

Bureau of Transportation Statistics

# 1993 COMMODITY FLOW SURVEY United States Highlights

#### **Bureau of Transportation Statistics**

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The Bureau of Transportation Statistics (BTS), established by the Intermodal Surface Transportation Efficiency Act of 1991, is an operating administration of the U.S. Department of Transportation (DOT). The Bureau is responsible for compiling, analyzing, and disseminating information on the nation's transportation systems, including intermodal transportation. BTS is also responsible for enhancing the quality and effectiveness of DOT's statistical programs through research and improvements in data acquisition and use.

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#### **Preface**

This report summarizes information from the 1993 Commodity Flow Survey (CFS) released in 1996 by the Bureau of the Census. The report presents data on domestic shipments of commodities by value and weight, destination by value and weight, mode of transportation, and distance. It is important to note that the national totals presented in this report differ from those presented in the CFS preliminary reports by the Bureau of the Census and the Bureau of Transportation Statistics (BTS) because of final revision of some state level data. This is to protect confidentiality of business establishments. Also, U.S. totals presented in this report include estimates by Oak Ridge National Laboratory for pipeline and water shipments not fully covered in the 1993 CFS.

Copies of the more detailed CFS national report, *Commodity Flow Survey: United States*, and *CFS State CD-ROM* can be obtained through the Internet at www.bts.gov or by writing the Bureau of the Census, Commodity Flow Survey Branch, Services Division, Washington, DC 20233. For further information about CFS methods, products, and plans, contact John Fowler at (301) 457-2805/2114 or email cfs@bts.gov. Additional copies of this summary report may be obtained by contacting BTS at (202) 366-3282, by faxing (202) 366-3640, or by emailing orders@bts.gov.

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#### Introduction

The 1993 Commodity Flow Survey (CFS) is the most comprehensive effort to identify where and how goods are shipped in the United States since 1977. It measures the value and weight of commodities shipped by manufacturing, mining, wholesale trade, and selected retail and service industries. Prior surveys only measured shipments by manufacturing firms.

The CFS is undertaken through a partnership between the Bureau of Transportation Statistics (BTS) in the U.S. Department of Transportation (DOT), and the Bureau of the Census in the U.S. Department of Commerce. Census collected quarterly data in 1993, as part of its Economic Census, under the technical guidance of BTS. From a sample of 200,000 establishments, commodity flows were estimated for a universe of approximately 800,000 businesses. Funding was provided by the Bureau of the Census, BTS, and the Federal Highway Administration. Subsequent surveys are scheduled for 1997 and every five years thereafter.

#### **CFS Coverage and Limitations**

The CFS covers employer establishments that are located in the 50 states and the District of Columbia. Surveyed establishments were selected by geographic location and industry. Each surveyed business reported on a sample of individual shipments made during a two-week period in each quarter of 1993. CFS data on individual shipments include total value and weight, commodity type, modes of transport, and domestic origin and destination. The CFS also reports on whether the commodity is shipped in containers and whether it is a hazardous material. In addition, a sample of firms provides information on the availability of on-site shipping facilities, access to shipping sites, and transportation equipment ownership and leasing data.

The 1993 CFS did not adequately cover shipments of crude petroleum, which primarily affect data for pipeline and water transportation. Oak Ridge National Laboratory (ORNL) has estimated commodity flows for these two modes, which are noted in table 1. Also, the survey excludes establishments classified in the Standard Industrial Classification as farms, forestry, fisheries, oil and gas extraction, governments, construction, transportation, households, and some retail and service businesses. Furthermore, the CFS does not cover shipments originating in Puerto Rico, other U.S. territories and possessions, or foreign countries. Commodities that are shipped from a foreign location to another foreign destination, through the United States (e.g., from Canada to Mexico) are also excluded from the survey.

#### **Comparisons with Other Sources**

- ORNL estimates of domestic value, tons, and ton-miles not covered by the CFS in table 1 are based on waterborne tons and ton-miles measured by the U.S. Army Corps of Engineers, and on pipeline data reported to the Federal Energy Regulatory Commission. More precise methods are being developed by ORNL for BTS in consultation with the Corps and the modal administrations of DOT.
- According to the 1993 Carload Rail Waybill Sample, collected by the Interstate
  Commerce Commission and processed by the Federal Railroad Administration, the
  CFS estimate of 1.01 trillion ton-miles by rail is low by 113 billion ton-miles.
  Roughly half the discrepancy is explained by 62.3 billion ton-miles of imports from
  Canada in the Waybill, which were not considered in the CFS. Other import and
  landbridge traffic could explain the remainder. The total discrepancy is less than
  one-third of one percent of all domestic ton-miles.
- The modal shares of ton-miles in table 1 are significantly different from information published by the Eno Transportation Foundation in *Transportation in America*. The differences are primarily definitional: Eno estimates intercity freight movements, while the CFS includes both local and intercity shipments. Eno also does not split out parcel, postal, and courier services, resulting in a noticeably higher estimate of air freight activity than reported in the CFS. Moreover, Eno excludes coastal water movements, which account for about half the total waterborne ton-miles reported in the attached table and figures. This substantial difference in reported waterborne ton-miles significantly affects modal shares, most notably decreasing the percentage attributed to rail. The lower share results from definitional differences, and not from a precipitous decline in rail traffic.

#### **U.S. Major Highlights**

Table 1 presents each mode's share of total shipments by weight and value.

- In 1993, the 800,000 establishments represented by the CFS shipped \$6 trillion worth of goods, weighing 12.2 billion tons.
- Trucks (for-hire, private, and a combination of both) moved 72 percent or \$4.4 trillion of the total value of shipments. Of this total, for-hire trucks handled \$2.6 trillion worth of goods.
- The CFS confirms the growing importance of parcel, postal, and courier services, which accounted for over 9 percent of the total value of all shipments in 1993.
- Intermodal shipments exceeded 208 million tons, valued at \$660 billion in 1993. Approximately 41 million tons of goods worth \$83 billion were moved by the "classic" intermodal combination of truck and rail. Assuming 50,000 pounds of payload per truck, about 1 1/2 million large trucks have been diverted from our highways for a major part of their trips.
- Local transportation is important to our nation's commerce. The 1993 CFS reported that 30 percent of the value and 56 percent of the weight of all shipments were moved between locations less than 50 miles apart. More than 39 percent of the value and two-thirds of the weight--6.4 trillion tons--were shipped less than 100 miles.

Table 1
1993 Commodity Flow Survey: Shipment Characteristics by Mode of Transportation
for the United States

Mode	Value (million dollars)	Tons (thousands)	Ton miles (millions)	Value (percent)	Tons (percent)	Ton miles (percent)	Value per ton (dollars)	Value per pound (dollars)	Ton miles per ton
CFS plus ORNL estimates:	\$6,123,832	12,157,105	3,627,919	100.0	100.0	100.0	\$503.7	\$0.25	298
Parcel, postal, courier service	\$563,277	18,892	13,151	9.2	0.2	0.4	\$29,815.6	\$14.91	696
Truck (for-hire, private, both)	\$4,403,495	6,385,915	869,536	71.9	52.5	24.0	\$689.6	\$0.34	136
Air (including truck and air)	\$139,087	3,139	4,009	2.3	0.0	0.1	\$44,309.3	\$22.15	1,277
Rail	\$247,394	1,544,148	942,561	4.0	12.7	26.0	\$160.2	\$0.08	610
Water	\$64,077	518,912	271,981	1.0	4.3	7.5	\$123.5	\$0.06	524
Pipeline	\$89,849	483,645	-	1.5	4.0	-	\$185.8	\$0.09	-
Truck and rail	\$83,082	40,624	37,675	1.4	0.3	1.0	\$2,045.1	\$1.02	927
Other intermodal combinations <sup>a</sup>	\$13,382	148,883	185,030	0.2	1.2	5.1	\$89.9	\$0.04	1,243
Other and unknown	\$242,691	544,335	96,972	4.0	4.5	2.7	445.8	\$0.22	178
ORNL estimates:									
Water (not in CFS)	\$187,085	1,609,309	614,104	3.1	13.2	16.9	\$116.3	\$0.06	382
Pipeline (not in CFS)	\$90,413	859,303	592,900	1.5	7.1	16.3	\$105.2	\$0.05	690
Intermodal <sup>b</sup> total	\$659,741	208,399	235,856	10.8	1.7	6.5	\$3,165.8	\$1.58	1,132

<sup>-</sup> Data do not meet publication standards.

SOURCE: U.S. Department of Commerce, Bureau of the Census, 1993 Commodity Flow Survey: United States, TC92-CF-52, and Oak Ridge National Laboratory estimates (Washington, DC: 1996).

<sup>&</sup>lt;sup>a</sup> This includes truck and water, rail and water, and other combinations.

<sup>&</sup>lt;sup>b</sup> Intermodal is a combination of parcel, postal or courier; truck and rail; truck and water, rail and water; and other intermodal. It excludes truck and air which is added to air transportation.

#### **Major Commodity Shipments**

Table 2 presents the value, weight, and ton-miles of major commodities shipped by establishments represented in the CFS. The commodities are specified by two-digit Standard Transportation Commodity Classification code. Major categories of commodity shipments include petroleum, coal, minerals, and other natural resources; farm and forest products; and manufactured goods.

- Food and kindred products accounted for the highest dollar amount of shipments identified in the 1993 CFS, followed by transportation equipment, while the major commodities by weight were petroleum and coal products, nonmetallic minerals, and coal.
- The CFS estimated food and kindred products to be the fourth largest category of shipments by weight, and the largest single category of shipments by value, accounting for \$857 billion or 14.7 percent of the total value of shipments. Food and kindred products were one of the top three commodities by value shipped in at least 38 states.
- In 1993, even if crude oil is not counted, petroleum and coal products together account for over 30 percent of domestic commodity shipments measured both by weight and by ton miles in the CFS.
- According to the CFS, agricultural products shipments (listed as farm products in table 2) amounted to 637 million tons in 1993, and produced 276 billion ton-miles.
- In 1993, the cumulative shipments of lumber and other manufactured wood products totaled 663 million tons, and produced 121 billion ton-miles. Pulp and paper product shipments produced an additional 101 billion tons miles. By value, trucks moved about 86 percent of the lumber and wood products and rail moved 7 percent.
- Over \$1.7 trillion worth of manufactured equipment, machinery, and instruments<sup>1</sup> measured in the CFS were transported across the nation as well as industrial products<sup>2</sup> valued at about \$1.3 trillion and consumer goods<sup>3</sup> valued at over \$574 billion. (CFS 1996)

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<sup>&</sup>lt;sup>1</sup> Includes STCC 35, machinery excluding electricals; STCC 36, electrical machinery, equipment, and supplies; STCC 37, transportation equipment; and STCC 38, instruments, photographic goods, optical goods, watches, and clocks.

<sup>&</sup>lt;sup>2</sup> Includes STCC 28, 30, 32, 33, and 34.

<sup>&</sup>lt;sup>3</sup> Includes STCC 21, 22, 23, 25, and 31.

Table 2: Value, Tons, and Ton-Miles of Commodity Shipments, 1993

STCC	O å	Value	Tons	Value per ton	Ton-miles
Code	Commodity description <sup>a</sup>	(million dollars)	(thousands)	(dollars)	(millions)
29	Energy <sup>b</sup> Petroleum or coal products	\$359,471	1,885,833	\$191	287,081
11	Coal	\$23,449	1,129,945	\$21	487,791
11	Coal	\$23,449	1,129,945	Φ∠1	407,791
	Lumber and forest				
26	Pulp, paper, or allied products	\$195,002	217,233	\$898	100,721
24	Lumber or wood products, excluding furniture	\$126,662	663,351	\$191	120,669
08	Forest products	\$1,700	30,520	\$56	3,635
	Mining				
10	Metallic ores	\$20,278	149,562	\$136	36,895
14	Nonmetallic minerals	\$20,695	1,786,381	\$12	155,417
	Farm and food				
20	Food or kindred products	\$856,884	859,764	\$997	270,984
01	Farm products	\$142,442	636,630	\$224	276,260
09	Fresh fish or other marine products	\$11,062	2,995	\$3,693	1,746
	Equipment, machinery, and instruments				
37	Transportation equipment	\$652,474	87,617	\$7,447	49,098
35	Machinery, excluding electrical	\$442,770	34,180	\$12,954	19,112
36	Electrical machinery, equipment, or supplies	\$411,030	30,156	\$13,630	19,591
38	Instruments, photographic goods, optical goods, watches, or clocks	\$198,492	8,600	\$23,080	5,390
	Industrial products				
28	Chemicals or allied products	\$532,907	545,405	\$977	236,856
34	Fabricated metal products	\$237,316	84,895	\$2,795	30,489
33	Primary metal products	\$228,610	266,409	\$858	97,266
30	Rubber or miscellaneous plastics products	\$175,267	52,349	\$3,348	25,528
32	Clay, concrete, glass, or stone products	\$91,365	799,481	\$114	84,032
	Consumer goods				
23	Apparel or other finished textile products	\$291,203	15,128	\$19,249	9,967
22	Textile mill products	\$102,189	24,757	\$4,128	11,341
25	Furniture or fixtures	\$69,471	16,568	\$4,193	9,789
21	Tobacco products, excluding insecticides	\$60,640	3,225	\$18,803	931
31	Leather or leather products	\$50,645	2,401	\$21,093	2,182
	Waste materials <sup>c</sup>				
40	Waste or scrap materials	\$18,258	130,894	\$139	27,591
48	Waste hazardous materials or waste hazardous substances	\$558	813	\$686	314
	Miscellaneous and other unknown				
39	Miscellaneous products of manufacturing	\$200,803	20,731	\$9,686	10,992
41	Miscellaneous freight shipments	\$81,297	20,830	\$3,903	5,038
19	Ordnance or accessories	\$17,174	663	\$25,903	629
42	Containers, carriers or devices, shipping, returned empty	\$1,144	702	\$1,630	230
	Commodity unknown	\$21.941	7,804	\$2,812	2.522

 $<sup>^{\</sup>rm a}$  Excludes data for printed matter because the data do not meet publication standards.

NOTE: The sum of the data by commodity groups in this table is not equal to the total in table 1 because table 1 includes additional estimates of water and pipeline shipments by ORNL.

 $KEY:\ STCC = Standard\ Transportation\ Commodity\ Classification.$ 

SOURCE: U.S. Department of Commerce, Bureau of the Census, 1993 Commodity Flow Survey, United States, TC92-CF-52 (Washington, DC: 1996).

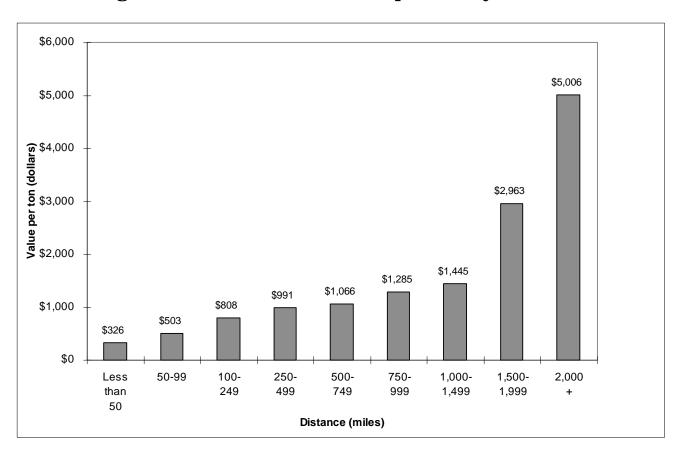
 $<sup>^{</sup>a} \ \ Excludes \ data \ for \ pipeline \ shipments \ calculated \ by \ Oak \ Ridge \ National \ Laboratory \ (ORNL) \ that \ are \ included \ in \ table \ 1.$ 

<sup>&</sup>lt;sup>c</sup> Excludes data on municipal solid wastes.

#### **Commodity Shipments by Distance and Size**

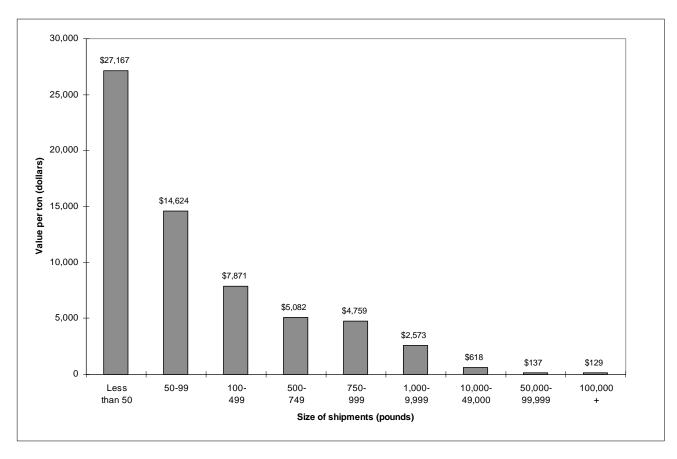
- The percentage of shipments that were out-of-state varied greatly among states in 1993. In terms of value, within-state shipments accounted for more than 50 percent of shipments in only seven geographically large or isolated states: Alaska, California, Florida, Hawaii, Montana, Texas, and Washington. In terms of weight, however, within-state shipments accounted for more than 50 percent of shipments in 43 states. Only Delaware, Kentucky, Montana, Nebraska, West Virginia, and Wyoming shipped more by weight out-of-state than within-state.
- The CFS shows that high value shipments were moved greater distances than low value shipments, that is, that the average value of shipments increases with distance (see figure 1). In 1993, shipments that were moved over 1,500 miles were on average worth more than \$3,000 per ton. On average, shipments between places less than 100 miles apart were valued at under \$500 per ton. One reason for this pattern is that high-value commodities shipped long distance by air transportation can absorb the extra cost in exchange for speedy on-time delivery. In terms of weight, however, a sizable proportion of long distance shipments travel by rail as railroads can carry both bulk commodities (e.g., metallic ores, nonmetallic minerals, and coal) and time sensitive items (e.g., mail, automobiles, and vehicle parts) at low unit cost.
- Another characteristic of high-value shipments is that they often are small in size, less than 100 pounds (see figure 2). The CFS shows that in 1993, shipments of less than 100 pounds accounted for a large proportion of shipments of some commodities. Almost a third of the value of shipments of electrical machinery, equipment, or supplies and over 24 percent of shipments of industrial machinery, equipment, and computers weighed less than 100 pounds. Over 80 percent of shipments by parcel, postal, or courier service were under 100 pounds. By contrast, about 5 percent of the value of shipments by truck weighed less than 100 pounds.

Figure 1: Value Per Ton of Shipments by Distance



SOURCE: U.S. Department of Commerce, Bureau of the Census, 1993 Commodity Flow Survey: United States, TC92-CF-52 (Washington, DC: 1996).

Figure 2: Value Per Ton of Shipments by Size



SOURCE: U.S. Department of Commerce, Bureau of the Census, 1993 Commodity Flow Survey: United States, TC92-CF-52 (Washington, DC: 1996).

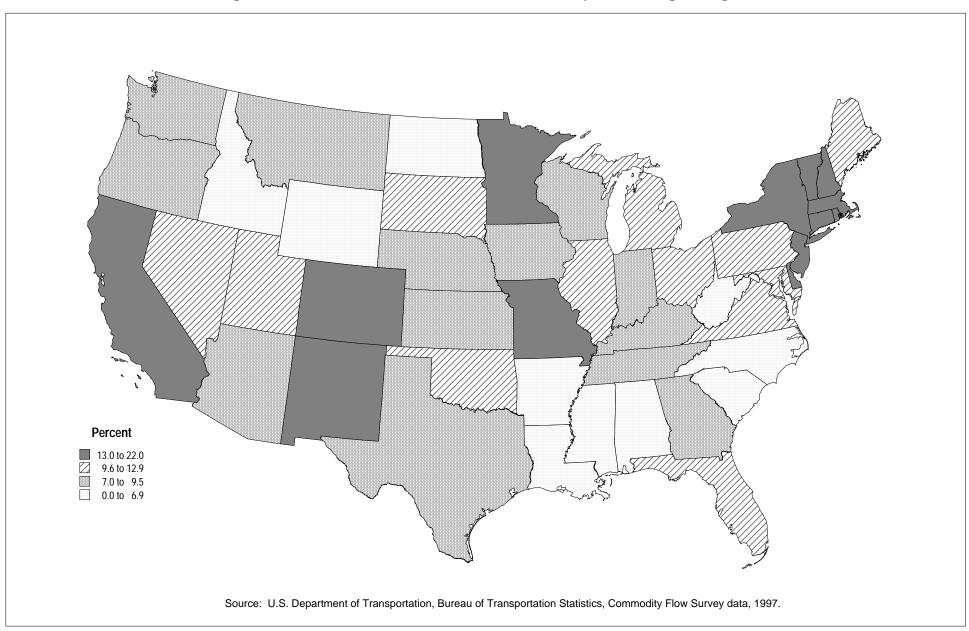
#### **Commodity Shipments by State**

- Figure 3 shows the value of CFS shipments for all modes by state of origin. States
  vary greatly in the value of shipments, reflecting, among many other factors,
  differences in size, economic structure, resource base, and geography. In general,
  the more populous states with large manufacturing base such as California, New
  York, Michigan, Texas, and Illinois accounted for a large part of commodity
  shipments covered by the 1993 CFS.
- Much of the freight moved long distances. For example, for shipments originating in Michigan, the major destinations by value include California and Texas. The major destinations by value for shipments originating in California include Texas, Arizona, New York, Illinois, and Florida.
- In 1993, the percentage of CFS shipments moved by intermodal transportation varied greatly by state (see figure 4). In general, states producing goods with high-value per unit of weight moved a higher proportion of their shipments by intermodal transportation, while states producing goods with low-value per unit of weight relied more on rail, water, and pipeline. For example, in Minnesota and Missouri, industrial machinery, equipment, and computers are among the major commodities produced and businesses in these states ship more by intermodal transportation than do businesses in other states.
- Most shipments by value moved out-of-state (see table 3). In 1993, 62 percent by value and 35 percent by weight of CFS shipments were transported out-of-state.

Figure 3: Value of Commodity Shipments Originating in States, 1993



Figure 4: Intermodal Share of Total Value of Shipments Originating in States, 1993



**Table 3: Out-of-State Shipments as Percent of State's Total Shipments** 

State of origin	Percent of value	Percent of weight
United States	62.3	35.3
Alabama	66.2	28.8
Alaska	19.2	17.4
Arizona	57.3	23.0
Arkansas	73.7	41.0
California	38.8	8.8
Colorado	57.6	23.8
Connecticut	79.2	23.0
Delaware	85.2	72.2
Florida	36.8	18.2
Georgia	66.8	28.3
Hawaii	7.4	10.8
ldaho	68.2	35.5
Illinois	66.0	42.6
Indiana	71.6	43.9
lowa	64.9	39.6
Kansas	74.7	46.2
Kentucky	75.6	51.0
Louisiana	50.7	33.6
Maine	65.5	27.2
Maryland	69.0	43.4
Massachusetts	66.5	28.3
Michigan	52.1	26.1
Minnesota	60.0	41.3
Mississippi	71.3	43.9
Missouri	73.5	36.6
Montana	47.0	57.8
Nebraska	70.9	51.0
Nevada	74.1	19.0
New Hampshire	77.8	**
New Jersey	68.7	40.6
New Mexico	51.7	40.3
New York	58.8	23.8
North Carolina	61.9	30.4
North Dakota	62.5	43.9
Ohio	62.5	30.0
Oklahoma	65.5	45.1
Oregon	58.5	19.8
Pennsylvania	64.7	38.1
Rhode Island	79.1	45.8
South Carolina	69.5	36.5
South Dakota	60.0	44.9
Tennessee	74.4	39.2
Texas	40.0	16.3
Utah	63.8	19.2
Vermont	65.8	31.9
Virginia	63.5	28.4
Washington	44.2	16.2
West Virginia	74.6	63.7
Wisconsin	64.9	30.5
Wyoming	70.8	84.3

<sup>\*\*</sup> Some or all data are not reported to avoid disclosure or because data do not meet publication standards. SOURCE: U.S. Bureau of the Census, *1993 Commodity Flow Survey, TC92-CF*, 1996. (Washington, DC: 1996).

#### **Appendices**

These appendices are reproduced from individual CFS State reports, 1992 Census of Transportation, Communications, and Utilities, 1993 Commodity Flow Survey, published by the U.S. Department of Commerce, Bureau of the Census. Refer to the source document for additional information on survey design and sampling methods.

#### Appendix A. **Comparability With Previous Surveys**

The Commodity Flow Survey (CFS) restores not meet the Census Bureau quality a data program on commodity flows that the standards, and were not published. Funding Census Bureau conducted as a part of its 5- was not available to conduct the 1987 CTS. year economic census program from 1963 The following table shows a comparison of through 1977. published commodity flow data for the 1977 1993 CFS, the Census Bureau incorporated Commodity Transportation Survey (CTS). improvements identified from the evaluation

The Census Bureau last the 1977, 1983, and 1993 surveys. For the Data collected for a modified 1983 CTS did of previous surveys and additional research.

Item	1977	1983 ¹	1993	
1. Industry coverage	All manufacturers	All manufacturers  Grain wholesalers  Petroleum bulk plants	- Manufacturers (minor exceptions) - Selected mining establishments. Mining (except mining services and oil and gas extraction) - All wholesale - Video tape distributors - Catalog mail- order houses - Auxiliaries (e. g., warehouses)	
2. Sample size	Approximately 20,000 establishments selected from the Census of Manufactures' universe of 350,000	Approximately 71,000 establishments selected from a universe of approximately 339,000 in- scope establishments on the 1982 SSEL**	- Approximately 200,000 establishments selected from a universe of approximately 800,000 in- scope establishments on the 1992 SSEL**	
3. Survey methodology	Respondents took a sample of all shipments for the previous year.	Respondents summarized data on their shipments for the previous year	- Respondents took a sample of their individual outbound shipments for a 2- week period during each of the four calendar quarters of 1993	
	For each sampled shipment, respondents reported data, including commodity code	No shipment sample  No reporting of commodity	- For each sampled shipment, respondents reported data, including commodity code	
4. Mode of transportation	Rail	Piggyback rail Rail	- Rail	
	For- hire motor carrier, ICC For- hire motor carrier, non- ICC	Motor carrier	- For- hire truck	
	Private truck	Private truck	- Private truck	
	Air Water	Air Water	<ul><li>Air</li><li>Inland water and/ or Great</li><li>Lakes</li><li>Deep sea water</li></ul>	
	Pipeline		- Pipeline	
	Parcel delivery	Parcel delivery	- Parcel delivery	

Item	1977	1983 ¹	1993
4. Mode of transportation (continued)			- Courier
	Other	Other	- U. S. Postal Service Other/ unknown
5. Data items requested	For <b>each</b> shipment:	Aggregated data for 1983:	- For each shipment:
on questionnaire	Total value Value of each commodity	Total value of products shipped and services	- Total value
	Total weight Weight of each commodity	Total weight of products shipped Total percent of weight exported Total percent of weight shipped < 25 miles	- Total weight
	All commodities Primary mode of transportation-		<ul><li>Major commodity</li><li>All modes of transportation</li></ul>
	Origin (considered as establishment's mailing address)	Origin (considered as establishment's mailing address)	<ul> <li>Origin (respondent provided; could be other than mailing address)</li> </ul>
	Destination	For each State of destination: Total weight shipped Percent of weight, by mode Percent of weight exported	<ul> <li>Destination</li> <li>Containerized (Y/N)</li> <li>Hazardous material (Y/N)</li> <li>Export (Y/N)</li> </ul>

<sup>&</sup>lt;sup>1</sup> The 1983 survey results were not published because post survey evaluation uncovered significant deficiencies in the quality of the data.

\*\* Standard Statistical Establishment List.

### **Appendix B. Standard Transportation Commodity Classification Code Information**

The commodities shown in this report are classified in accordance with the Classification (STCC) system, published by the Association of American Railroads.<sup>4</sup>

We provided respondents with a listing of STCC 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. For this report, we aggregated the STCC codes to the two-digit level. The following provides a description of each STCC code.

STCC	<b>Commodity description</b>	STCC code	<b>Commodity description</b>
code			_
1	Farm products	30	Rubber or miscellaneous plastics
			products
8	Forest products	31	Leather or leather products
9	Fresh fish	32	Clay, concrete, glass, or stone products
		33	Primary metal products
10	Metallic ores	34	Fabricated metal products
11	Coal	35	Machinery, excluding electrical
13	Crude petroleum, natural gas or	36	Electrical machinery, equipment, or
	gasoline		supplies
14	Nonmetallic ores, minerals, excluding	37	Transportation equipment
	fuels		
19	Ordnance or accessories	38	Instruments, photographic goods,
			optical
			goods, watches, or clocks
20	Food and kindred products	39	Miscellaneous products of
			manufacturing
21	Tobacco products, excluding		
	insecticides		
22	Textile mill products	40	Waste or scrap materials not identified
			by
23	Apparel or other finished textile		producing industry
	products or		
	knit apparel	41	Miscellaneous freight shipments
24	Lumber or wood products, excluding	42	Containers, carriers or devices,
	furniture		shipping,
25	Furniture or fixtures		returned empty
26	Pulp, paper, or allied products	48	Waste hazardous materials or waste
27	Printed matter		hazardous substances
28	Chemicals or allied products		
29	Petroleum or coal products		Commodity unknown

<sup>&</sup>lt;sup>4</sup> For additional information on the STCC system, contact: STCC Technical Committee, c/ o Committee Secretary, Association of American Railroads, 50 F Street, NW, Room 5603, Washington, DC 20001- 1564. Telephone number 202- 639- 2332; fax number 202- 639- 2312.

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