

FEDERAL RESERVE statistical release



G.17 (419)

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INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

Industrial production fell 0.4 percent in April after increasing 0.5 percent in March; industrial capacity utilization decreased 0.5 percentage point in April to 83.0 percent.

A sharp drop in the production of motor vehicles and parts, affecting both consumer goods and business equipment, accounted for the April decline in industrial production. Industrial production excluding motor vehicles and parts was unchanged in April and has shown little movement since January. Total industrial production fell in April to 108.7 percent of its 1987 annual average, about the same as its level a year earlier. The decline in output lowered capacity utilization 2.0 percentage points below last April's level.

Market Groups

Output of consumer goods declined 1.0 percent in April as production of autos and light trucks fell nearly 14 percent. Apart from autos and trucks, production of durable consumer goods declined 0.7 percent owing mainly to a drop in output of appliances. The output of nondurable consumer goods remained sluggish in April. Business equipment production excluding motor vehicles declined slightly in April and has changed little, on balance, since January. Output of construction supplies dropped sharply in both March and April, retracing the gains posted during the fall and winter months. Materials output was little changed again in April as increases in paper, chemicals, and coal were about offset by a decline in production of parts and materials for the motor vehicle industry.

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION: SUMMARY

Seasonally adjusted

	Index, 1987=100				Percent change				Apr 89 to Apr 90
	1990 Jan'	Feb'	Mar'	Apr ^P	1990 Jan'	Feb'	Mar'	Apr ^P	
Industrial Production									
Total Index	107.5	108.5	109.1	108.7	-1.0	0.9	0.5	-0.4	0.1
Previous estimates	107.2	108.1	108.8		-1.3	0.8	0.7		
Major market groups:									
Products, total	108.5	109.8	110.9	110.0	-1.6	1.2	1.1	-0.8	0.5
Consumer goods	106.0	107.2	108.2	107.1	-2.1	1.1	0.9	-1.0	0.1
Business equipment	118.0	119.9	121.8	120.6	-1.6	1.6	1.5	-0.9	0.9
Construction supplies	107.9	108.3	106.2	105.2	0.5	0.3	-1.9	-0.9	-1.1
Materials	106.2	107.0	107.0	107.1	-0.6	0.7	0.0	0.1	-0.9
Major industry groups:									
Manufacturing	108.1	109.5	109.9	109.2	-0.6	1.3	0.3	-0.6	-0.2
Durable	108.6	110.7	111.6	110.4	-1.7	1.9	0.8	-1.0	-1.1
Nondurable	107.5	108.0	107.7	107.6	0.8	0.5	-0.3	-0.1	1.0
Mining	101.7	100.3	101.0	101.9	1.5	-1.4	0.7	0.9	0.2
Utilities	106.8	105.9	109.2	109.9	-8.1	-0.8	3.2	0.6	3.3
	Percent of Capacity								Capacity growth
Capacity Utilization	Average 1967-89	1982 Low	1988-89 High	1989 Apr	1990 Jan'	Feb'	Mar'	Apr^P	Apr 89 to Apr 90
Total Industry	82.2	71.8	85.0	85.0	82.7	83.2	83.5	83.0	2.5
Manufacturing	81.5	70.0	85.1	84.8	82.0	82.9	82.9	82.2	3.0
Advanced processing	81.1	71.4	83.6	83.6	80.5	81.6	82.0	81.2	3.3
Primary processing	82.3	66.8	89.0	87.8	85.7	86.0	85.1	84.5	2.4
Mining	87.3	80.6	87.2	86.6	87.8	86.7	87.4	88.3	-1.7
Utilities	86.8	76.2	92.3	84.9	84.8	84.0	86.6	87.1	0.8

Industry Groups

Manufacturing output fell 0.6 percent in April, bringing the factory operating rate down 0.7 percentage point to 82.2 percent. Excluding the output of motor vehicles and parts, manufacturing output declined 0.2 percent. In contrast, output in mining and at utilities rose significantly in April. The increase for mining resulted from gains in oil and gas extraction and continued strength in coal mining. The operating rate for coal mines reached 94.3 percent in April, its highest level in more than a year.

Within manufacturing, capacity utilization in both primary and advanced processing industries fell more than 0.5 percent in April. Operating rates for most industries declined, reflecting widespread weakness in output. Aside from motor vehicles and parts, the largest drops in utilization in April came in the nonferrous metals and fabricated metals products industries. Output in both these industries has retreated substantially since the start of 1989: production of nonferrous metals has fallen nearly 7 percent, bringing its operating rate down to 84 percent, and output of fabricated metals products has fallen about 4 percent, bringing its utilization rate down to 80 percent. Nonetheless, the operating rates for both are still above their long-run averages.

NOTICE

The G.17(419) **Industrial Production and Capacity Utilization** release combines information previously published in the separate statistical releases G12.3 **Industrial Production** and G.3(402) **Capacity Utilization**. Data shown on this release are available on the day of issue through the Department of Commerce's online Economic Bulletin Board (202-377-3870). Revisions to the industrial production, capacity utilization, capacity, and electric power use statistics were issued at the time of last month's release. 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

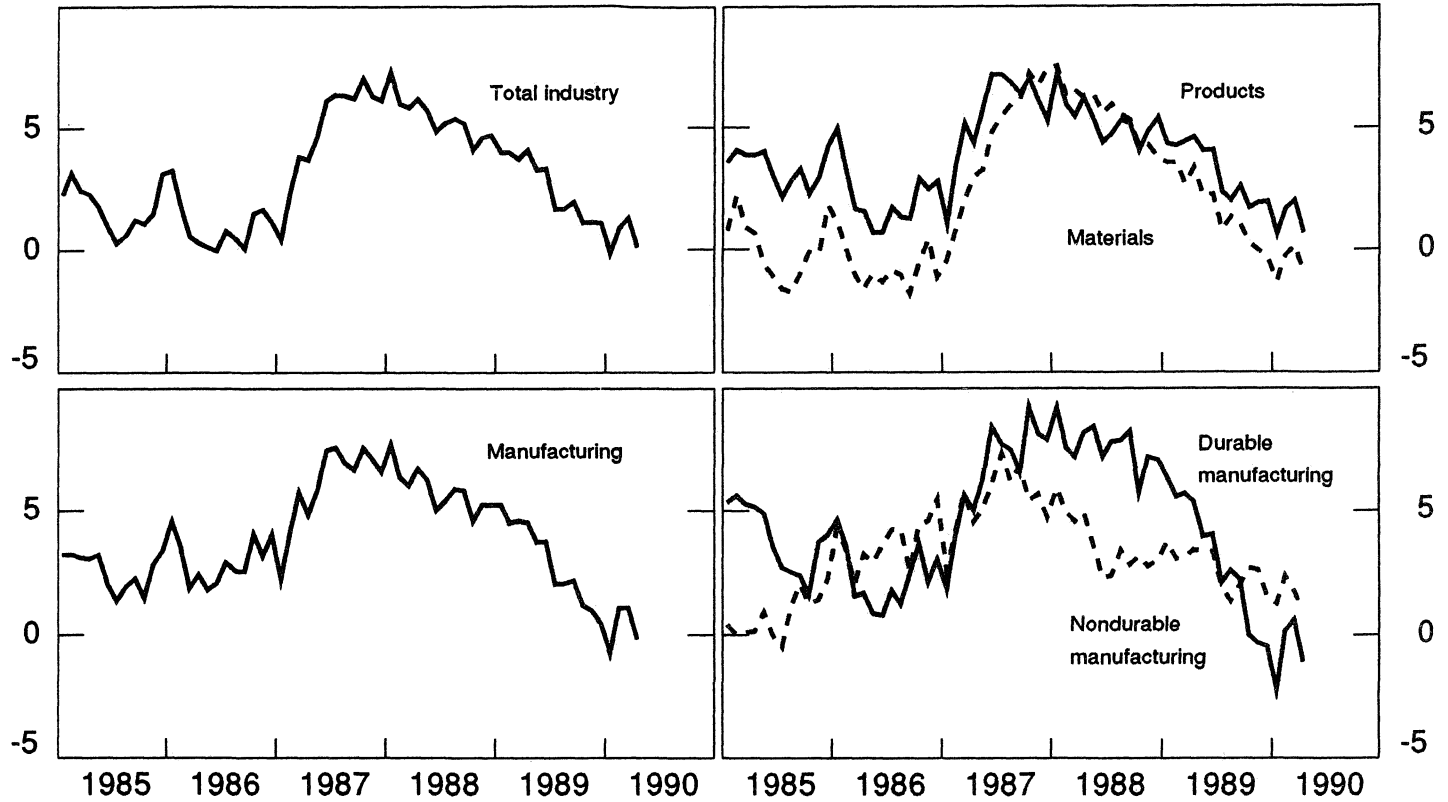
Seasonally adjusted

April data

Industrial production indexes

Twelve-month percent change

Twelve-month percent change

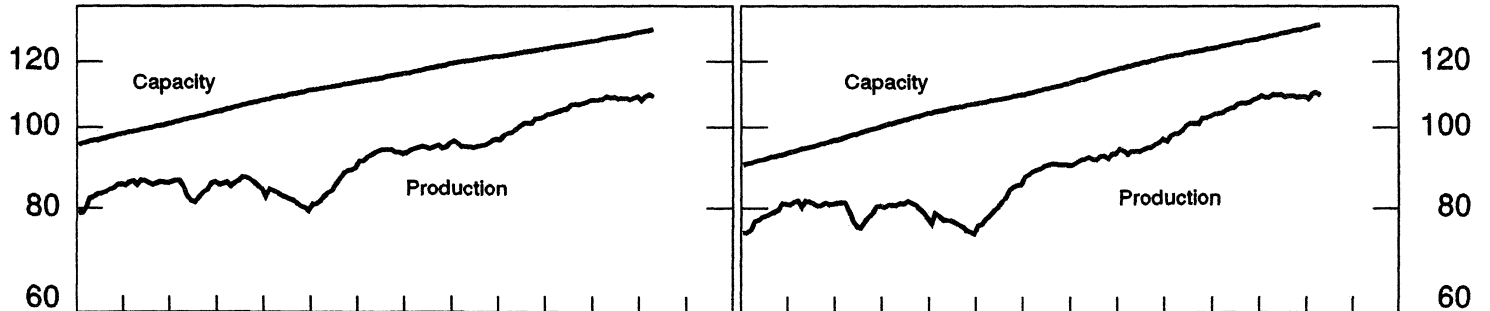


Total industry

Manufacturing

Ratio scale, 1987 production = 100

Ratio scale, 1987 production = 100



Percent of capacity

Percent of capacity

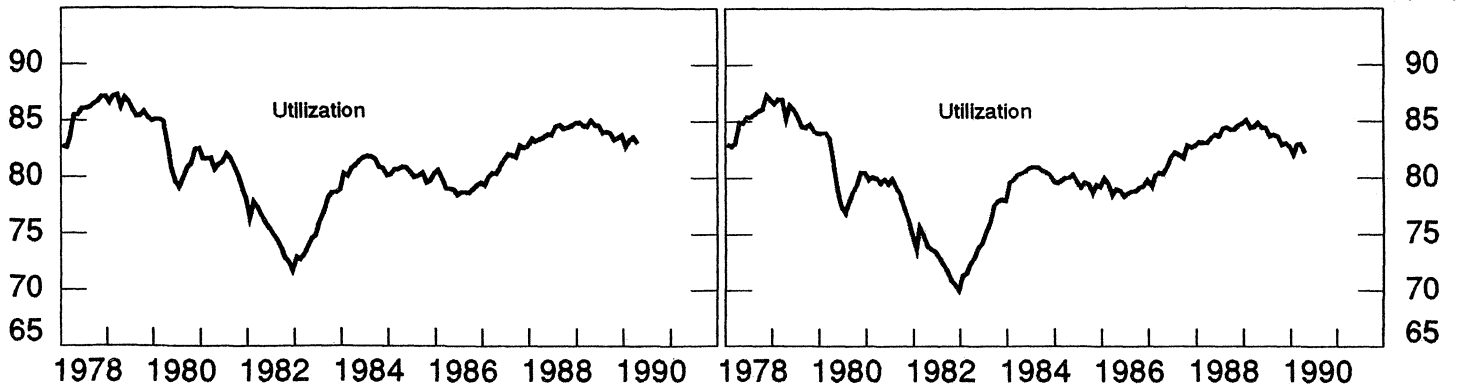


Table 1A
INDUSTRIAL PRODUCTION: MARKET GROUPS

Item	Proportion in Total IP		Index, 1987=100											
			Seasonally adjusted						Not seasonally adjusted					
	1987	1989	1989 Nov	1989 Dec	1990 Jan ^r	1990 Feb ^r	1990 Mar ^r	1990 Apr ^p	1989 Nov	1989 Dec	1990 Jan ^r	1990 Feb ^r	1990 Mar ^r	1990 Apr ^p
Total Index	100.0	100.0	108.1	108.6	107.5	108.5	109.1	108.7	107.7	106.8	106.0	109.2	109.0	107.4
Products, total	60.8	61.1	108.9	109.7	108.4	109.5	110.4	109.7	108.1	107.4	106.0	109.2	109.4	107.6
Final products	46.0	46.5	109.4	110.3	108.5	109.8	110.9	110.0	108.3	108.1	106.8	110.0	110.4	107.6
Consumer goods	26.0	25.7	107.4	108.3	106.0	107.2	108.2	107.1	105.3	105.2	104.6	107.7	107.4	104.2
Durable	5.6	5.6	105.7	106.8	99.4	106.2	110.8	106.3	107.0	99.7	95.8	108.8	113.2	108.1
Automotive products	2.5	2.4	102.4	104.5	85.2	99.0	108.7	99.9	102.6	94.8	83.2	104.7	114.5	104.3
Autos and trucks	1.5	1.4	98.4	100.1	66.3	92.1	106.6	92.0	99.1	84.6	65.2	103.0	117.0	99.3
Autos	0.9	0.9	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	0.6	0.6	108.0	112.6	73.3	100.8	117.0	99.3	105.5	92.8	73.3	112.9	127.5	106.4
Auto parts and allied goods	1.0	1.0	108.2	111.2	113.6	109.4	111.8	111.8	107.9	110.0	110.3	107.2	110.7	111.9
Other durable goods	3.1	3.1	108.4	108.6	110.6	111.8	112.4	111.3	110.4	103.6	105.7	112.0	112.2	111.2
Appliances, TVs, and air-cond.	0.8	0.8	102.0	101.0	108.4	107.8	108.9	106.3	105.7	88.4	107.7	109.9	108.5	108.2
Carpeting and furniture	0.9	0.9	100.4	102.0	103.7	104.7	105.9	105.5	102.4	97.5	97.1	105.5	106.5	106.0
Miscellaneous	1.4	1.5	117.1	117.1	116.2	118.6	118.5	117.9	118.2	115.9	110.1	117.4	118.0	116.1
Nondurable	20.4	20.1	107.8	108.7	107.8	107.4	107.5	107.4	104.9	106.7	107.0	107.4	105.8	103.1
Foods and tobacco	9.1	8.8	105.8	106.4	105.5	106.3	106.5	106.0	104.6	100.5	100.3	102.2	102.6	102.0
Clothing	2.6	2.4	100.1	99.4	100.6	99.6	97.3	97.6	99.3	95.3	95.2	99.0	97.0	96.8
Chemical products	3.5	3.6	111.3	110.3	112.7	111.8	111.3	111.2	107.0	104.4	104.6	105.2	104.5	105.6
Paper products	2.5	2.7	118.1	116.9	116.2	115.4	116.9	117.0	113.9	113.0	109.6	110.9	113.2	112.4
Energy products	2.7	2.6	108.0	115.2	107.9	105.5	106.5	107.3	100.0	135.6	142.1	132.3	119.5	100.5
Fuels	0.7	0.7	103.0	100.5	105.1	106.6	101.6	102.2	105.3	105.3	104.3	101.6	96.6	100.3
Utilities	2.0	2.0	109.8	120.7	109.0	105.1	108.3	109.1	98.0	146.8	156.2	143.6	128.1	100.6
Equipment, total	20.0	20.8	112.0	112.9	111.8	113.2	114.6	113.8	112.0	111.8	109.7	113.1	114.5	112.5
Business equipment	13.9	15.3	118.7	119.9	118.0	119.9	121.8	120.6	118.0	117.4	114.7	119.7	121.6	119.2
Information processing & related	5.6	6.3	123.5	124.0	124.0	124.2	124.1	124.1	122.8	121.6	120.0	120.9	121.2	120.8
Office and computing	1.9	2.5	141.0	142.7	142.7	142.5	141.4	142.0	140.1	137.0	136.0	135.8	136.4	137.0
Industrial	4.0	4.2	113.4	112.8	113.5	112.9	114.3	113.8	112.1	112.5	110.1	113.5	113.5	113.8
Transit	2.5	2.8	117.0	123.4	111.4	123.6	132.3	126.7	119.2	119.5	111.3	127.7	138.8	131.8
Autos and trucks	1.2	1.2	98.0	97.6	69.6	93.3	107.4	95.9	97.6	83.9	68.5	103.7	119.5	103.9
Other	1.9	2.0	117.8	118.5	118.7	117.4	117.0	116.7	115.1	113.0	113.7	118.8	117.3	114.8
Defense and space equipment	5.4	4.8	96.7	96.6	97.5	97.6	97.4	96.8	97.2	98.5	98.1	98.3	98.5	96.7
Oil and gas well drilling	0.6	0.5	99.9	100.3	98.3	100.1	106.0	114.3	112.4	114.4	106.2	98.2	98.4	100.7
Manufactured homes	0.2	0.1	89.4	91.6	91.6	94.3	92.9	90.2	84.7	68.8	72.1	85.3	92.1	97.2
Intermediate products	14.7	14.6	107.3	107.9	108.0	108.6	108.8	108.5	107.7	105.2	103.4	106.6	106.0	106.9
Construction supplies	6.0	5.9	107.0	107.4	107.9	108.3	106.2	105.2	107.8	104.2	101.3	103.8	103.6	105.3
Business supplies	8.7	8.6	107.5	108.2	108.0	108.8	110.6	110.8	107.6	105.8	104.9	108.5	107.8	108.1
Materials	39.2	38.9	107.0	106.9	106.2	107.0	107.0	107.1	107.1	105.9	106.1	109.2	108.4	107.3
Durable	19.4	20.0	110.8	110.4	109.4	110.7	110.6	110.1	111.1	108.9	106.4	111.4	112.1	111.0
Consumer parts	4.2	4.2	105.7	102.5	96.5	102.8	104.5	102.0	107.3	103.3	95.4	105.0	106.6	103.2
Equipment parts	7.3	7.7	115.3	115.8	116.5	117.4	117.0	117.2	116.4	117.5	116.3	117.5	117.5	116.3
Other	7.9	8.1	109.4	109.5	109.7	108.8	108.0	108.0	108.2	103.9	103.2	109.3	110.0	110.2
Basic metals	2.8	2.9	108.6	109.3	108.5	110.2	107.1	106.8	106.9	103.8	106.3	112.6	113.4	113.1
Nondurable	9.0	8.8	104.9	104.3	105.4	105.7	105.2	105.5	105.0	100.1	104.3	108.0	106.6	106.9
Textile	1.2	1.1	96.1	95.8	94.6	96.0	96.0	95.8	96.3	89.1	93.1	97.9	99.1	97.4
Paper	1.9	1.8	104.6	103.7	105.0	105.2	103.8	104.5	104.6	99.5	105.8	108.5	106.3	104.6
Chemical	3.8	3.8	105.8	103.8	105.8	107.0	106.6	106.9	105.7	102.0	104.6	108.9	107.1	109.1
Other	2.1	2.1	108.4	110.4	110.9	109.2	109.0	109.1	108.7	103.4	108.5	111.6	110.0	110.3
Energy	10.9	10.2	101.9	102.7	101.2	101.4	102.1	102.9	101.7	105.3	106.9	106.3	103.3	100.9
Primary	7.2	6.6	100.5	99.0	101.1	101.4	101.5	102.1	101.3	100.7	104.5	105.5	103.8	101.6
Converted fuel	3.7	3.5	104.5	110.0	101.4	101.3	103.1	104.6	102.6	114.5	111.4	107.7	102.2	99.5
SPECIAL AGGREGATES														
Total excluding:														
Autos and trucks	97.3	97.4	108.4	108.9	108.6	109.0	109.1	109.1	108.0	107.4	107.1	109.4	108.7	107.6
Motor vehicles and parts	95.3	95.5	108.6	109.1	109.0	109.2	109.3	109.3	108.1	107.5	107.5	109.6	108.9	107.8
Office and computing machines	97.5	96.9	107.3	107.7	106.6	107.7	108.3	107.8	106.9	106.0	105.3	108.5	108.3	106.7
Consumer goods excluding:														
Autos and trucks	24.5	24.2	107.9	108.8	108.4	108.1	108.3	108.1	105.7	106.4	107.0	107.9	106.8	104.5
Energy	23.3	23.0	107.3	107.5	105.8	107.4	108.4	107.1	106.0	101.7	100.3	104.8	106.0	104.6
Business equipment excluding:														
Autos and trucks	12.7	14.2	120.7	122.1	122.8	122.5	123.2	123.1	120.0	120.7	119.3	121.3	121.8	120.7
Office and computing equipment	12.0	12.9	115.0	116.2	114.0	116.3	118.6	117.2	114.5	114.3	111.3	117.1	119.2	116.5
Materials excluding:														
Energy	28.4	28.8	108.9	108.4	108.1	109.1	108.9	108.7	109.2	106.1	105.7	110.4	110.3	109.7

Table 1B
INDUSTRIAL PRODUCTION: MARKET GROUPS

Percent change

Item	1988 Q4 to 1989 Q4 ¹	Seasonally adjusted annual rate				Seasonally adjusted				Not seasonally adjusted				Apr 89 to Apr 90 ¹
		1989 Q2	Q3	Q4	1990 Q1 ¹	1990 Jan ¹	Feb ¹	Mar ¹	Apr ¹	1990 Jan ¹	Feb ¹	Mar ¹	Apr ¹	
Total Index	1.1	2.8	-1.2	0.2	0.9	-1.0	0.9	0.5	-0.4	-0.7	3.0	-0.2	-1.4	0.1
Products, total	1.8	3.8	-1.6	1.3	2.0	-1.2	1.0	0.9	-0.7	-1.3	3.0	0.2	-1.7	0.7
Final products	1.8	5.1	-1.7	0.9	1.3	-1.6	1.2	1.1	-0.8	-1.1	3.0	0.4	-2.4	0.5
Consumer goods	1.8	1.0	-3.8	7.6	-2.0	-2.1	1.1	0.9	-1.0	-0.5	2.9	-0.3	-3.0	0.1
Durable	-2.2	-0.4	-10.3	0.5	-3.7	-7.0	6.8	4.3	-4.0	-3.9	13.5	4.1	-4.5	-3.4
Automotive products	-7.8	-9.4	-19.2	0.7	-20.0	-18.5	16.2	9.8	-8.1	-12.2	25.7	9.4	-8.9	-9.3
Autos and trucks	-13.1	-12.8	-26.6	-4.0	-37.7	-33.8	39.0	15.8	-13.7	-22.9	57.9	13.6	-15.1	-16.2
Autos	-14.5	-10.0	-29.3	-0.6	-42.1	-32.9	40.0	15.6	-12.8	-24.2	60.7	14.0	-14.1	-17.5
Trucks	-10.8	-16.9	-22.3	-9.0	-30.5	-34.9	37.6	16.1	-15.1	-21.0	54.1	13.0	-16.5	-14.2
Auto parts and allied goods	0.6	-3.9	-7.1	8.1	9.9	2.2	-3.8	2.2	0.0	0.3	-2.8	3.3	1.0	1.0
Other durable goods	2.4	7.6	-2.7	-0.1	10.1	1.8	1.1	0.5	-0.9	2.1	5.9	0.2	-1.0	1.2
Appliances, TVs, and air-cond.	-4.0	-2.9	-2.0	-14.8	20.0	7.3	-0.5	1.0	-2.4	21.9	2.0	-1.3	-0.3	-2.1
Carpeting and furniture	-1.0	6.0	-11.6	4.6	15.1	1.7	1.0	1.1	-0.4	-0.4	8.6	0.9	-0.5	2.2
Miscellaneous	8.1	14.6	2.3	5.7	2.8	-0.8	2.1	-0.1	-0.5	-5.0	6.6	0.5	-1.6	2.4
Nondurable	3.0	1.4	-1.8	9.4	-1.5	-0.8	-0.3	0.0	-0.1	0.4	0.3	-1.5	-2.5	1.1
Foods and tobacco	2.5	0.7	-3.8	11.6	0.6	-0.9	0.8	0.2	-0.5	-0.2	2.0	0.3	-0.5	1.0
Clothing	-1.1	-1.1	-3.7	-2.4	-5.1	1.2	-1.0	-2.3	0.3	-0.1	3.9	-2.0	-0.2	-4.3
Chemical products	1.8	2.1	-0.3	5.3	4.9	2.2	-0.8	-0.4	-0.1	0.2	0.5	-0.7	1.1	3.1
Paper products	9.2	1.8	6.0	10.7	-4.1	-0.6	-0.7	1.3	0.1	-3.0	1.2	2.0	-0.7	3.8
Energy products	4.2	5.1	-3.4	17.8	-10.7	-6.4	-2.2	0.9	0.7	4.8	-6.9	-9.6	-15.9	0.7
Fuels	-0.5	-7.7	6.5	-4.6	9.0	4.5	1.4	-4.7	0.6	-0.9	-2.6	-5.0	3.8	0.4
Utilities	6.0	10.1	-6.8	27.0	-16.8	-9.7	-3.5	3.0	0.8	6.3	-8.0	-10.8	-21.4	0.8
Equipment, total	1.9	10.4	0.8	-6.6	5.5	-1.0	1.3	1.2	-0.6	-1.9	3.1	1.2	-1.8	1.1
Business equipment	2.3	11.4	-0.3	-6.9	5.9	-1.6	1.6	1.5	-0.9	-2.3	4.3	1.6	-2.0	0.9
Information processing & related	6.3	13.0	0.4	-1.0	5.5	0.0	0.1	-0.1	0.0	-1.3	0.8	0.2	-0.3	2.2
Office and computing	12.9	10.9	7.5	-1.6	10.1	0.0	-0.2	-0.7	0.4	-0.7	-0.1	0.4	-0.7	6.0
Industrial	1.3	4.5	-1.6	-4.6	2.5	0.6	-0.5	1.2	-0.5	-2.1	3.1	0.0	-2.3	-1.4
Transit	-6.5	21.1	-4.7	-24.6	16.8	-9.7	10.9	7.0	-4.2	-6.9	14.8	8.7	-5.0	-0.9
Autos and trucks	-13.3	-17.3	-17.9	-9.8	-27.7	-28.6	34.0	15.1	-10.7	-18.3	51.3	15.3	-13.1	-11.0
Other	4.5	7.4	6.4	-1.6	0.7	0.2	-1.1	-0.4	-0.3	0.7	4.4	-1.3	-2.1	2.6
Defense and space equipment	-0.2	4.9	4.7	-8.5	3.6	1.0	0.1	-0.2	-0.6	-0.3	0.1	0.2	-1.8	-0.3
Oil and gas well drilling	13.2	53.9	6.6	14.1	9.8	-1.9	1.8	5.9	7.8	-7.1	-7.6	0.3	2.3	21.5
Manufactured homes	-10.9	-21.0	-22.6	8.5	15.5	0.0	2.9	-1.5	-2.9	4.8	18.3	7.9	5.5	-5.5
Intermediate products	1.8	-0.3	-1.4	3.4	4.2	0.1	0.6	0.2	-0.3	-1.7	3.0	-0.5	0.8	1.2
Construction supplies	1.7	2.0	-1.6	4.5	2.2	0.5	0.3	-1.9	-0.9	-2.8	2.5	-0.2	1.6	-1.1
Business supplies	1.9	-1.8	-1.2	2.7	5.6	-0.2	0.8	1.6	0.1	-0.9	3.4	-0.6	0.3	2.8
Materials	-0.1	1.3	-0.5	-2.0	-0.9	-0.6	0.7	0.0	0.1	0.1	3.0	-0.8	-1.0	-0.9
Durable	-0.9	0.1	-0.5	-4.1	-1.4	-0.9	1.2	-0.1	-0.4	-2.3	4.7	0.6	-1.0	-1.9
Consumer parts	-6.1	-4.2	-7.2	-12.3	-13.7	-5.9	6.6	1.7	-2.4	-7.6	10.1	1.5	-3.1	-8.0
Equipment parts	2.1	3.9	2.2	-0.6	6.4	0.6	0.8	-0.4	0.2	-1.0	1.0	0.0	-1.0	2.0
Other	-1.0	-0.9	0.7	-3.6	-2.3	0.2	-0.9	-0.7	0.0	-0.7	6.0	0.7	0.1	-2.5
Basic metals	-3.2	-3.5	2.9	-11.4	-3.8	-0.7	1.6	-2.8	-0.3	2.4	5.9	0.7	-0.2	-7.0
Nondurable	0.9	3.0	-0.2	-1.7	1.2	1.0	0.3	-0.5	0.3	4.1	3.6	-1.3	0.3	-0.5
Textile	2.3	16.4	0.2	-19.5	-5.3	-1.3	1.5	0.0	-0.2	4.5	5.2	1.2	-1.7	-6.0
Paper	2.0	-2.0	6.4	4.6	-2.6	1.2	0.2	-1.3	0.7	6.3	2.6	-2.0	-1.6	1.3
Chemical	-0.4	1.5	-0.9	-4.1	3.7	1.9	1.1	-0.4	0.3	2.5	4.1	-1.7	1.9	-1.1
Other	1.8	3.7	-4.6	7.7	3.5	0.5	-1.5	-0.3	0.1	4.9	2.8	-1.4	0.2	2.0
Energy	0.6	2.0	-0.9	3.3	-1.6	-1.5	0.1	0.7	0.9	1.4	-0.6	-2.8	-2.3	1.1
Primary	-0.9	7.7	2.7	-5.0	6.4	2.1	0.3	0.1	0.6	3.9	0.9	-1.6	-2.1	2.3
Converted fuel	3.7	-7.7	-7.2	19.9	-15.1	-7.8	-0.1	1.8	1.4	-2.7	-3.3	-5.1	-2.6	-1.4
SPECIAL AGGREGATES														
Total excluding:														
Autos and trucks	1.5	3.4	-0.5	0.3	1.9	-0.2	0.3	0.2	-0.1	-0.3	2.1	-0.6	-1.0	0.5
Motor vehicles and parts	1.7	3.6	-0.3	0.5	2.3	0.0	0.2	0.1	0.0	-0.1	2.0	-0.7	-1.0	0.7
Office and computing machines	0.8	2.6	-1.4	0.1	0.6	-1.0	1.0	0.6	-0.4	-0.7	3.1	-0.2	-1.4	-0.1
Consumer goods excluding:														
Autos and trucks	2.8	2.0	-2.2	8.1	0.3	-0.4	-0.3	0.2	-0.2	0.6	0.9	-1.1	-2.2	1.1
Energy	1.6	0.6	-3.7	6.3	-0.9	-1.6	1.5	0.9	-1.1	-1.3	4.5	1.1	-1.3	0.0
Business equipment excluding:														
Autos and trucks	3.7	14.4	1.3	-6.7	9.0	0.5	-0.2	0.5	-0.1	-1.2	1.7	0.4	-0.9	1.9
Office and computing equipment	0.4	11.6	-1.6	-8.0	5.1	-1.9	2.0	2.0	-1.2	-2.6	5.2	1.8	-2.2	-0.1
Materials excluding:														
Energy	-0.3	1.0	-0.5	-3.4	-0.6	-0.3	0.9	-0.2	-0.2	-0.3	4.4	0.0	-0.6	-1.5

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 Nov	1989 Dec	1990 Jan ¹	1990 Feb ¹	1990 Mar ¹	1990 Apr ¹	1989 Nov	1989 Dec	1990 Jan ¹	1990 Feb ¹	1990 Mar ¹	1990 Apr ¹
Total Index		100.0	100.0	108.1	108.6	107.5	108.5	109.1	108.7	107.7	106.8	106.0	109.2	109.0	107.4
Manufacturing		84.4	85.1	108.9	108.8	108.1	109.5	109.9	109.2	108.6	105.5	104.4	108.5	109.2	108.3
Primary processing		26.7	26.3	106.2	105.3	106.2	106.8	105.9	105.4	105.7	101.2	102.4	107.0	106.7	106.8
Advanced processing		57.7	58.8	110.1	110.4	109.0	110.8	111.7	110.9	109.9	107.5	105.3	109.2	110.3	107.5
Durable		47.3	48.5	110.1	110.4	108.6	110.7	111.6	110.4	110.1	108.2	106.1	110.8	112.2	110.2
Lumber and products	24	2.0	1.9	104.8	106.4	106.0	104.3	105.6	104.0	102.3	98.4	99.4	102.1	104.6	105.4
Furniture and fixtures	25	1.4	1.4	104.4	105.1	105.1	104.8	106.0	105.7	105.0	102.6	102.9	107.1	106.2	103.4
Stone, clay, and glass products	32	2.5	2.5	108.2	108.6	110.0	108.0	106.7	106.1	109.2	104.3	103.6	102.1	104.1	107.0
Primary metals		3.3	3.4	104.8	102.6	105.0	108.2	105.1	104.2	101.8	95.5	102.7	110.3	111.1	110.9
Iron and steel	331,2	1.9	2.0	104.1	100.3	104.6	110.5	106.7	106.2	98.6	91.9	100.6	111.6	112.8	115.3
Raw steel		0.1	0.1	100.6	97.6	109.9	109.0	105.9	107.0	99.1	94.5	107.0	110.5	113.2	114.5
Nonferrous	333-6,9	1.4	1.4	105.8	105.8	105.6	105.0	103.0	101.3	106.4	100.6	105.5	108.3	108.5	104.6
Fabricated metal products	34	5.4	5.3	106.9	106.3	105.1	105.6	105.3	104.5	107.3	105.9	101.4	106.1	106.1	104.1
Nonelectrical machinery	35	8.6	9.6	122.9	123.8	123.7	123.5	123.4	123.4	121.1	120.2	119.0	122.1	121.9	119.9
Office & computing machines	357	2.5	3.1	141.0	142.7	142.7	142.5	141.5	142.0	140.1	137.0	136.0	135.8	136.4	135.5
Electrical machinery	36	8.6	8.7	110.1	110.1	110.1	111.0	112.1	111.9	112.0	111.3	109.7	110.9	111.5	110.2
Transportation equipment		9.8	9.7	102.8	104.4	94.7	103.6	108.2	104.2	104.2	102.9	95.5	106.6	112.1	106.2
Motor vehicles and parts	371	4.7	4.5	99.0	98.7	76.8	94.4	103.9	94.9	99.7	91.4	76.4	100.4	110.8	99.4
Autos and light trucks		2.3	2.3	97.6	99.0	65.7	91.3	105.7	91.3	98.6	83.9	64.5	102.1	116.1	98.7
Aerospace and misc.	372-6,9	5.1	5.2	106.3	109.6	111.0	111.9	112.1	112.6	108.3	113.2	112.7	112.1	113.4	112.3
Instruments	38	3.3	3.5	115.6	114.9	116.0	116.4	115.8	116.5	115.7	114.2	113.0	114.6	114.2	114.8
Miscellaneous	39	1.2	1.3	117.0	116.4	117.0	118.6	118.7	117.7	115.4	112.0	109.4	120.2	117.7	115.6
Nondurable		37.2	36.6	107.3	106.7	107.5	108.0	107.7	107.6	106.6	102.1	102.2	105.5	105.4	105.8
Foods	20	8.8	8.6	107.4	108.0	106.8	107.5	107.9	107.5	106.8	104.6	101.7	102.7	103.3	109.5
Tobacco products	21	1.0	0.9	98.8	98.5	101.3	102.3	100.0	98.0	100.0	78.5	96.8	106.6	104.6	99.5
Textile mill products	22	1.8	1.7	99.3	99.8	100.6	102.9	101.5	101.0	98.8	91.0	92.8	101.3	102.5	103.5
Apparel products	23	2.4	2.3	103.7	102.6	102.4	102.1	99.9	100.1	104.2	101.7	99.5	100.9	99.6	98.6
Paper and products	26	3.6	3.4	104.1	103.4	103.8	105.0	103.2	103.7	103.0	97.6	104.6	107.9	105.8	104.9
Printing and publishing		6.4	6.4	109.6	109.6	110.7	111.4	112.3	112.4	110.2	104.9	101.0	104.1	106.3	107.8
Chemicals and products	28	8.6	8.6	109.8	107.6	109.9	110.0	109.7	110.1	107.2	103.9	105.5	108.1	107.7	109.9
Petroleum products	29	1.3	1.3	109.3	104.3	108.6	112.0	109.5	107.9	110.3	104.6	101.9	103.4	100.3	104.9
Rubber and plastics products	30	3.0	3.0	109.1	110.1	110.7	109.1	109.4	108.7	109.3	104.2	103.6	112.7	111.2	109.3
Leather and products	31	0.3	0.3	99.4	103.0	104.3	102.9	102.7	102.0	101.1	95.6	99.9	106.9	105.4	101.7
Mining		7.9	7.4	101.2	100.1	101.7	100.3	101.0	101.9	103.8	101.5	102.4	102.3	102.0	101.5
Metal mining	10	0.3	0.4	145.9	155.5	144.8	142.0	145.2	143.4	143.4	148.9	140.7	147.4	148.5	151.5
Coal	11,12	1.2	1.2	108.1	103.5	114.1	111.9	112.9	115.2	110.1	98.4	111.2	116.0	117.9	114.0
Oil and gas extraction	13	5.7	5.1	95.5	94.0	94.4	93.2	94.4	95.3	98.2	97.7	97.7	96.1	95.5	94.4
Stone and earth minerals	14	0.7	0.7	115.8	119.7	121.2	120.0	114.3	114.6	122.1	117.4	108.5	109.1	106.6	115.5
Utilities		7.6	7.6	108.3	116.1	106.8	105.9	109.2	109.9	102.2	126.3	128.2	124.0	114.6	104.2
Electric	491,3pt	6.0	6.0	109.5	116.3	108.3	107.9	111.5	112.2	102.1	115.3	114.4	114.8	106.8	104.7
Gas	492,3pt	1.6	1.5	103.9	115.6	101.2	98.3	101.0	101.5	102.3	167.2	179.2	157.9	143.4	102.5
SPECIAL AGGREGATES															
Manufacturing excluding:															
Motor vehicles and parts		79.8	80.6	109.4	109.3	109.9	110.4	110.2	110.0	109.1	106.3	106.0	109.0	109.1	108.8
Office and computing machines		82.0	82.0	107.9	107.7	107.1	108.5	108.9	108.2	107.6	104.6	103.4	107.7	108.4	107.5
Memo: Motor vehicle assemblies¹															
Total				10.0	10.2	6.9	9.4	10.8	9.6	10.2	8.3	7.1	9.6	12.1	10.1
Autos				6.2	6.2	4.1	5.8	6.7	5.8	6.5	5.1	4.3	5.9	7.4	6.1
Trucks				3.8	4.0	2.8	3.6	4.2	3.9	3.8	3.2	2.8	3.7	4.6	4.0
Light				3.5	3.7	2.5	3.4	3.8	3.5	3.5	3.0	2.6	3.4	4.3	3.6
Heavy and medium				0.2	0.2	0.3	0.3	0.3	0.4	0.2	0.2	0.3	0.3	0.4	0.4

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 ¹	Seasonally adjusted annual rate				Seasonally adjusted				Not seasonally adjusted				Apr 89 to Apr 90 ¹
			1989 Q2	Q3	Q4	1990 Q1 ¹	1990 Jan ¹	Feb ¹	Mar ¹	Apr ¹	1990 Jan ¹	Feb ¹	Mar ¹	Apr ¹	
Total index		1.1	2.8	-1.2	0.2	0.9	-1.0	0.9	0.5	-0.4	-0.7	3.0	-0.2	-1.4	0.1
Manufacturing		0.9	2.4	-1.3	-0.8	1.8	-0.6	1.3	0.3	-0.6	-1.1	4.0	0.7	-0.9	-0.2
Primary processing		-0.4	-0.7	-0.2	-1.2	0.9	0.9	0.6	-0.9	-0.5	1.2	4.5	-0.3	0.1	-1.4
Advanced processing		1.4	3.8	-1.9	-0.6	2.1	-1.3	1.6	0.9	-0.7	-2.1	3.7	1.1	-1.3	0.3
Durable		-0.3	2.9	-1.6	-4.2	1.1	-1.7	1.9	0.8	-1.0	-2.0	4.5	1.3	-1.8	-1.1
Lumber and products	24	-0.9	2.9	-0.8	8.7	2.0	-0.4	-1.6	1.2	-1.5	1.0	2.8	2.4	0.8	1.3
Furniture and fixtures	25	0.9	11.0	-6.7	-0.2	1.1	0.0	-0.3	1.1	-0.2	0.2	4.1	-0.8	-2.7	0.0
Stone, clay, and glass products	32	0.2	-3.8	-4.0	4.9	0.2	1.3	-1.9	-1.2	-0.6	-0.6	-1.5	2.0	2.8	-1.5
Non-durable		-6.7	-8.3	2.2	-16.3	3.1	2.4	3.0	-2.8	-0.9	7.5	7.4	0.7	-0.2	-7.5
Iron and steel	331,2	-9.9	-17.0	-0.3	-15.5	10.7	4.3	5.6	-3.4	-0.4	9.5	10.9	1.1	2.2	-8.0
Raw steel		-7.4	-21.8	-10.5	-17.2	29.4	12.6	-0.8	-2.8	1.0	13.3	3.2	2.5	1.1	-3.7
Nonferrous	333-6,9	-1.7	5.9	5.7	-16.8	-6.8	-0.2	-0.6	-1.9	-1.7	4.9	2.7	0.2	-3.6	-6.8
Fabricated metal products	34	-1.7	-1.3	-3.6	-1.2	-3.8	-1.1	0.4	-0.3	-0.8	-4.2	4.6	0.0	-1.8	-2.2
Nonelectrical machinery	35	4.6	5.5	0.1	-1.4	5.7	-0.1	-0.1	0.0	-0.1	-1.0	2.6	-0.1	-1.7	1.4
Office & computing machines	357	12.9	10.9	7.5	-1.7	10.2	0.0	-0.2	-0.7	0.4	-0.7	-0.1	0.4	-0.7	5.9
Electrical machinery	36	1.6	2.6	2.6	0.3	3.5	0.1	0.7	1.0	-0.2	-1.4	1.1	0.6	-1.2	1.7
Transportation equipment	37	-5.9	3.6	-6.6	-15.2	-3.6	-9.3	9.4	4.5	-3.7	-7.2	11.6	5.2	-5.3	-4.8
Motor vehicles and parts	371	-11.0	-11.1	-18.3	-10.2	-26.8	-22.2	23.0	10.1	-8.7	-16.4	31.4	10.3	-10.3	-12.6
Autos and light trucks		-13.3	-12.5	-27.1	-3.4	-38.3	-33.7	39.1	15.7	-13.6	-23.1	58.3	13.6	-15.0	-16.4
Aerospace and misc.	372-6,9	-1.1	18.9	4.6	-19.2	19.7	1.3	0.8	0.2	0.4	-0.4	-0.5	1.1	-0.9	2.2
Instruments	38	1.2	9.6	-3.0	-5.2	2.0	1.1	0.3	-0.5	0.6	-1.1	1.4	-0.4	0.6	-0.8
Miscellaneous	39	7.4	19.8	0.6	2.0	4.6	0.5	1.4	0.1	-0.8	-2.3	9.9	-2.1	-1.8	2.2
Nondurable		2.3	1.9	-0.9	3.6	2.6	0.8	0.5	-0.3	-0.1	0.0	3.2	-0.1	0.4	1.0
Foods	20	3.0	3.0	-2.2	10.6	0.0	-1.1	0.6	0.4	-0.4	-2.8	1.0	0.6	0.1	1.2
Tobacco products	21	-3.0	-4.2	-27.4	21.9	9.2	2.9	1.0	-2.2	-2.0	23.3	10.2	-1.9	-8.1	-5.8
Textile mill products	22	1.7	6.8	-3.2	-7.8	5.5	0.9	2.2	-1.4	-0.5	2.0	9.1	1.2	0.8	-3.0
Apparel products	23	1.0	3.8	-2.0	-4.2	-7.3	-0.2	-0.4	-2.1	0.2	-2.2	1.4	-1.3	-0.9	-4.8
Paper and products	26	1.5	-3.6	3.2	4.6	-0.9	0.4	1.2	-1.7	0.5	7.2	3.2	-1.9	-0.9	0.7
Printing and publishing	27	4.5	1.1	-2.2	6.0	7.4	1.0	0.6	0.8	0.1	-3.7	3.1	2.1	1.4	3.5
Chemicals and products	28	1.7	2.2	2.2	0.0	3.5	2.1	0.1	-0.3	0.4	1.6	2.5	-0.4	2.1	2.4
Petroleum products	29	2.3	4.7	10.8	-4.2	12.6	4.2	3.1	-2.2	-1.4	-2.6	1.5	-3.0	4.6	3.3
Rubber and plastics products	30	1.9	3.4	-1.0	1.8	1.4	0.6	-1.4	0.3	-0.6	-0.6	8.8	-1.4	-1.7	0.2
Leather and products	31	-1.6	-11.2	0.2	-7.2	7.2	1.3	-1.4	-0.1	-0.7	4.6	6.9	-1.4	-3.5	-3.0
Mining		-0.8	7.2	-1.2	-0.5	1.3	1.5	-1.4	0.7	0.9	0.9	-0.1	-0.3	-0.5	0.2
Metal mining	10	9.2	19.6	27.9	2.9	-10.9	-6.8	-2.0	2.2	-1.2	-5.5	4.7	0.8	2.0	5.6
Coal	11,12	-1.8	-0.1	-2.8	10.3	23.3	10.2	-1.9	0.9	2.1	13.0	4.3	1.6	-3.3	3.7
Oil and gas extraction	13	-2.4	7.0	-3.8	-4.6	-2.6	0.3	-1.2	1.3	0.9	0.0	-1.7	-0.7	-1.1	-1.4
Stone and earth minerals	14	8.0	14.1	6.0	11.3	2.3	1.3	-1.0	-4.8	0.3	-7.6	0.6	-2.2	8.3	3.1
Utilities		6.3	4.0	-0.4	17.6	-11.5	-8.1	-0.8	3.2	0.6	1.5	-3.3	-7.6	-9.0	3.3
Electric	491,3pt	6.2	4.3	2.2	15.2	-9.0	-6.9	-0.3	3.3	0.6	-0.8	0.4	-7.0	-2.0	4.7
Gas	492,3pt	6.1	2.8	-9.9	28.1	-20.8	-12.4	-2.8	2.7	0.5	7.2	-11.9	-9.2	-28.5	-1.9
SPECIAL AGGREGATES															
Manufacturing excluding:															
Motor vehicles and parts		1.6	3.4	-0.2	-0.6	3.5	0.5	0.4	-0.2	-0.2	-0.3	2.8	0.2	-0.3	0.5
Office and computing machines		0.5	2.2	-1.6	-1.0	1.4	-0.6	1.4	0.4	-0.7	-1.1	4.1	0.7	-0.9	-0.4

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 Apr	1989 Nov	Dec	1990 Jan ¹	Feb ¹	Mar ¹	Apr ¹
Total Industry		100.0	82.2	89.2	72.6	87.3	71.8	85.0	85.0	83.5	83.7	82.7	83.2	83.5	83.0
Manufacturing		85.3	81.5	88.9	70.8	87.3	70.0	85.1	84.8	83.0	82.8	82.0	82.9	82.9	82.2
Primary processing		25.5	82.3	92.2	68.9	89.7	66.8	89.0	87.8	86.1	85.2	85.7	86.0	85.1	84.8
Advanced processing		59.9	81.1	87.5	72.0	86.3	71.4	83.6	83.6	81.7	81.8	80.5	81.6	82.0	81.2
Durable		49.3	79.5	88.8	68.5	86.9	65.0	84.0	83.8	81.4	81.4	79.9	81.2	81.7	80.7
Lumber and products	24	1.9	82.7	90.1	62.2	87.6	60.9	91.2	85.3	85.7	86.8	86.3	84.7	85.5	84.0
Furniture and fixtures	25	1.4	82.7	96.8	64.3	86.6	68.9	88.3	86.7	84.3	84.6	84.5	84.1	84.9	84.6
Stone, clay, and glass products	32	2.5	78.3	89.2	67.2	87.0	63.1	86.4	84.3	84.1	84.3	85.3	83.6	82.5	82.0
Primary metals	33	3.3	79.8	100.6	66.2	102.4	46.8	91.6	89.6	82.6	80.8	82.6	85.1	82.7	81.9
Iron and steel	331,2	2.0	79.4	105.8	66.6	110.4	38.3	92.0	88.8	79.1	76.1	79.3	83.7	80.8	80.5
Raw steel		0.1	78.8	102.7	66.0	95.7	35.2	94.1	86.3	77.3	74.9	84.3	83.5	81.2	81.9
Nonferrous	333-6,9	1.3	80.8	92.9	61.3	90.5	62.2	95.0	90.7	88.0	88.0	87.8	87.2	85.5	84.0
Primary copper	3331	0.0	71.2	92.1	55.0	80.8	42.1	97.9	73.4	79.8	78.8	77.7	79.6	83.9	
Primary aluminum	3334	0.1	88.2	95.7	73.3	97.6	58.6	103.5	102.1	99.5	100.3	99.3	99.3	98.8	
Fabricated metal products	34	5.4	77.7	87.8	65.9	83.9	62.9	85.1	83.1	82.4	81.8	80.8	81.1	80.7	80.0
Nonelectrical machinery	35	9.9	81.3	96.4	74.5	92.1	64.9	83.5	82.7	81.9	82.2	81.9	81.5	81.2	80.8
Electrical machinery	36	9.0	80.4	87.8	63.8	89.4	71.1	83.1	82.7	81.0	80.7	80.5	80.8	81.3	80.9
Transportation equipment	37	10.0	75.1	83.8	58.2	82.7	56.7	84.6	83.5	77.7	78.9	71.4	77.9	81.2	78.0
Motor vehicles and parts	371	4.8	76.7	93.4	51.1	93.0	44.5	85.5	82.2	75.0	74.8	58.1	71.2	78.2	71.3
Autos and light trucks ¹		2.6				92.2	40.1	83.6	77.9	70.2	71.3	47.3	65.5	75.6	65.1
Aerospace and misc.	372-6,9	5.3	75.3	77.0	66.6	81.1	66.9	86.2	84.6	80.2	82.5	83.4	83.9	83.8	84.0
Instruments	38	3.6	83.1	89.9	75.2	92.5	79.0	83.9	83.9	80.2	79.3	79.8	79.8	79.1	79.2
Miscellaneous	39	1.3	75.9	82.9	65.4	78.7	66.1	85.5	84.4	84.7	84.1	84.4	85.4	85.2	84.8
Nondurable		36.0	83.7	87.9	71.8	87.0	76.9	86.7	86.2	85.2	84.5	84.9	85.1	84.6	84.3
Foods	20	8.8	82.5	86.0	78.1	84.3	78.8	83.0	83.0	82.6	82.9	81.8	82.1	82.3	81.8
Textile mill products	22	1.6	86.0	92.0	60.4	91.7	73.8	91.2	91.2	86.0	86.3	86.9	88.7	87.3	86.8
Apparel products	23	2.3	81.6	84.2	61.9	86.0	78.9	84.2	84.2	82.0	81.0	80.7	80.3	78.5	78.4
Paper and products	26	3.1	89.7	96.9	69.0	94.2	82.0	95.8	91.9	91.9	91.1	91.3	92.2	90.4	90.6
Pulp and paper	261-3	1.4	92.2	97.1	70.0	98.2	82.1	97.7	93.7	92.7	92.2	93.1	93.0	90.6	
Printing and publishing	27	6.1	87.1	89.7	75.2	92.2	83.0	90.4	88.9	86.9	86.5	87.0	87.1	87.5	87.1
Chemicals and products	28	8.7	79.8	87.9	69.9	85.1	70.1	86.8	83.3	83.1	81.2	82.6	82.5	82.0	82.0
Plastics materials	2821	0.7	85.7	102.0	50.6	90.9	63.4	98.9	93.8	88.0	80.6	88.5			
Synthetic fibers	2823,4	0.4	84.2	93.8	51.7	98.5	64.4	94.5	92.3	82.7	76.9	78.1	83.4	81.1	
Petroleum products	29	1.2	85.1	96.7	81.1	89.5	68.2	90.3	86.7	90.3	86.1	89.7	92.5	90.4	89.1
Rubber and plastics products	30	2.9	83.9	94.0	58.8	90.4	73.5	90.4	88.7	87.0	87.5	87.6	86.1	86.0	85.1
Leather and products	31	0.3	82.3	81.3	67.7	92.4	78.1	88.4	87.0	83.9	87.2	88.5	87.4	87.4	86.9
Mining		7.2	87.3	94.4	88.4	96.6	80.6	87.2	86.6	87.1	86.3	87.8	86.7	87.4	88.3
Metal mining	10	0.4	76.9	90.3	74.4	87.6	43.4	87.2	80.0	81.2	85.8	79.3	77.0	78.0	76.3
Coal	11,12	1.1	87.3	90.8	82.5	95.7	75.4	94.4	92.3	89.1	85.2	93.8	91.8	92.6	94.3
Oil and gas extraction	13	5.0	87.9	96.6	91.9	96.9	82.5	86.6	85.4	86.6	85.6	86.2	85.4	86.8	87.9
Oil and gas well drilling	138	0.8	74.0	93.0	95.3	104.3	50.8	58.8	52.1	58.1	58.8	58.0	59.3	63.1	68.4
Stone and earth minerals	14	0.6	84.6	93.7	73.3	93.3	63.3	94.3	90.5	91.6	94.3	95.2	93.9	89.2	89.1
Utilities		7.5	86.8	95.6	82.5	88.3	76.2	92.3	84.9	86.2	92.3	84.8	84.0	86.6	87.1
Electric	491,3pt	5.6	89.0	99.0	82.7	88.3	78.7	96.2	89.2	90.7	96.2	89.5	89.1	91.9	92.4
Gas	492,3pt	1.8	83.3	93.2	81.0	93.6	70.8	80.3	71.8	72.2	80.3	70.3	68.3	70.1	70.5

1. Series begins in 1977.

Notes:

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 3 in the G.17 release on April 17, 1990 contained errors in the utilization rates for October and November of 1989. The correct rates for November are in the table above. For those series that had errors for October, the correct rates are: total industry, 83.3; iron and steel, 83.2; raw steel, 81.9; nonferrous metals, 89.6; primary copper, 84.2; primary aluminum, 97.3; fabricated metals products, 81.7; nonelectrical machinery, 79.5; autos and light trucks, 71.8; miscellaneous manufactures, 84.8; foods, 82.3; textile mill products, 88.4; apparel products, 82.3; printing and publishing, 87.0; chemicals and products, 83.1; petroleum products, 88.4; mining, 86.5; oil and gas extraction, 85.2; and stone and earth minerals, 93.7.

Table 4
INDUSTRIAL CAPACITY: MANUFACTURING, MINING, AND UTILITIES

Item	SIC	Percent change								Capacity indexes Percent of 1987 output						
		Annual rate			December to December					1989 Apr	1989 Nov	1989 Dec	1990 Jan	1990 Feb	1990 Mar	1990 Apr
		1967- 1969 Ave.	1967- 1975 Ave.	1975- 1989 Ave.	1985	1986	1987	1988	1989							
Total Industry		3.1	3.7	2.6	2.8	2.1	2.0	2.2	2.4	127.7	129.5	129.8	130.0	130.3	130.6	130.9
Manufacturing		3.5	3.9	3.2	4.0	3.2	2.6	2.8	2.9	128.9	131.1	131.4	131.8	132.1	132.5	132.8
Primary processing		2.3	4.0	1.2	1.0	0.3	1.0	2.0	2.4	121.7	123.4	123.6	123.9	124.2	124.4	124.7
Advanced processing		4.1	3.9	4.2	5.4	4.5	3.3	3.2	3.2	132.3	134.7	135.0	135.4	135.8	136.2	136.6
Durable		3.7	3.7	3.7	5.1	3.9	2.6	2.6	2.7	133.2	135.2	135.5	135.8	136.2	136.5	136.9
Lumber and products	24	2.3	2.9	1.9	2.8	4.0	4.6	4.1	2.8	120.4	122.3	122.6	122.9	123.2	123.5	123.8
Furniture and fixtures	25	3.4	4.5	2.6	2.5	2.2	3.4	2.5	2.7	122.0	123.9	124.1	124.4	124.6	124.8	125.1
Stone, clay, and glass products	32	1.6	2.5	1.1	0.7	0.5	1.0	0.9	1.3	127.7	128.7	128.8	129.0	129.1	129.3	129.4
Primary metals	33	0.0	1.7	-1.2	-1.1	-6.1	-3.5	0.9	1.5	125.7	126.9	127.0	127.1	127.2	127.2	127.3
Iron and steel	331,2	-1.0	0.7	-2.1	-1.7	-9.9	-5.9	1.3	2.1	129.9	131.5	131.8	131.9	131.9	132.0	132.0
Raw steel		-1.1	0.3	-2.1	-1.9	-10.0	-5.9	1.3	1.8	128.8	130.1	130.3	130.4	130.5	130.5	130.6
Nonferrous	333-6,9	1.5	3.6	0.3	-0.1	-0.4	0.4	0.2	0.5	119.8	120.2	120.3	120.3	120.4	120.5	120.6
Primary copper	3331	-0.1	1.8	-1.3	-4.0	-3.3	-1.1	5.0	6.3	139.2	144.2	145.0	145.5	145.8	146.1	146.4
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	120.3	120.4
Fabricated metal products	34	1.8	3.1	1.0	0.7	0.5	0.2	0.4	1.5	128.6	129.8	129.9	130.1	130.3	130.5	130.7
Nonelectrical machinery	35	6.9	4.7	8.3	11.0	8.8	4.0	3.5	3.6	147.0	150.1	150.5	151.0	151.6	152.1	152.7
Electrical machinery	36	5.4	6.1	5.0	4.7	4.1	3.3	3.7	3.8	133.1	136.0	136.4	136.9	137.4	137.8	138.3
Transportation equipment	37	2.7	3.0	2.5	5.2	3.6	3.1	2.2	1.6	131.1	132.3	132.4	132.7	133.0	133.3	133.6
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	132.0	132.2	132.5	132.8	133.2
Autos and light trucks ¹					10.8	5.4	6.0	1.4	-1.5	140.3	138.9	138.8	138.9	139.4	139.8	140.3
Aerospace and misc.	372-6,9	2.3	1.3	2.9	5.0	4.2	2.5	2.9	3.1	130.1	132.5	132.8	133.1	133.4	133.7	134.0
Instruments	38	6.2	7.6	5.4	6.2	4.7	6.0	5.4	5.1	140.0	144.1	144.7	145.3	145.9	146.5	147.0
Miscellaneous	39	2.2	4.4	0.9	-0.3	0.7	1.5	1.9	2.2	136.4	138.1	138.4	138.6	138.9	139.2	139.5
Non-durable		3.2	4.3	2.5	2.4	2.2	2.6	3.1	3.3	123.5	125.9	126.2	126.6	126.9	127.3	127.6
Foods	20	2.8	3.0	2.7	2.4	2.2	2.2	2.5	2.7	128.0	130.0	130.3	130.5	130.8	131.1	131.4
Textile mill products	22	2.2	4.3	0.9	0.9	0.6	2.2	1.7	2.0	114.1	115.5	115.7	115.8	116.0	116.2	116.4
Apparel products	23	1.8	2.3	1.5	1.5	2.6	1.7	2.4	2.3	124.8	126.4	126.7	126.9	127.1	127.4	127.6
Paper and products	26	2.8	3.9	2.0	2.1	2.5	2.1	2.5	2.0	112.0	113.3	113.5	113.7	113.9	114.2	114.4
Pulp and paper	261-3	2.4	3.0	2.1	0.5	2.1	3.2	3.6	2.4	110.7	112.2	112.4	112.7	113.0	113.4	113.7
Printing and publishing	27	3.8	3.0	4.3	5.9	4.4	5.2	5.7	5.6	122.2	126.1	126.7	127.3	127.8	128.4	129.0
Chemicals and products	28	4.0	6.8	2.3	1.0	1.1	2.4	3.3	4.0	129.1	132.1	132.5	133.0	133.4	133.8	134.2
Plastics materials	2821	7.7	12.7	4.7	1.7	-0.2	5.7	9.8	8.9	117.8	123.7	124.6	125.4	126.1	126.9	127.6
Synthetic fibers	2823,4	4.4	9.7	1.2	0.5	-3.5	1.7	2.9	1.0	112.1	112.7	112.8	113.1	113.6	114.1	114.6
Petroleum products	29	2.0	4.2	0.7	-0.6	1.0	2.5	-1.2	0.7	120.5	121.0	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	122.3	125.4	125.8	126.3	126.7	127.2	127.7
Leather and products	31	-3.4	-1.5	-4.5	-5.4	-6.1	-5.8	-4.6	-3.3	120.8	118.5	118.2	117.9	117.8	117.6	117.4
Mining		0.2	-0.1	0.4	-1.0	-2.5	-3.6	-3.8	-1.9	117.4	116.1	115.9	115.8	115.7	115.5	115.4
Metal mining	10	1.4	0.7	1.8	0.2	-0.2	2.9	14.3	10.7	169.6	179.7	181.1	182.7	184.4	186.1	187.8
Coal	11,12	2.7	2.5	2.8	1.9	1.8	1.8	1.7	1.6	120.3	121.3	121.5	121.7	121.8	122.0	122.1
Oil and gas extraction	13	-0.4	-1.0	0.0	-1.3	-3.1	-5.6	-6.8	-4.5	113.2	110.3	109.9	109.5	109.1	108.8	108.4
Oil and gas well drilling	138	1.9	0.8	2.7	-3.3	-9.9	-16.4	-25.5	-9.1	180.6	171.9	170.6	169.6	168.8	167.9	167.1
Stone and earth minerals	14	1.3	2.6	0.6	-0.2	0.9	1.5	2.3	5.0	122.8	126.4	126.9	127.4	127.8	128.2	128.6
Utilities		3.2	6.0	1.5	0.9	0.8	1.5	2.2	0.7	125.2	125.7	125.8	125.9	126.0	126.1	126.2
Electric	491,3pt	4.5	7.8	2.4	1.8	1.5	2.3	2.2	0.9	120.2	120.8	120.8	121.0	121.1	121.3	121.5
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
Industrial Production																	
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	61.4
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	62.1
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	67.5
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	75.0
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	78.7	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
Capacity																	
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	66.6
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	69.9
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	73.0
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	75.5
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	78.5
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	80.9
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	83.5
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	86.4
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	89.0
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	91.3
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	93.8
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	96.6
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	99.5
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	102.5
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	106.0
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	109.2
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	111.9
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	114.5
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	117.5
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	120.4
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	122.8
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	125.4
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	128.4
Utilization																	
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	73.0	72.8	73.2	73.9	74.6	74.9	76.1	77.1	78.2	78.7	78.7	78.9	73.0	74.5	77.2	78.8	75.8
1984	80.4	80.1	80.8	81.1	81.5	81.8	81.9	81.8	81.6	80.9	80.8	80.2	80.4	81.4	81.8	80.6	81.1
1985	80.3	80.7	80.7	80.9	80.9	80.5	80.0	80.2	80.4	79.6	79.7	80.4	80.6	80.7	80.2	79.9	80.3
1986	80.6	79.9	79.1	79.1	78.9	78.5	78.7	78.7	78.6	79.0	79.3	79.6	79.9	78.8	78.7	79.3	79.2
1987	79.3	80.1	80.4	80.3	80.9	81.6	82.0	82.0	81.8	82.8	82.6	82.8	79.9	80.9	82.0	82.7	81.4
1988	83.4	83.2	83.4	83.5	83.8	83.8	84.5	84.6	84.3	84.4	84.5	84.8	83.3	83.7	84.4	84.6	84.0
1989	84.8	84.6	84.5	85.0	84.6	84.6	83.9	84.0	83.9	83.3	83.5	83.7	84.6	84.7	84.0	83.5	84.2

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
Industrial Production																	
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	89.8	87.7	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
Capacity																	
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
Utilization																	
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 Oct	Nov	Dec	1990 Jan ^f	Feb ^f	Mar ^f	1989 Oct	Nov	Dec	1990 Jan ^f	Feb ^f	Mar ^f
Metal mining	10	0.32	0.41	143.2	145.9	155.5	144.8	142.0	145.2	142.7	143.4	148.9	140.7	147.4	148.5
Iron ore	101	0.05	0.06	121.4	127.4	129.4	130.5	128.5		119.1	119.7	116.6	113.3	126.8	
Nonferrous ores	102-6,8,9	0.26	0.35	147.8	150.7	161.4	146.8	145.8		147.7	148.4	155.6	146.5	151.7	
Copper	102	0.09	0.10	119.8	112.8	120.1	113.9	117.7		119.1	112.4	117.1	115.7	118.9	
Lead and zinc	103	0.01	0.02	134.1	129.0	119.2	137.7	134.5		137.0	129.0	116.5	146.5	151.4	
Gold and silver	104	0.12	0.20	183.9	194.6	215.3	185.0	182.3		183.8	189.2	204.0	181.9	191.8	
Ferroalloy	106	0.01	0.02	236.6	255.2	247.1	224.5	200.7		247.5	259.9	242.4	206.1	198.9	
Anthracite	11	0.01	0.01	108.1	105.9	114.0	112.1	112.9	114.8	124.3	113.0	101.7	97.9	104.9	111.3
Bituminous coal	12	1.21	1.18	110.2	108.0	103.5	113.4	111.8	113.7	113.5	110.1	98.4	111.3	116.1	117.9
Oil and gas extraction	13	5.73	5.06	94.3	95.5	94.0	94.4	93.2	94.4	94.1	98.2	97.7	97.7	96.1	95.5
Crude oil and natural gas	131	4.86	4.30	94.1	95.5	94.1	93.0	92.2	92.8	92.7	96.8	96.6	96.8	95.8	94.9
Crude oil, total		3.09	2.61	89.6	90.5	89.6	88.2	86.0	86.8	89.4	90.6	89.3	88.3	87.3	88.0
Texas		0.76	0.63	88.2	88.2	87.3	85.9	84.4	84.9	88.3	88.8	87.5	86.1	85.2	85.8
Alaska and California		1.13	0.98	93.4	94.4	94.0	94.7	91.9	92.8	93.7	94.9	93.5	94.4	93.4	94.1
Louisiana and other		1.19	0.99	86.8	88.3	87.0	83.5	81.4	82.2	86.0	87.7	86.4	83.9	83.0	83.6
Natural gas		1.77	1.69	102.0	104.2	102.0	101.3	103.0		98.4	107.4	109.3	111.7	110.4	
Natural gas liquids	132	0.29	0.26	94.5	91.5	82.7	95.8	95.8		93.8	93.3	83.4	95.8	98.2	
Propane		0.02	0.02	90.5	92.2	85.2	92.6	93.6		90.1	94.6	88.1	96.0	97.4	
Liquefied petroleum		0.27	0.25	94.8	91.4	82.5	96.0	95.9		94.1	93.2	83.1	95.8	98.2	
Oil and gas well drilling	138	0.58	0.50	97.3	99.9	100.3	98.3	100.1	106.0	106.3	112.4	114.4	106.2	98.2	98.4
Foods	20	8.76	8.55	106.8	107.4	108.0	106.8	107.5	107.9	111.7	106.8	104.6	101.7	102.7	103.3
Meat products	201	0.98	0.98	108.6	111.8	111.3	105.7	109.6	108.9	114.9	111.9	107.8	105.3	107.4	108.1
Beef		0.33	0.30	100.4	100.7	100.9	92.4	98.0	97.4	104.3	97.4	95.4	94.8	95.1	93.6
Pork		0.31	0.31	109.8	113.0	107.6	107.4	110.7	104.8	118.8	120.8	109.9	109.0	110.8	108.7
Poultry		0.30	0.31	112.3	118.2	123.3	115.0	117.1	123.2	118.6	114.5	115.5	109.3	112.7	119.6
Miscellaneous meats		0.04	0.05	137.9	144.8	135.7	131.5	139.7	128.8	143.7	142.8	136.6	132.6	142.0	136.1
Dairy products	202	0.85	0.80	99.0	102.4	102.0	104.4	107.4	105.3	92.0	93.4	96.6	98.5	106.7	107.1
Butter	2021	0.01	0.01	109.2	109.8	113.5	108.4	112.1	113.6	100.3	101.3	119.0	132.0	136.6	127.1
Cheese	2022	0.19	0.18	103.1	107.9	106.7	110.8	115.9	113.8	99.8	103.4	106.4	106.6	115.1	116.8
Concentrated milk	2023	0.17	0.15	92.3	97.7	92.6	101.4	107.3	101.7	76.9	80.2	90.1	95.6	108.5	104.9
Frozen desserts	2024	0.09	0.08	95.3	100.1	103.0	96.9	98.2	94.9	84.6	80.0	75.7	71.5	87.3	95.3
Canned and frozen food	203	1.28	1.20	103.8	102.0	103.1	105.0	102.6	104.2	115.0	100.9	94.2	94.1	95.4	96.8
Grain mill products	204	1.09	1.12	110.7	113.5	113.6	110.5	112.1	113.2	112.1	114.2	115.7	109.6	110.0	109.0
Flour	2041	0.09	0.09	112.1	108.6	116.4	106.9	110.8	116.0	120.1	115.4	110.5	101.7	117.3	112.4
Bakery products	205	1.05	1.01	107.0	101.6	105.8	107.8	105.5	106.1	110.3	99.4	100.8	100.3	97.6	98.2
Fats and oils	207	0.23	0.22	103.6	104.5	105.1	107.2	107.3	106.8	108.8	111.7	110.3	110.5	108.7	109.3
Beverages	208	1.63	1.60	110.9	108.1	107.4	107.0	106.8	108.7	112.1	103.5	95.0	96.0	99.9	104.0
Beer and ale	2082,3	0.53	0.50	104.7	106.4	104.4	104.4			96.8	90.4	84.0	96.6		
Wine and brandy	2084	0.09	0.08	89.2	99.0	103.1				99.0	104.0	96.0			
Liquors	2085	0.15	0.15	99.5	100.5	99.5				117.4	108.0	91.0			
Soft drinks	2086,7	0.85	0.87	119.2	111.5	111.1	110.2	113.6	116.2	122.1	110.9	102.4	99.0	102.0	104.6
Coffee and miscellaneous	209	1.19	1.12	102.3	103.9	102.9	103.0	102.6	103.4	105.4	104.4	107.3	99.9	98.3	96.8
Tobacco products	21	1.02	0.94	99.7	98.8	98.5	101.3	102.3	100.0	110.3	100.0	78.5	96.8	106.6	104.6
Cigarettes	211	0.93	0.84	97.8	96.7	98.1				108.2	97.4	75.2			
Textile mill products	22	1.84	1.73	101.9	99.3	99.8	100.6	102.9	101.5	106.7	98.8	91.0	92.8	101.3	102.5
Fabrics	221-4	0.53	0.46	93.5	92.9	94.3	91.0	92.8	92.0	97.0	92.7	90.2	90.6	95.0	94.0
Cotton and synthetic	221,2	0.45	0.38	91.1	89.6	91.7	87.9	90.3		94.5	89.4	86.9	88.6	92.9	
Knit goods	225	0.44	0.43	110.6	106.2	105.7	109.3	110.3	109.1	115.5	102.0	94.3	90.9	106.0	105.2
Hosiery	2251,2	0.12	0.12	115.5	102.7	101.5				122.5	97.5	86.5			
Knit garments	2253,4,7-9	0.31	0.31	108.7	107.7	107.4	108.2	110.6	109.9	112.8	103.7	97.3	85.0	102.9	103.4
Carpeting	227	0.23	0.22	102.1	101.7	104.4	113.7	120.8	114.7	112.5	106.1	94.6	95.0	109.4	114.7
Yarns and miscellaneous	228,9	0.48	0.47	104.4	100.1	97.6	99.6	101.3	102.4	109.2	99.9	88.0	95.3	100.7	104.3
Apparel products	23	2.36	2.27	103.9	103.7	102.6	102.4	102.1	99.9	105.7	104.2	101.7	99.5	100.9	99.6
Lumber and products	24	2.00	1.91	103.2	104.8	106.4	106.0	104.3	105.6	107.7	102.3	98.4	99.4	102.1	104.6
Logging and lumber	241,2	0.84	0.84	108.7	110.5	110.9	114.4	107.1	105.1	115.3	107.0	103.6	104.6	106.1	104.0
Lumber products	243-5,9	1.16	1.07	99.5	100.6	101.0	102.6	101.7	101.5	102.2	98.8	94.5	95.6	98.0	99.9
Millwork and plywood	243	0.68	0.62	99.7	101.1	100.8	102.8	101.5	100.9	101.8	99.7	96.2	97.4	96.3	97.9
Manufactured homes	245	0.17	0.15	87.9	89.4	91.6	91.6	94.3	92.9	98.9	84.7	68.8	72.1	85.3	92.1

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 Oct	Nov	Dec	1990 Jan ^f	Feb ^f	Mar ^f	1989 Oct	Nov	Dec	1990 Jan ^f	Feb ^f	Mar ^f
Furniture and fixtures	25	1.45	1.41	105.6	104.4	105.1	105.1	104.8	106.0	107.6	105.0	102.6	102.9	107.1	106.2
Household furniture	251	0.68	0.63	100.6	100.0	100.9	102.2	99.2	102.8	103.1	101.1	98.5	97.9	104.2	104.4
Office furniture, fixtures, and miscellaneous	252,4,9	0.71	0.70	108.9	107.3	107.2	107.6	106.3	108.7	110.5	107.0	104.5	106.0	109.0	107.0
Paper and products	26	3.58	3.42	105.3	104.1	103.4	103.8	105.0	103.2	108.7	103.0	97.6	104.6	107.9	105.8
Pulp and paper	261-3	1.64	1.57	107.0	104.0	103.6	104.9	105.1	102.7	107.3	104.0	99.2	105.2	108.3	105.8
Wood pulp	261	0.16	0.15	105.9	103.5	103.5	106.0	105.8		104.6	102.5	98.6	108.3	109.1	
Paper	262	0.98	0.94	109.0	104.5	104.6	105.7	106.5	102.5	109.9	105.4	100.4	105.9	110.2	106.1
Paperboard	263	0.50	0.48	103.5	103.2	101.7	102.8	101.9	101.8	103.1	101.6	97.0	103.0	104.4	104.6
Converted paper products	264	1.21	1.15	104.9	103.4	101.4	103.4	105.3	102.0	107.0	103.7	97.7	103.7	108.6	104.9
Paperboard containers	265	0.71	0.69	106.7	106.0	108.5	106.2	105.7	102.8	116.3	101.1	94.8	105.8	107.5	104.9
Printing and publishing	27	6.37	6.39	109.3	109.6	109.6	110.7	111.4	112.3	113.6	110.2	104.9	101.0	104.1	106.3
Newspapers	271	1.74	1.60	97.9	102.0	97.4	103.4	101.4	100.1	105.1	110.9	97.4	92.6	98.9	100.4
Periodicals, books, and cards	272,3,7	1.73	1.89	121.7	122.6	121.6	120.8	119.2	122.7	122.4	116.5	116.5	111.2	111.2	115.2
Job printing	274-6,8,9	2.90	2.90	108.0	109.2	109.2	110.6	112.5	114.6	113.5	106.0	102.5	100.0	103.0	104.5
Chemicals and products	28	8.60	8.63	109.4	109.8	107.6	109.9	110.0	109.7	110.4	107.2	103.9	105.5	108.1	107.7
Industrial chemicals and synthetic materials	281,2,6	3.61	3.56	108.7	107.7	104.5	106.5	106.8	107.2	108.9	107.5	103.5	105.7	108.7	107.6
Basic chemicals	281	0.79	0.78	111.9	112.3	106.9	105.8	113.0	116.0	111.5	112.3	104.2	104.3	117.2	115.2
Alkalies and chlorine	2812	0.05	0.05	102.2	93.8	96.0	103.9	107.3	103.7	100.6	96.1	97.7	95.6	112.1	103.2
Industrial gases	2813	0.11	0.11	107.3	104.4	103.6	92.1	108.8	108.0	107.3	105.1	103.2	90.5	110.8	108.9
Inorganic pigments	2816	0.10	0.10	119.4	105.7	110.7	114.6	117.5	113.5	111.0	103.7	110.0	109.6	123.5	113.3
Inorganic chemicals, nec	2819	0.53	0.52	112.4	117.1	107.9	107.2	113.7	119.5	113.6	117.2	103.9	107.1	117.9	118.1
Acids and other		0.31	0.29	100.0	102.0	97.3	94.4	99.6	112.5	101.8	104.2	91.1	96.0	113.0	109.4
Synthetic materials	282	1.28	1.22	104.7	103.2	95.2	101.8	100.9		105.2	101.9	92.5	99.6	104.6	
Plastics materials	2821	0.78	0.77	109.3	108.8	100.4	110.9			110.7	108.0	96.9	107.8		
Synthetic rubber	2822	0.09	0.08	98.8	100.5	88.5	84.1			95.7	97.5	76.4	84.8		
Synthetic fibers	2823,4	0.41	0.37	97.0	93.2	86.7	88.4	94.8	92.5	96.9	91.3	87.6	87.2	99.9	91.5
Industrial organic chemicals	286	1.54	1.56	110.3	109.1	111.1	110.7	108.4	108.2	110.6	109.5	112.2	111.6	107.7	107.9
Chemical products	289-5,9	4.54	4.62	111.2	111.9	111.0	113.2	112.5	112.4	112.1	107.3	104.4	105.5	107.1	107.3
Drugs and medicines	283	2.01	2.01	110.4	110.8	108.4	111.4	111.2	110.2	111.1	105.4	101.7	101.8	102.1	101.0
Soap and toiletries	284	1.53	1.57	111.9	111.2	112.0	113.7	111.8	112.5	113.0	109.0	107.9	108.3	109.3	109.0
Paints	285	0.41	0.40	98.9	111.6	109.3	108.6	110.1	105.1	100.8	94.6	82.7	91.3	106.7	108.7
Agricultural chemicals	287	0.45	0.45	104.3	104.8	101.7	105.9	106.3	104.6	105.5	105.0	102.2	104.4	106.6	105.9
Petroleum products	29	1.32	1.29	106.9	109.3	104.3	108.6	112.0	109.5	108.2	110.3	104.6	101.9	103.4	100.3
Petroleum refining and misc.	291,9	1.11	1.06	102.7	104.4	99.2	104.6	108.6	105.9	102.2	103.6	99.6	100.9	102.0	99.3
Automotive gasoline		0.52	0.49	102.8	102.8	98.7	102.8	107.6	100.5	100.1	103.0	100.7	100.7	102.0	96.6
Distillate fuel oil		0.19	0.19	105.0	106.6	108.5	112.2	105.2	104.5	106.5	112.8	119.7	115.0	100.9	96.4
Residual fuel oil		0.05	0.05	118.5	119.4	117.2	116.4	111.5	111.9	113.1	121.6	128.7	127.6	119.8	111.4
Aviation fuel and kerosine		0.10	0.10	108.1	110.0	92.9	107.6	107.8	110.1	111.0	113.0	100.8	113.1	111.8	108.7
Miscellaneous petroleum products		0.26	0.24	95.9	101.1	92.7	99.2	112.5	114.8	97.9	91.2	77.0	81.3	95.5	101.0
Rubber and plastics products	30	3.02	3.04	108.8	109.1	110.1	110.7	109.1	109.4	112.1	109.3	104.2	103.6	112.7	111.2
Tires	301	0.40	0.41	106.0	105.2	104.6	115.8	111.2		115.2	102.3	94.0	114.7	118.5	
Other rubber products	302-4,6	0.44	0.45	113.7	112.4	111.2	110.4	105.5	111.8	115.1	112.8	108.5	103.3	110.5	113.5
Plastics products, nec	307	2.18	2.18	107.5	110.0	110.6	110.7	109.6	108.2	111.0	109.8	105.1	101.6	112.2	109.1
Leather and products	31	0.30	0.29	102.2	99.4	103.0	104.3	102.9	102.7	108.1	101.1	95.6	99.9	106.9	105.4
Personal leather goods	313,5-7,9	0.10	0.10	108.6	108.5	106.1	107.3	111.2	107.2	115.6	114.1	107.7	103.4	107.1	105.7
Shoes	314	0.15	0.13	92.7	85.6	94.9	94.4	91.6	92.9	99.2	87.9	78.4	89.7	99.6	97.9
Stone, clay, and glass products	32	2.46	2.46	107.7	108.2	108.6	110.0	108.0	106.7	111.5	109.2	104.3	103.6	102.1	104.1
Pressed and blown glass	322	0.35	0.33	98.9	97.7	104.6	110.9	98.0	100.6	103.0	95.8	87.8	102.5	99.2	101.6
Glass containers	3221	0.19	0.16	92.0	89.2	103.4	114.0	88.4	92.4	97.4	83.3	75.3	106.4	92.9	95.9
Cement	324	0.16	0.15	99.5	100.8	86.3	119.6	106.6		119.6	97.5	65.0	68.8	71.2	
Structural clay products	325	0.12	0.10	74.4	85.4	81.1	73.9	75.5	75.5	80.1	85.9	78.3	66.3	70.9	73.4
Brick	3251	0.05	0.05	88.1	94.0	80.6	90.4	90.1	92.7	95.4	91.8	77.2	77.8	80.7	87.8
Clay tile	3253,5	0.06	0.04	62.3	78.8	81.3	58.6	62.4	61.2	66.4	82.0	79.7	56.3	63.0	61.8
Concrete and miscellaneous	326-9	1.50	1.51	108.9	108.5	107.8	109.3	109.4	106.2	111.0	110.7	109.2	106.7	104.9	104.3

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 Oct	Nov	Dec	1990 Jan ^r	Feb ^r	Mar ^r	1989 Oct	Nov	Dec	1990 Jan ^r	Feb ^r	Mar ^r
Primary metals	33	3.32	3.36	108.6	104.8	102.6	105.0	108.2	105.1	110.0	101.8	95.5	102.7	110.3	111.1
Iron and steel	331,2	1.95	1.97	109.2	104.1	100.3	104.6	110.5	106.7	110.3	98.6	91.9	100.6	111.6	112.8
Basic steel and mill products	331	1.50	1.61	119.4	109.1	101.2	109.6	117.8	114.3	116.4	104.7	99.3	107.9	120.1	119.6
Basic iron and steel		0.37	0.38	110.1	105.0	101.2	107.7	105.8	102.5	106.9	101.9	96.9	106.3	107.8	108.7
Pig iron		0.20	0.21	119.4	113.1	107.9	113.8	110.6	106.6	114.3	108.8	102.4	113.0	113.9	114.1
Raw steel		0.11	0.11	106.4	100.6	97.6	109.9	109.0	105.9	105.7	99.1	94.5	107.0	110.5	113.3
Steel mill products		1.14	1.23	122.3	110.4	101.2	110.2	121.7	118.1	119.5	105.6	100.1	108.4	124.1	123.1
Consumer durable steel		0.29	0.30	109.6	99.8	79.6	92.2	106.8	108.8	112.0	97.8	73.2	90.0	111.1	113.9
Equipment steel		0.28	0.30	122.8	111.8	104.5	125.5	126.9	119.2	118.5	104.3	99.3	123.9	130.9	126.1
Construction steel		0.14	0.15	132.8	116.2	111.9	118.1	133.5	125.3	130.2	114.1	106.7	112.9	129.9	126.4
Can and closure steel		0.08	0.08	125.2	114.9	137.1	82.2	107.4	110.7	107.6	98.4	151.6	77.1	102.1	113.0
Miscellaneous steel		0.35	0.40	127.6	114.8	104.4	115.7	128.3	123.4	124.7	111.3	109.2	116.3	131.7	129.1
Iron and steel foundries	332	0.44	0.36	83.1	80.3	80.5				89.5	77.8	66.9			
Nonferrous metals	333-6,9	1.38	1.39	107.6	105.8	105.8	105.6	105.0	103.0	109.6	106.4	100.6	105.5	108.3	108.5
Primary nonferrous metals	333	0.22	0.24	111.9	112.5	113.7	116.1	116.5	114.6	113.0	114.7	113.6	117.8	119.9	118.6
Copper	3331	0.03	0.03	120.8	115.1	114.2	113.0	116.0	122.5	122.1	116.7	112.9	116.2	119.4	124.5
Aluminum	3334	0.14	0.15	117.0	119.7	120.6	119.4	119.5	118.9	115.5	119.1	120.8	121.4	121.5	121.6
Secondary nonferrous metals	334	0.07	0.07	113.4	106.9	108.2	119.6	107.7		118.7	110.9	105.2	112.0	112.0	
Nonferrous products	335,6	0.96	0.94	104.8	102.3	100.1	102.1	101.2	97.4	106.6	102.5	95.1	101.6	104.4	103.2
Nonferrous mill products	335	0.73	0.71	107.5	104.2	101.0	104.0	104.0	98.2	107.9	103.3	98.6	103.1	105.1	102.6
Copper	3351	0.11	0.10	97.1	96.2	86.7	109.2	98.1	93.8	99.5	94.7	83.7	107.4	97.5	103.5
Aluminum	3353-5	0.23	0.21	102.5	96.0	95.1	97.6	97.8	81.3	101.9	90.6	83.5	92.5	100.2	86.9
Construction		0.10	0.08	97.3	93.7	92.5	99.7	96.3	88.8	100.0	90.1	78.4	95.1	98.4	91.3
Misc. aluminum materials		0.14	0.13	106.2	97.5	97.0	96.0	98.9	76.0	103.3	90.9	87.1	90.6	101.5	83.8
Nonferrous foundries	336	0.23	0.23	96.5	96.3	97.2				102.6	99.9	83.9			
Fabricated metal products	34	5.38	5.33	105.9	106.9	106.3	105.1	105.6	105.3	107.8	107.3	105.9	101.4	106.1	106.1
Metal containers	341	0.29	0.29	109.5	110.5	107.9	108.9	110.7	110.5	109.6	108.6	101.3	100.5	107.7	110.3
Hardware, tools, and cutlery	342	0.58	0.56	106.8	109.8	110.3	109.1	110.5	110.1	109.1	109.2	107.9	103.0	111.6	110.3
Structural metal products	344	1.34	1.26	99.7	99.7	99.0	100.1	100.3	99.2	102.3	102.0	101.1	97.7	95.6	95.8
Fasteners, stampings, etc.	345-7	1.63	1.71	112.3	112.6	109.7	106.1	106.1	107.4	113.8	111.5	107.7	100.0	111.6	111.5
Nonelectrical machinery	35	8.55	9.64	119.0	122.9	123.8	123.7	123.5	123.5	121.0	121.1	120.2	119.0	122.1	121.9
Engines and turbines	351	0.50	0.55	115.7	117.7	118.1	117.8	122.1	120.3	115.9	121.0	123.5	119.9	122.9	121.8
Farm	352	0.40	0.46	127.4	130.8	133.3	135.0	133.7	132.1	121.9	125.6	129.5	133.4	141.2	140.7
Construction and allied	353	1.11	1.12	103.8	105.8	105.1	105.6	105.8	109.4	105.4	104.8	106.0	102.4	105.6	105.7
Metalworking	354	0.93	1.00	117.2	117.8	116.7	116.5	115.5	117.6	118.2	114.0	112.5	112.0	117.0	117.2
Special industry	355	0.69	0.77	120.3	118.7	119.1	121.4	121.0	120.1	119.9	120.1	123.5	122.0	120.8	121.1
General industrial	356	0.87	0.87	103.7	108.0	108.4	107.7	107.6	107.8	103.9	106.2	107.0	103.6	108.9	108.0
Office and computing machines	357	2.46	3.12	132.8	141.0	142.7	142.7	142.5	141.5	137.5	140.1	137.0	136.0	135.8	136.4
Service industry machines	358	0.79	0.88	121.0	122.5	123.7	123.0	121.2	117.2	120.5	117.0	112.9	114.1	120.3	118.2
Electrical machinery	36	8.62	8.74	110.2	110.1	110.1	110.1	111.0	112.1	113.0	112.0	111.3	109.7	110.9	111.5
Major electrical and parts	361,2	0.93	0.94	111.5	112.8	111.5	111.3	110.5	109.6	112.6	109.9	107.4	105.9	110.4	110.1
Household appliances	363	0.54	0.53	101.7	96.8	91.4	105.7	104.4	104.3	114.8	97.2	82.7	106.7	108.3	109.4
Cooking equipment	3631	0.09	0.09	90.0	87.6	76.9	113.3	111.8	97.9	116.8	94.9	67.8	117.2	108.1	105.7
Refrigerators and freezers	3632	0.10	0.10	102.0	88.4	74.5	101.4	93.7	102.5	111.5	81.0	54.2	100.5	107.9	113.7
Laundry	3633	0.10	0.09	101.0	95.2	90.5	113.4	109.3	109.8	115.9	88.7	78.0	114.9	118.8	117.4
Miscellaneous	3634-6,9	0.25	0.24	106.3	104.4	104.3	101.6	104.1	105.3	114.9	108.3	102.2	102.1	104.3	105.7
TV and radio sets	365	0.21	0.21	106.8	106.6	105.9	103.9	107.5	109.2	144.0	126.1	95.9	96.3	96.6	91.2
Communication equipment	366	3.01	2.96	107.1	107.6	107.1	107.2	108.4	109.0	107.0	108.7	111.5	108.4	108.5	109.5
Electronic components	367	2.26	2.40	116.6	117.5	117.9	117.0	119.1	119.6	117.9	119.7	120.6	117.8	118.9	119.4
TV tubes	3671-3	0.10	0.11	135.3	118.4	124.5	120.7	117.5	120.0	169.1	130.8	105.6	123.7	125.5	110.2
Misc. electrical supplies	369	0.90	0.94	110.2	111.3	110.6	107.4	109.3	112.0	116.6	115.9	117.5	108.9	105.1	107.8
Storage batteries	3691	0.12	0.13	108.0	113.9	127.1	125.2	109.6	129.0	141.3	129.5	149.3	121.9	88.1	102.3
Transportation equipment	37	9.80	9.72	102.1	102.8	104.4	94.7	103.6	108.2	104.0	104.2	102.9	95.5	106.6	112.1
Motor vehicles and parts	371	4.65	4.52	99.7	99.0	98.7	76.8	94.4	103.9	103.6	99.7	91.4	76.4	100.4	110.8
Autos		1.60	1.50	100.7	92.8	92.6	62.1	86.9	100.5	109.6	95.4	79.7	60.4	97.1	110.7
Trucks and buses		1.12	1.14	96.0	106.0	108.0	75.9	100.8	116.2	99.4	102.8	90.8	75.7	112.2	128.7
Business vehicles		0.57	0.56	93.9	104.1	103.4	78.5	100.9	115.5	96.8	100.3	88.8	78.1	111.5	129.9
Consumer trucks		0.55	0.58	98.2	108.0	112.6	73.3	100.8	117.0	102.2	105.5	92.8	73.3	112.9	127.5
Truck trailers	3715	0.08	0.07	89.1	81.7	87.4	95.3	91.6	91.6	92.1	81.5	88.2	82.6	88.8	98.3
Motor vehicle parts	3714	1.85	1.80	101.5	101.0	98.9	89.1	97.1	100.0	101.5	102.4	102.1	90.4	96.7	100.5
Aircraft and parts	372	3.01	3.00	95.3	100.0	107.8	110.8	110.9	112.5	95.6	102.8	112.0	112.6	112.6	113.0
Ships and boats	373	0.55	0.52	103.4	102.9	102.6	100.5	99.5	101.6	102.4	103.5	104.6	102.1	100.3	103.6
Rail and miscellaneous	374-6,9	1.59	1.68	120.0	118.8	115.2	116.4	117.9	116.7	121.6	120.4	118.4	116.8	115.4	117.4

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 Oct	Nov	Dec	1990 Jan ^r	Feb ^r	Mar ^r	1989 Oct	Nov	Dec	1990 Jan ^r	Feb ^r	Mar ^r
Instruments	39	3.26	3.51	116.1	115.6	114.8	116.0	116.4	115.8	116.8	115.7	114.2	113.0	114.6	114.2
Scientific and medical	381-4	2.21	2.41	118.3	117.3	118.1	120.0	120.3	120.0	118.9	117.1	115.5	114.6	117.6	117.6
Photographic equip. & supplies	386	0.94	0.98	110.5	112.3	110.8	109.1	107.4	106.6	112.0	112.6	111.0	109.0	107.2	105.5
Misc. manufactures	39	1.24	1.32	116.9	117.0	116.4	117.0	118.6	118.7	122.2	115.4	112.0	109.4	120.2	117.7
Consumer goods	391,3,4,6	0.65	0.67	115.2	116.9	116.3	114.5	118.8	116.3	121.0	113.0	110.0	106.5	117.0	116.0
Business supplies	395,9	0.59	0.65	120.9	120.2	119.8	120.4	120.6	121.1	123.5	118.0	114.2	112.5	123.8	119.6
Electric utilities	491,3pt	6.01	6.01	109.7	109.5	116.3	108.3	107.9	111.5	101.5	102.1	115.3	114.4	114.8	106.8
Generation		2.55	2.57	110.8	111.2	117.9	107.9	109.2		101.6	105.3	119.1	113.4	114.1	
Fossil fuel		1.45	1.43	105.6	107.0	119.2	97.2	95.5		98.1	100.7	117.4	100.0	96.8	
Hydro and nuclear		1.10	1.15	117.7	116.8	116.1	121.9	127.4		106.3	111.4	121.2	131.2	137.0	
Sales		3.46	3.44	108.8	108.2	115.1	108.6			101.3	99.8	112.5	115.1		
Residential		1.40	1.38	107.1	107.8	115.6	109.6			90.4	92.8	118.4	130.6		
Nonresidential		2.06	2.06	110.0	108.5	114.8	107.8			108.8	104.5	108.5	104.6		
Industrial		0.91	0.91	111.7	111.0	115.2	107.6			113.5	109.5	109.3	101.4		
Commercial and other		1.15	1.15	108.6	106.6	114.5	108.0			105.0	100.6	107.8	107.1		
Gas utilities	492,3pt	1.61	1.54	99.1	103.9	115.6	101.2	98.3	101.0	72.5	102.3	167.2	179.2	157.9	143.4

Table 7
INDUSTRIAL PRODUCTION: GROSS VALUE OF PRODUCTS

Billions of 1982 dollars at annual rates, seasonally adjusted

Item	1982	1989	1988	1989	1990				1989	1989	1990	1990	1990	1990
			Q4	Q1	Q2	Q3	Q4	Q1 ^r	Nov	Dec	Jan ^r	Feb ^r	Mar ^r	Apr ^r
Products, total	1376.8	1889.2	1865.8	1886.7	1894.4	1882.3	1893.6	1898.4	1896.9	1905.5	1863.6	1905.7	1925.9	1900.1
Final products	1084.6	1479.2	1460.1	1477.3	1485.5	1473.7	1480.3	1481.3	1482.8	1492.5	1447.9	1489.3	1506.6	1484.4
Consumer goods	703.8	884.3	884.3	890.0	884.2	872.6	890.3	884.0	889.0	898.6	864.3	890.5	897.2	883.1
Durable	133.3	226.1	230.9	231.7	229.8	221.7	221.3	214.7	220.4	223.4	194.1	217.9	232.2	218.2
Automotive products	66.0	130.4	137.3	137.2	133.2	125.8	125.3	117.1	124.9	127.8	97.7	120.0	133.7	120.3
Other durable goods	67.3	95.8	93.6	94.5	96.7	95.9	96.0	97.6	95.5	95.6	96.4	97.8	98.5	97.9
Nondurable	570.5	658.1	653.4	658.3	654.4	650.8	669.0	669.3	668.6	675.2	670.3	672.7	665.0	664.9
Equipment, total	380.8	594.9	575.8	587.3	601.3	601.2	590.0	597.2	593.8	594.0	583.6	598.8	609.3	601.3
Business and defense	345.5	577.0	558.2	570.1	583.1	583.1	571.5	578.2	575.1	575.1	565.0	579.8	589.7	580.7
Business	278.0	479.9	461.0	473.5	485.3	485.1	475.8	481.5	479.4	479.0	468.3	483.1	493.2	484.8
Defense and space	67.4	97.1	97.2	96.7	97.8	98.1	95.7	96.6	95.8	96.1	96.7	96.7	96.5	95.9
Intermediate products	292.2	410.0	405.7	409.3	408.9	408.6	413.3	417.2	414.1	413.0	415.7	416.4	419.4	415.6
Construction supplies	108.3	159.0	157.5	157.8	159.3	158.8	160.3	161.5	160.4	160.9	162.2	162.8	159.4	157.8
Business supplies	183.9	251.0	248.2	251.6	249.7	249.8	253.0	255.7	253.7	252.1	253.5	253.6	260.0	257.8
Commercial energy products	63.4	80.9	81.5	79.7	79.6	80.5	84.0	82.0	85.0	83.0	81.0	80.0	85.1	83.5

Table 8
ELECTRIC POWER USE: MANUFACTURING AND MINING

Item	SIC	1987 Billion KWH	Index, 1987 = 100											
			Seasonally adjusted						Not seasonally adjusted					
			1989 Oct	Nov	Dec	1990			1989 Oct	Nov	Dec	1990		
			Jan'	Feb'	Mar'				Jan'	Feb'	Mar'			
Total		*	108.9	109.1	108.6	109.6	108.3	108.2	110.6	108.3	106.1	106.0	105.9	107.1
MAJOR INDUSTRY GROUPS														
Manufacturing			109.0	109.0	108.4	109.7	108.6	108.2	110.8	108.2	105.7	105.6	105.9	107.0
Durable			107.9	107.8	108.8	109.7	106.8	107.7	109.4	107.2	106.8	105.5	106.0	107.9
Non-durable			109.3	110.3	108.0	109.6	110.3	108.9	112.1	109.1	104.6	105.7	105.8	106.1
Mining			107.1	110.4	109.5	108.1	105.0	107.1	107.3	110.7	112.0	112.3	107.1	108.5
INDUSTRY GROUPS and SERIES														
Metal mining	10		134.2	141.4	142.4	135.2	121.6	125.2	134.7	142.0	133.5	135.1	122.3	129.3
Iron ore	101		132.9	141.2	160.1	143.3	123.7	111.3	138.6	138.1	139.4	135.3	124.8	119.4
Copper ore	102		130.1	144.8	130.0	129.9	119.8	131.9	126.3	148.1	126.9	131.9	117.2	132.7
Coal	11,12		102.8	106.2	107.3	104.9	101.3	102.2	99.7	107.9	116.1	117.0	117.2	114.6
Oil and gas extraction	13		94.5	96.1	95.6	94.6	93.2	97.0	93.7	94.9	98.2	99.1	92.7	94.4
Crude oil and natural gas	131		92.0	92.9	92.8	94.2	91.4	95.1	91.0	92.4	97.0	98.8	91.5	92.9
Natural gas liquids	132		99.0	106.2	99.1	96.3	96.9	101.8	100.2	100.3	94.2	97.6	93.6	100.2
Stone and earth minerals	14		112.2	110.4	112.6	116.7	116.1	113.6	118.1	114.3	113.2	109.0	109.0	108.0
Crushed stone	142		115.1	105.8	110.4	124.6	125.4	112.4	126.9	118.5	114.9	101.2	99.7	95.6
Sand and gravel	144		118.7	119.4	119.7	123.4	123.0	121.6	132.6	130.1	119.5	104.7	102.2	103.2
Chemical and fertilizer materials	147		108.2	104.8	107.1	104.9	110.0	107.2	106.9	103.7	106.7	107.3	110.0	109.6
Foods	20		108.4	107.6	107.0	109.6	109.1	109.8	113.3	108.1	103.1	103.6	101.9	101.8
Meat products	201		109.2	109.1	109.1	109.9	110.6	108.2	113.7	108.4	105.0	102.6	101.5	97.7
Dairy products	202		101.3	104.3	102.0	104.0	107.5	104.9	101.0	100.0	95.8	97.5	97.8	97.8
Canned and frozen food	203		111.0	109.7	110.4	113.5	114.3	114.3	123.5	108.7	101.7	101.9	103.7	105.4
Grain mill products	204		106.5	108.2	102.3	107.5	109.1	106.2	110.3	111.5	103.2	106.1	107.6	103.0
Bakery products	205		106.8	102.6	105.3	107.1	105.4	106.4	110.3	99.4	100.8	100.3	97.6	98.2
Sugar and confectionery	206		104.2	106.6	106.7	110.5	113.5	114.7	115.4	127.0	119.7	116.7	113.0	101.4
Fats and oils	207		105.3	112.2	109.6	116.3	110.2	117.9	107.0	120.1	117.8	123.7	117.8	118.2
Beverages	208		110.0	104.9	104.4	108.6	103.1	107.0	114.3	103.5	95.4	97.9	92.4	96.7
Coffee and miscellaneous	209		101.9	99.9	98.8	104.6	97.8	102.2	104.7	98.4	96.1	97.0	89.8	94.0
Tobacco products	21		99.4	97.6	98.5	103.5	102.0	100.2	112.6	98.4	90.7	89.8	98.0	94.2
Textile mill products	22		106.3	102.2	101.3	106.6	106.1	104.5	112.6	99.8	94.7	90.0	99.0	99.7
Fabrics	221-4		101.3	97.2	95.2	101.1	99.3	97.6	107.6	94.3	88.2	85.9	92.3	92.2
Knit goods	225		112.4	111.8	111.5	117.7	114.5	114.6	116.6	107.4	100.9	93.0	106.9	107.5
Fabric finishing	226		102.9	100.0	101.1	99.7	99.5	104.5	107.8	99.5	98.9	87.5	97.0	102.0
Yarn and thread	228		111.3	106.4	103.9	110.3	113.5	110.0	118.3	104.6	97.6	91.3	104.5	103.8
Miscellaneous textiles	229		106.7	99.3	105.1	108.7	104.5	104.9	110.2	95.5	98.6	96.3	99.1	104.9
Apparel products	23		101.9	100.1	100.1	102.8	96.9	100.8	105.3	95.1	89.0	88.7	91.4	92.1
Men's outerwear	231,2		106.7	105.0	107.5	105.7	102.9	106.5	109.2	99.5	93.0	87.2	94.6	95.0
Women's outerwear	233		93.9	93.8	94.9	94.4	90.1	91.1	96.1	88.4	83.6	82.1	83.6	82.3
Lumber and products	24		106.2	106.0	107.3	108.3	106.3	107.5	103.8	106.3	107.1	108.0	111.9	110.1
Lumber	242		106.2	106.1	105.4	108.1	105.6	108.0	104.2	107.2	106.0	108.5	112.1	110.4
Millwork and plywood	243		99.6	100.2	101.3	99.3	100.8	98.8	96.9	99.8	101.9	100.0	104.0	101.9
Furniture and fixtures	25		104.4	102.9	107.2	105.4	103.0	105.1	106.5	103.1	105.1	101.1	105.9	105.4
Household furniture	251		99.6	99.0	104.2	101.6	98.9	101.3	102.0	100.0	102.4	96.7	103.0	103.1
Paper and products	26		109.9	108.5	106.9	112.0	109.1	108.9	110.8	107.8	105.7	111.1	107.3	108.5
Wood pulp	261		118.9	128.4	113.4	120.8	112.1	107.3	114.5	122.4	112.8	119.2	112.5	107.6
Paper	262		112.6	110.1	106.1	113.3	111.2	110.5	115.1	108.2	105.5	114.3	108.8	110.7
Paperboard	263		102.9	100.9	101.6	103.8	104.7	102.5	102.2	102.3	103.7	100.4	101.3	103.3
Converted paper products	264		90.4	88.0	92.0	94.8	88.6	92.7	92.6	88.9	90.3	90.0	86.7	90.1
Paperboard containers	265		106.3	107.7	108.2	110.6	105.7	109.7	106.7	106.6	104.3	105.8	106.7	108.1
Building paper and board	266		108.3	104.3	107.4	112.5	107.9	106.3	109.0	101.3	106.1	113.3	103.7	108.9
Printing and publishing	27		114.7	116.7	114.7	119.4	118.1	120.0	118.3	112.6	107.9	109.7	107.9	110.2
Newspapers	271		108.2	109.6	107.3	110.3	111.5	114.0	110.4	104.5	102.6	104.1	100.9	101.6
Commercial printing	275		109.6	114.5	111.6	118.2	119.8	121.2	115.9	112.8	104.6	107.2	109.1	110.7
Chemicals and products	28		115.4	118.7	113.6	112.4	115.4	112.0	116.7	116.3	109.4	111.1	110.5	111.1
Basic chemicals	281		121.9	129.0	120.3	118.6	122.3	116.5	123.8	126.0	115.4	117.9	116.6	117.7
Alkalies and chlorine	2812		113.7	110.4	101.3	111.0	111.8	111.6	113.7	104.9	94.9	109.8	108.0	112.2
Inorganic chemicals, nec	2819		141.3	151.7	136.2	133.6	142.8	128.6	142.4	150.9	134.6	134.9	132.0	134.1
Acid and fertilizer materials			99.9	102.0	106.2	101.3	109.3	106.2	98.5	101.5	109.7	107.5	104.1	105.8
Nuclear materials, nondefense			171.5	179.8	162.5	159.6	169.6	150.1	173.6	186.2	152.4	154.5	151.9	154.3

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

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

Item	SIC	1987 Billion KWH	Index, 1987 = 100											
			Seasonally adjusted						Not seasonally adjusted					
			1989 Oct	Nov	Dec	1990 Jan ^f	Feb ^f	Mar ^f	1989 Oct	Nov	Dec	1990 Jan ^f	Feb ^f	Mar ^f
Chemicals and Products (cont.)														
Synthetic materials	282		106.3	105.9	103.5	98.9	103.9	105.5	106.9	103.8	100.8	99.7	100.3	100.8
Plastics materials	2821		104.7	107.3	104.4	95.9	101.8	103.5	105.5	105.3	102.5	97.5	101.2	100.7
Drugs and medicines	283		107.3	106.9	103.5	107.6	106.6	103.6	107.9	102.0	97.2	98.0	98.0	95.2
Soap and toiletries	284		113.7	112.8	114.2	115.6	115.3	114.5	115.2	109.2	109.2	109.8	110.9	112.4
Industrial organic chemicals	286		98.0	96.7	97.2	111.3	105.4	104.6	101.3	99.2	96.0	103.6	103.9	101.5
Agricultural chemicals	287		99.9	100.8	101.5	99.3	103.3	102.9	101.1	100.2	101.6	98.6	103.8	101.2
Petroleum products	29		96.3	96.4	96.3	96.8	97.9	102.6	97.5	95.0	96.7	97.5	95.4	94.2
Rubber and plastics products														
Tires	301		109.0	109.9	110.0	111.9	109.6	109.5	112.0	110.4	105.5	102.2	110.5	109.7
Rubber products, nec	306		107.5	107.6	104.1	108.0	105.7	109.1	109.6	106.4	98.1	97.9	104.5	104.7
Plastics products, nec	307		104.5	104.9	104.6	100.4	96.8	103.0	105.5	104.9	101.6	93.4	100.0	103.2
			106.4	108.5	109.0	110.8	108.5	106.7	109.7	109.0	104.5	100.9	109.7	107.7
Leather and products														
Shoes	31		99.8	99.0	102.2	98.9	98.3	98.8	100.3	97.5	96.9	93.7	98.3	98.0
	314		94.9	93.0	94.6	90.5	88.7	91.1	93.5	92.4	87.0	85.5	89.7	90.4
Stone, clay, & glass products														
Flat glass	32		101.3	99.6	100.6	104.0	103.0	101.0	104.5	102.0	100.1	97.7	95.9	96.1
Pressed and blown glass	321		118.2	118.1	115.0	111.3	107.5	107.8	118.7	116.2	114.2	112.6	107.5	106.1
Cement	322		98.9	98.9	98.3	102.9	99.5	99.1	101.0	101.0	93.4	93.6	97.0	98.3
Structural clay products	324		92.3	89.8	94.5	103.8	106.8	93.9	98.8	95.1	96.2	90.8	87.1	81.4
Concrete products	325		103.5	104.3	104.0	103.5	99.5	110.1	102.9	106.8	107.8	101.4	98.8	105.1
	327		103.3	103.2	103.6	102.6	103.8	98.8	106.2	105.9	103.8	100.6	98.8	96.3
Primary metals														
Basic steel and mill products	33		112.5	111.7	113.8	114.8	110.0	112.3	113.3	111.6	113.8	114.2	110.6	114.9
Iron and steel foundries	331		112.0	111.2	113.3	116.5	112.1	111.1	110.5	110.8	110.0	115.3	113.6	116.9
Primary nonferrous metals	332		110.4	107.0	103.1	104.3	102.8	101.6	112.2	106.4	101.2	97.9	106.0	105.2
Aluminum	333		102.4	105.1	101.7	100.9	98.2	94.8	102.7	103.0	104.4	103.1	96.0	94.8
Nonferrous foundries	3334		110.2	111.4	115.8	114.1	112.0	113.1	112.7	109.8	119.3	115.2	105.9	115.0
	336		109.2	108.1	109.9	109.2	105.8	111.1	111.8	109.6	107.4	102.9	109.7	114.0
Fabricated metal products														
Metal containers	34		106.7	107.2	107.4	106.7	104.5	105.2	108.0	106.5	103.7	101.0	106.8	106.1
Hardware, tools, and cutlery	341		115.2	114.9	114.2	113.7	115.1	117.9	115.3	114.2	106.1	104.8	113.3	116.2
Structural metal products	342		104.3	107.1	107.1	106.3	107.3	105.1	106.2	106.2	104.2	99.3	108.3	105.4
Fasteners	344		102.9	99.4	101.1	102.2	97.8	99.3	103.6	100.0	100.5	99.7	100.4	98.9
Metal stampings	345		103.0	106.4	99.0	99.3	96.4	97.0	103.7	103.2	94.5	93.6	97.7	99.3
	346		106.9	106.5	103.5	99.2	101.4	102.8	108.2	106.6	103.5	92.7	106.9	106.7
Nonelectrical machinery														
Engines and turbines	35		107.2	110.3	110.8	111.6	109.9	110.8	108.3	107.5	106.8	105.6	109.5	109.1
Farm	351		114.5	132.2	120.3	131.3	129.7	133.3	115.6	131.4	119.3	126.6	128.1	134.0
Construction and allied	352		104.0	104.4	102.6	105.3	103.5	102.5	101.6	102.2	99.0	102.9	108.4	107.7
Metalworking	353		95.4	97.5	96.4	97.0	96.6	102.5	96.5	95.0	95.7	91.9	95.7	99.3
Special industry	354		111.5	113.5	110.0	112.8	110.3	111.7	112.6	110.3	105.5	107.6	110.8	111.7
General industrial	355		108.0	107.9	105.8	108.6	103.2	105.5	107.1	103.2	102.2	103.2	105.9	106.5
Office and computing machines	356		99.5	99.2	99.9	103.0	99.5	100.3	100.6	96.4	96.2	96.0	100.3	99.4
Service industry machines	357		106.7	110.5	118.5	112.8	118.1	112.0	106.8	107.9	113.8	108.2	111.7	108.4
	358		115.1	117.7	118.0	121.9	114.5	113.4	116.8	114.2	109.1	111.4	112.6	111.1
Electrical machinery														
Electrical distribution	36		108.8	108.0	108.0	110.1	108.0	108.1	110.8	106.2	103.6	103.6	104.1	105.9
Electrical industrial	361		102.5	102.0	99.5	103.7	103.4	100.0	105.1	99.1	96.3	99.3	102.7	100.3
Household appliances	362		111.1	113.2	111.7	114.1	105.0	108.6	111.3	112.9	106.9	107.9	104.9	109.2
Lighting and wiring products	363		92.0	92.1	87.5	94.4	87.4	96.7	94.5	89.2	80.3	90.2	89.0	98.2
TV and radio sets	364		108.6	109.8	110.3	105.2	106.6	109.3	109.6	107.2	104.9	101.9	109.3	110.6
Communication equipment	365		107.4	103.6	98.2	110.3	105.5	110.4	110.0	103.2	93.6	104.1	103.4	105.0
Electronic components	366		100.2	99.5	99.1	104.2	101.9	101.6	103.1	97.3	94.5	97.4	95.2	95.8
	367		113.7	111.3	113.1	116.7	114.3	112.5	116.4	108.8	110.3	106.9	108.7	109.4
Transportation equipment														
Motor vehicles and parts	37		101.3	100.7	100.2	97.7	97.0	98.3	102.8	99.6	96.4	90.5	96.4	97.9
Aircraft and parts	371		94.9	94.4	92.3	86.3	86.8	91.8	97.2	94.2	88.6	80.3	86.8	93.1
Ships and boats	372		108.4	106.0	106.3	111.3	109.4	103.0	111.1	105.4	103.0	102.5	105.4	100.6
	373		112.1	113.6	117.6	108.0	104.4	110.3	109.6	106.9	113.1	109.8	111.3	112.4
Instruments														
Photographic equip. & supplies	38		112.0	111.3	113.1	111.7	114.5	113.9	114.2	108.6	107.6	104.1	108.6	110.3
	386		104.4	99.5	103.4	95.9	105.0	102.0	107.5	97.1	100.3	91.4	98.8	101.9
Miscellaneous manufactures														
	39		113.4	111.3	109.3	108.7	110.1	109.2	117.1	109.1	103.6	103.3	109.7	108.7
SUPPLEMENTARY GROUPS														
Total, excluding nuclear nondefense			107.0	106.7	106.8	107.9	106.4	106.8	108.6	105.9	104.6	104.5	104.5	105.6
Utility sales to industry			108.8	109.0	108.3	109.6	108.0	108.0	110.6	108.3	105.5	105.7	105.7	106.7
Industrial generation			112.0	110.6	115.5	109.7	116.1	113.7	111.0	108.6	120.5	115.3	111.6	115.6

*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 A. Armitage and Dixon A. Tranum, "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. A review of the 1990 revision of capacity and capacity utilization will appear in an article in the June 1990 *Federal Reserve Bulletin*.

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.