

FEDERAL RESERVE statistical release



For release at 9:15 am (EDT)
October 16, 1987

G.12.3

INDUSTRIAL PRODUCTION

The index of industrial production has been revised back to January 1985. A supplement, printed on blue sheets, is attached with revised data for January 1985 through December 1986. The revised data for 1987 are included in the regular tables of this release. See page 2 for additional information.

CURRENT DEVELOPMENTS

Industrial production increased 0.2 percent in September following gains of 0.3 and 1.1 percent in August and July, respectively. In September, there were continued gains in equipment production but output of consumer goods fell slightly and the production of materials changed little. At 131.2 percent of the 1977 average, the total index in September was 5.4 percent higher than a year earlier. Output in the third quarter was about 2 percent higher than in the second quarter of 1987.

Market Groupings. Among consumer goods, the production of automotive goods dropped 2-1/2 percent. All of the decline was in truck production as autos were assembled at an annual rate of 6.1 million units--close to the low 6.0 million rate in August. Output of goods for the home eased in September, following strong gains in July and August, bringing the cumulative advance during the past year to almost 7 percent. Total business equipment posted a moderate rise in September. For the third quarter as a whole, production was up 2.5 percent, with particular strength in manufacturing equipment, especially metalworking and general industrial equipment. Output of supplies for construction and business was maintained at high levels during September.

Industrial Production: Summary

Seasonally adjusted

Item	Index, 1977 = 100		Monthly percent change					Current month from a year ago
	AUG	SEP	MAY	JUN	JUL	AUG	SEP	
Total	131.0	131.2	.6	.7	1.1	.3	.2	5.4
Market Groupings								
Products, total	139.9	140.2	.8	.7	1.3	.2	.2	5.3
Final products	138.4	138.8	.7	.5	1.4	.2	-.2	5.0
Consumer goods	129.3	128.9	1.5	-0.1	1.5	-1	-0.3	4.3
Durable goods	121.5	120.1	2.9	-2.3	2.8	-7	-1.2	2.3
Nondurable goods	132.2	132.2	1.0	.7	1.1	-0.1	.0	5.0
Business equipment	145.8	146.6	-0.3	1.8	1.3	-0.1	.5	5.0
Defense and space	190.2	191.5	.0	-0.3	.0	.8	.7	3.7
Intermediate products	144.9	145.2	1.1	1.1	.9	.2	.2	6.4
Construction supplies	132.4	132.6	.7	1.8	.9	-0.3	.2	4.2
Materials	118.9	119.0	.3	.8	.9	.5	.1	5.5
Industry Groupings								
Manufacturing	136.0	136.1	.5	.6	1.1	.4	.1	5.4
Durable	134.2	134.3	.3	.4	1.1	.6	.1	4.6
Nondurable	138.6	138.7	.8	.9	1.1	.1	.1	6.5
Mining	99.9	100.7	.6	.0	.1	-.6	-.8	5.1
Utilities	109.7	109.6	3.3	-0.2	1.4	-1.1	-0.1	3.2

Materials production edged up in September. There was a 0.6 percent gain in nondurables, but this was largely offset by a slight decrease in durables and no change in energy materials.

Industry Groupings. Total manufacturing output increased fractionally with another sizable increase in primary metals, particularly steel. However, overall motor vehicle production was reduced and in many other industries production was little changed. Mining output rose 0.8 percent but utility production was about unchanged.

REVISION OF THE INDEX

As part of the Federal Reserve's ongoing review of its statistical series, the indexes of industrial production have been revised beginning with January 1985.

Revision of the Index for 1985 and 1986. The revision of the indexes for 1985 and 1986 affects the series primarily through the incorporation of information not available at the time the indexes were originally estimated. In the present revision, unlike the 1985 general revision, no major modifications were introduced; in particular, the reference year, the weights and the groupings of the index have remained unchanged. The present revision, in addition to the incorporation of data previously not available, reflects the updating of the seasonal adjustment factors for the entire index (including its groupings and the basic series); these are now calculated with the use of data through December 1986. The production adjustment factors applied to the indexes were updated as well.

The revised data indicate that the growth in the total index of industrial production is essentially the same as previously estimated: a rise of 1.9 percent in 1985 (instead of 2.0 percent), and an increase of 1.1 percent during 1986 (instead of 1.0 percent). The level of the total index in December 1986 was revised upward slightly.

However, indexes for several industry and market groupings showed significant, but offsetting, revisions. Over the 1985 and 1986 period, the most notable upward revisions in the market categories occurred in equipment and construction supplies. The largest downward revisions were in home goods and textile materials. Among the major industry groupings, less growth in nondurable manufacturing was countered by an increase in durables.

The attachment to this release (printed on blue sheets) includes the revised monthly index series for 1985 and 1986 together with revised quarterly indexes, gross value of product data expressed in 1982 dollars, and electric power use indexes for the period of the revision.

Revision of 1987 Indexes. The revision of the data between January and August 1987 reflects in part the revisions undertaken for 1985 and 1986 as well as the receipt of new information for 1987. Like the revisions for 1985 and 1986 the revisions for the first eight months of 1987 indicate, on balance, about the same rate of growth in industrial activity as estimated previously. The overall level of industrial output for August 1987--at 131.0 percent of the 1977 average--was slightly higher than published earlier (130.7).

An updated historical tape of all published series is available through the National Technical Information Service (NTIS) of the Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161, (703) 487-4807.

Total Industrial Production
(Estimate as shown last month and current estimates)

Month	Index (1977=100)		Percentage change from previous months	
	Previous	Current	Previous	Current
June	129.2	129.1	.7	.7
July	130.3	130.6	.8	1.1
August	130.7	131.0	.3	.3
September	NA	131.2	NA	.2

NA--not applicable.

FEDERAL RESERVE



Industrial Production

INDUSTRIAL PRODUCTION

SEPTEMBER DATA

SEASONALLY ADJUSTED, RATIO SCALE, 1977=100

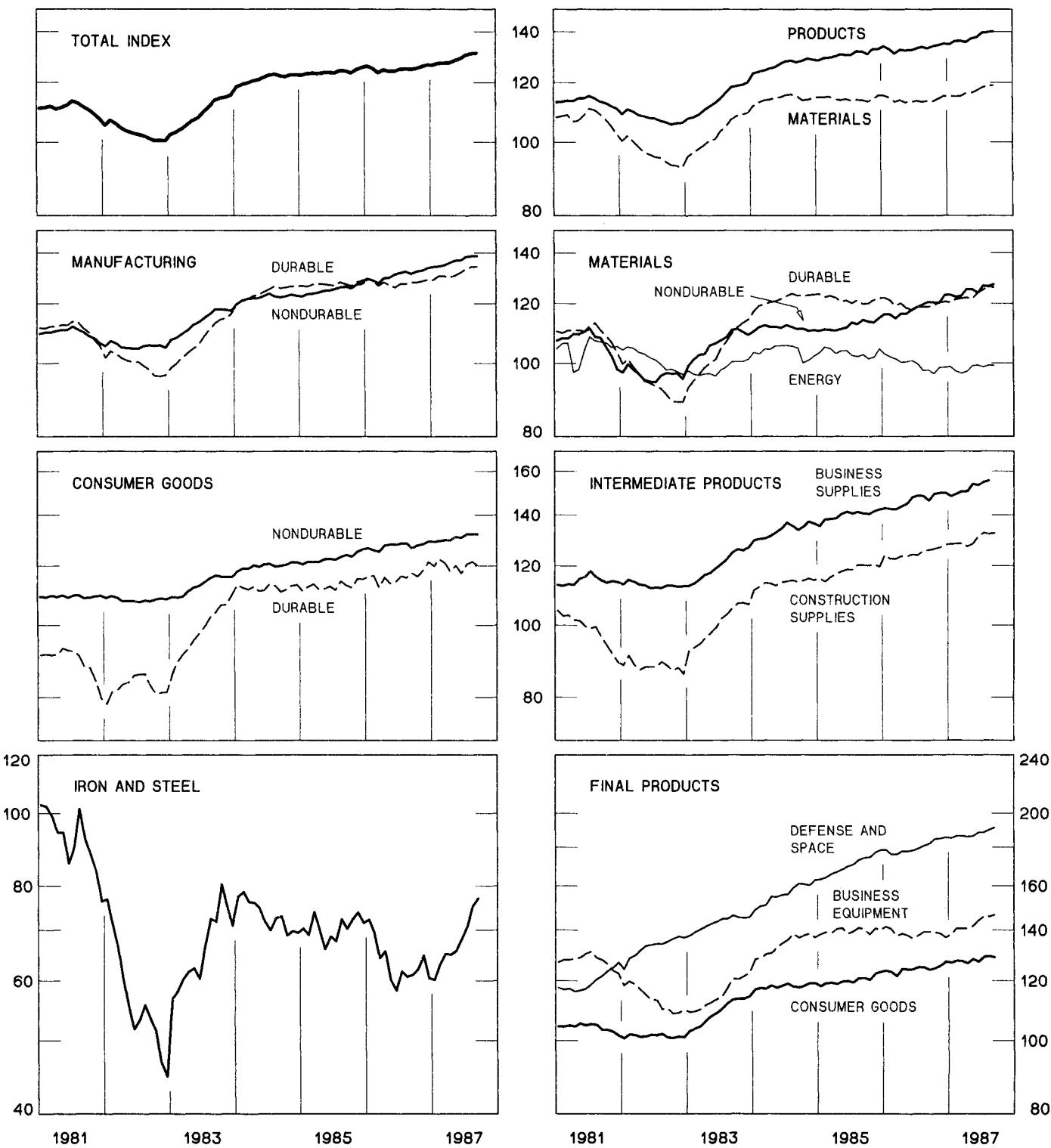


Table 1A
INDUSTRIAL PRODUCTION: MARKET GROUPINGS
Seasonally adjusted, 1977 = 100

Major Market Groupings	1977	1986	1986	OCT	NOV	DEC	1987								
	Pro- por- tion	Ann. Avg.	Sep				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
TOTAL INDEX	100.00	125.1	124.5	125.3	125.7	126.8	126.2	127.1	127.4	127.4	128.2	129.1	130.6	131.0	131.2
PRODUCTS, TOTAL	57.72	133.3	133.1	134.8	134.1	135.2	134.5	136.0	136.4	135.8	136.9	137.8	139.6	139.9	140.2
FINAL PRODUCTS	44.77	132.0	132.2	132.9	132.9	134.1	133.3	134.8	135.1	134.5	135.5	136.2	138.1	138.4	138.8
CONSUMER GOODS	25.52	124.0	123.6	124.8	125.0	126.6	126.4	126.7	125.5	127.3	127.2	129.2	129.3	128.9	128.8
EQUIPMENT, TOTAL	19.25	143.6	143.4	143.7	143.4	144.0	143.5	146.0	146.2	146.4	146.3	148.1	150.0	150.5	151.8
INTERMEDIATE PRODUCTS MATERIALS	12.94	136.2	136.4	138.3	138.1	139.2	138.8	139.9	140.9	140.3	141.8	143.3	144.6	144.9	145.2
	42.28	113.8	112.9	113.3	114.3	115.2	114.9	115.9	115.2	115.9	116.3	117.2	118.3	118.9	119.0
CONSUMER GOODS	25.52	124.0	123.6	124.8	125.0	126.6	125.5	126.4	126.7	125.5	127.3	127.2	129.2	129.3	128.9
DURABLE CONSUMER GOODS	6.89	115.6	117.4	116.8	117.4	119.5	118.8	121.0	119.8	116.7	120.1	117.4	120.7	121.5	120.1
Automotive products	2.98	115.3	118.4	115.7	114.9	115.3	116.6	122.6	121.6	115.0	118.8	114.9	117.7	117.2	114.3
Autos and trucks, consumer	1.79	112.9	117.5	112.1	109.3	112.0	116.6	123.7	122.6	110.9	114.6	107.9	112.3	112.4	107.2
Autos, consumer	1.61	97.3	98.9	98.0	94.5	96.0	93.0	104.1	101.7	90.8	92.7	87.4	86.4	76.8	79.1
Trucks, consumer	.63	141.8	152.2	138.3	136.9	141.7	160.3	160.0	161.3	148.0	155.3	146.0	160.4		
Auto parts & allied gds	1.19	118.9	119.6	121.3	123.2	120.4	116.7	121.0	120.1	121.2	125.0	125.4	125.7	124.4	125.0
Home goods	3.91	115.8	116.7	117.6	119.3	122.6	120.5	119.8	118.4	118.1	121.2	119.3	123.0	124.9	124.5
Appliances, TV & air-cond	1.29	134.0	136.6	137.4	141.0	146.6	145.4	142.9	134.0	133.9	141.3	133.4	141.7	147.5	145.1
Appliances and TV	1.19	135.9	138.6	138.6	142.5	147.8	147.3	144.5	134.6	135.2	141.6	133.4	142.6	146.0	
Carpetting & furniture	.96	126.3	125.9	128.6	129.4	131.2	124.7	125.4	128.9	128.2	130.5	132.3	134.8	135.2	
Misc. home goods	1.71	96.8	97.1	97.2	98.0	100.5	100.1	100.0	101.2	101.0	101.4	101.8	102.9	102.7	
NONDURABLE CONSUMER GOODS	18.63	127.1	125.9	127.7	127.8	129.2	128.0	128.4	129.3	128.7	130.0	130.9	132.3	132.2	132.2
Clothing	3.34	96.1	95.1	96.4	95.8	96.8	96.9	98.3	97.6	97.8	99.2	100.3	101.1	100.4	
Consumer staples	15.29	143.9	132.6	134.5	134.8	136.3	134.8	134.9	136.3	135.3	136.7	137.6	139.1	139.2	139.2
Consumer foods & tobacco	7.80	132.7	131.7	132.4	133.2	134.7	133.2	134.5	135.6	134.5	136.0	136.0	137.1	137.7	
Nonfood staples	7.49	135.2	133.6	136.7	136.5	138.0	136.4	135.4	137.0	136.5	137.5	139.2	141.2	140.7	141.1
Consumer chem. products	2.75	158.2	156.4	159.1	157.9	161.4	158.9	158.7	161.0	161.2	161.6	164.4	166.8	167.1	
Consumer paper products	1.88	147.4	145.7	150.2	151.6	152.3	149.5	146.7	149.9	149.1	151.8	153.1	154.2	154.3	
Consumer energy	2.86	105.1	103.6	106.3	106.1	106.1	106.3	105.6	105.4	104.4	104.9	105.9	108.0	106.4	
Consumer fuel	1.44	92.9	92.2	91.4	91.7	92.2	95.0	92.8	94.1	94.4	91.4	91.9	92.7	92.4	
Residential utilities	1.42	117.5	115.3	121.5	120.7	120.2	117.8	118.6	117.0	114.7	118.6	120.2	123.6		
EQUIPMENT, TOTAL	19.25	143.6	143.4	143.4	144.0	143.5	146.0	146.2	146.4	146.3	148.1	150.0	150.5	151.8	
BUSINESS & DEFENSE EQUIP.	18.01	148.1	148.8	148.8	148.4	149.0	148.5	151.3	151.4	151.7	151.4	153.2	154.7	154.9	155.8
BUSINESS EQUIPMENT	14.34	139.5	139.6	139.4	138.8	139.5	138.6	141.7	141.9	142.1	141.7	144.2	146.0	145.8	146.6
Constr., mining, & farm	2.08	55.7	56.2	56.1	54.6	56.7	56.0	54.7	57.2	57.4	60.3	63.0	66.5	66.9	
Manufacturing equipment	3.27	114.0	115.5	115.4	112.9	113.8	113.3	115.3	113.9	114.4	114.4	117.2	120.3	121.6	122.4
Power equipment	1.27	82.4	79.8	80.5	79.5	80.2	80.8	82.5	83.2	81.6	82.8	84.0	82.3	82.7	82.3
Commercial equipment	5.22	217.4	216.5	216.6	218.0	218.8	216.7	220.7	222.6	224.8	221.2	226.7	229.0	227.8	229.2
Transit equipment	2.49	108.8	110.6	109.2	107.8	106.6	113.6	110.6	106.7	108.9	105.4	106.1	104.5	104.9	
DEFENSE & SPACE EQUIPMENT	3.67	182.0	184.6	185.6	185.5	186.2	187.3	188.9	188.6	189.2	189.3	188.6	190.2	191.5	
INTERMEDIATE PRODUCTS	12.94	136.2	136.4	138.3	138.1	139.2	138.8	139.9	140.9	140.3	141.8	143.3	144.6	144.9	145.2
Construction supplies	5.95	126.4	127.3	127.3	127.3	128.6	130.3	130.0	130.4	128.2	129.1	131.5	132.7	132.4	132.6
Business supplies	6.99	144.6	144.2	147.7	147.3	148.2	146.0	148.4	149.9	150.6	152.6	153.4	154.7	155.5	
Gen. business supplies	5.67	148.5	148.4	152.1	151.0	152.7	150.7	153.3	154.5	155.8	157.1	158.5	160.3	161.5	
Commercial energy prod.	1.31	127.8	126.2	128.6	131.3	129.0	125.6	127.4	130.2	128.1	133.4	131.1	130.7	129.7	
MATERIALS	42.28	113.8	112.9	113.3	114.3	115.2	114.9	114.9	115.2	115.9	116.3	117.2	118.3	118.9	119.0
DURABLE GOODS MATERIALS	20.50	120.0	118.9	119.2	120.6	121.6	120.5	121.3	122.3	122.2	122.6	124.0	125.1	126.3	126.2
Consumer durable parts	4.92	100.7	98.5	100.9	101.2	102.4	101.8	102.3	101.8	99.3	99.1	98.7	100.3	98.9	
Equipment parts	5.94	153.8	154.0	153.5	154.4	154.0	155.0	156.0	156.2	156.9	158.3	159.4	159.6	159.7	
Durable materials nec	9.64	109.0	107.6	108.5	110.1	111.3	109.6	109.9	112.1	113.0	113.4	115.5	117.5	119.0	119.4
Basic metal materials	4.64	79.7	77.8	78.4	81.1	78.6	79.6	80.0	81.3	83.6	86.6	88.4			
NONDURABLE GOODS MATERIALS	10.09	117.5	119.0	119.3	119.2	122.5	121.4	120.8	121.5	124.1	123.9	124.1	126.7	126.5	127.3
Textile, paper, & chen. mater.	7.53	117.9	120.0	119.7	119.5	123.4	122.7	121.7	122.4	125.1	124.9	125.1	128.5	128.4	129.4
Textile materials	1.52	104.5	107.2	104.8	106.1	107.8	104.9	104.4	109.0	112.7	109.7	111.9	117.9	113.9	
Pulp & paper materials	1.55	132.6	133.5	134.2	136.7	140.2	137.3	136.4	135.4	136.4	137.7	139.0	144.1	145.0	
Chemical materials	4.46	117.5	119.6	119.8	118.1	122.9	123.8	122.4	122.5	125.4	125.7	124.9	126.7	127.5	
Misc. nondurable materials	2.57	116.3	116.0	118.0	118.4	119.6	117.4	118.7	121.0	120.8	120.9	121.4			
ENERGY MATERIALS	11.69	99.7	97.1	96.8	98.8	97.7	99.3	98.6	97.2	97.8	98.7	99.4	98.9	99.4	99.4
Primary energy	7.57	105.8	103.0	102.9	106.0	104.2	106.6	104.8	103.0	103.7	103.5	104.0	102.6	103.5	
Converted fuel materials	4.12	88.5	86.1	85.6	85.6	85.6	85.8	87.2	86.4	88.9	89.9	91.0	92.2	92.0	

NOTE: Two components--oil and gas well drilling and manufactured homes--are included in total equipment but not shown here. They are shown in Tables 4A and 4B on page 8 and 9.

Table 1B
INDUSTRIAL PRODUCTION: MARKET GROUPINGS

Not seasonally adjusted, 1977 = 100

Major Market Groupings	1977	1986	1986	1987											
	Proportion	Avg.		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
TOTAL INDEX	100.00	125.1	128.4	127.7	125.2	122.9	122.6	126.8	127.1	126.3	127.0	131.9	128.6	134.0	135.9
PRODUCTS, TOTAL	57.72	133.3	139.2	137.8	133.6	130.7	129.4	133.9	134.3	133.4	135.0	141.5	138.8	144.8	147.4
FINAL PRODUCTS	44.77	132.5	137.7	136.3	132.3	129.7	129.1	133.4	133.6	132.0	133.6	139.8	136.7	142.8	145.6
CONSUMER GOODS	25.52	124.0	130.6	129.4	124.1	120.3	120.2	124.5	124.6	122.8	125.1	131.6	127.9	134.8	137.6
EQUIPMENT, TOTAL	19.25	143.6	147.2	145.4	143.2	142.1	140.9	145.2	145.7	144.3	144.8	150.7	148.3	153.2	156.3
INTERMEDIATE PRODUCTS MATERIALS	12.94	136.2	144.2	143.1	138.1	134.4	130.5	135.5	136.6	138.4	140.2	147.5	146.2	151.8	153.7
	42.28	113.8	113.8	114.0	113.7	112.2	113.4	117.3	117.2	116.5	116.1	118.8	114.7	119.2	120.2
CONSUMER GOODS	25.52	124.0	130.6	129.4	124.1	120.3	120.2	124.5	124.6	122.8	125.1	131.6	127.9	134.8	137.6
DURABLE CONSUMER GOODS	6.89	115.6	120.4	125.0	118.6	109.9	114.3	123.8	124.4	119.9	121.7	122.6	105.8	118.1	125.5
Automotive products	2.98	115.3	119.3	121.6	115.2	104.4	115.1	129.1	128.8	121.2	122.8	122.9	95.5	108.5	120.6
Autos and trucks, consumer	1.79	112.9	116.8	118.7	109.1	95.3	115.5	135.3	134.5	120.7	122.8	121.4	78.1	96.5	114.3
Autos, consumer	1.16	97.3	94.9	104.2	96.4	83.6	95.0	114.7	111.5	98.7	98.5	98.2	51.4	65.7	87.0
Auto parts & allied gds	1.19	118.9	123.0	125.9	124.3	118.1	114.5	119.7	120.1	122.1	122.7	125.2	121.6	126.4	130.2
Home goods	3.91	115.8	121.3	127.6	121.2	114.2	113.7	119.7	121.1	118.8	121.0	122.4	113.6	125.5	129.2
Appliances, TV & air-cond	1.24	134.0	138.3	158.7	145.7	127.1	137.6	143.7	141.7	136.3	142.8	137.9	125.4	144.4	146.3
Appliances and TV	1.19	135.9	142.3	162.4	148.8	129.0	138.5	143.7	140.0	135.0	140.5	137.0	126.7	147.0	
Carpeting & furniture	.96	126.3	133.0	134.3	129.6	125.8	116.4	128.1	130.9	130.3	128.8	135.9	124.1	137.2	
Misc. home goods	1.71	96.8	102.4	101.5	98.9	98.3	95.0	97.7	100.8	99.8	100.7	103.6	99.2	105.2	
NONDURABLE CONSUMER GOODS	18.63	127.1	134.4	131.0	126.2	124.1	122.4	124.7	124.6	123.8	126.3	134.9	136.1	141.0	142.0
Clothing	3.34	96.1	98.9	98.6	95.2	93.1	91.8	97.6	97.4	97.0	98.7	103.8	98.3	105.1	
Consumer staples	15.29	133.9	142.1	138.0	132.9	130.9	129.1	130.6	130.6	129.7	132.4	141.7	144.4	148.9	150.3
Consumer foods & tobacco	7.80	132.7	140.5	138.8	132.7	128.0	125.5	128.2	130.0	129.5	133.5	141.4	139.5	146.8	
Nonfood staples	7.49	135.2	143.8	137.1	133.2	133.9	129.9	133.2	131.1	129.9	131.2	141.9	149.4	151.0	152.6
Consumer chem. products	2.75	118.2	172.4	164.9	155.4	152.4	148.6	151.7	154.0	152.7	156.1	170.8	177.9	178.0	
Consumer paper products	1.88	147.4	157.6	152.8	148.6	144.4	141.2	142.3	144.1	143.4	147.5	156.0	162.0	169.1	
Consumer energy	2.86	105.1	107.3	100.2	101.8	109.4	112.6	109.5	100.7	99.1	96.6	105.0	113.9	113.3	
Consumer fuel	1.44	92.9	94.7	90.9	95.2	96.2	92.2	87.2	87.2	91.6	93.0	95.0	94.7	94.7	
Residential utilities	1.42	117.5	120.2	109.8	108.5	122.9	133.3	132.3	114.4	106.8	100.3	115.2	133.4		
EQUIPMENT, TOTAL	19.25	143.6	147.2	145.4	143.2	142.1	140.9	145.2	145.7	144.3	144.8	150.7	148.3	153.2	156.3
BUSINESS & DEFENSE EQUIP.	18.01	148.1	152.7	150.5	147.9	146.7	145.6	150.5	151.0	149.5	150.0	156.1	153.1	157.7	160.5
BUSINESS EQUIPMENT	14.34	139.5	144.5	142.0	138.0	135.6	134.7	140.7	141.4	139.5	139.9	147.7	144.6	149.8	152.6
Constr., mining, & farm	2.08	55.7	57.7	55.3	53.8	56.3	54.9	56.6	57.6	57.1	59.7	63.3	64.7	66.7	68.7
Manufacturing equipment	3.27	114.0	118.4	117.0	112.0	111.7	109.4	116.2	114.5	113.3	113.1	119.5	119.1	121.7	125.5
Power equipment	1.27	82.4	83.0	82.3	80.6	81.9	78.8	81.6	82.6	79.0	81.2	85.0	79.9	83.6	85.6
Commercial equipment	5.22	217.4	227.2	221.0	216.3	212.3	209.2	214.9	217.6	217.3	216.4	231.8	235.3	240.0	240.6
Transit equipment	2.49	108.8	109.7	112.5	108.1	99.8	107.0	118.2	117.2	110.2	112.1	111.3	87.9	98.5	108.1
DEFENSE & SPACE EQUIPMENT	3.67	182.0	184.8	183.7	180.6	190.0	188.2	188.6	188.7	188.7	189.2	188.9	186.3	188.8	191.7
INTERMEDIATE PRODUCTS	12.94	136.2	144.2	143.1	138.1	134.4	130.5	135.5	136.6	138.4	140.2	147.5	146.2	151.8	153.7
Construction supplies	5.95	126.4	132.7	132.0	128.0	123.9	120.8	124.5	127.4	129.6	130.5	136.8	132.2	136.3	138.2
Business supplies	6.99	144.6	154.0	152.5	146.7	143.4	138.8	144.8	144.3	145.9	148.5	156.5	158.1	165.0	
Gen. business supplies	5.67	148.5	158.3	158.8	151.1	148.7	142.3	148.3	149.2	151.9	153.7	161.2	162.2	171.1	
Commercial energy prod.	1.31	127.8	135.2	125.5	127.5	123.2	123.7	130.1	123.2	120.0	125.8	136.3	140.6	138.9	
MATERIALS	42.28	113.8	113.8	114.0	113.7	112.2	113.4	117.3	117.2	116.5	116.1	118.8	114.7	119.2	120.2
DURABLE GOODS MATERIALS	20.50	120.0	120.7	120.9	119.9	118.5	116.6	122.2	124.4	123.6	123.4	126.4	121.7	126.3	128.3
Consumer durable parts	4.92	100.7	99.2	102.6	101.2	101.4	98.7	103.7	104.6	101.1	99.5	100.2	93.8	98.4	100.7
Equipment parts	5.94	153.8	155.4	153.2	155.0	156.5	153.5	154.9	156.7	154.9	155.9	159.4	156.6	159.5	161.1
Durable materials nec	9.64	109.0	110.3	110.3	107.9	103.9	103.1	111.5	114.7	115.8	115.6	119.5	114.5	120.1	122.2
Basic metal materials	4.64	79.7	76.0	76.8	77.0	72.9	76.6	83.1	86.8	87.1	87.3	87.5	80.7	85.5	
NONDURABLE GOODS MATERIALS	10.09	117.5	120.3	121.9	119.2	115.4	119.2	124.4	124.5	125.0	124.5	126.4	120.6	126.5	128.8
Textile, paper, & chem. mater.	7.53	117.9	121.2	120.9	119.7	117.2	120.6	125.6	125.6	127.1	126.4	127.3	121.9	127.7	130.7
Textile materials	1.52	104.5	108.8	110.5	107.1	96.5	104.2	108.8	111.7	113.2	114.0	113.8	102.5	119.2	
Pulp & paper materials	1.55	132.6	134.0	135.3	136.7	131.6	137.3	141.9	139.8	138.2	137.6	141.3	136.3	145.3	
Chemical materials	4.46	117.5	121.0	119.5	118.1	119.2	120.4	125.8	125.4	128.0	126.7	127.1	124.5	124.4	
Misc. nondurable materials	2.57	116.3	117.8	124.8	117.8	110.3	115.1	120.7	121.1	121.4	118.9	123.7	117.0		
ENERGY MATERIALS	11.69	99.7	96.0	95.0	98.1	98.5	102.6	102.4	98.3	96.2	96.1	99.0	97.1	100.5	98.3
Primary energy	7.57	105.8	102.3	102.6	105.2	104.0	107.8	108.0	105.2	103.3	102.6	103.6	99.2	104.2	
Converted fuel materials	4.12	88.5	84.6	81.0	85.1	88.3	93.0	92.2	85.7	83.3	84.1	90.6	93.4	93.6	

NOTE: Two components--oil and gas well drilling and manufactured homes--are included in total equipment but not shown here. They are shown in Tables 4A and 4B on page 8 and 9.

Table 2A
INDUSTRIAL PRODUCTION: INDUSTRY GROUPINGS

Seasonally adjusted, 1977 = 100

Major Industry Groupings	SIC Code	1977	1986	1986				1987								
		Proportion	Avg.	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MINING AND UTILITIES	15-78	103.54	99.7	100.9	102.0	101.6	102.6	102.4	101.9	101.4	104.1	103.0	103.7	103.6	104.1	
MINING UTILITIES	9.83	100.44	95.8	96.2	97.5	97.11	99.4	98.8	98.3	98.6	99.2	99.2	99.3	99.9	100.7	
	5.96	108.51	108.2	108.6	109.6	109.0	108.0	108.5	107.9	106.0	109.6	109.4	110.9	109.7	109.6	
MANUFACTURING	84-22	129.11	129.2	129.7	130.1	131.3	130.7	131.6	132.4	132.4	133.2	134.0	135.5	136.0	136.1	
HONDURABLE	135.11	130.11	130.3	131.2	131.7	133.4	132.7	132.9	133.7	134.6	135.7	136.9	138.4	138.6	138.7	
DURABLE	149.10	128.44	128.4	128.6	129.0	129.7	129.3	130.8	131.5	130.9	131.4	132.0	133.4	134.2	134.3	
MINING																
Metal mining	101	.501	74.21	73.8	70.9	71.1	76.2	74.1	73.6	71.2	65.7	71.7	70.7	72.4		
Coal	11,121	1.601	127.71	124.1	123.6	129.8	125.4	136.4	131.7	122.3	121.9	127.2	128.8	127.9	130.5	131.7
Oil & gas extraction	131	7.071	93.91	88.5	89.2	89.6	89.8	91.2	90.9	92.4	93.1	94.1	91.8	91.8	92.0	92.8
Stone & earth minerals	141	.661	123.11	121.1	123.9	123.2	122.5	116.1	122.1	123.8	125.4	127.6	128.5	130.2	131.2	
NONDURABLE MANUFACTURES																
Foods	201	7.961	134.41	134.4	133.7	135.3	136.7	134.6	136.4	137.3	136.0	137.4	137.7	138.6	139.8	
Tobacco products	211	.621	97.11	93.0	98.2	96.4	93.4	89.9	99.9	101.1	99.6	106.6	107.0	106.5		
Textile mill products	221	2.291	109.21	110.6	110.2	112.2	113.4	109.2	110.8	112.6	116.6	115.7	117.2	119.5	116.3	
Apparel products	231	2.791	103.11	102.6	103.9	103.8	104.9	106.1	106.5	105.4	105.3	106.4	107.7	109.6		
Paper & products	261	3.151	136.51	136.5	136.8	139.6	141.1	139.7	139.9	139.9	140.5	141.3	142.6	145.2	146.2	
PRINTING & PUBLISHING	271	4.541	160.91	161.7	164.4	164.8	166.4	166.3	164.4	167.6	169.2	171.4	174.1	175.0	175.0	
Chemicals & products	281	8.051	132.01	132.2	133.3	132.3	135.7	136.4	135.3	137.3	138.1	139.3	141.2	142.3		
Petroleum products	291	2.401	92.61	93.0	94.2	92.5	93.5	95.6	91.6	92.1	94.0	92.6	92.3	92.9	92.3	92.6
Rubber & plastics prod.	301	2.801	151.41	152.4	154.2	155.2	157.1	155.3	156.2	158.6	160.5	162.2	165.4	167.7	167.6	
Leather & products	311	.531	61.41	59.0	59.4	61.0	60.2	58.9	59.8	59.4	60.2	61.4	60.8	59.2	61.1	
DURABLE MANUFACTURES																
Lumber & products	241	2.301	124.11	123.8	124.6	130.3	133.5	128.5	129.6	128.9	127.8	130.3	131.1	132.6	131.0	
Furniture & fixtures	251	1.271	143.81	143.5	145.4	145.6	148.8	143.5	145.0	149.9	148.2	150.5	153.9	156.2	157.0	
Clay, glass, stone prod.	321	2.721	118.21	118.0	117.3	118.7	119.4	121.9	118.8	119.8	120.6	117.2	117.9	119.0	117.7	
Primary metals	331	5.331	75.11	72.8	73.1	75.5	73.4	72.8	75.1	77.0	76.1	77.0	78.8	81.6	84.7	86.1
Iron & steel	331,21	3.491	63.41	60.2	61.0	63.5	61.3	59.5	62.3	65.4	65.0	65.7	68.3	70.9		
Fabricated metal prod.	341	6.461	108.01	107.8	108.9	108.3	109.6	108.4	108.3	110.5	109.9	108.5	111.1	111.2	111.0	111.3
Nonelectrical machinery	351	9.541	145.01	144.9	145.0	144.5	144.8	143.4	145.5	148.5	150.4	149.7	151.8	154.4	154.9	155.6
Electrical machinery	361	7.151	165.71	166.5	167.3	167.9	170.4	170.4	171.0	168.5	168.4	171.1	170.5	172.7	174.4	174.4
TRANSPORTATION EQUIP.	371	9.131	127.51	128.9	127.6	126.9	126.8	129.0	132.7	132.2	127.8	129.4	126.5	127.6	128.0	126.7
Motor vehicles & pts.	371,21	5.261	111.51	113.0	110.3	109.1	109.7	112.0	117.7	116.5	109.8	112.0	107.4	109.4	109.1	106.3
Aerospace & misc.	372-6,91	3.871	149.21	150.4	151.2	151.1	150.1	151.9	153.0	153.4	152.3	153.1	152.4	152.4	153.7	154.4
Instruments	381	2.661	139.81	138.7	139.1	139.3	140.2	139.5	142.0	140.3	142.8	142.1	144.5	144.1	146.1	147.0
Miscellaneous mfrs.	391	1.461	100.11	99.3	100.0	100.9	103.8	101.6	101.6	103.9	101.4	101.9	101.2	100.7	100.9	
UTILITIES																
Electric	4-17	122.41	121.0	124.0	124.4	122.6	121.6	122.3	123.6	122.3	128.8	128.8	131.0	129.0		

Table 3A
INDUSTRIAL PRODUCTION: PERCENT CHANGES

Based on seasonally adjusted indexes

Series	1986	SEP	OCT	NOV	DEC	1987	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
CHANGE FROM PREVIOUS MONTH															
TOTAL INDEX															
Final products															
Consumer goods															
Durable consumer goods															
Non durable consumer goods															
Business equipment															
Construction Supplies															
Materials															
Durable goods materials															
Non durable goods materials															
Manufacturing															
Durable manufacturing															
Non durable manufacturing															
Mining and utilities															
CHANGE FROM SAME MONTH A YEAR EARLIER															
TOTAL INDEX															
Final products															
Consumer goods															
Durable consumer goods															
Non durable consumer goods															
Business equipment															
Construction Supplies															
Materials															
Durable goods materials															
Non durable goods materials															

Table 2B

INDUSTRIAL PRODUCTION: INDUSTRY GROUPINGS

Not seasonally adjusted, 1977=100

Major Industry Groupings	SIC Code	1977			1986			1986			1987									
		Pro- tion	Avg.	Sep.	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep				
MINING AND UTILITIES		15.78	103.5	100.5	98.8	101.3	102.5	105.7	106.3	100.8	98.4	98.6	103.0	103.9	106.9	105.6				
Mining		9.83	100.4	95.9	97.3	99.5	97.8	99.5	100.2	98.3	97.4	97.5	98.7	95.9	101.0	101.0				
Utilities		5.96	108.5	108.0	101.1	104.3	110.2	115.8	116.3	105.0	100.0	100.2	110.1	117.3	116.7	113.1				
MANUFACTURING		184.22	129.1	133.7	133.2	129.7	126.7	125.8	130.7	132.0	131.5	132.4	137.4	133.3	139.2	141.4				
HONDURABLE		35.11	130.1	136.9	136.1	131.1	127.4	125.8	130.5	131.6	132.5	134.1	140.5	138.5	144.8	146.2				
DURABLE		49.10	128.4	131.4	131.1	128.7	126.3	125.8	130.8	132.3	130.8	131.1	135.3	129.6	135.3	138.0				
Mining																				
Metal mining	10	.50	74.2	71.9	69.5	66.7	65.9	67.0	74.5	73.5	70.1	79.5	78.8	72.2						
Coal	11,12	1.60	127.7	128.2	125.9	129.4	115.0	126.8	133.9	128.9	122.6	126.8	133.3	115.0	142.0	136.1				
Oil & gas extraction	13	7.07	93.9	87.5	89.4	92.2	98.2	95.2	93.3	91.3	90.9	89.2	89.1	89.8	90.5	91.7				
Stone & earth minerals	14	.66	123.1	126.2	134.1	129.2	118.9	104.7	112.3	117.5	126.0	129.7	132.3	130.9	135.7					
HONDURABLE MANUFACTURES																				
Foods	20	7.96	134.4	142.0	140.7	135.5	132.6	128.0	129.7	131.4	131.2	134.7	141.7	141.4	147.6					
Tobacco products	21	.62	97.1	94.1	110.2	100.9	72.5	89.6	104.5	104.1	96.4	98.7	119.1	92.9						
Textile mill products	22	2.29	109.2	115.4	116.6	111.9	106.6	103.0	111.2	114.5	117.5	117.9	121.2	110.8	122.3					
Apparel products	23	2.79	103.1	106.3	106.1	103.8	104.1	102.3	105.3	105.3	103.8	105.5	109.9	106.2						
Paper & products	26	3.15	136.5	138.0	142.4	137.9	131.7	139.3	144.7	143.8	143.1	141.1	145.5	136.8	146.5					
Printing & publishing	27	4.54	160.9	176.2	173.4	164.0	159.5	151.0	155.9	158.7	162.0	165.6	177.5	184.0	192.5	191.8				
Chemicals & products	28	8.05	132.0	138.7	135.4	130.6	129.6	129.6	134.2	134.9	136.7	137.2	142.6	144.2	145.9					
Petroleum products	29	2.40	92.6	97.0	92.8	94.6	94.1	89.5	85.9	86.0	91.1	93.1	96.3	97.0	96.9	96.5				
Rubber & plastics prod.	30	2.80	151.4	158.0	159.4	153.3	148.2	146.4	162.2	163.0	162.1	162.1	168.9	158.6	169.4					
Leather & products	31	.53	61.4	60.5	62.6	62.6	56.5	57.0	62.0	61.1	60.3	62.0	61.4	51.6	62.9					
DURABLE MANUFACTURES																				
Lumber & products	24	2.30	124.1	131.2	131.5	127.1	120.2	119.0	125.4	128.5	128.7	131.2	138.4	130.9	138.3					
Furniture & fixtures	25	1.27	143.8	149.4	149.8	145.0	146.7	138.7	151.8	149.7	145.6	145.5	155.1	147.5	162.8					
Clay, glass, stone prod.	32	2.72	118.24	123.0	121.8	118.9	114.1	113.1	112.4	116.6	121.6	118.2	122.0	120.2	123.3					
Primary metals	33	5.33	75.1	70.8	71.7	72.4	67.9	71.4	77.9	81.9	82.6	82.3	82.6	75.3	80.8	84.4				
Iron & steel	33,21	3.49	63.4	57.4	58.5	59.7	55.5	57.7	64.3	69.8	72.1	72.3	72.8	66.8						
Fabricated metal prod.	34	6.46	108.0	110.7	110.5	108.2	108.8	104.1	108.5	111.1	109.1	108.0	112.8	109.4	112.2	114.3				
Nonelectrical machinery	35	9.54	145.0	151.2	147.2	142.7	139.8	138.3	148.1	146.7	146.1	145.6	156.2	157.6	162.6	162.4				
Electrical machinery	36	7.15	165.71	169.71	172.9	171.2	170.0	167.9	169.9	169.1	166.6	169.1	171.4	167.4	173.9					
Transportation equip.	37	9.13	127.51	128.6	129.8	128.1	128.3	129.3	136.6	136.3	130.9	131.9	130.9	113.3	121.1	129.1				
Motor vehicles & pts.	371	5.26	111.51	112.5	114.1	109.4	101.9	112.1	124.1	123.3	115.1	116.5	115.5	88.0	99.8	110.6				
Aerospace & misc.	372-6,91	3.87	149.24	150.4	151.3	153.3	154.71	152.6	153.6	153.9	152.4	152.9	151.7	147.5	150.2	154.3				
Instruments	38	2.66	139.81	143.2	140.2	138.7	139.41	136.2	139.3	139.0	139.6	140.4	147.3	145.8	149.3	149.3				
Miscellaneous mfrs.	39	1.46	100.11	106.3	104.0	99.3	97.81	95.3	101.2	103.9	98.8	99.8	103.3	100.4	106.5					
UTILITIES																				
Electric		4.17	122.4	125.4	114.8	116.9	121.7	128.3	130.1	117.8	113.5	116.5	131.5	141.9	140.6					

Table 3B

INDUSTRIAL PRODUCTION: HISTORICAL DATA

Seasonally adjusted, 1977=100

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	Q I	Q II	Q III	Q IV	ANNUAL
INDEX																	
72	83.8	84.4	85.1	86.5	86.3	86.5	86.4	87.6	88.5	89.8	90.9	91.81	84.4	86.4	87.5	90.8	87.3
73	91.8	93.1	93.1	93.4	93.8	94.5	95.1	95.1	95.8	96.1	96.2	94.71	92.7	93.9	95.3	95.7	94.8
74	93.3	93.0	93.4	93.2	94.3	94.6	94.2	93.9	94.2	93.6	90.9	87.11	93.2	94.1	94.1	90.5	93.0
75	84.8	83.5	82.0	82.7	82.5	83.6	84.1	85.6	86.4	86.9	87.7	88.41	83.4	82.9	85.3	87.6	84.8
76	89.3	90.9	90.7	91.1	92.1	92.2	92.7	93.2	93.9	93.9	95.4	96.21	90.3	91.8	93.2	95.2	92.6
77	96.5	97.2	98.0	99.0	99.6	100.4	100.7	101.0	101.4	101.8	102.1	102.11	97.3	99.7	101.0	102.0	100.0
78	101.6	101.6	103.0	105.5	105.8	106.9	107.5	107.7	108.3	109.2	109.9	110.81	102.1	106.1	107.9	110.0	106.5
79	110.3	110.9	111.2	109.9	110.9	110.5	110.2	110.4	111.0	111.0	111.01	110.8	110.6	110.4	111.0	110.7	
80	111.3	111.4	111.1	109.1	106.2	105.0	104.8	106.3	107.7	108.5	110.7	111.01	111.4	106.8	106.3	110.1	108.6
81	111.0	111.2	111.6	110.6	111.2	112.0	113.4	112.8	111.5	110.8	109.0	107.41	111.2	111.3	112.5	108.9	111.0
82	105.4	107.0	105.8	104.5	103.6	103.0	102.5	102.0	101.3	100.5	100.6	100.51	106.1	103.7	102.0	100.6	103.1
83	102.5	103.3	104.2	105.6	106.9	107.8	109.8	111.6	113.7	114.6	114.8	115.51	103.3	106.8	111.7	114.9	109.2
84	118.5	119.3	120.5	121.0	121.9	122.8	123.0	122.4	122.1	122.7	122.7	122.71	119.3	121.1	122.7	122.5	121.4
85	122.4	122.9	123.3	123.1	123.7	123.5	123.4	124.1	124.4	123.7	124.8	125.41	122.9	123.4	124.0	124.7	123.7
86	126.4	125.5	123.9	124.7	124.3	124.1	124.8	124.9	124.5	125.3	126.81	125.2	124.4	124.8	125.9	125.1	
CHANGE*																	
72	2.2	0.7	0.8	1.6	-0.2	0.3	-0.2	1.4	1.1	1.4	1.2	1.91	3.9	2.3	1.3	3.8	9.7
73	0.1	1.4	-0.0	0.4	0.4	0.8	0.6	-0.1	0.8	0.4	0.0	-1.61	2.0	1.3	1.5	0.4	8.1
74	-1.4	-0.4	0.5	-0.2	1.2	0.3	-0.5	-0.3	0.4	-0.7	-2.9	-4.21	-2.5	0.9	0.0	-1.5	
75	-2.6	-1.6	-1.8	0.9	-0.3	1.3	0.6	1.8	1.0	0.5	0.9	0.81	-7.8	-0.6	2.9	2.7	-8.8
76	1.1	1.8	-0.2	0.4	1.1	0.1	0.6	0.6	0.3	0.3	1.7	0.81	3.1	1.6	1.5	2.1	9.2
77	0.3	0.8	0.8	1.1	0.6	0.7	0.4	0.2	0.5	0.4	0.3	0.11	2.2	2.5	1.8	1.0	8.0
78	-0.6	0.0	1.4	2.4	0.3	1.0	0.6	0.2	0.6	0.8	0.7	0.81	0.1	3.9	1.7	2.0</td	

Table 4A
INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES
Seasonally adjusted, 1977 = 100

Series	SIC Code	1977	1986	1986				1987								
		Pro- por- tion	Ann. Avg.	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
METAL MINING	10	-50	74.2	72.4	73.8	70.9	71.1	76.2	74.1	73.6	71.2	65.7	71.7	70.7	72.4	72.8
Iron ore	101	-15	70.8	61.2	67.8	64.0	61.4	70.2	81.8	73.7	65.5	56.3	65.7	77.1		
Nonferrous ores	102-6,8,9	-35	75.6	79.1	75.6	75.4	73.7	73.7	69.4	72.9	70.9	69.8	76.1	71.0	76.8	
Copper ore	102	-15	83.4	88.6	86.5	84.7	82.7	83.2	86.4	88.0	89.9	86.9	92.5	87.8	95.4	
Lead and zinc ores	103	-05	56.8	51.1	52.0	51.9	48.5	52.5	48.3	51.9	51.7	51.9	56.9	59.6	63.7	
Gold and silver ores	104	-02	219.6	232.0	214.8	216.6	235.5	218.5	181.3	232.5	198.4	216.8	234.6	208.1		
Ferroalloy ores	106	-04	78.9	84.3	68.9	75.2	68.9	67.0	59.5	56.4	47.8	54.5	54.9	51.6	51.2	
ANDERSONITE	111	-02	65.9	60.3	62.2	71.4	74.9	65.3	76.6	84.0	81.3	86.5	80.5	77.1	51.2	52.1
BITUMINOUS	121	1.58	128.4	126.6	124.0	121.9	133.5	125.7	138.6	132.2	121.3	122.3	147.7	129.2	128.5	131.3
OIL AND GAS EXTRACTION	131	7.07	93.9	89.5	88.5	89.2	89.6	89.8	91.2	90.9	92.4	93.1	92.1	91.8	91.8	92.0
Crude oil & natural gas	131	5.62	96.9	94.6	93.5	94.4	95.4	95.1	95.6	94.4	94.9	95.6	94.4	93.9	92.9	92.5
Crude oil, total	131	3.46	105.0	102.2	101.2	102.0	101.0	101.4	102.1	99.5	100.6	102.2	100.6	100.2	98.6	98.2
Texas crude	1	1.34	73.7	72.1	71.2	70.7	70.2	70.4	68.6	68.2	67.7	67.7	66.7	66.7	65.7	65.2
Alaska,Caiif.,crude	1	-57	210.2	205.2	201.3	211.4	208.2	207.6	209.9	198.7	208.5	213.3	210.3	207.8	204.2	205.1
La. and other crude	1	1.54	93.0	90.1	90.0	88.6	88.7	88.8	91.1	89.9	89.1	90.9	89.3	89.3	88.0	87.1
Natural gas	1	2.16	83.9	82.4	81.3	82.1	86.5	85.1	85.1	86.2	85.8	85.1	84.4	83.9		
Natural gas liquids	132	-47	96.2	92.9	91.4	91.5	91.5	91.3	95.8	98.5	99.8	100.2	99.5	99.7	97.7	
Propane	1	-05	98.9	94.4	96.3	95.4	96.6	97.1	98.7	96.7	99.6	101.1	98.0	98.3		
Liquefied petroleum	1	421	95.9	92.7	90.9	91.1	91.0	90.6	95.5	98.7	99.8	100.1	99.7	99.8	97.4	
Oil & gas well drilling	138	-99	76.2	60.0	61.2	64.7	66.8	67.3	67.2	66.5	67.1	67.2	69.4	71.4	80.7	88.1
FOODS	201	7.96	134.4	135.3	134.4	133.7	135.3	136.7	134.6	136.4	137.3	136.0	137.4	137.7	138.6	139.8
Meat products	201	1.06	120.4	118.3	118.7	116.2	117.7	120.4	122.2	122.3	122.2	119.3	115.0	119.8	121.1	115.5
Beef	1	-43	96.7	97.5	94.6	92.8	93.4	93.3	96.8	93.4	95.4	96.9	90.4	91.5	93.8	92.0
Pork	1	-25	107.2	103.9	104.3	103.7	103.2	105.7	111.2	109.9	109.3	102.1	99.4	103.0	108.3	105.0
Poultry	1	201	150.6	143.8	157.8	144.9	154.5	164.2	161.3	165.1	168.2	158.5	160.2	168.7	166.4	157.5
Misc. meats	1	-18	162.8	160.8	153.1	158.2	155.5	157.3	155.5	161.3	153.7	153.7	145.7	156.9	153.8	140.1
Dairy products	202	-80	130.4	129.4	127.5	126.3	126.2	128.0	126.0	128.9	126.9	127.8	129.6	127.2	129.1	
Butter	202	0.11	111.0	103.3	103.6	97.2	104.9	102.5	98.2	98.9	107.0	101.7	105.1	93.9	98.9	
Cheese	202	1.34	155.6	156.6	159.6	154.8	148.7	155.0	151.3	158.8	155.5	156.9	155.5	162.4		
Concentrated milk	202	1.11	137.4	130.6	127.6	118.6	123.1	131.6	121.3	125.2	121.0	122.8	132.6	123.6		
Frozen desserts	202	0.09	145.4	148.9	136.2	146.8	148.7	146.0	146.0	153.9	148.5	153.0	151.4	147.5	148.3	
Canned and frozen food	203	1.09	152.4	155.1	153.0	151.3	155.8	165.0	155.1	150.9	156.0	159.5	162.9	164.8	166.0	168.4
Grain mill products	204	-94	133.2	134.5	130.0	133.7	137.6	137.6	132.3	134.2	137.1	133.3	136.6	135.7	136.1	137.0
Flour	204	-12	126.1	134.0	128.0	130.5	145.4	130.9	127.4	127.3	127.8	128.5	143.0	133.4	131.3	134.0
Bakery products	205	1.00	130.3	133.9	132.5	138.2	130.1	132.5	133.9	135.0	133.9	131.3	134.6	132.1	133.4	131.1
Beverages	208	1.41	131.7	134.2	128.2	128.1	136.1	131.4	130.5	134.8	136.2	132.2	132.5	135.2	136.5	137.5
Beer and ale	2082,3	-38	115.2	114.1	112.6	115.9	121.4	118.1	117.5	121.7	120.3	111.0	111.5	109.7	117.0	
Wine and brandy	2084	-07	191.7	213.0	161.8	176.8	198.8	186.3	196.1	201.4	211.7	208.6	224.7	181.8		
Soft drinks	2086,74	-79	143.7	145.5	142.2	139.0	148.5	139.8	140.5	143.5	146.2	144.2	143.3	154.0	150.7	152.9
Liquors	2085	-16	85.9	82.3	82.9	83.3	83.4	97.5	83.3	94.3	91.9	90.4	88.7	83.9		
Fats and oils	207	-27	121.2	121.9	121.7	122.4	122.3	119.8	119.8	125.1	124.2	126.5	117.8	125.9	131.1	124.6
Coffee & misc.foods	209	-79	149.6	155.1	151.8	152.4	152.7	151.5	155.7	157.1	156.6	158.2	163.0	157.4	158.3	163.7
TOBACCO PRODUCTS	211	-62	97.1	97.7	93.0	98.2	96.4	93.4	89.9	99.9	101.1	99.6	106.6	107.0	106.5	
Cigarettes	211	-54	97.8	99.3	90.8	99.2	97.4	94.0	86.0	100.9	101.6	101.6	102.4	111.8	108.9	108.3
Cigars	212	-02	72.1	69.3	72.7	75.1	79.1	73.8	55.7	60.3	51.9	52.2	49.8	55.6	64.5	
TEXTILE MILL PRODUCTS	221	2.29	109.2	110.7	110.6	110.2	112.2	113.4	109.2	110.8	112.6	116.6	115.7	117.2	119.5	116.3
Fabrics	221-4	-77	100.6	101.8	102.4	100.8	103.5	104.0	102.8	101.4	106.6	105.9	104.7	105.9	105.8	108.4
Cotton fabrics	221	-28	112.5	115.0	116.5	115.1	118.6	121.4	123.1	122.0	127.1	127.0	128.8	142.4	132.2	
Synthetic fabrics	222	-40	94.2	95.2	95.1	92.5	95.3	94.4	91.1	88.3	93.2	93.5	91.2	91.8	101.1	94.4
Knit goods	225	-55	105.6	109.0	104.2	108.2	106.1	107.4	104.2	110.4	110.0	113.2	110.3	109.9	106.8	111.5
Hosiery	2251,21	-12	151.8	165.1	151.4	160.4	170.1	151.6	143.3	161.0	156.8	165.4	160.2	145.1	136.1	
Knit garments	2253,4,7-9	-43	92.3	93.0	90.6	93.2	87.8	94.7	93.0	95.9	96.6	98.2	96.1	99.9	98.5	96.8
Fabric finishing	226	-20	91.1	85.9	88.1	85.1	85.7	85.0								
Carpeting	227	-22	121.5	151.5	156.0	153.4	156.1	164.8	163.2	159.7	156.9	149.9	148.5	155.4	157.5	157.8
Yarns & misc. text.	228,9	-55	114.6	118.9	117.8	114.9	117.2	123.9	123.8	120.6	123.5	130.9	126.1	125.9	131.8	120.2
APPAREL PRODUCTS	231	2.79	103.1	103.2	102.6	103.9	103.8	104.9	106.1	106.5	105.4	105.3	106.4	107.7	109.6	
LUMBER AND PRODUCTS	241	2.30	124.1	123.6	123.8	124.6	130.3	133.5	128.5	129.6	128.9	127.8	130.3	131.1	132.6	131.0
Logging and lumber	241,21	1.05	115.1	116.1	116.6	115.2	126.9	127.7	118.6	117.9	114.6	111.4	118.9	117.1	120.3	118.7
Lumber products	243-5,9	1.25	131.6	131.7	130.8	132.9	133.6	136.0	135.5	137.8	140.4	140.6	139.8	143.6	146.3	
Millwork & plywood	243	-67	158.8	158.8	160.8	162.1	163.1	167.1	166.7	175.3	177.1	177.2	174.5	180.7	182.9	
Manufactured homes	245	-25	88.3	84.4	84.8	86.1	88.2	88.8	87.9	84.4	84.2	84.4	83.3	81.3	89.2	86.8
FURNITURE AND FIXTURES	251	1.27	143.8	144.4	143.5	145.4	145.6	148.8	143.5	145.0	149.9	148.2	150.5	153.9	156.2	157.0
Household furniture	251	-74	118.9	118.5	117.6	120.3	118.4	124.3	116.4	117.1	122.8	122.2	123.1	125.4	126.0	127.6
Fixt., office furn.	252,4,9	-47	185.1	185.1	184.3	187.2	189.7	195.5	187.7	190.8	194.6	192.9	195.9	203.7	201.2	203.3
PAPER AND PRODUCTS	261	3.15	136.5	139.1	136.5	138.8	139.6	141.1	139.7	139.9	139.9	140.5	141.3	142.6	145.2	146.2
Pulp and paper	261-3	1.33	126.4	129.0	125.1	126.6	129.1	135.7	129.7							

Table 4B
INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES
Not seasonally adjusted, 1977 = 100

Series	SIC Code	1977	1986	1986				1987											
		Pro- por- tion	Avg.	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG			
BETAL MINING	101	.501	74.2	72.3	71.9	69.5	66.7	65.9	67.0	74.5	73.5	70.1	79.5	78.8	72.2	72.7			
Iron ore	1011	.151	70.8	65.7	65.6	58.7	49.7	49.7	59.0	71.7	70.3	67.6	86.4	89.3					
Nonferrous ores	102-6,8,91	.351	75.6	75.1	74.6	74.1	73.9	72.8	70.4	75.7	74.9	71.1	76.5	72.8	71.1				
Copper ore	1021	.151	83.4	82.9	85.5	84.6	84.3	81.9	87.0	89.5	94.0	86.0	93.2	91.4	89.5				
Lead and zinc ores	1031	.051	56.8	48.4	51.7	53.6	46.5	51.4	50.6	57.6	57.2	52.6	55.7	56.0	56.4				
Gold and silver ores	1041	.021	219.6	231.6	221.1	209.5	228.0	200.2	174.2	234.2	210.0	223.8	233.8	225.1					
Ferroalloy ores	1061	.041	78.9	81.0	68.3	75.6	71.1	68.7	58.1	60.2	51.9	56.1	55.9	51.1	41.9				
ANTHRACITE	111	.021	65.9	68.6	66.1	83.1	82.7	65.5	65.9	74.7	78.4	73.1	75.3	77.6	52.2	59.3			
BITUMINOUS	121	1.581	128.4	137.8	128.9	126.4	129.9	115.5	127.5	134.6	129.5	123.1	127.3	133.9	115.7	142.9			
OIL AND GAS EXTRACTION	131	7.071	93.9	88.1	87.5	89.4	92.2	94.2	95.2	93.3	91.3	90.9	89.2	89.1	89.8	90.5			
Crude oil & natural gas	1311	5.621	96.9	92.9	92.0	93.4	95.5	97.2	98.9	97.4	95.6	95.3	92.9	92.3	91.5	90.8			
Crude oil, total	13461	105.0	101.6	100.9	102.0	100.7	101.0	102.6	100.7	101.0	101.9	100.5	100.0	98.5	97.6				
Texas crude	13471	73.7	71.6	71.1	70.5	70.4	70.4	68.4	68.7	68.4	66.1	66.3	65.3	64.7					
Alaska, Calif. crude	13571	210.2	203.9	200.8	211.3	204.1	206.7	211.6	201.2	209.3	210.8	209.8	208.7	205.6	203.7				
La. and other crude	13581	93.0	89.7	89.7	88.8	88.6	88.4	91.8	91.2	89.1	90.9	89.2	88.8	87.5	86.7				
Natural gas	13216	83.9	79.0	77.7	79.6	87.2	91.0	93.0	92.0	86.9	84.7	80.9	80.2						
Natural gas liquids	13217	.471	96.2	93.3	90.7	90.8	93.8	92.1	96.6	99.9	98.8	98.1	98.5	98.7	98.0				
Propane	13218	.051	98.9	91.2	93.5	93.7	99.2	100.8	103.1	101.0	99.8	100.4	97.2	95.9					
Liquefied petroleum	13219	.421	95.9	93.6	90.4	90.5	93.2	91.1	95.9	99.8	98.7	97.8	98.6	99.1	98.1				
Oil & gas well drilling	1381	.991	76.2	58.1	60.4	65.9	72.7	78.3	73.6	67.3	63.8	62.7	63.8	66.2	76.1	85.2			
FOODS	201	7.961	134.4	143.9	142.0	140.7	135.5	132.6	128.0	129.7	131.4	131.2	134.7	141.7	141.4	147.6			
Meat products	2011	1.061	120.4	119.5	121.8	125.1	118.2	117.0	121.3	118.3	120.8	119.5	114.8	120.0	115.9	116.8			
Beef	1	.431	96.7	101.4	98.0	98.5	92.2	90.4	98.4	91.1	91.1	92.1	90.3	93.6	92.5	95.6			
Pork	1	.251	110.7	21.9	97.1	104.2	112.5	109.0	107.3	111.7	107.0	112.3	107.1	100.1	99.5	95.2	98.1		
Poultry	1	.201	150.6	153.1	163.3	159.0	149.8	149.5	151.8	155.0	160.0	159.7	162.8	177.7	168.6	167.8			
Misc. meats	1	.181	162.8	157.1	157.6	169.3	159.0	158.4	156.0	159.1	160.4	157.8	147.8	142.2	136.9				
Dairy products	2021	.801	130.4	129.4	123.4	118.3	115.8	119.8	118.1	126.5	129.3	135.7	141.5	141.1	134.6				
Butter	20211	.011	111.0	81.0	87.0	89.1	98.4	106.4	117.4	117.1	118.1	114.4	114.1	91.2	80.9				
Cheese	20221	.131	155.6	149.0	150.3	149.2	144.1	152.8	145.0	155.6	159.9	160.1	170.0	168.1	160.6				
Concentrated milk	20231	.111	137.4	125.0	111.2	100.8	101.2	121.5	115.3	124.8	123.9	140.2	150.0	147.8	134.4				
Frozen desserts	20241	.091	145.4	177.0	146.8	131.0	119.5	108.2	108.3	136.1	149.4	157.3	169.5	188.4	183.2				
Canned and frozen food	2031	1.091	152.4	171.8	182.0	172.9	154.9	151.8	149.5	141.0	146.4	145.6	153.0	164.7	169.4	186.6			
Grain mill products	2041	.941	115.2	139.9	135.2	135.8	136.7	127.3	131.2	132.9	133.5	129.2	133.0	136.7	136.0	142.7			
Flour	20411	.121	126.1	138.9	133.7	134.0	146.8	124.8	124.3	136.6	128.9	124.7	140.2	133.1	121.0	138.9			
Bakery products	2051	1.001	133.0	149.2	147.4	142.2	127.5	124.8	123.2	124.0	123.5	123.8	130.3	139.2	146.0	146.0			
Beverages	2081	1.411	131.7	147.5	137.2	129.8	130.1	117.8	118.2	124.3	129.4	130.4	134.2	148.7	147.5	151.1			
Beer and ale	208231	.381	115.2	122.0	106.9	105.0	101.1	93.9	107.1	119.5	123.7	122.0	124.7	130.2					
Wine and brandy	20841	.071	191.7	253.3	160.9	201.3	211.9	175.9	153.2	178.0	213.3	212.4	226.8	204.5					
Soft drinks	208671	.791	143.7	163.7	158.9	141.7	145.3	130.6	129.5	129.9	132.7	135.7	140.3	164.0	166.6	171.9			
Liquors	20851	.161	85.9	82.3	93.5	98.9	88.5	86.3	74.5	84.8	89.9	88.4	86.4	94.0	94.0				
Fats and oils	2071	.271	121.2	1112.9	118.0	130.4	130.0	126.0	122.9	129.2	127.1	123.3	116.4	122.8	119.2	115.3			
Coffee & misc. foods	2091	.791	149.6	168.5	157.9	154.8	154.7	157.1	149.0	149.4	146.0	149.5	159.6	156.8	164.3	177.9			
TOBACCO PRODUCTS	211	.621	97.1	103.4	94.1	110.2	100.9	72.5	89.6	104.5	104.1	96.4	96.7	119.1	92.9				
Cigarettes	2111	.541	97.8	104.4	93.4	110.0	100.7	71.0	90.9	105.4	106.5	98.0	103.6	122.0	94.9				
Cigars	2121	.021	72.1	74.1	78.1	86.8	79.3	54.7	55.0	61.2	52.5	52.0	52.4	59.7	52.7				
TEXTILE MILL PRODUCTS	221	2.291	109.2	117.0	115.4	116.6	111.9	100.6	103.0	111.2	114.5	117.5	117.9	121.2	110.8	122.3			
Fabrics	2211	.771	100.6	105.3	104.5	107.4	104.9	90.9	102.6	105.8	109.4	107.3	108.2	106.6	100.7	112.2			
Cotton fabrics	22111	.281	112.5	120.8	118.3	123.5	119.7	104.3	123.6	127.1	132.8	129.7	132.5	128.2	122.2	138.9			
Synthetic fabrics	2221	.401	94.2	97.6	96.9	98.8	97.2	81.1	91.7	93.6	96.2	94.6	94.1	92.6	87.1	96.8			
Knit goods	2251	.551	105.6	118.6	112.7	111.7	103.7	94.6	88.7	105.7	107.0	111.7	111.5	121.5	111.6	121.6			
Hosiery	225121	.121	151.8	156.0	145.0	161.1	164.5	130.0	139.7	165.4	164.2	176.1	160.7	155.1	147.0				
Knit garments	22534,7-9	.431	92.3	107.9	103.5	97.6	86.3	84.5	74.1	88.6	90.7	93.3	97.4	111.9	101.5	112.3			
Fabric finishing	2261	.201	91.1	88.4	87.6	92.3	89.0	78.6											
Carpeting	2271	.221	151.5	151.3	167.7	171.6	165.7	144.5	131.0	141.6	152.8	161.8	161.8	166.7	159.3	157.0			
Yarns & misc. text.	228,91	.551	114.6	128.6	122.6	121.4	116.7	110.8	118.2	122.1	125.0	130.6	131.9	131.2	114.0	130.0			
APPAREL PRODUCTS	231	2.791	103.1	106.7	106.3	106.1	103.8	104.1	102.3	105.3	105.3	103.8	105.5	109.9	106.2				
LUMBER AND PRODUCTS	241	2.301	124.1	130.4	131.2	131.5	127.1	120.2	119.0	125.4	128.5	128.7	131.2	138.4	130.9	138.3			
Logging and lumber	241,21	1.051	115.1	122.1	125.4	122.8	123.0	113.4	108.4	115.1	115.8	112.2	117.5	120.3	115.6	124.5			
Lumber products	243-5,91	1.251	131.6	137.3	136.0	138.8	130.6	125.9	128.0	134.1	139.2	142.4	142.7	148.6	143.7				
Hillwork & plywood	2431	.671	158.8	165.2	167.5	169.6	160.7	158.1	160.9	168.9	173.3	176.9	176.7	185.4	181.4				
Manufactured homes	2451	.251	88.3	97.2	92.1	94.9	81.4	64.9	68.9	77.1	84.6	91.4	91.5	93.3	87				

Table 4A—continued

INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES

Seasonally adjusted, 1977 = 100

Series	SIC Code	1977				1986				1987								
		Pro- por-tion	Ana- log.	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		
PRINTING & PUBLISHING	271	4.54	160.9	161.7	161.7	164.4	164.8	166.4	166.3	164.4	167.6	169.2	171.4	174.1	175.0	174.6		
Newspapers	2711	1.35	119.6	142.7	141.5	141.0	139.4	139.0	140.7	142.1	143.0	145.3	144.3	144.3	149.1	148.5		
Period. books, cards	272,3,71	1.24	115.7	157.6	154.8	159.7	162.0	163.3	157.9	152.9	159.7	157.8	159.7	163.0	163.5	161.3		
Job printing	278-6,8,91	1.95	178.4	178.1	178.9	185.0	183.4	187.4	186.7	189.0	191.4	193.9	197.0	201.2	201.3	199.0		
CHEMICALS & PRODUCTS	281	8.05	132.0	132.6	132.2	133.3	132.3	135.7	136.4	135.7	135.3	137.3	138.1	139.3	141.2	142.3		
Chemicals & syn. mat.	2811,2,61	3.86	123.8	128.4	125.5	125.4	125.4	128.3	131.9	128.9	129.3	131.9	132.8	132.2	137.1	137.9		
Basic chemicals	2811	.92	98.9	96.8	102.3	97.3	97.7	100.4	109.1	102.6	102.7	104.7	104.8	99.0	103.2	106.9		
Alkalies & chlorine	28121	.12	97.5	100.3	98.9	94.4	97.1	101.1	97.5	103.8	112.4	97.5	100.2	90.9	98.9	104.2		
Industrial Gases	28131	.10	128.3	129.0	129.4	128.8	127.6	132.2	143.2	140.7	139.2	141.2	147.2	150.7	154.5			
Inorganic pigments	28161	.08	99.6	100.4	96.4	100.4	97.9	104.1	109.0	100.0	97.8	90.5	107.3	96.9	94.9	106.2		
Inorganic chem, nec	28191	.62	99.1	90.3	99.2	92.2	92.8	94.5	105.5	96.4	95.3	101.8	98.2	92.1	96.5	100.3		
Acids & other chem.	28191	.40	95.8	89.3	103.2	93.3	94.3	96.9	114.1	100.2	102.2	108.8	103.2	93.1	99.7	105.6		
Synthetic materials	2821	1.11	162.6	165.3	165.3	167.7	166.4	174.7	178.6	172.7	170.8	174.2	174.5	179.8	188.3	186.4		
Plastics materials	28211	.59	220.0	225.7	224.0	228.8	229.4	240.0	246.4	237.3	234.0	239.6	239.3	247.1	261.5			
Synthetic rubber	28221	.08	96.5	88.5	90.3	90.6	79.0	87.3	92.0	94.5	91.2	85.7	89.3	91.5	95.0			
Synthetic fibers	2823,41	.44	98.5	99.3	101.3	101.0	98.8	104.1	102.1	101.5	101.7	103.6	104.2	106.9	108.3	102.8		
Indust. organic chem.	2861	1.83	112.7	113.5	113.0	113.7	114.5	114.0	115.0	115.5	117.5	119.9	121.5	119.9	123.0	123.9		
Chemical products	283-5,9	3.65	147.5	148.7	146.4	149.1	147.0	148.7	146.8	148.8	149.1	151.0	150.7	152.4	155.5	157.3		
Drugs & medicines	2831	1.47	134.8	136.1	135.4	139.3	133.7	138.9	134.8	138.3	135.9	137.8	138.7	138.9	141.5	144.4		
Soap & toiletries	2841	1.34	182.9	183.6	180.9	181.8	182.3	182.6	183.4	180.6	186.3	186.5	185.5	192.0	194.5	195.5		
Paints	2851	.40	100.1	103.0	97.4	101.8	102.6	97.7	95.3	106.0	100.1	99.2	100.0	91.8	98.5	98.4		
Agricultural chemicals	2871	.54	85.7	79.8	84.2	85.4	84.3	86.6	92.5	94.3	91.3	95.1	90.8	87.2	88.3	88.7		
PETROLEUM PRODUCTS	291	2.40	92.6	93.8	93.0	92.4	92.5	93.5	95.6	91.6	92.1	94.0	92.6	92.3	92.9	92.3		
Petroleum refining	291,91	2.21	91.0	93.1	92.1	91.0	91.7	92.3	91.7	88.3	89.9	93.2	91.2	90.6	91.6	91.3		
Automotive gasoline	2961	.96	96.0	98.9	96.8	96.9	96.9	96.7	96.1	93.8	96.8	100.3	98.7	97.3	97.8	96.7		
Distillate fuel oil	2981	.43	85.2	89.4	86.0	82.0	83.5	83.3	84.7	81.1	78.0	81.8	78.4	81.8	82.5	82.2		
Residual fuel oil	2991	.15	50.6	54.8	51.1	48.8	52.6	49.3	47.9	44.4	50.2	46.2	48.0	54.6	57.4	57.0		
Aviation fuel & keros.	29811	.18	119.7	118.0	120.1	119.9	119.7	129.1	122.9	116.4	114.6	117.1	118.3	115.5	112.8	117.0		
Misc. petroleum prod.	29811	.48	88.3	87.7	90.9	89.9	91.0	91.9	91.7	87.6	90.3	95.2	91.4	87.2	90.6			
Refinery fuel, nec	29911	.09	122.4	125.6	124.8	123.7	122.5	121.7	126.4	125.0	126.2	133.1	124.9	123.0				
Refinery nonfuel mat.	29911	.26	73.3	71.0	76.8	77.5	78.8	78.2	78.4	72.4	72.7	77.8	75.4	67.3				
Refinery products, nec	29911	.13	95.0	95.1	95.9	91.5	93.9	89.8	94.5	92.2	100.8	103.9	100.1	102.3				
RUBBER & PLASTICS PROD.	301	2.80	151.4	153.1	152.4	154.2	155.2	157.1	155.3	156.2	158.6	160.5	162.2	165.4	167.7	167.6		
Tires	3011	.62	106.4	106.9	105.5	110.3	114.0	111.4	111.4	113.6	113.9	112.6	112.8	118.0	123.7			
Rub. prod.ex.tires	302-4,61	.51	120.7	123.7	124.4	122.8	120.6	124.7	120.9	128.5	122.5	126.8	123.9	130.2	133.8	136.4		
Plastics products, nec	3071	1.67	177.4	178.4	178.4	179.9	180.4	183.3	180.0	182.4	187.7	187.8	187.6	194.3	197.3	194.7		
LEATHER AND PRODUCTS	311	.53	61.4	61.4	59.0	59.4	61.0	60.2	58.9	59.8	59.4	60.2	61.4	60.8	59.2	61.1		
Pers. leather gds	313,5-7,91	.16	73.4	71.2	71.4	72.3	72.8	76.5	76.7	75.3	76.1	75.8	79.1	75.8	78.2	78.6		
Shoes	3141	.29	55.6	56.7	52.9	52.9	54.7	50.9	50.2	53.1	51.7	53.3	52.6	52.9	48.9	52.2		
CLAY, GLASS & STONE PROD.	321	2.72	118.2	117.0	118.0	117.3	118.7	119.4	121.9	118.8	119.8	120.6	117.2	117.9	119.0	117.7		
Pressed & blown glass	3221	.51	107.5	107.2	107.4	107.2	108.0	105.8	110.6	107.0	108.8	113.3	114.7	111.1	110.1	108.7		
Glass containers	32211	.30	95.1	94.1	95.3	93.7	94.1	91.2	97.0	92.4	99.7	98.2	102.2	97.1	95.7	95.6		
Cement	3241	.24	1102.3	100.1	100.3	103.6	98.3	104.3	113.0	104.5	104.8	102.6	101.7	100.6	103.6			
Structural clay prod.	3251	.15	129.4	135.0	134.7	133.3	137.5	144.6	137.5	136.0	140.2	140.8	136.6	130.6	129.7	127.1		
Brick	32511	.07	93.2	90.6	93.1	96.4	92.7	99.9	96.6	97.1	101.3	100.6	92.5	100.2	103.9	95.3		
Clay sewer pipe	32591	.02	31.9	34.2	31.3	33.7	34.6	34.2	34.5	35.7	30.5	34.3	31.3	33.8	32.1	39.4		
Clay tile	3253,51	.07	192.3	207.1	204.7	197.5	210.5	219.6	206.7	202.5	209.3	210.2	209.7	187.6	182.2	182.9		
Concrete and misc.	326-91	1.55	122.6	121.3	124.3	118.7	121.4	125.1	125.1	120.8	122.5	123.9	116.2	119.1	122.3	121.1		
PRIMARY METALS	331	5.33	75.1	72.6	72.8	73.1	75.5	73.4	72.8	75.1	77.0	76.1	77.0	78.8	81.4	84.7		
Iron and steel	331,21	3.49	63.4	60.3	60.2	61.0	63.5	61.3	59.5	62.3	65.4	65.0	65.7	68.3	70.9	75.3		
Basic st. & mill prod.	3311	2.60	68.8	65.1	64.0	65.3	68.0	63.5	60.7	64.9	68.7	69.3	72.7	73.3	75.9	81.9		
Basic iron and steel	3311	1.11	57.8	51.6	51.7	53.3	53.2	52.9	53.4	52.2	56.0	59.6	61.1	63.1	66.3	70.0		
Pig iron	3311	.42	54.0	45.1	48.6	49.6	49.6	50.7	48.7	47.1	52.3	53.8	55.3	57.9	61.8	63.4		
Raw steel	3311	.51	64.3	59.9	57.6	59.4	59.0	57.4	60.3	59.3	63.1	65.4	67.7	70.3	72.6	78.5		
Steel mill products	3341	1.49	76.9	75.1	74.2	74.1	79.0	71.4	66.1	74.3	78.1	76.5	81.3	80.8	83.1	90.8		
Consumer dur. steel	3381	.57	21	52.7	51.0	53.0	57.8	52.5	48.2	56.7	60.5	54.4	54.6	50.7	46.8	53.4		
Equipment steel	3361	.40	40.2	39.2	36.1	36.2	36.8	36.8	33.0	34.9	38.1	37.7	41.0	42.4	44.9	45.0		
Construction steel	3319	.19	73.2	73.0	66.1	69.2	71.0	67.5	56.8	65.9	66.3	65.9	69.6	68.7	81.2			
Can & closure steel	3310	.10	59.4	62.4	59.3	55.2	56.4	50.5	46.2	56.7	65.9	64.2	68.5	63.6	62.2	65.7		
Misc. steel	3361	.46	126.9	125.0	126.0	127.1	137.3	119.8	114.5	126.7	133.2	131.9	141.9	143.5	152.9	166.5		
Iron & steel foundries	3321	.89	47.6	46.3	47.1	47.7	50.2	52.5	53.7	52.7	54.7	54.3	51.3	56.1	56.9	56.		

Table 4B—continued

INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES

Not seasonally adjusted, 1977 = 100

Series	SIC Code	1977		1986		1987											
		Pro- portion	Avg.	1986	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
PRINTING & PUBLISHING	27	4.54	160.9	178.3	176.2	173.4	164.0	159.5	151.0	155.9	158.7	162.0	165.6	177.5	184.0	192.5	
Newspapers	271	1.35	139.6	136.5	143.1	151.4	152.5	141.0	126.8	139.3	143.0	149.0	148.3	144.2	136.1	141.9	
Period., books, cards	272,3,7	1.24	156.7	179.8	172.6	162.7	156.9	152.4	146.0	145.5	148.9	148.5	154.0	166.5	177.5	183.9	
Job printing	274-6,8,9	1.95	178.4	206.3	201.4	195.5	176.4	176.7	171.0	173.9	175.7	179.6	184.9	207.5	222.5	230.4	
CHEMICALS & PRODUCTS	28	8.05	132.0	135.0	138.7	135.4	130.6	129.6	129.6	134.2	134.9	136.7	137.2	142.6	144.2	145.9	
Chemicals & syn. mat.	281,2,6	3.86	123.8	121.5	127.5	126.1	124.6	126.1	127.7	132.2	131.7	133.6	133.1	134.3	134.1	134.6	
Basic chemicals	281	.92	98.9	94.0	103.9	99.3	95.6	97.3	104.4	109.0	104.3	104.7	104.4	102.0	100.8	103.6	
Alkalies & chlorine	2812	1.92	97.5	97.5	100.6	92.2	92.6	100.3	91.6	105.9	113.2	101.4	102.5	95.5	99.2	101.3	
Industrial Gases	2813	.10	128.3	127.3	130.4	127.1	128.7	128.4	140.3	144.8	142.9	145.3	148.3	151.6	148.5		
Inorganic pigments	2816	.08	99.6	93.4	103.0	96.3	93.1	102.4	102.1	103.6	97.5	95.5	104.0	108.2	94.5	98.8	
Inorganic chem, nec	2819	.62	94.1	87.8	100.2	96.3	91.0	90.8	101.1	104.3	97.0	99.7	97.4	94.1	93.9	97.3	
Acids & other chem.		.40	95.8	85.7	105.3	99.8	91.8	91.2	107.2	113.2	100.6	105.2	101.3	96.1	95.7	101.2	
Synthetic materials	2821	1.11	162.6	159.1	170.3	168.4	163.9	168.3	168.8	179.7	178.1	180.5	176.2	183.4	180.3	179.5	
Plastics materials	2821	.59	220.0	217.5	231.9	230.7	226.9	228.1	230.7	245.9	246.4	248.7	241.8	253.0	251.3		
Synthetic rubber	2822	.08	96.5	84.6	91.1	91.0	77.5	76.8	93.4	98.5	97.6	91.6	90.0	91.8	90.4		
Synthetic fibers	2823,4	.44	98.5	95.3	103.1	100.1	96.3	105.8	105.8	106.8	102.3	106.5	105.0	108.0	102.6	98.6	
Indust. organic chem.	2861	1.83	112.7	112.5	113.3	113.7	115.3	115.0	114.4	114.9	117.2	119.7	121.4	120.7	122.8	122.8	
Chemical products	283-5,9	3.65	147.5	158.1	158.3	152.5	143.7	139.8	137.6	142.5	144.5	145.3	148.2	159.5	164.9	167.1	
Drugs & medicines	2831	1.41	134.8	148.4	150.0	144.1	130.9	130.3	123.1	126.1	127.2	130.6	133.6	148.9	156.4	157.4	
Soap & toiletries	2841	1.34	182.9	192.7	196.0	187.0	181.2	176.8	175.4	178.7	182.3	178.3	179.9	194.0	200.6	205.2	
Paints	2851	.40	100.0	113.4	100.8	98.1	86.0	69.0	78.5	99.7	103.3	110.6	115.2	112.7	104.5	108.3	
Agricultural chemicals	2871	.54	85.7	76.0	86.3	86.9	84.9	85.8	88.5	93.4	93.6	100.7	92.5	87.5	83.7	84.2	
PETROLEUM PRODUCTS	29	2.40	92.6	98.5	97.0	92.8	94.6	94.1	89.5	85.9	86.0	91.1	93.1	96.3	97.0	96.9	
Petroleum refining	291,9	2.21	91.0	96.0	94.3	89.8	92.3	92.8	89.3	85.4	85.8	90.5	91.5	94.2	94.8	94.4	
Automotive gasoline		.96	96.0	101.0	98.1	94.4	97.9	98.9	95.1	90.5	93.2	97.4	99.4	100.8	100.1	98.8	
Distillate fuel oil		.43	85.2	89.1	87.1	82.8	88.8	89.6	84.5	78.4	72.6	77.7	78.1	81.9	82.3	82.0	
Residual fuel oil		.15	50.6	51.2	48.8	47.2	55.6	56.4	52.5	47.6	49.5	47.4	46.5	49.3	51.5	53.2	
Aviation fuel & keros.		.18	119.7	117.3	120.1	121.3	123.1	131.7	128.4	120.7	115.4	111.5	111.0	112.0	112.4	116.2	
Misc. petroleum prod.		.48	88.3	98.5	98.1	88.8	84.6	80.7	79.2	80.6	83.5	93.9	94.6	99.6	102.8		
Refinery fuel, nec		.09	122.4	133.3	128.6	119.3	119.2	121.1	121.5	121.2	121.0	128.3	126.8	130.5			
Refinery nonfuel mat.		.26	73.3	72.5	77.0	71.9	71.4	75.3	72.4	74.1	74.4	80.0	77.0	75.0			
Refinery products, nec		.13	95.0	126.1	118.8	101.5	87.3	64.2	64.4	66.2	76.4	98.1	107.6	126.9			
RUBBER & PLASTICS PROD.	30	2.80	151.4	154.7	158.0	159.4	153.3	148.2	146.4	162.2	163.0	162.1	162.1	168.9	158.6	169.4	
Tires	301	.62	106.4	107.3	109.6	117.2	109.1	100.3	115.4	123.3	121.7	118.2	123.4	117.6	105.2		
Rub. prod.ex.tires	302-4,6	.51	120.7	124.1	126.5	125.5	121.1	120.4	114.8	131.2	125.8	127.1	126.2	132.8	126.3	136.8	
Plastics products, nec	3071	1.67	177.4	181.7	185.7	179.5	174.6	174.4	167.6	186.1	189.7	189.1	187.5	198.9	191.4	198.4	
LEATHER AND PRODUCTS	31	.53	61.4	63.3	60.5	62.6	62.6	56.5	57.0	62.0	61.1	60.3	62.0	61.4	51.6	62.9	
Pers. leather gds	313,5-7,9	.16	73.4	72.4	74.4	76.4	76.6	77.1	73.2	73.0	74.9	74.4	77.0	77.2	73.1	79.9	
Shoes	3141	.29	55.6	59.9	53.8	56.2	55.7	44.4	48.9	56.9	54.6	53.5	54.3	53.4	40.4	55.1	
CLAY, GLASS & STONE PROD.	32	2.72	118.2	122.6	123.0	121.8	118.9	114.1	113.1	112.4	116.6	121.6	118.2	122.0	120.2	123.3	
Pressed & blown glass	3221	.51	107.5	112.3	109.2	112.0	106.6	90.3	102.5	109.1	110.4	115.5	115.4	116.2	112.1	113.9	
Glass containers	3221	.30	95.1	100.2	94.4	99.3	90.0	66.3	89.8	98.3	101.9	102.8	103.8	104.2	98.9	101.8	
Cement	3241	.24	102.3	124.6	119.9	122.5	97.0	76.2	64.6	70.2	88.1	107.2	114.0	123.6	122.3		
Structural clay prod.	3251	.15	129.4	139.4	141.8	138.6	141.5	138.5	131.2	131.7	148.6	141.6	136.9	137.6	119.7	131.5	
Brick	3251	.07	93.2	96.4	100.7	104.5	92.3	93.1	84.1	86.5	95.2	102.9	96.6	107.1	104.6	101.5	
Clay sewer pipe	32591	.02	31.9	35.5	35.0	36.2	33.9	29.2	29.0	27.7	29.2	36.2	31.9	37.5	37.7	40.9	
Clay tile	3253,51	.07	192.3	211.1	212.3	200.7	220.3	214.0	206.4	205.5	212.0	210.0	206.1	195.5	157.3	186.3	
Concrete and misc.	326-91	1.55	122.6	124.3	126.1	123.0	123.6	123.6	120.8	116.4	119.7	123.5	116.9	120.3	121.6	124.0	
PRIMARY METALS	331	5.33	75.1	69.3	70.8	71.7	72.4	67.9	71.4	77.9	81.9	82.6	82.3	82.6	75.3	80.8	
Iron and Steel	331,2	3.49	63.4	57.3	57.4	58.5	59.7	55.5	57.7	64.3	69.8	72.1	72.3	72.8	68.8	71.5	
Basic st. & mill prod.	331	2.60	68.8	61.2	61.1	61.2	63.6	59.7	60.2	67.8	74.0	76.2	78.3	77.1	71.8	77.0	
Basic iron and steel	331	1.11	57.8	47.4	48.4	50.6	50.4	49.2	52.6	55.1	60.0	66.0	66.0	65.4	64.0	64.4	
Pig iron		.42	54.0	43.0	44.6	45.8	46.4	45.6	46.6	54.6	60.6	61.7	61.1	61.4	60.3		
Raw steel		.51	64.3	53.3	54.2	57.6	56.5	54.7	60.1	63.4	69.2	72.0	71.7	71.6	68.1	69.8	
Steel mill products		1.49	79.9	71.5	70.5	69.0	73.4	67.4	65.9	77.1	84.0	83.8	87.4	85.7	77.7	86.3	
Consumer dur. steel		.38	57.2	49.2	51.0	51.3	54.9	47.0	52.2	59.9	63.2	68.5	58.3	53.0	41.2	49.8	
Equipment steel		.36	40.2	39.1	35.3	33.9	34.3	33.8	31.3	37.2	41.2	41.8	44.4	44.0	40.8	44.8	
Construction steel		.19	73.2	72.8	65.5	64.6	66.5	60.9	52.7	64.1	68.0	70.4	75.7	79.7	69.6	81.0	
Can & closure steel		.10	59.4	65.4	58.9	49.4	52.3	47.5	56.9	57.6	65.0	70.2	68.8	64.0	68.8		
Misc. steel		.46	126.9	115.8	118.2	116.9	126.4	117.4	113.6	132.0	146.6	146.7	153.3	151.1	142.5	154.4	
Iron & steel foundries	3321	.89	47.6	45.7	46.7	50.8	48.4	43.3	50.2	54.3	57.4	60.0	54.5	60.2	52.0	55.5	
Nonferrous metals	333-6,91	1.85	97.2	91.9	95.9	96.6	96.2	91.4	97.1	103.5	104.7	102.5	101.1	101.1	91.3	98.4	
Primary nonf. metals	3331	.51	80.8	75.2	75.4	77.2	77.8	79.9	82.4	84.8	81.9	85.5	81.5	78.0	78.2	80.4	
Copper	3331	.13	91.9	88.6	89.2	91.8	92.6	95.8	90.1	95.9	85.1	100.6	94.1	77.5	84.0	86.0	
Aluminum	3334	.28	73.8	67.3	68.1	69.6	70.7	72.1	74.8	75.2	76.0	77.7	77.5	80.3	80.7	81.9	
Secondary nonf. mtl.s.	3341	.11															

Table 4A—continued

INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES

Seasonally adjusted, 1977 = 100

Series	SIC Code	1977		1986		1986				1987								
		Pro- por- tion	Ann. Avg.	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		
FABRICATED METAL PRODUCTS	34	6.46	108.0	1106.9	107.8	108.9	108.3	109.6	108.4	108.3	110.5	109.9	108.5	111.1	111.2	111.0		
Metal containers	341	.52	88.2	87.6	89.5	90.0	89.0	90.8	87.1	87.3	90.9	90.8	90.2	94.0	94.5	92.2		
Hardware, tools, cutlery	342	.73	101.9	1104.1	103.9	104.5	100.1	102.8	100.3	102.0	106.3	103.7	104.3	103.2	105.3	104.3		
Structural metal prod.	344	1.67	108.7	1108.5	108.5	107.2	107.0	107.4	109.5	108.1	110.2	108.7	109.3	109.4	109.0	108.9		
Pasteners, stamp, etc.	345-7	1.95	112.5	110.3	110.6	116.1	114.3	116.0	112.5	114.6	116.1	115.0	110.8	116.3	117.4	115.4		
NONELECTRICAL MACHINERY	351	9.54	145.0	1145.0	144.9	145.0	144.5	144.8	143.4	145.5	148.5	150.4	149.7	151.8	154.4	154.9		
Engine & farm equip.	351,2	1.48	60.2	59.6	58.9	58.5	57.9	58.3	58.8	60.6	61.2	62.4	62.4	62.0	65.7	65.1		
Construct. & allied eq.	353	1.68	69.9	71.0	70.5	70.2	69.4	70.8	69.9	69.6	69.6	69.2	72.2	75.3	75.4	78.1		
Metalworking machinery	354	1.24	133.4	1136.4	135.0	135.3	131.3	133.3	130.0	131.7	131.2	131.5	131.4	138.2	140.1	142.2		
Spec. & genl. ind. eq.	355,6	2.12	96.4	96.4	96.5	98.0	96.4	97.6	97.9	100.3	98.0	99.5	99.0	101.7	104.5	104.5		
Office, serv., & misc.	357-9	3.02	267.5	265.6	265.5	265.4	267.3	265.7	270.8	278.8	284.5	274.0	283.3	286.4	283.4			
ELECTRICAL MACHINERY	361	7.15	165.7	1166.6	166.5	167.3	167.9	170.4	170.4	171.0	168.5	168.4	171.1	170.5	172.7	174.4		
Major elect. eq. & pts	361,2	1.27	94.8	94.5	91.9	91.4	91.3	93.5	91.0	96.6	97.5	96.9	97.3	100.0	98.3	97.3		
Household appliances	363	.75	127.0	1129.0	129.6	130.3	132.3	139.0	134.2	138.1	138.4	130.7	131.8	128.8	129.4	142.7		
Cooking equipment	3631	1.11	205.8	204.5	218.3	202.3	199.8	232.1	234.6	251.5	250.3	231.9	208.6	185.8	217.0	261.9		
Refrigeration appl.	3632	.17	110.1	1114.6	107.1	118.0	118.2	123.2	116.4	119.0	116.6	105.7	113.0	116.0	105.5	122.9		
Laundry appliances	3633	.12	145.5	1150.3	148.8	153.7	156.3	162.4	147.8	151.6	165.6	144.7	153.4	163.0	140.8	169.9		
Misc. appliances	3634-6,9	.35	103.8	1104.8	105.7	105.5	109.5	109.0	106.2	106.6	104.2	105.7	109.1	105.3	109.1	105.1		
TV and radio sets	3651	.44	151.0	1153.2	152.1	147.6	160.2	168.7	158.1	149.7	154.4	146.6	158.4	151.9	152.2	151.0		
Communication equipment	3661	2.01	212.3	2126.0	216.7	217.6	218.4	220.6	224.1	225.3	221.1	220.1	241.0	219.3	221.3	222.2		
Electronic components	3671	1.31	238.8	236.7	238.2	239.5	241.4	241.5	238.7	238.7	239.3	238.4	244.8	246.5	252.3	254.1		
TV tubes	3671-31	.13	122.4	1100.4	100.5	132.4	141.8	147.5	112.1	105.3	106.2	111.5	134.8	131.6	131.4	152.6		
Misc. electrical supp.	3691	.70	122.2	124.5	121.7	121.9	124.8	122.1	119.7	126.1	123.7	121.7	124.8	127.5	128.1	127.6		
Storage battery, repl.	3691	.13	127.9	1138.0	124.8	128.5	135.8	123.1	96.2	124.4	123.3	130.7	148.3	152.7	147.7	141.0		
TRANSPORTATION EQUIPMENT	371	9.13	127.5	1126.9	128.9	127.6	126.9	126.8	129.0	132.7	132.2	127.8	129.4	126.5	127.6	128.0		
Motor vehicles & parts	3711	5.26	111.5	1109.6	113.0	110.3	109.1	109.7	112.0	117.7	116.5	109.8	112.0	107.4	109.4	109.1		
Autos, total	3711	1.82	111.0	1103.0	113.0	111.9	107.7	109.2	106.1	118.8	116.1	103.7	105.8	99.8	98.6	87.7		
Consumer	3711	1.16	97.3	90.1	98.9	98.0	94.5	96.0	93.0	104.1	101.7	90.8	92.7	87.4	86.4	76.8		
Business	3711	.66	135.4	1125.9	138.1	136.5	131.0	132.5	129.4	144.8	141.5	126.4	129.0	121.6	120.2	106.9		
Trucks and buses	3721	1.03	131.0	1138.9	139.2	127.8	127.6	129.8	143.5	146.4	147.0	136.2	143.0	133.6	146.9	161.4		
Business vehicles	3721	.41	114.5	1117.1	119.1	111.6	113.3	111.5	117.6	125.5	125.0	118.0	123.9	114.5	126.1			
Consumer trucks	3731	.63	141.8	1153.1	152.4	138.3	136.9	141.7	160.3	160.0	161.3	148.0	155.3	146.0	160.4			
Truck trailers	3715	.09	129.2	21134.7	130.4	125.4	120.3	116.7	123.9	144.1	138.7	151.2	147.8	147.1	164.6	152.9		
Motor vehicle parts	3714	2.31	102.1	1100.7	100.6	100.6	101.5	100.8	102.2	102.9	102.4	101.1	101.5	100.1	98.9	100.8		
Aircraft and parts	3721	4.09	161.5	1163.3	163.3	164.0	166.0	166.0	165.8	167.0	167.7	166.0	168.3	168.0	168.6	170.4		
Ships and boats	3731	.66	84.5	85.4	86.5	85.4	84.6	84.1	83.3	82.3	83.1	80.5	82.0	81.5	82.4	84.5		
Rail & misc trans eq.	374-6,91	1.11	164.6	1165.4	164.8	165.9	164.2	163.6	166.0	167.9	166.3	168.7	166.7	165.1	162.6	164.3		
Railroad equipment	3741	.27	22.9	20.4	23.5	28.5	18.9	14.3	17.4	17.8	14.4	13.6	14.7	16.7				
INSTRUMENTS	381	2.66	139.8	1139.7	138.7	139.1	139.3	140.2	139.5	142.0	140.3	142.8	142.1	144.5	144.1	146.1		
Equipment instr. & pts	381-4	1.52	164.1	1164.3	163.4	165.6	167.4	170.3	166.3	169.8	168.0	170.5	170.1	171.6	170.2	172.8		
MISC. MANUFACTURES	391	1.46	100.1	98.9	99.3	100.0	100.9	103.8	101.6	101.6	103.9	101.4	101.9	101.2	100.7	100.9		
Misc. cons. goods	391,3,4,6	.84	96.5	95.6	96.3	96.5	98.2	101.2	97.3	97.2	100.6	100.3	100.6	102.0	102.0	102.3		
Misc. bus. supplies	395,91	.62	104.9	1104.1	103.6	107.5	107.6	107.6	105.7	105.9	104.0	101.5	102.1	97.9	98.9	97.4		
ELECTRIC UTILITIES	491	4.17	122.4	1122.7	121.0	124.0	124.4	122.6	121.6	122.3	123.6	122.3	128.8	128.8	131.0	129.0		
Elec. util. generation	4911	1.76	116.2	2115.5	117.7	117.4	116.8	115.8	115.6	115.3	116.5	117.1	121.7	123.2	124.5			
Fossil fuel generation	4911	1.41	107.8	106.0	107.9	105.9	106.6	105.4	105.9	107.2	108.8	111.3	116.0	117.6	118.9			
Hydro & nuclear gener.	4911	.35	149.6	1153.7	157.3	163.3	157.7	157.4	154.7	147.7	147.4	140.2	144.3	145.3	146.9			
Elec. util. sales	4911	2.41	126.9	1127.9	123.3	128.9	130.0	127.4	126.0	127.5	128.8	126.1	134.0	133.0				
Residential elec.	4951	.95	128.7	1131.3	122.8	133.0	130.8	130.2	128.1	129.3	127.8	125.8	134.7	138.0	142.1			
Nonresidential elec.	4941	1.40	125.8	1125.7	123.7	126.2	129.4	125.7	124.7	126.3	129.4	126.3	133.6	129.7				
Industrial elec.	4941	.68	105.8	1104.7	103.4	105.5	107.9	105.3	104.6	106.1	108.4	107.2	110.6	108.0	111.1			
Commercial & other elec.	4981	.78	143.2	21144.1	141.3	144.2	148.2	143.4	142.1	144.0	147.7	142.9	153.6	148.6	149.7			

Note: Seasonally adjusted industry totals are not aggregated from the seasonally adjusted components, but result from independent seasonal adjustment of the aggregated not seasonally adjusted components.

Table 4B—continued

INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES

Not seasonally adjusted, 1977 = 100

Series	SIC Code	1977		1986		1987										
		Pro- por- tion	Ann. Avg.	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
FABRICATED METAL PRODUCTS	34	6.46	108.0	108.1	110.7	110.5	108.2	108.8	104.1	108.5	111.1	109.1	108.0	112.8	109.4	112.2
Metal containers	341	.52	88.2	91.8	95.1	90.0	86.8	85.7	80.8	85.6	90.1	90.3	90.3	98.3	97.0	96.6
Hardware, tools, cutlery	342	.73	101.9	106.4	107.9	106.9	104.1	99.7	94.9	104.2	107.4	101.8	102.4	104.9	103.8	106.6
Structural metal prod.	344	1.67	108.7	111.1	112.6	110.7	109.7	110.3	105.9	103.7	106.1	105.0	107.5	110.8	109.3	111.5
Fasteners, stamp, etc.	345-7	1.95	112.5	109.3	112.6	117.0	113.2	113.0	106.5	117.4	120.9	117.6	110.8	118.5	112.9	114.4
MONELECTRICAL MACHINERY	35	9.58	145.0	152.2	151.2	147.2	142.7	139.8	138.3	144.1	146.7	146.1	145.6	156.2	157.6	162.6
Engine & farm equip.	351,2	1.48	60.2	57.4	58.0	57.4	57.8	59.7	58.8	62.2	63.4	62.8	62.7	62.3	64.1	62.7
Construct. & allied eq.	353	1.68	69.9	71.7	73.2	70.4	68.9	71.7	68.8	67.7	68.1	67.3	70.7	76.0	75.8	79.0
Metalworking machinery	354	1.24	133.4	138.9	140.2	139.0	128.9	128.1	126.3	134.1	132.4	131.3	129.2	138.8	138.3	144.8
Spec. & genl. ind. eq.	355,6	2.12	96.4	97.3	99.3	98.3	96.6	96.6	94.7	100.7	99.0	98.5	98.8	103.0	102.8	105.4
Office, serv., & misc.	357-9	3.02	267.5	287.8	281.7	272.0	263.8	252.4	251.7	261.7	270.8	270.6	267.9	291.7	300.5	305.8
ELECTRICAL MACHINERY	36	7.15	165.7	2166.2	169.1	172.9	171.2	170.0	167.9	169.9	169.1	166.6	169.1	171.4	167.4	173.9
Major elect. eq. & pts	361,2	1.27	98.8	97.0	96.3	94.2	90.4	90.4	88.7	94.7	90.4	94.8	96.3	101.9	98.7	99.9
Household appliances	363	.75	127.0	122.4	133.6	145.6	128.4	119.2	133.6	145.6	142.0	135.9	133.2	133.0	115.1	135.1
Cooking equipment	3631	.11	205.8	194.0	222.1	232.2	214.4	199.6	229.8	251.0	235.7	226.0	234.0	199.1	186.5	248.4
Refrigeration appl.	3632	.17	110.1	88.2	111.3	127.5	100.6	86.6	114.5	132.9	129.4	123.4	121.5	126.4	105.7	93.9
Laundry appliances	3633	.12	145.5	148.3	147.8	177.1	138.5	140.6	153.8	177.0	148.6	145.4	162.6	129.1	167.7	
Misc. appliances	3634-6,9	.35	103.8	107.1	111.2	116.0	110.8	101.9	105.3	110.7	106.6	109.1	102.8	105.1	92.3	107.6
TV and radio sets	365	.44	151.1	169.1	157.2	191.2	183.8	145.7	147.0	140.3	136.4	133.4	153.0	143.9	146.6	167.4
Communication equipment	366	2.01	213.2	212.1	216.5	217.5	220.8	230.7	224.7	223.7	222.5	218.5	218.6	218.8	217.3	219.3
Electronic components	367	1.31	238.8	236.6	239.2	241.6	245.5	244.7	239.2	237.2	238.5	237.9	244.0	246.2	244.2	254.3
TV tubes	3671-3	.13	122.4	106.7	95.2	155.7	154.0	108.2	119.8	109.6	102.9	120.2	144.6	116.5	115.7	162.2
Misc. electrical supp.	369	.70	122.2	124.8	129.9	130.8	133.3	130.3	120.2	120.7	118.3	115.1	118.0	124.2	119.0	127.9
Storage battery, repl.	3691	.13	127.9	149.6	163.0	167.5	171.5	144.6	96.1	103.4	99.2	98.4	113.6	135.4	122.0	152.9
TRANSPORTATION EQUIPMENT	37	9.13	127.5	1119.5	128.6	129.8	128.1	124.3	129.3	136.6	136.3	130.9	131.9	130.9	113.3	121.1
Motor vehicles & parts	371	5.26	111.5	99.2	112.5	114.1	109.4	101.9	112.1	124.1	123.3	115.1	116.5	115.5	88.0	99.8
autos, total		1.82	111.0	84.8	108.3	118.9	110.1	95.4	108.4	130.9	127.3	112.6	112.4	112.0	58.7	74.9
Consumer		1.16	97.3	74.3	94.9	104.2	96.4	83.6	95.0	114.7	111.5	98.7	98.5	98.2	51.9	65.7
Business		.66	135.4	103.4	132.1	144.9	134.2	116.3	132.2	159.6	155.2	137.3	136.6	71.6	91.4	
Trucks and buses		1.03	131.0	124.3	142.4	134.2	124.0	106.5	139.4	158.4	160.9	147.6	154.4	150.5	117.2	142.5
Business vehicles		.41	114.5	108.5	119.2	116.5	110.7	90.3	117.7	135.4	135.7	126.2	133.5	128.8	101.1	
Consumer trucks		.63	141.8	134.7	157.5	145.8	132.6	117.0	153.4	133.4	177.2	161.4	168.0	164.6	127.6	
Truck trailers		.09	129.2	137.9	139.1	127.9	123.9	124.5	110.0	139.5	142.7	148.3	149.6	152.6	146.1	156.6
Motor vehicle parts		2.31	102.3	97.8	101.4	100.7	101.8	104.0	102.9	102.7	102.6	101.1	101.3	101.1	95.8	97.9
Aircraft and parts	372	2.09	161.5	158.7	163.1	164.6	169.1	170.4	166.6	169.0	168.7	165.2	167.4	167.0	163.8	165.7
Ships and boats	373	.66	84.5	82.0	84.5	84.6	85.1	84.9	83.7	83.0	84.5	82.7	d3.9	81.9	79.9	81.1
Rail & misc trans eq.	374-6,9	1.11	164.6	163.6	165.8	165.9	164.5	167.0	167.4	166.9	167.5	169.8	166.7	164.6	157.3	162.3
Railroad equipment	374	.27	22.9	22.1	31.5	32.1	18.5	17.0	16.4	11.4	12.0	13.0	14.1	16.2		
INSTRUMENTS	38	2.66	139.8	142.8	143.2	140.2	138.7	139.4	136.2	139.3	139.0	139.6	140.4	147.3	145.8	149.3
Equipment instr. & pts	381-8	1.52	164.1	171.5	172.8	166.7	164.4	165.1	160.0	165.4	165.3	165.9	167.6	175.9	175.9	180.6
MISC. MANUFACTURES	39	1.46	100.1	104.3	106.3	104.0	99.3	97.8	95.3	101.2	103.9	98.8	99.8	103.3	100.4	106.5
Misc. cons. goods	391,3,4,6	.84	96.5	100.5	103.8	101.1	94.7	94.2	91.7	95.6	100.6	98.6	100.4	105.6	100.6	107.5
Misc. bus. supplies	395,9	.62	104.9	109.6	109.7	108.0	105.5	102.7	100.3	108.8	108.4	99.0	99.0	99.0	100.0	102.5
ELECTRIC UTILITIES	491	4.17	122.4	133.4	125.4	114.8	116.9	121.7	128.3	130.1	117.8	113.5	116.5	131.5	141.9	140.6
Elec. util. generation		1.76	116.4	124.1	117.4	108.5	111.4	117.0	122.3	117.9	110.7	107.5	113.2	128.5	136.7	
Fossil fuel generation		1.41	107.8	118.5	109.5	99.7	101.7	105.4	112.0	107.4	100.6	98.5	104.9	123.6	133.6	
Hydro & nuclear gener.		.35	149.6	1146.6	149.1	143.6	150.1	163.5	163.4	160.0	151.2	143.5	146.3	148.1	149.4	
Elec. util. sales		2.41	126.9	140.1	131.2	119.5	120.9	125.2	132.7	139.0	123.0	117.9	118.9	133.8		
Residential elec.		.95	128.7	147.8	130.1	115.6	112.7	134.2	151.2	149.6	124.0	114.1	107.3	130.5	156.8	
Nonresidential elec.		1.46	125.8	135.1	131.8	122.0	126.2	119.4	120.7	132.1	122.4	120.3	126.5	135.9		
Industrial elec.		.68	105.8	107.2	108.1	104.3	108.7	99.0	98.7	110.5	106.0	106.2	109.0	112.8	110.6	
Commercial & other elec.		.78	143.2	159.5	152.5	137.4	141.5	137.0	140.0	151.0	136.7	132.6	141.7	155.9	162.6	

Note: Seasonally adjusted industry totals are not aggregated from the seasonally adjusted components, but result from independent seasonal adjustment of the aggregated not seasonally adjusted components.

Table 5
INDUSTRIAL PRODUCTION: INDEXES; 1977 = 100
Quarterly averages, seasonally adjusted

SERIES	Quarterly Averages of Monthly Indexes											
	1985			1986			1987					
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
Industrial production	123.4	124.0	124.7	125.2	124.4	124.8	125.9	126.9	128.2	130.9		
Products, total	130.2	131.2	132.1	132.9	132.5	133.3	134.5	135.6	136.8	139.9		
Final products	130.6	131.6	132.3	132.6	131.6	132.4	133.3	134.4	135.4	138.4		
Consumer goods	119.0	120.3	121.4	122.6	123.8	124.4	125.4	126.2	126.7	129.1		
Durable consumer goods	111.9	113.3	113.2	113.9	114.3	116.5	117.9	119.9	118.1	120.8		
Automotive products	112.7	116.5	114.7	113.9	115.1	116.9	115.3	120.3	116.2	116.4		
Home goods	111.3	110.9	112.0	113.9	113.6	116.2	119.9	119.5	119.5	124.1		
Non durable consumer goods	121.6	122.8	124.4	125.9	127.3	127.3	128.2	128.6	129.9	132.2		
Equipment, total	146.0	146.7	146.7	145.8	142.1	143.0	143.7	145.3	146.9	150.8		
Business & defense equipment	146.6	147.3	148.1	148.5	146.9	148.4	148.7	150.4	152.1	155.1		
Business equipment	140.6	140.6	140.8	140.9	138.4	139.4	139.2	140.7	142.6	146.1		
Defense and space equipment	169.8	173.4	176.9	178.5	180.2	183.6	185.8	188.3	189.0	190.1		
Intermediate products	128.8	129.9	131.4	134.1	135.5	136.8	138.5	139.9	141.8	144.9		
Construction supplies	118.4	120.2	121.6	125.4	126.9	127.7	130.2	129.6	132.6			
Business supplies	137.7	138.2	139.8	141.6	143.9	145.1	147.7	148.1	152.2			
Commercial energy products	121.7	122.2	123.8	125.5	128.7	127.4	129.6	127.7	130.9			
Materials	114.1	114.0	114.5	114.7	113.3	113.0	114.3	115.0	116.5	118.7		
Durable goods materials	121.8	120.8	121.3	121.0	119.4	119.0	120.7	121.4	122.9	125.8		
Basic metal materials	84.1	84.3	86.5	82.0	79.1	77.5	80.2	79.4	81.8	88.8		
Non durable goods materials	111.2	113.2	113.9	115.2	116.5	118.3	120.3	121.2	124.0	126.8		
Textile, paper, & chem materials	111.2	113.3	114.2	115.5	116.7	118.9	120.9	122.3	125.1	128.7		
Textile materials	94.9	98.8	102.6	102.4	103.6	105.9	106.2	106.1	111.4			
Pulp and paper materials	122.6	123.4	124.6	128.5	131.0	134.1	137.0	136.4	137.7			
Chemical materials	112.8	114.7	114.5	115.5	116.1	118.1	120.3	122.9	125.3			
Energy materials	103.3	103.0	103.1	103.3	99.7	98.1	97.8	98.3	98.7	99.2		
Manufacturing	126.1	126.8	127.4	128.4	128.5	129.2	130.4	131.6	133.2	135.9		
Durable	127.6	127.9	128.3	128.7	127.7	128.2	129.1	130.5	131.4	134.0		
Non durable	124.0	125.2	126.3	128.0	129.6	130.7	132.1	133.1	135.7	138.5		
Mining and Utilities	109.4	109.2	109.2	108.4	102.8	100.8	101.5	102.3	102.5	103.8		
Mining	110.0	108.3	107.5	107.6	100.3	96.8	96.9	98.8	99.0	100.0		
Utilities	108.4	110.9	112.2	109.8	107.0	107.3	109.1	108.1	108.3	110.1		

Table 6
INDUSTRIAL PRODUCTION: GROSS VALUE OF PRODUCTS
Billions of 1982 dollars at annual rates, seasonally adjusted

SERIES	Billions of 1982 Dollars at Annual Rates														
	1982			1986			1987			Months					
	Dollars	Ann.	1986	Q2	Q3	Q4	Q1	Q2	Q3	1987	APR	MAY	JUN	JUL	AUG
Products, total	1376.8	1681.6	1679.0	1675.0	1691.6	1715.2	1717.8	1738.4	1710.0	1723.0	1720.4	1733.3	1739.2	1742.7	
Final products	1084.5	1296.9	1295.8	1289.9	1300.3	1323.5	1320.4	1334.6	1316.5	1324.7	1320.1	1330.5	1334.7	1338.7	
Consumer goods	703.7	844.1	844.8	842.6	849.0	864.5	858.3	864.9	857.1	862.8	855.1	865.8	863.4		
Durable consumer goods	133.3	200.1	198.7	202.2	202.3	209.8	203.8	207.6	202.1	207.9	201.3	207.7	209.5	205.4	
Automotive products	65.9	109.4	109.6	111.3	108.5	116.2	110.0	110.4	109.2	112.9	107.8	111.4	112.1	107.6	
Home goods	67.4	90.7	89.1	90.9	93.8	93.5	93.8	97.2	92.8	95.0	93.6	96.3	97.4	97.8	
Non durable consumer goods	570.4	644.0	646.0	640.3	646.7	654.7	654.6	657.3	655.0	654.9	653.7	658.0	655.9	658.0	
Equipment, total	380.8	452.8	451.1	447.3	451.2	459.0	462.1	469.8	459.4	461.9	465.0	464.7	469.3	475.3	
Business & defense equipment	345.4	434.5	434.4	432.0	434.7	442.4	445.3	449.5	442.9	445.1	447.9	445.6	449.1	453.7	
Business equipment	278.0	341.3	342.3	338.6	338.8	345.4	348.3	352.2	345.8	348.0	351.2	349.1	352.0	355.5	
Defense and space equipment	67.4	93.2	92.1	93.4	95.9	97.0	97.0	97.2	97.0	97.1	96.8	96.5	97.0	98.2	
Intermediate products	292.2	384.7	383.2	385.2	391.3	391.7	397.4	403.8	393.6	398.4	400.3	402.9	404.5	404.0	
Construction supplies	108.3	154.0	153.0	154.9	155.4	158.0	157.2	161.1	155.0	156.8	159.7	161.0	161.0	161.2	
Business supplies	183.9	230.7	230.1	230.3	235.9	233.7	240.2	238.6	241.6	240.6	241.8	243.5			
Commercial energy products	63.4	75.6	76.3	74.8	77.7	73.9	77.2	76.8	78.7	76.2	75.6				

Table 7
INDUSTRIAL PRODUCTION: DIFFUSION INDEXES
 Percent of component series higher than in earlier months

	ONE MONTH EARLIER	THREE MONTHS EARLIER	SIX MONTHS EARLIER
1977-86			
AVERAGE	53.5	55.7	57.5
HIGH	76.6	79.4	88.3
LOW	26.4	23.2	23.0
1985			
AUGUST	57.5	57.9	57.7
SEPTEMBER	51.2	57.1	57.1
OCTOBER	49.6	56.0	58.3
NOVEMBER	61.7	56.2	58.3
DECEMBER	57.5	60.9	63.5
1986			
JANUARY	60.7	68.7	67.1
FEBRUARY	42.5	55.4	56.2
MARCH	37.1	38.9	51.0
APRIL	65.9	66.2	60.9
MAY	42.7	47.8	55.2
JUNE	46.6	56.0	47.8
JULY	55.2	46.4	47.4
AUGUST	53.0	54.4	56.0
SEPTEMBER	43.7	53.8	59.9
OCTOBER	54.0	51.6	48.6
NOVEMBER	57.3	54.6	56.5
DECEMBER	58.5	60.1	61.5
1987			
JANUARY	49.8	62.1	58.5
FEBRUARY	58.7	62.7	63.9
MARCH	48.2	55.6	64.7
APRIL	55.8	61.1	66.1
MAY	57.1	59.3	63.3
JUNE	49.8	58.7	57.7
JULY	65.9	63.3	64.1
AUGUST	50.0	59.9	61.9

NOTE: THE DIFFUSION INDEXES SHOW THE PERCENT OF THE INDUSTRIAL PRODUCTION INDEX'S 252 SEASONALLY ADJUSTED COMPONENT SERIES THAT IN THE MONTH INDICATED WERE HIGHER THAN THEY WERE ONE MONTH EARLIER, THREE MONTHS EARLIER, AND SIX MONTHS EARLIER. IN CALCULATING THE DIFFUSION INDEXES HALF OF THE UNCHANGED COMPONENTS ARE COUNTED AS BEING HIGHER AND NO ALLOWANCE IS MADE FOR THE RELATIVE IMPORTANCE OF THE INDIVIDUAL COMPONENTS IN TOTAL INDUSTRIAL PRODUCTION. DIFFUSION INDEXES BASED ON CHANGES OVER A SIX-MONTH PERIOD GENERALLY SHOW MORE PRONOUNCED CYCLICAL PATTERNS THAN DIFFUSION INDEXES BASED ON CHANGES OVER SHORTER PERIODS.

Table 8
AUTO ASSEMBLIES AT ANNUAL RATES
 Seasonally adjusted

YR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	Q1	Q2	Q3	Q4	ANN. AVG.
85	8.3	8.1	8.4	8.2	8.3	8.1	8.3	8.5	8.2	8.0	8.0	7.5	8.3	8.2	8.3	7.8	8.2
86	8.2	8.4	7.6	8.0	7.7	8.0	7.6	7.2	7.9	7.8	7.5	7.6	8.1	7.9	7.6	7.6	7.8
87	7.3	8.2	8.0	7.1	7.3	6.8	6.7	6.0	6.1				7.8	7.1	6.3		

Table 9A
ELECTRIC POWER USE BY INDUSTRIES

Seasonally adjusted indexes, 1977 = 100

Series	SIC code	1977 (bill. KWH)	Indexes						Percentage change from previous quarter				Indexes			
			1986		1986		1987		1986		1987		1986		1987	
			1986 Aug.	1986 Sep.	1986 Oct.	1986 Nov.	1987 Jan.	1987 Feb.	1986 Aug.	1986 Sep.	1986 Oct.	1986 Nov.	1987 Jul.	1987 Aug.	1986 Jul.	1987 Aug.
TOTAL	10-14,20-39	785.8	99.8	98.9	99.3	100.5	100.2	101.4	.5	1.2	-0.3	1.2	2.5	105.1	105.4	
MAJOR INDUSTRY DIVISIONS																
MINING	10-14	59.4	111.8	111.0	107.2	107.2	106.0	107.1	-3.4	.0	-1.1	1.1	-3.5	115.6	114.9	
MANUFACTURING	20-39	726.4	99.0	98.0	98.8	100.0	99.9	101.0	.8	1.3	-0.2	1.1	3.0	104.4	104.7	
DURABLE	24,25,32-39	344.3	96.3	96.6	94.7	96.4	95.8	98.7	-2.0	1.8	-0.6	3.0	2.2	101.7	101.7	
NONDURABLE	20-23,26-31	382.1	101.5	99.8	102.4	103.2	103.3	103.5	2.6	.7	.1	.2	3.7	106.8	107.1	
INDUSTRY GROUPS AND SERIES																
METAL MINING	101	15.1	93.2	92.3	88.7	86.2	88.9	86.7	-3.9	-2.9	3.1	-2.5	-6.1	104.3	120.4	
Iron ore	1011	6.11	86.8	88.8	77.9	74.6	77.5	79.7	-12.3	-4.2	3.9	2.8	-10.2	95.6	119.1	
Copper ore	102	5.91	108.8	99.0	111.8	113.3	118.8	109.7	12.9	1.3	4.9	-7.7	10.8	136.3	137.3	
COAL	11,12	10.3	133.1	134.3	126.9	130.3	127.2	134.0	-5.5	2.7	-2.4	5.4	-0.2	138.1	130.9	
OIL AND GAS EXTRACTION	131	23.0	123.3	122.6	118.5	116.1	115.1	114.4	-3.3	-2.0	-0.8	-0.7	-6.7	116.0	115.8	
Crude oil and natural gas	1311	18.2	126.2	125.7	121.0	118.6	117.1	117.5	-3.8	-2.0	-1.3	-3.1	-6.6	119.4	117.5	
Natural gas liquids	132	3.41	100.7	101.8	95.2	96.1	98.6	90.5	-6.5	1.0	2.6	-8.3	-11.1	90.2	95.4	
STONE AND EARTH MINERALS	141	11.0	93.3	91.8	93.0	92.5	89.1	96.0	1.3	-0.5	-3.7	7.7	4.5	104.0	100.3	
Crushed stone	1421	2.41	140.4	142.8	140.2	140.6	130.6	140.2	-1.8	-2	-7.1	7.3	-1.8	142.5	140.6	
Sand and gravel	1441	2.01	96.3	96.5	95.8	100.2	95.1	101.2	-0.7	4.5	-5.0	6.4	4.9	105.6	99.7	
Chemical & fertilizer mat.	1471	5.01	72.2	69.9	71.4	68.7	67.1	74.8	2.1	-3.7	-2.3	11.5	7.1	84.9	79.2	
FOODS	201	42.4	121.7	121.9	122.1	122.2	121.3	124.9	.2	-1	-0.7	2.9	2.4	127.4	127.4	
Meat products	2011	6.91	113.4	114.0	112.3	115.2	113.5	119.7	-1.5	2.6	-1.6	5.5	4.9	121.1	121.6	
Dairy products	2021	5.34	124.7	125.3	124.7	125.1	126.9	129.1	-0.5	3	1.4	1.8	3.0	128.1	128.4	
Canned and frozen foods	2031	5.71	136.9	135.1	137.6	141.2	137.4	144.3	1.8	2.6	-2.7	5.0	6.8	147.7	149.5	
Grain mill products	2041	7.41	110.0	109.6	110.7	109.3	107.2	109.3	1.0	-1.2	-2.0	2.0	-0.3	109.7	108.2	
Bakery products	2051	2.51	141.5	140.3	141.4	142.0	142.9	141.3	.8	-4	-6	-1.1	-7	142.0	139.5	
Sugar and confectionery	2061	3.31	176.9	177.6	177.8	181.1	177.1	181.2	-1	1.8	-2.2	2.3	2.0	185.3	183.4	
Fats and oils	2071	3.41	110.9	112.8	112.5	105.1	99.2	92.5	-0.3	-6.6	-5.6	-6.7	-18.0	94.0	89.5	
Beverages	2081	4.81	123.9	126.2	124.8	122.8	123.6	126.8	-1.1	-1.6	-6	2.6	-5	129.8	131.8	
Misc. food preparations	2091	3.11	116.2	116.6	117.8	114.9	114.9	119.1	1.1	-2.5	0	3.6	2.2	120.7	121.2	
TOBACCO PRODUCTS	211	1.31	98.3	99.8	98.5	97.0	103.0	109.4	-1.4	-1.5	6.2	6.2	9.6	118.4	115.8	
TEXTILE MILL PRODUCTS	221	28.3	99.0	98.5	99.4	100.4	104.4	104.3	1.0	.9	4.0	-0.1	5.9	107.7	105.3	
Fabrics	2211-41	12.11	91.7	92.7	91.1	91.7	95.6	95.0	-1.7	.7	4.3	-0.3	2.5	95.9	95.7	
Knit goods	2251	3.71	82.6	84.0	82.5	82.3	85.2	87.6	-1.7	-0.3	3.6	2.8	4.4	88.0	86.6	
Fabric finishing	2261	2.21	123.6	119.6	128.3	126.7	126.9	134.7	7.2	-1.2	.2	6.1	12.6	138.7	133.0	
Yarn and thread	2281	6.71	113.3	110.7	114.8	118.6	123.0	119.2	3.7	3.3	3.7	-3.1	7.6	130.2	122.9	
Miscellaneous textiles	2291	2.11	99.1	98.4	100.1	101.4	104.2	108.8	1.7	1.4	2.7	4.4	10.5	113.4	105.9	
APPAREL PRODUCTS	231	6.61	120.9	121.1	119.8	123.2	129.8	137.3	-1.1	2.9	5.3	5.8	13.4	136.0	136.3	
Men's outerwear	2311,21	2.11	115.7	116.5	112.8	118.1	135.0	145.0	-3.2	4.7	14.3	7.4	24.5	146.9	146.5	
Women's outerwear	2331	1.91	119.9	112.0	107.9	113.7	114.2	117.4	-3.7	5.4	4	2.8	4.8	117.1	115.3	
LUMBER AND PRODUCTS	241	16.41	129.1	130.1	129.3	131.8	133.6	137.5	-0.6	1.9	1.4	2.9	5.7	142.7	142.0	
Lumber	2421	6.91	107.3	107.4	106.5	110.2	110.4	111.8	-0.9	3.5	.2	1.2	4.1	116.2	116.8	
Millwork and plywood	2431	4.41	139.1	138.8	139.9	142.6	148.7	147.0	.8	1.9	4.3	-1.1	5.9	154.7	153.9	
FURNITURE AND FIXTURES	251	4.21	130.4	129.3	131.1	134.0	133.9	140.6	1.4	2.2	-0	5.0	8.7	146.8	143.8	
Home furniture	2511	2.81	120.3	119.4	120.8	123.0	121.8	127.8	1.2	1.8	-1.0	5.0	7.1	133.4	131.3	
PAPER AND PRODUCTS	261	71.91	120.6	120.4	121.1	121.5	122.8	124.3	.6	-3	1.1	1.2	3.3	125.9	123.5	
Wood pulp	2611	5.91	125.5	119.3	125.9	131.1	136.0	137.3	5.6	4.1	3.8	1.0	15.1	120.3	131.7	
Paper	2621	34.41	129.1	129.9	131.4	127.6	131.1	132.7	1.2	-2.9	2.7	1.3	2.2	133.9	132.9	
Paperboard	2631	22.11	101.41	102.4	99.6	103.51	100.7	101.1	-2.8	3.9	-2.7	-0.6	-2.3	104.8	100.4	
Converted paper	2641	5.01	110.6	108.9	111.1	112.7	112.3	115.4	2.1	1.5	-0.4	2.8	6.0	111.6	114.4	
Paperboard containers	2651	3.41	117.8	115.1	120.5	123.0	124.6	127.4	4.6	2.1	1.3	2.2	10.6	133.6	122.1	
Building paper and board	2661	1.11	158.2	155.0	161.4	161.5	156.0	160.8	4.2	0	-3.4	3.0	3.7	177.5	186.4	
PRINTING AND PUBLISHING	271	10.61	149.3	149.0	149.2	153.3	155.9	161.5	.2	2.7	1.7	3.6	8.4	164.9	163.1	
Newspapers	2711	2.61	126.7	127.7	126.5	128.1	131.1	133.4	-0.9	1.2	2.4	1.7	4.4	137.8	137.5	
Commercial Printing	2751	4.81	169.8	168.3	170.6	176.8	179.5	188.7	1.4	3.6	1.5	5.1	12.1	189.3	189.5	
CHEMICALS AND PRODUCTS	281	162.11	84.81	82.1	86.0	86.6	86.2	83.9	4.7	.7	-0.4	-2.7	2.1	87.1	90.1	
Basic chemicals	2811	85.61	70.71	68.1	72.0	72.2	71.9	68.9	5.7	-3	-0.4	-4.1	1.2	72.2	75.6	
Alkalines and chlorine	2812	13.31	97.21	98.5	98.1	93.4	98.7	95.0	-0.4	-4.8	5.6	-3.7	-3.5	104.5	102.4	
Inorganic chemicals,nec	2819	58.11	51.01	48.4	51.6	52.7	49.6	47.5	6.6	2.2	-6.0	-4.1	-1.8	50.5	54.2	
Acid and fertilizer mat.	13.01	70.91	67.2	68.5	73.8	72.0	68.9	71.9	7.8	-2.5	-4.3	2.6	69.2	70.2		
Nuclear mats., nondefense	44.61	42.61	40.5	44.2	43.6	40.8	38.6	9.1	-1.3	-6.4	-5.3	-4.6	42.7	46.3		
Synthetic materials	2821	19.31	118.9	112.2	120.3	123.1	125.4	121.2	7.2	2.3	1.9	-3.3	8.0	122.5	123.6	
Plastics materials	2821	9.21	153.8	138.1	161.3	166.4	164.9	149.5	16.8	3.2	-0.9	-9.3	8.3	148.0	150.1	
Drugs	2831	4.11	152.2	153.1	152.9	156.7	155.7	156.2	-0.1	2.5	-0.6	3.1	2.0	160.0	167.6	
Soaps and toiletries	2841	2.11	125.9	128.9	126.6	124.8	124.8	127.5	-1.8	-1.4	0	2.2	-1.1	138.7	133.9	
Industrial organic chem.	2861	35.81	98.3	97.5	98.7	99.1	98.9	97.5	1.3	.4	-0.2	-1.4	.1	98.5	98.4	
Farm chemicals	2871	10.51	86.8	90.8	82.8	85.3	87.8	84.9	-8.9	3.1	2.9	-3.3	-6.5	79.7	79.0	

Table 9B

ELECTRIC POWER USE BY INDUSTRIES

Not seasonally adjusted, 1977 = 100

Series	SIC code	(bil. KWh)	Indexes						Percentage change from previous quarter						Indexes			
			1977			1986			1986			1987			1986			
			1986	Q2	Q3	Q4	1987	Q1	Q2	1986	Q3	Q4	1987	Q1	Q2	JUL	AUG	
TOTAL	10-14,20-39	785.8	99.8	100.2	101.0	99.2	98.4	102.8	.8	-1.8	-0.7	4.4	2.6	105.3	107.8			
<u>MAJOR INDUSTRY DIVISIONS</u>																		
MINING	10-14	59.4	111.8	113.6	103.9	104.1	109.8	109.5	-8.5	+2	5.5	-0.2	-3.6	109.8	112.0			
MANUFACTURING	20-39	726.4	99.0	99.3	100.8	98.8	97.7	102.3	1.5	-4.0	-1.2	4.8	3.0	105.0	107.5			
DURABLE	24,25,32-39	344.3	96.3	97.6	95.9	95.0	94.9	99.8	-1.8	-1.0	.0	5.1	2.2	101.4	103.8			
NONDURABLE	20-23,26-31	382.1	101.5	100.9	105.3	102.3	100.1	104.6	4.3	-2.8	-2.1	4.5	3.7	108.3	110.9			
<u>INDUSTRY GROUPS AND SERIES</u>																		
METAL MINING	101	15.1	93.2	101.9	84.9	77.1	92.3	95.6	-16.7	-9.2	19.7	3.6	-6.2	105.7	110.8			
Iron ore	1011	6.1	86.8	103.3	74.9	61.2	81.6	92.1	-27.5	-18.3	33.5	12.9	-10.8	99.6	108.3			
Copper ore	1021	5.9	108.8	102.7	108.4	110.5	120.5	113.6	5.5	2.0	9.0	-5.7	10.6	132.5	134.5			
COAL	11,121	10.3	133.1	133.4	111.8	127.3	145.7	132.9	-16.2	13.8	14.4	-8.8	-0.4	109.7	120.9			
OIL AND GAS EXTRACTION	131	23.0	123.3	121.4	119.1	116.4	115.3	113.2	-1.9	-2.3	-1.0	-1.7	-6.7	118.4	114.2			
Crude oil and natural gas	1311	18.2	126.2	123.7	121.1	119.3	118.1	115.6	-2.1	-1.4	-1.0	-2.1	-6.6	121.4	115.4			
Natural gas liquids	1321	3.4	100.7	104.7	100.0	93.2	93.7	93.1	-4.4	-6.8	-5	-0.7	-11.1	95.4	99.1			
STONE AND EARTH MINERALS	141	11.0	93.3	93.6	92.2	94.3	86.4	97.9	-1.5	2.3	-8.4	13.3	4.5	98.4	99.5			
Crushed stone	1421	2.4	140.9	146.0	146.2	144.5	118.5	143.3	.1	-1.1	-18.0	21.0	-1.8	147.0	147.3			
Sand and gravel	1441	2.0	96.3	97.1	102.1	107.1	81.8	102.0	5.1	4.9	-23.6	24.7	5.0	109.2	109.6			
Chemical & fertilizer mat.	1471	5.0	72.2	70.8	68.2	69.4	68.6	75.8	-3.7	1.8	-1.2	10.4	6.9	74.2	75.3			
FOODS	201	42.4	121.7	118.7	131.7	123.3	114.0	121.6	11.0	-6.4	-7.5	6.7	2.4	133.9	137.9			
Meat products	2011	6.9	113.4	111.1	123.2	115.2	105.3	116.6	11.0	-6.5	-8.6	10.8	5.0	131.5	134.6			
Dairy products	2021	5.3	124.7	126.1	137.7	121.2	116.8	130.0	9.2	-12.0	-3.6	11.3	3.1	142.2	142.6			
Canned and frozen foods	2031	5.7	136.9	128.7	152.2	142.8	127.0	137.5	18.3	-6.2	-11.1	8.3	6.9	150.6	165.7			
Grain mill products	2041	7.4	110.0	105.7	113.6	111.8	105.6	105.4	7.5	-1.6	-5.6	-0.2	-0.3	110.6	111.9			
Bakery products	2051	2.5	141.5	138.5	156.5	139.9	131.5	139.5	13.0	-10.6	-6.0	6.1	.7	155.3	155.3			
Sugar and confectionery	2061	3.3	176.9	160.1	174.8	204.4	174.3	163.4	9.2	17.0	-14.7	-6.3	2.1	176.7	179.4			
Fats and oils	2071	3.4	110.9	107.7	111.0	110.1	100.1	86.3	3.1	-0.8	-9.1	-11.8	-18.0	87.9	90.2			
Beverages	2081	4.8	123.9	125.9	139.2	120.0	112.7	126.6	10.7	-13.8	-6.1	12.3	.6	143.6	148.2			
Misc. food preparations	2091	3.1	116.2	114.3	126.7	115.9	107.5	116.8	10.8	-8.5	-7.2	8.7	2.2	128.3	131.4			
TOBACCO PRODUCTS	211	1.31	98.3	96.7	103.9	101.1	96.3	106.1	7.4	-2.7	-4.7	10.2	9.7	112.7	127.5			
TEXTILE MILL PRODUCTS	221	28.3	99.0	101.1	105.5	101.5	93.9	107.0	4.4	-3.8	-7.5	14.0	5.9	104.4	117.3			
Fabrics	2211-41	12.4	91.7	95.0	96.8	93.0	85.6	97.4	2.0	-4.0	-7.9	13.8	2.6	94.0	106.4			
Knit goods	2251	3.7	82.6	86.4	91.6	80.1	75.6	90.2	6.1	-12.6	-5.6	19.4	4.4	90.8	100.4			
Fabric finishing	2261	2.4	123.6	120.4	131.5	128.8	120.8	135.5	9.2	-2.1	-6.2	12.2	12.5	129.6	140.2			
Yarn and thread	2281	6.7	113.3	114.6	121.4	120.4	109.3	123.1	5.9	-0.9	-9.2	12.6	7.4	121.6	139.5			
Miscellaneous textiles	2291	2.1	99.1	100.3	105.0	100.4	98.1	110.8	4.7	-4.4	-2.3	12.9	10.4	107.5	115.9			
APPAREL PRODUCTS	231	6.6	120.9	117.9	137.6	119.0	118.1	133.8	16.7	-13.6	-0.7	13.3	13.5	145.6	162.9			
Men's outerwear	2311,21	2.1	115.7	115.1	132.0	113.3	118.8	143.6	14.6	-14.2	4.9	20.9	24.7	161.2	177.4			
Women's outerwear	2313,21	1.91	111.9	108.6	127.0	109.0	101.8	114.0	16.9	-14.2	-6.5	12.0	5.0	128.7	141.3			
LUMBER AND PRODUCTS	241	16.41	129.1	130.4	126.1	131.9	136.5	137.8	-3.3	4.6	3.5	.9	5.7	136.0	138.8			
Lumber	2421	6.91	107.31	108.2	110.7	112.7	112.6	112.6	-5.0	7.7	1.9	-0.2	4.1	109.6	112.5			
Millwork and plywood	2431	4.41	139.1	140.5	136.5	141.2	151.7	148.7	-2.8	3.4	7.4	-1.9	5.9	148.1	148.3			
FURNITURE AND FIXTURES	251	4.21	130.4	127.4	132.1	134.5	134.3	138.5	3.7	1.8	-0.1	3.2	8.8	136.5	150.1			
Home furniture	2511	2.81	120.3	118.2	119.8	124.0	123.1	126.6	1.3	3.5	-0.8	2.9	7.1	120.5	135.2			
PAPER AND PRODUCTS	261	71.91	120.6	121.0	122.3	121.1	121.2	125.0	1.0	-1.0	.1	3.1	3.2	125.0	126.1			
Wood pulp	2611	5.91	125.5	120.2	125.9	133.7	132.3	138.4	4.7	6.2	-1.0	4.6	4.6	15.1	122.3	129.0		
Paper	2621	34.41	129.1	131.5	131.2	126.7	130.5	134.4	-0.2	-3.5	3.1	2.9	2.2	133.5	133.2			
Paperboard	2631	22.11	101.4	103.7	99.0	102.1	101.4	101.3	-4.5	3.1	-0.7	-0.1	-2.2	101.3	103.0			
Converted paper	2641	5.01	110.6	109.7	114.7	120.0	108.5	116.2	4.6	-2.3	-3.2	7.2	6.0	111.8	119.7			
Paperboard containers	2651	3.41	117.8	114.6	124.3	122.5	121.6	126.8	8.5	-1.4	-0.8	4.3	10.6	133.0	133.7			
Building paper and board	2661	1.11	158.2	156.3	161.3	160.6	155.4	162.0	3.2	-0.4	-3.2	4.2	3.6	173.7	187.5			
PRINTING AND PUBLISHING	271	10.61	149.3	144.9	168.2	151.0	142.7	157.2	16.1	-10.2	-5.5	10.2	8.5	182.1	187.9			
Newspapers	2711	2.61	126.7	126.2	141.5	125.6	119.5	131.9	12.1	-11.2	-4.8	10.4	4.5	151.5	154.8			
Commercial Printing	2751	4.81	169.8	162.0	192.7	175.3	164.6	181.6	19.0	-9.0	-6.1	10.4	12.1	209.2	218.4			
CHEMICALS AND PRODUCTS	281	162.14	84.8	84.7	86.5	84.7	84.9	86.5	2.1	-2.1	.3	1.9	2.1	88.4	90.2			
Basic chemicals	2811	85.61	70.7	70.7	71.8	70.3	71.1	71.6	1.5	-2.1	1.1	.6	1.2	73.2	75.5			
Alkalies and chlorine	28121	13.31	97.21	103.6	98.2	90.41	96.3	99.9	-5.3	-7.9	6.5	3.8	-3.6	102.4	105.3			
Inorganic chemicals,nec	28191	58.41	51.01	50.7	50.9	50.6	49.7	49.8	-0.4	-0.6	-1.8	-2.1	-1.8	51.4	53.7			
Acid and fertilizer mat.	13.01	70.91	68.5	68.4	73.0	71.3	70.2	-0.1	6.6	-2.3	-1.5	2.5	7.6	71.0				
Nuclear mats., nondefense	44.61	42.61	43.3	43.6	41.3	40.7	41.3	.7	-5.3	-1.5	1.5	-4.6	43.5	46.4				
Synthetic materials	2821	19.31	118.9	114.7	124.9	120.9	120.3	123.7	8.9	-3.2	-0.5	2.8	7.8	127.0	126.9			
Plastics materials	28211	9.21	153.8	141.0	166.0	163.0	160.3	152.2	17.7	-1.8	-1.7	-5.1	7.9	153.3	151.3			
Drugs	2831	4.11	152.2	152.7	169.3	153.3	142.6	156.1	10.9	-9.4	-7.0	9.5	2.2	177.8	183.6			
Soaps and toiletries	2841	2.11	125.9	125.8	133.2	124.1	121.9	124.4	5.9	-6.9	-1.8	2.1	-1.1	142.1	140.9			
Industrial organic chem.	2861	35.81	98.3	99.4	98.4	97.9	100.5	99.5	-3.0	1.6	2.6	-1.0	.1	95.8	96.4			
Farm chemicals	2871	10.51	86.8	93.0	83.5	85.1	85.2	86.9	-10.2	2.0	.1	2.0	-0.5	79.1	79.1			

Table 9A—continued

ELECTRIC POWER USE BY INDUSTRIES

Seasonally adjusted indexes, 1977=100

Series	SIC code	1977 (bill. KWh)	Indexes						Percentage change from previous quarter				Indexes				
			1986			1987			1986		1987		1986		1987		
			Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	JUL	AUG
PETROLEUM PRODUCTS	29	34.7	117.5	116.2	118.1	120.7	117.5	121.0	1.6	2.2	-2.7	3.0	4.1	125.1	121.1		
RUBBER & PLASTICS PRODUCTS	30	23.1	132.5	129.7	133.9	135.8	136.6	142.0	3.2	1.4	+6	3.9	9.5	148.7	145.5		
Tires	301	5.4	74.8	72.5	76.5	73.7	73.0	75.7	5.5	-3.7	-1.0	3.8	4.4	78.8	74.6		
Rubber products, nec	306	2.2	96.6	93.2	97.9	98.8	99.3	101.4	5.1	-9	-5	2.0	8.8	105.5	105.3		
Plastics products, nec	307	14.2	175.8	173.2	176.8	182.0	183.0	191.0	2.1	2.9	-6	4.4	10.3	198.7	195.6		
LEATHER AND PRODUCTS	31	1.4	92.9	90.8	91.7	94.9	93.5	98.9	1.0	3.5	-1.5	5.7	9.0	104.2	101.4		
Shoes	314	.7	79.2	76.9	77.2	81.1	82.1	88.4	.3	5.1	-1.3	7.7	15.0	91.0	91.2		
CLAY, GLASS, AND STONE	32	31.4	105.6	105.8	104.6	105.3	106.1	106.9	-1.2	-7	-7	-7	1.0	106.1	105.8		
Flat glass	321	1.3	108.8	110.9	109.2	106.5	111.2	120.1	-1.5	-2.5	4.3	8.1	8.3	123.9	122.7		
Pressed and blown glass	322	6.8	104.3	106.0	102.4	104.2	103.2	107.8	-3.4	1.8	-1.0	4.4	1.7	105.8	102.9		
Cement	329	10.24	98.8	97.4	98.8	99.2	98.3	98.2	1.4	-5	-1.0	-0.11	-8.1	94.1	95.1		
Structural clay products	325	1.51	102.6	100.2	101.7	106.8	113.8	112.5	1.5	5.0	-6.5	-1.21	12.21	111.8	115.7		
Concrete products	327	3.61	111.9	111.2	111.4	111.5	112.0	103.5	.2	-1	-5	-7.6	-6.9	107.3	105.3		
PRIMARY METALS	33	171.3	75.2	76.2	72.3	73.7	73.5	77.3	-5.1	1.9	-0.2	5.1	1.4	80.3	81.7		
Basic steel and mill prod.	331	65.7	71.0	72.4	68.9	68.3	64.6	67.8	-4.9	-0.8	-5.5	5.0	-6.3	69.0	72.7		
Iron and steel foundries	332	12.01	70.1	69.3	67.8	71.6	72.4	71.5	-2.1	5.6	1.1	-1.3	3.2	72.8	73.0		
Primary nonferrous metals	333	78.1	85.9	86.3	87.7	85.4	86.1	103.6	1.7	-2.7	.8	20.1	20.1	105.5	100.4		
Aluminum	3334	70.3	72.4	72.8	65.9	72.0	77.7	76.1	-9.5	9.4	7.8	-2.0	4.4	81.8	85.4		
Nonferrous foundries	336	2.1	124.8	125.5	124.9	124.3	122.6	122.1	-0.5	-0.5	-1.4	-0.4	-2.7	125.1	127.6		
FABRICATED METAL PRODUCTS	34	26.4	116.2	115.6	115.5	118.9	118.1	120.6	-0.1	3.0	-0.6	2.1	4.3	125.5	123.6		
Metal cans	341	2.2	119.5	120.2	119.8	122.3	119.1	124.8	-0.3	2.1	-2.6	4.7	3.8	129.0	124.9		
Hardware	342	2.3	103.8	103.3	106.0	105.0	105.1	106.1	2.7	-1.0	0	1.0	2.7	108.9	107.2		
Structural metal products	344	.8	112.1	111.1	112.8	115.4	112.7	116.6	1.5	2.3	-2.3	3.4	4.9	122.9	120.6		
Pasteners	345	1.6	105.2	104.1	105.5	107.7	102.2	113.6	2.4	1.1	-5.1	11.2	9.1	119.2	113.4		
Metal stampings	346	6.21	111.2	110.7	106.0	113.8	110.2	106.6	-4.2	7.3	-3.1	-3.3	-3.7	106.2	104.3		
NONELECTRICAL MACHINERY	35	28.6	114.9	114.9	114.9	113.9	113.8	117.5	.0	-0.9	.0	3.2	2.3	122.9	121.5		
Engines and turbines	351	2.41	63.1	63.4	62.8	62.4	63.0	63.4	-0.9	-0.7	.9	.71	.01	65.6	64.1		
Para equipment	352	2.11	53.4	52.0	53.4	53.7	50.6	52.9	2.6	.7	-5.8	4.5	1.8	60.7	58.1		
Construction equipment	353	5.1	76.6	77.0	75.7	73.4	69.7	74.0	-1.8	-3.0	-5.1	6.2	-4.0	77.8	81.6		
Metalworking machinery	354	3.81	116.3	115.8	116.8	117.2	114.1	118.3	.9	-4	-2.6	3.6	2.1	127.0	121.6		
Special industry machinery	355	2.01	101.6	100.1	102.8	101.4	103.4	104.5	2.7	-1.4	1.9	1.1	3.3	112.0	110.2		
General industrial mach.	356	4.61	108.6	109.2	109.0	107.5	109.1	110.8	-0.1	-1.5	1.5	1.6	1.5	118.6	114.9		
Office and computing mach.	357	2.81	201.6	196.4	201.1	202.5	207.6	212.8	2.4	.7	2.5	2.5	8.3	213.4	205.7		
Service industry machinery	358	2.81	104.4	104.1	106.2	106.0	105.2	110.9	2.1	1.6	-2.6	5.5	6.6	114.9	118.7		
ELECTRICAL MACHINERY	36	25.0	127.8	127.8	128.1	129.8	128.4	131.6	-.2	1.3	-1.1	2.6	3.0	133.8	134.5		
Elect. distribution equip.	361	1.51	99.1	101.8	97.2	96.4	100.1	102.5	-4.5	-0.8	3.8	2.4	-7.1	97.9	101.3		
Elect. indust. apparatus	362	4.31	82.5	82.6	83.5	82.9	83.5	85.9	1.2	-0.7	.7	2.8	4.0	88.3	85.4		
Household appliances	363	2.71	93.2	93.8	94.5	94.3	94.5	94.0	.7	-0.2	-2.6	-2.1	-2.1	96.8	100.8		
Lighting and wiring prod.	364	2.31	100.4	101.0	100.3	98.8	102.8	107.6	-0.7	-1.5	4.1	4.6	6.5	110.0	110.8		
Radio and TV sets	365	.91	119.0	118.0	116.8	120.8	114.8	114.4	-0.9	3.4	-4.9	-0.4	-3.0	117.8	112.7		
Communication equipment	366	4.61	169.9	168.9	166.6	173.7	170.0	168.3	-1.4	4.3	-2.1	-1.0	-0.3	169.9	172.9		
Electronic components	367	6.01	179.5	179.1	181.2	181.9	179.7	183.6	1.2	.4	-1.2	2.1	2.5	184.3	188.5		
TRANSPORTATION EQUIPMENT	37	31.4	114.4	113.0	113.2	117.0	116.4	115.5	.3	3.3	-0.5	-0.8	2.2	117.1	113.5		
Motor vehicles and parts	371	19.3	101.1	100.1	99.2	103.4	102.1	98.9	-0.9	4.2	-1.2	-3.1	-1.2	99.4	95.4		
Aircraft and parts	372	6.51	149.8	149.0	152.7	152.6	155.8	160.0	2.5	-0.1	2.1	2.7	7.4	161.3	160.6		
Ships and boats	373	2.11	111.1	105.2	110.5	113.8	123.0	123.1	5.0	3.0	8.1	-1.1	17.0	136.1	132.7		
INSTRUMENTS	38	5.51	150.0	149.3	150.6	151.0	151.5	156.1	.9	-3	3	3.1	4.6	160.9	159.8		
Copiers and related equip.	386	1.41	134.2	134.3	136.2	130.5	131.0	133.9	1.4	-4.2	.5	2.2	-0.3	140.1	137.6		
MISCELLANEOUS MANUFACTURES	39	4.11	105.7	105.2	105.0	106.9	107.4	103.5	-0.2	1.8	.5	-3.7	-1.6	101.8	100.4		
SUPPLEMENTARY GROUPINGS																	
TOTAL, LESS NUCLEAR NONDEFENSE		740.7	104.6	104.0	103.8	105.2	105.1	106.9	-0.2	1.3	-0.1	1.8	2.8	110.3	110.1		
UTILITY SALES TO INDUSTRY		715.7	100.7	99.8	100.3	101.4	101.1	102.5	.5	1.1	-0.3	1.3	2.7	106.3	106.6		
INDUSTRIAL GENERATION		70.1	84.3	83.2	82.6	85.9	83.8	82.8	-0.8	4.0	-2.6	-1.2	-0.6	84.3	83.5		

Note—The electric power use data by industry, shown in billions of kilowatt hours for 1977, are from the Census of Manufactures of that year and from other sources. They are provided for information and are not used as weights to compile the electric power use indexes. All index aggregations, with their detailed components, are calculated from the kilowatt hour data collected in the Federal Reserve survey of electric power use by industry. The electric power total includes only those major divisions of industries—mining and manufacturing—for which data are collected in this Federal Reserve survey. The total does not include gas or electric utility kilowatt hour use. The supplementary grouping, "Total, less nondefense, nuclear" is shown separately because the nondefense nuclear materials series (part of SIC 2819) accounts for a disproportionately large part of total electric power use. Since the value added proportion for this industry is a considerably smaller part of total IP than its share of total electric power use, excluding this component from total power use facilitates comparisons with total IP.

Table 9B—continued

ELECTRIC POWER USE BY INDUSTRIES

Not seasonally adjusted, 1977 = 100

Series	SIC code	Indexes						Percentage change from previous quarter				Indexes			
		1977		1986		1986		1987		1986		1987		1986	
		(bill.)	AVG.	02	03	04	01	02	03	04	01	02	02	JUL	AUG
PETROLEUM PRODUCTS	29	34.7	117.5	114.9	123.3	120.3	114.1	119.5	7.3	-2.5	-5.1	4.7	4.0	129.9	127.0
RUBBER & PLASTICS PRODUCTS	30	23.1	132.5	130.9	135.9	135.3	133.9	143.3	3.8	-0.4	-1.0	7.0	9.5	144.1	149.3
Tires	301	5.4	74.8	72.8	79.3	73.5	70.2	76.0	8.8	-7.2	-4.6	8.3	4.4	76.3	79.0
Rubber products, nec	306	2.2	96.6	94.4	97.9	98.1	98.8	102.6	3.7	-3	-7	3.9	8.7	101.0	107.0
Plastics products, nec	307	14.2	175.8	174.8	179.0	181.0	180.0	192.7	2.4	1.1	-0.5	7.1	10.3	193.9	199.4
LEATHER AND PRODUCTS	31	1.4	92.9	91.0	93.7	92.6	93.3	99.2	3.1	-1.2	-7	6.3	9.0	96.7	109.3
Shoes	314	.7	79.2	76.1	80.4	78.1	82.4	87.7	5.7	-3.0	5.6	6.4	15.2	85.7	101.0
CLAY, GLASS, AND STONE	32	31.4	105.6	106.8	108.6	107.2	98.9	107.9	1.6	-1.2	-7.8	9.1	1.0	108.3	110.3
Flat glass	321	1.3	108.8	109.9	111.1	106.7	110.0	119.0	1.1	-3.9	3.1	8.2	8.3	124.6	125.4
Pressed and blown glass	322	6.8	104.3	106.1	105.1	104.7	99.8	107.8	-0.9	-0.4	-4.7	8.0	1.7	106.0	106.1
Cement	324	10.24	98.8	99.9	106.9	103.8	83.0	100.7	7.0	-2.9	-20.1	21.4	-8	101.5	104.0
Structural clay products	325	1.51	102.6	100.7	102.2	108.5	110.9	113.0	1.5	6.2	2.2	1.9	12.3	110.4	116.1
Concrete products	327	3.61	111.9	113.3	113.9	111.8	106.9	105.5	.5	-1.8	-4.4	-1.3	-6.9	108.7	109.1
PRIMARY METALS	33	171.3	75.2	78.0	70.8	72.3	74.7	79.1	-9.3	2.1	3.3	5.9	1.4	78.5	81.2
Basic steel and mill prod.	331	65.7	71.0	75.8	66.2	65.5	66.8	71.0	-12.6	-1.1	2.0	6.3	-6.3	66.8	70.7
Iron and steel foundries	332	12.01	70.11	71.9	66.7	70.41	72.0	74.2	-7.2	5.5	2.2	3.1	3.2	69.0	71.2
Primary nonferrous metals	333	78.11	85.9	85.8	87.2	87.8	84.5	103.2	1.6	-7	-3.8	22.1	20.3	102.5	100.7
Aluminum	3334	70.31	72.4	74.0	66.0	71.2	76.9	77.2	-10.9	8.0	8.0	-4	4.4	84.0	86.0
Nonferrous foundries	336	2.14	124.8	125.4	123.7	124.5	123.7	121.9	-1.3	-6	-0.6	-1.4	-2.7	118.1	126.9
FABRICATED METAL PRODUCTS	34	26.4	116.2	115.8	117.3	117.0	117.8	120.8	1.3	-0.2	-6	2.6	4.3	124.5	126.2
Metal cans	341	2.24	119.5	122.3	125.5	118.4	115.3	127.0	2.7	-5.7	-2.6	10.1	3.9	132.4	131.4
Hardware	342	2.31	103.8	102.9	107.8	104.3	104.5	105.7	4.7	-3.2	-2	1.2	2.7	106.9	109.7
Structural metal products	344	.8	112.1	109.3	113.3	114.7	114.7	114.6	3.7	1.2	0	-0.11	4.9	120.7	120.1
Pasteners	345	1.61	105.2	104.4	107.3	105.2	103.5	110.0	2.7	-1.9	-1.6	10.1	9.1	115.6	115.3
Metal stampings	346	6.21	111.2	112.0	104.6	111.6	112.6	107.8	-6.6	6.7	.9	-4.3	-3.7	101.2	103.2
NONELECTRICAL MACHINERY	35	28.6	114.9	114.0	119.8	112.6	111.1	116.6	5.1	-5.9	-1.4	5.0	2.3	125.1	127.9
Engines and turbines	351	2.4	63.1	62.3	65.4	61.5	62.2	62.4	4.9	-5.9	1.2	-2	-1	68.6	67.7
Farm equipment	352	2.1	53.4	52.1	52.9	52.1	52.7	53.0	1.5	-1.5	1.1	.7	1.8	59.1	58.6
Construction equipment	353	5.1	76.6	76.1	78.4	72.8	68.6	73.2	3.0	-7.2	-5.8	6.7	-3.9	79.7	83.9
Metalworking machinery	354	3.81	116.3	115.1	119.7	115.1	114.1	117.5	4.1	-3.9	-0.9	3.0	2.1	126.6	126.3
Special industry machinery	355	2.01	101.6	99.8	105.4	100.3	102.2	103.2	5.6	-4.8	1.9	1.0	3.5	110.0	115.2
General industrial mach.	356	4.61	108.6	109.7	112.1	105.8	107.1	111.4	2.2	-5.7	1.2	4.0	1.5	118.3	118.7
Office and computing mach.	357	2.84	201.6	191.9	215.9	201.2	198.1	208.0	12.5	-0.8	-1.6	5.0	8.4	224.8	226.2
Service industry machinery	358	2.81	104.4	104.7	111.8	105.0	101.9	111.6	6.8	-6.1	-3.0	9.5	6.6	122.0	122.9
ELECTRICAL MACHINERY	36	25.0	127.8	127.5	134.3	127.9	124.2	131.4	5.3	-4.7	-2.9	5.8	3.0	137.6	141.2
Elect. distribution equip.	361	1.51	99.1	101.0	100.5	96.2	97.6	101.7	-0.5	-4.2	1.4	4.3	.7	96.9	105.8
Elect. indust. apparatus	362	4.31	82.5	83.7	85.0	81.0	82.8	87.0	1.6	-4.7	2.1	5.2	4.0	89.5	87.1
Household appliances	363	2.71	93.2	95.5	94.8	92.5	94.3	95.8	-0.8	-2.4	1.9	1.6	.3	95.0	98.2
Lighting and wiring prod.	364	2.31	100.4	101.2	100.4	99.1	102.1	107.6	-0.8	-1.3	3.0	5.7	6.5	106.9	108.5
Radio and TV sets	365	.9	119.0	116.1	125.9	117.6	110.6	112.8	8.4	-6.6	-6.0	2.0	-2.9	121.1	125.0
Communication equipment	366	4.61	169.9	167.2	181.5	170.8	159.0	166.9	8.5	-5.9	-6.9	5.0	-0.2	183.3	169.2
Electronic components	367	6.01	179.5	178.5	192.2	179.9	171.0	183.2	7.7	-6.4	-4.9	7.1	2.6	193.9	200.0
TRANSPORTATION EQUIPMENT	37	31.4	114.4	114.0	117.8	114.5	113.2	116.5	3.3	-2.7	-1.2	2.9	2.2	119.2	118.8
Motor vehicles and parts	371	19.31	101.11	102.1	101.5	100.8	100.2	101.0	-0.6	-0.7	-0.6	.7	-1.2	98.6	99.3
Aircraft and parts	372	6.51	149.8	148.1	161.5	152.0	148.4	159.1	9.1	-5.9	-2.3	7.2	7.4	170.5	169.1
Ships and boats	373	2.11	111.1	104.3	109.1	112.0	127.5	121.4	4.6	2.6	13.9	-4.8	16.4	133.2	134.6
INSTRUMENTS	38	5.51	150.0	148.1	161.2	147.4	145.6	154.9	8.9	-8.5	-1.3	6.4	4.6	169.0	172.8
Copiers and related equip.	386	1.4	134.2	133.9	141.1	129.1	128.1	133.5	5.4	-8.5	-0.8	4.2	-0.3	143.0	145.4
MISCELLANEOUS MANUFACTURES	39	4.11	105.7	104.8	109.7	104.5	105.2	103.1	4.7	-4.7	.6	-2.0	-1.6	102.6	106.3
SUPPLEMENTARY GROUPINGS															
TOTAL, LESS NUCLEAR NONDEFENSE		740.7	104.6	105.0	105.8	104.0	103.2	107.9	.8	-1.7	-0.7	4.5	2.8	110.5	112.9
UTILITY SALES TO INDUSTRY		715.7	100.7	101.2	102.1	100.0	99.1	103.9	.9	-2.0	-0.9	4.8	2.7	106.5	109.2
INDUSTRIAL GENERATION		70.1	84.3	83.5	82.1	83.9	85.9	83.0	-1.7	2.3	2.4	-3.4	-0.6	85.2	84.4

Explanatory Note

Coverage. The index is a measure of industrial production expressed as a percentage of output in a reference period (currently 1977). The changes in the physical output of the nation's factories, mines, and electric and gas utilities are represented by 252 individual series in the index, covering 27 pertinent two-digit codes of the *Standard Industrial Classification* (SIC). For each individual series, index series relatives are calculated first and are then aggregated in the following two ways: (1) market groupings, such as consumer goods, equipment, intermediate products, and materials, from which the seasonally adjusted total index is derived (tables 1A and 1B), and (2) industry groupings, such as SIC two-digit industries, and major aggregates of these groupings, such as durable and nondurable manufacturing, mining, and utilities (tables 2A and 2B).

Market groupings. For purposes of analysis the individual industrial output series are grouped into materials, intermediate products, and final products; together, the latter two form the products category. Materials are industrial output requiring further processing within industry; intermediate products are expected to become inputs in nonindustrial sectors such as construction, farming, and services; and final products are assumed to enter final use as items of private consumption, government use, or capital formation. In the index, final products are subdivided into consumer goods and equipment.

Timing. A first estimate of output for a month is published about the 15th of the following month. This estimate may be revised in each of the next three months as new data become available. 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 1971, 1976, and 1985. Such revisions are derived mainly from the quinquennial *Census of Manufactures*, the quinquennial *Census of Mineral Industries*, and the *Annual Survey of Manufactures*, all prepared by the Bureau of the Census, and the *Minerals Yearbook* of the Bureau of Mines.

Source data. The indexes of industrial production are constructed from monthly data of two types: (1) directly measured output in physical units; and (2) estimates of output derived from data on input, expressed in physical units, adjusted by conversion factors that relate these inputs to physical output. The data on directly measured physical product (pounds, yards, barrels, and the like) are obtained from reports of the Bureau of the Census, the Bureau of Mines, other government agencies, and trade associations. When suitable monthly data on physical product are unavailable, estimates of physical output based on input data (kilowatt hours, production-worker hours) are used. The hours worked by production workers are collected in the monthly establishment survey of the Bureau of Labor Statistics, while data on the kilowatt hours used in industry are collected from electric utilities by the Federal Reserve Banks. The estimates of input conversion are based mainly on historical relationships that were derived from censuses and annual surveys and, when appropriate, on more recent cyclical, technological and statistical developments. Users of the index should bear in mind that, especially for the first and second estimates of a given month's indexes, the available source data are limited and are subject to change in the months following their initial receipt as well as in benchmark revisions.

Seasonal adjustment. Individual series are seasonally adjusted by the X-11 Method II of the Bureau of the Census with the intervention analysis technique applied to the series. The seasonal factors currently being used are based on data through 1985. The individual series and the major aggregate series are seasonally adjusted independently, and the factors for the aggregate series in the summary table and in tables 1 and 2 are reviewed monthly. The seasonally adjusted total index is aggregated from the seasonally adjusted market groupings of the index and may not precisely equal an aggrega-

tion of the seasonally adjusted industry groupings. A simple aggregation of the seasonally adjusted individual series within groupings may not precisely equal the seasonally adjusted groupings, primarily because aggregates are adjusted independently.

Weights. The total index and the various groupings of the component series are currently aggregated on the basis of 1977 value-added weights, which are shown in the first column of the index tables under the heading proportions. Value-added weights for 1972 are used for the 1972-77 period, while 1967 weights are used for the 1967-72 period. The weight years for earlier periods after World War II are 1963, 1958, 1954, and 1947. The indexes for the various periods are linked to provide the continuous final results expressed in relation to the 1977 comparison year taken as 100. The gross-value-weighted product series are expressed in terms of 1982 dollars.

Formula. The symbolic expression for the total index (I_t) is

$$I_t = \sum \left(\frac{q_{77}p_{77}}{\sum q_{77}p_{77}} \right) \cdot \left(\frac{q_t}{q_{77}} \right) \cdot 100 = \frac{\sum q_t p_{77}}{\sum q_{77} p_{77}} \cdot 100,$$

where q is quantity, p is Census value added per unit of output, t represents the t th period, and 77 denotes base-year values.

Reliability. The median of the revisions in total industrial production, without regard to sign, between the first and fourth estimates is 0.3 percent: that is, in about half of the cases the absolute value of the revision from the first to the fourth estimate was less than 0.3 percent. (This calculation used data for the period from January 1972 to January 1985.) Over the same period, positive changes in the first estimate were confirmed in the fourth estimate (available three months later) about 94 percent of the time. Negative changes in the first estimate were confirmed in the fourth estimate about 85 percent of the time. Thus the likelihood is high that the first estimate for a month will indicate the direction of change in the total index in a reliable manner. However, the magnitude of change as first estimated typically is revised during the next three months; these revisions are based on revised and more complete data sources. The estimates for the higher aggregates generally are considered more reliable than the estimates for their individual components. Revisions to the components often offset each other and thereby reduce the size of revisions to the aggregates.

Rounding. Changes shown for index components may not aggregate to changes for totals because of independent rounding. Percentage changes are calculated from indexes expressed in more digits following the decimal point than shown in their rounded form in the present release. Therefore, percentage changes calculated from the rounded indexes may not entirely coincide with the percentage changes calculated from unrounded indexes.

Literature. *Industrial Production—1986 Edition* contains a more detailed description of the index and the procedures used in compiling it, plus a history of its development, a glossary of terms, and a bibliography. The new edition was published in December 1986. To obtain copies of *Industrial Production—1986 Edition*, write to the Publication Services, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. The price of this volume of about 440 pages is \$9.00 per copy. Selected data on industrial production are also published monthly in the Financial and Business Statistics section of the *Federal Reserve Bulletin*.

Release date. The industrial production index is released in mid-month. For the specific date, phone 202-452-3206 about the 11th of the month.