

## Methodology

The data in this volume cover the operations of establishments of U.S. affiliates of foreign companies in 1997. A U.S. affiliate is a U.S. business enterprise that is owned 10 percent or more, directly or indirectly, by a foreign person.<sup>1</sup>

The volume is divided into two parts. The first part (part A) covers all industries and presents data on the number, employment, payroll, and shipments or sales of the establishments of U.S. affiliates (hereinafter referred to as “foreign-owned establishments”); it includes data by detailed industry for nonmanufacturing and totals for manufacturing as a whole. The second part (part M) covers manufacturing establishments and presents these data items as well as additional items, including value added, total compensation of employees, employee benefits, hourly wage rates of production workers, and expenditures for new plant and equipment. In addition to data by industry, both parts present data by State and by country of owner.

The data for this volume were obtained from the Census Bureau’s 1997 Economic Census and Standard Statistical Establishment List (SSEL).<sup>2</sup> They are the result of a project that links Bureau of Economic Analysis (BEA) enterprise, or company, data on foreign direct investment in the United States with the Census

Bureau’s establishment data for all U.S. companies.<sup>3</sup> The project was authorized by the Foreign Direct Investment and International Financial Data Improvements Act of 1990.

This volume updates data for foreign-owned manufacturing and nonmanufacturing establishments published in *Foreign Direct Investment in the United States: Establishment Data for 1992* and *Foreign Direct Investment in the United States: Establishment Data for 1987* and data for foreign-owned manufacturing establishments for 1988–91 published in *Foreign Direct Investment in the United States: Establishment Data for Manufacturing*, in separate volumes for each year. Tables A–F of this methodology compare the 1987, 1992, and 1997 data for selected items for broad industry and country groups and by State.

The establishment data from the link project complement BEA’s enterprise data for U.S. affiliates. BEA’s enterprise data are needed for analyzing the overall significance of, and trends in, direct investment and for compiling the U.S. international transactions accounts, the international investment position of the United States, and the U.S. national income and product accounts. The data on positions and transactions between U.S. affiliates and their foreign parents used in compiling the national and international accounts exist only at the enterprise level. Analyses of some topics, such as profits and taxes, are meaningful only at that level. Furthermore, balance sheets and income statements containing the critical, nonduplicative financial and operating data needed for examining these topics exist only at the enterprise level.

The establishment data facilitate analyses of the activities and importance of foreign-owned U.S. companies in specific, detailed industries. Each establishment of an enterprise can be classified separately in the establishment data, while BEA’s enterprise data classify the entire enterprise, however diversified, in one industry. Furthermore, the level of industry classification can be much more detailed for individual establish-

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1. “Person” is broadly defined to include any individual, corporation, branch, partnership, associated group, association, estate, trust, or other organization and any government (including any corporation, institution, or other entity or instrumentality of a government). The data are not adjusted for percentage of foreign ownership. Thus, for example, the employment data shown here include all employees at establishments of each U.S. affiliate, even though the foreign investor may own as little as 10 percent of the affiliate. However, most affiliates are majority owned; according to Bureau of Economic Analysis data, U.S. affiliates that are majority owned (that is, affiliates that are owned more than 50 percent by foreign direct investors) accounted for 82 percent of all employment by U.S. affiliates in 1997.

2. The Census Bureau’s 1997 Economic Census covered the following North American Industry Classification System sectors: Mining (21), Utilities (22), Construction (23), Manufacturing (31–33), Wholesale Trade (42), Retail Trade (44–45), Transportation and Warehousing (48–49), Information (51), Finance and Insurance (52), Real Estate and Rental and Leasing (53), Professional, Scientific, and Technical Services (54), Management of Companies and Enterprises (55), Administrative and Support and Waste Management and Remediation Services (56), Educational Services (61), Health Care and Social Assistance (62), Arts, Entertainment and Recreation (71), Accommodation and Food Services (72) and Other Services (except public administration) (81). The census did not cover Agriculture, Forestry, Fishing, and Hunting (11) or Public Administration (92).

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3. An establishment is a single physical location where business is conducted or where services or industrial operations are performed. See the section “Definitions.”

ments than is appropriate for consolidated enterprises, whose operations may span many narrowly defined industries. As a result, foreign-owned establishments can be classified into over 1,000 industries, while BEA's foreign-owned enterprises are classified into only about 200 industries.

The tables in each part of this volume are organized into four groups. The first group gives an overview of the data by industry, country, and State. The second group presents detailed industry tables for individual States. The third group presents detailed industry tables for selected major investor countries. The fourth group presents selected tables by Standard Industrial Classification (SIC) industry. Some of the tables show

totals for key items of all U.S. establishments and the share of the all-U.S. totals accounted for by foreign-owned establishments.<sup>4</sup>

### How the Link Was Done

BEA and the Census Bureau exchanged their data in order to identify and obtain data for those U.S. establishments on the SSEL that are foreign-owned. The SSEL is a file of all U.S. companies and their establishments; it includes names, addresses, and other identification information as well as key economic data ob-

4. Data for all U.S. establishments are either from the 1997 Economic Census CD-ROM or from the Census Bureau's County Business Patterns publications, which are compilations of data from the SSEL.

**Table A. Number of Foreign-Owned Establishments, by Selected SIC Industry, 1987, 1992, and 1997**

Industry	Number of establishments				Percent change 1987-97 (annual rate)	Foreign-owned establishments as a percentage of all U.S. establishments <sup>1</sup>		
	1987	1992	1997	Change 1987-97		1987	1992	1997
<b>All industries</b> .....	<b>66,878</b>	<b>102,958</b>	<b>105,673</b>	<b>38,795</b>	<b>4.7</b>	<b>1.1</b>	<b>1.7</b>	<b>1.7</b>
<b>Mining</b> .....	<b>1,299</b>	<b>1,604</b>	<b>1,122</b>	<b>-177</b>	<b>-1.5</b>	<b>3.9</b>	<b>5.2</b>	<b>4.4</b>
<b>Construction</b> .....	<b>643</b>	<b>1,220</b>	<b>1,241</b>	<b>598</b>	<b>6.8</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>
<b>Manufacturing</b> .....	<b>8,151</b>	<b>12,781</b>	<b>12,907</b>	<b>4,756</b>	<b>4.7</b>	<b>2.2</b>	<b>3.3</b>	<b>3.4</b>
Food and kindred products .....	747	1,013	821	74	0.9	3.6	4.9	3.9
Tobacco products .....	5	6	11	6	8.2	3.6	5.3	10.5
Textile mill products .....	116	203	222	106	6.7	1.9	3.4	3.6
Apparel and other textile products .....	57	118	120	63	7.7	0.2	0.5	0.5
Lumber and wood products .....	130	152	123	-7	-0.6	0.4	0.4	0.3
Furniture and fixtures .....	69	108	93	24	3.0	0.6	0.9	0.8
Paper and allied products .....	273	289	347	74	2.4	4.3	4.5	5.3
Printing and publishing .....	456	836	915	459	7.2	0.7	1.3	1.5
Chemicals and allied products .....	1,148	1,635	1,574	426	3.2	9.5	13.6	12.7
Petroleum and coal products .....	213	360	337	124	4.7	9.5	16.9	15.7
Rubber and miscellaneous plastics products .....	417	742	839	422	7.2	2.9	4.7	5.0
Leather and leather products .....	53	27	13	-40	-13.1	2.4	1.3	0.7
Stone, clay, and glass products .....	849	1,484	1,601	752	6.5	5.2	9.1	9.8
Primary metal industries .....	311	413	423	112	3.1	4.7	6.4	6.7
Fabricated metal products .....	401	686	817	416	7.4	1.1	1.9	2.2
Industrial machinery and equipment .....	675	1,094	1,113	438	5.1	1.3	2.0	2.0
Electronic and other electric equipment .....	562	812	798	236	3.6	3.5	4.8	4.7
Transportation equipment .....	163	331	431	268	10.2	1.6	2.9	3.5
Instruments and related products .....	320	481	479	159	4.1	3.1	4.2	4.1
Miscellaneous manufacturing industries .....	112	162	120	8	0.7	0.7	1.0	0.7
Administrative and auxiliary .....	1,074	1,829	1,710	636	4.8	10.8	17.1	n.a.
<b>Transportation, communication, and utilities</b> .....	<b>2,164</b>	<b>3,905</b>	<b>8,041</b>	<b>5,877</b>	<b>14.0</b>	<b>1.0</b>	<b>1.5</b>	<b>2.7</b>
<b>Wholesale trade</b> .....	<b>12,789</b>	<b>18,791</b>	<b>18,318</b>	<b>5,529</b>	<b>3.7</b>	<b>2.7</b>	<b>3.7</b>	<b>3.5</b>
<b>Retail trade</b> .....	<b>24,403</b>	<b>37,892</b>	<b>35,100</b>	<b>10,697</b>	<b>3.7</b>	<b>1.6</b>	<b>2.5</b>	<b>2.2</b>
<b>Finance, insurance, and real estate</b> .....	<b>8,316</b>	<b>11,541</b>	<b>11,491</b>	<b>3,175</b>	<b>3.3</b>	<b>1.6</b>	<b>1.9</b>	<b>1.7</b>
Depository institutions <sup>2</sup> .....	3,364	4,153	3,571	207	0.6	6.0	4.0	3.3
Other finance <sup>3</sup> .....	2,170	2,451	3,022	852	3.4	2.0	2.4	2.4
Insurance <sup>4</sup> .....	1,836	3,551	3,420	1,584	6.4	1.2	2.2	2.0
Real estate <sup>5</sup> .....	851	1,326	1,397	546	5.1	0.4	0.6	0.6
Administrative and auxiliary .....	95	60	81	-14	-1.6	4.4	4.1	n.a.
<b>Services</b> .....	<b>9,058</b>	<b>15,194</b>	<b>17,449</b>	<b>8,391</b>	<b>6.8</b>	<b>0.6</b>	<b>0.8</b>	<b>0.8</b>

n.a. Not available.

1. The all-U.S.-establishment data that were used in calculating these percentages are from the Economic Censuses.

2. SIC 60.

3. SIC 61, 62, and 67.

4. SIC 63 and 64.

5. SIC 65.

NOTE: The industry coverage of the 1997 data differs somewhat from that of the 1987 and 1992 data (see the text).

tained from the Census Bureau surveys and from administrative records.

Foreign-owned establishments on the SSEL were identified primarily through a computer match of the Employer Identification Numbers (EIN's) that are reported on BEA's surveys of foreign direct investment in the United States and included on the Census Bureau's SSEL. EIN's are used by companies and their establishments when they file Federal and State payroll and income taxes. For enterprises that failed to link in the computer match of EIN's, other enterprise identification information, such as names and addresses, was used to match the BEA enterprises to Census Bureau establishments. The data items that are available on the

SSEL in Economic Census years are the number of establishments, employment, payroll, and shipments or sales.

To gather the additional data items presented for the manufacturing establishments, the foreign-owned establishments were linked to the 1997 Economic Census—Manufacturing. Thus, the detailed data items, such as value added, capital expenditures, and the cost of materials, come from this link with the Census of Manufacturing data set.

### Estimation of Data for Manufacturing

Some data in the 1997 Economic Census—Manufacturing, and therefore for foreign-owned manufactur-

**Table B. Employment of Foreign-Owned Establishments, by Selected SIC Industry, 1987, 1992, and 1997**

Industry	Thousands of employees				Percent change 1987-97 (annual rate)	Percentage of employment of all U.S. establishments <sup>1</sup>		
	1987	1992	1997	Change 1987-97		1987	1992	1997
<b>All industries</b> .....	<b>3,228.9</b>	<b>4,944.2</b>	<b>5,195.9</b>	<b>1,967.0</b>	<b>4.9</b>	<b>3.7</b>	<b>5.8</b>	<b>5.6</b>
<b>Mining</b> .....	<b>97.6</b>	<b>120.8</b>	<b>85.8</b>	<b>-11.8</b>	<b>-1.3</b>	<b>14.0</b>	<b>19.0</b>	<b>16.8</b>
<b>Construction</b> .....	<b>51.4</b>	<b>93.3</b>	<b>100.5</b>	<b>49.1</b>	<b>6.9</b>	<b>1.0</b>	<b>2.0</b>	<b>1.8</b>
<b>Manufacturing</b> .....	<b>1,311.4</b>	<b>2,004.9</b>	<b>2,082.5</b>	<b>771.1</b>	<b>4.7</b>	<b>6.9</b>	<b>11.0</b>	<b>11.9</b>
Food and kindred products .....	110.2	156.1	132.2	22.1	1.8	7.6	10.4	8.5
Tobacco products .....	h	h	5.4	(D)	(D)	(D)	(D)	n.a.
Textile mill products .....	29.3	48.5	51.9	22.5	5.9	4.4	7.9	9.2
Apparel and other textile products .....	9.5	26.8	30.1	20.6	12.2	0.9	2.7	3.6
Lumber and wood products .....	13.8	13.5	16.3	2.4	1.6	2.0	2.1	2.2
Furniture and fixtures .....	15.4	j	21.7	6.3	3.5	3.0	(D)	4.1
Paper and allied products .....	43.3	46.5	57.3	14.1	2.9	7.1	7.4	n.a.
Printing and publishing .....	51.8	98.2	125.3	73.5	9.2	3.5	6.6	8.2
Chemicals and allied products .....	171.8	240.8	203.7	31.9	1.7	21.1	28.4	24.8
Petroleum and coal products .....	18.2	27.1	23.8	5.6	2.7	15.7	23.7	22.4
Rubber and miscellaneous plastics products .....	64.2	125.7	146.1	81.8	8.6	7.7	13.9	14.1
Leather and leather products .....	j	5.4	2.4	(D)	(D)	(D)	5.3	n.a.
Stone, clay, and glass products .....	64.5	92.8	108.2	43.7	5.3	12.3	19.8	21.4
Primary metal industries .....	78.1	113.8	103.5	25.4	2.9	11.1	17.2	15.0
Fabricated metal products .....	61.4	101.7	129.4	68.0	7.7	4.2	7.5	8.4
Industrial machinery and equipment .....	116.0	190.1	226.7	110.7	6.9	6.3	10.9	11.5
Electronic and other electric equipment .....	170.3	224.9	232.6	62.2	3.2	10.9	15.6	14.7
Transportation equipment .....	55.8	115.2	168.0	112.2	11.7	3.1	7.0	10.8
Instruments and related products .....	72.8	106.7	93.7	20.9	2.6	7.4	11.8	n.a.
Miscellaneous manufacturing industries .....	20.9	27.6	23.0	2.1	1.0	5.6	7.5	5.8
Administrative and auxiliary .....	130.7	217.3	181.5	50.7	3.3	10.6	17.3	n.a.
<b>Transportation, communication, and utilities</b> .....	<b>94.3</b>	<b>231.6</b>	<b>301.4</b>	<b>207.1</b>	<b>12.3</b>	<b>1.8</b>	<b>4.2</b>	<b>5.3</b>
<b>Wholesale trade</b> .....	<b>343.3</b>	<b>513.0</b>	<b>545.6</b>	<b>202.3</b>	<b>4.7</b>	<b>6.1</b>	<b>8.4</b>	<b>8.4</b>
<b>Retail trade</b> .....	<b>628.8</b>	<b>853.2</b>	<b>873.4</b>	<b>244.6</b>	<b>3.3</b>	<b>3.5</b>	<b>4.4</b>	<b>4.1</b>
<b>Finance, insurance, and real estate</b> .....	<b>310.9</b>	<b>401.0</b>	<b>407.6</b>	<b>96.8</b>	<b>2.7</b>	<b>4.6</b>	<b>6.0</b>	<b>5.6</b>
Depository institutions <sup>2</sup> .....	107.5	127.8	120.1	12.6	1.1	6.5	6.1	n.a.
Other finance <sup>3</sup> .....	86.4	91.0	108.5	22.1	2.3	5.5	10.7	n.a.
Insurance <sup>4</sup> .....	76.6	154.4	148.9	72.4	6.9	3.8	7.2	6.4
Real estate <sup>5</sup> .....	21.7	24.3	23.5	1.8	0.8	1.7	2.0	1.8
Administrative and auxiliary .....	j	3.6	6.5	(D)	(D)	(D)	5.6	n.a.
<b>Services</b> .....	<b>390.7</b>	<b>722.8</b>	<b>798.9</b>	<b>408.2</b>	<b>7.4</b>	<b>2.4</b>	<b>3.7</b>	<b>3.2</b>

n.a. Not available.

1. The all-U.S.-establishment data that are used in calculating these percentages are from the Economic Censuses.

2. SIC 60.

3. SIC 61, 62, and 67.

4. SIC 63 and 64.

5. SIC 65.

NOTES: The following ranges are given in employment cells that are suppressed: a—0 to 19; b—20 to 99; c—100 to 249; e—250 to 499; f—500 to 999; g—1,000 to 2,499; h—2,500 to 4,999; i—5,000 to 9,999; j—10,000 to 24,999; k—25,000 to 49,999; l—50,000 to 99,999; m—100,000 or more.

The industry coverage of the 1997 data differs somewhat from that of the 1987 and 1992 data (see the text).

ing establishments, are estimated.<sup>5</sup> Published statistics from the Census cover all manufacturing establishments in the United States. However, to reduce the reporting burden, small establishments are exempt from reporting, and data for them are estimated or obtained from administrative records. In addition, estimates are made for reports not received in time for publication and for data items that respondents are not able to complete. For establishments that require estimation, selected data items, including employment and payroll, are obtained from the administrative records of the Internal Revenue Service. Data items that are not available from administrative records are estimated using industry-average relationships. For foreign-owned manufacturing establishments, the percentage of the data that is estimated varies depending on the item, the industry, the country, and the State (tables G-I). For example, for manufacturing as a whole, 17 percent of the cost of materials and 18 percent of production worker wages is estimated. Among three-digit manufacturing industries, the percentage of production worker wages that is estimated ranges from 5 percent for paper manufacturing to 46 percent for leather and allied product manufacturing.

**Evaluation of the Link**

The data for foreign-owned establishments cover only establishments with employment.<sup>6</sup> On the basis of BEA data for all industries, U.S. affiliates that linked had 5,280,700 employees (table J, column 1) and accounted for 99 percent of the employment of all U.S. affiliates in 1997. Virtually all of the large BEA affiliates linked to Census Bureau establishments.<sup>7</sup> Affiliates that failed to link were generally small and together accounted for only 29,783 employees. In general, affiliates failed to link to a Census Bureau establishment because the two agencies had different EIN's or other identification information for a given company or because of the absence of valid EIN's or other identification information.

**BEA and Census Bureau Data Compared**

For affiliates that linked, the employment total based on Census Bureau establishment data, at 5,195,900 (table J, column 2) was very close to the total based on

5. Data for the four items presented for nonmanufacturing establishments are either reported in the Economic Census or are obtained from the administrative records of the Internal Revenue Service.

6. More specifically, the data cover any foreign-owned establishment that had one or more paid employees some time during 1997.

7. Some U.S. affiliates that linked to Census Bureau establishments through the SSEL were in industries or geographic areas that were not covered by the 1997 Economic Census, as described in the next section.

BEA enterprise data. The 84,900-employee difference (table J, column 32) represents the net effect of differences in coverage, definition, and classification. This section summarizes the key differences.

**Coverage differences**

The scope of the foreign-owned establishment data is consistent with the 1997 Economic Census and, as a result, the industry coverage of the establishment data is somewhat narrower than that of BEA's enterprise data. The establishment data do not cover agriculture, forestry, fishing, and hunting (North American Industry Classification System (NAICS) sector 11), air transportation by large certificated passenger carriers (part of NAICS 4811), railroad transportation (NAICS 482), and funds, trusts, and other financial vehicles, except real estate investment trusts (NAICS 5251, 52591, and 52592) because these industries were out of scope for the 1997 Economic Census.<sup>8</sup> The BEA data indicate that in 1997 affiliates in these industries had 70,000 employees, total assets of \$18 billion, and sales of \$14 billion.

The geographic coverage of the Census Bureau's Economic Census data for foreign-owned establishments is somewhat narrower than that of BEA's enterprise data. The former covers the 50 States and the

8. Real estate investment trusts (NAICS 52593) is the only industry in the funds, trusts, and other financial vehicles subsector that is covered by the establishment data.

**Table C. Number of Foreign-Owned Establishments, by Country of UBO, 1987, 1992, and 1997**

Country	Number of establishments			Change 1987-97	Percent change 1987-97 (annual rate)
	1987	1992	1997		
<b>All countries</b> .....	<b>66,878</b>	<b>102,958</b>	<b>105,673</b>	<b>38,795</b>	<b>4.7</b>
<b>Canada</b> .....	<b>12,251</b>	<b>14,133</b>	<b>14,038</b>	<b>1,787</b>	<b>1.4</b>
<b>Europe</b> .....	<b>40,096</b>	<b>59,896</b>	<b>63,512</b>	<b>23,416</b>	<b>4.7</b>
Of which:					
France .....	4,041	8,732	9,534	5,493	9.0
Germany .....	5,916	7,652	9,092	3,176	4.4
Netherlands .....	5,508	6,746	6,939	1,431	2.3
Switzerland .....	3,450	5,287	5,736	2,286	5.2
United Kingdom .....	16,542	22,400	23,583	7,041	3.6
<b>Latin America and Other Western Hemisphere</b> .....	<b>2,262</b>	<b>3,506</b>	<b>2,870</b>	<b>608</b>	<b>2.4</b>
<b>Africa</b> .....	<b>337</b>	<b>553</b>	<b>684</b>	<b>347</b>	<b>7.3</b>
<b>Middle East</b> .....	<b>1,290</b>	<b>1,556</b>	<b>2,258</b>	<b>968</b>	<b>5.8</b>
<b>Asia and Pacific</b> .....	<b>10,007</b>	<b>21,909</b>	<b>20,545</b>	<b>10,538</b>	<b>7.5</b>
Of which:					
Australia .....	1,443	1,650	1,616	173	1.1
Japan .....	5,284	17,178	16,044	10,760	11.7
<b>United States</b> .....	<b>635</b>	<b>1,405</b>	<b>1,766</b>	<b>1,131</b>	<b>10.8</b>

NOTE: The industry coverage of the 1997 data differs somewhat from that of the 1987 and 1992 data (see the text).

District of Columbia. The latter also cover Puerto Rico, the Virgin Islands, Guam, American Samoa, and other outlying U.S. areas; in the BEA data, employment by U.S. affiliates in these areas was 30,400 in 1997, less than one percent of the total employment of foreign owned establishments.

### Definitional differences

BEA data are reported on a fiscal year basis, whereas the Census Bureau data are generally on a calendar year basis.<sup>9</sup> As a result, for some industries, BEA totals for certain items, such as compensation of employees, can differ from the totals for similar items based on the Census Bureau data for foreign-owned establishments.

In cases where similar items are available from both agencies, such as employment and value added, the BEA definitions sometimes differ from those used by the Census Bureau. These differences are noted in the section "Definitions."

### Classification differences

As noted earlier, most BEA data for U.S. affiliates are classified by the primary industry of the consolidated

enterprise, whereas the Census Bureau data are classified by the primary industry of each individual establishment within the enterprise. Affiliates are often highly diversified, and many of them have activities in industries other than the one that applies to the consolidated enterprise as a whole. As a result, totals for industries in the BEA data often differ significantly from totals for the same industries in the Census Bureau data. Table J provides additional information on how differences in classification affect the industry distribution of the data by breaking down each industry's enterprise-based employment total into the industries of the establishments. Column 1 shows the industry distribution of BEA enterprise data on employment for affiliates that linked to Census Bureau establishments. Column 2 shows the distribution of Census Bureau employment data that would result if the employment of all foreign-owned establishments were classified in the primary industry of the enterprise of which they are a part. Columns 3–31 cross-classify the employment totals shown in column 2 by the industry of each Census Bureau establishment.

### Country and Industry Classification

In tables that show data by country, the data are classified by country of ultimate beneficial owner (UBO) of the U.S. affiliate to which the establishment belongs. A UBO is that person that ultimately owns or controls, and therefore ultimately derives the benefits from owning or controlling, a U.S. affiliate. More specifically, the UBO is that person, proceeding up a U.S. affiliate's ownership chain, beginning with and including the foreign parent, that is not owned more than 50 percent by another person. The foreign parent is the first person outside the United States in a U.S. affiliate's ownership chain that has a direct investment interest in the U.S. affiliate. (See "Notes to the Tables" for additional details.)

Establishments are classified into industries based on the definitions in the 1997 NAICS manual. In the NAICS, an industry is generally defined as a group of establishments that have similar production processes. The 1987–92 data on foreign-owned establishments were classified by industry based on the 1987 SIC. In the SIC, classification is based on the production process in some industries and on the type of product in others. At the highest level of aggregation, 20 industry groups—termed "sectors" in the NAICS—replace the 10 industry divisions in the SIC. Several of the NAICS sectors do not correspond directly to these SIC industry divisions. For example, the new "information" sector consists of industry groups drawn from several

9. In BEA's surveys, a U.S. affiliate's fiscal year is the financial reporting year for the affiliate that ended in that calendar year. In BEA's 1997 benchmark survey of foreign direct investment in the United States, affiliates with fiscal years ending in the last quarter of the calendar year accounted for almost three-quarters of total U.S. affiliate employment. See U.S. Bureau of Economic Analysis, *Foreign Direct Investment in the United States: Final Results From the 1997 Benchmark Survey* (Washington, DC: U.S. Government Printing Office, June 2001).

**Table D. Employment of Foreign-Owned Establishments, by Country of UBO, 1987, 1992, and 1997**

Country	Thousands of employees			Change 1987–97	Percent change 1987–97 (annual rate)
	1987	1992	1997		
<b>All countries</b> .....	<b>3,228.9</b>	<b>4,944.2</b>	<b>5,195.9</b>	<b>1,967.0</b>	<b>4.9</b>
<b>Canada</b> .....	<b>540.4</b>	<b>604.7</b>	<b>633.9</b>	<b>93.5</b>	<b>1.6</b>
<b>Europe</b> .....	<b>1,975.3</b>	<b>3,040.2</b>	<b>3,207.3</b>	<b>1,232.0</b>	<b>5.0</b>
Of which:					
France .....	181.9	356.6	454.7	272.8	9.6
Germany .....	391.6	534.7	624.2	232.6	4.8
Netherlands .....	254.4	316.3	357.6	103.2	3.5
Switzerland .....	214.4	364.7	393.5	179.1	6.3
United Kingdom .....	661.8	992.4	972.2	310.4	3.9
<b>Latin America and Other Western Hemisphere</b> .....	<b>139.3</b>	<b>133.5</b>	<b>171.9</b>	<b>32.6</b>	<b>2.1</b>
<b>Africa</b> .....	<b>19.0</b>	<b>15.0</b>	<b>22.6</b>	<b>3.6</b>	<b>1.8</b>
<b>Middle East</b> .....	<b>66.2</b>	<b>41.9</b>	<b>89.7</b>	<b>23.6</b>	<b>3.1</b>
<b>Asia and Pacific</b> .....	<b>459.8</b>	<b>1,023.0</b>	<b>1,013.3</b>	<b>553.6</b>	<b>8.2</b>
Of which:					
Australia .....	86.6	134.8	78.3	-8.3	-1.0
Japan .....	296.1	787.6	814.3	518.1	10.6
<b>United States</b> .....	<b>29.0</b>	<b>85.9</b>	<b>57.0</b>	<b>28.0</b>	<b>7.0</b>

NOTE: The industry coverage of the 1997 data differs somewhat from that of the 1987 and 1992 data (see the text).

**Table E. Number of Foreign-Owned Establishments, by State, 1987, 1992, and 1997**

State	Number of establishments				Percent change 1987-97 (annual rate)	Foreign-owned establishments as a percentage of all U.S. establishments <sup>1</sup>		
	1987	1992	1997	Change 1987-97		1987	1992	1997
<b>Total</b> .....	<b>66,878</b>	<b>102,958</b>	<b>105,673</b>	<b>38,795</b>	<b>4.7</b>	<b>1.1</b>	<b>1.7</b>	<b>1.7</b>
Alabama .....	726	1,227	1,158	432	4.8	0.9	1.4	1.3
Alaska .....	165	222	162	-3	-0.2	1.2	1.5	1.0
Arizona .....	978	1,148	1,538	560	4.6	1.2	1.3	1.6
Arkansas .....	420	629	519	99	2.1	0.8	1.2	0.9
California .....	8,107	12,144	12,269	4,162	4.2	1.2	1.7	1.8
Colorado .....	1,011	1,806	1,860	849	6.3	1.1	1.8	1.6
Connecticut.....	941	1,576	1,752	811	6.4	1.0	1.8	2.1
Delaware.....	237	573	748	511	12.2	1.4	3.0	3.7
District of Columbia .....	289	416	364	75	2.3	1.5	2.4	2.4
Florida .....	3,305	6,570	6,965	3,660	7.7	1.0	1.8	1.9
Georgia.....	2,494	3,640	3,825	1,331	4.4	1.7	2.3	2.2
Hawaii.....	453	1,030	1,161	708	9.9	1.7	3.6	4.4
Idaho.....	191	261	318	127	5.2	0.8	0.9	1.0
Illinois.....	2,977	4,844	5,311	2,334	6.0	1.1	1.8	1.9
Indiana.....	1,090	1,873	1,974	884	6.1	0.9	1.5	1.5
Iowa.....	553	730	657	104	1.7	0.8	1.0	0.9
Kansas.....	570	907	980	410	5.6	0.9	1.4	1.5
Kentucky.....	695	1,147	1,287	592	6.4	0.9	1.5	1.6
Louisiana.....	1,249	1,438	1,257	8	0.1	1.4	1.6	1.4
Maine.....	353	424	520	167	3.9	1.0	1.3	1.6
Maryland.....	1,566	2,308	2,087	521	2.9	1.5	2.1	1.8
Massachusetts.....	1,400	2,602	3,259	1,859	8.8	0.9	1.8	2.2
Michigan.....	1,927	2,970	3,477	1,550	6.1	1.0	1.4	1.7
Minnesota.....	840	1,438	1,260	420	4.1	0.8	1.3	1.1
Mississippi.....	380	552	566	186	4.1	0.7	1.1	1.1
Missouri.....	1,216	1,955	1,886	670	4.5	1.0	1.5	1.5
Montana.....	126	183	187	61	4.0	0.5	0.7	0.7
Nebraska.....	238	420	357	119	4.1	0.6	1.0	0.8
Nevada.....	355	471	648	293	6.2	1.4	1.5	1.7
New Hampshire.....	276	588	625	349	8.5	0.8	1.9	1.9
New Jersey.....	2,356	4,160	3,632	1,276	4.4	1.1	2.0	1.7
New Mexico.....	376	421	433	57	1.4	1.1	1.2	1.1
New York.....	5,883	7,575	7,520	1,637	2.5	1.3	1.7	1.8
North Carolina.....	2,126	2,850	3,707	1,581	5.7	1.4	1.8	2.1
North Dakota.....	128	173	130	2	0.2	0.7	1.0	0.7
Ohio.....	3,212	4,513	4,470	1,258	3.4	1.3	1.9	1.8
Oklahoma.....	729	1,080	780	51	0.7	1.0	1.5	1.0
Oregon.....	693	1,050	1,086	393	4.6	0.9	1.3	1.3
Pennsylvania.....	3,039	4,299	4,264	1,225	3.4	1.1	1.6	1.6
Rhode Island.....	166	336	401	235	9.2	0.6	1.3	1.6
South Carolina.....	1,133	1,550	1,704	571	4.2	1.5	2.0	2.1
South Dakota.....	67	117	105	38	4.6	0.3	0.6	0.5
Tennessee.....	1,376	2,112	2,165	789	4.6	1.3	1.9	1.9
Texas.....	5,442	8,495	7,693	2,251	3.5	1.4	2.1	1.9
Utah.....	331	627	772	441	8.8	0.9	1.6	1.6
Vermont.....	117	150	214	97	6.2	0.6	0.8	1.2
Virginia.....	2,068	3,176	3,335	1,267	4.9	1.5	2.2	2.2
Washington.....	1,064	2,057	2,206	1,142	7.6	0.9	1.5	1.6
West Virginia.....	387	573	501	114	2.6	1.1	1.6	1.4
Wisconsin.....	939	1,377	1,405	466	4.1	0.8	1.1	1.1
Wyoming.....	118	175	173	55	3.9	0.8	1.2	1.1

1. The all-U.S.-establishment data used in calculating these percentages are from the Economic Censuses.

NOTE. The industry coverage of the 1997 data differs somewhat from that of the 1987 and 1992 data (see the text).

different SIC industry divisions.<sup>10</sup>

Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in NAICS and division titles used in the SIC, but cover somewhat different groups of industries. For example, under NAICS, manufacturing includes several industries, such as bakeries, candy stores where candy is made on the premises, custom tailors, makers of custom draperies, and tire retreading that are not included in manufacturing under the SIC. Conversely, the NAICS manufacturing sector does not cover logging and portions of publishing, which are included in manufacturing under the SIC.

To help assess the impact of the changes in industry classification, tables A4.1, A4.12, A4.13, A4.18, A4.20 and tables M4.1, M4.12, M4.13, M4.18, M4.20 in the main body of the publication present 1997 data classified by industry using SIC-based industries, and in tables A and B in this methodology, the SIC-based 1997 data is compared with data from 1992 and 1987.<sup>11</sup> Note that 1997 data on value added by manufacture are not available for publishing (part of SIC 27) in the SIC tables, because the value added data are available only for the industries included in manufacturing under NAICS; as noted earlier, under NAICS, publishing is included in the information sector rather than in manufacturing.

10. Specifically, the NAICS information sector includes publishing, which is included in the SIC manufacturing division; "motion picture and sound recording industries" and "information and data processing services," which are included in the SIC services division; and broadcasting and communications, which are included in the SIC transportation, communication, and electric, gas, and sanitary services division.

For additional information on the differences between the NAICS and the SIC classifications, see Office of Management and Budget, *North American Industry Classification System: United States, 1997* (Lanham, MD: Bernan Press, 1998) and U.S. Bureau of the Census, *1997 Economic Census: Bridge Between NAICS and SIC* (Washington, DC: U.S. Government Printing Office, 2000), or <[www.census.gov/epcd/ec97brdg](http://www.census.gov/epcd/ec97brdg)>.

11. Each table in the main body of the publication that presents data by industry using SIC-based industries corresponds to another table in this publication that presents the same data by industry using NAICS-based industries. Thus, SIC-based table A4.1 corresponds to (NAICS-based) table A1.1, SIC-based table A4.12 corresponds to table A 4.12, and so forth.

### Comparability with Previously Published Data

As just noted, data by industry for 1997 may not be directly comparable with data by industry for 1987-92 because of the change from SIC to NAICS as the basis for classification. The NAICS and SIC also classify auxiliary establishments (those establishments that primarily serve other establishments of the same enterprise, see "Definitions") differently. In the NAICS-based 1997 Economic Census data, corporate, subsidiary, and regional managing offices of companies and enterprises are classified in the "Management of Companies and Enterprises" sector (NAICS sector 55). All other auxiliary establishments are included in a separate category titled "Auxiliaries, Except Managing Offices," and further classified into several broad industry categories based on the type of service performed. Under the SIC, in contrast, managing offices of companies and enterprises and all other auxiliary establishments are classified in the industry of the establishments they serve.

The industry coverage of the 1997 data is somewhat narrower than that of the 1987 and 1992 data. Agricultural services, forestry, and fishing (NAICS 113, 114 and 115), air transportation by large certified passenger carriers (part of NAICS 4811) and funds, trusts, and other financial vehicles, except real estate investment trusts (NAICS 5251, 52591, and 52592) are not covered by the 1997 foreign-owned establishment data, whereas they are covered by the 1987 and 1992 data. Logging is not covered by the 1997 data because, under the NAICS, logging is included in forestry, whereas logging is covered by the 1987 and 1992 data because, under the SIC, it is included in manufacturing.

In the 1997 data for foreign-owned manufacturing establishments, employee compensation is disaggregated into total payroll and total benefits. In the 1988-92 data, total benefits were further broken down into "social security and other legally required payments" and "employer payments and other programs."<sup>12</sup> This additional detail for benefits is not shown in the 1997 data.

12. Employer payments and other programs consist of employer payments for voluntary employee benefit programs not specifically required by legislation.

**Table F. Employment of Foreign-Owned Establishments, by State, 1987, 1992, and 1997**

State	Thousands of employees				Percent change 1987-97 (annual rate)	Percentage of employment of all U.S. establishments <sup>1</sup>		
	1987	1992	1997	Change 1987-97		1987	1992	1997
<b>Total</b> .....	<b>3,228.9</b>	<b>4,944.2</b>	<b>5,195.9</b>	<b>1,967.0</b>	<b>4.9</b>	<b>3.7</b>	<b>5.8</b>	<b>5.6</b>
Alabama .....	35.4	61.7	63.3	27.9	6.0	3.0	4.8	4.5
Alaska .....	6.4	12.2	9.5	3.1	4.0	4.6	7.8	5.2
Arizona .....	49.5	56.3	55.9	6.4	1.2	4.4	4.8	3.6
Arkansas .....	20.4	29.1	29.7	9.3	3.8	3.1	4.0	3.6
California .....	375.7	581.7	585.1	209.3	4.5	3.7	5.8	5.6
Colorado .....	32.6	64.5	79.2	46.6	9.3	2.8	5.3	5.2
Connecticut .....	56.0	88.5	99.6	43.6	5.9	3.8	6.9	7.7
Delaware .....	35.2	41.9	16.2	-19.0	-7.5	12.9	15.0	5.2
District of Columbia .....	8.2	13.6	9.6	1.5	1.7	2.1	4.3	3.7
Florida .....	108.0	202.3	246.0	137.9	8.6	2.6	4.7	5.0
Georgia .....	114.1	162.6	186.3	72.2	5.0	5.0	6.8	6.6
Hawaii .....	26.2	53.8	47.8	21.6	6.2	7.2	13.1	13.0
Idaho .....	4.5	10.0	12.3	7.8	10.6	1.8	3.3	3.3
Illinois .....	156.6	274.9	260.8	104.2	5.2	3.7	6.5	5.8
Indiana .....	61.8	122.1	124.5	62.7	7.3	3.2	6.1	5.7
Iowa .....	18.7	33.2	33.8	15.1	6.1	2.1	3.6	3.4
Kansas .....	17.0	28.4	42.6	25.6	9.6	2.1	3.5	4.6
Kentucky .....	37.6	71.2	89.9	52.3	9.1	3.6	6.4	7.1
Louisiana .....	50.9	64.4	54.9	4.0	0.8	4.3	5.2	4.1
Maine .....	20.9	21.5	28.7	7.7	3.2	5.4	6.0	7.6
Maryland .....	54.2	79.1	91.3	37.0	5.3	3.2	5.1	5.5
Massachusetts .....	91.5	127.6	175.7	84.2	6.7	3.3	5.5	7.3
Michigan .....	93.8	147.5	166.9	73.1	5.9	2.9	4.8	4.9
Minnesota .....	34.8	89.2	76.6	41.7	8.2	2.1	5.3	4.0
Mississippi .....	16.9	21.2	22.5	5.6	2.9	2.6	3.1	2.8
Missouri .....	50.2	77.6	83.6	33.5	5.2	2.7	4.3	4.3
Montana .....	3.0	4.9	3.5	0.5	1.4	1.5	2.4	1.5
Nebraska .....	7.1	17.4	19.2	12.1	10.4	1.4	3.2	3.1
Nevada .....	9.9	20.6	20.5	10.6	7.6	2.3	3.9	2.8
New Hampshire .....	18.2	28.1	31.6	13.3	5.6	4.2	7.3	7.2
New Jersey .....	178.6	251.5	212.1	33.5	1.7	5.8	8.9	7.2
New Mexico .....	14.0	13.1	12.1	-1.9	-1.4	3.6	3.2	2.6
New York .....	335.1	412.0	411.3	76.2	2.1	4.9	7.1	7.2
North Carolina .....	136.3	190.5	225.0	88.7	5.1	5.7	7.6	8.0
North Dakota .....	1.6	3.4	4.0	2.4	9.8	0.9	2.0	2.0
Ohio .....	129.4	212.8	241.5	112.0	6.4	3.3	5.6	5.8
Oklahoma .....	27.7	45.7	32.1	4.3	1.5	3.2	5.1	3.3
Oregon .....	24.4	40.8	47.7	23.3	6.9	2.8	4.3	4.2
Pennsylvania .....	167.4	235.7	234.9	67.5	3.4	3.9	5.9	5.8
Rhode Island .....	11.0	13.9	20.8	9.8	6.6	2.8	4.3	6.4
South Carolina .....	65.8	101.9	118.8	53.0	6.1	5.9	8.7	8.9
South Dakota .....	1.5	4.7	4.3	2.8	11.2	0.8	2.3	1.8
Tennessee .....	74.6	121.6	139.8	65.2	6.5	4.5	6.8	6.9
Texas .....	218.0	335.1	344.4	126.4	4.7	4.0	5.9	5.2
Utah .....	11.3	22.9	34.5	23.2	11.8	2.3	4.0	4.7
Vermont .....	6.2	7.7	9.1	2.8	3.8	3.1	4.1	4.7
Virginia .....	84.4	123.2	142.0	57.6	5.3	4.1	5.8	6.0
Washington .....	42.4	80.1	80.8	38.4	6.7	2.9	4.8	4.4
West Virginia .....	25.1	34.8	27.1	2.0	0.8	5.6	8.0	5.9
Wisconsin .....	55.0	80.9	80.1	25.2	3.8	3.2	4.4	4.0
Wyoming .....	3.4	4.7	6.6	3.2	6.9	2.8	3.7	4.2

1. The all-U.S.-establishment data used in calculating these percentages are from the Economic Censuses and the Census Bureau's County Business Patterns.

NOTE: The industry coverage of the 1997 data differs somewhat from that of the 1987 and 1992 data (see the text).

### Definitions

The definitions used in this publication are the same as those used in the 1997 Economic Census. The definitions are summarized below; in some cases, more detailed definitions may be found in the 1997 Economic Census publications, which are available at the Census Bureau's Web site at <www.census.gov>. Most of the definitions are for items presented only for establishments in manufacturing. The five exceptions are the

definitions for auxiliary establishments, employees, establishments, payroll, and value of shipments or sales, which apply to items available for establishments in all industries. Where significant differences exist, the definitions used here are compared with the definitions used for the corresponding items in the BEA data.

### Auxiliary establishments

Auxiliary establishments are central administrative of-

**Table G. Percentage of the Data That is Estimated for Foreign-Owned Manufacturing Establishments, Selected Items by Industry**

NAICS code	Industry	Number of establishments	Percent estimated						
			Production workers			Cost of materials	Expenditures for new plant and equipment	Inventories (end of 1997)	Gross book value of depreciable assets
			Number	Hours	Wages				
31	<b>Manufacturing</b> .....	<b>10,568</b>	<b>15</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>15</b>	<b>14</b>	<b>18</b>
311	<b>Food manufacturing</b> .....	<b>722</b>	<b>13</b>	<b>18</b>	<b>15</b>	<b>13</b>	<b>15</b>	<b>17</b>	<b>16</b>
3111	Animal food manufacturing.....	72	34	47	33	7	22	16	58
3112	Grain and oilseed milling.....	91	10	10	12	9	5	8	5
3113	Sugar and confectionery product manufacturing .....	41	10	12	11	4	7	9	6
3114	Fruit and vegetable preserving and specialty .....	72	6	18	7	15	15	24	18
3115	Dairy product manufacturing.....	94	18	23	21	18	21	18	16
3116	Animal slaughtering and processing .....	57	16	16	14	25	27	12	22
3117	Seafood product preparation and packaging .....	56	22	26	20	17	25	41	16
3118	Bakeries and tortilla manufacturing.....	116	7	10	13	8	5	7	13
3119	Other food manufacturing.....	123	22	28	26	21	28	16	22
312	<b>Beverage and tobacco product manufacturing</b> .....	<b>121</b>	<b>20</b>	<b>20</b>	<b>19</b>	<b>9</b>	<b>16</b>	<b>6</b>	<b>24</b>
3121	Beverage manufacturing .....	110	23	24	26	14	(D)	8	33
3122	Tobacco manufacturing .....	11	18	15	15	2	(D)	4	16
313	<b>Textile mills</b> .....	<b>170</b>	<b>14</b>	<b>20</b>	<b>18</b>	<b>12</b>	<b>18</b>	<b>16</b>	<b>19</b>
3131	Fiber, yarn, and thread mills.....	37	24	37	34	19	60	28	28
3132	Fabric mills .....	89	10	18	16	11	13	12	18
3133	Textile and fabric finishing mills .....	44	20	6	8	12	18	21	13
314	<b>Textile product mills</b> .....	<b>67</b>	<b>10</b>	<b>14</b>	<b>8</b>	<b>12</b>	<b>8</b>	<b>10</b>	<b>6</b>
3141	Textile furnishings mills.....	14	20	26	19	23	21	23	24
3149	Other textile product mills.....	53	6	9	5	9	4	5	3
315	<b>Apparel manufacturing</b> .....	<b>100</b>	<b>19</b>	<b>29</b>	<b>23</b>	<b>14</b>	<b>30</b>	<b>17</b>	<b>28</b>
3151	Apparel knitting mills .....	21	24	24	23	13	32	43	35
3152	Cut and sew apparel manufacturing.....	68	17	32	23	16	36	12	28
3159	Accessories and other apparel manufacturing.....	11	27	17	21	4	10	15	7
316	<b>Leather and allied product manufacturing</b> .....	<b>14</b>	<b>43</b>	<b>50</b>	<b>46</b>	<b>73</b>	<b>43</b>	<b>52</b>	<b>46</b>
3161	Leather and hide tanning and finishing .....	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)
3162	Footwear manufacturing.....	7	49	52	51	74	(D)	81	64
3169	Other leather product manufacturing .....	5	(D)	(D)	(D)	(D)	30	(D)	(D)
321	<b>Wood product manufacturing</b> .....	<b>116</b>	<b>9</b>	<b>12</b>	<b>10</b>	<b>12</b>	<b>6</b>	<b>10</b>	<b>7</b>
3211	Sawmills and wood preservation.....	23	6	20	6	41	7	22	9
3212	Plywood and engineered wood product mfg.....	42	11	15	12	6	7	11	5
3219	Other wood product manufacturing.....	51	7	8	10	9	6	4	14
322	<b>Paper manufacturing</b> .....	<b>333</b>	<b>3</b>	<b>7</b>	<b>5</b>	<b>7</b>	<b>8</b>	<b>4</b>	<b>11</b>
3221	Pulp, paper, and paperboard mills.....	62	2	2	6	2	8	1	11
3222	Converted paper product manufacturing.....	271	4	11	5	12	9	7	9
323	<b>Printing and related support activities</b> .....	<b>277</b>	<b>23</b>	<b>24</b>	<b>23</b>	<b>27</b>	<b>24</b>	<b>29</b>	<b>20</b>
3231	Printing and related support activities .....	277	23	24	23	27	24	29	20
324	<b>Petroleum and coal products manufacturing</b> .....	<b>337</b>	<b>25</b>	<b>30</b>	<b>27</b>	<b>20</b>	<b>25</b>	<b>19</b>	<b>20</b>
3241	Petroleum and coal products manufacturing.....	337	25	30	27	20	25	19	20
325	<b>Chemical manufacturing</b> .....	<b>1,630</b>	<b>16</b>	<b>20</b>	<b>19</b>	<b>17</b>	<b>16</b>	<b>12</b>	<b>21</b>
3251	Basic chemical manufacturing .....	555	16	21	14	18	11	10	23
3252	Resin, rubber, and artificial fibers mfg.....	163	8	6	9	20	12	4	20
3253	Agricultural chemical manufacturing .....	75	18	22	29	18	34	23	31
3254	Pharmaceutical and medicine manufacturing .....	194	18	21	27	12	17	13	17
3255	Paint, coating, and adhesive manufacturing.....	168	18	22	22	19	21	13	22
3256	Soap, cleaning compound, and toiletry mfg.....	147	20	26	19	18	30	24	22
3259	Other chemical product and preparation mfg.....	327	16	24	23	19	11	11	15
326	<b>Plastics and rubber products manufacturing</b> .....	<b>793</b>	<b>8</b>	<b>11</b>	<b>10</b>	<b>13</b>	<b>9</b>	<b>8</b>	<b>9</b>
3261	Plastics product manufacturing .....	626	11	16	13	16	12	9	9
3262	Rubber product manufacturing.....	167	3	5	6	8	4	5	10



fices of companies with more than one establishment. A central administrative office is an establishment primarily engaged in management, general administrative, and support functions performed centrally for

other establishments in the same company. Support functions include research, development, and testing; warehousing and storage; maintenance and repair; and other miscellaneous services. Managing offices are in-

**Table G. Percentage of the Data That is Estimated for Foreign-Owned Manufacturing Establishments, Selected Items by Industry**

NAICS code	Industry	Number of establishments	Percent estimated						
			Production workers			Cost of materials	Expenditures for new plant and equipment	Inventories (end of 1997)	Gross book value of depreciable assets
			Number	Hours	Wages				
<b>327</b>	<b>Nonmetallic mineral product manufacturing .....</b>	<b>1,597</b>	<b>17</b>	<b>22</b>	<b>20</b>	<b>22</b>	<b>14</b>	<b>16</b>	<b>16</b>
3271	Clay product and refractory manufacturing.....	125	25	30	34	23	24	33	27
3272	Glass and glass product manufacturing .....	142	2	7	6	2	1	2	2
3273	Cement and concrete product manufacturing.....	1,162	26	33	29	29	27	20	21
3274	Lime and gypsum product manufacturing.....	33	22	24	23	45	29	22	28
3279	Other nonmetallic mineral products.....	135	23	23	18	31	13	21	16
<b>331</b>	<b>Primary metal manufacturing .....</b>	<b>350</b>	<b>12</b>	<b>14</b>	<b>14</b>	<b>8</b>	<b>8</b>	<b>13</b>	<b>10</b>
3311	Iron and steel mills and ferroalloy mfg.....	46	6	7	11	4	3	8	4
3312	Steel product mfg. from purchased steel.....	82	19	23	19	15	19	40	14
3313	Alumina and aluminum production .....	59	6	9	7	5	9	7	13
3314	Other nonferrous metal production.....	96	19	23	24	11	13	7	12
3315	Foundries.....	67	17	18	13	17	12	7	17
<b>332</b>	<b>Fabricated metal product manufacturing .....</b>	<b>884</b>	<b>10</b>	<b>16</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>10</b>	<b>17</b>
3321	Forging and stamping.....	92	15	21	17	13	12	10	16
3322	Cutlery and handtool manufacturing.....	38	2	10	5	7	2	6	3
3323	Architectural and structural metals mfg. ....	197	8	17	13	9	12	10	13
3324	Boiler, tank, and shipping container mfg.....	107	4	7	4	10	10	4	27
3325	Hardware manufacturing .....	40	9	19	13	30	13	4	10
3326	Spring and wire product manufacturing.....	30	22	18	32	27	10	26	19
3327	Machine shops and threaded product mfg. ....	90	20	24	23	35	26	23	28
3328	Coating, engraving, and heat treating metals .....	89	16	21	22	4	3	3	11
3329	Other fabricated metal product mfg. ....	201	10	15	15	17	14	14	16
<b>333</b>	<b>Machinery manufacturing .....</b>	<b>954</b>	<b>17</b>	<b>23</b>	<b>23</b>	<b>22</b>	<b>23</b>	<b>18</b>	<b>25</b>
3331	Agricultural, construction, and mining machinery mfg..	92	14	18	16	13	12	18	17
3332	Industrial machinery manufacturing.....	183	22	24	30	23	25	23	23
3333	Commercial and service industry machinery .....	94	20	19	24	24	45	27	34
3334	HVAC and commercial refrigeration equipment.....	99	7	24	22	17	33	9	29
3335	Metalworking machinery manufacturing .....	135	17	19	26	27	16	11	17
3336	Turbine and power transmission equipment mfg .....	58	19	22	23	48	16	12	28
3339	Other general purpose machinery manufacturing .....	293	21	28	24	18	22	19	29
<b>334</b>	<b>Computer and electronic product mfg.....</b>	<b>788</b>	<b>17</b>	<b>28</b>	<b>21</b>	<b>20</b>	<b>15</b>	<b>22</b>	<b>17</b>
3341	Computer and peripheral equipment mfg.....	73	12	47	32	22	39	24	56
3342	Communications equipment manufacturing .....	107	26	25	19	14	39	29	23
3343	Audio and video equipment manufacturing .....	26	22	19	21	16	22	38	15
3344	Semiconductor and electronic component mfg .....	251	13	20	14	16	8	13	6
3345	Electronic instrument manufacturing .....	289	22	32	26	30	25	21	25
3346	Magnetic media manufacturing and reproducing.....	42	19	31	24	28	43	18	31
<b>335</b>	<b>Electrical equipment and appliance mfg .....</b>	<b>390</b>	<b>8</b>	<b>10</b>	<b>9</b>	<b>13</b>	<b>10</b>	<b>10</b>	<b>11</b>
3351	Electric lighting equipment manufacturing.....	30	1	2	1	17	(D)	19	1
3352	Household appliance manufacturing .....	30	6	9	6	11	(D)	10	6
3353	Electrical equipment manufacturing .....	145	4	7	7	14	11	8	15
3359	Other electrical equipment and component mfg.....	185	15	15	16	13	12	12	12
<b>336</b>	<b>Transportation equipment manufacturing.....</b>	<b>561</b>	<b>18</b>	<b>18</b>	<b>25</b>	<b>22</b>	<b>14</b>	<b>11</b>	<b>27</b>
3361	Motor vehicle manufacturing.....	23	22	7	23	31	12	13	21
3362	Motor vehicle body and trailer manufacturing.....	19	4	5	9	7	5	43	46
3363	Motor vehicle parts manufacturing .....	423	15	19	24	12	15	15	31
3364	Aerospace product and parts manufacturing.....	61	20	25	38	5	34	1	46
3365	Railroad rolling stock manufacturing.....	13	54	63	42	51	16	4	23
3366	Ship and boat building .....	14	77	73	71	40	38	37	59
3369	Other transportation equipment manufacturing.....	8	54	64	63	2	38	51	26
<b>337</b>	<b>Furniture and related product manufacturing.....</b>	<b>83</b>	<b>9</b>	<b>19</b>	<b>14</b>	<b>21</b>	<b>16</b>	<b>12</b>	<b>21</b>
3371	Household and institutional furniture mfg .....	35	4	12	10	18	5	2	6
3372	Office furniture and fixtures mfg .....	16	48	82	51	66	36	58	57
3379	Other furniture related product manufacturing.....	32	7	6	2	10	22	2	30
<b>339</b>	<b>Miscellaneous manufacturing .....</b>	<b>281</b>	<b>24</b>	<b>27</b>	<b>25</b>	<b>25</b>	<b>21</b>	<b>17</b>	<b>16</b>
3391	Medical equipment and supplies manufacturing.....	138	32	33	29	31	33	23	23
3399	Other miscellaneous manufacturing .....	143	17	22	21	20	10	11	10

D Suppressed to avoid disclosure of data for individual companies.

**Table H. Percentage of the Data That is Estimated for Foreign-Owned Manufacturing Establishments, Selected Items by Country of UBO**

Country	Number of establishments	Percent estimated						
		Production workers			Cost of materials	Expenditures for new plant and equipment	Inventories (end of 1997)	Gross book value of depreciable assets
		Number	Hours	Wages				
<b>All countries</b> .....	<b>10,568</b>	<b>15</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>15</b>	<b>14</b>	<b>18</b>
<b>Canada</b> .....	<b>797</b>	<b>16</b>	<b>23</b>	<b>22</b>	<b>23</b>	<b>29</b>	<b>18</b>	<b>27</b>
<b>Europe</b> .....	<b>6,945</b>	<b>14</b>	<b>18</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>14</b>	<b>18</b>
Austria .....	24	(D)	(D)	(D)	(D)	19	(D)	(D)
Belgium .....	146	10	16	9	19	5	11	5
Denmark .....	86	22	32	20	45	27	16	21
Finland .....	103	20	24	25	18	32	24	21
France .....	1,180	13	17	16	14	14	13	18
Germany .....	1,168	12	14	14	25	11	14	16
Ireland .....	334	10	11	15	13	13	12	12
Italy .....	183	21	27	24	12	13	22	10
Liechtenstein .....	10	(D)	(D)	(D)	(D)	26	(D)	(D)
Luxembourg .....	25	14	13	12	15	21	23	19
Netherlands .....	362	8	13	11	18	27	10	26
Norway .....	54	21	25	23	9	19	7	9
Spain .....	28	44	44	42	18	9	6	17
Sweden .....	249	14	14	16	13	34	32	21
Switzerland .....	481	18	24	23	20	19	15	20
United Kingdom .....	2,500	16	22	22	13	16	13	19
Other .....	12	19	22	17	0	21	55	19
<b>Latin America and Other Western Hemisphere</b> .....	<b>251</b>	<b>15</b>	<b>21</b>	<b>17</b>	<b>19</b>	<b>7</b>	<b>5</b>	<b>17</b>
South and Central America .....	171	13	19	16	18	6	4	17
Brazil .....	7	0	6	2	1	(D)	0	12
Mexico .....	131	21	31	38	26	37	15	34
Panama .....	13	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Venezuela .....	16	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Other .....	4	25	39	44	54	(D)	57	49
Other Western Hemisphere .....	80	24	27	22	22	10	8	13
Bahamas .....	13	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Bermuda .....	41	28	16	17	13	6	6	9
Netherlands Antilles .....	20	11	35	18	62	(D)	12	16
United Kingdom Islands, Caribbean .....	6	(D)	(D)	(D)	(D)	65	(D)	(D)
<b>Africa</b> .....	<b>57</b>	<b>18</b>	<b>20</b>	<b>20</b>	<b>17</b>	<b>18</b>	<b>9</b>	<b>26</b>
South Africa .....	55	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Other .....	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)
<b>Middle East</b> .....	<b>107</b>	<b>11</b>	<b>15</b>	<b>10</b>	<b>4</b>	<b>6</b>	<b>7</b>	<b>5</b>
Israel .....	28	12	26	13	5	7	5	12
Kuwait .....	7	(D)	(D)	(D)	(D)	11	(D)	(D)
Lebanon .....	9	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Saudi Arabia .....	30	(D)	(D)	(D)	(D)	(D)	(D)	(D)
United Arab Emirates .....	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Other .....	31	(D)	(D)	(D)	(D)	16	(D)	(D)
<b>Asia and Pacific</b> .....	<b>2,322</b>	<b>14</b>	<b>18</b>	<b>17</b>	<b>17</b>	<b>12</b>	<b>15</b>	<b>15</b>
Australia .....	425	17	26	21	14	10	21	10
China .....	9	(D)	(D)	(D)	(D)	75	(D)	(D)
Hong Kong .....	16	23	38	24	40	(D)	48	4
Indonesia .....	22	0	9	0	17	0	3	12
Japan .....	1,673	15	18	18	16	13	14	17
Korea, Republic of .....	37	14	29	11	30	3	22	7
Malaysia .....	21	1	1	2	40	10	2	12
New Zealand .....	5	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Philippines .....	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Singapore .....	16	10	43	18	22	16	12	31
Taiwan .....	82	7	9	9	24	7	9	5
Other .....	15	7	9	14	8	45	22	44
<b>United States</b> .....	<b>89</b>	<b>13</b>	<b>14</b>	<b>12</b>	<b>10</b>	<b>14</b>	<b>14</b>	<b>25</b>
<b>Addenda:</b>								
European Union (15) .....	6,389	14	18	17	17	16	14	18
OPEC .....	77	7	12	5	11	1	4	9

D Suppressed to avoid disclosure of data for individual companies.  
UBO Ultimate beneficial owner

cluded in NAICS Sector 55, "Management of companies and enterprises." All other auxiliary establishments are included in the separate category titled "Auxiliaries, except managing offices" and further classified into several broad categories based on the type of service performed.

### Benefits

Data on benefits are presented for manufacturing establishments. Benefits, together with payroll, comprise compensation of employees. Benefits consist of social security and other legally required payments and employer payments for voluntary programs.

### Cost of materials

Data on cost of materials are presented for manufacturing establishments. Cost of materials consists of direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed, whether purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year. The major components of cost of materials are the following: (1) Raw materials, semifinished goods, parts, containers, scrap, and supplies put into production or used as operating supplies or for repair and maintenance during the year; (2) electricity purchased; (3) fuels consumed for heat, power, or generation of electricity; (4) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (5) products bought and resold in the same condition. Cost of materials excludes purchased services. Like value of shipments, totals for cost of materials for major industry groups and for manufacturing as a whole include large amounts of duplication. (See definition of value of shipments.)

### Cost of purchased fuels and electricity

Data on cost of purchased fuels and electricity are presented for manufacturing establishments. Cost of purchased fuels and electricity consists of the cost of fuels consumed for heat, power, or generation of electricity whether purchased from the establishments of other companies, transferred from other establishments of the same company, or withdrawn from inven-

tory during the year, and the cost of purchased electricity. The cost and quantity of purchased electricity represent the amounts actually used during the year.

### Employees

In all industries except construction and manufacturing, the number of employees is the number of full-time and part-time employees who were on the payroll in the pay period including March 12.

For construction, the number of employees is the average number of full-time and part-time employees on the payroll for the four pay periods including the 12th of March, May, August, and November. For manufacturing, the number of employees is the average number of all full-time and part-time production workers on the payroll for the four pay periods including the 12th of March, May, August, and November, plus the number of other full-time and part-time employees on the payroll for the pay period including March 12.

Employees include salaried officers and executives of corporations; they exclude proprietors and partners of unincorporated businesses.

The number of employees for foreign-owned establishments differs somewhat from that for U.S. affiliates in the BEA enterprise data because of differences in the date at which employment is measured. In the enterprise data, the number of employees is the number of full-time and part-time employees who were on the payroll at the end of the enterprise's fiscal year.<sup>13</sup>

### Establishment

An establishment is a single physical location where business is conducted or where services or industrial operations are performed. The data cover every establishment having one or more paid employees some time during 1997. The number of establishments is the number that were in business at any time during 1997 (regardless of their status at the beginning or end of the year).

### Expenditures for new plant and equipment

Data on expenditures for new plant and equipment are presented for manufacturing establishments. Expenditures for new plant and equipment consist of expenditures for (1) plants under construction, (2) permanent additions and major alterations to manufacturing establishments, and

(3) new machinery and equipment used for replacement and for additions to plant capacity, if they were of the type for which depreciation accounts were ordinarily maintained. They include expenditures for assets acquired under capital leases. They exclude expenditures for facilities

**Table I. Percentage of the Data That is Estimated for Foreign-Owned Manufacturing Establishments, Selected Items by State**

State	Number of establishments	Percent estimated						
		Production workers			Cost of materials	Expenditures for new plant and equipment	Inventories (end of 1997)	Gross book value of depreciable assets
		Number	Hours	Wages				
<b>Total</b> .....	<b>10,568</b>	<b>15</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>15</b>	<b>14</b>	<b>18</b>
Alabama.....	216	8	10	12	12	16	12	21
Alaska.....	20	4	4	3	24	5	1	4
Arizona.....	99	17	25	18	16	9	11	12
Arkansas.....	106	6	7	7	14	6	3	11
California.....	1,074	15	28	19	15	24	15	23
Colorado.....	106	15	18	21	22	19	11	14
Connecticut.....	140	10	15	15	20	10	13	10
Delaware.....	30	15	17	18	3	10	5	8
District of Columbia.....	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Florida.....	397	19	23	21	18	31	28	22
Georgia.....	501	18	23	20	17	17	14	18
Hawaii.....	19	11	18	2	1	0	86	0
Idaho.....	34	16	16	35	4	5	12	30
Illinois.....	490	14	18	17	15	22	15	21
Indiana.....	349	12	18	21	8	13	6	13
Iowa.....	95	4	6	7	12	7	13	13
Kansas.....	81	8	7	8	27	6	5	9
Kentucky.....	256	9	13	15	6	6	6	9
Louisiana.....	112	8	11	6	25	7	10	6
Maine.....	66	17	22	14	19	12	17	13
Maryland.....	152	27	27	34	11	34	18	31
Massachusetts.....	278	22	26	25	31	18	16	22
Michigan.....	395	15	18	18	20	10	16	19
Minnesota.....	160	13	15	13	16	12	11	16
Mississippi.....	92	15	19	17	21	27	8	16
Missouri.....	226	13	15	15	19	22	23	25
Montana.....	9	(D)	(D)	(D)	(D)	3	(D)	(D)
Nebraska.....	55	9	19	14	18	20	12	21
Nevada.....	44	7	7	7	11	4	13	4
New Hampshire.....	79	12	17	15	24	13	21	17
New Jersey.....	362	21	30	24	20	29	18	30
New Mexico.....	23	13	25	25	23	7	5	7
New York.....	408	21	24	21	15	18	14	20
North Carolina.....	511	11	16	16	20	18	14	17
North Dakota.....	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Ohio.....	572	20	17	26	28	23	15	24
Oklahoma.....	86	14	15	16	11	24	20	26
Oregon.....	131	17	20	19	40	4	15	9
Pennsylvania.....	524	19	22	19	18	12	18	19
Rhode Island.....	44	10	22	11	14	7	15	7
South Carolina.....	321	9	13	15	14	13	9	14
South Dakota.....	14	4	19	5	24	16	6	26
Tennessee.....	269	10	15	12	7	8	20	15
Texas.....	779	15	23	19	20	12	12	21
Utah.....	59	40	37	41	12	20	16	17
Vermont.....	21	29	40	39	31	50	43	33
Virginia.....	236	15	13	11	9	18	30	22
Washington.....	225	12	19	20	21	4	12	9
West Virginia.....	57	5	14	4	9	18	7	16
Wisconsin.....	229	14	18	22	13	17	8	13
Wyoming.....	12	13	38	19	26	53	7	45

D Suppressed to avoid disclosure of data for individual companies.

13. In the enterprise data, a U.S. affiliate's 1997 fiscal year was defined to be the affiliate's financial reporting year that ended in calendar year 1997. If an affiliate's end-of-year employment was unusually high or low because of temporary factors, a number reflecting normal operations was requested.

owned by the Federal Government but operated under contract by private companies and plant and equipment furnished at no cost to the manufacturer by communities and nonprofit organizations.

**Gross book value of depreciable assets**

Data on gross book value of depreciable assets are presented for manufacturing establishments. The gross book value of depreciable assets is the original-cost value of fixed assets (structures and machinery and equipment) in place at the end of the year. The values shown represent the actual cost of the assets at the time

they were acquired, including all costs incurred in making the assets usable (such as transportation and installation). Included are all buildings, structures, machinery, and equipment (production, office, and transportation equipment) for which depreciation reserves are maintained. Excluded are nondepreciable capital assets, including inventories and intangible assets, such as timber and mineral rights.

**Other workers**

“Other” workers are nonproduction employees of the establishment, including those engaged in factory su-

**Table J. Employment of U.S. Affiliates, Industry of BEA Enterprise by Industry of Census Bureau Establishment, 1997**  
[Thousands of employees]

Line	Industry of BEA enterprise	BEA enterprise data for linked affiliates <sup>1</sup>	Census Bureau establishment data for linked affiliates															
			Total by industry of BEA enterprise	Industry of Census Bureau establishment														
				Mining	Utilities	Construction	Total	Manufacturing										
								Of which:										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)			
1	<b>Total.....</b>	<b>5,280.8</b>	<b>5,195.9</b>	<b>77.2</b>	<b>7.5</b>	<b>97.7</b>	<b>1,822.8</b>	<b>123.1</b>	<b>14.5</b>	<b>54.8</b>	<b>45.3</b>	<b>23.8</b>	<b>211.5</b>	<b>139.8</b>	<b>107.9</b>	<b>90.3</b>	<b>133.5</b>	
2	Mining.....	71.1	69.1	49.2	c	0.2	9.0	(*)	(*)	(*)	(*)	e	g	e	1.2	2.0	f	
3	Utilities.....	11.8	11.8	f	c	6.5	0.4	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	b
4	Construction.....	73.5	69.8	1.2	c	49.2	3.5	(*)	(*)	(*)	(*)	f	a	a	0.4	c	2.0	
5	Manufacturing.....	2,248.8	2,254.0	21.4	0.4	34.1	1,621.6	107.6	13.1	51.4	37.9	19.7	201.8	133.9	104.0	81.4	117.8	
	Of which:																	
6	Food.....	156.0	149.2	b	(*)	b	95.2	90.9	g	c	a	(*)	1.4	g	a	a	b	
7	Beverage and tobacco products.....	32.0	32.1	(*)	(*)	b	16.4	h	11.6	b	(*)	(*)	(*)	(*)	(*)	(*)	(*)	
8	Paper.....	63.2	67.9	(*)	(*)	b	58.8	b	(*)	44.8	g	e	0.8	4.0	h	e	0.7	
9	Printing and related support activities ..	38.7	41.5	(*)	(*)	(*)	33.4	b	(*)	0.4	31.0	(*)	a	b	c	(*)	(*)	
10	Petroleum and coal products.....	51.6	66.8	6.0	a	(*)	19.2	(*)	(*)	(*)	(*)	14.6	4.2	b	b	(*)	(*)	
11	Chemical products.....	393.3	379.7	3.9	0.1	0.2	230.4	11.7	c	1.2	1.0	f	172.9	14.4	5.0	2.2	2.0	
12	Plastics and rubber products.....	124.8	123.6	b	(*)	(*)	92.9	(*)	(*)	c	(*)	b	3.0	73.8	g	a	1.3	
13	Nonmetallic mineral products.....	132.9	128.4	8.1	(*)	5.1	95.6	(*)	(*)	(*)	(*)	3.2	0.8	3.7	83.6	b	f	
14	Primary metal.....	92.1	96.3	1.6	a	f	82.6	b	(*)	(*)	(*)	(*)	2.2	c	2.2	60.6	7.2	
15	Fabricated metal products.....	130.5	126.9	0.1	c	1.6	106.0	(*)	(*)	1.3	3.0	(*)	1.8	9.8	0.7	4.6	57.1	
16	Machinery.....	217.3	223.9	g	b	19.8	163.7	(*)	(*)	a	c	c	0.6	6.2	1.8	3.2	17.7	
17	Computer and electronic products.....	265.6	253.1	(*)	b	1.0	154.3	(*)	(*)	e	f	(*)	4.5	1.2	1.9	1.3	3.9	
18	Electrical equipment and appliance.....	162.1	144.8	c	(*)	0.3	114.0	(*)	(*)	(*)	(*)	c	f	6.0	2.6	3.3	4.1	
19	Transportation equipment.....	215.2	214.6	(*)	(*)	g	190.7	a	(*)	b	c	(*)	0.1	6.7	c	3.8	12.9	
20	Wholesale trade.....	507.9	494.6	2.8	c	2.7	150.7	13.0	1.2	3.4	b	h	8.1	5.1	2.0	6.2	10.6	
21	Retail trade.....	682.8	612.8	(*)	(*)	g	4.5	1.4	(*)	(*)	a	(*)	b	(*)	b	(*)	a	
22	Transportation and warehousing.....	205.0	164.4	0.3	b	e	5.2	b	(*)	(*)	(*)	(*)	a	e	(*)	(*)	e	
23	Information.....	291.6	294.6	(*)	(*)	b	13.0	(*)	(*)	(*)	6.7	(*)	a	(*)	(*)	a	(*)	
24	Finance and insurance.....	330.3	353.9	b	a	e	1.5	(*)	(*)	(*)	e	(*)	(*)	c	(*)	(*)	e	
	Of which:																	
25	Depository credit intermediation.....	103.3	100.3	(*)	(*)	a	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	
26	Insurance.....	165.5	177.7	(*)	a	e	e	(*)	(*)	(*)	(*)	(*)	(*)	b	(*)	(*)	e	
27	Real estate and rental and leasing.....	37.5	45.6	0.2	(*)	2.6	0.7	a	(*)	b	a	(*)	a	(*)	e	(*)	0.2	
28	Professional, scientific, and technical services.....	83.7	85.5	0.9	(*)	2.7	5.9	(*)	(*)	(*)	0.3	a	0.4	b	(*)	(*)	0.9	
29	Accommodation and food services.....	269.6	280.3	a	a	0.2	0.5	c	(*)	(*)	(*)	(*)	a	b	b	(*)	a	
30	Other.....	467.2	459.5	f	b	3.4	6.3	0.9	c	a	b	c	(*)	(*)	(*)	e	0.5	

\* Less than 50 employees.

1. BEA enterprise data for affiliates that linked to Census Bureau establishments.

NOTE: The following ranges are given in employment cells that are suppressed: a—0 to 19; b—20 to 99; c—100 to 249; e—250 to 499; f—500 to 999; g—1,000 to 2,499; h—2,500 to 4,999; i—5,000 to 9,999; j—10,000 to 24,999; k—25,000 to 49,999; l—50,000 to 99,999; m—100,000 or more.

pervision above the line-supervisor level. Data on other workers are presented for manufacturing establishments. Other workers include employees in the following activities: Sales (including drivers and salespersons), sales delivery (highway truck drivers and their helpers), advertising, credit, collection, installation and servicing, clerical and routine office functions, executive, purchasing, financial, legal, personnel (including cafeteria, medical, etc.), professional, and technical. All employees engaged in the construction of major additions or alterations to the plant and utilized as a separate work force are included. (See "Production

workers.")

**Payroll**

Payroll and benefits comprise compensation of employees. Payroll consists of the gross earnings, paid in the calendar year, of all employees on the payroll of the establishment. It includes salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' social security contributions, withholding taxes, group insurance, union dues, and savings bonds. Salaries of officers and executives of

**Table J. Employment of U.S. Affiliates, Industry of BEA Enterprise by Industry of Census Bureau Establishment, 1997**  
[Thousands of employees]

Line	Industry of BEA enterprise	Census Bureau establishment data for linked affiliates														BEA enterprise data less Census Bureau establishment data (col. 1 - col. 2)	
		Industry of Census Bureau establishment															
		Manufacturing				Wholesale trade	Retail trade	Transportation and warehousing	Information	Finance and insurance			Real estate and rental and leasing	Professional, scientific, and technical services	Accommodation and food services		Other
		Of which:								Total	Of which:						
		Machinery	Computer and electronic products	Electrical equipment and appliance	Transportation equipment	Depository credit intermediation	Insurance										
(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)		
1	<b>Total.....</b>	<b>179.6</b>	<b>216.6</b>	<b>100.2</b>	<b>207.9</b>	<b>457.1</b>	<b>630.1</b>	<b>122.8</b>	<b>235.3</b>	<b>361.5</b>	<b>111.8</b>	<b>149.0</b>	<b>40.1</b>	<b>118.7</b>	<b>308.5</b>	<b>916.7</b>	<b>84.9</b>
2	Mining.....	0.5	h	c	(*)	2.3	c	0.3	b	b	(*)	(*)	c	0.7	b	6.6	2.0
3	Utilities.....	b	e	c	(*)	0.2	(*)	b	c	b	(*)	(*)	b	1.3	(*)	1.9	0.1
4	Construction.....	e	(*)	(*)	a	0.5	a	h	a	1.1	f	b	0.6	4.7	f	5.5	3.7
5	Manufacturing.....	162.1	166.9	97.8	169.1	210.1	49.4	5.0	14.0	4.3	(*)	1.7	4.1	18.6	22.5	248.5	-5.2
	Of which:																
6	Food.....	b	a	b	(*)	21.1	0.4	0.6	e	b	(*)	(*)	0.2	b	j	14.0	6.7
7	Beverage and tobacco products.....	(*)	(*)	(*)	(*)	8.4	3.3	a	b	(*)	(*)	(*)	b	b	c	3.7	0.1
8	Paper.....	0.7	(*)	b	(*)	3.7	b	0.1	(*)	0.1	(*)	(*)	b	(*)	(*)	5.2	-4.7
9	Printing and related support activities ..	1.4	c	b	(*)	3.8	b	b	0.5	(*)	(*)	(*)	b	0.2	(*)	3.5	-2.8
10	Petroleum and coal products.....	b	(*)	c	(*)	4.7	20.8	2.3	a	c	(*)	a	b	e	a	13.2	-15.1
11	Chemical products.....	4.3	2.9	1.0	h	45.4	4.0	0.2	e	1.9	(*)	g	0.5	2.7	a	90.1	13.6
12	Plastics and rubber products.....	1.2	c	a	2.1	5.8	j	c	a	c	(*)	(*)	(*)	0.7	b	9.0	1.1
13	Nonmetallic mineral products.....	1.5	1.0	b	f	6.4	2.3	0.7	(*)	0.1	(*)	(*)	c	0.3	b	9.7	4.4
14	Primary metal.....	1.1	1.1	5.1	2.2	4.7	a	(*)	g	(*)	(*)	a	(*)	1.0	b	4.2	-4.2
15	Fabricated metal products.....	12.3	2.4	1.9	5.6	8.6	0.3	c	b	0.3	(*)	(*)	0.1	1.0	b	8.4	3.5
16	Machinery.....	100.8	12.0	11.1	8.2	17.6	c	c	0.3	0.2	(*)	b	2.6	3.5	b	14.2	-6.6
17	Computer and electronic products.....	4.5	116.4	14.1	g	35.2	1.0	e	10.4	0.2	(*)	(*)	0.3	5.2	4.6	40.5	12.5
18	Electrical equipment and appliance.....	15.9	13.7	58.2	5.0	16.0	b	a	b	0.1	(*)	(*)	b	0.8	b	13.2	17.2
19	Transportation equipment.....	10.5	5.3	4.5	139.8	12.4	(*)	b	(*)	f	(*)	(*)	0.1	0.7	(*)	8.3	0.6
20	Wholesale trade.....	13.2	36.4	2.0	35.9	208.5	32.1	4.4	g	9.1	b	e	3.7	6.9	1.3	71.0	13.3
21	Retail trade.....	0.1	b	(*)	b	5.4	529.8	e	0.4	0.8	(*)	a	0.3	0.3	0.7	69.1	70.0
22	Transportation and warehousing.....	e	c	b	2.7	1.5	b	101.8	0.3	h	h	b	c	1.0	a	49.5	40.6
23	Information.....	b	5.8	(*)	(*)	8.0	7.5	0.2	210.1	1.6	(*)	a	i	14.8	e	31.2	-3.0
24	Finance and insurance.....	f	c	(*)	(*)	0.4	0.1	g	0.7	327.0	97.2	145.7	2.8	2.9	2.3	14.1	-23.6
	Of which:																
25	Depository credit intermediation.....	(*)	(*)	(*)	(*)	a	a	(*)	b	96.4	87.4	e	b	a	(*)	3.7	3.0
26	Insurance.....	(*)	(*)	(*)	(*)	b	a	g	e	163.0	c	144.7	2.1	2.6	f	6.6	-12.2
27	Real estate and rental and leasing.....	(*)	0.1	b	(*)	1.0	1.2	0.1	0.2	11.7	i	b	16.0	1.5	6.7	3.7	-8.1
28	Professional, scientific, and technical services.....	2.1	0.4	b	(*)	5.5	0.2	c	4.8	c	(*)	c	0.3	57.3	e	7.2	-1.8
29	Accommodation and food services.....	a	(*)	(*)	0.1	0.9	7.2	(*)	a	0.2	(*)	a	0.5	0.2	260.6	10.1	-10.7
30	Other.....	a	3.8	b	b	12.9	2.4	6.1	3.4	g	b	0.9	3.6	8.5	13.0	398.2	7.7

corporations are included. Payments to proprietors and partners of unincorporated concerns, to members of the armed forces, and to pensioners carried on the active payrolls of establishments are excluded.

Payroll as shown for foreign-owned establishments is definitionally equivalent to “wages and salaries” as shown for U.S. affiliates in the BEA enterprise data. Totals for the two measures may differ because, among other things, the Census Bureau payroll data are measured on a calendar-year basis, whereas the BEA wages and salaries data are measured on a fiscal-year basis.

### Production worker hours

Data on production worker hours are presented for manufacturing establishments. Production worker hours consist of hours worked, including actual overtime hours (not straight-time-equivalent hours). They exclude hours paid for vacations, holidays, or sick leave.

### Production workers

Data on production workers are presented for manufacturing establishments. Production workers are workers engaged in manual work and production operations or performing functions closely associated with production operations. They are workers up through the line-supervisor level at an operating establishment who are engaged in fabricating, processing, assembling, inspecting, receiving, storing, handling, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial and guard services, product development, auxiliary production for plant’s own use (power plant, etc.), record keeping, and other services closely associated with these production operations at the establishment. (See “Other workers.”)

### Shipments or sales

Data on shipments or sales are presented for all industries covered by the 1997 Economic Censuses. The definition of shipments or sales varies by sector.

For *mining*, the item shown is the value of “shipments and receipts.” Shipments include all products physically shipped from the establishment. Receipts include contract work done for others, except custom milling, and the value of products bought and sold without further processing.

For *utilities*, the item shown is “revenue.” Revenue includes all business activities.

For *construction*, the item shown is the “value of construction work.” Construction work consists of the value of all work performed by general contractors, special trades contractors, and subcontractors and of land development and improvement work.

For *manufacturing*, the item shown is the value of “shipments.” Shipments covers the net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped as well as miscellaneous receipts.

Totals for value of shipments for major industry groups within manufacturing and for manufacturing as a whole include large amounts of duplication because the products of some industries are used as materials by others. This duplication results, in part, from the combination of related industries that represent successive stages in the production of a finished manufactured product. Examples are the combination of flour mills and bakeries in the food group and of pulp mills and paper mills in the paper and allied products group.

For *wholesale or retail trade*, the item shown is “sales.” Sales includes sales of merchandise plus receipts for delivery, installation, maintenance, repair, alteration, storage, equipment rental, and other services.

For *transportation and warehousing*, the item shown is “revenue.” Revenue includes all business activities including commissions and fees for arranging the transportation of freight.

For *finance and insurance* the item shown is “revenue.” Revenue includes net premiums earned by insurance carriers, commissions and fees from all sources, net investment income, interest, dividends, the total value of service contracts, royalties, and dues and assessments from members.

For *real estate and rental and leasing*, the item shown is “revenue.” Revenue includes commissions and fees, rents, net investment income, interest, dividends, and royalties.

For *information*, the item shown is “receipts.” Receipts include income for services rendered and sales of merchandise as well royalties, license fees, and other payments from the marketing of intangible products.

For *management of companies and enterprises*, the item shown is “revenue” or “sales.” For holding companies, the item is revenue. Revenue primarily includes net investment income, interest, and dividends. For corporate, subsidiary, and regional managing offices the item is sales. Sales is defined as income received from sources outside the company.

For the *service sectors* such as professional, scientific, and technical services; administrative support and waste management; educational services; health care and social assistance; arts, entertainment, and recreation; and other services the item shown is “receipts.” Receipts includes receipts for services rendered, for the leasing of facilities and equipment, and for the sale of merchandise by service establishments. It also includes the total value of service contracts, amounts received

for work subcontracted to others, and dues and assessments from members and affiliates.

For *accommodation and food services*, the item shown is “sales.” Sales include sales from consumers for services rendered, from the use of facilities, and from merchandise sold.

For *auxiliaries, except managing offices*, the item shown is sales; sales is defined as income received from sources outside of the company.

The shipments or sales measure shown here for foreign-owned establishments differs significantly in concept from the “sales” measure in the BEA enterprise data for U.S. affiliates. Because the shipments or sales data shown here are based on data reported at the establishment level, they include the value of shipments or sales between establishments within the same enterprise, as well as the shipments or sales of the establishment to outsiders. The BEA sales measure does not include shipments or sales between establishments within an enterprise, because the BEA data are reported on a consolidated enterprise basis, and, on this basis, only sales by the consolidated enterprise to outside individuals or firms are counted.<sup>14</sup> As a result of this difference, the shipments or sales total for an enterprise obtained by summing across all establishments of the enterprise based on the Census Bureau data could be significantly higher than the sales total for the same enterprise based on the BEA data. Another difference is that, like payroll data, the Census Bureau measure is on a calendar-year basis while the BEA measure is on a fiscal-year basis.

### Value added by manufacture

Value added by manufacture is derived by subtracting the cost of materials (including materials, supplies, containers, fuel, purchased electricity, and cost of contract work) from the value of shipments (products manufactured plus receipts for services rendered). The result of this calculation is adjusted by the addition of value added by merchandising operations (the difference between the sales value and the cost of merchandise sold without further manufacture, processing, or assembly) plus the net change between beginning- and end-of-year finished goods and work-in-process inventories.

Value added by manufacture avoids the duplication in the value of shipments that results when the prod-

ucts of one establishment are used as materials by another. Value added by manufacture is considered the best value measure available for assessing the relative economic importance of manufacturing among industries and geographic areas.

Although value added by manufacture and BEA's enterprise measure of gross product are similar measures, they differ in definition and in method of computation. BEA's gross product measure is calculated as the sum of (1) factor incomes (that is, compensation of employees, profits, and net interest paid), (2) nonfactor income (that is, indirect business taxes), and (3) consumption of fixed capital (that is, depreciation). Value added by manufacture, on the other hand, is calculated as the difference between the value of output (value of shipments plus the change in finished goods and work-in-process inventories) and the cost of materials consumed. The two measures differ because purchased services are excluded from gross product but are included in value added by manufacture and because sales, excise, and other indirect taxes are included in gross product but are excluded from value added by manufacture. Additionally, gross product reflects inventory change valued at replacement cost, whereas value added by manufacture reflects inventory change valued at book value.

### Confidentiality

The Census Bureau and BEA are prohibited by law from publishing data that disclose the identity of, or information reported by, individual companies. In this publication, data in each cell were tested to determine whether they should be suppressed to maintain confidentiality. The data on numbers of establishments and their distribution by employment size class are not considered confidential, and these items are shown for countries, industries, or States in instances where other items are suppressed. For employment of foreign-owned establishments, cells that are suppressed contain letter symbols indicating the employment size range for the cell. For all other items, suppressed cells are indicated by a “(D)”; no size ranges are given.

Many tables in this publication present data in great detail by industry. In tables that cross-classify the detailed industry data, by, for example, State or investing country, many cells may be suppressed. The large number of suppressed cells is an unavoidable consequence of distributing data for a relatively small number of companies among a large number of highly detailed categories while upholding the legal requirement to preserve the confidentiality of the data of individual companies.

14. The consolidated enterprise includes all U.S. businesses that are owned more than 50 percent by the reporting company and in which the foreign owner of the reporting company has a direct investment ownership interest. The consolidation excludes all other U.S. businesses and all foreign business enterprises owned by the reporting company.

## Appendix

### The Relation of Detail to Totals in the Data Tabulation

Subtotals for industry sectors, subsectors, and industry groups may not equal the sum of the more detailed industry data included in these subtotals. One reason is that the industry classifications of some establishments included on the SSEL are not known at the detailed industry level. This occurs when the Census Bureau receives reports for new establishments but does not receive the information needed to classify them at the detailed industry level. In such cases, data for the establishments may be included in the sector, subsector or industry group subtotals but may not be included in the more detailed data below those subtotals.

In the tables for individual States, industry subtotals may not equal the sum of the more detailed industries shown below those subtotals because some industries may not be shown. The industries not shown are those not shown in the 1997 Economic Census publications because employment in them is small. In addition, in the State tables and in the tables that show data by industry for individual countries, small cells are not shown. The following table shows the threshold number of employees below which the industry subtotals and individual industries are not shown.

However, data for an unpublished industry are nevertheless included in the total shown for the broader industry group of which it is a part.

For all U.S. establishments, totals shown for the United States as a whole do not equal the sum across States because Economic Census CD-ROM files that provide data by detailed industry were the sources for the totals for the U.S. as whole, whereas the CD-ROM files that provide data by State were the sources of the data by State. In some cases, the files that contain data by industry reflect late revisions to the data that were not incorporated into the files that contain data by State. In addition, State totals for all U.S. establishments were computed by summing across industry sectors, and employment and payroll for a few industry sectors for some States were obtained from County Business Patterns.

For both foreign-owned establishments and all U.S. establishments, the sum of the data across States for some industries may not equal the industry totals shown in tables that present data for the United States as a whole because some industries may not be shown for individual States.

Tables	Number
A2.1 and M2.1 <sup>1</sup> .....	250
A3.15–A3.21 and M3.15–M3.21 <sup>2</sup> .....	100
A3.1–A3.7 .....	1,000
M3.1–M3.7 <sup>3</sup> .....	2,500

1. Except for sectors; all sector totals are shown in these tables.
2. Except for total manufacturing, which is shown.
3. Only applies to six-digit industries; all industry subtotals are shown.