Iowa

1997

Issued December 1999

EC97TCF-IA

1997 Economic Census

Transportation

1997 Commodity Flow Survey

U.S. Department of Transportation
BUREAU OF TRANSPORTATION STATISTICS

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU

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Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

1997 Commodity Flow Survey

GENERAL

The 1997 Commodity Flow Survey (CFS) is undertaken through a partnership between the Bureau of the Census, U.S. Department of Commerce, and the Bureau of Transportation Statistics, U.S. Department of Transportation. This survey produces data on the movement of goods in the United States. It provides information on commodities shipped, their value, weight, and mode of transportation, as well as the origin and destination of shipments of manufacturing, mining, wholesale, and selected retail establishments. The CFS was last conducted in 1993. See the Comparability With the 1993 Commodity Flow Survey table (Appendix A) for a comparison between the 1997 and 1993 surveys. The data from the CFS are used by public policy analysts and for transportation planning and decision-making to assess the demand for transportation facilities and services, energy use, and safety risk and environmental concerns.

This report presents data at the state level. Additional reports will include data for the United States, census regions, divisions, and selected metropolitan areas, as well as selected data on exports and hazardous material shipments.

INDUSTRY COVERAGE

The 1997 CFS covers business establishments in mining, manufacturing, wholesale trade, and selected retail industries. The survey also covers selected auxiliary establishments (e.g., warehouses) of in-scope multiunit and retail companies. The survey coverage excludes establishments classified as farms, forestry, fisheries, governments, construction, transportation, foreign establishments, services, and most establishments in retail.

The industries covered, as defined in the 1987 Standard Industrial Classification Manual (SIC), are listed in the following table:

SIC code	Title
10, ex. 108	Metal mining (excluding metal mining services)
12, ex. 124	Coal mining (excluding coal mining services)
13	Oil and gas extraction[1]
14, ex. 148	Mining and quarrying of nonmetallic minerals, except fuels (excluding nonmetallic minerals services)
20	Food and kindred products
21	Tobacco products
22	Textile mill products
23	Apparel and other finished products made from fabrics and similar materials
24	Lumber and wood products, except furniture
25	Furniture and fixtures
26	Paper and allied products
27, ex. 279	Printing, publishing, and allied industries (excluding service industries for the printing trade)
28	Chemicals and allied products
29	Petroleum refining and related industries
30	Rubber and miscellaneous plastics products
31	Leather and leather products
32	Stone, clay, glass, and concrete products
33	Primary metal industries
34	Fabricated metal products, except machinery and transportation equipment
35	Industrial and commercial machinery and computer equipment
36	Electronic and other electrical equipment and components, except computer equipment
37	Transportation equipment
38	Measuring, analyzing, and controlling instruments; photographic, medical and optical goods; watches and clocks
39	Miscellaneous manufacturing industries
50	Wholesale trade—durable goods
51	Wholesale trade—nondurable goods
596	Catalog and mail-order houses

[1]We included establishments classified in SIC 13, Oil and Gas Extraction, in the initial coverage of the 1997 CFS. However, because of unresolved industry-wide reporting issues, we have removed shipments from these establishments from our 1997 CFS tabulations. The data collected from these establishments will be used as input to a special report at a later date.

Similarly, because establishments in SIC 13 are responsible for the overwhelming number of shipments classified in SCTG 16, Crude Petroleum, we have removed all shipments with SCTG 16 from the 1997 CFS publication results.

SHIPMENT COVERAGE

The CFS captures data on shipments originating from selected types of business establishments located in the 50 states and the District of Columbia. The data do not cover shipments originating from business establishments located in Puerto Rico and other U.S. possessions and territories. Shipments traversing the U.S. from a foreign location to another foreign location (e.g., from Canada to Mexico) are not included, nor are shipments from a foreign location to a U.S. location. Imported products are included in the CFS at the point that they left the importer's domestic location for shipment to another location. Shipments that are shipped through a foreign territory with both the origin and destination in the U.S. are included in the CFS data. The mileages calculated for these shipments exclude the international segments (e.g., shipments from New York to Michigan through Canada do not include any mileages for Canada). Export shipments are included, with the domestic destination defined as the port of exit from the U.S.

The "Industry Coverage" section of the text lists the SIC groups covered by the CFS. Other industry areas that are not covered, but may have significant shipping activity, include agriculture, government, and retail (other than warehouses and SIC 5961, Catalog and Mail-Order Houses). For agriculture specifically, this means that the CFS did not cover shipments of agricultural products from the farm site to the processing centers or terminal elevators (most likely short-distance local movements), but does cover the shipments of these products from the initial processing centers or terminal elevators onward.

MILEAGE CALCULATIONS

To compute shipment mileages for the 1997 CFS, The Center for Transportation Analysis (CTA) at Oak Ridge National Laboratory (ORNL) developed an integrated, intermodal transportation network modeling system. A secure data site was setup at ORNL to process census-supplied files containing data elements for individual CFS shipment records. Each record contained the ZIP Code of shipment origin and destination, and the mode or mode sequence reported. Each record also contained information on the type of commodity moved, its weight, dollar value and whether containerized or a hazardous material. Export shipments were also identified on the records, along with data on U.S. port of exit and foreign destination city and country. Encrypted data files were transmitted and returned from ORNL after processing, with turnaround of most files on a week-by-week basis. In this manner many shipment-specific data problems encountered by ORNL in their routing procedures were reported back to census in a timely fashion, allowing census to call back some shippers and thereby confirm, correct, or recover missing or otherwise unusable data. The ORNL system computed mileages, by mode, for all single modes and for any reported multimodal sequence. This was done for any origin-destination pair of domestic ZIP Code locations, and for any internal ZIP Code of origin, via U.S. export port, to foreign (export) destination. Mileages between origin-destination ZIP Code centroids were computed by finding the minimum impedance path over mathematical representations of the highway, rail, waterway, air, and pipeline networks and then summing the lengths of individual links on these paths. Impedance is computed as a weighted combination of distance, time, and cost factors.

The ORNL multimodal network database is composed of individual modal-specific networks representing each of the major transportation modes—highway, rail, waterway, air, and pipeline. The links of these specific modal networks are the representation of line-haul transportation facilities. The nodes represent intersections and interchanges, and the access points to the transportation network. To simulate local access, test links are created from each five-digit ZIP Code centroid to nearby nodes on the network. For the truck network, local access is assumed to exist everywhere. For the other modes this is not true. Before any test links are created for these modes, a search procedure is used to determine if and where such networks are most likely to provide access to the ZIP Code. For shipments involving more than one mode, such as truck-rail or rail-water shipments, intermodal transfer links are added to the network database for the purpose of connecting the individual modal networks together for routing purposes. An intermodal terminals database and a number of terminal transfer models were developed at ORNL to identify likely transfer points for different classes of freight. A measure of link impedance was calculated for each access, line-haul, and intermodal transfer link traversed by a shipment. These impedances were mode specific and are based on various link characteristics. For example, the set of link characteristics for the highway network included speed impacting factors, such as the presence of divided or undivided roadway, the degree of access control, rural or urban setting, type of pavement, number of lanes, degree of urban congestion, and length of the link. Link impedance measures are also assigned to the local access links. Intermodal transfer link impedances are estimated in terms of the time it takes to move goods through such a transfer. In the case of rail and air freight, intercarrier transfer penalties are also considered in order to obtain proper route selections. A minimum path algorithm is used to find the minimum impedance path between a shipment's origin ZIP Code centroid and destination ZIP Code centroid. The cumulative length of the local access plus line-haul links on this path provides the estimated shipment distance. When rail was involved these shipment distances may be averaged over more than one path between an origin-destination pair.

Mileage Data for Pipeline Shipments

In the tables, we do not show ton-miles or average miles per shipment for pipeline shipments. For most of these shipments, the respondents reported the shipment

destination as a pipeline facility on the main pipeline network. Therefore, for the majority of these shipments, the resulting mileage represented only the access distance through feeder pipelines to the main pipeline network, and not the actual distance through the main pipeline network. Pipeline shipments are included in the U.S. totals for ton-miles and average miles per shipment.

DISCLOSURE RULES

In accordance with Federal law governing Census Bureau reports, no data are published that would disclose the operations of an individual firm or establishment.

EXPLANATION OF TERMS

Average miles per shipment. For the 1993 CFS, we excluded shipments of STCC 27, Printed Matter, from our calculation of average miles per shipment. We made this decision after determining that respondents in the 1993 CFS shipping newspapers, magazines, catalogs, etc., had used widely varying definitions of the term "shipment."

For the 1997 CFS, we made numerous efforts throughout our data collection and editing to produce consistent results from establishments shipping SCTG 29, Printed Products. As a result, we have included printed products in the average miles per shipment calculations for the 1997 CFS.

Commodity. Products that an establishment produces, sells, or distributes. This does not include items that are considered as excess or byproducts of the establishment's operation. Respondents reported the description and the five-digit SCTG code for the major commodity contained in the shipment, defined as the commodity with the greatest weight in the total shipment.

Distance shipped. In some tables, shipment data are presented for various "distance shipped" intervals. Shipments were categorized into these "distance shipped" intervals based on the great circle distance between their origin and destination ZIP Code centroids. All other distance-related data in this and other tables (i.e., ton-miles and average miles per shipment) are based on the mileage calculations produced by Oak Ridge National Laboratories. (See the "Mileage Calculations" section for more details.)

Great circle distance. The shortest distance between two points on the earth's surface.

Mode of transportation. The type of transportation used for moving the shipment to its domestic destination. For exports, the domestic destination was the port of exit.

Mode Definitions

In the instructions to the respondent, we defined the possible modes as follows:

1. **Parcel delivery/courier/U.S. Postal Service.** Delivery services, parcels, packages, and other small shipments that typically weigh less than 100 pounds. Includes bus parcel delivery service.
2. **Private truck.** Trucks operated by a temporary or permanent employee of an establishment or the buyer/receiver of the shipment.
3. **For-hire truck.** Trucks that carry freight for a fee collected from the shipper, recipient of the shipment, or an arranger of the transportation.
4. **Railroad.** Any common carrier or private railroad.
5. **Shallow draft vessels.** Barges, ships, or ferries operating primarily on rivers and canals; in harbors, the Great Lakes, the Saint Lawrence Seaway; the Intracoastal Waterway, the Inside Passage to Alaska, major bays and inlets; or in the ocean close to the shoreline.
6. **Deep draft vessel.** Barges, ships, or ferries operating primarily in the open ocean. Shipping on the Great Lakes and the Saint Lawrence Seaway is classified with shallow draft vessels.
7. **Pipeline.** Movements of oil, petroleum, gas, slurry, etc., through pipelines that extend to other establishments or locations beyond the shipper's establishment. Aqueducts for the movement of water are not included.
8. **Air.** Commercial or private aircraft, and all air service for shipments that typically weigh more than 100 pounds. Includes air freight and air express.
9. **Other mode.** Any mode not listed above.
10. **Unknown.** The shipment was not carried by a parcel delivery/courier/U.S. Postal Service, and the respondent could not determine what mode of transportation was used.

In the tables, we have used additional terms for mode, which we define as follows:

1. **Air (includes truck and air).** Shipments that used air or a combination of truck and air.
2. **Single modes.** Shipments using only one of the above-listed modes, except parcel or other and unknown.
3. **Multiple modes.** Parcel, U.S. Postal Service or courier shipments or shipments for which two or more of the following modes of transportation were used:

   Private truck
   For-hire truck
   Rail
   Shallow draft vessel
   Deep draft vessel
   Pipeline

We did not allow for multiple modes in combination with "parcel, U.S. Postal Service or courier," "unknown," or "other." By their nature, these shipments may already include various kinds of multiple-mode activity. For example, if the respondent reported a shipment's mode of transportation as parcel and air, we treated the shipment as parcel only.

4. **Other multiple modes.** Shipments using any other mode combinations not specifically listed in the tables.

5. **Other and unknown modes.** Shipments for which modes were not reported, or were reported by the respondent as "Other" or "Unknown."

6. **Truck.** Shipments using for-hire truck only, private truck only, or a combination of for-hire truck and private truck.

7. **Water.** Shipments using shallow draft vessel only, deep draft vessel only, or Great Lakes vessel only. Combinations of these modes, such as shallow draft vessel and Great Lakes vessel are included as "Other multiple modes."

8. **Great Lakes.** In the tables in this publication, "Great Lakes" appears as a single mode. ORNL's transportation network and mileage calculation system allowed for separate mileage calculations for Great Lakes between the origin and destination ZIP Codes (see the "Mileage Calculations" section for more details).

Other Definitions and Terms

Shipment. A shipment (or delivery) is an individual movement of commodities from an establishment to a customer or to another location of the originating company (including a warehouse, distribution center, retail or wholesale outlet). A shipment uses one or more modes of transportation including parcel delivery, U.S. Postal Service, courier, private truck, for-hire truck, rail, water, pipeline, air, and other modes.

Standard Classification of Transported Goods (SCTG). The commodities shown in this report are classified using the SCTG coding system. The SCTG coding system was developed jointly by agencies of the United States and Canadian governments based on the Harmonized System to address statistical needs in regard to products transported.

Ton-miles. The weight times the mileage for a shipment. The respondents reported shipment weight in pounds, as described below. Mileage was calculated as the distance between the shipment origin and destination ZIP Codes. For shipments by truck, rail, or shallow draft vessels, the mileage excludes international segments. For example, mileages from Alaska to the continental United States exclude any mileages through Canada (see the "Mileage Calculations" section for more details). Aggregated pound-miles were converted to ton-miles. The ton-miles data are displayed in millions.

Tons shipped. The total weight of the entire shipment. Respondents reported the weight in pounds. Aggregated pounds were converted to short-tons (2,000 pounds). The tons data are displayed in thousands.

Total modal activity. The overall activity (e.g., ton-miles) of a specific mode of transportation, whether used in a single-mode shipment, or as part of a multiple-mode shipment. For example, the total modal activity for private truck is the total ton-miles carried by private truck in single-mode shipments, combined with the total ton-miles carried by private truck in all multiple-mode shipments that include private truck (private truck and for-hire truck, private truck and rail, private truck and air, etc.)

Value of shipments. The dollar value of the entire shipment. This was defined as the net selling value, f.o.b. plant, exclusive of freight charges and excise taxes. The value data are displayed in millions of dollars.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in the tables for this publication:

D	Denotes figures withheld to avoid disclosing data for individual companies.
–	Represents zero or less than 1 unit of measure.
S	Data do not meet publication standards due to high sampling variability or other reasons.
CFS	Commodity Flow Survey.
lb	Pounds.
n.e.c.	Not elsewhere classified.
NA	Not applicable.
n.o.s.	Not otherwise specified.

OTHER TRANSPORTATION DATA

Users of transportation data may be especially interested in the following reports:

Economic Census: Transportation Sector covers establishments that provide passenger and freight transportation to the general public, government, or other businesses.

Published data include kind of business, geographic location, total operating revenue, annual and first quarter payroll, and number of employees for pay period including March 12.

Vehicle Inventory and Use Survey covers state and U.S. level statistics on the physical and operational characteristics of the Nation's truck, van, minivan, and sport utility vehicle population. Some of the types of data collected

include number of vehicles, major use, body type, annual miles, model year, vehicle size, fuel type, operator classification, engine size, range of operation, weeks operated, products carried, and hazardous materials carried. This survey shows comparative statistics reflecting percent changes in number of vehicles between 1997 and 1992 for most characteristics.

Transportation Annual Survey covers firms with paid employees that provide commercial motor freight transportation and public warehousing services. Data collected include operating revenue and operating revenue by source, total expenses and expenses percentage of motor carrier freight revenue by commodity type, size of shipments handled, length of haul, and vehicle fleet inventory.

All results of the 1997 Economic Census are available on the Census Bureau Internet site *http://www.census.gov* and on compact discs (CD-ROM).

For more information on any Census Bureau product, including a description of electronic and printed reports being issued, see the web site or call Customer Services at 301-457-4100.

Table 1a. **Shipment Characteristics by Mode of Transportation for State of Origin: 1997**

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

Mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
All modes	**110 175**	**100.0**	**218 894**	**100.0**	**56 847**	**100.0**	**277**
Single modes	**100 070**	**90.8**	**215 048**	**98.2**	**53 561**	**94.2**	**110**
Truck[1]	91 338	82.9	178 277	81.4	22 966	40.4	100
For-hire truck	53 590	48.6	65 591	30.0	15 652	27.5	363
Private truck	37 017	33.6	112 100	51.2	7 134	12.5	45
Rail	7 224	6.6	30 467	13.9	22 570	39.7	836
Water	975	.9	6 064	2.8	7 968	14.0	1 203
Shallow draft	975	.9	6 064	2.8	7 968	14.0	1 203
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	480	.4	21	–	21	–	1 116
Pipeline[2]	S	S	S	S	S	S	S
Multiple modes	**7 321**	**6.6**	**2 052**	**.9**	**S**	**S**	**635**
Parcel, U.S. Postal Service or courier	6 484	5.9	301	.1	177	.3	635
Truck and rail	691	.6	700	.3	802	1.4	1 319
Truck and water	S	S	S	S	S	S	1 701
Rail and water	S	S	S	S	S	S	1 431
Other multiple modes	S	S	S	S	S	S	S
Other and unknown modes	**2 785**	**2.5**	**1 795**	**.8**	**803**	**1.4**	**75**

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

[1]"Truck" as a single mode includes shipments which went by private truck only, for-hire truck only, or a combination of private truck and for-hire truck.
[2]CFS data for pipeline exclude most shipments of crude oil. See "Mileage Calculations" section for details of CFS coverage.

Table 1b. **Shipment Characteristics by Mode of Transportation for State of Origin: 1997 and 1993**

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

Mode of transportation	Value			Tons			Ton-miles			Average miles per shipment		
	1997 (million dollars)	1993 (million dollars)	Percent change	1997 (thousands)	1993 (thousands)	Percent change	1997 (millions)	1993 (millions)	Percent change	1997	1993	Percent change
All modes	**110 175**	**79 890**	**37.9**	**218 894**	**164 541**	**33.0**	**56 847**	**50 476**	**12.6**	**277**	**323**	**–14.5**
Single modes	**100 070**	**71 677**	**39.6**	**215 048**	**159 540**	**34.8**	**53 561**	**48 033**	**11.5**	**110**	**122**	**–10.0**
Truck[1]	91 338	64 163	42.4	178 277	123 200	44.7	22 966	18 564	23.7	100	107	–6.6
For-hire truck	53 590	36 846	45.4	65 591	46 354	41.5	15 652	12 168	28.6	363	428	–15.1
Private truck	37 017	27 183	36.2	112 100	76 162	47.2	7 134	6 312	13.0	45	49	–8.5
Rail	7 224	5 159	40.0	30 467	25 722	18.4	22 570	16 338	38.1	836	807	3.6
Water	975	S	S	6 064	S	S	7 968	S	S	1 203	1 244	–3.2
Shallow draft	975	S	S	6 064	S	S	7 968	S	S	1 203	1 244	–3.2
Great Lakes	–	–	–	–	–	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–	–	–	–	–	–
Air (includes truck and air)	480	S	S	21	11	91.7	21	14	46.8	1 116	1 273	–12.3
Pipeline[2]	S	S	S	S	S	S	S	S	S	S	S	S
Multiple modes	**7 321**	**6 023**	**21.5**	**2 052**	**522**	**293.3**	**S**	**469**	**S**	**635**	**615**	**3.2**
Parcel, U.S. Postal Service or courier	6 484	5 696	13.8	301	230	31.1	177	119	48.0	635	615	3.2
Truck and rail	691	311	122.5	700	220	218.4	802	286	180.7	1 319	1 044	26.3
Truck and water	S	S	S	S	S	S	S	S	S	1 701	2 141	–20.6
Rail and water	S	–	S	S	–	S	S	–	S	1 431	–	S
Other multiple modes	S	S	S	S	S	S	S	S	S	S	169	S
Other and unknown modes	**2 785**	**2 190**	**27.2**	**1 795**	**4 480**	**–59.9**	**803**	**S**	**S**	**75**	**89**	**–15.8**

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

[1]"Truck" as a single mode includes shipments which went by private truck only, for-hire truck only, or a combination of private truck and for-hire truck.
[2]CFS data for pipeline exclude most shipments of crude oil. See "Mileage Calculations" section for details of CFS coverage.

Table 1c. Shipment Characteristics by Mode of Transportation for State of Origin: Percent of Total for 1997 and 1993

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

Mode of transportation	Value (percent)		Tons (percent)		Ton-miles (percent)	
	1997	1993	1997	1993	1997	1993
All modes	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Single modes	**90.8**	**89.7**	**98.2**	**97.0**	**94.2**	**95.2**
Truck[1]	82.9	80.3	81.4	74.9	40.4	36.8
For-hire truck	48.6	46.1	30.0	28.2	27.5	24.1
Private truck	33.6	34.0	51.2	46.3	12.5	12.5
Rail	6.6	6.5	13.9	15.6	39.7	32.4
Water	.9	S	2.8	S	14.0	S
Shallow draft	.9	S	2.8	S	14.0	S
Great Lakes	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–
Air (includes truck and air)	.4	S	–	–	–	–
Pipeline[2]	S	S	S	S	S	S
Multiple modes	**6.6**	**7.5**	**.9**	**.3**	**S**	**.9**
Parcel, U.S. Postal Service or courier	5.9	7.1	.1	.1	.3	.2
Truck and rail	.6	.4	.3	.1	1.4	.6
Truck and water	S	S	S	S	S	S
Rail and water	S	–	S	–	S	–
Other multiple modes	S	S	S	S	S	S
Other and unknown modes	**2.5**	**2.7**	**.8**	**2.7**	**1.4**	**S**

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

[1]"Truck" as a single mode includes shipments which went by private truck only, for-hire truck only, or a combination of private truck and for-hire truck.
[2]CFS data for pipeline exclude most shipments of crude oil. See "Mileage Calculations" section for details of CFS coverage.

Table 2. Shipment Characteristics by Total Modal Activity for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

Mode of transportation[1]	Ton-miles		Average miles per shipment
	Number (millions)	Percent	
Total	**56 847**	**100.0**	**275**
Truck	23 223	40.9	100
Rail	23 351	41.1	873
Shallow draft	9 238	16.3	1 183
Great Lakes	S	S	685
Deep draft	S	S	2 724
Air	19	–	1 018
Parcel, U.S. Postal Service or courier	177	.3	635
Pipeline	S	S	S
Other and unknown modes	803	1.4	74

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

[1]Data represent activity for a given mode across single and multiple mode shipments. For example, "Truck" ton-miles includes total ton-miles for shipments moving by truck only plus ton-miles for truck segments only of multiple mode shipments.

Table 3. Shipment Characteristics by Mode of Transportation and Distance Shipped for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

Mode of transportation and distance shipped (based on Great Circle Distance)	Value		Tons		Ton-miles	
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent
All modes	**110 175**	**100.0**	**218 894**	**100.0**	**56 847**	**100.0**
Less than 50 miles	25 215	22.9	117 495	53.7	2 453	4.3
50 to 99 miles	11 295	10.3	24 009	11.0	2 244	3.9
100 to 249 miles	23 675	21.5	33 164	15.2	7 361	12.9
250 to 499 miles	16 936	15.4	15 257	7.0	7 036	12.4
500 to 749 miles	10 801	9.8	7 280	3.3	6 233	11.0
750 to 999 miles	11 056	10.0	12 867	5.9	15 547	27.3
1,000 to 1,499 miles	7 473	6.8	6 840	3.1	11 948	21.0
1,500 to 1,999 miles	3 705	3.4	1 980	.9	4 023	7.1
2,000 miles or more	19	–	1	–	2	–
Single modes	**100 070**	**100.0**	**215 048**	**100.0**	**53 561**	**100.0**
Less than 50 miles	23 854	23.8	116 543	54.2	2 440	4.6
50 to 99 miles	10 623	10.6	23 868	11.1	2 225	4.2
100 to 249 miles	21 953	21.9	32 905	15.3	7 306	13.6
250 to 499 miles	15 285	15.3	14 826	6.9	6 792	12.7
500 to 749 miles	9 706	9.7	7 194	3.3	6 166	11.5
750 to 999 miles	9 467	9.5	11 594	5.4	13 790	25.7
1,000 to 1,499 miles	6 053	6.0	6 323	2.9	11 205	20.9
1,500 to 1,999 miles	3 126	3.1	1 794	.8	3 636	6.8
2,000 miles or more	3	–	S	S	S	S
Truck[1]	**91 338**	**100.0**	**178 277**	**100.0**	**22 966**	**100.0**
Less than 50 miles	23 776	26.0	115 822	65.0	2 432	10.6
50 to 99 miles	10 478	11.5	23 266	13.1	2 156	9.4
100 to 249 miles	19 718	21.6	20 756	11.6	4 120	17.9
250 to 499 miles	13 979	15.3	8 439	4.7	3 646	15.9
500 to 749 miles	8 471	9.3	3 732	2.1	2 817	12.3
750 to 999 miles	7 417	8.1	3 897	2.2	4 020	17.5
1,000 to 1,499 miles	4 847	5.3	1 609	.9	2 356	10.3
1,500 to 1,999 miles	2 651	2.9	755	.4	1 419	6.2
2,000 miles or more	S	S	S	S	S	S
For-hire truck	**53 590**	**100.0**	**65 591**	**100.0**	**15 652**	**100.0**
Less than 50 miles	5 906	11.0	26 093	39.8	653	4.2
50 to 99 miles	3 950	7.4	12 540	19.1	1 140	7.3
100 to 249 miles	11 012	20.5	12 390	18.9	2 564	16.4
250 to 499 miles	11 488	21.4	6 790	10.4	2 961	18.9
500 to 749 miles	7 413	13.8	3 183	4.9	2 420	15.5
750 to 999 miles	6 878	12.8	2 444	3.7	2 467	15.8
1,000 to 1,499 miles	4 443	8.3	1 446	2.2	2 125	13.6
1,500 to 1,999 miles	2 499	4.7	703	1.1	1 322	8.4
2,000 miles or more	S	S	S	S	S	S
Private truck	**37 017**	**100.0**	**112 100**	**100.0**	**7 134**	**100.0**
Less than 50 miles	17 799	48.1	89 577	79.9	1 775	24.9
50 to 99 miles	6 469	17.5	10 559	9.4	998	14.0
100 to 249 miles	8 625	23.3	8 248	7.4	1 532	21.5
250 to 499 miles	2 388	6.5	1 619	1.4	673	9.4
500 to 749 miles	901	2.4	503	.4	367	5.1
750 to 999 miles	418	1.1	S	S	S	S
1,000 to 1,499 miles	278	.8	120	.1	171	2.4
1,500 to 1,999 miles	140	.4	50	–	94	1.3
2,000 miles or more	–	–	–	–	–	–
Rail	**7 224**	**100.0**	**30 467**	**100.0**	**22 570**	**100.0**
Less than 50 miles	76	1.1	720	2.4	9	–
50 to 99 miles	119	1.6	597	2.0	69	.3
100 to 249 miles	2 104	29.1	11 928	39.2	3 150	14.0
250 to 499 miles	1 232	17.1	6 380	20.9	3 141	13.9
500 to 749 miles	1 077	14.9	2 593	8.5	2 282	10.1
750 to 999 miles	1 050	14.5	2 501	8.2	2 863	12.7
1,000 to 1,499 miles	1 134	15.7	4 710	15.5	8 844	39.2
1,500 to 1,999 miles	430	6.0	1 038	3.4	2 213	9.8
2,000 miles or more	–	–	–	–	–	–
Water	**975**	**100.0**	**6 064**	**100.0**	**7 968**	**100.0**
Less than 50 miles	S	S	S	S	S	S
50 to 99 miles	S	S	S	S	S	S
100 to 249 miles	–	–	–	–	–	–
250 to 499 miles	S	S	S	S	S	S
500 to 749 miles	S	S	S	S	S	S
750 to 999 miles	850	87.1	5 192	85.6	6 900	86.6
1,000 to 1,499 miles	–	–	–	–	–	–
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	–	–	–	–	–	–
Shallow draft	**975**	**100.0**	**6 064**	**100.0**	**7 968**	**100.0**
Less than 50 miles	S	S	S	S	S	S
50 to 99 miles	S	S	S	S	S	S
100 to 249 miles	–	–	–	–	–	–
250 to 499 miles	S	S	S	S	S	S
500 to 749 miles	S	S	S	S	S	S
750 to 999 miles	850	87.1	5 192	85.6	6 900	86.6
1,000 to 1,499 miles	–	–	–	–	–	–
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	–	–	–	–	–	–

See footnotes at end of table.

Table 3. **Shipment Characteristics by Mode of Transportation and Distance Shipped for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

Mode of transportation and distance shipped (based on Great Circle Distance)	Value		Tons		Ton-miles	
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent
Single modes—Con.						
Great Lakes	**–**	**–**	**–**	**–**	**–**	**–**
Less than 50 miles	–	–	–	–	–	–
50 to 99 miles	–	–	–	–	–	–
100 to 249 miles	–	–	–	–	–	–
250 to 499 miles	–	–	–	–	–	–
500 to 749 miles	–	–	–	–	–	–
750 to 999 miles	–	–	–	–	–	–
1,000 to 1,499 miles	–	–	–	–	–	–
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	–	–	–	–	–	–
Deep draft	**–**	**–**	**–**	**–**	**–**	**–**
Less than 50 miles	–	–	–	–	–	–
50 to 99 miles	–	–	–	–	–	–
100 to 249 miles	–	–	–	–	–	–
250 to 499 miles	–	–	–	–	–	–
500 to 749 miles	–	–	–	–	–	–
750 to 999 miles	–	–	–	–	–	–
1,000 to 1,499 miles	–	–	–	–	–	–
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	–	–	–	–	–	–
Air (includes truck and air)	**480**	**100.0**	**21**	**100.0**	**21**	**100.0**
Less than 50 miles	–	–	–	–	–	–
50 to 99 miles	S	S	S	S	S	S
100 to 249 miles	79	16.3	2	9.5	1	3.8
250 to 499 miles	71	14.9	4	16.6	3	12.4
500 to 749 miles	37	7.7	2	8.5	2	8.4
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	71	14.9	3	14.0	5	21.8
1,500 to 1,999 miles	44	9.2	S	S	S	S
2,000 miles or more	2	.3	S	S	S	S
Pipeline[2]	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 miles	–	–	–	–	S	S
50 to 99 miles	–	–	–	–	S	S
100 to 249 miles	S	S	S	S	S	S
250 to 499 miles	–	–	–	–	S	S
500 to 749 miles	–	–	–	–	S	S
750 to 999 miles	–	–	–	–	S	S
1,000 to 1,499 miles	–	–	–	–	S	S
1,500 to 1,999 miles	–	–	–	–	S	S
2,000 miles or more	–	–	–	–	S	S
Multiple modes	**7 321**	**100.0**	**2 052**	**100.0**	**S**	**S**
Less than 50 miles	449	6.1	52	2.6	1	–
50 to 99 miles	447	6.1	S	S	S	S
100 to 249 miles	1 436	19.6	83	4.1	20	.8
250 to 499 miles	1 411	19.3	S	S	S	S
500 to 749 miles	943	12.9	58	2.8	47	1.9
750 to 999 miles	1 274	17.4	S	S	S	S
1,000 to 1,499 miles	874	11.9	146	7.1	272	10.9
1,500 to 1,999 miles	472	6.4	S	S	S	S
2,000 miles or more	15	.2	–	–	2	–
Parcel, U.S. Postal Service or courier	**6 484**	**100.0**	**301**	**100.0**	**177**	**100.0**
Less than 50 miles	441	6.8	35	11.8	1	.6
50 to 99 miles	439	6.8	25	8.5	2	1.4
100 to 249 miles	1 353	20.9	64	21.2	14	7.8
250 to 499 miles	1 356	20.9	55	18.2	25	13.9
500 to 749 miles	919	14.2	41	13.8	32	18.1
750 to 999 miles	958	14.8	43	14.3	45	25.7
1,000 to 1,499 miles	745	11.5	29	9.6	41	23.4
1,500 to 1,999 miles	258	4.0	8	2.6	15	8.4
2,000 miles or more	S	S	S	S	S	S
Truck and rail	**691**	**100.0**	**700**	**100.0**	**802**	**100.0**
Less than 50 miles	S	S	S	S	S	S
50 to 99 miles	S	S	S	S	S	S
100 to 249 miles	S	S	S	S	S	S
250 to 499 miles	S	S	S	S	S	S
500 to 749 miles	24	3.5	16	2.3	15	1.9
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	129	18.7	118	16.8	230	28.7
1,500 to 1,999 miles	S	S	S	S	S	S
2,000 miles or more	–	–	–	–	–	–
Truck and water	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 miles	–	–	–	–	–	–
50 to 99 miles	–	–	–	–	–	–
100 to 249 miles	S	S	S	S	S	S
250 to 499 miles	S	S	S	S	S	S
500 to 749 miles	S	S	S	S	S	S
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	–	–	–	–	–	–
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	S	S	S	S	S	S

See footnotes at end of table.

Table 3. **Shipment Characteristics by Mode of Transportation and Distance Shipped for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

Mode of transportation and distance shipped (based on Great Circle Distance)	Value		Tons		Ton-miles	
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent
Multiple modes—Con.						
Rail and water	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 miles	–	–	–	–	–	–
50 to 99 miles	–	–	–	–	–	–
100 to 249 miles	–	–	–	–	–	–
250 to 499 miles	–	–	–	–	–	–
500 to 749 miles	–	–	–	–	–	–
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	–	–	–	–	–	–
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	–	–	–	–	–	–
Other multiple modes	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 miles	S	S	S	S	S	S
50 to 99 miles	–	–	–	–	–	–
100 to 249 miles	–	–	–	–	–	–
250 to 499 miles	S	S	S	S	S	S
500 to 749 miles	–	–	–	–	–	–
750 to 999 miles	–	–	–	–	–	–
1,000 to 1,499 miles	–	–	–	–	–	–
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	–	–	–	–	–	–
Other and unknown modes	**2 785**	**100.0**	**1 795**	**100.0**	**803**	**100.0**
Less than 50 miles	913	32.8	900	50.1	11	1.4
50 to 99 miles	225	8.1	53	2.9	5	.6
100 to 249 miles	286	10.3	176	9.8	35	4.4
250 to 499 miles	240	8.6	91	5.1	42	5.2
500 to 749 miles	152	5.5	28	1.6	20	2.5
750 to 999 miles	314	11.3	119	6.6	113	14.0
1,000 to 1,499 miles	546	19.6	S	S	472	58.8
1,500 to 1,999 miles	S	S	S	S	S	S
2,000 miles or more	S	S	S	S	S	S

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

[1]"Truck" as a single mode includes shipments which went by private truck only, for-hire truck only, or a combination of private truck and for-hire truck.
[2]CFS data for pipeline exclude most shipments of crude oil. See "Mileage Calculations" section for details of CFS coverage.

Table 4. Shipment Characteristics by Mode of Transportation and Shipment Size for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

Mode of transportation and shipment size	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
All modes	**110 175**	**100.0**	**218 894**	**100.0**	**56 847**	**100.0**	**277**
Less than 50 lb	6 161	5.6	242	.1	84	.1	362
50 to 99 lb	2 194	2.0	209	.1	51	–	244
100 to 499 lb	5 748	5.2	1 222	.6	213	.4	173
500 to 749 lb	1 837	1.7	598	.3	86	.2	142
750 to 999 lb	1 483	1.3	500	.2	100	.2	198
1,000 to 9,999 lb	18 041	16.4	13 488	6.2	2 001	3.5	141
10,000 to 49,999 lb	57 012	51.7	99 035	45.2	17 175	30.2	164
50,000 to 99,999 lb	8 045	7.3	50 508	23.1	4 139	7.3	81
100,000 lb or more	9 654	8.8	53 092	24.3	32 999	58.0	635
Single modes	**100 070**	**100.0**	**215 048**	**100.0**	**53 561**	**100.0**	**110**
Less than 50 lb	1 947	1.9	99	–	8	–	58
50 to 99 lb	897	.9	130	–	13	–	98
100 to 499 lb	4 500	4.5	1 066	.5	152	.3	132
500 to 749 lb	1 678	1.7	551	.3	81	.2	145
750 to 999 lb	1 396	1.4	479	.2	97	.2	200
1,000 to 9,999 lb	17 183	17.2	13 120	6.1	1 921	3.6	139
10,000 to 49,999 lb	55 139	55.1	98 022	45.6	16 437	30.7	159
50,000 to 99,999 lb	7 946	7.9	50 379	23.4	4 117	7.7	81
100,000 lb or more	9 384	9.4	51 201	23.8	30 736	57.4	621
Truck[1]	**91 338**	**100.0**	**178 277**	**100.0**	**22 966**	**100.0**	**100**
Less than 50 lb	1 803	2.0	98	–	6	–	43
50 to 99 lb	871	1.0	130	–	12	–	92
100 to 499 lb	4 413	4.8	1 064	.6	149	.6	128
500 to 749 lb	1 663	1.8	550	.3	79	.3	143
750 to 999 lb	1 367	1.5	475	.3	95	.4	199
1,000 to 9,999 lb	17 010	18.6	13 100	7.3	1 900	8.3	138
10,000 to 49,999 lb	54 586	59.8	97 786	54.9	16 142	70.3	156
50,000 to 99,999 lb	7 685	8.4	49 959	28.0	3 804	16.6	77
100,000 lb or more	1 939	2.1	15 115	8.5	777	3.4	S
For-hire truck	**53 590**	**100.0**	**65 591**	**100.0**	**15 652**	**100.0**	**363**
Less than 50 lb	133	.2	7	–	3	–	366
50 to 99 lb	236	.4	16	–	7	–	421
100 to 499 lb	2 151	4.0	258	.4	100	.6	387
500 to 749 lb	902	1.7	128	.2	56	.4	438
750 to 999 lb	853	1.6	136	.2	74	.5	546
1,000 to 9,999 lb	8 711	16.3	2 716	4.1	1 277	8.2	437
10,000 to 49,999 lb	35 800	66.8	34 069	51.9	11 579	74.0	348
50,000 to 99,999 lb	4 275	8.0	25 112	38.3	2 261	14.4	90
100,000 lb or more	529	1.0	3 147	4.8	295	1.9	172
Private truck	**37 017**	**100.0**	**112 100**	**100.0**	**7 134**	**100.0**	**45**
Less than 50 lb	1 670	4.5	91	–	4	–	28
50 to 99 lb	635	1.7	114	.1	6	–	49
100 to 499 lb	2 254	6.1	802	.7	48	.7	56
500 to 749 lb	761	2.1	422	.4	24	.3	55
750 to 999 lb	502	1.4	333	.3	21	.3	61
1,000 to 9,999 lb	8 138	22.0	10 279	9.2	594	8.3	55
10,000 to 49,999 lb	18 259	49.3	63 316	56.5	4 419	61.9	66
50,000 to 99,999 lb	3 391	9.2	24 788	22.1	1 538	21.6	63
100,000 lb or more	1 408	3.8	11 955	10.7	481	6.7	S
Rail	**7 224**	**100.0**	**30 467**	**100.0**	**22 570**	**100.0**	**836**
Less than 50 lb	S	S	S	S	S	S	745
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	1 377
500 to 749 lb	S	S	S	S	S	S	547
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	S	S	S	S	S	S	1 238
10,000 to 49,999 lb	503	7.0	229	.8	288	1.3	1 322
50,000 to 99,999 lb	260	3.6	392	1.3	277	1.2	742
100,000 lb or more	6 422	88.9	29 834	97.9	21 993	97.4	801
Water	**975**	**100.0**	**6 064**	**100.0**	**7 968**	**100.0**	**1 203**
Less than 50 lb	S	S	S	S	S	S	424
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	424
500 to 749 lb	S	S	S	S	S	S	8
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	S	S	S	S	S	S	461
10,000 to 49,999 lb	S	S	S	S	S	S	536
50,000 to 99,999 lb	S	S	S	S	S	S	1 277
100,000 lb or more	970	99.5	6 032	99.5	7 930	99.5	1 300
Shallow draft	**975**	**100.0**	**6 064**	**100.0**	**7 968**	**100.0**	**1 203**
Less than 50 lb	S	S	S	S	S	S	424
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	424
500 to 749 lb	S	S	S	S	S	S	8
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	S	S	S	S	S	S	461
10,000 to 49,999 lb	S	S	S	S	S	S	536
50,000 to 99,999 lb	S	S	S	S	S	S	1 277
100,000 lb or more	970	99.5	6 032	99.5	7 930	99.5	1 300

See footnotes at end of table.

Table 4. Shipment Characteristics by Mode of Transportation and Shipment Size for State of Origin: 1997—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

Mode of transportation and shipment size	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
Single modes—Con.							
Great Lakes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	–	–	–	–	–	–	–
500 to 749 lb	–	–	–	–	–	–	–
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	–	–	–	–	–	–	–
10,000 to 49,999 lb	–	–	–	–	–	–	–
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	–	–	–	–	–	–	–
Deep draft	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	–	–	–	–	–	–	–
500 to 749 lb	–	–	–	–	–	–	–
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	–	–	–	–	–	–	–
10,000 to 49,999 lb	–	–	–	–	–	–	–
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	–	–	–	–	–	–	–
Air (includes truck and air)	**480**	**100.0**	**21**	**100.0**	**21**	**100.0**	**1 116**
Less than 50 lb	142	29.6	1	5.9	2	7.2	1 118
50 to 99 lb	S	S	1	3.0	S	S	1 174
100 to 499 lb	87	18.1	2	11.2	3	15.0	1 327
500 to 749 lb	S	S	S	S	S	S	1 776
750 to 999 lb	S	S	S	S	S	S	S
1,000 to 9,999 lb	S	S	S	S	S	S	1 076
10,000 to 49,999 lb	S	S	S	S	S	S	1 174
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	–	–	–	–	–	–	–
Pipeline[2]	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 lb	–	–	–	–	S	S	S
50 to 99 lb	–	–	–	–	S	S	S
100 to 499 lb	–	–	–	–	S	S	S
500 to 749 lb	–	–	–	–	S	S	S
750 to 999 lb	–	–	–	–	S	S	S
1,000 to 9,999 lb	–	–	–	–	S	S	S
10,000 to 49,999 lb	–	–	–	–	S	S	S
50,000 to 99,999 lb	–	–	–	–	S	S	S
100,000 lb or more	S	S	S	S	S	S	S
Multiple modes	**7 321**	**100.0**	**2 052**	**100.0**	**S**	**S**	**635**
Less than 50 lb	3 992	54.5	130	6.3	75	3.0	640
50 to 99 lb	1 244	17.0	67	3.3	38	1.5	571
100 to 499 lb	1 097	15.0	90	4.4	58	2.3	640
500 to 749 lb	77	1.1	6	.3	3	.1	527
750 to 999 lb	76	1.0	10	.5	2	.1	S
1,000 to 9,999 lb	93	1.3	S	S	21	.8	570
10,000 to 49,999 lb	549	7.5	276	13.5	387	15.6	1 383
50,000 to 99,999 lb	S	S	S	S	S	S	1 577
100,000 lb or more	S	S	S	S	S	S	1 108
Parcel, U.S. Postal Service or courier	**6 484**	**100.0**	**301**	**100.0**	**177**	**100.0**	**635**
Less than 50 lb	3 992	61.6	130	43.3	75	42.5	640
50 to 99 lb	1 244	19.2	67	22.4	38	21.3	571
100 to 499 lb	1 097	16.9	90	29.8	58	32.8	640
500 to 749 lb	77	1.2	6	2.0	3	1.7	495
750 to 999 lb	73	1.1	6	2.0	2	1.3	365
1,000 to 9,999 lb	S	S	S	S	S	S	572
10,000 to 49,999 lb	–	–	–	–	–	–	–
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	–	–	–	–	–	–	–
Truck and rail	**691**	**100.0**	**700**	**100.0**	**802**	**100.0**	**1 319**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	2 036
500 to 749 lb	S	S	S	S	S	S	1 311
750 to 999 lb	S	S	S	S	S	S	911
1,000 to 9,999 lb	85	12.3	15	2.2	20	2.5	1 389
10,000 to 49,999 lb	544	78.8	273	38.9	385	47.9	1 393
50,000 to 99,999 lb	S	S	S	S	S	S	1 577
100,000 lb or more	50	7.2	S	S	S	S	944
Truck and water	**S**	**S**	**S**	**S**	**S**	**S**	**1 701**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	4 404
500 to 749 lb	S	S	S	S	S	S	2 299
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	–	–	–	–	–	–	–
10,000 to 49,999 lb	S	S	S	S	S	S	533
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	S	S	S	S	S	S	1 461

See footnotes at end of table.

Table 4. **Shipment Characteristics by Mode of Transportation and Shipment Size for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

Mode of transportation and shipment size	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
Multiple modes—Con.							
Rail and water	**S**	**S**	**S**	**S**	**S**	**S**	**1 431**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	–	–	–	–	–	–	–
500 to 749 lb	–	–	–	–	–	–	–
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	–	–	–	–	–	–	–
10,000 to 49,999 lb	–	–	–	–	–	–	–
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	S	S	S	S	S	S	1 431
Other multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	–	–	–	–	–	–	–
500 to 749 lb	–	–	–	–	–	–	–
750 to 999 lb	S	S	S	S	S	S	13
1,000 to 9,999 lb	S	S	S	S	S	S	S
10,000 to 49,999 lb	–	–	–	–	–	–	–
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	–	–	–	–	–	–	–
Other and unknown modes	**2 785**	**100.0**	**1 795**	**100.0**	**803**	**100.0**	**75**
Less than 50 lb	222	8.0	12	.7	1	.1	S
50 to 99 lb	53	1.9	12	.6	–	–	S
100 to 499 lb	151	5.4	66	3.7	3	.4	S
500 to 749 lb	S	S	40	2.2	S	S	S
750 to 999 lb	11	.4	11	.6	S	S	37
1,000 to 9,999 lb	765	27.5	340	18.9	59	7.4	153
10,000 to 49,999 lb	1 324	47.6	736	41.0	352	43.8	423
50,000 to 99,999 lb	S	S	122	6.8	9	1.1	S
100,000 lb or more	88	3.2	456	25.4	S	S	784

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

[1]"Truck" as a single mode includes shipments which went by private truck only, for-hire truck only, or a combination of private truck and for-hire truck.
[2]CFS data for pipeline exclude most shipments of crude oil. See "Mileage Calculations" section for details of CFS coverage.

Table 5. **Shipment Characteristics by Two-Digit Commodity for State of Origin: 1997**

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code	Commodity description	Value		Tons		Ton-miles		Average miles per shipment
		Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
	All commodities	**110 175**	**100.0**	**218 894**	**100.0**	**56 847**	**100.0**	**277**
01	Live animals and live fish	724	.7	653	.3	73	.1	93
02	Cereal grains	3 165	2.9	31 939	14.6	12 887	22.7	66
03	Other agricultural products	7 122	6.5	19 127	8.7	5 173	9.1	306
04	Animal feed and products of animal origin, n.e.c.	7 830	7.1	24 347	11.1	5 993	10.5	58
05	Meat, fish, seafood, and their preparations	9 187	8.3	4 340	2.0	2 234	3.9	404
06	Milled grain products and preparations, and bakery products	5 343	4.8	7 102	3.2	4 661	8.2	244
07	Other prepared foodstuffs and fats and oils	7 017	6.4	14 794	6.8	8 837	15.5	175
08	Alcoholic beverages	1 624	1.5	2 104	1.0	1 282	2.3	38
09	Tobacco products	242	.2	24	–	2	–	61
10	Monumental or building stone	S	S	S	S	S	S	34
11	Natural sands	39	–	11 162	5.1	S	S	19
12	Gravel and crushed stone	214	.2	38 580	17.6	2 737	4.8	S
13	Nonmetallic minerals n.e.c.	S	S	4 670	2.1	235	.4	S
14	Metallic ores and concentrates	S	S	S	S	S	S	268
15	Coal	S	S	S	S	S	S	442
17	Gasoline and aviation turbine fuel	1 840	1.7	7 708	3.5	252	.4	22
18	Fuel oils	667	.6	2 888	1.3	S	S	18
19	Coal and petroleum products, n.e.c.	676	.6	2 996	1.4	S	S	S
20	Basic chemicals	589	.5	626	.3	151	.3	S
21	Pharmaceutical products	1 200	1.1	79	–	39	–	273
22	Fertilizers	841	.8	3 827	1.7	566	1.0	38
23	Chemical products and preparations, n.e.c.	5 445	4.9	1 231	.6	745	1.3	112
24	Plastics and rubber	4 148	3.8	1 828	.8	1 021	1.8	433
25	Logs and other wood in the rough	S	S	S	S	S	S	S
26	Wood products	1 534	1.4	1 113	.5	267	.5	381
27	Pulp, newsprint, paper, and paperboard	755	.7	900	.4	345	.6	156
28	Paper or paperboard articles	1 145	1.0	842	.4	215	.4	361
29	Printed products	1 984	1.8	702	.3	350	.6	400
30	Textiles, leather, and articles of textiles or leather	905	.8	79	–	36	–	855
31	Nonmetallic mineral products	1 581	1.4	17 732	8.1	2 141	3.8	131
32	Base metal in primary or semifinished forms and in finished basic shapes	3 841	3.5	3 063	1.4	711	1.3	136
33	Articles of base metal	2 939	2.7	1 373	.6	578	1.0	283
34	Machinery	10 481	9.5	1 518	.7	999	1.8	345
35	Electronic and other electrical equipment and components and office equipment	3 161	2.9	339	.2	178	.3	218
36	Motorized and other vehicles (including parts)	12 371	11.2	2 065	.9	1 173	2.1	369
37	Transportation equipment, n.e.c.	255	.2	93	–	54	.1	873
38	Precision instruments and apparatus	425	.4	8	–	4	–	306
39	Furniture, mattresses and mattress supports, lamps, lighting fittings, and illuminated signs	1 296	1.2	359	.2	267	.5	543
40	Miscellaneous manufactured products	3 942	3.6	801	.4	432	.8	538
41	Waste and scrap	336	.3	2 081	1.0	484	.9	170
43	Mixed freight	S	S	S	S	S	S	146
--	Commodity unknown	677	.6	S	S	S	S	143

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

Note: Data exclude shipments of SCTG 16, Crude Petroleum. See the section "Industry Coverage" for additional information.

Table 6. Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
ALL COMMODITIES							
Total	**110 175**	**100.0**	**218 894**	**100.0**	**56 847**	**100.0**	**277**
Single modes	**100 070**	**90.8**	**215 048**	**98.2**	**53 561**	**94.2**	**110**
Truck[1]	91 338	82.9	178 277	81.4	22 966	40.4	100
For-hire truck	53 590	48.6	65 591	30.0	15 652	27.5	363
Private truck	37 017	33.6	112 100	51.2	7 134	12.5	45
Rail	7 224	6.6	30 467	13.9	22 570	39.7	836
Water	975	.9	6 064	2.8	7 968	14.0	1 203
Shallow draft	975	.9	6 064	2.8	7 968	14.0	1 203
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	480	.4	21	–	21	–	1 116
Pipeline[2]	S	S	S	S	S	S	S
Multiple modes	**7 321**	**6.6**	**2 052**	**.9**	**S**	**S**	**635**
Parcel, U.S. Postal Service or courier	6 484	5.9	301	.1	177	.3	635
Truck and rail	691	.6	700	.3	802	1.4	1 319
Truck and water	S	S	S	S	S	S	1 701
Rail and water	S	S	S	S	S	S	1 431
Other multiple modes	S	S	S	S	S	S	S
Other and unknown modes	**2 785**	**2.5**	**1 795**	**.8**	**803**	**1.4**	**75**
SCTG 01, LIVE ANIMALS AND LIVE FISH							
Total	**724**	**100.0**	**653**	**100.0**	**73**	**100.0**	**93**
Single modes	**724**	**100.0**	**653**	**100.0**	**73**	**100.0**	**93**
Truck[1]	724	100.0	653	100.0	73	100.0	93
For-hire truck	179	24.7	143	21.9	20	27.5	109
Private truck	S	S	S	S	S	S	89
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
SCTG 02, CEREAL GRAINS							
Total	**3 165**	**100.0**	**31 939**	**100.0**	**12 887**	**100.0**	**66**
Single modes	**3 054**	**96.5**	**31 026**	**97.1**	**11 806**	**91.6**	**68**
Truck[1]	1 774	56.0	18 892	59.1	1 016	7.9	54
For-hire truck	843	26.6	9 008	28.2	577	4.5	77
Private truck	931	29.4	9 883	30.9	439	3.4	37
Rail	953	30.1	9 004	28.2	S	S	542
Water	328	10.4	3 130	9.8	4 201	32.6	1 328
Shallow draft	328	10.4	3 130	9.8	4 201	32.6	1 328
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**719**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	461
Truck and rail	S	S	S	S	S	S	38
Truck and water	S	S	S	S	S	S	1 461
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**41**	**1.3**	**178**	**.6**	**S**	**S**	**S**

See footnotes at end of table.

Table 6. **Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
SCTG 03, OTHER AGRICULTURAL PRODUCTS							
Total	**7 122**	**100.0**	**19 127**	**100.0**	**5 173**	**100.0**	**306**
Single modes	**7 029**	**98.7**	**18 903**	**98.8**	**4 930**	**95.3**	**72**
Truck[1]	S	S	14 382	75.2	946	18.3	65
For-hire truck	1 134	15.9	4 631	24.2	280	5.4	69
Private truck	S	S	9 746	51.0	665	12.9	64
Rail	552	7.7	2 220	11.6	998	19.3	360
Water	580	8.1	2 300	12.0	2 986	57.7	1 282
Shallow draft	580	8.1	2 300	12.0	2 986	57.7	1 282
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**704**
Parcel, U.S. Postal Service or courier	S	S	1	–	S	S	704
Truck and rail	–	–	–	–	–	–	–
Truck and water	S	S	S	S	S	S	1 461
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 04, ANIMAL FEED AND PRODUCTS OF ANIMAL ORIGIN, N.E.C.							
Total	**7 830**	**100.0**	**24 347**	**100.0**	**5 993**	**100.0**	**58**
Single modes	**7 610**	**97.2**	**23 742**	**97.5**	**5 424**	**90.5**	**57**
Truck[1]	6 916	88.3	20 805	85.5	2 639	44.0	51
For-hire truck	3 489	44.6	6 466	26.6	1 929	32.2	334
Private truck	3 379	43.2	14 179	58.2	680	11.3	23
Rail	694	8.9	2 910	12.0	2 750	45.9	894
Water	S	S	S	S	S	S	1 277
Shallow draft	S	S	S	S	S	S	1 277
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**118**	**1.5**	**269**	**1.1**	**416**	**6.9**	**949**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	585
Truck and rail	100	1.3	137	.6	S	S	1 696
Truck and water	–	–	–	–	–	–	–
Rail and water	S	S	S	S	S	S	1 431
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**102**	**1.3**	**S**	**S**	**S**	**S**	**14**
SCTG 05, MEAT, FISH, SEAFOOD, AND THEIR PREPARATIONS							
Total	**9 187**	**100.0**	**4 340**	**100.0**	**2 234**	**100.0**	**404**
Single modes	**9 027**	**98.3**	**4 276**	**98.5**	**2 200**	**98.5**	**412**
Truck[1]	8 781	95.6	4 151	95.7	2 012	90.0	402
For-hire truck	6 111	66.5	2 827	65.2	1 709	76.5	712
Private truck	2 656	28.9	1 319	30.4	301	13.5	139
Rail	246	2.7	124	2.9	188	8.4	1 723
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	3 151
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**1 024**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	801
Truck and rail	S	S	S	S	S	S	2 090
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**

See footnotes at end of table.

Table 6. **Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
SCTG 06, MILLED GRAIN PRODUCTS AND PREPARATIONS, AND BAKERY PRODUCTS							
Total	**5 343**	**100.0**	**7 102**	**100.0**	**4 661**	**100.0**	**244**
Single modes	**5 092**	**95.3**	**6 956**	**97.9**	**4 470**	**95.9**	**233**
Truck[1]	4 516	84.5	4 430	62.4	2 041	43.8	212
For-hire truck	4 052	75.8	3 710	52.2	1 878	40.3	478
Private truck	464	8.7	719	10.1	163	3.5	100
Rail	514	9.6	1 923	27.1	1 685	36.2	868
Water	S	S	S	S	S	S	1 235
Shallow draft	S	S	S	S	S	S	1 235
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	535
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**1 211**
Parcel, U.S. Postal Service or courier	–	–	S	S	S	S	1 218
Truck and rail	–	–	–	–	–	–	–
Truck and water	S	S	S	S	S	S	1 180
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**1 069**
SCTG 07, OTHER PREPARED FOODSTUFFS AND FATS AND OILS							
Total	**7 017**	**100.0**	**14 794**	**100.0**	**8 837**	**100.0**	**175**
Single modes	**6 938**	**98.9**	**14 592**	**98.6**	**8 595**	**97.3**	**173**
Truck[1]	5 309	75.7	8 638	58.4	2 324	26.3	152
For-hire truck	2 825	40.3	5 424	36.7	1 660	18.8	415
Private truck	2 403	34.2	3 078	20.8	635	7.2	118
Rail	1 629	23.2	5 954	40.2	6 271	71.0	1 045
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	1 304
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**10**	**.1**	**S**	**S**	**S**	**S**	**S**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	S
Truck and rail	S	S	S	S	S	S	2 310
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**69**	**1.0**	**S**	**S**	**S**	**S**	**1 083**
SCTG 08, ALCOHOLIC BEVERAGES							
Total	**1 624**	**100.0**	**2 104**	**100.0**	**1 282**	**100.0**	**38**
Single modes	**1 622**	**99.9**	**2 103**	**100.0**	**1 282**	**100.0**	**38**
Truck[1]	805	49.6	1 100	52.3	186	14.5	30
For-hire truck	337	20.8	705	33.5	176	13.7	259
Private truck	449	27.6	377	17.9	9	.7	26
Rail	817	50.3	1 003	47.7	1 096	85.5	1 095
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**34**

See footnotes at end of table.

Table 6. **Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
SCTG 09, TOBACCO PRODUCTS							
Total	**242**	**100.0**	**24**	**100.0**	**2**	**100.0**	**61**
Single modes	**242**	**100.0**	**24**	**100.0**	**2**	**100.0**	**61**
Truck[1]	242	100.0	24	100.0	2	100.0	61
For-hire truck	–	–	–	–	–	–	–
Private truck	242	100.0	24	100.0	2	100.0	61
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
SCTG 10, MONUMENTAL OR BUILDING STONE							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**34**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**35**
Truck[1]	S	S	S	S	S	S	35
For-hire truck	–	–	–	–	–	–	–
Private truck	S	S	S	S	S	S	35
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**4**
SCTG 11, NATURAL SANDS							
Total	**39**	**100.0**	**11 162**	**100.0**	**S**	**S**	**19**
Single modes	**39**	**100.0**	**11 162**	**100.0**	**S**	**S**	**19**
Truck[1]	39	100.0	11 162	100.0	S	S	19
For-hire truck	S	S	S	S	S	S	19
Private truck	37	93.7	10 020	89.8	S	S	19
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**

See footnotes at end of table.

Table 6. **Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
SCTG 12, GRAVEL AND CRUSHED STONE							
Total	**214**	**100.0**	**38 580**	**100.0**	**2 737**	**100.0**	**S**
Single modes	**212**	**99.1**	**38 289**	**99.2**	**2 623**	**95.8**	**S**
Truck[1]	207	96.7	37 481	97.2	S	S	S
For-hire truck	43	20.1	7 308	18.9	436	15.9	57
Private truck	164	76.6	30 173	78.2	S	S	S
Rail	5	2.4	808	2.1	236	8.6	298
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**697**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	S	S	S	S	S	S	697
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**5**
SCTG 13, NONMETALLIC MINERALS N.E.C.							
Total	**S**	**S**	**4 670**	**100.0**	**235**	**100.0**	**S**
Single modes	**S**	**S**	**4 668**	**100.0**	**235**	**99.9**	**S**
Truck[1]	S	S	4 662	99.8	225	95.8	S
For-hire truck	S	S	S	S	126	53.5	S
Private truck	S	S	2 676	57.3	S	S	S
Rail	S	S	S	S	S	S	1 503
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**137**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	137
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 14, METALLIC ORES AND CONCENTRATES							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**268**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**268**
Truck[1]	S	S	S	S	S	S	268
For-hire truck	–	–	–	–	–	–	–
Private truck	S	S	S	S	S	S	268
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**

See footnotes at end of table.

Table 6. **Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
SCTG 15, COAL							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**442**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**442**
Truck[1]	S	S	S	S	S	S	302
For-hire truck	S	S	S	S	S	S	302
Private truck	–	–	–	–	–	–	–
Rail	S	S	S	S	S	S	1 001
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
SCTG 17, GASOLINE AND AVIATION TURBINE FUEL							
Total	**1 840**	**100.0**	**7 708**	**100.0**	**252**	**100.0**	**22**
Single modes	**1 833**	**99.6**	**7 687**	**99.7**	**251**	**99.8**	**24**
Truck[1]	1 833	99.6	7 687	99.7	251	99.8	24
For-hire truck	612	33.3	2 426	31.5	67	26.8	26
Private truck	1 221	66.3	5 262	68.3	S	S	23
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**7**	**.4**	**21**	**.3**	**S**	**S**	**18**
SCTG 18, FUEL OILS							
Total	**667**	**100.0**	**2 888**	**100.0**	**S**	**S**	**18**
Single modes	**663**	**99.5**	**2 877**	**99.6**	**S**	**S**	**17**
Truck[1]	580	86.9	2 528	87.5	53	35.7	16
For-hire truck	182	27.3	1 007	34.9	26	17.2	23
Private truck	397	59.6	1 521	52.7	27	18.5	16
Rail	S	S	S	S	S	S	456
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	S	S	S	S	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**26**

See footnotes at end of table.

Table 6. **Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
SCTG 19, COAL AND PETROLEUM PRODUCTS, N.E.C.							
Total	**676**	**100.0**	**2 996**	**100.0**	**S**	**S**	**S**
Single modes	**660**	**97.6**	**2 890**	**96.5**	**S**	**S**	**S**
Truck[1]	654	96.6	2 871	95.8	S	S	S
For-hire truck	S	S	S	S	S	S	S
Private truck	410	60.6	1 274	42.5	S	S	S
Rail	S	S	S	S	S	S	1 012
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	S
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	13
Other and unknown modes	**6**	**.9**	**S**	**S**	**S**	**S**	**S**
SCTG 20, BASIC CHEMICALS							
Total	**589**	**100.0**	**626**	**100.0**	**151**	**100.0**	**S**
Single modes	**548**	**93.1**	**616**	**98.4**	**144**	**94.9**	**S**
Truck[1]	543	92.1	603	96.4	136	89.8	S
For-hire truck	331	56.2	171	27.3	110	72.5	594
Private truck	S	S	S	S	S	S	34
Rail	S	S	S	S	S	S	706
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	675
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**441**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	426
Truck and rail	S	S	S	S	S	S	1 087
Truck and water	S	S	S	S	S	S	945
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 21, PHARMACEUTICAL PRODUCTS							
Total	**1 200**	**100.0**	**79**	**100.0**	**39**	**100.0**	**273**
Single modes	**887**	**73.9**	**70**	**88.1**	**33**	**84.6**	**S**
Truck[1]	887	73.9	70	88.1	33	84.6	S
For-hire truck	778	64.8	48	61.1	31	80.7	488
Private truck	110	9.1	S	S	S	S	S
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	534
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**306**	**25.5**	**9**	**11.6**	**6**	**15.4**	**511**
Parcel, U.S. Postal Service or courier	306	25.5	9	11.6	6	15.4	511
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**7**	**.6**	**–**	**.3**	**S**	**S**	**S**

See footnotes at end of table.

Table 6. **Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
SCTG 22, FERTILIZERS							
Total	**841**	**100.0**	**3 827**	**100.0**	**566**	**100.0**	**38**
Single modes	**840**	**99.8**	**3 824**	**99.9**	**565**	**100.0**	**33**
Truck[1]	755	89.8	3 284	85.8	197	34.8	S
For-hire truck	143	17.0	815	21.3	124	22.0	165
Private truck	612	72.7	2 469	64.5	73	12.9	15
Rail	83	9.9	540	14.1	368	65.1	686
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	912
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**220**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	220
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**22**
SCTG 23, CHEMICAL PRODUCTS AND PREPARATIONS, N.E.C.							
Total	**5 445**	**100.0**	**1 231**	**100.0**	**745**	**100.0**	**112**
Single modes	**5 205**	**95.6**	**1 161**	**94.3**	**715**	**95.9**	**80**
Truck[1]	5 110	93.8	1 048	85.2	642	86.1	75
For-hire truck	3 302	60.7	690	56.1	564	75.7	657
Private truck	1 807	33.2	358	29.1	78	10.4	36
Rail	S	S	S	S	S	S	689
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	3 277
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**129**	**2.4**	**31**	**2.5**	**S**	**S**	**S**
Parcel, U.S. Postal Service or courier	S	S	S	S	1	.2	S
Truck and rail	53	1.0	S	S	S	S	1 156
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 24, PLASTICS AND RUBBER							
Total	**4 148**	**100.0**	**1 828**	**100.0**	**1 021**	**100.0**	**433**
Single modes	**3 782**	**91.2**	**1 775**	**97.1**	**989**	**96.9**	**253**
Truck[1]	3 306	79.7	1 302	71.2	562	55.1	232
For-hire truck	2 705	65.2	1 097	60.0	527	51.7	518
Private truck	598	14.4	203	11.1	35	3.4	69
Rail	468	11.3	472	25.8	426	41.7	960
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	1 700
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**266**	**6.4**	**27**	**1.5**	**25**	**2.5**	**649**
Parcel, U.S. Postal Service or courier	234	5.6	17	.9	11	1.1	645
Truck and rail	S	S	S	S	S	S	1 614
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**100**	**2.4**	**26**	**1.4**	**S**	**S**	**S**

See footnotes at end of table.

Table 6. **Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
SCTG 25, LOGS AND OTHER WOOD IN THE ROUGH							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Truck[1]	S	S	S	S	S	S	120
For-hire truck	S	S	S	S	S	S	328
Private truck	S	S	S	S	S	S	76
Rail	S	S	S	S	S	S	1 882
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**702**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	683
Truck and rail	S	S	S	S	S	S	1 950
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**7**
SCTG 26, WOOD PRODUCTS							
Total	**1 534**	**100.0**	**1 113**	**100.0**	**267**	**100.0**	**381**
Single modes	**1 496**	**97.5**	**1 017**	**91.3**	**257**	**96.3**	**195**
Truck[1]	1 495	97.5	1 016	91.3	256	96.0	189
For-hire truck	989	64.5	484	43.4	191	71.4	527
Private truck	506	33.0	533	47.9	66	24.5	65
Rail	S	S	S	S	S	S	1 879
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	S	S	1 644
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**20**	**1.3**	**5**	**.4**	**6**	**2.2**	**1 032**
Parcel, U.S. Postal Service or courier	S	S	2	.2	S	S	1 032
Truck and rail	S	S	3	.2	4	1.5	1 448
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 27, PULP, NEWSPRINT, PAPER, AND PAPERBOARD							
Total	**755**	**100.0**	**900**	**100.0**	**345**	**100.0**	**156**
Single modes	**739**	**97.8**	**882**	**98.0**	**337**	**97.6**	**138**
Truck[1]	727	96.2	832	92.4	293	85.0	134
For-hire truck	529	70.0	683	75.9	279	80.8	S
Private truck	198	26.2	149	16.5	14	4.2	44
Rail	S	S	S	S	S	S	859
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	1 440
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**328**
Parcel, U.S. Postal Service or courier	7	.9	2	.2	1	.2	328
Truck and rail	–	–	–	–	–	–	–
Truck and water	S	S	S	S	S	S	494
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**7**	**.9**	**13**	**1.4**	**S**	**S**	**147**

See footnotes at end of table.

Table 6. **Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
SCTG 28, PAPER OR PAPERBOARD ARTICLES							
Total	**1 145**	**100.0**	**842**	**100.0**	**215**	**100.0**	**361**
Single modes	**1 036**	**90.5**	**833**	**98.9**	**208**	**96.9**	**91**
Truck[1]	1 035	90.5	833	98.9	208	96.9	87
For-hire truck	668	58.3	594	70.6	149	69.4	170
Private truck	367	32.1	239	28.3	S	S	52
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	745
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**734**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	734
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**2**	**.3**	**–**	**.2**	**226**
SCTG 29, PRINTED PRODUCTS							
Total	**1 984**	**100.0**	**702**	**100.0**	**350**	**100.0**	**400**
Single modes	**1 486**	**74.9**	**653**	**93.0**	**328**	**93.7**	**S**
Truck[1]	1 462	73.7	652	92.9	327	93.3	S
For-hire truck	1 056	53.3	574	81.8	319	91.1	S
Private truck	405	20.4	78	11.1	7	2.1	S
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	1 265
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**414**	**20.9**	**24**	**3.3**	**18**	**5.1**	**720**
Parcel, U.S. Postal Service or courier	414	20.9	24	3.3	18	5.1	720
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**83**	**4.2**	**S**	**S**	**S**	**S**	**S**
SCTG 30, TEXTILES, LEATHER, AND ARTICLES OF TEXTILES OR LEATHER							
Total	**905**	**100.0**	**79**	**100.0**	**36**	**100.0**	**855**
Single modes	**437**	**48.3**	**57**	**72.0**	**15**	**41.4**	**S**
Truck[1]	435	48.0	57	71.9	15	41.3	S
For-hire truck	213	23.6	34	43.7	11	30.4	S
Private truck	222	24.5	S	S	S	S	40
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	930
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**434**	**48.0**	**12**	**15.4**	**14**	**38.7**	**1 084**
Parcel, U.S. Postal Service or courier	432	47.8	10	12.1	8	23.0	1 084
Truck and rail	S	S	S	S	S	S	2 196
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**33**	**3.7**	**S**	**S**	**S**	**S**	**S**

See footnotes at end of table.

Table 6. **Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
SCTG 31, NONMETALLIC MINERAL PRODUCTS							
Total	**1 581**	**100.0**	**17 732**	**100.0**	**2 141**	**100.0**	**131**
Single modes	**1 539**	**97.4**	**17 516**	**98.8**	**1 901**	**88.8**	**93**
Truck[1]	1 441	91.2	16 317	92.0	1 477	69.0	87
For-hire truck	867	54.8	5 788	32.6	1 170	54.6	242
Private truck	574	36.3	10 529	59.4	307	14.3	31
Rail	98	6.2	1 199	6.8	424	19.8	S
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	S	S	S	S	1 585
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**35**	**2.2**	**S**	**S**	**S**	**S**	**786**
Parcel, U.S. Postal Service or courier	11	.7	1	–	1	–	773
Truck and rail	S	S	S	S	S	S	1 215
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**23**	**.1**	**S**	**S**	**S**
SCTG 32, BASE METAL IN PRIMARY OR SEMIFINISHED FORMS AND IN FINISHED BASIC SHAPES							
Total	**3 841**	**100.0**	**3 063**	**100.0**	**711**	**100.0**	**136**
Single modes	**3 566**	**92.8**	**2 996**	**97.8**	**670**	**94.2**	**101**
Truck[1]	3 489	90.9	2 958	96.6	603	84.8	98
For-hire truck	2 076	54.0	1 245	40.6	433	61.0	220
Private truck	1 355	35.3	1 612	52.6	157	22.0	70
Rail	S	S	S	S	S	S	2 037
Water	S	S	S	S	S	S	456
Shallow draft	S	S	S	S	S	S	456
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	–	–	1	–	2 189
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**220**	**5.7**	**39**	**1.3**	**S**	**S**	**453**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	448
Truck and rail	S	S	S	S	S	S	753
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	1 273
Other and unknown modes	**S**	**S**	**28**	**.9**	**S**	**S**	**S**
SCTG 33, ARTICLES OF BASE METAL							
Total	**2 939**	**100.0**	**1 373**	**100.0**	**578**	**100.0**	**283**
Single modes	**2 371**	**80.7**	**1 288**	**93.8**	**508**	**88.0**	**119**
Truck[1]	2 324	79.1	1 216	88.5	412	71.4	111
For-hire truck	1 393	47.4	660	48.1	324	56.1	354
Private truck	931	31.7	S	S	88	15.2	52
Rail	S	S	S	S	S	S	1 238
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	7	.2	S	S	S	S	971
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**473**	**16.1**	**45**	**3.3**	**57**	**9.9**	**453**
Parcel, U.S. Postal Service or courier	461	15.7	21	1.5	10	1.7	452
Truck and rail	12	.4	24	1.8	47	8.2	1 939
Truck and water	S	S	S	S	S	S	4 506
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**12**	**2.1**	**S**

See footnotes at end of table.

Table 6. **Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
SCTG 34, MACHINERY							
Total	**10 481**	**100.0**	**1 518**	**100.0**	**999**	**100.0**	**345**
Single modes	**9 072**	**86.6**	**1 423**	**93.7**	**921**	**92.2**	**205**
Truck[1]	8 728	83.3	1 374	90.5	848	84.9	171
For-hire truck	6 252	59.7	882	58.1	645	64.5	756
Private truck	1 981	18.9	383	25.2	104	10.4	S
Rail	S	S	S	S	S	S	1 235
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	86	.8	S	S	S	S	1 265
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**1 221**	**11.7**	**70**	**4.6**	**S**	**S**	**468**
Parcel, U.S. Postal Service or courier	1 004	9.6	47	3.1	29	2.9	468
Truck and rail	S	S	S	S	S	S	1 625
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**188**	**1.8**	**25**	**1.7**	**S**	**S**	**S**
SCTG 35, ELECTRONIC AND OTHER ELECTRICAL EQUIPMENT AND COMPONENTS AND OFFICE EQUIPMENT							
Total	**3 161**	**100.0**	**339**	**100.0**	**178**	**100.0**	**218**
Single modes	**2 195**	**69.4**	**279**	**82.2**	**157**	**88.0**	**S**
Truck[1]	2 001	63.3	266	78.3	141	78.9	S
For-hire truck	1 109	35.1	181	53.3	123	68.9	465
Private truck	892	28.2	85	25.1	S	S	26
Rail	S	S	S	S	S	S	1 249
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	1 558
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**853**	**27.0**	**41**	**12.1**	**S**	**S**	**482**
Parcel, U.S. Postal Service or courier	848	26.8	36	10.6	S	S	482
Truck and rail	S	S	S	S	S	S	1 283
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**113**	**3.6**	**19**	**5.7**	**S**	**S**	**S**
SCTG 36, MOTORIZED AND OTHER VEHICLES (INCLUDING PARTS)							
Total	**12 371**	**100.0**	**2 065**	**100.0**	**1 173**	**100.0**	**369**
Single modes	**9 783**	**79.1**	**1 813**	**87.8**	**1 019**	**86.8**	**S**
Truck[1]	9 618	77.7	1 790	86.7	991	84.5	S
For-hire truck	7 119	57.5	1 332	64.5	875	74.6	430
Private truck	2 499	20.2	458	22.2	116	9.9	S
Rail	S	S	S	S	S	S	1 395
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	591
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**1 448**	**11.7**	**73**	**3.5**	**46**	**3.9**	**739**
Parcel, U.S. Postal Service or courier	1 430	11.6	70	3.4	42	3.6	739
Truck and rail	S	S	S	S	S	S	1 410
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**1 141**	**9.2**	**179**	**8.7**	**108**	**9.2**	**S**

See footnotes at end of table.

Table 6. **Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
SCTG 37, TRANSPORTATION EQUIPMENT, N.E.C.							
Total	**255**	**100.0**	**93**	**100.0**	**54**	**100.0**	**873**
Single modes	**164**	**64.3**	**93**	**99.9**	**54**	**99.8**	**800**
Truck[1]	51	19.9	35	37.5	12	22.2	289
For-hire truck	51	19.8	35	37.5	12	22.2	292
Private truck	S	S	S	S	S	S	5
Rail	S	S	58	62.3	42	77.4	706
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	1 410
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**1 004**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	1 004
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**773**
SCTG 38, PRECISION INSTRUMENTS AND APPARATUS							
Total	**425**	**100.0**	**8**	**100.0**	**4**	**100.0**	**306**
Single modes	**179**	**42.1**	**5**	**65.1**	**2**	**58.6**	**S**
Truck[1]	171	40.2	5	63.8	2	57.2	S
For-hire truck	99	23.3	4	47.8	2	56.1	424
Private truck	S	S	S	S	S	S	S
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	–	1.4	S
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**232**	**54.5**	**3**	**30.8**	**2**	**36.6**	**455**
Parcel, U.S. Postal Service or courier	232	54.5	3	30.8	2	36.6	455
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**–**	**4.1**	**S**	**S**	**S**
SCTG 39, FURNITURE, MATTRESSES AND MATTRESS SUPPORTS, LAMPS, LIGHTING FITTINGS, AND ILLUMINATED SIGNS							
Total	**1 296**	**100.0**	**359**	**100.0**	**267**	**100.0**	**543**
Single modes	**1 250**	**96.4**	**341**	**95.0**	**264**	**99.1**	**491**
Truck[1]	1 248	96.3	340	94.8	263	98.5	487
For-hire truck	888	68.5	276	77.0	230	86.3	665
Private truck	360	27.8	64	17.8	33	12.2	256
Rail	S	S	S	S	S	S	1 721
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	1 110
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**16**	**1.3**	**2**	**.6**	**2**	**.6**	**752**
Parcel, U.S. Postal Service or courier	16	1.3	2	.6	2	.6	752
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**

See footnotes at end of table.

Table 6. **Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
SCTG 40, MISCELLANEOUS MANUFACTURED PRODUCTS							
Total	**3 942**	**100.0**	**801**	**100.0**	**432**	**100.0**	**538**
Single modes	**3 203**	**81.2**	**760**	**94.9**	**405**	**93.7**	**205**
Truck[1]	3 117	79.1	750	93.7	393	90.9	190
For-hire truck	2 513	63.7	444	55.4	312	72.1	683
Private truck	603	15.3	306	38.3	81	18.8	S
Rail	S	S	9	1.1	11	2.5	1 986
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	58	1.5	1	.2	1	.3	1 085
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**686**	**17.4**	**32**	**4.0**	**24**	**5.5**	**790**
Parcel, U.S. Postal Service or courier	685	17.4	30	3.7	21	4.9	789
Truck and rail	S	S	S	S	S	S	1 289
Truck and water	S	S	S	S	S	S	4 404
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**53**	**1.4**	**8**	**1.1**	**3**	**.8**	**S**
SCTG 41, WASTE AND SCRAP							
Total	**336**	**100.0**	**2 081**	**100.0**	**484**	**100.0**	**170**
Single modes	**321**	**95.5**	**2 009**	**96.6**	**470**	**97.2**	**179**
Truck[1]	206	61.3	1 015	48.8	180	37.3	150
For-hire truck	140	41.7	730	35.1	133	27.4	172
Private truck	56	16.8	237	11.4	42	8.8	113
Rail	115	34.2	994	47.8	290	59.9	305
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**172**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	S	S	S	S	S	S	172
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 43, MIXED FREIGHT							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**146**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**137**
Truck[1]	S	S	S	S	S	S	137
For-hire truck	131	3.4	S	S	S	S	460
Private truck	S	S	S	S	S	S	117
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**14**	**.4**	**2**	**–**	**1**	**.3**	**315**
Parcel, U.S. Postal Service or courier	14	.4	2	–	1	.3	315
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**40**

See footnotes at end of table.

Table 6. **Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
COMMODITY UNKNOWN							
Total	**677**	**100.0**	**S**	**S**	**S**	**S**	**143**
Single modes	**608**	**89.7**	**S**	**S**	**S**	**S**	**114**
Truck[1]	299	44.2	S	S	S	S	109
For-hire truck	106	15.6	S	S	S	S	388
Private truck	194	28.6	S	S	5	.6	S
Rail	S	S	S	S	S	S	721
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	1 304
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	S
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**9**	**.3**	**S**	**S**	**S**

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

[1]"Truck" as a single mode includes shipments which went by private truck only, for-hire truck only, or a combination of private truck and for-hire truck.
[2]CFS data for pipeline exclude most shipments of crude oil. See "About the Data" section for details of CFS coverage.

Note: Data exclude shipments of SCTG 16, Crude Petroleum. See the section "Industry Coverage" for additional information.

Table 7. **Shipment Characteristics by State of Destination for State of Origin: 1997**

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

State of destination	Value		Tons		Ton-miles	
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent
Total	**110 175**	**100.0**	**218 894**	**100.0**	**56 847**	**100.0**
NEW ENGLAND STATES						
Connecticut	446	.4	131	–	156	.3
Maine	151	.1	74	–	106	.2
Massachusetts	604	.5	371	.2	472	.8
New Hampshire	130	.1	93	–	117	.2
Rhode Island	44	–	S	S	S	S
Vermont	S	S	S	S	S	S
MIDDLE ATLANTIC STATES						
New Jersey	771	.7	475	.2	527	.9
New York	1 247	1.1	981	.4	936	1.6
Pennsylvania	2 120	1.9	1 294	.6	1 218	2.1
EAST NORTH CENTRAL STATES						
Illinois	10 402	9.4	15 187	6.9	3 701	6.5
Indiana	2 464	2.2	1 400	.6	598	1.1
Michigan	3 206	2.9	1 800	.8	970	1.7
Ohio	3 073	2.8	1 999	.9	1 173	2.1
Wisconsin	3 448	3.1	3 742	1.7	1 004	1.8
WEST NORTH CENTRAL STATES						
Iowa	39 700	36.0	145 820	66.6	7 883	13.9
Kansas	1 840	1.7	1 253	.6	450	.8
Minnesota	3 985	3.6	6 614	3.0	1 619	2.8
Missouri	3 901	3.5	5 505	2.5	1 561	2.7
Nebraska	3 401	3.1	5 074	2.3	715	1.3
North Dakota	847	.8	425	.2	252	.4
South Dakota	1 153	1.0	1 624	.7	297	.5
SOUTH ATLANTIC STATES						
Delaware	S	S	S	S	S	S
District of Columbia	S	S	S	S	S	S
Florida	1 433	1.3	469	.2	668	1.2
Georgia	1 848	1.7	1 134	.5	1 115	2.0
Maryland	1 134	1.0	361	.2	373	.7
North Carolina	1 205	1.1	517	.2	606	1.1
South Carolina	326	.3	135	–	147	.3
Virginia	982	.9	656	.3	690	1.2
West Virginia	133	.1	S	S	S	S
EAST SOUTH CENTRAL STATES						
Alabama	521	.5	307	.1	280	.5
Kentucky	886	.8	363	.2	216	.4
Mississippi	506	.5	275	.1	252	.4
Tennessee	1 365	1.2	695	.3	462	.8
WEST SOUTH CENTRAL STATES						
Arkansas	901	.8	1 106	.5	692	1.2
Louisiana	1 575	1.4	7 439	3.4	9 839	17.3
Oklahoma	1 209	1.1	959	.4	605	1.1
Texas	3 583	3.3	2 420	1.1	2 490	4.4
MOUNTAIN STATES						
Arizona	612	.6	633	.3	1 072	1.9
Colorado	995	.9	693	.3	565	1.0
Idaho	219	.2	159	–	206	.4
Montana	397	.4	140	–	168	.3
Nevada	223	.2	S	S	S	S
New Mexico	127	.1	18	–	22	–
Utah	459	.4	176	–	209	.4
Wyoming	53	–	S	S	S	S
PACIFIC STATES						
Alaska	11	–	–	–	1	–
California	4 579	4.2	4 814	2.2	9 607	16.9
Hawaii	8	–	–	–	2	–
Oregon	543	.5	279	.1	545	1.0
Washington	1 079	1.0	845	.4	1 708	3.0

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Table 8. **Inbound Shipment Characteristics by State of Origin for State of Destination: 1997**

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

State of origin	Value		Tons		Ton-miles	
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent
Total	**91 335**	**100.0**	**212 460**	**100.0**	**49 161**	**100.0**
NEW ENGLAND STATES						
Connecticut	176	.2	S	S	S	S
Maine	155	.2	119	–	157	.3
Massachusetts	451	.5	62	–	79	.2
New Hampshire	70	–	47	–	53	.1
Rhode Island	15	–	S	S	S	S
Vermont	36	–	7	–	8	–
MIDDLE ATLANTIC STATES						
New Jersey	893	1.0	S	S	S	S
New York	960	1.1	373	.2	375	.8
Pennsylvania	1 428	1.6	541	.3	598	1.2
EAST NORTH CENTRAL STATES						
Illinois	6 875	7.5	8 778	4.1	1 769	3.6
Indiana	2 436	2.7	2 333	1.1	972	2.0
Michigan	1 622	1.8	771	.4	440	.9
Ohio	3 701	4.1	1 124	.5	656	1.3
Wisconsin	3 367	3.7	2 724	1.3	778	1.6
WEST NORTH CENTRAL STATES						
Iowa	39 700	43.5	145 820	68.6	7 883	16.0
Kansas	1 402	1.5	1 588	.7	666	1.4
Minnesota	5 360	5.9	8 954	4.2	2 114	4.3
Missouri	2 892	3.2	2 065	1.0	585	1.2
Nebraska	4 299	4.7	4 803	2.3	806	1.6
North Dakota	287	.3	453	.2	253	.5
South Dakota	876	1.0	1 500	.7	257	.5
SOUTH ATLANTIC STATES						
Delaware	21	–	9	–	9	–
District of Columbia	S	S	S	S	S	S
Florida	484	.5	S	S	S	S
Georgia	658	.7	256	.1	268	.5
Maryland	235	.3	S	S	S	S
North Carolina	1 187	1.3	2 451	1.2	2 770	5.6
South Carolina	420	.5	162	–	174	.4
Virginia	503	.6	138	–	141	.3
West Virginia	S	S	46	–	37	–
EAST SOUTH CENTRAL STATES						
Alabama	413	.5	376	.2	383	.8
Kentucky	770	.8	353	.2	205	.4
Mississippi	200	.2	196	–	169	.3
Tennessee	1 012	1.1	329	.2	225	.5
WEST SOUTH CENTRAL STATES						
Arkansas	610	.7	801	.4	526	1.1
Louisiana	1 085	1.2	S	S	S	S
Oklahoma	389	.4	379	.2	235	.5
Texas	2 438	2.7	1 533	.7	1 454	3.0
MOUNTAIN STATES						
Arizona	262	.3	45	–	73	.1
Colorado	587	.6	725	.3	S	S
Idaho	84	–	103	–	143	.3
Montana	80	–	S	S	S	S
Nevada	32	–	S	S	20	–
New Mexico	14	–	62	–	71	.1
Utah	77	–	29	–	35	–
Wyoming	171	.2	16 382	7.7	15 046	30.6
PACIFIC STATES						
Alaska	S	S	S	S	S	S
California	1 581	1.7	245	.1	464	.9
Hawaii	S	S	S	S	S	S
Oregon	383	.4	160	–	293	.6
Washington	485	.5	238	.1	453	.9

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S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

Appendix A.
Comparability With the 1993 Commodity Flow Survey

The Commodity Flow Survey (CFS) restores a data program on commodity flows that the Census Bureau conducted as a part of its 5-year economic census program from 1963 through 1977. The CFS was first conducted in 1993. For the 1997 CFS, the Census Bureau incorporated improvements identified from the evaluation of previous surveys and additional research. The following table shows a comparison of the 1993 and 1997 surveys.

Item	1993	1997
1. Industry coverage	Manufacturers (minor exceptions)	Manufacturers (minor exceptions)
	Mining (except mining services and oil and gas extraction)	Mining (except mining services)
	All wholesale	All wholesale
	Video tape distributers	
	Catalog mail-order houses	Catalog mail-order houses
	Auxiliaries (e.g., warehouses)	Auxiliaries (e.g., warehouses)
2. Commodity classification system	Standard Transportation Commodity Classification (STCC), developed by the American Association of Railroads (AAR).	Standard Classification of Transported Goods (SCTG).
3. Sample size	Approximately 200,000 establishments were selected from a universe of about 800,000 in-scope establishments on the 1992 Standard Statistical Establishment List (SSEL).	Approximately 100,000 establishments were selected from a universe of about 800,000 in-scope establishments on the 1995 Standard Statistical Establishment List (SSEL).
4. Survey methodology	Respondents took a sample of their individual outbound shipments for a 2-week period during each of the four calendar quarters of 1993.	Respondents took a sample of their individual outbound shipments for a 1-week period during each of the four calendar quarters of 1997.
	Respondents reported key characteristics for each sampled shipment.	Respondents reported key characteristics for each sampled shipment.
5. Reported mode of transportation	Rail	Rail
	For-hire truck	For-hire truck
	Private truck	Private truck
	Air	Air
	Inland water and/or Great Lakes	Shallow draft vessel
	Deep sea water	Deep draft vessel
	Pipeline	Pipeline
	Parcel, U.S. Postal Service, or courier	Parcel, U.S. Postal Service, or courier
	Other	Other
	Unknown	Unknown

Item	1993	1997
6. Data items requested on questionnaire	For **each** shipment:	For **each** shipment:
	Total value	Total value
	Total weight	Total weight
	Major commodity (STCC)	**Major** commodity (SCTG)
	All modes of transportation	**All** modes of transportation
	Multiple origins (respondents specifically requested to report all shipment origins for the sampled establishment and report the appropriate origin for each shipment; assumed to always be the mailing address if no other origins listed).	Single origin (assumed to be the mailing address unless the respondent provided a different physical location address).
	Destination	Destination
	Containerized (Y/N)	Containerized (Y/N)
	Hazardous material (Y/N)	Hazardous material (UN/NA codes)
	Export (Y/N)	Export (Y/N)
	If export, mode of export, foreign country,and city of destination.	If export, mode of export, foreign country,and city of destination.

Appendix B. Reliability of the Estimates

An estimate based on a sample survey potentially contains two types of errors—sampling and nonsampling. Sampling error occurs because characteristics differ among sampling units and because only a subset of the entire population is measured in a sample survey. Nonsampling error encompasses all other factors that contribute to the total error of a sample survey estimate. The accuracy of a survey result may be affected by these two types of errors.

Sampling and nonsampling errors are often measured by the quantities, bias and variance. The bias of an estimator of an unknown population value is the difference, averaged over all possible samples of the same size and design, between the estimator and the unknown population value. Any systematic error, or inaccuracy that affects all samples of a specified design in a similar way, may bias the resulting estimates. Variance is the squared difference, averaged over all possible samples of the same size and design, between an estimator and its average value. Descriptions of sampling and nonsampling errors for the 1997 Commodity Flow Survey (CFS) are provided in the following sections.

SAMPLING ERROR

Because the estimates are based on a sample, exact agreement with the results that would be obtained from a complete enumeration of all the shipments made in 1997 from all establishments included on the CFS sampling frame is not expected. However, because probability sampling was used at each stage of selection, it is possible to estimate the sampling variability of the survey estimates. For CFS estimates, sampling variability arises from each of the three stages of sampling. (See Appendix C for a description of the sample design.)

The particular sample used in this survey is one of a large number of samples of the same size and design that could have been selected. If all possible samples had been surveyed, under the same conditions, an estimate of an unknown population value could have been obtained from each sample. The estimates obtained from these samples give rise to a distribution of estimates for the unknown population value. A statistical measure of the variability among these estimates is the standard error, which can be approximated from any one sample. The coefficient of variation (or relative standard error) of an estimate is the standard error of the estimate divided by the estimate. Measures of sampling variability, such as the standard error or coefficient of variation, are estimated from the sample and are also subject to sampling variability. (Technically, we should refer to the estimated standard error or the estimated coefficient of variation of an estimator. However, we have omitted this detail for the sake of brevity.) It is important to note that the standard error and coefficient of variation only measure sampling variability. They do not measure any biases in the estimates. All coefficients of variation are expressed as percents. Standard errors for the corresponding percentage estimates are also provided.

An estimate of an unknown population value and its approximate standard error can be used to construct a confidence interval. A confidence interval is a range about a given estimator that has a specified probability, or confidence, of containing the unknown population value. If, for each possible sample, an estimate of an unknown population value and the estimate's approximate standard error were obtained, then:

1. For approximately 90 percent of the possible samples, the interval from 1.65 standard errors below to 1.65 standard errors above the estimate would include the unknown population value.

2. For approximately 95 percent of the possible samples, the interval from two standard errors below to two standard errors above the estimate would include the unknown population value.

NONSAMPLING ERROR

Nonsampling error encompasses all other factors that contribute to the total error of a sample survey estimate and may also occur in censuses. It is often helpful to think of nonsampling error as arising from deficiencies or mistakes in the survey process. In the CFS, nonsampling error can be attributed to many sources: (1) nonresponse, (2) response errors, (3) differences in the interpretation of the questions, (4) mistakes in coding or keying the data obtained, and (5) other errors of collection, response, coverage, and processing. Although no direct measurement of the potential biases because of nonsampling error has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize its influence.

A potentially large source of bias in the estimates is due to nonresponse. Nonresponse is defined as the inability to obtain all the intended measurements or responses from all the selected establishments. Four levels of nonresponse can occur in the CFS: item, shipment, quarter (reporting week), and establishment. Item nonresponse

occurs either when a question is unanswered or the response to the question fails computer or analyst edits. Item nonresponse is corrected by imputation. (Imputation is the procedure by which a missing value is replaced by a predicted value obtained from an appropriate model.) Shipment, quarter, and establishment nonresponse are used to describe the inability to obtain sufficient information about a sampled shipment, quarter, or establishment, respectively, that prevents it from contributing to tabulations. Shipment and quarter nonresponse are corrected during the estimation procedure by reweighting. Reweighting allocates characteristics to the nonrespondents in proportion to the characteristics observed for the respondents. The amount of bias introduced by this nonresponse adjustment procedure depends on the extent to which the nonrespondents differ, characteristically, from the respondents. Establishment nonresponse is corrected during the estimation procedure by the SIC-level adjustment weight. (See Appendix C for a description of the estimation procedure.) In most cases of establishment nonresponse, none of the four questionnaires have been returned to the Census Bureau, after several attempts to elicit a response. Approximately 67 percent of the sampled establishments provided at least one quarter of data that contributed to tabulations.

Some possible sources of bias that are attributed to respondent-conducted sampling include misunderstanding the definition of a shipment, constructing an incomplete frame of shipments from which to sample, ordering the shipment sampling frame by selected shipment characteristics, and selecting shipment records by a method other than the one specified in the questionnaire's instructions. We often contacted respondents who reported shipments having atypically large value or weight when compared to the rest of their reported shipments. Upon contact, if we are able to collect information on all of a given respondent's large shipments made either for a particular reporting week or for the entire quarter, then we identify these large shipments as certainty shipments. (See Appendix C for a description of how certainty shipments are used in the estimation process.)

Table B–1a. Measures of Reliability for Shipment Characteristics by Mode of Transportation for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

Mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
All modes	**4.4**	**–**	**6.2**	**–**	**7.8**	**–**	**12.6**
Single modes	**4.2**	**.7**	**6.3**	**.4**	**8.4**	**2.3**	**12.4**
Truck	4.9	1.1	8.4	2.4	4.6	3.3	12.1
For-hire truck	4.9	1.7	8.5	2.4	3.8	2.6	6.7
Private truck	10.8	2.6	11.0	2.6	15.3	1.7	11.2
Rail	8.4	.7	14.1	2.2	17.2	4.0	5.7
Water	25.0	.3	27.9	.8	28.4	3.4	11.8
Shallow draft	25.0	.3	27.9	.8	28.4	3.4	11.8
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	26.7	.1	38.2	–	44.0	–	8.7
Pipeline	S	S	S	S	S	S	S
Multiple modes	**11.7**	**.6**	**44.6**	**.4**	**S**	**S**	**8.2**
Parcel, U.S. Postal Service or courier	11.8	.5	14.8	–	19.4	–	8.2
Truck and rail	24.5	.1	39.0	.1	39.8	.6	8.4
Truck and water	S	S	S	S	S	S	26.6
Rail and water	S	S	S	S	S	S	27.9
Other multiple modes	S	S	S	S	S	S	S
Other and unknown modes	**22.8**	**.5**	**26.7**	**.2**	**34.6**	**.5**	**41.3**

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons.

Note: For description of development and uses of measures of reliability, see Appendix B, Reliability of the Estimates.

Table B–1b. Measures of Reliability for Shipment Characteristics by Mode of Transportation for State of Origin: 1997 and 1993

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

Mode of transportation	Value			Tons			Ton-miles			Average miles per shipment		
	Coefficient of variation of number		Standard error of percent change	Coefficient of variation of number		Standard error of percent change	Coefficient of variation of number		Standard error of percent change	Coefficient of variation		Standard error of percent change
	1997	1993		1997	1993		1997	1993		1997	1993	
All modes	**4.4**	**3.8**	**8.0**	**6.2**	**6.1**	**11.6**	**7.8**	**16.0**	**20.1**	**12.6**	**9.4**	**13.4**
Single modes	**4.2**	**4.4**	**8.5**	**6.3**	**6.7**	**12.4**	**8.4**	**17.2**	**21.4**	**12.4**	**4.9**	**12.0**
Truck	4.9	4.9	9.9	8.4	5.2	14.3	4.6	10.8	14.6	12.1	4.4	12.1
For-hire truck	4.9	6.2	11.5	8.5	8.4	16.9	3.8	5.1	8.2	6.7	3.1	6.3
Private truck	10.8	5.4	16.5	11.0	6.3	18.6	15.3	26.7	34.8	11.2	4.9	11.2
Rail	8.4	7.8	16.1	14.1	15.3	24.6	17.2	9.8	27.4	5.7	7.0	9.3
Water	25.0	S	S	27.9	S	S	28.4	S	S	11.8	21.4	23.6
Shallow draft	25.0	S	S	27.9	S	S	28.4	S	S	11.8	21.4	23.6
Great Lakes	–	–	–	–	–	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–	–	–	–	–	–
Air (includes truck and air)	26.7	S	S	38.2	19.9	82.5	44.0	19.4	70.6	8.7	4.8	8.8
Pipeline	S	S	S	S	S	S	S	S	S	S	S	S
Multiple modes	**11.7**	**10.9**	**19.4**	**44.6**	**19.1**	**190.8**	**S**	**24.3**	**S**	**8.2**	**5.9**	**10.4**
Parcel, U.S. Postal Service or courier	11.8	12.6	19.7	14.8	7.5	21.8	19.4	6.5	30.3	8.2	5.9	10.4
Truck and rail	24.5	48.7	121.3	39.0	32.7	162.0	39.8	33.3	145.7	8.4	27.0	35.7
Truck and water	S	S	S	S	S	S	S	S	S	26.6	42.7	40.0
Rail and water	S	–	S	S	–	S	S	–	S	27.9	–	S
Other multiple modes	S	S	S	S	S	S	S	S	S	S	31.6	S
Other and unknown modes	**22.8**	**15.3**	**34.9**	**26.7**	**33.0**	**17.0**	**34.6**	**S**	**S**	**41.3**	**23.5**	**40.0**

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons.

Note: For description of development and uses of measures of reliability, see Appendix B, Reliability of the Estimates.

Table B–1c. Standard Error of Percentage for Shipment Characteristics by Mode of Transportation for State of Origin: Percent of Total for 1997 and 1993

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

Mode of transportation	Value (percent)		Tons (percent)		Ton-miles (percent)	
	1997	1993	1997	1993	1997	1993
All modes	**–**	**–**	**–**	**–**	**–**	**–**
Single modes	**.7**	**.9**	**.4**	**1.2**	**2.3**	**3.3**
Truck	1.1	1.5	2.4	2.6	3.3	2.9
For-hire truck	1.7	1.5	2.4	2.0	2.6	2.9
Private truck	2.6	1.6	2.6	2.3	1.7	1.2
Rail	.7	.5	2.2	2.1	4.0	5.1
Water	.3	S	.8	S	3.4	S
Shallow draft	.3	S	.8	S	3.4	S
Great Lakes	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–
Air (includes truck and air)	.1	S	–	–	–	–
Pipeline	S	S	S	S	S	S
Multiple modes	**.6**	**.9**	**.4**	**–**	**S**	**.2**
Parcel, U.S. Postal Service or courier	.5	1.0	–	–	–	–
Truck and rail	.1	.2	.1	–	.6	.2
Truck and water	S	S	S	S	S	S
Rail and water	S	–	S	–	S	–
Other multiple modes	S	S	S	S	S	S
Other and unknown modes	**.5**	**.5**	**.2**	**1.1**	**.5**	**S**

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons.

Note: For description of development and uses of measures of reliability, see Appendix B, Reliability of the Estimates.

Table B–2. Measures of Reliability for Shipment Characteristics by Total Modal Activity for the State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

Mode of transportation	Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	
Total	**7.8**	**–**	**12.5**
Truck	4.1	3.2	12.0
Rail	16.6	3.9	5.5
Shallow draft	28.4	3.9	11.8
Great Lakes	S	S	29.8
Deep draft	S	S	29.8
Air	44.0	–	9.5
Parcel, U.S. Postal Service or courier	19.4	–	8.2
Pipeline	S	S	S
Other and unknown modes	34.6	.5	41.5

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons.

Note: For description of development and uses of measures of reliability, see Appendix B, Reliability of the Estimates.

Table B–3. Measures of Reliability for Shipment Characteristics by Mode of Transportation and Distance Shipped for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

Mode of transportation and distance shipped (based on Great Circle Distance)	Value		Tons		Ton-miles	
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage
All modes	**4.4**	**–**	**6.2**	**–**	**7.8**	**–**
Less than 50 miles	8.1	1.4	11.8	3.2	11.8	.7
50 to 99 miles	14.8	1.1	11.4	1.1	11.0	.7
100 to 249 miles	8.7	1.4	13.9	2.1	14.1	1.6
250 to 499 miles	6.6	1.0	11.3	1.2	10.1	1.7
500 to 749 miles	5.8	.5	7.0	.2	10.9	1.1
750 to 999 miles	7.6	.7	19.8	1.5	20.5	4.2
1,000 to 1,499 miles	10.4	.7	27.3	.8	30.6	4.1
1,500 to 1,999 miles	9.3	.3	14.0	.2	14.6	1.2
2,000 miles or more	40.5	–	40.5	–	39.7	–
Single modes	**4.2**	**–**	**6.3**	**–**	**8.4**	**–**
Less than 50 miles	8.1	1.5	11.9	3.2	11.8	.7
50 to 99 miles	15.4	1.2	11.5	1.1	11.1	.8
100 to 249 miles	9.2	1.6	14.0	2.1	14.2	1.8
250 to 499 miles	6.2	1.0	11.9	1.2	10.7	1.7
500 to 749 miles	5.5	.6	7.1	.2	11.0	1.6
750 to 999 miles	8.7	.8	22.7	1.5	23.7	4.3
1,000 to 1,499 miles	11.7	.7	29.4	.8	32.7	4.1
1,500 to 1,999 miles	9.2	.3	13.4	.2	14.1	1.1
2,000 miles or more	44.2	–	S	S	S	S
Truck	**4.9**	**–**	**8.4**	**–**	**4.6**	**–**
Less than 50 miles	8.1	1.5	12.0	2.5	11.9	1.2
50 to 99 miles	15.3	1.1	11.3	1.2	11.0	1.2
100 to 249 miles	9.2	1.4	10.0	1.2	10.0	1.8
250 to 499 miles	6.2	1.2	4.6	.5	4.8	.7
500 to 749 miles	6.6	.5	8.2	.2	8.3	.9
750 to 999 miles	10.3	.8	29.0	.9	30.8	4.0
1,000 to 1,499 miles	10.7	.6	8.8	–	9.5	1.1
1,500 to 1,999 miles	11.9	.4	10.1	–	10.0	.5
2,000 miles or more	S	S	S	S	S	S
For-hire truck	**4.9**	**–**	**8.5**	**–**	**3.8**	**–**
Less than 50 miles	10.3	.7	15.3	3.3	17.6	.6
50 to 99 miles	14.1	.9	14.0	1.7	14.2	1.0
100 to 249 miles	5.3	1.1	7.1	2.2	6.9	1.1
250 to 499 miles	5.4	1.0	4.1	.9	4.1	.6
500 to 749 miles	7.3	.9	8.7	.5	8.7	1.1
750 to 999 miles	10.8	.9	9.5	.5	8.9	1.3
1,000 to 1,499 miles	11.0	.9	9.3	.3	10.0	1.4
1,500 to 1,999 miles	12.0	.6	11.0	.1	10.9	.9
2,000 miles or more	S	S	S	S	S	S
Private truck	**10.8**	**–**	**11.0**	**–**	**15.3**	**–**
Less than 50 miles	9.1	3.3	14.3	3.1	13.9	4.5
50 to 99 miles	28.2	2.3	15.9	1.7	16.8	2.0
100 to 249 miles	17.5	2.2	17.8	1.3	17.8	3.4
250 to 499 miles	15.0	1.3	10.6	.2	11.2	1.5
500 to 749 miles	17.0	.4	13.4	–	13.6	.9
750 to 999 miles	18.2	.2	S	S	S	S
1,000 to 1,499 miles	31.0	.3	27.5	–	28.7	1.0
1,500 to 1,999 miles	24.7	–	21.3	–	21.6	.4
2,000 miles or more	–	–	–	–	–	–
Rail	**8.4**	**–**	**14.1**	**–**	**17.2**	**–**
Less than 50 miles	37.8	.5	43.7	1.1	36.8	–
50 to 99 miles	34.5	.9	28.1	1.0	27.8	.2
100 to 249 miles	23.3	5.2	27.8	6.7	27.0	3.5
250 to 499 miles	11.8	2.3	25.4	4.4	20.7	2.9
500 to 749 miles	18.9	2.3	8.9	.8	8.9	1.3
750 to 999 miles	20.8	3.2	11.9	1.5	12.5	2.0
1,000 to 1,499 miles	23.6	2.7	37.7	3.5	39.9	6.2
1,500 to 1,999 miles	29.2	1.4	23.4	.9	23.4	2.4
2,000 miles or more	–	–	–	–	–	–
Water	**25.0**	**–**	**27.9**	**–**	**28.4**	**–**
Less than 50 miles	S	S	S	S	S	S
50 to 99 miles	S	S	S	S	S	S
100 to 249 miles	–	–	–	–	–	–
250 to 499 miles	S	S	S	S	S	S
500 to 749 miles	S	S	S	S	S	S
750 to 999 miles	26.6	6.4	31.4	7.3	31.9	7.2
1,000 to 1,499 miles	–	–	–	–	–	–
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	–	–	–	–	–	–
Shallow draft	**25.0**	**–**	**27.9**	**–**	**28.4**	**–**
Less than 50 miles	S	S	S	S	S	S
50 to 99 miles	S	S	S	S	S	S
100 to 249 miles	–	–	–	–	–	–
250 to 499 miles	S	S	S	S	S	S
500 to 749 miles	S	S	S	S	S	S
750 to 999 miles	26.6	6.4	31.4	7.3	31.9	7.2
1,000 to 1,499 miles	–	–	–	–	–	–
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	–	–	–	–	–	–

See footnotes at end of table.

Table B–3. Measures of Reliability for Shipment Characteristics by Mode of Transportation and Distance Shipped for State of Origin: 1997—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

Mode of transportation and distance shipped (based on Great Circle Distance)	Value		Tons		Ton-miles	
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage
Single modes—Con.						
Great Lakes	**–**	**–**	**–**	**–**	**–**	**–**
Less than 50 miles	–	–	–	–	–	–
50 to 99 miles	–	–	–	–	–	–
100 to 249 miles	–	–	–	–	–	–
250 to 499 miles	–	–	–	–	–	–
500 to 749 miles	–	–	–	–	–	–
750 to 999 miles	–	–	–	–	–	–
1,000 to 1,499 miles	–	–	–	–	–	–
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	–	–	–	–	–	–
Deep draft	**–**	**–**	**–**	**–**	**–**	**–**
Less than 50 miles	–	–	–	–	–	–
50 to 99 miles	–	–	–	–	–	–
100 to 249 miles	–	–	–	–	–	–
250 to 499 miles	–	–	–	–	–	–
500 to 749 miles	–	–	–	–	–	–
750 to 999 miles	–	–	–	–	–	–
1,000 to 1,499 miles	–	–	–	–	–	–
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	–	–	–	–	–	–
Air (includes truck and air)	**26.7**	**–**	**38.2**	**–**	**44.0**	**–**
Less than 50 miles	–	–	–	–	–	–
50 to 99 miles	S	S	S	S	S	S
100 to 249 miles	46.8	5.9	30.7	4.9	27.1	2.4
250 to 499 miles	34.7	3.5	40.1	5.0	44.2	3.3
500 to 749 miles	26.9	3.5	29.1	3.5	25.5	3.4
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	34.4	4.4	40.1	3.2	36.9	5.9
1,500 to 1,999 miles	37.9	3.7	S	S	S	S
2,000 miles or more	37.6	.1	S	S	S	S
Pipeline	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 miles	–	–	–	–	S	S
50 to 99 miles	–	–	–	–	S	S
100 to 249 miles	S	S	S	S	S	S
250 to 499 miles	–	–	–	–	S	S
500 to 749 miles	–	–	–	–	S	S
750 to 999 miles	–	–	–	–	S	S
1,000 to 1,499 miles	–	–	–	–	S	S
1,500 to 1,999 miles	–	–	–	–	S	S
2,000 miles or more	–	–	–	–	S	S
Multiple modes	**11.7**	**–**	**44.6**	**–**	**S**	**S**
Less than 50 miles	20.5	1.6	39.4	3.2	30.9	.1
50 to 99 miles	15.6	1.4	S	S	S	S
100 to 249 miles	15.2	2.1	23.0	3.2	28.9	1.0
250 to 499 miles	18.4	2.0	S	S	S	S
500 to 749 miles	17.2	.7	15.9	2.9	16.1	3.2
750 to 999 miles	11.9	1.4	S	S	S	S
1,000 to 1,499 miles	16.5	1.4	37.3	2.1	41.8	4.0
1,500 to 1,999 miles	38.7	1.3	S	S	S	S
2,000 miles or more	49.4	.1	48.4	–	43.8	–
Parcel, U.S. Postal Service or courier	**11.8**	**–**	**14.8**	**–**	**19.4**	**–**
Less than 50 miles	21.3	1.7	44.0	3.9	36.1	.3
50 to 99 miles	16.2	1.6	16.4	2.2	15.1	.4
100 to 249 miles	17.4	2.2	18.1	2.0	21.3	.9
250 to 499 miles	19.2	2.0	22.5	1.5	21.1	1.0
500 to 749 miles	17.9	.8	20.8	1.7	20.9	1.8
750 to 999 miles	16.1	1.1	34.1	1.8	35.3	2.5
1,000 to 1,499 miles	18.5	2.0	17.9	1.9	18.0	3.5
1,500 to 1,999 miles	24.8	.9	20.4	.5	20.3	1.8
2,000 miles or more	S	S	S	S	S	S
Truck and rail	**24.5**	**–**	**39.0**	**–**	**39.8**	**–**
Less than 50 miles	S	S	S	S	S	S
50 to 99 miles	S	S	S	S	S	S
100 to 249 miles	S	S	S	S	S	S
250 to 499 miles	S	S	S	S	S	S
500 to 749 miles	44.9	2.7	47.4	3.1	45.5	2.1
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	22.0	5.1	47.1	5.0	49.9	7.8
1,500 to 1,999 miles	S	S	S	S	S	S
2,000 miles or more	–	–	–	–	–	–
Truck and water	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 miles	–	–	–	–	–	–
50 to 99 miles	–	–	–	–	–	–
100 to 249 miles	S	S	S	S	S	S
250 to 499 miles	S	S	S	S	S	S
500 to 749 miles	S	S	S	S	S	S
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	–	–	–	–	–	–
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	S	S	S	S	S	S

See footnotes at end of table.

Table B–3. **Measures of Reliability for Shipment Characteristics by Mode of Transportation and Distance Shipped for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

Mode of transportation and distance shipped (based on Great Circle Distance)	Value		Tons		Ton-miles	
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage
Multiple modes—Con.						
Rail and water	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 miles	–	–	–	–	–	–
50 to 99 miles	–	–	–	–	–	–
100 to 249 miles	–	–	–	–	–	–
250 to 499 miles	–	–	–	–	–	–
500 to 749 miles	–	–	–	–	–	–
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	–	–	–	–	–	–
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	–	–	–	–	–	–
Other multiple modes	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 miles	S	S	S	S	S	S
50 to 99 miles	–	–	–	–	–	–
100 to 249 miles	–	–	–	–	–	–
250 to 499 miles	S	S	S	S	S	S
500 to 749 miles	–	–	–	–	–	–
750 to 999 miles	–	–	–	–	–	–
1,000 to 1,499 miles	–	–	–	–	–	–
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	–	–	–	–	–	–
Other and unknown modes	**22.8**	**–**	**26.7**	**–**	**34.6**	**–**
Less than 50 miles	20.7	3.9	32.7	6.2	31.2	.5
50 to 99 miles	27.7	2.9	29.0	2.0	25.3	.5
100 to 249 miles	29.5	2.0	30.8	4.3	30.7	3.3
250 to 499 miles	46.2	3.5	27.5	2.3	28.6	6.2
500 to 749 miles	30.9	1.0	28.9	.4	29.6	1.0
750 to 999 miles	32.3	2.0	29.5	2.3	29.3	7.0
1,000 to 1,499 miles	30.6	3.6	S	S	49.5	10.7
1,500 to 1,999 miles	S	S	S	S	S	S
2,000 miles or more	S	S	S	S	S	S

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons.

Note: For description of development and uses of measures of reliability, see Appendix B, Reliability of the Estimates.

Table B–4. Measures of Reliability for Shipment Characteristics by Mode of Transportation and Shipment Size for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

Mode of transportation and shipment size	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
All modes	**4.4**	**–**	**6.2**	**–**	**7.8**	**–**	**12.6**
Less than 50 lb	10.9	.5	13.4	–	17.9	–	15.0
50 to 99 lb	18.9	.3	18.1	–	21.1	–	9.1
100 to 499 lb	10.2	.5	15.7	–	9.8	–	12.1
500 to 749 lb	8.1	.1	15.5	–	7.5	–	12.1
750 to 999 lb	11.0	.2	13.3	–	12.0	–	14.7
1,000 to 9,999 lb	6.3	1.2	16.8	.8	8.0	.4	10.6
10,000 to 49,999 lb	7.4	2.3	11.6	2.9	7.0	2.5	9.9
50,000 to 99,999 lb	9.5	.5	12.3	2.7	6.9	.9	10.3
100,000 lb or more	9.2	.9	9.6	2.5	12.8	3.3	7.1
Single modes	**4.2**	**–**	**6.3**	**–**	**8.4**	**–**	**12.4**
Less than 50 lb	25.6	.5	20.8	–	16.0	–	24.9
50 to 99 lb	16.6	.1	18.4	–	17.7	–	13.5
100 to 499 lb	11.8	.5	17.6	–	8.7	–	11.5
500 to 749 lb	8.8	.1	15.5	–	7.6	–	11.2
750 to 999 lb	11.9	.2	13.2	–	12.2	–	14.6
1,000 to 9,999 lb	6.6	1.3	17.2	.8	8.3	.4	10.9
10,000 to 49,999 lb	7.4	2.2	11.7	2.9	7.5	2.3	10.0
50,000 to 99,999 lb	9.5	.6	12.3	2.7	7.0	1.0	10.2
100,000 lb or more	9.6	1.0	9.6	2.6	13.3	3.1	7.3
Truck	**4.9**	**–**	**8.4**	**–**	**4.6**	**–**	**12.1**
Less than 50 lb	27.0	.5	21.0	–	14.9	–	26.3
50 to 99 lb	16.4	.1	18.4	–	16.4	–	12.6
100 to 499 lb	11.9	.5	17.7	–	8.9	–	11.5
500 to 749 lb	9.0	.2	15.5	–	8.0	–	11.7
750 to 999 lb	12.4	.2	13.7	–	12.7	–	14.7
1,000 to 9,999 lb	6.9	1.4	17.3	.9	8.5	.8	10.8
10,000 to 49,999 lb	7.4	2.2	11.8	3.4	7.5	2.0	10.1
50,000 to 99,999 lb	10.3	.7	12.4	3.0	7.4	1.5	9.9
100,000 lb or more	29.6	.6	26.8	1.9	19.3	.7	S
For-hire truck	**4.9**	**–**	**8.5**	**–**	**3.8**	**–**	**6.7**
Less than 50 lb	18.0	–	19.1	–	15.0	–	10.1
50 to 99 lb	21.0	–	17.3	–	16.5	–	11.9
100 to 499 lb	18.1	.6	15.6	–	10.4	–	11.0
500 to 749 lb	12.2	.3	10.7	–	8.6	–	10.6
750 to 999 lb	16.8	.2	10.1	–	14.9	–	10.2
1,000 to 9,999 lb	5.1	1.4	8.1	.3	5.4	.6	10.2
10,000 to 49,999 lb	6.0	1.7	8.0	4.1	4.7	1.5	6.1
50,000 to 99,999 lb	14.2	.8	18.7	4.3	8.9	1.4	11.0
100,000 lb or more	27.8	.2	30.1	1.4	26.4	.4	33.2
Private truck	**10.8**	**–**	**11.0**	**–**	**15.3**	**–**	**11.2**
Less than 50 lb	28.9	1.2	21.7	–	18.5	–	13.6
50 to 99 lb	20.9	.4	20.9	–	21.7	–	10.8
100 to 499 lb	14.4	.8	23.6	.1	21.8	.2	7.8
500 to 749 lb	12.7	.4	21.9	–	17.4	–	10.8
750 to 999 lb	16.2	.3	20.5	–	24.2	–	12.8
1,000 to 9,999 lb	12.4	2.8	20.3	1.5	22.6	2.4	8.8
10,000 to 49,999 lb	21.6	4.4	15.5	3.8	26.0	5.3	28.2
50,000 to 99,999 lb	14.1	1.1	13.2	2.7	11.9	3.1	19.2
100,000 lb or more	39.8	1.7	34.0	3.4	27.8	3.0	S
Rail	**8.4**	**–**	**14.1**	**–**	**17.2**	**–**	**5.7**
Less than 50 lb	S	S	S	S	S	S	31.6
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	31.0
500 to 749 lb	S	S	S	S	S	S	31.6
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	S	S	S	S	S	S	25.1
10,000 to 49,999 lb	26.8	2.1	20.8	.2	20.4	.4	10.0
50,000 to 99,999 lb	29.5	1.1	24.4	.3	27.5	.5	19.6
100,000 lb or more	10.2	2.6	14.3	.4	17.7	.6	6.5
Water	**25.0**	**–**	**27.9**	**–**	**28.4**	**–**	**11.8**
Less than 50 lb	S	S	S	S	S	S	31.6
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	31.6
500 to 749 lb	S	S	S	S	S	S	31.6
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	S	S	S	S	S	S	31.6
10,000 to 49,999 lb	S	S	S	S	S	S	31.6
50,000 to 99,999 lb	S	S	S	S	S	S	29.8
100,000 lb or more	25.1	.4	28.1	.8	28.6	.8	10.7
Shallow draft	**25.0**	**–**	**27.9**	**–**	**28.4**	**–**	**11.8**
Less than 50 lb	S	S	S	S	S	S	31.6
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	31.6
500 to 749 lb	S	S	S	S	S	S	31.6
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	S	S	S	S	S	S	31.6
10,000 to 49,999 lb	S	S	S	S	S	S	31.6
50,000 to 99,999 lb	S	S	S	S	S	S	29.8
100,000 lb or more	25.1	.4	28.1	.8	28.6	.8	10.7

See footnote at end of table.

Table B–4. **Measures of Reliability for Shipment Characteristics by Mode of Transportation and Shipment Size for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

Mode of transportation and shipment size	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
Single modes—Con.							
Great Lakes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	–	–	–	–	–	–	–
500 to 749 lb	–	–	–	–	–	–	–
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	–	–	–	–	–	–	–
10,000 to 49,999 lb	–	–	–	–	–	–	–
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	–	–	–	–	–	–	–
Deep draft	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	–	–	–	–	–	–	–
500 to 749 lb	–	–	–	–	–	–	–
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	–	–	–	–	–	–	–
10,000 to 49,999 lb	–	–	–	–	–	–	–
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	–	–	–	–	–	–	–
Air (includes truck and air)	**26.7**	**–**	**38.2**	**–**	**44.0**	**–**	**8.7**
Less than 50 lb	38.9	8.2	26.5	3.7	27.1	4.2	8.7
50 to 99 lb	S	S	48.7	2.3	S	S	20.7
100 to 499 lb	20.5	4.8	18.5	5.0	21.7	5.4	8.4
500 to 749 lb	S	S	S	S	S	S	23.7
750 to 999 lb	S	S	S	S	S	S	S
1,000 to 9,999 lb	S	S	S	S	S	S	12.2
10,000 to 49,999 lb	S	S	S	S	S	S	28.7
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	–	–	–	–	–	–	–
Pipeline	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 lb	–	–	–	–	S	S	S
50 to 99 lb	–	–	–	–	S	S	S
100 to 499 lb	–	–	–	–	S	S	S
500 to 749 lb	–	–	–	–	S	S	S
750 to 999 lb	–	–	–	–	S	S	S
1,000 to 9,999 lb	–	–	–	–	S	S	S
10,000 to 49,999 lb	–	–	–	–	S	S	S
50,000 to 99,999 lb	–	–	–	–	S	S	S
100,000 lb or more	S	S	S	S	S	S	S
Multiple modes	**11.7**	**–**	**44.6**	**–**	**S**	**S**	**8.2**
Less than 50 lb	11.8	2.8	15.3	5.7	18.8	5.0	8.7
50 to 99 lb	22.9	2.4	24.4	4.3	23.3	3.3	7.9
100 to 499 lb	15.6	2.1	22.2	4.6	25.0	2.8	9.9
500 to 749 lb	43.9	.7	24.5	.2	29.8	–	16.1
750 to 999 lb	39.7	.4	41.6	.3	41.8	.2	S
1,000 to 9,999 lb	28.5	.5	S	S	30.4	.8	42.0
10,000 to 49,999 lb	30.2	1.7	35.4	5.7	35.5	7.7	9.4
50,000 to 99,999 lb	S	S	S	S	S	S	28.3
100,000 lb or more	S	S	S	S	S	S	22.3
Parcel, U.S. Postal Service or courier	**11.8**	**–**	**14.8**	**–**	**19.4**	**–**	**8.2**
Less than 50 lb	11.8	1.9	15.3	3.1	18.8	2.0	8.7
50 to 99 lb	22.9	2.5	24.4	2.9	23.3	2.4	7.9
100 to 499 lb	15.6	2.6	22.2	4.2	25.1	3.5	9.9
500 to 749 lb	44.0	.9	24.9	.7	32.7	.7	17.9
750 to 999 lb	41.9	.5	31.7	.9	43.8	1.0	32.7
1,000 to 9,999 lb	S	S	S	S	S	S	30.3
10,000 to 49,999 lb	–	–	–	–	–	–	–
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	–	–	–	–	–	–	–
Truck and rail	**24.5**	**–**	**39.0**	**–**	**39.8**	**–**	**8.4**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	31.6
500 to 749 lb	S	S	S	S	S	S	31.6
750 to 999 lb	S	S	S	S	S	S	31.6
1,000 to 9,999 lb	29.5	5.7	27.0	1.1	32.5	1.8	14.7
10,000 to 49,999 lb	30.5	7.3	35.9	14.7	35.7	12.5	9.3
50,000 to 99,999 lb	S	S	S	S	S	S	28.3
100,000 lb or more	43.6	4.2	S	S	S	S	31.5
Truck and water	**S**	**S**	**S**	**S**	**S**	**S**	**26.6**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	31.6
500 to 749 lb	S	S	S	S	S	S	31.9
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	–	–	–	–	–	–	–
10,000 to 49,999 lb	S	S	S	S	S	S	30.9
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	S	S	S	S	S	S	31.6

See footnote at end of table.

Table B–4. **Measures of Reliability for Shipment Characteristics by Mode of Transportation and Shipment Size for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

Mode of transportation and shipment size	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
Multiple modes—Con.							
Rail and water	**S**	**S**	**S**	**S**	**S**	**S**	**27.9**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	–	–	–	–	–	–	–
500 to 749 lb	–	–	–	–	–	–	–
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	–	–	–	–	–	–	–
10,000 to 49,999 lb	–	–	–	–	–	–	–
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	S	S	S	S	S	S	27.9
Other multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	–	–	–	–	–	–	–
500 to 749 lb	–	–	–	–	–	–	–
750 to 999 lb	S	S	S	S	S	S	31.6
1,000 to 9,999 lb	S	S	S	S	S	S	S
10,000 to 49,999 lb	–	–	–	–	–	–	–
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	–	–	–	–	–	–	–
Other and unknown modes	**22.8**	**–**	**26.7**	**–**	**34.6**	**–**	**41.3**
Less than 50 lb	30.3	1.4	35.8	.3	27.4	.1	S
50 to 99 lb	35.6	.3	29.2	.4	29.7	–	S
100 to 499 lb	26.3	1.7	31.7	2.3	27.6	.3	S
500 to 749 lb	S	S	43.1	1.0	S	S	S
750 to 999 lb	34.4	.4	45.7	.8	S	S	41.2
1,000 to 9,999 lb	23.0	4.1	28.6	2.6	19.6	4.0	22.3
10,000 to 49,999 lb	30.8	5.9	29.0	6.7	33.7	10.5	24.6
50,000 to 99,999 lb	S	S	42.9	1.9	42.0	1.1	S
100,000 lb or more	40.4	1.7	37.5	7.5	S	S	27.3

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons.

Note: For description of development and uses of measures of reliability, see Appendix B, Reliability of the Estimates.

Table B–5. Measures of Reliability for Shipment Characteristics by Two-Digit Commodity for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code	Commodity description	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
		Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
	All commodities	**4.4**	**–**	**6.2**	**–**	**7.8**	**–**	**12.6**
01	Live animals and live fish	45.1	.3	47.3	.1	42.4	–	27.1
02	Cereal grains	17.3	.4	15.1	2.3	32.6	4.8	30.3
03	Other agricultural products	44.2	2.4	24.7	2.2	14.1	1.4	28.4
04	Animal feed and products of animal origin, n.e.c.	7.8	.5	11.4	1.0	11.5	1.9	26.0
05	Meat, fish, seafood, and their preparations	10.0	1.0	11.6	.3	14.9	.6	10.5
06	Milled grain products and preparations, and bakery products	35.0	1.6	14.6	.5	18.1	1.6	15.9
07	Other prepared foodstuffs and fats and oils	5.8	.4	10.9	.6	12.4	2.1	9.6
08	Alcoholic beverages	30.4	.5	24.4	.3	29.4	.8	10.3
09	Tobacco products	18.2	–	24.8	–	37.2	–	16.7
10	Monumental or building stone	S	S	S	S	S	S	29.8
11	Natural sands	41.6	–	40.3	1.6	S	S	16.3
12	Gravel and crushed stone	18.0	–	22.7	2.9	46.8	1.9	S
13	Nonmetallic minerals n.e.c.	S	S	46.9	1.2	38.0	.2	S
14	Metallic ores and concentrates	S	S	S	S	S	S	29.0
15	Coal	S	S	S	S	S	S	31.6
17	Gasoline and aviation turbine fuel	22.0	.4	28.9	1.0	39.0	.2	14.3
18	Fuel oils	23.9	.1	26.2	.4	S	S	14.0
19	Coal and petroleum products, n.e.c.	27.6	.2	39.1	.6	S	S	S
20	Basic chemicals	26.4	.1	45.9	.1	22.1	–	S
21	Pharmaceutical products	27.4	.3	31.2	–	42.1	–	33.6
22	Fertilizers	23.3	.2	19.8	.4	19.9	.2	40.4
23	Chemical products and preparations, n.e.c.	30.9	1.8	26.9	.2	35.5	.4	47.5
24	Plastics and rubber	11.7	.4	22.5	.2	24.0	.4	9.3
25	Logs and other wood in the rough	S	S	S	S	S	S	S
26	Wood products	10.1	.1	15.6	–	9.8	–	21.6
27	Pulp, newsprint, paper, and paperboard	25.2	.2	35.7	.2	41.8	.3	29.9
28	Paper or paperboard articles	21.8	.2	24.1	–	28.7	.1	25.8
29	Printed products	14.3	.3	18.2	–	20.5	.1	17.0
30	Textiles, leather, and articles of textiles or leather	16.3	.1	31.1	–	29.7	–	13.8
31	Nonmetallic mineral products	9.5	.2	12.7	.8	11.9	.6	10.4
32	Base metal in primary or semifinished forms and in finished basic shapes	22.7	.8	30.3	.3	21.5	.3	38.6
33	Articles of base metal	19.8	.5	24.6	.1	22.6	.3	15.8
34	Machinery	10.2	1.0	11.9	–	16.8	.2	18.7
35	Electronic and other electrical equipment and components and office equipment	18.8	.7	18.4	–	20.2	–	30.1
36	Motorized and other vehicles (including parts)	20.0	1.9	14.5	.2	17.6	.4	22.8
37	Transportation equipment, n.e.c.	43.5	–	40.3	–	42.9	–	21.1
38	Precision instruments and apparatus	26.7	–	19.4	–	24.1	–	29.1
39	Furniture, mattresses and mattress supports, lamps, lighting fittings, and illuminated signs	10.1	.2	14.6	–	17.5	.1	12.9
40	Miscellaneous manufactured products	12.9	.6	17.9	.1	14.6	.1	12.7
41	Waste and scrap	18.8	–	22.6	.2	11.7	.1	21.7
43	Mixed freight	S	S	S	S	S	S	15.4
--	Commodity unknown	41.4	.2	S	S	S	S	48.6

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons.

Note: For description of development and uses of measures of reliability, see Appendix B, Reliability of the Estimates.

Table B–6. Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
ALL COMMODITIES							
Total	**4.4**	**–**	**6.2**	**–**	**7.8**	**–**	**12.6**
Single modes	**4.2**	**.7**	**6.3**	**.4**	**8.4**	**2.3**	**12.4**
Truck	4.9	1.1	8.4	2.4	4.6	3.3	12.1
For-hire truck	4.9	1.7	8.5	2.4	3.8	2.6	6.7
Private truck	10.8	2.6	11.0	2.6	15.3	1.7	11.2
Rail	8.4	.7	14.1	2.2	17.2	4.0	5.7
Water	25.0	.3	27.9	.8	28.4	3.4	11.8
Shallow draft	25.0	.3	27.9	.8	28.4	3.4	11.8
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	26.7	.1	38.2	–	44.0	–	8.7
Pipeline	S	S	S	S	S	S	S
Multiple modes	**11.7**	**.6**	**44.6**	**.4**	**S**	**S**	**8.2**
Parcel, U.S. Postal Service or courier	11.8	.5	14.8	–	19.4	–	8.2
Truck and rail	24.5	.1	39.0	.1	39.8	.6	8.4
Truck and water	S	S	S	S	S	S	26.6
Rail and water	S	S	S	S	S	S	27.9
Other multiple modes	S	S	S	S	S	S	S
Other and unknown modes	**22.8**	**.5**	**26.7**	**.2**	**34.6**	**.5**	**41.3**
SCTG 01, LIVE ANIMALS AND LIVE FISH							
Total	**45.1**	**–**	**47.3**	**–**	**42.4**	**–**	**27.1**
Single modes	**45.1**	**–**	**47.3**	**–**	**42.4**	**–**	**27.1**
Truck	45.1	–	47.3	–	42.4	–	27.1
For-hire truck	42.7	14.4	47.1	14.8	38.4	14.0	32.2
Private truck	S	S	S	S	S	S	24.3
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
SCTG 02, CEREAL GRAINS							
Total	**17.3**	**–**	**15.1**	**–**	**32.6**	**–**	**30.3**
Single modes	**17.7**	**1.9**	**15.1**	**1.7**	**35.4**	**5.8**	**30.7**
Truck	14.8	8.1	15.5	7.9	19.1	6.9	13.4
For-hire truck	27.0	8.1	29.7	8.5	31.6	6.0	35.2
Private truck	23.7	6.3	24.3	6.6	22.1	2.0	15.2
Rail	48.1	7.2	41.9	6.8	S	S	32.0
Water	44.8	6.9	45.1	6.9	45.5	12.6	15.2
Shallow draft	44.8	6.9	45.1	6.9	45.5	12.6	15.2
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**24.9**
Parcel, U.S. Postal Service or courier	46.5	–	48.9	–	35.2	–	24.1
Truck and rail	S	S	S	S	S	S	31.6
Truck and water	S	S	S	S	S	S	31.6
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**43.0**	**.7**	**44.0**	**.3**	**S**	**S**	**S**

See footnote at end of table.

Table B–6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
SCTG 03, OTHER AGRICULTURAL PRODUCTS							
Total	**44.2**	**–**	**24.7**	**–**	**14.1**	**–**	**28.4**
Single modes	**45.0**	**2.9**	**25.2**	**2.7**	**16.7**	**6.9**	**10.3**
Truck	S	S	34.4	9.8	34.0	5.3	11.1
For-hire truck	32.2	6.2	33.6	6.3	33.2	2.6	12.8
Private truck	S	S	37.9	9.6	42.6	4.2	16.2
Rail	48.7	7.2	48.5	7.3	41.8	9.0	31.0
Water	26.5	6.9	26.7	6.7	26.6	9.7	10.6
Shallow draft	26.5	6.9	26.7	6.7	26.6	9.7	10.6
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**24.6**
Parcel, U.S. Postal Service or courier	S	S	40.8	–	S	S	24.6
Truck and rail	–	–	–	–	–	–	–
Truck and water	S	S	S	S	S	S	31.6
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 04, ANIMAL FEED AND PRODUCTS OF ANIMAL ORIGIN, N.E.C.							
Total	**7.8**	**–**	**11.4**	**–**	**11.5**	**–**	**26.0**
Single modes	**8.1**	**1.0**	**11.9**	**.8**	**13.0**	**3.3**	**24.9**
Truck	7.8	1.6	11.9	1.3	12.0	5.9	25.4
For-hire truck	14.7	4.1	11.1	3.2	15.7	4.7	9.9
Private truck	11.2	4.6	17.0	4.1	16.9	2.9	27.4
Rail	19.5	1.3	13.9	.7	20.6	6.0	9.5
Water	S	S	S	S	S	S	31.6
Shallow draft	S	S	S	S	S	S	31.6
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**38.7**	**.5**	**41.0**	**.6**	**40.8**	**3.0**	**24.9**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	22.0
Truck and rail	40.0	.5	47.2	.3	S	S	22.7
Truck and water	–	–	–	–	–	–	–
Rail and water	S	S	S	S	S	S	27.9
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**43.3**	**.7**	**S**	**S**	**S**	**S**	**33.0**
SCTG 05, MEAT, FISH, SEAFOOD, AND THEIR PREPARATIONS							
Total	**10.0**	**–**	**11.6**	**–**	**14.9**	**–**	**10.5**
Single modes	**10.3**	**1.2**	**11.7**	**.8**	**14.6**	**.5**	**10.1**
Truck	10.5	1.7	11.2	1.2	13.9	1.9	10.3
For-hire truck	13.0	4.9	13.2	4.3	14.8	3.4	5.8
Private truck	20.3	5.4	18.5	4.5	28.9	2.6	13.6
Rail	26.4	.7	38.3	.7	31.6	1.8	12.6
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	31.6
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**28.8**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	30.2
Truck and rail	S	S	S	S	S	S	29.8
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**

See footnote at end of table.

Table B–6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
SCTG 06, MILLED GRAIN PRODUCTS AND PREPARATIONS, AND BAKERY PRODUCTS							
Total	**35.0**	**–**	**14.6**	**–**	**18.1**	**–**	**15.9**
Single modes	**33.9**	**1.3**	**14.3**	**.8**	**17.7**	**1.5**	**15.2**
Truck	38.6	4.9	19.8	6.0	26.1	7.2	16.8
For-hire truck	43.2	6.4	22.4	6.0	28.2	6.9	9.7
Private truck	34.7	3.4	42.6	3.5	27.5	1.2	7.0
Rail	12.4	4.9	12.9	4.4	12.6	7.6	6.4
Water	S	S	S	S	S	S	31.6
Shallow draft	S	S	S	S	S	S	31.6
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	33.3
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**29.4**
Parcel, U.S. Postal Service or courier	42.3	–	S	S	S	S	30.5
Truck and rail	–	–	–	–	–	–	–
Truck and water	S	S	S	S	S	S	31.6
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**23.9**
SCTG 07, OTHER PREPARED FOODSTUFFS AND FATS AND OILS							
Total	**5.8**	**–**	**10.9**	**–**	**12.4**	**–**	**9.6**
Single modes	**5.5**	**.4**	**10.9**	**.9**	**12.2**	**1.6**	**9.8**
Truck	7.9	2.8	14.4	4.7	11.1	7.4	8.1
For-hire truck	13.8	3.8	24.4	5.2	11.0	5.2	12.1
Private truck	13.4	4.2	19.7	4.1	28.2	2.8	9.0
Rail	9.0	2.9	13.4	4.5	17.3	7.3	8.6
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	27.9
Pipeline	–	–	–	–	S	S	S
Multiple modes	**50.0**	**–**	**S**	**S**	**S**	**S**	**S**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	S
Truck and rail	S	S	S	S	S	S	26.1
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**46.1**	**.4**	**S**	**S**	**S**	**S**	**23.7**
SCTG 08, ALCOHOLIC BEVERAGES							
Total	**30.4**	**–**	**24.4**	**–**	**29.4**	**–**	**10.3**
Single modes	**30.4**	**–**	**24.4**	**–**	**29.4**	**–**	**10.5**
Truck	25.4	10.1	26.0	9.5	35.6	15.7	8.5
For-hire truck	45.2	5.5	37.2	8.2	37.4	3.1	23.0
Private truck	25.6	14.0	32.7	15.7	37.5	18.1	6.9
Rail	39.4	10.1	25.1	9.5	28.9	15.7	19.8
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**31.0**

See footnote at end of table.

Table B–6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
SCTG 09, TOBACCO PRODUCTS							
Total	**18.2**	**–**	**24.8**	**–**	**37.2**	**–**	**16.7**
Single modes	**18.2**	**–**	**24.8**	**–**	**37.2**	**–**	**16.7**
Truck	18.2	–	24.8	–	37.2	–	16.7
For-hire truck	–	–	–	–	–	–	–
Private truck	18.2	–	24.8	–	37.2	–	16.7
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
SCTG 10, MONUMENTAL OR BUILDING STONE							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**29.8**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**29.8**
Truck	S	S	S	S	S	S	29.8
For-hire truck	–	–	–	–	–	–	–
Private truck	S	S	S	S	S	S	29.8
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**31.6**
SCTG 11, NATURAL SANDS							
Total	**41.6**	**–**	**40.3**	**–**	**S**	**S**	**16.3**
Single modes	**41.6**	**–**	**40.3**	**–**	**S**	**S**	**16.3**
Truck	41.6	–	40.3	–	S	S	16.3
For-hire truck	S	S	S	S	S	S	24.1
Private truck	41.7	3.4	39.1	3.3	S	S	16.7
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**

See footnote at end of table.

Table B–6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
SCTG 12, GRAVEL AND CRUSHED STONE							
Total	**18.0**	**–**	**22.7**	**–**	**46.8**	**–**	**S**
Single modes	**18.4**	**1.5**	**23.0**	**1.5**	**48.4**	**2.7**	**S**
Truck	18.9	1.5	23.6	1.5	S	S	S
For-hire truck	21.8	5.8	28.5	5.3	31.5	8.9	34.1
Private truck	23.1	6.5	28.8	6.2	S	S	S
Rail	41.3	1.0	40.7	1.1	41.7	6.1	28.7
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**31.6**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	S	S	S	S	S	S	31.6
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**30.2**
SCTG 13, NONMETALLIC MINERALS N.E.C.							
Total	**S**	**S**	**46.9**	**–**	**38.0**	**–**	**S**
Single modes	**S**	**S**	**46.9**	**3.0**	**37.9**	**1.1**	**S**
Truck	S	S	46.8	3.0	39.0	2.7	S
For-hire truck	S	S	S	S	44.1	11.5	S
Private truck	S	S	47.9	9.9	S	S	S
Rail	S	S	S	S	S	S	31.6
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**34.9**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	34.9
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 14, METALLIC ORES AND CONCENTRATES							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**29.0**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**29.0**
Truck	S	S	S	S	S	S	29.0
For-hire truck	–	–	–	–	–	–	–
Private truck	S	S	S	S	S	S	29.0
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**

See footnote at end of table.

Table B–6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
SCTG 15, COAL							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**31.6**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**31.6**
Truck	S	S	S	S	S	S	31.6
For-hire truck	S	S	S	S	S	S	31.6
Private truck	–	–	–	–	–	–	–
Rail	S	S	S	S	S	S	31.6
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
SCTG 17, GASOLINE AND AVIATION TURBINE FUEL							
Total	**22.0**	**–**	**28.9**	**–**	**39.0**	**–**	**14.3**
Single modes	**22.2**	**.5**	**29.0**	**.5**	**39.1**	**.5**	**12.7**
Truck	22.2	.5	29.0	.5	39.1	.5	12.7
For-hire truck	38.1	8.0	44.7	8.6	45.4	12.2	13.0
Private truck	32.9	7.8	42.7	8.5	S	S	16.5
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**49.0**	**.5**	**48.6**	**.5**	**S**	**S**	**28.3**
SCTG 18, FUEL OILS							
Total	**23.9**	**–**	**26.2**	**–**	**S**	**S**	**14.0**
Single modes	**24.0**	**.4**	**26.3**	**.3**	**S**	**S**	**15.9**
Truck	25.7	6.8	28.0	6.6	30.0	19.3	15.7
For-hire truck	41.5	6.5	44.1	7.9	46.0	9.0	24.8
Private truck	21.9	8.8	21.5	9.8	26.6	16.8	17.3
Rail	S	S	S	S	S	S	29.8
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	S	S	S	S	S	S	S
Multiple modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**28.8**

See footnote at end of table.

Table B–6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
SCTG 19, COAL AND PETROLEUM PRODUCTS, N.E.C.							
Total	**27.6**	**–**	**39.1**	**–**	**S**	**S**	**S**
Single modes	**28.5**	**1.8**	**39.5**	**2.0**	**S**	**S**	**S**
Truck	28.7	2.1	39.7	2.1	S	S	S
For-hire truck	S	S	S	S	S	S	S
Private truck	29.0	10.0	35.9	12.4	S	S	S
Rail	S	S	S	S	S	S	28.1
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	S
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	31.6
Other and unknown modes	**49.7**	**1.4**	**S**	**S**	**S**	**S**	**S**
SCTG 20, BASIC CHEMICALS							
Total	**26.4**	**–**	**45.9**	**–**	**22.1**	**–**	**S**
Single modes	**25.9**	**2.2**	**46.5**	**1.2**	**22.6**	**2.0**	**S**
Truck	25.9	2.4	47.7	3.5	24.7	5.8	S
For-hire truck	27.6	11.8	18.3	13.2	32.4	12.6	19.2
Private truck	S	S	S	S	S	S	46.6
Rail	S	S	S	S	S	S	38.6
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	36.7
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**49.7**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	29.4
Truck and rail	S	S	S	S	S	S	31.2
Truck and water	S	S	S	S	S	S	31.6
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 21, PHARMACEUTICAL PRODUCTS							
Total	**27.4**	**–**	**31.2**	**–**	**42.1**	**–**	**33.6**
Single modes	**38.6**	**9.2**	**35.2**	**9.9**	**47.3**	**9.0**	**S**
Truck	38.6	9.2	35.2	9.9	47.3	9.0	S
For-hire truck	42.4	10.6	44.4	10.2	49.8	10.3	20.7
Private truck	35.2	5.6	S	S	S	S	S
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	30.7
Pipeline	–	–	–	–	S	S	S
Multiple modes	**25.5**	**8.5**	**31.3**	**9.7**	**34.9**	**8.9**	**14.1**
Parcel, U.S. Postal Service or courier	25.5	8.5	31.3	9.7	34.9	8.9	14.1
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**42.3**	**2.3**	**40.5**	**.6**	**S**	**S**	**S**

See footnote at end of table.

Table B–6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
SCTG 22, FERTILIZERS							
Total	**23.3**	**–**	**19.8**	**–**	**19.9**	**–**	**40.4**
Single modes	**23.3**	**.1**	**19.8**	**–**	**19.9**	**–**	**45.8**
Truck	25.5	2.4	22.4	3.1	28.6	8.3	S
For-hire truck	40.5	5.6	33.1	5.8	42.7	5.4	14.9
Private truck	31.3	7.1	29.1	7.6	14.9	9.9	40.6
Rail	23.2	2.4	21.1	3.1	22.7	8.3	14.2
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	31.6
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**29.8**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	29.8
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**30.0**
SCTG 23, CHEMICAL PRODUCTS AND PREPARATIONS, N.E.C.							
Total	**30.9**	**–**	**26.9**	**–**	**35.5**	**–**	**47.5**
Single modes	**32.3**	**2.9**	**28.6**	**3.1**	**36.3**	**2.1**	**13.8**
Truck	33.2	3.5	31.1	5.9	40.8	6.7	14.0
For-hire truck	42.6	8.5	40.1	7.6	42.0	8.4	13.0
Private truck	22.0	7.1	20.6	7.0	47.0	7.0	17.1
Rail	S	S	S	S	S	S	30.7
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	28.9
Pipeline	–	–	–	–	S	S	S
Multiple modes	**41.0**	**2.6**	**42.4**	**1.4**	**S**	**S**	**S**
Parcel, U.S. Postal Service or courier	S	S	S	S	42.9	.6	S
Truck and rail	48.9	.5	S	S	S	S	23.7
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 24, PLASTICS AND RUBBER							
Total	**11.7**	**–**	**22.5**	**–**	**24.0**	**–**	**9.3**
Single modes	**13.7**	**2.8**	**23.4**	**2.4**	**24.9**	**2.9**	**13.0**
Truck	12.0	3.3	24.7	6.4	22.1	9.1	14.6
For-hire truck	14.5	4.8	28.6	5.9	23.6	8.4	3.6
Private truck	23.4	3.5	30.0	4.8	29.1	2.1	21.8
Rail	38.8	3.6	40.7	7.4	40.3	10.5	28.2
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	14.6
Pipeline	–	–	–	–	S	S	S
Multiple modes	**23.2**	**2.3**	**29.6**	**1.1**	**35.5**	**2.4**	**6.8**
Parcel, U.S. Postal Service or courier	23.6	2.2	26.3	.9	26.8	1.3	6.6
Truck and rail	S	S	S	S	S	S	24.0
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**44.0**	**1.0**	**45.5**	**1.5**	**S**	**S**	**S**

See footnote at end of table.

Table B–6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
SCTG 25, LOGS AND OTHER WOOD IN THE ROUGH							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Truck	S	S	S	S	S	S	31.1
For-hire truck	S	S	S	S	S	S	28.4
Private truck	S	S	S	S	S	S	28.8
Rail	S	S	S	S	S	S	31.6
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**35.2**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	31.6
Truck and rail	S	S	S	S	S	S	31.6
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**31.6**
SCTG 26, WOOD PRODUCTS							
Total	**10.1**	**–**	**15.6**	**–**	**9.8**	**–**	**21.6**
Single modes	**10.5**	**1.4**	**15.8**	**4.8**	**9.5**	**1.3**	**24.4**
Truck	10.5	1.4	15.8	4.8	9.5	1.4	25.1
For-hire truck	14.9	4.0	19.6	5.8	11.7	5.1	6.8
Private truck	14.1	4.2	19.9	5.6	23.2	5.4	42.0
Rail	S	S	S	S	S	S	31.6
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	44.0	–	47.7	–	S	S	26.9
Pipeline	–	–	–	–	S	S	S
Multiple modes	**47.6**	**1.0**	**38.7**	**.1**	**39.0**	**.7**	**20.6**
Parcel, U.S. Postal Service or courier	S	S	47.0	–	S	S	20.2
Truck and rail	S	S	42.0	–	45.1	.6	26.5
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 27, PULP, NEWSPRINT, PAPER, AND PAPERBOARD							
Total	**25.2**	**–**	**35.7**	**–**	**41.8**	**–**	**29.9**
Single modes	**25.3**	**1.0**	**36.1**	**1.9**	**42.8**	**4.6**	**31.0**
Truck	25.5	1.4	34.1	2.3	39.9	5.1	30.1
For-hire truck	32.0	11.4	41.1	12.6	41.3	7.8	S
Private truck	23.4	11.4	21.0	13.0	33.5	6.5	18.7
Rail	S	S	S	S	S	S	29.8
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	31.6
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**30.1**
Parcel, U.S. Postal Service or courier	36.7	.6	32.0	.2	38.4	.8	30.2
Truck and rail	–	–	–	–	–	–	–
Truck and water	S	S	S	S	S	S	31.6
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**45.5**	**.7**	**45.4**	**1.8**	**S**	**S**	**38.5**

See footnote at end of table.

Table B–6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
SCTG 28, PAPER OR PAPERBOARD ARTICLES							
Total	**21.8**	**–**	**24.1**	**–**	**28.7**	**–**	**25.8**
Single modes	**23.8**	**4.2**	**24.4**	**.8**	**29.0**	**3.3**	**33.5**
Truck	23.8	4.2	24.4	.8	29.0	3.4	29.3
For-hire truck	30.7	7.4	34.3	8.5	38.1	8.6	25.6
Private truck	22.9	5.3	21.1	7.9	S	S	33.2
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	32.6
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**22.3**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	22.3
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**43.0**	**.2**	**49.4**	**.2**	**26.6**
SCTG 29, PRINTED PRODUCTS							
Total	**14.3**	**–**	**18.2**	**–**	**20.5**	**–**	**17.0**
Single modes	**13.2**	**2.9**	**18.8**	**1.7**	**21.2**	**2.4**	**S**
Truck	13.5	2.7	18.8	1.7	21.3	2.4	S
For-hire truck	11.2	5.4	18.0	3.2	21.2	2.2	S
Private truck	36.7	5.7	37.8	2.8	34.0	.4	S
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	15.5
Pipeline	–	–	–	–	S	S	S
Multiple modes	**27.2**	**3.5**	**22.4**	**1.2**	**24.3**	**2.6**	**6.3**
Parcel, U.S. Postal Service or courier	27.2	3.5	22.4	1.2	24.3	2.6	6.3
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**48.1**	**1.8**	**S**	**S**	**S**	**S**	**S**
SCTG 30, TEXTILES, LEATHER, AND ARTICLES OF TEXTILES OR LEATHER							
Total	**16.3**	**–**	**31.1**	**–**	**29.7**	**–**	**13.8**
Single modes	**20.8**	**7.8**	**39.2**	**6.9**	**45.2**	**8.1**	**S**
Truck	20.8	7.8	39.2	7.0	45.2	8.1	S
For-hire truck	15.8	4.2	32.8	7.0	37.8	6.6	S
Private truck	38.5	8.8	S	S	S	S	32.7
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	26.2
Pipeline	–	–	–	–	S	S	S
Multiple modes	**34.3**	**8.6**	**25.1**	**7.6**	**41.4**	**10.2**	**10.6**
Parcel, U.S. Postal Service or courier	34.6	8.6	16.2	7.5	22.4	10.9	10.6
Truck and rail	S	S	S	S	S	S	31.6
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**50.0**	**1.8**	**S**	**S**	**S**	**S**	**S**

See footnote at end of table.

Table B–6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
SCTG 31, NONMETALLIC MINERAL PRODUCTS							
Total	**9.5**	**–**	**12.7**	**–**	**11.9**	**–**	**10.4**
Single modes	**9.7**	**1.2**	**13.0**	**1.0**	**9.3**	**5.7**	**17.9**
Truck	10.5	2.1	14.8	2.5	8.0	6.5	16.7
For-hire truck	12.0	5.6	13.0	7.1	12.1	7.7	12.2
Private truck	18.2	5.0	25.3	8.0	17.0	4.6	18.8
Rail	19.6	1.5	26.0	2.1	26.4	4.3	S
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	42.7	–	S	S	S	S	27.1
Pipeline	–	–	–	–	S	S	S
Multiple modes	**48.8**	**1.0**	**S**	**S**	**S**	**S**	**19.1**
Parcel, U.S. Postal Service or courier	42.5	.3	32.3	–	36.6	–	21.9
Truck and rail	S	S	S	S	S	S	29.2
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**48.2**	**–**	**S**	**S**	**S**
SCTG 32, BASE METAL IN PRIMARY OR SEMIFINISHED FORMS AND IN FINISHED BASIC SHAPES							
Total	**22.7**	**–**	**30.3**	**–**	**21.5**	**–**	**38.6**
Single modes	**23.5**	**2.4**	**31.0**	**1.0**	**20.8**	**2.0**	**40.8**
Truck	23.5	2.7	31.5	1.6	19.9	4.9	37.6
For-hire truck	24.5	5.8	21.0	6.1	24.5	6.1	38.8
Private truck	46.9	7.8	47.2	7.6	35.8	7.0	11.9
Rail	S	S	S	S	S	S	30.0
Water	S	S	S	S	S	S	31.6
Shallow draft	S	S	S	S	S	S	31.6
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	46.2	–	43.8	–	18.5
Pipeline	–	–	–	–	S	S	S
Multiple modes	**39.7**	**1.8**	**49.7**	**.6**	**S**	**S**	**17.4**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	16.5
Truck and rail	S	S	S	S	S	S	29.4
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	31.6
Other and unknown modes	**S**	**S**	**41.1**	**.4**	**S**	**S**	**S**
SCTG 33, ARTICLES OF BASE METAL							
Total	**19.8**	**–**	**24.6**	**–**	**22.6**	**–**	**15.8**
Single modes	**23.1**	**3.8**	**26.2**	**1.9**	**22.8**	**3.6**	**27.4**
Truck	23.7	3.7	28.0	3.8	20.1	7.0	29.4
For-hire truck	18.1	5.2	20.5	5.8	23.0	6.0	20.8
Private truck	46.8	6.1	S	S	48.0	6.1	22.3
Rail	S	S	S	S	S	S	27.0
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	40.9	.1	S	S	S	S	22.2
Pipeline	–	–	–	–	S	S	S
Multiple modes	**26.6**	**2.9**	**23.5**	**1.3**	**39.6**	**2.6**	**14.3**
Parcel, U.S. Postal Service or courier	27.9	3.0	25.6	.8	32.1	1.0	13.9
Truck and rail	45.4	.3	48.3	1.2	48.5	2.9	21.2
Truck and water	S	S	S	S	S	S	31.6
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**46.9**	**3.4**	**S**

See footnote at end of table.

Table B–6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
SCTG 34, MACHINERY							
Total	**10.2**	**–**	**11.9**	**–**	**16.8**	**–**	**18.7**
Single modes	**8.6**	**2.0**	**12.0**	**1.8**	**16.7**	**3.4**	**45.3**
Truck	8.7	2.4	11.1	2.2	13.6	4.3	49.0
For-hire truck	10.8	4.9	8.2	5.8	10.0	8.7	6.8
Private truck	13.0	4.0	20.9	5.1	41.5	7.0	S
Rail	S	S	S	S	S	S	24.2
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	47.8	.3	S	S	S	S	12.9
Pipeline	–	–	–	–	S	S	S
Multiple modes	**28.8**	**2.1**	**46.4**	**1.7**	**S**	**S**	**12.4**
Parcel, U.S. Postal Service or courier	25.0	1.6	33.3	.8	45.6	.9	12.4
Truck and rail	S	S	S	S	S	S	28.9
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**15.6**	**.4**	**26.2**	**.6**	**S**	**S**	**S**
SCTG 35, ELECTRONIC AND OTHER ELECTRICAL EQUIPMENT AND COMPONENTS AND OFFICE EQUIPMENT							
Total	**18.8**	**–**	**18.4**	**–**	**20.2**	**–**	**30.1**
Single modes	**19.8**	**5.1**	**17.6**	**3.8**	**22.6**	**5.8**	**S**
Truck	21.0	5.4	16.3	4.3	20.3	5.8	S
For-hire truck	15.0	5.1	16.3	7.2	18.1	6.5	17.0
Private truck	42.1	5.1	31.3	6.5	S	S	33.9
Rail	S	S	S	S	S	S	31.6
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	13.1
Pipeline	–	–	–	–	S	S	S
Multiple modes	**24.1**	**4.8**	**47.7**	**3.5**	**S**	**S**	**16.2**
Parcel, U.S. Postal Service or courier	23.7	4.8	50.0	2.5	S	S	16.3
Truck and rail	S	S	S	S	S	S	31.6
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**33.5**	**1.6**	**40.9**	**2.5**	**S**	**S**	**S**
SCTG 36, MOTORIZED AND OTHER VEHICLES (INCLUDING PARTS)							
Total	**20.0**	**–**	**14.5**	**–**	**17.6**	**–**	**22.8**
Single modes	**17.9**	**4.0**	**13.5**	**2.5**	**15.0**	**2.9**	**S**
Truck	17.8	4.1	13.5	2.7	15.2	3.5	S
For-hire truck	20.5	3.7	15.2	3.4	15.6	3.7	11.8
Private truck	20.3	4.1	16.9	3.0	27.3	2.0	S
Rail	S	S	S	S	S	S	28.6
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	38.4
Pipeline	–	–	–	–	S	S	S
Multiple modes	**46.8**	**3.5**	**44.0**	**1.2**	**40.4**	**1.2**	**15.0**
Parcel, U.S. Postal Service or courier	47.7	3.6	46.4	1.2	45.2	1.2	15.0
Truck and rail	S	S	S	S	S	S	31.6
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**42.8**	**2.2**	**41.1**	**2.3**	**48.0**	**2.5**	**S**

See footnote at end of table.

Table B–6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
SCTG 37, TRANSPORTATION EQUIPMENT, N.E.C.							
Total	**43.5**	**–**	**40.3**	**–**	**42.9**	**–**	**21.1**
Single modes	**28.4**	**9.8**	**40.4**	**2.9**	**43.0**	**5.4**	**21.1**
Truck	30.0	10.2	41.8	8.2	43.8	9.4	21.3
For-hire truck	30.1	10.2	41.8	8.2	43.8	9.4	21.1
Private truck	S	S	S	S	S	S	31.6
Rail	S	S	44.0	11.7	47.6	14.7	26.6
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	29.9
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**31.1**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	31.1
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**31.6**
SCTG 38, PRECISION INSTRUMENTS AND APPARATUS							
Total	**26.7**	**–**	**19.4**	**–**	**24.1**	**–**	**29.1**
Single modes	**22.6**	**11.2**	**30.8**	**10.4**	**35.3**	**11.5**	**S**
Truck	22.4	11.3	31.6	10.5	36.2	11.9	S
For-hire truck	31.7	11.0	39.3	10.8	37.1	11.4	28.3
Private truck	S	S	S	S	S	S	S
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	47.9	.8	S
Pipeline	–	–	–	–	S	S	S
Multiple modes	**40.1**	**10.6**	**39.9**	**10.1**	**49.5**	**11.9**	**20.7**
Parcel, U.S. Postal Service or courier	40.1	10.6	39.9	10.1	49.5	11.9	20.7
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**44.1**	**2.0**	**S**	**S**	**S**
SCTG 39, FURNITURE, MATTRESSES AND MATTRESS SUPPORTS, LAMPS, LIGHTING FITTINGS, AND ILLUMINATED SIGNS							
Total	**10.1**	**–**	**14.6**	**–**	**17.5**	**–**	**12.9**
Single modes	**9.8**	**1.8**	**15.0**	**3.3**	**17.7**	**1.0**	**16.3**
Truck	9.8	1.8	15.0	3.3	17.6	1.3	16.2
For-hire truck	14.4	5.8	17.8	5.6	18.4	6.2	16.4
Private truck	16.3	6.0	18.5	4.8	49.0	5.3	34.3
Rail	S	S	S	S	S	S	28.6
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	37.8	–	35.6	–	42.3	–	23.7
Pipeline	–	–	–	–	S	S	S
Multiple modes	**28.8**	**.3**	**32.1**	**.2**	**39.9**	**.3**	**8.6**
Parcel, U.S. Postal Service or courier	28.8	.3	32.1	.2	39.9	.3	8.6
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**

See footnote at end of table.

Table B–6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
SCTG 40, MISCELLANEOUS MANUFACTURED PRODUCTS							
Total	**12.9**	**–**	**17.9**	**–**	**14.6**	**–**	**12.7**
Single modes	**14.5**	**2.7**	**18.8**	**1.6**	**15.1**	**1.6**	**29.5**
Truck	14.4	2.7	18.8	1.6	14.9	1.6	27.7
For-hire truck	19.7	5.2	16.8	5.2	15.3	3.8	5.8
Private truck	17.3	3.7	32.2	5.8	31.7	4.4	S
Rail	S	S	39.1	.3	44.3	.9	26.1
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	39.6	.6	36.8	–	42.6	–	11.4
Pipeline	–	–	–	–	S	S	S
Multiple modes	**21.2**	**2.8**	**15.3**	**1.4**	**19.1**	**1.7**	**6.1**
Parcel, U.S. Postal Service or courier	21.2	2.8	14.5	1.5	16.8	1.7	6.1
Truck and rail	S	S	S	S	S	S	29.8
Truck and water	S	S	S	S	S	S	31.6
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**25.1**	**.3**	**44.0**	**.4**	**48.8**	**.3**	**S**
SCTG 41, WASTE AND SCRAP							
Total	**18.8**	**–**	**22.6**	**–**	**11.7**	**–**	**21.7**
Single modes	**19.5**	**2.5**	**23.2**	**2.4**	**12.4**	**2.5**	**19.5**
Truck	20.5	6.5	28.2	5.5	16.5	4.3	16.4
For-hire truck	23.5	4.1	37.2	4.7	22.7	4.4	18.5
Private truck	27.5	4.7	22.9	5.3	34.7	3.3	19.1
Rail	31.5	7.1	28.0	5.7	19.7	5.3	34.0
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**31.6**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	S	S	S	S	S	S	31.6
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 43, MIXED FREIGHT							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**15.4**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**17.7**
Truck	S	S	S	S	S	S	17.7
For-hire truck	44.1	6.3	S	S	S	S	22.1
Private truck	S	S	S	S	S	S	10.6
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**41.0**	**.6**	**44.8**	**.4**	**47.7**	**.7**	**24.7**
Parcel, U.S. Postal Service or courier	41.0	.6	44.8	.4	47.7	.7	24.7
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**30.2**

See footnote at end of table.

Table B–6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

SCTG code, description, and mode of transportation	Value		Tons		Ton-miles		Average miles per shipment—coefficient of variation
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
COMMODITY UNKNOWN							
Total	**41.4**	**–**	**S**	**S**	**S**	**S**	**48.6**
Single modes	**47.0**	**7.3**	**S**	**S**	**S**	**S**	**40.5**
Truck	26.5	13.0	S	S	S	S	38.4
For-hire truck	44.0	10.1	S	S	S	S	26.9
Private truck	40.2	13.4	S	S	43.0	15.5	S
Rail	S	S	S	S	S	S	29.1
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	30.5
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	S
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**45.9**	**4.1**	**S**	**S**	**S**

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons.

Note: For description of development and uses of measures of reliability, see Appendix B, Reliability of the Estimates.

Table B–7. Measures of Reliability for Shipment Characteristics by State of Destination for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

State of destination	Value		Tons		Ton-miles	
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage
Total	**4.4**	**–**	**6.2**	**–**	**7.8**	**–**
NEW ENGLAND STATES						
Connecticut	41.1	.2	39.3	–	38.6	.1
Maine	27.4	–	31.7	–	33.2	–
Massachusetts	11.5	–	22.6	–	23.7	.1
New Hampshire	43.6	–	47.8	–	46.8	–
Rhode Island	39.5	–	S	S	S	S
Vermont	S	S	S	S	S	S
MIDDLE ATLANTIC STATES						
New Jersey	12.5	–	17.2	–	17.2	.2
New York	9.2	–	15.9	–	14.3	.3
Pennsylvania	20.5	.3	10.7	–	8.9	.3
EAST NORTH CENTRAL STATES						
Illinois	7.2	.7	20.8	1.6	23.2	1.6
Indiana	8.8	.3	13.5	–	12.0	.2
Michigan	7.2	.2	10.7	.1	11.3	.2
Ohio	7.6	.2	8.6	.1	8.3	.3
Wisconsin	5.3	.2	6.7	.2	6.5	.1
WEST NORTH CENTRAL STATES						
Iowa	9.7	2.3	10.3	3.2	14.5	1.8
Kansas	12.3	.2	16.8	–	18.5	.2
Minnesota	9.0	.3	10.7	.4	12.6	.5
Missouri	9.6	.3	13.3	.3	11.3	.4
Nebraska	10.9	.3	17.4	.5	15.7	.2
North Dakota	15.5	.1	22.8	–	16.5	–
South Dakota	20.7	.2	23.5	.2	26.6	.1
SOUTH ATLANTIC STATES						
Delaware	S	S	S	S	S	S
District of Columbia	S	S	S	S	S	S
Florida	12.2	.1	15.7	–	17.3	.2
Georgia	13.0	.2	16.3	.1	16.1	.4
Maryland	17.7	.2	25.3	–	26.4	.2
North Carolina	12.5	.1	16.8	–	19.6	.2
South Carolina	16.6	–	26.0	–	27.3	–
Virginia	16.6	.1	23.3	–	24.0	.2
West Virginia	41.2	–	S	S	S	S
EAST SOUTH CENTRAL STATES						
Alabama	13.3	–	13.9	–	14.9	.1
Kentucky	12.1	–	10.1	–	9.7	–
Mississippi	30.4	.1	38.3	–	43.4	.2
Tennessee	14.6	.2	12.4	–	12.5	.1
WEST SOUTH CENTRAL STATES						
Arkansas	9.1	–	18.6	–	16.9	.2
Louisiana	20.4	.3	27.3	.9	27.9	4.1
Oklahoma	27.1	.2	26.9	.1	27.0	.4
Texas	8.8	.3	13.7	.2	14.7	.9
MOUNTAIN STATES						
Arizona	30.2	.2	29.3	–	30.5	.5
Colorado	11.1	.1	27.2	.1	28.4	.3
Idaho	46.0	–	42.4	–	44.2	.2
Montana	29.8	–	29.0	–	29.8	.1
Nevada	19.7	–	S	S	S	S
New Mexico	36.5	–	35.0	–	35.1	–
Utah	24.6	.1	20.7	–	22.3	.1
Wyoming	33.4	–	S	S	S	S
PACIFIC STATES						
Alaska	39.3	–	50.0	–	43.5	–
California	14.6	.5	37.5	.8	37.6	4.0
Hawaii	45.4	–	47.7	–	45.8	–
Oregon	20.8	–	35.9	–	37.5	.4
Washington	16.3	.2	19.1	–	19.5	.7

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D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons.

Note: For description of development and uses of measures of reliability, see Appendix B, Reliability of the Estimates.

Table B–8. Measures of Reliability for Inbound Shipment Characteristics by State of Origin for State of Destination: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

State of origin	Value		Tons		Ton-miles	
	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage
Total	**5.5**	**–**	**8.0**	**–**	**15.3**	**–**
NEW ENGLAND STATES						
Connecticut	27.6	–	S	S	S	S
Maine	19.6	–	27.9	–	30.4	.1
Massachusetts	8.9	–	24.0	–	25.3	–
New Hampshire	24.9	–	30.9	–	29.6	–
Rhode Island	31.7	–	S	S	S	S
Vermont	31.4	–	47.6	–	46.5	–
MIDDLE ATLANTIC STATES						
New Jersey	24.7	.3	S	S	S	S
New York	13.2	.2	31.0	–	32.8	.3
Pennsylvania	26.2	.3	33.7	.1	46.7	.8
EAST NORTH CENTRAL STATES						
Illinois	6.8	.8	11.9	.6	14.0	.6
Indiana	22.9	.5	26.6	.2	25.4	.7
Michigan	18.6	.3	21.7	–	26.1	.3
Ohio	31.4	1.1	14.4	–	13.5	.2
Wisconsin	7.8	.4	13.7	.2	10.2	.4
WEST NORTH CENTRAL STATES						
Iowa	9.7	2.1	10.3	2.9	14.5	2.8
Kansas	14.9	.2	12.6	.1	16.1	.4
Minnesota	8.3	.5	23.2	1.2	32.3	1.2
Missouri	10.2	.2	21.0	.3	17.4	.2
Nebraska	12.4	.7	16.0	.4	22.7	.6
North Dakota	23.4	–	16.4	–	14.7	–
South Dakota	19.7	.2	30.0	.3	27.4	.1
SOUTH ATLANTIC STATES						
Delaware	27.1	–	27.3	–	26.2	–
District of Columbia	S	S	S	S	S	S
Florida	14.0	–	S	S	S	S
Georgia	13.8	.1	21.0	–	24.1	.2
Maryland	49.5	.1	S	S	S	S
North Carolina	22.3	.3	38.0	.5	38.7	2.4
South Carolina	13.6	–	16.6	–	18.0	.1
Virginia	27.2	.1	38.6	–	33.8	–
West Virginia	S	S	40.1	–	40.4	–
EAST SOUTH CENTRAL STATES						
Alabama	26.0	.1	38.1	–	45.9	.6
Kentucky	26.1	.1	16.2	–	15.9	.1
Mississippi	17.2	–	16.7	–	17.4	–
Tennessee	16.0	.2	24.1	–	23.0	.1
WEST SOUTH CENTRAL STATES						
Arkansas	21.1	.1	44.9	.2	46.1	.6
Louisiana	37.7	.4	S	S	S	S
Oklahoma	17.7	–	21.9	–	22.3	.2
Texas	11.4	.3	15.5	.1	13.0	.7
MOUNTAIN STATES						
Arizona	24.0	–	37.5	–	38.6	–
Colorado	14.9	.1	44.6	.1	S	S
Idaho	38.3	–	31.3	–	30.1	–
Montana	30.9	–	S	S	S	S
Nevada	27.6	–	S	S	48.4	–
New Mexico	16.5	–	34.3	–	34.9	–
Utah	27.9	–	30.1	–	30.4	–
Wyoming	19.9	–	37.6	2.2	39.8	6.9
PACIFIC STATES						
Alaska	S	S	S	S	S	S
California	11.9	.2	10.8	–	11.2	.2
Hawaii	S	S	S	S	S	S
Oregon	19.4	–	15.4	–	15.0	.2
Washington	18.6	–	20.6	–	20.4	.3

– Represents data cell equal to zero or less than 1 unit of measure.
D Denotes figures withheld to avoid disclosing data for individual companies.
S Data do not meet publication standards because of high sampling variability or other reasons.

Note: For description of development and uses of measures of reliability, see Appendix B, Reliability of the Estimates.

Appendix C.
Sample Design, Data Collection, and Estimation

INTRODUCTION

The primary goal for the 1997 Commodity Flow Survey (CFS) is to estimate shipping volumes (value, tons, and ton-miles) by commodity and mode of transportation at varying levels of geographic detail. A detailed description of the sample design for the 1997 CFS is provided below.

SAMPLE DESIGN

The sample for the 1997 CFS is selected using a stratified three-stage design in which the first-stage sampling units are establishments, the second-stage sampling units are groups of four 1-week periods (reporting weeks) within the survey year, and the third-stage sampling units are shipments.

First Stage

To create the first-stage sampling frame, we extracted a subset of establishment records from the 1995 Standard Statistical Establishment List (SSEL). The SSEL is a database, maintained by the Bureau of the Census, that contains a record for each establishment with employees. (An establishment is a single physical location where business transactions take place.) Establishments having nonzero payroll in 1994 and classified in the mining, manufacturing, wholesale, or selected retail industries, as defined by the 1987 Standard Industrial Classification (SIC) Manual, are included on the sampling frame. Auxiliary establishments (e.g. warehouses and central administrative offices) with shipping activity are also included. Auxiliary establishments are establishments that are primarily involved in rendering support services for other establishments within the same company, instead of for the public, government, or other business firms. All other establishments contained on the sampling frame are referred to as nonauxiliary establishments. For each establishment we extracted sales, payroll, number of employees, name and address information, as well as a primary identifier. We also computed a measure of size for each establishment. The measure of size for a particular establishment is designed to approximate the establishment's total value of shipments for 1994.

To reduce the amount of sampling variability and because estimates are desired for each commodity, we used a stratified design with a certainty component for each three-digit SIC. To accomplish this, each establishment on the sampling frame is classified into a three-digit SIC grouping. For each group of establishments, a boundary (or cutoff) that divides the certainty establishments from the noncertainty establishments is determined using the Lavallee-Hidiroglou algorithm. If an establishment's measure of size is greater than the cutoff, the establishment is selected "with certainty". Establishments selected "with certainty" were assured of being selected and represented only themselves (i.e., have a selection probability of one and a sampling weight of one). No certainty cutoffs are set for auxiliary establishments because they only make up a small portion of the estimated total value of shipments for all establishments on the sampling frame.

Establishments not selected with certainty makeup the noncertainty universe. We stratify the noncertainty universe by SIC recode, National Transportation Analysis Region (NTAR), and a flag used to differentiate auxiliary establishments from nonauxiliary establishments. Each SIC recode is constructed from a group of related three-digit SIC codes. The NTARs, developed by the Department of Transportation as combinations of Bureau of Economic Analysis (BEA) Areas, collectively provide a mutually exclusive and exhaustive coverage of the United States. Finally, the auxiliary stratification came about because establishments with different types of operation may have different shipping practices. We refer to a particular SIC recode-NTAR-auxiliary flag combination as a primary stratum.

We further stratify the noncertainty establishments within each primary stratum using the measure of size previously described. We refer to these measure-of-size strata as substrata of the primary strata. The measure of size stratification increases the efficiency of the sample design. The Dalenius-Hodges cumulative rule is used to set the substratum boundaries. We then use Neyman allocation to determine the sample size required within each substratum to meet a coefficient of variation constraint on the primary stratum total measure of size. Within each substratum, a simple random sample of establishments is selected without replacement.

To arrive at the final sample size, we allocated additional establishments to some of the strata so that the probability of selecting any establishment is no less than 1 in 100. In total, the first-stage sample comprises 102,739 establishments.

Second Stage

The frame for the second stage of sampling consists of 52 one-week reporting periods (reporting weeks) during the interval from December 29, 1996, to December 26,

1997. Each establishment selected for the 1997 CFS was systematically assigned to report for a group of four reporting weeks throughout the survey year. The four reporting weeks in a given group are separated by 12 weeks. For example, an establishment might be requested to report data for the 5th, 18th, 31st, and 44th weeks of the survey year.

Third Stage

For each of the four reporting weeks in which an establishment is asked to report, we request the respondent to construct a sampling frame that consists of all shipments made by their establishment in each particular reporting week. For any particular reporting week, if an establishment makes 40 or fewer shipments during that week, we ask the respondent to provide information about all of their establishment's shipments from that week, i.e., no sampling is required. For establishments making more than 40 shipments in a given reporting week, we ask the respondent to select a systematic sample of these shipments and to provide us with information only about the selected shipments. The size of a particular respondent's sample for a given reporting week should be between 20 and 40 shipments, depending on the total number of shipments the establishment made during that reporting week.

DATA COLLECTION

Each establishment selected into the CFS sample is mailed a questionnaire for each of its four reporting weeks. For a given establishment, we request the respondent to provide the following information about their establishment's shipments: domestic destination or port of exit, commodity, value, weight, mode(s) of transportation, the date on which the shipment was made, and an indication of whether the shipment was an export, hazardous material, or containerized. For shipments that include more than one commodity, respondents are instructed to report the commodity that makes up the greatest percentage of the shipment's weight. For exports, we also ask the respondent to provide the mode of export and the foreign destination city and country.

We used two versions of the questionnaire to collect data from the sampled establishments—the CFS-1000 and the CFS-2000. Each establishment received the CFS-1000 in each of its first three reporting weeks. However, for the fourth reporting week, a subsample of approximately 25,000 establishments received the CFS-2000, while the remaining establishments received the CFS-1000. The CFS-2000 requests the respondent to provide additional information about their establishment's access to on-site and off-site shipping facilities, as well as transportation equipment. See Appendix E for a copy of each questionnaire.

ESTIMATION

Each shipment has associated with it a single tabulation weight, that is used in computing all estimates to which the shipment contributes. The tabulation weight is a product of seven different weights. A description of each weight follows.

CFS respondents provide data for a sample of shipments made by their respective establishments in the survey year. For each establishment, we produce an estimate of that establishment's total value of shipments for the entire survey year. To do this, we use four different weights, the shipment weight, the shipment nonresponse weight, the quarter weight, and the quarter nonresponse weight.

Like establishments, we identify shipments as either certainty or noncertainty. (See the Nonsampling Error section in Appendix B for a description of how certainty shipments are identified.) For noncertainty shipments, the shipment weight is defined as the ratio of the total number of noncertainty shipments (as reported by the respondent) made by an establishment in a reporting week to the number of sampled noncertainty shipments for the same week. This weight uses the data from the sampled shipments to represent all the establishment's shipments made in the reporting week. However, some respondents fail to provide sufficient information about a sampled shipment. For example, a respondent may not be able to provide value, weight, or a destination ZIP Code for some of the sampled shipments. If these data items cannot be imputed, then these shipments would not contribute to tabulations and are deemed "unusable." (A usable shipment is one that has valid entries for value, weight, and origin and destination ZIP Codes.) To account for these "unusable" shipments, we apply the shipment nonresponse weight. For noncertainty shipments from a particular establishment's reporting week, this weight is equal to the ratio of the number of sampled shipments for the reporting week to the number of "usable" shipments for the same week. The shipment weight and shipment nonresponse weight for certainty shipments from a particular establishment's reporting week are both equal to one.

The quarter weight inflates an establishment's estimate for a particular reporting week to an estimate for the corresponding quarter. For noncertainty shipments, the quarter weight is equal to 13. The quarter weight for most certainty shipments is also equal to 13. However, if a respondent is able to provide information about all large (or certainty) shipments made in the quarter containing the reporting week, then the quarter weight for each of these shipments would be one. For each establishment, the quarterly estimates are added to produce an estimate of the establishment's value of shipments for the entire survey year. Whenever an establishment does not provide the Census Bureau with a response for each of its four reporting weeks, we compute a quarter nonresponse weight. The quarter nonresponse weight for a particular establishment is defined as the ratio of the number of

quarters for which the establishment was in business in the survey year to the total number of quarters (reporting weeks) for which we received usable shipment data from the establishment.

Using these four component weights, we compute an estimate of each establishment's value of shipments for the entire survey year. We then multiply this estimate by a weight that adjusts the estimate using value of shipments and sales data obtained from other Census Bureau surveys and preliminary results of the 1997 Economic Census. This weight, called the establishment-level adjustment weight, attempts to correct for any sampling or nonsampling errors that occur during the sampling of shipments by the respondent.

The adjusted value of shipments estimate for an establishment is then weighted by the establishment weight. This weight is equal to the inverse of the establishment's probability of being selected into the sample.

A final adjustment weight, called the SIC-level adjustment weight, uses preliminary results of the 1997 Economic Census to account for establishments from which we did not receive a response (including establishments from which we did not receive any usable shipment data) and for changes in the population of establishments between the time the first-stage sampling frame was constructed (1995) and the year in which the data were collected (1997). Separate SIC-level adjustment weights are determined for nonauxiliary and auxiliary establishments.

Appendix D.
Standard Classification of Transported Goods Code Information

The commodities shown in this report are classified using the Standard Classification of Transported Goods (SCTG) coding system. The SCTG coding system was created jointly by agencies of the United States and Canadian governments based on the Harmonized System (HS) of product classification which is used worldwide. The purpose of the SCTG coding system was to specifically address statistical needs in regard to products transported.

In the past, Commodity Flow Survey (CFS) data have been collected and reported using product classifications found in the Standard Transportation Commodity Classification (STCC) system. These classifications were developed in the early 1960s by the American Association of Railroads (AAR) to analyze commodity movements by rail. The original purpose of the STCC was for identification of commodities for purposes of assigning rates for Interstate Commerce Commission (ICC) regulated rail carriers. The STCC continues to be used by the AAR as a tariff mechanism.

At the time that the Commodity Transportation Survey (CTS) (the CTS—the predecessor of the CFS) was first conducted in 1963, STCC codes were still useful for analyzing most important aspects of the U.S. transportation system. Since then, many changes have taken place that have gradually made the STCC code less useful for tracking domestic product movements across all modes (although it remains perfectly functional for tracking rail-only movements). These include the deregulation of trucking, the enactment of North American Free Trade Agreement (NAFTA), changes in logistics practices, the emergence of plastics and composite materials to replace metals and glass, the obsolescence of many categories of wood products, and the very rapid recent development of high-tech electronic goods. Because the CFS is a shipper survey, the CFS collects information about shipments moving on all modes. As a consequence, STCC classifications frequently provide inadequate detail for identifying products that are significant for modes, such as truck and air. It is for these reasons that the Bureau of Transportation Statistics (BTS) has sponsored the development of a new product code to collect and report CFS data.

In 1997 the CFS provided respondents with a listing of SCTG codes and descriptions at the five-digit level to use in assigning a commodity code for each shipment. For shipments of more than one commodity, we instructed respondents to use the five-digit code for the major commodity, defined as the commodity of greatest total weight in the shipment.

Additional information on the SCTG system can be found on the Internet through the BTS web page at *http://www.bts.gov.* Comments or questions on the SCTG should be directed to *http://cfs@bts.gov.*

Appendix E.
Sample Report Forms and Instructions

The sample report forms and instructions are shown on the following pages.

Note: The CFS-2000 was sent to a subsample of establishments to obtain additional information about the use of transportation equipment and facilities.

OMB No. 0607-0828: Approval Expires 10/31/99

FORM **CFS-1000**
(11-1-96)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

1997 COMMODITY FLOW SURVEY
CENSUS OF TRANSPORTATION

Reporting period:

Please return by:

RETURN TO

BUREAU OF THE CENSUS
1201 East 10th Street
Jeffersonville IN 47132-0001

(Please correct any error in name, address, and ZIP Code)

BEFORE COMPLETING YOUR REPORT, please read the accompanying instruction guide. If book figures are not available for requested data, please provide estimates. If you have any questions, please call 1–800–772–7851.

Through this survey, we are requesting data on a representative sample of your outbound shipments, to help us produce key statistics used by transportation planners and managers. We greatly appreciate your assistance in this program.

Item A Is the establishment name shown in the mailing address correct?

1 ☐ Yes
2 ☐ No — *Enter correct name.* ↙

Item B *Mark (X) the **ONE** box which best describes this establishment during the one-week period shown above.*

1 ☐ In operation
2 ☐ Temporarily or seasonally inactive
3 ☐ Ceased operation — *Give date* →

Month	Day	Year

Item C Is this establishment's physical location the same as the address shown in the label? (PO boxes or rural routes are not physical locations.)

1 ☐ Yes
2 ☐ No — *Enter physical location below.* ↙

Number and street		
City, town, village, etc.	State	ZIP Code

NOTE — The rest of this questionnaire requests information about shipments (or deliveries) from the establishment located at the address in the mailing label.

If you entered a different address in item C — *Please complete the form for shipments originating from the location listed in item C.*

Item D Please enter the **total number** of outbound shipments (or deliveries), including customer pick-up, for the one-week reporting period shown above. If book figures are not available, please provide your best estimate.

This number should reflect all shipments and deliveries leaving this location during the one-week reporting period. *Please see Instruction Guide for a definition of "shipment."*

DO NOT PROCEED UNTIL YOU HAVE COMPLETED ITEM D.

YOUR RESPONSE IS REQUIRED BY LAW. Title 13, United States Code, requires businesses and other organizations that receive this questionnaire to answer the questions and return the report to the Census Bureau. By the same law, **YOUR CENSUS REPORT IS CONFIDENTIAL.** It may be seen only by Census Bureau employees and may be used only for statistical purposes. Further, copies retained in respondents' files are immune from legal process.

Item E SAMPLING INSTRUCTIONS

Our goal in this section is to identify a sample of your shipments that you will provide data on. Through the use of a sample, we can avoid asking you for information on all of your shipments, while still obtaining statistically accurate information.

FINDING YOUR SELECTION RATE

If you reported 40 or fewer shipments in item D, please enter "1" as your selection rate in the box below, then go directly to item F and enter the information for each of your shipments.

If you reported 41 or more shipments in item D, we will now ask you to select and report on a sample of your shipments. Following the steps below will result in a sample of 20 to 40 shipments to report on in item F.

In the table at right, identify the selection rate that corresponds to the number you entered in item D, and enter it in the box below.

Please enter your selection rate. →

Number of shipments entered in item D	Selection rate
1— 40	1
41— 80	2
81— 100	3
101— 200	5
201— 400	10
401— 800	20
801— 1600	40
1601— 3200	80
3201— 6400	160
6401—12800	320
More than 12800	Call Census at 1–800–772–7851

CONTINUE ON NEXT PAGE.

Item F SHIPMENT CHARACTERISTICS

Line No. (a)	Shipment ID Number (b)	Shipment date (c) Month	Shipment date (c) Day	Shipment value (excluding shipping costs) in whole dollars (d)	Shipment weight in pounds (e)	Commodity code from SCTG Manual (f)	Commodity description (g)	If a hazardous material, enter the "UN" or "NA" number (h)
0	123-5	4	26	4,235	140	3 5 1 2 0	Electrical transformers	
00	402H	4	26	125,300	626,500	1 7 1 0 0	Gasoline	1 2 0 3
1								
2								
3								
4								
5								
6								
7								
8								
9								

Mode of transport codes for columns (k) and (n) ▶ **1** — Parcel delivery, courier, or U.S. Postal Service; **2** — Private truck; **3** — For-hire truck; **4** — Railroad

Continued →

FORM CFS-1000 (11-1-96)

SELECTING YOUR SAMPLE OF SHIPMENTS

1. Use the file or combination of files that best reflects your full range of outbound shipping activities.

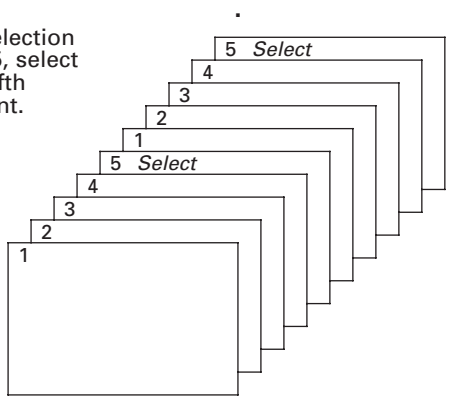
2. Begin with the first shipment. Count the shipments until you reach your selection rate. Select this shipment to report on in item F.

3. Continue counting with the next shipment. Count this shipment as 1 and continue until you reach the selection rate again. Select this shipment to report on in item F.

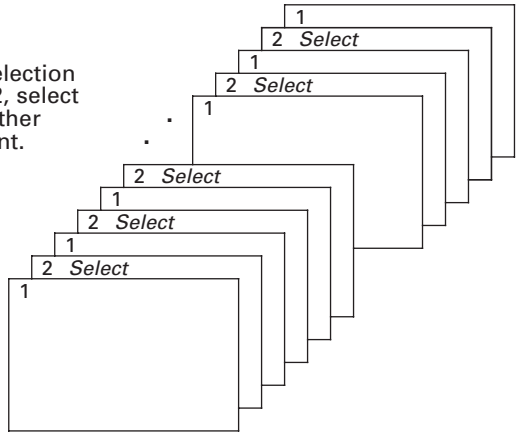
4. Repeat step 3 until you reach the last shipment for the one-week period. If the last shipment is counted as the selection rate, select this shipment to report on in item F. If the last shipment is not counted as the selection rate, do not report this shipment.

In the following examples, each rectangle represents one shipment.

If the selection rate is 5, select every fifth shipment.



If the selection rate is 2, select every other shipment.



Once you have selected your sample of shipments, please proceed to item F and enter the requested information for each selected shipment. Examples of completed lines for two shipments are provided on lines "0" and "00" below.

If you have difficulties constructing a file of shipments or have questions about how to select the sample of your shipments, please call our toll-free number for assistance: 1–800–772–7851.

Containerized? (Y/N) (i)	U.S. destination *(Complete for all shipments.)* (j) City	State	ZIP Code	Mode(s) of transport to U.S. destination *Enter all that apply in order used. Use codes below.* (k)	Export? (Y/N) (l)	Foreign destination (for export shipments only) **Note:** In column (j) enter the U.S. port, airport, or border crossing of exit. (m) City	Country	Export mode (n)	Line No. (o)
N	Los Angeles	CA	90040	2, 4, 3	N				0
N	New York	NY	10454	5	Y	London	England	6	00
									1
									2
									3
									4
									5
									6
									7
									8
									9

5 — Shallow draft vessel
6 — Deep draft vessel
7 — Pipeline
8 — Air
9 — Other mode
0 — Unknown

FORM CFS-1000 (11-1-96)

PLEASE CONTINUE ON PAGE 4.

Item F **SHIPMENT CHARACTERISTICS — Continued**

Line No. (a)	Shipment ID Number (b)	Shipment date (c) Month	Shipment date (c) Day	Shipment value (excluding shipping costs) in whole dollars (d)	Shipment weight in pounds (e)	Commodity code from SCTG Manual (f)	Commodity description (g)	If a hazardous material, enter the "UN" or "NA" number (h)
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								

Mode of transport codes for columns (k) and (n) ▶ **1** — Parcel delivery, courier, or U.S. Postal Service **2** — Private truck **3** — For-hire truck **4** — Railroad

Continued →

FORM CFS-1000 (11-1-96)

Containerized? *(Y/N)* (i)	U.S. destination ***(Complete for all shipments.)*** (j)			Mode(s) of transport to U.S. destination *Enter all that apply in order used. Use codes below.* (k)	Export? *(Y/N)* (l)	Foreign destination (for export shipments only) **Note:** In column (j) enter the U.S. port, airport, or border crossing of exit. (m)		Export mode (n)	Line No. (o)
	City	State	ZIP Code			City	Country		
									10
									11
									12
									13
									14
									15
									16
									17
									18
									19
									20
									21
									22
									23
									24
									25
									26
									27
									28
									29
									30
									31
									32
									33
									34

5 — Shallow draft vessel
6 — Deep draft vessel
7 — Pipeline
8 — Air
9 — Other mode
0 — Unknown

FORM CFS-1000 (11-1-96)

PLEASE CONTINUE ON PAGE 6.

Item F **SHIPMENT CHARACTERISTICS — Continued**

Line No. (a)	Shipment ID Number (b)	Shipment date (c) Month	Shipment date (c) Day	Shipment value (excluding shipping costs) in whole dollars (d)	Shipment weight in pounds (e)	Commodity code from SCTG Manual (f)	Commodity description (g)	If a hazardous material, enter the "UN" or "NA" number (h)
35								
36								
37								
38								
39								
40								

Mode of transport codes for columns (k) and (n) ▶ **1** — Parcel delivery, courier, or U.S. Postal Service **2** — Private truck **3** — For-hire truck **4** — Railroad

Continued →

Item G

1. Do this establishment's outbound shipments leave more than one site within this physical location?

☐ Yes

☐ No

2. Are the records for outbound shipments from this location maintained in a number of separate files (e.g., separate files for each commodity, or for each shipping site) at this location?

☐ Yes

☐ No

If yes to item G1 or item G2:

3. Would it be easier to receive a separate questionnaire for each file or each shipment site?

☐ Yes

☐ No

Item H

Enter the total value of shipments for the one-week reporting period. This figure should represent all products leaving this establishment for the one-week period. An estimate is acceptable.

Total value in whole dollars

Item I

In the last three months did this location have any individual shipments with a value over $2,000,000?

☐ Yes

☐ No

Item J **CERTIFICATION**

Name of person to contact regarding this report – *Please print*	Telephone number – *Include area code*	Date

Signature	Title

Containerized? (Y/N) (i)	U.S. destination **(Complete for all shipments.)** (j) City	State	ZIP Code	Mode(s) of transport to U.S. destination *Enter all that apply in order used. Use codes below.* (k)	Export? (Y/N) (l)	Foreign destination (for export shipments only) **Note:** In column (j) enter the U.S. port, airport, or border crossing of exit. (m) City	Country	Export mode (n)	Line No. (o)
									35
									36
									37
									38
									39
									40

5 — Shallow draft vessel
6 — Deep draft vessel
7 — Pipeline
8 — Air
9 — Other mode
0 — Unknown

Remarks

THANK YOU FOR COMPLETING YOUR REPORT

FORM CFS-1000 (11-1-96)

Page 7

OMB No. 0607-0828: Approval Expires 10/31/99

FORM **CFS-2000**
(6-9-97)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

1997 COMMODITY FLOW SURVEY
CENSUS OF TRANSPORTATION

Reporting period:

Please return by:

RETURN TO

BUREAU OF THE CENSUS
1201 East 10th Street
Jeffersonville IN 47132-0001

(Please correct any error in name, address, and ZIP Code)

BEFORE COMPLETING YOUR REPORT, please read the accompanying instruction guide. If book figures are not available for requested data, please provide estimates. If you have any questions, please call 1–800–772–7851.

Through this survey, we are requesting data on a representative sample of your outbound shipments, to help us produce key statistics used by transportation planners and managers. We greatly appreciate your assistance in this program.

Item A Is the establishment name shown in the mailing address correct?

1 ☐ Yes
2 ☐ No — *Enter correct name.* ↙

Item B *Mark (X) the **ONE** box which best describes this establishment during the one-week period shown above.*

1 ☐ In operation
2 ☐ Temporarily or seasonally inactive
3 ☐ Ceased operation — *Give date* →

Month	Day	Year

Item C Is this establishment's physical location the same as the address shown in the label? (PO boxes or rural routes are not physical locations.)

1 ☐ Yes
2 ☐ No — *Enter physical location below.* ↙

Number and street		
City, town, village, etc.	State	ZIP Code

NOTE — The rest of this questionnaire requests information about shipments (or deliveries) from the establishment located at the address in the mailing label.

If you entered a different address in item C — *Please complete the form for shipments originating from the location listed in item C.*

Item D Please enter the **total number** of outbound shipments (or deliveries), including customer pick-up, for the one-week reporting period shown above. If book figures are not available, please provide your best estimate.

This number should reflect all shipments and deliveries leaving this location during the one-week reporting period. *Please see Instruction Guide for a definition of "shipment."*

DO NOT PROCEED UNTIL YOU HAVE COMPLETED ITEM D.

YOUR RESPONSE IS REQUIRED BY LAW. Title 13, United States Code, requires businesses and other organizations that receive this questionnaire to answer the questions and return the report to the Census Bureau. By the same law, **YOUR CENSUS REPORT IS CONFIDENTIAL.** It may be seen only by Census Bureau employees and may be used only for statistical purposes. Further, copies retained in respondents' files are immune from legal process.

Item E SAMPLING INSTRUCTIONS

Our goal in this section is to identify a sample of your shipments that you will provide data on. Through the use of a sample, we can avoid asking you for information on all of your shipments, while still obtaining statistically accurate information.

FINDING YOUR SELECTION RATE

If you reported 40 or fewer shipments in item D, please enter "1" as your selection rate in the box below, then go directly to item F and enter the information for each of your shipments.

If you reported 41 or more shipments in item D, we will now ask you to select and report on a sample of your shipments. Following the steps below will result in a sample of 20 to 40 shipments to report on in item F.

In the table at right, identify the selection rate that corresponds to the number you entered in item D, and enter it in the box below.

Please enter your selection rate. →

Number of shipments entered in item D	Selection rate
1— 40	1
41— 80	2
81— 100	3
101— 200	5
201— 400	10
401— 800	20
801— 1600	40
1601— 3200	80
3201— 6400	160
6401—12800	320
More than 12800	Call Census at 1–800–772–7851

CONTINUE ON NEXT PAGE. →

Item F SHIPMENT CHARACTERISTICS

Line No. (a)	Shipment ID Number (b)	Shipment date (c) Month	Shipment date (c) Day	Shipment value (excluding shipping costs) in whole dollars (d)	Shipment weight in pounds (e)	Commodity code from SCTG Manual (f)	Commodity description (g)	If a hazardous material, enter the "UN" or "NA" number (h)
0	123-5	4	26	4,235	140	3 5 1 2 0	Electrical transformers	
00	402H	4	26	125,300	626,500	1 7 1 0 0	Gasoline	1 2 0 3
1								
2								
3								
4								
5								
6								
7								
8								
9								

Mode of transport codes for columns (k) and (n) ▶ **1** — Parcel delivery, courier, or U.S. Postal Service; **2** — Private truck; **3** — For-hire truck; **4** — Railroad

Continued →

SELECTING YOUR SAMPLE OF SHIPMENTS

1. Use the file or combination of files that best reflects your full range of outbound shipping activities.

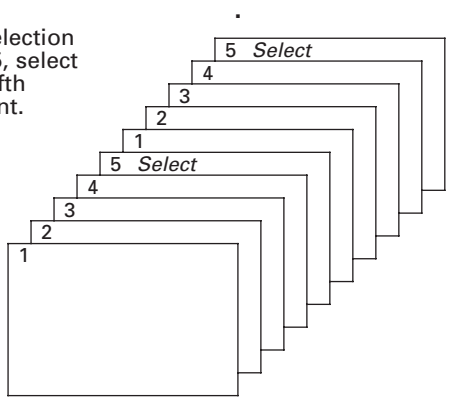
2. Begin with the first shipment. Count the shipments until you reach your selection rate. Select this shipment to report on in item F.

3. Continue counting with the next shipment. Count this shipment as 1 and continue until you reach the selection rate again. Select this shipment to report on in item F.

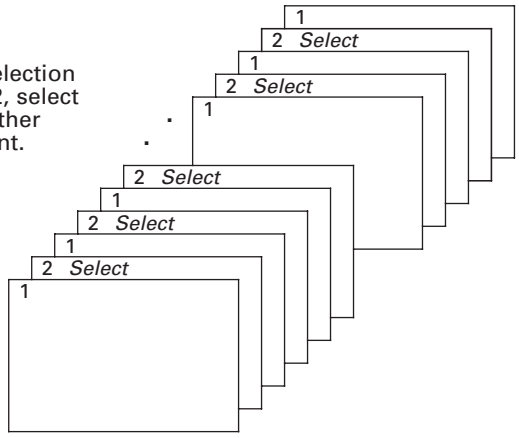
4. Repeat step 3 until you reach the last shipment for the one-week period. If the last shipment is counted as the selection rate, select this shipment to report on in item F. If the last shipment is not counted as the selection rate, do not report this shipment.

In the following examples, each rectangle represents one shipment.

If the selection rate is 5, select every fifth shipment.



If the selection rate is 2, select every other shipment.



Once you have selected your sample of shipments, please proceed to item F and enter the requested information for each selected shipment. Examples of completed lines for two shipments are provided on lines "0" and "00" below.

If you have difficulties constructing a file of shipments or have questions about how to select the sample of your shipments, please call our toll-free number for assistance: 1–800–772–7851.

Containerized? (Y/N) (i)	U.S. destination *(Complete for all shipments.)* (j) City	State	ZIP Code	Mode(s) of transport to U.S. destination *Enter all that apply in order used. Use codes below.* (k)	Export? (Y/N) (l)	Foreign destination (for export shipments only) **Note:** In column (j) enter the U.S. port, airport, or border crossing of exit. (m) City	Country	Export mode (n)	Line No. (o)
N	Los Angeles	CA	90040	2, 4, 3	N				0
N	New York	NY	10454	5	Y	London	England	6	00
									1
									2
									3
									4
									5
									6
									7
									8
									9

5 — Shallow draft vessel
6 — Deep draft vessel
7 — Pipeline
8 — Air
9 — Other mode
0 — Unknown

FORM CFS-2000 (6-9-97)

PLEASE CONTINUE ON PAGE 4.

Item F **SHIPMENT CHARACTERISTICS — Continued**

Line No. (a)	Shipment ID Number (b)	Shipment date (c) Month	Shipment date (c) Day	Shipment value (excluding shipping costs) in whole dollars (d)	Shipment weight in pounds (e)	Commodity code from SCTG Manual (f)	Commodity description (g)	If a hazardous material, enter the "UN" or "NA" number (h)
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
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21								
22								
23								
24								
25								
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27								
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30								
31								
32								
33								
34								

Mode of transport codes for columns (k) and (n) ▶ **1** — Parcel delivery, courier, or U.S. Postal Service **2** — Private truck **3** — For-hire truck **4** — Railroad

Continued →

Containerized? *(Y/N)* (i)	U.S. destination ***(Complete for all shipments.)*** (j)			Mode(s) of transport to U.S. destination *Enter all that apply in order used. Use codes below.* (k)	Export? *(Y/N)* (l)	Foreign destination (for export shipments only) **Note:** In column (j) enter the U.S. port, airport, or border crossing of exit. (m)		Export mode (n)	Line No. (o)
	City	State	ZIP Code			City	Country		
									10
									11
									12
									13
									14
									15
									16
									17
									18
									19
									20
									21
									22
									23
									24
									25
									26
									27
									28
									29
									30
									31
									32
									33
									34

5 — Shallow draft vessel
6 — Deep draft vessel
7 — Pipeline
8 — Air
9 — Other mode
0 — Unknown

FORM CFS-2000 (6-9-97)

PLEASE CONTINUE ON PAGE 6.

Item F **SHIPMENT CHARACTERISTICS — Continued**

Line No. (a)	Shipment ID Number (b)	Shipment date (c) Month	Shipment date (c) Day	Shipment value (excluding shipping costs) in whole dollars (d)	Shipment weight in pounds (e)	Commodity code from SCTG Manual (f)	Commodity description (g)	If a hazardous material, enter the "UN" or "NA" number (h)
35								
36								
37								
38								
39								
40								

Mode of transport codes for columns (k) and (n) ▶ **1** — Parcel delivery, courier, or U.S. Postal Service **2** — Private truck **3** — For-hire truck **4** — Railroad

Continued →

Item G Enter the total dollar value of **all** shipments for the one-week reporting period. This figure should represent all products leaving this establishment for the one-week period. An estimate is acceptable.

Total value in whole dollars

Item H In the last three months did this location have any individual shipments with a value over $2,000,000?

☐ Yes

☐ No

Item I **AVAILABILITY AND USE OF ON-SITE SHIPPING FACILITIES**

In column (b), check "Yes" or "No" for each type of shipping facility to indicate whether or not this type of facility existed **on-site** during 1997. For each "Yes" in column (b), check "Yes" or "No" in column (c) to indicate whether or not you used the facility on your premises for **outbound shipments** during 1997.

Type of shipping facility (a)	Was a shipping facility of this type on your premises during 1997? (b)	Did you **use** this facility on your premises for **outbound shipments** during 1997? (c)
1. Rail siding	1 ☐ Yes → 2 ☐ No	1 ☐ Yes 2 ☐ No
2. Dock on the Great Lakes	1 ☐ Yes → 2 ☐ No	1 ☐ Yes 2 ☐ No
3. Dock on inland water	1 ☐ Yes → 2 ☐ No	1 ☐ Yes 2 ☐ No
4. Dock on deep sea water	1 ☐ Yes → 2 ☐ No	1 ☐ Yes 2 ☐ No
5. Airport/landing strip capable of handling your shipments	1 ☐ Yes → 2 ☐ No	1 ☐ Yes 2 ☐ No
6. Pipeline terminal	1 ☐ Yes → 2 ☐ No	1 ☐ Yes 2 ☐ No

Containerized? (Y/N) (i)	U.S. destination *(Complete for all shipments.)* (j) City	State	ZIP Code	Mode(s) of transport to U.S. destination *Enter all that apply in order used. Use codes below.* (k)	Export? (Y/N) (l)	Foreign destination (for export shipments only) **Note:** In column (j) enter the U.S. port, airport, or border crossing of exit. (m) City	Country	Export mode (n)	Line No. (o)
									35
									36
									37
									38
									39
									40

5 — Shallow draft vessel
6 — Deep draft vessel
7 — Pipeline
8 — Air
9 — Other mode
0 — Unknown

Item J USE OF OFF-SITE SHIPPING FACILITIES

In column (b), check "Yes" or "No" for each type of shipping facility to indicate whether or not you used an **off-site** facility of that type for **outbound shipments** during 1997. For each "Yes", enter the miles to that off-site facility in column (c), and the mode of transport used to reach that facility in column (d). The modes are listed below.

Type of shipping facility (a)	Did you **use** this type of off-site facility for **outbound shipments** during 1997? (b)	Distance to the off-site facility of this type that you used most in 1997 *(Report in miles – estimates are acceptable)* (c)	Mode of transport used to reach that facility *(Enter a code from the list below)* (d)
1. Rail siding	1 ☐ Yes → 2 ☐ No		
2. Dock on the Great Lakes	1 ☐ Yes → 2 ☐ No		
3. Dock on inland water	1 ☐ Yes → 2 ☐ No		
4. Dock on deep sea water	1 ☐ Yes → 2 ☐ No		
5. Airport/landing strip capable of handling your shipments	1 ☐ Yes → 2 ☐ No		
6. Pipeline terminal	1 ☐ Yes → 2 ☐ No		

1 – Trailer on Flat Car (TOFC)
2 – Private Truck
3 – For-Hire Truck
4 – Rail
5 – Water
6 – Pipeline
7 – Air
8 – Other

PLEASE CONTINUE ON PAGE 8.

Item K USE AND AVAILABILITY OF TRANSPORTATION EQUIPMENT

During 1997, did this location use any of the following types of equipment for outbound shipments? Please check "Yes" or "No." For rail cars reported in number 1 below, enter the approximate percentage of your total outbound rail shipments that used that type of rail car. These percentages should add to 100%. If you had no rail shipments, leave the percentages blank.

Equipment (a)	Was this type of equipment used for outbound shipments during 1993? (b)	Percentage of total rail shipments (c)
1. Rail cars that:		
a. Your company owned/leased	1 ☐ Yes → 2 ☐ No	
b. A common carrier owned/leased	1 ☐ Yes → 2 ☐ No	
c. Another party owned/leased (e.g. receiver)	1 ☐ Yes → 2 ☐ No	
2. Trucks with 6 or more tires or truck-tractors that:		
a. Your company owned	1 ☐ Yes 2 ☐ No	
b. Your company leased, with driver	1 ☐ Yes 2 ☐ No	
c. Your company leased, without driver	1 ☐ Yes 2 ☐ No	
3. Truck trailers that your company owned or leased	1 ☐ Yes 2 ☐ No	
4. Aircraft that your company owned or leased	1 ☐ Yes 2 ☐ No	
5. Barges that your company owned or leased	1 ☐ Yes 2 ☐ No	
6. Other equipment that your company owned or leased – *Specify* ↙	1 ☐ Yes 2 ☐ No	

Item L TRANSPORTATION DECISIONS

During 1997, who generally decided on the mode of transportation for your outbound shipments? *Check the appropriate box.*

1 ☐ Your company 2 ☐ Receiver of shipment 3 ☐ Other

Remarks

Item M CERTIFICATION

Name of person to contact regarding this report – *Please print*	Telephone number – *Include area code*	Date
Signature	Title	

Instructions for Completing the Commodity Flow Survey

TIPS FOR COMPLETING THE CFS QUESTIONNAIRE

Please read all instructions.

You may use estimates if book figures are not readily available.

If you have questions about completing the survey, a Census Bureau representative will be glad to assist you. You can call us at 1-800-772-7851.

Some instructions are included on the questionnaire itself. However, due to space limitations, most of the instructions and definitions are included in separate reference materials. These include this instruction guide, and a listing of commodity codes to be used for classifying individual shipments in this survey.

PART I – GENERAL INFORMATION

Frequently Asked Questions About the Commodity Flow Survey (CFS)

Why are you conducting the CFS?

The CFS produces valuable measures of the demands on the nation's transportation system.

The results of the CFS are used by transportation policy makers to analyze future transportation needs.

Who reports in the CFS?

The CFS covers a sample of establishments in the mining, manufacturing, wholesale, and selected retail industries.

Why is my participation important?

Your establishment was selected as part of a sample designed to represent a wide range of industries and geographic regions.

Your report helps ensure quality results.

Is this survey mandatory?

Yes. The CFS is mandatory under the authority of Title 13, United States Code (USC).

Will my data be kept confidential?

Yes. The same law that requires your participation, Title 13, USC, also guarantees your data will be kept strictly confidential.

The reports you provide the Census Bureau cannot be used for purposes of taxation, regulation, or investigation.

Your report is used only to develop summary data that do not reveal the activities of individual firms or establishments.

How often must I report?

You will be sent four questionnaires in all: one during each quarter of 1997.

The CFS will not be conducted again until 2002.

PART II – INSTRUCTIONS FOR COMPLETING YOUR QUESTIONNAIRE

Items A – C

Please enter the information requested on your establishment's name, operational status, and physical location.

Item D

Enter in the space provided your total number of outbound shipments **for the one week reporting period** on the front of the questionnaire.

Please include in this count any materials picked up by the customer ("customer pick-up").

What we mean by a "shipment":

For the purposes of this survey, a shipment is a single movement of goods, commodities, products, etc. from your location to a customer or to another location of your company.

"Commodities" refer to items that your location produces, sells, or distributes, *not* to items that are considered by-products of your location's operation.

What we don't mean by a "shipment":

Do *not* include as shipments items such as inter-office memos, payroll checks, business correspondence, etc.

Do *not* include as shipments items such as refuse, scrap paper, waste, and recyclable materials **unless** your location is in the business of selling or providing these materials to others.

A special note about "shipments":

A full, or partial, truckload should be counted as a single shipment only if all the commodities on the truck are destined for one location.

If a truck makes multiple deliveries on a route, **please count each stop as one shipment.**

Item E: Sampling Instructions

If you reported 40 or fewer shipments in Item D, complete Item F (Shipment Characteristics) for all of your shipments covered by the one-week reporting period.

If you reported more than 40 shipments in Item D, follow the instructions in Item E in order to select a sample of shipments on which to report in Item F.

By asking you to select a sample of your shipments for the one-week reporting period, we avoid asking you for information on all your shipments, while still obtaining statistically accurate information.

Reminder: The files you are sampling from should reflect the full range of your location's shipping activities in terms of modes of transportation used, commodities shipped, and destinations.

We're here to answer your questions! If you have questions about the sampling process (or any part of the questionnaire) please call us at 1-800-772-7851.

PART II – INSTRUCTIONS FOR COMPLETING YOUR QUESTIONNAIRE – Continued

Item F: Shipment Characteristics

- **Shipment ID Number (column b) –** Enter the invoice number, shipment number, or some other unique identification number that your establishment could use to find this particular shipping document if questions arise regarding your report.
- **Shipment Date (column c) –** Enter the month and day of the shipment. If shipment date is not available, use the invoice/shipping document date. Use numbers only.
- **Shipment Value (column d) –** Enter the dollar value, in whole dollars, of the entire shipment. The value should not include freight charges or excise taxes (i.e., report the net selling value, f.o.b. plant). If the value is not readily available from your records, please estimate.
- **Shipment Weight (column e) –** Enter the weight of the total shipment in whole pounds. If weight is not readily available from your records, please estimate.
- **Commodity Code (column f) –** Please use the list of Standard Classification of Transported Goods (SCTG) Codes in the enclosed SCTG Manual to select the proper code. For shipments with more than one commodity, enter only the code for the commodity with the greatest weight.
- **Commodity Description (column g) –** Enter a brief description of the commodity shipped. For shipments with more than one commodity, describe only the commodity with the greatest weight. Do not use trade names, catalog numbers, or other codes not familiar to persons outside your business.

Item F **SHIPMENT CHARACTERISTICS**

Line No. (a)	Shipment ID Number (b)	Shipment date (c) Month	Shipment date (c) Day	Shipment value (excluding shipping costs) in whole dollars (d)	Shipment weight in pounds (e)	Commodity code from SCTG Manual (f)	Commodity description (g)
0	123-5	4	26	4,235	140	3 6 1 2 0	Electrical transformers
00	123-6	4	26	125,300	626,500	1 7 1 0 0	Gasoline
1							
2							
3							
4							

Mode of transport codes for columns (k) and (n) ▶ **1** — Parcel delivery, courier, or U.S. Postal Service **2** — Private truck **3** — For-hire truck **4** — Railroad

Continued →

PART II – INSTRUCTIONS FOR COMPLETING YOUR QUESTIONNAIRE – Continued

Item F: Shipment Characteristics – Continued

- **For Hazardous Materials (column h) –** If shipment is a hazardous material, enter the 4-digit United Nations or North American number.
- **Containerized (column i) –** Indicate whether or not the shipment was containerized by entering "Y" or "N" (yes or no). Containerized means that the shipment **left your establishment** in an intermodal container or stackable tank without permanently attached wheels. These containers typically vary from 20 to 53 feet in length, and are carried on truck chassis, trains, and ships.
- **U.S. Destination: City, State, and ZIP Code (column j) –** For domestic shipments, enter the city, state, and 5-digit ZIP Code of the buyer/receiver as it appears on the shipping document. Use the **"ship to"** address. Use the two letter state abbreviation shown in Part IV.

  For **export shipments,** report the U.S. **port of exit** as the destination city. The port of exit is the port or airport from which the shipment left the country. In case of land shipments into Mexico or Canada, it is the border crossing.
- **Mode(s) of Transport (column k) –** Enter the code(s) for **all** modes of transport used for the shipment to its U.S. destination (i.e., the destination reported in column j). Codes are located on the bottom of pages 2, 3, 4, and 5 of the questionnaire. Enter in the sequence used, all that apply. See Part III for definitions of each mode.

  For Customer Pick-up: Report the mode(s) of transportation used, if known. Otherwise, report mode as "0" (unknown).

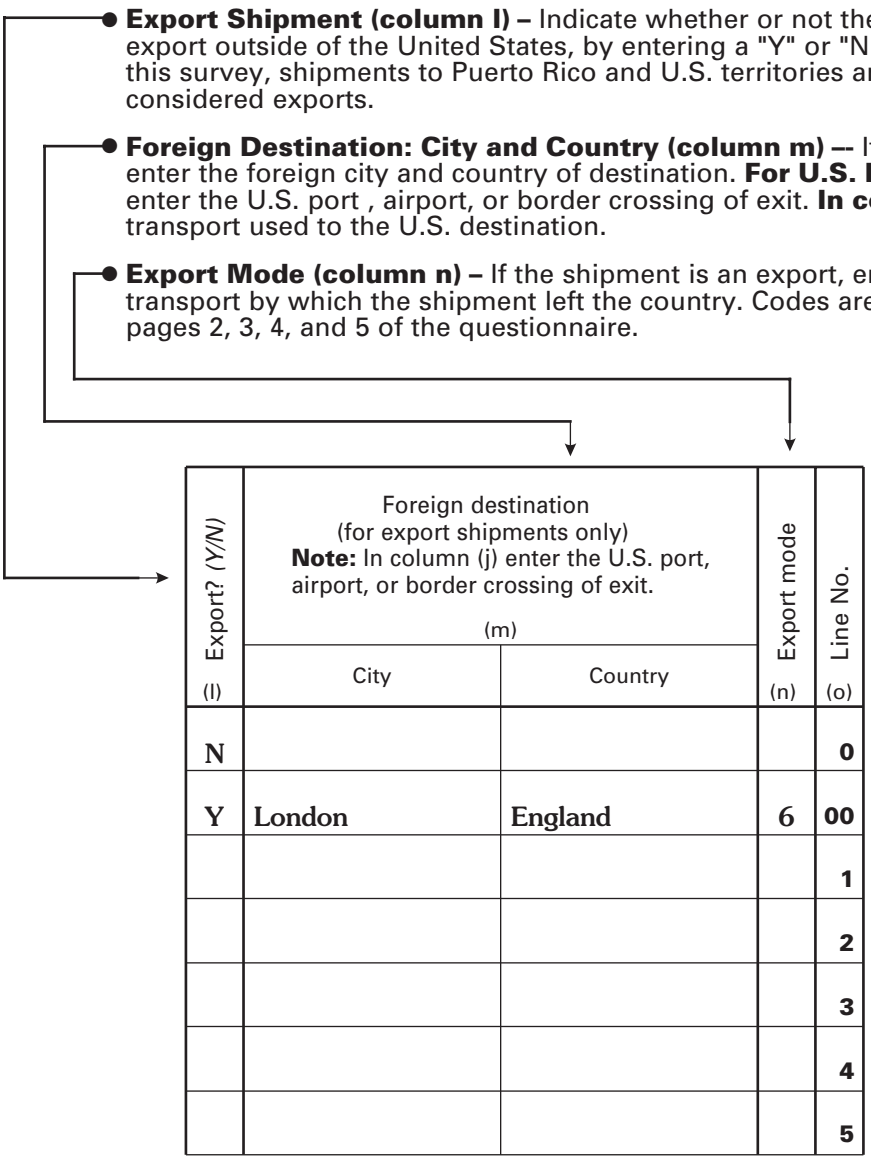
  For Export Shipments: List only the mode(s) of transport used to reach the port, airport, or border crossing of exit.

If a hazardous material, enter the "UN" or "NA" number (h)	Containerized? (Y/N) (i)	U.S. destination (j)			Mode(s) of transport to U.S. destination *Enter all that apply using codes shown below.* (k)
		City	State	ZIP Code	
	N	Los Angeles	CA	90040	2, 4, 3
	N	New York	NY	10454	5

PART II – INSTRUCTIONS FOR COMPLETING YOUR QUESTIONNAIRE – Continued

Item F: Shipment Characteristics – Continued

- **Export Shipment (column l) –** Indicate whether or not the shipment is intended for export outside of the United States, by entering a "Y" or "N" (yes or no). For purposes of this survey, shipments to Puerto Rico and U.S. territories and possessions are considered exports.
- **Foreign Destination: City and Country (column m) –-** If the shipment is an export, enter the foreign city and country of destination. **For U.S. Destination (column j),** enter the U.S. port , airport, or border crossing of exit. **In column (k),** enter the mode of transport used to the U.S. destination.
- **Export Mode (column n) –** If the shipment is an export, enter the code for the mode of transport by which the shipment left the country. Codes are located at the bottom of pages 2, 3, 4, and 5 of the questionnaire.



Export? *(Y/N)* (l)	Foreign destination (for export shipments only) **Note:** In column (j) enter the U.S. port, airport, or border crossing of exit. (m)		Export mode (n)	Line No. (o)
	City	Country		
N				0
Y	London	England	6	00
				1
				2
				3
				4
				5

Items G – I

Please enter the information requested.

Item J: Certification

Please enter the name and telephone number of the person to contact in the event that we have a question about your report.

PART III – MODE DEFINITIONS

Parcel delivery/Courier/U.S. Postal Service – Delivery services that carry letters, parcels, packages, and other small shipments that typically weigh less than 100 pounds. Includes bus parcel delivery service.

Private truck – Trucks operated by a temporary or permanent employee of this establishment or the buyer/receiver of the shipment.

For-hire truck – Trucks that carry freight for a fee collected from the shipper, recipient of the shipment, or an arranger of the transportation.

Railroad– Any common carrier or private railroad.

Shallow draft vessel – Barges, ships, or ferries operating primarily on rivers and canals; in harbors, the Great Lakes, the Saint Lawrence Seaway; the Intracoastal Waterway, the Inside Passage to Alaska, major bays and inlets; or in the ocean close to the shoreline.

Deep draft vessel – Barges, ships, or ferries operating primarily in the open ocean. Shipping on the Great Lakes and the Saint Lawrence Seaway is classified with shallow draft vesels.

Pipeline – Movements of oil, petroleum, gas, slurry, etc. through pipelines that extend to other establishments or locations beyond the shipper's establishment. Aqueducts for the movement of water are not included.

Air – Commercial or private aircraft, and all air service for shipments that typically weigh more than 100 pounds. Includes air freight and air express.

Other mode – Any mode not listed above.

Unknown – The shipment was not carried by a parcel delivery/courier/U.S. Postal service, and you cannot determine what mode of transportation is used.

Note: Commodities that are "shipped" under their own power, such as boats, barges, ferries, ships, aircraft, trucks, and trains **should be classified with the appropriate mode above.** Commodities shipped under their own power for which an appropriate mode is not listed (e.g., buses, recreational vehicles) should be listed as **"other" mode.**

PART IV -- STATE ABBREVIATION LIST

State	Abbrev.	State	Abbrev.
Alabama	AL	Montana	MT
Alaska	AK	Nebraska	NE
Arizona	AZ	Nevada	NV
Arkansas	AR	New Hampshire	NH
California	CA	New Jersey	NJ
Colorado	CO	New Mexico	NM
Connecticut	CT	New York	NY
Delaware	DE	North Carolina	NC
Dist. of Col.	DC	North Dakota	ND
Florida	FL	Ohio	OH
Georgia	GA	Oklahoma	OK
Hawaii	HI	Oregon	OR
Idaho	ID	Pennsylvania	PA
Illinois	IL	Rhode Island	RI
Indiana	IN	South Carolina	SC
Iowa	IA	South Dakota	SD
Kansas	KS	Tennessee	TN
Kentucky	KY	Texas	TX
Louisiana	LA	Utah	UT
Maine	ME	Vermont	VT
Maryland	MD	Virginia	VA
Massachusetts	MA	Washington	WA
Michigan	MI	West Virginia	WV
Minnesota	MN	Wisconsin	WI
Mississippi	MS	Wyoming	WY
Missouri	MO		

NOTICE - We estimate that it will take an average of 2 hours to complete this form. This includes time to read instructions, assemble and review information, and record answers on the form. If you have any comments regarding this estimate or any other aspect of this survey, send them to the Associate Director for Administration, Attn: Paperwork Reduction Project 0607-0189, Room 3104, Federal Building 3, Bureau of the Census, Washington, DC 20233-0001. Respondents are not required to respond to any information collection unless it displays a valid approval number in the top right corner on the front of the questionnaire.