New Jersey

1997

Issued December 1999

EC97TCF-NJ

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

ACKNOWLEDGMENTS

This report was prepared in the Service Sector Statistics Division under the direction of **Thomas E. Zabelsky,** Assistant Chief for Current Service and Transportation Programs. Planning, implementation, and compiling of this report were under the supervision of **John L. Fowler,** Chief, Commodity Flow Survey Branch, assisted by **Wanda Dougherty, Debra Corbett, Bruce Dembroski, Shirley Gray, Michael Jones, Stephanie Kelley, Mabel Ocasio, Bonnie Opalko, Joyce Price, Barbara Selinske, Eli Serrano,** and **Michael Sprung.** Sample design and statistical methodology were developed under the general direction of **Howard Hogan** and **Carl A. Konschnik,** former Assistant Chiefs, and **Ruth E. Detlefsen,** current Assistant Chief, Research and Methodology. Sample design and estimation were under the supervision of **Patrick Cantwell,** former Chief, and **Jock Black,** current Chief, Program Research and Development Branch, assisted by **William C. Davie Jr., David L. Kinyon, Jacklyn R. Jonas,** and **M. Cristina Cruz.** Frame construction, sample control, imputation, and quality control procedures were developed under the supervision of **Carol King,** Chief, Statistical Methods Branch, assisted by **James Hunt.**

The processing system and computer programs were developed and implemented by the OAO programming group, led by **Jacques Wilmore** and assisted by **Harold N. Bobbitt** and **Robert J. Jeffrey. Steve G. McCraith,** Chief, Quinquennial Surveys Branch, Economic Statistical Methods and Programming Division and **Joseph F. Keehan** provided general support.

Coordination of data collection efforts was under the direction of **Judith N. Petty,** Chief, National Processing Center, assisted by **Matthew Aulbach, Linda Broadus, Grant Goodwin, Carlene Bottorff, Teresa Branstetter,** and **Jack Miller.**

The staff of the Administrative and Customer Services Division, **Walter C. Odom,** Chief, performed planning, design, composition, editorial review, and printing planning and procurement for the publications, Internet products, and report forms. **Margaret A. Smith** provided publication coordination and editing.

We also acknowledge the contributions of the following Department of Transportation (DOT) representatives in the overall planning and design of the survey: **Rolf Schmitt,** Associate Director for Transportation Studies, Bureau of Transportation Statistics, assisted by **Susan Lapham, Russ Capelle, Ronald J. Duych,** and **Felix Ammah-Tagoe.**

The Oak Ridge National Laboratory's Center for Transportation Analysis, under the former and current direction of **Mike Bronzini** and **David Greene,** respectively, provided all mileage data for this report, using its transportation network modeling system, under the supervision of **Frank Southworth** and assisted by **Shih-Miao Chin, Bruce Peterson, Jane Rollow,** and **Angela Gibson.**

Special acknowledgment is also due to the many businesses whose cooperation was essential to the publication of these data.

New Jersey 1997

EC97TCF-NJ

Issued December 1999

1997 Economic Census

Transportation

1997 Commodity Flow Survey

U.S. Department of Transportation
Rodney E. Slater,
Secretary

Mortimer L. Downey,
Deputy Secretary

BUREAU OF TRANSPORTATION STATISTICS
Dr. Ashish Sen,
Director
Rick Kowalewski,
Deputy Director

Rolf R. Schmitt,
Associate Director for
Transportation Studies

U.S. Department of Commerce
William M. Daley,
Secretary

Robert L. Mallett,
Deputy Secretary

Economics and Statistics Administration
Robert J. Shapiro,
Under Secretary for
Economic Affairs

U.S. CENSUS BUREAU
Kenneth Prewitt,
Director

Economics and Statistics Administration

Robert J. Shapiro,
Under Secretary
for Economic Affairs

U.S. CENSUS BUREAU

Kenneth Prewitt,
Director

William G. Barron,
Deputy Director

Paula J. Schneider,
Principal Associate Director
for Programs

Frederick T. Knickerbocker,
Associate Director
for Economic Programs

Thomas L. Mesenbourg,
Assistant Director
for Economic Programs

Carole A. Ambler,
Chief, Service Sector
Statistics Division

BUREAU OF TRANSPORTATION STATISTICS

Dr. Ashish Sen,
Director

Rick Kowalewski,
Deputy Director

Rolf R. Schmitt,
Associate Director for
Transportation Studies

CONTENTS

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	**285 814**	**100.0**	**223 902**	**100.0**	**34 445**	**100.0**	**466**
Single modes	**227 627**	**79.6**	**218 758**	**97.7**	**31 820**	**92.4**	**231**
Truck[1]	208 604	73.0	190 115	84.9	23 813	69.1	181
For-hire truck	143 544	50.2	98 723	44.1	19 258	55.9	538
Private truck	63 576	22.2	88 312	39.4	4 297	12.5	56
Rail	5 187	1.8	3 821	1.7	1 963	5.7	S
Water	1 029	.4	6 847	3.1	851	2.5	S
Shallow draft	504	.2	3 705	1.7	192	.6	S
Great Lakes	–	–	–	–	–	–	–
Deep draft	525	.2	S	S	S	S	S
Air (includes truck and air)	9 317	3.3	216	.1	328	1.0	1 347
Pipeline[2]	S	S	S	S	S	S	S
Multiple modes	**51 370**	**18.0**	**1 716**	**.8**	**1 598**	**4.6**	**710**
Parcel, U.S. Postal Service or courier	50 805	17.8	1 256	.6	922	2.7	709
Truck and rail	391	.1	190	–	369	1.1	1 210
Truck and water	122	–	S	S	S	S	S
Rail and water	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	1 761
Other and unknown modes	**6 816**	**2.4**	**3 428**	**1.5**	**1 027**	**3.0**	**303**

– 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	**285 814**	**252 569**	**13.2**	**223 902**	**179 502**	**24.7**	**34 445**	**32 137**	**7.2**	**466**	**429**	**8.6**
Single modes	**227 627**	**208 794**	**9.0**	**218 758**	**172 372**	**26.9**	**31 820**	**29 807**	**6.8**	**231**	**241**	**–4.1**
Truck[1]	208 604	197 709	5.5	190 115	136 417	39.4	23 813	21 393	11.3	181	196	–7.7
For-hire truck	143 544	130 417	10.1	98 723	66 246	49.0	19 258	17 092	12.7	538	503	7.0
Private truck	63 576	67 063	–5.2	88 312	69 685	26.7	4 297	4 207	2.1	56	62	–9.9
Rail	5 187	1 623	219.7	3 821	2 931	30.3	1 963	1 962	.1	S	844	S
Water	1 029	3 331	–69.1	6 847	22 945	–70.2	851	S	S	S	691	S
Shallow draft	504	1 296	–61.1	3 705	S	S	192	S	S	S	131	S
Great Lakes	–	–	–	–	–	–	–	–	–	–	–	–
Deep draft	525	S	S	S	S	S	S	S	S	S	S	S
Air (includes truck and air)	9 317	4 272	118.1	216	160	35.1	328	201	63.5	1 347	1 220	10.4
Pipeline[2]	S	1 859	S	S	9 919	S	S	S	S	S	S	S
Multiple modes	**51 370**	**37 097**	**38.5**	**1 716**	**1 493**	**14.9**	**1 598**	**1 354**	**18.1**	**710**	**649**	**9.3**
Parcel, U.S. Postal Service or courier	50 805	35 339	43.8	1 256	944	33.1	922	560	64.6	709	648	9.5
Truck and rail	391	S	S	190	S	S	369	S	S	1 210	1 432	–15.5
Truck and water	122	29	318.6	S	22	S	S	S	S	S	3 615	S
Rail and water	–	–	–	–	–	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	S	S	S	1 761	4 691	–62.5
Other and unknown modes	**6 816**	**6 679**	**2.1**	**3 428**	**5 637**	**–39.2**	**1 027**	**976**	**5.2**	**303**	**478**	**–36.6**

– 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. 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	**79.6**	**82.7**	**97.7**	**96.0**	**92.4**	**92.7**
Truck[1]	73.0	78.3	84.9	76.0	69.1	66.6
For-hire truck	50.2	51.6	44.1	36.9	55.9	53.2
Private truck	22.2	26.6	39.4	38.8	12.5	13.1
Rail	1.8	.6	1.7	1.6	5.7	6.1
Water	.4	1.3	3.1	12.8	2.5	S
Shallow draft	.2	.5	1.7	S	.6	S
Great Lakes	–	–	–	–	–	–
Deep draft	.2	S	S	S	S	S
Air (includes truck and air)	3.3	1.7	.1	–	1.0	.6
Pipeline[2]	S	.7	S	5.5	S	S
Multiple modes	**18.0**	**14.7**	**.8**	**.8**	**4.6**	**4.2**
Parcel, U.S. Postal Service or courier	17.8	14.0	.6	.5	2.7	1.7
Truck and rail	.1	S	–	S	1.1	S
Truck and water	–	–	S	–	S	S
Rail and water	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S
Other and unknown modes	**2.4**	**2.6**	**1.5**	**3.1**	**3.0**	**3.0**

– 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. 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	**34 445**	**100.0**	**457**
Truck	23 915	69.4	176
Rail	2 389	6.9	409
Shallow draft	279	.8	S
Great Lakes	S	S	941
Deep draft	S	S	1 760
Air	314	.9	1 276
Parcel, U.S. Postal Service or courier	922	2.7	709
Pipeline	S	S	S
Other and unknown modes	1 027	3.0	303

– 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	**285 814**	**100.0**	**223 902**	**100.0**	**34 445**	**100.0**
Less than 50 miles	94 334	33.0	162 425	72.5	3 243	9.4
50 to 99 miles	29 734	10.4	20 744	9.3	1 976	5.7
100 to 249 miles	48 703	17.0	15 941	7.1	2 986	8.7
250 to 499 miles	28 636	10.0	8 069	3.6	3 592	10.4
500 to 749 miles	27 271	9.5	5 834	2.6	4 485	13.0
750 to 999 miles	15 004	5.2	2 267	1.0	2 309	6.7
1,000 to 1,499 miles	18 171	6.4	S	S	S	S
1,500 to 1,999 miles	6 091	2.1	536	.2	1 047	3.0
2,000 miles or more	17 870	6.3	2 321	1.0	6 704	19.5
Single modes	**227 627**	**100.0**	**218 758**	**100.0**	**31 820**	**100.0**
Less than 50 miles	80 244	35.3	160 428	73.3	3 201	10.1
50 to 99 miles	25 725	11.3	20 454	9.4	1 949	6.1
100 to 249 miles	40 581	17.8	14 911	6.8	2 787	8.8
250 to 499 miles	22 887	10.1	7 489	3.4	3 372	10.6
500 to 749 miles	21 149	9.3	5 486	2.5	4 197	13.2
750 to 999 miles	11 110	4.9	2 052	.9	2 090	6.6
1,000 to 1,499 miles	11 304	5.0	S	S	S	S
1,500 to 1,999 miles	4 001	1.8	497	.2	971	3.1
2,000 miles or more	10 625	4.7	1 929	.9	5 519	17.3
Truck[1]	**208 604**	**100.0**	**190 115**	**100.0**	**23 813**	**100.0**
Less than 50 miles	76 061	36.5	143 347	75.4	3 025	12.7
50 to 99 miles	24 675	11.8	17 136	9.0	1 570	6.6
100 to 249 miles	36 477	17.5	11 885	6.3	2 325	9.8
250 to 499 miles	20 804	10.0	6 742	3.5	2 936	12.3
500 to 749 miles	18 809	9.0	4 905	2.6	3 716	15.6
750 to 999 miles	10 352	5.0	1 979	1.0	2 006	8.4
1,000 to 1,499 miles	8 406	4.0	1 990	1.0	2 740	11.5
1,500 to 1,999 miles	3 748	1.8	430	.2	829	3.5
2,000 miles or more	9 272	4.4	1 700	.9	4 666	19.6
For-hire truck	**143 544**	**100.0**	**98 723**	**100.0**	**19 258**	**100.0**
Less than 50 miles	32 451	22.6	64 453	65.3	1 724	9.0
50 to 99 miles	17 001	11.8	9 876	10.0	949	4.9
100 to 249 miles	31 651	22.0	8 992	9.1	1 823	9.5
250 to 499 miles	18 363	12.8	5 833	5.9	2 577	13.4
500 to 749 miles	16 952	11.8	4 240	4.3	3 210	16.7
750 to 999 miles	8 511	5.9	1 755	1.8	1 784	9.3
1,000 to 1,499 miles	7 401	5.2	1 685	1.7	2 308	12.0
1,500 to 1,999 miles	3 233	2.3	367	.4	707	3.7
2,000 miles or more	7 979	5.6	1 521	1.5	4 177	21.7
Private truck	**63 576**	**100.0**	**88 312**	**100.0**	**4 297**	**100.0**
Less than 50 miles	43 245	68.0	76 372	86.5	1 285	29.9
50 to 99 miles	7 209	11.3	6 939	7.9	594	13.8
100 to 249 miles	4 731	7.4	2 823	3.2	491	11.4
250 to 499 miles	2 255	3.5	859	1.0	336	7.8
500 to 749 miles	1 777	2.8	633	.7	484	11.3
750 to 999 miles	S	S	206	.2	203	4.7
1,000 to 1,499 miles	950	1.5	271	.3	382	8.9
1,500 to 1,999 miles	501	.8	61	–	118	2.8
2,000 miles or more	1 142	1.8	149	.2	404	9.4
Rail	**5 187**	**100.0**	**3 821**	**100.0**	**1 963**	**100.0**
Less than 50 miles	S	S	1 289	33.7	S	S
50 to 99 miles	147	2.8	S	S	S	S
100 to 249 miles	89	1.7	S	S	S	S
250 to 499 miles	S	S	740	19.4	432	22.0
500 to 749 miles	S	S	554	14.5	451	23.0
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	248	4.8	278	7.3	429	21.9
1,500 to 1,999 miles	S	S	S	S	S	S
2,000 miles or more	99	1.9	90	2.4	277	14.1
Water	**1 029**	**100.0**	**6 847**	**100.0**	**851**	**100.0**
Less than 50 miles	400	38.9	3 718	54.3	S	S
50 to 99 miles	538	52.2	S	S	319	37.5
100 to 249 miles	S	S	S	S	S	S
250 to 499 miles	–	–	–	–	–	–
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
Shallow draft	**504**	**100.0**	**3 705**	**100.0**	**192**	**100.0**
Less than 50 miles	239	47.4	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	–	–	–	–	–	–
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	–	–	–	–	–	–

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	**525**	**100.0**	**S**	**S**	**S**	**S**
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	–	–	–	–	–	–
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
Air (includes truck and air)	**9 317**	**100.0**	**216**	**100.0**	**328**	**100.0**
Less than 50 miles	–	–	–	–	–	–
50 to 99 miles	S	S	S	S	S	S
100 to 249 miles	S	S	S	S	S	S
250 to 499 miles	459	4.9	6	2.9	4	1.3
500 to 749 miles	S	S	26	12.2	29	8.8
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	1 928	20.7	57	26.2	85	25.9
1,500 to 1,999 miles	173	1.9	8	3.7	14	4.4
2,000 miles or more	1 202	12.9	S	S	S	S
Pipeline[2]	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 miles	S	S	S	S	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	S	S	S	S
1,500 to 1,999 miles	–	–	–	–	S	S
2,000 miles or more	–	–	–	–	S	S
Multiple modes	**51 370**	**100.0**	**1 716**	**100.0**	**1 598**	**100.0**
Less than 50 miles	10 218	19.9	433	25.2	13	.8
50 to 99 miles	3 420	6.7	110	6.4	10	.7
100 to 249 miles	7 366	14.3	160	9.3	33	2.1
250 to 499 miles	5 466	10.6	114	6.6	52	3.3
500 to 749 miles	5 858	11.4	250	14.6	215	13.4
750 to 999 miles	3 649	7.1	182	10.6	185	11.6
1,000 to 1,499 miles	6 649	12.9	205	12.0	303	18.9
1,500 to 1,999 miles	2 064	4.0	36	2.1	71	4.4
2,000 miles or more	6 680	13.0	225	13.1	716	44.8
Parcel, U.S. Postal Service or courier	**50 805**	**100.0**	**1 256**	**100.0**	**922**	**100.0**
Less than 50 miles	10 213	20.1	362	28.8	11	1.2
50 to 99 miles	3 420	6.7	110	8.8	10	1.1
100 to 249 miles	7 365	14.5	153	12.2	32	3.5
250 to 499 miles	5 463	10.8	112	8.9	51	5.5
500 to 749 miles	5 709	11.2	120	9.6	92	10.0
750 to 999 miles	3 561	7.0	100	8.0	103	11.2
1,000 to 1,499 miles	6 602	13.0	145	11.5	198	21.5
1,500 to 1,999 miles	2 062	4.1	34	2.7	66	7.2
2,000 miles or more	6 410	12.6	119	9.5	358	38.8
Truck and rail	**391**	**100.0**	**190**	**100.0**	**369**	**100.0**
Less than 50 miles	S	S	S	S	S	S
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	119	30.4	85	44.9	81	22.0
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	28	7.1	8	4.3	15	3.9
1,500 to 1,999 miles	S	S	S	S	S	S
2,000 miles or more	232	59.3	82	43.3	263	71.3
Truck and water	**122**	**100.0**	**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	–	–	–	–	–	–
500 to 749 miles	–	–	–	–	–	–
750 to 999 miles	83	67.4	S	S	S	S
1,000 to 1,499 miles	S	S	S	S	S	S
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	**–**	**–**	**–**	**–**	**–**	**–**
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	–	–	–	–	–	–
Other multiple modes	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 miles	–	–	–	–	–	–
50 to 99 miles	–	–	–	–	–	–
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	–	–	–	–	–	–
1,000 to 1,499 miles	S	S	S	S	S	S
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	S	S	S	S	S	S
Other and unknown modes	**6 816**	**100.0**	**3 428**	**100.0**	**1 027**	**100.0**
Less than 50 miles	3 873	56.8	1 565	45.6	29	2.8
50 to 99 miles	590	8.7	180	5.2	17	1.7
100 to 249 miles	755	11.1	S	S	S	S
250 to 499 miles	283	4.1	S	S	S	S
500 to 749 miles	263	3.9	99	2.9	74	7.2
750 to 999 miles	245	3.6	33	.9	34	3.3
1,000 to 1,499 miles	218	3.2	47	1.4	66	6.5
1,500 to 1,999 miles	25	.4	S	S	S	S
2,000 miles or more	565	8.3	166	4.9	468	45.6

– 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. 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	**285 814**	**100.0**	**223 902**	**100.0**	**34 445**	**100.0**	**466**
Less than 50 lb	43 011	15.0	1 272	.6	463	1.3	538
50 to 99 lb	12 529	4.4	697	.3	234	.7	340
100 to 499 lb	42 899	15.0	3 168	1.4	919	2.7	305
500 to 749 lb	11 873	4.2	1 444	.6	458	1.3	307
750 to 999 lb	11 287	3.9	1 197	.5	328	1.0	270
1,000 to 9,999 lb	82 881	29.0	17 902	8.0	4 968	14.4	274
10,000 to 49,999 lb	63 618	22.3	94 196	42.1	15 454	44.9	183
50,000 to 99,999 lb	7 764	2.7	43 129	19.3	2 618	7.6	58
100,000 lb or more	9 951	3.5	60 897	27.2	S	S	284
Single modes	**227 627**	**100.0**	**218 758**	**100.0**	**31 820**	**100.0**	**231**
Less than 50 lb	11 097	4.9	756	.3	93	.3	258
50 to 99 lb	4 662	2.0	446	.2	57	.2	126
100 to 499 lb	31 731	13.9	2 662	1.2	569	1.8	204
500 to 749 lb	10 529	4.6	1 375	.6	419	1.3	294
750 to 999 lb	10 562	4.6	1 132	.5	310	1.0	271
1,000 to 9,999 lb	79 404	34.9	17 223	7.9	4 690	14.7	268
10,000 to 49,999 lb	62 262	27.4	92 357	42.2	14 470	45.5	175
50,000 to 99,999 lb	7 591	3.3	42 933	19.6	2 502	7.9	56
100,000 lb or more	9 789	4.3	59 874	27.4	S	S	281
Truck[1]	**208 604**	**100.0**	**190 115**	**100.0**	**23 813**	**100.0**	**181**
Less than 50 lb	9 213	4.4	737	.4	71	.3	176
50 to 99 lb	4 059	1.9	433	.2	38	.2	87
100 to 499 lb	27 333	13.1	2 605	1.4	520	2.2	183
500 to 749 lb	9 840	4.7	1 358	.7	392	1.6	275
750 to 999 lb	10 449	5.0	1 127	.6	304	1.3	266
1,000 to 9,999 lb	77 003	36.9	16 997	8.9	4 606	19.3	266
10,000 to 49,999 lb	61 529	29.5	92 117	48.5	14 189	59.6	172
50,000 to 99,999 lb	6 552	3.1	42 726	22.5	2 331	9.8	53
100,000 lb or more	2 626	1.3	32 015	16.8	1 362	5.7	S
For-hire truck	**143 544**	**100.0**	**98 723**	**100.0**	**19 258**	**100.0**	**538**
Less than 50 lb	3 173	2.2	70	–	48	.3	694
50 to 99 lb	1 387	1.0	51	–	25	.1	481
100 to 499 lb	15 770	11.0	732	.7	356	1.8	489
500 to 749 lb	6 523	4.5	461	.5	329	1.7	680
750 to 999 lb	7 234	5.0	418	.4	235	1.2	555
1,000 to 9,999 lb	57 861	40.3	7 614	7.7	3 805	19.8	494
10,000 to 49,999 lb	45 711	31.8	54 240	54.9	11 772	61.1	254
50,000 to 99,999 lb	4 350	3.0	31 446	31.9	1 866	9.7	57
100,000 lb or more	1 534	1.1	S	S	823	4.3	317
Private truck	**63 576**	**100.0**	**88 312**	**100.0**	**4 297**	**100.0**	**56**
Less than 50 lb	6 011	9.5	666	.8	22	.5	52
50 to 99 lb	2 651	4.2	381	.4	13	.3	33
100 to 499 lb	11 387	17.9	1 853	2.1	154	3.6	73
500 to 749 lb	3 279	5.2	884	1.0	59	1.4	66
750 to 999 lb	3 160	5.0	698	.8	58	1.4	83
1,000 to 9,999 lb	18 614	29.3	9 261	10.5	742	17.3	72
10,000 to 49,999 lb	15 200	23.9	35 992	40.8	2 259	52.6	65
50,000 to 99,999 lb	2 182	3.4	10 253	11.6	451	10.5	45
100,000 lb or more	1 092	1.7	28 325	32.1	539	12.5	S
Rail	**5 187**	**100.0**	**3 821**	**100.0**	**1 963**	**100.0**	**S**
Less than 50 lb	S	S	–	–	S	S	916
50 to 99 lb	S	S	S	S	S	S	300
100 to 499 lb	5	.1	S	S	S	S	397
500 to 749 lb	S	S	–	–	S	S	910
750 to 999 lb	S	S	S	S	S	S	339
1,000 to 9,999 lb	S	S	S	S	2	.1	S
10,000 to 49,999 lb	235	4.5	174	4.6	202	10.3	1 080
50,000 to 99,999 lb	S	S	183	4.8	122	6.2	652
100,000 lb or more	2 787	53.7	3 298	86.3	1 637	83.4	499
Water	**1 029**	**100.0**	**6 847**	**100.0**	**851**	**100.0**	**S**
Less than 50 lb	S	S	S	S	S	S	12
50 to 99 lb	S	S	S	S	S	S	13
100 to 499 lb	S	S	S	S	S	S	15
500 to 749 lb	S	S	S	S	S	S	33
750 to 999 lb	S	S	S	S	S	S	37
1,000 to 9,999 lb	5	.4	S	S	S	S	292
10,000 to 49,999 lb	35	3.4	26	.4	2	.3	S
50,000 to 99,999 lb	S	S	S	S	S	S	570
100,000 lb or more	891	86.6	6 806	99.4	847	99.6	S
Shallow draft	**504**	**100.0**	**3 705**	**100.0**	**192**	**100.0**	**S**
Less than 50 lb	S	S	S	S	S	S	12
50 to 99 lb	S	S	S	S	S	S	13
100 to 499 lb	S	S	S	S	S	S	15
500 to 749 lb	S	S	S	S	S	S	33
750 to 999 lb	S	S	S	S	S	S	37
1,000 to 9,999 lb	S	S	S	S	S	S	311
10,000 to 49,999 lb	S	S	S	S	S	S	33
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	424	84.1	S	S	S	S	50

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	**525**	**100.0**	**S**	**S**	**S**	**S**	**S**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	2
500 to 749 lb	–	–	–	–	–	–	–
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	S	S	S	S	S	S	19
10,000 to 49,999 lb	23	4.4	14	.4	2	.3	181
50,000 to 99,999 lb	S	S	S	S	S	S	570
100,000 lb or more	468	89.0	S	S	S	S	S
Air (includes truck and air)	**9 317**	**100.0**	**216**	**100.0**	**328**	**100.0**	**1 347**
Less than 50 lb	1 872	20.1	18	8.4	22	6.8	1 354
50 to 99 lb	598	6.4	13	5.8	S	S	1 493
100 to 499 lb	S	S	48	22.2	49	14.9	1 125
500 to 749 lb	S	S	S	S	S	S	1 836
750 to 999 lb	110	1.2	5	2.2	7	2.1	1 408
1,000 to 9,999 lb	S	S	56	25.9	81	24.6	1 367
10,000 to 49,999 lb	S	S	39	18.3	S	S	1 892
50,000 to 99,999 lb	S	S	S	S	S	S	2 148
100,000 lb or more	–	–	–	–	–	–	–
Pipeline[2]	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 lb	S	S	S	S	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	S	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	**51 370**	**100.0**	**1 716**	**100.0**	**1 598**	**100.0**	**710**
Less than 50 lb	31 005	60.4	499	29.1	363	22.7	706
50 to 99 lb	7 735	15.1	242	14.1	175	10.9	733
100 to 499 lb	10 476	20.4	449	26.1	335	21.0	762
500 to 749 lb	1 097	2.1	44	2.6	35	2.2	783
750 to 999 lb	456	.9	22	1.3	14	.9	578
1,000 to 9,999 lb	51	.1	S	S	7	.4	S
10,000 to 49,999 lb	384	.7	388	22.6	568	35.6	1 425
50,000 to 99,999 lb	S	S	S	S	S	S	S
100,000 lb or more	S	S	S	S	S	S	2 693
Parcel, U.S. Postal Service or courier	**50 805**	**100.0**	**1 256**	**100.0**	**922**	**100.0**	**709**
Less than 50 lb	31 005	61.0	499	39.7	363	39.4	706
50 to 99 lb	7 735	15.2	242	19.2	175	19.0	733
100 to 499 lb	10 475	20.6	448	35.7	335	36.3	763
500 to 749 lb	1 097	2.2	44	3.5	34	3.7	771
750 to 999 lb	455	.9	22	1.7	13	1.5	566
1,000 to 9,999 lb	S	S	S	S	S	S	717
10,000 to 49,999 lb	–	–	–	–	–	–	–
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	–	–	–	–	–	–	–
Truck and rail	**391**	**100.0**	**190**	**100.0**	**369**	**100.0**	**1 210**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	S
500 to 749 lb	S	S	S	S	S	S	1 949
750 to 999 lb	S	S	S	S	S	S	3 209
1,000 to 9,999 lb	12	3.2	1	.7	2	.4	1 496
10,000 to 49,999 lb	272	69.5	152	79.9	272	73.6	1 820
50,000 to 99,999 lb	S	S	S	S	S	S	2 846
100,000 lb or more	S	S	S	S	S	S	2 795
Truck and water	**122**	**100.0**	**S**	**S**	**S**	**S**	**S**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	–	–	–	–	–	–	–
500 to 749 lb	S	S	S	S	S	S	7 767
750 to 999 lb	S	S	S	S	S	S	7 919
1,000 to 9,999 lb	S	S	S	S	S	S	S
10,000 to 49,999 lb	S	S	S	S	S	S	967
50,000 to 99,999 lb	S	S	S	S	S	S	S
100,000 lb or more	S	S	S	S	S	S	1 090

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	**–**	**–**	**–**	**–**	**–**	**–**	**–**
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	–	–	–	–	–	–	–
Other multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**1 761**
Less than 50 lb	S	S	S	S	S	S	2 111
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	1 526
500 to 749 lb	–	–	–	–	–	–	–
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	S	S	S	S	S	S	1 526
10,000 to 49,999 lb	S	S	S	S	S	S	1 761
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	–	–	–	–	–	–	–
Other and unknown modes	**6 816**	**100.0**	**3 428**	**100.0**	**1 027**	**100.0**	**303**
Less than 50 lb	909	13.3	17	.5	S	S	306
50 to 99 lb	132	1.9	9	.3	S	S	S
100 to 499 lb	692	10.1	57	1.7	15	1.5	251
500 to 749 lb	247	3.6	25	.7	4	.4	S
750 to 999 lb	269	3.9	43	1.3	S	S	75
1,000 to 9,999 lb	3 426	50.3	668	19.5	271	26.4	425
10,000 to 49,999 lb	971	14.3	1 450	42.3	416	40.5	301
50,000 to 99,999 lb	133	2.0	169	4.9	S	S	S
100,000 lb or more	S	S	S	S	S	S	204

– 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	**285 814**	**100.0**	**223 902**	**100.0**	**34 445**	**100.0**	**466**
01	Live animals and live fish	22	–	17	–	6	–	232
02	Cereal grains	S	S	6	–	S	S	86
03	Other agricultural products	1 003	.4	930	.4	S	S	S
04	Animal feed and products of animal origin, n.e.c.	S	S	175	–	S	S	S
05	Meat, fish, seafood, and their preparations	2 716	1.0	780	.3	182	.5	S
06	Milled grain products and preparations, and bakery products	4 415	1.5	2 262	1.0	761	2.2	96
07	Other prepared foodstuffs and fats and oils	13 095	4.6	11 937	5.3	2 350	6.8	158
08	Alcoholic beverages	3 119	1.1	2 860	1.3	606	1.8	41
09	Tobacco products	1 363	.5	50	–	S	S	58
10	Monumental or building stone	S	S	2 140	1.0	91	.3	46
11	Natural sands	S	S	S	S	S	S	74
12	Gravel and crushed stone	254	–	35 539	15.9	560	1.6	32
13	Nonmetallic minerals n.e.c.	191	–	S	S	S	S	406
14	Metallic ores and concentrates	S	S	S	S	S	S	510
15	Coal	S	S	S	S	S	S	794
17	Gasoline and aviation turbine fuel	6 008	2.1	23 113	10.3	S	S	49
18	Fuel oils	4 395	1.5	25 477	11.4	1 246	3.6	32
19	Coal and petroleum products, n.e.c.	2 390	.8	25 568	11.4	1 296	3.8	S
20	Basic chemicals	7 368	2.6	4 314	1.9	1 060	3.1	704
21	Pharmaceutical products	29 626	10.4	921	.4	309	.9	829
22	Fertilizers	S	S	S	S	S	S	464
23	Chemical products and preparations, n.e.c.	15 289	5.3	3 872	1.7	2 026	5.9	537
24	Plastics and rubber	13 705	4.8	5 257	2.3	3 208	9.3	436
25	Logs and other wood in the rough	S	S	S	S	S	S	48
26	Wood products	1 834	.6	1 603	.7	126	.4	106
27	Pulp, newsprint, paper, and paperboard	3 824	1.3	4 965	2.2	1 207	3.5	S
28	Paper or paperboard articles	1 906	.7	1 319	.6	316	.9	155
29	Printed products	S	S	4 496	2.0	S	S	218
30	Textiles, leather, and articles of textiles or leather	20 378	7.1	1 355	.6	815	2.4	956
31	Nonmetallic mineral products	4 242	1.5	13 123	5.9	1 874	5.4	375
32	Base metal in primary or semifinished forms and in finished basic shapes	14 456	5.1	5 897	2.6	2 590	7.5	247
33	Articles of base metal	5 665	2.0	3 040	1.4	815	2.4	331
34	Machinery	8 974	3.1	713	.3	362	1.1	464
35	Electronic and other electrical equipment and components and office equipment	27 862	9.7	1 016	.5	701	2.0	742
36	Motorized and other vehicles (including parts)	18 809	6.6	1 853	.8	503	1.5	439
37	Transportation equipment, n.e.c.	1 154	.4	S	S	S	S	984
38	Precision instruments and apparatus	8 608	3.0	84	–	72	.2	894
39	Furniture, mattresses and mattress supports, lamps, lighting fittings, and illuminated signs	1 081	.4	164	–	60	.2	714
40	Miscellaneous manufactured products	14 378	5.0	2 731	1.2	1 436	4.2	598
41	Waste and scrap	717	.3	1 955	.9	382	1.1	158
43	Mixed freight	4 359	1.5	2 649	1.2	106	.3	55
--	Commodity unknown	S	S	449	.2	S	S	602

– 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	**285 814**	**100.0**	**223 902**	**100.0**	**34 445**	**100.0**	**466**
Single modes	**227 627**	**79.6**	**218 758**	**97.7**	**31 820**	**92.4**	**231**
Truck[1]	208 604	73.0	190 115	84.9	23 813	69.1	181
For-hire truck	143 544	50.2	98 723	44.1	19 258	55.9	538
Private truck	63 576	22.2	88 312	39.4	4 297	12.5	56
Rail	5 187	1.8	3 821	1.7	1 963	5.7	S
Water	1 029	.4	6 847	3.1	851	2.5	S
Shallow draft	504	.2	3 705	1.7	192	.6	S
Great Lakes	–	–	–	–	–	–	–
Deep draft	525	.2	S	S	S	S	S
Air (includes truck and air)	9 317	3.3	216	.1	328	1.0	1 347
Pipeline[2]	S	S	S	S	S	S	S
Multiple modes	**51 370**	**18.0**	**1 716**	**.8**	**1 598**	**4.6**	**710**
Parcel, U.S. Postal Service or courier	50 805	17.8	1 256	.6	922	2.7	709
Truck and rail	391	.1	190	–	369	1.1	1 210
Truck and water	122	–	S	S	S	S	S
Rail and water	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	1 761
Other and unknown modes	**6 816**	**2.4**	**3 428**	**1.5**	**1 027**	**3.0**	**303**
SCTG 01, LIVE ANIMALS AND LIVE FISH							
Total	**22**	**100.0**	**17**	**100.0**	**6**	**100.0**	**232**
Single modes	**22**	**99.5**	**17**	**99.7**	**6**	**99.8**	**232**
Truck[1]	22	99.5	17	99.7	6	99.8	232
For-hire truck	11	51.0	12	72.3	5	82.5	417
Private truck	11	48.6	5	27.4	1	17.3	225
Rail	–	–	–	–	–	–	–
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**	**307**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	307
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
SCTG 02, CEREAL GRAINS							
Total	**S**	**S**	**6**	**100.0**	**S**	**S**	**86**
Single modes	**S**	**S**	**5**	**76.9**	**S**	**S**	**65**
Truck[1]	S	S	5	76.9	S	S	65
For-hire truck	S	S	S	S	S	S	18
Private truck	S	S	5	76.6	S	S	65
Rail	–	–	–	–	–	–	–
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**	**892**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	790
Truck and rail	S	S	S	S	S	S	927
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 03, OTHER AGRICULTURAL PRODUCTS							
Total	**1 003**	**100.0**	**930**	**100.0**	**S**	**S**	**S**
Single modes	**994**	**99.1**	**927**	**99.7**	**S**	**S**	**S**
Truck[1]	993	99.0	927	99.7	S	S	S
For-hire truck	S	S	S	S	S	S	573
Private truck	680	67.9	S	S	S	S	25
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	742
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**317**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	441
Truck and rail	S	S	S	S	S	S	20
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**2**	**.2**	**S**	**S**	**79**
SCTG 04, ANIMAL FEED AND PRODUCTS OF ANIMAL ORIGIN, N.E.C.							
Total	**S**	**S**	**175**	**100.0**	**S**	**S**	**S**
Single modes	**S**	**S**	**143**	**81.9**	**S**	**S**	**224**
Truck[1]	S	S	143	81.9	S	S	224
For-hire truck	S	S	S	S	S	S	613
Private truck	90	14.1	85	48.9	S	S	12
Rail	–	–	–	–	–	–	–
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	729
Truck and rail	S	S	S	S	S	S	3 244
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**2 048**
SCTG 05, MEAT, FISH, SEAFOOD, AND THEIR PREPARATIONS							
Total	**2 716**	**100.0**	**780**	**100.0**	**182**	**100.0**	**S**
Single modes	**2 649**	**97.5**	**761**	**97.5**	**181**	**99.2**	**S**
Truck[1]	2 649	97.5	761	97.5	181	99.2	S
For-hire truck	842	31.0	205	26.3	130	71.6	916
Private truck	1 807	66.5	555	71.2	50	27.6	27
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	**67**	**2.5**	**20**	**2.5**	**1**	**.8**	**73**

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		
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
SCTG 06, MILLED GRAIN PRODUCTS AND PREPARATIONS, AND BAKERY PRODUCTS							
Total	**4 415**	**100.0**	**2 262**	**100.0**	**761**	**100.0**	**96**
Single modes	**4 227**	**95.7**	**2 174**	**96.1**	**684**	**89.9**	**S**
Truck[1]	4 224	95.7	2 170	95.9	681	89.5	S
For-hire truck	1 141	25.8	787	34.8	368	48.4	423
Private truck	2 723	61.7	1 178	52.1	182	23.9	S
Rail	S	S	S	S	S	S	613
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	1 913
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**49**	**2.1**	**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	1 710
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**79**
SCTG 07, OTHER PREPARED FOODSTUFFS AND FATS AND OILS							
Total	**13 095**	**100.0**	**11 937**	**100.0**	**2 350**	**100.0**	**158**
Single modes	**12 801**	**97.8**	**11 804**	**98.9**	**2 253**	**95.9**	**146**
Truck[1]	12 678	96.8	11 722	98.2	2 109	89.8	143
For-hire truck	6 277	47.9	3 870	32.4	1 607	68.4	550
Private truck	6 110	46.7	7 352	61.6	462	19.7	77
Rail	105	.8	78	.7	S	S	1 207
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	1 863
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**89**	**.7**	**36**	**.3**	**S**	**S**	**594**
Parcel, U.S. Postal Service or courier	S	S	S	S	3	.1	580
Truck and rail	35	.3	S	S	S	S	2 129
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**205**	**1.6**	**96**	**.8**	**S**	**S**	**S**
SCTG 08, ALCOHOLIC BEVERAGES							
Total	**3 119**	**100.0**	**2 860**	**100.0**	**606**	**100.0**	**41**
Single modes	**3 039**	**97.4**	**2 747**	**96.1**	**445**	**73.4**	**39**
Truck[1]	3 005	96.3	2 712	94.8	435	71.7	39
For-hire truck	1 150	36.9	1 342	46.9	370	61.0	571
Private truck	1 855	59.5	1 369	47.9	65	10.7	25
Rail	S	S	S	S	S	S	285
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**	**1 431**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	S	S	S	S	S	S	949
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	1 778
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 09, TOBACCO PRODUCTS							
Total	**1 363**	**100.0**	**50**	**100.0**	**S**	**S**	**58**
Single modes	**1 326**	**97.3**	**48**	**97.1**	**S**	**S**	**39**
Truck[1]	1 326	97.3	48	97.1	S	S	39
For-hire truck	S	S	S	S	S	S	862
Private truck	1 262	92.6	38	77.0	2	20.1	27
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**33**	**2.4**	**1**	**2.1**	**S**	**S**	**641**
Parcel, U.S. Postal Service or courier	33	2.4	1	2.1	S	S	641
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 10, MONUMENTAL OR BUILDING STONE							
Total	**S**	**S**	**2 140**	**100.0**	**91**	**100.0**	**46**
Single modes	**S**	**S**	**2 134**	**99.7**	**91**	**100.0**	**46**
Truck[1]	S	S	2 134	99.7	91	100.0	46
For-hire truck	S	S	S	S	S	S	35
Private truck	S	S	S	S	S	S	65
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**	**6**
SCTG 11, NATURAL SANDS							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**74**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**72**
Truck[1]	S	S	S	S	S	S	71
For-hire truck	S	S	S	S	S	S	88
Private truck	S	S	11 249	36.6	252	16.6	39
Rail	8	1.2	395	1.3	S	S	132
Water	S	S	S	S	S	S	36
Shallow draft	S	S	S	S	S	S	36
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	138
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**435**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	435
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**176**

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	**254**	**100.0**	**35 539**	**100.0**	**560**	**100.0**	**32**
Single modes	**253**	**99.8**	**35 491**	**99.9**	**559**	**99.8**	**32**
Truck[1]	253	99.8	35 491	99.9	559	99.8	32
For-hire truck	83	32.6	12 608	35.5	447	79.8	37
Private truck	144	56.8	20 702	58.3	104	18.6	36
Rail	–	–	–	–	–	–	–
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**	**53**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	–	–	–	–	–	–	–
Truck and water	S	S	S	S	S	S	53
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**2**
SCTG 13, NONMETALLIC MINERALS N.E.C.							
Total	**191**	**100.0**	**S**	**S**	**S**	**S**	**406**
Single modes	**162**	**85.0**	**S**	**S**	**53**	**46.0**	**360**
Truck[1]	162	85.0	S	S	53	46.0	360
For-hire truck	66	34.4	45	12.8	27	23.3	619
Private truck	S	S	S	S	S	S	S
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**1**	**.3**	**S**	**S**	**S**	**S**	**750**
Parcel, U.S. Postal Service or courier	1	.3	S	S	S	S	750
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**242**
SCTG 14, METALLIC ORES AND CONCENTRATES							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**510**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**476**
Truck[1]	S	S	S	S	S	S	476
For-hire truck	S	S	S	S	S	S	633
Private truck	S	S	S	S	S	S	17
Rail	–	–	–	–	–	–	–
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**	**1 045**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	1 045
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**704**

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**	**794**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**794**
Truck[1]	S	S	S	S	S	S	794
For-hire truck	S	S	S	S	S	S	794
Private truck	–	–	–	–	–	–	–
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 17, GASOLINE AND AVIATION TURBINE FUEL							
Total	**6 008**	**100.0**	**23 113**	**100.0**	**S**	**S**	**49**
Single modes	**6 003**	**99.9**	**23 095**	**99.9**	**S**	**S**	**49**
Truck[1]	4 029	67.1	13 817	59.8	S	S	48
For-hire truck	2 585	43.0	8 891	38.5	570	10.7	68
Private truck	1 444	24.0	4 926	21.3	181	3.4	27
Rail	–	–	–	–	–	–	–
Water	S	S	S	S	S	S	58
Shallow draft	S	S	S	S	S	S	58
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**
SCTG 18, FUEL OILS							
Total	**4 395**	**100.0**	**25 477**	**100.0**	**1 246**	**100.0**	**32**
Single modes	**4 392**	**99.9**	**25 467**	**100.0**	**1 246**	**100.0**	**32**
Truck[1]	2 425	55.2	13 500	53.0	623	50.0	32
For-hire truck	1 320	30.0	7 390	29.0	411	33.0	S
Private truck	1 105	25.1	6 109	24.0	S	S	26
Rail	–	–	–	–	–	–	–
Water	S	S	S	S	S	S	170
Shallow draft	S	S	S	S	S	S	44
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	198
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	S	S	S	S	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**451**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	451
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**14**

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	**2 390**	**100.0**	**25 568**	**100.0**	**1 296**	**100.0**	**S**
Single modes	**2 367**	**99.0**	**25 295**	**98.9**	**1 281**	**98.8**	**S**
Truck[1]	2 028	84.9	23 370	91.4	987	76.1	48
For-hire truck	985	41.2	S	S	448	34.6	S
Private truck	999	41.8	12 576	49.2	530	40.9	33
Rail	S	S	S	S	S	S	673
Water	S	S	S	S	S	S	S
Shallow draft	S	S	S	S	S	S	S
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	15
Air (includes truck and air)	S	S	S	S	S	S	1 723
Pipeline[2]	S	S	S	S	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	555
Truck and rail	S	S	S	S	S	S	962
Truck and water	S	S	S	S	S	S	27
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**18**	**.7**	**S**	**S**	**14**	**1.1**	**S**
SCTG 20, BASIC CHEMICALS							
Total	**7 368**	**100.0**	**4 314**	**100.0**	**1 060**	**100.0**	**704**
Single modes	**6 464**	**87.7**	**4 249**	**98.5**	**1 010**	**95.3**	**358**
Truck[1]	5 904	80.1	3 323	77.0	797	75.2	348
For-hire truck	4 292	58.3	1 860	43.1	690	65.1	478
Private truck	1 612	21.9	S	S	107	10.1	S
Rail	298	4.0	S	S	211	19.9	424
Water	S	S	S	S	S	S	2
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	2
Air (includes truck and air)	S	S	–	–	–	–	1 809
Pipeline[2]	S	S	S	S	S	S	S
Multiple modes	**768**	**10.4**	**18**	**.4**	**25**	**2.4**	**987**
Parcel, U.S. Postal Service or courier	754	10.2	14	.3	12	1.1	986
Truck and rail	S	S	S	S	S	S	2 914
Truck and water	S	S	S	S	S	S	5 521
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**136**	**1.8**	**48**	**1.1**	**S**	**S**	**S**
SCTG 21, PHARMACEUTICAL PRODUCTS							
Total	**29 626**	**100.0**	**921**	**100.0**	**309**	**100.0**	**829**
Single modes	**18 086**	**61.0**	**836**	**90.7**	**214**	**69.1**	**193**
Truck[1]	17 727	59.8	833	90.5	210	68.0	113
For-hire truck	14 242	48.1	308	33.4	200	64.7	S
Private truck	3 485	11.8	S	S	10	3.3	83
Rail	S	S	S	S	S	S	427
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	350	1.2	S	S	S	S	1 432
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**11 396**	**38.5**	**83**	**9.0**	**S**	**S**	**999**
Parcel, U.S. Postal Service or courier	11 396	38.5	83	9.0	S	S	999
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 22, FERTILIZERS							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**464**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**464**
Truck[1]	S	S	S	S	S	S	464
For-hire truck	S	S	S	S	S	S	613
Private truck	S	S	S	S	S	S	97
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 23, CHEMICAL PRODUCTS AND PREPARATIONS, N.E.C.							
Total	**15 289**	**100.0**	**3 872**	**100.0**	**2 026**	**100.0**	**537**
Single modes	**12 724**	**83.2**	**3 687**	**95.2**	**1 962**	**96.8**	**449**
Truck[1]	12 293	80.4	3 388	87.5	1 589	78.4	374
For-hire truck	9 383	61.4	2 729	70.5	1 437	70.9	588
Private truck	2 858	18.7	562	14.5	122	6.0	S
Rail	354	2.3	296	7.6	367	18.1	1 123
Water	S	S	S	S	S	S	358
Shallow draft	S	S	S	S	S	S	358
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	75	.5	2	–	5	.2	2 139
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**1 874**	**12.3**	**70**	**1.8**	**49**	**2.4**	**600**
Parcel, U.S. Postal Service or courier	1 867	12.2	60	1.5	35	1.7	600
Truck and rail	S	S	S	S	S	S	2 054
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**114**	**3.0**	**S**	**S**	**S**
SCTG 24, PLASTICS AND RUBBER							
Total	**13 705**	**100.0**	**5 257**	**100.0**	**3 208**	**100.0**	**436**
Single modes	**11 821**	**86.3**	**5 053**	**96.1**	**3 088**	**96.3**	**279**
Truck[1]	11 573	84.4	4 903	93.3	2 570	80.1	265
For-hire truck	7 874	57.5	3 252	61.9	2 185	68.1	573
Private truck	3 658	26.7	1 645	31.3	S	S	83
Rail	S	S	S	S	S	S	851
Water	S	S	S	S	S	S	5 777
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	5 777
Air (includes truck and air)	90	.7	3	–	5	.2	1 285
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**1 451**	**10.6**	**86**	**1.6**	**85**	**2.7**	**687**
Parcel, U.S. Postal Service or courier	1 377	10.0	69	1.3	37	1.1	686
Truck and rail	73	.5	16	.3	46	1.4	2 771
Truck and water	S	S	S	S	S	S	7 767
Rail and water	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	614
Other and unknown modes	**433**	**3.2**	**118**	**2.2**	**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**	**48**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**48**
Truck[1]	S	S	S	S	S	S	48
For-hire truck	–	–	–	–	–	–	–
Private truck	S	S	S	S	S	S	48
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 26, WOOD PRODUCTS							
Total	**1 834**	**100.0**	**1 603**	**100.0**	**126**	**100.0**	**106**
Single modes	**1 785**	**97.3**	**1 595**	**99.5**	**124**	**98.8**	**81**
Truck[1]	1 772	96.6	1 592	99.3	121	96.0	79
For-hire truck	293	16.0	S	S	54	42.9	561
Private truck	1 478	80.6	1 373	85.6	67	53.1	51
Rail	S	S	S	S	S	S	1 128
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	2 590
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**324**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	324
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**4**	**.2**	**S**	**S**	**S**
SCTG 27, PULP, NEWSPRINT, PAPER, AND PAPERBOARD							
Total	**3 824**	**100.0**	**4 965**	**100.0**	**1 207**	**100.0**	**S**
Single modes	**3 569**	**93.3**	**4 844**	**97.6**	**1 174**	**97.3**	**101**
Truck[1]	3 506	91.7	4 633	93.3	1 169	96.8	100
For-hire truck	2 274	59.5	3 880	78.2	1 143	94.7	289
Private truck	1 232	32.2	753	15.2	26	2.1	32
Rail	S	S	S	S	S	S	24
Water	S	S	S	S	S	S	15
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	15
Air (includes truck and air)	S	S	S	S	S	S	1 383
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**215**	**5.6**	**45**	**.9**	**S**	**S**	**S**
Parcel, U.S. Postal Service or courier	215	5.6	45	.9	S	S	S
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 28, PAPER OR PAPERBOARD ARTICLES							
Total	**1 906**	**100.0**	**1 319**	**100.0**	**316**	**100.0**	**155**
Single modes	**1 781**	**93.4**	**1 285**	**97.4**	**311**	**98.4**	**64**
Truck[1]	1 781	93.4	1 285	97.4	311	98.4	62
For-hire truck	614	32.2	408	30.9	137	43.4	216
Private truck	1 165	61.1	877	66.5	S	S	30
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	1 502
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**93**	**4.9**	**11**	**.8**	**4**	**1.1**	**506**
Parcel, U.S. Postal Service or courier	93	4.9	11	.8	4	1.1	506
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 29, PRINTED PRODUCTS							
Total	**S**	**S**	**4 496**	**100.0**	**S**	**S**	**218**
Single modes	**S**	**S**	**4 249**	**94.5**	**S**	**S**	**S**
Truck[1]	S	S	4 177	92.9	S	S	S
For-hire truck	S	S	S	S	S	S	496
Private truck	4 135	10.4	1 483	33.0	55	3.1	S
Rail	S	S	S	S	S	S	49
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	S
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**3 743**	**9.4**	**215**	**4.8**	**125**	**7.0**	**513**
Parcel, U.S. Postal Service or courier	3 742	9.4	215	4.8	124	7.0	513
Truck and rail	–	–	–	–	–	–	–
Truck and water	S	S	S	S	S	S	7 919
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**223**	**.6**	**32**	**.7**	**7**	**.4**	**S**
SCTG 30, TEXTILES, LEATHER, AND ARTICLES OF TEXTILES OR LEATHER							
Total	**20 378**	**100.0**	**1 355**	**100.0**	**815**	**100.0**	**956**
Single modes	**13 699**	**67.2**	**1 063**	**78.4**	**534**	**65.6**	**757**
Truck[1]	13 614	66.8	1 059	78.1	528	64.8	748
For-hire truck	7 357	36.1	510	37.6	381	46.7	855
Private truck	6 251	30.7	549	40.5	146	18.0	472
Rail	–	–	–	–	–	–	–
Water	S	S	S	S	S	S	68
Shallow draft	S	S	S	S	S	S	35
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	627
Air (includes truck and air)	72	.4	S	S	S	S	1 683
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**6 013**	**29.5**	**S**	**S**	**S**	**S**	**1 089**
Parcel, U.S. Postal Service or courier	6 013	29.5	S	S	S	S	1 089
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**667**	**3.3**	**38**	**2.8**	**19**	**2.4**	**945**

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	**4 242**	**100.0**	**13 123**	**100.0**	**1 874**	**100.0**	**375**
Single modes	**3 793**	**89.4**	**12 127**	**92.4**	**1 487**	**79.3**	**207**
Truck[1]	3 754	88.5	12 066	91.9	1 369	73.1	198
For-hire truck	2 615	61.6	S	S	1 103	58.9	555
Private truck	1 139	26.8	5 671	43.2	266	14.2	S
Rail	S	S	S	S	S	S	1 618
Water	S	S	S	S	S	S	115
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	115
Air (includes truck and air)	S	S	S	S	S	S	1 648
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**210**	**4.9**	**11**	**–**	**10**	**.5**	**992**
Parcel, U.S. Postal Service or courier	210	4.9	11	–	10	.5	992
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**239**	**5.6**	**S**	**S**	**378**	**20.2**	**S**
SCTG 32, BASE METAL IN PRIMARY OR SEMIFINISHED FORMS AND IN FINISHED BASIC SHAPES							
Total	**14 456**	**100.0**	**5 897**	**100.0**	**2 590**	**100.0**	**247**
Single modes	**S**	**S**	**5 660**	**96.0**	**2 299**	**88.8**	**192**
Truck[1]	S	S	5 067	85.9	1 993	77.0	177
For-hire truck	S	S	3 348	56.8	1 685	65.1	467
Private truck	2 211	15.3	1 717	29.1	307	11.9	48
Rail	120	.8	S	S	S	S	602
Water	S	S	S	S	S	S	34
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	34
Air (includes truck and air)	S	S	S	S	S	S	1 604
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**373**	**2.6**	**S**	**S**	**S**	**S**	**411**
Parcel, U.S. Postal Service or courier	315	2.2	14	.2	S	S	405
Truck and rail	S	S	S	S	S	S	2 574
Truck and water	S	S	S	S	S	S	1 275
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**44**	**.3**	**S**	**S**	**S**	**S**	**S**
SCTG 33, ARTICLES OF BASE METAL							
Total	**5 665**	**100.0**	**3 040**	**100.0**	**815**	**100.0**	**331**
Single modes	**4 524**	**79.9**	**2 773**	**91.2**	**739**	**90.7**	**356**
Truck[1]	4 441	78.4	2 758	90.7	735	90.2	365
For-hire truck	2 452	43.3	2 118	69.7	556	68.2	856
Private truck	1 980	35.0	639	21.0	S	S	137
Rail	–	–	–	–	–	–	–
Water	S	S	S	S	S	S	14
Shallow draft	S	S	S	S	S	S	14
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	972
Pipeline[2]	S	S	S	S	S	S	S
Multiple modes	**998**	**17.6**	**39**	**1.3**	**17**	**2.1**	**334**
Parcel, U.S. Postal Service or courier	998	17.6	39	1.3	17	2.1	334
Truck and rail	S	S	S	S	S	S	3 181
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**142**	**2.5**	**228**	**7.5**	**59**	**7.2**	**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 34, MACHINERY							
Total	**8 974**	**100.0**	**713**	**100.0**	**362**	**100.0**	**464**
Single modes	**6 675**	**74.4**	**630**	**88.4**	**292**	**80.6**	**224**
Truck[1]	5 981	66.6	608	85.2	260	71.9	142
For-hire truck	3 744	41.7	289	40.5	211	58.2	511
Private truck	2 236	24.9	319	44.8	49	13.6	26
Rail	S	S	S	S	S	S	1 370
Water	S	S	S	S	S	S	318
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	318
Air (includes truck and air)	S	S	S	S	S	S	1 401
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**1 853**	**20.6**	**47**	**6.6**	**57**	**15.9**	**581**
Parcel, U.S. Postal Service or courier	1 774	19.8	39	5.5	30	8.2	580
Truck and rail	S	S	S	S	S	S	1 111
Truck and water	S	S	S	S	S	S	7 800
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**446**	**5.0**	**S**	**S**	**S**	**S**	**1 214**
SCTG 35, ELECTRONIC AND OTHER ELECTRICAL EQUIPMENT AND COMPONENTS AND OFFICE EQUIPMENT							
Total	**27 862**	**100.0**	**1 016**	**100.0**	**701**	**100.0**	**742**
Single modes	**16 736**	**60.1**	**850**	**83.7**	**574**	**81.9**	**434**
Truck[1]	13 985	50.2	814	80.2	521	74.4	286
For-hire truck	11 985	43.0	744	73.2	489	69.8	628
Private truck	2 000	7.2	70	6.9	32	4.6	67
Rail	S	S	S	S	S	S	794
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	2 740	9.8	34	3.3	50	7.1	1 220
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**10 057**	**36.1**	**141**	**13.9**	**102**	**14.5**	**824**
Parcel, U.S. Postal Service or courier	10 057	36.1	141	13.9	102	14.5	824
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**1 070**	**3.8**	**S**	**S**	**S**	**S**	**S**
SCTG 36, MOTORIZED AND OTHER VEHICLES (INCLUDING PARTS)							
Total	**18 809**	**100.0**	**1 853**	**100.0**	**503**	**100.0**	**439**
Single modes	**16 716**	**88.9**	**1 673**	**90.3**	**460**	**91.4**	**329**
Truck[1]	12 386	65.8	1 282	69.2	274	54.4	94
For-hire truck	10 039	53.4	979	52.9	220	43.7	283
Private truck	2 301	12.2	301	16.2	53	10.6	24
Rail	3 703	19.7	365	19.7	S	S	S
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	1 451
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**1 077**	**5.7**	**48**	**2.6**	**S**	**S**	**680**
Parcel, U.S. Postal Service or courier	1 077	5.7	48	2.6	S	S	680
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**13**	**2.7**	**90**

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	**1 154**	**100.0**	**S**	**S**	**S**	**S**	**984**
Single modes	**674**	**58.4**	**S**	**S**	**S**	**S**	**537**
Truck[1]	549	47.6	S	S	S	S	S
For-hire truck	402	34.8	S	S	S	S	1 022
Private truck	147	12.8	S	S	S	S	322
Rail	–	–	–	–	–	–	–
Water	S	S	S	S	S	S	421
Shallow draft	S	S	S	S	S	S	137
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	697
Air (includes truck and air)	S	S	S	S	S	S	1 496
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**1 278**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	1 278
Truck and rail	–	–	–	–	–	–	–
Truck and water	S	S	S	S	S	S	1 090
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**3**	**3.2**	**S**	**S**	**329**
SCTG 38, PRECISION INSTRUMENTS AND APPARATUS							
Total	**8 608**	**100.0**	**84**	**100.0**	**72**	**100.0**	**894**
Single modes	**2 474**	**28.7**	**43**	**51.5**	**37**	**52.1**	**1 143**
Truck[1]	1 894	22.0	38	45.6	30	41.2	421
For-hire truck	1 177	13.7	33	39.3	27	37.5	602
Private truck	717	8.3	5	6.3	3	3.6	S
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	580	6.7	5	6.0	8	10.9	1 457
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**6 007**	**69.8**	**40**	**47.1**	**34**	**47.1**	**812**
Parcel, U.S. Postal Service or courier	6 007	69.8	40	47.1	34	47.1	812
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**127**	**1.5**	**1**	**1.4**	**S**	**S**	**817**
SCTG 39, FURNITURE, MATTRESSES AND MATTRESS SUPPORTS, LAMPS, LIGHTING FITTINGS, AND ILLUMINATED SIGNS							
Total	**1 081**	**100.0**	**164**	**100.0**	**60**	**100.0**	**714**
Single modes	**998**	**92.4**	**158**	**96.3**	**53**	**88.1**	**319**
Truck[1]	998	92.3	158	96.3	53	88.0	308
For-hire truck	611	56.5	97	59.2	49	82.5	514
Private truck	387	35.8	61	37.1	3	5.5	S
Rail	S	S	S	S	S	S	1 841
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**40**	**3.7**	**3**	**1.9**	**4**	**7.5**	**1 293**
Parcel, U.S. Postal Service or courier	40	3.7	3	1.9	4	7.5	1 293
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**568**

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	**14 378**	**100.0**	**2 731**	**100.0**	**1 436**	**100.0**	**598**
Single modes	**9 639**	**67.0**	**2 545**	**93.2**	**1 301**	**90.6**	**311**
Truck[1]	9 435	65.6	2 442	89.4	1 177	82.0	280
For-hire truck	6 977	48.5	S	S	1 102	76.7	725
Private truck	2 442	17.0	481	17.6	75	5.2	S
Rail	S	S	S	S	S	S	1 068
Water	S	S	S	S	S	S	19
Shallow draft	S	S	S	S	S	S	19
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	84	.6	2	–	2	.1	1 303
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**4 252**	**29.6**	**127**	**4.6**	**105**	**7.3**	**690**
Parcel, U.S. Postal Service or courier	4 251	29.6	126	4.6	105	7.3	690
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	1 718
Other and unknown modes	**487**	**3.4**	**60**	**2.2**	**S**	**S**	**342**
SCTG 41, WASTE AND SCRAP							
Total	**717**	**100.0**	**1 955**	**100.0**	**382**	**100.0**	**158**
Single modes	**688**	**95.9**	**1 946**	**99.6**	**382**	**99.9**	**158**
Truck[1]	623	86.9	1 451	74.2	138	36.2	140
For-hire truck	308	42.9	884	45.2	127	33.2	299
Private truck	S	S	S	S	11	3.0	S
Rail	S	S	S	S	S	S	472
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**	**154**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	154
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**33**
SCTG 43, MIXED FREIGHT							
Total	**4 359**	**100.0**	**2 649**	**100.0**	**106**	**100.0**	**55**
Single modes	**4 188**	**96.1**	**2 629**	**99.2**	**104**	**98.0**	**40**
Truck[1]	4 186	96.0	2 629	99.2	104	97.9	38
For-hire truck	1 384	31.7	623	23.5	27	25.3	97
Private truck	2 802	64.3	2 006	75.7	77	72.6	27
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	2 173
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**	**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	
COMMODITY UNKNOWN							
Total	**S**	**S**	**449**	**100.0**	**S**	**S**	**602**
Single modes	**S**	**S**	**444**	**98.9**	**S**	**S**	**452**
Truck[1]	S	S	239	53.3	S	S	S
For-hire truck	S	S	S	S	S	S	657
Private truck	230	20.3	58	12.9	S	S	S
Rail	S	S	S	S	S	S	83
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	1 255
Pipeline[2]	–	–	–	–	S	S	S
Multiple modes	**63**	**5.6**	**2**	**.4**	**2**	**.9**	**731**
Parcel, U.S. Postal Service or courier	63	5.6	2	.4	2	.9	731
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**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 "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	**285 814**	**100.0**	**223 902**	**100.0**	**34 445**	**100.0**
NEW ENGLAND STATES						
Connecticut	S	S	2 775	1.2	378	1.1
Maine	1 000	.3	305	.1	129	.4
Massachusetts	8 112	2.8	2 549	1.1	624	1.8
New Hampshire	1 353	.5	513	.2	157	.5
Rhode Island	1 427	.5	633	.3	165	.5
Vermont	496	.2	265	.1	88	.3
MIDDLE ATLANTIC STATES						
New Jersey	75 040	26.3	150 549	67.2	3 373	9.8
New York	41 670	14.6	21 417	9.6	1 742	5.1
Pennsylvania	25 107	8.8	17 519	7.8	1 907	5.5
EAST NORTH CENTRAL STATES						
Illinois	6 232	2.2	1 687	.8	1 422	4.1
Indiana	3 536	1.2	741	.3	546	1.6
Michigan	5 760	2.0	1 043	.5	699	2.0
Ohio	10 138	3.5	2 508	1.1	1 314	3.8
Wisconsin	4 262	1.5	449	.2	437	1.3
WEST NORTH CENTRAL STATES						
Iowa	893	.3	S	S	S	S
Kansas	S	S	183	–	239	.7
Minnesota	2 245	.8	217	.1	268	.8
Missouri	2 079	.7	445	.2	472	1.4
Nebraska	347	.1	49	–	63	.2
North Dakota	S	S	S	S	S	S
South Dakota	121	–	S	S	S	S
SOUTH ATLANTIC STATES						
Delaware	1 678	.6	S	S	S	S
District of Columbia	S	S	33	–	7	–
Florida	9 829	3.4	1 101	.5	1 264	3.7
Georgia	6 581	2.3	970	.4	835	2.4
Maryland	6 593	2.3	1 923	.9	313	.9
North Carolina	4 525	1.6	1 352	.6	732	2.1
South Carolina	2 193	.8	807	.4	585	1.7
Virginia	S	S	1 600	.7	500	1.5
West Virginia	S	S	S	S	S	S
EAST SOUTH CENTRAL STATES						
Alabama	1 226	.4	236	.1	235	.7
Kentucky	1 887	.7	299	.1	221	.6
Mississippi	689	.2	122	–	170	.5
Tennessee	2 459	.9	517	.2	463	1.3
WEST SOUTH CENTRAL STATES						
Arkansas	1 103	.4	179	–	220	.6
Louisiana	929	.3	149	–	217	.6
Oklahoma	725	.3	247	.1	353	1.0
Texas	7 501	2.6	S	S	S	S
MOUNTAIN STATES						
Arizona	1 835	.6	417	.2	1 042	3.0
Colorado	S	S	145	–	258	.7
Idaho	107	–	11	–	27	–
Montana	S	S	21	–	47	.1
Nevada	919	.3	46	–	120	.3
New Mexico	S	S	S	S	S	S
Utah	922	.3	77	–	174	.5
Wyoming	26	–	2	–	5	–
PACIFIC STATES						
Alaska	54	–	1	–	4	–
California	11 826	4.1	1 476	.7	4 392	12.7
Hawaii	S	S	S	S	S	S
Oregon	998	.3	151	–	446	1.3
Washington	1 561	.5	195	–	572	1.7

– 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.

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	**224 323**	**100.0**	**230 991**	**100.0**	**55 870**	**100.0**
NEW ENGLAND STATES						
Connecticut	4 183	1.9	2 066	.9	291	.5
Maine	564	.3	255	.1	121	.2
Massachusetts	4 301	1.9	897	.4	212	.4
New Hampshire	892	.4	298	.1	95	.2
Rhode Island	536	.2	122	–	28	–
Vermont	410	.2	193	–	57	.1
MIDDLE ATLANTIC STATES						
New Jersey	75 040	33.5	150 549	65.2	3 373	6.0
New York	22 348	10.0	11 702	5.1	1 354	2.4
Pennsylvania	24 370	10.9	21 538	9.3	2 477	4.4
EAST NORTH CENTRAL STATES						
Illinois	5 114	2.3	2 333	1.0	2 178	3.9
Indiana	3 142	1.4	1 057	.5	814	1.5
Michigan	6 613	2.9	1 647	.7	1 220	2.2
Ohio	7 717	3.4	3 328	1.4	1 881	3.4
Wisconsin	2 968	1.3	1 209	.5	1 211	2.2
WEST NORTH CENTRAL STATES						
Iowa	771	.3	475	.2	527	.9
Kansas	808	.4	244	.1	332	.6
Minnesota	S	S	612	.3	853	1.5
Missouri	1 425	.6	760	.3	891	1.6
Nebraska	654	.3	169	–	229	.4
North Dakota	32	–	34	–	52	–
South Dakota	257	.1	29	–	43	–
SOUTH ATLANTIC STATES						
Delaware	1 613	.7	2 070	.9	209	.4
District of Columbia	S	S	S	S	S	S
Florida	4 053	1.8	613	.3	703	1.3
Georgia	3 712	1.7	1 079	.5	939	1.7
Maryland	3 047	1.4	2 000	.9	321	.6
North Carolina	4 777	2.1	1 464	.6	828	1.5
South Carolina	1 482	.7	718	.3	491	.9
Virginia	3 990	1.8	2 049	.9	910	1.6
West Virginia	904	.4	725	.3	S	S
EAST SOUTH CENTRAL STATES						
Alabama	1 047	.5	427	.2	426	.8
Kentucky	2 468	1.1	608	.3	486	.9
Mississippi	568	.3	397	.2	494	.9
Tennessee	3 114	1.4	1 216	.5	1 140	2.0
WEST SOUTH CENTRAL STATES						
Arkansas	708	.3	397	.2	528	.9
Louisiana	1 686	.8	11 262	4.9	14 839	26.6
Oklahoma	440	.2	S	S	S	S
Texas	7 218	3.2	2 788	1.2	5 025	9.0
MOUNTAIN STATES						
Arizona	801	.4	40	–	96	.2
Colorado	695	.3	527	.2	1 023	1.8
Idaho	S	S	82	–	210	.4
Montana	28	–	27	–	66	.1
Nevada	303	.1	S	S	S	S
New Mexico	84	–	9	–	19	–
Utah	249	.1	35	–	77	.1
Wyoming	S	S	97	–	212	.4
PACIFIC STATES						
Alaska	S	S	S	S	S	S
California	12 044	5.4	2 088	.9	6 155	11.0
Hawaii	4	–	–	–	–	–
Oregon	940	.4	226	.1	705	1.3
Washington	1 286	.6	327	.1	973	1.7

– 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.

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	**11.4**	**–**	**9.6**	**–**	**13.2**	**–**	**9.5**
Single modes	**14.3**	**2.0**	**10.0**	**.7**	**14.2**	**1.0**	**15.9**
Truck	14.2	2.5	10.7	4.6	8.6	6.4	18.3
For-hire truck	20.4	3.7	17.9	5.2	10.0	5.6	7.0
Private truck	5.4	1.7	16.9	5.4	12.5	2.2	19.7
Rail	35.0	.6	26.0	.4	15.3	1.1	S
Water	26.0	.1	31.1	.9	45.8	.9	S
Shallow draft	33.6	–	47.4	.8	47.4	.3	S
Great Lakes	–	–	–	–	–	–	–
Deep draft	41.5	–	S	S	S	S	S
Air (includes truck and air)	41.1	.8	29.3	–	35.8	.4	8.9
Pipeline	S	S	S	S	S	S	S
Multiple modes	**10.7**	**1.9**	**9.2**	**.1**	**14.3**	**1.1**	**9.5**
Parcel, U.S. Postal Service or courier	10.7	1.9	12.4	.1	18.2	.8	9.5
Truck and rail	21.0	–	28.1	–	26.7	.2	29.7
Truck and water	44.8	–	S	S	S	S	S
Rail and water	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	29.0
Other and unknown modes	**15.8**	**.6**	**29.2**	**.7**	**25.3**	**.9**	**40.5**

– 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–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	**11.4**	**7.1**	**15.2**	**9.6**	**6.7**	**14.6**	**13.2**	**8.7**	**16.9**	**9.5**	**5.7**	**12.0**
Single modes	**14.3**	**6.2**	**16.9**	**10.0**	**7.3**	**15.7**	**14.2**	**9.7**	**18.3**	**15.9**	**8.6**	**17.3**
Truck	14.2	6.7	16.6	10.7	6.2	17.3	8.6	7.3	12.6	18.3	8.2	18.5
For-hire truck	20.4	9.2	24.6	17.9	7.1	28.7	10.0	9.4	15.5	7.0	6.4	10.2
Private truck	5.4	9.1	10.0	16.9	15.0	28.6	12.5	13.6	18.9	19.7	15.4	22.6
Rail	35.0	10.7	117.0	26.0	14.3	38.7	15.3	16.5	22.5	S	8.1	S
Water	26.0	38.2	14.3	31.1	47.3	16.9	45.8	S	S	S	34.5	S
Shallow draft	33.6	37.4	19.6	47.4	S	S	47.4	S	S	S	30.1	S
Great Lakes	–	–	–	–	–	–	–	–	–	–	–	–
Deep draft	41.5	S	S	S	S	S	S	S	S	S	S	S
Air (includes truck and air)	41.1	9.5	91.9	29.3	38.9	65.8	35.8	34.6	81.4	8.9	5.3	11.4
Pipeline	S	34.3	S	S	37.4	S	S	S	S	S	S	S
Multiple modes	**10.7**	**17.1**	**27.9**	**9.2**	**23.6**	**29.1**	**14.3**	**44.0**	**54.6**	**9.5**	**6.1**	**12.3**
Parcel, U.S. Postal Service or courier	10.7	18.0	30.1	12.4	10.2	21.4	18.2	8.8	33.3	9.5	6.1	12.4
Truck and rail	21.0	S	S	28.1	S	S	26.7	S	S	29.7	23.1	31.8
Truck and water	44.8	38.1	246.1	S	45.7	S	S	S	S	S	23.7	S
Rail and water	–	–	–	–	–	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	S	S	S	29.0	31.6	16.1
Other and unknown modes	**15.8**	**15.6**	**22.7**	**29.2**	**42.4**	**31.3**	**25.3**	**41.4**	**51.0**	**40.5**	**9.1**	**26.3**

– 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–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	**2.0**	**1.2**	**.7**	**1.5**	**1.0**	**2.1**
Truck	2.5	1.3	4.6	4.2	6.4	6.3
For-hire truck	3.7	2.8	5.2	4.2	5.6	5.3
Private truck	1.7	2.5	5.4	4.9	2.2	2.8
Rail	.6	–	.4	.3	1.1	1.3
Water	.1	.5	.9	4.6	.9	S
Shallow draft	–	.2	.8	S	.3	S
Great Lakes	–	–	–	–	–	–
Deep draft	–	S	S	S	S	S
Air (includes truck and air)	.8	.2	–	–	.4	.2
Pipeline	S	.3	S	2.3	S	S
Multiple modes	**1.9**	**1.3**	**.1**	**.2**	**1.1**	**1.9**
Parcel, U.S. Postal Service or courier	1.9	1.2	.1	–	.8	.2
Truck and rail	–	S	–	S	.2	S
Truck and water	–	–	S	–	S	S
Rail and water	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S
Other and unknown modes	**.6**	**.5**	**.7**	**1.4**	**.9**	**1.4**

– 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	**13.2**	**–**	**9.4**
Truck	8.5	6.5	18.0
Rail	13.3	1.0	43.8
Shallow draft	46.2	.4	S
Great Lakes	S	S	31.6
Deep draft	S	S	39.0
Air	36.2	.4	9.1
Parcel, U.S. Postal Service or courier	18.2	.8	9.5
Pipeline	S	S	S
Other and unknown modes	25.3	.9	40.5

– 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	**11.4**	**–**	**9.6**	**–**	**13.2**	**–**
Less than 50 miles	3.6	2.5	12.7	3.9	18.6	2.0
50 to 99 miles	15.4	.6	15.4	1.1	18.7	1.5
100 to 249 miles	34.2	2.5	18.6	1.8	16.0	1.0
250 to 499 miles	15.7	1.1	14.8	.9	14.2	1.8
500 to 749 miles	15.8	.5	10.4	.6	10.8	1.6
750 to 999 miles	19.6	1.1	9.7	.2	9.9	1.2
1,000 to 1,499 miles	12.3	.6	S	S	S	S
1,500 to 1,999 miles	22.8	.3	16.7	–	16.1	.5
2,000 miles or more	7.7	.5	19.6	.3	20.3	3.0
Single modes	**14.3**	**–**	**10.0**	**–**	**14.2**	**–**
Less than 50 miles	4.1	3.1	12.8	3.8	18.7	2.2
50 to 99 miles	17.6	.8	15.7	1.1	19.1	1.7
100 to 249 miles	41.8	3.0	19.3	1.7	16.8	.8
250 to 499 miles	20.3	1.4	14.4	.8	14.1	1.7
500 to 749 miles	20.9	.7	10.6	.5	10.9	1.7
750 to 999 miles	20.6	1.1	8.7	.2	9.0	1.1
1,000 to 1,499 miles	9.8	.4	S	S	S	S
1,500 to 1,999 miles	35.0	.3	18.2	–	17.5	.6
2,000 miles or more	11.4	.6	21.7	.3	23.1	3.0
Truck	**14.2**	**–**	**10.7**	**–**	**8.6**	**–**
Less than 50 miles	4.0	3.0	14.2	3.6	20.0	2.3
50 to 99 miles	17.5	.8	13.7	1.0	17.3	1.4
100 to 249 miles	37.8	2.6	13.8	1.5	14.1	1.0
250 to 499 miles	22.4	1.4	14.9	.8	15.0	1.4
500 to 749 miles	23.9	.7	11.8	.5	12.3	1.1
750 to 999 miles	20.0	1.2	8.9	.2	9.3	1.0
1,000 to 1,499 miles	10.0	.4	12.1	.1	12.5	1.2
1,500 to 1,999 miles	36.5	.4	16.1	–	15.8	.5
2,000 miles or more	13.0	.6	21.7	.2	21.3	2.3
For-hire truck	**20.4**	**–**	**17.9**	**–**	**10.0**	**–**
Less than 50 miles	8.5	2.8	26.4	5.3	32.0	2.5
50 to 99 miles	24.0	1.1	22.1	1.8	25.7	1.3
100 to 249 miles	43.4	3.1	16.6	2.1	17.1	1.0
250 to 499 miles	26.0	1.8	17.0	1.2	17.1	1.5
500 to 749 miles	26.1	.7	12.9	.9	13.4	1.2
750 to 999 miles	21.6	1.8	9.1	.3	9.5	.9
1,000 to 1,499 miles	11.6	.7	10.2	.4	10.6	1.4
1,500 to 1,999 miles	40.8	.5	17.5	–	17.5	.5
2,000 miles or more	13.7	.9	21.8	.5	21.3	2.6
Private truck	**5.4**	**–**	**16.9**	**–**	**12.5**	**–**
Less than 50 miles	4.8	1.9	17.9	2.3	12.8	3.1
50 to 99 miles	9.8	.8	17.0	1.4	19.6	2.0
100 to 249 miles	10.5	.6	22.8	.9	24.2	2.0
250 to 499 miles	16.6	.5	34.1	.2	31.6	1.4
500 to 749 miles	21.9	.5	30.4	.2	30.4	2.9
750 to 999 miles	S	S	31.0	.1	29.9	1.4
1,000 to 1,499 miles	14.2	.2	31.2	–	31.8	1.5
1,500 to 1,999 miles	32.7	.3	30.7	–	27.6	.4
2,000 miles or more	25.6	.4	31.4	.1	31.4	3.1
Rail	**35.0**	**–**	**26.0**	**–**	**15.3**	**–**
Less than 50 miles	S	S	44.9	6.3	S	S
50 to 99 miles	39.6	3.2	S	S	S	S
100 to 249 miles	40.1	2.4	S	S	S	S
250 to 499 miles	S	S	31.7	3.5	32.7	5.8
500 to 749 miles	S	S	31.7	5.3	29.4	6.3
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	32.4	8.2	42.9	7.2	40.0	9.7
1,500 to 1,999 miles	S	S	S	S	S	S
2,000 miles or more	28.9	1.1	26.9	1.0	26.5	4.7
Water	**26.0**	**–**	**31.1**	**–**	**45.8**	**–**
Less than 50 miles	43.8	10.8	48.4	12.2	S	S
50 to 99 miles	47.0	12.7	S	S	45.3	14.5
100 to 249 miles	S	S	S	S	S	S
250 to 499 miles	–	–	–	–	–	–
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
Shallow draft	**33.6**	**–**	**47.4**	**–**	**47.4**	**–**
Less than 50 miles	36.1	14.5	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	–	–	–	–	–	–
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	–	–	–	–	–	–

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	**41.5**	**–**	**S**	**S**	**S**	**S**
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	–	–	–	–	–	–
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
Air (includes truck and air)	**41.1**	**–**	**29.3**	**–**	**35.8**	**–**
Less than 50 miles	–	–	–	–	–	–
50 to 99 miles	S	S	S	S	S	S
100 to 249 miles	S	S	S	S	S	S
250 to 499 miles	26.9	2.6	24.7	4.5	21.7	2.0
500 to 749 miles	S	S	29.4	3.7	29.3	2.9
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	34.9	3.9	38.0	6.5	40.2	7.1
1,500 to 1,999 miles	23.9	1.9	29.6	2.0	28.7	3.3
2,000 miles or more	15.5	7.6	S	S	S	S
Pipeline	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 miles	S	S	S	S	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	S	S	S	S
1,500 to 1,999 miles	–	–	–	–	S	S
2,000 miles or more	–	–	–	–	S	S
Multiple modes	**10.7**	**–**	**9.2**	**–**	**14.3**	**–**
Less than 50 miles	11.4	2.5	23.2	5.0	23.8	.3
50 to 99 miles	12.8	.6	13.9	.6	14.9	–
100 to 249 miles	15.7	1.5	10.9	1.8	10.9	.5
250 to 499 miles	16.2	1.2	9.6	.6	10.3	.5
500 to 749 miles	11.2	1.6	26.0	3.9	28.6	3.2
750 to 999 miles	17.6	.9	38.1	2.9	37.1	2.7
1,000 to 1,499 miles	25.8	1.7	28.8	2.4	30.2	3.5
1,500 to 1,999 miles	24.2	.5	18.3	.4	17.8	.9
2,000 miles or more	17.4	1.4	18.4	2.2	20.0	4.5
Parcel, U.S. Postal Service or courier	**10.7**	**–**	**12.4**	**–**	**18.2**	**–**
Less than 50 miles	11.4	2.6	20.9	3.4	18.7	.3
50 to 99 miles	12.8	.6	13.9	.7	14.9	.1
100 to 249 miles	15.7	1.5	11.7	1.5	11.4	.5
250 to 499 miles	16.2	1.2	9.8	1.2	10.5	1.1
500 to 749 miles	12.0	1.7	13.2	.7	13.5	1.4
750 to 999 miles	17.8	.9	31.7	1.2	31.5	1.6
1,000 to 1,499 miles	26.0	1.7	28.1	1.8	28.0	2.2
1,500 to 1,999 miles	24.3	.6	20.5	.4	20.4	1.0
2,000 miles or more	17.6	1.4	18.1	1.1	21.8	3.0
Truck and rail	**21.0**	**–**	**28.1**	**–**	**26.7**	**–**
Less than 50 miles	S	S	S	S	S	S
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	37.4	9.8	47.6	11.9	48.1	8.8
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	34.5	3.2	26.7	2.4	26.4	1.8
1,500 to 1,999 miles	S	S	S	S	S	S
2,000 miles or more	34.0	9.7	30.9	9.9	30.9	8.5
Truck and water	**44.8**	**–**	**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	–	–	–	–	–	–
500 to 749 miles	–	–	–	–	–	–
750 to 999 miles	47.7	8.0	S	S	S	S
1,000 to 1,499 miles	S	S	S	S	S	S
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	**–**	**–**	**–**	**–**	**–**	**–**
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	–	–	–	–	–	–
Other multiple modes	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 miles	–	–	–	–	–	–
50 to 99 miles	–	–	–	–	–	–
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	–	–	–	–	–	–
1,000 to 1,499 miles	S	S	S	S	S	S
1,500 to 1,999 miles	–	–	–	–	–	–
2,000 miles or more	S	S	S	S	S	S
Other and unknown modes	**15.8**	**–**	**29.2**	**–**	**25.3**	**–**
Less than 50 miles	26.0	5.6	32.0	8.8	20.8	2.9
50 to 99 miles	27.2	2.6	25.6	1.1	25.7	.7
100 to 249 miles	22.8	2.0	S	S	S	S
250 to 499 miles	22.6	1.0	S	S	S	S
500 to 749 miles	40.6	2.9	29.9	1.7	28.8	2.9
750 to 999 miles	43.6	1.2	30.7	.7	30.1	2.0
1,000 to 1,499 miles	19.4	.6	24.3	.7	24.6	1.7
1,500 to 1,999 miles	44.6	.2	S	S	S	S
2,000 miles or more	27.4	2.0	38.7	3.5	38.8	7.9

– 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	**11.4**	**–**	**9.6**	**–**	**13.2**	**–**	**9.5**
Less than 50 lb	11.7	1.8	16.8	.1	14.4	.3	10.5
50 to 99 lb	9.4	.4	6.4	–	22.3	.3	17.1
100 to 499 lb	15.6	1.0	7.1	.3	18.3	.8	16.9
500 to 749 lb	10.3	.4	11.8	.1	25.3	.3	16.6
750 to 999 lb	28.6	.7	13.2	.1	20.0	.2	6.3
1,000 to 9,999 lb	25.8	2.9	9.4	1.5	16.1	1.7	7.0
10,000 to 49,999 lb	9.3	1.9	9.9	4.0	8.0	4.9	10.2
50,000 to 99,999 lb	15.0	.5	26.7	3.3	24.5	2.1	15.2
100,000 lb or more	27.9	1.1	27.2	6.2	S	S	25.0
Single modes	**14.3**	**–**	**10.0**	**–**	**14.2**	**–**	**15.9**
Less than 50 lb	16.4	.9	27.3	.1	28.3	.1	22.6
50 to 99 lb	8.1	.3	7.3	–	16.3	–	29.9
100 to 499 lb	19.8	1.0	7.5	.2	16.3	.6	15.9
500 to 749 lb	11.3	.5	12.3	.1	27.7	.3	18.2
750 to 999 lb	31.3	.9	14.4	.1	20.9	.2	6.9
1,000 to 9,999 lb	26.9	2.9	10.0	1.5	16.7	1.8	7.0
10,000 to 49,999 lb	9.5	2.1	10.0	4.3	8.4	5.3	10.4
50,000 to 99,999 lb	15.6	.6	26.8	3.4	25.5	2.3	12.6
100,000 lb or more	28.1	1.5	28.0	6.5	S	S	29.1
Truck	**14.2**	**–**	**10.7**	**–**	**8.6**	**–**	**18.3**
Less than 50 lb	16.1	.8	27.6	.1	32.2	.1	32.3
50 to 99 lb	5.8	.2	8.1	–	6.6	–	11.3
100 to 499 lb	12.1	1.0	7.2	.2	13.8	.5	13.7
500 to 749 lb	11.1	.5	12.7	.1	29.0	.3	16.7
750 to 999 lb	31.8	1.1	14.4	.1	20.9	.2	6.8
1,000 to 9,999 lb	27.8	3.1	9.9	1.5	17.2	1.7	7.2
10,000 to 49,999 lb	9.4	2.1	10.0	3.8	8.8	2.9	10.8
50,000 to 99,999 lb	14.3	.6	26.9	3.7	25.6	2.4	13.8
100,000 lb or more	34.5	.5	37.8	5.5	26.9	1.3	S
For-hire truck	**20.4**	**–**	**17.9**	**–**	**10.0**	**–**	**7.0**
Less than 50 lb	28.4	.8	40.3	–	46.4	.1	9.6
50 to 99 lb	19.7	.2	16.4	–	9.6	–	11.6
100 to 499 lb	19.5	.9	19.5	.2	11.4	.3	8.6
500 to 749 lb	15.4	.7	20.1	.1	35.3	.4	9.5
750 to 999 lb	35.6	1.6	26.3	.1	25.6	.2	6.2
1,000 to 9,999 lb	36.1	3.7	18.1	1.9	17.1	1.5	8.9
10,000 to 49,999 lb	13.2	3.0	13.1	3.8	10.6	3.4	12.8
50,000 to 99,999 lb	21.0	.9	33.1	4.0	29.9	2.6	21.5
100,000 lb or more	45.9	.4	S	S	29.8	1.2	33.5
Private truck	**5.4**	**–**	**16.9**	**–**	**12.5**	**–**	**19.7**
Less than 50 lb	14.0	1.7	30.7	.3	25.9	.2	37.5
50 to 99 lb	6.6	.4	10.2	–	9.7	–	8.6
100 to 499 lb	10.5	1.7	7.0	.4	27.0	1.2	28.4
500 to 749 lb	13.2	.6	17.8	.2	20.6	.4	31.9
750 to 999 lb	28.4	1.4	11.9	.2	18.5	.3	14.1
1,000 to 9,999 lb	9.8	2.2	11.1	1.6	18.9	3.4	16.1
10,000 to 49,999 lb	10.5	1.8	11.1	5.8	18.5	4.6	11.7
50,000 to 99,999 lb	12.6	.4	16.0	2.4	24.6	2.1	14.5
100,000 lb or more	43.4	.7	43.5	8.9	48.3	4.8	S
Rail	**35.0**	**–**	**26.0**	**–**	**15.3**	**–**	**S**
Less than 50 lb	S	S	48.4	–	S	S	28.0
50 to 99 lb	S	S	S	S	S	S	28.2
100 to 499 lb	37.3	.1	S	S	S	S	29.6
500 to 749 lb	S	S	43.1	–	S	S	34.5
750 to 999 lb	S	S	S	S	S	S	30.0
1,000 to 9,999 lb	S	S	S	S	38.9	.1	S
10,000 to 49,999 lb	39.7	1.4	41.8	2.8	40.8	4.5	26.4
50,000 to 99,999 lb	S	S	44.2	2.2	34.2	1.9	31.8
100,000 lb or more	47.3	10.3	28.8	4.9	17.1	5.4	20.4
Water	**26.0**	**–**	**31.1**	**–**	**45.8**	**–**	**S**
Less than 50 lb	S	S	S	S	S	S	31.6
50 to 99 lb	S	S	S	S	S	S	31.6
100 to 499 lb	S	S	S	S	S	S	32.9
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	40.9	1.1	S	S	S	S	30.7
10,000 to 49,999 lb	43.7	7.0	49.1	8.7	39.4	10.4	S
50,000 to 99,999 lb	S	S	S	S	S	S	32.1
100,000 lb or more	28.6	13.3	31.3	14.9	46.0	14.8	S
Shallow draft	**33.6**	**–**	**47.4**	**–**	**47.4**	**–**	**S**
Less than 50 lb	S	S	S	S	S	S	31.6
50 to 99 lb	S	S	S	S	S	S	31.6
100 to 499 lb	S	S	S	S	S	S	33.3
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	S	S	S	S	S	S	31.5
10,000 to 49,999 lb	S	S	S	S	S	S	43.2
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	42.3	18.1	S	S	S	S	26.4

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	**41.5**	**–**	**S**	**S**	**S**	**S**	**S**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	31.6
500 to 749 lb	–	–	–	–	–	–	–
750 to 999 lb	–	–	–	–	–	–	–
1,000 to 9,999 lb	S	S	S	S	S	S	32.5
10,000 to 49,999 lb	38.7	11.0	43.6	12.8	47.1	12.9	43.2
50,000 to 99,999 lb	S	S	S	S	S	S	32.1
100,000 lb or more	46.8	15.1	S	S	S	S	S
Air (includes truck and air)	**41.1**	**–**	**29.3**	**–**	**35.8**	**–**	**8.9**
Less than 50 lb	26.6	6.7	26.9	3.9	32.4	4.6	9.5
50 to 99 lb	32.4	5.2	50.0	1.9	S	S	8.3
100 to 499 lb	S	S	46.8	4.4	46.8	3.3	17.0
500 to 749 lb	S	S	S	S	S	S	12.4
750 to 999 lb	41.3	1.7	33.4	2.7	38.9	2.3	12.8
1,000 to 9,999 lb	S	S	34.4	6.8	38.2	6.7	18.2
10,000 to 49,999 lb	S	S	48.8	4.5	S	S	23.4
50,000 to 99,999 lb	S	S	S	S	S	S	31.6
100,000 lb or more	–	–	–	–	–	–	–
Pipeline	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Less than 50 lb	S	S	S	S	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	S	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	**10.7**	**–**	**9.2**	**–**	**14.3**	**–**	**9.5**
Less than 50 lb	11.7	2.5	9.8	3.5	14.0	3.3	10.2
50 to 99 lb	11.6	1.5	17.7	1.6	25.0	2.0	6.8
100 to 499 lb	14.1	1.7	15.5	3.1	26.6	3.5	14.9
500 to 749 lb	27.9	.6	24.2	.5	34.1	1.2	13.7
750 to 999 lb	36.4	.4	19.1	.3	48.2	.6	40.1
1,000 to 9,999 lb	43.2	–	S	S	37.9	.3	S
10,000 to 49,999 lb	22.3	.2	32.0	6.7	30.3	8.3	22.7
50,000 to 99,999 lb	S	S	S	S	S	S	S
100,000 lb or more	S	S	S	S	S	S	28.5
Parcel, U.S. Postal Service or courier	**10.7**	**–**	**12.4**	**–**	**18.2**	**–**	**9.5**
Less than 50 lb	11.7	2.6	9.8	2.4	14.0	2.8	10.2
50 to 99 lb	11.6	1.5	17.7	1.5	25.0	2.3	6.8
100 to 499 lb	14.1	1.7	15.5	2.1	26.6	3.6	14.8
500 to 749 lb	28.0	.6	24.2	.6	34.6	1.4	13.7
750 to 999 lb	36.5	.4	19.1	.3	47.6	.7	39.9
1,000 to 9,999 lb	S	S	S	S	S	S	30.0
10,000 to 49,999 lb	–	–	–	–	–	–	–
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	–	–	–	–	–	–	–
Truck and rail	**21.0**	**–**	**28.1**	**–**	**26.7**	**–**	**29.7**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	S
500 to 749 lb	S	S	S	S	S	S	29.7
750 to 999 lb	S	S	S	S	S	S	31.6
1,000 to 9,999 lb	48.4	1.9	35.8	.5	36.6	.2	26.4
10,000 to 49,999 lb	22.4	10.1	37.5	10.0	32.8	9.9	15.7
50,000 to 99,999 lb	S	S	S	S	S	S	31.6
100,000 lb or more	S	S	S	S	S	S	29.7
Truck and water	**44.8**	**–**	**S**	**S**	**S**	**S**	**S**
Less than 50 lb	–	–	–	–	–	–	–
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	–	–	–	–	–	–	–
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	S	S	S	S	S	S	S
10,000 to 49,999 lb	S	S	S	S	S	S	28.8
50,000 to 99,999 lb	S	S	S	S	S	S	S
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	**–**	**–**	**–**	**–**	**–**	**–**	**–**
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	–	–	–	–	–	–	–
Other multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**29.0**
Less than 50 lb	S	S	S	S	S	S	31.2
50 to 99 lb	–	–	–	–	–	–	–
100 to 499 lb	S	S	S	S	S	S	31.6
500 to 749 lb	–	–	–	–	–	–	–
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	29.8
50,000 to 99,999 lb	–	–	–	–	–	–	–
100,000 lb or more	–	–	–	–	–	–	–
Other and unknown modes	**15.8**	**–**	**29.2**	**–**	**25.3**	**–**	**40.5**
Less than 50 lb	23.3	2.9	18.8	.3	S	S	46.4
50 to 99 lb	16.3	.4	14.0	.1	S	S	S
100 to 499 lb	20.6	.8	17.5	.6	35.5	1.7	40.1
500 to 749 lb	25.5	1.3	18.2	.3	36.3	.2	S
750 to 999 lb	48.1	1.5	47.3	.5	S	S	35.0
1,000 to 9,999 lb	22.4	4.3	16.6	5.6	12.2	7.1	23.0
10,000 to 49,999 lb	14.8	3.1	34.7	7.7	39.0	6.8	37.8
50,000 to 99,999 lb	41.9	.9	31.5	3.5	S	S	S
100,000 lb or more	S	S	S	S	S	S	25.0

– 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–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	**11.4**	**–**	**9.6**	**–**	**13.2**	**–**	**9.5**
01	Live animals and live fish	17.4	–	23.7	–	30.0	–	22.7
02	Cereal grains	S	S	40.9	–	S	S	43.4
03	Other agricultural products	27.9	.1	38.5	.2	S	S	S
04	Animal feed and products of animal origin, n.e.c.	S	S	23.6	–	S	S	S
05	Meat, fish, seafood, and their preparations	29.8	.3	28.9	.1	35.9	.2	S
06	Milled grain products and preparations, and bakery products	22.1	.3	13.7	.2	18.6	.5	40.6
07	Other prepared foodstuffs and fats and oils	10.2	.6	22.5	1.0	9.5	.9	21.0
08	Alcoholic beverages	16.5	.2	19.7	.4	32.0	.7	44.3
09	Tobacco products	16.2	–	20.6	–	S	S	31.3
10	Monumental or building stone	S	S	44.0	.4	41.7	.1	24.8
11	Natural sands	S	S	S	S	S	S	25.0
12	Gravel and crushed stone	23.9	–	26.9	3.8	26.3	.5	21.7
13	Nonmetallic minerals n.e.c.	49.2	–	S	S	S	S	22.1
14	Metallic ores and concentrates	S	S	S	S	S	S	28.4
15	Coal	S	S	S	S	S	S	30.4
17	Gasoline and aviation turbine fuel	27.0	.7	31.7	2.6	S	S	16.2
18	Fuel oils	35.6	.6	38.6	3.7	44.7	1.8	26.7
19	Coal and petroleum products, n.e.c.	25.8	.2	39.2	4.0	28.8	1.3	S
20	Basic chemicals	11.7	.4	28.1	.6	17.4	.7	14.9
21	Pharmaceutical products	20.1	2.1	42.5	.1	20.5	.2	11.4
22	Fertilizers	S	S	S	S	S	S	32.0
23	Chemical products and preparations, n.e.c.	11.0	.7	8.6	.3	12.8	.8	11.5
24	Plastics and rubber	9.3	.6	22.1	.9	37.1	2.7	9.2
25	Logs and other wood in the rough	S	S	S	S	S	S	28.5
26	Wood products	17.6	.1	29.5	.3	24.5	.1	41.4
27	Pulp, newsprint, paper, and paperboard	21.0	.3	30.6	.9	31.7	1.4	S
28	Paper or paperboard articles	17.6	.1	27.9	.1	46.6	.6	27.9
29	Printed products	S	S	36.9	1.1	S	S	46.3
30	Textiles, leather, and articles of textiles or leather	22.3	1.4	17.7	.2	28.1	1.0	6.0
31	Nonmetallic mineral products	13.1	.1	34.8	2.3	24.2	1.3	21.6
32	Base metal in primary or semifinished forms and in finished basic shapes	49.9	2.5	26.5	.7	26.1	2.4	21.7
33	Articles of base metal	24.6	.3	39.5	.9	33.7	.7	17.2
34	Machinery	16.5	.6	24.2	–	20.8	.3	27.4
35	Electronic and other electrical equipment and components and office equipment	13.5	1.6	10.5	–	14.7	.4	7.2
36	Motorized and other vehicles (including parts)	13.9	1.0	14.3	.1	30.1	.6	19.6
37	Transportation equipment, n.e.c.	36.8	.2	S	S	S	S	22.5
38	Precision instruments and apparatus	13.5	.4	14.3	–	11.1	–	8.4
39	Furniture, mattresses and mattress supports, lamps, lighting fittings, and illuminated signs	21.3	.1	20.8	–	20.8	–	22.5
40	Miscellaneous manufactured products	17.2	1.0	36.5	.4	30.1	1.2	15.7
41	Waste and scrap	33.5	–	25.8	.2	40.3	.5	24.5
43	Mixed freight	26.7	.6	29.4	.3	25.7	.1	34.5
--	Commodity unknown	S	S	48.5	–	S	S	23.8

– 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.

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	**11.4**	**–**	**9.6**	**–**	**13.2**	**–**	**9.5**
Single modes	**14.3**	**2.0**	**10.0**	**.7**	**14.2**	**1.0**	**15.9**
Truck	14.2	2.5	10.7	4.6	8.6	6.4	18.3
For-hire truck	20.4	3.7	17.9	5.2	10.0	5.6	7.0
Private truck	5.4	1.7	16.9	5.4	12.5	2.2	19.7
Rail	35.0	.6	26.0	.4	15.3	1.1	S
Water	26.0	.1	31.1	.9	45.8	.9	S
Shallow draft	33.6	–	47.4	.8	47.4	.3	S
Great Lakes	–	–	–	–	–	–	–
Deep draft	41.5	–	S	S	S	S	S
Air (includes truck and air)	41.1	.8	29.3	–	35.8	.4	8.9
Pipeline	S	S	S	S	S	S	S
Multiple modes	**10.7**	**1.9**	**9.2**	**.1**	**14.3**	**1.1**	**9.5**
Parcel, U.S. Postal Service or courier	10.7	1.9	12.4	.1	18.2	.8	9.5
Truck and rail	21.0	–	28.1	–	26.7	.2	29.7
Truck and water	44.8	–	S	S	S	S	S
Rail and water	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	29.0
Other and unknown modes	**15.8**	**.6**	**29.2**	**.7**	**25.3**	**.9**	**40.5**
SCTG 01, LIVE ANIMALS AND LIVE FISH							
Total	**17.4**	**–**	**23.7**	**–**	**30.0**	**–**	**22.7**
Single modes	**17.5**	**.4**	**23.9**	**.4**	**30.1**	**.6**	**22.8**
Truck	17.5	.4	23.9	.4	30.1	.6	22.8
For-hire truck	41.1	14.9	40.9	16.3	41.4	17.8	25.9
Private truck	41.9	14.7	41.7	16.2	42.2	17.5	25.9
Rail	–	–	–	–	–	–	–
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	S	S	S	S	S	S	31.6
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**–**	**–**	**–**	**–**	**–**	**–**	**–**
SCTG 02, CEREAL GRAINS							
Total	**S**	**S**	**40.9**	**–**	**S**	**S**	**43.4**
Single modes	**S**	**S**	**40.1**	**7.1**	**S**	**S**	**26.5**
Truck	S	S	40.1	7.1	S	S	26.5
For-hire truck	S	S	S	S	S	S	31.6
Private truck	S	S	40.3	6.9	S	S	26.4
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
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	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	**–**	**–**	**–**	**–**	**–**	**–**	**–**

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	**27.9**	**–**	**38.5**	**–**	**S**	**S**	**S**
Single modes	**28.1**	**.7**	**38.6**	**.5**	**S**	**S**	**S**
Truck	28.1	.7	38.6	.5	S	S	S
For-hire truck	S	S	S	S	S	S	25.5
Private truck	38.6	13.7	S	S	S	S	42.7
Rail	–	–	–	–	–	–	–
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**	**27.1**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	25.9
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**	**49.0**	**.3**	**S**	**S**	**25.0**
SCTG 04, ANIMAL FEED AND PRODUCTS OF ANIMAL ORIGIN, N.E.C.							
Total	**S**	**S**	**23.6**	**–**	**S**	**S**	**S**
Single modes	**S**	**S**	**29.1**	**10.1**	**S**	**S**	**38.1**
Truck	S	S	29.1	10.1	S	S	38.1
For-hire truck	S	S	S	S	S	S	32.5
Private truck	47.7	18.9	35.7	13.7	S	S	38.8
Rail	–	–	–	–	–	–	–
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	31.5
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**	**31.6**
SCTG 05, MEAT, FISH, SEAFOOD, AND THEIR PREPARATIONS							
Total	**29.8**	**–**	**28.9**	**–**	**35.9**	**–**	**S**
Single modes	**30.3**	**9.4**	**29.2**	**9.8**	**36.1**	**10.5**	**S**
Truck	30.3	9.4	29.2	9.8	36.1	10.5	S
For-hire truck	42.5	12.6	44.3	12.4	44.4	14.9	19.3
Private truck	36.9	13.2	35.4	13.5	41.2	12.7	48.3
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	**39.0**	**9.4**	**48.0**	**9.8**	**49.9**	**10.5**	**25.4**

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	**22.1**	**–**	**13.7**	**–**	**18.6**	**–**	**40.6**
Single modes	**23.3**	**4.2**	**15.0**	**4.0**	**21.4**	**8.1**	**S**
Truck	23.3	4.2	15.0	4.0	21.6	8.1	S
For-hire truck	29.9	7.9	21.3	6.6	25.5	8.6	10.0
Private truck	37.3	8.8	19.8	7.1	19.9	6.9	S
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	31.6
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**46.6**	**3.8**	**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	24.5
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**30.6**
SCTG 07, OTHER PREPARED FOODSTUFFS AND FATS AND OILS							
Total	**10.2**	**–**	**22.5**	**–**	**9.5**	**–**	**21.0**
Single modes	**10.6**	**.9**	**22.8**	**.8**	**10.2**	**2.0**	**22.9**
Truck	10.6	.9	22.9	1.0	10.3	2.4	23.1
For-hire truck	9.6	3.3	7.1	6.4	10.6	3.8	12.8
Private truck	15.1	3.8	34.6	8.2	22.3	3.4	28.3
Rail	47.6	.4	45.1	.5	S	S	35.6
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	25.4
Pipeline	–	–	–	–	S	S	S
Multiple modes	**27.4**	**.3**	**44.6**	**.3**	**S**	**S**	**49.2**
Parcel, U.S. Postal Service or courier	S	S	S	S	49.0	–	47.1
Truck and rail	42.5	.2	S	S	S	S	26.7
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**35.2**	**.9**	**46.7**	**.8**	**S**	**S**	**S**
SCTG 08, ALCOHOLIC BEVERAGES							
Total	**16.5**	**–**	**19.7**	**–**	**32.0**	**–**	**44.3**
Single modes	**16.0**	**1.3**	**19.2**	**2.0**	**31.0**	**9.9**	**46.9**
Truck	15.7	1.4	19.0	2.1	31.1	10.0	47.0
For-hire truck	32.2	9.7	35.5	11.7	32.3	12.1	26.9
Private truck	18.0	10.1	18.6	12.4	28.6	14.7	39.7
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
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**30.0**
Parcel, U.S. Postal Service or courier	–	–	–	–	–	–	–
Truck and rail	S	S	S	S	S	S	29.8
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	31.6
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 09, TOBACCO PRODUCTS							
Total	**16.2**	**–**	**20.6**	**–**	**S**	**S**	**31.3**
Single modes	**16.7**	**1.0**	**20.2**	**1.0**	**S**	**S**	**28.9**
Truck	16.7	1.0	20.2	1.0	S	S	28.9
For-hire truck	S	S	S	S	S	S	26.7
Private truck	18.0	3.9	18.6	8.7	36.0	19.7	13.5
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**33.7**	**.8**	**47.1**	**.9**	**S**	**S**	**19.9**
Parcel, U.S. Postal Service or courier	33.7	.8	47.1	.9	S	S	19.9
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 10, MONUMENTAL OR BUILDING STONE							
Total	**S**	**S**	**44.0**	**–**	**41.7**	**–**	**24.8**
Single modes	**S**	**S**	**44.3**	**5.5**	**41.7**	**1.9**	**24.2**
Truck	S	S	44.3	5.5	41.7	1.9	24.2
For-hire truck	S	S	S	S	S	S	23.9
Private truck	S	S	S	S	S	S	30.1
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	**S**	**S**	**S**	**S**	**S**	**S**	**25.0**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**25.0**
Truck	S	S	S	S	S	S	26.5
For-hire truck	S	S	S	S	S	S	36.3
Private truck	S	S	31.9	14.3	47.1	16.0	35.8
Rail	44.7	2.9	45.2	3.5	S	S	28.5
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)	S	S	S	S	S	S	31.6
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**30.6**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	30.6
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**29.7**

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	**23.9**	**–**	**26.9**	**–**	**26.3**	**–**	**21.7**
Single modes	**23.9**	**.1**	**27.0**	**.1**	**26.3**	**.1**	**21.7**
Truck	23.9	.1	27.0	.1	26.3	.1	21.7
For-hire truck	24.5	12.5	26.6	12.8	34.1	8.2	22.8
Private truck	47.1	14.5	48.3	15.0	35.8	8.0	39.4
Rail	–	–	–	–	–	–	–
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	–	–	–	–	–	–	–
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**	**26.7**
SCTG 13, NONMETALLIC MINERALS N.E.C.							
Total	**49.2**	**–**	**S**	**S**	**S**	**S**	**22.1**
Single modes	**45.9**	**9.9**	**S**	**S**	**49.8**	**17.2**	**25.2**
Truck	45.9	9.9	S	S	49.8	17.2	25.2
For-hire truck	34.7	13.5	28.3	15.8	42.3	16.0	19.2
Private truck	S	S	S	S	S	S	S
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**46.9**	**10.5**	**S**	**S**	**S**	**S**	**27.7**
Parcel, U.S. Postal Service or courier	46.9	10.5	S	S	S	S	27.7
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**30.9**
SCTG 14, METALLIC ORES AND CONCENTRATES							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**28.4**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**28.2**
Truck	S	S	S	S	S	S	28.2
For-hire truck	S	S	S	S	S	S	25.8
Private truck	S	S	S	S	S	S	33.0
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**30.1**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	30.1
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**31.6**

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**	**30.4**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**30.4**
Truck	S	S	S	S	S	S	30.4
For-hire truck	S	S	S	S	S	S	30.4
Private truck	–	–	–	–	–	–	–
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 17, GASOLINE AND AVIATION TURBINE FUEL							
Total	**27.0**	**–**	**31.7**	**–**	**S**	**S**	**16.2**
Single modes	**27.1**	**.2**	**31.7**	**.1**	**S**	**S**	**16.2**
Truck	20.0	10.1	16.8	11.6	S	S	14.9
For-hire truck	31.5	8.6	24.6	8.5	22.1	19.5	43.8
Private truck	20.5	8.7	18.7	7.9	23.2	7.7	32.5
Rail	–	–	–	–	–	–	–
Water	S	S	S	S	S	S	29.3
Shallow draft	S	S	S	S	S	S	29.3
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**	**29.8**
SCTG 18, FUEL OILS							
Total	**35.6**	**–**	**38.6**	**–**	**44.7**	**–**	**26.7**
Single modes	**35.7**	**.1**	**38.6**	**–**	**44.7**	**–**	**26.2**
Truck	31.3	12.0	32.8	12.6	48.1	15.1	25.5
For-hire truck	45.9	5.7	43.6	5.6	45.9	10.6	S
Private truck	27.7	9.9	31.3	9.0	S	S	31.7
Rail	–	–	–	–	–	–	–
Water	S	S	S	S	S	S	27.0
Shallow draft	S	S	S	S	S	S	29.0
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	27.4
Air (includes truck and air)	–	–	–	–	–	–	–
Pipeline	S	S	S	S	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**31.6**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	31.6
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**31.6**

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	**25.8**	**–**	**39.2**	**–**	**28.8**	**–**	**S**
Single modes	**25.9**	**1.6**	**39.3**	**.7**	**29.1**	**2.7**	**S**
Truck	26.0	7.8	42.3	4.5	26.2	8.2	50.0
For-hire truck	43.1	7.8	S	S	35.7	9.8	S
Private truck	32.7	8.4	37.7	10.4	41.2	10.4	30.8
Rail	S	S	S	S	S	S	31.4
Water	S	S	S	S	S	S	S
Shallow draft	S	S	S	S	S	S	S
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	31.6
Air (includes truck and air)	S	S	S	S	S	S	28.7
Pipeline	S	S	S	S	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	48.8
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	**38.4**	**1.6**	**S**	**S**	**40.1**	**2.7**	**S**
SCTG 20, BASIC CHEMICALS							
Total	**11.7**	**–**	**28.1**	**–**	**17.4**	**–**	**14.9**
Single modes	**12.2**	**2.7**	**28.5**	**.6**	**17.1**	**1.3**	**17.0**
Truck	14.3	4.1	26.8	7.3	16.0	5.2	17.4
For-hire truck	15.9	5.9	31.2	10.8	18.9	6.5	13.5
Private truck	29.9	5.3	S	S	38.4	3.5	S
Rail	27.2	2.2	S	S	36.3	5.2	43.7
Water	S	S	S	S	S	S	31.6
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	31.6
Air (includes truck and air)	S	S	38.3	–	38.5	–	22.3
Pipeline	S	S	S	S	S	S	S
Multiple modes	**27.5**	**2.7**	**26.9**	**.4**	**36.7**	**1.5**	**23.9**
Parcel, U.S. Postal Service or courier	27.8	2.7	25.8	.4	27.5	1.1	24.2
Truck and rail	S	S	S	S	S	S	31.6
Truck and water	S	S	S	S	S	S	30.9
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**34.0**	**.6**	**47.7**	**.5**	**S**	**S**	**S**
SCTG 21, PHARMACEUTICAL PRODUCTS							
Total	**20.1**	**–**	**42.5**	**–**	**20.5**	**–**	**11.4**
Single modes	**15.1**	**4.9**	**47.9**	**6.7**	**24.9**	**8.7**	**24.4**
Truck	14.8	5.0	48.0	6.7	25.2	8.6	49.4
For-hire truck	16.9	5.5	19.6	12.1	27.2	9.8	S
Private truck	21.1	4.1	S	S	48.2	7.1	18.9
Rail	S	S	S	S	S	S	30.2
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	46.7	.5	S	S	S	S	27.9
Pipeline	–	–	–	–	S	S	S
Multiple modes	**38.0**	**5.1**	**47.9**	**6.7**	**S**	**S**	**6.6**
Parcel, U.S. Postal Service or courier	38.0	5.1	47.9	6.7	S	S	6.6
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 22, FERTILIZERS							
Total	**S**	**S**	**S**	**S**	**S**	**S**	**32.0**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**32.0**
Truck	S	S	S	S	S	S	32.0
For-hire truck	S	S	S	S	S	S	28.1
Private truck	S	S	S	S	S	S	28.7
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 23, CHEMICAL PRODUCTS AND PREPARATIONS, N.E.C.							
Total	**11.0**	**–**	**8.6**	**–**	**12.8**	**–**	**11.5**
Single modes	**10.4**	**2.6**	**9.0**	**1.2**	**13.2**	**1.0**	**19.0**
Truck	10.7	2.3	10.5	3.5	15.5	7.7	19.5
For-hire truck	12.2	3.6	12.7	5.6	15.9	7.8	9.9
Private truck	18.1	2.9	21.7	2.6	33.6	1.5	S
Rail	41.7	1.3	43.7	3.8	40.3	8.3	27.3
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)	39.1	.2	28.4	–	33.0	–	15.4
Pipeline	–	–	–	–	S	S	S
Multiple modes	**25.3**	**2.2**	**21.3**	**.5**	**23.1**	**.8**	**14.8**
Parcel, U.S. Postal Service or courier	25.4	2.2	27.3	.5	26.0	.6	14.8
Truck and rail	S	S	S	S	S	S	30.4
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**36.9**	**1.1**	**S**	**S**	**S**
SCTG 24, PLASTICS AND RUBBER							
Total	**9.3**	**–**	**22.1**	**–**	**37.1**	**–**	**9.2**
Single modes	**11.1**	**2.4**	**23.2**	**1.5**	**38.8**	**2.0**	**14.7**
Truck	10.8	2.2	21.9	1.2	29.6	4.1	15.5
For-hire truck	15.4	4.0	31.4	6.0	34.6	5.9	4.9
Private truck	14.8	4.0	27.3	6.2	S	S	49.9
Rail	S	S	S	S	S	S	43.5
Water	S	S	S	S	S	S	31.6
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	31.6
Air (includes truck and air)	41.1	.2	45.6	–	42.5	.1	19.5
Pipeline	–	–	–	–	S	S	S
Multiple modes	**18.2**	**2.2**	**23.0**	**.7**	**26.4**	**1.8**	**7.4**
Parcel, U.S. Postal Service or courier	17.7	2.0	26.7	.6	16.0	.5	7.4
Truck and rail	39.8	.3	40.2	.3	42.0	1.4	16.8
Truck and water	S	S	S	S	S	S	29.8
Rail and water	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	31.6
Other and unknown modes	**28.1**	**.8**	**25.9**	**1.0**	**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**	**28.5**
Single modes	**S**	**S**	**S**	**S**	**S**	**S**	**28.5**
Truck	S	S	S	S	S	S	28.5
For-hire truck	–	–	–	–	–	–	–
Private truck	S	S	S	S	S	S	28.5
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	**–**	**–**	**–**	**–**	**–**	**–**	**–**
SCTG 26, WOOD PRODUCTS							
Total	**17.6**	**–**	**29.5**	**–**	**24.5**	**–**	**41.4**
Single modes	**16.9**	**1.0**	**29.7**	**.4**	**24.9**	**2.4**	**39.7**
Truck	17.2	1.0	29.8	.6	25.7	3.3	40.6
For-hire truck	30.2	6.9	S	S	31.6	9.4	22.3
Private truck	21.5	7.3	29.0	3.7	35.2	9.0	13.5
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	28.4
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**47.8**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	47.8
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**36.8**	**.1**	**S**	**S**	**S**
SCTG 27, PULP, NEWSPRINT, PAPER, AND PAPERBOARD							
Total	**21.0**	**–**	**30.6**	**–**	**31.7**	**–**	**S**
Single modes	**21.7**	**2.6**	**30.9**	**2.7**	**31.7**	**2.4**	**14.4**
Truck	21.2	2.5	29.4	2.6	31.8	2.3	14.6
For-hire truck	23.5	5.6	32.9	6.6	32.5	3.2	11.3
Private truck	25.3	5.0	29.9	6.3	23.9	1.3	8.9
Rail	S	S	S	S	S	S	42.5
Water	S	S	S	S	S	S	31.6
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	31.6
Air (includes truck and air)	S	S	S	S	S	S	31.5
Pipeline	–	–	–	–	S	S	S
Multiple modes	**33.7**	**2.8**	**40.1**	**2.7**	**S**	**S**	**S**
Parcel, U.S. Postal Service or courier	33.7	2.8	40.1	2.7	S	S	S
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 28, PAPER OR PAPERBOARD ARTICLES							
Total	**17.6**	**–**	**27.9**	**–**	**46.6**	**–**	**27.9**
Single modes	**19.6**	**4.9**	**29.0**	**6.2**	**47.5**	**9.2**	**44.7**
Truck	19.6	4.9	29.0	6.2	47.5	9.2	44.1
For-hire truck	26.8	4.4	30.3	5.9	44.3	10.7	35.1
Private truck	21.7	6.3	32.6	8.2	S	S	29.5
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	**36.3**	**4.2**	**27.0**	**2.1**	**25.3**	**5.8**	**14.5**
Parcel, U.S. Postal Service or courier	36.3	4.2	27.0	2.1	25.3	5.8	14.5
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**S**
SCTG 29, PRINTED PRODUCTS							
Total	**S**	**S**	**36.9**	**–**	**S**	**S**	**46.3**
Single modes	**S**	**S**	**38.6**	**3.6**	**S**	**S**	**S**
Truck	S	S	38.9	3.9	S	S	S
For-hire truck	S	S	S	S	S	S	13.4
Private truck	24.2	11.6	18.1	10.2	27.2	8.8	S
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	S
Pipeline	–	–	–	–	S	S	S
Multiple modes	**32.4**	**8.0**	**41.1**	**3.3**	**45.7**	**8.3**	**27.9**
Parcel, U.S. Postal Service or courier	32.4	8.0	41.1	3.3	45.8	8.3	27.9
Truck and rail	–	–	–	–	–	–	–
Truck and water	S	S	S	S	S	S	31.6
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**33.7**	**1.1**	**29.8**	**.6**	**40.0**	**.6**	**S**
SCTG 30, TEXTILES, LEATHER, AND ARTICLES OF TEXTILES OR LEATHER							
Total	**22.3**	**–**	**17.7**	**–**	**28.1**	**–**	**6.0**
Single modes	**19.1**	**6.0**	**17.3**	**5.4**	**24.5**	**7.4**	**8.9**
Truck	19.3	5.8	17.5	5.3	25.0	7.0	9.2
For-hire truck	21.2	5.6	24.5	5.2	35.6	7.4	7.1
Private truck	26.1	4.5	17.0	6.1	26.2	5.2	17.7
Rail	–	–	–	–	–	–	–
Water	S	S	S	S	S	S	29.6
Shallow draft	S	S	S	S	S	S	30.7
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	31.5
Air (includes truck and air)	48.5	.3	S	S	S	S	11.2
Pipeline	–	–	–	–	S	S	S
Multiple modes	**48.3**	**6.2**	**S**	**S**	**S**	**S**	**6.4**
Parcel, U.S. Postal Service or courier	48.3	6.2	S	S	S	S	6.4
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**34.2**	**1.0**	**35.6**	**.8**	**37.6**	**.9**	**24.3**

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	**13.1**	**–**	**34.8**	**–**	**24.2**	**–**	**21.6**
Single modes	**14.0**	**2.1**	**34.0**	**2.2**	**21.1**	**5.2**	**33.5**
Truck	14.3	2.6	34.3	2.8	19.3	6.5	34.3
For-hire truck	19.7	6.8	S	S	17.4	7.6	12.5
Private truck	21.6	5.5	35.7	9.5	32.7	2.8	S
Rail	S	S	S	S	S	S	31.6
Water	S	S	S	S	S	S	31.6
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	31.6
Air (includes truck and air)	S	S	S	S	S	S	17.7
Pipeline	–	–	–	–	S	S	S
Multiple modes	**22.1**	**.8**	**27.3**	**–**	**35.5**	**.1**	**10.0**
Parcel, U.S. Postal Service or courier	22.1	.8	27.3	–	35.5	.1	10.0
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**20.8**	**1.7**	**S**	**S**	**48.3**	**5.2**	**S**
SCTG 32, BASE METAL IN PRIMARY OR SEMIFINISHED FORMS AND IN FINISHED BASIC SHAPES							
Total	**49.9**	**–**	**26.5**	**–**	**26.1**	**–**	**21.7**
Single modes	**S**	**S**	**26.8**	**5.1**	**28.9**	**9.2**	**31.3**
Truck	S	S	25.7	5.4	32.7	9.8	22.5
For-hire truck	S	S	29.3	8.4	38.4	10.5	16.2
Private truck	14.7	8.9	46.8	4.3	36.4	2.9	30.1
Rail	36.6	.8	S	S	S	S	32.7
Water	S	S	S	S	S	S	31.6
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	31.6
Air (includes truck and air)	S	S	S	S	S	S	16.4
Pipeline	–	–	–	–	S	S	S
Multiple modes	**37.0**	**1.3**	**S**	**S**	**S**	**S**	**33.2**
Parcel, U.S. Postal Service or courier	42.3	1.0	39.2	.2	S	S	34.1
Truck and rail	S	S	S	S	S	S	30.0
Truck and water	S	S	S	S	S	S	29.8
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**28.4**	**.3**	**S**	**S**	**S**	**S**	**S**
SCTG 33, ARTICLES OF BASE METAL							
Total	**24.6**	**–**	**39.5**	**–**	**33.7**	**–**	**17.2**
Single modes	**30.4**	**5.7**	**43.4**	**4.7**	**36.1**	**5.8**	**25.0**
Truck	31.3	6.6	43.7	4.8	36.4	6.1	24.2
For-hire truck	31.3	6.9	44.6	5.5	28.6	6.7	14.6
Private truck	37.6	7.3	47.3	4.5	S	S	25.9
Rail	–	–	–	–	–	–	–
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	14.6
Pipeline	S	S	S	S	S	S	S
Multiple modes	**24.8**	**5.3**	**20.4**	**.8**	**25.0**	**.9**	**26.8**
Parcel, U.S. Postal Service or courier	24.8	5.3	20.5	.8	25.1	.8	26.8
Truck and rail	S	S	S	S	S	S	31.6
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**34.3**	**.8**	**41.3**	**4.3**	**32.7**	**5.3**	**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	**16.5**	**–**	**24.2**	**–**	**20.8**	**–**	**27.4**
Single modes	**18.8**	**3.0**	**25.6**	**2.4**	**22.5**	**5.1**	**29.9**
Truck	17.9	3.5	26.4	2.7	19.0	5.5	43.6
For-hire truck	25.3	5.0	28.2	6.8	20.4	6.4	27.3
Private truck	28.2	5.2	48.9	7.8	47.4	4.6	20.8
Rail	S	S	S	S	S	S	29.0
Water	S	S	S	S	S	S	31.6
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	31.6
Air (includes truck and air)	S	S	S	S	S	S	15.9
Pipeline	–	–	–	–	S	S	S
Multiple modes	**12.7**	**2.8**	**18.4**	**2.0**	**33.3**	**3.7**	**16.7**
Parcel, U.S. Postal Service or courier	13.3	2.8	23.0	2.1	34.4	3.4	16.7
Truck and rail	S	S	S	S	S	S	28.2
Truck and water	S	S	S	S	S	S	31.6
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**37.9**	**1.3**	**S**	**S**	**S**	**S**	**29.4**
SCTG 35, ELECTRONIC AND OTHER ELECTRICAL EQUIPMENT AND COMPONENTS AND OFFICE EQUIPMENT							
Total	**13.5**	**–**	**10.5**	**–**	**14.7**	**–**	**7.2**
Single modes	**17.4**	**5.6**	**10.2**	**3.3**	**17.0**	**4.3**	**19.3**
Truck	16.9	5.0	9.3	3.0	18.5	5.8	20.8
For-hire truck	20.0	5.3	10.1	4.0	19.7	6.0	7.5
Private truck	21.6	2.0	22.4	1.6	43.0	2.1	22.0
Rail	S	S	S	S	S	S	31.6
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	32.2	1.7	44.6	1.1	41.4	3.2	10.1
Pipeline	–	–	–	–	S	S	S
Multiple modes	**20.5**	**5.2**	**21.7**	**3.1**	**20.8**	**2.8**	**5.7**
Parcel, U.S. Postal Service or courier	20.5	5.2	21.7	3.1	20.8	2.8	5.7
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**36.1**	**.9**	**S**	**S**	**S**	**S**	**S**
SCTG 36, MOTORIZED AND OTHER VEHICLES (INCLUDING PARTS)							
Total	**13.9**	**–**	**14.3**	**–**	**30.1**	**–**	**19.6**
Single modes	**16.1**	**4.2**	**16.4**	**4.0**	**33.0**	**4.5**	**26.3**
Truck	15.7	8.4	21.7	8.5	21.1	9.0	34.0
For-hire truck	18.9	8.7	23.9	8.4	21.1	7.8	30.8
Private truck	18.7	2.9	23.9	3.0	38.7	3.2	42.2
Rail	47.8	6.8	42.8	7.6	S	S	S
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	13.7
Pipeline	–	–	–	–	S	S	S
Multiple modes	**35.2**	**2.5**	**29.8**	**.9**	**S**	**S**	**12.7**
Parcel, U.S. Postal Service or courier	35.2	2.5	29.8	.9	S	S	12.7
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**37.9**	**1.9**	**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 37, TRANSPORTATION EQUIPMENT, N.E.C.							
Total	**36.8**	**–**	**S**	**S**	**S**	**S**	**22.5**
Single modes	**39.3**	**9.7**	**S**	**S**	**S**	**S**	**48.0**
Truck	43.4	8.9	S	S	S	S	S
For-hire truck	43.5	7.5	S	S	S	S	29.4
Private truck	47.7	9.7	S	S	S	S	47.9
Rail	–	–	–	–	–	–	–
Water	S	S	S	S	S	S	31.6
Shallow draft	S	S	S	S	S	S	31.6
Great Lakes	–	–	–	–	–	–	–
Deep draft	S	S	S	S	S	S	31.6
Air (includes truck and air)	S	S	S	S	S	S	27.7
Pipeline	–	–	–	–	S	S	S
Multiple modes	**S**	**S**	**S**	**S**	**S**	**S**	**22.1**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	24.5
Truck and rail	–	–	–	–	–	–	–
Truck and water	S	S	S	S	S	S	29.8
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**44.3**	**12.1**	**S**	**S**	**39.8**
SCTG 38, PRECISION INSTRUMENTS AND APPARATUS							
Total	**13.5**	**–**	**14.3**	**–**	**11.1**	**–**	**8.4**
Single modes	**12.1**	**6.4**	**10.1**	**7.0**	**20.4**	**8.2**	**12.1**
Truck	13.3	6.6	12.9	8.1	29.0	10.0	21.7
For-hire truck	11.5	5.3	16.0	8.1	32.4	9.7	12.5
Private truck	30.4	2.6	43.0	1.7	44.6	1.8	S
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	40.0	1.9	44.5	2.4	44.2	4.6	8.1
Pipeline	–	–	–	–	S	S	S
Multiple modes	**19.1**	**6.8**	**30.5**	**6.9**	**25.4**	**8.4**	**9.8**
Parcel, U.S. Postal Service or courier	19.1	6.8	30.5	6.9	25.4	8.4	9.8
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**37.9**	**.8**	**36.0**	**.5**	**S**	**S**	**28.0**
SCTG 39, FURNITURE, MATTRESSES AND MATTRESS SUPPORTS, LAMPS, LIGHTING FITTINGS, AND ILLUMINATED SIGNS							
Total	**21.3**	**–**	**20.8**	**–**	**20.8**	**–**	**22.5**
Single modes	**21.5**	**4.2**	**20.8**	**2.4**	**21.5**	**6.4**	**29.2**
Truck	21.5	4.2	20.8	2.4	21.6	6.7	31.5
For-hire truck	28.3	8.3	23.4	8.6	22.0	12.0	23.0
Private truck	14.9	7.5	23.1	8.2	36.3	6.7	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	**40.9**	**4.4**	**31.6**	**2.5**	**40.2**	**7.0**	**21.3**
Parcel, U.S. Postal Service or courier	40.9	4.4	31.6	2.5	40.2	7.0	21.3
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**29.8**

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 40, MISCELLANEOUS MANUFACTURED PRODUCTS							
Total	**17.2**	**–**	**36.5**	**–**	**30.1**	**–**	**15.7**
Single modes	**19.0**	**3.7**	**39.2**	**2.9**	**33.3**	**3.8**	**22.2**
Truck	19.1	3.6	40.9	3.3	37.1	5.5	22.8
For-hire truck	27.1	6.2	S	S	40.3	7.3	9.4
Private truck	19.6	3.5	17.6	5.5	29.3	4.5	S
Rail	S	S	S	S	S	S	31.8
Water	S	S	S	S	S	S	33.3
Shallow draft	S	S	S	S	S	S	33.3
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	36.3	.2	49.1	–	34.6	–	25.3
Pipeline	–	–	–	–	S	S	S
Multiple modes	**19.3**	**3.5**	**24.1**	**2.6**	**27.2**	**3.6**	**14.9**
Parcel, U.S. Postal Service or courier	19.2	3.5	24.0	2.6	27.0	3.6	14.9
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	S	S	S	S	S	S	30.8
Other and unknown modes	**26.2**	**.7**	**39.2**	**1.0**	**S**	**S**	**38.8**
SCTG 41, WASTE AND SCRAP							
Total	**33.5**	**–**	**25.8**	**–**	**40.3**	**–**	**24.5**
Single modes	**35.4**	**3.7**	**26.0**	**.7**	**40.3**	**.3**	**25.8**
Truck	40.0	7.7	28.7	9.8	21.9	18.1	27.9
For-hire truck	23.1	11.5	35.6	10.8	24.4	16.6	31.3
Private truck	S	S	S	S	37.6	8.3	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**	**31.6**
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	31.6
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**S**	**S**	**S**	**S**	**S**	**29.8**
SCTG 43, MIXED FREIGHT							
Total	**26.7**	**–**	**29.4**	**–**	**25.7**	**–**	**34.5**
Single modes	**28.1**	**2.7**	**29.7**	**1.2**	**26.5**	**1.7**	**32.7**
Truck	28.1	2.7	29.7	1.2	26.5	1.7	33.8
For-hire truck	25.8	8.7	25.5	8.2	29.9	9.2	21.1
Private truck	32.4	9.9	34.8	9.2	28.3	10.4	18.2
Rail	–	–	–	–	–	–	–
Water	–	–	–	–	–	–	–
Shallow draft	–	–	–	–	–	–	–
Great Lakes	–	–	–	–	–	–	–
Deep draft	–	–	–	–	–	–	–
Air (includes truck and air)	S	S	S	S	S	S	28.6
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**	**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	
COMMODITY UNKNOWN							
Total	**S**	**S**	**48.5**	**–**	**S**	**S**	**23.8**
Single modes	**S**	**S**	**49.0**	**3.6**	**S**	**S**	**42.0**
Truck	S	S	49.7	13.9	S	S	S
For-hire truck	S	S	S	S	S	S	36.7
Private truck	48.6	11.4	44.8	15.6	S	S	S
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	29.0
Pipeline	–	–	–	–	S	S	S
Multiple modes	**33.3**	**8.1**	**31.0**	**3.0**	**43.6**	**8.0**	**38.7**
Parcel, U.S. Postal Service or courier	33.3	8.1	31.0	3.0	43.6	8.0	38.7
Truck and rail	–	–	–	–	–	–	–
Truck and water	–	–	–	–	–	–	–
Rail and water	–	–	–	–	–	–	–
Other multiple modes	–	–	–	–	–	–	–
Other and unknown modes	**S**	**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–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	**11.4**	**–**	**9.6**	**–**	**13.2**	**–**
NEW ENGLAND STATES						
Connecticut	S	S	20.8	.3	22.5	.2
Maine	31.5	.1	20.0	–	23.0	.1
Massachusetts	16.5	.3	23.6	.4	23.1	.5
New Hampshire	37.2	.1	32.7	–	35.3	.2
Rhode Island	48.9	.1	25.7	.1	26.9	.1
Vermont	14.9	–	20.3	–	23.2	–
MIDDLE ATLANTIC STATES						
New Jersey	5.8	2.0	15.2	4.7	24.4	2.6
New York	11.4	.6	10.3	2.0	15.8	.9
Pennsylvania	9.3	.9	19.1	1.3	20.6	.9
EAST NORTH CENTRAL STATES						
Illinois	9.9	.3	16.6	.2	16.2	.7
Indiana	19.9	.2	12.1	–	12.6	.3
Michigan	25.5	.4	19.9	.1	20.6	.5
Ohio	18.8	.4	16.2	.3	16.2	.7
Wisconsin	44.3	.3	18.4	–	18.9	.2
WEST NORTH CENTRAL STATES						
Iowa	24.7	–	S	S	S	S
Kansas	S	S	23.1	–	23.3	.2
Minnesota	23.3	.2	17.5	–	17.3	.2
Missouri	16.9	.1	18.9	–	20.0	.3
Nebraska	20.3	–	20.3	–	20.3	–
North Dakota	S	S	S	S	S	S
South Dakota	23.2	–	S	S	S	S
SOUTH ATLANTIC STATES						
Delaware	19.9	.2	S	S	S	S
District of Columbia	S	S	23.2	–	24.6	–
Florida	25.4	.9	13.8	.1	13.9	.7
Georgia	26.3	.4	13.6	.1	13.3	.4
Maryland	11.4	.4	18.8	.3	18.8	.2
North Carolina	12.2	.2	16.7	.1	18.0	.5
South Carolina	19.4	–	34.1	.2	34.9	.7
Virginia	S	S	29.5	.4	28.7	.4
West Virginia	S	S	S	S	S	S
EAST SOUTH CENTRAL STATES						
Alabama	12.7	–	25.2	–	26.0	.3
Kentucky	19.8	.1	19.7	–	20.0	.1
Mississippi	22.7	–	34.7	–	40.9	.3
Tennessee	14.1	.1	17.1	–	17.0	.3
WEST SOUTH CENTRAL STATES						
Arkansas	35.3	–	33.9	–	33.7	.2
Louisiana	13.1	–	23.4	–	25.5	.2
Oklahoma	31.4	–	39.6	–	39.3	.4
Texas	13.3	.4	S	S	S	S
MOUNTAIN STATES						
Arizona	32.6	.2	46.2	–	44.7	1.3
Colorado	S	S	42.6	–	41.9	.2
Idaho	26.7	–	36.1	–	36.0	–
Montana	S	S	44.2	–	44.5	–
Nevada	28.3	–	23.3	–	23.5	.1
New Mexico	S	S	S	S	S	S
Utah	19.6	–	33.0	–	34.1	.3
Wyoming	35.3	–	48.8	–	48.4	–
PACIFIC STATES						
Alaska	39.3	–	26.2	–	30.4	–
California	8.6	.3	20.9	.2	24.0	2.2
Hawaii	S	S	S	S	S	S
Oregon	28.0	.1	40.6	–	40.9	.5
Washington	11.8	–	23.5	–	23.5	.4

– 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–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	**4.1**	**–**	**8.6**	**–**	**10.5**	**–**
NEW ENGLAND STATES						
Connecticut	8.2	.2	14.8	.2	15.7	–
Maine	22.5	–	18.3	–	17.1	–
Massachusetts	8.5	.2	10.7	.1	10.7	–
New Hampshire	25.0	.1	31.2	–	29.8	–
Rhode Island	15.1	–	32.3	–	32.2	–
Vermont	21.1	–	22.3	–	20.2	–
MIDDLE ATLANTIC STATES						
New Jersey	5.8	1.5	15.2	5.2	24.4	1.9
New York	5.0	.3	17.9	1.0	11.1	.2
Pennsylvania	12.6	1.0	10.2	1.3	10.9	.6
EAST NORTH CENTRAL STATES						
Illinois	5.5	.2	14.4	.1	15.9	.9
Indiana	11.2	.1	9.9	.1	10.8	.2
Michigan	13.0	.4	7.4	.1	9.1	.2
Ohio	6.6	.3	7.5	.2	8.3	.3
Wisconsin	13.7	.2	20.9	.1	21.1	.5
WEST NORTH CENTRAL STATES						
Iowa	12.5	–	17.2	–	17.2	.2
Kansas	18.1	–	12.7	–	12.3	–
Minnesota	S	S	21.1	–	25.1	.6
Missouri	14.7	–	30.5	.1	32.6	.7
Nebraska	17.0	–	11.6	–	11.6	–
North Dakota	30.4	–	37.4	–	36.5	–
South Dakota	38.7	–	19.5	–	20.6	–
SOUTH ATLANTIC STATES						
Delaware	18.7	.1	21.7	.3	18.9	–
District of Columbia	S	S	S	S	S	S
Florida	34.9	.5	12.1	–	11.6	.2
Georgia	11.6	.2	6.8	–	6.7	.2
Maryland	14.0	.1	13.1	.1	13.7	.1
North Carolina	6.7	.2	10.0	–	11.3	.3
South Carolina	8.3	–	10.8	–	10.4	–
Virginia	7.3	.1	15.8	.1	22.6	.4
West Virginia	26.9	.1	40.0	.1	S	S
EAST SOUTH CENTRAL STATES						
Alabama	10.7	–	21.0	–	21.1	.2
Kentucky	31.9	.4	24.5	–	26.2	.3
Mississippi	15.0	–	16.3	–	17.6	.2
Tennessee	13.5	.2	14.4	.1	16.4	.2
WEST SOUTH CENTRAL STATES						
Arkansas	11.0	–	16.8	–	17.6	.2
Louisiana	30.5	.2	43.5	2.2	42.5	6.8
Oklahoma	13.1	–	S	S	S	S
Texas	15.5	.5	22.6	.4	23.3	1.9
MOUNTAIN STATES						
Arizona	32.7	.1	22.4	–	22.5	–
Colorado	15.2	–	44.9	–	45.0	1.1
Idaho	S	S	25.3	–	25.2	.1
Montana	29.1	–	32.2	–	32.1	–
Nevada	26.0	–	S	S	S	S
New Mexico	42.2	–	42.7	–	42.5	–
Utah	17.3	–	47.9	–	48.1	–
Wyoming	S	S	48.7	–	49.6	.2
PACIFIC STATES						
Alaska	S	S	S	S	S	S
California	19.6	1.1	18.3	.2	18.4	2.1
Hawaii	40.9	–	30.5	–	30.8	–
Oregon	28.7	.1	18.9	–	18.6	.3
Washington	38.6	.2	17.3	–	17.1	.4

– 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.

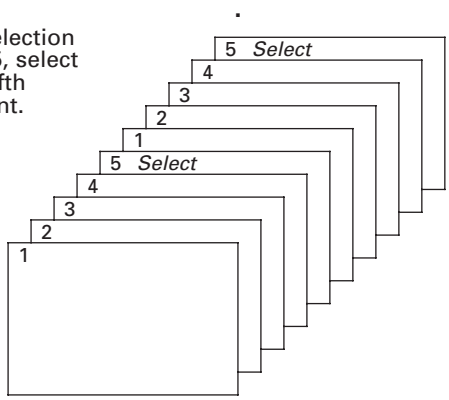
2. Begin with the first shipment. Count the shipments until you reach your selection rate. Select this shipment to report on in item F.

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.

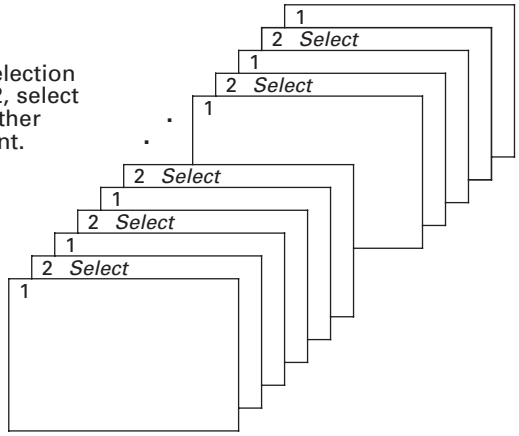
4. Repeat step 3 until you reach the last shipment for the one-week period. If the last shipment is counted as the selection rate, select this shipment to report on in item F. If the last shipment is not counted as the selection rate, do not report this shipment.

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.

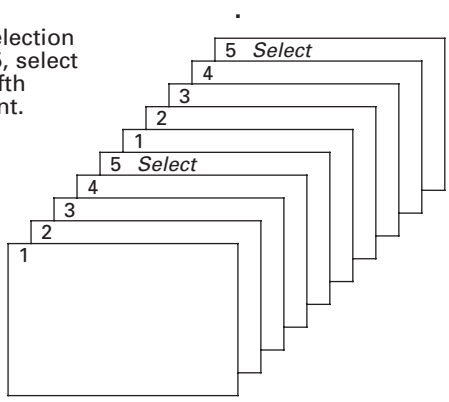
2. Begin with the first shipment. Count the shipments until you reach your selection rate. Select this shipment to report on in item F.

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.

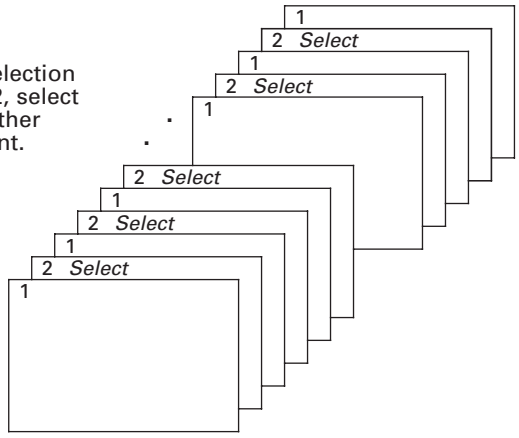
4. Repeat step 3 until you reach the last shipment for the one-week period. If the last shipment is counted as the selection rate, select this shipment to report on in item F. If the last shipment is not counted as the selection rate, do not report this shipment.

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								
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 →

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).

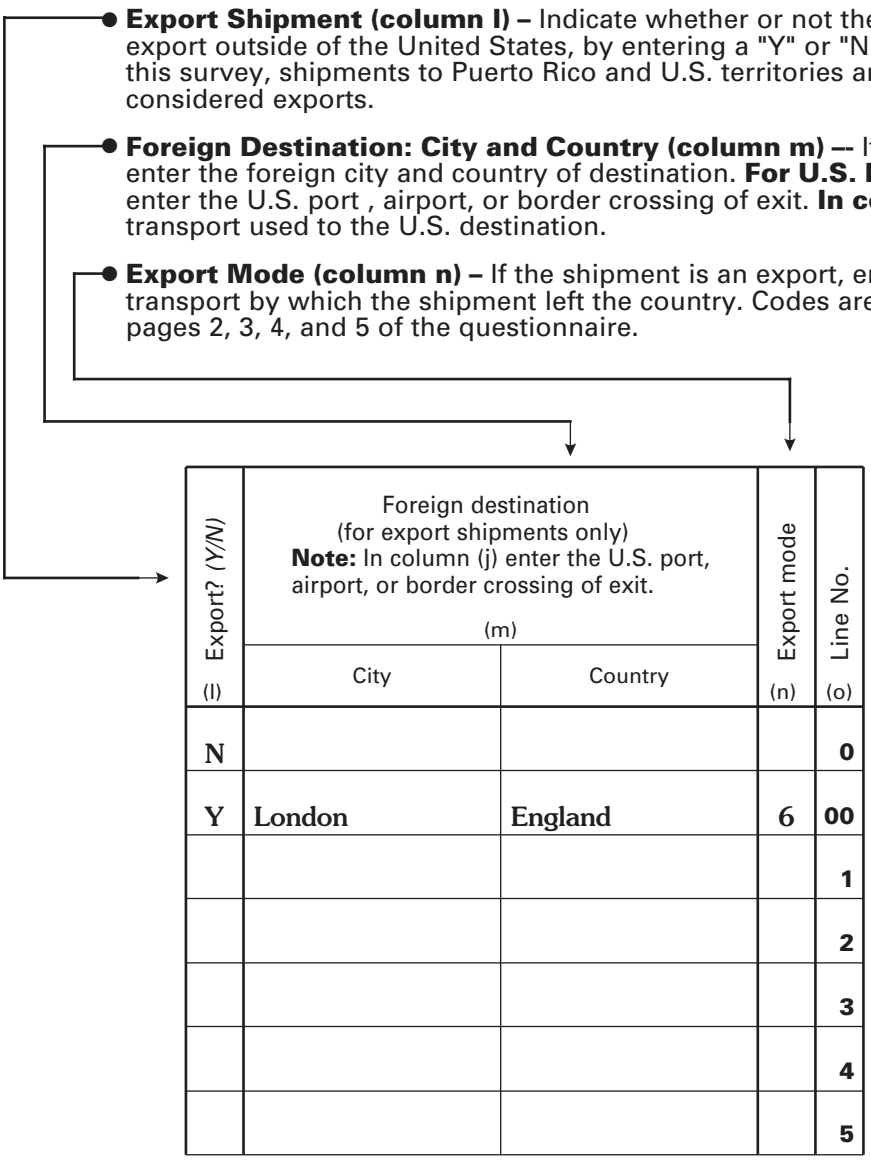
  For Export Shipments: List only the mode(s) of transport used to reach the port, airport, or border crossing of exit.

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.