

# Manufactures

This section presents summary data for manufacturing as a whole and more detailed information for major industry groups and selected products. The types of measures shown at the different levels include data for establishments, employment and wages, plant and equipment expenditures, value and quantity of production and shipments, value added by manufacture, inventories, and various indicators of financial status.

The principal sources of these data are Bureau of the Census reports of the censuses of manufactures conducted every 5 years; the *Annual Survey of Manufactures*; and *Manufacturing Profiles*, an annual compilation of the formerly printed series of *Current Industrial Reports*. Indexes of industrial production are presented monthly in the Federal Reserve Board's *Federal Reserve Bulletin*. These numbers were changed to a new index base year (1992 = 100) as of early 1997. Reports on current activities of industries, or current movements of individual commodities, are compiled by such government agencies as the Bureau of Labor Statistics; the Economic Research Service of the Department of Agriculture; the International Trade Administration; and by private research or trade associations such as The Conference Board, Inc., the American Iron and Steel Institute, the Electronic Industries Association, and Dataquest, Inc.

Data on financial aspects of manufacturing industries are collected by the Bureau of Economic Analysis (BEA) and the Bureau of the Census. Industry aggregates in the form of balance sheets, profit and loss statements, analyses of sales and expenses, lists of subsidiaries, and types and amounts of security issues are published for leading manufacturing corporations registered with the Securities and Exchange Commission. The BEA issues data on capital in manufacturing industries and capacity utilization rates in manufacturing. See also Section 17, Business Enterprise.

## In Brief

Real GDP for the manufacturing sector increased for the fifth straight year to almost \$7 trillion in 1996, up 2.8 percent from the previous year.

Production workers saw their average hourly earnings increase to \$13.20 in 1997, a 3-percent rise over the previous year. Production workers in Michigan had the highest average hourly earnings with at just over \$17, followed by Ohio (\$15.30) and Washington (\$15.16).

Net profits for manufacturing corporations reached a record level of \$335 billion before taxes in 1997. After taxes, profits were \$247 billion. The industrial production index for manufacturing also reached an all-time high at 127 (based on 1992=100) in 1997.

**Censuses and annual surveys**—The first census of manufactures covered the year 1809. Between 1809 and 1963, a census was conducted at periodic intervals. Since 1967, it has been taken every 5 years (for years ending in "2" and "7"). Results from the 1997 census are expected in 1999. Census data, either direct reports or estimates from administrative records, are obtained for every manufacturing plant with one paid employee or more.

The *Annual Survey of Manufactures (ASM)*, conducted for the first time in 1949, collects data for the years between censuses for the more general measures of manufacturing activity covered in detail by the censuses. The annual survey data are estimates derived from a scientifically selected sample of establishments. The 1996 annual survey is based on a sample of about 58,000 establishments of an approximate total of 230,000. These establishments represent all manufacturing establishments of

multiunit companies and all single-establishment manufacturing companies mailed schedules in the 1992 Census of Manufactures. For the current panel of the ASM sample, all establishments of companies with 1992 shipments in manufacturing in excess of \$500 million were included in the survey with certainty. For the remaining portion of the mail survey, the establishment was defined as the sampling unit. For this portion, all establishments with 250 employees or more and establishments with a very large value of shipments also were included. Therefore, of the 58,000 establishments included in the ASM panel, approximately 33,000 are selected with certainty. These establishments account for approximately 80 percent of total value of shipments in the 1992 census. Smaller establishments in the remaining portion of the mail survey were selected by sample.

#### **Establishments and classification—**

The censuses of manufactures for 1947 through 1992 cover operating manufacturing establishments as defined in the *Standard Industrial Classification Manual (SIC)*, issued by the U.S. Office of Management and Budget (see text, Section 13). The *Manual* is also used for classifying establishments in the annual surveys. The comparability of manufactures data over time is affected by changes in the official definitions of industries as presented in the *Manual*. It is important to note, therefore, that the 1987 edition of the *Manual* was used for the 1987 and 1992 censuses; and the 1972 edition of the *Manual* and the *1977 Supplement* were used for the 1972 through 1982 censuses. For the censuses from 1947 to 1963, reports were required from all establishments employing one or more persons at any time during the census year. Beginning with the 1967 census, an effort was made to relieve the very small establishments from the necessity of filing a census report. Approximately 150,000 small single-unit manufacturing firms identified as having less than 20 employees (cutoff varied by industry) benefited from this procedure. Data for these single-unit companies were estimated on the basis of government administrative

records and industry averages. Each of the establishments tabulated was classified in 1 of the approximately 459 manufacturing industries as defined by the *SIC Manual* in 1987. The *Manual* defines an industry as a number of establishments producing a single product or a closely related group of products. In the main, an establishment is classified in a particular industry if its production of a product or product group exceeds in value added its production of any other product group. While some establishments produce only the products of the industry in which they are classified, few within an industry specialize to that extent. The statistics on employment, payrolls, value added, inventories, and expenditures, therefore, reflect both the primary and secondary activities of the establishments in that industry. For this reason, care should be exercised in relating such statistics to the total shipments figures of products primary to the industry.

The censuses for 1947 through 1992 were conducted on an establishment basis. The term "establishment" signifies a single physical plant site or factory. It is not necessarily identical to the business unit or company, which may consist of one or more establishments. A company operating establishments at more than one location is required to submit a separate report for each location. An establishment engaged in distinctly different lines of activity and maintaining separate payroll and inventory records is also required to submit separate reports.

**Durable goods—**Items with a normal life expectancy of 3 years or more. Automobiles, furniture, household appliances, and mobile homes are common examples.

**Nondurable goods—**Items which generally last for only a short time (3 years or less). Food, beverages, clothing, shoes, and gasoline are common examples.

**Statistical reliability—**For a discussion of statistical collection and estimation, sampling procedures and measures of statistical reliability applicable to Census Bureau data, see Appendix III.

### No. 1231. Gross Domestic Product in Manufacturing in Current and Real (1992) Dollars, by Industry: 1990 to 1996

[In millions of dollars. Data are based on the 1987 Standard Industrial Classification (SIC). Data include nonfactor charges (capital consumption allowances, indirect business taxes, etc.) as well as factor charges against gross product; corporate profits and capital consumption allowances have been shifted from a company to an establishment basis]

INDUSTRY	1990	1991	1992	1993	1994	1995	1996
<b>CURRENT DOLLARS</b>							
<b>Gross domestic product . . . . .</b>	<b>5,743,837</b>	<b>5,916,668</b>	<b>6,244,445</b>	<b>6,558,092</b>	<b>6,946,974</b>	<b>7,265,390</b>	<b>7,636,036</b>
Manufacturing . . . . .	1,031,425	1,028,081	1,063,628	1,116,501	1,216,094	1,286,286	1,332,093
Durable goods . . . . .	572,838	558,312	573,373	615,659	679,184	716,820	749,041
Lumber and wood products . . . . .	31,799	29,972	32,016	34,645	38,443	40,708	41,398
Furniture and fixtures . . . . .	15,404	15,056	16,208	17,684	18,536	19,374	20,541
Stone, clay, and glass products . . . . .	24,836	22,932	25,076	25,139	28,774	30,717	32,662
Primary metal industries . . . . .	42,638	39,571	38,999	42,023	46,254	52,001	50,600
Fabricated metal products . . . . .	69,383	67,590	70,055	73,680	84,232	89,486	98,181
Industrial machinery . . . . .	114,831	105,739	108,640	110,934	122,306	142,368	150,198
Electronic & other electric equipment . . . . .	94,926	98,191	98,601	114,560	132,923	134,048	143,753
Motor vehicles and equipment . . . . .	46,102	42,328	52,848	71,529	87,354	87,293	85,054
Other transportation equipment . . . . .	60,470	62,029	56,535	53,485	49,460	46,913	49,744
Instruments and related products . . . . .	52,212	54,625	54,246	50,883	48,721	49,657	52,280
Misc. manufacturing industries . . . . .	20,237	20,279	20,149	21,097	22,181	24,255	24,630
Nondurable goods . . . . .	458,587	469,769	490,255	500,842	536,910	569,466	583,052
Food and kindred products . . . . .	94,226	99,164	102,147	103,239	109,573	118,719	122,556
Tobacco manufactures . . . . .	16,380	17,790	18,365	15,169	16,268	17,586	18,100
Textile mill products . . . . .	21,742	22,279	25,434	25,494	25,411	23,631	25,519
Apparel and other textile products . . . . .	25,151	25,890	27,190	27,432	28,241	27,323	26,610
Paper and allied products . . . . .	45,323	44,849	45,828	47,668	51,337	59,899	57,068
Printing and publishing . . . . .	73,875	75,870	79,743	80,018	86,000	84,989	90,433
Chemicals and allied products . . . . .	110,348	114,148	120,457	124,646	140,605	155,852	157,821
Petroleum and coal products . . . . .	32,985	29,702	28,225	31,343	30,382	30,242	30,122
Rubber and misc. plastic products . . . . .	33,963	35,650	38,095	41,289	44,378	46,091	49,658
Leather and leather products . . . . .	4,594	4,427	4,771	4,544	4,715	5,134	5,165
<b>CHAINED (1992) DOLLARS</b>							
<b>Gross domestic product, total <sup>1</sup> . . . . .</b>	<b>6,136,291</b>	<b>6,079,404</b>	<b>6,244,445</b>	<b>6,389,566</b>	<b>6,610,744</b>	<b>6,742,065</b>	<b>6,928,399</b>
Manufacturing . . . . .	1,089,974	1,050,216	1,063,628	1,100,823	1,193,167	1,273,695	1,323,717
Percent of all industries . . . . .	17.8	17.3	17.0	17.2	18.0	18.9	19.1
Durable goods . . . . .	600,425	567,955	573,373	608,326	671,305	731,200	785,481
Lumber and wood products . . . . .	36,971	34,127	32,016	28,544	29,817	31,599	33,550
Furniture and fixtures . . . . .	15,843	14,947	16,208	17,866	18,031	18,663	18,804
Stone, clay, and glass products . . . . .	25,513	22,916	25,076	24,474	26,979	27,704	29,100
Primary metal industries . . . . .	38,983	38,637	38,999	43,173	45,014	44,359	46,808
Fabricated metal products . . . . .	72,567	68,210	70,055	73,381	84,547	89,697	94,019
Industrial machinery . . . . .	113,182	103,560	108,640	115,056	131,537	164,522	186,068
Electronic & other electric equipment . . . . .	92,474	95,925	98,601	118,316	145,778	175,583	217,424
Motor vehicles and equipment . . . . .	56,840	46,784	52,848	66,679	78,007	79,271	76,066
Other transportation equipment . . . . .	69,059	63,957	56,535	52,302	47,597	43,759	44,483
Instruments and related products . . . . .	58,656	58,044	54,246	48,681	45,127	42,618	38,322
Misc. manufacturing industries . . . . .	22,154	21,068	20,149	20,517	21,527	22,811	23,314
Nondurable goods . . . . .	489,402	482,249	490,255	492,495	521,970	543,163	541,036
Food and kindred products . . . . .	103,196	102,262	102,147	103,800	106,477	120,852	112,853
Tobacco manufactures . . . . .	24,851	21,527	18,365	16,140	22,306	24,280	23,930
Textile mill products . . . . .	22,573	23,068	25,434	25,975	27,346	25,437	26,610
Apparel and other textile products . . . . .	26,487	26,378	27,190	27,229	28,341	28,501	26,931
Paper and allied products . . . . .	44,146	44,622	45,828	50,152	52,127	45,373	47,341
Printing and publishing . . . . .	84,498	80,822	79,743	75,270	77,989	77,508	74,305
Chemicals and allied products . . . . .	117,260	115,813	120,457	120,606	131,216	138,915	142,183
Petroleum and coal products . . . . .	28,434	28,281	28,225	27,820	27,624	32,156	33,764
Rubber and misc. plastic products . . . . .	34,436	35,337	38,095	41,268	45,400	48,218	50,901
Leather and leather products . . . . .	4,767	4,527	4,771	4,466	4,460	4,690	4,814

<sup>1</sup> For additional industry detail, see Table 716.

Source: U.S. Bureau of Economic Analysis, *Survey of Current Business*, August 1997.

## No. 1232. Manufactures—Summary: 1982 to 1996

[For establishment coverage, see text, Manufactures section]

ITEM	Unit	1982	1987	1992	1994 <sup>1</sup>	1995 <sup>1</sup>	1996 <sup>1</sup>
<b>ALL ESTABLISHMENTS</b>							
<b>Number of establishments</b> <sup>2</sup> . . . . .	<b>1,000</b> . . .	<b>358</b>	<b>369</b>	<b>382</b>	<b>(NA)</b>	<b>(NA)</b>	<b>(NA)</b>
With 20 or more employees . . . . .	1,000 . . .	123	126	125	(NA)	(NA)	(NA)
<b>Employee size-class:</b>							
Establishments <sup>3</sup> . . . . .	1,000 . . .	348	359	371	(NA)	(NA)	(NA)
Under 20 . . . . .	1,000 . . .	230	238	252	(NA)	(NA)	(NA)
20 to 99 . . . . .	1,000 . . .	84	86	85	(NA)	(NA)	(NA)
100 to 249 . . . . .	1,000 . . .	21	22	22	(NA)	(NA)	(NA)
250 to 999 . . . . .	1,000 . . .	11	11	11	(NA)	(NA)	(NA)
1,000 and over . . . . .	1,000 . . .	2	2	2	(NA)	(NA)	(NA)
<b>Form of organization:</b>							
Corporate . . . . .	1,000 . . .	283.2	287.4	304.0	(NA)	(NA)	(NA)
Noncorporate . . . . .	1,000 . . .	74.0	81.5	77.7	(NA)	(NA)	(NA)
Individual proprietorship . . . . .	1,000 . . .	45.6	35.4	40.9	(NA)	(NA)	(NA)
Partnership . . . . .	1,000 . . .	15.0	13.2	10.3	(NA)	(NA)	(NA)
<b>All employees:</b> <sup>5</sup>							
Annual average <sup>6</sup> . . . . .	Million . . .	19.1	19.0	18.2	18.3	18.7	18.7
Payroll . . . . .	Bil. dol. . .	379.6	475.7	559.9	594.0	624.0	645.0
Payroll per employee . . . . .	\$1,000 . . .	19.9	25.2	30.7	32.4	33.3	34.5
<b>Production workers:</b>							
Annual average . . . . .	Million . . .	12.4	12.2	11.6	11.9	12.3	12.2
Percent of all employees . . . . .	Percent . . .	64.9	64.6	63.8	65.1	65.4	65.2
Hours . . . . .	Billion . . .	23.5	24.3	23.6	24.5	25.1	25.0
Hours per worker . . . . .	1,000 . . .	1.9	2.0	2.0	2.1	2.0	2.1
Wages . . . . .	Bil. dol. . .	204.8	251.4	281.5	304.0	318.0	324.0
Percent of payroll for all employees . . . . .	Percent . . .	53.9	52.8	50.4	51.4	50.9	50.3
Wages per worker . . . . .	\$1,000 . . .	16.5	20.6	24.2	25.5	25.9	26.7
Wages per worker hour . . . . .	Dollar . . .	8.72	10.35	11.95	12.40	12.68	12.98
<b>Value added by manufacture</b> <sup>7</sup> . . . . .							
Per production worker . . . . .	Bil. dol. . .	824.1	1,165.7	1,425.2	1,598.0	1,711.4	1,749.7
Per production worker hour . . . . .	\$1,000 . . .	66.5	95.5	122.6	134.4	139.7	143.8
Per dollar of workers' wages . . . . .	Dollar . . .	35.06	47.97	60.56	65.39	68.26	69.96
Per dollar of workers' wages . . . . .	Dollar . . .	4.02	4.64	5.07	5.27	5.39	5.39
<b>Cost of materials</b> . . . . .							
Value of shipments <sup>8</sup> . . . . .	Bil. dol. . .	1,130	1,320	1,573	1,752	1,897	1,975
Per production worker . . . . .	Bil. dol. . .	1,960	2,476	3,005	3,340	3,594	3,715
Per production worker . . . . .	\$1,000 . . .	158.1	203.0	258.0	280.2	293.3	305.4
New-of-year inventories <sup>9</sup> . . . . .	Bil. dol. . .	307	333	374	397	421	427
New capital expenditures . . . . .	Bil. dol. . .	74.6	78.6	103.2	112.0	128.4	139.3
<b>Gross book value of depreciable assets</b> . . . . .							
Machinery and equipment . . . . .	Bil. dol. . .	692	868	1,128	(NA)	(NA)	(NA)
Assets per employee . . . . .	Bil. dol. . .	527	671	896	(NA)	(NA)	(NA)
Assets per employee . . . . .	\$1,000 . . .	36.2	48.6	66.6	(NA)	(NA)	(NA)
<b>Operation ratios:</b>							
Value added to shipments . . . . .	Ratio . . .	42.0	47.1	47.9	48.0	47.7	47.1
Inventories to shipments . . . . .	Ratio . . .	15.7	13.4	12.5	11.9	11.7	11.5
Payroll to value added . . . . .	Ratio . . .	46.1	40.8	34.7	37.2	36.5	36.9
<b>MULTIUNIT COMPANIES</b>							
Establishments . . . . .	1,000 . . .	81.7	80.9	81.0	(NA)	(NA)	(NA)
Employees . . . . .	Million . . .	14.3	13.8	13.1	(NA)	(NA)	(NA)
Production workers . . . . .	Million . . .	8.8	8.5	8.0	(NA)	(NA)	(NA)
Payroll . . . . .	Bil. dol. . .	307.5	377.3	436.0	(NA)	(NA)	(NA)
Wages, production workers . . . . .	Bil. dol. . .	159.1	191.8	211.2	(NA)	(NA)	(NA)
Value added by manufacture . . . . .	Bil. dol. . .	678.4	953.6	1,160	(NA)	(NA)	(NA)
New capital expenditures . . . . .	Bil. dol. . .	65.2	66.5	87.8	(NA)	(NA)	(NA)
<b>SINGLE UNIT COMPANIES</b>							
Establishments . . . . .	1,000 . . .	276.3	288.0	300.7	(NA)	(NA)	(NA)
Employees . . . . .	Million . . .	4.8	5.1	5.1	(NA)	(NA)	(NA)
Payroll . . . . .	Bil. dol. . .	72.1	98.3	123.1	(NA)	(NA)	(NA)
Value added by manufacture . . . . .	Bil. dol. . .	145.7	212.1	265.0	(NA)	(NA)	(NA)

NA Not available. <sup>1</sup> Estimated data based on *Annual Survey of Manufactures*; see text, Manufactures section. <sup>2</sup> Includes administrative and auxiliary units. <sup>3</sup> Excludes administrative offices and auxiliary units. <sup>4</sup> Includes forms of organization not shown separately. <sup>5</sup> Includes data for employees of manufacturing establishments engaged in distribution and construction work. <sup>6</sup> Data are based on pay periods ending nearest 15th of March, May, August, and November. <sup>7</sup> Adjusted value added; takes into account (a) value added by merchandising operations (that is, difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly), plus (b) net change in finished goods and work-in-process inventories between beginning and end of year. <sup>8</sup> Includes extensive and unmeasurable duplication from shipments between establishments in the same industry classification. <sup>9</sup> Includes plants under construction and not yet in operation.

Source: Except as noted, U.S. Bureau of the Census, *Census of Manufactures, 1982, 1987 and 1992*; and *Annual Survey of Manufactures*.

No. 1233. Manufactures—Summary, by Industry: 1992 and 1996

[Data based on various editions of the *Standard Industrial Classification (SIC) Manual*, published by the Office of Management and Budget; see text, Section 26. N.e.c.=Not elsewhere classified]

INDUSTRY	SIC code	1992					1996						
		All employees		Production workers (1,000)	Value added by manufacture (mil. dol.)	Value of shipments (mil. dol.)	All employees			Production workers (1,000)	Value added by manufacture		Value of shipments (mil. dol.)
		Number <sup>1</sup> (1,000)	Payroll (mil. dol.)				Number <sup>1</sup> (1,000)	Payroll			Total (mil. dol.)	Per production worker (dol.)	
							Total (mil. dol.)	Per employee (dol.)					
<b>All manufacturing establishments . . . . .</b>	<b>(X)</b>	<b>16,949</b>	<b>494,109</b>	<b>11,641</b>	<b>1,424,700</b>	<b>3,004,723</b>	<b>18,665.6</b>	<b>645,032</b>	<b>34,557</b>	<b>12,168.0</b>	<b>1,749,662</b>	<b>143,792</b>	<b>3,715,428</b>
<b>Food and kindred products . . . . .</b>	<b>20</b>	<b>1,503</b>	<b>36,772</b>	<b>1,100</b>	<b>157,260</b>	<b>406,963</b>	<b>1,516.6</b>	<b>40,380</b>	<b>26,625</b>	<b>1,112.6</b>	<b>178,783</b>	<b>160,689</b>	<b>461,324</b>
Meat products . . . . .	201	400	7,564	343	19,141	94,072	433.4	8,921	20,584	370.2	23,518	63,528	102,103
Dairy products . . . . .	202	135	3,720	85	15,258	52,720	130.9	4,018	30,695	82.8	15,724	189,903	58,123
Preserved fruits and vegetables . . . . .	203	216	4,825	179	23,644	47,806	204.4	5,131	25,103	169.4	24,506	144,664	51,708
Grain mill products . . . . .	204	107	3,375	74	21,000	49,957	100.3	3,425	34,148	70.1	21,667	309,087	58,473
Bakery products . . . . .	205	215	5,599	133	17,905	28,494	219.9	6,158	28,004	136.6	20,712	151,625	32,741
Sugar and confectionery products . . . . .	206	91	2,402	71	10,950	22,710	88.6	2,603	29,379	68.7	12,640	183,988	26,265
Fats and oils . . . . .	207	28	778	19	3,770	18,724	25.8	813	31,512	17.8	4,258	239,213	23,388
Beverages . . . . .	208	144	4,786	74	29,260	57,957	142.8	5,103	35,735	71.5	35,210	492,448	68,387
Miscellaneous foods and kindred products . . . . .	209	166	3,723	121	16,333	34,523	170.9	4,209	24,628	125.5	20,548	163,729	40,136
Tobacco products . . . . .	21	38	1,524	27	27,207	35,198	31.4	1,522	48,471	22.7	25,860	1,139,207	34,482
Cigarettes . . . . .	211	25	1,205	19	24,802	29,746	20.5	1,236	60,293	14.7	23,442	1,594,694	28,987
Cigars . . . . .	212	3	53	2	190	287	2.9	66	22,759	2.2	287	130,455	450
Chewing and smoking tobacco . . . . .	213	3	92	2	1,213	1,608	2.4	76	31,667	1.8	1,508	837,778	1,818
Tobacco stemming and redrying . . . . .	214	7	174	5	1,002	3,557	5.5	144	26,182	4.0	624	156,000	3,228
Textile mill products . . . . .	22	616	12,398	529	30,060	70,753	576.4	13,215	22,927	489.0	32,555	66,575	80,242
Broadwoven fabric mills, cotton . . . . .	221	56	1,147	50	2,504	5,811	51.9	1,216	23,430	46.7	2,471	52,912	6,699
Broadwoven fabric mills, manmade . . . . .	222	87	1,850	77	4,008	8,767	73.9	1,816	24,574	63.0	4,307	68,365	9,750
Broadwoven fabric mills, wool . . . . .	223	14	279	12	691	1,612	13.4	298	22,239	11.7	673	57,521	1,756
Narrow fabric mills . . . . .	224	17	323	14	706	1,274	16.7	370	22,156	13.4	817	60,970	1,524
Knitting mills . . . . .	225	195	3,400	170	8,052	16,985	169.3	3,405	20,112	147.1	8,986	61,088	19,517
Textile finishing, except wool . . . . .	226	51	1,143	41	2,786	7,089	51.0	1,307	25,627	41.1	3,145	76,521	7,271
Carpets and rugs . . . . .	227	49	1,088	39	3,480	9,828	55.0	1,368	24,873	43.8	4,076	93,059	11,184
Yarn and thread mills . . . . .	228	92	1,744	84	4,059	11,274	83.9	1,805	21,514	75.7	3,806	50,277	12,823
Miscellaneous textile goods . . . . .	229	55	1,423	42	3,775	8,113	61.3	1,630	26,591	46.6	4,276	91,760	9,720
Apparel and other textile products . . . . .	23	985	15,325	824	36,423	71,658	864.9	14,920	17,251	726.5	38,366	52,809	77,628
Men's and boys' suits and coats . . . . .	231	44	723	37	1,375	2,430	27.1	516	19,041	22.2	1,239	55,811	1,968
Men's and boys' furnishings . . . . .	232	261	3,649	228	9,864	17,867	199.7	3,094	15,493	177.6	9,423	53,057	18,507
Women's and misses' outerwear . . . . .	233	306	4,597	256	10,836	21,631	294.1	4,606	15,661	249.5	11,045	44,269	22,282
Women's and children's undergarments . . . . .	234	54	798	46	2,193	3,943	38.1	645	16,929	32.0	1,916	59,875	4,244

See footnotes at end of table.

No. 1233. Manufactures—Summary, by Industry: 1992 and 1996—Continued

[See headnote, page 739]

INDUSTRY	SIC code	1992					1996						
		All employees		Production workers (1,000)	Value added by manufacture (mil. dol.)	Value of shipments (mil. dol.)	All employees			Production workers (1,000)	Value added by manufacture		Value of shipments (mil. dol.)
		Number <sup>1</sup> (1,000)	Payroll (mil. dol.)				Number <sup>1</sup> (1,000)	Payroll			Total (mil. dol.)	Per production worker (dol.)	
		Total (mil. dol.)	Per employee (dol.)			Total (mil. dol.)	Per employee (dol.)						
<b>Apparel, other textile products—Con.</b>													
Hats, caps, and millinery . . . . .	235	19	280	16	572	976	17	307	17,953	14	599	41,888	977
Girls' and children's outerwear . . . . .	236	53	775	44	1,667	3,145	34	542	16,179	28	2,063	75,018	3,874
Fur goods . . . . .	237	1	21	1	68	172	1	14	17,500	1	34	68,000	104
Miscellaneous apparel and accessories . . . . .	238	37	566	30	1,260	2,378	31	554	18,105	25	1,445	58,980	2,738
Miscellaneous fabricated textile products . . . . .	239	211	3,918	169	8,586	19,118	224	4,641	20,737	179	10,603	59,401	22,934
Lumber and wood products . . . . .													
Logging . . . . .	24	656	13,882	540	33,154	81,565	739	17,314	23,438	613	41,486	67,699	106,518
Sawmills and planing mills . . . . .	241	83	1,689	69	5,017	13,592	83	1,856	22,361	68	5,775	84,553	15,411
Millwork, plywood, and structural members . . . . .	242	168	3,585	144	8,848	23,294	172	4,129	24,076	147	10,404	70,583	29,697
Wood containers . . . . .	243	224	5,005	181	10,844	24,744	257	6,233	24,225	209	13,274	63,451	31,798
Wood buildings and mobile homes . . . . .	244	40	645	33	1,321	2,942	51	893	17,544	43	1,909	44,707	4,059
Miscellaneous Wood Products . . . . .	245	56	1,234	44	2,531	6,645	82	2,077	25,391	68	4,606	68,237	11,889
Furniture and fixtures <sup>2</sup> . . . . .	249	84	1,725	69	4,593	10,348	94	2,125	22,558	78	5,518	70,925	13,664
Household furniture . . . . .	25	471	10,227	372	22,840	43,826	515	12,414	24,128	414	27,200	65,669	55,697
Office Furniture . . . . .	251	253	4,804	213	10,942	20,508	273	5,674	20,769	233	12,464	53,609	25,426
Public building and related furniture . . . . .	252	68	1,868	51	4,626	7,979	70	2,172	31,252	53	5,447	102,195	9,444
Partitions and fixtures . . . . .	253	30	732	23	1,736	4,483	37	1,031	27,567	29	2,290	78,694	7,366
Miscellaneous furniture and fixtures . . . . .	254	75	1,818	55	3,633	6,580	81	2,246	27,728	61	4,182	68,896	7,951
Paper and allied products . . . . .	259	45	1,005	31	2,353	4,276	54	1,290	24,112	39	2,818	72,817	5,510
Pulp mills . . . . .	26	626	20,492	479	60,174	133,201	631	22,947	36,389	488	72,290	148,287	160,661
Paper mills . . . . .	261	16	689	12	2,554	5,466	15	701	46,733	11	2,201	198,288	5,508
Paperboard mills . . . . .	262	131	5,421	100	14,848	32,786	116	5,599	48,101	90	18,848	208,726	39,566
Paperboard containers and boxes . . . . .	263	52	2,136	39	8,195	16,140	55	2,599	47,427	42	9,655	231,535	20,271
Miscellaneous converted paper products . . . . .	265	199	5,722	151	12,406	32,655	212	6,727	31,731	163	15,668	96,300	40,389
Printing and publishing . . . . .	267	229	6,524	176	22,171	46,154	232	7,321	31,502	182	25,918	142,720	54,927
Newspapers . . . . .	27	1,492	41,136	785	112,446	166,153	1,515	46,175	30,479	801	130,946	163,539	195,435
Periodicals . . . . .	271	414	10,437	134	26,920	33,782	403	11,199	27,768	136	30,692	226,342	39,171
Books . . . . .	272	115	4,077	20	15,880	22,104	121	4,665	38,714	16	17,982	1,096,463	24,930
Miscellaneous publishing . . . . .	273	130	4,037	57	14,325	21,378	136	4,675	34,451	57	17,857	313,281	26,696
Commercial printing . . . . .	274	65	1,720	24	8,473	10,908	69	2,049	29,782	25	9,699	381,850	12,511
Manifold business forms . . . . .	275	567	15,337	408	31,898	56,229	604	18,015	29,806	437	38,407	87,828	67,842
Greeting cards . . . . .	276	48	1,341	34	3,922	7,429	41	1,263	30,507	28	3,878	138,996	7,724
Blankbooks and bookbinding . . . . .	277	23	584	12	3,389	4,190	21	636	29,720	12	3,989	335,210	5,011
Printing trade services . . . . .	278	66	1,461	51	3,640	5,049	65	1,598	24,775	50	4,388	87,936	6,428
	279	65	2,142	46	3,999	5,086	55	2,074	37,778	39	4,055	103,444	5,123

See footnotes at end of table.

No. 1233. Manufactures—Summary, by Industry: 1992 and 1996—Continued

[See headnote, page 739]

INDUSTRY	SIC code	1992					1996						
		All employees		Production workers (1,000)	Value added by manufacture (mil. dol.)	Value of shipments (mil. dol.)	All employees			Production workers (1,000)	Value added by manufacture		Value of shipments (mil. dol.)
		Number <sup>1</sup> (1,000)	Payroll (mil. dol.)				Number <sup>1</sup> (1,000)	Payroll			Total (mil. dol.)	Per production worker (dol.)	
						Total (mil. dol.)	Per employee (dol.)						
<b>Chemicals and allied products . . . . .</b>	<b>28</b>	<b>849</b>	<b>32,502</b>	<b>479</b>	<b>164,346</b>	<b>305,420</b>	<b>824</b>	<b>36,331</b>	<b>44,086</b>	<b>477</b>	<b>194,412</b>	<b>407,743</b>	<b>367,442</b>
Industrial inorganic chemicals . . . . .	281	103	4,214	55	16,724	27,331	80	3,749	46,804	45	16,567	366,527	27,741
Plastics materials and synthetics . . . . .	282	129	5,137	86	20,979	48,698	115	5,086	44,188	79	25,025	315,574	59,567
Drugs . . . . .	283	194	7,840	93	48,602	67,792	213	9,891	46,393	106	59,813	562,152	86,533
Soap, cleaners, and toilet goods . . . . .	284	123	3,927	75	26,182	42,875	126	4,389	34,778	75	31,801	425,716	51,809
Paints and allied products . . . . .	285	51	1,710	26	7,154	14,973	51	1,940	37,965	28	8,497	304,552	18,257
Industrial organic chemicals . . . . .	286	125	5,495	72	26,132	64,397	126	6,765	53,733	75	28,886	386,693	75,672
Agricultural chemicals . . . . .	287	40	1,451	25	8,659	18,841	37	1,593	43,406	24	12,277	520,212	23,356
Miscellaneous chemical products . . . . .	289	84	2,727	48	9,915	20,512	76	2,919	38,408	45	11,547	256,031	24,508
<b>Petroleum and coal products . . . . .</b>	<b>29</b>	<b>114</b>	<b>4,967</b>	<b>74</b>	<b>23,408</b>	<b>150,227</b>	<b>106</b>	<b>5,238</b>	<b>49,415</b>	<b>69</b>	<b>31,656</b>	<b>458,119</b>	<b>174,285</b>
Petroleum refining . . . . .	291	75	3,640	48	18,607	136,551	67	3,738	55,625	43	26,006	599,217	158,068
Asphalt paving and roofing materials . . . . .	295	26	846	18	3,006	7,749	25	988	39,206	18	3,464	191,381	9,611
Miscellaneous petroleum and coal products . . . . .	299	14	481	7	1,796	5,927	14	512	37,647	8	2,187	287,763	6,605
<b>Rubber and misc. plastics products . . . . .</b>	<b>30</b>	<b>907</b>	<b>23,156</b>	<b>698</b>	<b>58,652</b>	<b>113,593</b>	<b>1,018</b>	<b>28,436</b>	<b>27,936</b>	<b>800</b>	<b>74,945</b>	<b>93,716</b>	<b>150,468</b>
Tires and inner tubes . . . . .	301	65	2,499	53	6,504	11,814	65	2,701	41,682	54	7,079	131,093	14,209
Rubber and plastics footwear . . . . .	302	14	216	11	464	868	8	165	20,122	7	442	65,970	936
Hose and belting and plastics and packing . . . . .	305	52	1,411	38	3,290	3,290	61	1,859	30,626	46	4,528	98,649	8,232
Fabricated rubber products, n.e.c . . . . .	306	105	2,617	79	6,024	11,474	122	3,137	25,819	95	7,275	76,418	14,468
Miscellaneous plastics products, n.e.c. . . . .	308	671	16,413	516	42,370	83,487	763	20,574	26,975	598	55,621	93,027	112,623
<b>Leather and leather products . . . . .</b>	<b>31</b>	<b>101</b>	<b>1,806</b>	<b>83</b>	<b>4,527</b>	<b>9,694</b>	<b>77</b>	<b>1,600</b>	<b>20,725</b>	<b>65</b>	<b>4,742</b>	<b>73,406</b>	<b>9,309</b>
Leather tanning and finishing . . . . .	311	17	420	13	891	2,905	15	393	26,554	12	1,313	105,887	3,134
Footwear cut stock . . . . .	313	4	63	3	149	317	3	58	21,481	2	162	77,143	326
Footwear, except rubber . . . . .	314	49	762	41	2,060	3,898	37	704	19,183	31	1,907	61,516	3,605
Leather gloves and mittens . . . . .	315	3	35	2	69	140	2	45	19,565	2	53	26,500	145
Luggage . . . . .	316	10	191	8	509	968	6	151	26,034	4	747	173,721	1,115
Handbags and personal leather goods . . . . .	317	11	202	9	470	861	8	139	16,951	7	328	49,697	580
Leather goods, n.e.c . . . . .	319	8	133	6	304	575	7	110	16,176	6	233	37,581	404

See footnotes at end of table.



No. 1233. Manufactures—Summary, by Industry: 1992 and 1996—Continued

[See headnote, page 739]

INDUSTRY	SIC code	1992					1996						
		All employees		Production workers (1,000)	Value added by manufacture (mil. dol.)	Value of shipments (mil. dol.)	All employees			Production workers (1,000)	Value added by manufacture		Value of shipments (mil. dol.)
		Number <sup>1</sup> (1,000)	Payroll (mil. dol.)				Number <sup>1</sup> (1,000)	Payroll	Per employee (dol.)		Total (mil. dol.)	Per production worker (dol.)	
<b>Stone, clay, and glass products . . . . .</b>	<b>32</b>	<b>469</b>	<b>13,113</b>	<b>357</b>	<b>34,641</b>	<b>62,521</b>	<b>520</b>	<b>15,857</b>	<b>30,471</b>	<b>402</b>	<b>46,055</b>	<b>114,479</b>	<b>82,441</b>
Flat glass . . . . .	321	12	451	10	1,311	2,073	12	524	45,565	9	1,717	184,624	2,671
Glass and glassware, pressed or blown . . . . .	322	66	2,075	56	5,900	9,033	60	2,029	34,101	51	6,532	127,082	10,057
Products of purchased glass . . . . .	323	55	1,369	42	3,757	6,904	64	1,771	27,890	50	4,850	97,782	9,060
Cement, hydraulic . . . . .	324	17	595	13	2,149	4,051	17	693	41,006	13	3,509	280,720	5,818
Structural clay products . . . . .	325	31	734	24	1,695	2,857	31	845	27,083	25	2,176	86,693	3,566
Pottery and related products . . . . .	326	37	863	29	1,995	2,817	45	1,149	25,647	36	2,696	74,066	3,830
Concrete, gypsum, and plaster products . . . . .	327	174	4,741	126	11,008	23,024	205	6,083	29,746	152	15,739	103,410	32,691
Cut stone and stone products . . . . .	328	12	282	9	604	1,007	17	412	24,094	13	999	76,846	1,512
Miscellaneous nonmetallic mineral products . . . . .	329	66	2,004	49	6,222	10,756	72	2,350	32,867	53	7,838	148,166	13,237
<b>Primary metal industries <sup>2</sup> . . . . .</b>	<b>33</b>	<b>662</b>	<b>22,202</b>	<b>508</b>	<b>52,027</b>	<b>138,287</b>	<b>687</b>	<b>25,644</b>	<b>37,306</b>	<b>543</b>	<b>69,539</b>	<b>128,088</b>	<b>178,298</b>
Blast furnace and basic steel products . . . . .	331	239	9,179	182	22,173	58,449	221	9,950	45,023	174	29,180	167,701	74,552
Iron and steel foundries . . . . .	332	122	3,739	99	6,873	11,860	128	4,373	34,111	106	9,061	85,240	15,937
Primary nonferrous metals . . . . .	333	35	1,334	27	3,391	13,905	35	1,408	40,344	26	4,200	159,091	15,424
Secondary nonferrous metals . . . . .	334	13	407	9	1,233	6,131	15	500	33,333	11	1,410	125,893	7,127
Nonferrous rolling and drawing . . . . .	335	147	4,635	109	12,335	37,101	162	5,627	34,670	123	16,670	135,971	48,820
Nonferrous foundries (castings) . . . . .	336	75	1,942	59	3,927	7,002	94	2,662	28,349	79	5,856	73,939	10,519
Miscellaneous primary metal products . . . . .	339	31	966	22	2,097	3,837	32	1,125	35,047	23	3,164	137,565	5,919
<b>Fabricated metal products . . . . .</b>	<b>34</b>	<b>1,362</b>	<b>38,962</b>	<b>994</b>	<b>83,761</b>	<b>166,532</b>	<b>1,483</b>	<b>46,130</b>	<b>31,106</b>	<b>1,114</b>	<b>107,990</b>	<b>96,904</b>	<b>214,006</b>
Metal cans and shipping containers . . . . .	341	40	1,465	33	3,736	13,263	33	1,369	41,485	27	3,999	148,111	13,454
Cutlery, handtools, and hardware . . . . .	342	134	3,648	99	9,044	15,448	140	4,220	30,164	107	11,750	109,506	20,197
Plumbing and heating, except electric . . . . .	343	42	1,152	29	3,105	5,825	45	1,246	27,566	32	4,412	139,620	7,836
Fabricated structural metal products . . . . .	344	389	10,362	275	21,256	44,876	432	12,555	29,042	315	27,974	88,863	59,388
Screw machine products, bolts, etc. . . . .	345	91	2,624	68	5,269	9,026	104	3,265	31,515	81	6,936	85,524	11,797
Metal forgings and stampings . . . . .	346	234	7,749	185	14,913	30,621	259	9,696	37,407	211	19,880	94,352	41,282
Metal services, n.e.c. . . . .	347	108	2,652	83	5,679	9,953	129	3,454	26,754	99	7,793	78,638	14,003
Ordnance and accessories, n.e.c. . . . .	348	62	2,124	35	4,536	6,855	40	1,466	36,377	24	3,528	146,390	5,222
Miscellaneous fabricated metal products . . . . .	349	263	7,185	186	16,224	30,667	300	8,858	29,497	219	21,718	99,350	40,828
<b>Industrial machinery and equipment . . . . .</b>	<b>35</b>	<b>1,739</b>	<b>57,231</b>	<b>1,086</b>	<b>132,923</b>	<b>258,661</b>	<b>1,981</b>	<b>70,730</b>	<b>35,713</b>	<b>1,287</b>	<b>187,218</b>	<b>145,469</b>	<b>381,794</b>
Engines and turbines . . . . .	351	83	3,135	52	7,738	17,549	79	3,186	40,534	55	10,513	192,899	23,554
Farm and garden machinery . . . . .	352	86	2,354	63	7,318	14,784	94	2,918	31,209	70	9,545	136,357	21,292
Construction and related machinery . . . . .	353	176	5,664	108	12,489	27,193	205	7,157	34,929	133	18,178	136,677	41,509
Metalworking machinery . . . . .	354	255	8,571	178	16,542	26,474	295	10,985	37,263	211	22,673	107,252	36,841
Special industry machinery . . . . .	355	162	5,515	91	11,667	21,522	192	7,311	38,019	110	19,221	174,895	35,751
General industrial machinery . . . . .	356	244	7,742	154	17,817	31,443	265	9,130	34,466	172	23,110	134,439	41,458
Computer and office equipment . . . . .	357	251	10,143	89	29,229	66,709	259	11,211	43,286	96	41,135	428,044	103,270
Refrigeration and service machinery . . . . .	358	179	5,264	125	13,597	27,544	201	6,493	32,384	147	17,521	119,029	39,197
Industrial machinery, n.e.c. . . . .	359	304	8,843	227	16,527	25,443	392	12,340	31,496	293	25,322	86,423	38,922

See footnotes at end of table.



No. 1233. Manufactures—Summary, by Industry: 1992 and 1996—Continued

[See headnote, page 739]

INDUSTRY	SIC code	1992					1996						
		All employees		Production workers (1,000)	Value added by manufacture (mil. dol.)	Value of shipments (mil. dol.)	All employees			Production workers (1,000)	Value added by manufacture		Value of shipments (mil. dol.)
		Number <sup>1</sup> (1,000)	Payroll (mil. dol.)				Number <sup>1</sup> (1,000)	Payroll			Total (mil. dol.)	Per production worker (dol.)	
							Total (mil. dol.)	Per employee (dol.)					
<b>Electronics; other electric equipment . . . . .</b>	<b>36</b>	<b>1,439</b>	<b>44,197</b>	<b>911</b>	<b>121,158</b>	<b>216,764</b>	<b>1,557</b>	<b>54,311</b>	<b>34,893</b>	<b>1,006</b>	<b>184,013</b>	<b>182,861</b>	<b>320,615</b>
Electric distribution equipment . . . . .	361	68	1,946	48	5,437	9,797	74	2,499	33,954	51	6,700	130,350	12,331
Electrical industrial apparatus . . . . .	362	157	4,387	106	10,850	19,266	171	5,373	31,366	120	14,278	119,182	26,926
Household appliances . . . . .	363	103	2,571	83	7,964	18,633	108	3,072	28,418	87	9,466	108,680	22,157
Electric lighting and wiring equipment . . . . .	364	148	3,974	107	11,307	19,844	157	4,617	29,370	117	13,428	114,769	24,562
Household audio and video equipment . . . . .	365	47	1,123	35	3,486	10,614	49	1,333	27,428	37	3,459	93,235	11,266
Communications equipment . . . . .	366	239	9,111	114	26,522	42,955	258	11,522	44,590	120	38,705	323,891	68,232
Electronic components and accessories . . . . .	367	530	16,752	317	44,305	73,642	588	20,830	35,431	368	84,059	228,359	127,996
Misc. electrical equipment and supplies . . . . .	369	147	4,332	100	11,287	22,013	151	5,067	33,490	106	13,920	130,827	27,146
<b>Transportation equipment . . . . .</b>	<b>37</b>	<b>1,647</b>	<b>62,735</b>	<b>1,080</b>	<b>158,326</b>	<b>399,269</b>	<b>1,467</b>	<b>63,532</b>	<b>43,310</b>	<b>1,032</b>	<b>176,598</b>	<b>171,089</b>	<b>465,172</b>
Motor vehicles and equipment . . . . .	371	703	26,213	565	80,935	238,384	772	32,867	42,574	634	105,899	167,139	329,155
Aircraft and parts . . . . .	372	548	22,647	281	47,661	104,858	377	18,733	49,729	190	45,220	237,500	83,394
Ship and boat building and repairing . . . . .	373	163	4,634	122	8,560	15,249	141	4,353	30,807	108	7,903	72,906	15,634
Railroad equipment . . . . .	374	28	900	21	2,015	4,714	31	1,141	37,288	23	2,590	114,097	7,067
Motorcycles, bicycles, and parts . . . . .	375	13	343	10	891	2,134	18	565	30,707	14	1,435	103,986	3,094
Guided missiles, space vehicles, parts . . . . .	376	146	6,780	50	15,246	26,508	81	4,632	57,185	29	9,986	346,736	17,928
Miscellaneous transportation equipment . . . . .	379	46	1,218	33	3,018	7,423	47	1,241	26,461	35	3,564	103,304	8,900
<b>Instruments and related products . . . . .</b>	<b>38</b>	<b>907</b>	<b>33,067</b>	<b>460</b>	<b>89,394</b>	<b>134,940</b>	<b>821</b>	<b>33,783</b>	<b>41,164</b>	<b>423</b>	<b>97,987</b>	<b>231,593</b>	<b>151,016</b>
Search and navigation equipment . . . . .	381	253	10,962	103	24,299	35,039	186	9,540	51,208	68	21,071	310,782	30,371
Measuring and controlling devices . . . . .	382	276	9,632	138	21,775	34,730	272	10,562	38,817	141	29,028	205,435	46,741
Medical instruments and supplies . . . . .	384	264	8,522	154	26,082	39,535	268	9,957	37,098	157	31,051	197,777	47,406
Ophthalmic goods . . . . .	385	29	714	20	1,938	2,675	27	757	28,037	17	2,390	140,588	3,417
Photographic equipment and supplies . . . . .	386	77	3,061	39	14,862	22,119	61	2,798	46,096	36	14,032	393,053	22,297
Watches, clocks, watchcases and parts . . . . .	387	8	177	6	438	843	6	169	26,825	4	415	96,512	785
<b>Misc. manufacturing industries . . . . .</b>	<b>39</b>	<b>366</b>	<b>8,417</b>	<b>255</b>	<b>21,975</b>	<b>39,498</b>	<b>397</b>	<b>10,042</b>	<b>25,276</b>	<b>283</b>	<b>27,021</b>	<b>95,346</b>	<b>48,597</b>
Jewelry, silverware, and plated ware . . . . .	391	46	1,068	32	2,501	5,731	43	1,070	24,711	30	2,761	92,651	6,360
Musical instruments . . . . .	393	12	273	9	589	982	13	328	25,426	10	685	66,505	1,173
Toys and sporting goods . . . . .	394	98	2,133	71	6,816	12,123	103	2,489	24,189	76	8,327	109,422	14,748
Pens, pencils, office, and art supplies . . . . .	395	30	684	21	2,030	3,515	35	838	24,220	26	2,643	102,442	4,351
Costume jewelry and notions . . . . .	396	27	557	19	1,366	2,316	24	560	23,045	19	1,406	75,187	2,389
Miscellaneous manufactures . . . . .	399	153	3,702	103	8,674	14,832	179	4,757	26,531	123	11,199	91,271	19,575

X Not applicable. <sup>1</sup> Represents the average of production workers plus all other employees for the payroll period ended nearest the 15th of March. <sup>2</sup> Includes other industries not shown separately.

Source: U.S. Bureau of the Census, 1992 Census of Manufactures and Annual Survey of Manufactures.

No. 1234. Manufactures—Summary, by Selected Industry Based on Value Added: 1992 and 1996

[Data based on various editions of the *Standard Industrial Classification (SIC) Manual*, published by the Office of Management and Budget; see text, Section 26. N.e.c.=Not elsewhere classified]

INDUSTRY	SIC code	1992					1996						
		All employees		Production workers (1,000)	Value added by manufacture (mil. dol.)	Value of shipments (mil. dol.)	All employees			Production workers (1,000)	Value added by manufacture		Value of shipments (mil. dol.)
		Number <sup>1</sup> (1,000)	Payroll (mil. dol.)				Number <sup>1</sup> (1,000)	Payroll			Total (mil. dol.)	Per production worker (dol.)	
Total (mil. dol.)	Per employee (dol.)	Total (mil. dol.)	Per employee (dol.)	Total (mil. dol.)	Per employee (dol.)	Total (mil. dol.)	Per employee (dol.)						
Meat packing plants . . . . .	2011	121.2	2,441	105.0	6,958	50,167	130.0	2,991	23,008	110.7	8,278	74,778	51,089
Sausages and other prepared meats . . . . .	2013	85.4	2,023	65.6	5,480	19,940	88.1	2,175	24,688	69.5	5,954	85,669	20,854
Poultry slaughtering and processing . . . . .	2015	193.8	3,100	172.8	6,703	23,965	215.3	3,755	17,441	190.0	9,285	48,868	30,160
Fluid milk . . . . .	2026	63.4	1,840	32.5	5,965	21,926	59.3	1,910	32,209	30.0	6,300	210,000	23,455
Canned fruits and vegetables . . . . .	2033	63.6	1,465	53.2	6,976	15,071	56.4	1,481	26,259	46.4	6,215	133,944	14,894
Frozen specialties, n.e.c. . . . .	2038	46.7	972	38.3	4,076	7,886	42.9	975	22,727	35.9	5,027	140,027	9,404
Cereal breakfast foods . . . . .	2043	16.1	745	13.1	7,259	9,737	13.8	717	51,957	11.2	6,470	577,679	9,105
Bread, cake, and related products . . . . .	2051	154.9	4,059	88.1	11,453	18,130	156.3	4,330	27,703	86.0	12,760	148,372	19,859
Cookies and crackers . . . . .	2052	47.0	1,247	35.0	5,513	8,668	47.4	1,386	29,241	37.2	6,598	177,366	10,347
Candy and other confectionery products . . . . .	2064	51.5	1,261	41.0	6,347	10,202	53.1	1,433	26,987	41.9	7,740	184,726	12,453
Malt beverages . . . . .	2082	34.5	1,567	25.1	10,189	17,340	34.0	1,538	45,235	24.6	11,139	452,805	18,220
Bottled and canned soft drinks . . . . .	2086	77.1	2,163	30.5	9,592	25,423	73.5	2,286	31,102	28.1	12,867	457,900	32,024
Flavoring extracts and syrups, n.e.c. . . . .	2087	10.3	342	5.8	5,275	6,923	10.5	409	38,952	5.6	6,172	1,102,143	8,068
Food preparations, n.e.c. . . . .	2099	61.4	1,413	43.7	5,881	12,165	69.5	1,682	24,191	49.8	7,617	152,952	14,971
Cigarettes . . . . .	2111	25.4	1,205	18.1	24,802	29,746	20.5	1,236	60,293	14.7	23,442	1,594,694	28,987
Logging . . . . .	2411	83.2	1,689	69.2	5,017	13,592	83.0	1,856	22,361	68.3	5,775	84,553	15,411
Sawmills and planing mills, general . . . . .	2421	137.6	3,040	117.7	7,755	21,061	138.0	3,465	25,109	117.9	9,035	76,633	26,740
Wood household furniture . . . . .	2511	121.1	2,174	105.2	4,726	8,730	125.4	2,467	19,673	108.8	5,356	49,228	10,517
Paper mills . . . . .	2621	100.4	5,421	100.4	14,848	32,786	116.4	5,598	48,093	90.3	18,848	208,726	39,566
Paperboard mills . . . . .	2631	51.5	2,136	39.4	8,195	16,140	54.8	2,599	47,427	41.7	9,655	231,535	20,271
Corrugated and solid fiber boxes . . . . .	2653	112.3	3,276	81.4	6,760	19,834	127.4	4,060	31,868	94.7	9,360	98,838	25,914
Sanitary paper products . . . . .	2676	40.6	1,454	32.8	8,226	15,647	36.0	1,464	40,667	29.9	9,097	304,247	17,304
Newspapers . . . . .	2711	413.9	10,437	133.8	26,920	33,782	403.3	11,199	27,768	135.6	30,692	226,342	39,171
Periodicals . . . . .	2721	115.1	4,077	20.2	15,880	22,104	120.5	4,665	38,714	16.4	17,982	1,096,463	24,930
Book publishing . . . . .	2731	79.0	2,676	18.2	11,494	16,698	85.4	3,128	36,628	18.5	14,792	799,568	21,363
Miscellaneous publishing . . . . .	2741	65.1	1,720	23.5	8,473	10,908	68.8	2,049	29,782	25.4	9,699	381,850	12,511
Commercial printing, lithographic . . . . .	2752	438.2	12,016	316.2	24,704	43,352	448.9	13,592	30,278	326.3	28,797	88,253	50,614
Commercial printing, n.e.c. . . . .	2759	107.4	2,588	74.2	5,484	9,265	133.4	3,691	27,669	92.1	7,765	84,311	13,415
Manufacture of business forms . . . . .	2761	47.9	1,341	33.7	3,922	7,429	41.4	1,263	30,507	27.9	3,878	138,996	7,724
Industrial inorganic chemicals, n.e.c. . . . .	2819	78.9	3,266	39.7	11,212	18,129	57.0	2,745	48,158	31.0	10,515	339,194	17,862
Plastics materials and resins . . . . .	2821	61.2	2,698	36.5	12,599	31,601	58.6	2,864	48,873	36.3	15,310	421,763	40,097
Organic fibers, noncellulosic . . . . .	2824	44.4	1,545	33.9	5,661	11,113	38.5	1,452	37,714	30.3	6,748	222,706	12,912
Pharmaceutical preparations . . . . .	2834	122.9	4,958	62.4	37,224	50,415	136.9	6,197	45,267	72.3	43,410	600,415	61,554
Soap and other detergents . . . . .	2841	32.8	1,171	19.9	7,709	14,729	30.3	1,173	38,713	16.8	9,022	537,024	15,779
Polishes and sanitation goods . . . . .	2842	22.0	662	13.4	4,219	6,659	24.2	737	30,455	14.2	5,425	382,042	8,602
Toilet preparations . . . . .	2844	59.8	1,774	37.0	13,084	18,629	62.9	2,079	33,052	39.1	15,155	387,596	22,688
Paints and allied products . . . . .	2851	51.1	1,710	25.7	7,154	14,973	51.1	1,940	37,965	27.9	8,497	304,552	18,257
Industrial organic chemicals, n.e.c. . . . .	2869	99.8	4,494	57.2	22,423	54,103	100.3	5,590	55,733	59.3	23,721	400,017	62,739
Agricultural chemicals, n.e.c. . . . .	2879	16.8	669	9.6	5,514	9,142	13.8	670	48,551	7.8	7,000	897,436	10,903
Chemical preparations, n.e.c. . . . .	2899	37.1	1,233	21.4	5,048	9,927	35.1	1,389	39,573	19.3	5,937	307,617	11,872

See footnotes at end of table.

INDUSTRY	SIC code	1992					1996						
		All employees		Production workers (1,000)	Value added by manufacture (mil. dol.)	Value of shipments (mil. dol.)	All employees			Production workers (1,000)	Value added by manufacture		Value of shipments (mil. dol.)
		Number <sup>1</sup> (1,000)	Payroll (mil. dol.)				Number <sup>1</sup> (1,000)	Payroll			Total (mil. dol.)	Per production worker (dol.)	
Total (mil. dol.)	Per employee (dol.)	Total (mil. dol.)	Per employee (dol.)	Total (mil. dol.)	Per employee (dol.)								
Petroleum refining . . . . .	2911	74.9	3,640	47.9	18,607	136,551	67.2	3,738	55,625	43.4	26,006	599,217	158,068
Tires and inner tubes . . . . .	3011	64.6	2,499	52.8	6,504	11,814	64.8	2,701	41,682	54.0	7,079	131,093	14,209
Unsupported plastics film and sheet . . . . .	3081	54.7	1,680	39.0	5,268	10,619	59.5	1,979	33,261	43.4	6,893	158,825	14,399
Plastics products, n.e.c. . . . .	3089	427.8	9,998	332.4	24,398	45,376	500.5	12,901	25,776	395.2	32,282	81,685	61,096
Ready-mixed concrete . . . . .	3273	82.4	2,293	61.0	5,346	12,015	94.5	2,926	30,963	73.9	7,296	88,728	16,225
Blast furnaces and steel mills . . . . .	3312	170.1	7,022	131.0	16,541	42,154	149.2	7,452	49,946	117.7	22,112	187,867	54,511
Nonferrous wiredrawing and insulating . . . . .	3357	60.6	1,724	44.8	4,841	13,044	69.2	2,175	31,431	51.2	6,629	129,473	17,533
Hardware, n.e.c. . . . .	3429	75.4	2,063	56.3	4,824	8,806	76.0	2,278	29,974	58.7	5,935	101,107	11,049
Fabricated structural metal . . . . .	3441	72.0	1,964	50.8	3,947	8,919	75.5	2,300	30,464	55.7	5,159	92,621	11,744
Fabricated plate work (boiler shops) . . . . .	3443	78.4	2,312	55.4	4,789	8,975	88.0	2,703	30,716	64.5	5,737	88,946	11,269
Sheet metal work . . . . .	3444	103.9	2,834	75.3	5,715	11,299	119.1	3,536	29,689	88.2	7,513	85,181	14,784
Automotive stampings . . . . .	3465	105.1	4,094	87.0	7,231	15,803	119.5	5,124	42,879	100.5	10,057	100,070	21,692
Metal stampings, n.e.c. . . . .	3469	91.8	2,470	70.0	5,100	9,559	101.1	3,162	31,276	79.8	6,771	84,850	13,096
Internal combustion engines, n.e.c. . . . .	3519	55.5	2,029	37.0	4,786	11,707	56.9	2,237	39,315	41.2	7,345	178,277	17,286
Farm machinery and equipment . . . . .	3523	61.5	1,786	42.6	5,167	9,620	66.6	2,216	33,273	48.5	7,176	147,959	14,469
Construction machinery . . . . .	3531	74.6	2,458	47.8	5,683	13,139	88.7	3,112	35,085	61.1	8,941	146,334	21,627
Special dies, tools, jigs, and fixtures . . . . .	3544	110.8	3,883	84.9	6,617	9,265	133.3	5,099	38,252	104.0	9,094	87,442	12,949
Special industry machinery, n.e.c. . . . .	3559	83.3	2,947	44.7	6,331	11,479	103.5	4,126	39,865	59.0	12,460	211,186	22,661
Electronic computers . . . . .	3571	110.6	4,849	31.1	16,129	38,202	101.8	4,500	44,204	31.0	23,153	746,871	59,414
Refrigeration and heating equipment . . . . .	3585	120.7	3,594	89.0	9,450	19,739	134.9	4,480	33,210	104.0	12,287	118,144	28,094
Industrial machinery, n.e.c. . . . .	3599	248.9	7,040	189.1	12,882	19,117	335.3	10,277	30,650	253.0	20,854	82,427	30,751
Motors and generators . . . . .	3621	67.9	1,762	51.9	4,328	8,168	75.2	2,129	28,311	59.9	5,513	92,037	11,477
Relays and industrial controls . . . . .	3625	62.5	1,864	36.0	4,686	7,741	66.2	2,325	35,121	38.6	6,247	161,839	10,862
Telephone and telegraph apparatus . . . . .	3661	91.1	3,739	44.8	12,475	20,510	93.6	4,469	47,746	38.1	18,820	493,963	31,727
Radio and TV communications equip. . . . .	3663	124.9	4,721	58.6	12,279	19,521	140.0	6,202	44,300	68.9	17,219	249,913	32,080
Semiconductors and related devices . . . . .	3674	172.0	6,884	84.8	22,343	32,191	189.6	9,042	47,690	96.2	56,311	585,353	71,413
Electronic components, n.e.c. . . . .	3679	180.2	5,119	107.8	11,818	23,670	205.8	6,265	30,442	129.2	14,125	109,327	32,969
Motor vehicles and car bodies . . . . .	3711	227.8	10,434	192.8	45,983	151,682	225.2	12,310	54,663	196.3	55,369	282,063	200,704
Motor vehicle parts and accessories . . . . .	3714	400.0	13,955	313.4	31,074	75,058	459.9	18,171	39,511	368.3	44,210	120,038	110,992
Aircraft . . . . .	3721	264.6	11,493	122.0	23,107	62,940	188.3	9,839	52,252	84.5	25,137	297,479	47,313
Aircraft engines and engine parts . . . . .	3724	120.4	4,966	66.5	11,726	22,408	75.1	3,640	48,469	41.4	9,037	218,285	18,769
Aircraft parts and equipment, n.e.c. . . . .	3728	163.1	6,187	92.0	12,827	19,511	113.4	5,253	46,323	64.5	11,047	171,271	17,312
Ship building and repairing . . . . .	3731	118.2	3,631	87.0	6,538	10,601	92.1	3,175	34,473	68.4	5,447	79,635	9,811
Guided missiles and space vehicles . . . . .	3761	97.7	4,637	30.1	10,939	19,423	55.7	3,323	59,659	18.6	7,470	401,613	13,777
Search and navigation equipment . . . . .	3812	253.0	10,962	103.1	24,299	35,039	186.3	9,540	51,208	67.8	21,071	310,782	30,371
Instruments to measure electricity . . . . .	3825	68.5	2,544	32.2	5,685	8,826	63.2	2,720	43,038	33.0	8,613	261,000	13,371
Surgical and medical instruments . . . . .	3841	98.2	3,099	58.5	9,400	13,396	103.5	3,769	36,415	61.8	12,075	195,388	17,042
Surgical appliances and supplies . . . . .	3842	96.4	2,846	61.6	8,901	13,801	93.1	2,980	32,009	59.7	10,247	171,642	15,874
Photographic equipment and supplies . . . . .	3861	77.3	3,061	39.2	14,862	22,119	60.7	2,798	46,096	35.7	14,032	393,053	22,297

<sup>1</sup> Represents the average of production workers plus all other employees for the payroll period ended nearest the 15th of the month.

Source: U.S. Bureau of the Census, 1992 Census of Manufactures and Annual Survey of Manufactures.

## No. 1235. Manufactures Summary: 1996

[Sum of state totals may not add to U.S. total because U.S. and state figures were independently derived]

STATE	ALL EMPLOYEES <sup>1</sup>			PRODUCTION WORKERS <sup>1</sup>		VALUE ADDED BY MANUFACTURES <sup>2</sup>		Value of shipments <sup>3</sup> (mil. dol.)
	Number (1,000)	Payroll		Total (1,000)	Wages (mil. dol.)	Total (mil. dol.)	Per production worker (dol.)	
		Total (mil. dol.)	Per employee (dol.)					
<b>United States . . . . .</b>	<b>18,667</b>	<b>645,140</b>	<b>34,561</b>	<b>12,169</b>	<b>324,612</b>	<b>1,750,493</b>	<b>143,847</b>	<b>3,719,743</b>
Alabama . . . . .	383	10,587	27,679	285	6,675	27,451	96,422	66,257
Alaska . . . . .	16	488	30,873	12	339	1,470	124,568	3,939
Arizona . . . . .	208	7,191	34,554	120	2,857	22,850	189,782	36,961
Arkansas . . . . .	239	5,829	24,410	188	4,036	18,512	98,414	44,310
California . . . . .	1,938	71,164	36,724	1,162	29,028	188,805	162,427	368,329
Colorado . . . . .	196	6,792	34,686	118	3,122	19,215	162,704	39,191
Connecticut . . . . .	299	12,785	42,802	153	4,699	24,772	161,484	44,369
Delaware . . . . .	60	2,840	47,178	27	784	5,791	212,890	13,601
District of Columbia . . . . .	13	630	49,180	3	97	1,512	504,133	1,975
Florida . . . . .	486	14,853	30,554	297	6,553	38,621	130,170	76,387
Georgia . . . . .	585	17,593	30,100	411	9,634	51,753	125,797	115,898
Hawaii . . . . .	17	509	29,789	10	251	1,609	159,257	3,146
Idaho . . . . .	74	2,383	32,152	53	1,312	7,977	149,944	18,315
Illinois . . . . .	996	36,986	37,124	625	17,625	92,011	147,171	196,845
Indiana . . . . .	660	22,976	34,812	477	14,290	61,896	129,678	133,787
Iowa . . . . .	250	7,839	31,307	177	4,725	27,021	153,092	61,981
Kansas . . . . .	209	6,902	32,994	145	4,006	18,820	129,970	46,152
Kentucky . . . . .	296	9,162	30,933	216	5,752	35,040	162,524	82,531
Louisiana . . . . .	175	6,037	34,439	123	3,706	25,125	203,606	75,961
Maine . . . . .	89	2,674	30,175	66	1,760	6,675	100,988	14,445
Maryland . . . . .	192	6,968	36,309	112	3,226	17,455	155,707	35,700
Massachusetts . . . . .	475	19,026	40,071	264	7,723	44,047	166,655	79,254
Michigan . . . . .	967	41,782	43,230	629	22,643	85,688	136,186	205,744
Minnesota . . . . .	432	15,590	36,071	256	6,886	34,716	135,399	73,273
Mississippi . . . . .	239	5,654	23,666	190	3,838	17,295	91,024	39,564
Missouri . . . . .	415	13,572	32,712	263	6,743	40,208	152,650	85,222
Montana . . . . .	22	588	26,584	15	376	1,707	111,582	4,930
Nebraska . . . . .	110	3,086	28,033	80	1,916	9,218	115,229	25,023
Nevada . . . . .	41	1,195	29,299	27	627	3,275	120,408	6,194
New Hampshire . . . . .	107	3,576	33,293	71	1,848	10,815	152,969	19,348
New Jersey . . . . .	540	22,919	42,419	279	7,905	49,995	179,257	96,001
New Mexico . . . . .	43	1,304	30,053	28	651	11,745	427,087	16,364
New York . . . . .	950	35,641	37,533	555	14,541	90,665	163,448	163,697
North Carolina . . . . .	856	23,796	27,815	628	13,879	76,475	121,814	155,911
North Dakota . . . . .	22	570	25,796	15	340	1,808	117,390	4,794
Ohio . . . . .	1,074	39,790	37,065	720	22,618	105,497	146,462	232,721
Oklahoma . . . . .	167	4,859	29,098	119	2,963	15,875	133,856	35,220
Oregon . . . . .	232	7,869	33,859	157	4,317	21,838	138,917	45,022
Pennsylvania . . . . .	918	31,978	34,849	590	16,026	82,922	140,594	165,889
Rhode Island . . . . .	83	2,565	30,870	55	1,261	5,407	97,779	9,959
South Carolina . . . . .	366	10,658	29,112	272	6,557	30,769	113,162	66,794
South Dakota . . . . .	46	1,220	26,746	32	651	3,974	125,753	10,488
Tennessee . . . . .	533	15,394	28,877	397	9,449	42,288	106,411	95,851
Texas . . . . .	1,055	36,008	34,131	665	17,032	116,631	175,464	284,151
Utah . . . . .	119	3,511	29,576	79	1,924	11,239	141,731	22,010
Vermont . . . . .	48	1,483	30,969	33	788	3,986	122,652	8,554
Virginia . . . . .	399	12,555	31,474	284	7,100	42,519	149,926	80,795
Washington . . . . .	342	13,197	38,610	207	6,429	31,929	154,169	71,874
West Virginia . . . . .	76	2,521	33,083	55	1,607	8,965	163,885	17,679
Wisconsin . . . . .	601	19,779	32,910	416	11,324	53,619	128,984	114,464
Wyoming . . . . .	10	268	27,608	7	175	999	140,746	2,874

<sup>1</sup> Includes employment and payroll at administrative offices and auxiliary units. All employees represents the average of production workers plus all other employees for the payroll period ended nearest the 12th of March. Production workers represents the average of the employment for the payroll periods ended nearest the 12th of March, May, August, and November. <sup>2</sup> Adjusted value added; takes into account (a) value added by merchandising operations (that is, difference between the sales value and cost of merchandise sold without further manufacture, processing, or assembly), plus (b) net change in finished goods and work-in-process inventories between beginning and end of year. <sup>3</sup> Includes extensive and unmeasurable duplication from shipments between establishments in the same industry classification.

Source: U.S. Bureau of the Census, *Annual Survey of Manufactures, Geographic Area Statistics*, Series M96(AS)-3.

### No. 1236. Average Hourly Earnings of Production Workers in Manufacturing Industries, by State: 1980 to 1997

[In dollars]

STATE	1980	1990	1995	1996	1997	STATE	1980	1990	1995	1996	1997
<b>United States</b> . . .	<b>7.27</b>	<b>10.83</b>	<b>12.37</b>	<b>12.78</b>	<b>13.17</b>	Missouri . . . . .	7.26	10.74	12.17	12.57	12.99
Alabama . . . . .	6.49	9.39	11.14	11.55	11.85	Montana . . . . .	8.78	11.51	12.94	13.00	13.28
Alaska . . . . .	10.22	12.46	11.00	11.14	11.78	Nebraska . . . . .	7.38	9.66	11.19	11.51	12.09
Arizona . . . . .	7.29	10.21	11.16	11.49	11.68	Nevada . . . . .	7.72	11.05	12.62	13.59	14.15
Arkansas . . . . .	5.71	8.51	10.05	10.41	10.78	New Hampshire . . . . .	5.87	10.83	11.94	12.23	12.54
California . . . . .	7.70	11.48	12.55	12.84	13.22	New Jersey . . . . .	7.31	11.76	13.56	13.85	14.21
Colorado . . . . .	7.63	10.94	12.51	12.83	13.33	New Mexico . . . . .	5.79	9.04	10.68	10.99	11.74
Connecticut . . . . .	7.08	11.53	13.71	14.01	14.45	New York . . . . .	7.18	11.11	12.50	12.78	13.19
Delaware . . . . .	7.58	12.39	14.20	14.02	14.81	North Carolina . . . . .	5.37	8.79	10.56	10.97	11.41
District of Columbia <sup>1</sup> . . . . .	8.46	12.51	13.66	13.68	14.05	North Dakota . . . . .	6.56	9.27	10.75	10.95	11.31
Florida . . . . .	5.98	8.98	10.18	10.55	10.95	Ohio . . . . .	8.57	12.64	14.42	14.70	15.30
Georgia . . . . .	5.77	9.17	10.71	11.19	11.64	Oklahoma . . . . .	7.36	10.73	11.52	11.78	12.36
Hawaii . . . . .	6.83	10.99	12.82	12.79	13.08	Oregon . . . . .	8.65	11.15	12.75	13.01	13.38
Idaho . . . . .	7.55	10.60	11.46	12.15	12.46	Pennsylvania . . . . .	7.59	11.04	12.81	13.40	13.78
Illinois . . . . .	8.02	11.44	12.64	13.03	13.35	Rhode Island . . . . .	5.59	9.45	10.62	10.95	11.31
Indiana . . . . .	8.49	12.03	13.91	14.33	14.80	South Carolina . . . . .	5.59	8.84	10.16	10.25	10.34
Iowa . . . . .	8.67	11.27	12.73	13.13	13.57	South Dakota . . . . .	6.50	8.48	9.36	9.59	9.96
Kansas . . . . .	7.37	10.94	12.39	12.88	13.46	Tennessee . . . . .	6.08	9.55	10.78	11.30	11.71
Kentucky . . . . .	7.34	10.70	12.22	12.70	13.17	Texas . . . . .	7.15	10.47	11.47	11.81	12.03
Louisiana . . . . .	7.74	11.61	13.43	13.65	14.16	Utah . . . . .	7.02	10.32	11.62	12.21	12.85
Maine . . . . .	6.00	10.59	12.39	12.71	13.10	Vermont . . . . .	6.14	10.52	12.21	12.42	12.70
Maryland . . . . .	7.61	11.57	13.49	13.73	14.14	Virginia . . . . .	6.22	10.07	11.72	12.19	12.51
Massachusetts . . . . .	6.51	11.39	12.79	13.05	13.42	Washington . . . . .	(NA)	12.61	14.73	14.73	15.16
Michigan . . . . .	9.52	13.86	16.31	16.67	17.17	West Virginia . . . . .	8.08	11.53	12.64	12.96	13.18
Minnesota . . . . .	7.61	11.23	12.79	13.16	13.62	Wisconsin . . . . .	8.03	11.11	12.76	13.14	13.66
Mississippi . . . . .	5.44	8.37	9.76	10.18	10.41	Wyoming . . . . .	7.01	10.83	11.96	13.17	14.56

NA Not available. <sup>1</sup> Washington PMSA (Primary Metropolitan Statistical Area).

Source: U.S. Bureau of Labor Statistics, *Employment and Earnings*, May 1998 issue and earlier issues.

### No. 1237. Manufacturers' Shipments, Inventories, and Orders: 1970 to 1997

[In billions of dollars, except ratio]

YEAR	Shipments	Inventories (Dec. 31) <sup>1</sup>	Ratio of inventories to shipments <sup>2</sup>	New orders	Unfilled orders (Dec. 31)	YEAR	Shipments	Inventories (Dec. 31) <sup>1</sup>	Ratio of inventories to shipments <sup>2</sup>	New orders	Unfilled orders (Dec. 31)
1970 . . . . .	634	101	1.91	625	106	1984 . . . . .	2,288	334	1.75	2,315	370
1971 . . . . .	671	102	1.76	672	107	1985 . . . . .	2,334	330	1.72	2,348	384
1972 . . . . .	756	108	1.58	770	120	1986 . . . . .	2,336	318	1.63	2,342	390
1973 . . . . .	875	124	1.63	913	158	1987 . . . . .	2,476	333	1.58	2,513	427
1974 . . . . .	1,018	158	1.86	1,047	187	1988 . . . . .	2,695	363	1.56	2,739	471
						1989 . . . . .	2,840	385	1.65	2,875	505
1975 . . . . .	1,039	160	1.77	1,023	171	1990 . . . . .	2,912	398	1.70	2,934	527
1976 . . . . .	1,186	175	1.66	1,194	180	1991 . . . . .	2,878	384	1.65	2,866	515
1977 . . . . .	1,358	188	1.58	1,381	202	1992 . . . . .	3,005	375	1.47	2,979	489
1978 . . . . .	1,523	209	1.55	1,580	259	1993 . . . . .	3,128	376	1.44	3,092	453
1979 . . . . .	1,727	239	1.61	1,771	303	1994 . . . . .	3,348	396	1.38	3,357	462
1980 . . . . .	1,853	262	1.61	1,876	326	1995 . . . . .	3,595	421	1.42	3,608	475
1981 . . . . .	2,018	280	1.74	2,015	323	1996 . . . . .	3,715	427	1.39	3,749	509
1982 . . . . .	1,960	307	1.97	1,946	309	1997 . . . . .	3,929	446	1.36	3,952	532
1983 . . . . .	2,071	308	1.67	2,105	343						

<sup>1</sup> Beginning in 1982, inventories are stated at current cost and are not comparable to the book value estimates for prior years. <sup>2</sup> Ratio based on December seasonally adjusted data.

Source: U.S. Bureau of the Census, Current Industrial Reports, *Manufacturers' Shipments, Inventories, and Orders: 1987-1997*, Series M3-1(97); and earlier reports.

No. 1238. Value of Manufactures Shipments, Inventories, and New Orders, by Industry: 1993 to 1997

INDUSTRY	SIC code	SHIPMENTS					INVENTORIES (Dec. 31)					NEW ORDERS				
		1993	1994	1995	1996	1997	1993	1994	1995	1996	1997	1993	1994	1995	1996	1997
<b>All manufacturing industries</b> . . . . .	<b>(X)</b>	<b>3,127,625</b>	<b>3,348,019</b>	<b>3,594,663</b>	<b>3,715,460</b>	<b>3,929,419</b>	<b>375,982</b>	<b>395,974</b>	<b>421,285</b>	<b>427,130</b>	<b>446,131</b>	<b>3,092,381</b>	<b>3,356,797</b>	<b>3,607,586</b>	<b>3,749,299</b>	<b>3,952,025</b>
Durable goods . . . . .	(X)	1,630,635	1,789,576	1,927,029	2,004,159	2,158,699	233,306	247,001	261,138	266,547	278,766	1,596,974	1,794,508	1,941,378	2,036,536	2,180,708
Stone, clay, and glass products . . . . .	32	65,610	71,230	75,932	82,442	90,221	7,443	7,688	8,359	8,679	8,832	65,945	71,562	76,085	82,142	89,893
Primary metals . . . . .	33	142,685	161,188	180,314	178,297	188,916	20,093	22,555	24,052	24,385	24,785	144,018	167,685	178,702	180,362	193,987
Fabricated metal products . . . . .	34	175,118	190,544	204,384	214,007	226,120	23,402	25,127	26,507	27,384	29,046	172,121	191,099	205,388	215,791	228,567
Industrial machinery and equipment . . . . .	35	278,063	313,047	353,338	381,795	408,860	47,092	51,189	57,108	55,912	58,164	277,416	325,788	358,910	383,749	409,215
Computer and office equipment . . . . .	357	69,249	78,230	91,343	103,270	111,334	10,473	10,640	12,630	10,277	9,869	68,497	81,595	91,045	103,689	108,986
Electronic and other . . . . .	36	233,622	266,405	301,447	320,616	351,554	30,765	34,571	37,991	37,953	39,102	233,991	266,386	307,634	319,157	356,557
Electronic components . . . . .	367	81,236	97,131	120,129	127,996	143,750	10,311	11,391	12,720	13,145	13,778	79,822	97,910	125,680	126,130	145,674
Transportation equipment <sup>1</sup> . . . . .	37	414,694	450,809	461,806	465,173	502,301	59,140	59,364	57,663	62,347	66,877	386,643	440,817	465,839	495,239	507,667
Motor vehicles and parts . . . . .	371	267,365	314,637	327,908	329,155	346,606	13,865	15,341	15,838	15,852	15,568	268,545	316,146	328,390	328,914	346,901
Aircraft, missiles, and parts . . . . .	372, 6	116,345	103,316	100,063	101,322	121,393	9,536	9,403	9,573	9,995	11,255	88,070	90,217	106,062	129,688	124,151
Instruments and related products . . . . .	38	137,387	138,400	144,719	151,017	162,981	22,492	22,273	24,233	24,517	25,143	133,249	133,232	144,175	149,344	165,453
All other durable goods . . . . .	(X)	183,456	197,953	205,089	210,812	227,746	22,879	24,234	25,225	25,370	26,817	183,591	197,939	204,645	210,752	229,369
Nondurable goods <sup>1</sup> . . . . .	(X)	1,496,990	1,558,443	1,667,634	1,711,301	1,770,720	142,676	148,973	160,147	160,583	167,365	1,495,407	1,562,289	1,666,208	1,712,763	1,771,317
Food and kindred products <sup>1</sup> . . . . .	20	422,220	430,963	446,961	461,297	470,447	31,529	32,652	34,827	35,973	37,301	(NA)	(NA)	(NA)	(NA)	(NA)
Beverages . . . . .	208	58,562	61,347	64,398	68,387	70,768	5,721	5,902	6,489	7,199	7,871	(NA)	(NA)	(NA)	(NA)	(NA)
Tobacco products . . . . .	21	28,383	30,021	32,984	34,482	38,693	6,575	6,063	6,100	6,256	6,149	(NA)	(NA)	(NA)	(NA)	(NA)
Textile mill products . . . . .	22	73,955	78,027	79,874	80,243	83,871	8,821	9,346	9,841	9,479	9,743	(NA)	(NA)	(NA)	(NA)	(NA)
Paper and allied products . . . . .	26	133,263	143,649	173,716	160,661	161,992	13,795	14,290	17,173	15,887	16,108	(NA)	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products <sup>1</sup> . . . . .	28	314,907	333,905	361,391	367,674	389,189	35,505	36,737	39,604	40,794	43,880	(NA)	(NA)	(NA)	(NA)	(NA)
Industrial chemicals . . . . .	281,26,8,9	158,771	169,909	186,970	184,018	193,265	17,142	17,710	19,157	19,603	20,335	(NA)	(NA)	(NA)	(NA)	(NA)
Drugs, soaps, toiletries . . . . .	283-4	117,888	122,352	130,932	138,573	150,016	13,964	14,425	15,596	16,099	18,195	(NA)	(NA)	(NA)	(NA)	(NA)
Petroleum and coal products . . . . .	29	144,834	143,328	151,439	174,284	177,314	9,865	10,661	10,829	12,046	11,806	(NA)	(NA)	(NA)	(NA)	(NA)
Rubber and plastics products . . . . .	30	122,777	135,145	145,739	150,467	156,599	12,770	14,145	15,093	15,584	16,300	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available. X Not applicable. <sup>1</sup> Includes industries not shown separately.

Source: U.S. Bureau of the Census, Current Industrial Reports, Series M3-1(97), *Manufactures' Shipments, Inventories, and Orders: 1987-1997*.

## No. 1239. Value of Manufactures Shipments, Inventories, and New Orders, by Market Grouping: 1993 to 1997

[In millions of dollars. Based on 1987 Standard Industrial Classification (SIC). For definition of individual market groupings, see publication cited below. Based on a sample survey of most manufacturing companies with \$500 million or more in annual shipments]

MARKET GROUPING	SHIPMENTS					INVENTORIES (Dec. 31)					NEW ORDERS				
	1993	1994	1995	1996	1997	1993	1994	1995	1996	1997	1993	1994	1995	1996	1997
<b>All manufacturing industries</b>	<b>3,127,625</b>	<b>3,348,019</b>	<b>3,594,663</b>	<b>3,715,460</b>	<b>3,929,419</b>	<b>375,982</b>	<b>395,974</b>	<b>421,285</b>	<b>427,130</b>	<b>446,131</b>	<b>3,092,381</b>	<b>3,356,797</b>	<b>3,607,586</b>	<b>3,749,299</b>	<b>3,952,025</b>
Market categories:															
Automotive equipment	134,229	155,406	160,793	162,253	169,145	6,776	7,284	7,537	7,697	7,755	134,526	155,702	160,887	162,310	169,310
Home goods and apparel	195,574	205,985	210,653	210,324	220,994	27,423	29,409	30,359	28,056	29,226	194,976	205,505	211,040	209,912	222,405
Consumer staples	691,292	706,036	742,164	780,340	809,598	59,946	61,776	65,704	67,944	71,473	691,346	706,182	742,360	780,545	809,563
Machinery and equipment	524,479	569,333	613,526	652,978	711,993	86,613	92,596	99,957	104,241	111,413	505,542	567,922	624,687	672,605	729,607
Business supplies	248,468	258,551	276,451	289,085	302,490	21,886	23,155	25,052	25,326	26,644	248,203	258,913	276,675	289,251	302,437
Construction materials and supplies	199,227	217,556	228,247	238,116	252,549	23,488	24,939	26,381	26,721	27,689	198,463	219,305	228,242	239,060	253,766
Defense products	86,034	80,793	78,031	75,896	79,523	21,858	19,230	17,146	16,067	16,442	73,530	76,283	76,598	81,145	72,066
Other material, supplies and intermediate products	1,048,322	1,154,359	1,284,798	1,306,468	1,383,127	127,992	137,585	149,149	151,078	155,489	1,045,795	1,166,985	1,287,097	1,314,471	1,392,871
Durable goods industries:															
Nondefense capital goods	400,882	429,272	475,387	512,068	563,933	80,561	86,884	94,498	98,027	104,787	380,329	428,364	486,134	535,575	577,978
Excluding aircraft and parts	330,245	368,193	413,760	448,495	483,149	55,908	60,949	68,579	66,453	69,237	331,278	380,160	418,414	450,084	490,101
Defense capital goods	84,085	77,096	73,415	71,947	75,194	22,557	19,665	17,305	16,178	16,693	71,904	71,683	70,903	77,283	67,706
Durables excluding capital goods	1,145,668	1,283,208	1,378,227	1,420,144	1,519,572	130,188	140,452	149,335	152,342	157,286	1,144,741	1,294,461	1,384,341	1,423,678	1,535,024
Miscellaneous series:															
Producers' durable equipment	1,032,475	1,143,391	1,225,170	1,285,908	1,383,145	144,239	155,298	165,868	171,014	179,571	1,016,530	1,151,557	1,240,694	1,304,326	1,405,864
Household durable goods	88,522	95,167	98,645	98,437	106,074	12,499	13,834	14,676	14,160	14,549	88,914	95,500	98,500	97,963	107,403
Information technology industries	179,581	199,492	223,048	247,295	270,844	28,506	29,923	34,170	31,765	32,528	178,434	202,336	223,687	246,156	272,605
Health care equipment and products	106,335	108,896	114,691	122,805	132,540	14,233	14,422	15,621	16,505	17,853	105,737	107,266	114,183	122,984	133,451

Source: U.S. Bureau of the Census, Current Industrial Reports, Series M3-1(97), *Manufactures' Shipments, Inventories, and Orders: 1987-1997*.



### No. 1240. Ratios of Manufacturers' Inventories to Shipments and Unfilled Orders to Shipments, by Industry Group: 1993 to 1997

[Based on seasonally adjusted data]

INDUSTRY	INVENTORY/SHIPMENTS RATIO					UNFILLED ORDERS/SHIPMENTS RATIO				
	1993	1994	1995	1996	1997	1993	1994	1995	1996	1997
<b>All manufacturing industries</b> . . . . .	<b>1.44</b>	<b>1.38</b>	<b>1.42</b>	<b>1.39</b>	<b>1.36</b>	<b>3.14</b>	<b>2.92</b>	<b>2.81</b>	<b>2.93</b>	<b>2.80</b>
Durable goods industries . . . . .	1.67	1.61	1.64	1.62	1.54	3.80	3.50	3.38	3.40	3.33
Stone, clay, and glass products . . . . .	1.32	1.25	1.31	1.31	1.18	1.23	1.17	1.14	1.05	0.87
Primary metals . . . . .	1.62	1.46	1.62	1.59	1.57	1.85	1.92	1.89	1.97	2.24
Fabricated metal products . . . . .	1.55	1.56	1.56	1.56	1.53	1.45	1.40	1.38	1.44	1.47
Industrial machinery and equipment . . . . .	1.95	1.92	1.91	1.77	1.69	2.26	2.53	2.43	2.36	2.18
Electronic and other electrical equipment . . . . .	1.57	1.55	1.50	1.44	1.33	2.21	1.94	1.96	1.82	1.81
Transportation equipment . . . . .	1.68	1.55	1.54	1.67	1.59	11.47	10.61	10.43	11.66	10.87
Instruments and related products . . . . .	2.00	1.94	2.00	1.97	1.84	4.10	4.18	3.91	3.69	3.54
Nondurable goods industries . . . . .	1.17	1.10	1.16	1.13	1.13	0.71	0.75	0.68	0.72	0.69
Food and kindred products . . . . .	0.88	0.85	0.90	0.93	0.92	(NA)	(NA)	(NA)	(NA)	(NA)
Tobacco products . . . . .	2.57	2.25	2.09	1.95	1.78	(NA)	(NA)	(NA)	(NA)	(NA)
Textile mill products . . . . .	1.50	1.44	1.58	1.44	1.45	(NA)	(NA)	(NA)	(NA)	(NA)
Paper and allied products . . . . .	1.25	1.10	1.23	1.22	1.13	(NA)	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products . . . . .	1.36	1.25	1.33	1.32	1.34	(NA)	(NA)	(NA)	(NA)	(NA)
Petroleum and coal products . . . . .	0.95	0.89	0.89	0.81	0.88	(NA)	(NA)	(NA)	(NA)	(NA)
Rubber and plastics products . . . . .	1.21	1.17	1.25	1.26	1.22	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

Source: U.S. Bureau of the Census, Current Industrial Reports, *Manufacturers' Shipments, Inventories, and Orders: 1987-1997*, Series M3-1(97).

### No. 1241. Industrial Production Indexes, by Industry: 1980 to 1997

[1992=100. Beginning 1990, data based on 1987 Standard Industrial Classification (SIC), earlier years based on 1977 SIC; see text, Section 26]

INDUSTRY	SIC code	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
<b>Total index</b> . . . . .	<b>(X)</b>	<b>79.7</b>	<b>88.0</b>	<b>98.9</b>	<b>97.0</b>	<b>100.0</b>	<b>103.6</b>	<b>109.2</b>	<b>114.5</b>	<b>118.5</b>	<b>124.5</b>
<b>Manufacturing</b> . . . . .	<b>(X)</b>	<b>75.5</b>	<b>85.7</b>	<b>98.5</b>	<b>96.2</b>	<b>100.0</b>	<b>103.8</b>	<b>110.0</b>	<b>116.0</b>	<b>120.2</b>	<b>127.0</b>
<b>Durable goods</b> . . . . .	<b>(X)</b>	<b>73.4</b>	<b>85.6</b>	<b>99.0</b>	<b>95.5</b>	<b>100.0</b>	<b>105.7</b>	<b>114.4</b>	<b>123.9</b>	<b>131.7</b>	<b>142.3</b>
Lumber and products . . . . .	24	80.4	92.0	101.6	94.5	100.0	100.8	105.9	107.8	111.8	115.0
Furniture and fixtures . . . . .	25	79.1	88.9	100.9	94.8	100.0	104.9	108.1	111.7	116.0	122.7
Stone, clay, and glass products . . . . .	32	96.5	98.0	105.0	97.2	100.0	102.1	107.9	111.1	114.6	120.5
Primary metals . . . . .	33	108.0	98.4	104.0	96.7	100.0	105.7	113.4	117.2	118.9	124.5
Fabricated metal products . . . . .	34	94.4	96.5	101.2	96.2	100.0	104.4	112.2	116.6	119.6	122.9
Industrial, commercial machinery <sup>1</sup> . . . . .	35	70.5	81.2	100.1	95.4	100.0	109.9	124.8	142.7	155.3	171.3
Computer and office equipment . . . . .	357	13.9	50.3	81.4	82.3	100.0	120.5	149.1	208.1	281.6	381.9
Electrical machinery . . . . .	36	48.6	68.4	87.7	89.6	100.0	110.7	133.2	170.9	199.3	231.5
Transportation equipment . . . . .	37	70.3	88.8	102.3	96.5	100.0	103.8	107.1	105.7	106.5	115.5
Motor vehicles and parts . . . . .	371	65.8	95.0	95.3	88.5	100.0	113.6	129.8	131.0	130.2	137.0
Instruments . . . . .	38	73.6	89.3	98.4	99.8	100.0	100.8	99.7	100.6	105.1	108.0
<b>Nondurable goods</b> . . . . .	<b>(X)</b>	<b>78.3</b>	<b>86.0</b>	<b>97.9</b>	<b>97.0</b>	<b>100.0</b>	<b>101.7</b>	<b>105.2</b>	<b>107.4</b>	<b>108.0</b>	<b>111.2</b>
Foods . . . . .	20	79.7	88.9	97.0	98.4	100.0	102.0	103.7	106.8	107.3	109.6
Tobacco products . . . . .	21	108.5	101.8	105.4	98.9	100.0	84.2	104.5	111.8	113.4	113.2
Textile mill products . . . . .	22	89.0	86.5	93.2	92.7	100.0	105.2	110.6	109.9	106.7	109.6
Paper and products . . . . .	26	75.2	83.8	96.0	96.8	100.0	104.0	108.4	109.7	107.9	112.9
Printing and publishing . . . . .	27	72.4	90.2	103.1	99.1	100.0	100.6	100.7	101.5	101.5	104.9
Chemicals and products . . . . .	28	75.9	79.4	97.3	96.4	100.0	101.4	104.7	107.5	110.5	115.2
Petroleum products . . . . .	29	95.9	89.5	100.3	99.1	100.0	102.9	102.7	104.5	106.5	109.5
Rubber and plastics products . . . . .	30	53.3	73.8	92.2	90.7	100.0	106.9	116.5	119.5	122.5	126.5
Leather and products . . . . .	31	181.6	126.1	107.8	98.4	100.0	100.9	93.6	83.9	78.3	73.7
<b>Mining</b> . . . . .	<b>(X)</b>	<b>111.5</b>	<b>111.0</b>	<b>104.8</b>	<b>102.6</b>	<b>100.0</b>	<b>100.1</b>	<b>102.6</b>	<b>102.3</b>	<b>103.9</b>	<b>105.8</b>
<b>Utilities</b> . . . . .	<b>(X)</b>	<b>87.3</b>	<b>88.8</b>	<b>98.3</b>	<b>100.4</b>	<b>100.0</b>	<b>103.9</b>	<b>105.3</b>	<b>109.0</b>	<b>112.5</b>	<b>112.6</b>

X Not applicable. <sup>1</sup> Includes computer equipment.

Source: Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, monthly; and *Industrial Production and Capacity Utilization*, Statistical Release G.17, monthly.

## No. 1242. Index of Manufacturing Capacity: 1980 to 1997

[1992 output=100. Annual figures are averages of quarterly data. Capacity represents estimated quantity of output relative to output in 1992 which the *current* stock of plant and equipment in manufacturing industries was capable of producing. Primary processing industries comprise textiles, lumber, paper and pulp, petroleum, rubber, stone, clay, glass, primary metals, fabricated metals, and a portion of chemicals. Advanced processing industries comprise chemical products, food, beverages, tobacco, apparel, furniture, printing and publishing, leather, machinery, transportation equipment, instruments, ordnance, and miscellaneous industry groups]

YEAR	Index of capacity	RELATION OF OUTPUT TO CAPACITY (percent)			YEAR	Index of capacity	RELATION OF OUTPUT TO CAPACITY (percent)		
		All manufacturing	Primary processing	Advanced processing			All manufacturing	Primary processing	Advanced processing
1980	95	79	77	81	1989	118	84	86	82
1981	98	78	77	79	1990	121	81	84	80
1982	100	72	69	73	1991	123	78	80	77
1983	102	74	74	74	1992	126	79	82	78
1984	105	80	80	80	1993	129	80	84	79
1985	109	79	79	79	1994	133	82	87	80
1986	112	79	80	78	1995	140	83	87	81
1987	114	81	84	80	1996	148	81	86	80
1988	116	84	87	82	1997	155	82	86	80

Source: Board of Governors of the Federal Reserve System, *Capacity Utilization In Manufacturing, Mining, Utilities, and Industrial Materials*, G.3., monthly.

## No. 1243. Finances and Profits of Manufacturing Corporations: 1980 to 1997

[In billions of dollars. Beginning 1989, data exclude estimates for corporations with less than \$250,000 in assets at time of sample selection. Prior years include estimates for corporations in this size category. See Table 905 for individual industry data]

ITEM	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
Net sales	1,897	2,331	2,811	2,761	2,890	3,015	3,261	3,519	3,758	3,926
Net operating profit	129	138	173	133	151	180	241	268	277	299
Net profit:										
Before taxes	145	137	160	100	33	119	244	277	311	335
After taxes	92	88	112	68	23	84	175	200	227	247
Cash dividends	36	46	62	60	63	67	70	81	96	108
Net income retained in business	58	42	49	7	-40	17	105	120	132	139

Source: 1980, U.S. Federal Trade Commission; thereafter, U.S. Bureau of the Census, *Quarterly Financial Report for Manufacturing, Mining, and Trade Corporations*.

## No. 1244. U.S. Exports of Manufactures, Origin of World Exports of Manufacture: 1981 to 1995

[In billions of dollars, except percents]

ITEM	1981-85, average	1986-90, average	1991	1992	1993	1994	1995
<b>U.S. manufactures export value</b>	<b>143</b>	<b>212</b>	<b>305</b>	<b>327</b>	<b>339</b>	<b>381</b>	<b>429</b>
Machinery & transport equipment	93	135	190	203	211	233	257
Chemicals	21	31	40	44	45	52	61
Other	29	46	75	80	83	97	111
Origin of world exports of manufactures (percent):							
<b>United States</b> <sup>1</sup>	<b>12.7</b>	<b>10.7</b>	<b>12.0</b>	<b>11.8</b>	<b>12.1</b>	<b>11.8</b>	<b>11.5</b>
Machinery & transport equipment	17.1	14.2	15.1	14.9	15.2	14.4	13.5
Chemicals	15.0	12.9	13.3	13.1	13.6	13.2	13
Other	8.5	5.9	7.6	7.4	7.8	7.9	8.2
Germany <sup>2</sup>	13.4	14.6	14.2	13.9	12.0	11.7	12.2
Japan	13.4	12.4	11.9	11.8	12.5	11.8	11.4
Other G-7 countries <sup>3</sup>	21.7	21.5	21.6	21.0	19.9	19.7	20.4
East Asian NICs <sup>4</sup>	6.4	7.8	8.2	8.1	8.9	8.8	9.4

<sup>1</sup> U.S. exports are domestic exports only. <sup>2</sup> Prior to 1991, data for are for former West Germany only. <sup>3</sup> Other Group of Seven (G-7) Countries: Canada, France, Italy, United Kingdom. <sup>4</sup> East Asian newly industrialized countries (NICs): Hong Kong, S. Korea, Singapore, Taiwan.

Source: U.S. Dept. of Commerce, International Trade Administration, Office of Trade and Economic Analysis. Based on United Nations Commodity Trade Statistics, *Statistical Yearbook of the Republic of China (Taiwan)*, and unpublished data.

## No. 1245. Alcoholic Beverages—Summary: 1980 to 1996

[For 1980-1985, stocks on hand for years ending June 30; later data for years ending September 30. All other items for fiscal years ending in year shown; see text, State and Local Government Finances and Employment section. Includes Puerto Rico. Excludes imports]

ITEM	Unit	1980	1985	1990	1992	1993	1994	1995	1996, prel.
<b>Beer:</b> Breweries operated . . . . .	Number <sup>1</sup>	86	103	286	392	480	619	879	1,504
Production <sup>1</sup> . . . . .	Mil. bbl. <sup>2</sup>	193	194	202	202	202	203	200	199
Value of shipments <sup>3</sup> . . . . .	Mil. dol.	9,362	12,216	15,186	17,302	16,629	16,714	17,108	18,196
Tax-paid withdrawals . . . . .	Mil. bbl. <sup>2</sup>	172	175	182	182	180	180	177	177
Stocks on hand . . . . .	Mil. bbl. <sup>2</sup>	15	14	14	13.4	13.7	13.4	13.5	13.3
<b>Distilled spirits:</b>									
Production facilities operated . . . . .	Number . . . . .	143	117	143	143	132	150	153	(NA)
Production . . . . .	Mil. tax gal. <sup>5</sup>	236	117	122	110	111	99	104	(NA)
Tax-paid withdrawals <sup>6</sup> . . . . .	Mil. tax gal. <sup>5</sup>	330	306	251	246	240	229	235	(NA)
Stocks on hand <sup>4</sup> . . . . .	Mil. tax gal. <sup>5</sup>	696	588	451	365	420	410	452	(NA)
<b>Whiskey:</b> Production <sup>1</sup> . . . . .	Mil. tax gal. <sup>5</sup>	87	65	77	62	59	59	69	(NA)
Stocks on hand . . . . .	Mil. tax gal. <sup>5</sup>	566	467	365	309	361	354	358	(NA)
<b>Still wines:</b> Production . . . . .	Mil. wine gal. <sup>7</sup>	982	622	577	484	417	438	412	577
Tax-paid withdrawals <sup>8</sup> . . . . .	Mil. wine gal. <sup>7</sup>	340	414	468	387	354	356	366	382
Stocks on hand <sup>9</sup> . . . . .	Mil. wine gal. <sup>7</sup>	486	602	562	525	520	477	398	473
<b>Effervescent wines</b> <sup>10</sup> : Production . . . . .	Mil. wine gal. <sup>7</sup>	26.8	32.0	26.9	24.7	27.7	23.7	24.3	22.3
Tax-paid withdrawals . . . . .	Mil. wine gal. <sup>7</sup>	24.1	30.9	26.2	24.1	24.4	23.7	22.8	22.0
Stocks on hand . . . . .	Mil. wine gal. <sup>7</sup>	11.9	21.3	22.1	18.8	19.5	16.5	16.8	23.6

NA Not available. <sup>1</sup> Production represents total amount removed from fermenters, including distilling material, and includes increase after fermentation (by amelioration, sweetening, and addition of wine spirits). <sup>2</sup> Barrels of 31 wine gallons. <sup>3</sup> Source: U.S. Bureau of the Census, *Census of Manufactures*, and *Annual Survey of Manufactures*. <sup>4</sup> Excludes alcohol produced for industrial use. Also excludes vodka and gin production. <sup>5</sup> For spirits of 100 proof or over, a tax gallon is equivalent to the proof gallon; for spirits of less than 100 proof, the tax gallon is equivalent to the wine gallon. A proof gallon is the alcoholic equivalent of a U.S. gallon at 60 degrees F, containing 50 percent of ethyl alcohol by volume. <sup>6</sup> Includes ethyl alcohol. <sup>7</sup> A wine gallon is the U.S. gallon equivalent to the volume of 231 cubic inches. <sup>8</sup> Includes special natural wines. <sup>9</sup> Excludes distilling materials. <sup>10</sup> Includes champagne, other effervescent wines, and artificially carbonated wines.

Source: Except as noted, U.S. Bureau of Alcohol, Tobacco, and Firearms, *Alcohol and Tobacco Summary Statistics*, annual; beginning 1985, *Monthly Statistical Release, Distilled Spirits*, Report Symbol 76; and *Wines*, Report Symbol, ATF A:1 5120-3.

## No. 1246. Tobacco Products—Production, Consumption, and Expenditures: 1980 to 1996

[Production data are for calendar years. Excludes cigars produced in customs bonded manufacturing warehouses]

ITEM	Unit	1980	1985	1990	1991	1992	1993	1994	1995	1996
<b>PRODUCTION</b>										
Cigarettes . . . . .	Billions . . . . .	714	665	710	695	719	661	726	747	758
Cigars <sup>1</sup> . . . . .	Billions . . . . .	3	3	2	2	2	2	2	2	2
Tobacco . . . . .	Mil. lb. . . . .	163	158	142	142	141	133	132	131	131
Consumption per person . . . . .	Lb. <sup>3</sup> . . . . .	7.9	6.8	5.5	5.4	5.4	5.0	5.0	5.0	5
Cigarettes . . . . .	1,000 . . . . .	4	3	3	3	3	3	3	3	3
Cigars . . . . .	Number.	24	18	13	12	12	11	12	15	18
Consumer expenditures . . . . .	Bil. dol. . . . .	21.0	32.2	43.8	47.4	48.4	49.0	47.7	48.6	52
Cigarettes . . . . .	Bil. dol. . . . .	19.4	30.3	41.6	45.2	45.8	46.2	44.5	45.1	49
Cigars . . . . .	Bil. dol. . . . .	0.7	0.7	0.7	0.7	0.6	0.7	0.9	1.0	916
Other . . . . .	Bil. dol. . . . .	0.9	1.2	1.5	1.8	2.0	2.1	2.3	2.5	2,217

<sup>1</sup> Smoking and chewing tobaccos and snuff output. <sup>2</sup> Based on estimated population 18 years old and over, as of July 1, including Armed Forces abroad. <sup>3</sup> Unstemmed processing weight equivalent. <sup>4</sup> Weighing over 3 pounds per 1,000.

Source: U.S. Dept. of Agriculture, Economic Research Service, *Tobacco Situation and Outlook*, quarterly.

## No. 1247. Textiles and Apparel Products—U.S. Exports and Imports: 1993 to 1995

[In millions of dollars. Excludes glass fibers, rubber and leather apparel, and clothing donated for charity. Minus sign (-) indicates deficit]

PRODUCT	EXPORTS			GENERAL IMPORTS			MERCHANDISE TRADE BALANCE		
	1993	1994	1995	1993	1994	1995	1993	1994	1995
<b>Total</b> . . . . .	<b>10,977</b>	<b>12,208</b>	<b>14,023</b>	<b>42,225</b>	<b>45,952</b>	<b>49,348</b>	<b>-31,248</b>	<b>-33,744</b>	<b>-35,325</b>
Textile yarn fabrics . . . . .	6,025	6,592	7,372	8,438	9,208	9,910	-2,413	-2,616	-2,538
Textile yarn . . . . .	1,045	1,213	1,530	1,146	1,335	1,407	-101	-122	123
Cotton fabric, woven . . . . .	641	725	834	1,552	1,498	1,613	-911	-773	-779
Woven fabric of manmade textiles . . . . .	883	925	952	1,261	1,291	1,224	-378	-366	-272
Woven fabric of textile material . . . . .	210	236	258	662	695	690	-452	-459	-432
Special yarns . . . . .	1,418	1,588	1,748	878	977	1,040	540	611	708
Other . . . . .	1,828	1,905	2,050	2,939	3,412	3,936	-1,111	-1,507	-1,886
Apparel . . . . .	4,952	5,616	6,651	33,787	36,744	39,438	-28,835	-31,128	-32,787

Source: U.S. Bureau of the Census, *U.S. Merchandise Trade: Exports, General Imports, and Imports for Consumption*, Report FT925, monthly.

**No. 1248. Cotton, Wool, and Manmade Fibers — Consumption, by End-Use: 1996**

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**No. 1249. Broadwoven and Knit Fabrics—Shipments, Foreign Trade, and Apparent Consumption: 1996**

[Fabric blends as shown in the CIR report, MQ22T are reported based on the chief weight of the fiber; whereas, fabrics blends as shown for imports are based on the chief value of the fiber. Apparent consumption represents new domestic supply and is derived by subtracting exports for the total manufacturers' shipments plus imports]

PRODUCT DESCRIPTION	Manufacturers' shipments (quantity)	IMPORTS FOR CONSUMPTION		Percent imports to manufacturers' shipments	EXPORTS OF DOMESTIC MERCHANDISE		Percent exports to manufacturers' shipments	Apparent consumption (quantity)
		Quantity	Value <sup>1</sup> (\$1,000)		Quantity	Value (\$1,000)		
<b>BROADWOVEN FABRICS</b> (quantity 1,000 sq. meters)								
Cotton fabrics <sup>2</sup> . . . . .	3,614,846	1,326,114	1,638,830	36.7	279,080	659,646	7.7	4,661,880
Manmade fiber fabrics . . . . .	9,522,420	888,246	1,228,633	9.3	387,704	882,069	4.1	10,022,962
Silk fabrics . . . . .	519	30,933	311,318	5,957.5	3,404	27,145	655.6	28,048
Wool fabrics . . . . .	127,069	27,112	278,211	21.3	10,681	58,341	8.4	143,500
<b>KNIT FABRICS</b> (quantity in 1,000 kilograms)								
<b>Total</b> . . . . .	<b>889,481</b>	<b>45,877</b>	<b>454,617</b>	<b>5.2</b>	<b>58,764</b>	<b>495,184</b>	<b>6.6</b>	<b>876,594</b>
Pile fabrics . . . . .	64,132	19,961	214,933	31.1	12,644	139,321	19.7	71,449
Elastic fabric (D) . . . . .	(D)	198	4,007	(D)	9,314	88,108	(D)	(D)
Other warp knit fabrics . . . . .	95,398	5,479	55,102	5.7	3,893	44,250	4.1	96,984
Other narrow knit fabrics . . . . .	(D)	464	7,101	(D)	2,930	30,440	(D)	-2,466
Other knit fabrics . . . . .	676,793	19,775	173,474	2.9	29,983	193,065	4.4	666,585

D Data withheld to avoid disclosing figures for individual companies. <sup>1</sup> Dollar value represents the c.i.f. (cost, insurance, and freight) at the first port of entry in the United States plus calculated import duty. <sup>2</sup> Includes all cotton and chiefly cotton mixed with manmade fiber.

Source: U.S. Bureau of the Census, *Manufacturing Profiles*, Series MP/96.

**No. 1250. Selected Apparel—Shipments, Foreign Trade, and Apparent Consumption: 1996**

[Quantity in thousands of units, value in millions of dollars]

PRODUCT DESCRIPTION	MANUFACTURERS' SHIPMENTS		EXPORTS OF DOMESTIC MERCHANDISE		IMPORTS FOR CONSUMPTION		APPARENT CONSUMPTION	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<b>Men's and boys' apparel:</b>								
Sweaters . . . . .	14,869	214.4	22,488	100.6	35,568	466.7	27,949	580.5
Tops, except sweaters . . . . .	(D)	(D)	371,352	1,020.3	1,352,496	6,722.8	(D)	(D)
Bottoms . . . . .	625,097	7,963.3	256,728	1,032.4	610,488	3,926.8	978,857	10,857.7
<b>Coats:</b>								
Suit type, dress and sport . . . . .	11,268	711.7	6,816	57.0	11,472	414.4	15,924	1,069.1
Other coats . . . . .	53,205	1,491.0	20,376	99.1	117,528	1,840.4	150,357	3,232.3
Suits . . . . .	(D)	(D)	5,184	54.0	79,584	532.1	(D)	(D)
Swimwear . . . . .	2,269	21.7	1,320	6.3	42,456	149.2	43,405	164.6
<b>Women's and girls' apparel:</b>								
Sweaters . . . . .	46,996	611.5	3,972	22.7	152,088	1,601.2	195,112	2,190.0
Dresses . . . . .	182,780	4,373.5	21,432	114.1	189,564	1,928.0	350,912	6,187.4
Tops, except sweaters . . . . .	596,810	4,156.1	176,748	434.6	1,013,892	5,433.2	1,433,954	9,154.7
Skirts . . . . .	83,820	1,208.7	10,248	43.8	137,760	1,063.2	211,332	2,228.1
Coats and jackets . . . . .	48,320	1,816.9	16,632	124.7	127,560	2,847.6	159,248	4,539.8
Bottoms, except skirts . . . . .	481,963	4,971.8	139,896	480.3	597,072	3,800.5	939,139	8,292.0
Suits . . . . .	(D)	(D)	7,032	62.4	105,288	361.1	(D)	(D)
Swimwear . . . . .	51,153	741.7	7,332	37.6	30,780	189.3	74,601	893.4
Infants' apparel . . . . .	151,677	785.8	104,952	135.7	424,260	1,039.9	470,985	1,690.0

D Data withheld to avoid disclosing figures for individual companies.

Source: U.S. Bureau of the Census, *Manufacturing Profiles*, Series MP/96.

## No. 1251. Footwear—Production, Foreign Trade, and Apparent Consumption: 1996

[Quantity in thousands of pairs, value in thousands of dollars]

PRODUCT DESCRIPTION	Manufacturers' shipments (quantity)	EXPORTS OF DOMESTIC MERCHANDISE		Percent exports to domestic production	IMPORTS FOR CONSUMPTION		Apparent consumption (quantity)	Percent imports to apparent consumption
		Quantity	Value		Quantity	Value		
<b>Total</b> . . . . .	<b>192,680</b>	<b>27,904</b>	<b>414,615</b>	<b>14.5</b>	<b>1,351,683</b>	<b>13,839,766</b>	<b>1,516,459</b>	<b>89.1</b>
Rubber or plastic uppers and rubber or plastic soles . . . . .	25,074	4,954	48,146	19.8	468,874	2,977,616	488,994	95.9
Waterproof . . . . .	12,934	502	5,571	3.9	2,927	20,901	15,359	19.1
Not waterproof . . . . .	12,140	4,452	42,575	36.7	465,947	2,956,715	473,635	98.4
Leather uppers . . . . .	77,562	12,078	285,534	15.6	587,077	9,040,167	652,561	90.0
Athletic . . . . .	5,055	7,454	158,522	147.5	415,187	5,613,759	412,788	100.6
Leather soles . . . . .	25,962	3,040	85,349	11.7	54,080	1,384,093	77,002	70.2
Made with steel safety toes . .	1,545	199	10,585	12.9	6,925	147,212	8,271	83.7
Boots, ex. with steel safety toes . . . . .	6,355	484	15,248	7.6	4,024	101,116	9,895	40.7
Shoes, ex. with steel safety toes . . . . .	17,572	2,357	59,516	13.4	43,131	1,135,765	58,346	73.9
Other soles . . . . .	46,545	1,584	41,663	3.4	117,810	2,042,315	162,771	72.4
Made with steel safety toes . .	1,998	-	-	(NA)	-	-	1,998	(NA)
Boots, ex. with steel safety toes . . . . .	7,103	1,584	41,663	22.3	117,810	2,042,315	123,329	95.5
Shoes, ex. with steel safety toes . . . . .	37,444	-	-	(NA)	-	-	37,444	(NA)
Fabric uppers . . . . .	86,381	10,872	80,935	12.6	295,732	1,821,983	371,241	79.7
Rubber or plastic soles . . . . .	59,095	6,210	66,269	10.5	246,525	1,538,385	299,410	82.3
Athletic . . . . . (D)		4,662	47,219	(D)	82,655	929,803	(D)	(D)
All other . . . . . (D)		1,548	19,050	(D)	163,870	608,582	(D)	(D)
With all other soles . . . . .	27,286	4,662	14,666	17.1	49,207	283,598	71,831	68.5

- Represents zero. D Data withheld to avoid disclosure. NA Not available.

Source: U.S. Bureau of the Census, *Manufacturing Profiles*, Series MP/96, annual.

## No. 1252. Inorganic Chemicals and Pharmaceutical Preparations—Value of Shipments: 1990 to 1996

PRODUCT	Product code	Unit	1990	1993	1994	1995	1996
INORGANIC CHEMICAL SHIPMENTS							
Alkalies and chlorine . . . . .	2812	Mil. dol . . .	3,187	2,278	2,281	3,169	3,212
Inorganic color pigments . . . . .	2816	Mil. dol . . .	2,261	2,391	2,471	2,284	2,487
Inorganic chemicals n.e.c. . . . .	2819	Mil. dol . . .	13,612	11,860	12,442	14,179	14,454
Household bleaching compounds . . . . .	28422 00	Mil. dol . . .	724	915	950	923	870
PHARMACEUTICAL PREP. SHIPMENTS							
Affecting neoplasms, endocrine systems, and metabolic disease . . . . .	28341	Mil. dol . . .	2,743	3,820	4,132	4,076	4,775
Acting on the central nervous system and sense organs . . . . .	28342	Mil. dol . . .	7,219	8,927	9,065	9,228	10,207
Acting on the cardiovascular system . . . . .	28343	Mil. dol . . .	4,815	5,234	5,547	5,988	6,965
Acting on the respiratory system . . . . .	28344	Mil. dol . . .	3,724	5,510	5,675	5,196	5,179
Acting on the digestive system . . . . .	28345	Mil. dol . . .	4,840	7,996	8,827	8,593	8,603
Acting on the skin . . . . .	28346	Mil. dol . . .	1,558	1,980	2,219	2,171	2,074
Vitamin, nutrient, and hematinic preps. . . . .	28347	Mil. dol . . .	2,588	3,560	4,408	4,812	5,413
Affecting parasitic and infective disease . . . . .	28348	Mil. dol . . .	5,411	7,234	8,189	7,196	7,218
Pharmaceutical preps. for veterinary use . . . . .	28349	Mil. dol . . .	1,057	1,353	1,315	1,605	1,750

Source: U.S. Bureau of the Census, through 1992, *Current Industrial Reports*, MA28A, and MA28G, annual; thereafter, *Manufacturing Profiles*, Series MP, annual.

## No. 1253. Fiber, Rugs, Carpeting, and Sheets—Shipments: 1990 to 1996

PRODUCT	Unit	1990	1991	1992	1993	1994	1995	1996
All fibers <sup>1</sup> . . . . .	Mil. lbs. . . . .	812	837	926	1,008	1,036	953	890
Raw wool <sup>2,3</sup> . . . . .	Mil. lbs. . . . .	133	152	151	157	153	142	123
Noils, and fiber <sup>4</sup> . . . . .	Mil. lbs. . . . .	20	21	21	23	19	20	19
Other fibers . . . . .	Mil. lbs. . . . .	659	664	754	829	864	792	748
Knit fabric production . . . . .	Mil. lbs. . . . .	1,901	1,963	2,179	2,188	2,230	2,131	1,897
Rugs, carpet and carpeting . . . . .	Mil. dol. . . . .	8,527	7,980	8,749	9,283	9,895	9,770	10,117
Sheets . . . . .	1,000 doz. . . . .	15,408	14,001	15,198	16,331	16,190	15,282	16,277
Pillow cases . . . . .	1,000 doz. . . . .	12,665	11,301	12,523	14,464	14,622	14,232	14,330
Terry towels . . . . .	1,000 doz. . . . .	42,376	43,158	48,789	47,161	48,348	47,939	46,955

<sup>1</sup> Includes man-made fiber top converted from tow without combing. A number of companies were added for 1990 based on information in the 1987 Census of Manufactures. Data were received from these companies for 1990; therefore, the information shown for years prior to 1990 may not be directly comparable. These changes represent approximately 20 percent of the total fibers consumed on the woolen system and worsted combing. <sup>2</sup> Data are shown on a scoured basis for greasy wool.

<sup>3</sup> Shorn and pulled wool of sheep excludes raw wool consumed in cotton system spinning to avoid disclosing figures for individual companies. <sup>4</sup> Includes reprocessed and reused wool, mohair, alpaca, vicuna, and other specialty fibers as well as tops and noils consumed in woolen spinning and mohair consumed in worsted combing. Does not include wool tops consumed in cotton system spinning.

Source: U.S. Bureau of the Census, 1990-1992, *Current Industrial Reports*, MA22K, MA22Q, and MQ23X, annual; thereafter, *Manufacturing Profiles*, Series MP, annual.

## No. 1254. Glass Containers, Clay Construction Products, and Refractories—Shipments: 1990 to 1996

[In millions of dollars]

PRODUCT	1990	1991	1992	1993	1994	1995	1996
Glass container shipments . . . . .	285	279	283	290	285	269	257
Brick shipments <sup>1</sup> . . . . .	1,014	883	920	990	1,103	1,092	1,235
Clay tile shipments <sup>2</sup> . . . . .	687	639	646	687	756	728	776
Clay pipe and fittings shipments . . . . .	60	51	38	32	33	35	36
Refractory shipments . . . . .	2,003	1,947	1,956	1,930	2,047	2,222	2,296
Clay . . . . .	771	784	786	773	906	941	945
Nonclay . . . . .	1,232	1,163	1,170	1,157	1,141	1,281	1,351

NA Not available. <sup>1</sup> Building or common and face bricks. <sup>2</sup> Floor and wall tile including quarry tile.

Source: U.S. Bureau of the Census, 1990-1992, *Current Industrial Reports*, M32G, MQ32D, and MA32C, annual; thereafter, *Manufacturing Profiles*, Series MP, annual.

## No. 1255. Aluminum Mill Products—Shipments, by Product: 1995 and 1996

[Quantity in thousands of pounds, receipts in thousands of dollars]

PRODUCT DESCRIPTION	1995			1996		
	Gross shipments	Total receipts	Net shipments <sup>1</sup>	Gross shipments	Total receipts	Net shipments <sup>1</sup>
<b>Aluminum mill products . . . . .</b>	<b>15,723,667</b>	<b>1,316,423</b>	<b>14,407,244</b>	<b>15,602,233</b>	<b>1,321,279</b>	<b>14,280,954</b>
Sheet, plate, and foil . . . . .	10,807,903	801,942	10,005,961	10,565,874	788,995	9,776,879
Sheet and plate . . . . .	9,745,709	801,942	8,943,767	9,432,563	788,995	8,643,568
Sheet . . . . .	9,407,190	801,942	8,605,248	9,130,558	788,995	8,341,563
Plate . . . . .	338,519	-	338,519	302,005	-	302,005
Foil . . . . .	1,062,194	-	1,062,194	1,133,311	-	1,133,311
Rod, wire, and cable . . . . .	1,159,235	382,325	776,910	1,210,469	438,015	772,454
Rod and bare wire . . . . .	552,322	382,325	169,997	586,058	438,015	148,043
Cable and insulated wire . . . . .	606,913	(D)	606,913	624,411	-	624,411
Rod, bar, pipe, tube and shapes . . . . .	3,396,583	132,156	3,264,427	3,492,033	94,269	3,397,764
Rod and bar (rolled and extruded) . . . . .	431,121	132,156	3,264,427	432,676	94,269	338,407
Pipe and tube (extruded and drawn) . . . . .	317,648	(D)	317,648	328,540	(D)	328,540
Extruded shapes . . . . .	2,647,814	-	2,647,814	2,730,817	-	2,730,817
All other . . . . .	359,946	-	359,946	333,857	-	333,857

- Represents zero. D Withheld to avoid disclosure of individual companies. <sup>1</sup> Net shipments are derived by subtracting domestic receipts from gross shipments. <sup>2</sup> Included "Rod and bare wire." <sup>3</sup> Included in "Rod and bar."

Source: U.S. Bureau of the Census, *Manufacturing Profiles*, 1996, Series MP/96.

### No. 1256. Iron and Steel Industry—Summary: 1990 to 1997

[For financial data, the universe in 1992 consists of the companies that produced 68 percent of the total reported raw steel production. The financial data represent the operations of the steel segment of the companies. Minus sign (-) indicates net loss]

ITEM	Unit	1990	1991	1992	1993	1994	1995	1996	1997
Steel mill products, apparent supply	Mil. tons <sup>1</sup>	97.8	88.3	95.0	104.6	121.3	114.8	125.0	131.0
Net shipments	Mil. tons	85.0	78.8	82.2	89.0	95.1	97.5	100.9	105.9
Exports	Mil. tons	4.3	6.3	4.3	4.0	3.8	7.1	5.0	6.0
Imports	Mil. tons	17.2	15.8	17.1	19.5	30.1	24.4	29.2	31.2
Scrap consumed	Mil. tons	50.1	50.5	51.9	58.5	60.0	62.0	62.0	64.0
Scrap inventory	Mil. tons <sup>1</sup>	3.6	3.7	3.3	3.6	4.0	4.1	5.3	5.0
Iron and steel products: Exports	Mil. tons <sup>1</sup>	5.3	7.4	5.3	4.7	4.9	8.2	6.2	7.4
Imports	Mil. tons <sup>1</sup>	21.9	20.2	21.9	21.8	32.7	27.3	32.1	34.4
Capacity by steelmaking process	Mil. net tons	116.7	117.6	113.1	109.9	108.2	112.4	116.1	121.4
Revenue	Bil. dol.	30.9	27.1	26.9	29.5	33.5	35.1	35.0	(NA)
Net income	Bil. dol.	0.1	-2.0	-4.1	1.9	1.3	1.5	0.4	(NA)
Stockholders' equity	Bil. dol.	4.3	2.8	-0.6	3.7	7.1	8.6	9.2	(NA)
Total assets	Bil. dol.	28.3	27.4	28.8	30.6	32.0	35.3	35.1	(NA)
Capital expenditures	Bil. dol.	2.6	2.3	1.8	1.5	2.2	2.5	2.1	(NA)
Working capital ratio	Ratio	1.6	1.4	1.4	1.3	1.6	1.5	1.7	(NA)
Inventories	Bil. dol.	4.7	4.4	4.5	4.6	4.9	0.3	0.3	(NA)
Average employment	1,000	164	146	140	127	126	123	119	112
Hours worked	Million	350	304	293	274	273	269	259	247
Index of output, all employees <sup>3</sup>	1987=100	110.5	108.2	117.7	134.2	144.6	145.4	(NA)	(NA)
Producer price indexes: <sup>4</sup>									
Iron and steel, total	1982=100	117.2	114.1	111.5	116.0	122.0	128.8	125.8	126.5
Steel mill products	1982=100	112.1	109.5	106.4	108.2	113.4	120.1	115.6	116.4
Electrometallurgical products	1982=100	120.1	116.9	115.5	115.7	117.0	126.0	157.7	163.0
Iron ore	1982=100	83.3	83.6	83.7	82.7	82.7	91.8	96.7	96.3
Scrap, iron and steel	1982=100	166.0	147.6	139.2	172.5	192.9	202.7	191.1	188.9
Foundry and forge shop products	1982=100	117.2	119.0	120.1	121.3	123.9	129.3	132.6	134.1

NA Not available. <sup>1</sup> In millions of short tons. <sup>2</sup> Current assets to current liabilities. <sup>3</sup> Source: U.S. Bureau of Labor Statistics. <sup>4</sup> Source: U.S. Bureau of Labor Statistics, *Producer Price Indexes*, monthly and annual.

Source: American Iron and Steel Institute, Washington, DC, *Annual Statistical Report* (copyright).

### No. 1257. Raw Steel, Pig Iron, and Ferroalloys Production: 1990 to 1997

[In millions, except percent]

ITEM	1990	1991	1992	1993	1994	1995	1996	1997
Raw steel (net tons):								
World production	848.8	811.1	810.2	814.6	800.1	833.8	826.9	874.9
U.S. production	98.9	87.9	92.9	97.9	100.6	104.9	105.3	108.6
Percent of world	11.6	10.8	11.8	12.0	12.6	12.6	12.7	12.4
Furnace:								
Basic oxygen process	58.5	52.7	57.6	59.3	61.0	62.5	60.4	61.1
Electric	36.9	33.8	35.3	38.5	39.6	42.4	44.9	47.5
Open hearth	3.5	1.4	-	-	-	-	-	-
Grade:								
Carbon	86.6	77.9	82.5	86.9	89.5	92.7	93.6	95.9
Alloy and stainless	12.3	10.0	10.4	11.0	11.1	12.3	11.7	12.6
Pig iron and ferroalloys, production (sh. tons)	54.8	48.6	52.2	53.1	54.4	56.1	54.5	54.7

- Represents or rounds to zero.

Source: American Iron and Steel Institute, Washington, DC, *Annual Statistical Report* (copyright).

### No. 1258. Steel Products—Net Shipments, by Market Classes: 1990 to 1997

[In thousands of short tons. Comprises carbon, alloy, and stainless steel]

MARKET CLASS	1990	1991	1992	1993	1994	1995	1996	1997
<b>Total</b> <sup>1</sup>	<b>84,981</b>	<b>78,846</b>	<b>82,241</b>	<b>89,022</b>	<b>95,084</b>	<b>97,494</b>	<b>100,878</b>	<b>105,858</b>
Automotive	11,100	10,015	11,092	12,719	14,753	14,622	14,665	15,251
Steel service centers, distributors	21,111	19,464	21,328	23,714	24,153	23,751	27,124	27,800
Construction, incl. maintenance <sup>2</sup>	9,245	9,161	9,536	13,429	10,935	14,892	15,561	15,885
Containers, packaging, shipping	4,474	4,278	3,974	4,355	4,495	4,139	4,101	4,163
Machinery, industrial equipment, tools	2,388	1,982	1,951	2,191	2,427	2,310	2,410	2,355
Steel for converting and processing	9,441	8,265	9,226	9,451	10,502	10,440	10,245	11,263
Rail transportation	1,080	999	1,052	1,223	1,248	1,373	1,400	1,410
Contractors' products	2,870	2,306	2,694	2,913	3,348	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Oil and gas industries	1,892	1,425	1,454	1,526	1,703	2,643	3,254	3,811
Electrical equipment	2,453	2,102	2,136	2,213	2,299	2,397	2,401	2,434
Appliances, utensils, and cutlery	1,540	1,388	1,503	1,592	1,736	1,589	1,713	1,635

<sup>1</sup> Includes nonclassified shipments and other classes not shown separately. <sup>2</sup> Beginning 1994, contractors' products included with construction.

Source: American Iron and Steel Institute, Washington, DC, *Annual Statistical Report* (copyright).



## No. 1259. Machine Tools—New Orders and Shipments: 1970 to 1996

[In millions of dollars. Data represents total industry volume based on reports from over 200 manufacturers]

YEAR	METAL CUTTING TOOLS					METAL FORMING TOOLS				
	New orders (net)		Shipments		Order backlog, end of period	New orders (net)		Shipments		Order backlog, end of period
	Total	Domes- tic	Total	Domes- tic		Total	Domes- tic	Total	Domes- tic	
1970	651	507	993	827	471	261	227	450	412	235
1971	609	524	672	554	408	252	223	326	286	162
1972	1,009	877	714	627	702	403	368	304	267	260
1973	1,825	1,550	1,074	935	1,454	787	717	427	388	621
1974	2,017	1,716	1,445	1,241	2,025	566	470	585	522	600
1975	916	781	1,879	1,548	1,062	361	284	573	485	388
1976	1,662	1,477	1,482	1,270	1,243	541	485	578	474	351
1977	2,202	1,981	1,651	1,470	1,794	793	729	630	560	515
1978	3,373	3,043	2,189	1,960	2,981	973	901	825	729	663
1979	4,495	3,866	2,930	2,606	4,546	1,126	991	947	860	843
1980	3,885	3,496	3,681	3,206	4,750	870	744	1,011	879	701
1981	2,228	1,946	4,105	3,552	2,873	717	617	991	824	427
1982	1,064	890	2,895	2,599	1,043	433	372	710	600	151
1983	1,152	1,069	1,372	1,200	823	545	489	474	430	222
1984	1,916	1,700	1,607	1,484	1,132	1,000	932	679	609	542
1985	1,853	1,652	1,742	1,549	1,243	675	610	803	743	414
1986	1,544	1,377	1,890	1,685	897	581	507	688	621	307
1987	1,451	1,294	1,677	1,499	672	667	536	647	538	327
1988	2,708	2,316	1,575	1,400	1,806	883	749	825	702	386
1989	1,977	1,723	2,359	2,059	1,423	832	719	837	704	380
1990	2,070	1,772	2,330	2,004	1,164	894	761	970	851	304
1991	1,894	1,549	1,872	1,595	1,186	748	546	802	625	251
1992	1,756	1,532	1,918	1,605	1,025	726	609	678	547	299
1993	2,322	2,177	2,160	1,955	1,187	971	825	1,044	881	225
1994	2,989	2,833	2,640	2,424	1,535	1,698	1,519	1,370	1,196	554
1995	3,105	2,770	3,195	2,923	1,445	1,748	1,398	1,671	1,347	630
1996, est.	3,489	3,180	3,050	2,708	1,665	1,752	1,173	1,973	1,583	520

Source: The Association For Manufacturing Technology, McLean, VA, *The Economic Handbook of The Machine Tool Industry*, annual (copyright).

## No. 1260. Metalworking Machinery—Shipments: 1990 to 1997

[In thousands of dollars]

PRODUCT	Product code	1990	1993	1994	1995	1996	1997
<b>Metalworking machinery</b> . . . . .	<b>(X)</b>	<b>3,426,081</b>	<b>3,222,456</b>	<b>3,780,074</b>	<b>4,547,133</b>	<b>4,607,757</b>	<b>5,010,262</b>
Metal cutting type <sup>1</sup> . . . . .	(X)	2,371,266	2,084,864	2,463,001	3,036,592	3,141,128	3,583,298
Boring machines . . . . .	3541D	( <sup>2</sup> )	84,667	129,835	172,417	88,929	80,161
Drilling machines <sup>2</sup> . . . . .	3541D	184,118	37,076	51,987	78,936	99,453	89,219
Gear cutting machines . . . . .	35413	102,678	87,662	100,612	137,121	164,258	213,507
Grinding and polishing machines . . . . .	35414	433,574	360,894	443,262	549,580	541,277	595,014
Lathes <sup>3</sup> . . . . .	35415	355,632	305,488	390,843	478,003	451,115	480,672
Milling machines <sup>4</sup> . . . . .	35416	214,254	180,174	138,852	194,757	199,667	280,158
Machining centers <sup>5</sup> . . . . .	3541A	436,999	485,375	552,358	698,780	779,433	931,566
Station type machines . . . . .	3541B	502,066	374,772	455,138	477,021	498,592	551,870
Other metal cutting machine tools <sup>6</sup> . . . . .	3541C	141,945	166,248	200,114	246,237	315,977	358,299
Metal forming type . . . . .	(X)	1,080,181	1,139,581	1,277,187	1,510,541	1,466,629	1,426,964
Punching and shearing machines . . . . .	35421 pt.	200,050	213,402	294,441	326,318	331,382	319,208
Bending and forming machines . . . . .	35421 pt.	222,861	255,299	253,219	256,882	283,020	258,479
Presses, except forging . . . . .	35422	308,338	345,653	376,398	379,203	401,990	422,396
Forging machines <sup>7</sup> . . . . .	35423 pt.	73,947	(D)	(D)	(D)	(D)	(D)
Other metal forming <sup>7</sup> . . . . .	35423 pt.	274,985	325,227	393,015	548,138	450,237	426,881

D Data withheld to avoid disclosure. X Not applicable. <sup>1</sup> Data for "All lathes (turning machines)" and "All milling machines," valued at under \$3,025 each are included in total "Metal cutting type." <sup>2</sup> For 1990, data for "Boring machines" were combined with "Drilling machines" to avoid disclosing individual company data. <sup>3</sup> For 1993 through 1997 product code 35415, "Lathes," excludes the value for product code 35415 09. All Lathes valued under \$3,025 each. <sup>4</sup> For 1993 through 1997 product code 35416, "Milling machines," excludes the value for product code 35416 09. "All milling machines valued under \$3,025 each." <sup>5</sup> Multi-function numerically controlled machines. <sup>6</sup> Excludes those designed primarily for home workshops, labs, etc. <sup>7</sup> For 1991 through 1997, and 1988 data for "Forging machines" have been combined with "Other metal forming machines" to avoid disclosing individual company

Source: U.S. Bureau of the Census, *Manufacturing Profiles*, Series MP, annual; and release date: July 14, 1998, <http://www.census.gov/ftp/pub/industry/mq35w97a>.

**No. 1261. Selected Types of Construction Machinery—Value of Shipments: 1990 to 1996**

[In millions of dollars]

PRODUCT DESCRIPTION	Product code	1990	1992	1993	1994	1995	1996
Off-highway wheel and crawler tractors, dozers and self-propelled log skidders; except shovel loader . . . . .	35315	1,453.1	1,099.5	(D)	(D)	1,597.4	1,690.8
Tractor shovel loaders . . . . .	3531C	2,235.9	1,833.1	2,354.4	2,632.6	3,041.8	3,340.1
Power cranes, draglines, and shovels . . . . .	3531E	1,511.8	1,582.3	1,719.4	2,252.5	2,561.4	2,719.5
Mixers, pavers, and related equipment . . . . .	3531F	609.6	635.8	877.1	1,079.8	1,168.8	1,146.5
Scrapers; graders; compactors; rollers; off-highway trucks, trailers, and wagons; and rough terrain forklifts . . . . .	3531G	2,023.7	1,560.7	(D)	2,164.2	2,654.3	3,193.2
Equipment for mounting on tractors . . . . .	3531N	258.6	256.1	249.8	286.6	310.1	(D)
Self-propelled continuous ditchers and trenchers . . . . .	3531P 20	129.7	124.1	143.6	174.0	193.5	209.1
Aerial work platforms . . . . .	3531P 90	814.9	590.3	637.4	844.9	1,131.1	(D)

D Data withheld to avoid disclosing figures for individual companies.

Source: U.S. Bureau of the Census, through 1992, *Current Industrial Reports*, series MA35D; thereafter, *Manufacturing Profiles*, Series MP, annual.**No. 1262. Mining and Mineral Processing Equipment—Shipments: 1995 and 1996**

PRODUCT	Product code	Number of companies 1996	QUANTITY (units)		VALUE (mil. dol.)	
			1995	1996	1995	1996
<b>Mining and mineral processing equipment . . . . .</b>	<b>(X)</b>	<b>(X)</b>	<b>(X)</b>	<b>(X)</b>	<b>1,629</b>	<b>1,751</b>
Portable crushing, screening, washing, and combination plants . . . . .	3531K	17	649	676	96	97
Underground mining machinery . . . . .	35325	34	4,396	6,838	463	434
Crushing/pulverizing/screening machinery . . . . .	35327	46	3,871	4,026	295	332
Drills and other mining machinery, n.e.c. <sup>1 3</sup> . . . . .	35328	30	13,473,018	16,735,391	382	446
Portable drilling rigs and parts . . . . .	3533A	30	2,155,275	2,267,380	393	443

X Not applicable. <sup>1</sup> Excludes parts. <sup>2</sup> Excludes portables and parts. <sup>3</sup> n.e.c. = Not elsewhere classified.Source: U.S. Bureau of the Census, *Manufacturing Profiles*, 1996, Series MP/96.**No. 1263. Engines, Refrigeration and Heating Equipment, and Pumps and Compressors—Shipments: 1993 to 1996**

PRODUCT	Product code	Unit	1993	1994	1995	1996
<b>Internal combustion engines produced . . . . .</b>	<b>(X)</b>	<b>1,000 . . . .</b>	<b>21,342</b>	<b>24,178</b>	<b>23,274</b>	<b>23,559</b>
Gasoline (except outboard, aircraft, and auto) . . . . .	35191	1,000 . . . .	20,561	23,287	22,287	22,621
Nonautomotive diesel (except aircraft) . . . . .	35193	1,000 . . . .	197	220	246	242
Automotive diesel . . . . .	35194	1,000 . . . .	608	661	732	687
Natural gas and LPG . . . . .	35196	1,000 . . . .	6	9	9	9
<b>Air-conditioning, heating equipment shipments:</b>						
Heat transfer equipment . . . . .	35851	Mil. dol . . . .	4,951	5,509	6,170	6,409
Unitary air-conditioners . . . . .	35852	Mil. dol . . . .	3,937	4,339	4,807	5,539
Commercial refrigeration equipment . . . . .	35853 pt	Mil. dol . . . .	183	220	203	220
Compressors and compressor units . . . . .	35854	Mil. dol . . . .	3,101	3,717	4,307	4,618
Condensing units, refrigeration (complete) . . . . .	35855	Mil. dol . . . .	240	277	286	296
Room air-conditioners and dehumidifiers . . . . .	35856	Mil. dol . . . .	824	1,106	1,359	1,497
Nonelectric warm air furnaces and humidifiers . . . . .	3585C pt	Mil. dol . . . .	1,334	1,426	1,522	1,639
<b>Pumps and compressors <sup>1</sup> . . . . .</b>	<b>(X)</b>	<b>Mil. dol . . . .</b>	<b>6,216</b>	<b>6,563</b>	<b>6,435</b>	<b>6,974</b>
Domestic water systems . . . . .	35613	Mil. dol . . . .	330	339	329	351
Oil well, oilfield, and other pumps (including laboratory pumps) . . . . .	35615	Mil. dol . . . .	916	907	664	704
Compressors and vacuum pumps . . . . .	35631	Mil. dol . . . .	2,400	2,680	2,742	2,908

X Not applicable. <sup>1</sup> Excludes hand pumps, automotive circulating pumps, compressors for icemaking and refrigeration equipment, air conditioning units, and replacements and repair parts for pumps and compressors.Source: U.S. Bureau of the Census, *Manufacturing Profiles*, Series MP, annual.

## No. 1264. Computer Shipments and Revenues: 1990 to 1995

[Revenue is in if-sold, end-user dollars]

SELECTED AREA AND PRODUCT	FACTORY REVENUE (mil. dol.)			SHIPMENTS (units)		
	1990	1994	1995	1990	1994	1995
United States:						
Supercomputer . . . . .	789	856	631	531	821	735
Mainframe . . . . .	12,538	5,120	3,753	3,952	2,662	2,095
Midrange . . . . .	9,816	7,752	8,623	208,102	141,147	206,008
Workstation . . . . .	3,147	4,976	5,715	161,488	316,083	357,765
Personal computer . . . . .	18,661	37,313	47,708	9,848,593	18,605,000	22,582,900
Canada:						
Supercomputer . . . . .	30	40	34	19	45	46
Mainframe . . . . .	892	187	220	257	125	157
Midrange . . . . .	744	459	711	17,832	9,598	20,145
Workstation . . . . .	226	256	292	12,077	18,627	19,949
Personal computer . . . . .	1,448	3,586	4,292	857,706	1,732,564	2,043,438
Western Europe:						
Supercomputer . . . . .	506	493	480	291	341	647
Mainframe . . . . .	10,862	5,339	4,894	4,307	2,031	2,111
Midrange . . . . .	10,062	5,831	5,890	243,340	152,665	162,726
Workstation . . . . .	2,396	2,862	3,752	121,577	202,048	235,171
Personal computer . . . . .	14,810	22,861	29,483	7,954,834	11,760,736	14,672,340
Japan:						
Supercomputer . . . . .	470	755	729	116	297	380
Mainframe . . . . .	5,698	4,933	4,551	6,222	3,982	3,401
Midrange . . . . .	5,392	4,781	5,494	231,571	175,716	187,124
Workstation . . . . .	1,512	2,276	2,435	96,267	146,232	159,198
Personal computer . . . . .	4,746	8,753	13,943	2,243,500	3,344,710	5,695,389

Source: Gartner Group (formerly Dataquest Inc.), San Jose, CA, Consolidated Data Base.

## No. 1265. Computers and Office and Accounting Machines—Value of Shipments: 1990 to 1996

[In millions of dollars]

SELECTED PRODUCTS	Product class	1990	1991	1992	1993	1994	1995	1996
Electronic computers . . . . .	3571 . . .	25,630.1	26,274.1	28,571.2	29,659.1	38,260.7	49,038.1	50,681.5
Large-scale processing equipment <sup>1</sup> . . . . .	35713 . .	(NA)	(NA)	5,267.1	4,104.4	4,458.5	5,288.8	5,962.3
Medium-scale & small-scale processing equipment . . . . .	35714 . .	(NA)	(NA)	3,347.3	2,442.3	2,815.5	2,278.6	2,401.6
Personal computers and workstations <sup>1</sup> . . . . .	35715 . .	(NA)	(NA)	17,059.6	18,888.8	24,298.0	34,349.3	35,767.9
Portable computers <sup>1</sup> . . . . .	35716 . .	(NA)	(NA)	1,644.2	2,575.6	5,028.3	5,774.3	5,290.8
Other general purpose digital processing units <sup>1</sup> . . . . .	35717 . .	(NA)	(NA)	493.5	946.2	958.8	457.9	432.0
Other computers <sup>1</sup> . . . . .	35718 . .	(NA)	(NA)	759.4	701.8	701.6	889.3	826.8
Loaded computer processor boards and board subassemblies <sup>2</sup> . . . . .	36798 . .	2,247.2	12,590.4	13,745.8	15,087.1	17,514.8	24,447.7	24,133.8
Computer storage devices & equipment . . . . .	35721 . .	7,488.2	5,609.7	6,282.4	5,730.7	5,555.6	7,903.0	8,160.7
Parts for computer storage devices & subassemblies . . . . .	35722 . .	955.2	780.4	1,357.1	1,496.4	1,951.9	2,235.6	1,775.8
Computer terminals . . . . .	35751 . .	2,066.7	1,729.5	1,707.9	1,531.3	1,243.5	1,086.0	1,062.3
Computer peripheral equipment, n.e.c. . . . .	35771 . .	7,696.6	7,763.6	8,505.6	9,810.2	11,943.6	12,331.0	12,783.9
Parts for input/output equipment . . . . .	35772 . .	3,705.5	4,186.9	3,053.2	2,554.3	2,498.7	2,391.0	5,441.6
Calculating and accounting machines <sup>3</sup> . . . . .	35784 . .	(D)	973.5	967.5	1,454.2	1,261.5	1,278.9	1,456.2
Magnetic and optical recording media . . . . .	36950 . .	3,695.4	3,894.4	4,336.8	4,483.3	4,777.1	5,106.2	5,155.8

D Withheld to avoid disclosing data for individual companies. NA Not available. <sup>1</sup> Prior to 1992, product class separation for computers is not available. <sup>2</sup> These data are collected on two Current Industrial Report forms, MA35R, "Computers and Office and Accounting Machines (Shipments) and MA36Q, Semiconductors, Printed Circuit Boards, And Other Electronic Components. <sup>3</sup> Product classes 35781 and 35782 were combined to product class 35784 beginning 1991.

Source: U.S. Bureau of the Census, *Manufacturing Profiles*, Series MP, annual.

## No. 1266. Computers and Industrial Electronics—Factory Shipments: 1990 to 1996

[The complete publication including this copyright table is available from the U.S. Government Printing Office and the National Technical Information Service]

**No. 1267. Computers and Office and Accounting Machines—Shipments: 1995 and 1996**

PRODUCT	Product code	Number of companies, 1996	QUANTITY (1,000)		VALUE (mil. dol.)	
			1995	1996	1995	1996
Electronic computers (automatic data processors) . . . . .	3571	201	20,386	19,939	49,038	50,682
Large-scale processing equipment <sup>1</sup> . . . . .	35713	29	60	101	5,289	5,962
Medium- and small-scale processing equipment <sup>2</sup> . . . . .	35714	39	225	268	2,279	2,402
Personal computers and workstations . . . . .	35715	86	15,308	14,423	34,349	35,768
Portable computers . . . . .	35716	39	3,964	4,374	5,774	5,291
Computer storage devices and equipment . . . . .	35721	91	(X)	(X)	7,903	8,161
Parts for computer storage devices and subassemblies . . . . .	35722	21	(X)	(X)	2,236	1,776
Computer terminals . . . . .	35751	54	(X)	(X)	1,086	1,062
Parts for computer terminals . . . . .	35752	13	(X)	(X)	(D)	165
Computer peripheral equipment, n.e.c. <sup>4</sup> . . . . .	35771	260	(X)	(X)	12,331	12,784
Calculating and accounting machines . . . . .	35784	43	(X)	(X)	1,279	1,465
Automatic typing and word processing machines . . . . .	35792	3	(D)	(D)	(D)	(D)
Mailing, letter handling, addressing machines . . . . .	35795	32	(X)	(X)	1,280	1,235
Other office machines, n.e.c. <sup>4</sup> . . . . .	35799	45	(X)	(X)	558	576
Printed circuit assemblies . . . . .	36798	674	(X)	(X)	24,448	24,134
Magnetic and optical recording media . . . . .	36950	57	(X)	(X)	5,106	5,156

D Data withheld to avoid disclosing figures for individual companies. X Not applicable. <sup>1</sup> 64 megabytes in MINIMUM main memory configuration. <sup>2</sup> Up to 64 megabytes in MINIMUM main memory configuration. <sup>3</sup> Data not shown because it is not comparable to prior years. <sup>4</sup> N.e.c. = Not elsewhere classified.

Source: U.S. Bureau of the Census, *Manufacturing Profiles*, Series MP, annual.

**No. 1268. Consumer Electronics and Electronic Components— Factory Sales, by Product Category: 1990 to 1996**

[The complete publication including this copyright table is available from the U.S. Government Printing Office and the National Technical Information Service]

### No. 1269. Semiconductors, Printed Circuit Boards, and Other Electronic Components—Value of Shipments, by Class of Product: 1990 to 1996

[In millions of dollars. N.e.c.=not elsewhere classified]

CLASS OF PRODUCT	Product code	1990	1992	1993	1994	1995	1996
Transmittal, industrial, and special-purpose electron tubes (except x-ray) . . . . .	36713	1,096.5	868.4	677.6	1,120.5	854.9	645.3
Electron tubes, receiving type . . . . .	36714	24.2	24.6	27.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Cathode ray picture tubes, including rebuilt . . . . .	36714	1,344.1	2,022.8	2,231.5	2,627.1	2,907.0	3,272.0
Electron tube parts . . . . .	36715	142.6	129.5	160.1	114.9	120.2	153.1
Printed circuit boards . . . . .	36720	7,174.5	5,721.7	6,273.0	6,812.3	8,367.3	8,302.9
Integrated microcircuits (semiconductor networks) . . . . .	36741	16,623.3	20,065.4	23,636.1	36,020.4	48,437.9	54,072.5
Transistors . . . . .	36742	682.3	674.8	704.5	834.6	942.3	1,405.0
Diodes and rectifiers . . . . .	36743	668.2	652.2	640.7	829.5	1,066.7	918.8
Other semiconductor devices . . . . .	36749	5,741.0	5,899.2	6,908.2	9,915.4	12,639.4	11,135.3
Capacitors for electronic applications . . . . .	36750	1,391.5	1,288.0	1,294.3	1,512.3	1,785.3	1,630.5
Resistors . . . . .	36760	799.8	708.3	716.5	869.5	953.2	906.5
Coils, transformers, reactors, and chokes for electronic applications . . . . .	36770	975.6	1,095.3	1,121.4	1,250.7	1,411.8	1,368.5
Coaxial connectors . . . . .	36781	420.0	424.5	419.0	642.4	731.6	636.0
Cylindrical connectors . . . . .	36782	513.6	503.9	482.8	511.3	552.9	608.8
Rack and panel connectors . . . . .	36783	500.0	461.9	427.6	545.6	540.5	508.0
Printed circuit connectors . . . . .	36784	804.9	855.2	859.4	923.4	1,026.4	1,066.9
Other connectors including parts . . . . .	36785	1,085.0	1,123.3	1,152.8	1,377.2	1,401.9	1,370.1
Filters (except microwave) and piezoelectric devices . . . . .	36791	457.4	448.8	534.3	674.1	729.2	720.5
Microwave components and devices . . . . .	36793	1,368.7	1,258.4	1,136.3	1,227.2	1,233.4	1,346.6
Transducers, electrical/electronic input or output . . . . .	36795	741.1	810.3	832.5	970.5	1,111.3	1,174.9
Switches, mechanical types for electronic circuitry . . . . .	36796	579.4	541.7	572.6	621.5	666.3	731.8
Printed circuit assemblies . . . . .	36798	8,269.3	13,745.8	15,087.1	17,514.8	24,447.7	24,133.8
All other electronic components n.e.c . . . . .	36799	4,898.3	5,260.3	5,257.6	6,149.7	6,978.1	7,273.5

<sup>1</sup> Product codes combined to avoid disclosing figures for individual companies.

Source: U.S. Bureau of the Census, *Manufacturing Profiles*, Series MP, annual.

### No. 1270. Selected Instruments and Related Products—Shipments: 1990 to 1996

[In millions of dollars]

PRODUCT	Product code	1990	1992	1993	1994	1995	1996
Automatic regulating and control valves . . . . .	34918	1,418	1,579	1,648	1,807	1,860	1,905
Solenoid-operated valves (except nuclear and fluid power transfer) . . . . .	34919	346	405	406	452	464	505
Aeronautical, nautical, and navigational instruments . . . . .	38121	2,518	2,517	2,121	1,859	2,125	2,350
Search & detection, navigation & guidance systems and equipment . . . . .	38122	32,420	31,311	28,604	25,567	24,697	23,856
Laboratory apparatus and laboratory furniture <sup>1</sup> . . . . .	38210	1,675	1,715	1,598	1,811	1,837	1,945
Controls for monitoring residential and commercial environments and appliance . . . . .	38220	1,982	2,197	2,310	2,521	2,533	2,619
Process control instruments . . . . .	38230	5,224	5,731	5,935	6,240	6,439	6,759
Integrating and totalizing meters for gas and liquids . . . . .	38242	725	727	777	859	915	963
Counting devices . . . . .	38243	210	273	285	354	364	363
Motor vehicle instruments <sup>2</sup> . . . . .	38244	1,457	1,576	1,768	2,092	2,193	2,205
Integrating instruments, electrical . . . . .	38251	396	439	461	440	445	432
Test equipment for testing electrical, radio and communication circuits, and motors . . . . .	38252	6,156	6,493	6,572	7,582	9,255	10,311
Instruments to measure electricity . . . . .	38253	586	558	526	554	555	555
Analytical, scientific instruments (except optical) . . . . .	38260	4,412	4,886	4,766	5,534	5,737	6,093
Sighting, tracking, and fire-control equipment, optical type . . . . .	38271	581	771	769	652	655	616
Optical instruments and lenses <sup>3</sup> . . . . .	38274	1,252	1,322	1,456	1,597	1,579	1,762
Aircraft engine instruments (except flight) . . . . .	38291	579	590	552	430	430	447
Physical properties and kinematic testing equip. . . . .	38292	1,012	1,149	1,175	1,199	1,374	1,378
Nuclear radiation detection and monitoring instruments . . . . .	38294	567	533	519	489	501	503
Commercial, geophysical, meteorological, and general purpose instruments . . . . .	38295	1,140	1,361	1,271	1,344	1,373	1,386
Surveying and drafting instruments . . . . .	38296	274	255	301	324	356	398

<sup>1</sup> Includes laboratory furniture. Prior to 1990, laboratory furniture was included in product class 38296. <sup>2</sup> Includes some data previously classified in product class 37149, "Other motor vehicle parts and accessories, new, n.e.c." <sup>3</sup> Beginning 1992, product classes 38272, "Binoculars and astronomical instruments," and 38273, "Other optical instruments and lenses" were combined into product class 38274; prior years have been restated to reflect revision.

Source: U.S. Bureau of the Census, through 1992, *Current Industrial Reports*, MA38B; thereafter *Manufacturing Profiles*, Series MP, annual.

**No. 1271. Fluid Power Products—Shipments: 1991 to 1996**

[In millions of dollars. Includes aerospace]

PRODUCT	Product code	1991	1992	1993	1994	1995	1996
<b>Fluid power products, total <sup>1</sup></b>	(X)	<b>6,477</b>	<b>6,330</b>	<b>6,742</b>	<b>7,914</b>	<b>9,011</b>	<b>9,416</b>
Nonaerospace-type hydraulic directional control valves . . . . .	3492C	314	316	292	429	467	477
Nonaerospace-type hydraulic valves, except directional control . . . . .	3492D	292	267	473	561	727	725
Nonaerospace-type pneumatic directional control valves . . . . .	3492E	294	318	283	382	440	476
Nonaerospace-type flareless fittings and couplings (including nonmetal fittings) used in fluid power transfer systems . . . . .	3492K	323	326	320	368	447	455
Nonaerospace-type hydraulic and pneumatic fittings, fittings and couplings for hose, and manifolds . . . . .	3492M	413	423	489	629	676	725
Aerospace-type hydraulic and pneumatic hose or tube end fittings and assemblies and manifolds . . . . .	3492H	386	354	304	324	358	403
Nonaerospace-type hydraulic fluid power cylinders and actuators, linear and rotary . . . . .	35934	517	523	786	917	1,071	1,154
Nonaerospace-type pneumatic fluid power cylinders and actuators, linear and rotary . . . . .	35935	284	341	289	368	400	424
Nonaerospace-type reciprocating pumps . . . . .	35943	280	251	288	344	491	522
Nonaerospace-type rotary and other fluid power pumps . . . . .	35944	318	375	339	413	444	423
Nonaerospace-type fluid power motors . . . . .	35945	194	202	325	433	510	506
Parts for fluid power pumps, motors, and hydrostatic transmissions . . . . .	35949	354	312	321	334	390	405

X Not applicable. <sup>1</sup> Includes products, not shown separately.Source: U.S. Bureau of the Census, *Manufacturing Profiles*, Series MP, annual.**No. 1272. Switchgear, Switchboard Apparatus, Relays, and Industrial Controls—Shipments: 1990 to 1996**

[In millions of dollars]

PRODUCT	Product code	Companies, 1996 (number)	1990	1992	1993	1994	1995	1996
Power circuit breakers . . . . .	36132	34	388	481	516	531	443	421
Low volt panelboards & dist. boards . . . . .	36133	134	1,722	1,531	1,681	1,744	2,025	2,153
Fuses and fuse equipment . . . . .	36134	24	419	413	320	332	500	522
Molded case circuit breakers, 1,000 volts and under . . . . .	36135	36	959	955	1,010	1,107	1,173	1,218
Duct, 1,000 volts and under . . . . .	36136	23	194	189	200	228	239	255
Switchgear, except ducts . . . . .	36139	129	1,324	1,615	1,581	1,636	1,758	1,864
General purpose and other relays . . . . .	36251	119	805	782	751	676	808	807
Specific purpose industrial controls . . . . .	36252	246	2,020	1,916	2,322	2,732	3,312	3,467
General purpose industrial controls . . . . .	36253	268	2,912	2,778	3,326	3,699	4,189	4,427
Motor controller accessories & parts for industrial controls . . . . .	36254	131	452	448	476	502	503	497

Source: U.S. Bureau of the Census, through 1992, *Current Industrial Reports*, MA36A, annual; thereafter, *Manufacturing Profiles*, Series MP, annual.**No. 1273. Selected Industrial Air Pollution Control Equipment—Shipments: 1996**

[Quantity in number of units, value in millions of dollars]

PRODUCT	Product code	Number of companies	NEW ORDERS		SHIPMENTS		BACKLOG (Dec. 31)	
			Quantity	Value	Quantity	Value	Quantity	Value
<b>Selected industrial air pollution control equipment</b>	<b>35646</b>	<b>110</b>	<b>83,936</b>	<b>826,871</b>	<b>83,545</b>	<b>706,959</b>	<b>9,799</b>	<b>411,697</b>
Particulate emissions collectors . . . . .	(X)	86	74,536	495,969	74,150	518,368	9,181	180,301
Electrostatic precipitators . . . . .	35646 51	15	(D)	108,430	(D)	118,512	(D)	78,467
Fabric filters . . . . .	35646 54	53	56,240	280,852	55,510	286,828	7,291	54,218
Mechanical collectors . . . . .	35646 55	37	(D)	57,309	(D)	63,479	(D)	20,265
Wet scrubbers . . . . .	35646 58	28	1,205	49,378	1,238	49,549	226	27,351
Gaseous emissions control devices . . . . .	(X)	38	1,068	311,492	1,020	164,034	281	223,510
Catalytic oxidation systems . . . . .	35646 70	11	196	44,458	189	19,943	50	37,289
Thermal and direct oxidation systems . . . . .	35646 72	16	251	66,108	242	64,475	47	10,906
Scrubbers (gas absorber) . . . . .	35646 73	10	516	29,173	525	26,661	106	6,327
Gas absorbers . . . . .	35646 76	8	(D)	(D)	43	24,487	(D)	(D)
Other . . . . .	35646 79	18	8,332	19,410	8,375	24,557	337	7,886

D Data withheld to avoid disclosure of company data. X Not applicable.

Source: U.S. Bureau of the Census, *Manufacturing Profiles*, Series MP, annual.