By annual mileage blocks (Spread 8)
Run 3.2	By occupational use and weight class (Stub 7)
	By driver man hours per week (Spread 9)
Run 3.3	By occupational use and weight class (Stub 7)
	By annual mileage blocks (Spread 8)
Run 3.4	By year model and weight class (Stub 6)
	By lifetime mileage blocks (Spread 10)
Run 3.5	By occupational use and weight class (Stub 7)
	By part of week and year operated (Spread 11)
Run 4.1	By occupation use (Stub 4)
	By area of operation and load factor (Spread 12)
Run 5.1	By weight class and maintenance (Stub 8)
	By number of vehicles in fleet (i.e., number operated out of home base) (Spread 13)
Run 5.2	By occupational use and area of operation (Stub 9)
	By number of vehicles in fleet (i.e., number operated out of home base) (Spread 13)

<sup>a</sup>All accumulations will show estimated number of trucks or combinations, except Run 2.3 which will show estimated number of vehicles and vehicle days.

<sup>b</sup>Run 1.0 is for Census edit and review of basic data for reasonableness—not for publication.



TABLE 2  
DESCRIPTION OF STUBS

Stub	Description	Source on TC-200	Comment
1	Make	Item 1	Five major U. S. makes plus groups; for census use, not for publication
2	Weight class	See comment	Four classes: light, medium, light-heavy and heavy-heavy—based on combination of vehicle characteristics
3	Body type	Items 8-a, 2	Subclassified by trucks and combinations
4	Occupational use	Items 9, 11	Occupational classes consist of those with numbers preprinted on TC-200
5	Vehicle type and weight class	Item 2, Stub 2	
6	Year model and weight class	Item 1, Stub 2	Recent years separately; earlier years grouped
7	Occupational use and weight class	Stub 4, Stub 2	
8	Weight and maintenance	Stub 2, Item 16	
9	Occupational use and area of operation	Stub 4, Item 18	

TABLE 3  
DESCRIPTION OF SPREADS

Spread	Description	Source on TC-200	Comment
1	Year model	Item 1	Recent years separately; earlier years grouped
2	Body length	Item 8-b	
3	Number of axles	Items 4, 6	
4	Fuel and weight class	Item 3, Stub 2	See stub sheet for description
5	Vehicle type and weight class	Item 2, Stub 2	See stub sheet for description
6	Occupational use	Item 9, 11	Same as Stub 4
7	Leased with driver	Item 12	Number of vehicles and vehicle days
8	Annual miles	Item 13-a	8 Broad mileage blocks
9	Man-hours	Item 15	
10	Lifetime miles	Item 13-b	9 Broad mileage blocks
11	Time period	Items 19-a, 19-b	
12	Area of operation	Items 18, 14	
13	Fleet size	Item 20	10 Size groups

lowing analysis of the detailed runs, the accumulations will be collapsed (if necessary) to produce state, region, and national tables. The stubs indicate the classifications to be used for the lines in the tables, whereas the spreads show the corresponding information for the column headings.

### Sampling Variability

Since the survey is based on a probability sample of vehicles, the results are necessarily subject to sampling variability. Estimates of this variability will be produced as part of the output of the computer program.

### Supplemental Tabulations

The tabulation program outlined is designed to produce the data believed to be of major public value. It does not exhaust the potential values that can be obtained by

additional cross-classifications and regroupings. A complete set of the basic computer tapes as well as the first stage summaries (computer accumulations) will be available for additional or special tabulations.

## Appendix B

### BRIEF SUMMARY OF METHOD AND TYPE OF DATA FROM COMMODITY TRANSPORTATION SURVEY

The purpose of this collection of statistics by the Bureau of the Census is to obtain traffic flow data, showing the relative volume of commodities shipped, classified by means of transport, length of haul, origin-destination areas, and size of shipment. Tables 4, 5 and 6 illustrate the main types of data produced by this method.

While some companies regularly summarize their traffic records, there is not sufficient uniformity to combine summary data from various shippers into useful industry or product totals. However, essentially all shippers maintain current files of bills of lading or other papers that show the essential information for each shipment—date, origin and destination towns, commodity description, weight, and mode of transport. Consequently, basic data are obtained from these files. Scientific samples are used because they give satisfactory results at only a small fraction of the time and cost that would be involved if all shipments were summarized.

A Census representative contacts appropriate company officials to request cooperation and prepares simple step-by-step instructions for drawing a systematic sample of about 100 to 200 bills of lading or other shipping papers. If requested, he will assist the company in selecting the sampled papers and recording the detailed information. This usually is most easily done by facsimile reproduction of the papers, but may be done by hand transcriptions. The sampling and recording in previous shipper surveys often was completed in three or four hours, and rarely took more than one man day for any plant.

Copies of records and other materials received by the Census Bureau are strictly confidential, as provided by the basic statutes governing the operations of the Bureau of the Census (Title 13, U. S. Code). Only sworn Census employees will have access to the reports or information obtained from the records. Furthermore, information received from any respondent cannot be used for purposes of taxation, investigation or regulation. It will be used solely for statistical purposes and will be released only in tabulated form that does not reveal the operations of any one company.

TABLE 4  
PERCENT OF TONS ORIGINATED BY LARGE MANUFACTURING COMPANIES IN  
NORTHEASTERN UNITED STATES DURING RECENT YEAR<sup>a</sup>

Industry Class	Commodity Group	Total (%)	Percent by Type of Transport			
			Rail	Motor Carrier	Private Truck	Other
Agricultural implements and parts	Tractors and parts	100	34	62	4	-
	Other	100	60	33	6	1
Building products	Wallboard	100	54	46	-	-
	Insulating material	100	39	55	6	-
	Building and roofing materials	100	22	70	8	-
Construction and mining machinery	Tractors	100	48	47	5	-
	Power shovels	100	73	15	12	-
Electrical appliances	Small electrical appliances	100	19	59	3	19
	Other	100	74	20	1	5

<sup>a</sup>Mostly 1959 or 1960.

TABLE 5  
 PERCENT OF TONS ORIGINATED BY LARGE MANUFACTURING COMPANIES IN  
 NORTHEASTERN UNITED STATES DURING A RECENT YEAR<sup>a</sup>

Commodity Group	Total (%)	Percent by Miles <sup>b</sup>				
		<100	100-299	300-499	500-999	≥1,000
Sulfuric acid	100	86	13	1	-	-
Fertilizers	100	59	38	3	-	-
Wallboard	100	36	40	17	6	1
Building and roofing materials	100	26	38	24	10	2
Lime	100	26	47	13	13	1
Small electrical appliances	100	10	10	15	40	25
Chinaware	100	6	19	27	25	23
Plate Glass	100	5	31	21	30	13
Transformers	100	2	26	26	25	21
Tractors	100	2	5	12	40	41

<sup>a</sup>Mostly 1959 or 1960.

<sup>b</sup>From plant to customer or redistribution point.

TABLE 6  
 PERCENT OF TONS OF CANNED FOODS ORIGINATED BY MANUFACTURING  
 PLANTS IN UNITED STATES<sup>a</sup>

Origin <sup>b</sup>	Total (%)	Percent by Destination <sup>b</sup>					Foreign
		Official	Western Trunk	Southern	South-western	Mountain-Pacific	
Official	100	85	3	9	1	2	-
Western Trunk	100	25	56	4	10	4	1
Southern	100	18	1	63	5	6	7
Southwestern	100	3	3	4	89	1	-
Mountain-Pacific	100	6	19	6	7	56	6

<sup>a</sup>For year ended June 30, 1958.

<sup>b</sup>Approximate area equivalents: Official = Northeastern United States; Western Trunk = West North Central; Southern = Southern = South Atlantic and East South Central; and Southwestern = West South Central.

## *Appendix C*

### SELECTED ASPECTS OF TRUCK CARRIER SURVEY

Form TC-301 (Fig. 2) will be mailed in January 1964 to a probability sample of about 9,500 for-hire truck carriers drawn from all businesses in the Old Age and Survivors Insurance Program (Social Security) that are classified as being primarily engaged in rendering trucking service. The sample is stratified by carrier size, based on number of employees.

The sample includes all classes of for-hire motor carriers because no satisfactory basis was found for selecting only those that were not subject to ICC reporting requirements. However, since data for the federally regulated carriers will be collected by the Commission, those carriers are being requested to supply merely their ICC identification number (Item 2) to the Census, so that their names may be removed from the Census Survey.

The Census tabulation program will be coordinated with the ICC program to achieve maximum comparability. In general, the tables will show the total number of carriers, operating revenues, expenses, number of employees, and revenue freight carrying equipment, classified by principal type of operation and service and by form of ownership.

**10. REVENUE FREIGHT CARRYING EQUIPMENT AS OF DECEMBER 31, 1963**

	Number of vehicles owned	Key	Number of vehicles leased	Key
a. Trucks		3-1		3-5
b. Truck tractors		3-2		3-6
c. Semitrailers		3-3		3-7
d. Full trailers		3-4		3-8*

Show number of vehicles owned and leased in use or held for use in motor carrier operations, including those undergoing repairs, at the close of the year 1963.

**11. TOTAL NUMBER OF EMPLOYEES**

	Persons on payroll for the payroll period ending nearest—	
	May 15, 1963	Nov. 15, 1963
a. Paid employees		
b. Owners and partners of unincorporated businesses		

Line a—Paid employees consist of all employees on the payroll during the specified payroll period, including those on paid sick leave, paid holidays and paid vacation. Corporations should include salaried officers and executives. Exclude owners and partners of unincorporated businesses.

Line b—Include owners and partners of unincorporated businesses.

**This space may be used for any explanations that may be helpful in understanding your report.**

<p><b>12.</b></p>	<p>Name and address of person who should be contacted if questions arise regarding this report, Telephone No.</p>
<p><b>CERTIFICATION</b></p>	
<p>This report is substantially accurate and covers the period from _____ to _____</p>	
<p>Date</p>	<p>Title</p>
<p>Signature of authorized person</p>	

*(Use additional sheets of paper, if necessary, to complete any item or to submit any explanation. Identify each sheet with the 11-digit file number appearing over your name.)*

100-430-P-2

Figure 2. Form IC-301.

**PENALTIES FOR FAILURE TO REPORT**

**DUE DATE—FEBRUARY 29, 1964**

Form Approved: Budget Bureau No. 41-6713

FORM TC-301

U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS

**1963 CENSUS OF TRANSPORTATION  
TRUCK CARRIER SURVEY**

**GENERAL INSTRUCTIONS**

Please complete and return this form in the envelope provided. If filing by the due date causes undue burden, a request for extension should be directed to the Jeffersonville Census Operations Office, Jeffersonville, Indiana.

Each carrier that renders services authorized by certificates or permits issued (or pending) by the Interstate Commerce Commission should answer only items 1, 2, and 12. If Interstate Commerce Commission should answer only operations as were performed in 1963; answer only item 12 and enter "No operations in 1963" in the Comments section.

If your Employer Identification Number (the number appearing on Employer's Quarterly Federal Tax Return—Form 941) was changed during 1963, submit a report for the entire period of operation in 1963 on one 1963 Census reporting form, and list all Employer Identification Numbers used during any part of 1963 in item 1.

If calendar year records are not available, fiscal year reports for periods ending between October 31, 1963 and February 29, 1964 are acceptable.

If book figures are not available, enter your best estimates.

**1. IDENTIFICATION NUMBER used for this establishment on Employer's Quarterly Federal Tax Return (U.S. Treasury Department Form 941).**

□	□	□	□	□	□	□	□	□	□
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**2. INTERSTATE COMMERCE COMMISSION DOCKET NUMBER**

If the carrier (individual or company) in 1963 was engaged in a service under an Interstate Commerce Commission authorization (either pending or granted), enter the docket number in the space below and skip to item 12.

Docket number.....

MC-

In correspondence pertaining to this report please refer to the 11-digit file number in the box above your name.

TC-301

**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.

(Do NOT make any entries on the alone label.)

**3. FORM OF OWNERSHIP**  
(Check one box)

- 1  Individual proprietor
- 2  Partnership
- 0  Corporation (Do not include any form of cooperative association)
- 8  Cooperative association (corporate or non-corporate)
- 9  Other (Specify)

**5. PRINCIPAL TYPE OF OPERATION**  
(Check one box)

- 1  Common carrier
- 2  Contract carrier
- 3  Other (Specify)

**6. PRINCIPAL TYPE OF SERVICE**  
(Check the box pertaining to the principal type of service covered by this report. (Check one box only))

- 1  Local
- 2  Intercity

Name of company

Mailing address

E.I. Number

**Local service** means transportation performed within a city or town including the adjoining suburban area, whether or not a State line is crossed.

All other regular route service is classified as **intercity**.

1. LIFE OF CARRIER (Check one box only)

- 1  Carrier of general freight
- 2  Carrier of household goods
- 3  Carrier of agricultural products and other commodities that are exempt from Interstate Commerce Commission regulations
- 4  Other specific commodities

8. OPERATING REVENUES AND EXPENSES 1963

INCLUDE INTERSTATE, INTRASTATE, INTERCITY, AND LOCAL OPERATIONS

**Line a—**Include all revenues earned from the transportation of freight by motor vehicles. Include brokerage commissions and revenues from lease of vehicles with drivers.  
 Do not include revenues earned from noncarrier operations, such as dividends, interest received or miscellaneous revenues from: (a) sales of commodities, equipment, or real estate; (b) storage, packing, crating, and warehouse services for storage; (c) rentals of space, buildings, or equipment without service of drivers; and (d) furnishing other services indirectly related to motor carriers' operations.

**Line b—**Income received from others for the rental of vehicles without drivers, and for the rental of other motor carrier property.

**Line c—**Include all expenses incurred in the conduct of the motor carrier operations, i.e., costs of operating and maintaining vehicles, wages and salaries (including wages and salaries paid to owners for services as motor carrier operations), terminal expenses, insurance and safety, advertising, tariffs, rents, administrative expenses, etc. Include depreciation expense for all owned depreciable property used in the performance of motor carrier operations. Include taxes paid which are solely related to the motor carrier operations such as vehicle license and fees, real estate, social security and other taxes and licenses specifically required to conduct such operations.

**Line d—**Include all salaries, wages, bonuses and vacation allowances. Payments to salaried officers and executives of corporations should be included. Exclude payments to (or withdrawals by) owners or partners of unincorporated businesses.

**Line e—**Include payments to or withdrawals by owners or partners of unincorporated businesses.

9. INTERCITY OPERATING STATISTICS 1963

	Dollars (Omit cents)	Key
a. Freight revenue from intercity service	\$	2-1
b. Owned and leased truck- and tractor-miles operated in intercity service (include loaded and empty).	Miles	2-2
c. Tons of revenue freight carried in intercity service	Tons	2-3

(Use additional sheets of paper, if necessary, to complete any item or to submit any explanation. Identify each sheet with the 11-digit file number appearing over your name.)  
 Please complete inquiries on reverse side

Figure 2. Continued.