

# Annual Input-Output Accounts of the U.S. Economy, 1998

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**T**HIS month, the Bureau of Economic Analysis released the 1998 annual input-output (I-O) accounts for the U.S. economy. These accounts are the third in a series of annual I-O accounts that have been prepared to improve the timeliness of the accounts: The lag between the year of measurement and the year of release has been reduced from 5 years to 3 years.

The annual I-O accounts show the flow of 97 commodities—goods and services—among 94 industries and to final uses. Final uses consist of personal consumption expenditures (PCE), gross private domestic investment, change in private inventories, exports, imports, and government consumption expenditures and gross investment. The sum of all final uses is, by definition, equal to gross domestic product (GDP). In addition, the accounts show, by industry, the contributions made by primary inputs (mainly labor and capital) to total output. By definition, these contributions, called “value-added,” also sum to GDP.

The annual I-O accounts extend and supplement the quinquennial benchmark I-O accounts, the annual GDP-by-industry accounts, and the GDP estimates. Using various indicators to extrapolate both commodity output and industry output, the accounts provide a more up-to-date picture of interindustry interactions than the benchmark I-O tables. The accounts supplement the annual GDP-by-industry estimates by providing information on industry purchases and sales that are not found in the GDP-by-industry estimates of gross output, intermediate inputs, and value added. The annual I-O accounts also provide industry information that supplements the product information contained in the GDP estimates.

The I-O accounts map the structure of production and distribution economy wide. These accounts can be used to analyze changes in the composition of GDP and the effects of these changes on different parts of the economy. For example, the industry relationships from the 1998

accounts could be used to estimate the effects of the attacks of September 11th on tourism (including hotels and air transportation) and its supplying industries or the effects of the recent increases in defense spending on a broad range of industries.

The year 1998 was the seventh year of the 9-year economic expansion of the 1990s. While consumer spending was important in sustaining the long expansion, high levels of investment, especially investment in high-tech equipment and services—computers, communication equipment, and software—played a central role. The long-term shift in the composition of U.S. output from traditional goods to services continued in the 1990s.

For assessing structural changes in the economy, the I-O estimates provide industry and product information, such as purchases of intermediate goods and services, that are not available in the final demand estimates included in GDP. Structural changes highlighted by the 1998 annual I-O accounts include the following:

- Intermediate consumption of business services—which are frequently associated with outsourcing—grew more than 12 percent in 1998, almost five times faster than intermediate consumption of all other commodities.
- Consumer spending on services grew more rapidly than consumer spending on goods in 1992–98, but the spending on goods has larger backward linkages to the rest of the economy.
- Most goods have backward linkages that exceed 2.0, indicating that a \$1 increase in final demand for goods results in at least another \$1 of demand for goods and services from the supplying industries. For example, passenger cars and trucks have a backward linkage of 2.82, indicating that a \$1 increase in final demand will result in a \$1.82 increase in the demand for goods and services from all the other industries.
- Most services have linkages that are less than

2.0. For example, finance has a linkage of 1.72, indicating that a \$1 increase in final demand results in only a \$0.72 increase in the demand for goods and services from all the other industries.

• The demand for investment commodities grew faster than overall consumer spending (either for goods or services) in 1992–98. Moreover, the backward linkages on investment commodities tend to be larger than those for consumer spending.

The 1998 I-O accounts are based on the 1992 benchmark I-O accounts and are prepared using 1998 estimates of industry and commodity output and the 1998 estimates of GDP from last summer's annual revision of the national income and product accounts (NIPAs).<sup>1</sup> The estimates of industry and commodity output are based on Census Bureau annual survey data and other annual sources.

1. For an overview of the I-O accounts, see Ann M. Lawson, "Benchmark Input-Output Accounts for the U.S. Economy, 1992: Make, Use, and Supplementary Tables," *SURVEY OF CURRENT BUSINESS* 77 (November 1997): 36–82; and "Benchmark Input-Output Accounts for the U.S. Economy, 1992: Requirements Tables," *SURVEY* 77 (December 1997): 22–47. For a description of the methodology for the annual I-O accounts, see Sumiye Okubo, Ann M. Lawson, and Mark A. Planting, "Annual Input-Output Accounts of the U.S. Economy, 1996," *SURVEY* 80 (January 2000): 37–86. For information on the NIPA revision, see Brent R. Moulton, Eugene P. Seskin, and David F. Sullivan, "Annual Revision of the National Income and Product Accounts," *SURVEY* 80 (August 2001): 7–120.

Estimates of the intermediate and final consumption of commodities are based on relationships from the 1992 benchmark I-O accounts. These relationships are allowed to adjust to maintain consistency with the 1998 data.

### The 1998 annual I-O tables

The 1998 annual I-O accounts consist of 94 industries, 97 commodities, and 11 categories of final demand.<sup>2</sup> Two make tables, one that is based on I-O industry classifications (table 1) and an alternative that is based on the Standard Industrial Classification (SIC), show the commodities produced by each industry. Two use tables, one on the I-O basis (table 2) and one on the SIC basis, show the commodities that are consumed by each industry and final demand (table A is an aggregated version of the use table).<sup>3</sup>

2. The 1992 benchmark I-O accounts consist of 494 industries, 484 commodities, and 40 categories of final demand. The 1997 benchmark accounts are scheduled to be released at the end of 2002. For more information, see the note "Upcoming Changes in the NAICS-Based 1997 Benchmark Input-Output Accounts" in this issue.

3. The make table (table 1), the use table (table 2), and the industry-by-commodity total requirements table (table 5a) in summary format are presented at the end of this article. More detailed versions of all eight tables are available electronically; see the box "Data Availability" on page 50.

Table A.—The Use of Commodities by Industries, 1998  
[Millions of dollars]

	Industries <sup>1</sup>										Final uses (GDP)							Total commodity output <sup>3</sup>
	Agriculture	Mining	Construction	Manufacturing	Transportation, communication, and utilities	Trade	Finance, insurance, and real estate	Services	Other <sup>2</sup>	Total intermediate use	Personal consumption expenditures	Gross private fixed investment	Changes in business inventories	Exports of goods, and services	Imports of goods and services	Government consumption expenditures and gross investment	GDP <sup>3</sup>	
<b>Commodities</b>																		
Agricultural products.....	68,682	78	5,860	144,622	154	1,816	11,476	12,310	567	245,564	34,596	1,236	19,563	-23,438	2,984	34,940	280,503	
Minerals.....	368	31,478	7,368	81,722	52,354	31	6	32	3,061	176,417	105	956	387	6,961	-47,469	-180	-39,241	137,176
Construction.....	3,369	4,693	895	28,756	47,369	12,694	66,515	28,785	25,895	218,971	577,089	78	210,040	787,208	1,006,179			
Manufactured products.....	49,395	14,510	299,429	1,380,590	70,485	68,005	19,318	340,944	17,593	2,260,269	1,078,057	587,174	41,694	523,300	-828,893	210,188	1,611,520	3,871,789
Transportation, communication, and utilities.....	12,625	12,652	24,847	179,922	200,933	68,214	52,626	120,762	22,872	695,452	437,478	17,996	1,250	70,106	-15,367	74,784	586,248	1,281,700
Trade.....	13,948	3,498	81,671	230,668	15,081	32,685	4,925	68,036	2,646	453,157	873,411	112,475	5,127	70,298	19,586	22,215	1,103,110	1,556,267
Finance, insurance, and real estate.....	20,647	33,253	16,485	71,167	40,283	108,418	445,679	243,750	7,945	987,627	1,369,009	51,135	73,154	-9,896	37,315	1,520,718	2,508,344	
Services.....	8,998	5,851	103,708	240,141	144,495	219,223	191,363	530,971	13,585	1,458,335	2,010,510	166,967	25	38,456	-8,322	6,745	2,214,382	3,672,717
Other <sup>2</sup> .....	166	29	1,076	13,826	3,306	11,226	28,196	24,713	3,034	85,574	5,119	-48,174	23,409	93,720	-5,783	963,760	1,032,052	1,117,626
Noncomparable imports.....	64	1,872	22,929	21,939	7,722	8,553	5,189	1,144	69,413	47,744				-127,801	10,644	-69,413		
Total intermediate inputs.....	178,262	107,913	541,338	2,394,342	596,399	530,035	828,656	1,375,492	98,341	6,650,777								
Value added <sup>4</sup> .....	105,028	39,826	464,841	1,559,242	653,908	1,022,277	1,718,897	2,104,140	1,113,367							8,781,523		
Total industry output <sup>3</sup> .....	283,290	147,738	1,006,179	3,953,584	1,250,307	1,552,311	2,547,553	3,479,631	1,211,707	5,856,029	1,465,618	73,127	895,637	-1,047,382	1,538,494		15,432,301	

1. The input-output (I-O) accounts use two classification systems, one for industries and another for commodities, but both systems generally use the same I-O numbers and titles.

2. "Other" consists of government enterprises, general government industry, household industry, and the inventory valuation adjustment.

3. Detail may not sum to totals due to rounding.

4. "Value added" consists of compensation of employees, indirect business tax and nontax liability, and other value added. "Other value added" consists of the following components of gross domestic income: Consumption of fixed capital, net interest, proprietors' income, corporate profits, rental income of persons, business transfer payments, and subsidies less current surplus of government enterprises.

Four requirements tables are derived from the make and use tables: One direct requirements table and three total requirements tables. The total requirements tables show the production that is required, directly and indirectly, to meet purchases from final demand. The industry-by-commodity total requirements table details all the linkages between commodity consumption and industry production. The aggregate effect of these linkages is captured in the column sums of this table and is referred to as “the backward linkage” (table 5a). The backward linkage for a commodity represents the total output required from all industries to supply \$1 of final demand for that commodity.

### *Changes in the composition of total consumption in 1992–98*

The series of I-O accounts can be used to compare the structure of the U.S. economy over time. Changes in the use of commodities by the economy, both for domestic use and for export, are measured by changes in the composition of total consumption (table B). Total consumption is defined as total domestic commodity output plus imports less change in private inventories, and it is equal to the sum of total intermediate use and the four final use sectors (personal consumption expenditures, gross private fixed investment, exports, and government purchases). Total consumption shows the total flow of commodities from domestic and foreign sources through the economy. The consumption of commodities by sector provides indications of where structural changes are occurring (table C).

Total commodity consumption grew 5.0 percent in 1998, somewhat slower than the average annual rate of growth of 6.1 percent over the period 1992–98 (table D). This slower rate of growth reflects a slowdown in the consumption of goods commodities, which grew 2.1 percent in 1998, less than half the average rate of 5.4 percent in 1992–98.<sup>4</sup> In contrast, services commodities grew 6.7 percent in 1998, about the same as the average

rate of 6.6 percent in 1992–98. The faster growth in the consumption of services commodities further shifted total consumption from goods to services; the services' share of total consumption rose from 60.9 percent in 1992 to 62.5 percent in 1998. Among the services commodities, the fastest growth in 1998 was in finance, insurance, and real estate (8.7 percent) and services (8.4 percent), both of which grew faster than in 1992–98.

Among the goods commodities, all the major commodity groups grew more slowly in 1998 than in 1992–98. Mining declined much more substantially (–19.2 percent, compared with –0.6 percent), primarily reflecting a decline in crude petroleum and natural gas prices in 1998. Growth in manufacturing commodities slowed substantially (2.7 percent, compared with 5.5 percent).

Table E shows the fastest growing commodities among those that accounted for at least 1 percent of total consumption in 1998. These commodities, which together accounted for 43.5 percent of total consumption, are predominantly services (commodity numbers 65A and above). Among the fastest growing commodities were finance (14.0 percent), computer and data processing services (18.8 percent), and “other business and professional services” (12.9 percent), each of which grew at more than twice the rate of all commodities. Many of these commodities continued to grow in 1998 at about the same rates as in 1992–98. However, the growth rates of several commodities slowed dramatically: Computers and office equipment grew 5.0 percent in 1998, compared with 11.3 percent in 1992–97, and electronic components and accessories grew –3.4 percent, compared with 14.6 percent.

*The text continues on page 49.*

### **Acknowledgments**

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4. Services' share of economic activity varies depending on the definitions used. For example, I-O services commodities as a percentage of final uses rose from 72 percent in 1992 to 73 percent in 1998; in contrast, services as a share of GDP declined from 54 percent to 53 percent. The differences in the level are largely attributable to wholesale and retail trade; in the supply-oriented I-O commodity classification system, wholesale-retail trade is considered a service, but from the perspective of final users, these services are included in the value of goods purchased. The difference in the direction of movement was due not only to wholesale-retail trade but also to eating and drinking places and to computer and data processing services, including own-account software, which is treated as services in the I-O commodity classification system but as consumer and investment goods in final demand.

Table B.—Commodity Output, Imports, and Total Consumption, 1992, 1997, and 1998  
 [Millions of dollars]

Commodity number	Description	Output			Imports			Total consumption		
		1992	1997	1998	1992	1997	1998	1992	1997	1998
	<b>ALL COMMODITIES.....</b>	<b>10,857,353</b>	<b>14,704,030</b>	<b>15,432,301</b>	<b>631,637</b>	<b>990,973</b>	<b>1,047,382</b>	<b>11,487,126</b>	<b>15,632,077</b>	<b>16,406,556</b>
	<b>AGRICULTURE, FORESTRY, AND FISHERIES</b>									
	Total.....	235,591	295,106	280,503	14,601	22,910	23,438	245,345	314,319	302,706
01	Livestock and livestock products.....	89,375	100,418	97,795	2,061	2,558	2,575	90,579	103,363	100,512
02	Other agricultural products.....	104,546	136,349	120,594	6,860	11,969	12,326	107,371	144,299	131,525
03	Forestry and fishery products.....	11,865	14,925	14,642	5,659	8,371	8,529	17,569	23,231	23,188
04	Agricultural, forestry, and fishery services.....	29,805	43,414	47,473	21	12	8	29,826	43,426	47,481
	<b>MINING</b>									
	Total.....	147,562	163,793	137,176	43,527	64,199	47,469	191,196	227,987	184,258
05+06	Metallic ores mining.....	10,739	12,879	11,394	-1,488	-1,921	-1,300	9,275	10,945	10,062
07	Coal mining.....	26,917	22,973	22,787	133	306	325	27,053	23,237	22,697
08	Crude petroleum and natural gas.....	97,623	112,799	87,491	43,984	64,550	47,240	141,712	177,546	134,802
09+10	Nonmetallic minerals mining.....	12,283	15,143	15,505	898	1,263	1,204	13,156	16,259	16,698
	<b>CONSTRUCTION</b>									
	Total.....	679,330	944,308	1,006,179				679,330	944,308	1,006,179
11	New construction, including own-account construction.....	456,949	640,725	696,617				456,949	640,725	696,617
12	Maintenance and repair construction, including own-account construction.....	222,381	303,583	309,562				222,381	303,583	309,562
	<b>MANUFACTURING</b>									
	Total.....	2,890,437	3,807,147	3,871,789	485,599	769,466	828,893	3,372,470	4,538,054	4,658,989
13	Ordinance and accessories.....	22,217	19,827	19,178	909	1,075	817	24,881	20,673	19,873
14	Food and kindred products.....	408,557	485,921	493,653	21,850	28,225	30,188	430,457	512,209	522,498
15	Tobacco products.....	40,147	41,558	46,206	1,587	1,411	1,068	39,597	41,250	45,148
16	Broad and narrow fabrics, yarn and thread mills.....	37,528	44,147	44,267	4,397	5,349	5,456	41,448	49,550	49,367
17	Miscellaneous fabricated textile products.....	17,983	21,522	22,613	1,879	2,481	2,683	19,843	23,863	25,123
18	Apparel.....	68,637	71,751	66,520	38,484	56,319	62,541	103,224	124,639	126,953
19	Miscellaneous fabricated textile products.....	21,021	27,251	27,692	2,870	4,505	5,140	23,421	31,268	32,425
20+21	Lumber and wood products.....	87,127	117,788	119,168	7,143	14,330	14,996	93,607	130,466	132,853
22+23	Furniture and fixtures.....	42,849	60,223	65,126	6,026	11,354	13,662	48,690	71,574	78,187
24	Paper and allied products, except containers.....	98,497	114,078	116,303	10,715	15,056	16,176	108,441	128,036	131,502
25	Paperboard containers and boxes.....	31,743	38,413	41,730	247	520	565	31,713	38,609	41,880
26A	Newspapers and periodicals.....	19,895	24,336	25,053	199	222	237	20,156	24,681	25,325
26B	Other printing and publishing.....	81,202	98,353	100,513	1,783	2,822	3,031	82,232	99,669	102,453
27A	Industrial and other chemicals.....	113,359	149,370	135,276	14,375	22,147	22,028	127,005	170,720	156,978
27B	Agricultural fertilizers and chemicals.....	17,850	24,613	24,270	2,330	3,275	3,659	20,333	27,406	27,701
28	Plastics and synthetic materials.....	50,944	67,749	65,711	3,827	7,283	7,612	54,532	74,491	73,323
29A	Drugs.....	62,321	85,355	96,816	13,193	26,766	31,473	74,222	109,561	126,064
29B	Cleaning and toilet preparations.....	40,557	52,380	50,430	2,052	3,019	3,280	42,423	55,009	52,988
30	Paints and allied products.....	14,379	18,346	18,728	200	459	516	14,537	18,654	19,119
31	Petroleum refining and related products.....	149,831	175,401	139,618	11,582	13,656	11,385	161,367	188,880	152,387
32	Rubber and miscellaneous plastics products.....	111,813	156,843	160,807	13,253	20,071	21,521	124,071	175,471	180,892
33+34	Footwear, leather, and leather products.....	9,538	9,532	8,654	12,824	17,976	18,382	22,031	27,203	26,855
35	Glass and glass products.....	17,981	22,613	22,642	2,159	3,698	3,853	19,955	26,012	26,192
36	Stone and clay products.....	42,291	62,304	68,023	4,551	7,563	8,539	47,038	69,356	76,038
37	Primary iron and steel manufacturing.....	73,922	102,368	101,909	10,893	18,137	21,913	85,154	118,840	122,137
38	Primary nonferrous metals manufacturing.....	64,813	87,421	86,308	10,228	18,392	19,557	75,433	105,008	105,153
39	Metal containers.....	13,238	13,021	13,392	201	304	296	13,429	13,227	13,519
40	Heating, plumbing, and fabricated structural metal products.....	49,050	71,140	76,823	1,008	2,059	2,523	50,168	72,486	78,733
41	Screw machine products and stampings.....	34,564	52,688	55,001	2,628	2,751	2,889	36,975	55,184	57,379
42	Other fabricated metal products.....	56,518	78,094	82,284	8,510	14,631	16,202	64,961	91,900	97,274
43	Engines and turbines.....	17,895	24,588	26,658	2,413	3,688	4,490	20,492	28,469	30,974
44+45	Farm, construction, and mining machinery.....	30,946	53,075	55,789	4,754	9,919	11,273	35,423	60,911	65,335
46	Materials handling machinery and equipment.....	8,290	13,945	15,249	1,468	2,949	3,665	9,799	16,777	18,676
47	Metalworking machinery and equipment.....	27,046	40,374	40,638	5,127	10,982	11,724	32,155	50,965	52,173
48	Special industry machinery and equipment.....	20,218	33,615	32,421	5,881	9,782	10,248	26,205	42,951	42,710
49	General industrial machinery and equipment.....	29,678	40,658	40,884	7,796	12,505	12,896	37,554	52,772	53,114
50	Miscellaneous machinery, except electrical.....	24,946	36,739	37,947	1,895	2,587	2,768	26,900	39,001	40,158
51	Computer and office equipment.....	62,088	98,123	99,264	32,687	68,245	71,783	96,016	164,058	172,283
52	Service industry machinery.....	25,801	36,268	37,772	2,243	3,253	3,656	27,879	39,425	40,824
53	Electrical industrial equipment and apparatus.....	28,574	39,837	41,103	5,295	9,492	10,343	33,792	49,163	50,981
54	Household appliances.....	16,833	20,683	22,313	4,072	6,151	6,846	21,001	27,033	28,899

Table B.—Commodity Output, Imports, and Total Consumption, 1992, 1997, and 1998—Continued  
 [Millions of dollars]

Commodity number	Description	Output			Imports			Total consumption		
		1992	1997	1998	1992	1997	1998	1992	1997	1998
<b>MANUFACTURING—Continued</b>										
55	Electric lighting and wiring equipment .....	19,055	25,059	26,933	4,985	7,332	7,785	23,899	32,262	34,373
56	Audio, video, and communication equipment.....	50,981	89,145	91,799	25,409	35,181	40,509	76,016	123,244	129,909
57	Electronic components and accessories.....	73,298	143,250	137,134	20,574	43,947	42,249	93,923	185,465	179,072
58	Miscellaneous electrical machinery and supplies.....	21,103	27,685	27,477	8,062	11,958	12,505	29,314	39,448	39,618
59A	Motor vehicles—passenger cars and trucks.....	149,684	221,259	230,676	58,285	87,956	93,073	206,855	306,946	322,570
59B	Truck and bus bodies, trailers, and motor vehicle parts .....	81,258	129,174	135,108	21,743	31,780	33,520	103,221	160,379	167,938
60	Aircraft and parts.....	102,154	102,433	129,376	12,153	15,475	20,384	122,318	116,608	141,056
61	Other transportation equipment .....	29,907	41,688	44,133	2,693	4,651	5,958	32,898	45,577	49,409
62	Scientific and controlling instruments.....	107,915	123,806	133,097	14,773	21,696	23,986	122,916	145,376	156,151
63	Ophthalmic and photographic equipment.....	22,745	22,644	20,721	8,153	11,176	10,756	30,530	33,347	31,102
64	Miscellaneous manufacturing.....	39,450	49,696	50,585	23,335	32,905	36,292	62,020	82,040	85,353
<b>TRANSPORTATION, COMMUNICATION, AND UTILITIES</b>										
Total.....		932,030	1,231,397	1,281,700	7,932	14,026	15,367	939,006	1,244,152	1,295,817
65A	Railroads and related services; passenger ground transportation.....	62,058	78,362	79,667	164	194	199	62,087	78,371	79,624
65B	Motor freight transportation and warehousing.....	157,110	211,866	230,207	2,059	1,985	1,910	158,540	212,908	231,279
65C	Water transportation.....	34,347	37,136	38,469	-3,530	-4,038	-4,658	30,781	33,089	33,802
65D	Air transportation.....	98,819	137,175	142,881	8,544	14,786	16,789	107,226	151,817	159,536
65E	Pipelines, freight forwarders, and related services.....	28,966	37,648	39,469				28,958	37,658	39,502
66	Communications, except radio and TV.....	205,941	314,228	343,786				205,941	314,228	343,786
67	Radio and TV broadcasting.....	2,674	5,180	5,576				2,674	5,180	5,576
68A	Electric services—utilities.....	195,695	232,885	230,091	695	1,100	1,126	196,390	233,984	231,217
68B	Gas production and distribution—utilities.....	96,155	111,176	103,121				96,144	111,177	103,063
68C	Water and sanitary services.....	50,265	65,740	68,432				50,265	65,740	68,432
<b>WHOLESALE AND RETAIL TRADE</b>										
Total.....		1,095,148	1,499,166	1,556,267	-18,317	-19,617	-19,586	1,074,173	1,473,476	1,531,554
69A	Wholesale trade.....	568,970	804,290	812,459	-18,317	-19,617	-19,586	547,995	778,600	787,746
69B	Retail trade.....	526,178	694,876	743,808				526,178	694,876	743,808
<b>FINANCE, INSURANCE, AND REAL ESTATE</b>										
Total.....		1,639,416	2,309,627	2,508,344	1,412	6,551	9,896	1,640,828	2,316,178	2,518,240
70A	Finance.....	390,774	639,350	729,281	265	889	891	391,039	640,239	730,171
70B	Insurance.....	231,654	337,367	344,595	1,136	5,646	8,987	232,790	343,012	353,582
71A	Owner-occupied dwellings.....	457,250	591,837	631,659				457,250	591,837	631,659
71B	Real estate and royalties.....	559,738	741,073	802,810	11	16	18	559,749	741,089	802,828
<b>SERVICES</b>										
Total.....		2,388,808	3,390,222	3,672,717	4,027	6,880	8,322	2,392,872	3,396,784	3,681,014
72A	Hotels and lodging places.....	58,936	77,855	82,286				58,936	77,855	82,286
72B	Personal and repair services—except auto.....	92,016	119,364	127,143				92,016	119,364	127,143
73A	Computer and data processing services, including own-account software.....	152,744	305,384	362,292	225	497	596	153,010	305,568	362,868
73B	Legal, engineering, accounting, and related services.....	252,597	338,350	370,311	839	1,626	1,796	253,436	339,977	372,107
73C	Other business and professional services, except medical.....	332,385	533,214	600,791	1,632	2,449	3,750	334,017	535,663	604,541
73D	Advertising.....	138,530	186,963	198,947	615	1,361	1,254	139,145	188,324	200,201
74	Eating and drinking places.....	282,017	357,943	374,737				282,017	357,943	374,737
75	Automotive repair and services.....	164,408	251,976	264,812	6	3	6	164,410	251,974	264,813
76	Amusements.....	122,937	190,881	204,820	248	371	344	123,185	191,252	205,164
77A	Health services.....	564,607	726,052	763,827	13	9	10	564,620	726,060	763,837
77B	Educational and social services, and membership organizations.....	227,631	302,241	322,753	449	564	566	228,080	302,805	323,319
<b>SPECIAL INDUSTRIES</b>										
Total.....		849,031	1,063,264	1,117,626	92,856	126,559	133,584	948,340	1,176,821	1,227,800
78	Federal Government enterprises.....	50,200	74,750	80,223				50,200	74,750	80,223
79	State and local government enterprises.....	30,162	43,561	44,746				30,162	43,561	44,746
80	Noncomparable imports.....				90,036	120,721	127,801	90,036	120,721	127,801
81	Scrap, used and secondhand goods.....	2,175	1,542	2,597	2,746	5,797	5,748	3,392	5,088	6,473
82	General government industry.....	764,389	920,196	954,171				764,389	920,196	954,171
83	Rest of world adjustment to final uses.....				74	40	35	74	40	35
84	Household industry.....	10,087	12,464	14,351				10,087	12,464	14,351
85	Inventory valuation adjustment.....	-7,982	10,751	21,538						

NOTE.—Total consumption of commodities is equal to commodity output plus imports less the change in private inventories. The change in private inventories is not shown separately in this table.





Table D.—Total Consumption Growth Rates and Shares by Major Commodity Group, 1992–98

Commodity	Total consumption			Average annual rate of growth of consumption (percent)		Share of total commodity consumption (percent)	
	1992	1997	1998	1992–98	1997–98	1992	1998
All commodities .....	11,487,126	15,632,077	16,406,556	6.1	5.0	100.0	100.0
Goods commodities .....	4,491,907	6,024,667	6,152,131	5.4	2.1	39.1	37.5
Agriculture, forestry, and fisheries .....	245,345	314,319	302,706	3.6	-3.7	2.1	1.8
Mining .....	191,196	227,987	184,258	-0.6	-19.2	1.7	1.1
Construction .....	679,330	944,308	1,006,179	6.8	6.6	5.9	6.1
Manufacturing .....	3,376,036	4,538,054	4,658,989	5.5	2.7	29.4	28.4
Services commodities .....	6,995,219	9,607,410	10,254,425	6.6	6.7	60.9	62.5
Transportation, communication, and utilities .....	939,006	1,244,152	1,295,817	5.5	4.2	8.2	7.9
Wholesale and retail trade .....	1,074,173	1,473,476	1,531,554	6.1	3.9	9.4	9.3
Finance, insurance, and real estate .....	1,640,828	2,316,178	2,518,240	7.4	8.7	14.3	15.3
Services .....	2,392,872	3,396,784	3,681,014	7.4	8.4	20.8	22.4
Special industries .....	948,340	1,176,821	1,227,800	4.4	4.3	8.3	7.5

Table E.—Commodities with Fastest Growing Consumption, 1992–98

Commodity number	Description	Consumption (millions of dollars)	Percent of total commodity consumption	Average annual rate of growth of consumption			
				1992–98		1997–98	
				Percent	Rank	Percent	Rank
11	New construction, including own-account construction .....	696,617	4.2	7.3	11	8.7	14
32	Rubber and miscellaneous plastics products .....	180,892	1.1	6.5	15	3.1	51
51	Computer and office equipment .....	172,283	1.1	10.2	5	5.0	41
57	Electronic components and accessories .....	179,072	1.1	11.4	2	-3.4	83
59A	Motor vehicles (passenger cars and trucks) .....	322,570	2.0	7.7	10	5.1	39
59B	Truck and bus bodies, trailers, and motor vehicles parts .....	167,938	1.0	8.5	8	4.7	43
65B	Motor freight transportation and warehousing .....	231,279	1.4	6.5	16	8.6	16
65D	Air transportation .....	159,536	1.0	6.8	13	5.1	40
66	Communications, except radio and TV .....	343,786	2.1	8.9	6	9.4	10
69A	Wholesale trade .....	787,746	4.8	6.2	18	1.2	69
70A	Finance .....	730,171	4.5	11.0	3	14.0	4
70B	Insurance .....	353,582	2.2	7.2	12	3.1	52
71B	Real estate and royalties .....	802,828	4.9	6.2	19	8.3	19
73A	Computer and data processing services, including own-account software .....	362,868	2.2	15.5	1	18.8	2
73B	Legal, engineering, accounting, and related services .....	372,107	2.3	6.6	14	9.5	8
73C	Other business and professional services, except medical .....	604,541	3.7	10.4	4	12.9	5
73D	Advertising .....	200,201	1.2	6.3	17	6.3	31
75	Automotive repair and services .....	264,813	1.6	8.3	9	5.1	38
76	Amusements .....	205,164	1.3	8.9	7	7.3	23

Table F.—Growth and Composition of Commodities Used for Private Fixed Investment, 1992–98

Commodity number	Description	1998		Average annual rate of growth of consumption (percent)		1998 Backward linkage
		Investment (millions of dollars)	Percent of total investment	1992–98	1997–98	
	Total .....	1,465,618	100.0	9.5	10.4	2,056
	Largest commodities .....	1,387,982	94.7	9.5	10.3	2,052
11	New construction, including own-account construction .....	542,027	37.0	8.1	11.0	2,040
12	Maintenance and repair construction, including own-account construction .....	35,062	2.4	9.5	6.0	2,003
22+23	Furniture and fixtures .....	24,313	1.7	7.1	4.2	2,053
44+45	Farm, construction, and mining machinery .....	39,916	2.7	14.4	10.6	2,079
47	Metalworking machinery and equipment .....	30,195	2.1	9.4	2.9	1,832
48	Special industry machinery and equipment .....	28,213	1.9	9.0	4.3	2,034
49	General industrial machinery and equipment .....	16,973	1.2	7.0	-0.5	1,943
51	Computer and office equipment .....	67,317	4.6	10.9	4.6	2,656
56	Audio, video, and communication equipment .....	48,634	3.3	12.1	10.5	2,285
59A	Motor vehicles (passenger cars and trucks) .....	145,479	9.9	11.6	5.7	2,823
60	Aircraft and parts .....	20,045	1.4	6.6	44.8	1,978
62	Scientific and controlling instruments .....	59,230	4.0	5.2	8.4	1,874
69A	Wholesale trade .....	87,088	5.9	10.4	5.9	1,596
69B	Retail trade .....	25,387	1.7	10.0	6.7	1,557
71B	Real estate and royalties .....	51,135	3.5	10.3	17.4	1,430
73A	Computer and data processing services, including own-account software .....	145,416	9.9	14.6	20.8	1,767
73B	Legal, engineering, accounting, and related services .....	21,552	1.5	5.3	9.8	1,547
	All other commodities .....	77,636	5.3	8.4	12.1	2,094

NOTE.—The backward linkage for a commodity represents the total output required from all industries to supply \$1 of final demand for that commodity.



Consumption of investment commodities, a component of final demand, increased at an average annual growth rate of 9.5 percent in 1992–98, and it grew 10.4 percent in 1998 (table F). Aircraft grew much faster in 1998, at 44.8 percent, than its average annual growth rate of 6.6 percent in 1992–98 and its 1992–97 rate of 0.2 percent. Real estate and royalties grew 17.4 percent in 1998, compared with 10.3 percent in 1992–98; computer and data processing grew 20.8 percent, compared with 14.6 percent; and new construction grew 11.0 percent, compared with 8.1 percent. In contrast, general industrial machinery declined 0.5 percent in 1998, compared with an average annual growth rate of 7.0 percent in 1992–98; computer and office equipment grew 4.6 percent, compared with 10.9 percent; and motor vehicles (passenger cars and trucks) grew 5.7 percent, compared with 11.6 percent.

Changes in investment demand have a substantial impact on the output of many industries because of the large backward linkages that are typical of capital goods production. Many of the investment commodities have backward linkages that exceed 2.0, indicating that an increase in the demand for these commodities will result in a doubling of production across all industries. For example, in 1998, a \$4.6 billion increase in the demand for audio, video, and communication equipment resulted in a \$10.5 billion increase in production across all industries.

Changes in the intermediate consumption of

commodities—commodities consumed by businesses in order to produce their output—were dominated by continued strong growth in the demand for business services. In 1998, intermediate consumption of these services—which are frequently associated with outsourcing—grew 12.4 percent, almost five times faster than intermediate consumption of all other commodities. Within business services, intermediate consumption of “computer and data processing services, including own-account software” grew 18.4 percent, “other business and professional services, except medical” grew 14.4 percent, and “legal, engineering, accounting, and related services” grew 10.1 percent (table G).

Table G.—Growth Rates for Business Services, 1992–98

Commodity number	Description	1998 Intermediate consumption (millions of dollars)	Average annual rate of growth of consumption (percent)	
			1992–98	1997–98
73A	Computer and data processing services, including own-account software .....	142,963	19.0	18.4
73B	Legal, engineering, accounting, and related services.....	269,804	7.1	10.1
73C	Other business and professional services, except medical .....	518,753	11.4	14.4

Growth in the demand for PCE commodities, a component of final demand, continued at about the same rate in 1998 as in 1992–98. The growth was primarily in services commodities, which account for most of PCE and which generally grow faster than the average for all commodities in PCE (table H). Most commodities grew at approxi-

Table H.—Growth and Composition of Commodities Used for Personal Consumption, 1992–98

Commodity number	Description	1998		Average annual rate of growth of consumption (percent)		1998 Backward linkage
		Consumption (millions of dollars)	Percent of total consumption	1992–98	1997–98	
	Total .....	5,856,029	100.0	5.7	5.9	1.782
	Largest commodities .....	5,071,122	86.6	5.7	6.2	1.765
14	Food and kindred products.....	290,997	5.0	2.7	2.9	2.626
18	Apparel .....	100,336	1.7	3.6	3.1	2.529
29A	Drugs .....	73,132	1.2	8.9	15.8	1.747
59A	Motor vehicles (passenger cars and trucks).....	140,843	2.4	4.9	6.8	2.823
65D	Air transportation .....	56,033	1.0	7.5	6.9	1.865
66	Communications, except radio and TV .....	144,911	2.5	8.2	7.9	1.777
68A	Electric services (utilities) .....	96,346	1.6	3.3	2.8	1.668
69A	Wholesale trade.....	213,698	3.6	5.1	3.5	1.596
69B	Retail trade.....	659,713	11.3	5.8	6.9	1.557
70A	Finance .....	336,268	5.7	9.2	10.6	1.724
70B	Insurance .....	196,833	3.4	6.1	3.7	2.074
71A	Owner-occupied dwellings .....	631,659	10.8	5.5	6.7	1.255
71B	Real estate and royalties.....	204,249	3.5	3.4	4.8	1.430
72B	Personal and repair services (except auto) .....	91,759	1.6	5.8	7.2	1.685
73B	Legal, engineering, accounting, and related services .....	60,186	1.0	4.7	6.8	1.574
74	Eating and drinking places .....	329,080	5.6	5.2	5.8	2.046
75	Automotive repair and services .....	153,378	2.6	9.3	5.0	1.895
76	Amusements .....	127,297	2.2	8.4	8.5	1.724
77A	Health services .....	838,616	14.3	5.4	5.1	1.695
77B	Educational and social services, and membership organizations .....	325,789	5.6	6.3	8.3	1.812
	All other commodities .....	784,907	13.4	5.3	4.1	1.881

NOTE.—The backward linkage for a commodity represents the total output required from all industries to supply \$1 of final demand for that commodity.

mately the same rates in 1998 as in 1992–98, but several did not. The growth rate of drugs in 1998, at 15.8 percent, was almost twice the 8.9-percent growth rate in 1992–98, and the growth rate of motor vehicles (passenger cars and trucks) was 6.8 percent, compared with 4.9 percent. In contrast, the growth rate of automotive repair services in 1998, at 5.0 percent, was about half the 9.3-percent growth rate in 1992–98, and the growth rate of insurance was 3.7 percent, compared with 6.1 percent.

The backward linkages for PCE commodities vary; the demand for goods generally has larger linkages, usually greater than 2.0, and the demand for services generally has smaller linkages, usually less than 2.0. In 1992–98, the commodities that grew the fastest—mainly services—tended to have lower backward linkages, so the impact on the other industries of the growth in demand for consumer spending on these commodities was not as

great as the impact of the growth in demand for investment commodities.

#### Data Availability

The estimates for 94 industries, 97 commodities and 11 categories of final demand at the input-output (I-O) two-digit level—including alternative estimates of the make and use tables on an approximate 1987 Standard Industrial Classification (SIC) basis—and a discussion of the matrix algebra underlying the derivation of the tables are available on BEA's Web site. Go to <[www.bea.doc.gov](http://www.bea.doc.gov)>, click on "Gross product and input-output data," and look under "Input-Output data."

In early 2002, the data from the 1992 benchmark I-O accounts and the 1996, 1997, and 1998 annual I-O accounts will be available interactively on BEA's Web site. Users will be able to select data from any of the published tables.

The I-O two-digit estimates are also available on diskette for \$20—product number NDN-0291. To order, call the BEA Order Desk at 1-800-704-0415 (outside the United States, call 202-606-9666).

*An appendix and tables 1, 2, and 5a follow.*

**Appendix.—Classification of Industries in the Annual Input-Output Accounts**

[An asterisk preceding a Standard Industrial Classification (SIC) code indicates that the SIC industry is included in more than one I-O industry.]

I-O number	I-O title	Related 1987 SIC codes	I-O number	I-O title	Related 1987 SIC codes
<b>AGRICULTURE, FORESTRY, AND FISHERIES</b>					
01	Livestock and livestock products .....	*01, *02	55	Electric lighting and wiring equipment .....	364
02	Other agricultural products .....	*01, *02	56	Audio, video, and communication equipment .....	365, 366
03	Forestry and fishery products .....	081, 083, 091, 097	57	Electronic components and accessories .....	367
04	Agricultural, forestry, and fishery services .....	0254, *0279, 071, 072, 075, 076, 078, 085, 092	58	Miscellaneous electrical machinery and supplies .....	369
<b>MINING</b>					
05+06	Metallic ores mining .....	101-6, *108, 109	59A	Motor vehicles (passenger cars and trucks) .....	3711
07	Coal mining .....	121-3, *124	59B	Truck and bus bodies, trailers, and motor vehicles parts .....	3713-5
08	Crude petroleum and natural gas .....	131, 132, *138	60	Aircraft and parts .....	372, 3764, 3769
09+10	Nonmetallic minerals mining .....	141-7, *148, 149	61	Other transportation equipment .....	3716, 373-5, 3792, 3799
<b>CONSTRUCTION</b>					
11	New construction, including own-account construction ....	*108, *124, *138, *148, *15, *16, *17, 6552	62	Scientific and controlling instruments .....	381, 382, 384, 387
12	Maintenance and repair construction, including own-account construction .....	*138, *15, *16, *17	63	Ophthalmic and photographic equipment .....	385, 386
<b>MANUFACTURING</b>					
13	Ordnance and accessories .....	348, 3761, 3795	64	Miscellaneous manufacturing .....	39
14	Food and kindred products .....	20	<b>TRANSPORTATION, COMMUNICATION, AND UTILITIES</b>		
15	Tobacco products .....	21	65A	Railroads and related services; passenger ground transportation .....	40, 41, 474
16	Broad and narrow fabrics, yarn and thread mills .....	221 4, *226, 228	65B	Motor freight transportation and warehousing .....	42
17	Miscellaneous textile goods and floor coverings .....	227, 229	65C	Water transportation .....	44
18	Apparel 225, .....	231-8	65D	Air transportation .....	45
19	Miscellaneous fabricated textile products .....	239	65E	Pipelines, freight forwarders, and related services .....	46, 472, 473, 478
20+21	Lumber and wood products .....	24	66	Communications, except radio and TV .....	481, 482, 484, 489
22+23	Furniture and fixtures .....	25	67	Radio and TV broadcasting .....	483
24	Paper and allied products, except containers .....	261, 262, 263, 267	68A	Electric services (utilities) .....	491, 4931
25	Paperboard containers and boxes .....	265	68B	Gas production and distribution (utilities) .....	492, 4932, 4939
26A	Newspapers and periodicals .....	271, 272	68C	Water and sanitary services .....	494-7
26B	Other printing and publishing .....	273-9	<b>WHOLESALE AND RETAIL TRADE</b>		
27A	Industrial and other chemicals .....	281, 286, 289	69A	Wholesale trade .....	50, 51
27B	Agricultural fertilizers and chemicals .....	287	69B	Retail trade .....	52-7, 59
28	Plastics and synthetic materials .....	282	<b>FINANCE, INSURANCE, AND REAL ESTATE</b>		
29A	Drugs .....	283	70A	Finance .....	60-2, 67 (excluding 6732)
29B	Cleaning and toilet preparations .....	284	70B	Insurance .....	63, 64
30	Paints and allied products .....	285	71A	Owner-occupied dwellings .....	65 (excluding 6552)
31	Petroleum refining and related products .....	29	71B	Real estate and royalties .....	
32	Rubber and miscellaneous plastics products .....	30	<b>SERVICES</b>		
33+34	Footwear, leather, and leather products .....	31	72A	Hotels and lodging places .....	70
35	Glass and glass products .....	321-3	72B	Personal and repair services (except auto) .....	72, 762-4
36	Stone and clay products .....	324-9	73A	Computer and data processing services, including own-account software .....	737
37	Primary iron and steel manufacturing .....	331, 332, 339, 3462	73B	Legal, engineering, accounting, and related services ....	81, 871, 872, 89
38	Primary nonferrous metals manufacturing .....	333-6, 3463	73C	Other business and professional services, except medical .....	732-6, 738, 769, 8731, 8732, 8734, 874
39	Metal containers .....	341	73D	Advertising .....	731
40	Heating, plumbing, and fabricated structural metal products .....	343, 344	74	Eating and drinking places .....	58
41	Screw machine products and stamping .....	345, 3465-9	75	Automotive repair and services .....	75
42	Other fabricated metal products .....	342, 347, 349	76	Amusements .....	78, 79
43	Engines and turbines .....	351	77A	Health services .....	074, 80
44+45	Farm, construction, and mining machinery .....	352, 3531-3	77B	Educational and social services, and membership organizations .....	6732, 82-4, 86, 8733
46	Materials handling machinery and equipment .....	3534-7	<b>SPECIAL INDUSTRIES</b>		
47	Metalworking machinery and equipment .....	354	78	Federal Government enterprises .....	(1)
48	Special industry machinery and equipment .....	355	79	State and local government enterprises .....	(1)
49	General industrial machinery and equipment .....	356	80	Noncomparable imports .....	(2)
50	Miscellaneous machinery, except electrical .....	359	81	Scrap, used and secondhand goods .....	(3)
51	Computer and office equipment .....	357	82	General government industry .....	(4)
52	Service industry machinery .....	358	83	Rest of the world adjustment to final uses .....	(5)
53	Electrical industrial equipment and apparatus .....	361, 362	84	Household industry .....	(6)
54	Household appliances .....	363	85	Inventory valuation adjustment .....	(7)

1. The SIC assigns codes to activities regardless of whether the establishment is owned by private firms or government agency. In the I-O accounts, SIC codes are used only to classify private activities.

2. Noncomparable imports include imported services that are not commercially produced in the United States, and goods and services that are produced abroad and used abroad by U.S. residents for example, U.S. Federal Government defense spending abroad.

3. Scrap is a secondary product of many industries, and used goods are sales and purchases typically between final uses. Industry output is zero because there is no primary producing industry. The sales are shown as negative values in the use table.

4. Industry output is defined as the compensation of employees and consumption of fixed capital of general government agencies. The compensation of employees engaged in construction work is included in construction. The compensation of employees engaged in the production of own-account software is included in computer and data processing services.

5. The commodity entries include adjustments among PCE and government expenditures to eliminate counting the expenditures by foreign residents in both exports and PCE or government expenditures.

6. Industry output is defined as the compensation of domestic household workers.

7. The inventory valuation adjustment removes inventory profits and losses from business income.

Table 1.—The Make of Commodities

[Millions of dollars]

Industry number	For the distribution of industries producing a commodity, read the column for that commodity	Livestock and livestock products	Other agricultural products	Forestry and fishery products	Agricultural, forestry, and fishery services	Metallic ores mining	Coal mining	Crude petroleum and natural gas	Nonmetallic minerals mining	New construction, including own-account construction	Maintenance and repair construction, including own-account construction
	For the distribution of commodities produced by an industry, read the row for that industry										
	Commodity number	01	02	03	04	05+06	07	08	09+10	11	12
01	Livestock and livestock products.....	97,795		160	787						
02	Other agricultural products.....		120,594	3,271	1,645						
03	Forestry and fishery products.....			11,212							
04	Agricultural, forestry, and fishery services.....				45,042						
05+06	Metallic ores mining.....					11,381				11	
07	Coal mining.....						8	22,776		2	
08	Crude petroleum and natural gas.....							87,491			
09+10	Nonmetallic minerals mining.....								15,493		
11	New construction, including own-account construction.....									696,617	
12	Maintenance and repair construction, including own-account construction.....										309,562
13	Ordnance and accessories.....										
14	Food and kindred products.....										
15	Tobacco products.....										
16	Broad and narrow fabrics, yarn and thread mills.....										
17	Miscellaneous textile goods and floor coverings.....										
18	Apparel.....										
19	Miscellaneous fabricated textile products.....										
20+21	Lumber and wood products.....										
22+23	Furniture and fixtures.....										
24	Paper and allied products, except containers.....										
25	Paperboard containers and boxes.....										
26A	Newspapers and periodicals.....										
26B	Other printing and publishing.....										
27A	Industrial and other chemicals.....										
27B	Agricultural fertilizers and chemicals.....										
28	Plastics and synthetic materials.....										
29A	Drugs.....										
29B	Cleaning and toilet preparations.....										
30	Paints and allied products.....										
31	Petroleum refining and related products.....										
32	Rubber and miscellaneous plastics products.....										
33+34	Footwear, leather, and leather products.....										
35	Glass and glass products.....										
36	Stone and clay products.....										
37	Primary iron and steel manufacturing.....										
38	Primary nonferrous metals manufacturing.....										
39	Metal containers.....										
40	Heating, plumbing, and fabricated structural metal products.....										
41	Screw machine products and stampings.....										
42	Other fabricated metal products.....										
43	Engines and turbines.....										
44+45	Farm, construction, and mining machinery.....										
46	Materials handling machinery and equipment.....										
47	Metalworking machinery and equipment.....										
48	Special industry machinery and equipment.....										
49	General industrial machinery and equipment.....										
50	Miscellaneous machinery, except electrical.....										
51	Computer and office equipment.....										
52	Service industry machinery.....										
53	Electrical industrial equipment and apparatus.....										
54	Household appliances.....										
55	Electric lighting and wiring equipment.....										
56	Audio, video, and communication equipment.....										
57	Electronic components and accessories.....										
58	Miscellaneous electrical machinery and supplies.....										
59A	Motor vehicles (passenger cars and trucks).....										
59B	Truck and bus bodies, trailers, and motor vehicles parts.....										
60	Aircraft and parts.....										
61	Other transportation equipment.....										
62	Scientific and controlling instruments.....										
63	Ophthalmic and photographic equipment.....										
64	Miscellaneous manufacturing.....										
65A	Railroads and related services: passenger ground transportation.....										
65B	Motor freight transportation and warehousing.....										
65C	Water transportation.....										
65D	Air transportation.....										
65E	Pipelines, freight forwarders, and related services.....										
66	Communications, except radio and TV.....										
67	Radio and TV broadcasting.....										
68A	Electric services (utilities).....										
68B	Gas production and distribution (utilities).....										
68C	Water and sanitary services.....										
69A	Wholesale trade.....										
69B	Retail trade.....										
70A	Finance.....										
70B	Insurance.....										
71A	Owner-occupied dwellings.....										
71B	Real estate and royalties.....										
72A	Hotels and lodging places.....										
72B	Personal and repair services (except auto).....										
73A	Computer and data processing services, including own-account software.....										
73B	Legal, engineering, accounting, and related services.....										
73C	Other business and professional services, except medical.....										
73D	Advertising.....										
74	Eating and drinking places.....										
75	Automotive repair and services.....										
76	Amusements.....										
77A	Health services.....										
77B	Educational and social services, and membership organizations.....										
78	Federal Government enterprises.....										
79	State and local government enterprises.....										
82	General government industry.....										
84	Household industry.....										
85	Inventory valuation adjustment.....										
T	Total commodity output.....	97,795	120,594	14,642	47,473	11,394	22,787	87,491	15,505	696,617	309,562



Table 1.—The Make of Commodities  
[Millions of dollars]

Industry number	For the distribution of industries producing a commodity, read the column for that commodity	Plastics and synthetic materials	Drugs	Cleaning and toilet preparations	Paints and allied products	Petroleum refining and related products	Rubber and miscellaneous plastics products	Footwear, leather, and leather products	Glass and glass products	Stone and clay products	Primary iron and steel manufacturing
	For the distribution of commodities produced by an industry, read the row for that industry										
	Commodity number	28	29A	29B	30	31	32	33+34	35	36	37
01	Livestock and livestock products.....										
02	Other agricultural products.....										
03	Forestry and fishery products.....										
04	Agricultural, forestry, and fishery services.....										
05+06	Metallic ores mining.....									3	
07	Coal mining.....										
08	Crude petroleum and natural gas.....					8,258					
09+10	Nonmetallic minerals mining.....					101				414	
11	New construction, including own-account construction.....										
12	Maintenance and repair construction, including own-account construction.....										
13	Ordnance and accessories.....			7							17
14	Food and kindred products.....		227	127			38	247			
15	Tobacco products.....										
16	Broad and narrow fabrics, yarn and thread mills.....	2,139		8			2	8			
17	Miscellaneous textile goods and floor coverings.....	234	2			34	70	76			
18	Apparel.....	36		3			41	47			
19	Miscellaneous fabricated textile products.....			215			130	24			
20+21	Lumber and wood products.....						220		136	9	
22+23	Furniture and fixtures.....				1		136	5	67	8	17
24	Paper and allied products, except containers.....		1	733	7		1,153			21	
25	Paperboard containers and boxes.....			3			494				
26A	Newspapers and periodicals.....										
26B	Other printing and publishing.....						15	42		4	
27A	Industrial and other chemicals.....	6,526	615	1,637	351	2,574	849		8	431	125
27B	Agricultural fertilizers and chemicals.....	369	105	49		8	1	1		1	
28	Plastics and synthetic materials.....	55,139	228	68	23	16	1,065			4	3
29A	Drugs.....	17	94,443	756			2				
29B	Cleaning and toilet preparations.....	254	685	46,519	56	57	18			20	
30	Paints and allied products.....	144		11	17,949	9	3			31	
31	Petroleum refining and related products.....	93	3	122	6	128,379	16		16	114	5
32	Rubber and miscellaneous plastics products.....	637	3	45	45	1	153,832	38	109	8	32
33+34	Footwear, leather, and leather products.....						29	8,092			
35	Glass and glass products.....						91		21,938	7	
36	Stone and clay products.....	19	45	21	24	145	144		32	66,511	24
37	Primary iron and steel manufacturing.....	1					4			6	99,639
38	Primary nonferrous metals manufacturing.....						67		130	42	1,138
39	Metal containers.....						21				
40	Heating, plumbing, and fabricated structural metal products.....	1					593		88	62	58
41	Screw machine products and stampings.....				1		74	11	11	9	9
42	Other fabricated metal products.....		1	4			388	32	7	84	194
43	Engines and turbines.....										20
44+45	Farm, construction, and mining machinery.....					7	5				112
46	Materials handling machinery and equipment.....						40				3
47	Metalworking machinery and equipment.....			1			96			58	92
48	Special industry machinery and equipment.....						74		2	24	28
49	General industrial machinery and equipment.....						32			8	116
50	Miscellaneous machinery, except electrical.....						30		2		82
51	Computer and office equipment.....						27			14	12
52	Service industry machinery.....			46			39				48
53	Electrical industrial equipment and apparatus.....	9				29	9			21	1
54	Household appliances.....			1			3		43		
55	Electric lighting and wiring equipment.....	12			58		66	4	33	1	121
56	Audio, video, and communication equipment.....						2			15	
57	Electronic components and accessories.....						68		1		7
58	Miscellaneous electrical machinery and supplies.....			4			51			42	
59A	Motor vehicles (passenger cars and trucks).....										
59B	Truck and bus bodies, trailers, and motor vehicles parts.....	1					13	1			3
60	Aircraft and parts.....						28				2
61	Other transportation equipment.....						23				
62	Scientific and controlling instruments.....		456	25			119	6	19	14	1
63	Ophthalmic and photographic equipment.....				203		242			1	
64	Miscellaneous manufacturing.....	80	3	28			344	20		2	
65A	Railroads and related services; passenger ground transportation.....										
65B	Motor freight transportation and warehousing.....										
65C	Water transportation.....										
65D	Air transportation.....										
65E	Pipelines, freight forwarders, and related services.....										
66	Communications, except radio and TV.....										
67	Radio and TV broadcasting.....										
68A	Electric services (utilities).....										
68B	Gas production and distribution (utilities).....										
68C	Water and sanitary services.....										
69A	Wholesale trade.....										
69B	Retail trade.....										
70A	Finance.....										
70B	Insurance.....										
71A	Owner-occupied dwellings.....										
71B	Real estate and royalties.....										
72A	Hotels and lodging places.....										
72B	Personal and repair services (except auto).....										
73A	Computer and data processing services, including own-account software.....										
73B	Legal, engineering, accounting, and related services.....										
73C	Other business and professional services, except medical.....										
73D	Advertising.....										
74	Eating and drinking places.....										
75	Automotive repair and services.....										
76	Amusements.....										
77A	Health services.....										
77B	Educational and social services, and membership organizations.....										
78	Federal Government enterprises.....										
79	State and local government enterprises.....										
82	General government industry.....									34	
84	Household industry.....										
85	Inventory valuation adjustment.....										
T	Total commodity output.....	65,711	96,816	50,430	18,728	139,618	160,807	8,654	22,642	68,023	101,909

by Industries, 1998—Continued  
at producers' prices]

Primary nonferrous metals manufacturing	Metal containers	Heating, plumbing, and fabricated structural metal products	Screw machine products and stampings	Other fabricated metal products	Engines and turbines	Farm, construction, and mining machinery	Materials handling machinery and equipment	Metalworking machinery and equipment	Special industry machinery and equipment	General industrial machinery and equipment	Miscellaneous machinery, except electrical	Computer and office equipment	Service industry machinery	Industry number
38	39	40	41	42	43	44+45	46	47	48	49	50	51	52	
														01
														02
														03
														04
														05+06
														07
														08
														09+10
														11
														12
	11		8					20	15		4	7		13
											1			14
														15
														16
														17
	1										5			18
														19
														20+21
														22+23
														24
														25
														26A
														26B
														27A
														27B
														28
														29A
														29B
														30
														31
														32
														33+34
														35
														36
														37
														38
														39
														40
														41
														42
														43
														44+45
														46
														47
														48
														49
														50
														51
														52
														T
86,308	13,392	76,823	55,001	82,284	26,658	55,789	15,249	40,638	32,421	40,884	37,947	99,264	37,772	

Table 1.—The Make of Commodities  
[Millions of dollars]

Industry number	For the distribution of industries producing a commodity, read the column for that commodity	Electrical industrial equipment and apparatus	Household appliances	Electric lighting and wiring equipment	Audio, video, and communication equipment	Electronic components and accessories	Miscellaneous electrical machinery and supplies	Motor vehicles (passenger cars and trucks)	Truck and bus bodies, trailers, and motor vehicles parts	Aircraft and parts	Other transportation equipment
	For the distribution of commodities produced by an industry, read the row for that industry										
	Commodity number	53	54	55	56	57	58	59A	59B	60	61
01	Livestock and livestock products.....										
02	Other agricultural products.....										
03	Forestry and fishery products.....										
04	Agricultural, forestry, and fishery services.....										
05+06	Metallic ores mining.....										
07	Coal mining.....										
08	Crude petroleum and natural gas.....										
09+10	Nonmetallic minerals mining.....										
11	New construction, including own-account construction.....										
12	Maintenance and repair construction, including own-account construction.....										
13	Ordnance and accessories.....				189	20	52		4	3,119	
14	Food and kindred products.....										
15	Tobacco products.....										
16	Broad and narrow fabrics, yarn and thread mills.....										
17	Miscellaneous textile goods and floor coverings.....										
18	Apparel.....										
19	Miscellaneous fabricated textile products.....		14								
20+21	Lumber and wood products.....			3		15					
22+23	Furniture and fixtures.....	6	20	35	19	26			9		3
24	Paper and allied products, except containers.....	1			23		325				
25	Paperboard containers and boxes.....										
26A	Newspapers and periodicals.....										
26B	Other printing and publishing.....					1					
27A	Industrial and other chemicals.....			2		32		5			
27B	Agricultural fertilizers and chemicals.....							1			
28	Plastics and synthetic materials.....										
29A	Drugs.....										
29B	Cleaning and toilet preparations.....		7					9			
30	Paints and allied products.....	5								32	
31	Petroleum refining and related products.....										
32	Rubber and miscellaneous plastics products.....	81	155	167	1	132	15		41	13	5
33+34	Footwear, leather, and leather products.....										
35	Glass and glass products.....	1		6					41	1	
36	Stone and clay products.....	10		7		18	16		60	10	
37	Primary iron and steel manufacturing.....	5		209		4			129		
38	Primary nonferrous metals manufacturing.....			18	371	123	24			14	
39	Metal containers.....										
40	Heating, plumbing, and fabricated structural metal products.....	5	129	6		18	13		65	10	29
41	Screw machine products and stampings.....	1	43	23	6	24	2		341		8
42	Other fabricated metal products.....	176	4	62		30	8		187	500	64
43	Engines and turbines.....	1,040					4		312	167	9
44+45	Farm, construction, and mining machinery.....	59	5	59			1		196	31	297
46	Materials handling machinery and equipment.....	48		1					15	1	22
47	Metalworking machinery and equipment.....	90	59	26		18	13		15	6	7
48	Special industry machinery and equipment.....	26	29	16		54	5		23		
49	General industrial machinery and equipment.....	218	11	30		21	14		153	8	5
50	Miscellaneous machinery, except electrical.....	292				18	311	11	244	164	5
51	Computer and office equipment.....	113		25	425	6,441	834				
52	Service industry machinery.....	15	196	4	29	8	6		1,743		12
53	Electrical industrial equipment and apparatus.....	37,695	14	319	33	244	161		88	34	1
54	Household appliances.....	147	21,453	38	14		8		30		
55	Electric lighting and wiring equipment.....	265	4	25,175	147	240	22	14	175	4	
56	Audio, video, and communication equipment.....	52	143	96	86,489	1,084	278		21	13	
57	Electronic components and accessories.....	368	4	162	449	127,066	211				
58	Miscellaneous electrical machinery and supplies.....	64	9	208	807	128	23,675				
59A	Motor vehicles (passenger cars and trucks).....							227,351	1,823		99
59B	Truck and bus bodies, trailers, and motor vehicles parts.....							3,277	128,843	188	120
60	Aircraft and parts.....	87		13	652	729	909			188	41
61	Other transportation equipment.....	2		1	51	1	11		58	124,272	41
62	Scientific and controlling instruments.....	54					18		15	48	43,376
63	Ophthalmic and photographic equipment.....	176	13	212	2,015	635	395		200	735	1
64	Miscellaneous manufacturing.....	1	1	2	65	4	121				26
65A	Railroads and related services; passenger ground transportation.....			8	14		10				
65B	Motor freight transportation and warehousing.....										
65C	Water transportation.....										
65D	Air transportation.....										
65E	Pipelines, freight forwarders, and related services.....										
66	Communications, except radio and TV.....										
67	Radio and TV broadcasting.....										
68A	Electric services (utilities).....										
68B	Gas production and distribution (utilities).....										
68C	Water and sanitary services.....										
69A	Wholesale trade.....										
69B	Retail trade.....										
70A	Finance.....										
70B	Insurance.....										
71A	Owner-occupied dwellings.....										
71B	Real estate and royalties.....										
72A	Hotels and lodging places.....										
72B	Personal and repair services (except auto).....										
73A	Computer and data processing services, including own-account software.....										
73B	Legal, engineering, accounting, and related services.....										
73C	Other business and professional services, except medical.....										
73D	Advertising.....										
74	Eating and drinking places.....										
75	Automotive repair and services.....										
76	Amusements.....										
77A	Health services.....										
77B	Educational and social services, and membership organizations.....										
78	Federal Government enterprises.....										
79	State and local government enterprises.....										
82	General government industry.....										
84	Household industry.....										
85	Inventory valuation adjustment.....										
T	Total commodity output.....	41,103	22,313	26,933	91,799	137,134	27,477	230,676	135,108	129,376	44,133



by Industries, 1998—Continued  
at producers' prices]

Scientific and controlling instruments	Ophthalmic and photo- graphic equipment	Miscellaneous manufacturing	Railroads and related services; passenger ground transportation	Motor freight transportation and ware- housing	Water transportation	Air transportation	Pipelines, freight forwarders, and related services	Communi- cations, except radio and TV	Radio and TV broadcasting	Electric services (utilities)	Gas production and distribution (utilities)	Water and sanitary services	Wholesale trade	Industry number
62	63	64	65A	65B	65C	65D	65E	66	67	68A	68B	68C	69A	
														01
														02
														03
														04
														05+06
														07
														08
														09+10
														11
														12
883														13
														14
														15
12		33												16
45		7												17
132														18
4		119												19
4	3	47												20+21
93		119												22+23
913	11	107												24
		76												25
36														26A
22	6	204												26B
19	6	115												27A
														27B
	6													28
396	19	9												29A
84		177												29B
		22												30
		100												31
264	19	484												32
22		11												33+34
68		7												35
55	1	104												36
54		3												37
43		9									115			38
														39
37		30												40
16		22												41
579	1	227												42
3														43
19		23												44+45
														46
59		3												47
62	14	3												48
95		18												49
89		2												50
135	140	139												51
41		46												52
217		3												53
39	7	2												54
189	7	72												55
1,114		47												56
402	8	37												57
946	124	52												58
														59A
36		1												59B
714		6												60
2		235												61
123,785	67	184												62
1,232	20,272	1												63
137	10	47,679												64
			71,472											65A
				228										65B
				228,076								16,582		65C
					35,794									65D
						135,881								65E
						3,750								66
			772	1,881	276		39,395							67
								343,786						68
									5,576					69
										199,174				70
											98,811			71
												543		72
												207		73
												22,384		74
													812,459	75
														76
														77
														78
														79
														80
														81
														82
														83
														84
														85
133,097	20,721	50,585	79,667	230,207	38,469	142,881	39,469	343,786	5,576	230,091	103,121	68,432	812,459	T

Table 1.—The Make of Commodities

[Millions of dollar]

Industry number	For the distribution of industries producing a commodity, read the column for that commodity	Retail trade	Finance	Insurance	Owner-occupied dwellings	Real estate and royalties	Hotels and lodging places	Personal and repair services (except auto)	Computer and data processing services, including own-account software	Legal, engineering, accounting, and related services
	For the distribution of commodities produced by an industry, read the row for that industry									
	Commodity number	69B	70A	70B	71A	71B	72A	72B	73A	73B
01	Livestock and livestock products.....									
02	Other agricultural products.....									
03	Forestry and fishery products.....									
04	Agricultural, forestry, and fishery services.....									
05+06	Metallic ores mining.....									
07	Coal mining.....									
08	Crude petroleum and natural gas.....									
09+10	Nonmetallic minerals mining.....									
11	New construction, including own-account construction.....									
12	Maintenance and repair construction, including own-account construction.....									
13	Ordnance and accessories.....									
14	Food and kindred products.....									
15	Tobacco products.....									
16	Broad and narrow fabrics, yarn and thread mills.....									
17	Miscellaneous textile goods and floor coverings.....									
18	Apparel.....									
19	Miscellaneous fabricated textile products.....									
20+21	Lumber and wood products.....									
22+23	Furniture and fixtures.....									
24	Paper and allied products, except containers.....									
25	Paperboard containers and boxes.....									
26A	Newspapers and periodicals.....									
26B	Other printing and publishing.....									
27A	Industrial and other chemicals.....									
27B	Agricultural fertilizers and chemicals.....									
28	Plastics and synthetic materials.....									
29A	Drugs.....									
29B	Cleaning and toilet preparations.....									
30	Paints and allied products.....									
31	Petroleum refining and related products.....									
32	Rubber and miscellaneous plastics products.....									
33+34	Footwear, leather, and leather products.....									
35	Glass and glass products.....									
36	Stone and clay products.....									
37	Primary iron and steel manufacturing.....									
38	Primary nonferrous metals manufacturing.....									
39	Metal containers.....									
40	Heating, plumbing, and fabricated structural metal products.....									
41	Screw machine products and stampings.....									
42	Other fabricated metal products.....									
43	Engines and turbines.....									
44+45	Farm, construction, and mining machinery.....									
46	Materials handling machinery and equipment.....									
47	Metalworking machinery and equipment.....									
48	Special industry machinery and equipment.....									
49	General industrial machinery and equipment.....									
50	Miscellaneous machinery, except electrical.....									
51	Computer and office equipment.....								820	
52	Service industry machinery.....									
53	Electrical industrial equipment and apparatus.....									
54	Household appliances.....									
55	Electric lighting and wiring equipment.....									
56	Audio, video, and communication equipment.....									
57	Electronic components and accessories.....									
58	Miscellaneous electrical machinery and supplies.....									
59A	Motor vehicles (passenger cars and trucks).....									
59B	Truck and bus bodies, trailers, and motor vehicles parts.....									
60	Aircraft and parts.....									
61	Other transportation equipment.....									
62	Scientific and controlling instruments.....									
63	Ophthalmic and photographic equipment.....									
64	Miscellaneous manufacturing.....									
65A	Railroads and related services; passenger ground transportation.....									
65B	Motor freight transportation and warehousing.....									
65C	Water transportation.....									
65D	Air transportation.....									
65E	Pipelines, freight forwarders, and related services.....									
66	Communications, except radio and TV.....									
67	Radio and TV broadcasting.....									
68A	Electric services (utilities).....									
68B	Gas production and distribution (utilities).....									
68C	Water and sanitary services.....									
69A	Wholesale trade.....									
69B	Retail trade.....	739,852								
70A	Finance.....		729,220	691						
70B	Insurance.....			342,381						
71A	Owner-occupied dwellings.....				631,659					
71B	Real estate and royalties.....			365		789,242				
72A	Hotels and lodging places.....					985	82,286			
72B	Personal and repair services (except auto).....							126,434		
73A	Computer and data processing services, including own-account software.....								359,931	
73B	Legal, engineering, accounting, and related services.....								681	368,527
73C	Other business and professional services, except medical.....							707	860	1,784
73D	Advertising.....									
74	Eating and drinking places.....									
75	Automotive repair and services.....									
76	Amusements.....									
77A	Health services.....									
77B	Educational and social services, and membership organizations.....									
78	Federal Government enterprises.....	2,153		1,138		489		2		
79	State and local government enterprises.....	1,803	61	20		12,094				
82	General government industry.....									
84	Household industry.....									
85	Inventory valuation adjustment.....									
T	Total commodity output.....	743,808	729,281	344,595	631,659	802,810	82,286	127,143	362,292	370,311





















Table 2.—The Use of Commodities  
[Millions of dollars]

Commodity number	For the distribution of output of a commodity, read the row for that commodity	Personal consumption expenditures	Gross private fixed investment	Change in business inventories	Exports of goods and services	Imports of goods and services
	For the composition of inputs to an industry, read the column for that industry					
	Industry number	91	92	93	94	95
01	Livestock and livestock products .....	4,203	.....	-142	958	-2,575
02	Other agricultural products .....	24,672	.....	1,395	16,666	-12,326
03	Forestry and fishery products .....	4,715	.....	-17	1,905	-8,529
04	Agricultural, forestry, and fishery services .....	1,006	.....	.....	34	-8
05-06	Metallic ores mining .....	.....	727	32	1,025	1,300
07	Coal mining .....	55	.....	414	2,033	-325
08	Crude petroleum and natural gas .....	.....	229	-71	3,173	-47,240
09-10	Nonmetallic minerals mining .....	50	.....	11	730	-1,204
11	New construction, including own-account construction .....	.....	542,027	.....	.....	.....
12	Maintenance and repair construction, including own-account construction .....	.....	35,062	.....	78	.....
13	Ordinance and accessories .....	1,555	241	122	2,890	-817
14	Food and kindred products .....	290,997	.....	1,343	26,701	-30,188
15	Tobacco products .....	35,717	.....	2,126	5,965	-1,068
16	Broad and narrow fabrics, yarn and thread mills .....	1,898	.....	356	3,307	-5,456
17	Miscellaneous textile goods and floor coverings .....	7,134	2,865	172	2,280	-2,683
18	Apparel .....	100,336	.....	2,108	8,454	-62,541
19	Miscellaneous fabricated textile products .....	16,506	.....	407	995	-5,140
20-21	Lumber and wood products .....	3,264	10,846	1,311	5,030	-14,996
22-23	Furniture and fixtures .....	33,174	24,313	601	4,303	-13,662
24	Paper and allied products, except containers .....	16,342	.....	978	10,859	-16,176
25	Paperboard containers and boxes .....	470	.....	415	1,319	-565
26A	Newspapers and periodicals .....	17,878	.....	-36	782	-237
26B	Other printing and publishing .....	23,156	.....	1,091	3,685	-3,031
27A	Industrial and other chemicals .....	2,179	1,694	326	23,140	-22,028
27B	Agricultural fertilizers and chemicals .....	2,627	.....	229	4,723	-3,659
28	Plastics and synthetic materials .....	.....	.....	1	12,536	-7,612
29A	Drugs .....	73,132	.....	2,225	11,098	-31,473
29B	Cleaning and toilet preparations .....	37,464	.....	721	4,405	-3,280
30	Paints and allied products .....	618	.....	126	1,209	-516
31	Petroleum refining and related products .....	50,408	.....	-1,384	8,499	-11,385
32	Rubber and miscellaneous plastics products .....	20,739	351	1,437	12,234	-21,521
33-34	Footwear, leather, and leather products .....	20,116	.....	181	1,799	-18,382
35	Glass and glass products .....	2,186	.....	303	2,346	-3,853
36	Stone and clay products .....	3,569	.....	524	2,324	-8,539
37	Primary iron and steel manufacturing .....	77	47	1,685	4,859	-21,913
38	Primary nonferrous metals manufacturing .....	77	67	9,667	713	-19,557
39	Metal containers .....	.....	69	169	303	-296
40	Heating, plumbing, and fabricated structural metal products .....	480	4,483	614	3,135	-2,523
41	Screw machine products and stampings .....	1,912	.....	511	2,728	-2,889
42	Other fabricated metal products .....	5,750	3,616	1,213	8,938	-16,202
43	Engines and turbines .....	226	4,364	175	9,359	-4,490
44-45	Farm, construction, and mining machinery .....	496	39,916	1,727	14,200	-11,273
46	Materials handling machinery and equipment .....	.....	11,180	238	2,223	-3,665
47	Metalworking machinery and equipment .....	1,340	30,195	190	6,017	-11,724
48	Special industry machinery and equipment .....	225	28,213	-41	6,892	-10,248
49	General industrial machinery and equipment .....	.....	16,973	666	11,392	-12,896
50	Miscellaneous machinery, except electrical .....	120	854	556	4,036	-2,768
51	Computer and office equipment .....	12,869	67,317	-1,235	37,791	-71,783
52	Service industry machinery .....	1,162	10,539	603	5,221	-3,656
53	Electrical industrial equipment and apparatus .....	277	10,654	466	6,356	-10,343
54	Household appliances .....	17,421	3,774	261	2,947	-6,846
55	Electric lighting and wiring equipment .....	2,171	315	346	4,594	-7,785
56	Audio, video, and communication equipment .....	27,945	48,634	2,398	19,890	-40,509
57	Electronic components and accessories .....	252	.....	311	38,422	-42,249
58	Miscellaneous electrical machinery and supplies .....	8,843	2,785	364	7,701	-12,505
59A	Motor vehicles (passenger cars and trucks) .....	140,843	145,479	1,180	23,673	-93,073
59B	Truck and bus bodies, trailers, and motor vehicles parts .....	6,442	10,944	690	28,251	-33,520
60	Aircraft and parts .....	322	20,045	8,704	59,631	-20,384
61	Other transportation equipment .....	18,508	11,905	682	4,925	-5,958
62	Scientific and controlling instruments .....	8,049	59,230	932	29,163	-23,986
63	Ophthalmic and photographic equipment .....	7,685	7,464	375	4,070	-10,756
64	Miscellaneous manufacturing .....	53,099	7,805	1,524	6,033	-36,292
65A	Railroads and related services; passenger ground transportation .....	26,601	1,301	242	5,076	-199
65B	Motor freight transportation and warehousing .....	36,578	6,503	838	15,211	-1,910
65C	Water transportation .....	6,440	7	10	9,420	4,658
65D	Air transportation .....	56,033	2,684	135	29,726	-16,789
65E	Pipelines, freight forwarders, and related services .....	4,482	.....	-33	3,125	.....
66	Communications, except radio and TV .....	144,911	7,501	.....	6,613	.....
67	Radio and TV broadcasting .....	3,750	.....	.....	.....	.....
68A	Electric services (utilities) .....	96,346	.....	.....	453	-1,126
68B	Gas production and distribution (utilities) .....	32,546	.....	58	420	.....
68C	Water and sanitary services .....	29,793	.....	.....	64	.....
69A	Wholesale trade .....	213,698	87,088	5,127	70,265	19,586
69B	Retail trade .....	659,713	25,387	.....	33	.....
70A	Finance .....	336,268	.....	.....	33,197	-891
70B	Insurance .....	196,833	.....	.....	3,246	-8,987
71A	Owner-occupied dwellings .....	631,659	.....	.....	.....	.....
71B	Real estate and royalties .....	204,249	51,135	.....	36,711	-18
72A	Hotels and lodging places .....	41,874	.....	.....	120	.....
72B	Personal and repair services (except auto) .....	91,759	.....	.....	78	.....
73A	Computer and data processing services, including own-account software .....	10,252	145,416	20	4,571	-596
73B	Legal, engineering, accounting, and related services .....	60,186	21,552	.....	9,694	-1,796
73C	Other business and professional services, except medical .....	31,190	.....	.....	9,811	-3,750
73D	Advertising .....	1,090	.....	.....	774	-1,254
74	Eating and drinking places .....	329,080	.....	.....	739	.....
75	Automotive repair and services .....	153,378	.....	5	1,591	-6
76	Amusements .....	127,297	.....	.....	10,274	-344
77A	Health services .....	838,616	.....	.....	227	-10
77B	Educational and social services, and membership organizations .....	325,789	.....	.....	577	-566
78	Federal Government enterprises .....	8,731	.....	.....	290	.....
79	State and local government enterprises .....	32,842	.....	.....	.....	.....
80	Noncomparable imports .....	47,744	.....	.....	.....	-127,801
81	Scrap, used and secondhand goods .....	35,726	-48,174	1,871	6,057	-5,748
82	General government industry .....	.....	.....	.....	.....	.....
83	Rest of the world adjustment to final uses .....	-86,530	.....	.....	87,374	-35
84	Household industry .....	14,351	.....	.....	.....	.....
85	Inventory valuation adjustment .....	.....	.....	21,538	.....	.....
I	Total intermediate inputs .....	.....	.....	.....	.....	.....
VA	Value added .....	.....	.....	.....	.....	.....
T	Total Industry Output .....	5,856,029	1,465,618	73,127	895,637	-1,047,382

\* Less than \$500,000.



Table 5a.—Industry-by-Commodity Total Requirements Backward Linkages, 1998

Commodity number	Description	Backward linkage	Commodity number	Description	Backward linkage
01	Livestock and livestock products .....	2.958	52	Service industry machinery .....	2.111
02	Other agricultural products .....	1.983	53	Electrical industrial equipment and apparatus .....	1.988
03	Forestry and fishery products .....	2.067	54	Household appliances .....	2.356
04	Agricultural, forestry, and fishery services .....	1.759	55	Electric lighting and wiring equipment .....	1.996
05+06	Metallic ores mining .....	2.226	56	Audio, video, and communication equipment .....	2.285
07	Coal mining .....	2.013	57	Electronic components and accessories .....	2.178
08	Crude petroleum and natural gas .....	2.744	58	Miscellaneous electrical machinery and supplies .....	2.159
09+10	Nonmetallic minerals mining .....	1.755	59A	Motor vehicles (passenger cars and trucks) .....	2.823
11	New construction .....	2.040	59B	Truck and bus bodies, trailers, and motor vehicles parts .....	2.474
12	Maintenance and repair construction .....	2.003	60	Aircraft and parts .....	1.978
13	Ordinance and accessories .....	1.833	61	Other transportation equipment .....	2.087
14	Food and kindred products .....	2.626	62	Scientific and controlling instruments .....	1.874
15	Tobacco products .....	1.627	63	Ophthalmic and photographic equipment .....	1.699
16	Broad and narrow fabrics, yarn and thread mills .....	2.359	64	Miscellaneous manufacturing .....	1.957
17	Miscellaneous textile goods and floor coverings .....	2.456	65A	Railroads and related services; passenger ground transportation .....	1.734
18	Apparel .....	2.529	65B	Motor freight transportation and warehousing .....	1.881
19	Miscellaneous fabricated textile products .....	2.308	65C	Water transportation .....	2.141
20+21	Lumber and wood products .....	2.295	65D	Air transportation .....	1.865
22+23	Furniture and fixtures .....	2.053	65E	Pipelines, freight forwarders, and related services .....	1.812
24	Paper and allied products, except containers .....	2.160	66	Communications, except radio and TV .....	1.777
25	Paperboard containers and boxes .....	2.285	67	Radio and TV broadcasting .....	2.133
26A	Newspapers and periodicals .....	1.648	68A	Electric services (utilities) .....	1.668
26B	Other printing and publishing .....	1.793	68B	Gas production and distribution (utilities) .....	2.963
27A	Industrial and other chemicals .....	2.297	68C	Water and sanitary services .....	1.965
27B	Agricultural fertilizers and chemicals .....	2.349	69A	Wholesale trade .....	1.596
28	Plastics and synthetic materials .....	2.370	69B	Retail trade .....	1.557
29A	Drugs .....	1.747	70A	Finance .....	1.724
29B	Cleaning and toilet preparations .....	2.126	70B	Insurance .....	2.074
30	Paints and allied products .....	2.162	71A	Owner-occupied dwellings .....	1.255
31	Petroleum refining and related products .....	2.988	71B	Real estate and royalties .....	1.430
32	Rubber and miscellaneous plastics products .....	2.146	72A	Hotels and lodging places .....	1.788
33+34	Footwear, leather, and leather products .....	2.645	72B	Personal and repair services (except auto) .....	1.685
35	Glass and glass products .....	2.045	73A	Computer and data processing services .....	1.767
36	Stone and clay products .....	1.943	73B	Legal, engineering, accounting, and related services .....	1.547
37	Primary iron and steel manufacturing .....	2.172	73C	Other business and professional services, except medical .....	1.443
38	Primary nonferrous metals manufacturing .....	2.374	73D	Advertising .....	1.729
39	Metal containers .....	2.927	74	Eating and drinking places .....	2.046
40	Heating, plumbing, and fabricated structural metal products .....	2.089	75	Automotive repair and services .....	1.895
41	Screw machine products and stampings .....	2.139	76	Amusements .....	1.724
42	Other fabricated metal products .....	2.007	77A	Health services .....	1.695
43	Engines and turbines .....	2.254	77B	Educational and social services, and membership organizations .....	1.812
44+45	Farm, construction, and mining machinery .....	2.079	78	Federal Government enterprises .....	1.641
46	Materials handling machinery and equipment .....	2.148	79	State and local government enterprises .....	2.023
47	Metalworking machinery and equipment .....	1.832	80	Noncomparable imports .....	0.000
48	Special industry machinery and equipment .....	2.034	81	Scrap, used and secondhand goods .....	0.000
49	General industrial machinery and equipment .....	1.943	82	General government industry .....	1.000
50	Miscellaneous machinery, except electrical .....	1.810	83	Rest of the world adjustment to final uses .....	0.000
51	Computer and office equipment .....	2.656	84	Household industry .....	1.000
			85	Inventory valuation adjustment .....	1.000

NOTE.—The backward linkage for a commodity represents the total output required from all industries to supply \$1 of final demand for that commodity.