

# FEDERAL RESERVE statistical release



17 (419)

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## INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

Industrial production rose 0.6 percent in May after no change in April; industrial capacity utilization increased 0.3 percentage point in May to 83.6 percent.

A rebound from last month's sharp decline in motor vehicle production accounted for much of the May increase in industrial production. Excluding motor vehicles and parts, industrial production increased 0.2 percent in May and 0.4 percent in April. During the past year, total industrial production has risen 1.3 percent to 109.7 percent of its 1987 annual average.

### Market Groups

The increase in production of motor vehicles and related parts in May boosted significantly the indexes for durable consumer goods, business equipment, and durable goods materials. Excluding autos and trucks, production of consumer goods was about unchanged in May and has been flat, on balance, since last fall. Business equipment, excluding motor vehicles, rose 1 percent in May, reflecting widespread gains; since February, output in this sector has risen sharply owing mainly to advances in information processing and industrial equipment. Production of construction supplies edged down in May, continuing its recent weakness. Among materials, output of nondurables grew little in May and has risen only slightly since January; production of energy materials fell 0.8 percent as electricity generation and crude oil extraction declined.

(over)

## INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION: SUMMARY

Seasonally adjusted

	Index, 1987=100				Percent change				May 89 to May 90
	1990 Feb'	Mar'	Apr'	May <sup>P</sup>	1990 Feb'	Mar'	Apr'	May <sup>P</sup>	
<b>Industrial Production</b>									
<b>Total Index</b>	108.5	109.0	109.0	109.7	0.9	0.5	0.0	0.6	1.3
Previous estimates	108.5	109.1	108.7		0.9	0.5	-0.4		
<b>Major market groups:</b>									
<b>Products, total</b>	109.7	110.8	110.6	111.6	1.1	1.0	-0.1	0.9	1.9
Consumer goods	107.0	107.6	107.4	108.0	0.9	0.6	-0.2	0.5	1.1
Business equipment	120.1	122.3	121.9	123.9	1.7	1.8	-0.3	1.7	3.1
Construction supplies	108.2	106.9	106.6	106.5	0.3	-1.3	-0.3	-0.1	0.5
<b>Materials</b>	107.1	107.2	107.5	108.0	0.8	0.1	0.3	0.5	0.6
<b>Major industry groups:</b>									
<b>Manufacturing</b>	109.6	109.9	109.7	110.6	1.4	0.2	-0.2	0.8	1.3
Durable	110.7	111.9	111.2	112.6	2.0	1.0	-0.6	1.3	1.1
Nondurable	108.3	107.3	107.8	107.9	0.7	-0.9	0.4	0.2	1.5
Mining	101.0	100.8	102.5	102.5	-0.7	-0.2	1.7	-0.0	1.4
Utilities	104.0	107.7	108.5	107.3	-2.6	3.6	0.7	-1.1	1.0
									Capacity growth
<b>Capacity Utilization</b>	Average 1967-89	1982 Low	1988-89 High	1989 May	1990 Feb'	Mar'	Apr'	May <sup>P</sup>	May 89 to May 90
<b>Total Industry</b>	82.2	71.8	85.0	84.6	83.2	83.4	83.3	83.6	2.5
<b>Manufacturing</b>	81.5	70.0	85.1	84.5	83.0	82.9	82.6	83.0	3.0
Advanced processing	81.1	71.4	83.6	83.4	81.7	82.0	81.5	82.1	3.3
Primary processing	82.3	66.8	89.0	87.0	86.1	85.2	85.1	85.2	2.4
Mining	87.3	80.6	87.2	86.3	87.3	87.2	88.9	88.9	-1.7
Utilities	86.8	76.2	92.3	84.8	82.5	85.4	85.9	84.9	0.9

### Industry Groups

Production in manufacturing increased 0.8 percent in May, bringing the factory operating rate up 0.4 percentage point to 83.0 percent. Output at mines was unchanged while utilities production fell 1.1 percent.

Within manufacturing, capacity utilization for advanced processing industries rose 0.6 percentage point in May, principally as a result of the rebound in motor vehicle production, while the rate for primary processing industries was little changed. Aside from motor vehicles and parts, sizable output gains in May also occurred in nonferrous metals, fabricated metals products (reflecting, in part, increased auto body stampings), instruments, miscellaneous manufactures, and rubber and plastic products. However, for most of these industries, their recent improvements have only brought their utilization rates back to levels experienced since late last year; the operating rate for miscellaneous manufactures has increased in every month since January to reach its highest rate since March 1972. At the same time, however, output for lumber and clay, glass, and stone products—both construction-related industries—has weakened significantly since the start of the year, and their operating rates have dropped several percentage points.

### **NOTICE**

Data shown the G.17(419) **Industrial Production and Capacity Utilization** release are available on the day of issue through the Department of Commerce's online Economic Bulletin Board (202-377-3870). Historical data are available on magnetic tape from the National Technical Information Service (703-487-4650). Hardcopy is available upon written request to Industrial Output Section, Mail Stop 82, Division of Research and Statistics, Federal Reserve Board, Washington, D.C. 20551.

# INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

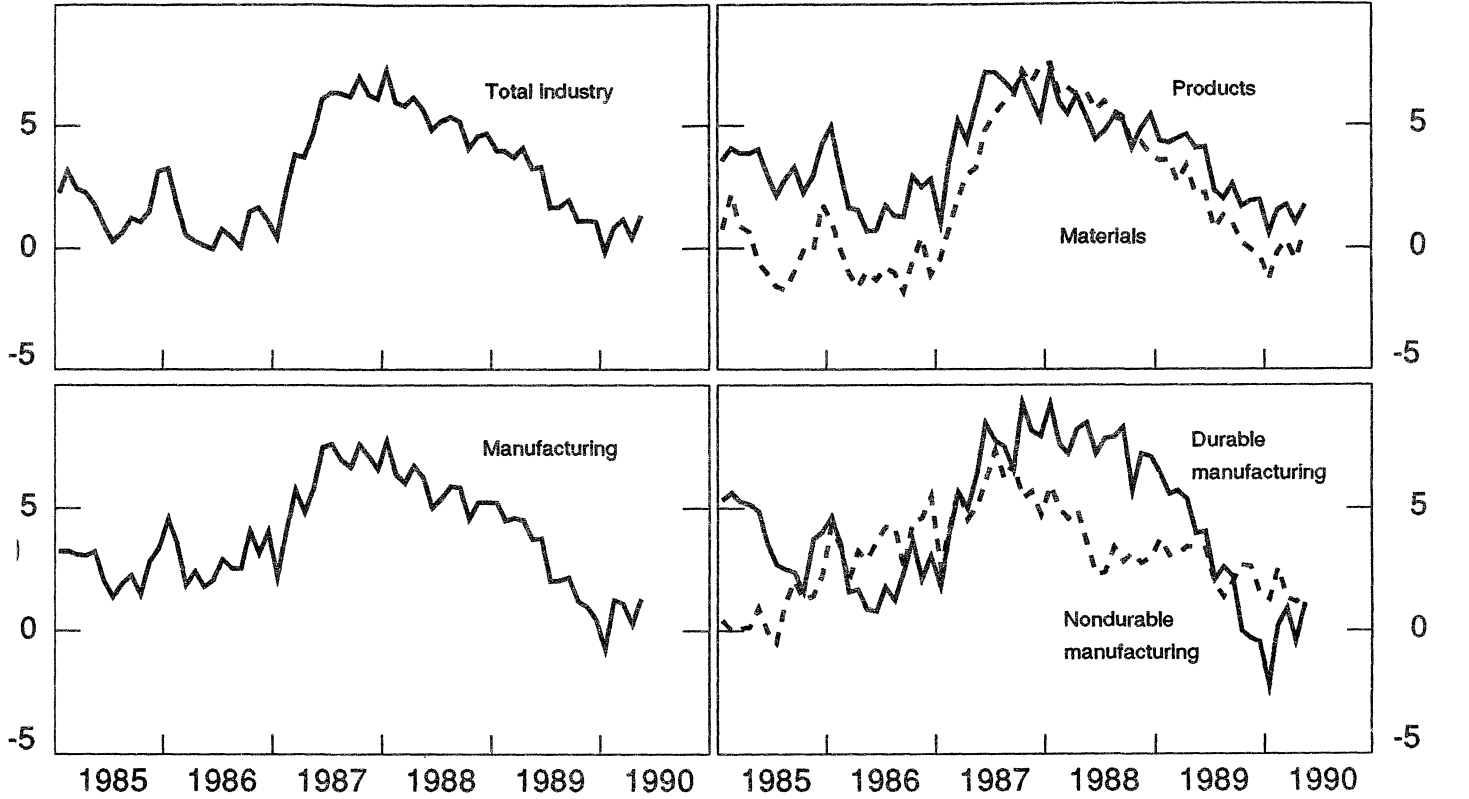
Seasonally adjusted

May data

## Industrial production indexes

Twelve-month percent change

Twelve-month percent change

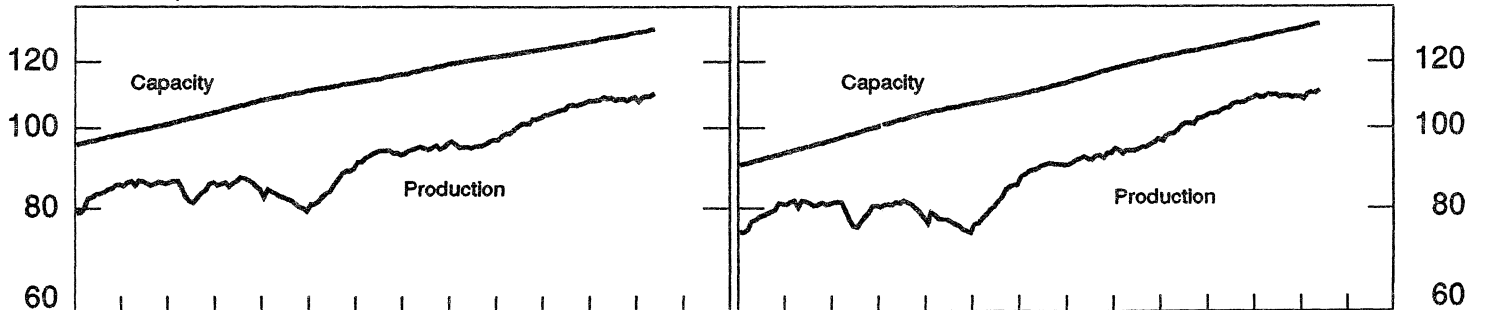


### Total industry

### Manufacturing

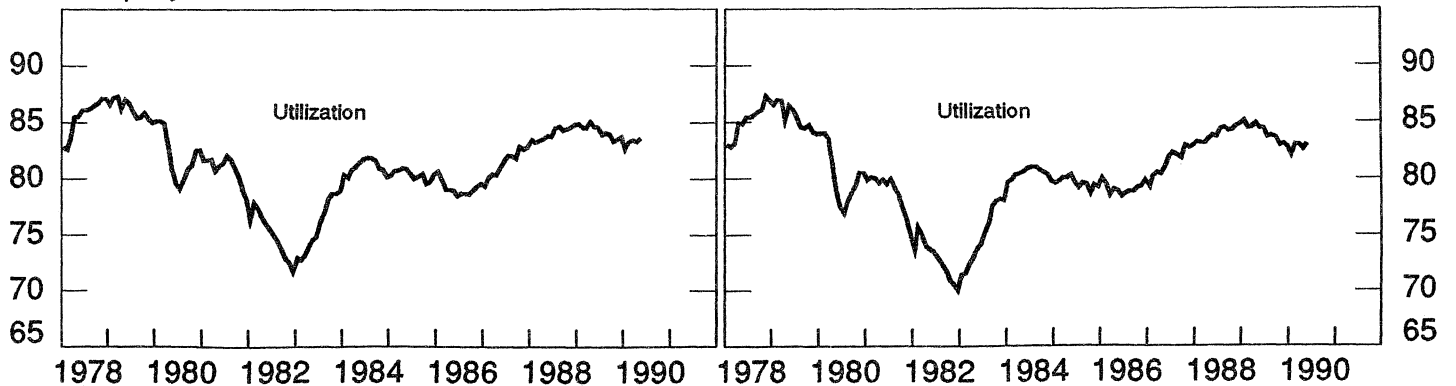
Ratio scale, 1987 production = 100

Ratio scale, 1987 production = 100



Percent of capacity

Percent of capacity



**Table 1A  
INDUSTRIAL PRODUCTION: MARKET GROUPS**

Item	Proportion in Total IP		Index, 1987=100											
	1987	1989	Seasonally adjusted						Not seasonally adjusted					
			1989 Dec	1990 Jan <sup>r</sup>	Feb <sup>r</sup>	Mar <sup>r</sup>	Apr <sup>r</sup>	May <sup>p</sup>	1989 Dec	1990 Jan	Feb <sup>r</sup>	Mar <sup>r</sup>	Apr <sup>r</sup>	May <sup>p</sup>
<b>Total index</b>	100.0	100.0	108.6	107.5	108.5	109.0	109.0	109.7	106.8	106.0	109.0	108.8	107.9	108.0
<b>Products, total</b>	60.8	61.1	109.7	108.4	109.4	110.2	110.0	110.8	107.4	106.0	108.8	109.1	108.0	108.6
<b>Final products</b>	46.0	46.5	110.3	108.5	109.7	110.8	110.6	111.6	108.1	106.8	109.7	110.2	108.4	108.6
<b>Consumer goods</b>	26.0	25.7	108.3	106.0	107.0	107.6	107.4	108.0	105.2	104.6	107.0	106.6	104.6	105.2
<b>Durable</b>	5.6	5.6	106.8	99.4	106.2	111.0	107.3	110.2	99.7	95.8	108.8	113.6	109.3	112.3
Automotive products	2.5	2.4	104.5	85.2	99.3	109.5	102.1	108.5	94.8	83.2	105.0	115.3	106.7	113.9
Autos and trucks	1.5	1.4	100.1	66.3	92.7	107.7	95.7	106.0	84.6	65.2	103.6	118.2	103.3	115.7
Autos	0.9	0.9	92.6	62.1	86.9	100.5	87.6	96.8	79.7	60.4	97.1	110.7	95.1	106.5
Trucks	0.6	0.6	112.6	73.3	102.3	120.0	109.3	121.3	92.8	73.3	114.6	130.8	117.2	131.2
Auto parts and allied goods	1.0	1.0	111.2	113.6	109.4	112.1	111.8	112.4	110.0	110.3	107.2	111.0	111.9	111.1
Other durable goods	3.1	3.1	108.6	110.6	111.6	112.2	111.4	111.6	103.6	105.7	111.8	112.2	111.3	111.1
Appliances, TVs, and air-cond.	0.8	0.8	101.0	108.4	107.8	108.1	105.1	105.8	88.4	107.7	109.9	107.7	107.5	108.9
Carpeting and furniture	0.9	0.9	102.0	103.7	104.7	105.9	106.2	105.7	97.5	97.1	105.5	106.9	106.7	103.7
Miscellaneous	1.4	1.5	117.1	116.2	118.2	118.5	118.2	118.6	115.9	110.1	117.0	118.0	116.4	117.0
<b>Nondurable</b>	20.4	20.1	108.7	107.8	107.2	106.7	107.5	107.4	106.7	107.0	106.5	104.7	103.3	103.3
Foods and tobacco	9.1	8.8	106.4	105.5	106.2	105.9	106.5	106.4	100.5	100.3	102.2	102.0	102.5	104.7
Clothing	2.6	2.4	99.4	100.6	99.6	97.4	98.0	98.5	95.3	95.2	99.0	97.1	97.2	98.0
Chemical products	3.5	3.6	110.3	112.7	112.0	111.1	113.0	113.2	104.4	104.6	105.4	103.8	107.8	109.7
Paper products	2.5	2.7	116.9	116.2	117.6	117.1	117.9	117.9	113.0	109.6	113.0	113.4	112.5	115.1
Energy products	2.7	2.6	115.2	107.9	101.5	102.6	103.4	101.7	135.6	142.1	123.7	114.3	96.8	83.6
Fuels	0.7	0.7	100.5	105.1	106.6	101.8	102.1	99.3	105.3	104.3	101.6	96.8	100.2	99.8
Utilities	2.0	2.0	120.7	109.0	99.6	102.9	103.9	102.6	146.8	156.2	132.0	120.8	95.6	77.5
<b>Equipment, total</b>	20.0	20.8	112.9	111.8	113.3	114.9	114.8	116.3	111.8	109.7	113.2	114.8	113.4	114.9
<b>Business equipment</b>	13.9	15.3	119.9	118.0	120.1	122.3	121.9	123.9	117.4	114.7	119.9	122.0	120.4	122.5
Information processing & related	5.6	6.3	124.0	124.0	124.7	126.1	126.9	128.4	121.6	120.0	121.4	123.2	123.5	125.0
Office and computing	1.9	2.5	142.7	142.7	144.3	147.2	151.4	152.6	137.0	136.0	137.5	142.0	144.5	147.0
Industrial	4.0	4.2	112.8	113.5	113.4	113.9	114.4	115.0	112.5	110.1	114.0	113.1	111.6	112.0
Transit	2.5	2.8	123.4	111.4	122.7	130.6	125.9	132.3	119.5	111.3	126.8	137.1	131.0	137.3
Autos and trucks	1.2	1.2	97.6	69.6	91.7	104.5	95.1	104.9	83.9	68.5	101.8	116.3	103.1	112.9
Other	1.9	2.0	118.5	118.7	117.4	117.7	117.6	118.4	113.0	113.7	118.8	117.9	115.7	116.7
<b>Defense and space equipment</b>	5.4	4.8	96.6	97.5	97.6	97.5	97.3	97.2	98.5	98.1	98.3	98.6	97.2	96.8
Oil and gas well drilling	0.6	0.5	100.3	98.3	100.1	106.0	114.3	118.6	114.4	106.2	98.2	98.4	100.7	104.0
Manufactured homes	0.2	0.1	91.6	91.6	94.3	92.9	89.7	89.4	68.8	72.1	85.3	92.1	96.7	96.9
<b>Intermediate products</b>	14.7	14.6	107.9	108.0	108.4	108.3	108.1	108.1	105.2	103.4	106.1	105.6	106.6	106.1
Construction supplies	6.0	5.9	107.4	107.9	108.2	106.9	106.6	106.5	104.2	101.3	103.8	104.2	106.7	107.4
Business supplies	8.7	8.6	108.2	108.0	108.5	109.2	109.2	109.2	105.8	104.9	107.7	106.5	106.5	105.1
<b>Materials</b>	39.2	38.9	106.9	106.2	107.1	107.2	107.5	108.0	105.9	106.1	109.4	108.5	107.8	107.1
<b>Durable</b>	19.4	20.0	110.4	109.4	110.8	110.8	110.5	112.0	108.9	106.4	111.5	112.2	111.4	112.3
Consumer parts	4.2	4.2	102.5	96.5	102.8	104.4	102.0	106.4	103.3	95.4	105.0	106.5	103.5	106.9
Equipment parts	7.3	7.7	115.8	116.5	117.6	117.5	117.3	118.3	117.5	116.3	117.6	118.0	116.4	117.4
Other	7.9	8.1	109.5	109.7	108.7	108.0	108.7	109.2	103.9	103.2	109.2	110.0	110.9	110.5
Basic metals	2.8	2.9	109.3	108.5	109.9	107.2	108.6	108.6	103.8	106.3	112.4	113.5	115.0	113.1
<b>Nondurable</b>	9.0	8.8	104.3	105.4	105.8	105.3	106.2	106.1	100.1	104.3	108.2	106.4	108.0	105.9
Textile	1.2	1.1	95.8	94.6	96.2	95.0	96.5	96.9	89.1	93.1	98.1	98.1	98.1	100.0
Paper	1.9	1.8	103.7	105.0	105.3	103.4	106.2	106.3	99.5	105.8	108.6	105.0	107.1	105.0
Chemical	3.8	3.8	103.8	105.8	107.3	107.5	107.4	107.1	102.0	104.6	109.5	108.0	109.6	107.4
Other	2.1	2.1	110.4	110.9	108.8	108.8	109.2	109.2	103.4	108.5	111.1	109.4	111.2	107.3
<b>Energy</b>	10.9	10.2	102.7	101.2	101.7	102.2	103.2	102.4	105.3	106.9	106.6	103.4	101.2	98.9
Primary	7.2	6.6	99.0	101.1	102.1	101.1	102.4	101.4	100.7	104.5	106.3	103.4	101.9	100.0
Converted fuel	3.7	3.5	110.0	101.4	100.9	104.4	104.8	104.3	114.5	111.4	107.2	103.5	99.7	96.8
<b>SPECIAL AGGREGATES</b>														
<b>Total excluding:</b>														
Autos and trucks	97.3	97.4	108.9	108.6	108.9	109.1	109.4	109.8	107.4	107.1	109.2	108.6	108.0	107.8
Motor vehicles and parts	95.3	95.5	109.1	109.0	109.2	109.3	109.7	109.9	107.5	107.5	109.5	108.8	108.2	107.9
Office and computing machines	97.5	96.9	107.7	106.6	107.6	108.0	108.0	108.6	106.0	105.3	108.3	108.0	107.0	107.0
<b>Consumer goods excluding:</b>														
Autos and trucks	24.5	24.2	108.8	108.4	107.8	107.6	108.1	108.1	106.4	107.0	107.2	105.9	104.6	104.6
Energy	23.3	23.0	107.5	105.8	107.6	108.2	107.9	108.7	101.7	100.3	105.1	105.7	105.4	107.7
<b>Business equipment excluding:</b>														
Autos and trucks	12.7	14.2	122.1	122.8	122.9	124.0	124.5	125.7	120.7	119.3	121.6	122.6	122.1	123.4
Office and computing equipment	12.0	12.9	116.2	114.0	116.2	118.2	117.1	119.3	114.3	111.3	117.0	118.8	116.5	118.6
<b>Materials excluding:</b>														
Energy	28.4	28.8	108.4	108.1	109.2	109.1	109.1	110.1	106.1	105.7	110.4	110.4	110.3	110.3



**Table 1B**  
**INDUSTRIAL PRODUCTION: MARKET GROUPS**

Percent change

Item	1988 Q4 to 1989 Q4 <sup>1</sup>	Seasonally adjusted annual rate				Seasonally adjusted				Not seasonally adjusted				May 89 to May 90 <sup>1</sup>
		1989 Q2	Q3	Q4	Q1 <sup>r</sup>	1990 Feb <sup>r</sup>	Mar <sup>r</sup>	Apr <sup>r</sup>	May <sup>p</sup>	1990 Feb <sup>r</sup>	Mar <sup>r</sup>	Apr <sup>r</sup>	May <sup>p</sup>	
<b>Total Index</b>	1.1	2.8	-1.2	0.2	0.7	0.9	0.5	0.0	0.6	2.8	-0.2	-0.9	0.1	1.3
<b>Products, total</b>	1.8	3.8	-1.6	1.3	1.6	1.0	0.7	-0.1	0.7	2.7	0.2	-1.0	0.6	1.7
<b>Final products</b>	1.8	5.1	-1.7	0.9	1.0	1.1	1.0	-0.1	0.9	2.7	0.5	-1.6	0.9	1.9
<b>Consumer goods</b>	1.8	1.0	-3.8	7.6	-2.9	0.9	0.6	-0.2	0.5	2.3	-0.3	-1.9	0.6	1.1
<b>Durable</b>	-2.2	-0.4	-10.3	0.5	-3.4	6.9	4.5	-3.3	2.7	13.6	4.4	-3.8	2.8	0.9
Automotive products	-7.8	-9.4	-19.2	0.7	-18.8	16.6	10.2	-6.7	6.2	26.2	9.8	-7.5	6.7	-0.6
Autos and trucks	-13.1	-12.8	-26.6	-4.0	-36.1	39.8	16.3	-11.2	10.7	58.9	14.1	-12.6	12.0	-3.3
Autos	-14.5	-10.0	-29.3	-0.6	-42.1	40.0	15.5	-12.8	10.5	60.7	14.0	-14.1	12.0	-8.4
Trucks	-10.8	-16.9	-22.3	-9.0	-26.1	39.6	17.3	-8.9	11.0	56.4	14.2	-10.4	12.0	4.4
Auto parts and allied goods	0.6	-3.9	-7.1	8.1	10.3	-3.8	2.5	-0.3	0.5	-2.8	3.6	0.7	-0.7	3.6
Other durable goods	2.4	7.6	-2.7	-0.1	9.6	1.0	0.5	-0.7	0.2	5.8	0.3	-0.7	-0.2	2.1
Appliances, TVs, and air-cond.	-4.0	-2.9	-2.0	-14.8	18.8	-0.5	0.2	-2.8	0.7	2.0	-2.0	-0.2	1.3	-0.1
Carpeting and furniture	-1.0	6.0	-11.6	4.6	15.1	1.0	1.1	0.3	-0.5	8.6	1.3	-0.2	-2.9	1.5
Miscellaneous	8.1	14.6	2.3	5.7	2.3	1.7	0.3	-0.2	0.3	6.2	0.9	-1.3	0.5	3.5
<b>Nondurable</b>	3.0	1.4	-1.8	9.4	-2.8	-0.6	-0.4	0.7	-0.1	-0.5	-1.7	-1.4	0.0	1.1
Foods and tobacco	2.5	0.7	-3.8	11.6	-0.3	0.7	-0.3	0.6	-0.1	1.9	-0.1	0.5	2.1	2.1
Clothing	-1.1	-1.1	-3.7	-2.4	-4.9	-1.0	-2.2	0.6	0.5	3.9	-1.9	0.1	0.8	-3.3
Chemical products	1.8	2.1	-0.3	5.3	4.9	-0.6	-0.8	1.7	0.2	0.8	-1.5	3.8	1.8	2.8
Paper products	9.2	1.8	6.0	10.7	-1.5	1.2	-0.4	0.0	0.7	3.0	0.4	-0.8	2.4	4.6
Energy products	4.2	5.1	-3.4	17.8	-19.3	-6.0	1.1	0.8	-1.7	-12.9	-7.6	-15.3	-13.7	-4.1
Fuels	-0.5	-7.7	6.5	-4.6	9.4	1.4	-4.5	0.2	-2.7	-2.6	-4.7	3.5	-0.4	-1.3
Utilities	6.0	10.1	-6.8	27.0	-27.5	-8.6	3.3	1.0	-1.3	-15.5	-8.5	-20.9	-18.9	-5.1
<b>Equipment, total</b>	1.9	10.4	0.8	-6.6	6.2	1.4	1.4	-0.1	1.3	3.2	1.5	-1.2	1.3	2.8
<b>Business equipment</b>	2.3	11.4	-0.3	-6.9	6.7	1.7	1.8	-0.3	1.7	4.5	1.8	-1.4	1.8	3.1
Information processing & related	6.3	13.0	0.4	-1.0	8.4	0.5	1.2	0.6	1.2	1.2	1.5	0.3	1.2	4.8
Office and computing	12.9	10.9	7.5	-1.6	18.2	1.1	2.1	2.8	0.8	1.1	3.3	1.8	1.4	10.9
Industrial	1.3	4.5	-1.6	-4.6	2.5	-0.1	0.5	0.5	0.5	3.5	-0.8	-1.3	0.8	1.0
Transit	-6.5	21.1	-4.7	-24.6	13.6	10.1	6.5	-3.6	5.1	14.0	8.1	-4.4	4.8	3.7
Autos and trucks	-13.3	-17.3	-17.9	-9.8	-32.4	31.7	14.0	-8.9	10.2	48.6	14.2	-11.3	9.5	-0.4
Other	4.5	7.4	6.4	-1.6	1.5	-1.1	0.2	-0.1	0.7	4.4	-0.7	-1.9	0.9	0.8
Defense and space equipment	-0.2	4.9	4.7	-8.5	3.8	0.1	-0.1	-0.2	-0.1	0.2	0.3	-1.4	-0.4	-0.4
Oil and gas well drilling	13.2	53.9	6.6	14.1	9.8	1.8	5.9	7.8	3.8	-7.6	0.3	2.3	3.2	28.2
Manufactured homes	-10.9	-21.0	-22.6	8.5	15.5	2.9	-1.5	-3.4	-0.4	18.3	7.9	4.9	0.2	-3.6
<b>Intermediate products</b>	1.8	-0.3	-1.4	3.4	3.2	0.4	-0.1	-0.1	0.0	2.6	-0.5	0.9	-0.4	1.4
Construction supplies	1.7	2.0	-1.6	4.5	3.0	0.3	-1.3	-0.3	-0.1	2.5	0.4	2.3	0.7	0.5
Business supplies	1.9	-1.8	-1.2	2.7	3.4	0.5	0.7	0.0	0.0	2.7	-1.1	0.0	-1.3	2.0
<b>Materials</b>	-0.1	1.3	-0.5	-2.0	-0.6	0.8	0.1	0.3	0.5	3.1	-0.8	-0.6	-0.6	0.6
<b>Durable</b>	-0.9	0.1	-0.5	-4.1	-1.2	1.2	0.0	-0.3	1.4	4.7	0.7	-0.8	0.8	0.4
Consumer parts	-6.1	-4.2	-7.2	-12.3	-13.8	6.6	1.6	-2.3	4.3	10.1	1.4	-2.8	3.3	-3.8
Equipment parts	2.1	3.9	2.2	-0.6	7.2	0.9	0.0	-0.2	0.8	1.1	0.4	-1.3	0.8	3.5
Other	-1.0	-0.9	0.7	-3.6	-2.4	-0.9	-0.7	0.6	0.5	5.9	0.7	0.8	-0.3	-0.5
Basic metals	-3.2	-3.5	2.9	-11.4	-4.0	1.3	-2.5	1.4	0.0	5.7	1.0	1.4	-1.7	-1.1
<b>Nondurable</b>	0.9	3.0	-0.2	-1.7	1.4	0.4	-0.4	0.8	-0.1	3.8	-1.7	1.5	-1.9	0.7
Textile	2.3	16.4	0.2	-19.5	-6.3	1.7	-1.2	1.6	0.4	5.4	0.0	0.0	2.0	-4.5
Paper	2.0	-2.0	6.4	4.6	-3.0	0.2	-1.8	2.7	0.1	2.7	-3.3	2.1	-2.0	4.1
Chemical	-0.4	1.5	-0.9	-4.1	5.2	1.4	0.2	-0.1	-0.3	4.8	-1.4	1.5	-2.0	1.0
Other	1.8	3.7	-4.6	7.7	2.7	-1.9	0.1	0.3	0.0	2.4	-1.5	1.6	-3.5	0.1
<b>Energy</b>	0.6	2.0	-0.9	3.3	-1.0	0.5	0.5	1.0	-0.8	-0.3	-3.0	-2.2	-2.2	1.2
Primary	-0.9	7.7	2.7	-5.0	6.8	1.0	-1.0	1.3	-1.0	1.6	-2.7	-1.4	-1.9	0.8
Converted fuel	3.7	-7.7	-7.2	19.9	-14.2	-0.5	3.5	0.3	-0.4	-3.7	-3.5	-3.7	-2.9	1.8
<b>SPECIAL AGGREGATES</b>														
<b>Total excluding:</b>														
Autos and trucks	1.5	3.4	-0.5	0.3	1.8	0.3	0.1	0.3	0.3	1.9	-0.6	-0.5	-0.2	1.4
Motor vehicles and parts	1.7	3.6	-0.3	0.5	2.2	0.2	0.1	0.4	0.2	1.9	-0.6	-0.5	-0.3	1.5
Office and computing machines	0.8	2.6	-1.4	0.1	0.2	0.9	0.4	-0.1	0.6	2.9	-0.3	-1.0	0.1	1.0
<b>Consumer goods excluding:</b>														
Autos and trucks	2.8	2.0	-2.2	8.1	-0.8	-0.5	-0.2	0.5	0.0	0.2	-1.2	-1.2	-0.1	1.3
Energy	1.6	0.6	-3.7	6.3	-0.9	1.7	0.6	-0.3	0.8	4.7	0.6	-0.3	2.1	1.7
<b>Business equipment excluding:</b>														
Autos and trucks	3.7	14.4	1.3	-6.7	10.4	0.1	0.9	0.4	1.0	2.0	0.8	-0.4	1.1	3.3
Office and computing equipment	0.4	11.6	-1.6	-8.0	4.5	1.9	1.7	-1.0	1.8	5.1	1.5	-2.0	1.8	1.6
<b>Materials excluding:</b>														
Energy	-0.3	1.0	-0.5	-3.4	-0.4	1.0	-0.1	0.0	0.9	4.4	0.0	-0.1	0.0	0.5

1. Based on seasonally adjusted data.

**Table 2A**  
**INDUSTRIAL PRODUCTION: INDUSTRY GROUPS**

Item	SIC	Proportion in Total IP		Index, 1987=100											
		1987	1989	Seasonally adjusted						Not seasonally adjusted					
				1989 Dec	1990 Jan	Feb'	Mar'	Apr'	May <sup>P</sup>	1989 Dec	1990 Jan	Feb'	Mar'	Apr'	May <sup>P</sup>
<b>Total Index</b>		100.0	100.0	108.6	107.5	108.5	109.0	109.0	109.7	106.8	106.0	109.0	108.8	107.9	108.0
<b>Manufacturing</b>		84.4	85.1	108.8	108.1	109.6	109.9	109.7	110.6	105.5	104.4	108.6	109.2	108.8	109.9
<b>Primary processing</b>		28.7	26.3	105.3	106.2	106.9	106.0	106.1	106.4	101.2	102.4	107.1	106.7	107.6	108.0
<b>Advanced processing</b>		57.7	58.8	110.4	109.0	110.9	111.7	111.4	112.5	107.5	105.9	109.9	110.4	109.4	111.2
<b>Durable</b>		47.3	48.5	110.4	108.6	110.7	111.9	111.2	112.6	108.2	106.1	110.9	112.5	111.1	112.4
Lumber and products	24	2.0	1.9	106.4	106.0	104.3	105.0	102.5	102.8	99.4	99.4	102.2	104.0	103.9	105.5
Furniture and fixtures	25	1.4	1.4	105.1	105.1	104.8	106.0	107.3	107.5	102.6	102.9	107.1	106.2	104.9	103.4
Stone, clay, and glass products	32	2.5	2.5	108.6	110.0	108.0	106.7	106.2	106.0	104.3	103.6	102.1	104.1	107.1	106.3
<b>Primary metals</b>		3.3	3.4	102.6	105.0	107.9	105.3	106.2	106.2	95.5	102.7	109.9	111.2	113.0	111.5
Iron and steel	331,2	1.9	2.0	100.3	104.6	110.6	106.1	106.5	105.9	91.9	100.6	111.8	112.3	115.6	113.2
Raw steel		0.1	0.1	97.6	109.9	109.0	105.9	104.9	104.5	94.5	107.0	110.5	113.2	112.3	110.2
Nonferrous	333-6,9	1.4	1.4	105.8	105.6	104.0	104.1	105.9	106.7	100.6	105.5	107.3	109.7	109.3	109.0
Fabricated metal products	34	5.4	5.3	106.3	105.1	105.6	105.4	104.7	105.7	105.9	101.4	106.1	106.2	104.3	104.8
Nonelectrical machinery		8.6	9.6	123.9	123.7	124.2	125.1	126.4	127.2	120.2	119.0	122.8	123.5	123.2	124.4
Office & computing machines	357	2.5	3.1	142.7	142.7	144.3	147.3	151.4	152.6	137.0	136.0	137.5	142.0	144.5	146.5
Electrical machinery	36	8.6	8.7	110.1	110.1	111.0	112.3	111.0	111.5	111.3	109.7	110.9	111.8	109.6	109.9
<b>Transportation equipment</b>		9.8	9.7	104.4	94.7	103.5	107.9	104.9	109.3	102.9	95.5	106.4	111.8	106.9	111.7
Motor vehicles and parts	371	4.7	4.5	98.7	76.8	94.1	103.5	95.8	104.4	91.4	76.4	100.1	110.3	100.3	109.6
Autos and light trucks		2.3	2.3	99.0	65.7	91.8	106.7	94.5	104.6	83.9	64.5	102.7	117.1	102.1	114.4
Aerospace and misc.	372-6,9	5.1	5.2	109.6	111.0	111.9	111.9	113.1	113.8	113.2	112.7	112.1	113.2	112.8	113.7
Instruments	38	3.3	3.5	114.8	116.0	116.2	115.9	116.2	118.2	114.2	113.0	114.4	114.3	114.5	116.5
Miscellaneous	39	1.2	1.3	116.4	117.0	118.1	119.1	120.0	121.0	112.0	109.4	119.7	118.2	117.9	118.6
<b>Nondurable</b>		37.2	36.6	106.7	107.5	108.3	107.3	107.8	107.9	102.1	102.2	105.7	105.0	106.0	107.0
Foods	20	8.8	8.6	108.0	106.8	107.4	107.1	107.8	107.9	104.6	101.7	102.6	102.6	103.7	103.2
Tobacco products	21	1.0	0.9	98.5	101.3	102.3	100.0	98.0	96.0	78.5	96.8	106.6	104.6	96.1	93.2
Textile mill products	22	1.8	1.7	99.8	100.6	103.0	101.0	101.9	102.2	91.0	92.8	101.4	102.0	103.2	104.4
Apparel products	23	2.4	2.3	102.6	102.4	102.1	99.9	100.5	100.7	101.7	99.5	100.9	99.5	99.0	100.0
Paper and products	26	3.6	3.4	103.4	103.8	105.0	103.0	105.2	105.6	97.6	104.6	108.0	104.6	107.3	104.3
Printing and publishing	27	6.4	6.4	109.6	110.7	112.1	111.5	110.9	111.6	104.9	101.0	104.8	105.8	106.1	108.2
Chemicals and products	28	8.6	8.6	107.6	109.9	110.5	109.5	110.1	110.0	103.9	105.5	108.6	107.5	109.9	109.3
Petroleum products	29	1.3	1.3	104.3	108.6	112.0	109.1	109.7	107.5	104.6	101.9	103.4	100.0	105.7	109.3
Rubber and plastics products	30	3.0	3.0	110.1	110.7	109.1	109.8	109.6	111.4	104.2	103.6	112.7	111.6	110.2	110.9
Leather and products	31	0.3	0.3	103.0	104.3	102.9	103.0	102.6	101.0	95.6	99.9	106.9	105.7	102.2	101.6
<b>Mining</b>		7.9	7.4	100.1	101.7	101.0	100.8	102.5	102.5	101.5	102.4	103.1	101.8	102.0	100.9
<b>Metal mining</b>		0.3	0.4	155.5	144.8	143.4	139.6	143.8	144.8	148.9	140.7	148.8	142.9	148.8	150.1
Coal	11,12	1.2	1.2	103.5	114.1	111.9	112.9	114.2	114.0	98.4	111.2	116.0	117.9	113.0	111.2
Oil and gas extraction	13	5.7	5.1	94.0	94.4	94.1	94.5	96.1	96.1	97.7	97.7	97.1	95.5	95.2	93.9
Stone and earth minerals	14	0.7	0.7	119.7	121.2	120.0	114.2	116.7	116.2	117.4	108.5	109.1	106.5	117.6	118.7
<b>Utilities</b>		7.6	7.6	116.1	106.8	104.0	107.7	108.5	107.3	126.3	128.2	120.0	112.3	102.7	94.2
Electric	491,3pt	6.0	6.0	116.3	108.3	107.1	110.9	111.7	110.5	115.3	114.4	113.4	106.1	104.2	100.8
Gas	492,3pt	1.6	1.5	115.6	101.2	92.3	95.9	96.6	95.7	167.2	179.2	144.2	135.2	97.3	69.9
<b>SPECIAL AGGREGATES</b>															
<b>Manufacturing excluding:</b>															
Motor vehicles and parts		79.8	80.6	109.3	109.9	110.5	110.2	110.5	110.9	106.3	106.0	109.1	109.1	109.3	109.9
Office and computing machines		82.0	82.0	107.7	107.1	108.6	108.7	108.4	109.3	104.6	103.4	107.7	108.2	107.8	108.8
<b>Memo: Motor vehicle assemblies<sup>1</sup></b>															
Total				10.2	6.9	9.4	10.8	9.6	10.6	8.3	7.1	9.6	12.1	10.1	12.3
Autos				6.2	4.1	5.8	6.7	5.8	6.4	5.1	4.3	5.9	7.4	6.1	7.5
Trucks				4.0	2.8	3.6	4.2	3.8	4.2	3.2	2.8	3.7	4.6	4.0	4.8
Light				3.7	2.5	3.4	3.9	3.6	4.0	3.0	2.6	3.5	4.4	3.7	4.6
Heavy and medium				0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.2

1. Millions of units at an annual rate.

Note—Primary processing manufacturing includes textile mill products, paper and products, industrial chemicals, synthetic materials, and fertilizers, petroleum products, rubber and plastics products, lumber and products, primary metals, fabricated metals, and stone, clay, and glass products. Advanced processing manufacturing includes foods, tobacco products, apparel products, printing and publishing, chemical products and other agricultural chemicals, leather and products, furniture and fixtures, nonelectrical machinery, electrical machinery, transportation equipment, instruments, miscellaneous manufactures, and government owned—and-operated ordnance.

**Table 2B**  
**INDUSTRIAL PRODUCTION: INDUSTRY GROUPS**

Percent change

Item	SIC	1988 Q4 to 1989 Q4 <sup>1</sup>	Seasonally adjusted annual rate				Seasonally adjusted				Not seasonally adjusted				May 89 to May 90 <sup>1</sup>
			1989 Q2	Q3	Q4	1990 Q1 <sup>r</sup>	1990 Feb <sup>r</sup>	Mar <sup>r</sup>	Apr <sup>r</sup>	May <sup>p</sup>	1990 Feb <sup>r</sup>	Mar <sup>r</sup>	Apr <sup>r</sup>	May <sup>p</sup>	
<b>Total index</b>		1.1	2.8	-1.2	0.2	0.7	0.9	0.5	0.0	0.6	2.8	-0.2	-0.9	0.1	1.3
<b>Manufacturing</b>		0.9	2.4	-1.3	-0.8	1.9	1.4	0.2	-0.2	0.8	4.1	0.6	-0.3	1.0	1.3
<b>Primary processing</b>		-0.4	-0.7	-0.2	-1.2	1.2	0.6	-0.8	0.1	0.2	4.6	-0.4	0.8	-0.4	0.3
<b>Advanced processing</b>		1.4	3.8	-1.9	-0.6	2.2	1.8	0.7	-0.3	1.0	3.8	1.0	-0.9	1.6	1.7
<b>Durable</b>		-0.3	2.9	-1.6	-4.2	1.5	2.0	1.0	-0.6	1.3	4.5	1.5	-1.3	1.2	1.1
Lumber and products	24	-0.9	2.9	-0.8	8.7	1.3	-1.6	0.7	-2.4	0.3	2.8	1.8	-0.1	1.5	0.5
Furniture and fixtures	25	0.9	11.0	-6.7	-0.2	1.1	-0.3	1.1	1.2	0.2	4.1	-0.8	-1.2	-1.4	-0.4
Stone, clay, and glass products	32	0.2	-3.8	-4.0	4.9	0.3	-1.8	-1.3	-0.5	-0.2	-1.4	1.9	2.9	-0.8	-2.0
Primary metals	33	-6.7	-8.3	2.2	-16.3	2.9	2.7	-2.4	0.9	0.0	7.1	1.1	1.6	-1.4	-0.8
Iron and steel	331,2	-9.9	-17.0	-0.3	-15.5	10.2	5.8	-4.1	0.4	-0.6	11.1	0.4	3.0	-2.1	1.0
Raw steel		-7.4	-21.8	-10.5	-17.2	29.4	-0.8	-2.8	-0.9	-0.4	3.2	2.5	-0.8	-1.9	-2.3
Nonferrous	333-6,9	-1.7	5.9	5.7	-16.8	-6.7	-1.5	0.1	1.7	0.8	1.7	2.2	-0.3	-0.3	-3.0
Fabricated metal products	34	-1.7	-1.3	-3.6	-1.2	-3.6	0.4	-0.2	-0.7	1.0	4.6	0.1	-1.7	0.5	-2.0
Nonelectrical machinery	35	4.6	5.5	0.1	-1.4	8.3	0.4	0.7	1.0	0.6	3.2	0.6	-0.3	0.9	4.4
Office & computing machines	357	12.9	10.9	7.5	-1.7	18.3	1.1	2.1	2.8	0.8	1.1	3.3	1.8	1.4	10.9
Electrical machinery	36	1.6	2.6	2.6	0.3	3.7	0.7	1.2	-1.2	0.4	1.1	0.8	-1.9	0.3	2.4
Transportation equipment	37	-5.9	3.6	-6.6	-15.2	-4.2	9.2	4.3	-2.8	4.2	11.5	5.0	-4.4	4.5	-0.2
Motor vehicles and parts	371	-11.0	-11.1	-18.3	-10.2	-27.6	22.6	9.9	-7.4	8.9	31.0	10.1	-9.0	9.2	-3.2
Autos and light trucks		-13.3	-12.5	-27.1	-3.4	-37.0	39.9	16.2	-11.4	10.7	59.1	14.1	-12.8	12.0	-4.0
Aerospace and misc.	372-6,9	-1.1	18.9	4.6	-19.2	19.5	0.8	0.0	1.0	0.6	-0.5	0.9	-0.3	0.7	2.3
Instruments	38	1.2	9.6	-3.0	-5.2	1.9	0.2	-0.2	0.2	1.7	1.2	-0.1	0.2	1.7	0.2
Miscellaneous	39	7.4	19.8	0.6	2.0	4.6	0.9	0.9	0.7	0.8	9.5	-1.3	-0.3	0.7	3.5
<b>Nondurable</b>		2.3	1.9	-0.9	3.6	2.4	0.7	-0.9	0.4	0.2	3.5	-0.7	1.0	0.7	1.5
Foods	20	3.0	3.0	-2.2	10.6	-1.1	0.6	-0.3	0.7	0.1	0.9	0.0	1.1	2.4	2.3
Tobacco products	21	-3.0	-4.2	-27.4	21.9	9.2	1.0	-2.2	-2.0	-2.0	10.2	-1.9	-8.1	-3.0	-5.6
Textile mill products	22	1.7	6.8	-3.2	-7.8	4.9	2.4	-2.0	0.9	0.3	9.2	0.6	1.3	1.2	-1.0
Apparel products	23	1.0	3.8	-2.0	-4.2	-7.4	-0.4	-2.1	0.6	0.2	1.4	-1.4	-0.5	1.0	-4.0
Paper and products	26	1.5	-3.6	3.2	4.6	-1.1	1.2	-1.9	2.1	0.4	3.3	-3.1	2.6	-2.8	3.5
Printing and publishing	27	4.5	1.1	-2.2	6.0	7.3	1.2	-0.5	-0.5	0.6	3.7	1.0	0.3	2.0	3.0
Chemicals and products	28	1.7	2.2	2.2	0.0	3.9	0.6	-0.9	0.5	-0.1	2.9	-1.0	2.2	-0.5	1.5
Petroleum products	29	2.3	4.7	10.8	-4.2	12.1	3.1	-2.5	0.5	-2.0	1.5	-3.3	5.8	3.4	2.8
Rubber and plastics products	30	1.9	3.4	-1.0	1.8	1.9	-1.4	0.7	-0.2	1.6	8.8	-1.0	-1.3	0.7	1.4
Leather and products	31	-1.6	-11.2	0.2	-7.2	7.6	-1.4	0.1	-0.5	-1.5	6.9	-1.1	-3.3	-0.6	-1.8
<b>Mining</b>		-0.8	7.2	-1.2	-0.5	1.9	-0.7	-0.2	1.7	0.0	0.6	-1.2	0.2	-1.0	1.4
Metal mining	10	9.2	19.6	27.9	2.9	-14.3	-1.0	-2.6	3.0	0.7	5.7	-4.0	4.2	0.9	6.4
Coal	11,12	-1.8	-0.1	-2.8	10.3	23.3	-1.9	0.9	1.1	-0.2	4.3	1.6	-4.1	-1.6	8.9
Oil and gas extraction	13	-2.4	7.0	-3.8	-4.6	-1.3	-0.3	0.4	1.7	0.0	-0.7	-1.6	-0.4	-1.3	-0.9
Stone and earth minerals	14	8.0	14.1	6.0	11.3	2.2	-1.0	-4.8	2.2	-0.4	0.6	-2.3	10.4	0.9	2.9
<b>Utilities</b>		6.3	4.0	-0.4	17.6	-15.2	-2.6	3.6	0.7	-1.1	-6.4	-6.4	-8.5	-8.3	1.0
Electric	491,3pt	6.2	4.3	2.2	15.2	-10.5	-1.0	3.5	0.7	-1.1	-0.9	-6.4	-1.8	-3.3	2.9
Gas	492,3pt	6.1	2.8	-9.9	28.1	-32.0	-8.8	4.0	0.8	-1.0	-19.5	-6.3	-28.0	-28.2	-6.4
<b>SPECIAL AGGREGATES</b>															
<b>Manufacturing excluding:</b>															
Motor vehicles and parts		1.6	3.4	-0.2	-0.6	3.7	0.6	-0.3	0.2	0.4	2.9	0.0	0.2	0.5	1.5
Office and computing machines		0.5	2.2	-1.6	-1.0	1.3	1.4	0.1	-0.3	0.8	4.2	0.4	-0.4	1.0	0.9

1. Based on seasonally adjusted data.

**Table 3**  
**CAPACITY UTILIZATION: MANUFACTURING, MINING, AND UTILITIES**

Percent of capacity, seasonally adjusted

Item	SIC	1989 Proportion	1967- 1989 Ave.	1973 High	1975 Low	1978- 1980 High	1982 Low	1988- 1989 High	1989 May	1989 Dec	1990 Jan <sup>r</sup>	Feb <sup>r</sup>	Mar <sup>r</sup>	Apr <sup>r</sup>	May <sup>p</sup>	
<b>Total Industry</b>		100.0	82.2	89.2	72.6	87.3	71.8	85.0	84.6	83.7	82.7	83.2	83.4	83.3	83.6	
<b>Manufacturing</b>		85.3	81.5	88.9	70.8	87.3	70.0	85.1	84.5	82.8	82.0	83.0	82.9	82.6	83.0	
<b>Primary processing</b>		25.5	82.3	92.2	68.9	89.7	66.8	89.0	87.0	85.2	85.7	86.1	85.2	85.1	85.1	
<b>Advanced processing</b>		59.9	81.1	87.5	72.0	86.3	71.4	83.6	83.4	81.8	80.5	81.7	82.0	81.5	82.1	
<b>Durable</b>		49.3	79.5	88.8	68.5	86.9	65.0	84.0	83.4	81.4	79.9	81.3	81.9	81.2	82.0	
Lumber and products	24	1.9	82.7	90.1	62.2	87.6	60.9	91.2	84.8	86.8	86.3	84.7	85.1	82.8	82.9	
Furniture and fixtures	25	1.4	82.7	96.8	64.3	86.6	68.9	88.3	88.3	84.6	84.5	84.1	84.9	85.8	85.8	
Stone, clay, and glass products	32	2.5	78.3	89.2	67.2	87.0	63.1	86.4	84.6	84.3	85.3	83.7	82.5	82.1	81.8	
<b>Primary metals</b>		33	3.3	79.8	100.6	66.2	102.4	46.8	91.6	85.0	80.8	82.6	84.8	82.8	83.5	83.5
Iron and steel	331,2	2.0	79.4	105.8	66.6	110.4	38.3	92.0	80.5	76.1	79.3	83.8	80.4	80.7	80.2	
Raw steel		0.1	78.8	102.7	66.0	95.7	35.2	94.1	82.9	74.9	84.3	83.5	81.2	80.4	80.0	
Nonferrous	333-6,9	1.3	80.8	92.9	61.3	90.5	62.2	95.0	91.8	88.0	87.8	86.4	86.4	87.8	88.5	
Primary copper	3331	0.0	71.2	92.1	55.0	80.8	42.1	97.9	76.1	78.8	77.7	79.6	84.7	81.0		
Primary aluminum	3334	0.1	88.2	95.7	73.3	97.6	58.6	103.5	100.4	100.3	99.3	99.3	98.7	97.9		
<b>Fabricated metal products</b>		34	5.4	77.7	87.8	65.9	83.9	62.9	85.1	83.8	81.8	80.8	81.1	80.8	80.1	80.8
Nonelectrical machinery	35	9.9	81.3	96.4	74.5	92.1	64.9	83.5	82.6	82.2	81.9	82.0	82.3	82.8	83.0	
Electrical machinery	36	9.0	80.4	87.8	63.8	89.4	71.1	83.1	81.5	80.7	80.5	80.8	81.5	80.3	80.3	
<b>Transportation equipment</b>		37	10.0	75.1	83.8	58.2	82.7	56.7	84.6	83.5	78.9	71.4	77.8	81.0	78.5	81.6
Motor vehicles and parts	371	4.8	76.7	93.4	51.1	93.0	44.5	85.5	81.6	74.8	58.1	71.0	77.9	72.0	78.2	
Autos and light trucks <sup>1</sup>		2.6				92.2	40.1	83.6	77.8	71.3	47.3	65.9	76.3	67.4	74.3	
Aerospace and misc.	372-6,9	5.3	75.3	77.0	66.6	81.1	66.9	86.2	85.3	82.5	83.4	83.9	83.7	84.4	84.7	
Instruments	38	3.6	83.1	89.9	75.2	92.5	79.0	83.9	83.9	79.3	79.8	79.7	79.2	79.0	80.1	
Miscellaneous	39	1.3	75.9	82.9	65.4	78.7	66.1	85.5	85.5	84.1	84.4	85.0	85.6	86.0	86.0	
<b>Nondurable</b>		36.0	83.7	87.9	71.8	87.0	76.9	86.7	85.9	84.5	84.9	85.3	84.3	84.4	84.3	
Foods	20	8.8	82.5	86.0	78.1	84.3	78.8	83.0	82.2	82.9	81.8	82.1	81.7	82.0	81.9	
Textile mill products	22	1.6	86.0	92.0	60.4	91.7	73.8	91.2	90.3	86.3	86.9	88.8	86.9	87.6	87.7	
Apparel products	23	2.3	81.6	84.2	61.9	86.0	78.9	84.2	83.9	81.0	80.7	80.3	78.4	78.8	78.8	
Paper and products	26	3.1	89.7	96.9	69.0	94.2	82.0	95.8	91.0	91.1	91.3	92.2	90.2	91.9	92.1	
Pulp and paper	261-3	1.4	92.2	97.1	70.0	98.2	82.1	97.7	90.7	92.2	93.1	93.0	89.9	94.3		
Printing and publishing	27	6.1	87.1	89.7	75.2	92.2	83.0	90.4	88.3	86.5	87.0	87.7	86.8	86.0	86.1	
<b>Chemicals and products</b>		28	8.7	79.8	87.9	69.9	85.1	70.1	86.8	83.7	81.2	82.6	82.8	81.8	82.0	81.7
Plastics materials	2821	0.7	85.7	102.0	50.6	90.9	63.4	98.9	89.8	80.6	88.5	88.9				
Synthetic fibers	2823,4	0.4	84.2	93.8	51.7	98.5	64.4	94.5	91.2	76.9	78.1	83.4	81.0	85.8		
Petroleum products	29	1.2	85.1	96.7	81.1	89.5	68.2	90.3	86.8	86.1	89.7	92.5	90.1	90.6	88.8	
Rubber and plastics products	30	2.9	83.9	94.0	58.8	90.4	73.5	90.4	89.5	87.5	87.6	86.1	86.3	85.8	86.9	
Leather and products	31	0.3	82.3	81.3	67.7	92.4	78.1	88.4	85.4	87.2	88.5	87.4	87.6	87.3	86.1	
<b>Mining</b>		7.2	87.3	94.4	88.4	96.6	80.6	87.2	86.3	86.3	87.8	87.3	87.2	88.9	88.9	
Metal mining	10	0.4	76.9	90.3	74.4	87.6	43.4	87.2	79.6	85.8	79.3	77.7	75.0	76.6	76.4	
Coal	11,12	1.1	87.3	90.8	82.5	95.7	75.4	94.4	86.9	85.2	93.8	91.8	92.6	93.5	93.2	
Oil and gas extraction	13	5.0	87.9	96.6	91.9	96.9	82.5	86.6	85.9	85.6	86.2	86.2	86.8	88.7	88.9	
Oil and gas well drilling	138	0.8	74.0	93.0	95.3	104.3	50.8	58.8	51.5	58.8	58.0	59.3	63.1	68.4	71.3	
Stone and earth minerals	14	0.6	84.6	93.7	73.3	93.3	63.3	94.3	91.6	94.3	95.2	93.9	89.1	90.7	90.1	
<b>Utilities</b>		7.5	86.8	95.6	82.5	88.3	76.2	92.3	84.8	92.3	84.8	82.5	85.4	85.9	84.9	
Electric	491,3pt	5.6	89.0	99.0	82.7	88.3	78.7	96.2	89.3	96.2	89.5	88.4	91.4	92.0	90.9	
Gas	492,3pt	1.8	83.3	93.2	81.0	93.6	70.8	80.3	71.0	80.3	70.3	64.1	66.6	67.1	66.4	

1. Series begins in 1977.

Note—Primary processing manufacturing includes textile mill products, paper and products, industrial chemicals, synthetic materials, and fertilizers, petroleum products, rubber and plastics products, lumber and products, primary metals, fabricated metals, and stone, clay, and glass products. Advanced processing manufacturing includes foods, tobacco products, apparel products, printing and publishing, chemical products and other agricultural chemicals, leather and products, furniture and fixtures, nonelectrical machinery, electrical machinery, transportation equipment, instruments, miscellaneous manufactures, and government owned-and-operated ordnance.

**Table 4**  
**INDUSTRIAL CAPACITY: MANUFACTURING, MINING, AND UTILITIES**

Item	SIC	Percent change								Capacity indexes						
		Annual rate			December to December					Percent of 1987 output						
		1967- 1989 Ave.	1967- 1975 Ave.	1975- 1989 Ave.	1985	1986	1987	1988	1989	1989 May	1989 Dec	1990 Jan	Feb	Mar	Apr	May
<b>Total industry</b>		3.1	3.7	2.6	2.8	2.1	2.0	2.2	2.4	128.0	129.8	130.0	130.3	130.6	130.9	131.2
<b>Manufacturing</b>		3.5	3.9	3.2	4.0	3.2	2.6	2.8	2.9	129.2	131.4	131.8	132.1	132.5	132.8	133.2
<b>Primary processing</b>		2.3	4.0	1.2	1.0	0.3	1.0	2.0	2.4	122.0	123.6	123.9	124.2	124.4	124.7	124.9
<b>Advanced processing</b>		4.1	3.9	4.2	5.4	4.5	3.3	3.2	3.2	132.6	135.0	135.4	135.8	136.2	136.6	137.0
<b>Durable</b>		3.7	3.7	3.7	5.1	3.9	2.6	2.6	2.7	133.5	135.5	135.8	136.2	136.5	136.9	137.2
Lumber and products	24	2.3	2.9	1.9	2.8	4.0	4.6	4.1	2.8	120.6	122.6	122.9	123.2	123.5	123.8	124.1
Furniture and fixtures	25	3.4	4.5	2.6	2.5	2.2	3.4	2.5	2.7	122.2	124.1	124.4	124.6	124.8	125.1	125.3
Stone, clay, and glass products	32	1.6	2.5	1.1	0.7	0.5	1.0	0.9	1.3	127.9	128.8	129.0	129.1	129.3	129.4	129.5
<b>Non-durable</b>		0.0	1.7	-1.2	-1.1	-6.1	-3.5	0.9	1.5	125.9	127.0	127.1	127.2	127.2	127.3	127.3
Iron and steel	331,2	-1.0	0.7	-2.1	-1.7	-9.9	-5.9	1.3	2.1	130.1	131.8	131.9	131.9	132.0	132.0	132.0
Raw steel		-1.1	0.3	-2.1	-1.9	-10.0	-5.9	1.3	1.8	129.0	130.3	130.4	130.5	130.5	130.6	130.6
Nonferrous	333-6,9	1.5	3.6	0.3	-0.1	-0.4	0.4	0.2	0.5	119.9	120.3	120.3	120.4	120.5	120.6	120.6
Primary copper	3331	-0.1	1.8	-1.3	-4.0	-3.3	-1.1	5.0	6.3	139.9	145.0	145.5	145.8	146.1	146.4	146.7
Primary aluminum	3334	1.5	5.2	-0.9	-5.8	-12.7	0.2	1.0	0.3	120.1	120.3	120.3	120.3	120.3	120.4	120.4
Fabricated metal products	34	1.8	3.1	1.0	0.7	0.5	0.2	0.4	1.5	128.8	129.9	130.1	130.3	130.5	130.7	130.9
Nonelectrical machinery	35	6.9	4.7	8.3	11.0	8.8	4.0	3.5	3.6	147.4	150.5	151.0	151.6	152.1	152.7	153.2
Electrical machinery	36	5.4	6.1	5.0	4.7	4.1	3.3	3.7	3.8	133.6	136.4	136.9	137.4	137.8	138.3	138.8
Transportation equipment	37	2.7	3.0	2.5	5.2	3.6	3.1	2.2	1.6	131.2	132.4	132.7	133.0	133.3	133.6	133.9
Motor vehicles and parts	371	2.9	4.5	1.9	5.6	2.9	3.7	1.5	0.0	132.1	132.0	132.2	132.5	132.8	133.2	133.5
Autos and light trucks <sup>1</sup>					10.8	5.4	6.0	1.4	-1.5	140.1	138.8	138.9	139.4	139.8	140.3	140.7
Aerospace and misc.	372-6,9	2.3	1.3	2.9	5.0	4.2	2.5	2.9	3.1	130.5	132.8	133.1	133.4	133.7	134.0	134.3
Instruments	38	6.2	7.6	5.4	6.2	4.7	6.0	5.4	5.1	140.6	144.7	145.3	145.9	146.5	147.0	147.6
Miscellaneous	39	2.2	4.4	0.9	-0.3	0.7	1.5	1.9	2.2	136.6	138.4	138.6	138.9	139.2	139.5	139.8
<b>Nondurable</b>		3.2	4.3	2.5	2.4	2.2	2.6	3.1	3.3	123.9	126.2	126.6	126.9	127.3	127.6	128.0
Foods	20	2.8	3.0	2.7	2.4	2.2	2.2	2.5	2.7	128.3	130.3	130.5	130.8	131.1	131.4	131.7
Textile mill products	22	2.2	4.3	0.9	0.9	0.6	2.2	1.7	2.0	114.3	115.7	115.8	116.0	116.2	116.4	116.6
Apparel products	23	1.8	2.3	1.5	1.5	2.6	1.7	2.4	2.3	125.0	126.7	126.9	127.1	127.4	127.6	127.8
Paper and products	26	2.8	3.9	2.0	2.1	2.5	2.1	2.5	2.0	112.2	113.5	113.7	113.9	114.2	114.4	114.7
Pulp and paper	261-3	2.4	3.0	2.1	0.5	2.1	3.2	3.6	2.4	110.9	112.4	112.7	113.0	113.4	113.7	114.0
Printing and publishing	27	3.8	3.0	4.3	5.9	4.4	5.2	5.7	5.6	122.8	126.7	127.3	127.8	128.4	129.0	129.5
Chemicals and products	28	4.0	6.8	2.3	1.0	1.1	2.4	3.3	4.0	129.5	132.5	133.0	133.4	133.8	134.2	134.7
Plastics materials	2821	7.7	12.7	4.7	1.7	-0.2	5.7	9.8	8.9	118.6	124.6	125.4	126.1	126.9	127.6	128.4
Synthetic fibers	2823,4	4.4	9.7	1.2	0.5	-3.5	1.7	2.9	1.0	112.2	112.8	113.1	113.6	114.1	114.6	115.2
Petroleum products	29	2.0	4.2	0.7	-0.6	1.0	2.5	-1.2	0.7	120.5	121.1	121.1	121.1	121.1	121.1	121.1
Rubber and plastics products	30	5.9	8.6	4.3	5.3	4.4	3.2	4.9	4.4	122.8	125.8	126.3	126.7	127.2	127.7	128.1
Leather and products	31	-3.4	-1.5	-4.5	-5.4	-6.1	-5.8	-4.6	-3.3	120.5	118.2	117.9	117.8	117.6	117.4	117.3
<b>Mining</b>		0.2	-0.1	0.4	-1.0	-2.5	-3.6	-3.8	-1.9	117.2	115.9	115.8	115.7	115.5	115.4	115.2
Metal mining	10	1.4	0.7	1.8	0.2	-0.2	2.9	14.3	10.7	171.0	181.1	182.7	184.4	186.1	187.8	189.5
Coal	11,12	2.7	2.5	2.8	1.9	1.8	1.8	1.7	1.6	120.4	121.5	121.7	121.8	122.0	122.1	122.3
Oil and gas extraction	13	-0.4	-1.0	0.0	-1.3	-3.1	-5.6	-6.8	-4.5	112.8	109.9	109.5	109.1	108.8	108.4	108.0
Oil and gas well drilling	138	1.9	0.8	2.7	-3.3	-9.9	-16.4	-25.5	-9.1	179.4	170.6	169.6	168.8	167.9	167.1	166.3
Stone and earth minerals	14	1.3	2.6	0.6	-0.2	0.9	1.5	2.3	5.0	123.3	126.9	127.4	127.8	128.2	128.6	129.0
<b>Utilities</b>		3.2	6.0	1.5	0.9	0.8	1.5	2.2	0.7	125.3	125.8	125.9	126.0	126.1	126.2	126.4
Electric	491,3pt	4.5	7.8	2.4	1.8	1.5	2.3	2.2	0.9	120.2	120.8	121.0	121.1	121.3	121.5	121.6
Gas	492,3pt	0.3	2.3	-0.9	-1.9	-1.3	-0.7	2.0	0.1	144.0	144.0	144.0	144.0	144.0	144.0	144.0

1. Series begins in 1977.

**Table 5A**  
**INDUSTRIAL PRODUCTION, CAPACITY AND UTILIZATION FOR TOTAL INDUSTRY: HISTORICAL DATA**

Seasonally adjusted

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Q1	Q2	Q3	Q4	Annual
<b>Industrial Production</b>																	
1967	57.6	57.0	56.6	57.2	56.7	56.7	56.5	57.6	57.5	58.0	58.8	59.5	57.1	56.8	57.2	58.8	57.5
1968	59.4	59.6	59.8	59.9	60.6	60.8	60.7	60.9	61.1	61.2	62.0	62.2	59.6	60.4	60.9	61.8	60.7
1969	62.6	63.0	63.5	63.2	63.0	63.6	63.9	64.1	64.1	64.1	63.5	63.3	63.0	63.3	64.0	63.6	63.5
1970	62.1	62.1	62.0	61.9	61.8	61.6	61.7	61.6	61.2	60.0	59.6	61.0	62.1	61.8	61.5	60.2	61.0
1971	61.5	61.3	61.3	61.6	61.9	62.2	62.0	61.7	62.7	63.1	63.4	64.1	61.4	61.9	62.1	63.5	61.0
1972	65.6	66.0	66.5	67.6	67.5	67.7	67.6	68.5	69.2	70.2	71.1	71.7	66.0	67.6	68.4	71.0	68.3
1973	71.8	72.8	72.8	73.0	73.4	73.9	74.4	74.3	74.9	75.2	75.2	74.0	72.5	73.4	74.5	74.8	73.8
1974	73.0	72.7	73.0	72.9	73.8	74.0	73.6	73.4	73.7	73.2	71.1	68.1	72.9	73.6	73.6	70.8	72.7
1975	66.3	65.3	64.1	64.7	64.5	65.3	65.7	66.9	67.6	67.9	68.6	69.1	65.2	64.9	66.7	68.5	66.3
1976	69.9	71.1	70.9	71.2	72.0	72.1	72.5	72.9	73.1	73.4	74.6	75.2	70.6	71.8	72.9	74.4	72.4
1977	75.5	75.9	76.6	77.7	78.3	78.9	78.9	79.0	79.4	79.4	79.5	79.1	76.0	78.3	79.1	79.4	78.2
1978	78.8	79.0	80.0	82.0	82.3	83.1	83.3	83.6	84.1	84.5	85.2	85.4	79.2	82.5	83.7	85.0	82.6
1979	85.1	85.8	86.1	85.2	86.2	86.1	85.6	85.3	85.5	86.0	85.7	85.6	85.7	85.8	85.5	85.8	85.7
1980	85.9	86.2	86.2	84.5	82.5	81.5	81.2	82.4	83.5	84.0	85.5	85.9	86.1	82.9	82.3	85.1	84.1
1981	85.2	85.4	85.7	85.0	85.6	86.1	87.1	86.9	86.5	85.8	84.8	84.1	85.5	85.5	86.8	84.9	85.7
1982	82.4	84.2	83.7	83.2	82.7	82.4	82.0	81.6	81.0	80.3	80.0	79.3	83.4	82.8	81.5	79.8	81.9
1983	80.8	80.7	81.3	82.3	83.2	83.7	85.3	86.5	87.9	88.6	88.8	89.2	80.9	83.1	86.6	88.9	84.9
1984	91.0	90.9	91.9	92.4	93.0	93.5	93.9	94.0	93.9	93.2	93.3	92.8	91.3	93.0	93.9	93.1	92.8
1985	93.1	93.8	94.1	94.5	94.7	94.4	94.1	94.5	95.0	94.2	94.6	95.6	93.6	94.5	94.6	94.8	94.4
1986	96.1	95.5	94.6	94.8	94.8	94.4	94.8	95.0	95.1	95.6	96.2	96.7	95.4	94.6	94.9	96.2	95.3
1987	96.5	97.6	98.2	98.3	99.2	100.1	100.8	101.0	100.9	102.3	102.2	102.6	97.4	99.2	100.9	102.4	100.0
1988	103.5	103.5	103.9	104.3	104.8	105.0	106.1	106.4	106.2	106.5	106.9	107.4	103.6	104.7	106.2	107.0	105.4
1989	107.7	107.6	107.7	108.6	108.3	108.4	107.8	108.2	108.2	107.7	108.1	108.6	107.7	108.4	108.1	108.1	108.1
<b>Capacity</b>																	
1967	65.0	65.3	65.5	65.8	66.1	66.4	66.7	67.0	67.3	67.6	67.9	68.2	65.3	66.1	67.0	67.9	65.0
1968	68.4	68.7	69.0	69.2	69.5	69.8	70.0	70.3	70.6	70.9	71.1	71.4	68.7	69.5	70.3	71.1	68.4
1969	71.7	71.9	72.2	72.4	72.7	72.9	73.2	73.4	73.7	74.0	74.2	74.5	71.9	72.7	73.4	74.2	71.7
1970	74.7	74.9	75.2	75.4	75.6	75.9	76.1	76.3	76.6	76.8	77.0	77.2	74.9	75.6	76.3	77.0	74.7
1971	77.5	77.7	77.8	78.0	78.2	78.4	78.6	78.8	79.0	79.2	79.4	79.6	77.7	78.2	78.8	79.4	77.5
1972	79.8	80.0	80.2	80.4	80.6	80.8	81.0	81.2	81.5	81.7	81.9	82.1	80.0	80.6	81.2	81.9	79.8
1973	82.3	82.5	82.7	83.0	83.2	83.4	83.6	83.9	84.1	84.3	84.5	84.8	82.5	83.2	83.9	84.5	82.3
1974	85.0	85.2	85.5	85.7	86.0	86.2	86.5	86.7	87.0	87.2	87.5	87.7	85.2	86.0	86.7	87.5	85.0
1975	87.9	88.1	88.3	88.5	88.7	88.9	89.1	89.2	89.4	89.6	89.8	90.0	88.1	88.7	89.2	89.8	87.9
1976	90.2	90.4	90.6	90.8	91.0	91.2	91.4	91.6	91.8	92.0	92.2	92.4	90.4	91.0	91.6	92.2	90.2
1977	92.6	92.8	93.1	93.3	93.5	93.7	94.0	94.2	94.4	94.6	94.8	95.1	92.8	93.5	94.2	94.8	92.6
1978	95.3	95.5	95.8	96.0	96.3	96.5	96.8	97.0	97.3	97.5	97.7	98.0	95.5	96.3	97.0	97.7	95.3
1979	98.2	98.4	98.7	98.9	99.1	99.4	99.6	99.8	100.0	100.3	100.5	100.7	98.4	99.1	99.8	100.5	98.2
1980	101.0	101.3	101.5	101.8	102.1	102.4	102.7	102.9	103.2	103.5	103.8	104.0	101.3	102.1	102.9	103.8	101.0
1981	104.3	104.6	104.9	105.2	105.5	105.8	106.1	106.4	106.7	107.0	107.3	107.6	104.6	105.5	106.4	107.3	104.3
1982	107.8	108.1	108.3	108.6	108.8	109.0	109.3	109.5	109.8	110.0	110.2	110.5	108.1	108.8	109.5	110.2	107.8
1983	110.7	110.9	111.1	111.3	111.6	111.8	112.0	112.2	112.4	112.6	112.8	113.1	110.9	111.6	112.2	112.8	110.7
1984	113.3	113.5	113.7	113.9	114.2	114.4	114.6	114.8	115.0	115.3	115.5	115.7	113.5	114.2	114.8	115.5	113.3
1985	116.0	116.2	116.5	116.8	117.1	117.3	117.6	117.9	118.2	118.4	118.7	119.0	116.2	117.1	117.9	118.7	116.0
1986	119.2	119.4	119.7	119.9	120.1	120.3	120.5	120.7	120.9	121.1	121.3	121.5	119.4	120.1	120.7	121.3	119.2
1987	121.7	121.9	122.1	122.3	122.5	122.7	122.9	123.1	123.3	123.5	123.7	123.9	121.9	122.5	123.1	123.7	121.7
1988	124.2	124.4	124.6	124.9	125.1	125.3	125.6	125.8	126.0	126.3	126.5	126.7	124.4	125.1	125.8	126.5	124.2
1989	127.0	127.2	127.5	127.7	128.0	128.2	128.5	128.8	129.0	129.3	129.5	129.8	127.2	128.0	128.8	129.5	127.0
<b>Utilization</b>																	
1967	88.7	87.3	86.4	86.8	85.7	85.3	84.8	86.0	85.5	85.8	86.7	87.3	87.5	86.0	85.4	86.6	86.4
1968	86.8	86.8	86.7	86.5	87.1	87.1	86.6	86.5	86.5	86.4	87.2	87.1	86.8	86.9	86.6	86.9	86.8
1969	87.3	87.6	87.9	87.3	86.7	87.2	87.4	87.3	86.9	86.7	85.6	85.0	87.6	87.1	87.2	85.8	86.9
1970	83.2	82.9	82.5	82.1	81.7	81.2	81.1	80.8	80.0	78.1	77.4	79.0	82.9	81.7	80.6	78.2	80.8
1971	79.3	79.0	78.7	79.0	79.2	79.3	78.9	78.2	79.3	79.7	79.8	80.6	79.0	79.1	78.8	80.0	79.2
1972	82.1	82.5	83.0	84.1	83.7	83.7	83.4	84.3	85.0	86.0	86.8	87.4	82.5	83.8	84.2	86.8	84.3
1973	87.3	88.2	88.0	88.0	88.2	88.6	88.9	88.6	89.1	89.2	89.0	87.3	87.8	88.3	88.9	88.5	88.4
1974	85.9	85.3	85.4	85.0	85.8	85.8	85.2	84.6	84.7	83.9	81.2	77.6	85.5	85.5	84.8	80.9	84.2
1975	75.4	74.1	72.6	73.1	72.7	73.5	73.8	75.0	75.6	75.8	76.4	76.8	74.0	73.1	74.8	76.3	74.6
1976	77.5	78.7	78.3	78.4	79.2	79.0	79.3	79.6	79.7	79.8	80.9	81.4	78.2	78.9	79.5	80.7	79.3
1977	81.5	81.7	82.3	83.3	83.8	84.2	84.0	83.9	84.2	83.9	83.8	83.2	81.9	83.7	84.0	83.7	83.3
1978	82.7	82.6	83.5	85.4	85.5	86.1	86.1	86.2	86.5	86.7	87.1	87.1	82.9	85.7	86.3	87.0	85.5
1979	86.6	87.2	87.3	86.2	87.0	86.7	86.0	85.4	85.5	85.8	85.3	85.0	87.0	86.6	85.6	85.4	86.2
1980	85.1	85.1	84.9	83.0	80.8	79.6	79.1	80.0	80.9	81.2	82.4	82.5	85.0	81.2	80.0	82.0	82.1
1981	81.6	81.7	81.7	80.7	81.1	81.3	82.1	81.7	81.1	80.2	79.1	78.2	81.7	81.1	81.6	79.2	80.9
1982	76.4	77.9	77.3	76.7	76.0	75.6	75.0	74.5	73.8	73.0	72.6	71.8	77.2	76.1	74.4	72.4	75.0
1983	7																

**Table 5B**  
**INDUSTRIAL PRODUCTION, CAPACITY AND UTILIZATION FOR MANUFACTURING: HISTORICAL DATA**

Seasonally adjusted

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Q1	Q2	Q3	Q4	Annual
<b>Industrial Production</b>																	
1967	53.8	53.2	52.9	53.2	52.9	52.8	52.6	53.6	53.6	54.0	55.0	55.6	53.3	53.0	53.2	54.9	53.6
1968	55.4	55.7	55.8	55.8	56.5	56.6	56.5	56.7	56.8	57.1	57.9	58.0	55.6	56.3	56.7	57.7	56.6
1969	58.3	58.8	59.2	59.0	58.7	59.1	59.5	59.6	59.5	59.6	59.0	58.6	58.8	58.9	59.5	59.1	59.1
1970	57.4	57.4	57.2	57.0	56.9	56.7	56.9	56.5	56.1	54.8	54.5	55.9	57.3	56.9	56.5	55.1	56.4
1971	56.4	56.4	56.3	56.6	57.0	57.1	57.2	56.5	57.7	58.5	58.7	59.3	56.4	56.9	57.1	58.8	57.3
1972	60.7	61.1	61.6	62.7	62.5	62.7	62.8	63.6	64.2	65.2	66.1	66.8	61.2	62.6	63.5	66.0	63.3
1973	67.0	67.9	68.0	68.2	68.5	69.0	69.3	69.4	69.8	70.2	70.4	69.1	67.6	68.6	69.5	69.9	68.9
1974	68.3	68.0	68.3	68.0	68.8	69.1	68.7	68.7	68.8	68.2	66.3	63.1	68.2	68.6	68.7	65.9	67.9
1975	61.3	60.0	58.7	59.3	59.2	60.1	60.7	61.7	62.5	62.9	63.4	64.1	60.0	59.6	61.6	63.5	61.2
1976	64.8	66.2	66.0	66.2	67.0	67.0	67.6	67.9	68.1	68.4	69.3	70.0	65.7	66.7	67.9	69.2	67.4
1977	70.6	70.9	71.7	72.6	73.4	73.8	73.8	74.3	74.5	74.4	74.6	75.0	71.1	73.2	74.2	74.7	73.3
1978	74.7	74.8	75.2	77.1	77.3	78.0	78.2	78.7	79.1	79.6	80.9	80.7	74.9	77.4	78.7	80.4	77.8
1979	80.6	81.2	81.5	80.1	81.5	81.4	81.0	80.4	80.5	81.0	80.7	80.7	81.1	81.0	80.6	80.8	80.9
1980	81.0	81.3	81.1	79.2	77.1	75.9	75.6	76.9	77.9	78.8	80.2	80.4	81.1	77.4	76.8	79.8	78.8
1981	80.0	80.5	80.6	80.5	81.0	80.9	81.5	81.1	80.6	79.7	78.9	77.9	80.4	80.8	81.1	78.8	80.3
1982	76.6	78.8	78.2	77.4	77.3	77.2	76.8	76.4	75.9	75.2	74.9	74.5	77.9	77.3	76.4	74.9	76.6
1983	76.2	76.5	77.6	78.3	79.4	80.0	81.2	82.3	84.1	84.7	85.1	85.2	76.8	79.3	82.5	85.0	80.9
1984	87.1	87.6	88.3	88.7	89.1	89.7	90.1	90.3	90.2	90.2	90.2	89.8	87.7	89.2	90.2	90.1	89.3
1985	89.9	90.4	91.1	91.4	92.0	91.5	91.3	92.0	92.3	91.6	92.8	92.8	90.5	91.6	91.9	92.4	91.6
1986	94.0	93.6	92.8	93.6	93.6	93.4	93.9	94.4	94.6	95.3	95.7	96.6	93.5	93.5	94.3	95.8	94.3
1987	96.1	97.5	98.0	98.1	99.0	100.3	101.0	100.9	100.9	102.5	102.5	102.9	97.2	99.2	101.0	102.6	100.0
1988	103.5	103.7	103.9	104.6	105.2	105.4	106.5	106.8	106.7	107.1	107.8	108.3	103.7	105.1	106.7	107.7	105.8
1989	108.9	108.3	108.7	109.4	109.2	109.3	108.6	109.1	109.1	108.4	108.9	108.8	108.6	109.3	108.9	108.7	108.9
<b>Capacity</b>																	
1967	59.9	60.1	60.4	60.7	61.0	61.3	61.6	61.9	62.2	62.5	62.8	63.1	60.1	61.0	61.9	62.8	61.5
1968	63.4	63.6	63.9	64.2	64.5	64.7	65.0	65.3	65.6	65.9	66.1	66.4	63.6	64.5	65.3	66.1	64.9
1969	66.7	66.9	67.2	67.4	67.7	67.9	68.2	68.4	68.7	68.9	69.2	69.5	66.9	67.7	68.4	69.2	68.1
1970	69.7	69.9	70.1	70.3	70.6	70.8	71.0	71.2	71.4	71.6	71.9	72.1	69.9	70.6	71.2	71.9	70.9
1971	72.3	72.5	72.6	72.8	73.0	73.2	73.4	73.5	73.7	73.9	74.1	74.3	72.5	73.0	73.5	74.1	73.3
1972	74.5	74.7	74.9	75.1	75.3	75.5	75.7	75.9	76.1	76.4	76.6	76.8	74.7	75.3	75.9	76.6	75.6
1973	77.0	77.2	77.4	77.7	77.9	78.1	78.3	78.5	78.8	79.0	79.2	79.4	77.2	77.9	78.5	79.2	78.2
1974	79.7	79.9	80.2	80.4	80.7	80.9	81.1	81.4	81.6	81.9	82.1	82.4	79.9	80.7	81.4	82.1	81.0
1975	82.6	82.8	82.9	83.1	83.3	83.5	83.6	83.8	84.0	84.2	84.4	84.5	82.8	83.3	83.8	84.4	83.6
1976	84.7	84.9	85.1	85.4	85.6	85.8	86.0	86.2	86.4	86.6	86.8	87.0	84.9	85.6	86.2	86.8	85.9
1977	87.2	87.5	87.7	87.9	88.2	88.4	88.6	88.9	89.1	89.3	89.5	89.8	87.5	88.2	88.9	89.5	88.5
1978	90.0	90.3	90.6	90.8	91.1	91.3	91.6	91.9	92.1	92.4	92.7	92.9	90.3	91.1	91.9	92.7	91.5
1979	93.2	93.5	93.7	94.0	94.3	94.6	94.8	95.1	95.4	95.6	95.9	96.2	93.5	94.3	95.1	95.9	94.7
1980	96.5	96.8	97.1	97.4	97.7	98.0	98.4	98.7	99.0	99.3	99.6	99.9	96.8	97.7	98.7	99.6	98.2
1981	100.2	100.5	100.9	101.2	101.5	101.8	102.1	102.4	102.7	103.0	103.3	103.7	100.5	101.5	102.4	103.3	101.9
1982	103.9	104.2	104.4	104.6	104.9	105.1	105.3	105.6	105.8	106.0	106.3	106.5	104.2	104.9	105.6	106.3	105.2
1983	106.7	106.9	107.2	107.4	107.6	107.8	108.0	108.3	108.5	108.7	108.9	109.1	106.9	107.6	108.3	108.9	107.9
1984	109.4	109.7	110.0	110.3	110.6	110.9	111.2	111.5	111.8	112.1	112.4	112.7	109.7	110.6	111.5	112.4	111.1
1985	113.1	113.4	113.8	114.2	114.6	115.0	115.3	115.7	116.1	116.5	116.9	117.2	113.4	114.6	115.7	116.9	115.2
1986	117.6	117.9	118.2	118.5	118.8	119.1	119.5	119.8	120.1	120.4	120.7	121.0	117.9	118.8	119.8	120.7	119.3
1987	121.3	121.6	121.8	122.1	122.4	122.6	122.9	123.1	123.4	123.7	123.9	124.2	121.6	122.4	123.1	123.9	122.8
1988	124.5	124.8	125.1	125.3	125.6	125.9	126.2	126.5	126.8	127.1	127.4	127.7	124.8	125.6	126.5	127.4	126.1
1989	128.0	128.3	128.6	128.9	129.2	129.6	129.9	130.2	130.5	130.8	131.1	131.4	128.3	129.2	130.2	131.1	129.7
<b>Utilization</b>																	
1967	89.8	88.4	87.5	87.7	86.6	86.1	85.3	86.5	86.1	86.4	87.6	88.1	88.6	86.8	86.0	87.4	87.2
1968	87.5	87.5	87.2	87.0	87.7	87.5	86.8	86.9	86.6	86.8	87.6	87.3	87.4	87.4	86.8	87.2	87.2
1969	87.4	87.8	88.2	87.5	86.8	87.0	87.3	87.1	86.6	86.4	85.2	84.4	87.8	87.1	87.0	85.4	86.8
1970	82.3	82.1	81.6	81.1	80.7	80.2	80.2	79.4	78.5	76.5	75.8	77.5	82.0	80.6	79.3	76.6	79.7
1971	78.0	77.8	77.5	77.7	78.0	78.0	78.0	76.8	78.2	79.2	79.3	79.8	77.8	77.9	77.7	79.4	78.2
1972	81.5	81.8	82.3	83.4	83.0	83.1	82.9	83.7	84.3	85.4	86.3	87.0	81.9	83.2	83.6	86.2	83.7
1973	87.0	87.9	87.9	87.9	87.9	88.3	88.5	88.4	88.6	88.9	88.8	86.9	87.6	88.0	88.5	88.2	88.1
1974	85.7	85.1	85.1	84.6	85.3	85.4	84.7	84.4	84.3	83.3	80.7	76.6	85.3	85.1	84.4	80.2	83.8
1975	74.2	72.5	70.8	71.4	71.1	72.0	72.6	73.6	74.4	74.8	75.2	75.8	72.5	71.5	73.5	75.2	73.2
1976	76.4	78.0	77.5	77.5	78.4	78.1	78.6	78.8	78.8	79.0	79.9	80.5	77.3	78.0	78.7	79.8	78.5
1977	80.9	81.1	81.8	82.5	83.3	83.4	83.3	83.6	83.6	83.3	83.3	83.6	81.3	83.1	83.5	83.4	82.8
1978	82.9	82.8	83.1	84.9	84.8	85.4	85.4	85.6	85.9	86.1	87.3	86.9	82.9	85.0	85.6	86.7	85.1
1979	86.5	86.9	86.9	85.2	86.4	86.0	85.4	84.5	84.4	84.7	84.1	83.9	86.8	85.9	84.8	84.2	85.4
1980	84.0	84.0	83.5	81.3	78.9	77.4	76.9	77.9	78.7	79.4	80.5	80.5	83.8	79.2	77.8	80.1	80.2
1981	79.8	80.0	79.9	79.6	79.8	79.5	79.9	79.1	78.5	77.4	76.4	75.1	79.9	79.6	79.2	76.3	78.8
1982	73.7	75.6	74.9	74.0	73.7	73.5	72.9	72.3	71.7	70.9	70.5	70.0	74.7	73.7	72.3	70.5	72.8
1983	71.4	71.5	72.4	73.0	73.8	74.2	75.2	76.0	77.5	77.9	78.1	78.0	71.8	73.7	76.2	78.0	74.9
1984	79.6	79.9	80.3	80.4	80.6	80.9	81.0	80.9	80.7	80.5	80.3	79.7	79.9	80.6	80.9	80.2	80.4
1985	79.5	79.7	80.0	80.0	80.3	79.6	79.2	79.5	79.5	78.6	79.4	79.2	79.8	80.0	79.4	79.1	79.5
1986	79.9	79.4	78.5	79.0	78.8	78.4	78.6	78.8	78.8	79.1	79.3	79.8	79.3	78.7	78.7	79.4	79.0
1987	79.2	80.2	80.5	80.3	80.9	81.8	82.2	82.0	81.7	82.9	82.7	82.8	79.9	81.0	82.0	82.8	81.4
1988	83.1	83.1	83.1	83.5	83.8	83.7	84.3	84.4	84.2	84.3	84.6	84.8	83.1	83.6	84.3	84.6	83.9
1989	85.1	84.4	84.5	84.8	84.5	84.4	83.6	83.8	83.6	82.9	83.0	82.8	84.7	84.5	83.7	82.9	83.9



**Table 6**  
**INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES**

Item	SIC	Proportion in total IP		Index, 1987=100											
		1987	1989	Seasonally adjusted						Not seasonally adjusted					
				1989 Nov	1989 Dec	1990 Jan	1990 Feb'	1990 Mar'	1990 Apr'	1989 Nov	1989 Dec	1990 Jan	1990 Feb'	1990 Mar'	1990 Apr'
<b>Metal mining</b>	<b>10</b>	0.32	0.41	145.9	155.5	144.8	143.4	139.6	143.8	143.4	148.9	140.7	148.8	142.9	148.8
Iron ore	101	0.05	0.06	127.4	129.4	130.5	128.5	115.1		119.7	116.6	113.3	126.8	112.5	
Nonferrous ores	102-6,8,9	0.26	0.35	150.7	161.4	146.8	147.5	146.2		148.4	155.6	146.5	153.4	149.2	
Copper	102	0.09	0.10	112.8	120.1	113.9	117.4	106.7		112.4	117.1	115.7	118.6	112.9	
Lead and zinc	103	0.01	0.02	129.0	119.2	137.7	133.2	131.9		129.0	116.5	146.5	149.9	139.9	
Gold and silver	104	0.12	0.20	194.6	215.3	185.0	186.4	190.5		189.2	204.0	181.9	196.1	189.8	
Ferroalloy	106	0.01	0.02	255.2	247.1	224.5	200.7	195.6		259.9	242.4	206.1	198.8	210.0	
<b>Anthracite</b>	<b>11</b>	0.01	0.01	105.9	114.0	112.1	112.9	114.8	101.6	113.0	101.7	97.9	104.9	111.3	103.7
<b>Bituminous coal</b>	<b>12</b>	1.21	1.18	108.0	103.5	113.4	111.8	113.7	114.3	110.1	98.4	111.3	116.1	117.9	113.1
<b>Oil and gas extraction</b>	<b>13</b>	5.73	5.06	95.5	94.0	94.4	94.1	94.5	96.1	98.2	97.7	97.7	97.1	95.5	95.2
Crude oil and natural gas	131	4.86	4.30	95.5	94.1	93.0	93.2	93.1	94.5	96.8	96.6	96.8	96.9	95.2	94.8
Crude oil, total		3.09	2.61	90.5	89.6	88.2	87.7	88.5	88.9	90.6	89.3	88.3	89.1	89.7	89.7
Texas		0.76	0.63	88.2	87.3	85.9	87.5	88.0	88.2	88.8	87.5	86.1	88.3	88.9	88.8
Alaska and California		1.13	0.98	94.4	94.0	94.7	90.2	91.1	92.2	94.9	93.5	94.4	91.7	92.3	92.3
Louisiana and other		1.19	0.99	88.3	87.0	83.5	85.4	86.3	86.3	87.7	86.4	83.9	87.1	87.7	87.7
Natural gas		1.77	1.69	104.2	102.0	101.3	103.0	101.1		107.4	109.3	111.7	110.4	104.7	
Natural gas liquids	132	0.29	0.26	91.5	82.7	95.8	95.8	94.5		93.3	83.4	95.8	98.2	95.5	
Propane		0.02	0.02	92.2	85.2	92.6	93.6	93.3		94.6	88.1	96.0	97.4	95.2	
Liquefied petroleum		0.27	0.25	91.4	82.5	96.0	95.9	94.6		93.2	83.1	95.8	98.2	95.6	
Oil and gas well drilling	138	0.58	0.50	99.9	100.3	98.3	100.1	106.0	114.3	112.4	114.4	106.2	98.2	98.4	100.7
<b>Foods</b>	<b>20</b>	8.76	8.55	107.4	108.0	106.8	107.4	107.1	107.8	106.8	104.6	101.7	102.6	102.6	103.7
Meat products	201	0.98	0.98	111.8	111.3	105.7	109.3	108.9	106.8	111.9	107.8	105.3	107.1	108.1	107.1
Beef		0.33	0.30	100.7	100.9	92.4	98.0	97.4	95.3	97.4	95.4	94.8	95.1	93.6	93.2
Pork		0.31	0.31	113.0	107.6	107.4	110.7	104.8	105.9	120.8	109.9	109.0	110.8	108.7	108.7
Poultry		0.30	0.31	118.2	123.3	115.0	117.1	123.2	117.5	114.5	115.5	109.3	112.7	119.6	117.2
Miscellaneous meats		0.04	0.05	144.8	135.7	131.5	133.7	128.8	128.6	142.8	136.6	132.6	136.0	136.1	133.2
Dairy products	202	0.85	0.80	102.4	102.0	104.4	107.4	105.3	105.0	93.4	96.6	98.5	106.7	107.6	112.8
Butter	2021	0.01	0.01	109.8	113.5	108.4	112.1	113.6	116.8	101.3	119.0	132.0	136.6	127.5	135.5
Cheese	2022	0.19	0.18	107.9	106.7	110.8	115.9	113.8	110.1	103.4	106.4	106.6	115.1	116.8	117.2
Concentrated milk	2023	0.17	0.15	97.7	92.6	101.4	107.3	101.7	105.5	80.2	90.1	95.6	108.5	104.9	121.9
Frozen desserts	2024	0.09	0.08	100.1	103.0	96.9	98.2	94.9	97.2	80.0	75.7	71.5	87.3	95.3	101.7
Canned and frozen food	203	1.28	1.20	102.0	103.1	105.0	102.6	100.5	102.0	100.9	94.2	94.1	95.4	93.3	92.3
Grain mill products	204	1.09	1.12	113.5	113.6	110.5	111.9	112.6	112.6	114.2	115.7	109.6	109.8	108.4	108.2
Flour	2041	0.09	0.09	108.6	116.4	106.9	110.8	115.5	114.9	115.4	110.5	101.7	117.3	112.0	108.5
Bakery products	205	1.05	1.01	101.6	105.8	107.8	105.5	106.1	107.7	99.4	100.8	100.3	97.6	98.2	100.4
Fats and oils	207	0.23	0.22	104.5	105.1	107.2	107.3	107.6	110.1	111.7	110.3	110.5	108.7	110.1	108.7
Beverages	208	1.63	1.60	108.1	107.4	107.0	108.4	110.0	110.3	103.5	95.0	96.0	101.6	105.4	108.9
Beer and ale	2082,3	0.53	0.50	106.4	104.4	104.4	103.4			90.4	84.0	96.6	105.0		
Wine and brandy	2084	0.09	0.08	99.0	103.1					104.0	96.0				
Liquors	2085	0.15	0.15	100.5	99.5					108.0	91.0				
Soft drinks	2086,7	0.85	0.87	111.5	111.1	110.2	113.6	116.7	118.0	110.9	102.4	99.0	102.0	105.0	109.0
Coffee and miscellaneous	209	1.19	1.12	103.9	102.9	103.0	102.6	103.4	104.7	104.4	107.3	99.9	98.3	96.8	98.3
<b>Tobacco products</b>	<b>21</b>	1.02	0.94	98.8	98.5	101.3	102.3	100.0	98.0	100.0	78.5	96.8	106.6	104.6	96.1
Cigarettes	211	0.93	0.84	96.7	98.1					97.4	75.2				
<b>Textile mill products</b>	<b>22</b>	1.84	1.73	99.3	99.8	100.6	103.0	101.0	101.9	98.8	91.0	92.8	101.4	102.0	103.2
Fabrics	221-4	0.53	0.46	92.9	94.3	91.0	92.8	91.6	91.2	92.7	90.2	90.6	95.0	93.6	92.2
Cotton and synthetic	221,2	0.45	0.38	89.6	91.7	87.9	90.3	89.3		89.4	86.9	88.6	92.9	91.5	
Knit goods	225	0.44	0.43	106.2	105.7	109.3	110.3	109.6	111.0	102.0	94.3	90.9	106.0	105.8	112.3
Hosiery	2251,2	0.12	0.12	102.7	101.5					97.5	86.5				
Knit garments	2253,4,7-9	0.31	0.31	107.7	107.4	108.2	110.6	110.6	109.3	103.7	97.3	85.0	102.9	104.1	105.3
Carpeting	227	0.23	0.22	101.7	104.4	113.7	120.8	114.7	111.4	106.1	94.6	95.0	109.4	114.7	116.4
Yarns and miscellaneous	228,9	0.48	0.47	100.1	97.6	99.6	101.7	102.2	105.6	99.9	88.0	95.3	101.1	104.1	105.2
<b>Apparel products</b>	<b>23</b>	2.36	2.27	103.7	102.6	102.4	102.1	99.9	100.5	104.2	101.7	99.5	100.9	99.5	99.0
<b>Lumber and products</b>	<b>24</b>	2.00	1.91	104.8	106.4	106.0	104.3	105.0	102.5	102.3	98.4	99.4	102.2	104.0	103.9
Logging and lumber	241,2	0.84	0.84	110.5	110.9	114.4	108.8	110.7	108.8	107.0	103.6	104.6	107.7	109.7	107.7
Lumber products	243-5,9	1.16	1.07	100.6	101.0	102.6	101.8	101.4	100.3	98.8	94.5	95.6	98.1	99.9	101.2
Millwork and plywood	243	0.68	0.62	101.1	100.8	102.8	101.5	100.9	100.2	99.7	96.2	97.4	96.3	97.9	99.2
Manufactured homes	245	0.17	0.15	89.4	91.6	91.6	94.3	92.9	89.7	84.7	68.8	72.1	85.3	92.1	96.7



**Table 6 (continued)**  
**INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES**

Item	SIC	Proportion in total IP		Index, 1987=100											
		1987	1989	Seasonally adjusted						Not seasonally adjusted					
				1989 Nov	Dec	1990 Jan	Feb'	Mar'	Apr'	1989 Nov	Dec	1990 Jan	Feb'	Mar'	Apr'
<b>Furniture and fixtures</b>	<b>25</b>	1.45	1.41	104.4	105.1	105.1	104.8	106.0	107.3	105.0	102.6	102.9	107.1	106.2	104.9
Household furniture	251	0.68	0.63	100.0	100.9	102.2	99.2	102.8	104.4	101.1	98.5	97.9	104.2	104.3	103.5
Office furniture, fixtures, and miscellaneous	252,4,9	0.71	0.70	107.3	107.2	107.6	106.3	108.7	109.2	107.0	104.5	106.0	109.0	106.9	105.0
<b>Paper and products</b>	<b>26</b>	3.58	3.42	104.1	103.4	103.8	105.0	103.0	105.2	103.0	97.6	104.6	108.0	104.6	107.3
Pulp and paper	261-3	1.64	1.57	104.0	103.6	104.9	105.2	101.9	107.2	104.0	99.2	105.2	108.4	105.0	107.3
Wood pulp	261	0.16	0.15	103.5	103.5	106.0	105.8	102.1		102.5	98.6	108.3	109.1	103.9	
Paper	262	0.98	0.94	104.5	104.6	105.7	106.7	101.9	109.4	105.4	100.4	105.9	110.3	105.4	109.3
Paperboard	263	0.50	0.48	103.2	101.7	102.8	101.9	101.8	105.6	101.6	97.0	103.0	104.4	104.6	105.4
Converted paper products	264	1.21	1.15	103.4	101.4	103.4	105.3	101.7	104.9	103.7	97.7	103.7	108.6	104.7	105.9
Paperboard containers	265	0.71	0.69	106.0	108.5	106.2	105.7	102.8	107.4	101.1	94.8	105.8	107.5	104.9	111.5
<b>Printing and publishing</b>	<b>27</b>	6.37	6.39	109.6	109.6	110.7	112.1	111.5	110.9	110.2	104.9	101.0	104.8	105.8	106.1
Newspapers	271	1.74	1.60	102.0	97.4	103.4	100.7	101.7	97.4	110.9	97.4	92.6	98.3	102.1	99.8
Periodicals, books, and cards	272,3,7	1.73	1.89	122.6	121.6	120.8	122.5	122.5	121.1	116.5	116.5	111.2	114.2	110.5	114.1
Job printing	274-6,8,9	2.90	2.90	109.2	109.2	110.6	112.5	112.4	112.9	106.0	102.5	100.0	103.0	102.5	105.1
<b>Chemicals and products</b>	<b>28</b>	8.60	8.63	109.8	107.6	109.9	110.5	109.5	110.1	107.2	103.9	105.5	108.6	107.5	109.9
Industrial chemicals and synthetic materials	281,2,6	3.61	3.56	107.7	104.5	106.5	108.3	108.4	108.6	107.5	103.5	105.7	110.3	108.9	110.0
Basic chemicals	281	0.79	0.78	112.3	106.9	105.8	113.3	116.2	112.3	112.3	104.2	104.3	117.4	115.4	112.5
Alkalies and chlorine	2812	0.05	0.05	93.8	96.0	103.9	107.3	95.7	95.4	96.1	97.7	95.6	112.1	95.2	99.1
Industrial gases	2813	0.11	0.11	104.4	103.6	92.1	108.8	116.1	106.6	105.1	103.2	90.5	110.7	117.1	107.6
Inorganic pigments	2816	0.10	0.10	105.7	110.7	114.6	117.5	113.5	121.2	103.7	110.0	109.6	123.5	113.3	122.6
Inorganic chemicals, nec	2819	0.53	0.52	117.1	107.9	107.2	114.0	118.7	113.4	117.2	103.9	107.1	118.2	117.3	113.0
Acids and other		0.31	0.29	102.0	97.3	94.4	99.6	111.9	106.1	104.2	91.1	96.0	113.0	108.8	105.2
Synthetic materials	282	1.28	1.22	103.2	95.2	101.8	105.1	103.7		101.9	92.5	99.6	108.9	106.0	
Plastics materials	2821	0.78	0.77	108.8	100.4	110.9	112.1			108.0	96.9	107.8	115.1		
Synthetic rubber	2822	0.09	0.08	100.5	88.5	84.1	91.5			97.5	76.4	84.8	96.8		
Synthetic fibers	2823,4	0.41	0.37	93.2	86.7	88.4	94.7	92.5	98.4	91.3	87.6	87.2	99.8	91.5	101.3
Industrial organic chemicals	286	1.54	1.56	109.1	111.1	110.7	108.4	108.3	108.0	109.5	112.2	111.6	107.7	108.0	107.9
Chemical products	283-5,9	4.54	4.62	111.9	111.0	113.2	112.9	111.5	113.1	107.3	104.4	105.5	107.5	106.5	110.0
Drugs and medicines	283	2.01	2.01	110.8	108.4	111.4	111.2	107.9	111.2	105.4	101.7	101.8	102.1	98.9	106.1
Soap and toiletries	284	1.53	1.57	111.2	112.0	113.7	112.4	113.7	115.5	109.0	107.9	108.3	109.8	110.2	110.0
Paints	285	0.41	0.40	111.6	109.3	108.6	110.1	106.4	104.5	94.6	82.7	91.3	106.7	110.1	116.7
Agricultural chemicals	287	0.45	0.45	104.8	101.7	105.9	106.3	105.4	101.9	105.0	102.2	104.4	106.6	106.7	107.9
<b>Petroleum products</b>	<b>29</b>	1.32	1.29	109.3	104.3	108.6	112.0	109.1	109.7	110.3	104.6	101.9	103.4	100.0	105.7
Petroleum refining and misc.	291,9	1.11	1.06	104.4	99.2	104.6	108.6	104.4	103.0	103.6	99.6	100.9	102.0	98.0	100.9
Automotive gasoline		0.52	0.49	102.8	98.7	102.8	107.6	100.6	100.4	103.0	100.7	100.7	102.0	96.7	99.6
Distillate fuel oil		0.19	0.19	106.6	108.5	112.2	105.2	105.5	106.4	112.8	119.7	115.0	100.9	97.3	102.5
Residual fuel oil		0.05	0.05	119.4	117.2	116.4	111.5	110.5	104.0	121.6	128.7	127.6	119.8	110.1	102.5
Aviation fuel and kerosine		0.10	0.10	110.0	92.9	107.6	107.8	106.1	108.6	113.0	100.8	113.1	111.8	104.8	99.7
Miscellaneous petroleum products		0.26	0.24	101.1	92.7	99.2	112.5	109.3	103.4	91.2	77.0	81.3	95.5	96.3	102.6
<b>Rubber and plastics products</b>	<b>30</b>	3.02	3.04	109.1	110.1	110.7	109.1	109.8	109.6	109.3	104.2	103.6	112.7	111.6	110.2
Tires	301	0.40	0.41	105.2	104.6	115.8	111.2			102.3	94.0	114.7	118.5		
Other rubber products	302-4,6	0.44	0.45	112.4	111.2	110.4	105.5	112.4	111.2	112.8	108.5	103.3	110.5	114.1	111.0
Plastics products, nec	307	2.18	2.18	110.0	110.6	110.7	109.6	108.7	109.8	109.8	105.1	101.6	112.2	109.5	109.7
<b>Leather and products</b>	<b>31</b>	0.30	0.29	99.4	103.0	104.3	102.9	103.0	102.6	101.1	95.6	99.9	106.9	105.7	102.2
Personal leather goods	313,5-7,9	0.10	0.10	108.5	106.1	107.3	111.2	107.5	106.7	114.1	107.7	103.4	107.1	106.0	103.8
Shoes	314	0.15	0.13	85.6	94.9	94.4	91.6	92.9	91.5	87.9	78.4	89.7	99.6	97.9	92.1
<b>Stone, clay, and glass products</b>	<b>32</b>	2.46	2.46	108.2	108.6	110.0	108.0	106.7	106.2	109.2	104.3	103.6	102.1	104.1	107.1
Pressed and blown glass	322	0.35	0.33	97.7	104.6	110.9	98.4	100.7	101.5	95.8	87.8	102.5	99.6	101.7	104.5
Glass containers	3221	0.19	0.16	89.2	103.4	114.0	88.4	92.5	95.6	83.3	75.3	106.4	92.9	96.0	101.5
Cement	324	0.16	0.15	100.8	86.3	119.6	106.6	88.9		97.5	65.0	68.8	71.2	77.5	
Structural clay products	325	0.12	0.10	85.4	81.1	73.9	75.5	88.6	83.9	85.9	78.3	66.3	70.9	86.7	85.5
Brick	3251	0.05	0.05	94.0	80.6	90.4	90.1	93.3	87.9	91.8	77.2	77.8	80.7	88.3	90.9
Clay tile	3253,5	0.06	0.04	78.8	81.3	58.6	62.4	86.7	81.0	82.0	79.7	56.3	63.0	87.6	81.7
Concrete and miscellaneous	326-9	1.50	1.51	108.5	107.8	109.3	109.4	106.9	106.6	110.7	109.2	106.7	104.9	105.0	107.1

**Table 6 (continued)**  
**INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES**

Item	SIC	Proportion in total IP		Index, 1987=100											
		1987	1989	Seasonally adjusted						Not seasonally adjusted					
				1989 Nov	Dec	1990 Jan	Feb'	Mar'	Apr'	1989 Nov	Dec	1990 Jan	Feb'	Mar'	Apr'
<b>Primary metals</b>	<b>33</b>	3.32	3.36	104.8	102.6	105.0	107.9	105.3	106.2	101.8	95.5	102.7	109.9	111.2	113.0
Iron and steel	331,2	1.95	1.97	104.1	100.3	104.6	110.6	106.1	106.5	98.6	91.9	100.6	111.8	112.3	115.6
Basic steel and mill products	331	1.50	1.61	109.1	101.2	109.6	118.1	113.6	114.5	104.7	99.3	107.9	120.3	118.8	122.8
Basic iron and steel		0.37	0.38	105.0	101.2	107.7	106.7	104.6	104.5	101.9	96.9	106.3	108.8	110.8	111.6
Pig iron		0.20	0.21	113.1	107.9	113.8	110.6	106.6	106.6	108.8	102.4	113.0	113.9	114.1	114.5
Raw steel		0.11	0.11	100.6	97.6	109.9	109.0	105.9	104.9	99.1	94.5	107.0	110.5	113.2	112.3
Steel mill products		1.14	1.23	110.4	101.2	110.2	121.7	116.5	117.7	105.6	100.1	108.4	124.1	121.4	126.4
Consumer durable steel		0.29	0.30	99.8	79.6	92.2	106.8	107.3	106.9	97.8	73.2	90.0	111.1	112.4	114.9
Equipment steel		0.28	0.30	111.8	104.5	125.5	126.9	117.6	117.4	104.3	99.3	123.9	130.9	124.4	128.2
Construction steel		0.14	0.15	116.2	111.9	118.1	133.5	123.6	124.9	114.1	106.7	112.9	129.9	124.8	131.4
Can and closure steel		0.08	0.08	114.9	137.1	82.2	107.4	109.1	108.8	98.4	151.6	77.1	102.1	111.4	119.0
Miscellaneous steel		0.35	0.40	114.8	104.4	115.7	128.3	121.8	125.9	111.3	109.2	116.3	131.7	127.4	134.1
Iron and steel foundries	332	0.44	0.36	80.3	80.5					77.8	66.9				
Nonferrous metals	333-6,9	1.38	1.39	105.8	105.8	105.6	104.0	104.1	105.9	106.4	100.6	105.5	107.3	109.7	109.3
Primary nonferrous metals	333	0.22	0.24	112.5	113.7	116.1	116.5	114.7	116.6	114.7	113.6	117.8	119.9	118.7	119.7
Copper	3331	0.03	0.03	115.1	114.2	113.0	116.0	123.7	118.5	116.7	112.9	116.2	119.4	125.7	127.7
Aluminum	3334	0.14	0.15	119.7	120.6	119.4	119.5	118.8	117.9	119.1	120.8	121.4	121.5	121.4	120.3
Secondary nonferrous metals	334	0.07	0.07	106.9	108.2	119.6	115.7	110.6		110.9	105.2	112.0	120.3	113.7	
Nonferrous products	335,6	0.96	0.94	102.3	100.1	102.1	99.5	99.3	102.4	102.5	95.1	101.6	102.5	105.2	104.9
Nonferrous mill products	335	0.73	0.71	104.2	101.0	104.0	103.1	102.4	105.2	103.3	98.6	103.1	104.2	107.2	106.8
Copper	3351	0.11	0.10	96.2	86.7	109.2	92.4	91.4	96.3	94.7	83.7	107.4	91.9	101.0	96.9
Aluminum	3353-5	0.23	0.21	96.0	95.1	97.6	97.7	95.7	102.2	90.6	83.5	92.5	100.1	102.6	106.7
Construction		0.10	0.08	93.7	92.5	99.7	95.9	96.4	105.8	90.1	78.4	95.1	98.0	99.1	110.0
Misc. aluminum materials		0.14	0.13	97.5	97.0	96.0	99.0	95.3	99.6	90.9	87.1	90.6	101.6	105.1	104.3
Nonferrous foundries	336	0.23	0.23	96.3	97.2					99.9	83.9				
Fabricated metal products	34	5.38	5.33	106.9	106.3	105.1	105.6	105.4	104.7	107.3	105.9	101.4	106.1	106.2	104.3
Metal containers	341	0.29	0.29	110.5	107.9	108.9	110.7	110.7	109.8	108.6	101.3	100.5	107.7	110.5	109.9
Hardware, tools, and cutlery	342	0.58	0.56	109.8	110.3	109.1	110.5	109.7	109.6	109.2	107.9	103.0	111.6	110.6	107.7
Structural metal products	344	1.34	1.26	99.7	99.0	100.1	100.3	99.6	97.4	102.0	101.1	97.7	95.6	96.2	94.5
Fasteners, stampings, etc.	345-7	1.63	1.71	112.6	109.7	106.1	106.1	107.5	105.0	111.5	107.7	100.0	111.6	111.6	107.2
Nonelectrical machinery	35	8.55	9.64	122.9	123.8	123.7	124.2	125.1	126.4	121.1	120.2	119.0	122.8	123.5	123.2
Engines and turbines	351	0.50	0.55	117.7	118.1	117.8	122.1	120.2	117.9	121.0	123.5	119.9	122.9	121.7	118.5
Farm	352	0.40	0.46	130.8	133.3	135.0	133.7	132.8	131.4	125.6	129.5	133.4	141.2	141.4	136.2
Construction and allied	353	1.11	1.12	105.8	105.1	105.6	106.5	108.6	109.5	104.8	106.0	102.4	106.4	104.9	104.4
Metalworking	354	0.93	1.00	117.8	116.7	116.5	116.4	116.7	116.8	114.0	112.5	112.0	118.0	116.3	114.5
Special industry	355	0.69	0.77	118.7	119.1	121.4	121.0	120.1	120.4	120.1	123.5	122.0	120.8	121.1	119.6
General industrial	356	0.87	0.87	108.0	108.4	107.7	107.6	107.9	107.2	106.2	107.0	103.6	108.9	108.1	106.6
Office and computing machines	357	2.46	3.12	141.0	142.7	142.7	144.3	147.3	151.4	140.1	137.0	136.0	137.5	142.0	144.5
Service industry machines	358	0.79	0.88	122.5	123.7	123.0	121.2	118.4	118.3	117.0	112.9	114.1	120.3	119.4	118.8
Electrical machinery	36	8.62	8.74	110.1	110.1	110.1	111.0	112.3	111.0	112.0	111.3	109.7	110.9	111.8	109.6
Major electrical and parts	361,2	0.93	0.94	112.8	111.5	111.3	110.5	109.9	109.7	109.9	107.4	105.9	110.4	110.4	108.1
Household appliances	363	0.54	0.53	96.8	91.4	105.7	104.4	103.2	102.6	97.2	82.7	106.7	108.3	108.3	106.8
Cooking equipment	3631	0.09	0.09	87.6	76.9	113.3	111.8	97.9	94.5	94.9	67.8	117.2	108.1	105.7	98.2
Refrigerators and freezers	3632	0.10	0.10	88.4	74.5	101.4	93.7	102.5	101.3	81.0	54.2	100.5	107.9	113.7	115.7
Laundry	3633	0.10	0.09	95.2	90.5	113.4	109.3	109.8	108.1	88.7	78.0	114.9	118.8	117.4	111.1
Miscellaneous	3634-6,9	0.25	0.24	104.4	104.3	101.6	104.1	102.9	104.0	108.3	102.2	102.1	104.3	103.2	104.6
TV and radio sets	365	0.21	0.21	106.6	105.9	103.9	107.5	109.2	103.7	126.1	95.9	96.3	96.6	91.2	92.6
Communication equipment	366	3.01	2.96	107.6	107.1	107.2	108.4	109.0	107.5	108.7	111.5	108.4	108.5	109.5	106.3
Electronic components	367	2.26	2.40	117.5	117.9	117.0	119.1	120.0	118.5	119.7	120.6	117.8	118.9	119.9	117.9
TV tubes	3671-3	0.10	0.11	118.4	124.5	120.7	117.5	120.0	106.6	130.8	105.6	123.7	125.5	110.2	116.0
Misc. electrical supplies	369	0.90	0.94	111.3	110.6	107.4	109.3	112.5	112.9	115.9	117.5	108.9	105.1	108.2	107.1
Storage batteries	3691	0.12	0.13	113.9	127.1	125.2	109.6	129.0	134.0	129.5	149.3	121.9	88.1	102.3	103.2
Transportation equipment	37	9.80	9.72	102.8	104.4	94.7	103.5	107.9	104.9	104.2	102.9	95.5	106.4	111.8	106.9
Motor vehicles and parts	371	4.65	4.52	99.0	98.7	76.8	94.1	103.5	95.8	99.7	91.4	76.4	100.1	110.3	100.3
Autos		1.60	1.50	92.8	92.6	62.1	86.9	100.5	87.6	95.4	79.7	60.4	97.1	110.7	95.1
Trucks and buses		1.12	1.14	106.0	108.0	75.9	99.7	114.5	106.6	102.8	90.8	75.7	110.9	126.8	114.8
Business vehicles		0.57	0.56	104.1	103.4	78.5	97.2	109.2	104.0	100.3	88.8	78.1	107.4	122.9	112.5
Consumer trucks		0.55	0.58	108.0	112.6	73.3	102.3	120.0	109.3	105.5	92.8	73.3	114.6	130.8	117.2
Truck trailers	3715	0.08	0.07	81.7	87.4	95.3	91.6	92.1	83.4	81.5	88.2	82.6	88.8	98.9	86.7
Motor vehicle parts	3714	1.85	1.80	101.0	98.9	89.1	97.1	99.9	96.9	102.4	102.1	90.4	96.7	100.4	96.7
Aircraft and parts	372	3.01	3.00	100.0	107.8	110.8	110.9	112.3	112.9	102.8	112.0	112.6	112.6	112.8	111.5
Ships and boats	373	0.55	0.52	102.9	102.6	100.5	99.5	101.5	100.4	103.5	104.6	102.1	100.3	103.6	102.7
Rail and miscellaneous	374-6,9	1.59	1.68	118.8	115.2	116.4	117.9	116.6	116.6	120.4	118.4	116.8	115.4	117.3	119.0

**Table 6 (continued)**  
**INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES**

Item	SIC	Proportion in total IP		Index, 1987=100											
		1987	1989	Seasonally adjusted						Not seasonally adjusted					
				1989 Nov	1989 Dec	1990 Jan	1990 Feb <sup>r</sup>	1990 Mar <sup>r</sup>	1990 Apr <sup>r</sup>	1989 Nov	1989 Dec	1990 Jan	1990 Feb <sup>r</sup>	1990 Mar <sup>r</sup>	1990 Apr <sup>r</sup>
<b>Instruments</b>	<b>38</b>	<b>3.26</b>	<b>3.51</b>	<b>115.6</b>	<b>114.8</b>	<b>116.0</b>	<b>116.2</b>	<b>115.9</b>	<b>116.2</b>	<b>115.7</b>	<b>114.2</b>	<b>113.0</b>	<b>114.4</b>	<b>114.3</b>	<b>114.5</b>
Scientific and medical	381-4	2.21	2.41	117.3	118.1	120.0	120.0	120.3	120.6	117.1	115.5	114.6	117.3	117.9	118.0
Photographic equip. & supplies	386	0.94	0.98	112.3	110.8	109.1	107.4	106.6	106.5	112.6	111.0	109.0	107.2	105.5	106.3
<b>Misc. manufactures</b>	<b>39</b>	<b>1.24</b>	<b>1.32</b>	<b>117.0</b>	<b>116.4</b>	<b>117.0</b>	<b>118.1</b>	<b>119.1</b>	<b>120.0</b>	<b>115.4</b>	<b>112.0</b>	<b>109.4</b>	<b>119.7</b>	<b>118.2</b>	<b>117.9</b>
Consumer goods	391,3,4,6	0.65	0.67	116.9	116.3	114.5	117.3	116.9	117.4	113.0	110.0	106.5	116.0	116.5	115.3
Business supplies	395,9	0.59	0.65	120.2	119.8	120.4	120.6	121.5	123.5	118.0	114.2	112.5	123.8	120.0	120.7
<b>Electric utilities</b>	<b>491,3pt</b>	<b>6.01</b>	<b>6.01</b>	<b>109.5</b>	<b>116.3</b>	<b>108.3</b>	<b>107.1</b>	<b>110.9</b>	<b>111.7</b>	<b>102.1</b>	<b>115.3</b>	<b>114.4</b>	<b>113.4</b>	<b>106.1</b>	<b>104.2</b>
Generation		2.55	2.57	111.2	117.9	107.9	109.2	112.3		105.3	119.1	113.4	114.1	107.8	
Fossil fuel		1.45	1.43	107.0	119.2	97.2	95.5	104.9		100.7	117.4	100.0	96.8	95.6	
Hydro and nuclear		1.10	1.15	116.8	116.1	121.9	127.4	122.0		111.4	121.2	131.2	137.0	123.8	
<b>Sales</b>		<b>3.46</b>	<b>3.44</b>	<b>108.2</b>	<b>115.1</b>	<b>108.6</b>	<b>105.6</b>			<b>99.8</b>	<b>112.5</b>	<b>115.1</b>	<b>112.9</b>		
Residential		1.40	1.36	107.8	115.6	109.6	101.8			92.8	118.4	130.6	114.0		
Nonresidential		2.06	2.06	108.5	114.8	107.8	108.2			104.5	108.5	104.6	112.1		
Industrial		0.91	0.91	111.0	115.2	107.6	110.3			109.5	109.3	101.4	114.7		
Commercial and other		1.15	1.15	106.6	114.5	108.0	106.5			100.6	107.8	107.1	110.1		
<b>Gas utilities</b>	<b>492,3pt</b>	<b>1.62</b>	<b>1.54</b>	<b>103.9</b>	<b>115.6</b>	<b>101.2</b>	<b>92.3</b>	<b>95.9</b>	<b>96.6</b>	<b>102.3</b>	<b>167.2</b>	<b>179.2</b>	<b>144.2</b>	<b>135.2</b>	<b>97.3</b>

**Table 7**  
**INDUSTRIAL PRODUCTION: GROSS VALUE OF PRODUCTS**

Billions of 1982 dollars at annual rates, seasonally adjusted

Item	1982	1989	1988 Q4	1989 Q1	Q2	Q3	Q4	1990 Q1 <sup>r</sup>	1989 Dec	1990 Jan	Feb <sup>r</sup>	Mar <sup>r</sup>	Apr <sup>r</sup>	May <sup>p</sup>
<b>Products, total</b>	<b>1376.8</b>	<b>1889.2</b>	<b>1865.8</b>	<b>1886.7</b>	<b>1894.4</b>	<b>1882.3</b>	<b>1893.6</b>	<b>1896.9</b>	<b>1905.5</b>	<b>1863.6</b>	<b>1903.3</b>	<b>1923.7</b>	<b>1910.3</b>	<b>1929.0</b>
<b>Final products</b>	<b>1084.6</b>	<b>1479.2</b>	<b>1460.1</b>	<b>1477.3</b>	<b>1485.5</b>	<b>1473.7</b>	<b>1480.3</b>	<b>1481.7</b>	<b>1492.5</b>	<b>1447.9</b>	<b>1488.3</b>	<b>1508.9</b>	<b>1497.0</b>	<b>1511.9</b>
Consumer goods	703.8	884.3	884.3	890.0	884.2	872.6	890.3	882.6	898.6	864.3	888.6	894.8	885.4	889.2
Durable	133.3	226.1	230.9	231.7	229.8	221.7	221.3	215.3	223.4	194.1	218.4	233.4	221.9	232.2
Automotive products	66.0	130.4	137.3	137.2	133.2	125.8	125.3	117.9	127.8	97.7	120.7	135.2	124.8	134.8
Other durable goods	67.3	95.8	93.6	94.5	96.7	95.9	96.0	97.4	95.6	96.4	97.7	98.2	97.1	97.4
Nondurable	570.5	658.1	653.4	658.3	654.4	650.8	669.0	667.3	675.2	670.3	670.2	661.4	663.5	657.1
Equipment, total	380.8	594.9	575.8	587.3	601.3	601.2	590.0	599.1	594.0	583.6	599.8	614.1	611.6	622.7
Business and defense	345.5	577.0	558.2	570.1	583.1	583.1	571.5	580.1	575.1	565.0	580.8	594.4	591.0	601.6
Business	278.0	479.9	461.0	473.5	485.3	485.1	475.8	483.6	479.0	468.3	484.4	498.1	494.9	505.5
Defense and space	67.4	97.1	97.2	96.7	97.8	98.1	95.7	96.5	96.1	96.7	96.4	96.4	96.1	96.1
<b>Intermediate products</b>	<b>292.2</b>	<b>410.0</b>	<b>405.7</b>	<b>409.3</b>	<b>408.9</b>	<b>408.6</b>	<b>413.3</b>	<b>415.2</b>	<b>413.0</b>	<b>415.7</b>	<b>415.0</b>	<b>414.8</b>	<b>413.3</b>	<b>417.1</b>
Construction supplies	108.3	159.0	157.5	157.8	159.3	158.8	160.3	161.9	160.9	162.2	162.8	160.6	159.7	160.0
Business supplies	183.9	251.0	248.2	251.6	249.7	249.8	253.0	253.3	252.1	253.5	252.2	254.2	253.6	257.1
Commercial energy products	63.4	80.9	81.5	79.7	79.6	80.5	84.0	80.2	83.0	81.0	78.6	81.1	80.9	84.3

**Table 8  
ELECTRIC POWER USE: MANUFACTURING AND MINING**

Item	SIC	1987 Billion KWH	Index, 1987 = 100											
			Seasonally adjusted						Not seasonally adjusted					
			1989 Nov	1989 Dec	1990 Jan	1990 Feb <sup>a</sup>	1990 Mar <sup>a</sup>	1990 Apr <sup>a</sup>	1989 Nov	1989 Dec	1990 Jan	1990 Feb <sup>a</sup>	1990 Mar <sup>a</sup>	1990 Apr <sup>a</sup>
<b>Total</b>			109.1	108.6	109.6	108.3	108.8	108.8	108.3	106.1	106.0	106.0	107.7	107.7
<b>MAJOR INDUSTRY GROUPS</b>														
<b>Manufacturing</b>			109.0	108.4	109.7	108.7	108.9	108.7	108.2	105.7	105.6	105.9	107.6	107.5
<b>Durable</b>			107.8	108.8	109.7	106.8	107.7	109.0	107.2	106.8	105.5	106.0	107.9	108.1
<b>Nondurable</b>			110.3	108.0	109.6	110.3	110.2	108.5	109.1	104.6	105.7	105.8	107.4	107.0
<b>Mining</b>			110.4	109.5	108.1	105.0	107.4	110.5	110.7	112.0	112.3	107.1	108.7	110.9
<b>INDUSTRY GROUPS and SERIES</b>														
<b>Metal mining</b>	<b>10</b>		141.4	142.4	135.2	121.6	125.1	131.8	142.0	133.5	135.1	122.3	129.2	132.0
Iron ore	101		141.2	160.1	143.3	123.7	111.3	132.8	138.1	139.4	135.3	124.8	119.4	131.3
Copper ore	102		144.8	130.0	129.9	119.8	131.9	133.3	148.1	126.9	131.9	117.2	132.7	131.2
<b>Coal</b>	<b>11,12</b>		106.2	107.3	104.9	101.3	101.5	105.0	107.9	116.1	117.0	117.2	113.8	111.6
<b>Oil and gas extraction</b>	<b>13</b>		96.1	95.6	94.6	93.2	97.0	98.4	94.9	98.2	99.1	92.7	94.5	97.0
Crude oil and natural gas	131		92.9	92.8	94.2	91.4	95.2	97.5	92.4	97.0	98.8	91.5	93.0	96.4
Natural gas liquids	132		106.2	99.1	96.3	96.9	102.0	100.6	100.3	94.2	97.6	93.6	100.4	100.0
<b>Stone and earth minerals</b>	<b>14</b>		110.4	112.6	116.7	116.1	116.6	116.3	114.3	113.2	109.0	109.0	110.9	117.9
Crushed stone	142		105.8	110.4	124.6	125.4	113.1	117.5	118.5	114.9	101.2	99.7	96.2	116.6
Sand and gravel	144		119.4	119.7	123.4	123.0	118.6	119.6	130.1	119.5	104.7	102.2	100.7	115.1
Chemical and fertilizer materials	147		104.8	107.1	104.9	110.0	113.3	111.5	103.7	106.7	107.3	110.0	115.8	115.2
<b>Foods</b>	<b>20</b>		107.6	107.0	109.6	109.1	109.0	108.5	108.1	103.1	103.6	101.9	101.1	101.6
Meat products	201		109.1	109.1	109.9	110.6	108.6	109.6	108.4	105.0	102.6	101.5	98.1	103.3
Dairy products	202		104.3	102.0	104.0	107.5	105.0	103.9	100.0	95.8	97.5	97.8	97.9	99.6
Canned and frozen food	203		109.7	110.4	113.5	114.3	110.1	111.0	108.7	101.7	101.9	103.7	101.6	100.8
Grain mill products	204		108.2	102.3	107.5	109.1	103.6	103.6	111.5	103.2	106.1	107.6	100.5	99.3
Bakery products	205		102.6	105.3	107.1	105.4	106.4	107.8	99.4	100.8	100.3	97.6	98.2	100.4
Sugar and confectionery	206		106.6	106.7	110.5	113.5	114.2	110.0	127.0	119.7	116.7	113.0	100.9	96.8
Fats and oils	207		112.2	109.6	116.3	110.2	115.3	117.5	120.1	117.8	123.7	117.8	115.6	113.4
Beverages	208		104.9	104.4	108.6	103.1	107.4	108.7	103.5	95.4	97.9	92.4	97.1	101.2
Coffee and miscellaneous	209		99.9	98.8	104.6	97.8	103.7	99.7	98.4	96.1	97.0	89.8	95.4	93.3
<b>Tobacco products</b>	<b>21</b>		97.6	98.5	103.5	102.0	101.2	105.0	98.4	90.7	89.8	98.0	95.2	95.1
<b>Textile mill products</b>	<b>22</b>		102.2	101.3	106.6	106.1	105.0	102.8	99.8	94.7	90.0	99.0	100.1	100.2
Fabrics	221-4		97.2	95.2	101.1	99.3	97.6	95.7	94.3	88.2	85.9	92.3	92.2	92.2
Knit goods	225		111.8	111.5	117.7	114.5	115.4	113.3	107.4	100.9	93.0	106.9	108.3	109.7
Fabric finishing	226		100.0	101.1	99.7	99.5	104.5	103.7	99.5	98.9	87.5	97.0	102.1	101.6
Yarn and thread	228		106.4	103.9	110.3	113.5	110.0	108.8	104.6	97.6	91.3	104.5	103.9	106.1
Miscellaneous textiles	229		99.3	105.1	108.7	104.5	108.6	107.4	95.5	98.6	96.3	99.1	108.6	103.5
<b>Apparel products</b>	<b>23</b>		100.1	100.1	102.8	96.9	100.9	101.3	95.1	89.0	88.7	91.4	92.2	92.9
Men's outerwear	231,2		105.0	107.5	105.7	102.9	106.5	109.8	99.5	93.0	87.2	94.6	95.0	100.2
Women's outerwear	233		93.8	94.9	94.4	90.1	91.6	90.2	88.4	83.6	82.1	83.6	82.7	81.2
<b>Lumber and products</b>	<b>24</b>		106.0	107.3	108.3	106.3	106.7	107.5	106.3	107.1	108.0	111.9	109.3	109.7
Lumber	242		106.1	105.4	108.1	105.6	107.2	106.9	107.2	106.0	108.5	112.1	109.6	110.5
Millwork and plywood	243		100.2	101.3	99.3	100.8	98.4	99.9	99.8	101.9	100.0	104.0	101.4	103.0
<b>Furniture and fixtures</b>	<b>25</b>		102.9	107.2	105.4	103.0	104.4	107.9	103.1	105.1	101.1	105.9	104.7	105.5
Household furniture	251		99.0	104.2	101.6	98.9	101.3	104.6	100.0	102.4	96.7	103.0	103.1	103.5
<b>Paper and products</b>	<b>26</b>		108.5	106.9	112.0	109.1	109.1	109.8	107.8	105.7	111.1	107.3	108.6	110.2
Wood pulp	261		128.4	113.4	120.8	112.1	107.7	116.7	122.4	112.8	119.2	112.5	108.1	118.2
Paper	262		110.1	106.1	113.3	111.2	110.5	109.0	108.2	105.5	114.3	108.8	110.6	111.0
Paperboard	263		100.9	101.6	103.8	104.7	104.5	107.0	102.3	103.7	100.4	101.3	105.3	107.7
Converted paper products	264		88.0	92.0	94.8	88.6	90.3	92.1	88.9	90.3	90.0	86.7	87.8	90.3
Paperboard containers	265		107.7	108.2	110.6	105.7	109.6	107.9	106.6	104.3	105.8	106.7	108.0	106.1
Building paper and board	266		104.3	107.4	112.5	107.9	107.5	106.8	101.3	106.1	113.3	103.7	110.1	104.5
<b>Printing and publishing</b>	<b>27</b>		116.7	114.7	119.4	118.1	120.9	118.3	112.6	107.9	109.7	107.9	111.0	110.2
Newspapers	271		109.6	107.3	110.3	111.5	114.0	107.9	104.5	102.6	104.1	100.9	101.7	101.3
Commercial printing	275		114.5	111.6	118.2	119.8	121.7	117.7	112.8	104.6	107.2	109.1	111.1	110.2
<b>Chemicals and products</b>	<b>28</b>		118.7	113.6	112.4	115.4	115.1	111.4	116.3	109.4	111.1	110.5	114.2	112.4
Basic chemicals	281		129.0	120.3	118.6	122.3	121.8	117.4	126.0	115.4	117.9	116.6	123.0	118.4
Alkalies and chlorine	2812		110.4	101.3	111.0	111.8	113.9	114.7	104.9	94.9	109.8	108.0	114.5	118.4
Inorganic chemicals, nec	2819		151.7	136.2	133.6	142.8	137.0	132.2	150.9	134.6	134.9	132.0	142.9	131.7
Acid and fertilizer materials			102.0	106.2	101.3	109.3	107.8	101.2	101.5	109.7	107.5	104.1	107.3	99.3
Nuclear materials, nondefense			179.8	162.5	159.6	169.6	163.7	152.9	186.2	152.4	154.5	151.9	168.3	154.9

<sup>a</sup>Industrial electric power use in billions of kilowatt hours for 1987 will be provided when data are available from the Bureau of the Census.

**Table 8 (continued)**  
**ELECTRIC POWER USE: MANUFACTURING AND MINING**

Item	SIC	1987 Billion KWH	Index, 1987 = 100											
			Seasonally adjusted						Not seasonally adjusted					
			1989 Nov	Dec	1990 Jan	Feb <sup>r</sup>	Mar <sup>r</sup>	Apr <sup>p</sup>	1989 Nov	Dec	1990 Jan	Feb <sup>r</sup>	Mar <sup>r</sup>	Apr <sup>p</sup>
<b>Chemicals and Products (cont.)</b>														
Synthetic materials	282		105.9	103.5	98.9	103.9	105.7	102.6	103.8	100.8	99.7	100.3	101.0	103.5
Plastics materials	2821		107.3	104.4	95.9	101.8	102.1	101.0	105.3	102.5	97.5	101.2	99.3	101.6
Drugs and medicines	283		106.9	103.5	107.6	106.6	103.0	107.7	102.0	97.2	98.0	98.0	94.7	101.2
Soap and toiletries	284		112.8	114.2	115.6	115.3	114.5	118.5	109.2	109.2	109.8	110.9	112.4	111.9
Industrial organic chemicals	286		96.7	97.2	111.3	105.4	104.5	109.4	99.2	96.0	103.6	103.9	101.4	106.6
Agricultural chemicals	287		100.8	101.5	99.3	103.3	103.9	99.5	100.2	101.6	98.6	103.8	102.1	104.2
<b>Petroleum products</b>	<b>29</b>		96.4	96.3	96.8	97.9	102.8	99.9	95.0	96.7	97.5	95.4	94.4	94.5
<b>Rubber and plastics products</b>	<b>30</b>		109.9	110.0	111.9	109.6	109.8	110.6	110.4	105.5	102.2	110.5	109.9	110.3
Tires	301		107.6	104.1	108.0	105.7	108.4	106.9	106.4	98.1	97.9	104.5	104.1	106.4
Rubber products, nec	306		104.9	104.6	100.4	96.8	104.2	102.1	104.9	101.6	93.4	100.0	104.4	101.9
Plastics products, nec	307		108.5	109.0	110.8	108.5	107.2	109.2	109.0	104.5	100.9	109.7	108.1	108.4
<b>Leather and products</b>	<b>31</b>		99.0	102.2	98.9	98.3	99.9	98.9	97.5	96.9	93.7	98.3	99.1	96.4
Shoes	314		93.0	94.6	90.5	88.7	91.7	91.4	92.4	87.0	85.5	89.7	90.9	87.7
<b>Stone, clay, &amp; glass products</b>	<b>32</b>		99.6	100.6	104.0	103.2	101.2	100.6	102.0	100.1	97.7	96.1	96.3	100.0
Flat glass	321		118.1	115.0	111.3	107.5	108.1	110.0	116.2	114.2	112.6	107.5	106.4	108.3
Pressed and blown glass	322		98.9	98.3	102.9	100.3	99.2	98.6	101.0	93.4	93.6	97.7	98.5	98.1
Cement	324		89.8	94.5	103.8	106.8	93.5	95.0	95.1	96.2	90.8	87.1	81.1	93.1
Structural clay products	325		104.3	104.0	103.5	99.5	110.2	106.1	106.8	107.8	101.4	98.8	105.3	106.4
Concrete products	327		103.2	103.6	102.6	103.8	98.9	103.2	105.9	103.8	100.6	98.8	96.4	102.4
<b>Primary metals</b>	<b>33</b>		111.7	113.8	114.8	110.0	112.2	112.9	111.6	113.8	114.2	110.6	114.7	113.7
Basic steel and mill products	331		111.2	113.3	116.5	112.1	111.3	115.4	110.3	110.0	115.3	113.6	117.2	117.9
Iron and steel foundries	332		107.0	103.1	104.3	102.8	101.4	104.4	106.4	101.2	97.9	106.0	105.1	107.2
Primary nonferrous metals	333		105.1	101.7	100.9	98.2	94.8	91.3	103.0	104.4	103.1	96.0	94.8	90.7
Aluminum	3334		111.4	115.8	114.1	112.0	113.0	113.1	109.8	119.3	115.2	105.9	114.9	113.1
Nonferrous foundries	336		108.1	109.9	109.2	105.8	110.8	115.1	109.6	107.4	102.9	109.7	113.7	113.5
<b>Fabricated metal products</b>	<b>34</b>		107.2	107.4	106.7	104.5	105.3	106.5	106.5	103.7	101.0	106.8	106.3	105.7
Metal containers	341		114.9	114.2	113.7	115.1	118.2	117.5	114.2	106.1	104.8	113.3	116.5	115.7
Hardware, tools, and cutlery	342		107.1	107.1	106.3	107.3	105.3	103.2	106.2	104.2	99.3	108.3	105.6	106.1
Structural metal products	344		99.4	101.1	102.2	97.8	100.4	100.2	100.0	100.5	99.7	100.4	99.9	99.2
Fasteners	345		106.4	99.0	99.3	96.4	96.5	94.5	103.2	94.5	93.6	97.7	98.8	95.1
Metal stampings	346		106.5	103.5	99.2	101.4	103.0	105.0	106.6	103.5	92.7	106.9	106.8	106.0
<b>Nonelectrical machinery</b>	<b>35</b>		110.3	110.8	111.6	109.9	111.0	112.5	107.5	106.8	105.6	109.5	109.3	109.0
Engines and turbines	351		132.2	120.3	131.3	129.7	132.7	134.4	131.4	119.3	126.6	128.1	133.4	127.9
Farm	352		104.4	102.6	105.3	103.5	103.5	105.4	102.2	99.0	102.9	108.4	108.7	105.1
Construction and allied	353		97.5	96.4	97.0	96.6	102.5	102.0	95.0	95.7	91.9	95.7	99.3	96.4
Metalworking	354		113.5	110.0	112.8	110.3	111.7	112.0	110.3	105.5	107.6	110.8	111.7	109.1
Special industry	355		107.9	105.8	108.6	103.2	105.5	108.8	103.2	102.2	103.2	105.9	106.5	105.0
General industrial	356		99.2	99.9	103.0	99.5	100.5	104.6	96.4	96.2	96.0	100.3	99.7	103.3
Office and computing machines	357		110.5	118.5	112.8	118.1	112.1	112.3	107.9	113.8	108.2	111.7	108.5	107.0
Service industry machines	358		117.7	118.0	121.9	114.5	114.7	114.5	114.2	109.1	111.4	112.6	112.3	111.2
<b>Electrical machinery</b>	<b>36</b>		108.0	108.0	110.1	108.2	108.2	110.2	106.2	103.6	103.6	104.3	106.0	106.5
Electrical distribution	361		102.0	99.5	103.7	103.4	100.3	106.6	99.1	96.3	99.3	102.7	100.7	101.4
Electrical industrial	362		113.2	111.7	114.1	105.0	109.1	108.5	112.9	106.9	107.9	104.9	109.8	107.6
Household appliances	363		92.1	87.5	94.4	90.4	93.9	94.6	89.2	80.3	90.2	92.1	95.3	92.4
Lighting and wiring products	364		109.8	110.3	105.2	106.6	108.8	107.2	107.2	104.9	101.9	109.3	110.1	108.7
TV and radio sets	365		103.6	98.2	110.3	105.5	110.6	110.3	103.2	93.6	104.1	103.4	105.3	103.4
Communication equipment	366		99.5	99.1	104.2	101.9	101.2	100.9	97.3	94.5	97.4	95.2	95.4	96.5
Electronic components	367		111.3	113.1	116.7	114.3	113.0	116.9	108.8	110.3	106.9	108.7	110.0	112.5
<b>Transportation equipment</b>	<b>37</b>		100.7	100.2	97.7	97.0	98.6	101.6	99.6	96.4	90.5	96.4	98.2	99.1
Motor vehicles and parts	371		94.4	92.3	86.3	86.8	92.3	93.4	94.2	88.6	80.3	86.8	93.6	91.9
Aircraft and parts	372		106.0	106.3	111.3	109.4	103.0	110.2	105.4	103.0	102.5	105.4	100.5	106.0
Ships and boats	373		113.6	117.6	108.0	104.4	108.4	106.4	106.9	113.1	109.8	111.3	110.5	110.5
<b>Instruments</b>	<b>38</b>		111.3	113.1	111.7	115.0	113.8	117.4	108.6	107.6	104.1	109.1	110.2	111.2
Photographic equip. & supplies	386		99.5	103.4	95.9	105.0	101.6	109.4	97.1	100.3	91.4	98.8	101.5	101.3
<b>Miscellaneous manufactures</b>	<b>39</b>		111.3	109.3	108.7	110.1	109.3	112.3	109.1	103.6	103.3	109.7	108.8	109.1
<b>SUPPLEMENTARY GROUPS</b>														
Total, excluding nuclear nondefense			106.7	106.8	107.9	106.5	107.1	107.4	105.9	104.6	104.5	104.5	105.8	106.2
Utility sales to industry			109.0	108.3	109.6	108.1	108.7	108.8	108.3	105.5	105.7	105.7	107.4	107.7
Industrial generation			110.6	115.5	109.7	116.1	113.7	108.5	108.6	120.5	115.3	111.6	115.6	107.3

\*Industrial electric power use in billions of kilowatt hours for 1987 will be provided when data are available from the Bureau of the Census.

## Explanatory Note

The **Industrial Production and Capacity Utilization** release reports measures of output, capacity, and capacity utilization in the manufacturing, mining, and electric and gas utilities industries. Survey data on electric power use in manufacturing and mining also are included.

### Industrial Production

**Coverage.** The industrial production index (IP) measures output in the manufacturing, mining, and electric and gas utilities industries. The index's current reference period in which all of the production indexes equal 100, is 1987. The total IP index is constructed from 250 individual series. These individual series are aggregated in two ways: market groups (shown in table 1), such as consumer goods, equipment, intermediate products, and materials, from which the seasonally adjusted total index is derived; and industry groups (shown in table 2), such as two-digit Standard Industrial Classification (SIC) industries and major aggregates of these industries, for example, durable and nondurable manufacturing, mining, and utilities. The 1977 SIC is the basis for industry classification of IP.

**Market groups.** For purposes of analysis, the individual IP series are grouped into final products, intermediate products, and materials. Final products are assumed to be purchased by consumers, businesses, or government for final use. Intermediate products are expected to become inputs in nonindustrial sectors, such as construction, agriculture, and services. Materials are industrial output requiring further processing within the industrial sector. Total products comprises final and intermediate products, and final products are divided into consumer goods and equipment.

**Timing.** The first estimate of output for a month is published around the 15th of the following month. The estimate is preliminary (denoted by the superscript "p" in tables) and subject to revision in each of the subsequent three months as new source data become available. (Revised estimates are denoted by the superscript "r" in tables.) After the fourth month, indexes are not revised further until the time of an annual revision or a benchmark revision. The last three benchmark revisions were published in 1990, 1985, and 1976.

**Source data.** In annual or benchmark revisions, the individual IP indexes are constructed from a variety of source data, such as the quinquennial *Censuses of Manufactures* and *Mineral Industries* and the *Annual Survey of Manufactures*, prepared by the Bureau of the Census; the *Minerals Yearbook*, prepared by the Bureau of Mines; and publications of the Department of Energy. On a monthly basis, the individual indexes of industrial production are constructed from two types of source data: (1) output measured in physical units, and (2) data on inputs to the production process, from which output is inferred. Physical product data, such as tons of steel or barrels of oil, are obtained from private trade associations, as well as the government agencies listed above; data of this type are used to estimate monthly IP where possible and appropriate. When suitable physical product data are unavailable, estimates of output are based on either production-worker hours, kilowatt hours, or a combination of the two. Hours of production workers are collected in the monthly establishment survey conducted by the Bureau of Labor Statistics. The kilowatt hour data are collected by the Federal Reserve District Banks from electric utilities and manufacturing and mining establishments that generate electric power for their own use (cogenerators). The factors used to convert inputs into estimates of production are based on historical relationships between the inputs and the comprehensive data used to benchmark the IP indexes (censuses, annual surveys, and the like); these factors also may be influenced by technological or cyclical developments. The available source data are limited and subject to revision, especially for the first and second output estimates for a given month.

**Weights.** In the index, series that measure the output of an individual industry are weighted according to their proportion in the total value-added output of all industries. The industrial production index, which extends back to 1919, is built in chronological segments that are chainlinked to form a continuous index expressed as a percentage of output in a comparison-base year (currently 1987). Each segment, which usually spans five years, is a Laspeyres quantity index showing changes in quantities with prices (Census value added per unit of output) held at base-year values for the segment. For the period from 1987 to the present, IP is aggregated on the basis of 1987 value-added weights. The aggregation of the index for the 1982-86 period is based on 1982 weights, while 1977 weights are used for the 1977-81 period. The other weight years in the postwar period are 1972, 1967, 1963, 1958, 1954, and 1947. The 1987 value-added weights used to aggregate the index are shown in the first column of tables 1, 2, and 6 under the heading "Proportion in total IP - 1987". To the extent that a given industry grows at a different rate than the total index, its proportion will change over time. Proportions for the most recent complete year of data are shown in the second column of tables 1, 2, and 6.

**Seasonal adjustment.** Individual series are seasonally adjusted by the X-11 Arima Method, which was developed at Statistics Canada. The current seasonal

factors are based on data through 1988. Individual series and major aggregates are seasonally adjusted independently. The seasonally adjusted total index is calculated by aggregating the seasonally adjusted major market groups, and may not precisely equal an aggregation of the seasonally adjusted industry groups. In addition, because the seasonal adjustment of aggregates is done separately, the seasonally adjusted value of a given market or industry group may not be equal to an aggregation of its seasonally adjusted components.

**Reliability.** The average revision to the level of the total IP index, without regard to sign, between the preliminary estimate and its third revision (or from the first and the fourth estimates) was 0.36 percent during the 1972-88 period. The average revision to the percent change in total IP, without regard to sign, from the first to the fourth estimates was 0.27 percentage point during the same period. In most cases (about 85 percent), the direction of change in output indicated by the first estimate for a given month is the same as that shown by the fourth estimate.

**Rounding.** In some cases, components may not add to totals because of independent rounding. In addition, the published percent changes are calculated from indexes with three digits of precision to the right of the decimal point, and may not be the same as percent changes calculated from the rounded indexes shown in the release.

**References.** *Industrial Production - 1986 Edition* contains a more detailed description of the methods used to compile the index, plus a history of its development, a glossary of terms, and a bibliography. The 1990 revision to the index is described in Kenneth Armitage and Dixon A. Trnum, "Industrial Production: 1989 Developments and Historical Revision", *Federal Reserve Bulletin*, Vol. 76 (April 1990), pp. 187-204.

### Capacity Utilization

**Definition.** Capacity utilization is calculated for the manufacturing, mining, and electric and gas utilities industries. For a given industry, the utilization rate is equal to an output index divided by a capacity index. Output is measured by seasonally adjusted indexes of industrial production. The capacity indexes attempt to capture the concept of practical capacity, which is defined as the greatest level of output that a plant can maintain within the framework of a realistic work schedule, taking account of normal downtime, and assuming sufficient availability of inputs to operate the machinery and equipment in place. The 74 individual capacity indexes are based on a variety of data, including capacity data measured in physical units compiled by trade associations, surveys of utilization rates and investment, and estimates of growth of the capital stock.

**Groups.** Estimates of capacity and utilization are available for a variety of groups, including primary and advanced processing industries within manufacturing, durable and nondurable manufacturing, total manufacturing, and total industry. Component industries of the primary and advanced processing groups within manufacturing are listed in the note on tables 2 and 3 of the release.

**Weights.** Value-added weights are used to aggregate the individual capacity indexes in the same manner as individual IP series are aggregated to the total index of industrial production. Although each utilization rate is the result of dividing an IP series by a corresponding capacity index, aggregate utilization rates are equivalent to combinations of individual utilization rates aggregated with proportions that reflect current capacity levels of output valued in base-period value-added per unit of actual output. The implied proportions of individual industry operating rates in the rate for total industry for the most recent year are shown in the first column of table 3.

**References.** The basic methodology used to estimate capacity and utilization is discussed in Richard D. Raddock, "Revised Federal Reserve Rates of Capacity Utilization," *Federal Reserve Bulletin*, Vol. 71 (October 1985), pp. 754-66. The 1990 revision of capacity and capacity utilization is described in Richard D. Raddock, "Recent Developments in Industrial Capacity and Utilization", *Federal Reserve Bulletin*, Vol. 76 (June 1990), pp. 411-435.

### Electric Power

Electric power (kilowatt hour) data are collected by the Federal Reserve District Banks from electric utilities and manufacturing and mining establishments that generate electric power for their own use (cogenerators). The index aggregations and detailed components shown in table 9 are unweighted. The first column of the table shows, for reference, electric power use in billions of kilowatt hours as reported by manufacturing and mining industries in the 1987 censuses of those industries. The supplementary group, "Total, less nuclear nondefense," is shown separately because the nondefense nuclear material series (part of SIC 2819) accounts for a disproportionately large part of total electric power use. Because the value-added proportion for this industry in total IP is considerably smaller than its share of total electric power use, excluding this component from total power use facilitates comparisons with total IP.

### Release Schedule for 1990

At 9:15 a.m. on January 17, February 16, March 16, April 17, May 15, June 15, July 17, August 16, September 14, October 17, November 14, and December 14.