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**Productivity Measures  
for Selected Industries, 1958-84**

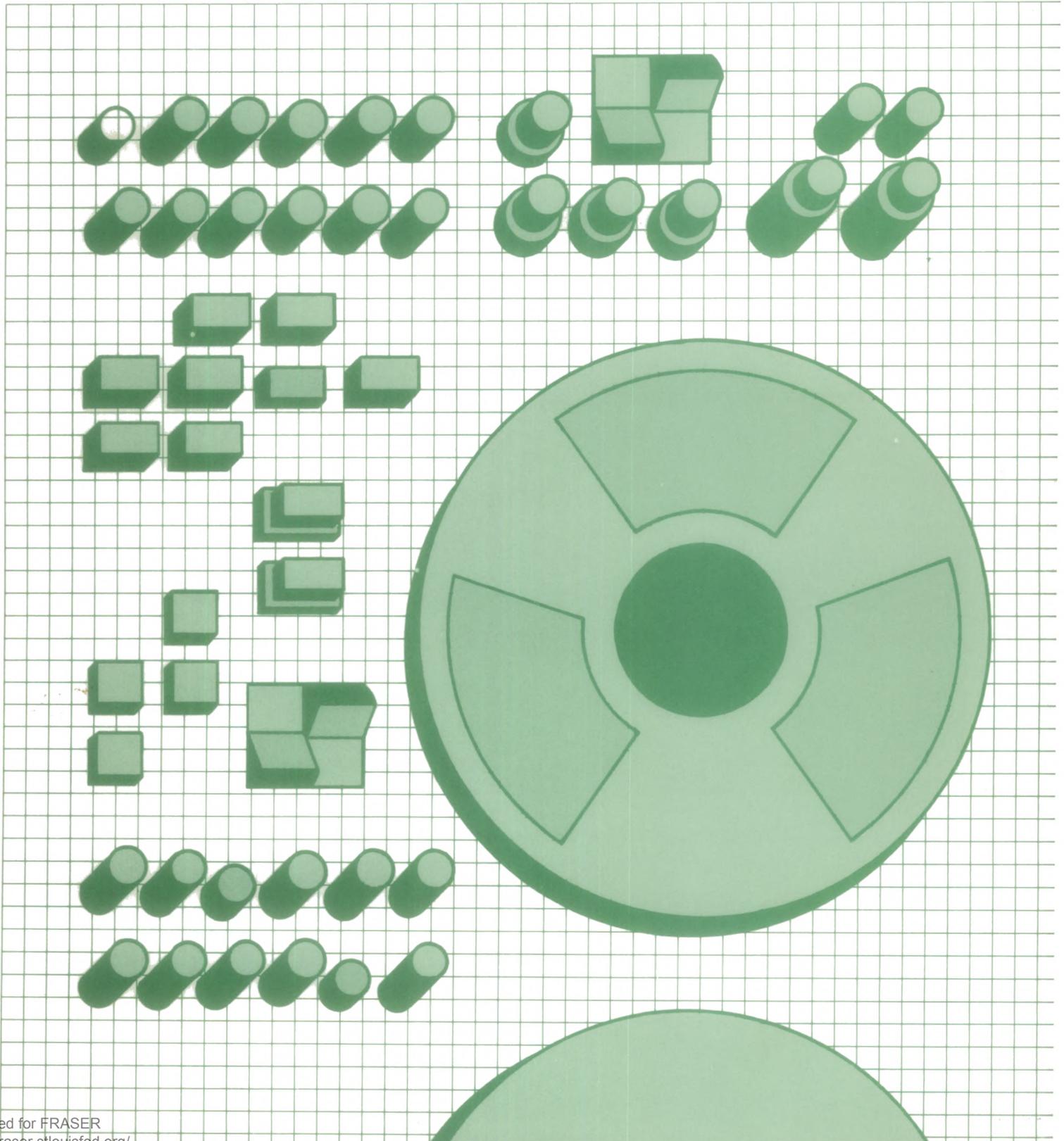


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Bulletin 2256



# Productivity Measures for Selected Industries, 1958-84

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U.S. Department of Labor  
Raymond J. Donovan, Secretary

Bureau of Labor Statistics  
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March 1986

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# Preface

This bulletin updates through 1984 indexes of output per employee hour and output per employee for the industries currently included in the U.S. Government's productivity measurement program. For most industries, indexes are presented in this bulletin beginning with 1958. For many of these industries, however, data can be obtained beginning with 1947 upon request.

Indexes are published for the first time for the following industries: Metal doors, sash, and trim; metal stampings; oilfield machinery; and barber and beauty shops. An article on the oilfield machinery industry appears in the December 1985 issue of the *Monthly Labor Review*. Articles on the other industries appear in the March 1986 issue of the *Review*.

Each index represents the change in output per employee hour for the designated industry or combination of industries. These industries are not necessarily a representative cross-section of U.S. industry. The Bureau of Labor Statistics does publish indexes of output per hour of all persons and related measures for the private business sector and the nonfarm business, manufacturing, and nonfinancial corporate sectors. These productivity series show the relationship between gross product originating in these sectors and employment and hours. (The data are presented in the Bureau of Labor Statistics news releases *Productivity and Costs* (quarterly), in the *Monthly Labor Review*, and in *Employment and Earnings*.)

The productivity measures in this bulletin describe the relationship between output in real terms and the labor

time involved in its production. They show the changes from year to year in the amount of labor time required to produce a unit of output. Although these measures relate output to employment and employee hours, they do not measure the specific contributions of labor, capital, or any other factor of production. Rather, they reflect the joint effect of a number of interrelated influences, such as changes in technology; capital investment per worker; level of output; utilization of capacity; layout and flow of material; managerial skill; and skills and effort of the work force.

Further information concerning the indexes published in this bulletin can be obtained by writing the Division of Industry Productivity and Technology Studies, Bureau of Labor Statistics, Washington, D.C. 20212. (Telephone: 202-523-9244.)

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# Highlights of Trends in Output Per Employee Hour

## Current developments

From 1983 to 1984, output per employee hour increased in about three-quarters of the industries for which data are presented in this report. From 1982 to 1983, more than 85 percent of the industries registered gains in productivity. This pattern was consistent with the performance of the nonfarm business sector as a whole, where productivity increased 3.4 percent in 1983 while growing by only 1.6 percent in 1984.

Among large manufacturing industries, the steel industry posted a productivity gain of 13.0 percent in 1984. This large gain came on top of the industry's record productivity advance of 28.5 percent in 1983. Steel output grew 13.1 percent in 1984, due in part to continued demand from such key markets as motor vehicles, appliances, and construction. Employee hours grew only slightly and employment continued to decline as the industry continued to restructure and to close inefficient capacity.

The motor vehicles industry also had an above-average productivity gain, 4.6 percent, following the preceding year's 13.1 percent gain. Output was up 21.1 percent in 1984 as demand for all types of motor vehicles expanded; hours increased 15.8 percent.

Among the other large manufacturing industries, petroleum refining experienced a substantial gain in productivity—10.9 percent. Continued economic recovery coupled with declining product prices caused a boost in demand and, consequently, in industry output, which was up 4.6 percent. The continued loss of many small refiners in 1984 led to greater utilization of the remaining larger, more efficient plants. Other large manufacturing industries with productivity increases in 1984 were: Bottled and canned soft drinks (8.7 percent); farm and garden machinery (3.9 percent); paper, paperboard, and pulp mills (3.3 percent); corrugated and solid fiber boxes (2.5 percent); and sawmills and planing mills (0.5 percent). All of these industries also had gains in output.

However, a few large manufacturing industries experienced declines in productivity in 1984. Output per hour in pharmaceutical preparations, for example, fell 5.2 percent as the output of the industry slid 2.0 percent. Other large manufacturing industries which suffered declines in productivity were: Footwear (-2.0 percent); red meat products (-9.9 percent); and motors and generators (-0.1 percent).

All of the mining industries had productivity growth in 1984. Coal mining, the largest mining industry, posted a gain of 10.1 percent in 1984, on top of a 14.2 percent gain in 1983. Coal output was up 14.4 percent in 1984 in anticipation of a strike which did not occur, while hours grew 3.9 percent. Productivity in iron mining (usable ore) increased 25.3 percent, following a 41.1 percent gain the previous year. Output was up 36.9 percent in 1984 as demand increased from the steel industry, while hours grew 9.3 percent. Copper mining (recoverable metal) had a productivity gain of 17.6 percent, on top of a 12.7 percent increase in 1983. Output was up only 5.1 percent in 1984, due to low copper prices, while hours dropped 10.6 percent, as only the most efficient mines were operating. The nonmetallic minerals industry had a productivity gain of 1.9 percent. Output grew 8.7 percent in this industry, due to the expansion of construction activity, while hours were up 6.6 percent.

Most transportation and utility industries also recorded productivity gains. In railroads (revenue traffic), productivity was up 7.5 percent following the 22.5 percent gain registered in the previous year. Railroad output grew 9.2 percent in 1984 as shipments of coal, motor vehicles, construction materials, and chemicals were up significantly, while hours increased 1.5 percent. Productivity grew 3.3 percent in air transportation, compared with a 9.9 percent gain in the previous year. Air traffic grew significantly in 1984, resulting in a 7.9 percent gain in output. In petroleum pipelines, productivity was up a substantial 11.1 percent, as output grew and hours continued to fall. Electric utility productivity was up 3.5 percent, as output grew 5.3 percent and hours grew 1.8 percent. The gas utilities industry registered its first productivity gain (3.2 percent) since 1979, with output growing 2.5 percent and hours dropping 0.7 percent.

Productivity changes were mixed among trade and service industries. The hotel and motel industry registered the highest gain, at 7.7 percent. Output was up 15.2 percent in this industry due to the continuation of the business recovery as well as a strong summer vacation period, while employee hours grew 7.0 percent. Apparel and accessory stores also registered a good productivity increase, up 6.0 percent. Output increased 9.6 percent in 1984 as favorable economic and credit conditions aided clothing sales, while hours grew 3.4 percent. In laundries and cleaning services, productivity grew 3.3 percent,

based on a gain in output of 8.2 percent and an increase in hours of 4.8 percent. Productivity gains were recorded in drugstores (1.8 percent) and gasoline stations (0.4 percent). On the other hand, there were productivity declines in several of the service industries. The beauty and barber shops industry had a substantial 8.4 percent decline. Productivity also fell in eating and drinking places, by 2.1 percent. While output was up 3.8 percent in 1984, hours increased even more, resulting in the productivity falloff. Productivity dropped 1.0 percent in retail food stores. New car dealers had a small productivity decline of 0.1 percent. Output was up significantly at 10.8 percent; however, hours grew slightly more, resulting in the productivity decline.

### Long-term trends

For nearly all of the industries in this report, productivity increased over the long term (1947-84 for many of the industries). Among the industries with the highest growth in productivity were wet corn milling and air transportation, with average annual increases in output per hour of 7.5 percent and 6.3 percent, respectively, over the long term. In the wet corn milling industry, growth was modest until 1972, when output and productivity expanded rapidly due to the increased market penetration of high fructose and glucose corn syrup and resulting modernization of the industry. The long-term productivity growth in air transportation reflects strong demand, especially in periods of economic expansion, accompanied by technological innovations. The introduction of modern jetliners in the early 1960's greatly increased output with only moderate employment growth.

On the other hand, several industries did fail to exhibit productivity growth over longer periods. Among the most prominent of these was the metal stampings, n.e.c. industry, which posted an average annual falloff in productivity of 0.7 percent during 1972-83. Although technological advances such as numerically controlled presses have been incorporated, the industry's relatively low rate of output advance has held back productivity growth. Also among the few industries in which productivity declined over the long term was the metal-forming machine tools industry, which experienced an average annual decline in output per hour of 0.4 percent in 1958-84. This industry typically manufactures parts in small batches which require relatively large amounts of labor. It has had few opportunities to install highly efficient machinery. For farm machinery, another industry that sustained a decline, productivity fell at a rate of 0.2 percent per year. Output in this industry was particularly hard hit during the early 1980's by high interest rates, high fuel prices, and low farm commodity prices, which hindered farmers' ability to purchase equipment. Productivity fell off drastically in bus carriers, the one other industry which recorded a long-term decline (-0.1 percent per year). Modest advances in technology and

more "package" and charter services were offset by declining passenger demand and reduced bus speeds, thereby reducing output growth and, in turn, productivity.

Although the rates of productivity change varied widely among the industries during the 1979-84 period (see chart 1 and table 1), nearly two-thirds of the industries recorded lower average annual gains in the more recent period than during 1947-79. This experience matches the productivity record of the nonfarm business economy as a whole. From 1947 to 1979, productivity in this sector grew 2.2 percent per year, while from 1979 to 1984 it grew by 1.0 percent per year. The slower growth in productivity among the industries included in this report was associated with less rapid output growth in the later period.

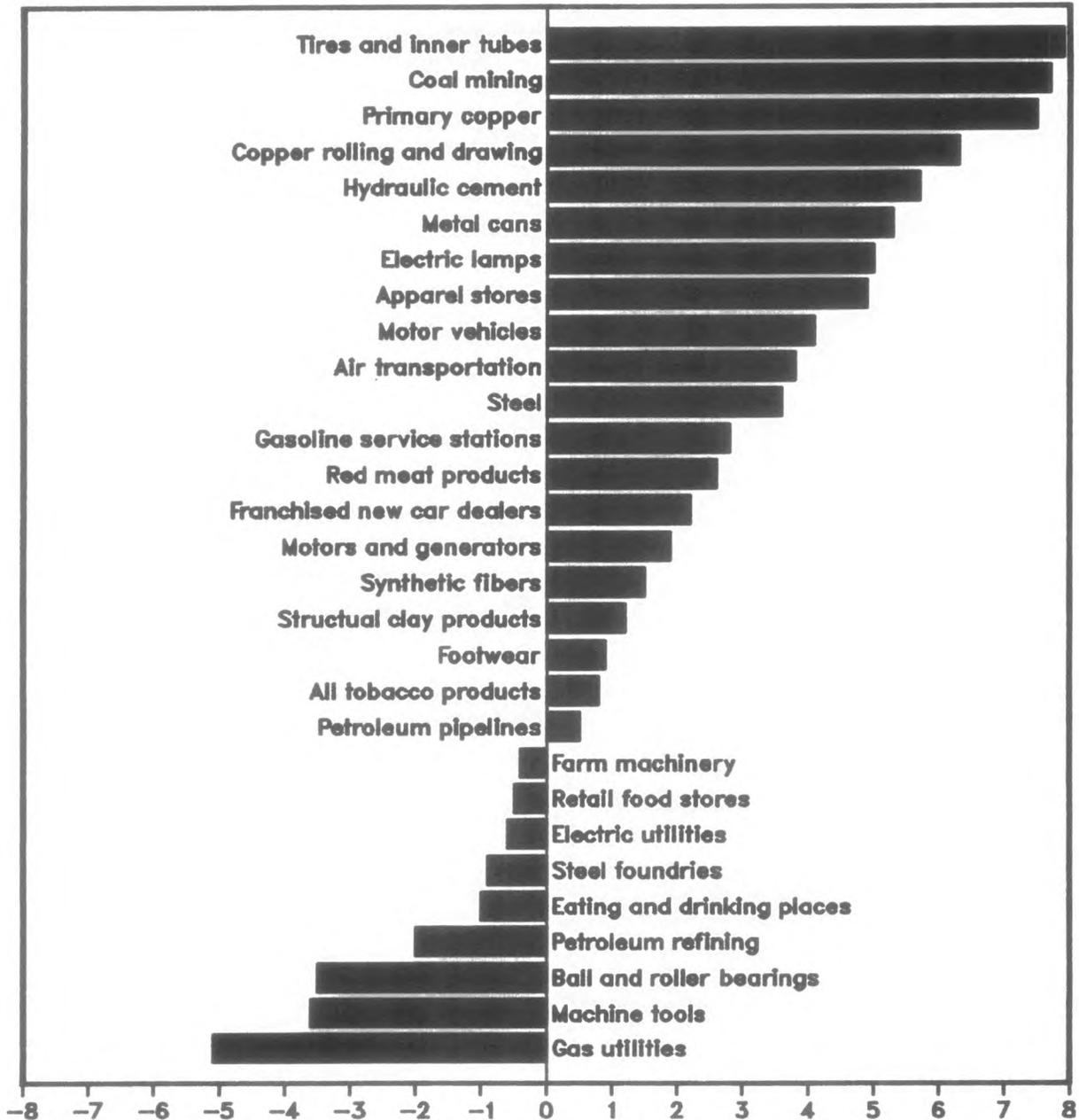
However, there were a few notable exceptions to the falloff in productivity during the 1979-84 period. The radio and television receiving sets industry substantially improved its rate of productivity growth in the last few years—14.5 percent a year during the later period as opposed to 4.8 percent annually from 1958 to 1979. Output in this industry increased at a rate of 2.9 percent in the later period while employee hours declined in every year, averaging -10.1 percent. Productivity growth in this highly competitive industry was aided by the widespread use of automated production techniques and equipment and the closing of less efficient plants. Likewise, the copper mining industry experienced markedly improved productivity performance during the 1979-84 period—10.5 percent per year versus 1.7 percent average annual growth during the earlier period. In this industry, productivity was stimulated by the introduction of more advanced mining techniques and the closing of less efficient mines in an effort to compete with low-priced foreign ores.

Among the industries that experienced productivity declines in the post-1979 period, gas utilities dropped the most—from a gain of 3.1 percent annually during the earlier period to a decline of 5.1 percent per year for the 1979-84 period. The output of this industry fell at a rate of 3.8 percent during the later period due to a falloff in average use per customer. At the same time, the number of customers increased, necessitating a growth in employee hours. Despite the petroleum refining industry's good showing in 1984, this industry also exhibited a falloff in productivity during the 1979-84 period. The industry has had to adjust to changes brought about by the rapid escalation of crude oil prices during the 1970's, a shift in consumer demand toward "lighter" refined products, and the need to change to heavier, higher sulfur crude oil inputs.

### New measures

*Metal doors, sash, and trim (SIC 3442).* From 1967 to 1983, output per hour in the metal doors, sash, and trim

**Chart 1. Growth in output per employee hour in selected industries, 1979-84**  
 (Average annual percent change)



industry increased at an average annual rate of 0.9 percent. In comparison, the rate of productivity growth for all manufacturing industries during this period was 2.2 percent. The slow productivity rise reflected a relatively low output growth of 1.5 percent per year and an increase in employee hours of 0.6 percent per year.

Establishments in this industry manufacture metal and metal covered doors and sash, window and door frames, screens, molding, and trim. The industry's output depends closely on the building construction markets. Output is used in new residential housing, including additions and alterations, new nonresidential buildings, and maintenance and repair of existing buildings.

The productivity growth experienced in this industry has been aided by gradual improvements in equipment design and the increased application of easier to use aluminum materials. Although not widely diffused in the industry, some plants have introduced into their operations computer-aided design and computer-aided manufacturing (CAD/CAM) systems. The CAD/CAM systems have improved design analysis and cut unit labor requirements for skilled drafters through their greater sophistication, accuracy, and operational speed. Another recent equipment improvement has been the introduction of programmable controllers into new machines that perform complex operations. Compared with previously

used equipment, these machines reduce setup time and thus lower unit labor requirements.

*Metal stampings (SIC 3465, 3466, 3469).* Output per hour in the metal stampings industries rose at an average annual rate of 1 percent over the 1963-83 period. Output rose at about the same rate while employee hours remained, on balance, unchanged over the period. In comparison, the rate of productivity growth for all manufacturing industries was 2.2 percent per year. Declining productivity in the nonautomotive sector of the industry to a large extent accounted for the lackluster performance in output per employee hour.

The metal stampings industries include establishments making automotive metal stampings products (SIC 3465) such as body panels, hubcaps, trim, etc., and establishments making nonautomotive products (SIC 3469) such as household appliance parts and cooking and kitchen utensils. Included as part of the total metal stampings industry, the crowns and closures industry (SIC 3466) manufactures items such as metal bottle caps and jar lids. Demand for most of the industry's products comes indirectly from consumers by way of the manufacturers of durable goods.

The modest growth in productivity that has occurred in these industries has come about principally from improvements in metal stamping presses. The advent of numerical controls, first applied to metal-forming in the punching of flat metal in the 1950's, stimulated new press designs. It probably also contributed to a shift of some metalworking from metal-cutting to metal-forming machine tools, inasmuch as it helped by improving the precision of the latter.

Numerical controls, in addition to enhancing the precision of production presses, have also made higher production speeds possible. For many configurations of punches, setup time has been virtually eliminated, as numerical controls can automatically change such configurations. The introduction of computerized numerical controls in the early 1970's, where installed, has done away with the manual coordinate calculations previously required by conventional numerical controls.

*Oilfield machinery (SIC 3533).* Output per employee hour in the oilfield machinery industry grew at an average annual rate of 1.2 percent between 1967 and 1983 compared with a 2.2 percent rate for the entire manufacturing sector. During this period, output grew at an average annual rate of 8.1 percent while average annual growth in employee hours was 6.8 percent.

The oilfield machinery industry produces equipment for the drilling of oil and gas wells and equipment to control the flow of oil and gas from producing wells. This

includes surface and subsurface drilling equipment for both rotary and cable tool type drilling operations. Waterwell and blasthole drilling equipment is made in this industry, as is portable drilling equipment. Equipment for offshore oil drilling is produced and sold to the shipbuilding industry, which manufactures the offshore platforms. Subsea wellhead equipment is also produced.

This industry has been strongly influenced by worldwide changes in the price of oil, with resulting shifts in the production of crude oil and natural gas. Increases in oil prices and expectations of future increases have led to spurts in the output of oilfield machinery followed by periods of slower growth or actual output declines as oil prices stabilized or dropped.

Long-term gains in productivity have reflected some innovations in machining techniques such as numerical controls and improvements in handling and storing materials. However, this industry is rather labor intensive since it makes a variety of products with highly specific requirements for individual customers. Large increases in output have generally been offset by similarly large increases in employment, leading to overall modest productivity gains. Sharp gains in capital expenditures spurred by rapidly increasing oil prices were more in the nature of duplicating facilities to meet growth in demand rather than expenditures for more advanced types of technology.

*Beauty and barber shops (SIC 723, 724).* Output per hour of persons employed in the beauty and barber shop industries rose at an average annual rate of 0.8 percent between 1972 and 1984. Other industries with a high personal service component, and for which the Bureau of Labor Statistics (BLS) has computed productivity measures, show roughly comparable trends. The output of beauty and barber shops together remained virtually unchanged between 1972 and 1984, while hours dipped 0.6 percent a year. The comparative weakness in output and hours was linked with sharp contractions in barber shops. Beauty shops recorded some gains in output and a small long-term rise in hours.

Tools of the trade in beauty and barber shops are frequently powered by batteries, enabling greater freedom of movement. They are generally not designed so much to improve the worker's efficiency as to adapt to changes in hairstyling. Breakthroughs of the significance comparable to permanent wave machines or the electric razor did not occur during the period under review, but available data pertaining to capital expenditures and spending on hand-held and other appliances indicate a fair degree of updating of worn or obsolescent equipment and specialized furniture.

**Table 1. Selected industries: Employment, 1984, and average annual rates of change in output per employee hour, 1979-84**

SIC code	Industry	Employment, 1984 (thousands)			Output per employee hour: Average annual rate of change, 1979-84 (percent) <sup>1</sup>		
		All employees	Production workers	Non-production workers	All employees	Production workers	Non-production workers <sup>2</sup>
<b>Mining</b>							
1011	Iron mining, crude ore	11	8	3	5.4	8.8	-4.3
1011	Iron mining, usable ore	11	8	3	5.3	8.7	-4.4
1021	Copper mining, crude ore	16	11	5	6.2	8.7	-0.5
1021	Copper mining, recoverable metal	16	11	5	10.5	13.1	3.5
111,121	Coal mining	197	160	37	7.7	8.4	4.6
121	Bituminous coal and lignite mining	195	157	38	7.9	8.6	4.7
14	Nonmetallic minerals, except fuels	109	83	26	-0.4	0.4	-3.1
142	Crushed and broken stone	35	28	7	0.1	1.4	-5.5
<b>Manufacturing</b>							
2011,13	Red meat products	220	175	45	2.6	2.6	2.9
2011	Meat packing plants	147	121	26	3.7	3.5	4.4
2013	Sausages and other prepared meats	73	54	19	0.3	0.2	0.7
2026	Fluid milk	88	(3)	(3)	4.5 <sup>7</sup>	(3)	(3)
203	Preserved fruits and vegetables	236	195	41	4.2 <sup>9</sup>	4.3 <sup>4</sup>	4.0 <sup>3</sup>
2033	Canned fruits and vegetables	87	72	15	4.2 <sup>6</sup>	4.3 <sup>0</sup>	4.0 <sup>8</sup>
204	Grain mill products	130	88	42	4.5 <sup>9</sup>	4.6 <sup>5</sup>	4.2 <sup>2</sup>
2041,45	Flour (including flour mixes) and other grains	32	20	12	4.6 <sup>0</sup>	4.6 <sup>2</sup>	4.5 <sup>3</sup>
2041	Flour and other grain mill products	25	15	10	3.7	3.5	4.4
2043	Cereal breakfast foods	18	14	4	4.2 <sup>9</sup>	4.4 <sup>6</sup>	4 <sup>4</sup> -6.3
2044	Rice milling	6	4	2	4.0 <sup>4</sup>	4 <sup>4</sup> -0.4	4.3 <sup>0</sup>
2046	Wet corn milling	10	8	2	4.9 <sup>7</sup>	4.8 <sup>6</sup>	4 <sup>4</sup> 12.5
2047,48	Prepared feeds for animals and fowls	64	42	22	4.6 <sup>5</sup>	4.7 <sup>5</sup>	4.5 <sup>4</sup>
205	Bakery products	211	126	85	4.3 <sup>3</sup>	4.7 <sup>4</sup>	4.1 <sup>4</sup>
2061,62,63	Sugar	25	20	5	-0.1	-0.5	-2.0
2061,62	Raw and refined cane sugar	15	11	4	-0.6	-1.2	1.6
2063	Beet sugar	10	8	2	0.9	0.3	4.5
2065	Candy and confectionery products	56	45	11	(3)	(3)	(3)
2082	Malt beverages	41	25	16	5.3	5.7	4.2
2086	Bottled and canned soft drinks	129	42	87	5.3	7.0	4.5
2111,21,31	All tobacco products	55	42	13	0.8	2.4	-5.6
2111,31	Cigarettes, chewing and smoking tobacco	49	37	12	0.6	2.1	-5.5
2121	Cigars	6	5	1	2.4	3.3	-5.3
2251,52	Hosiery	68	61	7	2.6	2.1	6.9
2281	Nonwool yarn mills	73	65	8	6.4	6.6	4.5
2421	Sawmills and planing mills, general	167	149	18	5.4	5.4	5.4
2431	Millwork	82	67	15	4 <sup>4</sup> -2.1	4 <sup>4</sup> -1.8	4 <sup>4</sup> -3.4
2434	Wood kitchen cabinets	57	46	11	4.0 <sup>1</sup>	4.1 <sup>7</sup>	4 <sup>4</sup> -6.6
2435,36	Veneer and plywood	61	56	5	5.1	4.5	9.6
2435	Hardwood veneer and plywood	24	22	2	0.9	1.1	-0.8
2436	Softwood veneer and plywood	37	34	3	7.2	6.2	16.2
251	Household furniture	295	247	48	2.7	2.5	3.9
2511,17	Wood household furniture	138	120	18	4.0 <sup>6</sup>	4.0 <sup>6</sup>	(4, 5)
2512	Upholstered household furniture	92	76	16	4.2 <sup>2</sup>	4.1 <sup>4</sup>	4.9 <sup>4</sup>
2514	Metal household furniture	28	23	5	4.5 <sup>2</sup>	4.5 <sup>5</sup>	4.3 <sup>9</sup>
2515	Mattresses and bedsprings	29	23	6	4.0 <sup>3</sup>	4.0 <sup>4</sup>	4.0 <sup>1</sup>
252	Office furniture	64	49	15	4.0 <sup>2</sup>	4.1 <sup>2</sup>	4 <sup>4</sup> -3.0
2521	Wood office furniture	30	24	6	4 <sup>4</sup> -5.3	4 <sup>4</sup> -6.2	4 <sup>4</sup> -1.7
2522	Metal office furniture	34	25	9	4.3 <sup>1</sup>	4.5 <sup>2</sup>	4 <sup>4</sup> -3.4
2611,21,31,61	Paper, paperboard, and pulp mills	258	195	63	3.7	3.8	3.1
2643	Paper and plastic bags	50	39	11	4.0 <sup>9</sup>	4.1 <sup>0</sup>	4.0 <sup>7</sup>
2651	Folding paperboard boxes	42	33	9	(5)	0.2	-0.5
2653	Corrugated and solid fiber boxes	101	76	25	1.6	1.6	1.5
2823,24	Synthetic fibers	88	64	24	1.5	1.9	0.4
2834	Pharmaceutical preparations	166	77	89	1.2	2.0	(3)
2841	Soaps and detergents	41	27	14	4 <sup>4</sup> -2.1	4 <sup>4</sup> -2.4	4 <sup>4</sup> -1.6
2844	Cosmetics and other toiletries	67	45	22	4 <sup>4</sup> -1.7	4 <sup>4</sup> -3.8	4.2 <sup>0</sup>
2851	Paints and allied products	62	30	32	4.2	5.3	2.9
2911	Petroleum refining	151	84	67	-2.0	-1.1	-3.9
3011	Tires and inner tubes	94	66	28	7.9	7.7	8.4
3079	Miscellaneous plastics products	540	429	111	4.3 <sup>9</sup>	4.4 <sup>1</sup>	4.3 <sup>2</sup>
314	Footwear	116	99	17	0.9	0.9	0.8
3221	Glass containers	52	46	6	1.9	1.9	1.6
3241	Hydraulic cement	25	19	6	5.7	7.0	1.0
325	Structural clay products	38	29	9	1.2	1.4	0.3
3251,53,59	Clay construction products	30	23	7	1.6	1.9	0.3
3251	Brick and structural clay tile	18	14	4	-0.4	0.1	-2.3
3253	Ceramic wall and floor tile	10	8	2	4.3 <sup>1</sup>	4.3 <sup>1</sup>	4.2 <sup>7</sup>
3255	Clay refractories	8	6	2	0.5	0.5	0.3
3271,72	Concrete products	85	62	23	4.1 <sup>1</sup>	4.1 <sup>5</sup>	(4, 5)
3273	Ready-mixed concrete	95	76	19	4 <sup>4</sup> -1.1	(3)	(3)
331	Steel	334	256	78	3.6	4.6	0.3
3321	Gray iron foundries	95	78	17	2.4	2.3	2.4
3324,25	Steel foundries	43	32	11	-0.9	0.6	-6.3
3331,32,33	Primary copper, lead, and zinc	14	10	4	8.4	9.2	5.2
3331	Primary copper	9	6	3	7.3	8.0	4.3

**Table 1. Selected industries: Employment, 1984, and average annual rates of change in output per employee hour, 1979-84—Continued**

SIC code	Industry	Employment, 1984 (thousands)			Output per employee hour: Average annual rate of change, 1979-84 (percent) <sup>1</sup>		
		All employees	Production workers	Non-production workers	All employees	Production workers	Non-production workers <sup>2</sup>
<b>Manufacturing—Continued</b>							
3334	Primary aluminum	28	21	7	4.0	4.5	2.0
3351	Copper rolling and drawing	27	20	7	6.3	7.0	3.9
3353,54,55	Aluminum rolling and drawing	60	46	14	2.3	2.8	0.8
3411	Metal cans	58	49	9	5.3	5.3	4.8
3423	Hand and edge tools	41	30	11	4 - 3.3	4 - 1.8	4 - 8.0
3441	Fabricated structural metal	80	56	24	4 - 0.1	4 0.9	4 - 3.1
3442	Metal doors, sash, and trim	84	62	22	4 1.9	4 2.5	4 0.1
3465,66,69	Metal stampings	210	170	40	4 0.1	4 1.0	4 - 3.5
3465	Automotive stampings	99	85	14	4 3.9	4 3.9	4 4.0
3469	Metal stampings, n.e.c.	106	81	25	4 - 3.6	4 - 1.9	4 - 9.7
3494	Valves and pipe fittings	87	59	28	4 - 0.3	4 1.7	4 - 4.5
3498	Fabricated pipe and fittings	23	17	6	4 - 0.2	4 1.4	4 - 5.2
3519	Internal combustion engines, n.e.c.	79	53	26	4 - 3.3	4 0.3	4 - 11.0
352	Farm and garden machinery	110	74	36	-0.1	1.9	-4.9
3523	Farm machinery and equipment	88	57	31	-0.4	2.3	-6.4
3524	Lawn and garden equipment	23	17	6	0.5	-0.1	2.2
3531	Construction machinery and equipment	92	56	36	(5)	1.1	-2.0
3533	Oilfield machinery and equipment	65	42	23	4 - 1.5	4 1.2	4 - 6.8
3541,42	Machine tools	75	46	29	-3.6	-0.9	-8.4
3541	Metal-cutting machine tools	56	34	22	-4.2	-1.1	-9.6
3542	Metal-forming machine tools	19	12	7	-1.7	-0.3	-4.6
3545	Machine tool accessories	55	38	17	4 - 4.3	4 - 2.0	4 - 9.4
3561,63	Pumps and compressors	78	44	34	4 - 0.7	4 3.2	4 - 6.2
3561	Pumps and pumping equipment	52	30	22	4 - 0.8	4 2.8	4 - 6.3
3562	Ball and roller bearings	48	36	12	-3.5	-2.7	-6.5
3563	Air and gas compressors	26	14	12	4 - 0.3	4 3.9	4 - 6.0
3585	Refrigeration and heating equipment	120	86	34	4 0.6	4 1.3	4 - 1.0
3612	Transformers	54	38	16	-1.9	-2.1	-1.6
3613	Switchgear and switchboard apparatus	62	45	17	4 0.2	4 1.6	4 - 2.9
3621	Motors and generators	102	80	22	1.9	1.9	1.2
3631,32,33,39	Major household appliances	97	78	19	2.5	2.2	3.9
3631	Household cooking equipment	29	23	6	3.3	3.1	4.3
3632	Household refrigerators and freezers	31	25	6	3.8	4.0	2.8
3633	Household laundry equipment	21	16	5	1.3	0.5	5.3
3639	Household appliances, n.e.c.	16	14	2	0.6	-0.3	5.0
3641	Electric lamps	28	24	4	5.0	5.3	2.8
3645,46,47,48	Lighting fixtures	70	53	17	0.6	0.3	1.8
3651	Radio and television receiving sets	72	49	23	4 14.5	4 15.1	4 12.6
371	Motor vehicles and equipment	860	663	197	4.1	3.5	5.9
3825	Instruments to measure electricity	108	60	48	4 4.7	4 6.0	4 2.9
<b>Other</b>							
401 class I	Railroad transportation, revenue traffic	344	293	51	8.2	8.7	4.9
401 class I	Railroad transportation, car-miles	344	293	51	5.9	6.4	2.7
4111,413,414 PTS	Bus carriers, class I	31	(3)	(3)	4 - 4.0	(3)	(3)
4213 Part	Intercity trucking	636	(3)	(3)	4, 6 0.4	(3)	(3)
4213 Part	Intercity trucking (general freight)	403	(3)	(3)	4, 6 - 1.0	(3)	(3)
4511,4521 Part	Air transportation	352	(3)	(3)	6 3.8	(3)	(3)
4612,13	Petroleum pipelines	19	14	5	0.5	0.8	(3)
4811	Telephone communications	954	7 713	8 241	4 6.6	(3)	(3)
491,92,93	Gas and electric utilities	815	7 644	8 171	-1.9	7 - 1.3	(3)
491,493 Part	Electric utilities	597	(3)	(3)	-0.6	(3)	(3)
492,493 Part	Gas utilities	218	(3)	(3)	-5.1	(3)	(3)
54	Retail food stores <sup>9</sup>	2889	(3)	(3)	-0.5	(3)	(3)
5511	Franchised new car dealers	796	(3)	(3)	2.2	(3)	(3)
5541	Gasoline service stations <sup>9</sup>	675	(3)	(3)	2.8	(3)	(3)
56	Apparel and accessory stores <sup>9</sup>	1120	(3)	(3)	4.9	(3)	(3)
5611	Men's and boys' clothing stores <sup>9</sup>	123	(3)	(3)	3.4	(3)	(3)
5621	Women's ready-to-wear stores <sup>9</sup>	382	(3)	(3)	9.4	(3)	(3)
5651	Family clothing stores <sup>9</sup>	221	(3)	(3)	7.3	(3)	(3)
5661	Shoe stores <sup>9</sup>	224	(3)	(3)	0.5	(3)	(3)
58	Eating and drinking places <sup>9</sup>	5748	(3)	(3)	-1.0	(3)	(3)
5912	Drug and proprietary stores <sup>9</sup>	545	(3)	(3)	1.1	(3)	(3)
602	Commercial banking	1520	7 1120	8 400	4 0.7	(3)	(3)
7011	Hotels, motels, and tourist courts <sup>9</sup>	1334	(3)	(3)	-0.3	(3)	(3)
721	Laundry and cleaning services <sup>9</sup>	427	(3)	(3)	-0.6	(3)	(3)
723,724	Beauty and barber shops <sup>9</sup>	692	(3)	(3)	0.5	(3)	(3)
723	Beauty shops <sup>9</sup>	591	(3)	(3)	1.5	(3)	(3)

<sup>1</sup>Based on the linear least squares trends of the logarithms of the index numbers.

<sup>2</sup>Rates of change for nonproduction worker hours are subject to a wider margin of error than other rates shown.

<sup>3</sup>Not available.

<sup>4</sup>1979-83.

<sup>5</sup>Less than 0.05 percent.

<sup>6</sup>Output per employee.

<sup>7</sup>Nonsupervisory personnel.

<sup>8</sup>Supervisory personnel and force account construction workers.

<sup>9</sup>Data relate to all persons, including proprietors, partners, and unpaid family workers.

# Methods and Data Sources

The *indexes of output per employee hour* are computed by dividing an index of output by an index of aggregate employee hours. Corresponding measures also are computed relating output to the number of employees. Thus, the industry indexes presented measure changes in the relationship between output and employment or employee hours.

The *output indexes* are based primarily on the physical quantity of the products of the industry combined with fixed-period weights. Unit employee hour weights are used whenever possible to aggregate the data.

For many industries, however, unit labor weights are not available at the detailed product level, so substitute weights must be used. The most common substitute weights are unit values, which are assumed to be proportional to unit employee hours. For many manufacturing industries, however, employee hour weights at the product-class level can be developed from the available data. In such cases, a dual-level weighting system is used—unit value weights at the product level and employee hour weights at the product-class level.

Although the weights relate to fixed periods, they are updated periodically, usually in conjunction with economic censuses, which are now conducted every 5 years. The most current weights used were derived from the 1982 economic censuses. For three industries—railroads, iron mining, and copper mining—two alternative productivity measures, using different concepts of industry output, are presented.

Periodically, the output indexes for most of the measures are adjusted to levels based on data reported in the economic censuses for mining, manufacturing, and business. The most current adjustments presented in this report reflect data from the 1982 economic censuses.

*Employment and employee hour indexes* are developed primarily from basic data compiled by the Bureau of Labor Statistics (BLS) and the Bureau of the Census. In concept, indexes based on employee hour data from the Bureau of the Census relate to plant hours only. Employee hour data from BLS include not only hours at work but also payroll hours such as vacations, holidays, and sick leave paid by the establishment directly to the employee.<sup>1</sup> In general, because of increases in paid leave during the period, output per employee hour worked

<sup>1</sup>Indexes for the railroad transportation industry are based on data from the Interstate Commerce Commission and are related primarily to hours at work.

would tend to show a somewhat higher rate of gain than output per employee hour paid. However, actual differences may result from statistical limitations in the data as well as from differences in concepts. Industries for which BLS data are used for the measures of employment and hours have been revised to reflect adjustments to new universe levels.

This report includes indexes of output per employee hour and output per employee. In most cases, the indexes are shown for all employees, production workers, and nonproduction workers.<sup>2</sup> Although both the BLS and Bureau of the Census provide data on production worker hours, neither source provides annual data by industry on nonproduction worker or all-employee hours. Therefore, the nonproduction worker hours are estimated.

The estimates of aggregate nonproduction worker hours for the manufacturing industries are derived from published employment data and from estimates of average annual hours paid or worked per nonproduction worker. Prior to 1968, the estimates of average annual hours paid were calculated by multiplying the number of workweeks in the year by the scheduled weekly hours. Estimated hours for vacations, holidays, disability, and personal time off were subtracted from average annual hours paid to obtain an estimate of average annual hours worked. Vacation and holiday trends were based on studies by the U.S. Department of Health Education and Welfare and on data from BLS surveys. Personal time off was estimated as a constant on the basis of data obtained from various sources. From 1968 to 1977, the estimates of average annual hours paid and average annual hours worked have been based on data collected in the BLS survey, *Employee Compensation in the Private Nonfarm Economy*. Because this survey has been discontinued, the estimates of hours paid and hours worked for later years have been based on the data collected for 1977. These estimates will be revised as other data become available.

For 13 trade and service industries—retail food stores; gasoline service stations; eating and drinking places; drug stores and proprietary stores; total retail apparel stores and four component industries; hotels, motels, and tourist courts; laundry and cleaning services; and beauty

<sup>2</sup>The term “production workers” covers manufacturing and mining employees who work at the plant or mine and who are generally in nonsupervisory occupations. The remaining employees, such as professional, technical, clerical, supervisory, etc., are identified as “non-production workers.”

and barber shops and one component industry—measures of the hours of partners, proprietors, and supervisory workers were developed. Except for hotels, motels, and tourist courts and beauty and barber shops, estimates were also made for the hours of unpaid family workers. Average weekly hours worked for partners, proprietors, and unpaid family workers were obtained from unpublished data collected in the Current Population Survey. Average weekly hours worked by supervisory employees were obtained from the censuses of population. Estimates for intercensal years were derived using extrapolation and linear interpolation techniques.

All employee hour estimates for the manufacturing industries are derived by summing the aggregate hours for production workers and the estimated hours for non-production workers. Hours of all persons are derived by summing the aggregate hours for paid employees, partners, proprietors, and unpaid family workers.

Manufacturing and mining indexes involving non-production worker hours are subject to a wider margin of error than are the indexes involving only production worker hours because it is necessary to estimate the average hours of nonproduction workers. In general, any error in these estimates would have a relatively insignificant effect on the trend in the hours for all employees.

The output indexes and employee hour components of the industry productivity indexes are based on data from a number of different sources, which are identified in the accompanying tables. For most of the

industries, the 1984 output indexes are based on the data sources that are regularly used. However, for some industries, the normal data sources are not yet available, and other information, such as the Federal Reserve Board output indexes, the *Current Industrial Reports* of the Bureau of the Census, and trade association data, were used. For those industries for which the Bureau of the Census is the primary source of employment and employee hours, the 1984 indexes were developed by linking employment and employee hour data from BLS, since 1984 census data are not yet available. Therefore, all 1984 output per employee hour measures are considered preliminary and are subject to revision. The indexes refer to the standard reference base 1977 = 100 and, beginning in 1972, conform to the 1972/77 Standard Industrial Classification (SIC) definitions.

The average annual rates of change published in this bulletin are based on the linear least squares trends of the logarithms of the index numbers. Average annual rates of change for any time periods shown in this report are available on request from the Bureau of Labor Statistics.

More detailed information on the methods, limitations, and data sources is contained in the BLS *Handbook of Methods*, BLS Bulletin 2134-1 (1982), chapter 14, and in a number of individual industry reports. Industry reports as well as additional information are available on request from the Bureau of Labor Statistics.

## **Charts and Tables**

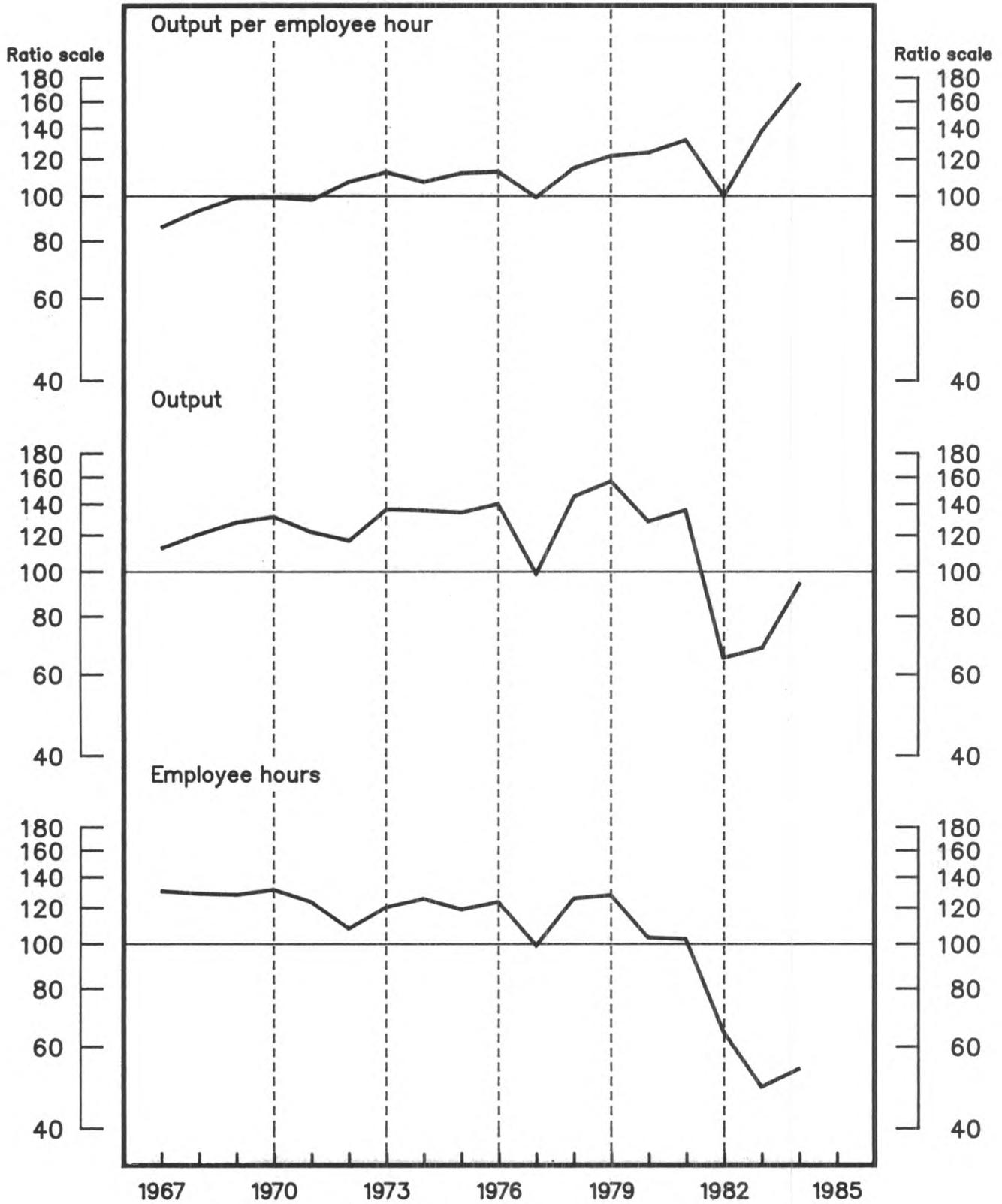
**Charts and tables for indexes of output per employee hour and related data**

SIC code	Industry	Chart	Page	Table	Page
<b>Mining</b>					
1011	Iron mining, crude ore	2	12	2,3	13
1011	Iron mining, usable ore	3	14	4,5	15
1021	Copper mining, crude ore	4	16	6,7	17
1021	Copper mining, recoverable metal	5	18	8,9	19
111,121	Coal mining	6	20	10,11	21
121	Bituminous coal and lignite mining	7	22	12,13	23
14	Nonmetallic minerals, except fuels	8	24	14,15	25
142	Crushed and broken stone	9	26	16,17	27
<b>Manufacturing</b>					
2011,13	Red meat products	10	28	18,19	29
2011	Meat packing plants	11	30	20,21	31
2013	Sausages and other prepared meats	12	32	22,23	33
2026	Fluid milk	13	34	24	35
203	Preserved fruits and vegetables	14	36	25,26	37
2033	Canned fruits and vegetables	15	38	27,28	39
204	Grain mill products	16	40	29,30	41
2041,2045	Flour (including flour mixes) and other grains	17	42	31,32	43
2041	Flour and other grain mill products	18	44	33,34	45
2043	Cereal breakfast foods	19	46	35,36	47
2044	Rice milling	20	48	37,38	49
2046	Wet corn milling	21	50	39,40	51
2047,48	Prepared feeds for animals and fowls	22	52	41,42	53
205	Bakery products	23	54	43,44	55
2061,62,63	Sugar	24	56	45,46	57
2061,62	Raw and refined cane sugar	25	58	47,48	59
2063	Beet sugar	26	60	49,50	61
2065	Candy and confectionery products	27	62	51,52	63
2082	Malt beverages	28	64	53,54	65
2086	Bottled and canned soft drinks	29	66	55,56	67
2111,21,31	All tobacco products	30	68	57,58	69
2111,31	Cigarettes, chewing and smoking tobacco	31	70	59,60	71
2121	Cigars	32	72	61,62	73
2251,52	Hosiery	33	74	63,64	75
2281	Nonwool yarn mills	34	76	65,66	77
2421	Sawmills and planing mills, general	35	78	67,68	79
2431	Millwork	36	80	69,70	81
2434	Wood kitchen cabinets	37	82	71,72	83
2435,36	Veneer and plywood	38	84	73,74	85
2435	Hardwood veneer and plywood	39	86	75,76	87
2436	Softwood veneer and plywood	40	88	77,78	89
251	Household furniture	41	90	79,80	91
2511,17	Wood household furniture	42	92	81,82	93
2512	Upholstered household furniture	43	94	83,84	95
2514	Metal household furniture	44	96	85,86	97
2515	Mattresses and bedsprings	45	98	87,88	99
252	Office furniture	46	100	89,90	101
2521	Wood office furniture	47	102	91,92	103
2522	Metal office furniture	48	104	93,94	105
2611,21,31,61	Paper, paperboard, and pulp mills	49	106	95,96	107
2643	Paper and plastic bags	50	108	97,98	109
2651	Folding paperboard boxes	51	110	99,100	111
2653	Corrugated and solid fiber boxes	52	112	101,102	113
2823,24	Synthetic fibers	53	114	103,104	115
2834	Pharmaceutical preparations	54	116	105,106	117
2841	Soaps and detergents	55	118	107,108	119
2844	Cosmetics and other toiletries	56	120	109,110	121
2851	Paints and allied products	57	122	111,112	123
2911	Petroleum refining	58	124	113,114	125
3011	Tires and inner tubes	59	126	115,116	127
3079	Miscellaneous plastics products	60	128	117,118	129
314	Footwear	61	130	119,120	131
3221	Glass containers	62	132	121,122	133
3241	Hydraulic cement	63	134	123,124	135
325	Structural clay products	64	136	125,126	137
3251,53,59	Clay construction products	65	138	127,128	139
3251	Brick and structural clay tile	66	140	129,130	141
3253	Ceramic wall and floor tile	67	142	131,132	143
3255	Clay refractories	68	144	133,134	145
3271,72	Concrete products	69	146	135,136	147
3273	Ready-mixed concrete	70	148	137	149

Charts and tables for indexes of output per employee hour and related data—Continued

SIC code	Industry	Chart	Page	Table	Page
331	Steel	71	150	138,139	151
3321	Gray iron foundries	72	152	140,141	153
3324,25	Steel foundries	73	154	142,143	155
3331,32,33	Primary copper, lead, and zinc	74	156	144,145	157
3331	Primary copper	75	158	146,147	159
3334	Primary aluminum	76	160	148,149	161
3351	Copper rolling and drawing	77	162	150,151	163
3353,54,55	Aluminum rolling and drawing	78	164	152,153	165
3411	Metal cans	79	166	154,155	167
3423	Hand and edge tools	80	168	156,157	169
3441	Fabricated structural metal	81	170	158,159	171
3442	Metal doors, sash, and trim	82	172	160,161	173
3465,66,69	Metal stampings	83	174	162,163	175
3465	Automotive stamping	84	176	164,165	177
3469	Metal stamping, n.e.c.	85	178	166,167	179
3494	Valves and pipe fittings	86	180	168,169	181
3498	Fabricated pipe and fittings	87	182	170,171	183
3519	Internal combustion engines	88	184	172,173	185
352	Farm and garden machinery	89	186	174,175	187
3523	Farm machinery and equipment	90	188	176,177	189
3524	Lawn and garden equipment	91	190	178,179	191
3531	Construction machinery and equipment	92	192	180,181	193
3533	Oilfield machinery and equipment	93	194	182,183	195
3541,42	Machine tools	94	196	184,185	197
3541	Metal cutting machine tools	95	198	186,187	199
3542	Metal forming machine tools	96	200	188,189	201
3545	Machine tool accessories	97	202	190,191	203
3561,63	Pumps and compressors	98	204	192,193	205
3561	Pumps and pumping equipment	99	206	194,195	207
3562	Ball and roller bearings	100	208	196,197	209
3563	Air and gas compressors	101	210	198,199	211
3585	Refrigeration and heating equipment	102	212	200,201	213
3612	Transformers	103	214	202,203	215
3613	Switchgear and switchboard apparatus	104	216	204,205	217
3621	Motors and generators	105	218	206,207	219
3631,32,33,39	Major household appliances	106	220	208,209	221
3631	Household cooking equipment	107	222	210,211	223
3632	Household refrigerators and freezers	108	224	212,213	225
3633	Household laundry equipment	109	226	214,215	227
3639	Household appliances, n.e.c.	110	228	216,217	229
3641	Electric lamps	111	230	218,219	231
3645,46,47,48	Lighting fixtures	112	232	220,221	233
3651	Radio and television receiving sets	113	234	222,223	235
371	Motor vehicles and equipment	114	236	224,225	237
3825	Instruments to measure electricity	115	238	226,227	239
<b>Other</b>					
401 class I	Railroad transportation, revenue traffic	116	240	228,229	241
401 class I	Railroad transportation, car-miles	117	242	230,231	243
4111,413,414 PTS	Bus carriers, class I	118	244	232	245
4213 PT	Intercity trucking	119	246	233	247
4213 PT	Intercity trucking (general freight)	120	248	234	249
4511,4521 PT	Air transportation	121	250	235	251
4612,13	Petroleum pipelines	122	252	236,237	253
4811	Telephone communications	123	254	238	255
491,92,93	Gas and electric utilities	124	256	239,240	257
491,493 PT	Electric utilities	125	258	241	259
492,493 PT	Gas utilities	126	260	242	261
54	Retail food stores	127	262	243	263
5511	Franchised new car dealers	128	264	244	265
5541	Gasoline service stations	129	266	245	267
56	Apparel and accessory stores	130	268	246	269
5611	Men's and boys' clothing stores	131	270	247	271
5621	Women's ready-to-wear stores	132	272	248	273
5651	Family clothing stores	133	274	249	275
5661	Shoe stores	134	276	250	277
58	Eating and drinking places	135	278	251	279
5912	Drug and proprietary stores	136	280	252	281
602	Commercial banking	137	282	253	283
7011	Hotels, motels, and tourist courts	138	284	254	285
721	Laundry and cleaning services	139	286	255	287
723,4	Beauty and barber shops	140	288	256	289
723	Beauty shops	141	290	257	291

**Chart 2. Iron mining, crude ore (SIC 1011): Output per hour and related data 1967-84**  
(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 2. Iron mining, crude ore (SIC 1011): indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	48.3	43.0	75.6	41.5	37.3	64.3
1959	49.4	44.8	70.3	44.6	40.6	64.0
1960	59.4	51.5	108.4	56.3	49.4	99.0
1961	67.1	60.2	100.8	61.5	56.1	87.5
1962	73.1	65.2	113.3	69.2	62.8	101.0
1963	83.3	72.9	141.9	77.3	69.0	122.6
1964	89.6	77.8	160.3	85.5	75.7	142.3
1965	85.3	74.4	147.9	82.8	73.7	133.9
1966	84.4	74.3	139.1	84.0	75.8	126.5
1967	86.1	76.2	137.9	85.3	77.5	123.6
1968	93.5	84.3	137.5	92.6	85.1	126.6
1969	99.7	90.5	141.2	97.4	90.6	126.0
1970	99.9	90.2	146.4	98.1	91.4	126.7
1971	98.6	89.4	139.6	93.9	87.6	120.1
1972	108.0	98.2	153.4	103.2	96.9	128.4
1973	113.2	103.1	159.2	112.2	104.3	146.6
1974	107.9	98.1	152.2	110.6	102.1	149.1
1975	112.7	102.4	158.5	110.8	103.7	140.9
1976	113.5	103.5	157.2	111.3	104.0	141.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	115.5	105.9	156.5	116.7	109.0	149.4
1979	122.7	112.9	164.5	122.9	115.8	151.4
1980	124.7	119.5	142.5	115.6	113.1	124.1
1981	132.8	126.2	156.6	125.3	121.9	136.9
1982	100.9	106.7	87.2	95.8	102.8	78.9
1983	139.0	154.6	107.5	128.8	145.5	95.2
1984 <sup>2</sup>	175.2	180.6	161.2	163.4	170.8	143.6
Average annual percent change:						
1947-84	( <sup>3</sup> )	4.2	( <sup>3</sup> )	3.7	4.3	1.2
1979-84	5.4	8.8	-4.3	4.3	7.5	-4.5

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Data not available.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Table 3. Iron mining, crude ore (SIC 1011): indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	68.4	141.7	159.1	90.5	164.7	183.6	106.4
1959	64.0	129.6	142.7	91.1	143.5	157.7	100.0
1960	96.9	163.1	188.3	89.4	172.0	196.1	97.9
1961	85.7	127.7	142.4	85.0	139.4	152.8	97.9
1962	90.3	123.5	138.6	79.7	130.5	143.9	89.4
1963	96.5	115.9	132.3	68.0	124.8	139.9	78.7
1964	109.0	121.6	140.1	68.0	127.5	143.9	76.6
1965	111.1	130.2	149.3	75.1	134.2	150.8	83.0
1966	113.1	134.0	152.2	81.3	134.7	149.3	89.4
1967	113.1	131.4	148.4	82.0	132.6	146.0	91.5
1968	121.3	129.7	143.9	88.2	131.0	142.6	95.8
1969	128.6	129.0	142.1	91.1	132.1	141.9	102.1
1970	132.2	132.3	146.6	90.3	134.7	144.7	104.3
1971	122.6	124.4	137.1	87.8	130.5	139.9	102.1
1972	117.5	108.8	119.7	76.6	113.9	121.3	91.5
1973	137.2	121.2	133.1	86.2	122.3	131.5	93.6
1974	136.4	126.4	139.0	89.6	123.3	133.6	91.5
1975	135.0	119.8	131.8	85.2	121.8	130.2	95.8
1976	141.2	124.4	136.4	89.8	126.9	135.8	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	146.3	126.7	138.1	93.5	125.4	134.2	97.9
1979	157.9	128.7	139.9	96.0	128.5	136.3	104.3
1980	129.4	103.8	108.3	90.8	111.9	114.4	104.3
1981	136.9	103.1	108.5	87.4	109.3	112.3	100.0
1982	65.5	64.9	61.4	75.1	68.4	63.7	83.0
1983	68.8	49.5	44.5	64.0	53.4	47.3	72.3
1984 <sup>1</sup>	94.8	54.1	52.5	58.8	58.0	55.5	66.0
Average annual percent change:							
1947-84	1.3	( <sup>2</sup> )	-2.8	( <sup>2</sup> )	-2.3	-2.9	.1
1979-84	-13.8	-18.2	-20.7	-9.9	-17.3	-19.8	-9.7

<sup>1</sup> Preliminary.

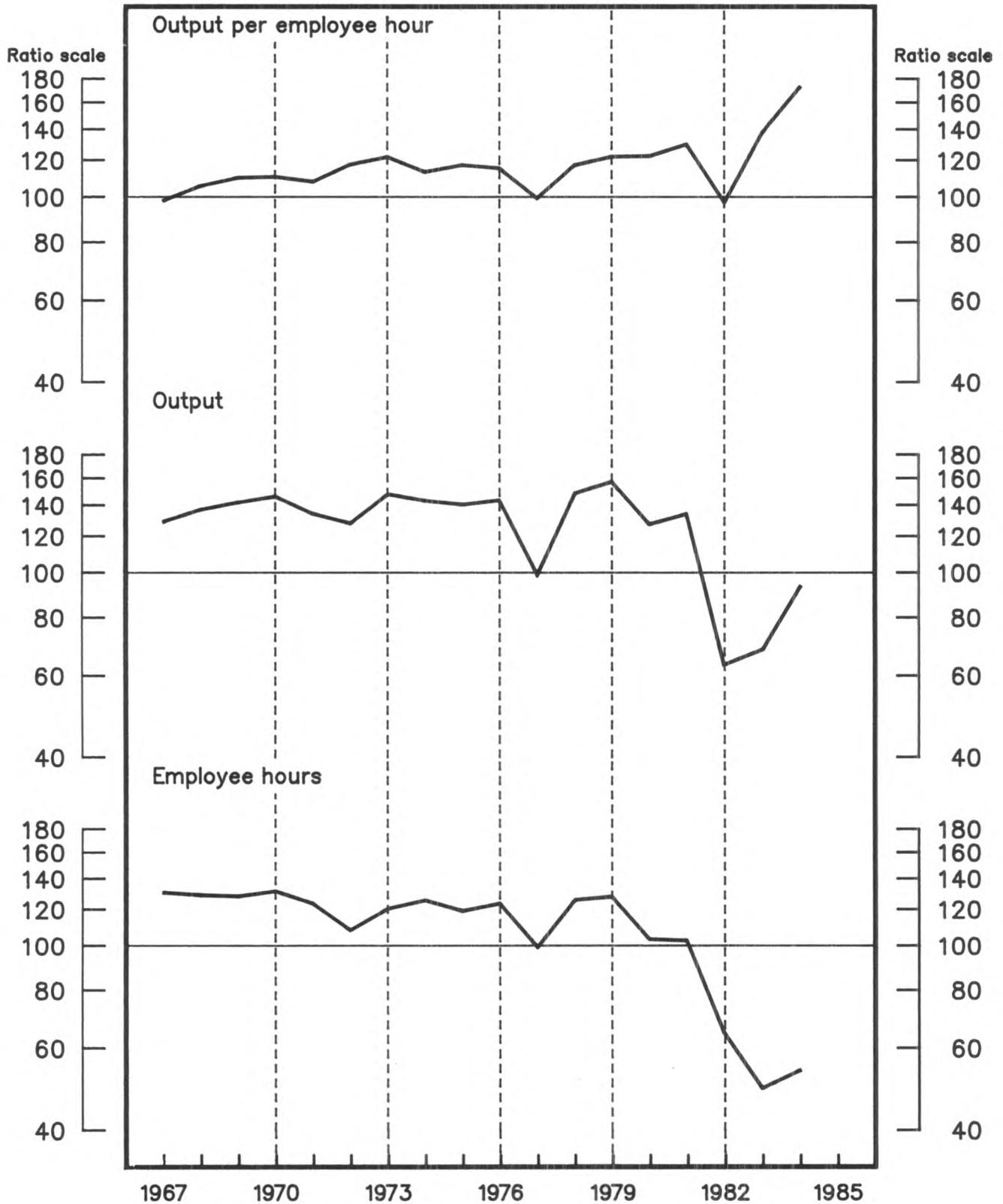
<sup>2</sup> Data not available.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Chart 3. Iron mining, usable ore (SIC 1011): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 4. Iron mining, usable ore (SIC 1011): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	60.3	53.7	94.5	51.9	46.6	80.4
1959	59.3	53.9	84.4	53.6	48.8	76.9
1960	70.1	60.8	128.0	66.5	58.3	116.9
1961	73.2	65.7	110.0	67.1	61.2	95.5
1962	78.1	69.6	121.0	73.9	67.0	107.8
1963	87.8	76.9	149.7	81.6	72.8	129.4
1964	96.6	83.9	172.8	92.2	81.7	153.4
1965	95.3	83.1	165.2	92.5	82.3	149.5
1966	98.4	86.7	162.2	97.9	88.3	147.5
1967	98.6	87.3	157.9	97.7	88.7	141.5
1968	106.1	95.6	156.0	105.0	96.5	143.6
1969	110.6	100.4	156.6	108.0	100.6	139.8
1970	111.1	100.3	162.8	109.1	101.6	140.9
1971	108.4	98.3	153.5	103.3	96.4	132.0
1972	118.1	107.4	167.8	112.8	105.9	140.4
1973	122.6	111.6	172.4	121.5	113.0	158.8
1974	113.8	103.5	160.5	116.6	107.6	157.2
1975	117.8	107.1	165.6	115.8	108.4	147.3
1976	115.9	105.7	160.6	113.6	106.2	144.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	117.8	108.1	159.7	119.1	111.3	152.5
1979	122.8	113.0	164.7	123.0	116.0	151.6
1980	123.2	118.1	140.9	114.3	111.8	122.6
1981	130.6	124.1	154.1	123.2	119.9	134.7
1982	98.2	103.7	84.8	93.1	100.0	76.7
1983	138.6	154.2	107.2	128.5	145.0	94.9
1984 <sup>2</sup>	173.6	178.9	159.7	161.9	169.2	142.3
Average annual percent change:						
1947-84	( <sup>3</sup> )	3.0	( <sup>3</sup> )	2.6	3.1	.1
1979-84	5.3	8.7	-4.4	4.2	7.4	-4.6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Data not available.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Table 5. Iron mining, usable ore (SIC 1011): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	85.5	141.7	159.1	90.5	164.7	183.6	106.4
1959	76.9	129.6	142.7	91.1	143.5	157.7	100.0
1960	114.4	163.1	188.3	89.4	172.0	196.1	97.9
1961	93.5	127.7	142.4	85.0	139.4	152.8	97.9
1962	96.4	123.5	138.6	79.7	130.5	143.9	89.4
1963	101.8	115.9	132.3	68.0	124.8	139.9	78.7
1964	117.5	121.6	140.1	68.0	127.5	143.9	76.6
1965	124.1	130.2	149.3	75.1	134.2	150.8	83.0
1966	131.9	134.0	152.2	81.3	134.7	149.3	89.4
1967	129.5	131.4	148.4	82.0	132.6	146.0	91.5
1968	137.6	129.7	143.9	88.2	131.0	142.6	95.8
1969	142.7	129.0	142.1	91.1	132.1	141.9	102.1
1970	147.0	132.3	146.6	90.3	134.7	144.7	104.3
1971	134.8	124.4	137.1	87.8	130.5	139.9	102.1
1972	128.5	108.8	119.7	76.6	113.9	121.3	91.5
1973	148.6	121.2	133.1	86.2	122.3	131.5	93.6
1974	143.8	126.4	139.0	89.6	123.3	133.6	91.5
1975	141.1	119.8	131.8	85.2	121.8	130.2	95.8
1976	144.2	124.4	136.4	89.8	126.9	135.8	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	149.3	126.7	138.1	93.5	125.4	134.2	97.9
1979	158.1	128.7	139.9	96.0	128.5	136.3	104.3
1980	127.9	103.8	108.3	90.8	111.9	114.4	104.3
1981	134.7	103.1	108.5	87.4	109.3	112.3	100.0
1982	63.7	64.9	61.4	75.1	68.4	63.7	83.0
1983	68.6	49.5	44.5	64.0	53.4	47.3	72.3
1984 <sup>1</sup>	93.9	54.1	52.5	58.8	58.0	55.5	66.0
Average annual percent change:							
1947-84	.2	( <sup>2</sup> )	-2.8	( <sup>2</sup> )	-2.3	-2.9	.1
1979-84	-13.9	-18.2	-20.7	-9.9	-17.3	-19.8	-9.7

<sup>1</sup> Preliminary.

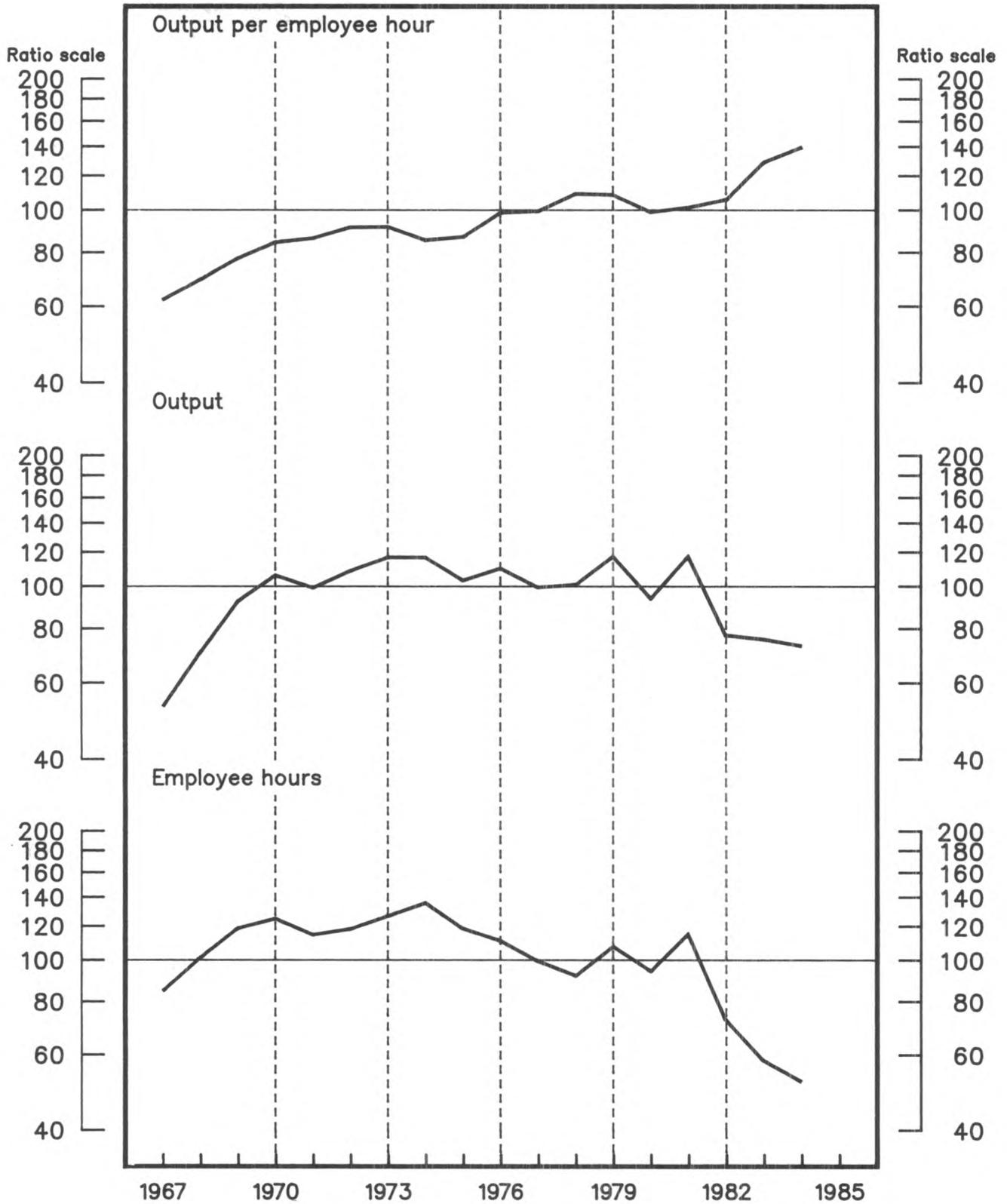
<sup>2</sup> Data not available.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Chart 4. Copper mining, crude ore (SIC 1021): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 6. Copper mining, crude ore (SIC 1021): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	55.6	51.7	73.1	56.7	52.8	74.9
1959	55.3	53.1	63.3	61.3	58.8	70.8
1960	57.2	54.6	67.1	65.9	62.9	77.8
1961	60.4	56.0	80.1	68.1	63.2	90.5
1962	66.1	61.3	88.0	73.2	67.9	97.3
1963	66.2	61.4	88.1	73.7	68.5	97.3
1964	72.3	67.4	93.9	80.0	74.9	103.4
1965	72.3	66.6	99.0	81.0	74.9	109.2
1966	73.7	67.8	101.8	82.4	76.4	109.7
1967	62.5	64.1	57.7	70.5	71.4	67.7
1968	69.6	70.1	68.0	84.9	85.3	83.5
1969	77.9	73.8	94.4	93.0	88.5	111.1
1970	84.8	80.0	104.1	97.6	93.1	115.2
1971	86.6	85.4	90.5	97.8	96.8	101.1
1972	91.8	86.4	114.2	98.1	93.8	114.9
1973	92.0	85.6	120.4	97.7	92.9	117.3
1974	85.7	82.0	99.9	90.2	86.7	103.1
1975	87.2	86.4	89.6	89.5	88.6	92.3
1976	99.2	98.0	103.1	101.3	100.7	102.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.7	109.3	111.2	113.7	113.4	114.3
1979	109.1	107.2	115.5	119.1	118.0	122.7
1980	99.5	99.0	101.1	105.7	105.1	107.9
1981	102.0	101.1	105.1	110.5	108.9	115.4
1982	106.4	111.3	93.6	107.3	111.7	95.4
1983	129.9	139.4	106.7	135.2	144.2	112.6
1984 <sup>2</sup>	140.3	153.2	110.4	151.3	164.9	119.7
Average annual percent change:						
1947-84	( <sup>3</sup> )	4.0	( <sup>3</sup> )	3.2	3.7	.7
1979-84	6.2	8.7	-5	5.6	7.9	-5

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Data not available.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Table 7. Copper mining, crude ore (SIC 1021): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output <sup>1</sup>	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	46.8	84.1	90.5	64.0	82.5	88.7	62.5
1959	42.5	76.8	80.0	67.1	69.3	72.3	60.0
1960	55.5	97.0	101.6	82.7	84.2	88.3	71.3
1961	58.8	97.4	105.0	73.4	86.3	93.0	65.0
1962	62.1	93.9	101.3	70.6	84.8	91.4	63.8
1963	60.8	91.8	99.0	69.0	82.5	88.7	62.5
1964	64.6	89.4	95.9	68.8	80.7	86.3	62.5
1965	72.3	100.0	108.5	73.0	89.3	96.5	66.2
1966	78.2	106.1	115.4	76.8	94.9	102.4	71.3
1967	53.3	85.3	83.1	92.3	75.6	74.6	78.7
1968	71.0	102.0	101.3	104.4	83.6	83.2	85.0
1969	93.0	119.4	126.0	98.5	100.0	105.1	83.7
1970	106.6	125.7	133.2	102.4	109.2	114.5	92.5
1971	99.8	115.2	116.8	110.3	102.0	103.1	98.7
1972	109.2	118.9	126.4	95.6	111.3	116.4	95.0
1973	117.3	127.5	137.0	97.4	120.0	126.2	100.0
1974	117.2	136.7	142.9	117.3	130.0	135.2	113.7
1975	103.8	119.1	120.2	115.8	116.0	117.2	112.5
1976	110.6	111.5	112.9	107.3	109.2	109.8	107.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.5	92.5	92.9	91.3	89.3	89.5	88.8
1979	118.0	108.2	110.1	102.2	99.1	100.0	96.2
1980	94.4	94.9	95.4	93.4	89.3	89.8	87.5
1981	118.3	116.0	117.0	112.6	107.1	108.6	102.5
1982	77.6	72.9	69.7	82.9	72.3	69.5	81.3
1983	76.0	58.5	54.5	71.2	56.2	52.7	67.5
1984 <sup>2</sup>	73.4	52.3	47.9	66.5	48.5	44.5	61.3
Average annual percent change:							
1947-84	3.4	( <sup>3</sup> )	-6	( <sup>3</sup> )	.2	-3	2.7
1979-84	-9.4	-14.7	-16.6	-8.9	-14.2	-16.0	-8.9

<sup>1</sup> Represents output in terms of copper ore sold or treated.

<sup>2</sup> Preliminary.

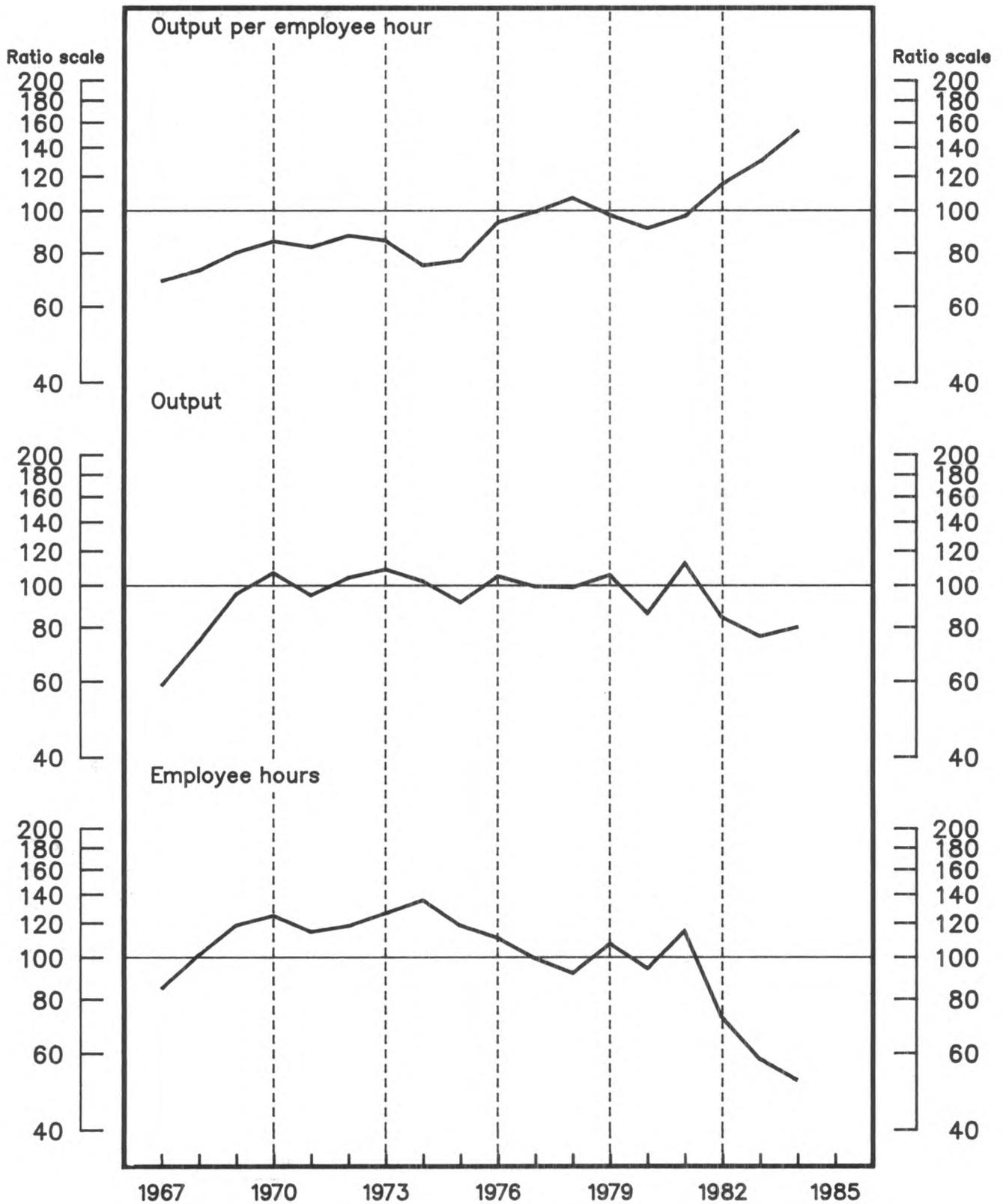
<sup>3</sup> Data not available.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Chart 5. Copper mining, recoverable metal (SIC 1021): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 8. Copper mining, recoverable metal (SIC 1021): Indexes of output per employee hour and output per employee, 1958-84 (1977=100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	71.5	66.4	93.9	72.8	67.8	96.2
1959	65.8	63.1	75.3	72.9	69.8	84.2
1960	68.4	65.3	80.2	78.7	75.1	93.0
1961	73.5	68.2	97.5	83.0	77.0	110.2
1962	80.3	74.4	106.8	88.9	82.5	118.2
1963	81.2	75.3	108.0	90.3	84.0	119.2
1964	85.7	79.9	111.3	94.9	88.8	122.6
1965	83.3	76.8	114.1	93.3	86.3	125.8
1966	83.0	76.3	114.7	92.8	86.0	123.6
1967	69.2	71.0	63.9	78.0	79.1	75.0
1968	73.2	73.7	71.6	89.4	89.8	87.9
1969	80.6	76.3	97.7	96.2	91.5	114.9
1970	85.5	80.7	105.0	98.4	93.9	116.2
1971	82.9	81.8	86.6	93.6	92.6	96.8
1972	88.1	82.9	109.6	94.2	90.0	110.3
1973	85.8	79.9	112.3	91.2	86.7	109.4
1974	75.2	71.9	87.6	79.1	76.0	90.4
1975	77.2	76.5	79.4	79.3	78.5	81.8
1976	94.7	93.5	98.4	96.7	96.2	98.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.7	107.2	109.1	111.5	111.3	112.2
1979	98.2	96.5	104.0	107.3	106.3	110.5
1980	91.6	91.1	93.0	97.3	96.8	99.3
1981	97.7	96.8	100.6	105.8	104.3	110.5
1982	116.2	121.5	102.2	117.2	121.9	104.2
1983	130.9	140.6	107.6	136.3	145.4	113.5
1984 <sup>2</sup>	153.9	168.1	121.1	166.0	180.9	131.3
Average annual percent change:						
1947-84	( <sup>3</sup> )	2.7	( <sup>3</sup> )	1.8	2.3	-6
1979-84	10.5	13.1	3.5	9.9	12.2	3.5

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Data not available.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Table 9. Copper mining, recoverable metal (SIC 1021): Indexes of output, employee hours, and employees, 1958-84 (1977=100)**

Year	Output <sup>1</sup>	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	60.1	84.1	90.5	64.0	82.5	88.7	62.5
1959	50.5	76.8	80.0	67.1	69.3	72.3	60.0
1960	66.3	97.0	101.6	82.7	84.2	88.3	71.3
1961	71.6	97.4	105.0	73.4	86.3	93.0	65.0
1962	75.4	93.9	101.3	70.6	84.8	91.4	63.8
1963	74.5	91.8	99.0	69.0	82.5	88.7	62.5
1964	76.6	89.4	95.9	68.8	80.7	86.3	62.5
1965	83.3	100.0	108.5	73.0	89.3	96.5	66.2
1966	88.1	106.1	115.4	76.8	94.9	102.4	71.3
1967	59.0	85.3	83.1	92.3	75.6	74.6	78.7
1968	74.7	102.0	101.3	104.4	83.6	83.2	85.0
1969	96.2	119.4	126.0	98.5	100.0	105.1	83.7
1970	107.5	125.7	133.2	102.4	109.2	114.5	92.5
1971	95.5	115.2	116.8	110.3	102.0	103.1	98.7
1972	104.8	118.9	126.4	95.6	111.3	116.4	95.0
1973	109.4	127.5	137.0	97.4	120.0	126.2	100.0
1974	102.8	136.7	142.9	117.3	130.0	135.2	113.7
1975	92.0	119.1	120.2	115.8	116.0	117.2	112.5
1976	105.6	111.5	112.9	107.3	109.2	109.8	107.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.6	92.5	92.9	91.3	89.3	89.5	88.8
1979	106.3	108.2	110.1	102.2	99.1	100.0	96.2
1980	86.9	94.9	95.4	93.4	89.3	89.8	87.5
1981	113.3	116.0	117.0	112.6	107.1	108.6	102.5
1982	84.7	72.9	69.7	82.9	72.3	69.5	81.3
1983	76.6	58.5	54.5	71.2	56.2	52.7	67.5
1984 <sup>2</sup>	80.5	52.3	47.9	66.5	48.5	44.5	61.3
Average annual percent change:							
1947-84	2.0	( <sup>3</sup> )	-6	( <sup>3</sup> )	.2	-3	2.7
1979-84	-5.7	-14.7	-16.6	-8.9	-14.2	-16.0	-8.9

<sup>1</sup> Represents output in terms of copper recovered from copper ore, old tailings, and precipitates.

<sup>2</sup> Preliminary.

<sup>3</sup> Data not available.

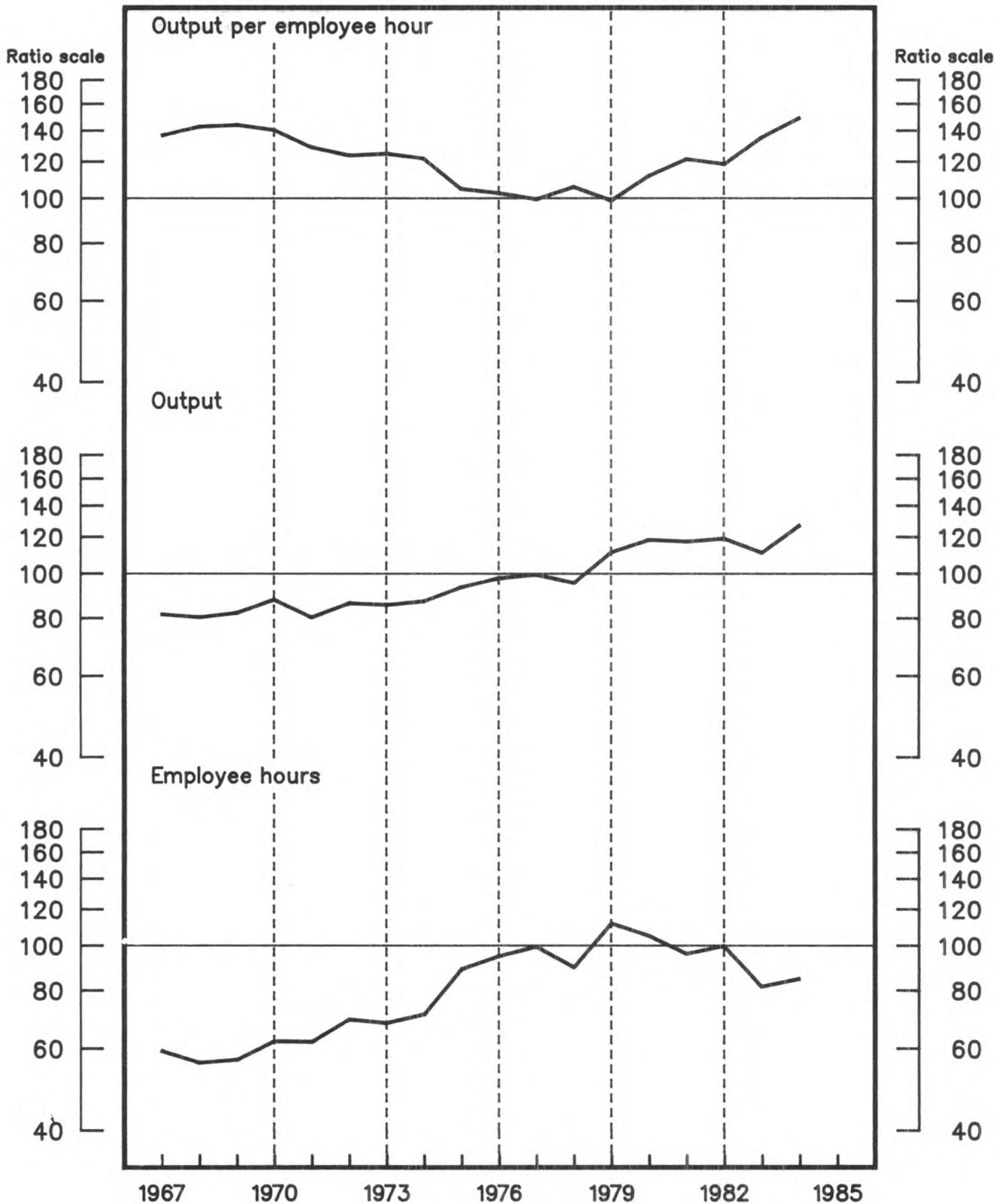
NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Chart 6. Coal mining (SIC 111, 121): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 10. Coal mining (SIC 111, 121): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	85.3	80.1	133.3	67.4	63.4	106.6
1959	86.3	82.4	118.6	73.3	70.0	101.3
1960	91.7	88.4	117.5	78.1	75.3	99.8
1961	101.5	98.3	124.1	87.0	84.3	106.3
1962	108.9	105.4	133.5	96.3	93.2	118.0
1963	115.0	110.7	147.5	106.7	103.1	133.3
1964	121.6	117.4	151.7	113.5	109.8	140.3
1965	128.3	125.0	152.8	122.6	119.6	144.7
1966	134.7	132.0	153.4	130.7	128.2	147.1
1967	137.4	134.4	155.9	133.1	130.6	149.1
1968	143.5	141.8	155.1	137.6	136.0	147.7
1969	144.7	142.4	157.9	137.4	135.6	149.4
1970	141.1	137.5	165.4	137.1	133.8	159.7
1971	129.5	130.1	126.2	125.1	125.9	120.6
1972	124.4	121.4	143.5	121.4	119.1	136.1
1973	125.5	123.7	137.2	119.8	118.3	128.4
1974	122.5	121.3	130.0	109.9	109.1	115.3
1975	105.3	104.7	109.2	99.6	99.2	102.3
1976	103.1	102.8	104.7	98.4	98.4	98.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.4	109.6	91.6	103.2	106.7	86.9
1979	99.4	101.3	90.2	97.3	99.6	86.2
1980	112.5	115.3	98.9	108.8	112.1	93.2
1981	122.2	125.6	105.9	118.4	121.9	100.9
1982	119.2	123.8	98.5	114.0	118.7	92.5
1983	136.1	143.6	105.5	129.9	137.8	98.1
1984 <sup>2</sup>	149.9	156.7	120.5	145.8	153.3	113.4
Average annual percent change:						
1947-84	( <sup>3</sup> )	3.0	( <sup>3</sup> )	3.1	3.6	-1.0
1979-84	7.7	8.4	4.6	7.5	8.2	4.2

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.  
<sup>2</sup> Preliminary.  
<sup>3</sup> Data not available.  
NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.  
SOURCE: Output based on data from the Energy Information Administration, U.S. Department of Energy; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Table 11. Coal mining (SIC 111, 121): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

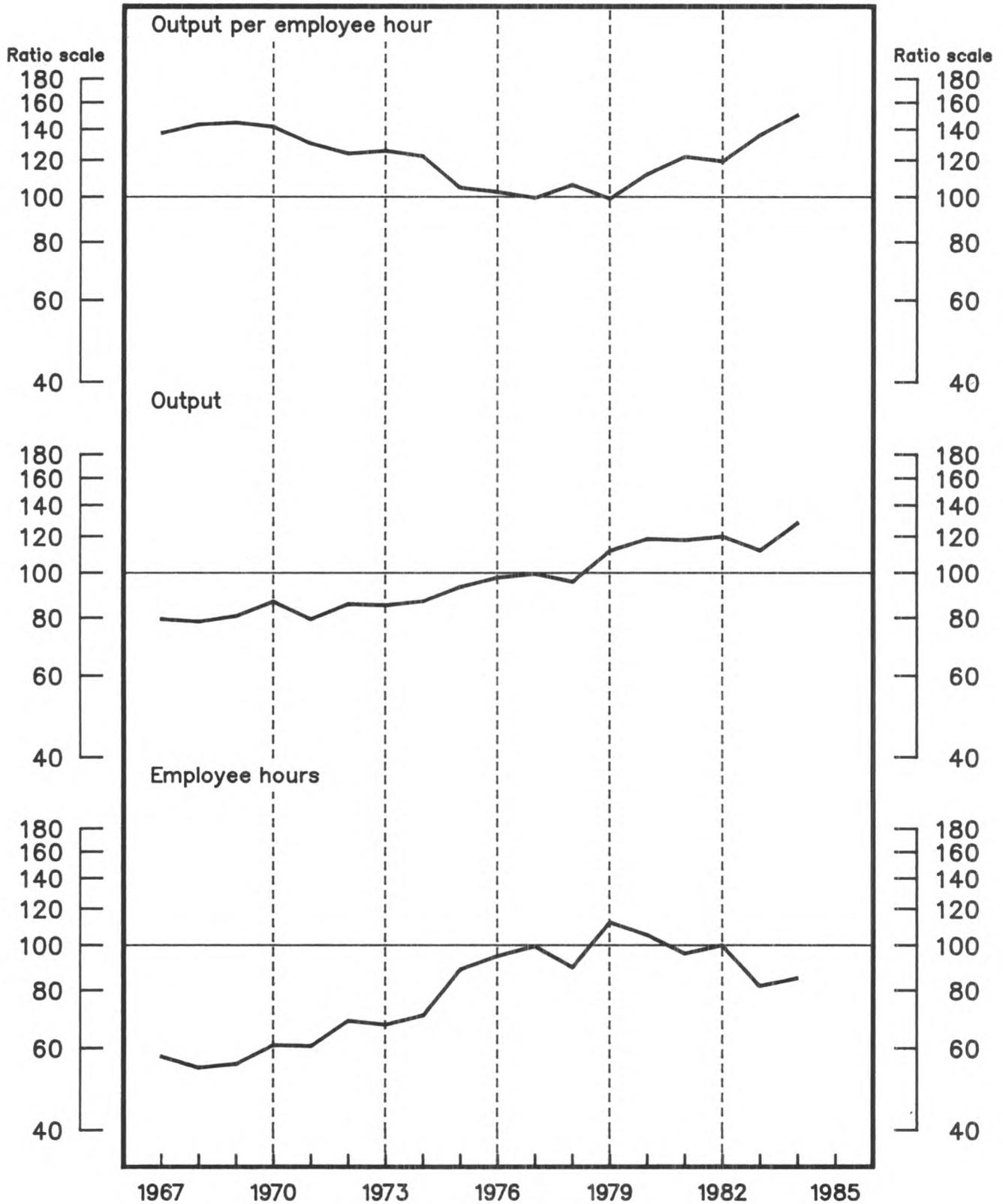
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	64.4	75.5	80.4	48.3	95.5	101.6	60.4
1959	64.5	74.7	78.3	54.4	88.0	92.2	63.7
1960	64.5	70.3	73.0	54.9	82.6	85.7	64.6
1961	62.3	61.4	63.4	50.2	71.6	73.9	58.6
1962	64.9	59.6	61.6	48.6	67.4	69.6	55.0
1963	70.5	61.3	63.7	47.8	66.1	68.4	52.9
1964	74.2	61.0	63.2	48.9	65.4	67.6	52.9
1965	77.0	60.0	61.6	50.4	62.8	64.4	53.2
1966	79.6	59.1	60.3	51.9	60.9	62.1	54.1
1967	82.0	59.7	61.0	52.6	61.6	62.8	55.0
1968	80.8	56.3	57.0	52.1	58.7	59.4	54.7
1969	82.6	57.1	58.0	52.3	60.1	60.9	55.3
1970	88.3	62.6	64.2	53.4	64.4	66.0	55.3
1971	80.8	62.4	62.1	64.0	64.6	64.2	67.0
1972	86.7	69.7	71.4	60.4	71.4	72.8	63.7
1973	86.0	68.5	69.5	62.7	71.8	72.7	67.0
1974	87.6	71.5	72.2	67.4	79.7	80.3	76.0
1975	94.0	89.3	89.8	86.1	94.4	94.8	91.9
1976	98.3	95.3	95.6	93.9	99.9	99.9	99.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	96.0	90.2	87.6	104.8	93.0	90.0	110.5
1979	111.8	112.5	110.4	124.0	114.9	112.3	129.7
1980	118.9	105.7	103.1	120.2	109.3	106.1	127.6
1981	117.9	96.5	93.9	111.3	99.6	96.7	116.8
1982	119.7	100.4	96.7	121.5	105.0	100.8	129.4
1983	111.6	82.0	77.7	105.8	85.9	81.0	113.8
1984 <sup>1</sup>	127.7	85.2	81.5	106.0	87.6	83.3	112.6
Average annual percent change:							
1947-84	1.1	( <sup>2</sup> )	-1.9	( <sup>2</sup> )	-2.0	-2.4	2.1
1979-84	1.4	-5.9	-6.5	-3.0	-5.6	-6.3	-2.7

<sup>1</sup> Preliminary.  
<sup>2</sup> Data not available.  
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Energy Information Administration, U.S. Department of Energy; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Chart 7. Bituminous coal and lignite mining (SIC 121): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 12. Bituminous coal and lignite mining (SIC 121): Indexes of output per employee hour and output per employee, 1958-84 (1977 = 100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	85.6	80.3	135.6	68.3	64.1	109.2
1959 .....	86.4	82.3	119.4	74.1	70.7	102.6
1960 .....	92.3	88.6	119.5	79.2	76.2	102.4
1961 .....	102.3	99.0	125.4	87.9	85.2	107.8
1962 .....	109.3	105.7	134.0	96.8	93.9	118.9
1963 .....	114.9	110.7	147.3	106.8	103.3	133.9
1964 .....	122.0	118.1	148.8	114.8	111.0	142.2
1965 .....	129.3	126.0	151.5	124.7	121.5	146.7
1966 .....	135.2	132.6	151.1	132.2	129.7	147.6
1967 .....	138.0	135.0	157.0	134.3	131.8	151.0
1968 .....	144.0	142.2	155.6	138.4	137.0	148.3
1969 .....	145.3	143.0	159.0	138.9	137.0	150.7
1970 .....	142.3	138.4	167.7	138.6	135.2	162.1
1971 .....	131.0	131.4	128.3	126.2	127.0	122.4
1972 .....	124.6	121.6	144.2	121.6	119.3	136.9
1973 .....	126.3	124.4	137.6	120.2	118.7	129.1
1974 .....	123.0	121.8	130.7	110.1	109.3	115.3
1975 .....	105.2	104.5	109.7	99.5	98.9	102.5
1976 .....	103.0	102.7	104.7	98.4	98.3	99.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	106.7	109.8	92.1	103.3	106.9	87.0
1979 .....	99.6	101.4	90.1	97.5	99.8	86.1
1980 .....	112.6	115.5	98.8	108.9	112.1	93.0
1981 .....	122.7	126.2	106.2	118.9	122.6	101.2
1982 .....	120.0	124.8	98.7	114.9	119.8	92.9
1983 .....	136.9	144.6	105.3	131.0	138.9	98.4
1984 <sup>2</sup> .....	151.1	157.9	121.2	147.1	154.9	114.1
Average annual percent change:						
1947-84 .....	( <sup>3</sup> )	3.0	( <sup>3</sup> )	3.1	3.6	-1.2
1979-84 .....	7.9	8.6	4.7	7.6	8.4	4.4

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Data not available.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Energy Information Administration, U.S. Department of Energy. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Table 13. Bituminous coal and lignite mining (SIC 121): Indexes of output, employee hours, and employees, 1958-84 (1977 = 100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	59.4	69.4	74.0	43.8	87.0	92.6	54.4
1959 .....	59.6	69.0	72.4	49.9	80.4	84.3	58.1
1960 .....	60.1	65.1	67.8	50.3	75.9	78.9	58.7
1961 .....	58.3	57.0	58.9	46.5	66.3	68.4	54.1
1962 .....	61.1	55.9	57.8	45.6	63.1	65.1	51.4
1963 .....	66.3	57.7	59.9	45.0	62.1	64.2	49.5
1964 .....	70.4	57.7	59.6	47.3	61.3	63.4	49.5
1965 .....	74.1	57.3	58.8	48.9	59.4	61.0	50.5
1966 .....	77.2	57.1	58.2	51.1	58.4	59.5	52.3
1967 .....	79.9	57.9	59.2	50.9	59.5	60.6	52.9
1968 .....	78.9	54.8	55.5	50.7	57.0	57.6	53.2
1969 .....	81.1	55.8	56.7	51.0	58.4	59.2	53.8
1970 .....	87.2	61.3	63.0	52.0	62.9	64.5	53.8
1971 .....	79.9	61.0	60.8	62.3	63.3	62.9	65.3
1972 .....	86.1	69.1	70.8	59.7	70.8	72.2	62.9
1973 .....	85.6	67.8	68.8	62.2	71.2	72.1	66.3
1974 .....	87.3	71.0	71.7	66.8	79.3	79.9	75.7
1975 .....	93.8	89.2	89.8	85.5	94.3	94.8	91.5
1976 .....	98.2	95.3	95.6	93.8	99.8	99.9	99.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	96.2	90.2	87.6	104.4	93.1	90.0	110.6
1979 .....	112.3	112.8	110.7	124.6	115.2	112.5	130.4
1980 .....	119.1	105.8	103.1	120.5	109.4	106.2	128.0
1981 .....	118.4	96.5	93.8	111.5	99.6	96.6	117.0
1982 .....	120.6	100.5	96.6	122.2	105.0	100.7	129.8
1983 .....	112.5	82.2	77.8	106.8	85.9	81.0	114.3
1984 <sup>1</sup> .....	129.0	85.4	81.7	106.4	87.7	83.3	113.1
Average annual percent change:							
1947-84 .....	1.6	( <sup>2</sup> )	-1.4	( <sup>2</sup> )	-1.4	-1.9	2.9
1979-84 .....	1.6	-5.8	-6.5	-3.0	-5.7	-6.3	-2.7

<sup>1</sup> Preliminary.

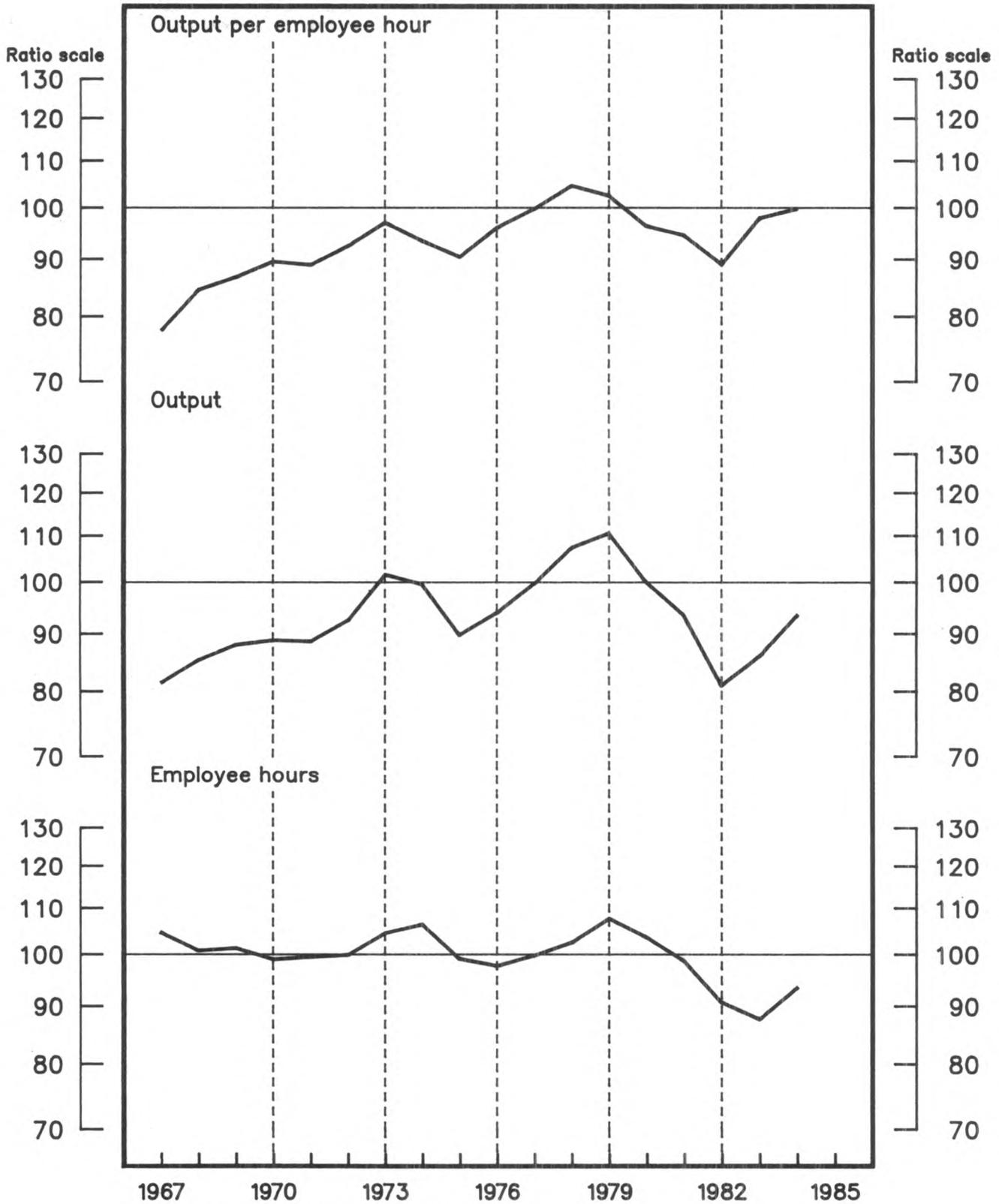
<sup>2</sup> Data not available.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Energy Information Administration, U.S. Department of Energy. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Chart 8. Nonmetallic minerals, except fuels (SIC 14): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 14. Nonmetallic minerals, except fuels (SIC 14): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	60.4	57.0	77.6	58.7	55.4	76.2
1959	61.5	58.1	79.9	61.4	57.8	80.5
1960	61.6	58.5	77.1	60.5	57.4	76.2
1961	64.2	61.3	78.1	63.3	60.4	78.2
1962	67.5	64.3	83.2	67.1	63.9	82.8
1963	70.3	67.5	83.3	70.5	67.5	84.3
1964	73.6	70.9	86.5	74.7	71.7	88.8
1965	75.2	72.0	90.6	77.2	73.8	94.2
1966	78.9	75.4	94.9	80.9	77.4	97.4
1967	77.9	75.2	89.5	79.1	76.3	91.9
1968	84.7	81.7	97.2	85.2	82.4	98.5
1969	86.9	83.8	100.9	88.9	85.8	103.6
1970	89.7	86.8	102.2	89.9	87.2	102.5
1971	89.1	87.1	96.8	89.6	87.7	97.7
1972	92.6	90.7	100.0	92.4	91.1	98.5
1973	97.2	96.0	101.6	99.4	98.2	105.4
1974	93.6	92.9	96.1	95.0	93.8	99.8
1975	90.6	91.6	86.5	89.4	89.6	88.9
1976	96.2	96.4	95.1	95.2	95.5	94.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.8	104.4	106.2	105.3	104.9	106.7
1979	102.7	102.4	103.6	103.7	103.4	105.1
1980	96.5	98.0	91.3	94.6	95.8	90.5
1981	94.7	98.1	83.4	91.6	94.6	81.5
1982	89.3	93.5	76.1	85.7	89.6	73.9
1983	98.1	102.5	84.3	95.8	100.2	82.1
1984 <sup>2</sup>	100.0	103.3	89.1	99.9	103.5	88.2
Average annual percent change:						
1954-84	( <sup>3</sup> )	2.5	( <sup>3</sup> )	2.1	2.5	.5
1979-84	-4	.4	-3.1	-6	.2	-3.6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Data not available.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; the Bureau of the Census; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Table 15. Nonmetallic minerals, except fuels (SIC 14): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	58.2	96.4	102.1	75.0	99.2	105.1	76.4
1959	63.8	103.7	109.9	79.8	103.9	110.4	79.3
1960	64.2	104.2	109.7	83.3	106.1	111.9	84.3
1961	65.5	102.0	106.8	83.9	103.4	108.4	83.8
1962	68.4	101.3	106.3	82.2	101.9	107.0	82.6
1963	71.1	101.2	105.4	85.4	100.9	105.3	84.3
1964	74.9	101.7	105.6	86.6	100.3	104.5	84.3
1965	79.7	106.0	110.7	88.0	103.2	108.0	84.6
1966	84.5	107.1	112.0	89.0	104.5	109.2	86.8
1967	81.6	104.8	108.5	91.2	103.2	107.0	88.8
1968	85.5	101.0	104.6	88.0	100.3	103.7	86.8
1969	88.2	101.5	105.2	87.4	99.2	102.8	85.1
1970	89.0	99.2	102.5	87.1	99.0	102.1	86.8
1971	88.8	99.7	102.0	91.7	99.1	101.2	90.9
1972	92.7	100.1	102.2	92.7	100.3	101.8	94.1
1973	101.8	104.7	106.0	100.2	102.4	103.7	96.6
1974	99.8	106.6	107.4	103.8	105.1	106.4	100.0
1975	90.0	99.3	98.2	104.0	100.7	100.5	101.2
1976	94.2	97.9	97.7	99.1	98.9	98.6	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.6	102.7	103.1	101.3	102.2	102.6	100.8
1979	110.8	107.9	108.2	107.0	108.8	107.2	105.4
1980	100.2	103.8	102.2	109.7	105.9	104.6	110.7
1981	93.7	98.9	95.5	112.3	102.3	99.0	114.9
1982	81.2	90.9	86.8	106.7	94.7	90.6	109.9
1983	86.2	87.9	84.1	102.3	90.0	86.0	105.0
1984 <sup>1</sup>	93.7	93.7	90.7	105.2	93.8	90.5	106.2
Average annual percent change:							
1954-84	2.1	( <sup>3</sup> )	-4	( <sup>3</sup> )	( <sup>3</sup> )	-4	1.6
1979-84	-4.0	-3.6	-4.4	-1.0	-3.4	-4.3	-5

<sup>1</sup> Preliminary.

<sup>2</sup> Data not available.

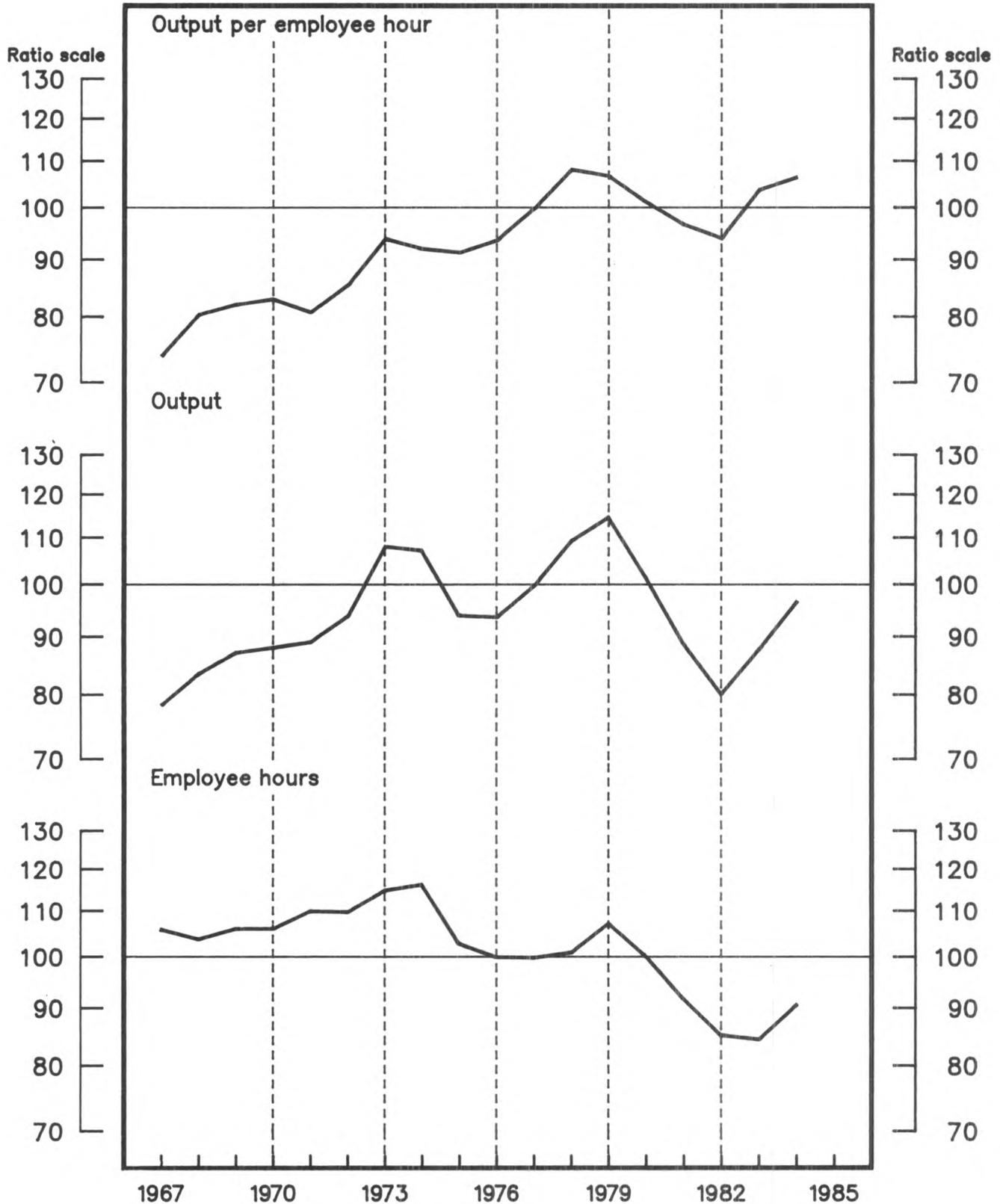
<sup>3</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; the Bureau of the Census; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Chart 9. Crushed and broken stone (SIC 142): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 16. Crushed and broken stone (SIC 142): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	53.6	52.1	62.1	53.1	51.7	60.9
1959	55.1	53.6	64.0	56.2	54.7	64.4
1960	55.5	54.3	62.5	55.2	54.0	61.8
1961	56.6	55.3	64.5	57.0	55.6	64.5
1962	59.6	57.8	70.6	60.4	58.7	70.3
1963	61.7	60.3	69.7	63.2	61.8	70.6
1964	66.6	65.3	74.1	68.4	67.0	76.1
1965	69.9	68.0	81.2	73.6	71.7	84.4
1966	74.2	72.4	84.9	78.0	76.4	87.0
1967	74.0	72.9	79.9	77.0	76.0	82.1
1968	80.5	79.1	87.7	83.2	82.0	88.9
1969	82.2	80.6	91.8	86.2	84.7	94.3
1970	83.1	82.6	85.3	84.9	84.8	85.6
1971	80.9	81.3	78.9	83.3	84.0	79.7
1972	85.5	84.8	88.8	86.2	86.0	87.5
1973	94.0	93.9	94.6	97.7	97.7	98.0
1974	92.1	92.7	88.8	95.2	95.8	92.2
1975	91.4	93.7	81.8	90.1	91.5	84.1
1976	93.7	94.3	90.6	93.3	94.1	89.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.3	107.1	114.1	109.8	108.8	114.7
1979	106.9	105.4	114.7	109.8	108.5	116.5
1980	101.3	101.1	102.5	100.6	100.4	101.6
1981	96.7	99.0	87.1	93.7	95.7	85.1
1982	94.1	98.6	77.0	91.2	95.6	74.7
1983	103.9	109.6	82.8	102.2	108.1	80.6
1984 <sup>2</sup>	106.6	110.9	89.6	108.0	113.1	88.8
Average annual percent change:						
1958-84	2.8	3.0	1.6	2.7	2.9	1.5
1979-84	.1	1.4	-5.5	-2	1.2	-6.0

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; the Bureau of the Census; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

**Table 17. Crushed and broken stone (SIC 142): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	54.6	101.9	104.7	87.9	102.9	105.6	89.6
1959	59.6	108.1	111.1	93.1	106.1	109.0	92.6
1960	61.8	111.3	113.9	98.9	112.0	114.4	100.0
1961	60.6	107.0	109.6	94.0	106.4	109.0	94.0
1962	64.0	107.4	110.8	90.7	105.9	109.0	91.0
1963	66.4	107.7	110.2	95.3	105.1	107.4	94.0
1964	70.5	105.8	108.0	95.1	103.1	105.3	92.6
1965	76.8	109.9	113.0	94.6	104.4	107.1	91.0
1966	81.8	110.2	113.0	96.4	104.9	107.1	94.0
1967	78.4	106.0	107.6	98.1	101.8	103.1	95.5
1968	83.6	103.9	105.7	95.3	100.5	101.9	94.0
1969	87.3	106.2	108.3	95.1	101.3	103.1	92.6
1970	88.2	106.2	106.8	103.4	103.9	104.0	103.0
1971	89.2	110.2	109.7	113.0	107.1	106.2	111.9
1972	94.0	110.0	110.9	105.8	109.0	108.3	107.4
1973	108.2	115.1	115.2	114.4	110.7	110.7	110.4
1974	107.3	116.5	115.7	120.9	112.7	112.0	116.4
1975	94.1	102.9	100.4	115.0	104.4	102.8	111.9
1976	93.8	100.1	99.5	103.5	100.5	99.7	104.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.5	101.1	102.2	96.0	99.7	100.6	95.5
1979	114.8	107.4	108.9	100.1	104.6	105.8	98.5
1980	101.6	100.3	100.5	99.1	101.0	101.2	100.0
1981	88.9	91.9	89.8	102.1	94.9	92.9	104.5
1982	80.3	85.3	81.4	104.3	88.0	84.0	107.5
1983	87.9	84.6	80.2	106.2	86.0	81.3	109.0
1984 <sup>1</sup>	96.8	90.8	87.3	108.0	89.6	85.6	109.0
Average annual percent change:							
1958-84	2.1	-6	-9	.6	-5	-8	.6
1979-84	-3.9	-4.0	-5.2	1.8	-3.7	-5.1	2.3

<sup>1</sup> Preliminary.

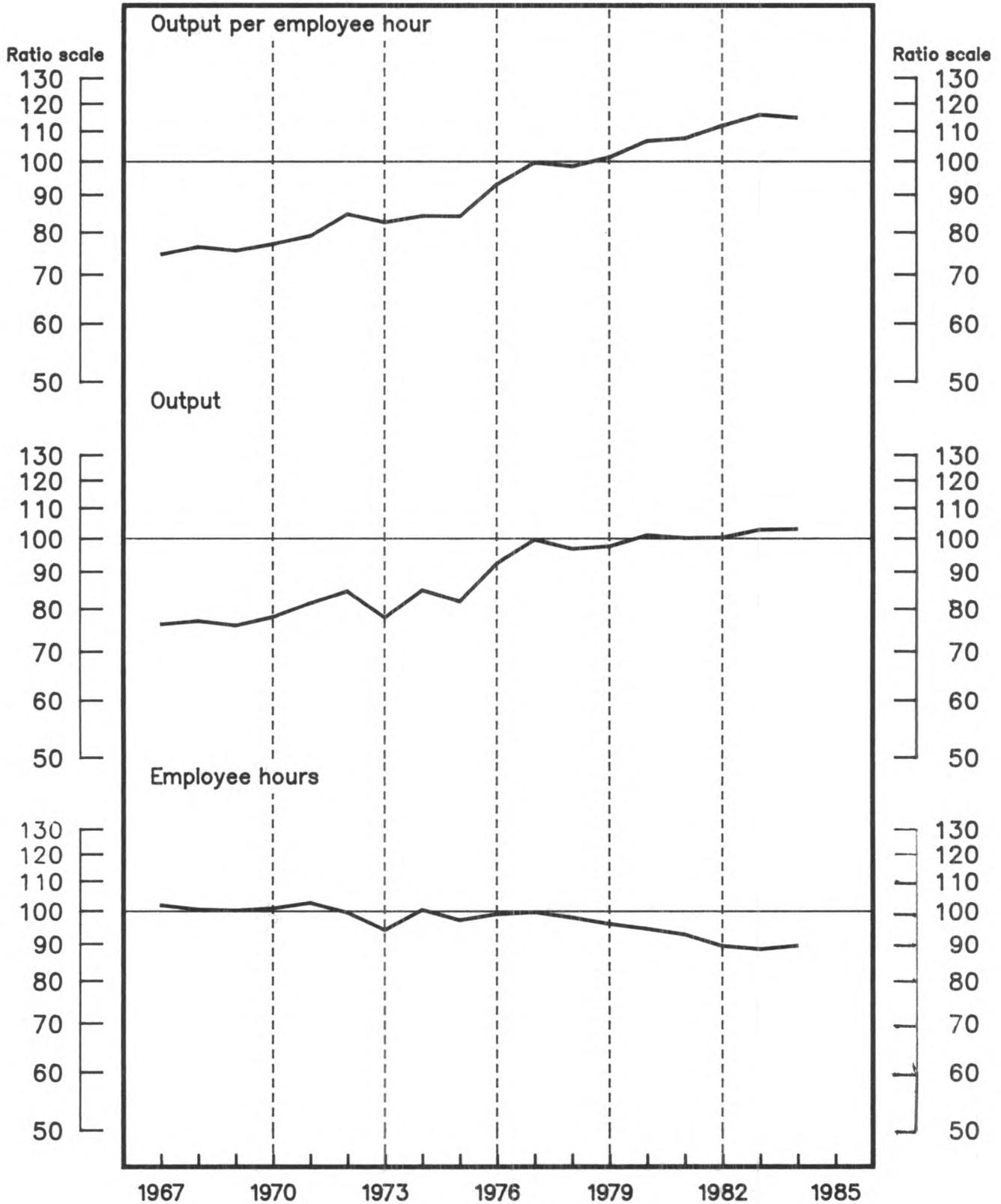
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the

Interior; the Bureau of the Census; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Chart 10. Red meat products (SIC 2011, 2013): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 18. Red meat products (SIC 2011, 2013): Indexes of output per employee hour and output per employee, 1967-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1967 .....	74.8	76.5	69.0	76.3	78.4	69.7
1968 .....	76.6	76.6	76.5	76.8	78.5	71.2
1969 .....	75.7	76.1	74.3	76.0	77.8	70.3
1970 .....	77.3	77.0	78.5	78.1	78.9	75.4
1971 .....	79.3	78.1	84.6	80.6	80.0	82.9
1972 .....	85.0	84.1	88.7	85.3	84.5	88.6
1973 .....	82.8	83.0	81.7	82.5	82.6	82.0
1974 .....	84.5	84.6	84.4	85.6	85.8	84.9
1975 .....	84.4	85.0	82.2	84.5	85.0	82.6
1976 .....	93.4	93.6	92.2	94.3	94.8	92.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	98.8	98.7	99.4	98.3	97.9	99.4
1979 .....	101.7	100.8	104.9	101.9	101.1	104.9
1980 .....	107.0	106.0	111.3	106.3	104.9	111.3
1981 .....	107.9	106.3	114.9	107.5	105.6	114.9
1982 .....	112.3	110.9	117.6	111.1	109.5	117.6
1983 .....	116.2	115.3	119.9	115.6	114.4	119.9
1984 <sup>2</sup> .....	115.1	113.5	121.9	113.9	111.9	121.9
Average annual percent change:						
1967-84 .....	2.9	2.8	3.3	2.8	2.6	3.6
1979-84 .....	2.6	2.6	2.9	2.4	2.3	2.9

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census, the Bureau of Labor Statistics, and the U.S. Department of Agriculture.

**Table 19. Red meat products (SIC 2011, 2013): Indexes of output, employee hours, and employees, 1967-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1967 .....	76.5	102.3	100.0	110.8	100.2	97.6	109.7
1968 .....	77.3	100.9	100.9	101.1	100.7	98.5	108.6
1969 .....	76.2	100.6	100.1	102.6	100.2	98.0	108.4
1970 .....	78.3	101.3	101.7	99.8	100.2	99.3	103.8
1971 .....	81.8	103.1	104.8	96.7	101.5	102.3	98.7
1972 .....	84.9	99.9	101.0	95.7	99.5	100.5	95.8
1973 .....	78.2	94.5	94.2	95.7	94.8	94.7	95.4
1974 .....	85.2	100.8	100.7	101.0	99.5	99.3	100.4
1975 .....	82.3	97.5	96.8	100.1	97.4	96.8	99.6
1976 .....	92.8	99.4	99.1	100.6	98.4	97.9	100.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	97.1	98.3	98.4	97.7	98.8	99.2	97.7
1979 .....	97.9	96.3	97.1	93.3	96.1	96.8	93.3
1980 .....	101.4	94.8	95.7	91.1	95.4	96.7	91.1
1981 .....	100.5	93.1	94.5	87.5	93.5	95.2	87.5
1982 .....	100.7	89.7	90.8	85.6	90.6	92.0	85.6
1983 .....	103.2	88.8	89.5	86.1	89.3	90.2	86.1
1984 <sup>1</sup> .....	103.4	89.8	91.1	84.8	90.8	92.4	84.8
Average annual percent change:							
1967-84 .....	2.1	-.8	-.7	-1.2	-.6	-.4	-1.4
1979-84 .....	.9	-1.7	-1.6	-1.9	-1.5	-1.3	-1.9

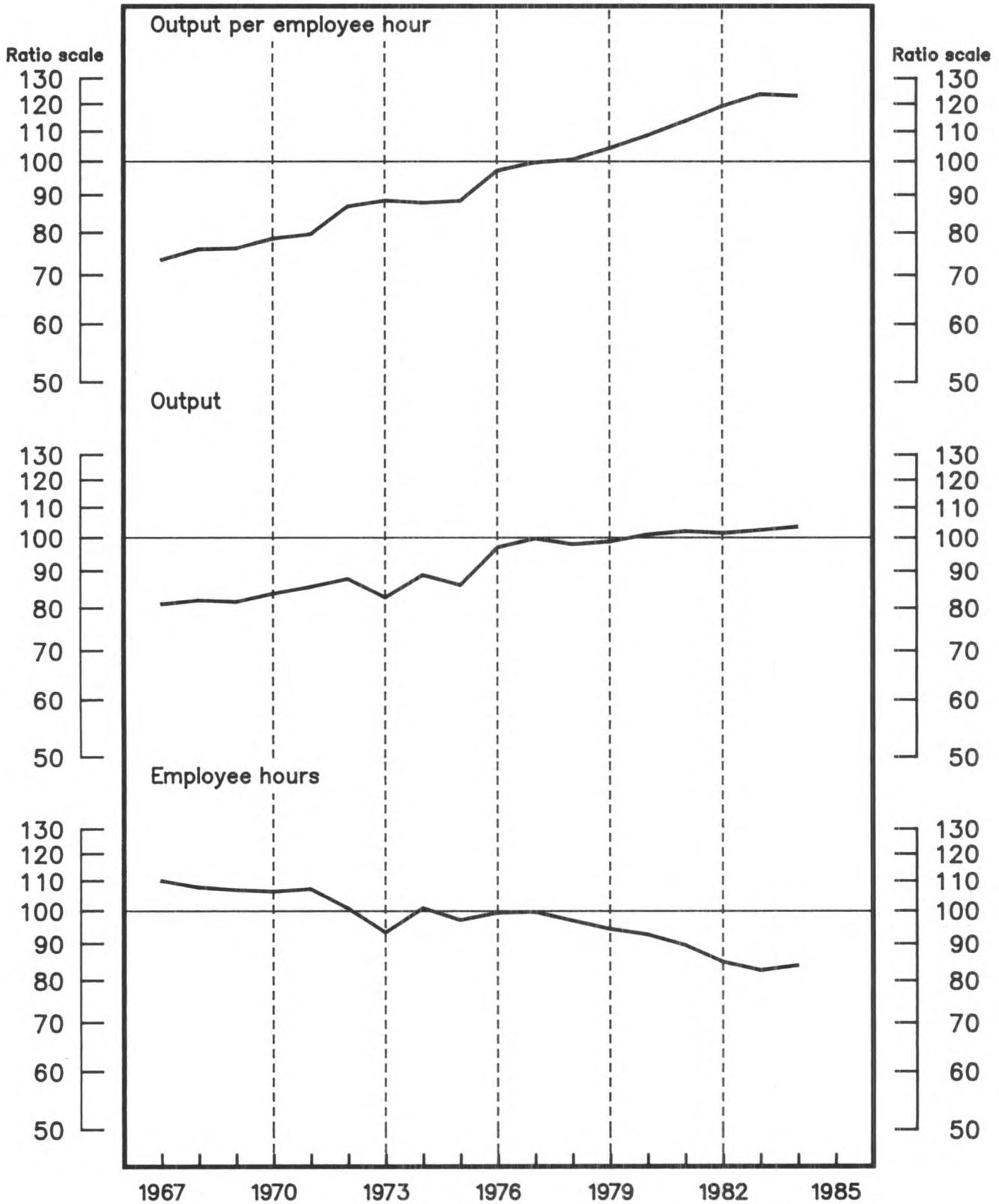
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census, the Bureau of Labor Statistics, and the U.S. Department of Agriculture.

**Chart. 11. Meat packing plants (SIC 2011): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 20. Meat packing plants (SIC 2011): Indexes of output per employee hour and output per employee, 1967-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1967 .....	73.6	76.1	64.4	74.6	77.4	65.0
1968 .....	76.1	77.1	71.8	76.1	78.8	66.9
1969 .....	76.3	77.6	71.2	76.4	78.9	67.4
1970 .....	78.7	79.0	77.5	79.6	80.9	74.6
1971 .....	79.8	78.6	85.0	81.3	80.9	83.4
1972 .....	87.1	86.0	91.8	72.2	86.2	91.7
1973 .....	88.7	88.7	88.4	88.2	88.0	88.7
1974 .....	88.1	87.6	89.7	89.0	88.7	90.3
1975 .....	88.6	88.6	88.7	88.2	88.0	89.1
1976 .....	97.5	97.4	97.7	97.9	97.9	97.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.9	100.9	100.9	100.4	100.2	100.9
1979 .....	104.6	103.9	108.2	104.6	103.9	108.2
1980 .....	108.9	107.4	115.8	108.3	106.6	115.8
1981 .....	113.9	111.9	123.4	113.3	111.1	123.4
1982 .....	119.5	117.6	129.2	118.6	116.3	129.2
1983 .....	124.0	123.0	129.0	123.1	121.8	129.0
1984 <sup>2</sup> .....	123.4	121.0	136.0	121.7	118.6	136.0
Average annual percent change:						
1967-84 .....	3.3	3.1	4.1	3.2	2.8	4.4
1979-84 .....	3.7	3.5	4.4	3.4	3.2	4.4

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census, the Bureau of Labor Statistics, and the U.S. Department of Agriculture.

**Table 21. Meat packing plants (SIC 2011): Indexes of output, employee hours, and employees, 1967-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1967 .....	81.3	110.5	106.8	126.3	109.0	105.1	125.1
1968 .....	82.3	108.2	106.7	114.6	108.1	104.5	123.0
1969 .....	81.9	107.3	105.5	115.0	107.2	103.8	121.5
1970 .....	84.1	106.8	106.5	108.5	105.7	104.0	112.8
1971 .....	85.9	107.7	109.3	101.0	105.6	106.2	103.0
1972 .....	88.1	101.2	102.4	96.0	101.0	102.2	96.1
1973 .....	83.1	93.7	93.7	94.0	94.2	94.4	93.7
1974 .....	89.2	101.3	101.8	99.4	100.2	100.6	98.8
1975 .....	86.4	97.5	97.5	97.4	98.0	98.2	97.0
1976 .....	97.3	99.8	99.9	99.6	99.4	99.4	99.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	98.2	97.3	97.3	97.3	97.8	98.0	97.3
1979 .....	99.1	94.7	95.4	91.6	94.7	95.4	91.6
1980 .....	101.3	93.0	94.3	87.5	93.5	95.0	87.5
1981 .....	102.4	89.9	91.5	83.0	90.4	92.2	83.0
1982 .....	101.8	85.2	86.6	78.8	85.8	87.5	78.8
1983 .....	102.8	82.9	83.6	79.7	83.5	84.4	79.7
1984 <sup>1</sup> .....	103.9	84.2	85.9	76.4	85.4	87.6	76.4
Average annual percent change:							
1967-84 .....	1.7	-1.5	-1.4	-2.4	-1.4	-1.1	-2.6
1979-84 .....	.8	-2.8	-2.7	-3.5	-2.6	-2.4	-3.5

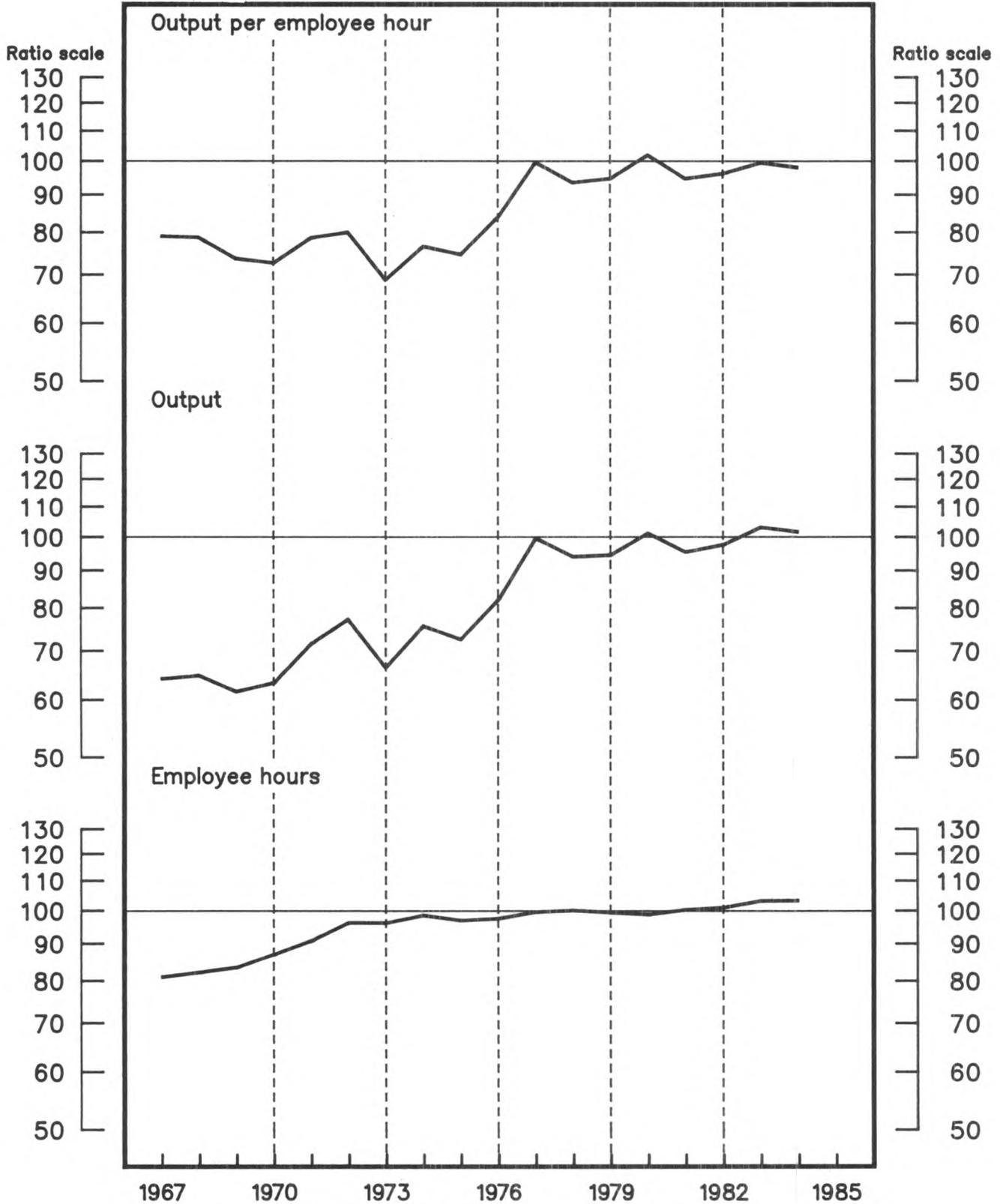
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census, the Bureau of Labor Statistics, and the U.S. Department of Agriculture.

**Chart 12. Sausages and other prepared meats (SIC 2013): Output per hour and related data 1967-85**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 22. Sausages and other prepared meats (SIC 2013): Indexes of output per employee hour and output per employee, 1967-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1967 .....	79.2	80.1	76.9	81.5	83.1	77.8
1968 .....	78.9	77.2	83.8	78.9	79.2	78.1
1969 .....	73.8	72.9	76.5	74.4	75.1	72.5
1970 .....	72.8	72.0	75.1	73.1	73.5	72.2
1971 .....	78.8	78.2	80.4	78.6	78.4	78.8
1972 .....	80.2	79.8	81.4	81.0	80.8	81.3
1973 .....	69.1	69.7	67.6	69.3	69.8	67.8
1974 .....	76.7	78.2	73.1	77.7	79.3	73.6
1975 .....	74.8	77.0	69.6	75.8	78.4	69.9
1976 .....	84.2	85.6	80.5	85.8	87.9	80.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	93.8	93.1	95.8	93.1	92.1	95.8
1979 .....	95.0	93.8	98.4	95.4	94.2	98.4
1980 .....	102.3	101.6	104.2	101.4	100.3	104.2
1981 .....	95.0	93.1	100.4	94.5	92.5	100.4
1982 .....	96.5	95.2	100.5	95.7	94.0	100.5
1983 .....	99.8	97.5	106.2	100.0	97.8	106.2
1984 <sup>2</sup> .....	98.3	96.9	102.4	98.1	96.6	102.4
Average annual percent change:						
1967-84 .....	2.0	2.0	2.3	1.9	1.7	2.5
1979-84 .....	.3	.2	.7	.3	.2	.7

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census, the Bureau of Labor Statistics, and the U.S. Department of Agriculture.

**Table 23. Sausages and other prepared meats (SIC 2013): Indexes of output, employee hours, and employees, 1967-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1967 .....	64.3	81.2	80.3	83.6	78.9	77.4	82.7
1968 .....	65.0	82.4	84.2	77.6	82.4	82.1	83.2
1969 .....	61.8	83.7	84.8	80.8	83.1	82.3	85.3
1970 .....	63.5	87.2	88.2	84.6	86.9	86.4	88.0
1971 .....	71.8	91.1	91.8	89.3	91.4	91.6	91.1
1972 .....	77.5	96.6	97.1	95.2	95.7	95.9	95.3
1973 .....	66.7	96.5	95.7	98.7	96.3	95.5	98.4
1974 .....	75.9	98.9	97.1	103.8	97.7	95.7	103.1
1975 .....	72.8	97.3	94.6	104.6	96.0	92.9	104.2
1976 .....	82.4	97.9	96.3	102.3	96.0	93.7	102.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	94.3	100.5	101.3	98.4	101.3	102.4	98.4
1979 .....	94.8	99.8	101.1	96.3	99.4	100.6	96.3
1980 .....	101.5	99.2	99.9	97.4	100.1	101.2	97.4
1981 .....	95.7	100.7	102.8	95.3	101.3	103.5	95.3
1982 .....	97.9	101.4	102.8	97.4	102.3	104.1	97.4
1983 .....	103.4	103.6	106.0	97.4	103.4	105.7	97.4
1984 <sup>1</sup> .....	101.9	103.7	105.2	99.5	103.9	105.5	99.5
Average annual percent change:							
1967-84 .....	3.4	1.3	1.4	1.1	1.4	1.6	.9
1979-84 .....	1.3	.9	1.1	.5	.9	1.1	.5

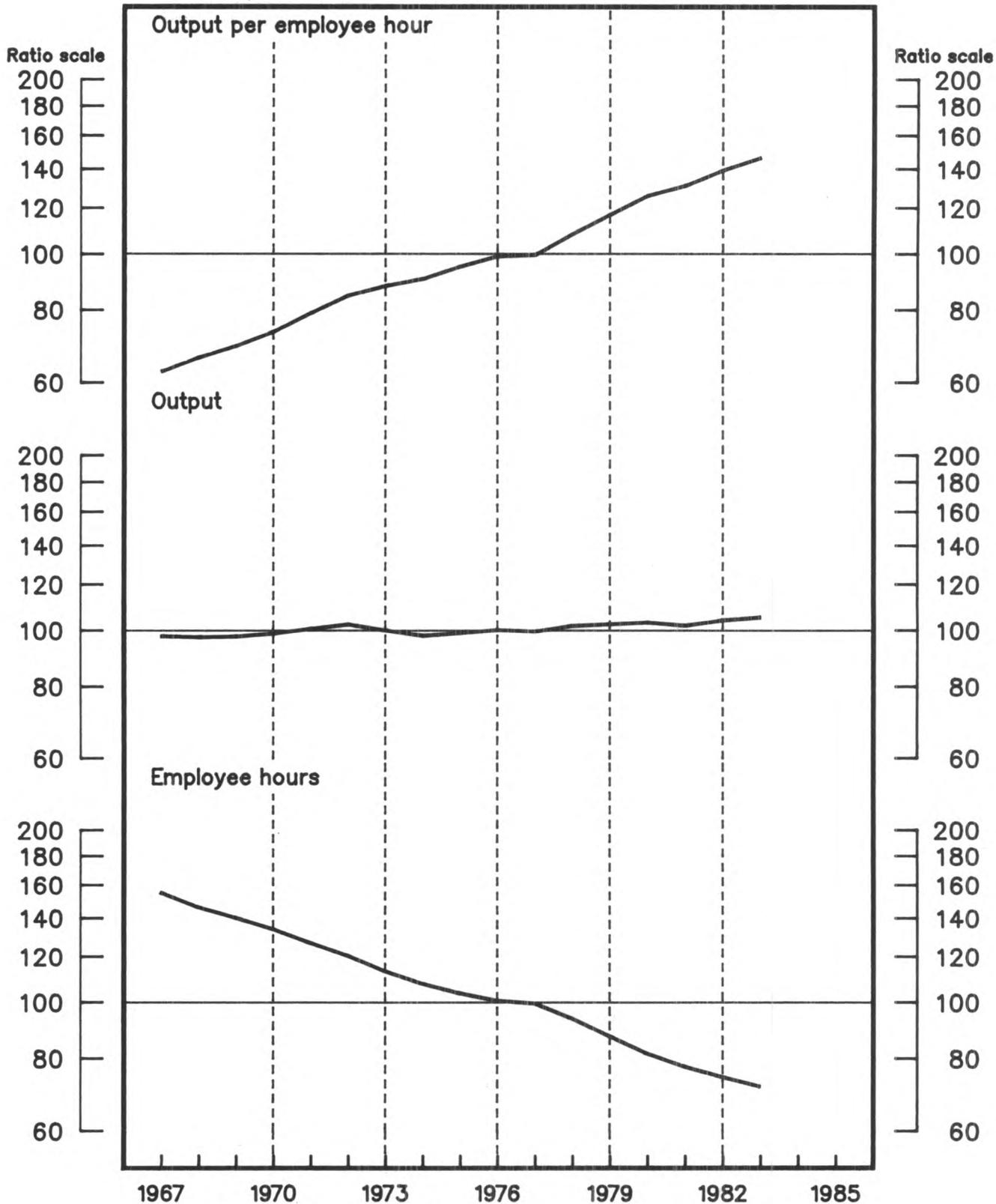
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census, the Bureau of Labor Statistics, and the U.S. Department of Agriculture.

Chart 13. Fluid milk (SIC 2026): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 24. Fluid milk (SIC 2026): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-83**  
(1977 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958 .....	48.5	48.4	89.8	185.0	185.6
1959 .....	49.8	49.7	92.0	184.9	185.0
1960 .....	50.9	50.8	93.3	183.2	183.8
1961 .....	51.9	51.8	93.7	180.7	180.8
1962 .....	54.2	53.8	95.3	175.8	177.3
1963 .....	57.4	56.8	98.6	171.8	173.7
1964 .....	58.6	57.9	100.0	170.7	172.6
1965 .....	59.3	58.7	99.8	168.2	170.0
1966 .....	61.0	60.3	98.5	161.5	163.4
1967 .....	62.9	62.2	98.1	156.0	157.7
1968 .....	66.5	64.4	97.7	147.0	151.7
1969 .....	69.6	67.3	98.0	140.9	145.6
1970 .....	73.7	71.3	99.2	134.6	139.1
1971 .....	79.4	77.3	101.1	127.3	130.8
1972 .....	85.1	83.7	102.9	120.9	122.9
1973 .....	88.4	87.2	100.4	113.6	115.1
1974 .....	90.9	89.7	98.3	108.1	109.6
1975 .....	95.5	94.3	99.4	104.1	105.4
1976 .....	99.5	98.1	100.6	101.1	102.5
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	108.6	107.1	102.3	94.2	95.5
1979 .....	117.3	115.2	103.0	87.8	89.4
1980 .....	126.5	124.5	103.7	82.0	83.3
1981 .....	131.6	128.6	102.4	77.8	79.6
1982 .....	140.0	136.7	104.6	74.7	76.5
1983 <sup>1</sup> .....	147.1	144.1	105.8	71.9	73.4
Average annual percent change:					
1958-83 .....	4.6	4.6	.5	-4.0	-3.9
1979-83 .....	5.7	5.6	.6	-4.8	-4.7

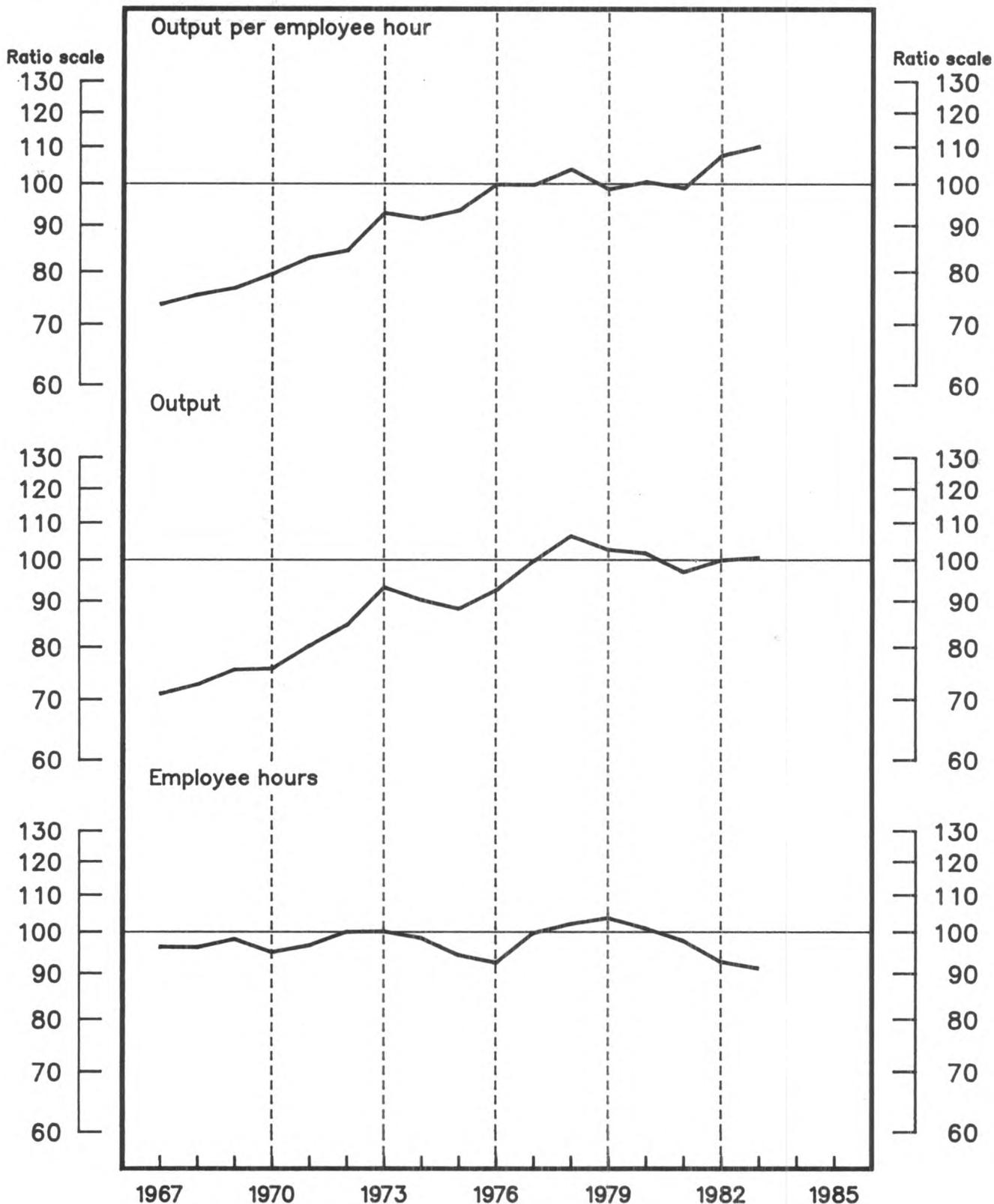
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Economic Research Service, U.S. Department of Agriculture; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

**Chart 14. Preserved fruits and vegetables (SIC 203): Output per hour and related data, 1967-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 25. Preserved fruits and vegetables (SIC 203): Indexes of output per employee hour and output per employee, 1958-83 (1977=100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	54.7	53.7	60.4	55.3	54.2	62.2
1959 .....	54.8	53.6	62.2	56.3	55.1	64.0
1960 .....	58.6	57.3	68.4	60.8	59.4	69.7
1961 .....	60.3	58.8	71.8	61.6	60.1	72.1
1962 .....	63.2	61.5	75.6	65.4	63.8	75.5
1963 .....	65.8	64.5	75.3	66.0	64.6	75.1
1964 .....	67.9	66.7	75.8	68.8	67.8	75.9
1965 .....	70.3	69.0	79.0	71.5	70.4	78.8
1966 .....	70.0	68.7	79.0	70.9	69.7	78.6
1967 .....	73.8	71.6	89.6	75.5	73.6	89.1
1968 .....	75.6	73.4	91.0	75.1	73.4	86.3
1969 .....	76.9	74.9	91.2	77.1	75.5	87.6
1970 .....	79.7	78.6	87.3	79.6	78.7	85.0
1971 .....	83.1	82.3	88.2	83.9	83.2	87.3
1972 .....	84.6	83.8	89.9	85.4	84.6	90.4
1973 .....	93.1	93.0	93.7	93.8	93.6	94.8
1974 .....	91.7	90.4	99.9	92.6	91.2	101.2
1975 .....	93.7	92.5	101.4	93.7	92.3	102.4
1976 .....	100.1	99.4	105.2	98.4	97.2	106.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	104.1	103.6	107.0	103.4	102.7	107.2
1979 .....	98.9	99.2	97.5	99.0	99.2	98.0
1980 .....	100.8	102.0	94.7	102.3	103.8	95.4
1981 .....	99.2	99.8	95.5	100.3	101.1	95.9
1982 .....	107.9	110.1	96.6	107.1	109.2	97.0
1983 <sup>2</sup> .....	110.4	113.0	97.9	110.4	113.1	97.9
Average annual percent change:						
1947-83 .....	2.8	2.9	1.9	2.8	2.9	1.8
1979-83 .....	2.9	3.4	.3	2.7	3.2	.1

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the National Canners Association; U.S.

Department of Agriculture; the Bureau of Labor Statistics; the Bureau of Competitive Assessment and Business Policy; the National Oceanic and Atmospheric Administration; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 26. Preserved fruits and vegetables (SIC 203): Indexes of output, employee hours, and employees, 1958-83 (1977=100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	46.9	85.8	87.3	77.7	84.8	86.5	75.4
1959 .....	47.8	87.3	89.1	76.9	84.9	86.7	74.7
1960 .....	52.7	89.9	92.0	77.0	86.7	88.7	75.6
1961 .....	54.0	89.5	91.9	75.2	87.6	89.8	74.9
1962 .....	56.4	89.2	91.7	74.6	86.2	88.4	74.7
1963 .....	58.6	89.0	90.9	77.8	88.8	90.7	78.0
1964 .....	61.4	90.4	92.0	81.0	89.2	90.6	80.9
1965 .....	65.1	92.6	94.3	82.4	91.0	92.5	82.6
1966 .....	66.6	95.2	97.0	84.3	94.0	95.6	84.7
1967 .....	71.2	96.5	99.5	79.5	94.3	96.8	79.9
1968 .....	72.9	96.4	99.3	80.1	97.1	99.3	84.5
1969 .....	75.7	98.4	101.1	83.0	98.2	100.3	86.4
1970 .....	75.9	95.2	96.6	86.9	95.4	96.4	89.3
1971 .....	80.5	96.9	97.8	91.3	95.9	96.7	92.2
1972 .....	84.9	100.3	101.3	94.4	99.4	100.4	93.9
1973 .....	93.5	100.4	100.5	99.8	99.7	99.9	98.6
1974 .....	90.5	98.7	100.1	90.6	97.7	99.2	89.4
1975 .....	88.5	94.5	95.7	87.3	94.5	95.9	86.4
1976 .....	92.8	92.7	93.4	88.2	94.3	95.5	87.2
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	106.6	102.4	102.9	99.6	103.1	103.8	99.4
1979 .....	102.9	104.0	103.7	105.5	103.9	103.7	105.0
1980 .....	102.0	101.2	100.0	107.7	99.7	98.3	106.9
1981 .....	97.2	98.0	97.4	101.8	96.9	96.1	101.4
1982 .....	100.2	92.9	91.0	103.7	93.6	91.8	103.3
1983 <sup>1</sup> .....	100.9	91.4	89.3	103.1	91.4	89.2	103.1
Average annual percent change:							
1947-83 .....	3.5	.6	.5	1.5	.6	.5	1.6
1979-83 .....	-.6	-3.4	-3.9	-.8	-3.1	-3.6	-.7

<sup>1</sup> Preliminary.

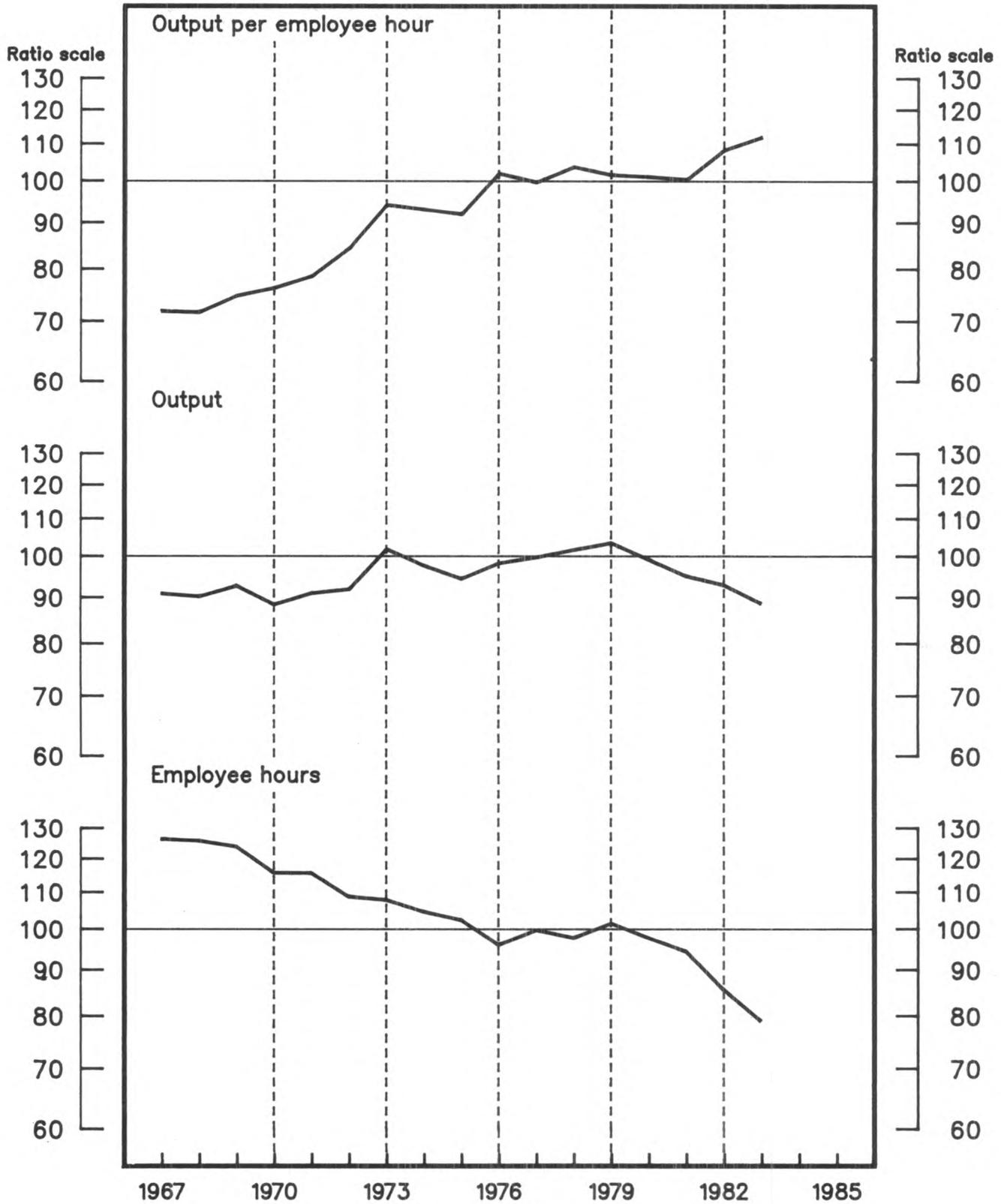
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the National Canners Association; U.S.

Department of Agriculture; the Bureau of Labor Statistics; the Bureau of Competitive Assessment and Business Policy; the National Oceanic and Atmospheric Administration; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 15. Canned fruits and vegetables (SIC 2033): Output per hour and related data, 1967-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 27. Canned fruits and vegetables (SIC 2033): Indexes of output per employee hour and output per employee, 1958-83 (1977=100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	53.6	53.4	54.9	54.3	54.1	56.6
1959 .....	52.7	51.8	60.1	54.4	53.6	61.8
1960 .....	57.7	56.5	68.2	60.4	59.3	69.5
1961 .....	57.9	56.5	70.0	59.4	58.2	70.4
1962 .....	59.8	58.2	74.2	62.9	61.7	74.2
1963 .....	66.4	65.9	70.3	66.2	65.8	70.2
1964 .....	68.0	68.0	67.9	68.7	68.9	68.1
1965 .....	68.6	68.6	67.7	69.4	69.7	67.6
1966 .....	70.0	70.0	69.4	71.1	71.4	69.0
1967 .....	72.0	70.8	81.9	75.2	74.5	81.4
1968 .....	71.8	70.4	83.0	71.9	71.1	78.7
1969 .....	74.9	73.4	87.3	75.7	74.7	83.8
1970 .....	76.4	75.9	80.0	76.1	75.9	77.8
1971 .....	78.7	78.3	81.5	80.0	79.9	80.8
1972 .....	84.5	84.7	83.3	84.8	85.1	83.8
1973 .....	94.4	94.2	95.2	95.2	95.2	96.4
1974 .....	93.3	91.1	113.7	94.7	92.4	115.2
1975 .....	92.2	90.4	107.7	93.6	91.8	108.9
1976 .....	102.3	101.2	109.4	99.0	97.5	110.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	104.0	103.7	106.5	101.8	101.2	106.1
1979 .....	101.9	103.0	94.1	103.9	105.5	94.3
1980 .....	101.4	104.0	86.1	102.9	105.6	86.4
1981 .....	100.7	101.5	95.3	100.6	101.5	95.3
1982 .....	108.6	110.8	95.2	109.1	111.5	95.1
1983 <sup>2</sup> .....	112.2	115.5	92.9	112.7	116.1	92.6
Average annual percent change:						
1958-83 .....	3.1	3.2	2.1	3.0	3.1	2.1
1979-83 .....	2.6	3.0	.8	2.2	2.5	.6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 28. Canned fruits and vegetables (SIC 2033): Indexes of output, employee hours, and employees, 1958-83 (1977=100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	71.3	133.1	133.6	129.8	131.3	131.9	126.0
1959 .....	70.5	133.7	136.0	117.4	129.6	131.6	114.0
1960 .....	75.8	131.3	134.1	111.1	125.6	127.8	109.0
1961 .....	76.7	132.4	135.7	109.6	129.1	131.7	109.0
1962 .....	79.3	132.7	136.2	106.9	126.1	128.6	106.9
1963 .....	82.1	123.6	124.6	116.8	124.0	124.8	117.0
1964 .....	85.1	125.1	125.1	125.4	123.9	123.6	125.0
1965 .....	84.5	123.2	123.1	124.8	121.8	121.3	125.0
1966 .....	86.9	124.2	124.1	125.3	122.3	121.7	126.0
1967 .....	91.2	126.7	128.9	111.4	121.2	122.4	112.0
1968 .....	90.5	126.1	128.5	109.1	125.9	127.3	115.0
1969 .....	93.0	124.2	126.7	106.5	122.9	124.5	111.0
1970 .....	88.7	116.1	116.8	110.9	116.6	116.9	114.0
1971 .....	91.3	116.0	116.6	112.0	114.1	114.2	113.0
1972 .....	92.2	109.1	108.9	110.7	108.7	108.4	110.0
1973 .....	102.1	108.2	108.4	107.2	107.3	107.3	105.9
1974 .....	97.9	104.9	107.5	86.1	103.4	105.9	85.0
1975 .....	94.7	102.7	104.8	87.9	101.2	103.2	87.0
1976 .....	98.5	96.3	97.3	90.0	99.5	101.0	89.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	101.9	98.0	96.3	95.7	100.1	100.7	96.0
1979 .....	103.7	101.8	100.7	110.2	99.8	98.3	110.0
1980 .....	99.4	98.0	95.6	115.5	96.6	94.1	115.0
1981 .....	95.3	94.6	93.9	100.0	94.7	93.9	100.0
1982 .....	93.2	85.8	84.1	97.9	85.4	83.6	98.0
1983 <sup>1</sup> .....	88.9	79.2	77.0	95.7	78.9	76.6	96.0
Average annual percent change:							
1958-83 .....	1.2	-1.8	-1.9	-9	-1.7	-1.8	-9
1979-83 .....	-3.7	-6.2	-6.4	-4.4	-5.8	-6.0	-4.2

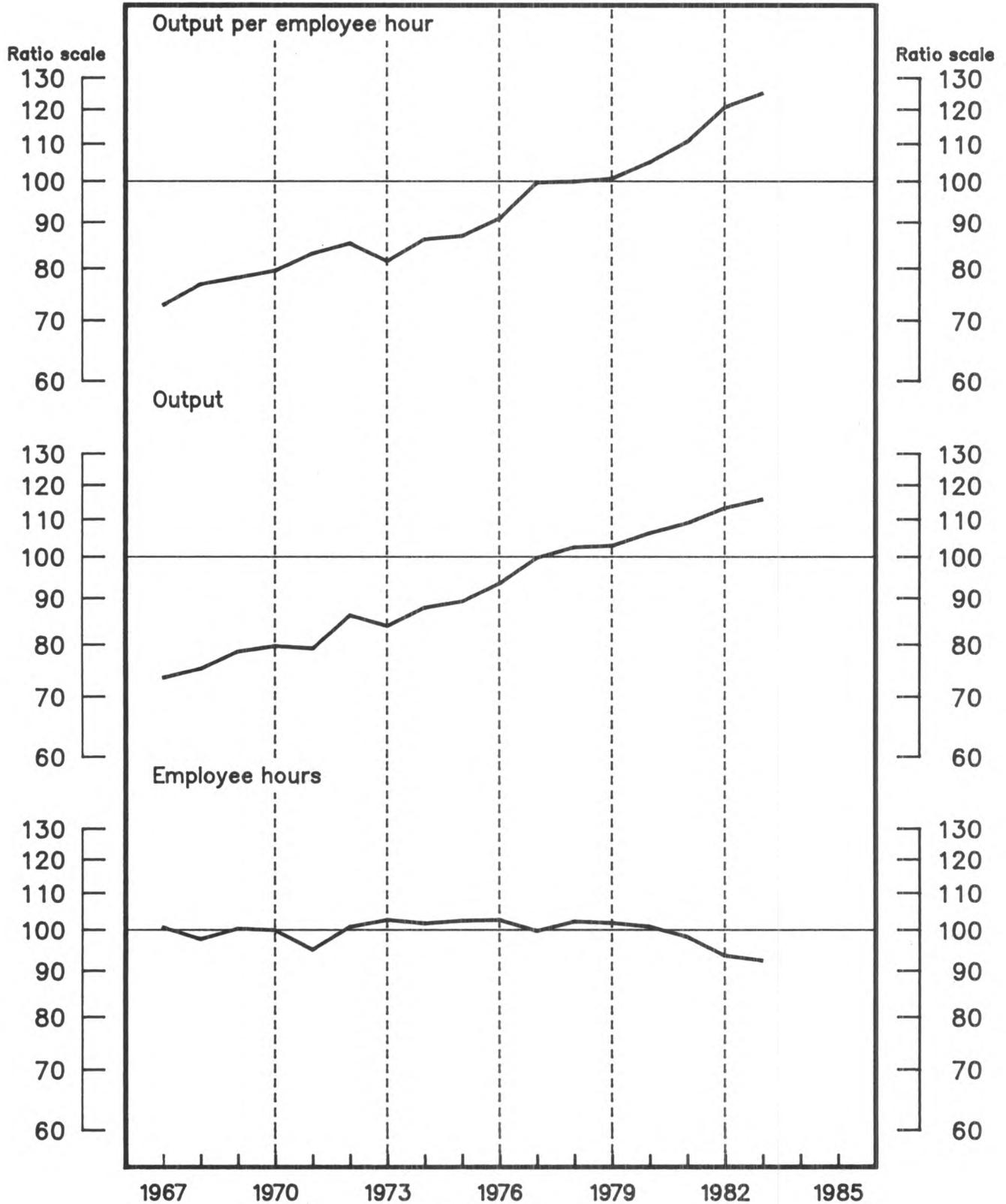
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 16. Grain mill products (SIC 204): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 29. Grain mill products (SIC 204): Indexes of output per employee hour and output per employee, 1963-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	61.0	60.8	61.5	63.0	63.8	61.3
1964	64.3	64.3	64.2	66.7	67.6	64.4
1965	66.0	66.0	65.8	68.4	69.7	65.7
1966	68.8	69.2	67.7	71.0	72.6	67.4
1967	73.0	72.8	73.6	74.4	75.0	73.3
1968	77.0	75.9	80.0	77.4	78.1	75.9
1969	78.3	77.6	80.4	79.3	80.2	77.2
1970	79.7	78.9	81.9	79.8	79.9	79.7
1971	83.3	82.5	85.4	83.1	82.5	84.6
1972	85.5	84.5	87.8	87.6	87.4	88.3
1973	81.7	80.0	86.3	86.1	85.6	87.2
1974	86.4	86.0	87.2	87.3	86.9	88.4
1975	87.1	86.2	89.5	88.6	87.9	90.3
1976	91.1	91.1	91.1	92.4	92.6	92.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.2	100.8	98.7	99.9	100.4	98.6
1979	101.0	100.3	103.1	101.9	101.2	103.4
1980	105.3	105.4	105.1	105.6	105.4	105.9
1981	110.9	111.2	110.1	112.8	113.7	110.5
1982	121.0	123.2	115.6	119.2	120.6	115.9
1983 <sup>2</sup>	125.3	127.2	120.5	123.8	125.3	120.3
Average annual percent change:						
1963-83	3.3	3.3	3.1	3.1	3.0	3.2
1979-83	5.9	6.5	4.2	5.2	5.8	4.0

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census; Agricultural Marketing Service, U.S. Department of Agriculture; the Rice Millers' Association; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 30. Grain mill products (SIC 204): Indexes of output, employee hours, and employees, 1963-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	63.1	103.4	103.8	102.6	100.2	98.9	103.0
1964	65.2	101.4	101.4	101.5	97.8	96.5	101.2
1965	65.5	99.2	99.2	99.6	95.7	94.0	99.7
1966	68.2	99.1	98.6	100.7	96.0	93.9	101.2
1967	73.7	100.9	101.2	100.2	99.0	98.3	100.6
1968	75.4	97.9	99.3	94.3	97.4	96.6	99.4
1969	78.8	100.6	101.6	98.0	99.4	98.3	102.1
1970	79.9	100.2	101.3	97.5	100.1	100.0	100.3
1971	79.4	95.3	96.2	93.0	95.5	96.3	93.8
1972	86.4	101.1	102.2	98.4	98.6	98.8	97.9
1973	84.1	102.9	105.1	97.5	97.7	98.3	96.5
1974	88.1	102.0	102.5	101.0	100.9	101.4	99.7
1975	89.5	102.7	103.8	100.0	101.0	101.8	99.1
1976	93.7	102.9	102.9	102.9	101.4	101.2	101.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.7	102.5	101.9	104.1	102.8	102.3	104.2
1979	103.1	102.1	102.8	100.0	101.2	101.9	99.7
1980	106.5	101.1	101.0	101.3	100.9	101.0	100.6
1981	109.2	98.5	98.2	99.2	96.8	96.0	98.8
1982	113.5	93.8	92.1	98.2	95.2	94.1	97.9
1983 <sup>1</sup>	116.0	92.6	91.2	96.3	93.7	92.6	96.4
Average annual percent change:							
1963-83	3.1	-.2	-.2	( <sup>2</sup> )	( <sup>2</sup> )	.1	-.1
1979-83	3.0	-2.7	-3.3	-1.1	-2.1	-2.6	-.9

<sup>1</sup> Preliminary.

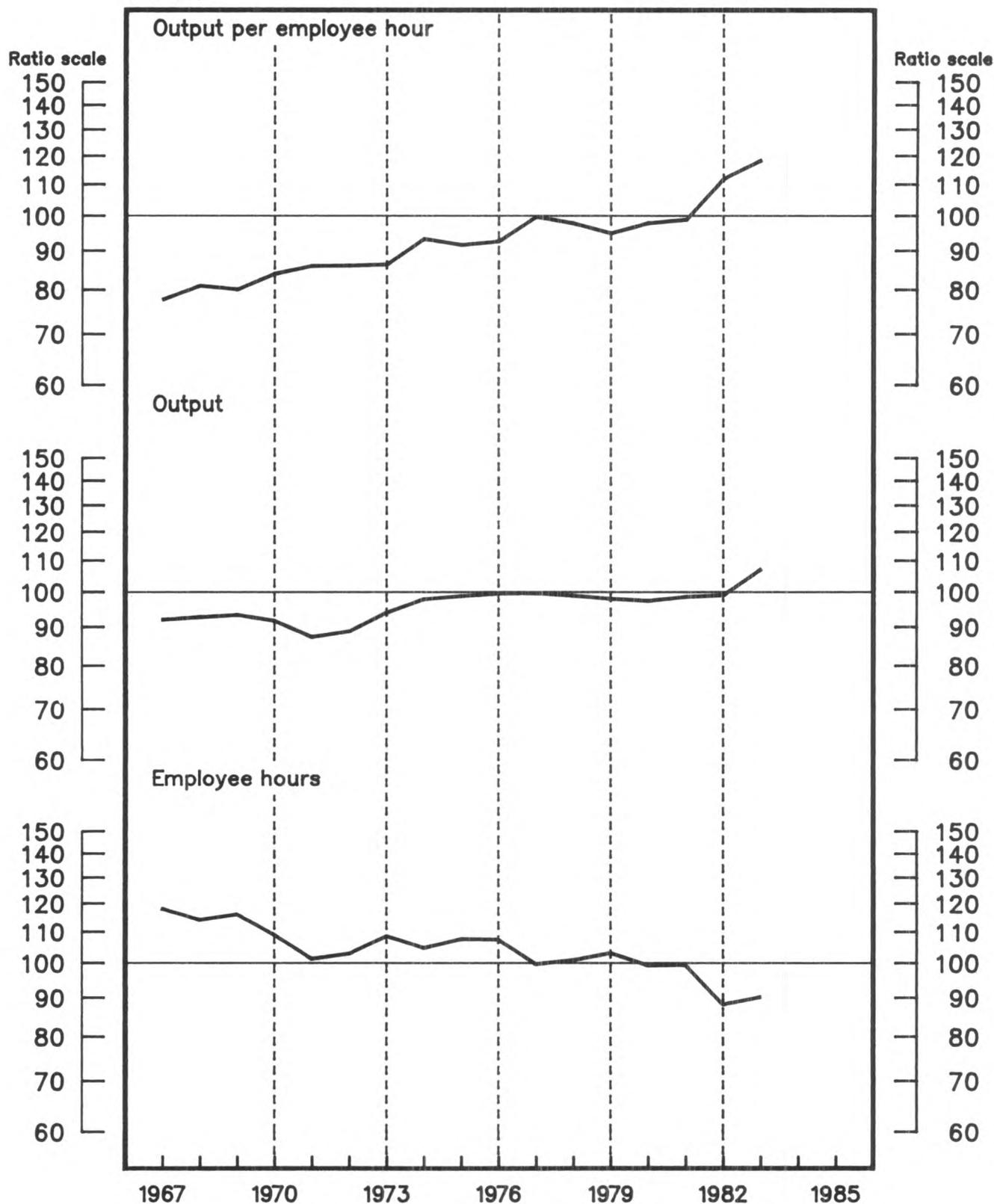
<sup>2</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census; Agricultural Marketing Service, U.S. Department of Agriculture; the Rice Millers' Association; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 17. Flour (including flour mixes) and other grains (SIC 2041, 2045): Output per hour and related data, 1967-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 31. Flour (including flour mixes) and other grains (SIC 2041, 2045): Indexes of output per employee hour and output per employee, 1963-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963 .....	65.0	62.9	71.8	68.2	66.9	71.6
1964 .....	69.1	68.6	70.7	71.8	72.2	70.8
1965 .....	71.2	69.9	75.5	73.1	72.3	75.1
1966 .....	74.9	73.3	79.9	76.4	75.4	79.3
1967 .....	77.9	76.1	83.2	79.1	77.8	82.7
1968 .....	81.2	78.1	91.5	82.1	80.3	86.8
1969 .....	80.3	77.7	88.8	81.1	79.7	85.0
1970 .....	84.2	82.4	89.9	84.2	83.3	87.0
1971 .....	86.2	83.3	95.7	86.6	83.7	94.4
1972 .....	86.3	83.4	95.8	89.1	86.6	96.0
1973 .....	86.6	82.6	100.5	90.2	86.2	101.6
1974 .....	93.5	90.1	104.7	93.5	89.4	105.8
1975 .....	91.8	90.3	96.9	91.8	89.7	97.7
1976 .....	92.8	93.8	90.1	93.3	94.4	90.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	98.0	96.6	102.4	98.8	97.4	102.2
1979 .....	95.1	92.7	102.3	98.7	97.1	102.7
1980 .....	98.1	95.9	105.1	99.4	97.1	105.3
1981 .....	99.1	96.8	106.3	101.4	99.5	106.6
1982 .....	112.3	109.8	119.9	109.0	105.0	120.3
1983 <sup>2</sup> .....	118.8	117.1	123.8	118.4	116.3	123.6
Average annual percent change:						
1963-83 .....	2.4	2.5	2.3	2.3	2.2	2.4
1979-83 .....	6.0	6.2	5.3	4.7	4.5	5.2

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 32. Flour (including flour mixes) and other grains (SIC 2041, 2045): Indexes of output, employee hours, and employees, 1963-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963 .....	84.1	129.4	133.8	117.1	123.3	125.7	117.4
1964 .....	86.2	127.6	126.6	124.8	122.9	122.2	124.6
1965 .....	84.9	119.2	121.5	112.4	116.2	117.5	113.0
1966 .....	87.3	116.5	119.1	109.3	114.2	115.8	110.1
1967 .....	92.3	118.5	121.3	110.9	116.7	118.7	111.6
1968 .....	93.0	114.5	119.1	101.6	113.3	115.8	107.2
1969 .....	93.6	116.5	120.4	105.4	115.4	117.5	110.1
1970 .....	92.0	109.3	111.7	102.3	109.2	110.5	105.8
1971 .....	87.6	101.6	105.2	91.5	101.2	104.7	92.8
1972 .....	89.1	103.2	106.8	93.0	100.0	102.9	92.8
1973 .....	94.3	108.9	114.2	93.8	104.6	109.4	92.8
1974 .....	98.2	105.0	109.0	93.8	105.0	109.9	92.8
1975 .....	99.1	107.9	109.8	102.3	107.9	110.5	101.4
1976 .....	99.9	107.7	106.5	110.9	107.1	105.8	110.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	99.2	101.2	102.7	96.9	100.4	101.8	97.1
1979 .....	98.3	103.4	106.0	96.1	99.6	101.2	95.7
1980 .....	97.7	99.6	101.9	93.0	98.3	100.6	92.8
1981 .....	98.9	99.8	102.2	93.0	97.5	99.4	92.8
1982 .....	99.4	88.5	90.5	82.9	91.2	94.7	82.6
1983 <sup>1</sup> .....	107.5	90.5	91.8	86.8	90.8	92.4	87.0
Average annual percent change:							
1963-83 .....	.9	-1.5	-1.5	-1.3	-1.3	-1.3	-1.4
1979-83 .....	2.0	-3.8	-4.0	-3.1	-2.6	-2.4	-3.0

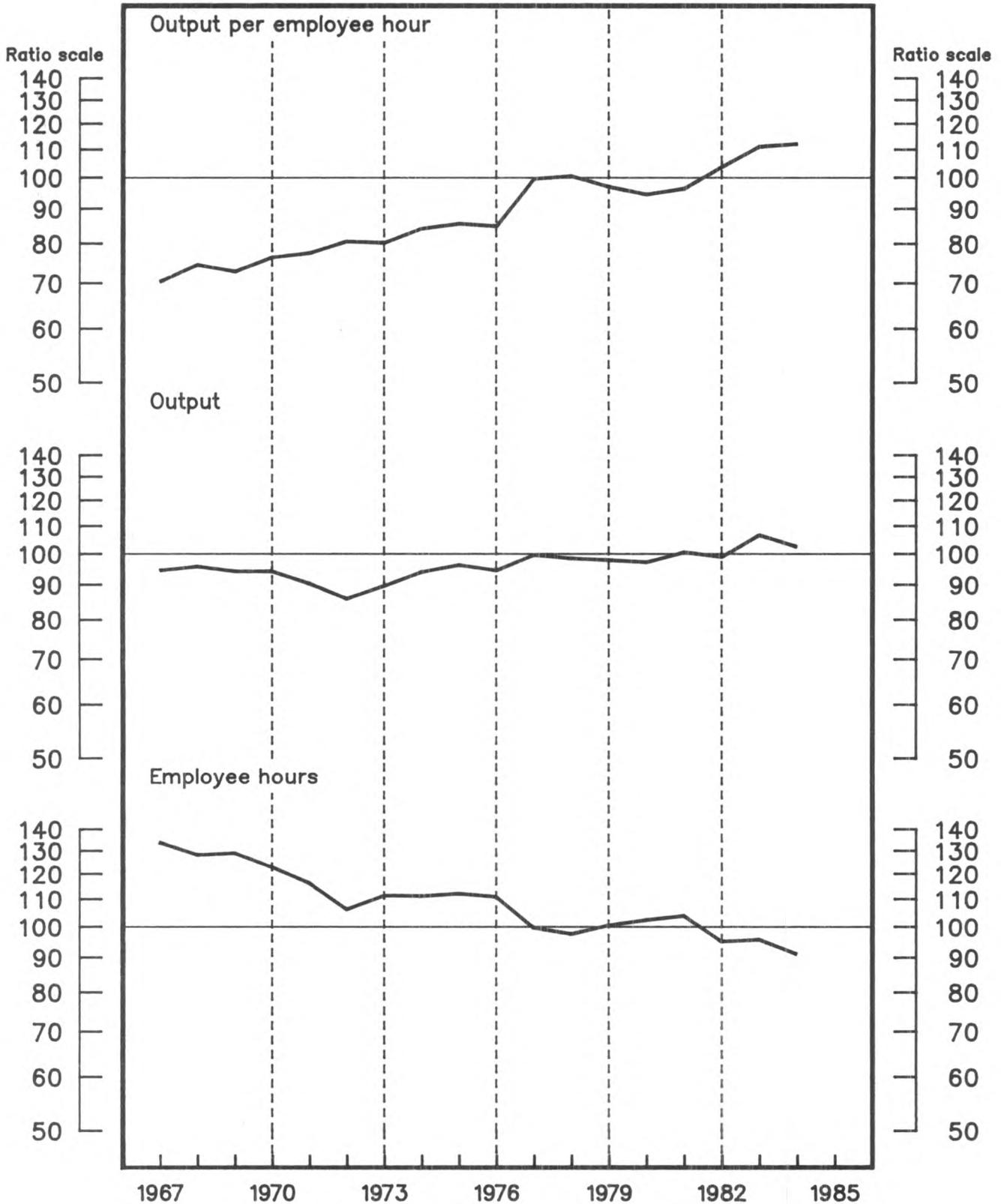
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 18. Flour and other grain mill products (SIC 2041): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 33. Flour and other grain mill products (SIC 2041): Indexes of output per employee hour and output per employee, 1958-84 (1977=100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	48.7	49.2	47.7	48.7	48.6	49.2
1959	47.0	46.8	47.9	48.4	48.1	49.4
1960	49.4	49.5	49.5	51.6	52.1	50.4
1961	51.4	50.7	54.3	53.7	53.4	54.5
1962	52.9	51.5	58.0	55.7	54.9	57.9
1963	59.4	57.9	65.2	63.0	62.2	65.1
1964	62.6	61.4	66.8	65.7	65.2	66.9
1965	64.5	63.7	67.4	66.5	66.3	67.2
1966	68.4	67.2	73.2	70.7	70.1	72.6
1967	70.6	70.2	71.9	72.1	72.4	71.5
1968	74.7	73.0	80.7	75.7	75.4	76.5
1969	73.0	71.8	77.0	73.7	73.7	73.8
1970	76.6	76.0	78.8	77.6	78.0	76.6
1971	77.7	76.3	82.1	78.6	77.7	81.2
1972	80.8	78.9	87.7	83.5	81.9	86.2
1973	80.4	78.0	88.9	82.6	80.1	90.0
1974	84.4	82.6	90.9	84.5	82.1	92.1
1975	85.8	85.8	85.8	85.2	84.7	86.5
1976	85.1	86.7	80.7	84.5	85.7	81.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.9	99.6	105.3	102.1	100.6	106.2
1979	97.3	95.9	102.1	100.1	99.1	103.0
1980	94.8	93.7	98.8	98.1	97.5	99.8
1981	96.7	95.1	102.2	99.6	98.2	103.3
1982	104.1	100.9	115.2	102.6	98.4	115.5
1983	111.5	108.7	120.6	113.6	110.9	121.0
1984 <sup>2</sup>	112.5	110.4	119.3	112.1	109.6	119.5
Average annual percent change:						
1947-84	3.6	3.6	3.3	3.5	3.5	3.2
1979-84	3.7	3.5	4.4	3.0	2.6	4.2

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.  
<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.  
 SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 34. Flour and other grain mill products (SIC 2041): Indexes of output, employee hours, and employees, 1958-84 (1977=100)**

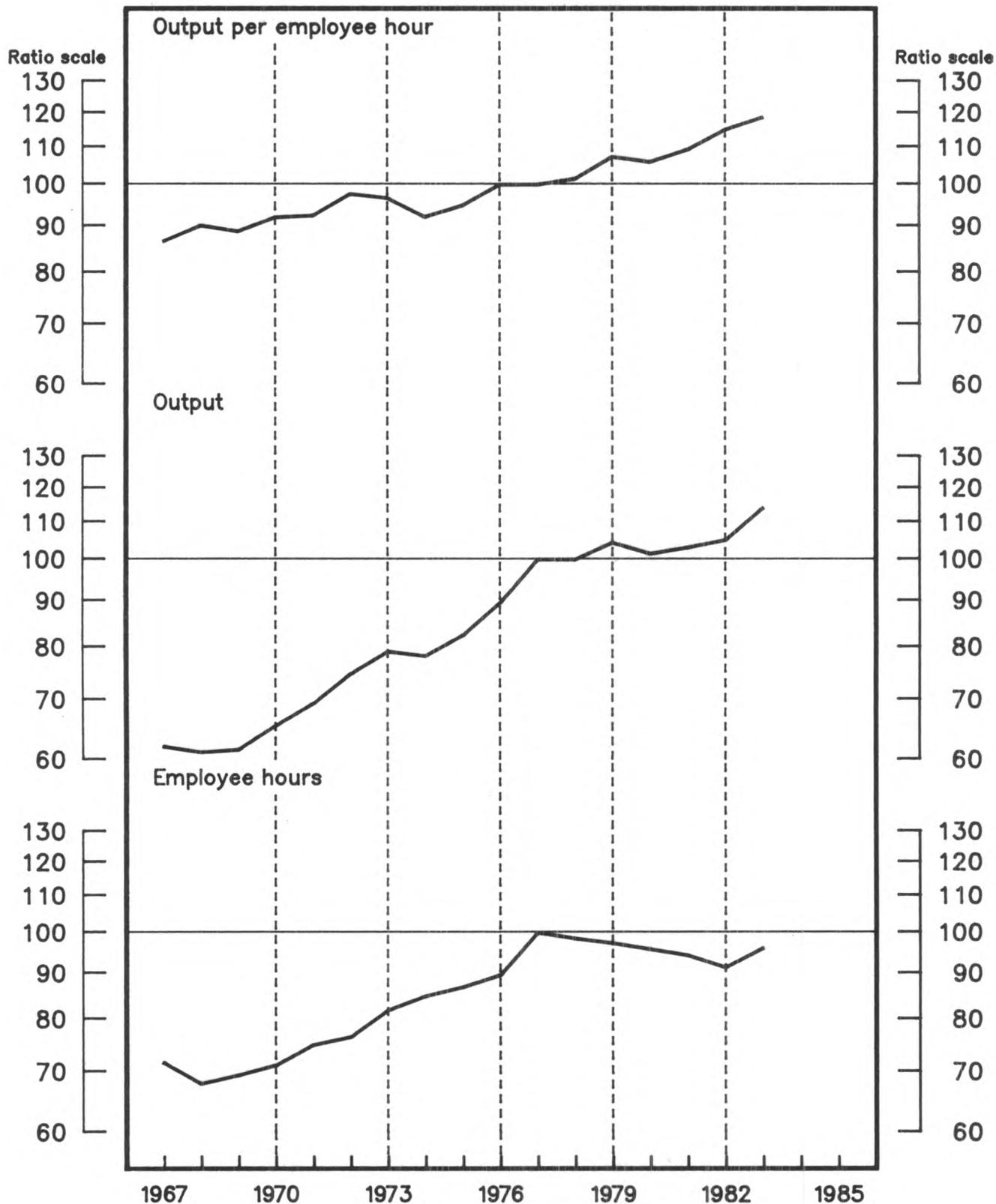
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	88.1	180.8	179.2	184.6	180.8	181.4	179.2
1959	88.5	188.1	189.1	184.6	182.7	184.0	179.3
1960	90.1	182.4	182.2	182.2	174.5	172.8	178.8
1961	91.4	177.7	180.4	168.4	170.3	171.2	167.6
1962	91.7	173.3	177.9	158.1	164.7	167.0	158.5
1963	90.4	152.1	156.1	138.6	143.6	145.3	138.9
1964	92.1	147.1	149.9	137.9	140.2	141.2	137.7
1965	88.5	137.3	139.0	131.4	133.0	133.4	131.7
1966	91.0	133.0	135.5	124.4	128.8	129.8	125.3
1967	94.8	134.2	135.0	131.8	131.4	130.9	132.6
1968	96.1	128.7	131.7	119.1	126.9	127.4	125.6
1969	94.5	129.5	131.7	122.8	128.3	128.3	128.0
1970	94.5	123.4	124.4	119.9	121.8	121.2	123.3
1971	90.7	116.8	118.8	110.5	115.4	116.8	111.7
1972	86.2	106.7	109.3	98.3	103.2	105.2	97.7
1973	90.0	111.9	115.4	101.2	108.9	112.3	100.0
1974	94.3	111.7	114.2	103.7	111.6	114.9	102.4
1975	96.6	112.6	112.6	112.6	113.4	114.1	111.7
1976	94.8	111.4	109.3	117.5	112.2	110.6	116.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.8	97.9	99.2	93.8	96.8	98.2	93.0
1979	98.2	100.9	102.4	96.2	98.1	99.1	95.3
1980	97.5	102.8	104.1	98.7	99.4	100.0	97.7
1981	100.9	104.3	106.1	98.7	101.3	102.7	97.7
1982	99.3	95.4	98.4	86.2	96.8	100.9	86.0
1983	107.0	96.0	98.4	88.7	94.2	96.5	88.4
1984 <sup>1</sup>	102.8	91.4	93.1	86.2	91.7	93.8	86.0
Average annual percent change:							
1947-84	.6	-2.8	-2.9	-2.6	-2.7	-2.8	-2.5
1979-84	1.4	-2.2	-2.0	-2.8	-1.5	-1.1	-2.7

<sup>1</sup> Preliminary.  
 NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 19. Cereal breakfast foods (SIC 2043): Output per hour and related data, 1967-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics. U.S. Department of Labor

**Table 35. Cereal breakfast foods (SIC 2043): indexes of output per employee hour and output per employee, 1963-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963 .....	79.3	81.3	68.9	76.4	77.9	69.1
1964 .....	81.0	82.3	73.9	78.9	79.7	75.8
1965 .....	83.0	84.4	75.2	80.0	80.9	75.4
1966 .....	84.1	85.4	76.9	82.5	83.5	77.1
1967 .....	86.6	88.6	76.5	83.5	84.8	76.9
1968 .....	90.1	92.3	79.4	88.1	90.8	75.7
1969 .....	88.8	91.0	77.9	87.7	90.3	76.2
1970 .....	92.0	93.8	82.8	89.5	91.4	81.1
1971 .....	92.4	94.5	81.1	90.8	92.8	81.8
1972 .....	97.6	99.6	87.5	95.0	96.4	88.2
1973 .....	96.6	96.9	95.0	99.0	99.2	97.9
1974 .....	92.1	93.1	87.3	92.3	93.0	88.5
1975 .....	94.8	95.3	92.0	97.3	98.0	93.2
1976 .....	100.0	100.9	95.6	97.9	98.0	97.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	101.5	101.7	100.0	98.8	98.6	100.0
1979 .....	107.3	105.1	122.2	105.0	102.2	123.4
1980 .....	105.9	104.0	118.9	104.6	102.2	120.0
1981 .....	109.3	107.6	120.7	108.4	106.2	121.9
1982 .....	115.0	118.8	97.0	110.5	113.3	97.6
1983 <sup>2</sup> .....	118.7	123.1	97.8	114.8	118.4	98.9
Average annual percent change:						
1963-83 .....	1.8	1.7	2.4	1.8	1.7	2.5
1979-83 .....	2.9	4.6	-6.3	2.4	4.1	-6.3

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 36. Cereal breakfast foods (SIC 2043): indexes of output, employee hours, and employees, 1963-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963 .....	53.1	67.0	65.3	77.1	69.5	68.2	76.9
1964 .....	55.4	68.4	67.3	75.0	70.2	69.5	73.1
1965 .....	58.0	69.9	68.7	77.1	72.5	71.7	76.9
1966 .....	59.3	70.5	69.4	77.1	71.9	71.0	76.9
1967 .....	62.1	71.7	70.1	81.2	74.4	73.2	80.8
1968 .....	61.2	67.9	66.3	77.1	69.5	67.4	80.8
1969 .....	61.6	69.4	67.7	79.1	70.2	68.2	80.8
1970 .....	65.5	71.2	69.8	79.1	73.2	71.7	80.8
1971 .....	69.3	75.0	73.3	85.4	76.3	74.7	84.7
1972 .....	74.7	76.5	75.0	85.4	78.6	77.5	84.7
1973 .....	79.1	81.9	81.6	83.3	79.9	79.7	80.8
1974 .....	78.2	84.9	84.0	89.6	84.7	84.1	88.4
1975 .....	82.4	86.9	86.5	89.6	84.7	84.1	88.4
1976 .....	89.6	89.6	88.8	93.7	91.5	91.4	92.3
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.0	98.5	98.3	100.0	101.2	101.4	100.0
1979 .....	104.4	97.3	99.3	85.4	99.4	102.2	84.6
1980 .....	101.5	95.8	97.6	85.4	97.0	99.3	84.6
1981 .....	103.1	94.3	95.8	85.4	95.1	97.1	84.6
1982 .....	105.1	91.4	88.5	108.3	95.1	92.8	107.7
1983 <sup>1</sup> .....	114.1	96.1	92.7	116.7	99.4	96.4	115.4
Average annual percent change:							
1963-83 .....	4.1	2.2	2.3	1.6	2.2	2.3	1.5
1979-83 .....	2.1	-7	-2.3	9.0	-2	-1.8	9.0

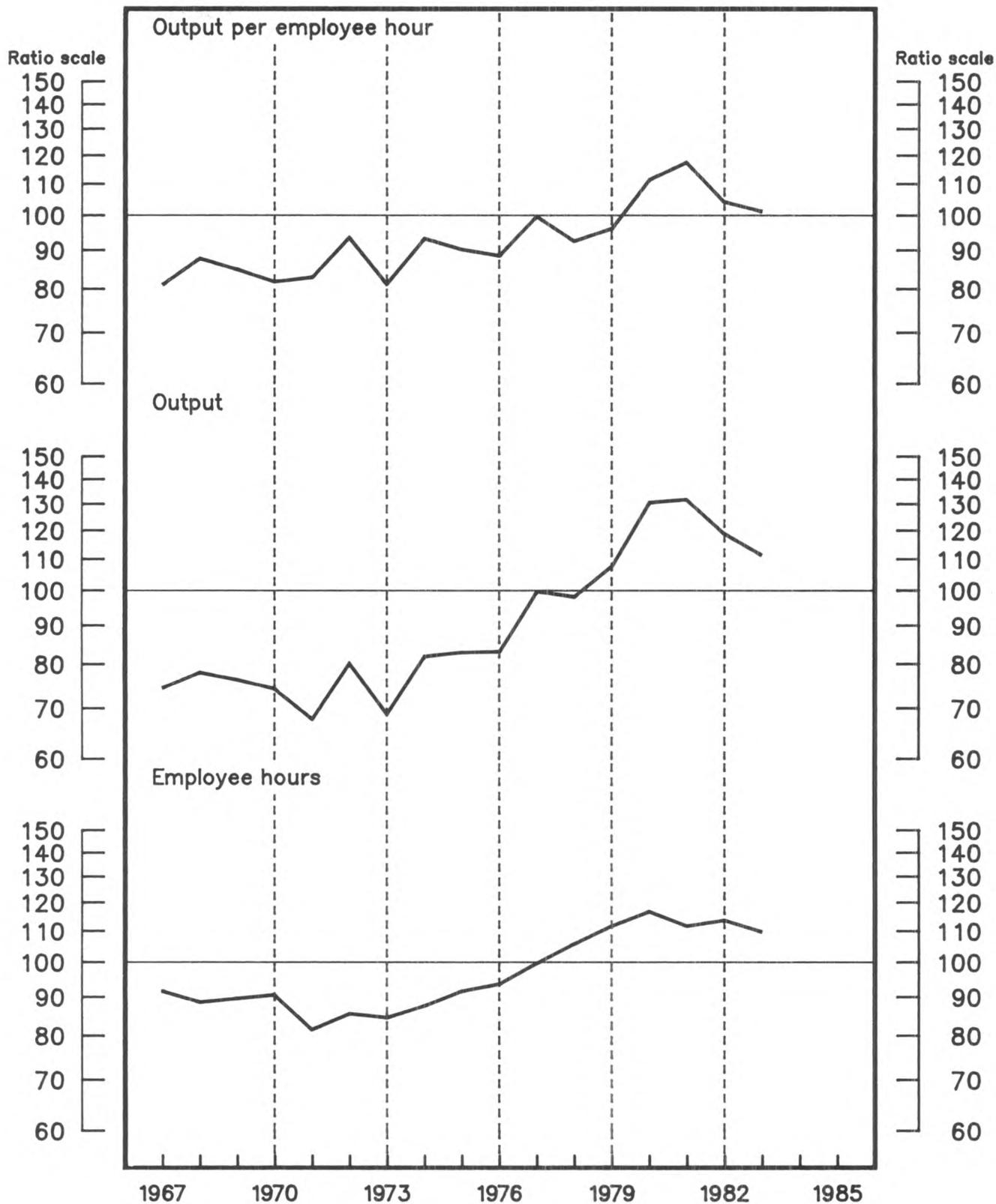
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 20. Rice milling (2044): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 37. Rice milling (SIC 2044): Indexes of output per employee hour and output per employee, 1963-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963 .....	61.2	66.2	43.1	64.2	71.9	41.8
1964 .....	69.9	74.7	51.2	74.2	81.1	51.9
1965 .....	73.4	78.1	55.0	79.7	87.1	55.8
1966 .....	79.1	85.6	55.5	84.4	93.7	56.2
1967 .....	81.3	87.2	59.0	85.4	93.4	59.8
1968 .....	88.0	93.9	65.2	89.4	97.7	62.6
1969 .....	85.1	90.5	63.7	87.4	95.6	61.2
1970 .....	82.0	92.1	50.7	85.1	99.3	49.7
1971 .....	83.1	90.7	56.7	85.9	97.1	54.4
1972 .....	93.8	102.4	63.5	96.6	107.3	64.4
1973 .....	81.5	89.3	54.5	85.0	95.3	55.3
1974 .....	93.4	98.6	72.4	89.5	93.8	73.0
1975 .....	90.4	94.3	73.3	90.6	95.0	73.9
1976 .....	88.7	92.0	73.5	85.1	87.7	74.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	92.7	102.1	61.5	92.7	103.6	60.6
1979 .....	96.3	106.7	62.3	94.2	105.4	61.7
1980 .....	111.8	122.3	75.6	112.3	124.8	74.9
1981 .....	117.9	120.7	104.3	124.5	129.0	105.8
1982 .....	104.5	110.1	81.3	102.1	108.4	79.5
1983 <sup>2</sup> .....	101.5	110.4	69.8	99.3	109.0	68.7
Average annual percent change:						
1963-83 .....	2.3	2.2	2.6	1.9	1.6	2.6
1979-83 .....	.4	-.4	3.0	.1	-.7	2.8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census; Agricultural Marketing Service, U.S. Department of Agriculture; the Rice Millers' Association; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 38. Rice milling (SIC 2044): Indexes of output, employee hours, and employees, 1963-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963 .....	57.5	93.9	86.9	133.5	89.6	80.0	137.5
1964 .....	64.9	92.9	86.9	126.7	87.5	80.0	125.0
1965 .....	69.7	94.9	89.3	126.7	87.5	80.0	125.0
1966 .....	70.3	88.9	82.1	126.7	83.3	75.0	125.0
1967 .....	74.7	91.9	85.7	126.7	87.5	80.0	125.0
1968 .....	78.2	88.9	83.3	120.0	87.5	80.0	125.0
1969 .....	76.5	89.9	84.5	120.0	87.5	80.0	125.0
1970 .....	74.5	90.9	80.9	146.8	87.5	75.0	150.0
1971 .....	68.0	81.8	75.0	120.0	79.2	70.0	125.0
1972 .....	80.5	85.8	78.6	126.7	83.3	75.0	125.0
1973 .....	69.1	84.8	77.4	126.7	81.3	72.5	125.0
1974 .....	82.1	87.9	83.3	113.4	91.7	87.5	112.5
1975 .....	83.1	91.9	88.1	113.4	91.7	87.5	112.5
1976 .....	83.3	93.9	90.5	113.4	97.9	95.0	112.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	98.4	106.1	96.4	160.0	106.2	95.0	162.5
1979 .....	108.0	112.1	101.2	173.3	114.6	102.5	175.0
1980 .....	131.0	117.2	107.1	173.3	116.7	105.0	175.0
1981 .....	132.2	112.1	109.5	126.7	106.2	102.5	125.0
1982 .....	119.2	114.1	108.3	146.7	116.7	110.0	150.0
1983 <sup>1</sup> .....	111.7	110.1	101.2	160.0	112.5	102.5	162.5
Average annual percent change:							
1963-83 .....	3.5	1.3	1.3	.9	1.7	1.9	.9
1979-83 .....	-.3	-.6	.1	-3.2	-.4	.5	-3.0

<sup>1</sup> Preliminary.

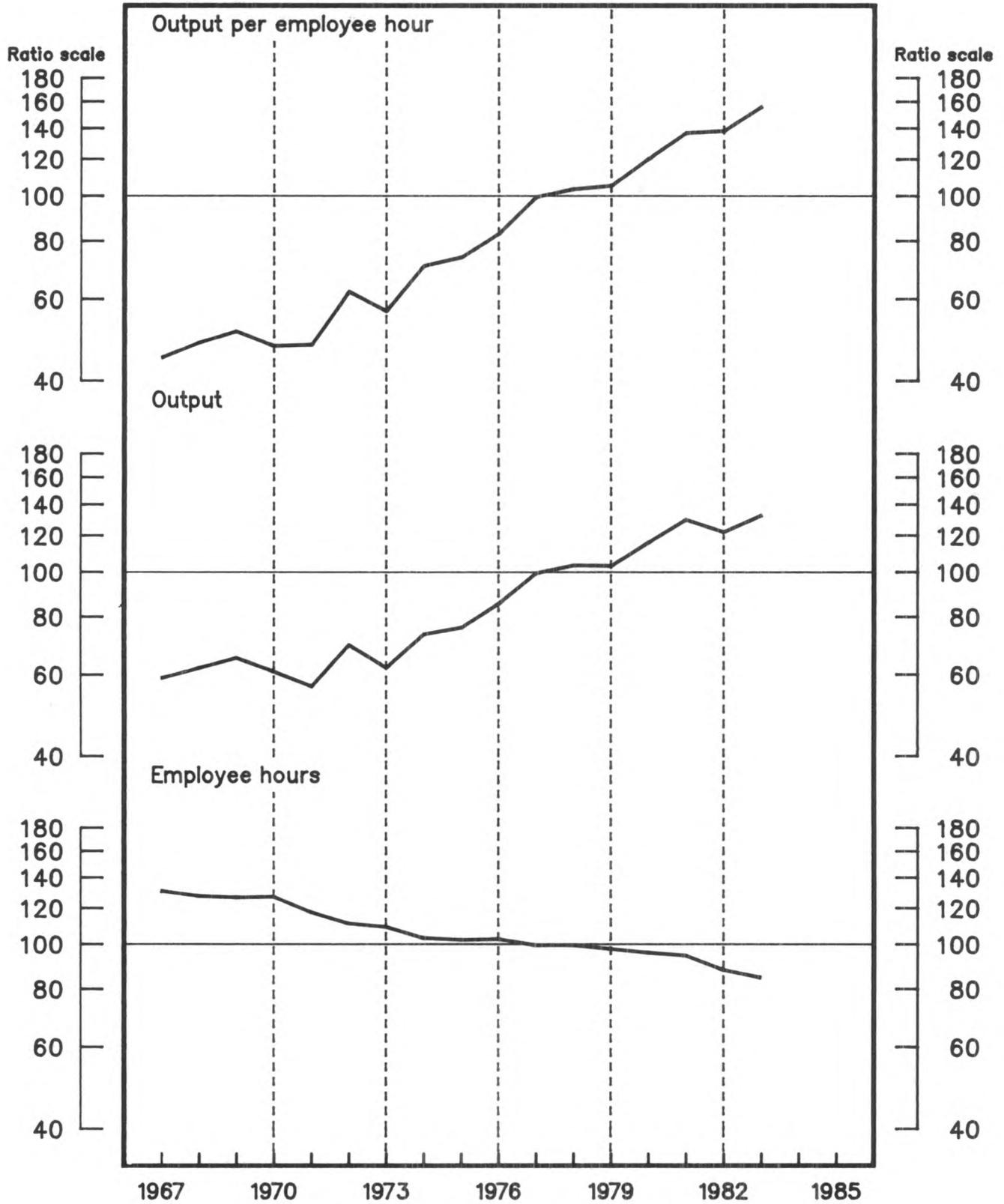
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census; Agricultural

Marketing Service, U.S. Department of Agriculture; the Rice Millers' Association; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 21. Wet corn milling (SIC 2046): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 39. Wet corn milling (SIC 2046): Indexes of output per employee hour and output per employee, 1963-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963 .....	39.2	37.2	45.6	41.0	39.5	45.2
1964 .....	41.9	40.2	47.2	44.0	42.8	47.5
1965 .....	41.5	40.2	45.2	44.2	43.9	45.0
1966 .....	42.2	41.6	43.7	43.7	43.9	43.2
1967 .....	45.1	45.8	43.0	45.8	47.2	42.8
1968 .....	48.6	48.4	48.8	48.1	49.1	46.0
1969 .....	51.4	51.1	52.1	52.9	54.4	49.5
1970 .....	47.8	48.3	46.7	49.4	51.3	45.2
1971 .....	48.1	49.6	44.6	47.7	49.3	44.1
1972 .....	62.6	64.2	58.8	63.0	64.9	58.6
1973 .....	56.9	57.6	54.8	58.1	59.3	55.3
1974 .....	71.1	72.8	66.8	72.4	74.7	67.2
1975 .....	74.1	72.4	78.9	76.2	75.2	78.7
1976 .....	83.2	81.8	87.5	85.1	83.8	88.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	104.0	102.7	107.7	102.2	100.2	107.4
1979 .....	105.7	109.3	97.0	104.6	107.8	97.4
1980 .....	121.0	122.8	116.5	118.6	119.6	116.5
1981 .....	137.5	138.4	135.1	136.8	137.5	134.8
1982 .....	138.8	139.6	136.8	140.7	142.8	135.9
1983 <sup>2</sup> .....	156.6	155.0	161.0	163.2	165.0	158.9
Average annual percent change:						
1963-83 .....	7.5	7.7	7.0	7.3	7.4	7.1
1979-83 .....	9.7	8.6	12.5	11.2	10.8	12.0

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 40. Wet corn milling (SIC 2046): Indexes of output, employee hours, and employees, 1963-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963 .....	49.6	126.4	133.2	108.7	121.1	125.6	109.7
1964 .....	50.5	120.4	125.5	106.9	114.7	118.0	106.4
1965 .....	52.3	126.1	130.0	115.6	118.4	119.2	116.1
1966 .....	55.7	132.1	133.8	127.6	127.6	126.9	129.0
1967 .....	59.3	131.6	129.4	137.9	129.4	125.6	138.7
1968 .....	62.3	128.3	128.7	127.6	129.4	126.9	135.5
1969 .....	65.5	127.4	128.1	125.8	123.8	120.5	132.2
1970 .....	61.2	127.9	126.8	131.0	123.8	119.2	135.5
1971 .....	56.9	118.2	114.7	127.6	119.3	115.3	129.0
1972 .....	69.9	111.6	108.9	118.9	111.0	107.7	119.3
1973 .....	62.4	109.7	108.3	113.8	107.4	105.2	112.9
1974 .....	73.7	103.7	101.3	110.3	101.8	98.7	109.7
1975 .....	76.2	102.8	105.2	96.6	100.0	101.3	96.8
1976 .....	85.9	103.2	105.0	98.2	100.9	102.5	96.8
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	104.0	100.0	101.3	96.6	101.8	103.8	96.8
1979 .....	103.7	98.1	94.9	106.9	99.1	96.2	106.5
1980 .....	116.5	96.3	94.9	100.0	98.2	97.4	100.0
1981 .....	130.5	94.9	94.3	96.6	95.4	94.9	96.8
1982 .....	122.7	88.4	87.9	89.7	87.2	85.9	90.3
1983 <sup>1</sup> .....	133.3	85.1	86.0	82.8	81.7	80.8	83.9
Average annual percent change:							
1963-83 .....	5.3	-2.1	-2.2	-1.6	-1.9	-1.9	-1.7
1979-83 .....	5.7	-3.6	-2.7	-6.0	-4.9	-4.6	-5.6

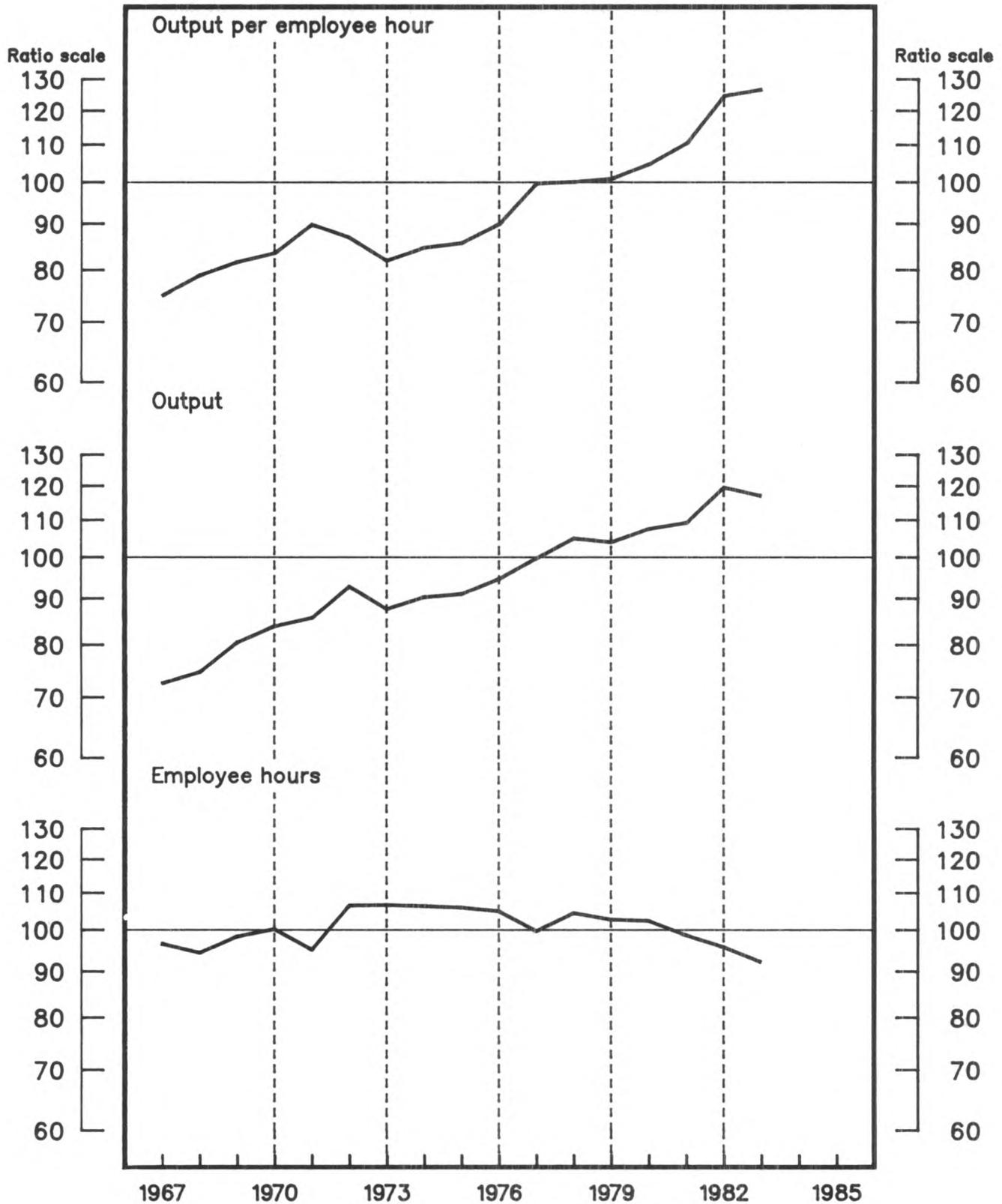
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 22. Prepared feeds for animals and fowls (SIC 2047, 2048): Output per hour and related data, 1967-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 41. Prepared feeds for animals and fowls (SIC 2047, 2048): indexes of output per employee hour and output per employee, 1963-83**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963 .....	61.3	61.1	61.7	63.4	64.4	61.5
1964 .....	64.1	63.5	65.3	66.9	67.8	65.4
1965 .....	66.2	66.2	66.2	69.4	71.4	66.2
1966 .....	69.5	69.7	68.8	72.7	75.2	68.4
1967 .....	75.1	73.3	78.9	77.5	76.9	78.5
1968 .....	79.1	76.3	85.2	80.1	79.6	80.8
1969 .....	81.8	79.4	87.1	82.8	82.3	83.5
1970 .....	83.7	79.9	92.4	83.7	80.6	89.9
1971 .....	90.0	86.7	97.8	89.9	86.4	97.0
1972 .....	87.1	83.5	95.3	90.7	88.1	96.0
1973 .....	82.1	78.6	90.5	88.3	86.5	91.6
1974 .....	84.9	83.3	88.2	86.8	85.5	89.3
1975 .....	85.9	83.7	90.6	88.0	86.4	91.3
1976 .....	90.1	88.3	93.9	92.9	92.0	94.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.4	101.3	98.4	100.8	102.1	98.4
1979 .....	101.2	99.9	103.9	102.3	101.2	104.2
1980 .....	105.0	105.5	104.0	105.4	105.8	104.7
1981 .....	110.7	113.1	106.4	113.2	117.2	106.8
1982 .....	124.9	128.4	118.4	124.0	127.1	118.7
1983 <sup>2</sup> .....	126.9	129.8	121.4	124.8	126.7	121.6
Average annual percent change:						
1963-83 .....	3.2	3.4	2.8	3.0	3.0	2.9
1979-83 .....	6.5	7.5	4.5	5.8	6.5	4.4

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 42. Prepared feeds for animals and fowls (SIC 2047, 2048): indexes of output, employee hours, and employees, 1963-83**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963 .....	60.9	99.3	99.7	98.7	96.1	94.5	99.1
1964 .....	62.2	97.0	97.9	95.3	93.0	91.8	95.1
1965 .....	62.6	94.5	94.6	94.5	90.2	87.7	94.5
1966 .....	65.7	94.6	94.2	95.5	90.4	87.4	96.0
1967 .....	72.7	96.8	99.2	92.1	93.8	94.5	92.6
1968 .....	74.8	94.6	98.0	87.8	93.4	94.0	92.6
1969 .....	80.7	98.6	101.7	92.6	97.5	98.1	96.6
1970 .....	84.1	100.5	105.3	91.0	100.5	104.3	93.6
1971 .....	85.9	95.4	99.1	87.8	95.6	99.4	88.6
1972 .....	93.1	106.9	111.5	97.7	102.6	105.7	97.0
1973 .....	87.9	107.0	111.8	97.1	99.6	101.6	96.0
1974 .....	90.6	106.7	108.7	102.7	104.4	106.0	101.5
1975 .....	91.3	106.3	109.1	100.8	103.7	105.7	100.0
1976 .....	94.9	105.3	107.5	101.1	102.1	103.2	100.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	105.2	104.8	103.8	106.9	104.4	103.0	106.9
1979 .....	104.2	103.0	104.3	100.3	101.9	103.0	100.0
1980 .....	107.8	102.7	102.2	103.7	102.3	101.9	103.0
1981 .....	109.5	98.9	96.8	102.9	96.7	93.4	102.5
1982 .....	119.9	96.0	93.4	101.3	96.7	94.3	101.0
1983 <sup>1</sup> .....	117.3	92.4	90.4	96.6	94.0	92.6	96.5
Average annual percent change:							
1963-83 .....	3.4	.2	( <sup>2</sup> )	.5	.4	.4	.4
1979-83 .....	3.5	-2.8	-3.7	-1.0	-2.2	-2.9	-.9

<sup>1</sup> Preliminary.

<sup>2</sup> Less than .05 percent.

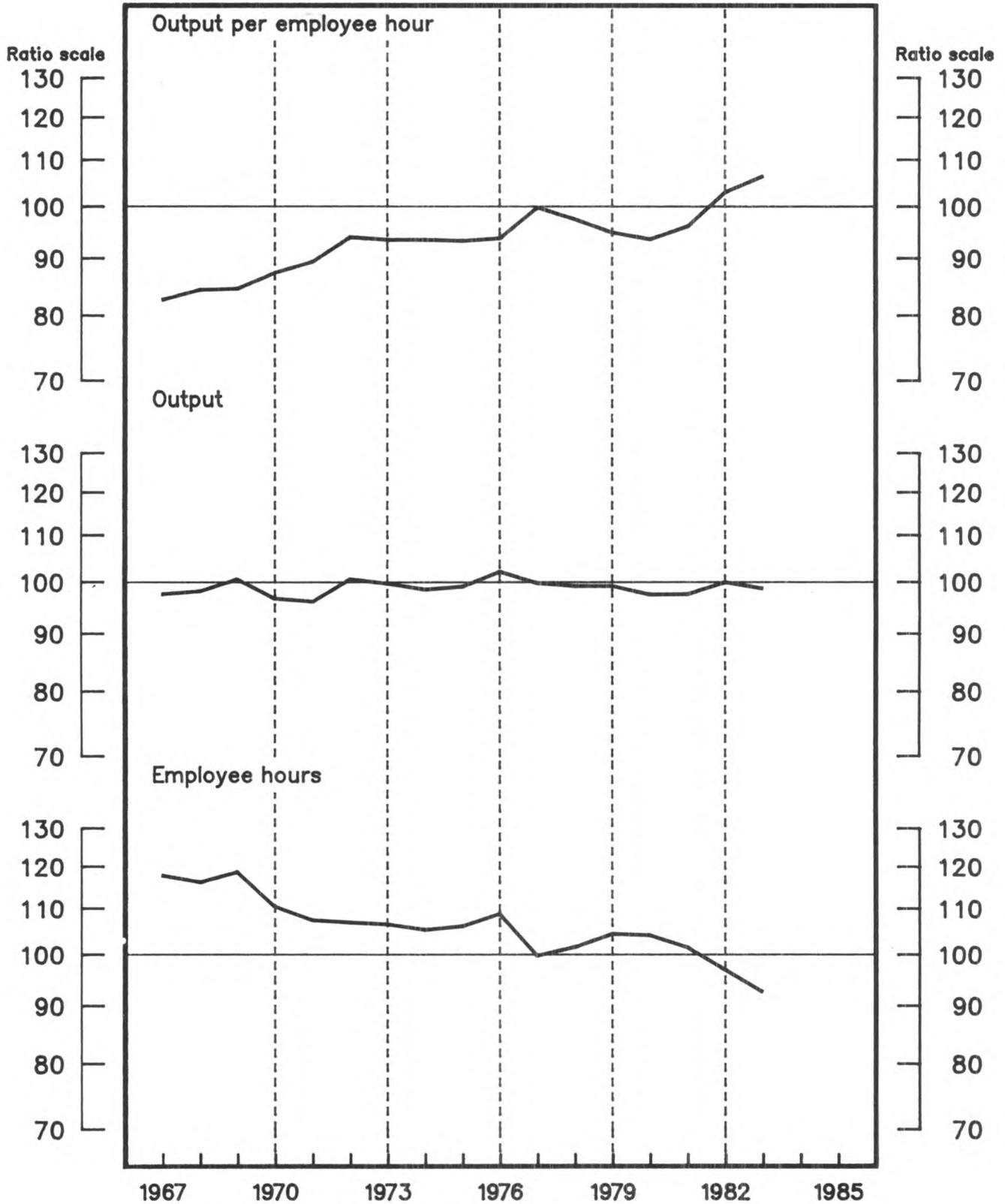
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 23. Bakery products (SIC 205): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 43. Bakery products (SIC 205): Indexes of output per employee hour and output per employee, 1958-83**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	64.0	62.4	66.8	64.8	64.4	65.4
1959 .....	64.0	62.8	66.1	64.7	64.7	64.6
1960 .....	64.3	63.0	66.5	65.5	66.2	64.3
1961 .....	65.4	64.0	67.8	66.2	67.2	64.6
1962 .....	67.2	66.4	68.6	67.9	70.0	65.0
1963 .....	72.3	70.6	75.3	72.6	73.4	71.3
1964 .....	74.6	72.5	78.2	76.5	77.8	74.4
1965 .....	77.5	75.1	81.3	77.5	77.6	76.9
1966 .....	78.4	75.5	83.0	78.8	79.1	78.4
1967 .....	82.8	79.0	89.6	82.2	80.6	84.4
1968 .....	84.5	79.9	92.7	84.8	82.6	87.7
1969 .....	84.7	80.5	92.2	84.5	81.8	88.5
1970 .....	87.5	83.0	95.6	87.7	84.3	92.8
1971 .....	89.5	86.8	94.0	90.2	88.2	93.1
1972 .....	94.1	91.6	98.4	95.4	92.9	98.9
1973 .....	93.6	90.9	98.2	95.1	92.2	99.4
1974 .....	93.6	94.4	92.3	93.0	92.8	93.5
1975 .....	93.4	94.5	92.0	93.1	93.2	92.8
1976 .....	93.9	93.7	94.2	94.0	93.1	95.2
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	97.6	99.1	95.7	97.4	98.5	95.7
1979 .....	95.0	94.4	95.9	95.3	94.7	96.2
1980 .....	93.7	92.0	96.3	94.4	92.6	97.0
1981 .....	96.2	94.5	98.8	97.4	96.4	99.1
1982 .....	103.2	107.2	97.7	102.8	106.3	98.0
1983 <sup>2</sup> .....	106.6	109.8	102.0	105.7	108.3	102.0
Average annual percent change:						
1947-83 .....	2.1	2.4	1.5	2.0	2.2	1.6
1979-83 .....	3.3	4.7	1.4	3.0	4.1	1.3

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 44. Bakery products (SIC 205): Indexes of output, employee hours, and employees, 1958-83**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	88.3	137.9	141.5	132.2	136.2	137.1	135.1
1959 .....	88.9	139.0	141.6	134.4	137.3	137.3	137.7
1960 .....	89.7	139.4	142.3	134.8	136.9	135.4	139.4
1961 .....	89.0	136.0	139.0	131.2	134.4	132.4	137.7
1962 .....	90.8	135.2	136.8	132.3	133.7	129.7	139.6
1963 .....	91.6	126.7	129.8	121.7	126.2	124.8	126.4
1964 .....	95.2	127.6	131.3	121.7	124.5	122.3	128.0
1965 .....	96.9	125.1	129.0	119.2	125.1	124.8	126.0
1966 .....	97.5	124.4	129.1	117.4	123.7	123.3	124.3
1967 .....	97.8	118.1	123.8	109.2	119.0	121.4	115.9
1968 .....	98.4	116.5	123.1	106.2	116.1	119.1	112.2
1969 .....	100.8	119.0	125.2	109.3	119.3	123.2	113.9
1970 .....	96.9	110.7	116.7	101.4	110.5	114.9	104.4
1971 .....	96.3	107.6	110.9	102.4	106.8	109.2	103.4
1972 .....	100.8	107.1	110.0	102.4	105.7	108.5	101.9
1973 .....	99.9	106.7	109.9	101.7	105.1	108.4	100.5
1974 .....	98.7	105.5	104.6	106.9	106.1	106.4	105.6
1975 .....	99.3	106.3	105.1	107.9	106.7	106.6	107.0
1976 .....	102.4	109.1	109.3	108.7	108.9	110.0	107.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	99.4	101.8	100.3	103.9	102.1	100.9	103.9
1979 .....	99.4	104.6	105.3	103.7	104.3	105.0	103.3
1980 .....	97.7	104.3	106.2	101.5	103.5	105.5	100.7
1981 .....	97.8	101.7	103.5	99.0	100.4	101.5	98.7
1982 .....	100.2	97.1	93.5	102.6	97.5	94.3	102.2
1983 <sup>1</sup> .....	98.9	92.8	90.1	97.0	93.6	91.3	97.0
Average annual percent change:							
1947-83 .....	.9	-1.2	-1.5	-7	-1.1	-1.3	-7
1979-83 .....	.2	-3.1	-4.3	-1.2	-2.7	-3.8	-1.1

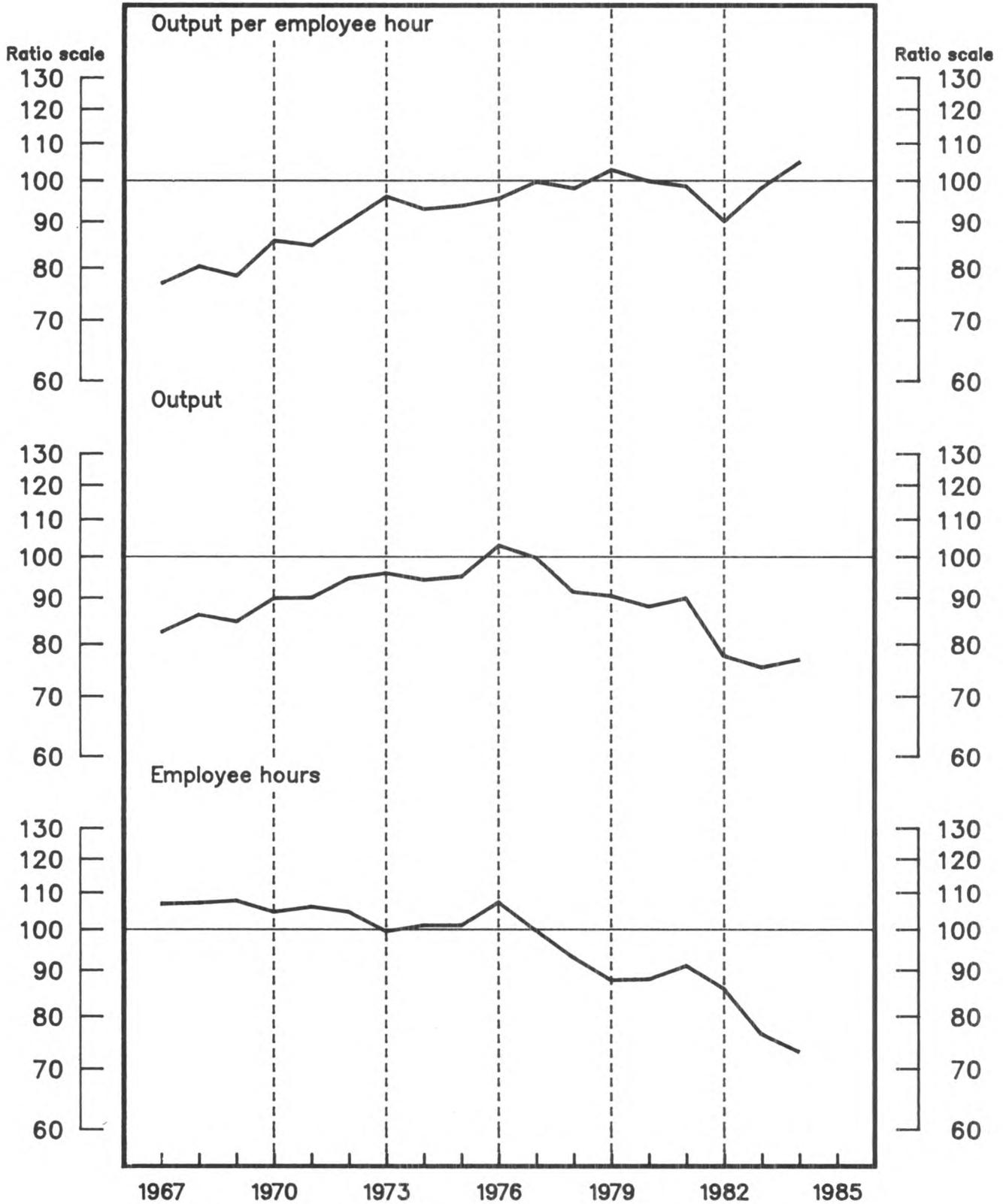
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 24. Sugar (SIC 2061, 2062, 2063): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 45. Sugar (SIC 2061, 2062, 2063): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	51.8	48.9	65.4	52.9	50.7	62.8
1959 .....	54.6	51.3	71.2	54.6	51.6	68.2
1960 .....	57.5	54.0	74.9	58.1	55.3	71.0
1961 .....	61.4	57.8	79.3	61.6	58.8	74.3
1962 .....	67.5	63.1	90.3	67.7	64.2	84.0
1963 .....	68.0	63.9	88.4	68.0	64.8	82.1
1964 .....	71.5	67.2	92.5	71.9	68.7	86.3
1965 .....	74.4	69.5	99.9	72.4	68.0	92.9
1966 .....	77.1	73.0	95.6	74.5	72.2	88.5
1967 .....	77.1	72.7	98.8	75.7	72.2	91.4
1968 .....	80.5	75.2	106.9	79.4	75.2	99.0
1969 .....	78.6	73.9	102.7	76.0	72.2	93.9
1970 .....	85.9	80.1	116.1	83.0	78.4	105.0
1971 .....	84.9	79.7	110.7	86.5	82.4	105.1
1972 .....	90.4	86.5	109.5	90.9	87.0	108.6
1973 .....	96.3	93.8	107.0	98.8	96.1	110.3
1974 .....	93.2	89.2	112.8	98.2	94.1	117.2
1975 .....	94.0	93.8	94.4	91.8	90.7	96.8
1976 .....	95.8	95.2	98.5	97.3	96.6	100.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	98.3	98.7	96.6	95.8	95.7	96.2
1979 .....	103.1	103.2	102.1	101.7	101.6	102.3
1980 .....	100.1	99.5	102.4	98.2	97.0	103.3
1981 .....	98.8	97.8	103.6	97.1	95.6	103.6
1982 .....	90.4	90.6	89.3	88.2	87.9	89.3
1983 .....	98.6	97.3	104.4	97.3	95.6	104.1
1984 <sup>2</sup> .....	105.2	102.4	119.2	104.8	101.3	119.5
Average annual percent change:						
1947-84 .....	3.2	3.4	1.9	3.1	3.4	2.0
1979-84 .....	-1	-5	2.0	.1	-4	1.9

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Agricultural Marketing Service and Statistical Reporting Service, U.S. Department of Agriculture; and the Bureau of the Census.

Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 46. Sugar (SIC 2061, 2062, 2063): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	61.5	118.7	125.7	94.1	116.3	121.4	98.0
1959 .....	64.6	118.3	126.0	90.7	118.4	125.2	94.7
1960 .....	66.4	115.4	122.9	88.7	114.2	120.0	93.5
1961 .....	70.2	114.3	121.4	88.5	113.9	119.4	94.5
1962 .....	73.4	108.7	116.3	81.3	108.4	114.4	87.4
1963 .....	77.0	113.2	120.5	87.1	113.3	118.9	93.8
1964 .....	83.1	116.2	123.7	89.8	115.6	120.9	96.3
1965 .....	80.6	108.3	116.0	80.7	111.4	118.5	86.8
1966 .....	81.2	105.3	111.2	84.9	109.0	112.5	91.8
1967 .....	82.7	107.2	113.8	83.7	109.3	114.6	90.5
1968 .....	86.5	107.5	115.0	80.9	109.0	115.1	87.4
1969 .....	85.0	108.1	115.0	82.8	111.8	117.8	90.5
1970 .....	90.2	105.0	112.6	77.7	108.7	115.1	85.9
1971 .....	90.3	106.4	113.3	81.6	104.4	109.6	85.9
1972 .....	94.9	105.0	109.7	86.7	104.4	109.1	87.4
1973 .....	96.1	99.8	102.4	89.8	97.3	100.0	87.1
1974 .....	94.5	101.4	106.0	83.8	96.2	100.4	80.6
1975 .....	95.3	101.4	101.6	100.9	103.8	105.1	98.4
1976 .....	103.2	107.7	108.4	104.8	106.1	106.8	103.2
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	91.6	93.2	92.8	94.8	95.6	95.7	95.2
1979 .....	90.7	88.0	87.9	88.8	89.2	89.3	88.7
1980 .....	88.3	88.2	88.7	86.2	89.9	91.0	85.5
1981 .....	90.2	91.3	92.2	87.1	92.9	94.4	87.1
1982 .....	77.8	86.1	85.9	87.1	88.2	88.5	87.1
1983 .....	75.6	76.7	77.7	72.4	77.7	79.1	72.6
1984 <sup>1</sup> .....	77.1	73.3	75.3	64.7	73.6	76.1	64.5
Average annual percent change:							
1947-84 .....	1.9	-1.3	-1.6	-1	-1.3	-1.5	-2
1979-84 .....	-4.0	-3.9	-3.5	-5.8	-4.1	-3.6	-5.8

<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

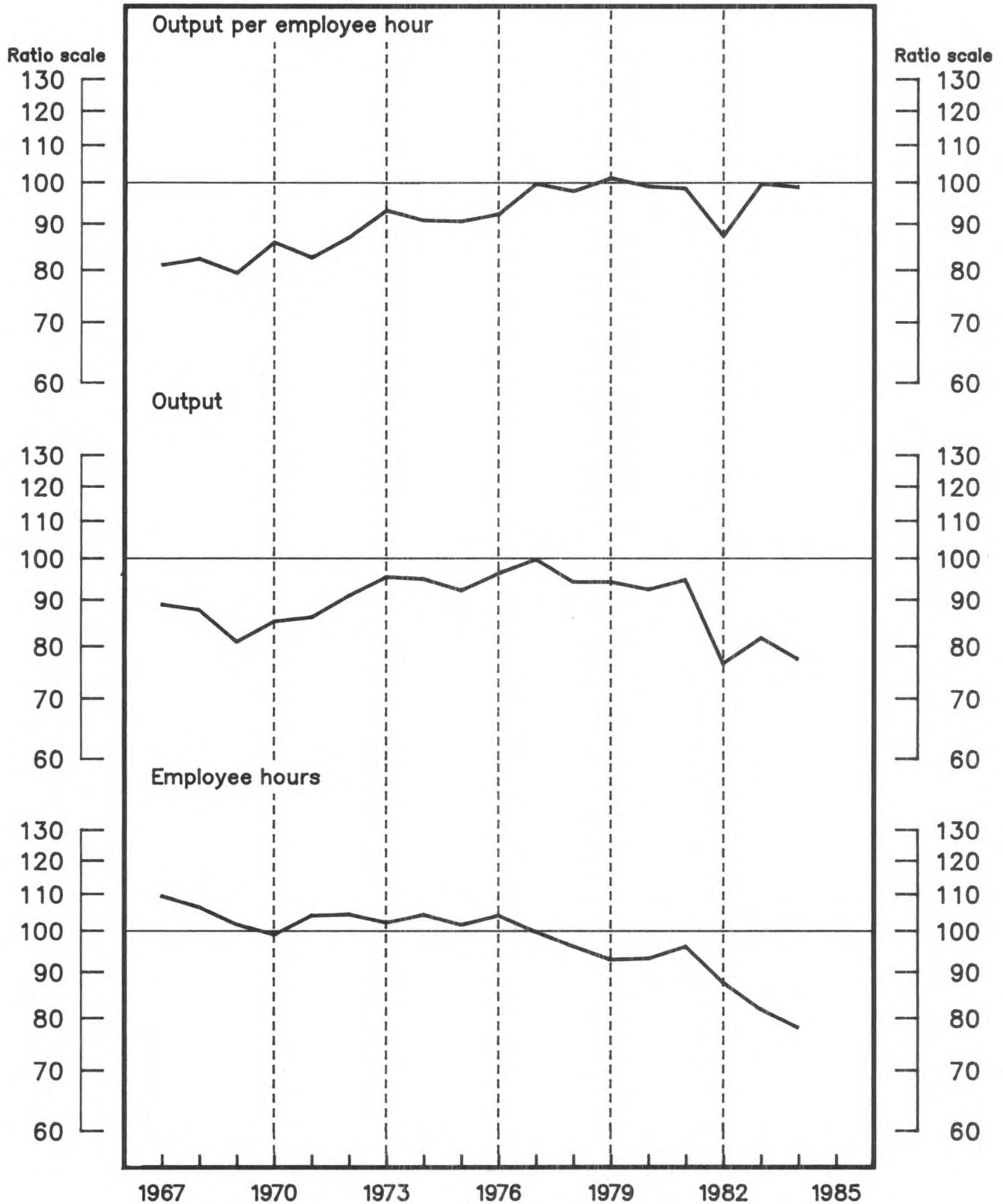
SOURCE: Output based on data from the Agricultural Marketing Service and Statistical

Reporting Service, U.S. Department of Agriculture; and the Bureau of the Census.

Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 25. Raw and refined cane sugar (SIC 2061, 2062): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 47. Raw and refined cane sugar (SIC 2061, 2062): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	51.9	48.6	64.7	51.9	49.7	59.5
1959 .....	55.5	51.5	72.3	54.5	51.2	66.5
1960 .....	57.2	53.2	73.1	56.6	53.8	66.5
1961 .....	64.3	60.2	81.2	64.1	61.5	72.9
1962 .....	71.1	65.9	91.9	71.3	68.1	82.0
1963 .....	69.8	65.4	86.7	70.4	68.2	77.2
1964 .....	69.6	65.8	83.6	69.9	68.2	74.8
1965 .....	76.9	71.7	97.7	76.3	73.0	87.0
1966 .....	81.2	75.9	102.0	80.9	78.0	90.5
1967 .....	81.2	77.1	96.5	83.2	80.2	93.1
1968 .....	82.5	77.9	99.5	84.7	81.3	96.1
1969 .....	79.6	77.3	86.9	79.0	77.6	82.9
1970 .....	86.1	83.4	94.6	86.5	85.5	89.2
1971 .....	82.8	80.1	91.0	86.4	85.0	90.2
1972 .....	87.2	86.1	90.1	91.8	91.3	93.3
1973 .....	93.4	90.9	101.4	98.0	95.7	104.5
1974 .....	91.0	90.4	92.7	96.3	96.6	95.2
1975 .....	90.8	91.6	88.9	91.5	91.8	90.5
1976 .....	92.5	92.4	93.2	95.5	95.1	96.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	98.1	97.8	99.0	98.2	98.1	98.7
1979 .....	101.5	99.0	110.9	102.4	99.7	111.0
1980 .....	99.3	96.0	111.7	101.0	97.8	111.7
1981 .....	98.8	94.8	114.6	100.6	96.5	114.6
1982 .....	87.6	86.1	92.7	88.6	87.3	92.7
1983 .....	100.0	95.9	116.3	98.2	93.1	116.8
1984 <sup>2</sup> .....	99.1	93.0	126.4	96.8	89.5	125.8
Average annual percent change:						
1958-84 .....	2.2	2.5	1.5	2.3	2.3	2.1
1979-84 .....	-6	-1.2	1.6	-1.4	-2.2	1.6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Agricultural Marketing Service and Statistical Reporting Service, U.S. Department of Agriculture; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 48. Raw and refined cane sugar (SIC 2061, 2062): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	64.6	124.5	132.9	99.9	124.5	130.1	108.6
1959 .....	69.0	124.3	134.1	95.4	126.7	134.8	103.7
1960 .....	68.9	120.5	129.5	94.3	121.7	128.0	103.6
1961 .....	74.9	116.4	124.5	92.2	116.8	121.8	102.8
1962 .....	77.6	109.1	117.8	84.4	108.9	113.9	94.6
1963 .....	80.5	115.4	123.1	92.9	114.4	118.0	104.3
1964 .....	79.4	114.1	120.7	95.0	113.6	116.4	106.1
1965 .....	81.0	105.3	113.0	82.9	106.1	110.9	93.1
1966 .....	84.9	104.6	111.9	83.2	104.9	108.9	93.8
1967 .....	89.2	109.8	115.7	92.4	107.2	111.2	95.8
1968 .....	88.0	106.7	113.0	88.4	103.9	108.2	91.6
1969 .....	81.2	102.0	105.0	93.4	102.8	104.6	97.9
1970 .....	85.5	99.3	102.5	90.4	98.9	100.0	95.8
1971 .....	86.4	104.4	107.8	94.9	100.0	101.6	95.8
1972 .....	91.3	104.7	106.0	101.3	99.5	100.0	97.9
1973 .....	95.7	102.5	105.3	94.4	97.7	100.0	91.6
1974 .....	95.2	104.6	105.3	102.7	98.9	98.6	100.0
1975 .....	92.5	101.9	101.0	104.1	101.1	100.8	102.2
1976 .....	96.6	104.4	104.6	103.7	101.1	101.6	100.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	94.5	96.3	96.6	95.5	96.2	96.3	95.7
1979 .....	94.5	93.1	95.5	85.2	92.3	94.8	85.1
1980 .....	92.7	93.4	96.6	83.0	91.8	94.8	83.0
1981 .....	95.1	96.3	100.3	83.0	94.5	98.5	83.0
1982 .....	76.9	87.8	89.3	83.0	86.8	88.1	83.0
1983 .....	82.0	82.0	85.5	70.5	83.5	88.1	70.2
1984 <sup>1</sup> .....	77.6	78.3	83.4	61.4	80.2	86.7	61.7
Average annual percent change:							
1958-84 .....	.9	-1.3	-1.5	-6	-1.3	-1.4	-1.2
1979-84 .....	-4.4	-3.8	-3.3	-5.9	-3.0	-2.2	-5.9

<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

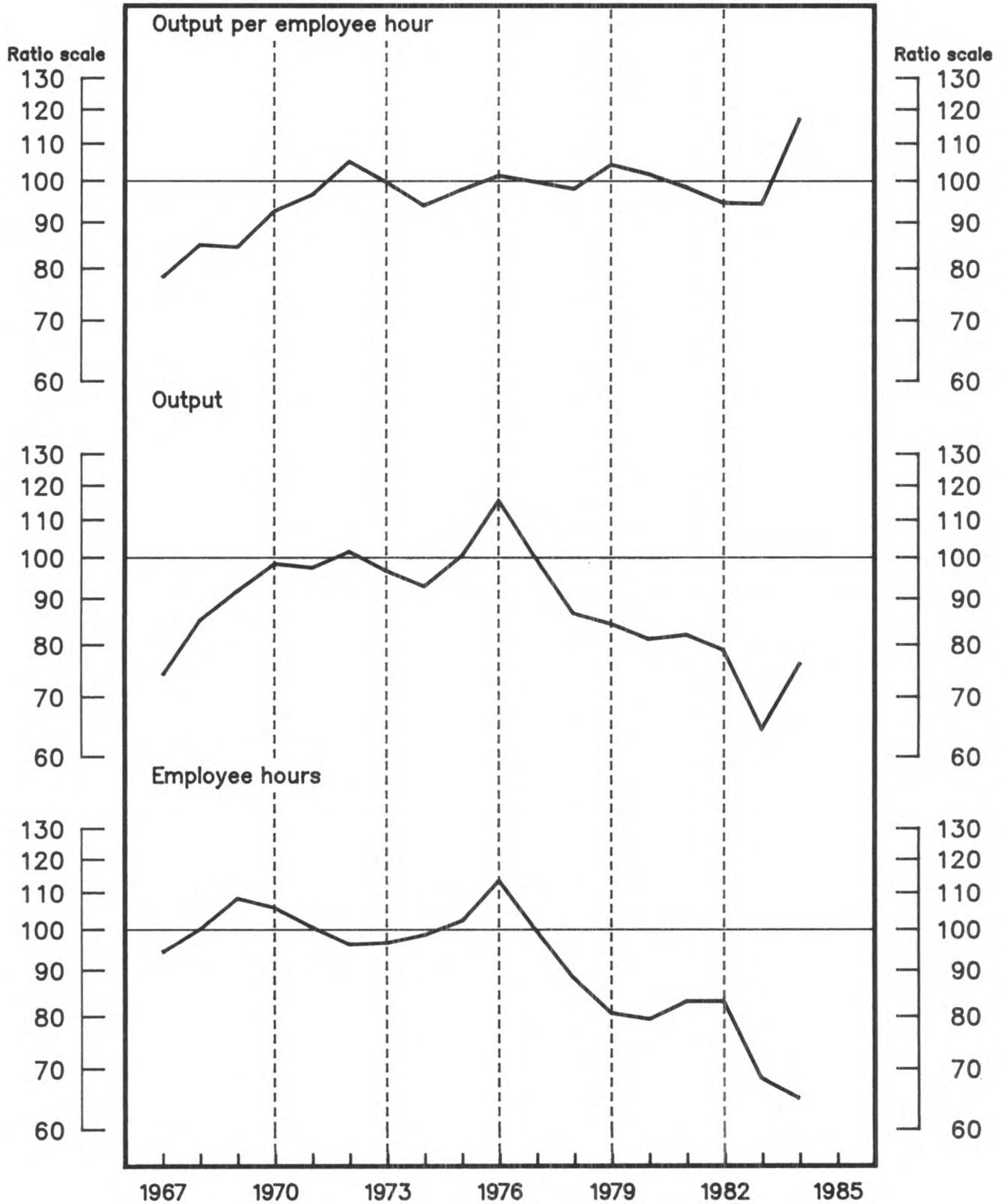
SOURCE: Output based on data from the Agricultural Marketing Service and Statistical

Reporting Service, U.S. Department of Agriculture; and the Bureau of the Census.

Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 26. Beet sugar (SIC 2063): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 49. Beet sugar (SIC 2063): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	60.8	59.1	73.7	64.2	63.7	67.8
1959 .....	62.1	60.7	74.3	63.9	63.3	68.3
1960 .....	68.7	66.6	87.0	71.7	70.8	79.1
1961 .....	65.9	64.1	80.8	66.1	65.3	72.5
1962 .....	72.2	69.9	92.1	71.4	70.0	81.9
1963 .....	76.0	73.1	102.2	74.1	72.0	91.0
1964 .....	86.6	83.3	117.2	87.0	84.8	104.8
1965 .....	82.1	79.6	105.1	76.5	74.5	93.6
1966 .....	82.0	81.7	83.0	74.8	74.9	73.6
1967 .....	78.4	77.9	82.4	73.5	72.7	79.4
1968 .....	85.2	83.9	94.9	81.3	79.8	91.5
1969 .....	84.7	81.7	111.4	80.8	77.9	106.2
1970 .....	92.9	89.8	120.7	87.2	84.2	113.8
1971 .....	96.8	93.0	134.4	97.7	93.9	133.1
1972 .....	105.5	102.3	134.1	100.9	96.9	138.7
1973 .....	100.0	96.9	128.0	99.5	95.9	132.0
1974 .....	94.2	91.9	113.5	90.8	87.8	116.5
1975 .....	98.1	97.0	105.9	92.6	90.6	107.8
1976 .....	101.7	100.8	107.1	101.8	100.7	108.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	98.3	99.0	93.5	91.8	91.6	93.1
1979 .....	104.6	109.2	79.0	99.4	103.4	79.3
1980 .....	102.1	104.5	87.6	93.8	94.8	87.2
1981 .....	98.7	101.4	82.3	91.0	92.6	82.3
1982 .....	94.8	97.4	79.1	87.5	89.0	79.1
1983 .....	94.6	96.6	82.4	94.7	97.2	81.0
1984 <sup>2</sup> .....	117.4	117.9	112.5	120.9	122.0	114.5
Average annual percent change:						
1958-84 .....	2.0	2.2	.3	1.8	1.9	.8
1979-84 .....	.9	.3	4.5	2.8	2.5	4.6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Agricultural Marketing Service, U.S. Department of Agriculture; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 50. Beet sugar (SIC 2063): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	58.2	95.8	98.4	79.0	90.6	91.3	85.9
1959 .....	59.1	95.1	97.4	79.5	92.5	93.4	86.5
1960 .....	64.5	93.9	96.8	74.1	89.9	91.1	81.5
1961 .....	64.2	97.4	100.2	79.5	97.1	98.3	88.6
1962 .....	68.5	94.9	98.0	74.4	96.0	97.9	83.6
1963 .....	73.4	96.6	100.4	71.8	99.1	101.9	80.7
1964 .....	92.1	106.4	110.6	78.6	105.9	108.6	87.9
1965 .....	82.5	100.5	103.7	78.5	107.9	110.8	88.1
1966 .....	77.4	94.4	94.7	93.3	103.5	103.3	105.2
1967 .....	74.2	94.6	95.3	90.1	100.9	102.0	93.4
1968 .....	85.5	100.4	101.9	90.1	105.2	107.1	93.4
1969 .....	92.1	108.8	112.7	82.7	114.0	118.2	86.7
1970 .....	98.7	106.2	109.9	81.8	113.2	117.2	86.7
1971 .....	97.7	100.9	105.1	72.7	100.0	104.1	73.4
1972 .....	101.8	96.5	99.5	75.9	100.9	105.1	73.4
1973 .....	96.9	96.9	100.0	75.7	97.4	101.0	73.4
1974 .....	93.2	98.9	101.4	82.1	102.6	106.1	80.0
1975 .....	100.7	102.6	103.8	95.1	108.8	111.1	93.4
1976 .....	116.0	114.1	115.1	108.3	114.0	115.2	106.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	86.9	88.4	87.8	92.9	94.7	94.9	93.3
1979 .....	84.6	80.9	77.5	107.1	85.1	81.8	106.7
1980 .....	81.4	79.7	77.9	92.9	86.8	85.9	93.3
1981 .....	82.3	83.4	81.2	100.0	90.4	88.9	100.0
1982 .....	79.1	83.4	81.2	100.0	90.4	88.9	100.0
1983 .....	64.8	68.5	67.1	78.6	68.4	66.7	80.0
1984 <sup>1</sup> .....	76.4	65.1	64.8	67.9	63.2	62.6	66.7
Average annual percent change:							
1958-84 .....	1.0	-.9	-1.1	-.7	-.7	-.9	-.2
1979-84 .....	-3.5	-4.3	-3.8	-7.6	-6.1	-5.8	-7.7

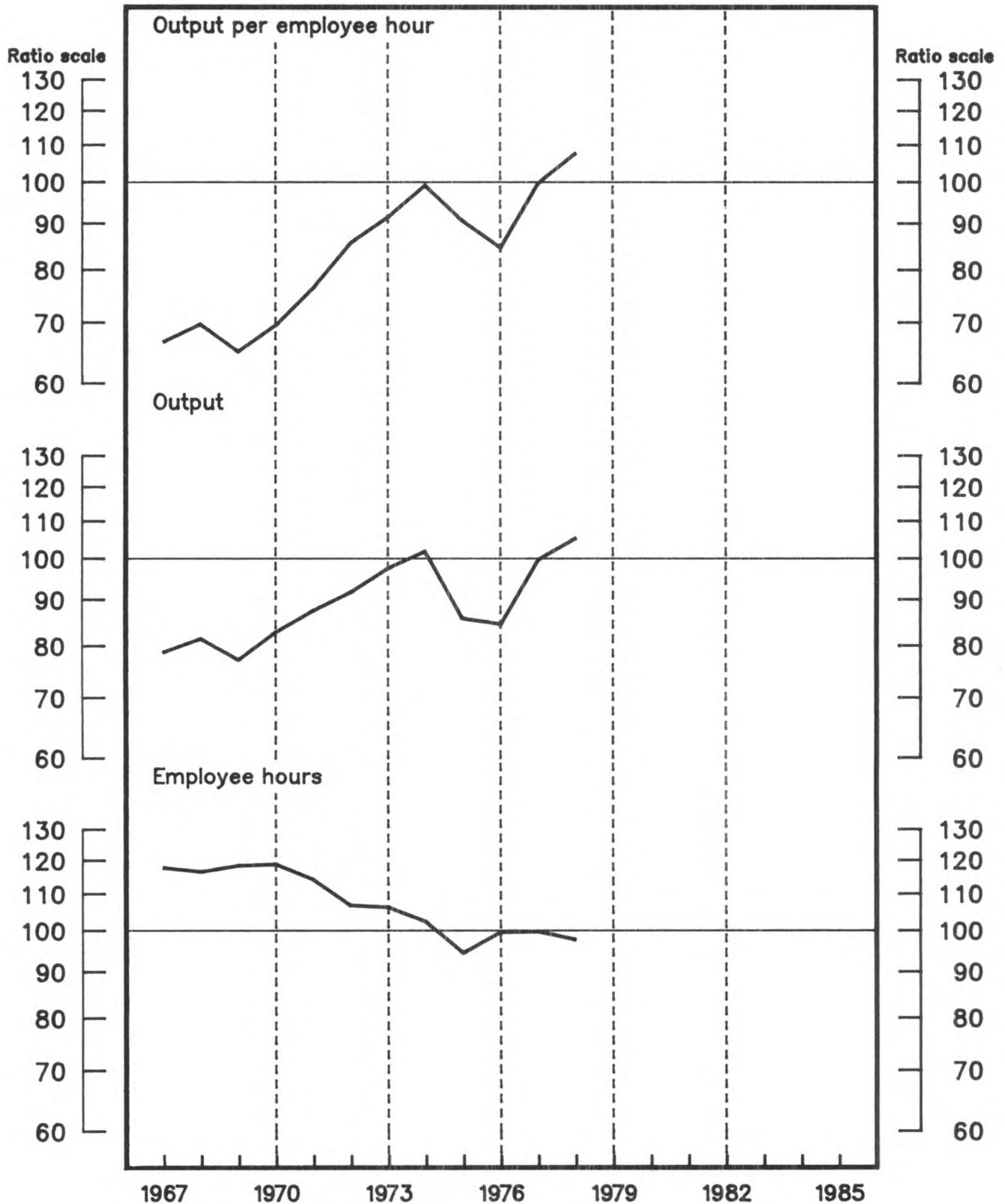
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Agricultural Marketing Service, U.S. Department of Agriculture; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 27. Candy and other confectionery products (SIC 2065): Output per hour and related data, 1967-78**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 51. Candy and other confectionery products (SIC 2065): Indexes of output per employee hour and output per employee, 1958-78**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	48.9	48.6	49.7	49.9	49.6	51.8
1959 .....	50.0	50.0	49.8	52.2	52.2	51.8
1960 .....	52.3	52.4	51.6	54.5	54.8	53.1
1961 .....	52.2	52.0	53.0	54.4	54.6	53.8
1962 .....	53.2	53.1	53.8	55.5	55.9	54.2
1963 .....	58.8	57.3	66.0	60.0	58.7	66.4
1964 .....	59.9	58.3	67.6	60.9	59.4	68.4
1965 .....	62.4	60.3	73.9	63.8	61.7	74.4
1966 .....	64.9	62.9	75.1	65.4	63.5	75.3
1967 .....	66.8	64.3	80.3	67.4	64.9	80.4
1968 .....	69.9	67.5	82.4	70.4	68.8	78.2
1969 .....	65.2	63.2	75.1	66.2	64.9	72.1
1970 .....	69.7	68.7	73.9	70.1	69.7	72.0
1971 .....	76.6	76.5	76.7	79.5	80.5	76.1
1972 .....	85.9	85.5	87.5	87.9	87.9	88.0
1973 .....	91.7	95.4	78.2	93.4	97.6	79.1
1974 .....	99.5	102.1	89.4	97.3	99.0	90.7
1975 .....	90.8	94.6	77.3	87.0	89.4	78.3
1976 .....	84.9	86.7	77.5	83.3	84.6	78.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	107.9	105.7	118.4	108.8	106.8	118.7
Average annual percent change: 1947-78 .....	3.7	3.8	3.4	3.5	3.6	3.2

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Competitive Assessment and Business Policy, the Bureau of the Census, and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 52. Candy and other confectionery products (SIC 2065): Indexes of output, employee hours, and employees, 1958-78**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	57.3	117.2	117.8	115.2	114.8	115.6	110.7
1959 .....	58.2	116.3	116.3	116.8	111.6	111.4	112.3
1960 .....	60.6	115.8	115.6	117.5	111.2	110.6	114.1
1961 .....	61.4	117.6	118.0	115.9	112.9	112.5	114.2
1962 .....	62.9	118.2	118.5	116.9	113.3	112.6	116.0
1963 .....	65.9	112.0	115.0	99.8	109.8	112.2	99.2
1964 .....	68.9	115.0	118.2	101.9	113.1	115.9	100.8
1965 .....	71.8	115.0	119.1	97.1	112.5	116.3	96.5
1966 .....	75.2	115.8	119.5	100.1	114.9	118.5	99.9
1967 .....	78.9	118.1	122.7	98.3	117.1	121.5	98.1
1968 .....	81.7	116.9	121.0	99.2	116.0	118.7	104.5
1969 .....	77.4	118.8	122.5	103.0	117.0	119.2	107.3
1970 .....	83.1	119.2	120.9	112.4	118.5	119.2	115.4
1971 .....	87.8	114.6	114.7	114.5	110.4	109.1	115.4
1972 .....	92.0	107.1	107.6	105.2	104.7	104.7	104.5
1973 .....	97.8	106.6	102.5	125.0	104.7	100.2	123.6
1974 .....	102.2	102.7	100.1	114.3	105.0	103.2	112.7
1975 .....	86.0	94.7	90.9	111.2	98.8	96.2	109.9
1976 .....	84.8	99.9	97.8	109.4	101.8	100.2	108.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	105.6	97.9	99.9	89.2	97.1	98.9	89.0
Average annual percent change: 1947-78 .....	2.7	-1.0	-1.0	-7	-7	-8	-4

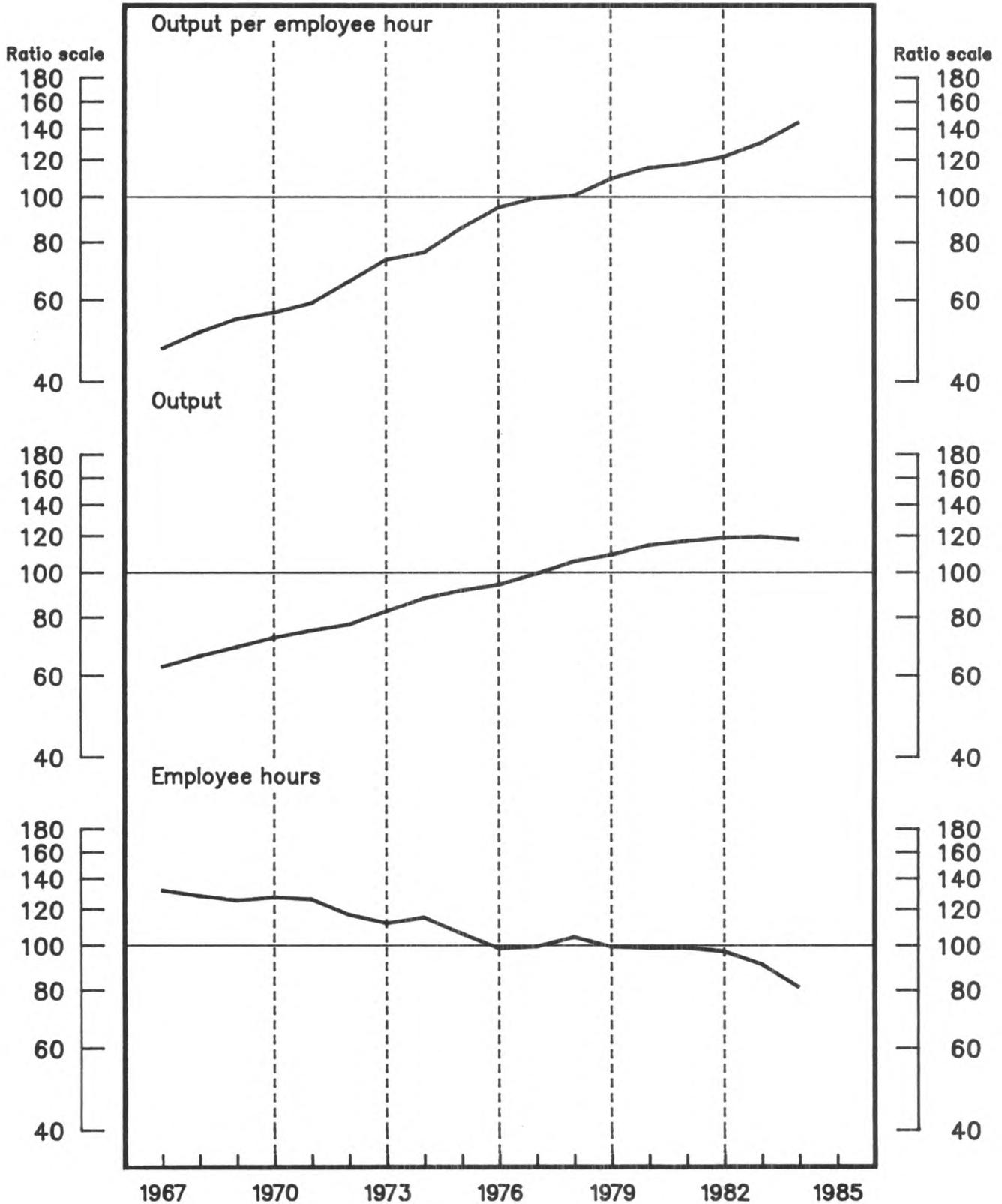
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Competitive Assessment and

Business Policy, the Bureau of the Census, and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 28, Malt beverages (SIC 2082): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 53. Malt beverages (SIC 2082): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	28.4	30.5	24.1	28.0	29.6	24.8
1959	29.7	31.5	25.8	29.4	30.7	26.6
1960	30.9	32.6	27.4	30.2	31.3	27.9
1961	32.5	34.2	28.6	31.6	33.0	28.7
1962	34.1	35.7	30.5	33.5	34.9	30.5
1963	37.4	39.1	33.8	36.8	38.1	33.7
1964	40.2	42.1	35.9	39.4	41.1	36.0
1965	42.3	44.5	37.3	41.7	43.9	37.2
1966	44.5	47.1	38.7	44.0	46.8	38.5
1967	47.4	50.2	41.7	46.5	49.0	41.4
1968	51.4	53.1	47.5	49.7	52.1	45.1
1969	54.9	57.2	49.9	53.3	56.0	47.9
1970	56.7	59.9	50.0	55.9	59.6	48.6
1971	59.4	64.4	49.6	58.2	63.1	49.1
1972	66.1	71.0	56.3	66.4	71.5	56.6
1973	73.7	75.6	69.1	74.3	76.4	69.9
1974	76.4	77.9	72.7	77.6	79.6	73.6
1975	86.1	88.0	82.2	86.0	87.3	83.0
1976	95.5	97.5	90.8	97.5	100.1	91.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.1	101.0	101.4	102.4	102.8	101.3
1979	109.9	109.2	112.1	109.9	109.0	112.3
1980	116.0	116.0	116.0	117.2	117.3	117.0
1981	118.3	121.5	111.1	118.3	121.4	111.5
1982	122.6	126.7	112.9	121.9	125.9	113.4
1983	131.3	133.0	126.8	129.7	131.0	126.8
1984 <sup>2</sup>	145.1	146.7	141.3	145.5	147.3	141.5
Average annual percent change:						
1947-84	5.9	5.8	6.2	5.8	5.7	6.1
1979-84	5.3	5.7	4.2	5.1	5.5	4.1

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 54. Malt beverages (SIC 2082): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	45.7	161.1	150.0	189.6	163.0	154.4	184.0
1959	47.4	159.5	150.4	183.4	161.2	154.2	178.0
1960	48.0	155.1	147.2	175.4	158.7	153.3	172.0
1961	49.0	151.0	143.2	171.5	154.9	148.6	170.5
1962	50.2	147.1	140.6	164.5	150.0	144.0	164.6
1963	52.3	139.7	133.9	154.7	142.3	137.3	155.0
1964	55.5	138.2	131.9	154.7	140.7	135.2	154.3
1965	57.3	135.6	128.8	153.8	137.4	130.5	154.1
1966	60.5	136.1	128.4	156.2	137.5	129.4	157.1
1967	63.0	132.8	125.6	151.1	135.5	128.5	152.0
1968	66.4	129.2	125.1	139.7	133.5	127.5	147.3
1969	69.4	126.4	121.4	139.1	130.2	124.0	145.0
1970	72.8	128.3	121.5	145.5	130.2	122.1	149.7
1971	75.4	127.0	117.1	152.1	129.5	119.5	153.5
1972	77.7	117.5	109.4	138.1	117.1	108.6	137.2
1973	83.0	112.6	109.8	120.1	111.7	108.6	118.7
1974	88.5	115.8	113.6	121.8	114.0	111.2	120.2
1975	92.0	106.8	104.6	111.9	107.0	105.4	110.9
1976	94.6	99.1	97.0	104.2	97.0	94.5	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.1	104.9	105.1	104.6	103.6	103.2	104.7
1979	109.7	99.8	100.5	97.9	99.8	100.6	97.7
1980	115.1	99.2	99.2	99.2	98.2	98.1	98.4
1981	117.5	99.3	96.7	105.8	99.3	96.8	105.4
1982	119.5	97.5	94.3	105.8	98.0	94.9	105.4
1983	120.0	91.4	90.2	94.6	92.5	91.6	94.6
1984 <sup>1</sup>	118.4	81.6	80.7	83.8	81.4	80.4	83.7
Average annual percent change:							
1947-84	3.4	-2.4	-2.2	-2.6	-2.3	-2.2	-2.5
1979-84	1.5	-3.6	-3.9	-2.6	-3.4	-3.8	-2.5

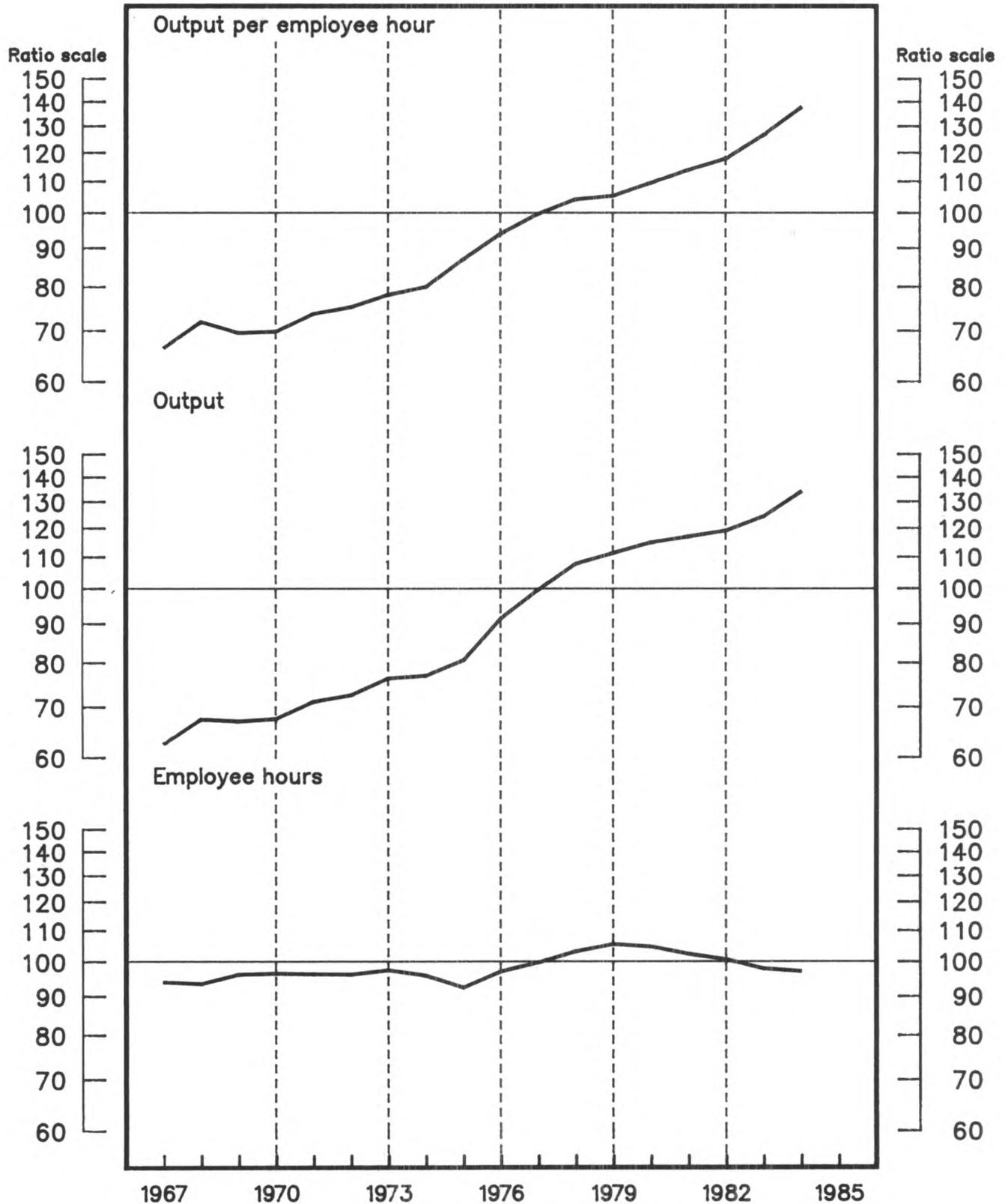
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 29. Bottled and canned soft drinks (SIC 2086): Output per hour data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 55. Bottled and canned soft drinks (SIC 2086): Indexes of output per employee hour and output per employee, 1958-84 (1977=100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	57.7	50.4	62.9	57.5	52.7	60.6
1959 .....	60.4	53.1	65.5	60.9	57.2	63.1
1960 .....	58.4	51.7	63.0	58.2	55.1	60.1
1961 .....	60.7	54.2	65.2	59.8	57.0	61.5
1962 .....	65.1	58.5	69.6	63.4	61.1	64.8
1963 .....	67.1	59.2	72.6	65.9	63.2	67.5
1964 .....	67.3	60.1	72.2	65.8	63.7	67.1
1965 .....	67.8	60.9	72.5	66.3	64.5	67.4
1966 .....	68.2	59.4	74.5	66.9	63.1	69.3
1967 .....	66.6	58.5	72.2	64.8	61.1	67.1
1968 .....	72.1	64.3	77.5	69.6	65.6	72.1
1969 .....	69.7	64.0	73.5	67.7	64.6	69.5
1970 .....	70.0	65.5	72.9	68.6	66.2	70.0
1971 .....	73.9	69.7	76.4	73.2	70.6	74.8
1972 .....	75.4	72.9	76.9	75.7	73.7	76.8
1973 .....	78.3	76.7	79.3	78.7	77.1	79.6
1974 .....	80.2	78.5	81.2	80.3	77.9	81.8
1975 .....	87.2	86.1	87.7	87.1	85.2	88.1
1976 .....	94.2	93.5	94.6	94.3	93.5	94.8
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	104.5	105.3	104.1	105.0	106.3	104.1
1979 .....	105.6	109.1	103.6	105.9	110.2	103.6
1980 .....	109.8	116.4	106.4	110.5	118.4	106.4
1981 .....	114.3	125.1	109.0	114.7	126.0	109.0
1982 .....	118.3	131.5	112.0	118.5	131.8	112.0
1983 .....	127.0	142.4	119.7	127.1	142.9	119.7
1984 <sup>2</sup> .....	138.0	153.5	130.4	138.0	154.0	130.4
Average annual percent change:						
1958-84 .....	3.2	4.2	2.6	3.3	3.9	2.9
1979-84 .....	5.3	7.0	4.5	5.2	6.7	4.5

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

differ from those previously published.

SOURCE: Output based on data from the Sales Survey and Statistical Profile of the Soft Drink Industry, National Soft Drink Association; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

**Table 56. Bottled and canned soft drinks (SIC 2086): Indexes of output, employee hours, and employees, 1958-84 (1977=100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	43.0	74.5	85.3	68.4	74.8	81.6	71.0
1959 .....	46.6	77.1	87.8	71.1	76.5	81.4	73.8
1960 .....	46.0	78.8	89.0	73.0	79.1	83.5	76.6
1961 .....	47.5	78.2	87.7	72.8	79.4	83.3	77.2
1962 .....	51.3	78.8	87.7	73.7	80.9	83.9	79.2
1963 .....	54.6	81.4	92.3	75.2	82.9	86.4	80.9
1964 .....	57.0	84.7	94.8	79.0	86.6	89.5	84.9
1965 .....	59.2	87.3	97.2	81.7	89.3	91.8	87.8
1966 .....	63.1	92.5	106.3	84.7	94.3	100.0	91.0
1967 .....	62.7	94.2	107.2	86.9	96.8	102.7	93.4
1968 .....	67.6	93.7	105.2	87.2	97.1	103.1	93.7
1969 .....	67.2	96.4	105.0	91.4	99.3	104.0	96.7
1970 .....	67.7	96.7	103.3	92.9	98.7	102.3	96.7
1971 .....	71.3	96.5	102.3	93.3	97.4	101.0	95.3
1972 .....	72.7	96.4	99.7	94.5	96.1	98.7	94.6
1973 .....	76.5	97.7	99.7	96.5	97.2	99.2	96.1
1974 .....	77.1	96.1	98.2	94.9	96.0	99.0	94.3
1975 .....	80.8	92.7	93.8	92.1	92.8	94.8	91.7
1976 .....	91.7	97.3	98.1	96.9	97.2	98.1	96.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	108.1	103.4	102.7	103.8	103.0	101.7	103.8
1979 .....	111.6	105.7	102.3	107.7	105.4	101.3	107.7
1980 .....	115.2	104.9	99.0	108.3	104.3	97.3	108.3
1981 .....	117.3	102.6	93.8	107.6	102.3	93.1	107.6
1982 .....	119.4	100.9	90.8	106.6	100.8	90.6	106.6
1983 .....	124.6	98.1	87.5	104.1	98.0	87.2	104.1
1984 <sup>1</sup> .....	134.3	97.3	87.5	103.0	97.3	87.2	103.0
Average annual percent change:							
1958-84 .....	4.4	1.2	.2	1.8	1.1	.4	1.4
1979-84 .....	3.4	-1.8	-3.3	-1.0	-1.7	-3.1	-1.0

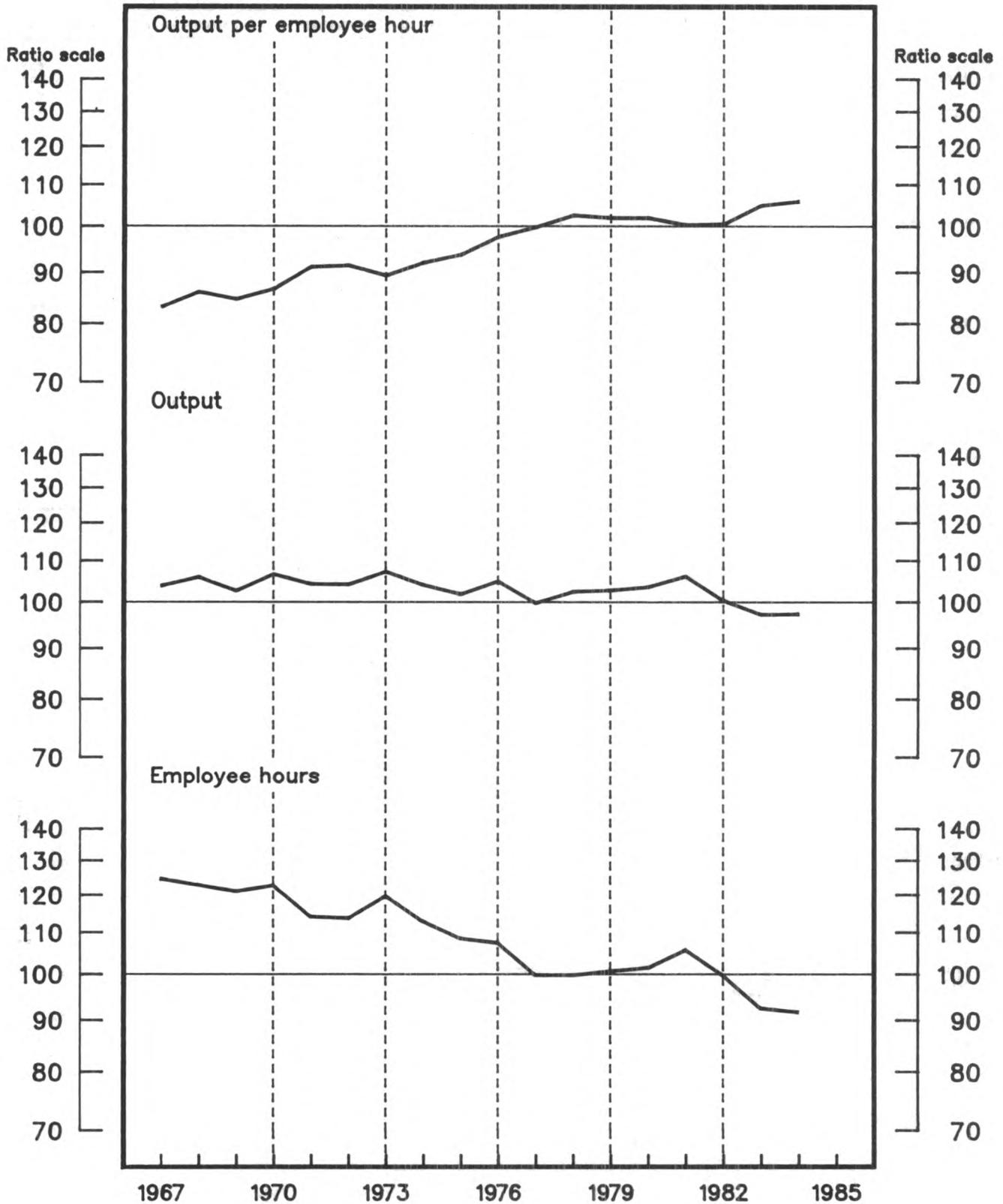
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Sales Survey and Statistical Profile of the Soft Drink Industry, National Soft Drink Association; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

**Chart 30. All tobacco products (SIC 2111, 2121, 2131): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 57. All tobacco products (SIC 2111, 2121, 2131): Indexes of output per employee hour and output per employee, 1958-84 (1977=100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	62.1	57.9	105.5	65.9	60.9	118.4
1959	65.3	61.3	102.3	69.5	64.8	114.6
1960	69.7	65.6	108.0	73.9	69.0	121.4
1961	72.1	68.4	104.4	77.1	72.5	117.4
1962	74.3	70.9	101.7	79.6	75.3	115.2
1963	78.4	74.4	112.3	84.0	78.9	126.8
1964	80.2	75.5	125.1	87.5	81.6	142.0
1965	83.4	79.2	119.5	87.2	81.9	135.1
1966	83.2	79.0	119.0	88.0	82.6	134.1
1967	83.3	79.6	112.3	87.8	82.9	126.5
1968	86.2	82.3	116.8	88.3	83.4	129.0
1969	84.8	81.6	108.8	87.6	83.5	119.5
1970	86.8	83.1	116.4	91.8	87.2	128.0
1971	91.3	88.0	117.3	95.5	91.0	128.9
1972	91.6	88.9	110.7	94.9	91.1	121.3
1973	89.5	87.2	104.4	93.4	90.3	114.7
1974	92.2	90.4	103.7	93.6	90.9	111.3
1975	93.9	93.2	97.2	95.8	94.6	102.1
1976	97.8	96.7	103.3	100.5	99.3	106.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.7	102.4	104.3	105.7	106.0	104.1
1979	102.1	103.5	94.4	105.1	107.3	94.6
1980	102.1	105.1	87.8	105.7	109.8	88.2
1981	100.5	103.8	84.6	102.9	107.2	84.9
1982	100.7	107.1	75.0	101.0	108.1	75.0
1983	105.1	114.1	72.3	104.3	113.9	71.9
1984 <sup>2</sup>	106.1	115.2	72.7	108.6	119.8	72.7
Average annual percent change:						
1947-84	2.5	2.9	-3	2.4	2.9	-7
1979-84	.8	2.4	-5.6	.3	1.9	-5.7

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury; the Bureau of the Census; and Agricultural Marketing Service, U.S. Department of Agriculture. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 58. All tobacco products (SIC 2111, 2121, 2131): Indexes of output, employee hours, and employees, 1958-84 (1977=100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	91.9	147.9	158.6	87.1	139.4	150.9	77.6
1959	97.3	149.1	158.7	95.1	139.9	150.2	84.9
1960	99.7	143.0	152.0	92.3	134.9	144.5	82.1
1961	99.2	137.5	145.0	95.0	128.6	136.9	84.5
1962	99.4	133.7	140.1	97.7	124.8	132.0	86.3
1963	101.6	129.6	136.5	90.5	121.0	128.7	80.1
1964	110.3	137.5	146.1	88.2	126.1	135.1	77.7
1965	107.4	128.7	135.6	89.9	123.1	131.2	79.5
1966	104.6	125.7	132.4	87.9	118.9	126.6	78.0
1967	104.1	125.0	130.7	92.7	118.6	125.5	82.3
1968	106.2	123.2	129.0	90.9	120.3	127.4	82.3
1969	102.9	121.4	126.1	94.6	117.4	123.3	86.1
1970	106.9	123.1	128.6	91.8	116.4	122.6	83.5
1971	104.5	114.4	118.8	89.1	109.4	114.8	81.1
1972	104.4	114.0	117.5	94.3	110.0	114.6	86.1
1973	107.5	120.1	123.3	103.0	115.1	119.1	93.7
1974	104.3	113.1	115.4	100.6	111.4	114.8	93.7
1975	102.1	108.7	109.5	105.0	106.6	107.9	100.0
1976	105.2	107.6	108.8	101.8	104.7	105.9	98.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.7	100.0	100.3	98.5	97.2	96.9	98.7
1979	103.0	100.9	99.5	109.1	98.0	96.0	108.9
1980	103.8	101.7	98.8	118.2	98.2	94.5	117.7
1981	106.4	105.9	102.5	125.8	103.4	99.3	125.3
1982	100.6	99.9	93.9	134.1	99.6	93.1	134.2
1983	97.4	92.7	85.4	134.8	93.4	85.5	135.4
1984 <sup>1</sup>	97.5	91.9	84.6	134.1	89.8	81.4	134.2
Average annual percent change:							
1947-84	.8	-1.7	-2.1	1.1	-1.6	-2.1	1.5
1979-84	-1.5	-2.3	-3.7	4.3	-1.8	-3.3	4.5

<sup>1</sup> Preliminary.

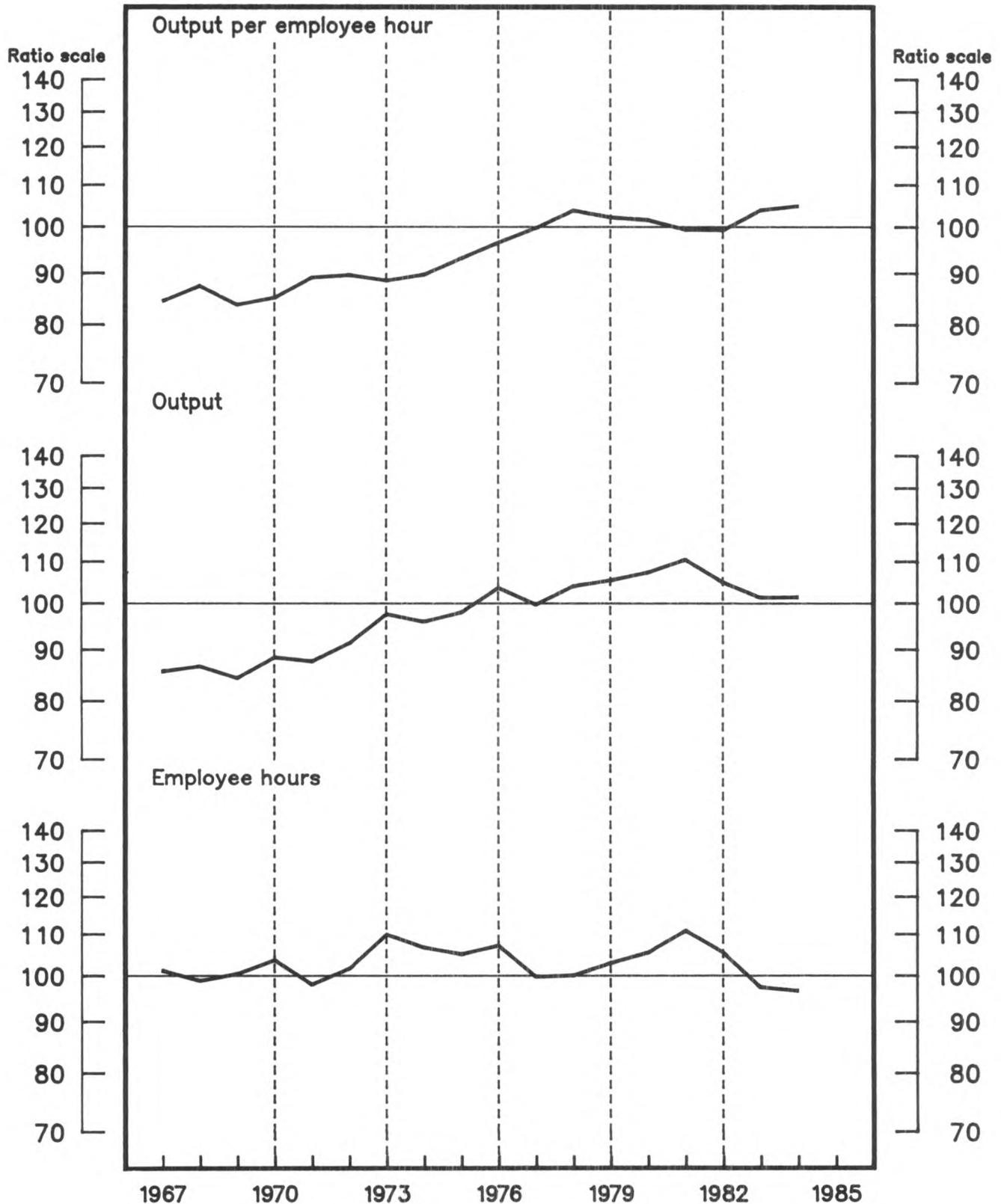
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms,

U.S. Department of the Treasury; the Bureau of the Census; and Agricultural Marketing Service, U.S. Department of Agriculture. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 31. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 59. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	70.7	65.4	121.7	76.7	70.2	137.3
1959	72.3	67.7	112.9	78.6	72.8	127.5
1960	75.5	70.8	115.5	81.4	75.6	130.1
1961	77.1	72.6	113.5	83.5	78.1	127.5
1962	77.4	73.5	106.3	84.6	79.8	120.0
1963	80.9	76.3	116.1	88.3	82.6	130.8
1964	79.7	75.1	115.0	86.9	81.3	129.9
1965	83.3	78.8	117.1	87.3	81.6	131.9
1966	83.3	79.2	114.3	89.3	84.0	128.2
1967	84.6	80.3	117.2	90.1	84.6	131.4
1968	87.6	83.2	120.4	89.4	83.6	132.9
1969	83.9	80.4	108.6	86.6	82.0	119.4
1970	85.3	81.1	116.1	90.8	85.7	127.5
1971	89.3	85.9	112.9	93.6	89.0	124.0
1972	89.8	86.5	111.4	93.3	89.0	122.0
1973	88.7	86.2	103.4	93.1	89.6	113.6
1974	89.9	88.2	99.3	92.4	89.9	106.4
1975	93.3	92.5	97.6	95.4	94.2	102.5
1976	96.7	95.4	103.8	99.9	98.6	106.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.0	104.0	104.3	107.6	108.3	104.3
1979	102.4	104.0	94.6	105.9	108.5	95.1
1980	101.8	104.8	88.4	105.8	110.1	89.1
1981	99.6	103.0	85.2	101.8	105.9	85.8
1982	99.5	105.8	75.6	99.5	106.4	75.7
1983	104.1	113.3	73.0	103.0	112.5	73.1
1984 <sup>2</sup>	105.1	114.5	73.1	107.8	119.5	73.2
Average annual percent change:						
1947-84	1.4	1.8	-1.0	1.2	1.7	-1.4
1979-84	.6	2.1	-5.5	( <sup>3</sup> )	1.6	-5.6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury; the Bureau of the Census; and Agricultural Marketing Service, U.S. Department of Agriculture. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 60. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	72.9	103.1	111.5	59.9	95.1	103.9	53.1
1959	77.0	106.5	113.8	68.2	98.0	105.8	60.4
1960	79.0	104.6	111.6	68.4	97.0	104.5	60.7
1961	80.7	104.7	111.1	71.1	96.6	103.3	63.3
1962	80.4	103.9	109.4	75.6	95.0	100.7	67.0
1963	82.8	102.4	108.5	71.3	93.8	100.2	63.3
1964	82.1	103.0	109.3	71.4	94.5	101.0	63.2
1965	83.5	100.3	106.0	71.3	95.6	102.3	63.3
1966	84.5	101.4	106.7	73.9	94.6	100.6	65.9
1967	85.8	101.4	106.8	73.2	95.2	101.4	65.3
1968	86.8	99.1	104.3	72.1	97.1	103.8	65.3
1969	84.5	100.7	105.1	77.8	97.6	103.1	70.8
1970	88.6	103.9	109.2	76.3	97.6	103.4	69.5
1971	87.8	98.3	102.2	77.8	93.8	98.6	70.8
1972	91.5	101.9	105.8	82.1	98.1	102.8	75.0
1973	97.8	110.2	113.4	94.6	105.1	109.1	86.1
1974	96.1	106.9	108.9	96.8	104.0	106.9	90.3
1975	98.2	105.3	106.2	100.6	102.9	104.3	95.8
1976	103.9	107.4	108.9	100.1	104.0	105.4	97.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.3	100.3	100.3	100.0	96.9	96.3	100.0
1979	105.7	103.2	101.6	111.7	99.8	97.4	111.1
1980	107.6	105.7	102.7	121.7	101.7	97.7	120.8
1981	110.8	111.2	107.6	130.0	108.8	104.6	129.2
1982	105.2	105.7	99.4	139.2	105.7	98.9	138.9
1983	101.6	97.6	89.7	139.2	98.6	90.3	138.9
1984 <sup>1</sup>	101.7	96.8	88.8	139.2	94.3	85.1	138.9
Average annual percent change:							
1947-84	1.7	.2	-.2	2.7	.4	( <sup>2</sup> )	3.1
1979-84	-1.2	-1.7	-3.3	4.6	-1.2	-2.7	4.7

<sup>1</sup> Preliminary.

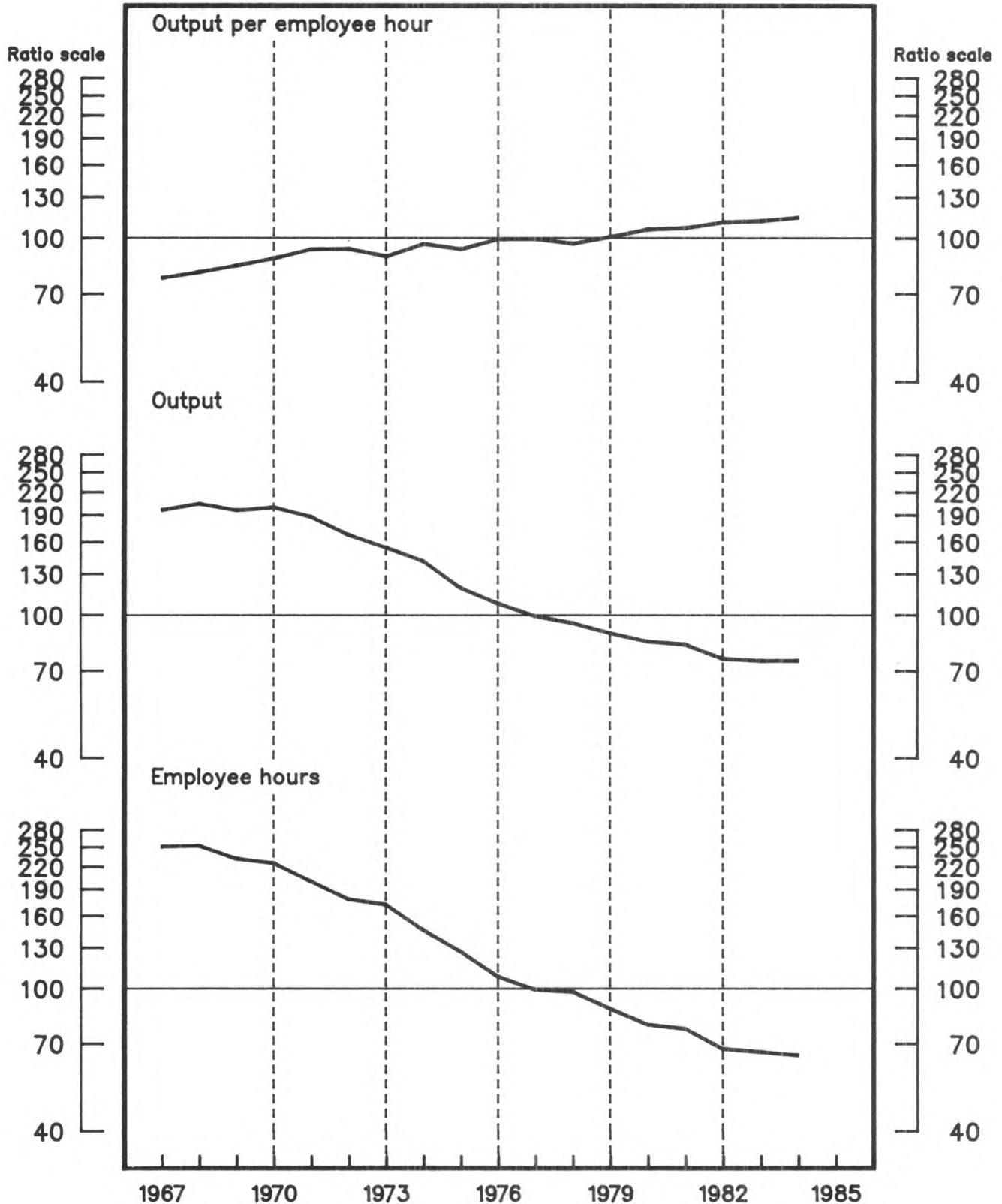
<sup>2</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury; the Bureau of the Census; and Agricultural Marketing Service, U.S. Department of Agriculture. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 32. Cigars (SIC 2121): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 61. Cigars (SIC 2121): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	48.8	48.5	52.3	49.9	49.3	57.9
1959	53.0	52.9	54.6	54.8	54.3	60.4
1960	58.6	58.4	61.0	60.3	59.6	68.2
1961	62.1	62.6	57.5	64.3	64.3	64.8
1962	66.5	67.1	60.5	68.4	68.3	69.4
1963	71.6	71.7	68.8	73.5	73.1	78.8
1964	79.1	77.6	98.3	85.6	83.7	113.1
1965	81.5	81.5	81.6	84.2	83.3	93.5
1966	80.6	79.8	89.9	82.5	80.9	102.6
1967	78.0	79.2	67.4	80.0	80.4	76.9
1968	80.9	81.8	72.5	83.3	83.7	80.0
1969	84.4	85.6	74.0	87.2	87.9	81.3
1970	88.4	89.4	80.2	91.6	91.9	88.0
1971	93.7	93.8	92.8	97.1	96.6	101.9
1972	93.8	95.6	77.1	96.0	97.6	84.3
1973	89.5	90.2	82.7	92.1	92.2	90.7
1974	96.9	96.3	103.4	93.7	92.4	110.9
1975	93.7	95.2	79.9	94.0	95.2	83.8
1976	99.9	100.7	92.3	99.5	99.9	95.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	97.0	95.6	114.8	96.9	95.6	111.6
1979	101.4	100.8	107.7	101.6	101.2	104.7
1980	106.4	106.9	102.0	107.3	108.1	99.2
1981	107.3	108.0	100.1	112.7	114.4	97.3
1982	111.4	113.8	91.4	115.0	118.4	88.8
1983	112.3	117.7	75.1	115.7	122.3	75.1
1984 <sup>2</sup>	114.8	117.9	90.3	115.9	119.6	87.7
Average annual percent change:						
1947-84	4.2	4.4	2.7	4.2	4.4	2.3
1979-84	2.4	3.3	-5.3	2.6	3.6	-5.0

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 62. Cigars (SIC 2121): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	190.5	390.1	392.8	363.9	381.5	386.2	328.8
1959	202.0	381.0	382.0	370.1	368.9	372.0	334.7
1960	206.1	351.6	352.9	337.8	342.0	345.9	302.1
1961	195.7	315.2	312.7	340.5	304.2	304.4	302.1
1962	196.8	295.9	293.5	325.2	287.9	288.0	283.5
1963	198.0	276.7	276.1	287.7	269.4	270.8	251.4
1964	255.9	323.5	329.9	260.4	298.8	305.7	226.2
1965	230.2	282.5	282.5	282.1	273.3	276.2	246.3
1966	207.5	257.5	259.9	230.8	251.6	256.5	202.3
1967	197.6	253.2	249.4	293.3	246.9	245.7	257.1
1968	205.7	254.4	251.6	283.6	246.9	245.7	257.1
1969	197.2	233.7	230.4	266.6	226.2	224.3	242.7
1970	201.0	227.3	224.9	250.7	219.5	218.7	228.5
1971	189.1	201.8	201.5	203.8	194.8	195.8	185.6
1972	168.6	179.7	176.3	218.8	175.6	172.7	200.0
1973	155.5	173.7	172.3	188.0	168.9	168.6	171.5
1974	142.5	147.1	147.9	137.8	152.1	154.3	128.5
1975	119.8	127.8	125.9	149.9	127.4	125.8	142.9
1976	108.5	108.6	107.7	117.6	109.1	108.6	114.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	95.6	98.6	100.0	83.3	98.7	100.0	85.7
1979	89.7	88.5	89.0	83.3	88.3	88.6	85.7
1980	85.0	79.9	79.5	83.3	79.2	78.6	85.7
1981	83.4	77.7	77.2	83.3	74.0	72.9	85.7
1982	76.1	68.3	66.9	83.3	66.2	64.3	85.7
1983	75.1	66.9	63.8	100.0	64.9	61.4	100.0
1984 <sup>1</sup>	75.2	65.5	63.8	83.3	64.9	62.9	85.7
Average annual percent change:							
1947-84	-2.2	-6.2	-6.3	-4.8	-6.2	-6.3	-4.4
1979-84	-3.8	-6.0	-6.8	1.6	-6.2	-7.1	1.3

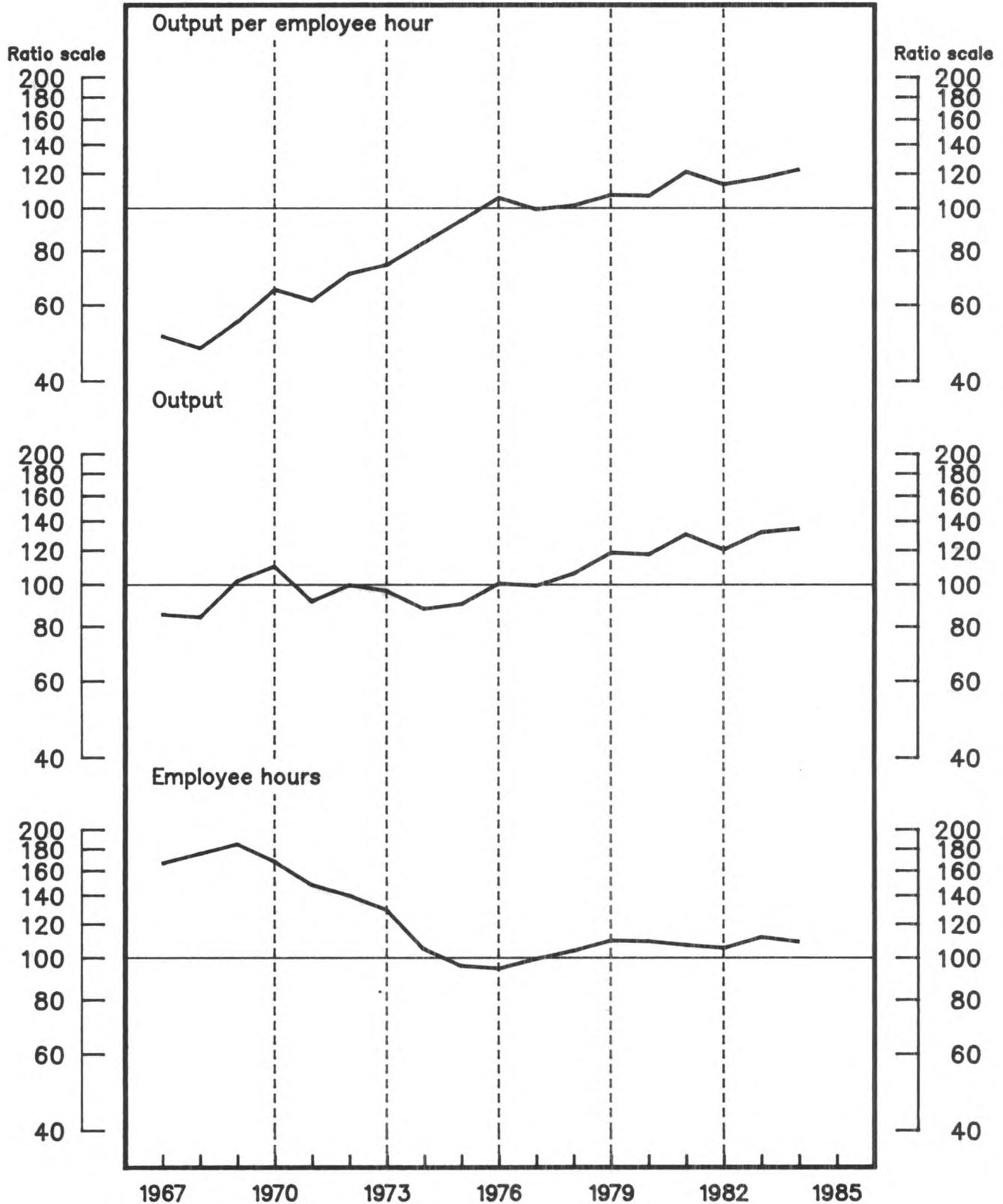
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 33. Hosiery (SIC 2251, 2252): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 63. Hosiery (SIC 2251, 2252): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	29.7	29.3	33.7	29.2	28.7	35.7
1959	29.5	29.0	35.6	29.9	29.3	37.7
1960	30.3	29.7	37.0	30.6	29.8	39.3
1961	33.1	32.7	37.8	33.6	33.0	39.9
1962	34.3	33.9	38.8	34.8	34.2	41.1
1963	38.8	38.1	46.3	38.9	38.0	49.1
1964	41.4	40.6	50.4	42.6	41.6	53.6
1965	41.4	40.6	50.4	42.3	41.3	53.3
1966	45.5	44.8	53.2	47.0	46.1	56.0
1967	51.1	50.7	56.0	52.1	51.4	59.2
1968	47.9	47.7	49.9	49.0	48.5	54.6
1969	55.2	55.0	57.1	56.5	56.0	61.0
1970	65.5	65.8	63.6	63.5	63.2	66.6
1971	61.8	63.2	52.6	60.3	60.9	55.4
1972	71.2	72.6	61.5	71.9	72.8	64.8
1973	74.6	76.4	63.1	72.1	73.0	64.9
1974	84.0	85.9	71.0	80.5	81.7	70.9
1975	94.3	96.4	79.8	89.2	90.3	80.1
1976	106.4	107.9	96.7	105.1	106.1	97.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.1	102.6	98.5	103.0	103.6	98.5
1979	107.9	109.8	93.4	112.0	114.5	94.0
1980	107.4	110.3	87.5	111.2	114.6	88.5
1981	122.0	125.6	96.8	127.7	132.5	97.3
1982	114.2	116.2	99.3	113.4	115.2	99.5
1983	118.0	117.6	122.6	121.3	121.1	122.6
1984 <sup>2</sup>	123.4	123.8	120.9	122.4	122.6	121.1
Average annual percent change:						
1947-84	6.0	6.1	4.6	5.9	6.1	4.4
1979-84	2.6	2.1	6.9	1.7	1.1	6.7

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the National Association of Hosiery Manufacturers, Inc., and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 64. Hosiery (SIC 2251, 2252): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	51.3	172.8	174.8	152.2	175.5	179.0	143.5
1959	54.0	182.9	186.3	151.8	180.4	184.6	143.2
1960	53.9	177.7	181.2	145.8	176.1	180.8	137.1
1961	59.0	178.0	180.4	156.0	175.6	179.0	147.7
1962	60.5	176.5	178.5	155.9	174.0	177.1	147.2
1963	62.7	161.7	164.5	135.4	161.3	165.1	127.8
1964	66.6	160.7	164.0	132.2	156.5	160.1	124.2
1965	70.2	169.6	172.8	139.4	165.9	169.8	131.7
1966	77.4	170.1	172.8	145.6	164.6	167.8	138.1
1967	85.8	167.8	169.2	153.1	164.7	166.9	144.9
1968	84.6	176.8	177.3	169.7	172.8	174.6	154.9
1969	102.7	186.1	186.6	179.8	181.7	183.3	168.3
1970	110.9	169.3	168.5	174.3	174.6	175.5	166.5
1971	92.2	149.2	146.0	175.2	152.9	151.3	166.5
1972	100.3	140.9	138.2	163.2	139.5	137.7	154.9
1973	97.3	130.4	127.4	154.1	134.9	133.2	149.9
1974	88.5	105.4	103.0	124.7	110.0	108.3	124.9
1975	90.8	96.3	94.2	113.8	101.8	100.5	113.3
1976	101.1	95.0	93.7	104.6	96.2	95.3	103.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.7	104.5	104.0	108.3	103.6	103.0	108.3
1979	119.1	110.4	108.5	127.5	106.3	104.0	126.7
1980	118.0	109.9	107.0	134.9	106.1	103.0	133.3
1981	131.4	107.7	104.6	135.8	102.9	99.2	135.0
1982	121.1	106.0	104.2	122.0	106.8	105.1	121.7
1983	132.8	112.5	112.9	108.3	109.5	109.7	108.3
1984 <sup>1</sup>	135.3	109.6	109.3	111.9	110.5	110.4	111.7
Average annual percent change:							
1947-84	3.3	-2.5	-2.7	-1.2	-2.5	-2.7	-1.0
1979-84	2.6	.1	.6	-4.0	.9	1.6	-3.8

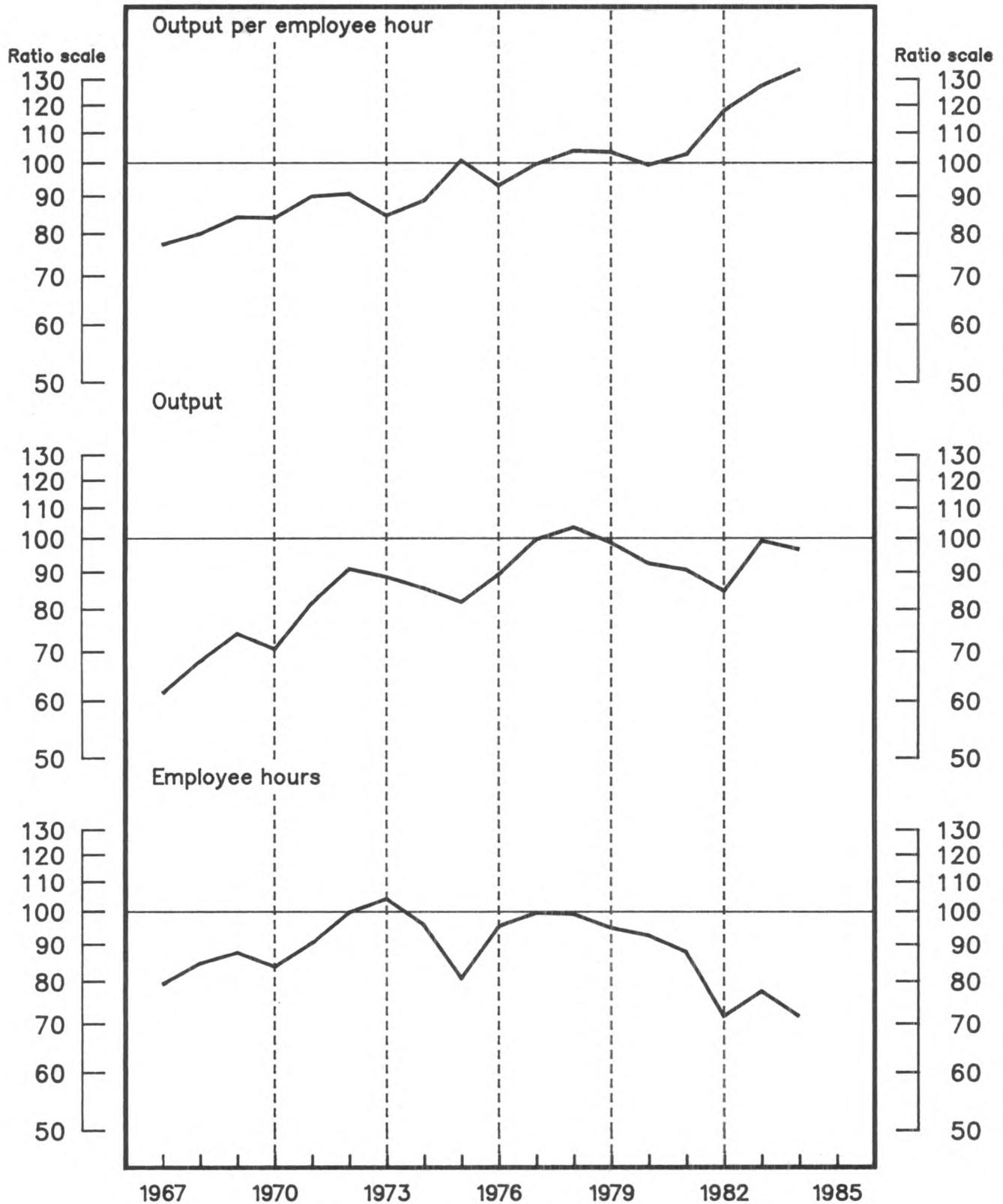
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the National Association of Hosiery Manufacturers, Inc., and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 34. Yarn mills, except wool (SIC 2281): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 65. Yarn mills, except wool (SIC 2281): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	59.5	58.7	71.9	54.0	52.7	74.8
1959	62.3	61.3	79.6	61.5	60.1	83.0
1960	65.3	64.2	82.0	62.0	60.5	85.0
1961	71.4	70.4	87.1	68.8	67.4	90.2
1962	74.7	73.6	94.0	73.5	71.9	97.4
1963	76.3	74.7	106.1	75.9	74.0	109.3
1964	80.6	79.9	91.3	83.1	82.4	94.4
1965	84.6	83.2	108.1	90.1	88.5	112.0
1966	81.8	79.9	120.2	85.5	83.3	123.5
1967	77.5	76.1	102.8	77.0	75.2	106.2
1968	80.2	78.9	102.4	81.9	80.0	112.2
1969	84.5	83.3	105.7	83.3	81.4	112.4
1970	84.3	83.6	96.7	82.2	80.9	101.0
1971	90.3	89.5	101.6	91.9	90.9	106.5
1972	91.0	90.2	105.3	94.6	93.5	110.5
1973	85.0	84.1	99.2	86.6	85.5	101.1
1974	89.1	89.4	87.1	84.8	84.6	86.9
1975	101.2	102.0	92.6	93.7	93.9	92.2
1976	93.5	93.1	100.1	91.8	91.2	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.2	104.1	105.4	103.5	103.3	105.3
1979	103.8	103.7	106.0	103.2	103.0	106.1
1980	99.7	100.4	91.3	96.9	97.4	91.4
1981	103.1	104.0	92.3	98.8	99.3	92.2
1982	118.2	119.7	101.7	109.0	109.7	101.6
1983	127.9	128.2	123.3	126.9	127.2	122.7
1984 <sup>2</sup>	134.6	136.1	117.8	128.9	130.1	117.5
Average annual percent change:						
1958-84	2.4	2.6	.8	2.4	2.5	.6
1979-84	6.4	6.6	4.5	5.9	6.1	4.4

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 66. Yarn mills, except wool (SIC 2281): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	39.4	66.2	67.1	54.8	72.9	74.7	52.7
1959	44.8	71.9	73.1	56.3	72.9	74.6	54.0
1960	42.5	65.1	66.2	51.8	68.6	70.2	50.0
1961	45.1	63.2	64.1	51.8	65.6	66.9	50.0
1962	48.7	65.2	66.2	51.8	66.3	67.7	50.0
1963	50.3	65.9	67.3	47.4	66.3	68.0	46.0
1964	57.4	71.2	71.8	62.9	69.1	69.7	60.8
1965	66.5	78.6	79.9	61.5	73.8	75.1	59.4
1966	66.7	81.5	83.5	55.5	78.0	80.1	54.0
1967	61.7	79.6	81.1	60.0	80.1	82.0	58.1
1968	68.2	85.0	86.4	66.6	83.3	85.2	60.8
1969	74.4	88.0	89.3	70.4	89.3	91.4	66.2
1970	70.9	84.1	84.8	73.3	86.3	87.6	70.2
1971	82.0	90.8	91.6	80.7	89.2	90.2	77.0
1972	91.2	100.2	101.1	86.6	96.4	97.5	82.5
1973	88.9	104.6	105.7	89.6	102.7	104.0	87.9
1974	85.8	96.3	96.0	98.5	101.2	101.4	98.7
1975	82.2	81.2	80.6	88.8	87.7	87.5	89.2
1976	89.7	95.9	96.3	89.6	97.7	98.4	89.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.8	99.6	99.7	98.5	100.3	100.5	98.6
1979	98.9	95.3	95.4	93.3	95.8	96.0	93.2
1980	92.7	93.0	92.3	101.5	95.7	95.2	101.4
1981	90.9	88.2	87.4	98.5	92.0	91.5	98.6
1982	85.1	72.0	71.1	83.7	78.1	77.6	83.8
1983	99.5	77.8	77.6	80.7	78.4	78.2	81.1
1984 <sup>1</sup>	96.8	71.9	71.1	82.2	75.1	74.4	82.4
Average annual percent change:							
1958-84	3.6	1.1	1.0	2.8	1.2	1.0	3.0
1979-84	.1	-6.0	-6.1	-4.2	-5.5	-5.6	-4.1

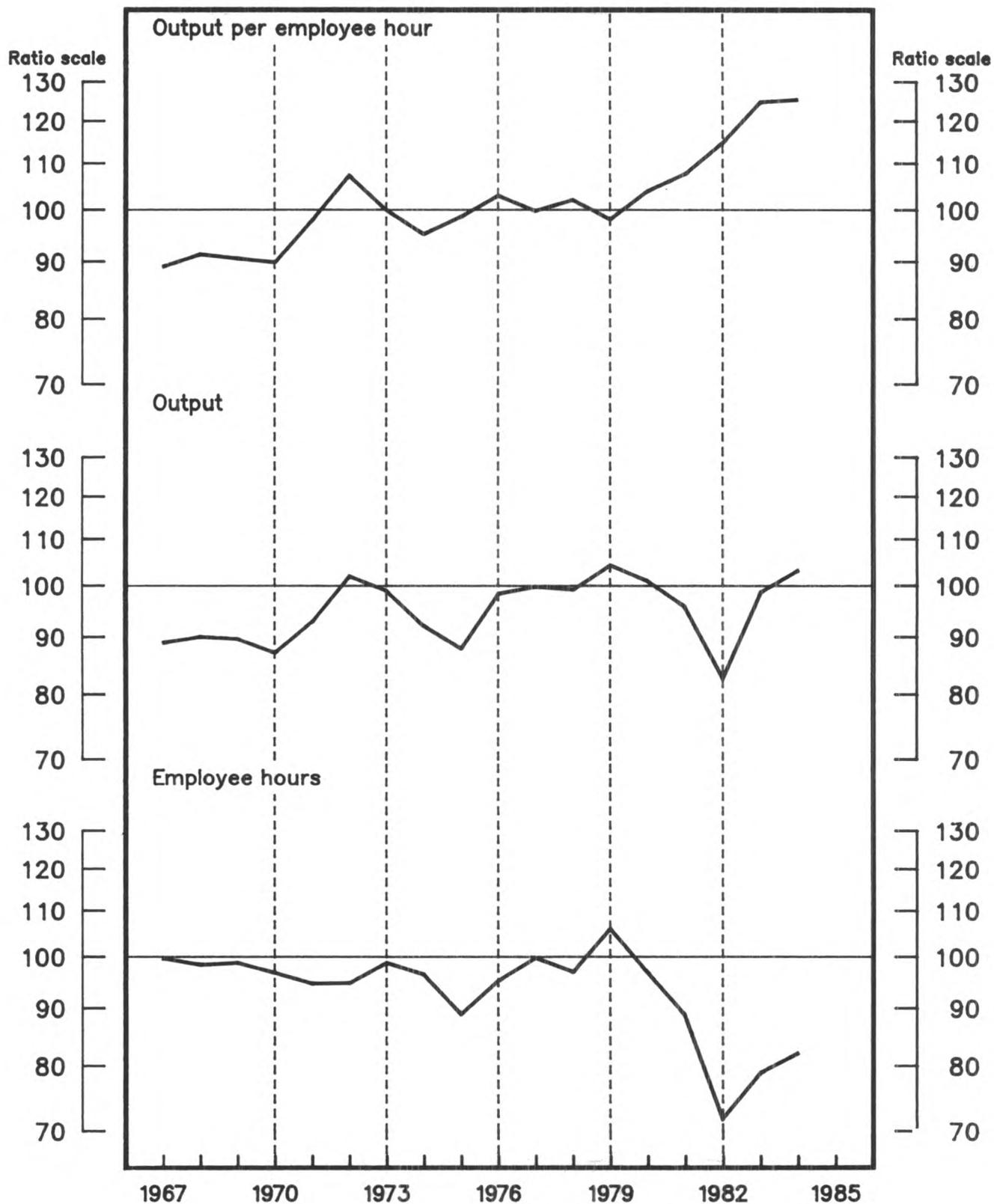
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 35. Sawmills and planing mills, general (SIC 242): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 67. Sawmills and planing mills, general (SIC 2421): Indexes of output per employee hour and output per employee, 1958-84 (1977=100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	65.2	66.7	55.3	61.3	62.0	55.6
1959 .....	67.5	65.7	87.6	64.0	61.9	88.0
1960 .....	67.1	65.4	86.1	65.3	63.4	86.1
1961 .....	73.1	71.1	94.9	70.2	68.0	94.1
1962 .....	76.4	74.0	104.4	74.1	71.6	103.0
1963 .....	79.7	79.0	86.1	77.1	76.1	85.1
1964 .....	84.7	84.3	87.4	83.4	82.9	86.6
1965 .....	81.8	80.9	89.8	80.0	79.0	88.8
1966 .....	82.7	81.6	93.0	80.6	79.3	91.4
1967 .....	89.2	87.2	111.1	86.5	84.3	109.5
1968 .....	91.5	90.0	106.1	89.9	88.2	106.7
1969 .....	90.7	89.5	101.8	88.6	87.0	102.5
1970 .....	90.0	90.1	89.2	88.0	87.7	90.6
1971 .....	98.1	97.3	105.2	96.2	94.9	106.9
1972 .....	107.6	106.8	114.1	107.5	106.5	116.0
1973 .....	100.2	99.6	106.0	100.1	99.3	106.9
1974 .....	95.4	95.9	91.5	93.2	93.5	91.3
1975 .....	98.8	98.9	98.1	96.7	96.5	98.2
1976 .....	103.2	103.1	103.2	102.2	102.0	103.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.3	102.9	96.8	100.5	101.0	96.9
1979 .....	98.3	99.3	90.5	98.5	99.6	90.9
1980 .....	104.2	107.7	82.4	101.1	103.9	83.2
1981 .....	107.9	111.1	86.3	104.3	107.1	86.6
1982 .....	115.1	119.3	89.0	110.2	113.5	89.4
1983 .....	125.0	127.4	107.9	121.3	123.3	107.7
1984 <sup>2</sup> .....	125.6	127.8	110.2	121.8	123.4	110.8
Average annual percent change:						
1958-84 .....	2.1	2.3	.6	2.2	2.4	.7
1979-84 .....	5.4	5.4	5.4	4.9	4.8	5.3

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

<sup>2</sup> Preliminary.

**Table 68. Sawmills and planing mills, general (SIC 2421): Indexes of output, employee hours, and employees, 1958-84 (1977=100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	86.0	131.9	129.0	155.6	140.3	138.6	154.6
1959 .....	92.1	136.4	140.1	105.1	143.9	148.8	104.6
1960 .....	89.6	133.6	137.0	104.1	137.3	141.4	104.1
1961 .....	85.8	117.4	120.7	90.4	122.2	126.2	91.2
1962 .....	88.7	116.1	119.8	85.0	119.7	123.9	86.1
1963 .....	91.2	114.4	115.4	105.9	118.3	119.8	107.2
1964 .....	94.7	111.8	112.3	108.3	113.5	114.2	109.3
1965 .....	92.0	112.5	113.7	102.5	115.0	116.5	103.6
1966 .....	89.6	108.4	109.8	96.3	111.2	113.0	98.0
1967 .....	89.1	99.9	102.2	80.2	103.0	105.7	81.4
1968 .....	90.2	98.6	100.2	85.0	100.3	102.3	84.5
1969 .....	89.8	99.0	100.3	88.2	101.3	103.2	87.6
1970 .....	87.3	97.0	96.9	97.9	99.2	99.6	96.4
1971 .....	93.1	94.9	95.7	88.5	96.8	98.1	87.1
1972 .....	102.2	95.0	95.7	89.6	95.1	96.0	88.1
1973 .....	99.2	99.0	99.6	93.6	99.1	99.9	92.8
1974 .....	92.3	96.7	96.2	100.9	99.0	98.7	101.1
1975 .....	88.1	89.2	89.1	89.8	91.1	91.3	89.7
1976 .....	98.6	95.5	95.6	95.5	96.5	96.7	94.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	99.4	97.2	96.6	102.7	98.9	98.4	102.6
1979 .....	104.5	106.3	105.2	115.5	106.1	104.9	114.9
1980 .....	101.2	97.1	94.0	122.8	100.1	97.4	121.6
1981 .....	96.0	89.0	86.4	111.3	92.0	89.6	110.8
1982 .....	83.0	72.1	69.6	93.3	75.3	73.1	92.8
1983 .....	98.9	79.1	77.6	91.7	81.5	80.2	91.8
1984 <sup>1</sup> .....	103.4	82.3	80.9	93.8	84.9	83.8	93.3
Average annual percent change:							
1958-84 .....	.5	-1.7	-1.8	-2	-1.7	-1.9	-2
1979-84 .....	-8	-5.8	-5.8	-5.8	-5.4	-5.3	-5.7

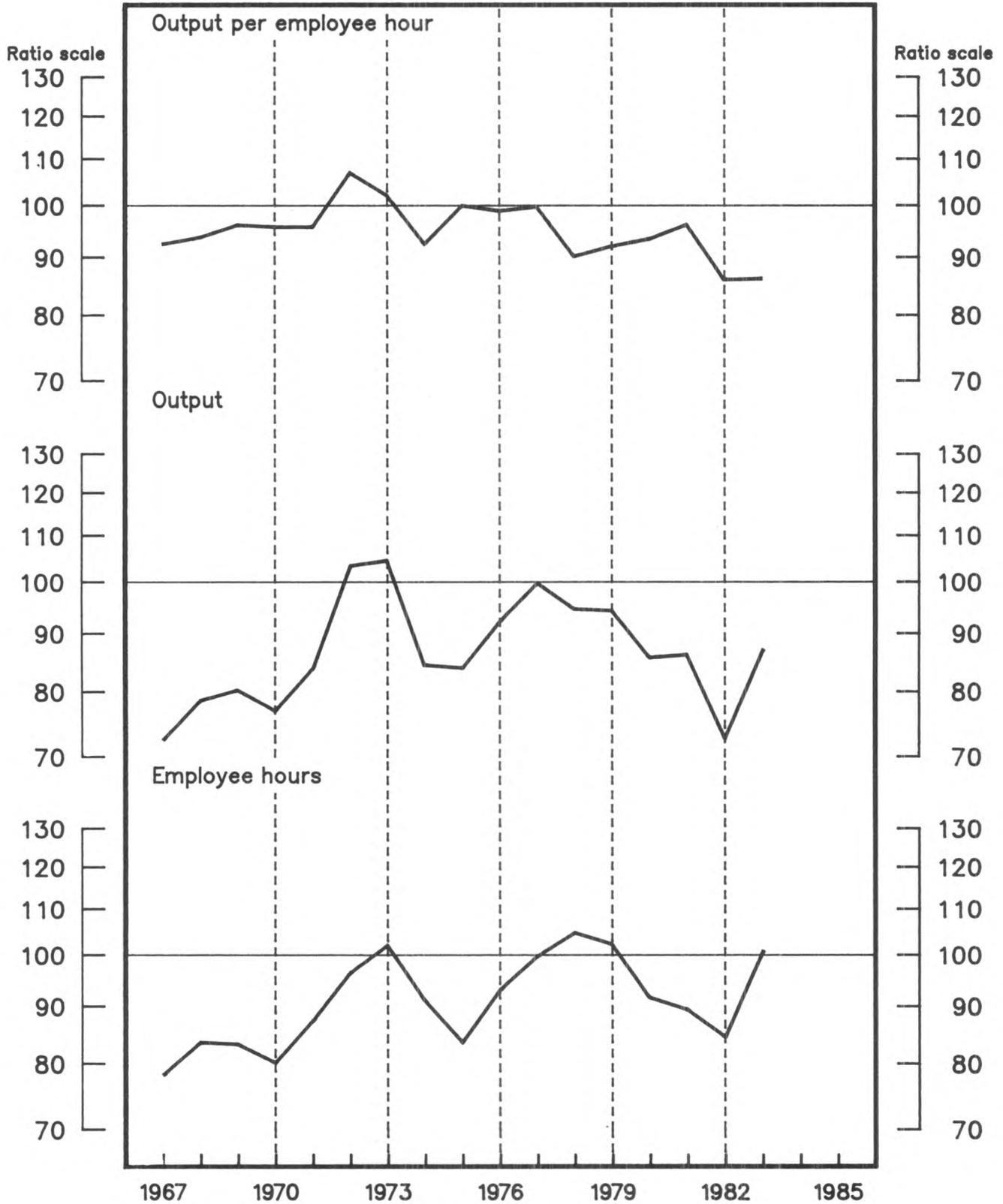
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 36. Millwork (SIC 2431): Output per hour and related data 1967-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 69. Millwork (SIC 2431): Indexes of output per employee hour and output per employee, 1958-83**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	75.6	77.0	70.7	77.2	78.3	72.8
1959	71.7	72.4	69.7	74.2	74.8	71.8
1960	73.2	74.8	67.7	73.8	75.0	69.3
1961	76.9	78.1	72.6	78.3	79.4	73.7
1962	78.1	78.8	76.3	79.8	80.6	77.1
1963	86.0	86.0	86.5	88.6	88.9	87.3
1964	86.0	85.9	87.2	88.3	88.3	88.0
1965	85.8	86.1	85.2	88.2	88.7	86.0
1966	82.7	84.0	78.4	84.4	85.7	79.3
1967	92.6	93.3	90.1	94.9	96.0	91.0
1968	93.9	93.7	96.0	95.5	95.9	94.4
1969	96.3	96.6	95.7	96.2	96.6	94.9
1970	95.9	97.6	89.7	95.7	97.2	89.8
1971	95.9	95.3	99.3	96.3	96.8	95.1
1972	107.2	104.5	121.6	107.0	106.1	111.3
1973	102.3	101.6	106.7	101.6	101.6	101.7
1974	92.7	94.4	85.5	91.3	92.8	84.6
1975	100.2	102.6	90.9	100.4	102.8	90.3
1976	99.1	99.8	97.3	98.8	99.2	97.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	90.3	90.2	90.6	89.9	89.7	90.6
1979	92.2	93.5	86.5	90.9	91.8	86.5
1980	93.6	97.2	79.8	92.0	95.0	79.8
1981	96.4	99.8	83.2	94.5	97.3	83.2
1982	86.1	91.2	68.3	85.0	89.6	68.3
1983 <sup>2</sup>	86.3	88.1	78.8	87.9	90.1	78.8
Average annual percent change:						
1958-83	.9	1.0	.6	.7	.8	.5
1979-83	-2.1	-1.8	-3.4	-1.5	-1.0	-3.4

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Labor Statistics and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

**Table 70. Millwork (SIC 2431): Indexes of output, employee hours, and employees, 1958-83**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	58.5	77.4	76.0	82.8	75.8	74.7	80.4
1959	61.2	85.3	84.5	87.8	82.5	81.8	85.2
1960	55.7	76.1	74.5	82.3	75.5	74.3	80.4
1961	56.6	73.6	72.5	78.0	72.3	71.3	76.8
1962	59.7	76.4	75.8	78.2	74.8	74.1	77.4
1963	68.1	79.2	79.2	78.7	76.9	76.6	78.0
1964	69.2	80.5	80.6	79.4	78.4	78.4	78.6
1965	70.2	81.8	81.5	82.4	79.6	79.1	81.6
1966	66.6	80.5	79.3	84.9	78.9	77.7	84.0
1967	72.6	78.4	77.8	80.6	76.5	75.6	79.8
1968	78.7	83.8	84.0	82.0	82.4	82.1	83.4
1969	80.4	83.5	83.2	84.0	83.6	83.2	84.7
1970	77.1	80.4	79.0	86.0	80.6	79.3	85.9
1971	84.0	87.6	88.1	84.6	87.2	86.8	88.3
1972	103.6	96.6	99.1	85.2	96.8	97.6	93.1
1973	104.7	102.3	103.1	98.1	103.1	103.1	103.0
1974	84.6	91.3	89.6	99.0	92.7	91.2	100.0
1975	84.1	83.9	82.0	92.5	83.8	81.8	93.1
1976	92.5	93.3	92.9	95.1	93.6	93.2	95.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	94.8	105.0	105.1	104.6	105.5	105.7	104.6
1979	94.5	102.5	101.1	109.2	104.0	102.9	109.2
1980	85.9	91.8	88.4	107.6	93.4	90.4	107.6
1981	86.4	89.6	86.6	103.8	91.4	88.8	103.8
1982	73.0	84.8	80.0	106.9	85.9	81.5	106.9
1983 <sup>1</sup>	87.2	101.0	99.0	110.7	99.2	96.8	110.7
Average annual percent change:							
1958-83	2.0	1.1	1.0	1.4	1.2	1.2	1.5
1979-83	-3.2	-1.1	-1.4	.2	-1.8	-2.2	.2

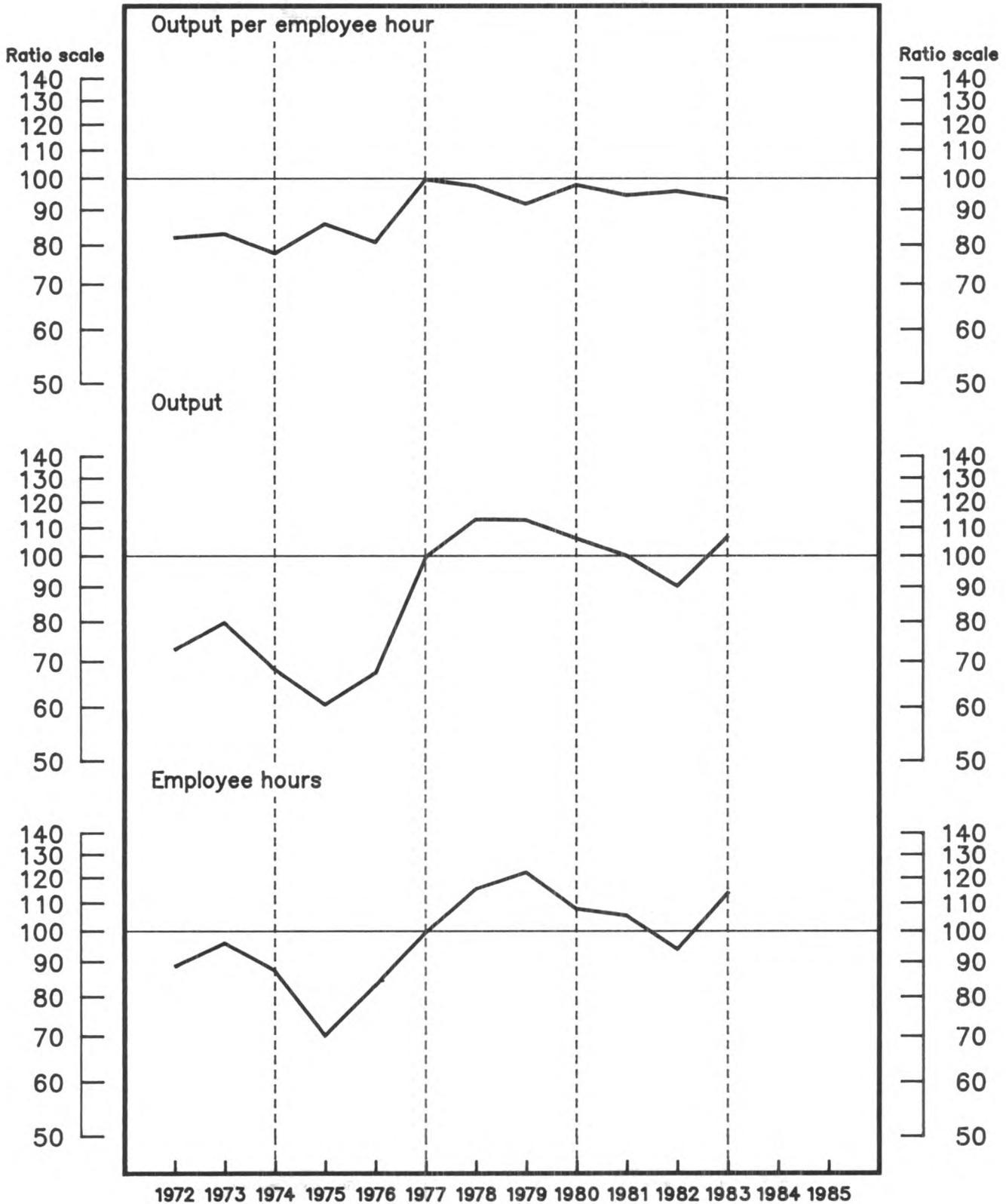
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Labor Statistics and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 37. Wood kitchen cabinets (SIC 2434): Output per hour and related data, 1972-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 71. Wood kitchen cabinets (SIC 2434): Indexes of output per employee hour and output per employee, 1972-83**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972 .....	82.2	80.8	90.0	84.8	85.3	82.4
1973 .....	83.2	83.2	82.9	84.5	85.7	79.0
1974 .....	78.0	80.7	67.1	78.5	81.3	66.5
1975 .....	86.1	90.3	70.0	85.3	89.1	69.6
1976 .....	81.0	81.4	78.9	81.0	81.4	78.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	97.8	97.4	99.5	100.4	100.5	99.5
1979 .....	92.1	91.4	95.7	92.5	91.9	95.7
1980 .....	98.2	100.5	87.9	97.2	99.2	87.9
1981 .....	94.8	99.6	76.6	94.4	98.8	76.6
1982 .....	96.1	104.3	69.2	95.5	103.0	69.2
1983 <sup>2</sup> .....	93.5	97.7	76.8	97.2	102.4	76.8
Average annual percent change:						
1972-83 .....	1.8	2.3	-.3	1.7	2.1	.3
1979-83 .....	.1	1.7	-6.6	.8	2.6	-6.6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Table 72. Wood kitchen cabinets (SIC 2434): Indexes of output, employee hours, and employees, 1972-83**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972 .....	73.1	88.9	90.5	81.2	86.2	85.7	88.7
1973 .....	80.1	96.3	96.3	96.6	94.8	93.5	101.4
1974 .....	68.4	87.7	84.8	101.9	87.1	84.1	102.8
1975 .....	60.8	70.6	67.3	86.8	71.3	68.2	87.3
1976 .....	67.6	83.5	83.0	85.7	83.5	83.0	85.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	113.5	116.1	116.5	114.1	113.1	112.9	114.1
1979 .....	113.2	122.9	123.8	118.3	122.4	123.2	118.3
1980 .....	106.4	108.4	105.9	121.1	109.5	107.3	121.1
1981 .....	100.4	105.9	100.8	131.0	106.3	101.6	131.0
1982 .....	90.7	94.4	87.0	131.0	95.0	88.1	131.0
1983 <sup>1</sup> .....	107.1	114.6	109.6	139.4	110.2	104.6	139.4
Average annual percent change:							
1972-83 .....	4.5	2.6	2.1	4.7	2.7	2.3	4.2
1979-83 .....	-2.7	-2.7	-4.3	4.2	-3.5	-5.1	4.2

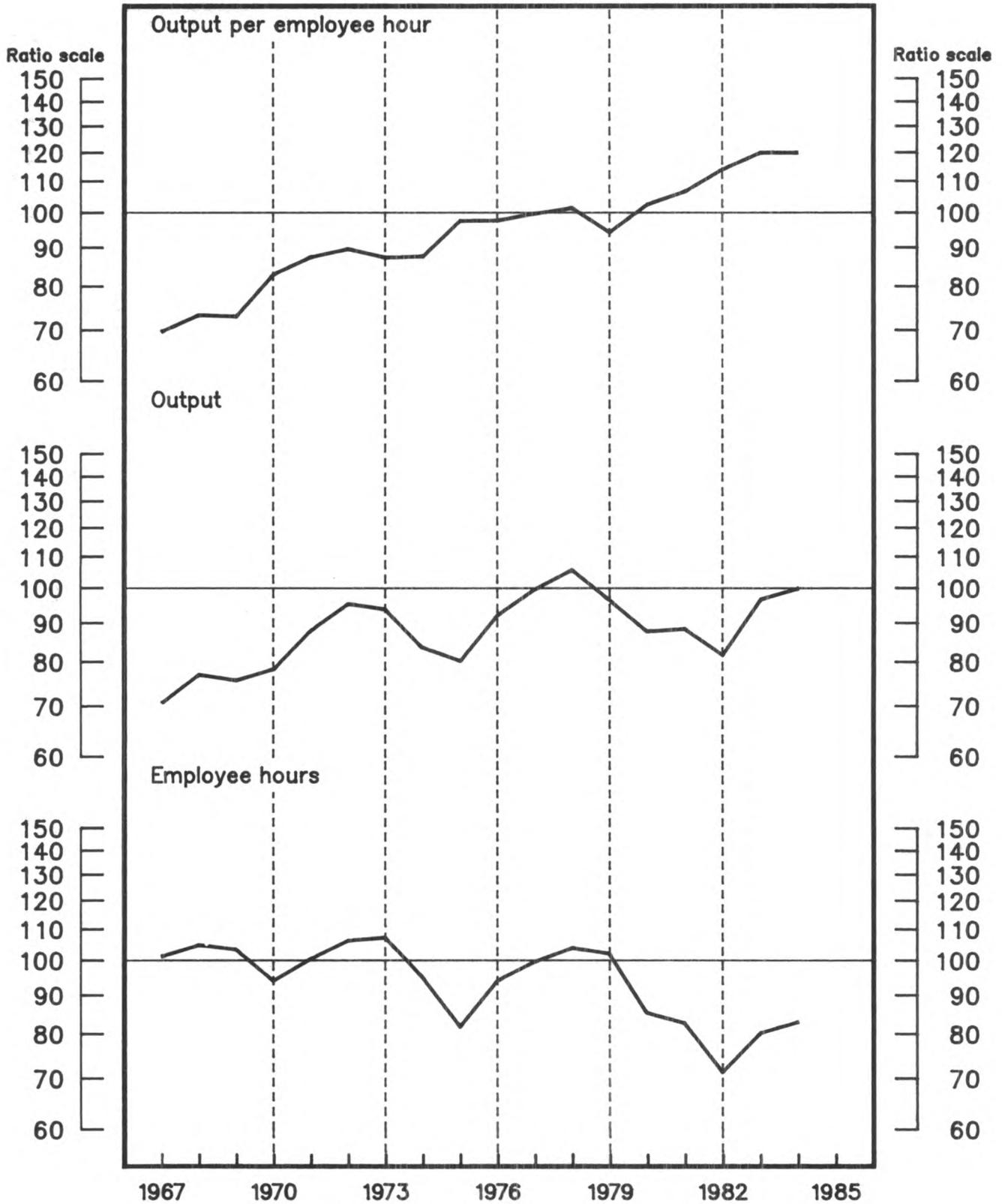
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 38. Veneer and plywood (SIC 2435, 2436): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 73. Veneer and plywood (SIC 2435, 2436): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	41.7	40.4	55.2	41.4	40.0	56.7
1959 .....	46.9	45.2	69.1	48.0	46.1	70.9
1960 .....	49.3	47.7	67.7	48.3	46.6	69.1
1961 .....	53.9	52.2	74.2	53.7	51.8	75.2
1962 .....	58.3	56.1	86.1	59.0	56.7	86.8
1963 .....	60.7	58.3	90.5	61.7	59.2	91.1
1964 .....	62.6	60.4	89.1	64.1	61.9	89.6
1965 .....	64.0	62.1	85.6	66.1	64.3	86.3
1966 .....	64.3	62.5	83.3	65.8	64.0	83.9
1967 .....	69.9	68.5	82.6	70.3	68.9	83.2
1968 .....	73.5	71.7	91.1	75.2	73.7	89.4
1969 .....	73.2	71.9	86.2	73.8	72.5	85.5
1970 .....	83.2	83.0	83.7	82.2	82.0	83.7
1971 .....	87.6	87.3	90.8	88.2	87.9	90.6
1972 .....	89.8	88.8	98.7	93.0	92.5	98.2
1973 .....	87.5	87.5	86.3	88.2	88.5	85.6
1974 .....	87.8	88.8	80.7	85.9	86.7	79.9
1975 .....	97.8	99.9	83.2	94.5	96.2	82.6
1976 .....	97.9	98.1	96.3	97.6	97.8	96.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	101.7	102.3	97.6	101.3	101.8	97.6
1979 .....	94.5	96.4	81.7	92.5	94.1	81.7
1980 .....	102.8	105.8	82.9	98.3	100.7	82.9
1981 .....	106.9	108.2	97.0	101.7	102.4	97.0
1982 .....	114.4	117.3	94.9	107.0	108.8	94.9
1983 .....	120.3	120.6	117.3	118.7	118.9	117.3
1984 <sup>2</sup> .....	120.3	119.6	126.8	118.4	117.5	126.8
Average annual percent change:						
1958-84 .....	3.8	4.0	1.5	3.6	3.8	1.4
1979-84 .....	5.1	4.5	9.6	5.4	4.9	9.6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Table 74. Veneer and plywood (SIC 2435, 2436): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	34.3	82.2	84.8	62.1	82.8	85.7	60.5
1959 .....	43.8	93.3	97.0	63.4	91.3	95.1	61.8
1960 .....	42.7	86.6	89.5	63.1	88.4	91.7	61.8
1961 .....	46.5	86.2	89.1	62.7	86.6	89.7	61.8
1962 .....	54.6	93.6	97.3	63.4	92.5	96.3	62.9
1963 .....	56.3	92.8	96.6	62.2	91.3	95.1	61.8
1964 .....	62.0	99.0	102.7	69.6	96.7	100.1	69.2
1965 .....	68.2	106.5	109.8	79.7	103.1	106.1	79.0
1966 .....	72.5	112.8	116.0	87.0	110.2	113.2	86.4
1967 .....	70.9	101.5	103.5	85.8	100.9	102.9	85.2
1968 .....	77.2	105.1	107.7	84.7	102.7	104.7	86.4
1969 .....	75.9	103.7	105.6	88.0	102.9	104.7	88.8
1970 .....	78.5	94.4	94.6	93.8	95.5	95.7	93.8
1971 .....	88.3	100.8	101.2	97.3	100.1	100.4	97.5
1972 .....	95.7	106.6	107.8	97.0	102.9	103.5	97.5
1973 .....	94.1	107.6	107.5	109.1	106.7	106.3	109.9
1974 .....	83.8	95.4	94.4	103.9	97.5	96.6	104.9
1975 .....	80.5	82.3	80.6	96.8	85.2	83.7	97.5
1976 .....	92.5	94.5	94.3	96.1	94.8	94.6	96.3
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	106.0	104.2	103.6	108.6	104.6	104.1	108.6
1979 .....	96.8	102.4	100.4	118.5	104.6	102.9	118.5
1980 .....	88.0	85.6	83.2	106.2	89.5	87.4	106.2
1981 .....	88.7	83.0	82.0	91.4	87.2	86.6	91.4
1982 .....	82.0	71.7	69.9	86.4	76.6	75.4	86.4
1983 .....	97.0	80.6	80.4	82.7	81.7	81.6	82.7
1984 <sup>1</sup> .....	100.2	83.3	83.8	79.0	84.6	85.3	79.0
Average annual percent change:							
1958-84 .....	3.4	-4	-6	1.8	-2	-4	1.9
1979-84 .....	1.1	-3.8	-3.3	-7.8	-4.1	-3.6	-7.8

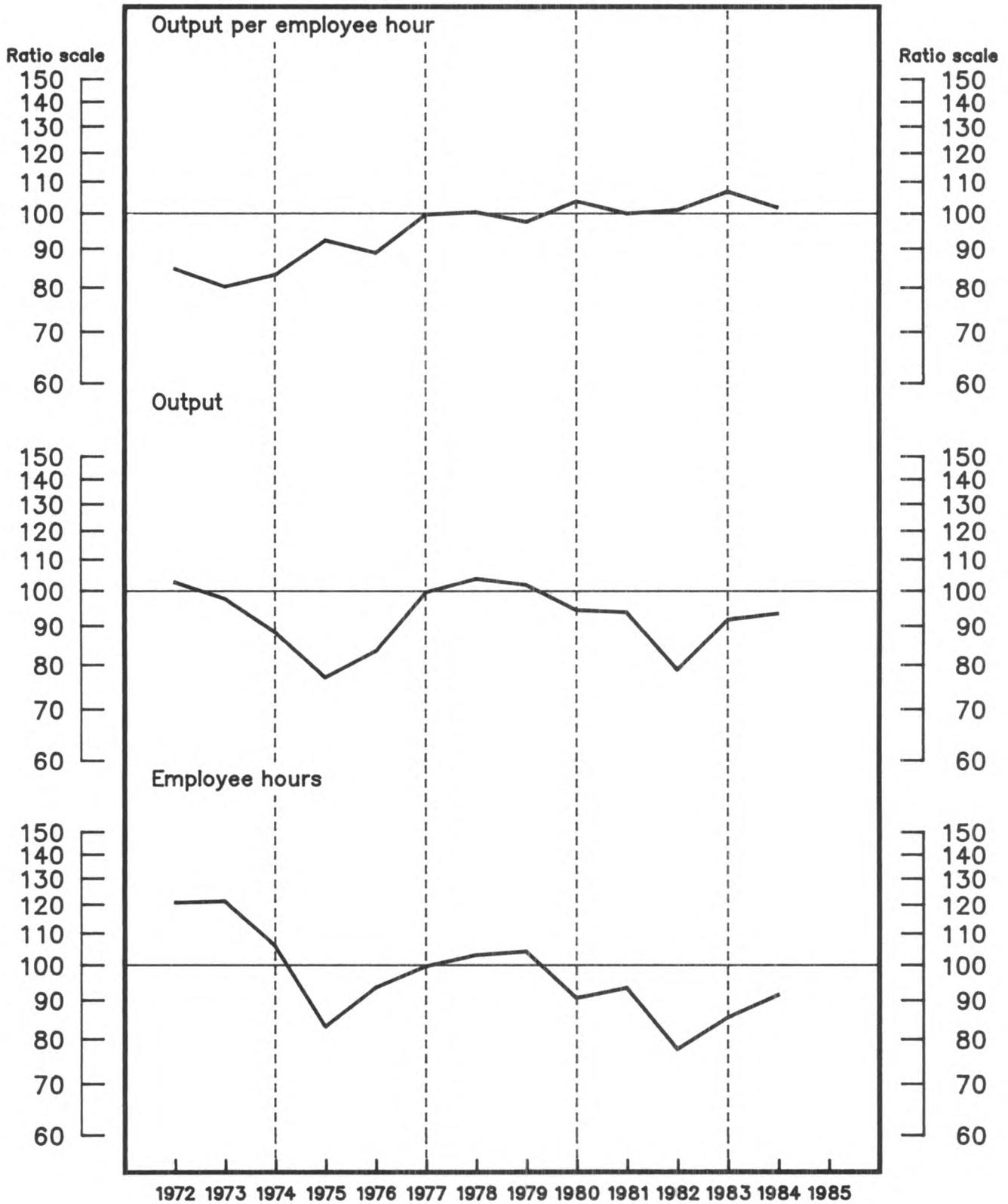
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Chart 39. Hardwood veneer and plywood (SIC 2435): Output per hour and related data, 1972-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 75. Hardwood veneer and plywood (SIC 2435): Indexes of output per employee hour and output per employee, 1972-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972 .....	84.9	83.5	97.0	87.7	86.6	96.5
1973 .....	80.5	78.8	95.5	81.8	80.4	94.9
1974 .....	83.4	81.7	99.6	82.7	81.1	98.6
1975 .....	92.5	92.4	93.5	89.6	89.2	92.8
1976 .....	89.1	88.7	93.2	89.1	88.7	93.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.7	99.8	107.7	99.5	98.6	107.7
1979 .....	97.8	97.7	98.9	96.3	96.1	98.9
1980 .....	104.1	104.9	97.9	100.4	100.7	97.9
1981 .....	100.3	101.6	91.1	99.4	100.5	91.1
1982 .....	101.4	104.6	81.9	95.1	97.2	81.9
1983 .....	107.2	108.9	95.2	105.7	107.3	95.2
1984 <sup>2</sup> .....	102.1	102.7	97.0	100.6	101.2	97.0
Average annual percent change:						
1972-84 .....	2.1	2.5	-4	1.8	2.0	-4
1979-84 .....	.9	1.1	-8	.9	1.2	-8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Table 76. Hardwood veneer and plywood (SIC 2435): Indexes of output, employee hours, and employees, 1972-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972 .....	103.0	121.3	123.3	106.2	117.5	118.9	106.7
1973 .....	98.0	121.8	124.3	102.6	119.8	121.9	103.3
1974 .....	88.7	106.4	108.6	89.1	107.2	109.4	90.0
1975 .....	77.3	83.6	83.7	82.7	86.3	86.7	83.3
1976 .....	83.7	93.9	94.4	89.8	93.9	94.4	90.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	104.1	103.4	104.3	96.7	104.6	105.6	96.7
1979 .....	102.2	104.5	104.6	103.3	106.1	106.4	103.3
1980 .....	94.7	91.0	90.3	96.7	94.3	94.0	96.7
1981 .....	94.1	93.8	92.6	103.3	94.7	93.6	103.3
1982 .....	79.2	78.1	75.7	96.7	83.3	81.5	96.7
1983 .....	92.1	85.9	84.6	96.7	87.1	85.8	96.7
1984 <sup>1</sup> .....	93.8	91.9	91.3	96.7	93.2	92.7	96.7
Average annual percent change:							
1972-84 .....	-3	-2.3	-2.7	.2	-2.0	-2.3	.1
1979-84 .....	-1.9	-2.8	-3.0	-1.1	-2.9	-3.1	-1.1

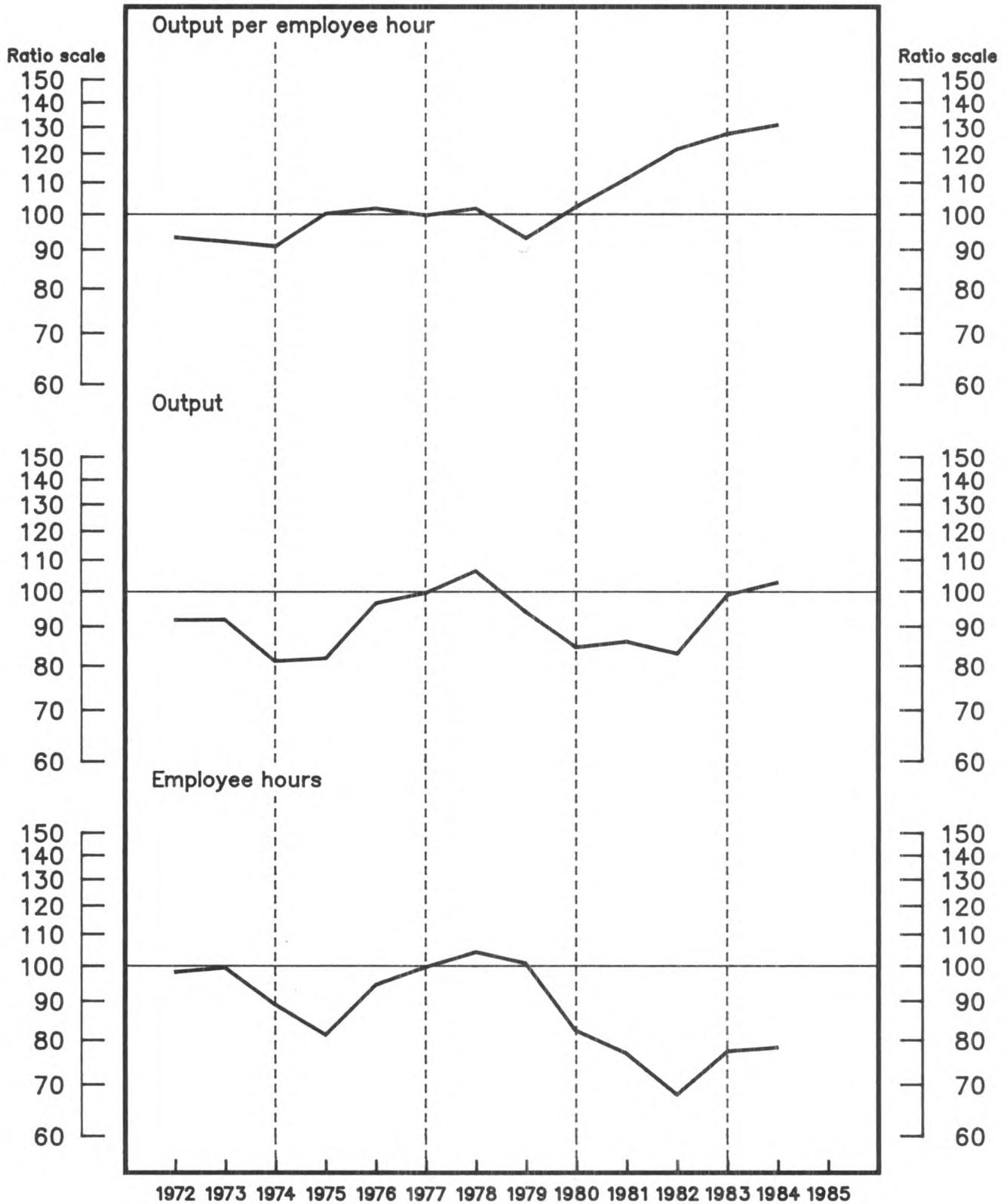
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Chart 40. Softwood veneer and plywood (SIC 2436): Output per hour and related data, 1972-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 77. Softwood veneer and plywood (SIC 2436): Indexes of output per employee hour and output per employee, 1972-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972 .....	93.5	92.7	100.4	97.3	96.9	99.9
1973 .....	92.4	93.8	81.7	92.8	94.5	81.1
1974 .....	91.1	93.9	72.3	88.4	90.9	71.6
1975 .....	100.5	104.1	78.1	97.0	100.0	77.5
1976 .....	102.1	102.8	97.1	101.7	102.3	96.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.1	103.4	92.3	102.0	103.4	92.3
1979 .....	93.4	96.3	74.0	90.9	93.5	74.0
1980 .....	102.7	107.1	75.9	97.8	101.4	75.9
1981 .....	111.8	113.0	102.4	104.1	104.2	102.4
1982 .....	122.1	124.7	103.6	114.3	115.7	103.6
1983 .....	127.9	127.4	133.4	126.3	125.5	133.4
1984 <sup>2</sup> .....	131.3	129.5	150.4	129.5	127.3	150.4
Average annual percent change:						
1972-84 .....	2.8	2.8	3.5	2.4	2.3	3.6
1979-84 .....	7.2	6.2	16.2	7.8	6.8	16.2

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Table 78. Softwood veneer and plywood (SIC 2436): Indexes of output, employee hours, and employees, 1972-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972 .....	92.1	98.5	99.3	91.7	94.7	95.0	92.2
1973 .....	92.2	99.8	98.3	112.9	99.4	97.6	113.7
1974 .....	81.4	89.4	86.7	112.6	92.1	89.5	113.7
1975 .....	82.1	81.7	78.9	105.1	84.6	82.1	105.9
1976 .....	96.9	94.9	94.3	99.8	95.3	94.7	100.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	106.8	104.6	103.3	115.7	104.7	103.3	115.7
1979 .....	94.4	101.1	98.0	127.5	103.8	101.0	127.5
1980 .....	84.9	82.7	79.3	111.8	86.8	83.7	111.8
1981 .....	86.3	77.2	76.4	84.3	82.9	82.8	84.3
1982 .....	83.3	68.2	66.8	80.4	72.9	72.0	80.4
1983 .....	99.4	77.7	78.0	74.5	78.7	79.2	74.5
1984 <sup>1</sup> .....	103.2	78.6	79.7	68.6	79.7	81.1	68.6
Average annual percent change:							
1972-84 .....	.5	-2.2	-2.2	-2.9	-1.8	-1.7	-3.0
1979-84 .....	2.6	-4.4	-3.4	-11.7	-4.9	-3.9	-11.7

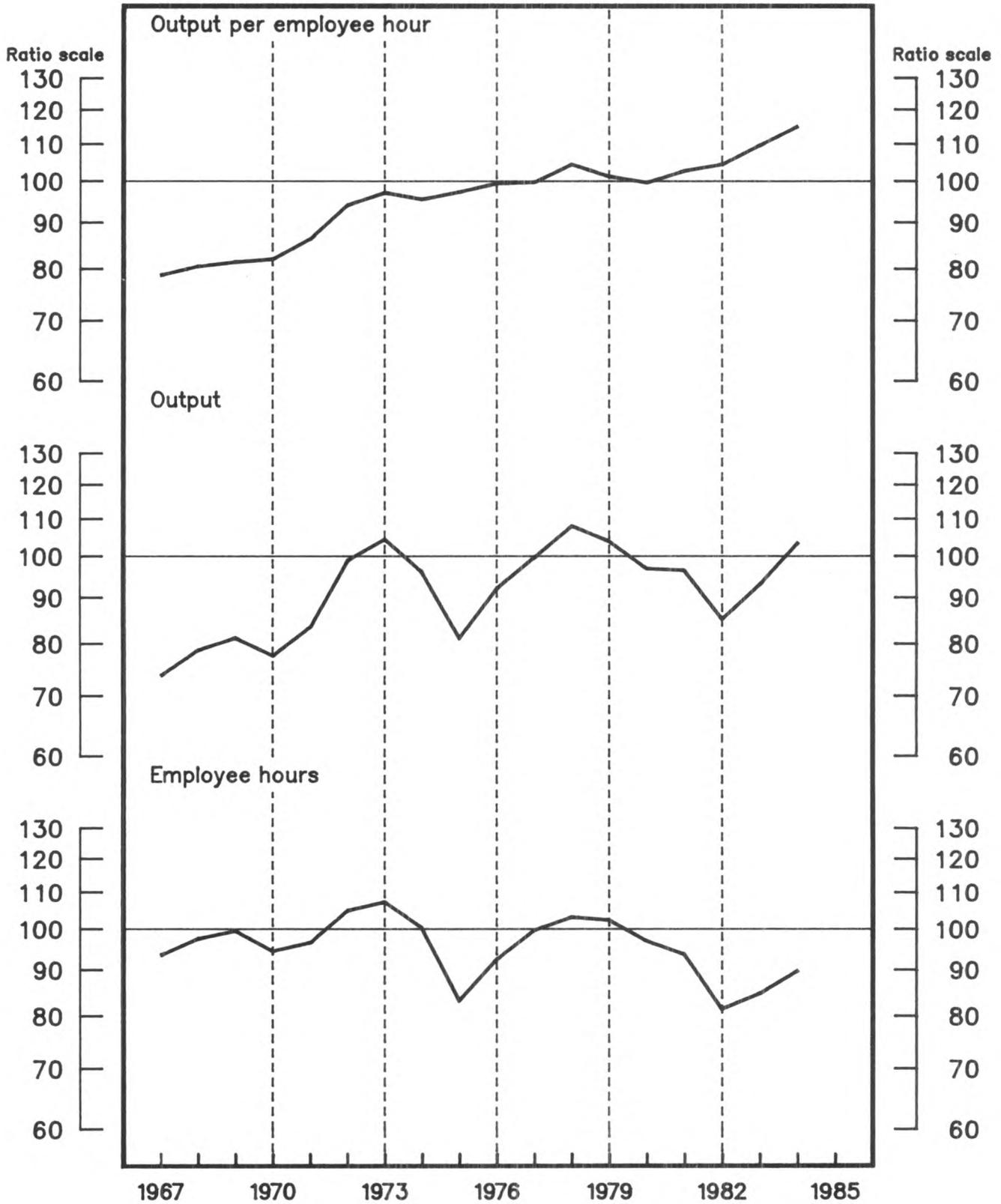
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Chart 41. Household furniture (SIC 251): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 79. Household furniture (SIC 251): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	65.8	66.2	64.6	67.9	68.3	65.3
1959 .....	67.8	66.8	75.3	72.1	71.4	76.0
1960 .....	67.1	66.4	72.0	70.6	70.2	72.6
1961 .....	67.7	66.9	72.8	70.8	70.4	73.1
1962 .....	69.8	68.6	77.7	74.3	73.7	78.1
1963 .....	73.1	72.0	80.5	77.3	76.8	80.7
1964 .....	74.6	73.6	81.1	79.5	79.0	81.9
1965 .....	77.2	75.6	88.3	82.0	80.8	88.8
1966 .....	78.7	77.0	90.4	83.5	82.4	90.4
1967 .....	78.9	77.2	90.3	82.3	80.9	90.3
1968 .....	80.7	79.8	87.3	85.4	84.0	93.9
1969 .....	81.6	80.6	87.8	85.8	84.5	93.3
1970 .....	82.2	82.2	82.9	85.5	85.1	87.2
1971 .....	86.5	86.3	88.3	89.9	89.8	90.8
1972 .....	94.3	93.7	98.1	96.9	96.6	97.8
1973 .....	97.3	94.7	117.8	99.2	96.8	116.5
1974 .....	95.7	95.9	95.2	95.6	96.0	93.0
1975 .....	97.5	98.4	92.6	94.9	95.5	91.1
1976 .....	99.7	100.2	97.3	99.0	99.2	96.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	104.7	104.8	104.3	106.0	106.3	104.3
1979 .....	101.5	102.3	96.7	102.2	103.1	97.1
1980 .....	99.9	101.8	90.1	99.2	100.8	90.7
1981 .....	103.0	104.8	93.4	102.5	104.1	93.7
1982 .....	104.7	107.3	91.0	100.7	102.4	91.2
1983 .....	109.9	110.8	104.7	108.7	109.5	104.7
1984 <sup>2</sup> .....	115.2	115.1	116.4	114.2	113.8	116.9
Average annual percent change:						
1958-84 .....	2.2	2.3	1.4	1.8	1.9	1.4
1979-84 .....	2.7	2.5	3.9	2.3	2.1	3.9

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 80. Household furniture (SIC 251): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	51.4	78.1	77.7	79.6	75.7	75.3	78.7
1959 .....	58.8	86.7	88.0	78.1	81.5	82.3	77.4
1960 .....	56.0	83.5	84.4	77.8	79.3	79.8	77.1
1961 .....	54.0	79.8	80.7	74.2	76.3	76.7	73.9
1962 .....	59.3	85.0	86.5	76.3	79.8	80.5	75.9
1963 .....	63.1	86.3	87.6	78.4	81.6	82.2	78.2
1964 .....	67.4	90.3	91.6	83.1	84.8	85.3	82.3
1965 .....	72.7	94.2	96.2	82.3	88.7	90.0	81.9
1966 .....	77.2	98.1	100.2	85.4	92.5	93.7	85.4
1967 .....	73.9	93.7	95.7	81.8	89.8	91.3	81.8
1968 .....	78.9	97.8	98.9	90.4	92.4	93.9	84.0
1969 .....	81.4	99.8	101.0	92.7	94.9	96.3	87.2
1970 .....	77.8	94.7	94.6	93.9	91.0	91.4	89.2
1971 .....	83.7	96.8	97.0	94.8	93.1	93.2	92.2
1972 .....	99.2	105.2	105.9	101.1	102.4	102.7	101.4
1973 .....	104.7	107.6	110.6	88.9	105.5	108.2	89.9
1974 .....	96.3	100.6	100.4	101.2	100.7	100.3	103.6
1975 .....	81.5	83.6	82.8	88.0	85.9	85.3	89.5
1976 .....	92.5	92.8	92.3	95.1	93.4	93.2	95.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	108.3	103.4	103.3	103.8	102.2	101.9	103.8
1979 .....	104.1	102.6	101.8	107.6	101.9	101.0	107.2
1980 .....	97.1	97.2	95.4	107.8	97.9	96.3	107.0
1981 .....	96.7	93.9	92.3	103.5	94.3	92.9	103.2
1982 .....	85.5	81.7	79.7	94.0	84.9	83.5	93.7
1983 .....	93.4	85.0	84.3	89.2	85.9	85.3	89.2
1984 <sup>1</sup> .....	103.7	90.0	90.1	89.1	90.8	91.1	88.7
Average annual percent change:							
1958-84 .....	2.6	.4	.3	1.1	.7	.7	1.2
1979-84 .....	-7	-3.4	-3.2	-4.5	-3.0	-2.8	-4.4

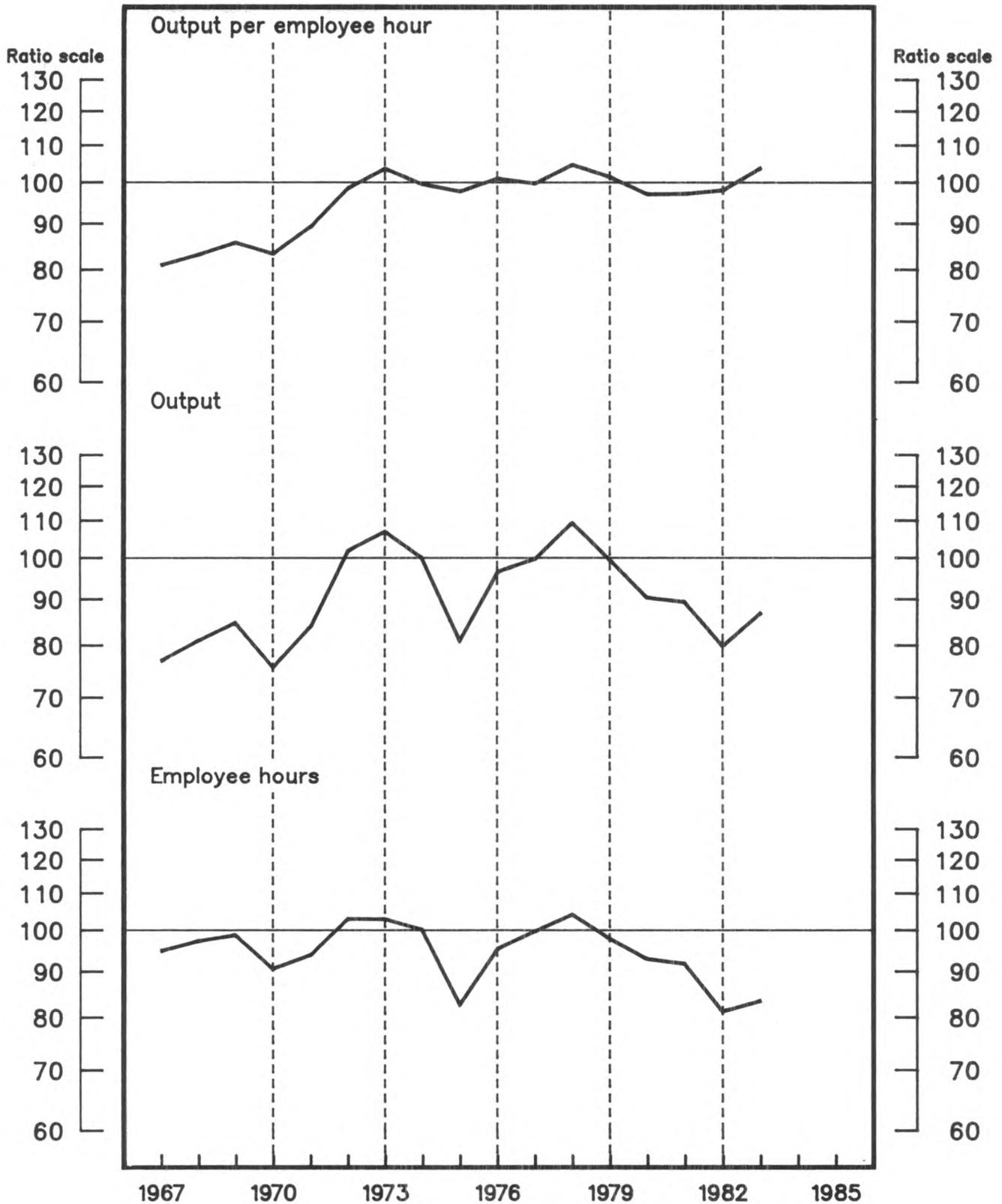
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 42. Wood household furniture (SIC 2511, 2517): Output per hour and related data, 1967-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 81. Wood household furniture (SIC 2511, 2517): Indexes of output per employee hour and output per employee, 1958-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	66.4	65.9	69.2	68.1	67.9	70.1
1959 .....	68.4	66.8	82.3	72.5	71.1	83.3
1960 .....	67.9	66.4	80.5	71.3	70.0	81.2
1961 .....	68.3	66.9	78.9	70.9	69.9	79.0
1962 .....	70.5	68.7	86.0	75.5	74.2	86.2
1963 .....	74.8	73.0	91.7	79.7	78.2	92.2
1964 .....	76.4	74.7	90.8	82.7	81.7	91.7
1965 .....	78.9	76.5	101.2	84.7	82.7	101.8
1966 .....	81.0	78.6	102.4	86.9	84.9	102.4
1967 .....	81.1	78.8	100.5	84.5	82.6	100.5
1968 .....	83.3	81.6	96.8	88.6	86.7	104.1
1969 .....	85.9	84.5	97.4	90.5	89.0	103.3
1970 .....	83.5	83.0	86.6	86.6	86.1	91.2
1971 .....	89.5	89.0	92.7	92.2	91.8	95.2
1972 .....	98.8	98.1	104.5	101.5	101.2	104.3
1973 .....	103.9	98.4	179.9	105.8	100.6	178.1
1974 .....	99.8	100.3	95.6	99.2	100.0	93.3
1975 .....	98.0	99.5	87.2	93.1	94.2	85.8
1976 .....	101.3	102.1	94.4	99.1	99.8	94.2
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	105.0	105.9	98.1	105.9	107.0	98.0
1979 .....	101.7	103.3	90.7	101.9	103.6	91.0
1980 .....	97.3	99.9	80.8	94.4	96.4	81.3
1981 .....	97.4	99.4	83.8	95.9	97.8	83.9
1982 .....	98.3	101.1	80.3	91.6	93.4	80.6
1983 <sup>2</sup> .....	104.1	105.8	91.2	100.2	101.5	91.2
Average annual percent change:						
1958-83 .....	1.9	2.1	.4	1.5	1.7	.3
1979-83 .....	.6	.6	( <sup>3</sup> )	-.6	-.7	( <sup>3</sup> )

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 82. Wood household furniture (SIC 2511, 2517): Indexes of output, employee hours, and employees, 1958-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	49.5	74.6	75.1	71.5	72.7	72.9	70.6
1959 .....	57.7	84.3	86.4	70.1	79.6	81.1	69.3
1960 .....	54.9	80.9	82.7	68.2	77.0	78.4	67.6
1961 .....	52.7	77.2	78.8	66.8	74.3	75.4	66.7
1962 .....	59.4	84.2	86.4	69.1	78.7	80.0	68.9
1963 .....	65.1	87.0	89.2	71.0	81.7	83.3	70.6
1964 .....	69.5	91.0	93.1	76.5	84.0	85.1	75.8
1965 .....	74.9	94.9	97.9	74.0	88.4	90.6	73.6
1966 .....	80.7	99.6	102.7	78.8	92.9	95.0	78.8
1967 .....	77.1	95.1	97.8	76.7	91.2	93.3	76.7
1968 .....	81.2	97.5	99.5	83.9	91.6	93.7	78.0
1969 .....	85.0	99.0	100.6	87.3	93.9	95.5	82.3
1970 .....	75.9	90.9	91.4	87.6	87.6	88.2	83.2
1971 .....	84.2	94.1	94.6	90.8	91.3	91.7	88.4
1972 .....	102.1	103.3	104.1	97.7	100.6	100.9	97.9
1973 .....	107.2	103.2	108.9	59.6	101.3	106.6	60.2
1974 .....	100.2	100.4	99.9	104.8	101.0	100.2	107.4
1975 .....	81.4	83.1	81.8	93.4	87.4	86.4	94.9
1976 .....	96.8	95.6	94.8	102.5	97.7	97.0	102.8
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	109.7	104.5	103.6	111.8	103.6	102.5	111.9
1979 .....	99.8	98.1	96.6	110.0	97.9	96.3	109.7
1980 .....	90.6	93.1	90.7	112.1	96.0	94.0	111.4
1981 .....	89.6	92.0	90.1	106.9	93.4	91.6	106.8
1982 .....	80.1	81.5	79.2	99.7	87.4	85.8	99.4
1983 <sup>1</sup> .....	87.1	83.7	82.3	95.5	86.9	85.8	95.5
Average annual percent change:							
1958-83 .....	2.4	.5	.3	2.0	.9	.8	2.1
1979-83 .....	-3.9	-4.4	-4.5	-3.9	-3.3	-3.2	-3.8

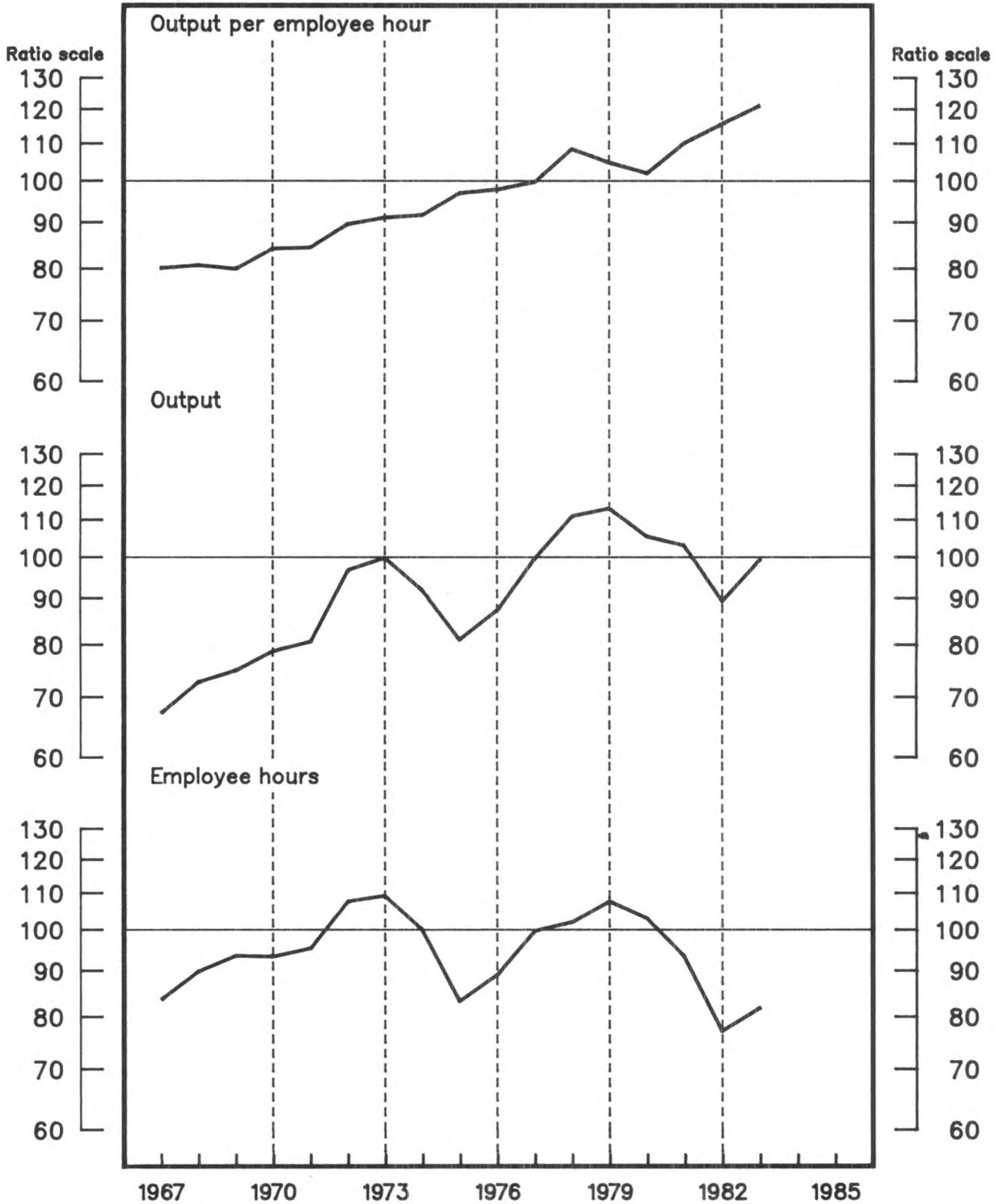
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 43. Upholstered household furniture (SIC 2512) Output per hour and related data, 1967-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 83. Upholstered household furniture (SIC 2512): Indexes of output per employee hour and output per employee, 1958-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	71.7	72.2	69.7	75.4	76.4	70.4
1959 .....	73.9	72.9	80.2	80.5	80.5	81.0
1960 .....	72.6	72.3	74.6	78.0	78.6	75.2
1961 .....	74.1	72.5	84.1	79.2	78.3	84.5
1962 .....	74.9	73.2	85.3	81.6	80.9	86.2
1963 .....	76.3	75.6	81.1	81.3	81.3	81.8
1964 .....	78.2	77.3	83.2	82.1	81.9	84.0
1965 .....	80.2	78.8	88.9	85.2	84.7	89.3
1966 .....	81.9	80.5	91.1	86.2	85.6	91.4
1967 .....	80.3	78.8	90.3	85.1	84.4	90.3
1968 .....	80.9	79.4	90.7	86.2	84.5	97.7
1969 .....	80.1	79.1	86.8	85.3	84.4	92.6
1970 .....	84.4	83.5	90.1	89.5	88.7	94.8
1971 .....	84.6	83.4	92.7	91.0	90.4	95.4
1972 .....	89.8	88.8	95.3	94.0	93.8	95.2
1973 .....	91.3	90.8	94.1	94.0	94.1	93.1
1974 .....	91.9	91.1	96.0	92.8	92.7	93.6
1975 .....	97.2	96.6	100.9	97.4	97.0	99.0
1976 .....	98.1	97.6	101.7	98.5	98.1	101.2
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	108.8	108.0	113.1	111.0	110.5	113.0
1979 .....	105.1	103.9	111.7	106.5	105.6	111.8
1980 .....	102.3	102.7	100.5	105.8	106.7	101.1
1981 .....	110.5	111.1	107.2	110.6	111.2	107.3
1982 .....	115.9	116.9	110.7	113.3	113.5	111.3
1983 <sup>2</sup> .....	121.4	119.3	135.1	122.5	120.6	134.9
Average annual percent change:						
1958-83 .....	2.0	2.1	1.7	1.7	1.7	1.7
1979-83 .....	4.2	4.1	4.9	3.5	3.3	4.8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 84. Upholstered household furniture (SIC 2512): Indexes of output, employee hours, and employees, 1958-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	48.5	67.6	67.2	69.6	64.3	63.5	68.9
1959 .....	55.8	75.5	76.5	69.6	69.3	69.3	68.9
1960 .....	54.5	75.1	75.4	73.1	69.9	69.3	72.5
1961 .....	52.8	71.3	72.8	62.8	66.7	67.4	62.5
1962 .....	57.5	76.8	78.5	67.4	70.5	71.1	66.7
1963 .....	58.1	76.1	76.9	71.6	71.5	71.5	71.0
1964 .....	62.7	80.2	81.1	75.4	76.4	76.6	74.6
1965 .....	67.3	83.9	85.4	75.7	79.0	79.5	75.4
1966 .....	70.8	86.4	87.9	77.7	82.1	82.7	77.5
1967 .....	67.4	83.9	85.5	74.6	79.2	79.9	74.6
1968 .....	72.9	90.1	91.8	80.4	84.6	86.3	74.6
1969 .....	75.1	93.7	95.0	86.5	88.0	89.0	81.1
1970 .....	78.9	93.5	94.5	87.6	88.2	89.0	83.2
1971 .....	80.8	95.5	96.9	87.2	88.8	89.4	84.7
1972 .....	97.0	108.0	109.2	101.8	103.2	103.4	101.9
1973 .....	100.1	109.6	110.2	106.4	106.5	106.4	107.5
1974 .....	92.2	100.3	101.2	96.0	99.4	99.5	98.5
1975 .....	81.3	83.6	84.2	80.6	83.5	83.8	82.1
1976 .....	87.6	89.3	89.8	86.1	88.9	89.3	86.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	111.3	102.3	103.1	98.4	100.3	100.7	98.5
1979 .....	113.5	108.0	109.2	101.6	106.6	107.5	101.5
1980 .....	105.7	103.3	102.9	105.2	99.9	99.1	104.5
1981 .....	103.3	93.5	93.0	96.4	93.4	92.9	96.3
1982 .....	89.7	77.4	76.7	81.0	79.2	79.0	80.6
1983 <sup>1</sup> .....	99.7	82.1	83.6	73.8	81.4	82.7	73.9
Average annual percent change:							
1958-83 .....	3.2	1.1	1.1	1.4	1.5	1.5	1.5
1979-83 .....	-4.1	-8.0	-7.9	-8.6	-7.4	-7.2	-8.6

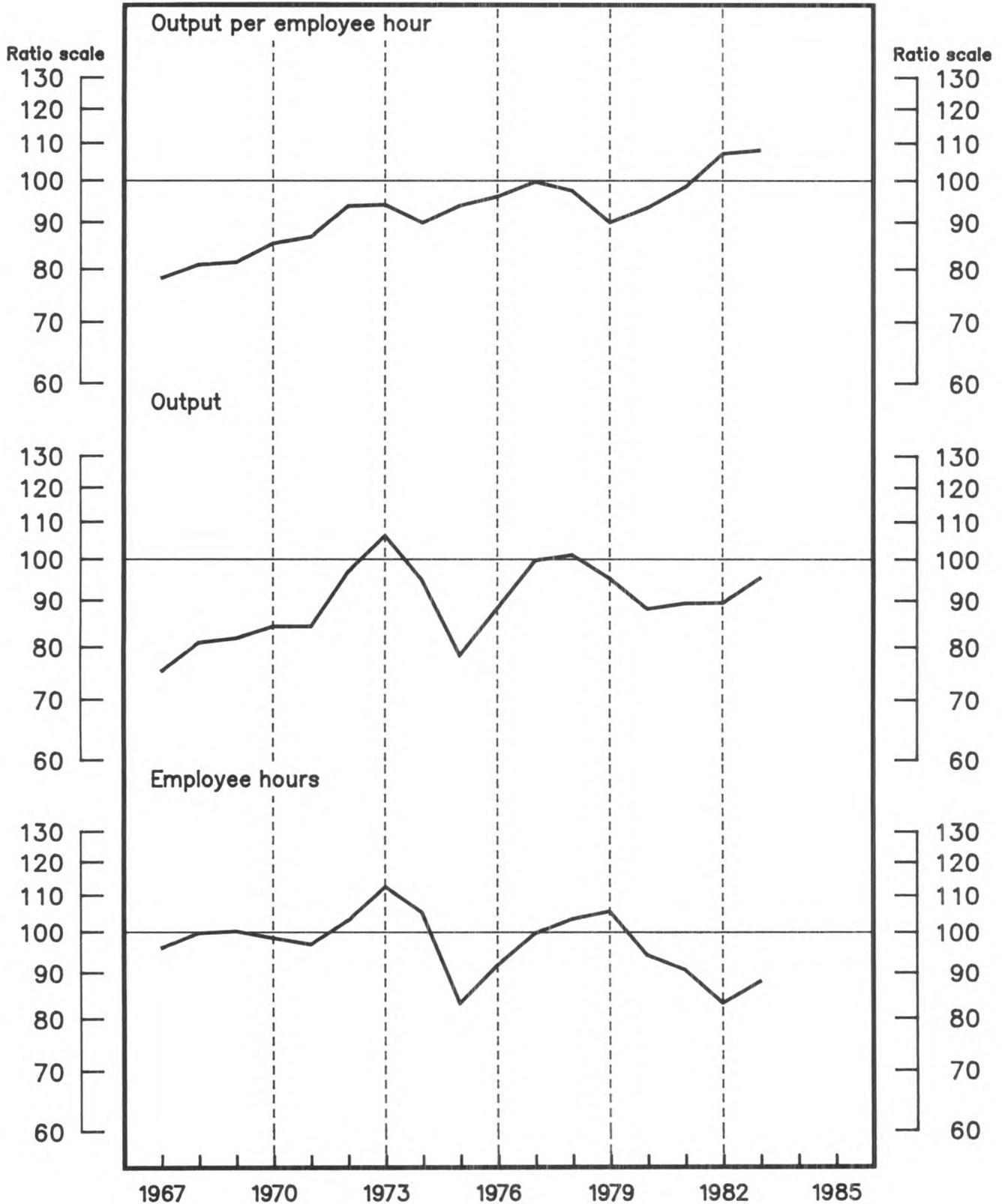
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 44. Metal household furniture (SIC 2514): Output per hour and related data, 1967-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 85. Metal household furniture (SIC 2514): Indexes of output per employee hour and output per employee, 1958-83**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	66.7	67.5	63.6	69.1	70.2	64.1
1959	67.0	65.1	77.4	70.4	68.9	78.3
1960	64.6	63.4	71.3	67.7	66.9	72.1
1961	65.6	64.4	72.3	68.2	67.4	72.2
1962	68.9	67.2	78.1	71.7	70.3	78.6
1963	73.8	72.8	78.4	76.6	76.2	78.3
1964	74.2	73.1	80.2	77.7	77.0	81.2
1965	77.5	76.5	82.4	80.5	80.0	82.7
1966	75.8	75.3	78.2	79.9	80.3	78.0
1967	78.4	77.3	83.9	80.7	80.0	84.1
1968	81.1	81.8	78.2	84.0	83.9	84.0
1969	81.6	80.7	86.0	83.0	81.3	91.4
1970	85.6	86.5	81.5	86.6	86.7	86.0
1971	87.0	87.7	83.7	89.0	89.7	86.0
1972	94.0	93.4	97.2	93.8	93.1	97.2
1973	94.3	93.4	99.3	95.9	95.4	98.1
1974	90.1	91.2	85.6	89.2	90.5	83.6
1975	94.1	96.9	83.3	92.4	94.9	81.5
1976	96.3	97.7	90.3	96.5	98.0	90.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	97.7	96.8	101.4	98.7	98.2	101.4
1979	90.2	91.1	86.0	92.2	93.4	86.6
1980	93.6	93.4	94.4	92.9	92.5	95.0
1981	98.7	99.3	95.8	99.9	100.7	96.3
1982	107.5	110.9	94.1	110.5	114.4	94.7
1983 <sup>2</sup>	108.4	109.2	104.4	112.3	114.1	104.7
Average annual percent change:						
1958-83	2.0	2.1	1.4	1.8	1.9	1.3
1979-83	5.2	5.5	3.9	5.8	6.3	3.8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 86. Metal household furniture (SIC 2514): Indexes of output, employee hours, and employees, 1958-83**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	63.0	94.4	93.4	99.1	91.2	89.7	98.3
1959	68.9	102.9	105.8	89.0	97.9	100.0	88.0
1960	64.7	100.2	102.1	90.8	95.5	96.7	89.7
1961	61.0	93.0	94.7	84.4	89.4	90.5	84.5
1962	62.4	90.6	92.8	79.9	87.0	88.7	79.4
1963	67.6	91.6	92.8	86.2	88.2	88.7	86.3
1964	72.8	98.1	99.6	90.8	93.7	94.5	89.7
1965	75.6	97.6	98.8	91.7	93.9	94.5	91.4
1966	75.3	99.3	100.0	96.3	94.3	93.8	96.6
1967	75.4	96.2	97.5	89.9	93.4	94.2	89.7
1968	81.1	100.0	99.2	103.7	96.6	96.7	96.6
1969	82.0	100.5	101.6	95.4	98.8	100.8	89.7
1970	84.5	98.7	97.7	103.7	97.6	97.5	98.3
1971	84.5	97.1	96.3	100.9	94.9	94.2	98.3
1972	97.2	103.4	104.1	100.0	103.6	104.4	100.0
1973	106.6	113.0	114.1	107.4	111.1	111.7	108.7
1974	95.1	105.5	104.3	111.1	106.6	105.1	113.8
1975	78.7	83.6	81.2	94.5	85.2	82.9	96.6
1976	88.7	92.1	90.8	98.2	91.9	90.5	98.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	103.8	104.7	100.0	102.7	103.3	100.0
1979	95.5	105.9	104.8	111.0	103.6	102.2	110.3
1980	88.4	94.4	94.6	93.6	95.2	95.6	93.1
1981	89.7	90.9	90.3	93.6	89.8	89.1	93.1
1982	89.8	83.5	81.0	95.4	81.3	78.5	94.8
1983 <sup>1</sup>	95.7	88.3	87.6	91.7	85.2	83.9	91.4
Average annual percent change:							
1958-83	1.8	-.1	-.3	.5	( <sup>2</sup> )	-.1	.5
1979-83	.2	-4.7	-5.0	-3.6	-5.3	-5.7	-3.5

<sup>1</sup> Preliminary.

<sup>2</sup> Less than .05 percent.

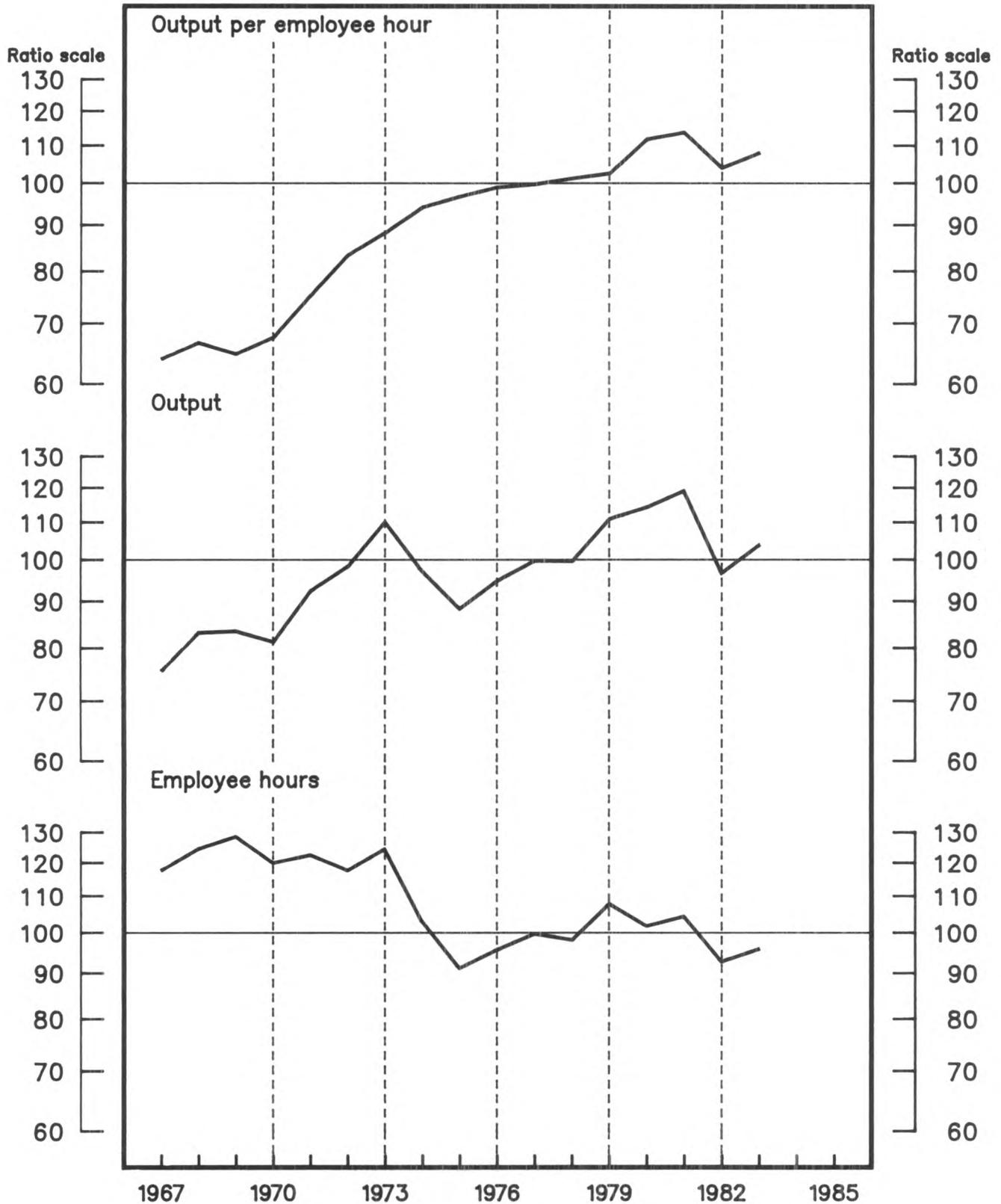
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 45. Mattresses and bedsprings (SIC 2515): Output per hour and related data, 1967-83'**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 87. Mattresses and bedsprings (SIC 2515): Indexes of output per employee hour and output per employee, 1958-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	51.2	50.0	55.1	51.9	50.9	55.8
1959 .....	51.9	50.5	56.7	53.9	53.0	57.1
1960 .....	53.2	52.7	54.8	54.6	54.3	55.6
1961 .....	53.1	53.2	52.3	55.0	55.8	52.5
1962 .....	55.5	55.4	55.6	57.1	57.5	56.1
1963 .....	57.5	56.9	59.4	59.4	59.4	59.8
1964 .....	59.1	58.8	59.8	61.0	61.2	60.2
1965 .....	61.3	60.2	65.2	63.4	62.7	65.6
1966 .....	62.4	60.6	69.1	64.2	62.8	69.1
1967 .....	64.1	62.2	71.0	65.5	63.9	71.2
1968 .....	66.8	65.9	69.6	70.1	68.7	75.2
1969 .....	64.9	63.7	68.8	68.2	66.9	73.4
1970 .....	67.7	67.2	69.0	70.5	69.9	72.4
1971 .....	75.4	74.3	78.9	77.2	76.0	81.2
1972 .....	83.5	82.3	87.6	84.8	83.9	87.6
1973 .....	88.4	86.1	96.8	88.7	86.7	95.5
1974 .....	94.3	92.4	100.8	93.2	91.5	99.0
1975 .....	96.9	94.9	104.2	95.7	93.6	103.0
1976 .....	99.2	98.3	101.9	99.5	99.0	101.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	101.5	100.2	106.1	101.0	99.4	106.6
1979 .....	102.8	103.8	99.6	104.2	105.6	100.3
1980 .....	112.1	114.8	104.1	111.2	113.4	104.7
1981 .....	114.0	117.1	105.4	113.9	116.6	106.1
1982 .....	104.3	107.1	96.2	103.1	105.2	97.0
1983 <sup>2</sup> .....	108.3	109.7	104.1	109.8	111.7	104.1
Average annual percent change:						
1958-83 .....	3.7	3.8	3.3	3.5	3.6	3.2
1979-83 .....	.3	.4	.1	.3	.4	( <sup>3</sup> )

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 88. Mattresses and bedsprings (SIC 2515): Indexes of output, employee hours, and employees, 1958-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	61.0	119.2	121.9	110.8	117.5	119.9	109.4
1959 .....	65.1	125.5	128.8	114.9	120.8	122.9	114.1
1960 .....	61.7	115.9	117.0	112.5	113.1	113.6	110.9
1961 .....	61.5	115.9	115.6	117.5	111.9	110.2	117.2
1962 .....	66.7	120.2	120.4	119.9	116.8	116.1	118.8
1963 .....	66.3	115.3	116.5	111.6	111.6	111.7	110.9
1964 .....	68.7	116.3	116.8	114.9	112.6	112.2	114.1
1965 .....	74.9	122.2	124.5	114.9	118.2	119.4	114.1
1966 .....	76.6	122.8	126.5	110.8	119.3	121.9	110.9
1967 .....	75.7	118.1	121.7	106.6	115.6	118.5	106.3
1968 .....	83.4	124.9	126.5	119.9	119.0	121.4	110.9
1969 .....	83.7	128.9	131.3	121.6	122.7	125.2	114.1
1970 .....	81.5	120.4	121.2	118.2	115.6	116.6	112.5
1971 .....	92.7	122.9	124.7	117.5	120.0	121.9	114.1
1972 .....	98.6	118.1	119.8	112.5	116.3	117.5	112.5
1973 .....	110.4	124.9	128.2	114.1	124.5	127.3	115.6
1974 .....	97.4	103.3	105.4	96.6	104.5	106.4	98.4
1975 .....	88.6	91.4	93.4	85.0	92.6	94.7	86.0
1976 .....	95.1	95.9	96.7	93.3	95.6	96.1	93.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	99.9	98.4	99.7	94.2	98.9	100.5	93.7
1979 .....	111.2	108.2	107.1	111.7	106.7	105.3	110.9
1980 .....	114.5	102.1	99.7	110.0	103.0	101.0	109.4
1981 .....	119.4	104.7	102.0	113.3	104.8	102.4	112.5
1982 .....	97.0	93.0	90.6	100.8	94.1	92.2	100.0
1983 <sup>1</sup> .....	104.1	96.1	94.9	100.0	94.8	93.2	100.0
Average annual percent change:							
1958-83 .....	2.6	-1.0	-1.1	-6	-8	-9	-6
1979-83 .....	-2.9	-3.3	-3.3	-3.0	-3.2	-3.3	-2.9

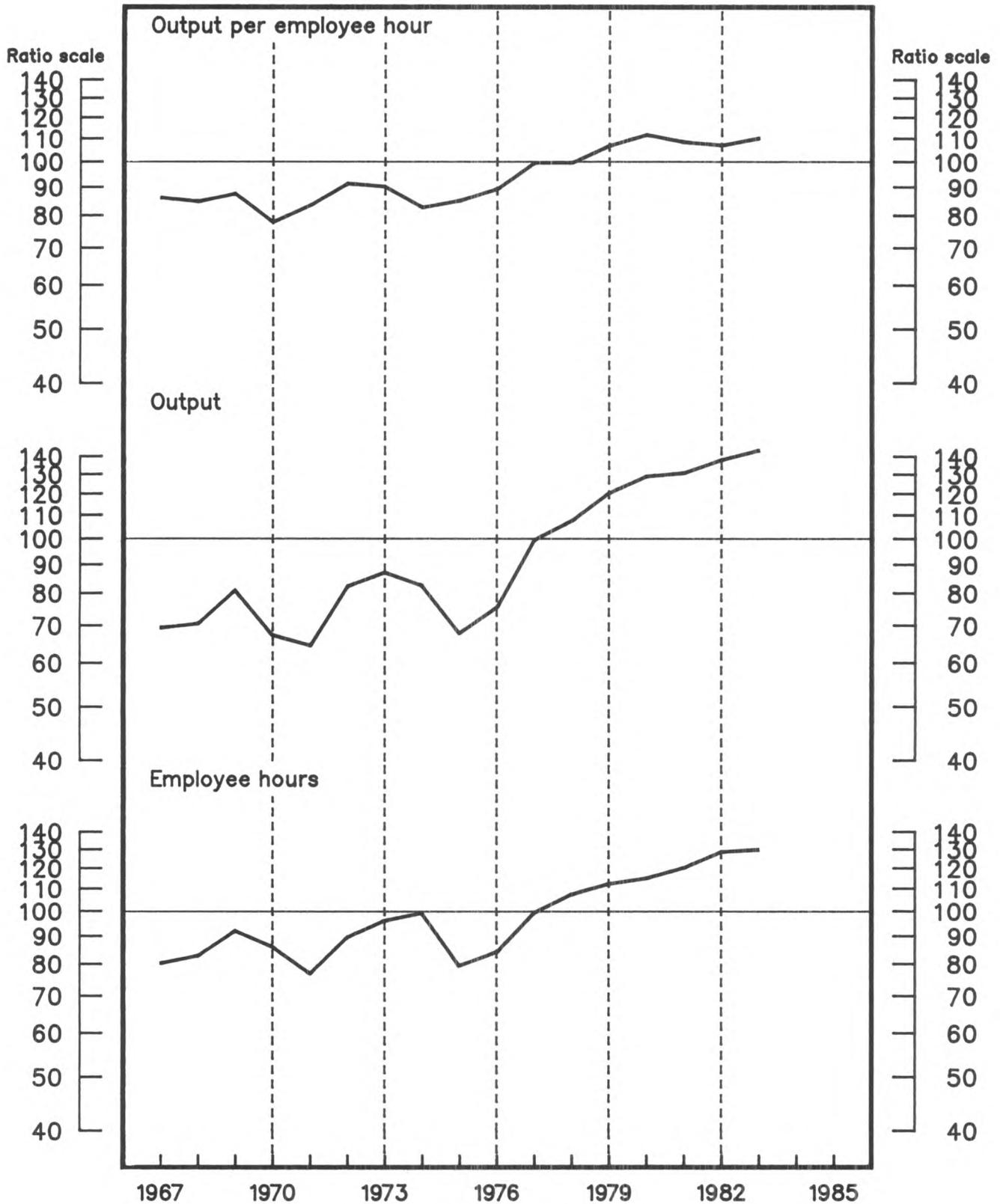
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 46. Office furniture (SIC 252): Output per hour and related data, 1967-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 89. Office furniture (SIC 252): Indexes of output per employee hour and output per employee, 1958-83**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	64.0	62.0	73.2	63.9	61.5	74.5
1959 .....	69.8	66.6	85.0	70.9	67.4	86.4
1960 .....	70.4	67.0	86.2	72.0	68.8	86.6
1961 .....	72.5	69.8	84.0	74.1	71.6	84.4
1962 .....	74.4	71.5	88.1	75.4	72.5	88.6
1963 .....	75.9	72.7	90.3	77.7	74.8	90.3
1964 .....	82.1	80.0	90.9	84.7	82.9	91.4
1965 .....	84.2	81.1	98.1	88.6	86.2	98.1
1966 .....	86.7	83.0	103.5	90.9	88.0	103.3
1967 .....	86.5	84.2	96.0	89.1	87.3	95.9
1968 .....	85.2	84.8	86.8	90.1	89.2	93.5
1969 .....	88.0	89.2	84.1	91.6	92.2	89.5
1970 .....	78.2	79.4	74.0	81.7	82.9	77.8
1971 .....	83.9	86.6	75.3	86.5	89.5	77.3
1972 .....	91.8	91.7	92.1	94.7	95.5	92.0
1973 .....	90.6	89.9	93.0	92.7	92.8	92.2
1974 .....	83.1	80.7	93.5	83.8	82.0	91.2
1975 .....	85.5	87.4	78.8	83.4	85.1	77.6
1976 .....	89.7	91.2	84.4	88.6	89.9	84.3
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.0	99.5	102.0	100.2	99.7	101.8
1979 .....	107.2	106.5	109.8	109.1	108.9	109.9
1980 .....	112.1	117.8	94.9	109.5	114.0	95.7
1981 .....	108.8	112.4	97.4	109.5	113.3	97.8
1982 .....	107.4	112.5	91.8	106.1	110.9	92.2
1983 <sup>2</sup> .....	110.6	115.4	95.8	108.3	112.5	95.8
Average annual percent change:						
1958-83 .....	1.9	2.2	.6	1.7	2.1	.5
1979-83 .....	.2	1.2	-3.0	-.5	.4	-3.1

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 90. Office furniture (SIC 252): Indexes of output, employee hours, and employees, 1958-83**  
(1977=100)

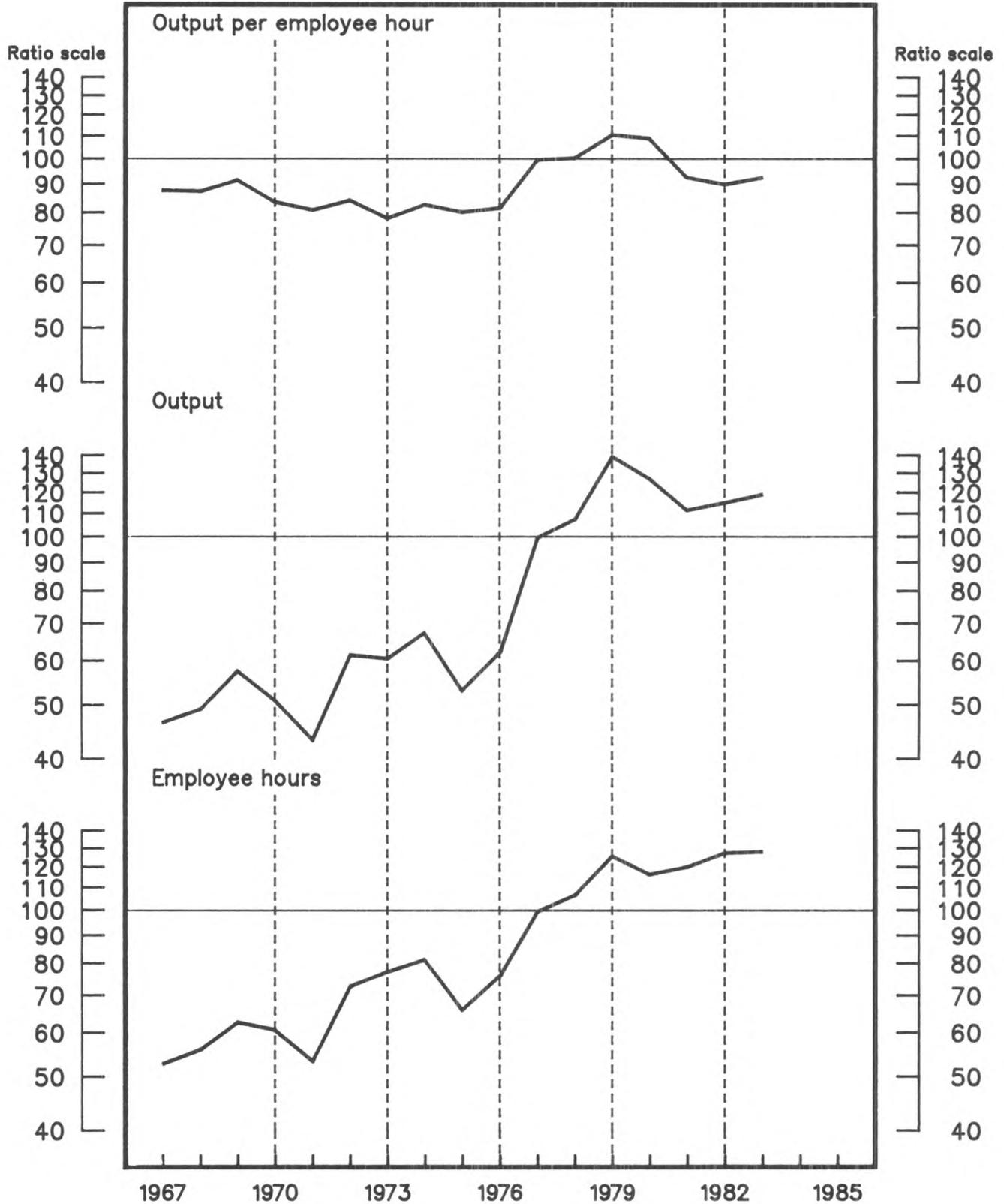
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	33.1	51.7	53.4	45.2	51.8	53.8	44.4
1959 .....	37.5	53.7	56.3	44.1	52.9	55.6	43.4
1960 .....	39.4	56.0	58.8	45.7	54.7	57.3	45.5
1961 .....	38.4	53.0	55.0	45.7	51.8	53.6	45.5
1962 .....	42.1	56.6	58.9	47.8	55.8	58.1	47.5
1963 .....	45.6	60.1	62.7	50.5	58.7	61.0	50.5
1964 .....	50.8	61.9	63.5	55.9	60.0	61.3	55.6
1965 .....	57.5	68.3	70.9	58.6	64.9	66.7	58.6
1966 .....	67.9	78.3	81.8	65.6	74.7	77.2	65.7
1967 .....	69.7	80.6	82.8	72.6	78.2	79.8	72.7
1968 .....	70.9	83.2	83.6	81.7	78.7	79.5	75.8
1969 .....	81.4	92.5	91.3	96.8	88.9	88.3	90.9
1970 .....	67.6	86.4	85.1	91.4	82.7	81.5	86.9
1971 .....	64.8	77.2	74.8	86.0	74.9	72.4	83.8
1972 .....	82.7	90.1	90.2	89.8	87.3	86.6	89.9
1973 .....	87.5	96.6	97.3	94.1	94.4	94.3	94.9
1974 .....	82.9	99.8	102.7	88.7	98.9	101.1	90.9
1975 .....	68.2	79.8	78.0	86.6	81.8	80.1	87.9
1976 .....	75.8	84.5	83.1	89.8	85.6	84.3	89.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	108.0	108.0	108.5	105.9	107.8	108.3	106.1
1979 .....	121.0	112.9	113.6	110.2	110.9	111.1	110.1
1980 .....	129.6	115.6	110.0	136.6	118.4	113.7	135.4
1981 .....	131.4	120.8	116.9	134.9	120.0	116.0	134.3
1982 .....	138.7	129.2	123.3	151.1	130.7	125.1	150.5
1983 <sup>1</sup> .....	144.2	130.4	125.0	150.5	133.1	128.2	150.5
Average annual percent change:							
1958-83 .....	5.6	3.7	3.3	5.0	3.8	3.5	5.1
1979-83 .....	4.3	4.1	3.1	7.5	4.7	3.9	7.6

<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 47. Wood office furniture (SIC 2521): Output per hour and related data, 1967-83**  
 (1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 91. Wood office furniture (SIC 2521): Indexes of output per employee hour and output per employee, 1958-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	67.1	62.5	98.0	67.7	62.7	98.0
1959 .....	69.5	64.2	109.6	71.9	66.2	109.6
1960 .....	68.0	63.7	96.1	71.4	67.0	96.8
1961 .....	70.5	66.1	97.2	74.5	70.3	97.9
1962 .....	69.9	64.8	104.2	74.9	69.9	105.0
1963 .....	80.4	74.5	121.9	85.0	78.8	122.8
1964 .....	84.5	79.2	116.7	88.3	83.1	118.6
1965 .....	82.8	78.8	105.7	86.4	82.3	108.0
1966 .....	85.9	81.5	112.5	88.3	83.5	114.9
1967 .....	88.1	83.2	116.8	91.2	86.6	115.0
1968 .....	87.7	83.3	113.9	95.0	90.1	121.4
1969 .....	91.9	88.8	108.4	97.3	93.7	115.6
1970 .....	83.9	79.6	109.6	85.3	79.9	116.9
1971 .....	81.2	78.3	96.9	80.1	76.5	99.5
1972 .....	84.5	81.1	102.8	85.8	82.3	103.9
1973 .....	78.5	74.9	98.5	78.5	74.9	97.3
1974 .....	83.0	78.4	109.7	80.8	76.0	108.3
1975 .....	80.5	78.3	91.6	73.7	70.4	89.9
1976 .....	81.9	79.2	96.0	78.0	74.6	95.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.7	103.3	91.0	98.4	100.7	90.7
1979 .....	110.8	114.0	98.7	111.4	114.8	99.5
1980 .....	109.2	117.5	84.1	100.6	105.4	85.1
1981 .....	92.9	96.1	81.0	92.9	96.2	81.5
1982 .....	90.3	92.0	83.5	88.0	89.1	84.0
1983 <sup>2</sup> .....	92.9	93.5	90.7	91.9	92.1	91.1
Average annual percent change:						
1958-83 .....	1.4	1.9	-9	1.0	1.4	-9
1979-83 .....	-5.3	-6.2	-1.7	-5.1	-5.9	-1.9

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 92. Wood office furniture (SIC 2521): Indexes of output, employee hours, and employees, 1958-83**  
(1977 = 100)

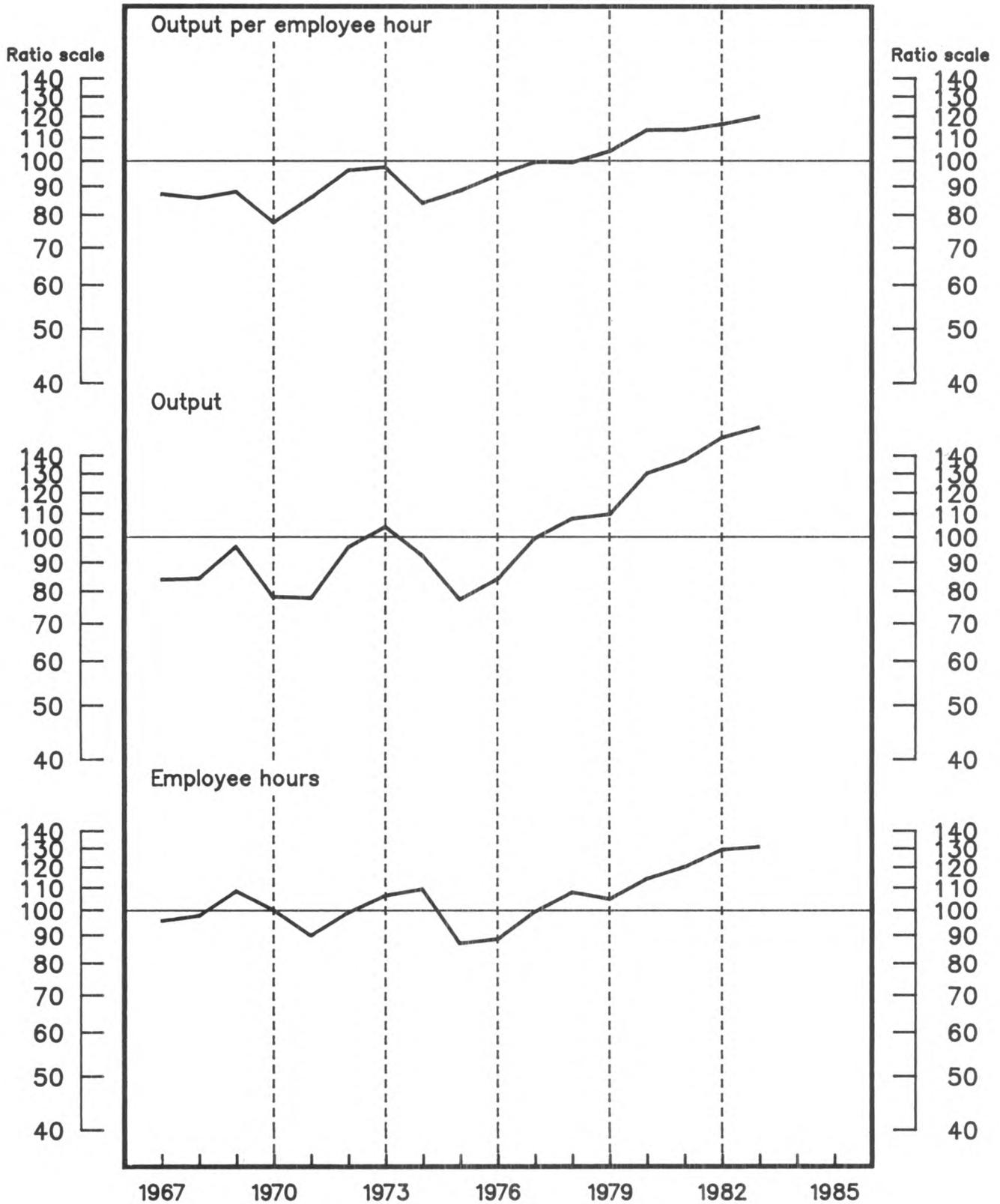
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	24.5	36.5	39.2	25.0	36.2	39.1	25.0
1959 .....	27.4	39.4	42.7	25.0	38.1	41.4	25.0
1960 .....	27.2	40.0	42.7	28.3	38.1	40.6	28.1
1961 .....	27.5	39.0	41.6	28.3	36.9	39.1	28.1
1962 .....	29.5	42.2	45.5	28.3	39.4	42.2	28.1
1963 .....	34.5	42.9	46.3	28.3	40.6	43.8	28.1
1964 .....	37.0	43.8	46.7	31.7	41.9	44.5	31.2
1965 .....	40.5	48.9	51.4	38.3	46.9	49.2	37.5
1966 .....	43.1	50.2	52.9	38.3	48.8	51.6	37.5
1967 .....	46.7	53.0	56.1	40.0	51.2	53.9	40.6
1968 .....	49.3	56.2	59.2	43.3	51.9	54.7	40.6
1969 .....	57.8	62.9	65.1	53.3	59.4	61.7	50.0
1970 .....	51.2	61.0	64.3	46.7	60.0	64.1	43.8
1971 .....	43.6	53.7	55.7	45.0	54.4	57.0	43.8
1972 .....	61.7	73.0	76.1	60.0	71.9	75.0	59.4
1973 .....	60.8	77.5	81.2	61.7	77.5	81.2	62.5
1974 .....	67.7	81.6	86.3	61.7	83.8	89.1	62.5
1975 .....	53.4	66.3	68.2	58.3	72.5	75.8	59.4
1976 .....	62.4	76.2	78.8	65.0	80.0	83.6	65.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	107.7	107.0	104.3	118.3	109.4	107.0	118.7
1979 .....	139.9	126.3	122.7	141.7	125.6	121.9	140.6
1980 .....	127.6	116.8	108.6	151.7	126.9	121.1	150.0
1981 .....	112.0	120.6	116.5	138.3	120.6	116.4	137.5
1982 .....	115.5	127.9	125.5	138.3	131.3	129.7	137.5
1983 <sup>1</sup> .....	119.5	128.6	127.8	131.7	130.0	129.7	131.2
Average annual percent change:							
1958-83 .....	7.0	5.5	5.1	8.0	6.0	5.5	8.0
1979-83 .....	-4.1	1.3	2.3	-2.4	1.0	1.9	-2.2

<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 48. Metal office furniture (SIC 2522): Output per hour and related data, 1967-83**  
 (1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 93. Metal office furniture (SIC 2522): Indexes of output per employee hour and output per employee, 1958-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	64.5	62.7	71.7	64.2	62.1	72.1
1959 .....	71.6	68.7	84.2	72.3	69.2	79.9
1960 .....	72.7	69.3	87.4	74.0	70.7	87.9
1961 .....	74.7	72.5	84.3	75.8	73.5	84.7
1962 .....	77.9	75.4	88.1	77.6	74.7	88.7
1963 .....	75.9	73.4	86.7	77.3	74.8	86.6
1964 .....	82.9	81.5	88.6	85.4	84.3	89.0
1965 .....	86.3	83.2	99.3	91.6	89.3	99.7
1966 .....	88.3	84.5	104.9	93.6	90.6	105.3
1967 .....	87.6	85.6	95.6	90.4	89.0	95.6
1968 .....	86.2	86.4	85.3	90.6	90.3	91.5
1969 .....	88.5	90.5	82.2	91.8	93.2	87.5
1970 .....	78.0	80.8	69.7	82.5	85.8	73.0
1971 .....	86.4	90.8	74.0	90.6	96.2	75.8
1972 .....	96.7	97.9	92.6	100.4	103.2	92.2
1973 .....	97.9	98.2	96.4	101.0	102.9	94.9
1974 .....	84.5	82.7	91.4	86.7	85.9	88.9
1975 .....	88.9	92.8	77.7	89.4	94.2	76.6
1976 .....	94.8	98.6	83.7	95.3	99.5	83.2
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	99.8	97.6	108.3	101.3	99.4	108.3
1979 .....	104.5	101.8	114.9	107.3	105.1	115.5
1980 .....	113.9	118.1	101.2	115.0	119.7	101.9
1981 .....	114.0	117.5	103.3	115.0	119.0	103.7
1982 .....	116.6	124.2	96.4	116.3	123.8	96.7
1983 <sup>2</sup> .....	120.2	128.1	99.1	117.3	124.1	99.0
Average annual percent change:						
1958-83 .....	2.0	2.3	.8	1.9	2.3	.8
1979-83 .....	3.1	5.2	-3.4	1.9	3.7	-3.5

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 94. Metal office furniture (SIC 2522): Indexes of output, employee hours, and employees, 1958-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	38.7	60.0	61.7	54.0	60.3	62.3	53.7
1959 .....	44.1	61.6	64.2	52.4	61.0	63.7	55.2
1960 .....	47.2	64.9	68.1	54.0	63.8	66.8	53.7
1961 .....	45.5	60.9	62.8	54.0	60.0	61.9	53.7
1962 .....	50.3	64.6	66.7	57.1	64.8	67.3	56.7
1963 .....	53.0	69.8	72.2	61.1	68.6	70.9	61.2
1964 .....	59.8	72.1	73.4	67.5	70.0	70.9	67.2
1965 .....	68.5	79.4	82.3	69.0	74.8	76.7	68.7
1966 .....	83.3	94.3	98.6	79.4	89.0	91.9	79.1
1967 .....	84.2	96.1	98.4	88.1	93.1	94.6	88.1
1968 .....	84.6	96.2	97.9	99.2	93.4	93.7	92.5
1969 .....	96.6	109.1	106.7	117.5	105.2	103.6	110.4
1970 .....	78.5	100.7	97.2	112.7	95.2	91.5	107.5
1971 .....	78.1	90.4	86.0	105.6	86.2	81.2	103.0
1972 .....	96.3	99.6	98.4	104.0	95.9	93.3	104.5
1973 .....	104.8	107.1	108.7	108.7	103.8	101.8	110.4
1974 .....	92.9	110.0	112.4	101.6	107.2	108.1	104.5
1975 .....	77.7	87.4	83.7	100.0	86.9	82.5	101.5
1976 .....	84.4	89.0	85.6	100.8	88.6	84.8	101.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	108.3	108.5	111.0	100.0	106.9	109.0	100.0
1979 .....	110.3	105.5	108.3	96.0	102.8	104.9	95.5
1980 .....	130.9	114.9	110.8	129.4	113.8	109.4	128.4
1981 .....	137.7	120.8	117.2	133.3	119.7	115.7	132.8
1982 .....	151.5	129.9	122.0	157.1	130.3	122.4	156.7
1983 <sup>1</sup> .....	158.1	131.5	123.4	159.5	134.8	127.4	159.7
Average annual percent change:							
1958-83 .....	4.9	2.9	2.5	4.1	2.9	2.6	4.1
1979-83 .....	9.0	5.8	3.6	12.9	7.0	5.1	13.1

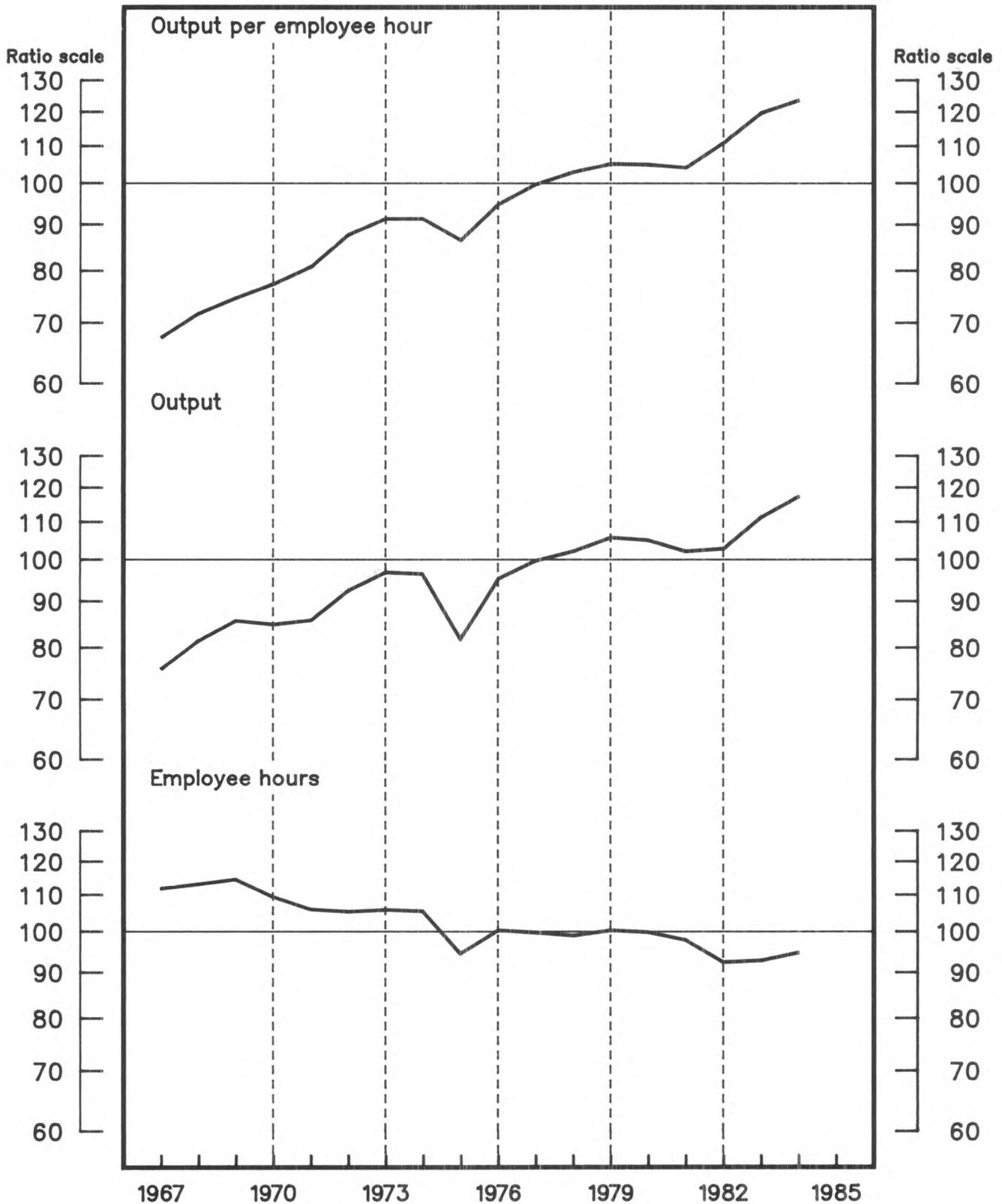
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 49. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 95. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	46.2	44.1	58.2	47.9	45.2	60.0
1959 .....	49.0	46.9	60.8	51.8	49.5	62.6
1960 .....	50.6	48.8	59.8	52.9	50.9	61.6
1961 .....	53.9	52.2	62.3	56.2	54.3	63.9
1962 .....	56.0	54.2	65.4	58.5	56.5	67.3
1963 .....	59.3	57.4	68.7	62.0	60.0	70.6
1964 .....	62.3	60.3	73.1	65.8	63.6	75.5
1965 .....	65.4	63.7	74.6	68.8	66.9	76.7
1966 .....	68.7	66.9	78.1	72.8	70.9	79.9
1967 .....	67.6	66.1	75.0	70.7	69.3	76.7
1968 .....	71.9	69.9	82.3	75.8	73.7	84.0
1969 .....	74.8	72.5	86.0	78.7	76.6	86.5
1970 .....	77.5	75.8	85.7	79.5	78.0	85.1
1971 .....	81.0	80.1	85.1	83.6	82.8	86.3
1972 .....	87.9	86.7	93.1	91.6	90.5	96.0
1973 .....	91.5	90.2	98.3	94.9	93.2	101.6
1974 .....	91.5	90.5	95.2	93.6	92.4	98.2
1975 .....	86.7	87.7	82.3	85.9	86.1	84.3
1976 .....	95.0	95.0	95.1	95.9	95.6	96.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	103.2	103.7	101.1	103.5	104.3	101.1
1979 .....	105.4	106.2	102.0	105.6	106.5	102.4
1980 .....	105.2	106.4	100.5	105.7	106.9	101.3
1981 .....	104.4	105.5	100.0	104.0	104.9	100.4
1982 .....	111.3	113.7	102.5	109.6	111.6	102.9
1983 .....	120.0	121.8	112.5	119.5	121.4	112.6
1984 <sup>2</sup> .....	123.9	125.5	117.6	124.8	126.9	118.1
Average annual percent change:						
1947-84 .....	3.7	4.0	2.1	3.5	3.8	2.0
1979-84 .....	3.7	3.8	3.1	3.7	3.8	3.1

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census, the Bureau of Labor Statistics, and the American Paper Institute. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 96. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

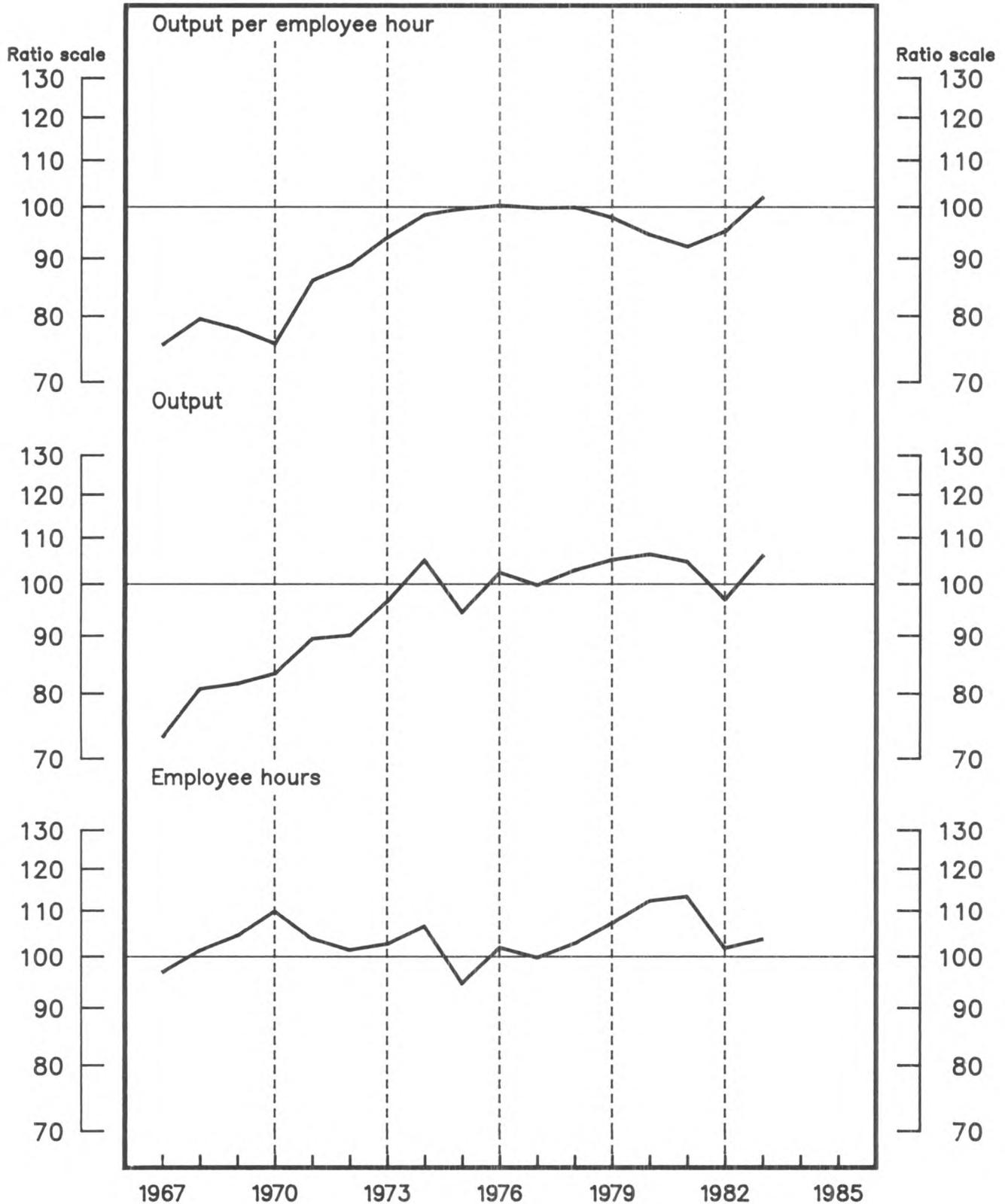
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	48.1	104.2	109.1	82.6	100.5	106.3	80.1
1959 .....	53.6	109.4	114.4	88.1	103.4	108.3	85.6
1960 .....	54.8	108.3	112.2	91.6	103.6	107.7	89.0
1961 .....	56.5	104.9	108.3	90.7	100.6	104.1	88.4
1962 .....	59.5	106.3	109.8	91.0	101.7	105.4	88.4
1963 .....	62.7	105.8	109.2	91.3	101.1	104.5	88.8
1964 .....	66.7	107.0	110.6	91.3	101.3	104.8	88.4
1965 .....	70.6	107.9	110.9	94.7	102.6	105.6	92.1
1966 .....	76.1	110.8	113.8	97.5	104.6	107.3	95.3
1967 .....	75.9	112.2	114.8	101.2	107.3	109.6	98.9
1968 .....	81.6	113.5	116.8	99.2	107.7	110.7	97.1
1969 .....	85.9	114.9	118.5	99.9	109.2	112.1	99.3
1970 .....	85.1	109.8	112.2	99.3	107.1	109.1	100.0
1971 .....	86.0	106.2	107.3	101.0	102.9	103.9	99.6
1972 .....	92.8	105.6	107.0	99.7	101.3	102.5	96.7
1973 .....	97.1	106.1	107.7	98.8	102.3	104.2	95.6
1974 .....	96.7	105.7	106.8	101.6	103.3	104.7	98.5
1975 .....	82.1	94.7	93.6	99.7	95.6	95.3	97.4
1976 .....	95.6	100.6	100.6	100.5	99.7	100.0	98.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.4	99.2	98.7	101.3	98.9	98.2	101.3
1979 .....	106.0	100.6	99.8	103.9	100.4	99.5	103.5
1980 .....	105.3	100.1	99.0	104.8	99.6	98.5	103.9
1981 .....	102.4	98.1	97.1	102.4	98.5	97.6	102.0
1982 .....	103.1	92.6	90.7	100.6	94.1	92.4	100.2
1983 .....	111.6	93.0	91.6	99.2	93.4	91.9	99.1
1984 <sup>1</sup> .....	117.6	94.9	93.7	100.0	94.2	92.7	99.6
Average annual percent change:							
1947-84 .....	3.7	-1	-4	1.5	.1	-2	1.6
1979-84 .....	2.0	-1.6	-1.7	-1.1	-1.6	-1.7	-1.0

<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census, the Bureau of Labor Statistics, and the American Paper Institute. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 50. Paper and plastic bags (SIC 2643): Output per hour and related data, 1967-83**  
 (1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 97. Paper and plastic bags (SIC 2643): Indexes of output per employee hour and output per employee, 1958-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	57.6	56.9	61.0	58.0	56.9	63.0
1959 .....	60.4	60.0	62.3	61.1	60.3	64.1
1960 .....	61.1	60.3	64.9	58.7	56.9	67.0
1961 .....	65.0	63.8	70.4	64.1	62.3	72.5
1962 .....	66.7	65.5	72.2	65.9	64.0	74.3
1963 .....	69.7	68.8	73.6	70.5	69.3	75.8
1964 .....	69.3	68.7	71.7	71.2	70.5	74.2
1965 .....	72.7	72.6	73.1	74.4	74.1	75.4
1966 .....	72.4	71.9	74.6	75.0	74.7	76.3
1967 .....	75.6	75.2	77.2	77.1	76.7	78.9
1968 .....	79.7	78.9	83.2	83.1	82.6	85.2
1969 .....	78.1	78.2	78.0	80.4	80.8	78.6
1970 .....	75.8	74.4	82.2	76.5	75.2	81.9
1971 .....	86.2	85.1	91.3	86.9	85.5	92.6
1972 .....	88.9	88.7	89.4	90.5	90.0	92.1
1973 .....	94.1	94.3	92.7	95.3	95.1	95.8
1974 .....	98.6	96.5	108.3	99.4	96.6	112.0
1975 .....	99.8	100.4	97.4	94.5	93.3	99.7
1976 .....	100.5	100.1	102.1	98.6	97.3	103.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.1	99.6	102.0	101.5	101.3	102.1
1979 .....	98.0	98.0	97.7	97.3	97.1	98.3
1980 .....	94.6	95.0	93.1	94.5	94.6	94.2
1981 .....	92.3	92.8	90.4	93.4	94.0	91.1
1982 .....	95.3	95.9	93.1	94.3	94.6	93.5
1983 <sup>2</sup> .....	102.2	102.5	101.1	102.8	103.3	101.0
Average annual percent change:						
1954-83 .....	2.4	2.5	1.9	2.3	2.4	1.8
1979-83 .....	.9	1.0	.7	1.1	1.2	.5

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 98. Paper and plastic bags (SIC 2643): Indexes of output, employee hours, and employees, 1958-83**  
(1977 = 100)

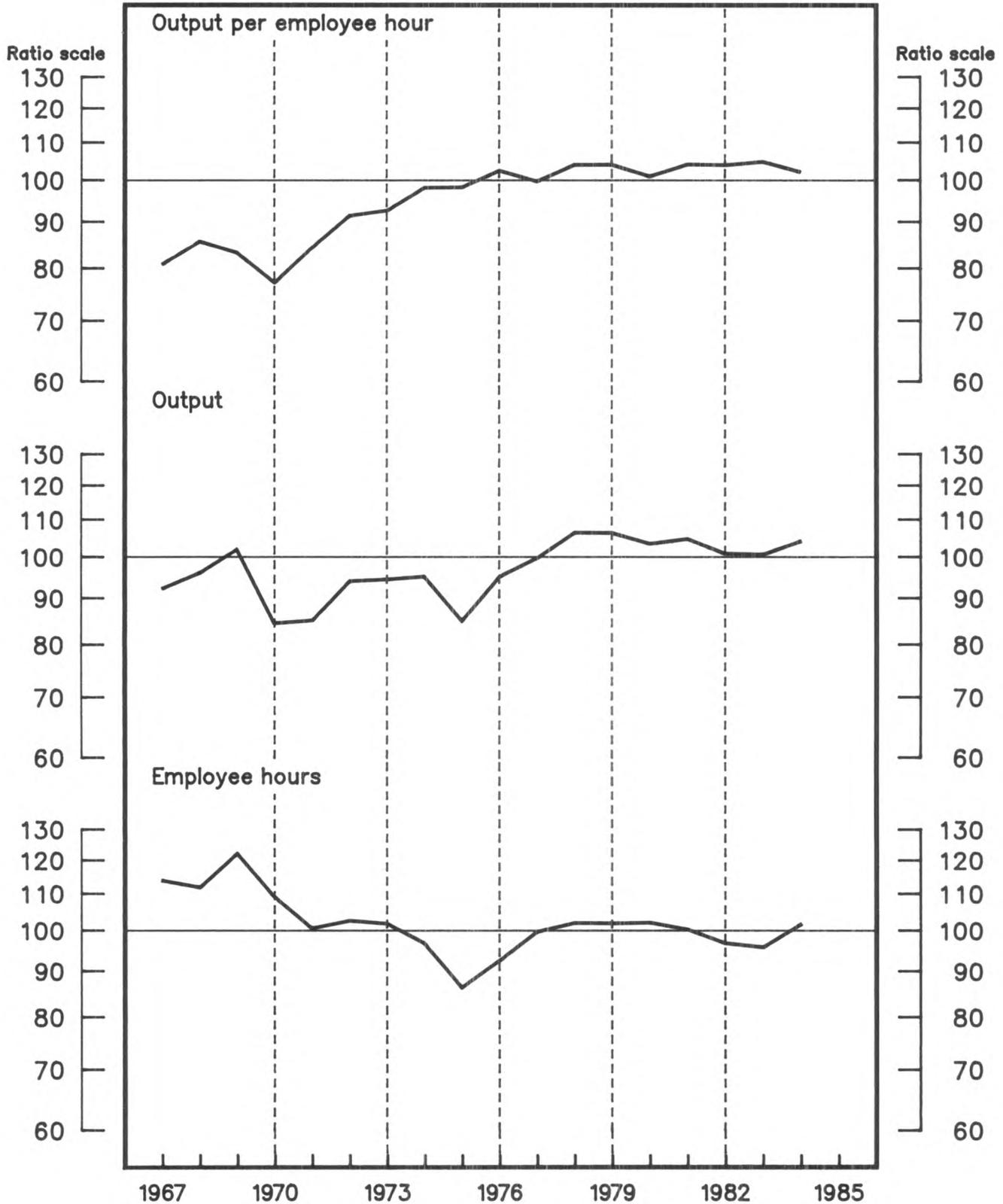
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	46.4	80.5	81.5	76.1	80.0	81.6	73.7
1959 .....	50.5	83.6	84.2	81.1	82.7	83.7	78.8
1960 .....	49.4	80.8	81.9	76.1	84.2	86.8	73.7
1961 .....	52.0	80.0	81.5	73.9	81.1	83.5	71.7
1962 .....	54.1	81.1	82.6	74.9	82.1	84.5	72.8
1963 .....	61.3	88.0	89.1	83.3	86.9	88.4	80.9
1964 .....	63.7	91.9	92.7	88.9	89.5	90.4	85.9
1965 .....	67.0	92.1	92.3	91.6	90.1	90.4	88.9
1966 .....	72.5	100.1	100.8	97.2	96.7	97.1	95.0
1967 .....	73.3	97.0	97.5	95.0	95.1	95.6	92.9
1968 .....	80.9	101.5	102.5	97.2	97.3	97.9	95.0
1969 .....	81.8	104.7	104.6	104.9	101.8	101.2	104.1
1970 .....	83.5	110.2	112.2	101.6	109.2	111.1	102.0
1971 .....	89.7	104.0	105.4	98.3	103.2	104.9	96.9
1972 .....	90.3	101.6	101.8	101.0	99.8	100.3	98.0
1973 .....	96.8	102.9	102.6	104.4	101.6	101.8	101.0
1974 .....	105.3	106.8	109.1	97.2	105.9	109.0	94.0
1975 .....	94.7	94.9	94.3	97.2	100.2	101.5	95.0
1976 .....	102.6	102.1	102.5	100.5	104.1	105.4	99.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	103.1	103.0	103.5	101.1	101.6	101.8	101.0
1979 .....	105.3	107.5	107.5	107.8	108.2	108.5	107.1
1980 .....	106.5	112.6	112.1	114.4	112.7	112.6	113.1
1981 .....	104.9	113.6	113.0	116.1	112.3	111.6	115.2
1982 .....	97.2	102.0	101.4	104.4	103.1	102.8	104.0
1983 <sup>1</sup> .....	106.2	103.9	103.6	105.0	103.3	102.8	105.1
Average annual percent change:							
1954-83 .....	3.8	1.4	1.3	1.9	1.5	1.3	2.0
1979-83 .....	-7	-1.7	-1.7	-1.4	-1.8	-2.0	-1.2

<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 51. Folding paperboard boxes (SIC 2651): Output per hour and related data, 1967-84**  
 (1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 99. Folding paperboard boxes (SIC 2651): Indexes of output per employee hour and output per employee, 1963-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963 .....	75.8	75.2	79.2	78.0	77.2	81.3
1964 .....	77.5	76.8	81.3	80.6	79.8	84.2
1965 .....	73.5	72.9	76.5	76.5	76.0	78.6
1966 .....	74.0	73.4	77.1	76.9	76.2	79.1
1967 .....	81.0	80.9	81.9	83.9	83.8	84.0
1968 .....	85.8	84.8	91.3	88.6	87.5	93.1
1969 .....	83.4	82.3	89.6	85.5	84.3	90.1
1970 .....	77.4	77.1	78.8	77.8	77.5	78.5
1971 .....	84.5	84.9	83.2	85.0	85.0	84.4
1972 .....	91.6	91.6	92.5	92.5	91.6	95.3
1973 .....	92.8	92.6	94.0	93.5	92.6	96.8
1974 .....	98.4	99.4	94.7	98.8	99.0	97.5
1975 .....	98.5	100.6	90.3	99.5	101.4	92.5
1976 .....	102.8	103.7	99.7	105.1	106.0	101.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	104.3	104.7	102.9	104.6	104.9	103.2
1979 .....	104.3	104.0	106.0	105.9	105.8	106.6
1980 .....	101.3	101.8	99.4	101.9	102.3	100.3
1981 .....	104.4	104.2	105.6	106.0	105.8	106.2
1982 .....	104.2	105.5	98.6	104.3	105.9	98.9
1983 .....	105.1	106.1	100.9	105.9	107.2	100.9
1984 <sup>2</sup> .....	102.4	102.3	102.5	105.8	106.5	103.3
Average annual percent change:						
1963-84 .....	1.9	2.0	1.5	1.8	1.9	1.4
1979-84 .....	( <sup>3</sup> )	.2	-5	.3	.5	-6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Paperboard Packaging Council, the Bureau of the Census, and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 100. Folding paperboard boxes (SIC 2651): Indexes of output, employee hours, and employees, 1963-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963 .....	89.5	118.0	119.0	113.0	114.8	116.0	110.1
1964 .....	89.8	115.9	116.9	110.5	111.4	112.6	106.7
1965 .....	88.3	120.2	121.1	115.5	115.4	116.2	112.3
1966 .....	93.3	126.1	127.1	121.0	121.4	122.4	118.0
1967 .....	92.5	114.2	114.3	113.0	110.3	110.4	110.1
1968 .....	96.3	112.2	113.6	105.5	108.7	110.0	103.4
1969 .....	102.3	122.6	124.3	114.2	119.6	121.3	113.5
1970 .....	84.7	109.5	109.8	107.5	108.9	109.3	107.9
1971 .....	85.3	100.9	100.5	102.5	100.4	100.3	101.1
1972 .....	94.3	102.9	103.0	101.9	102.0	102.9	98.9
1973 .....	94.7	102.1	102.3	100.7	101.3	102.3	97.8
1974 .....	95.4	97.0	96.0	100.7	96.6	96.4	97.8
1975 .....	85.3	86.6	84.8	94.5	85.7	84.1	92.2
1976 .....	95.4	92.8	92.0	95.7	90.8	90.0	94.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	106.7	102.3	101.9	103.7	102.0	101.7	103.4
1979 .....	106.6	102.2	102.5	100.6	100.7	100.8	100.0
1980 .....	103.7	102.4	101.9	104.3	101.8	101.4	103.4
1981 .....	105.0	100.6	100.8	99.4	99.1	99.2	98.9
1982 .....	101.1	97.0	95.8	102.5	96.9	95.5	102.2
1983 .....	100.9	96.0	95.1	100.0	95.3	94.1	100.0
1984 <sup>1</sup> .....	104.4	102.0	102.1	101.9	98.7	98.0	101.1
Average annual percent change:							
1963-84 .....	.8	-1.1	-1.2	-7	-1.0	-1.1	-6
1979-84 .....	-6	-7	-8	-1	-9	-1.1	( <sup>2</sup> )

<sup>1</sup> Preliminary.

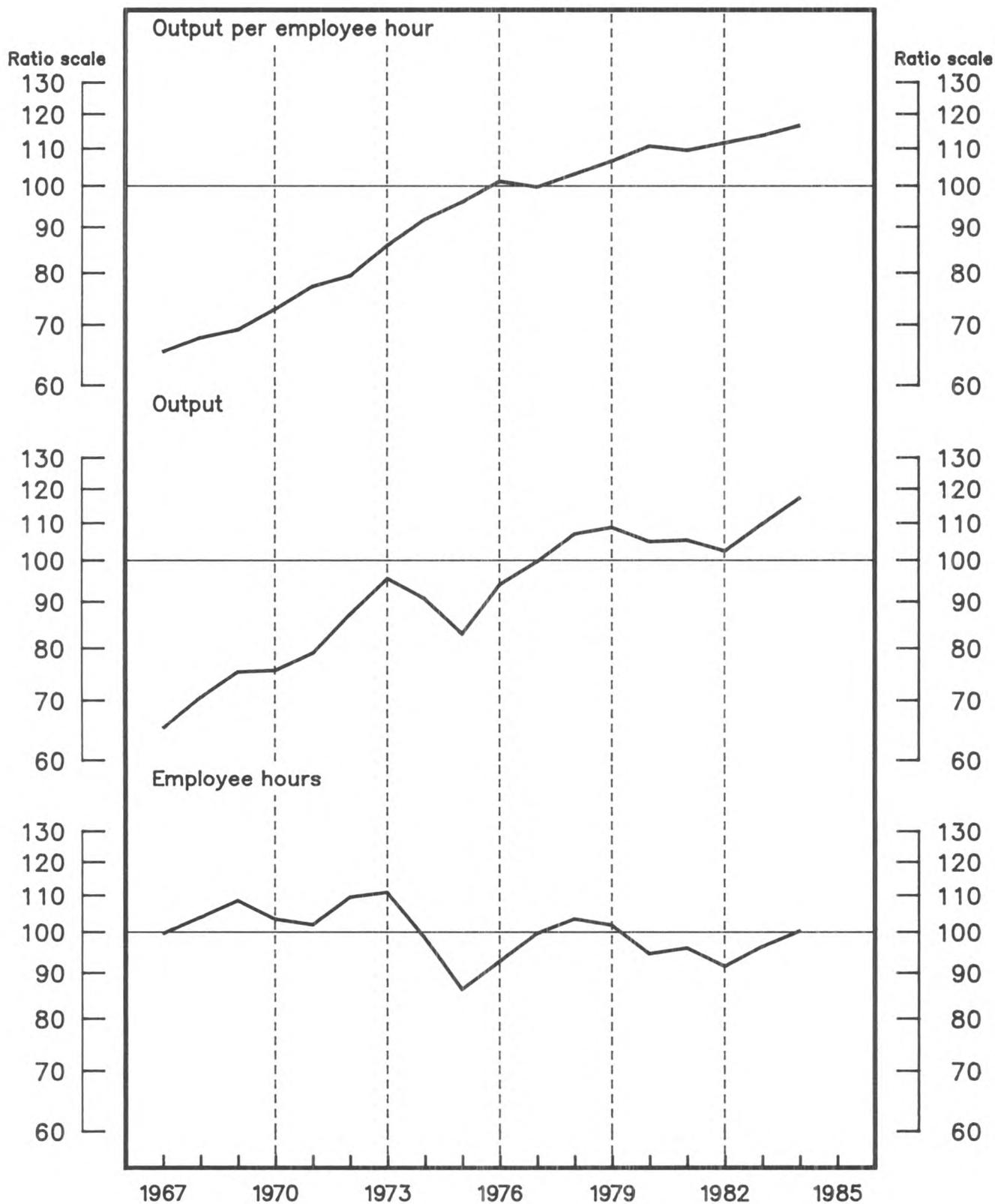
<sup>2</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Paperboard Packaging Council, the Bureau of the Census, and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 52. Corrugated and solid fiber boxes (SIC 2653): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 101. Corrugated and solid fiber boxes (SIC 2653): Indexes of output per employee hour and output per employee, 1958-84 (1977=100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	49.9	47.9	56.9	51.7	49.6	58.6
1959	50.8	47.9	61.8	53.7	50.9	63.5
1960	50.6	48.1	59.1	52.3	49.8	60.9
1961	53.4	50.7	62.8	56.0	53.4	64.4
1962	54.1	51.1	65.4	57.2	54.3	67.1
1963	57.7	55.2	66.5	60.7	58.3	68.2
1964	58.9	56.4	67.5	63.3	61.2	69.6
1965	60.7	58.2	69.6	65.5	63.5	71.5
1966	63.2	59.6	76.8	67.4	64.0	78.6
1967	65.5	62.8	74.3	68.3	65.9	76.0
1968	67.9	64.7	78.6	71.3	68.4	80.2
1969	69.3	66.3	79.9	72.5	70.0	80.4
1970	73.1	70.8	80.4	73.4	71.3	79.8
1971	77.5	75.9	82.2	78.3	76.5	83.4
1972	79.6	77.3	87.2	82.3	79.8	89.7
1973	86.1	83.1	95.6	88.6	85.2	99.1
1974	92.0	91.8	92.3	89.7	87.8	95.1
1975	96.2	98.3	90.2	94.6	95.5	92.1
1976	101.5	101.5	101.5	101.0	100.2	103.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.4	103.0	104.7	103.0	102.3	104.7
1979	106.9	106.4	107.8	106.8	106.2	108.3
1980	111.0	113.1	105.2	109.8	111.4	105.9
1981	109.8	111.2	106.0	110.1	111.6	106.3
1982	111.9	114.2	105.5	110.5	112.4	106.1
1983	114.0	115.4	110.1	115.3	117.5	110.1
1984 <sup>2</sup>	116.9	117.2	116.2	119.4	120.4	116.8
Average annual percent change:						
1958-84	3.8	4.1	2.7	3.5	3.8	2.6
1979-84	1.6	1.6	1.5	2.0	2.3	1.4

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Fiber Box Association, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 102. Corrugated and solid fiber boxes (SIC 2653): Indexes of output, employee hours, and employment, 1958-84 (1977=100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	36.1	72.3	75.4	63.5	69.8	72.8	61.6
1959	41.2	81.1	86.1	66.7	76.7	81.0	64.9
1960	41.2	81.5	85.6	69.7	78.8	82.8	67.7
1961	44.0	82.4	86.8	70.1	78.6	82.4	68.3
1962	47.0	86.8	91.9	71.9	82.1	86.6	70.0
1963	49.8	86.3	90.2	74.9	82.1	85.4	73.0
1964	53.9	91.5	95.5	79.8	85.2	88.0	77.4
1965	58.5	96.3	100.5	84.1	89.3	92.1	81.8
1966	63.8	100.9	107.1	83.1	94.7	99.7	81.2
1967	65.4	99.9	104.1	88.0	95.7	99.3	86.1
1968	70.7	104.2	109.2	90.0	99.2	103.4	88.2
1969	75.5	108.9	113.9	94.5	104.1	107.8	93.9
1970	75.8	103.7	107.0	94.3	103.2	106.3	95.0
1971	79.2	102.2	104.4	96.3	101.2	103.5	95.0
1972	87.5	109.9	113.2	100.4	106.3	109.6	97.5
1973	95.8	111.3	115.3	100.2	108.1	112.4	96.7
1974	91.0	98.9	99.1	98.6	101.5	103.7	95.7
1975	83.3	86.6	84.7	92.3	88.1	87.2	90.4
1976	94.4	93.0	93.0	93.0	93.5	94.2	91.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.3	103.8	104.2	102.5	104.2	104.9	102.5
1979	109.1	102.1	102.5	101.2	102.2	102.7	100.7
1980	105.2	94.8	93.0	100.0	95.8	94.4	99.3
1981	105.6	96.2	95.0	99.6	95.9	94.6	99.3
1982	102.7	91.8	89.9	97.3	92.9	91.4	96.8
1983	110.1	96.6	95.4	100.0	95.5	93.7	100.0
1984 <sup>1</sup>	117.6	100.6	100.3	101.2	98.5	97.7	100.7
Average annual percent change:							
1958-84	4.5	.7	.4	1.7	1.0	.7	1.8
1979-84	1.4	-2	-2	-1	-6	-9	(?)

<sup>1</sup> Preliminary.

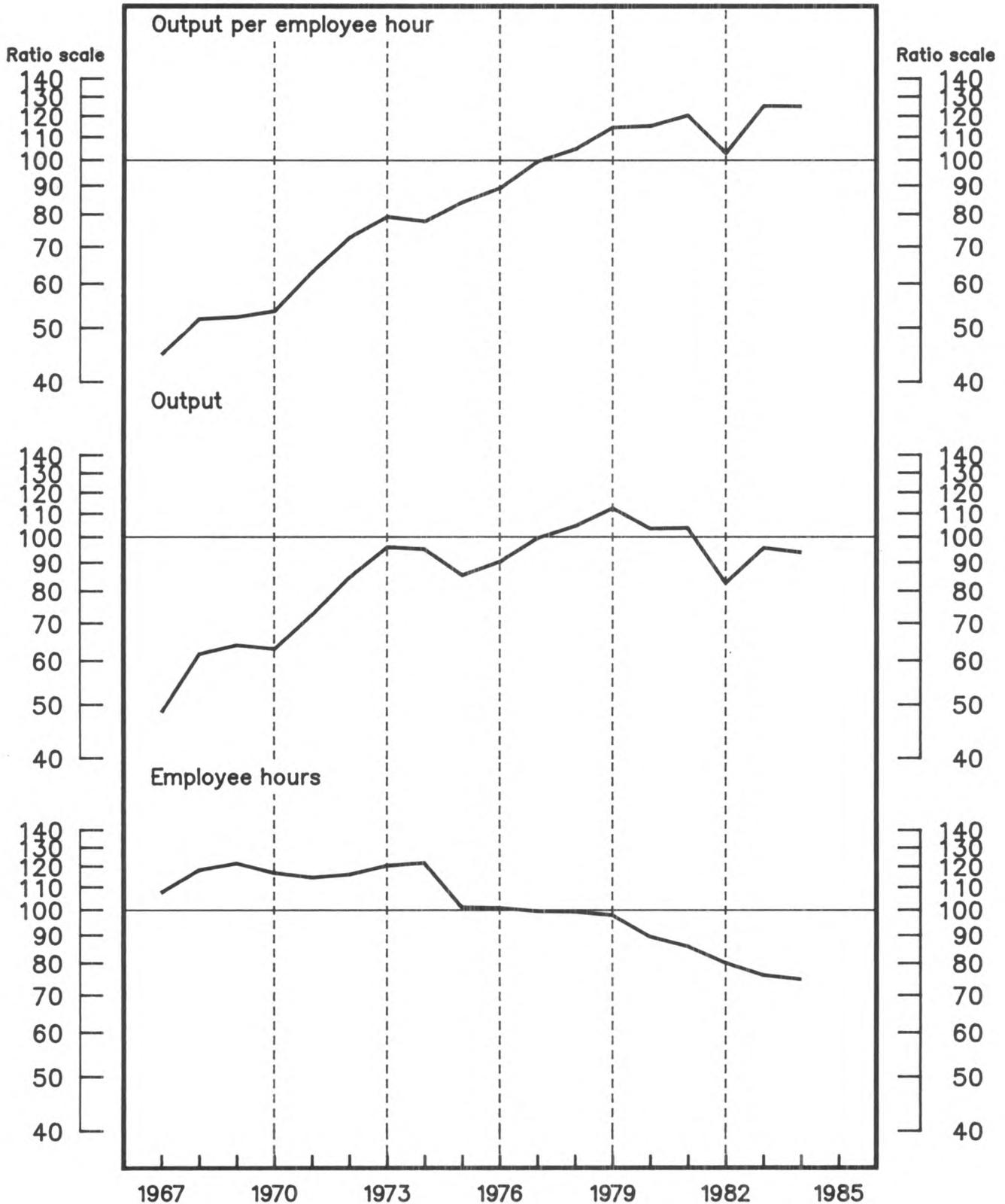
<sup>2</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Fiber Box Association, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 53. Synthetic fibers (SIC 2823, 2824): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 103. Synthetic fibers (SIC 2823, 2824): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	29.6	30.4	27.5	30.2	30.9	28.2
1959	33.9	33.4	35.9	34.7	34.0	36.8
1960	32.4	32.5	32.2	32.5	32.4	32.8
1961	34.8	35.1	34.0	35.2	35.4	34.4
1962	38.3	37.8	39.9	39.0	38.5	40.5
1963	37.9	38.4	36.4	38.9	39.6	37.0
1964	40.4	40.6	39.7	41.9	42.4	40.5
1965	41.8	41.6	42.1	42.9	42.9	42.7
1966	42.0	42.8	39.7	42.8	43.8	40.1
1967	45.0	45.3	44.3	45.7	46.0	44.7
1968	52.1	51.1	55.4	53.7	52.9	56.3
1969	52.5	51.8	55.2	53.9	53.3	55.8
1970	53.8	53.9	53.7	54.3	54.4	54.0
1971	63.3	62.4	66.5	63.8	62.9	66.9
1972	73.0	71.1	80.2	74.7	73.0	80.3
1973	79.5	77.0	88.7	81.7	79.3	89.9
1974	78.0	77.3	80.1	78.7	77.6	82.0
1975	84.5	86.9	77.5	83.4	85.0	78.9
1976	89.5	92.1	82.5	88.2	89.8	83.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.2	104.7	106.8	105.6	105.1	106.9
1979	115.0	113.9	118.2	115.8	114.8	118.8
1980	115.7	117.4	111.0	114.9	116.0	111.8
1981	120.9	122.7	115.5	119.9	121.3	116.0
1982	103.6	108.0	91.5	100.5	103.7	91.8
1983	125.7	128.3	117.9	124.0	126.1	117.9
1984 <sup>2</sup>	125.4	126.1	123.1	123.5	123.3	123.8
Average annual percent change:						
1957-84	6.1	6.2	6.0	6.0	6.0	5.9
1979-84	1.5	1.9	.4	1.1	1.3	.4

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Textile Economics Bureau, Inc. and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 104. Synthetic fibers (SIC 2823, 2824): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	22.1	74.6	72.8	80.3	73.3	71.6	78.4
1959	26.4	77.8	79.0	73.5	76.1	77.7	71.8
1960	24.8	76.5	76.3	77.0	76.2	76.6	75.5
1961	26.1	74.9	74.3	76.8	74.2	73.8	75.8
1962	31.2	81.5	82.5	78.2	80.1	81.1	77.1
1963	33.3	87.8	86.7	91.4	85.5	84.0	90.1
1964	38.2	94.5	94.0	96.2	91.2	90.2	94.3
1965	43.8	104.9	105.3	104.0	102.2	102.1	102.6
1966	47.8	113.9	111.6	120.4	111.7	109.2	119.3
1967	48.7	108.2	107.6	109.9	106.6	105.8	108.9
1968	61.9	118.8	121.1	111.8	115.2	117.0	109.9
1969	64.2	122.2	124.0	116.4	119.1	120.4	115.0
1970	63.2	117.4	117.2	117.7	116.3	116.1	117.0
1971	72.9	115.2	116.9	109.7	114.2	115.9	108.9
1972	85.2	116.7	119.9	106.3	114.1	116.7	106.1
1973	96.3	121.1	125.0	108.6	117.8	121.5	107.1
1974	95.5	122.5	123.5	119.2	121.3	123.0	116.4
1975	85.9	101.7	98.8	110.9	103.0	101.1	108.9
1976	90.8	101.4	98.6	110.1	102.9	101.1	108.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.0	99.8	100.3	98.3	99.4	99.9	98.2
1979	113.0	98.3	99.2	95.6	97.6	98.4	95.1
1980	103.9	89.8	88.5	93.6	90.4	89.6	92.9
1981	104.2	86.2	84.9	90.2	86.9	85.9	89.8
1982	83.3	80.4	77.1	91.0	82.9	80.3	90.7
1983	96.0	76.4	74.8	81.4	77.4	76.1	81.4
1984 <sup>1</sup>	94.2	75.1	74.7	76.5	76.3	76.4	76.1
Average annual percent change:							
1957-84	6.5	.3	.3	.5	.4	.4	.6
1979-84	-3.8	-5.3	-5.6	-4.3	-4.9	-5.1	-4.2

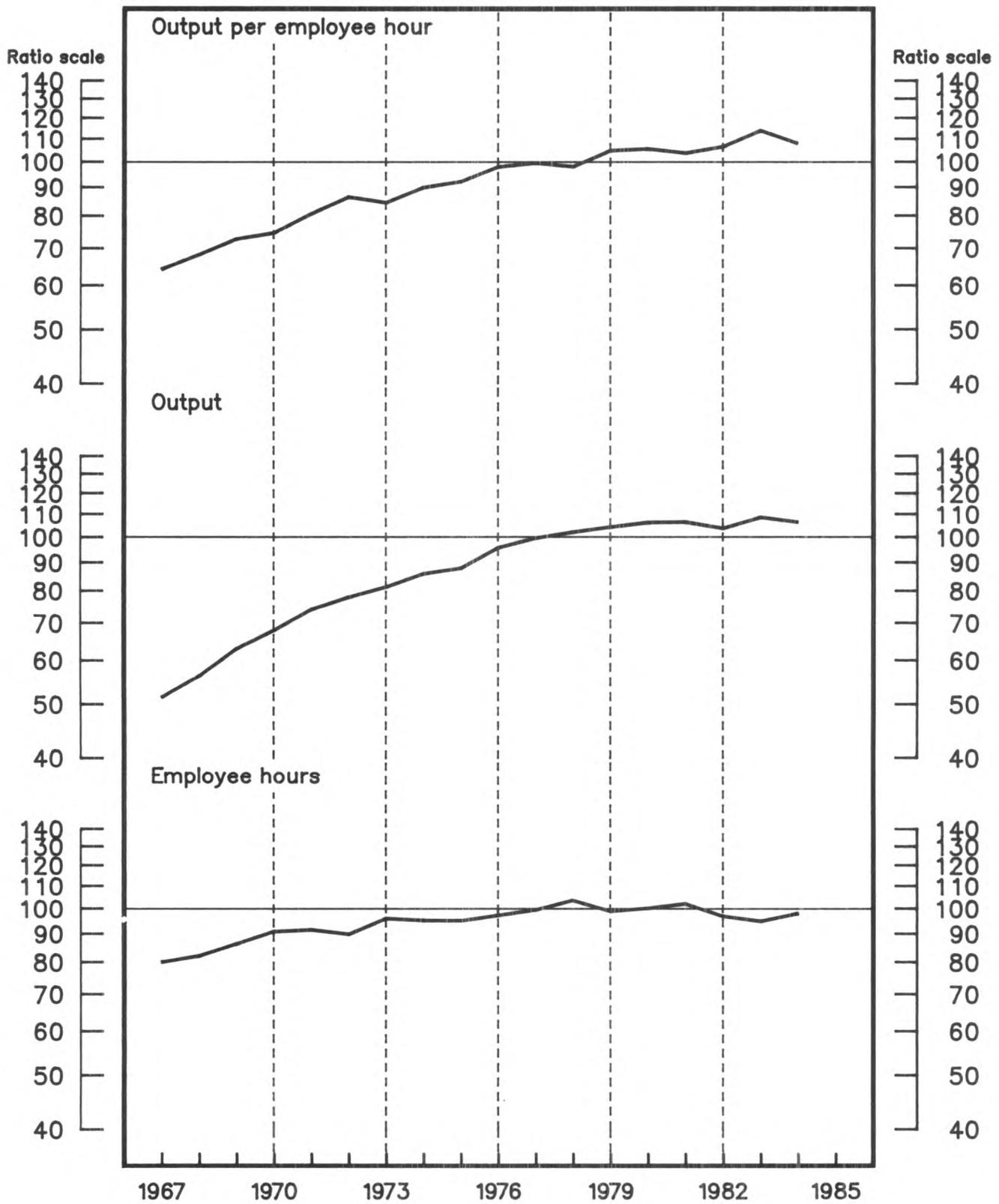
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Textile Economics Bureau, Inc. and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 54. Pharmaceutical preparations (SIC 2834): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 105. Pharmaceutical preparations (SIC 2834): Indexes of output per employee hour and output per employee, 1963-84**  
(1977=100)

Year	Output per hour <sup>1</sup>		Output per employee <sup>1</sup>		
	All employees	Production workers	All employees	Production workers	Nonproduction workers
Index:					
1963	52.9	49.0	54.2	50.1	59.0
1964	54.0	49.3	55.7	50.7	61.6
1965	58.5	53.8	59.6	54.7	65.4
1966	60.6	55.5	62.6	57.3	69.0
1967	64.4	59.4	64.1	59.1	70.0
1968	68.4	63.6	69.6	64.8	75.3
1969	73.0	66.6	74.1	67.7	81.9
1970	74.8	70.0	77.1	72.0	82.8
1971	81.0	80.1	82.8	81.8	83.8
1972	86.8	85.1	88.4	86.6	90.2
1973	84.8	84.5	85.5	85.2	85.6
1974	90.3	89.7	90.4	89.8	90.9
1975	92.5	94.1	90.8	92.5	89.3
1976	98.4	98.1	98.0	97.7	98.3
1977	100.0	100.0	100.0	100.0	100.0
1978	98.5	99.6	100.0	101.1	98.9
1979	105.3	102.4	101.8	99.1	104.7
1980	106.0	104.7	99.7	98.4	100.9
1981	104.2	104.8	103.6	104.1	103.0
1982	107.0	106.8	105.8	105.6	105.9
1983	114.4	114.1	111.3	111.1	111.7
1984 <sup>2</sup>	108.4	111.1	105.1	107.9	102.6
Average annual percent change:					
1963-84	3.7	4.3	3.4	4.0	2.8
1979-84	1.2	2.0	1.5	2.3	.7

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 106. Pharmaceutical preparations (SIC 2844): Indexes of output, employee hours, and employees, 1963-84**  
(1977=100)

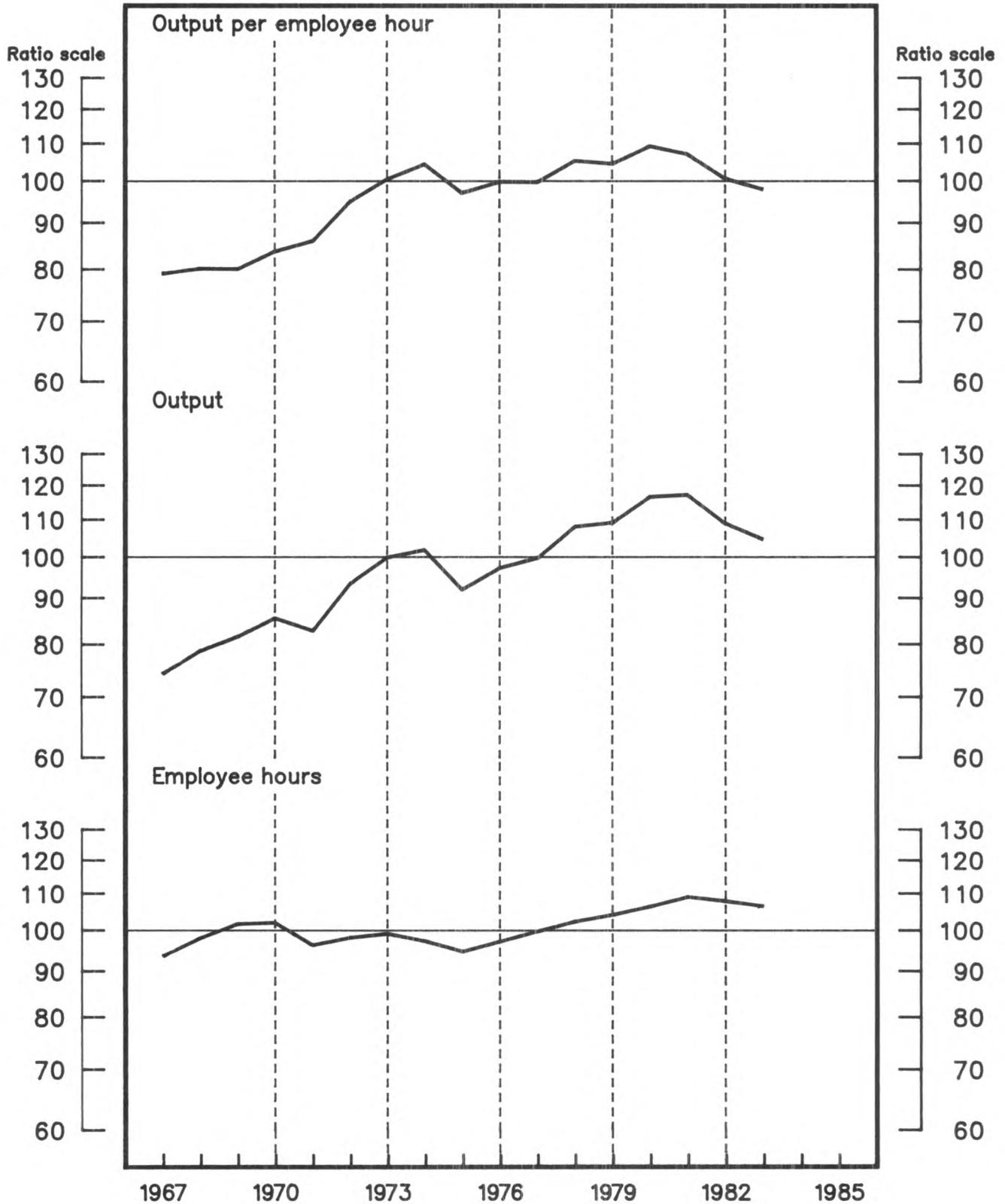
Year	Output	Employee hours		Employees		
		All employees	Production workers	All employees	Production workers	Nonproduction workers
Index:						
1963	36.5	69.0	74.5	67.3	72.8	61.9
1964	39.7	73.5	80.6	71.3	78.3	64.4
1965	44.6	76.2	82.9	74.8	81.5	68.2
1966	48.7	80.3	87.7	77.8	85.0	70.6
1967	51.7	80.3	87.1	80.7	87.5	73.9
1968	56.4	82.4	88.7	81.0	87.1	74.9
1969	63.2	86.6	94.9	85.3	93.4	77.2
1970	68.2	91.2	97.4	88.5	94.7	82.4
1971	74.4	91.9	92.9	89.9	91.0	88.8
1972	78.3	90.2	92.0	88.6	90.4	86.8
1973	81.7	96.4	96.7	95.6	95.9	95.4
1974	86.3	95.6	96.2	95.5	96.1	94.9
1975	88.3	95.5	93.8	97.2	95.5	98.9
1976	96.1	97.7	98.0	98.1	98.4	97.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.5	104.1	102.9	102.5	101.4	103.6
1979	104.7	99.4	102.2	102.8	105.7	100.0
1980	106.7	100.7	101.9	107.0	108.4	105.7
1981	106.9	102.6	102.0	103.2	102.7	103.8
1982	104.1	97.3	97.5	98.4	98.6	98.3
1983	109.0	95.3	95.5	97.9	98.1	97.6
1984 <sup>1</sup>	106.8	98.5	96.1	101.6	99.0	104.1
Average annual percent change:						
1963-84	5.4	1.6	1.0	1.9	1.3	2.5
1979-84	.4	-.8	-1.6	-1.1	-1.9	-.3

<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 55. Soaps and detergents (SIC 2841): Output per hour and related data, 1967-83**  
 (1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 107. Soaps and detergents (SIC 2841): Indexes of output per employee hour and output per employee, 1958-83**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	61.6	58.1	69.2	60.1	55.6	69.6
1959 .....	66.9	63.3	74.7	65.5	61.0	75.0
1960 .....	64.8	60.5	74.5	63.7	58.7	74.5
1961 .....	65.5	60.6	76.5	64.7	59.4	76.3
1962 .....	66.5	60.5	81.5	65.5	58.8	80.8
1963 .....	72.0	64.9	89.8	70.4	62.6	89.0
1964 .....	72.0	65.5	87.6	70.4	63.2	87.0
1965 .....	69.9	64.5	82.4	68.5	62.5	81.6
1966 .....	74.7	69.7	86.0	73.8	68.4	85.2
1967 .....	79.3	74.2	90.8	77.9	72.1	90.1
1968 .....	80.3	76.0	89.3	78.7	73.9	88.4
1969 .....	80.2	77.2	86.3	79.0	75.8	85.2
1970 .....	83.9	81.9	87.6	82.3	80.0	86.4
1971 .....	86.1	85.1	87.7	83.5	81.7	86.6
1972 .....	95.2	92.9	100.1	94.2	91.5	99.0
1973 .....	100.8	99.4	103.4	100.2	98.2	103.6
1974 .....	104.7	103.0	107.8	103.9	100.9	109.4
1975 .....	97.3	95.0	101.7	96.6	93.3	102.7
1976 .....	100.1	99.2	101.9	100.0	98.6	102.3
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	105.6	103.0	110.5	106.2	103.7	110.5
1979 .....	104.8	102.1	110.2	105.0	102.1	110.2
1980 .....	109.6	107.6	113.1	108.4	105.9	113.1
1981 .....	107.4	103.9	114.4	106.0	101.7	114.4
1982 .....	100.9	97.5	107.8	100.6	96.9	107.8
1983 <sup>2</sup> .....	98.2	95.2	104.2	99.0	96.1	104.2
Average annual percent change:						
1958-83 .....	2.4	2.7	1.8	2.5	2.8	1.8
1979-83 .....	-2.1	-2.4	-1.6	-1.9	-2.1	-1.6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Table 108. Soaps and detergents (SIC 2841): Indexes of output, employee hours, and employees, 1958-83**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	48.1	78.1	82.8	69.5	80.0	86.5	69.1
1959 .....	53.4	79.8	84.4	71.5	81.5	87.6	71.2
1960 .....	53.5	82.6	88.5	71.8	84.0	91.2	71.8
1961 .....	56.3	86.0	92.9	73.6	87.0	94.8	73.8
1962 .....	58.6	88.1	96.8	71.9	89.5	99.6	72.5
1963 .....	63.4	88.1	97.7	70.6	90.0	101.2	71.2
1964 .....	66.0	91.7	100.7	75.3	93.8	104.4	75.9
1965 .....	65.8	94.2	102.0	79.9	96.0	105.2	80.6
1966 .....	69.8	93.4	100.1	81.2	94.6	102.0	81.9
1967 .....	74.4	93.8	100.3	81.9	95.5	103.2	82.6
1968 .....	78.9	98.3	103.8	88.4	100.3	106.8	89.3
1969 .....	81.8	102.0	105.9	94.8	103.5	107.9	96.0
1970 .....	85.8	102.3	104.7	98.0	104.3	107.2	99.3
1971 .....	83.1	96.5	97.6	94.8	99.5	101.7	96.0
1972 .....	93.7	98.4	100.9	93.6	99.5	102.4	94.6
1973 .....	100.2	99.4	100.8	96.9	100.0	102.0	96.7
1974 .....	102.1	97.5	99.1	94.7	98.3	101.2	93.3
1975 .....	92.3	94.9	97.2	90.8	95.5	98.9	89.9
1976 .....	97.5	97.4	98.3	95.7	97.5	98.9	95.3
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	108.3	102.6	105.1	98.0	102.0	104.4	98.0
1979 .....	109.4	104.4	107.2	99.3	104.2	107.2	99.3
1980 .....	116.9	106.7	108.6	103.4	107.8	110.4	103.4
1981 .....	117.5	109.4	113.1	102.7	110.8	115.5	102.7
1982 .....	109.2	108.2	112.0	101.3	108.5	112.7	101.3
1983 <sup>1</sup> .....	104.9	106.8	110.2	100.7	106.0	109.2	100.7
Average annual percent change:							
1958-83 .....	3.5	1.1	.8	1.7	1.0	.7	1.7
1979-83 .....	-1.5	.6	.9	.1	.4	.6	.1

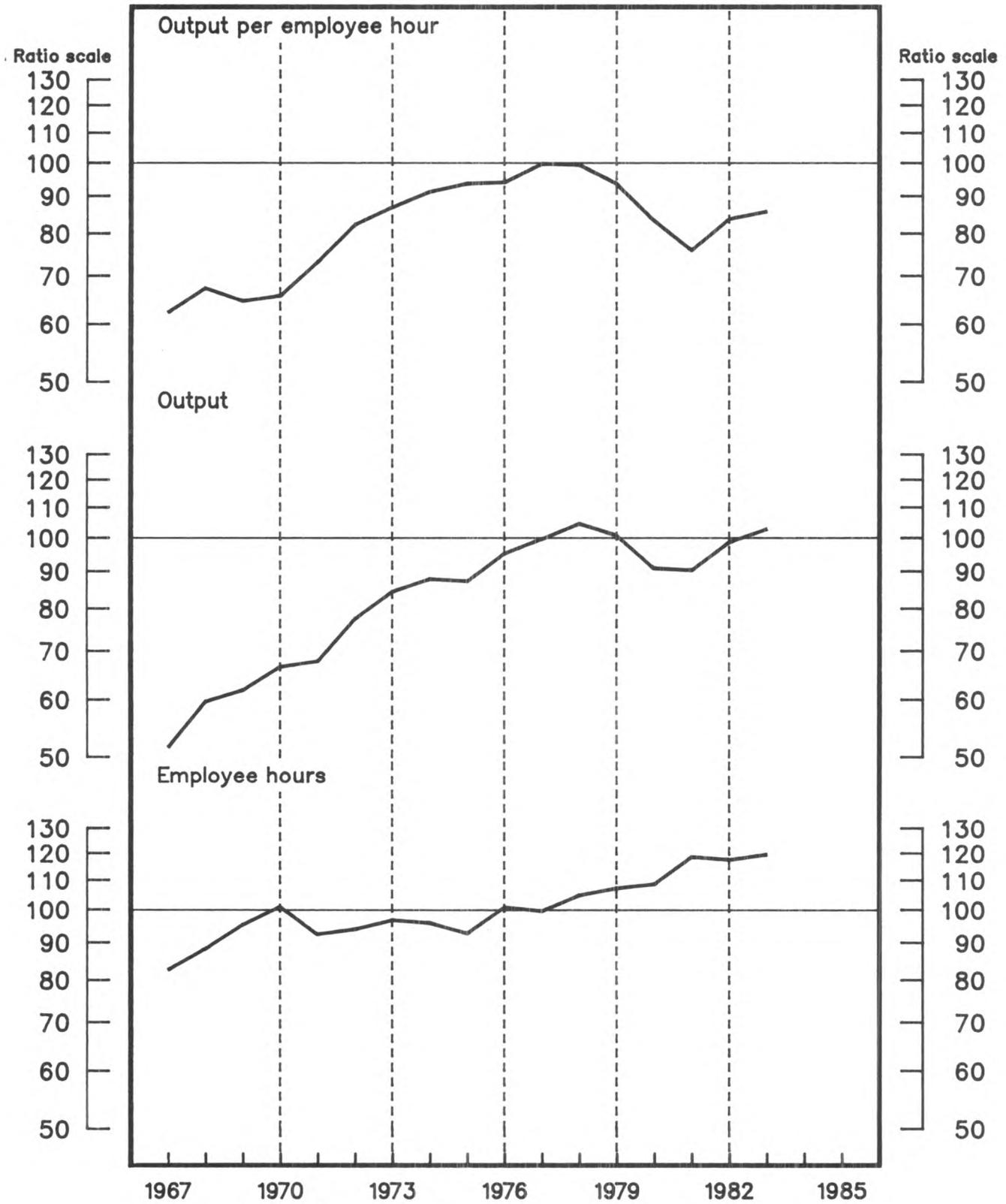
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Chart 56. Cosmetics and other toiletries (SIC 2844): Output per hour and related data, 1967-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 109. Cosmetics and other toiletries (SIC 2844): Indexes of output per employee hour and output per employee, 1958-83**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	40.0	39.0	41.7	40.2	39.3	41.9
1959 .....	43.9	41.9	47.7	44.3	42.3	48.0
1960 .....	45.1	44.1	46.7	45.1	44.2	46.7
1961 .....	46.9	47.0	46.6	47.3	47.8	46.5
1962 .....	49.6	49.7	49.6	50.2	50.8	49.2
1963 .....	57.0	58.1	55.4	57.9	59.8	55.0
1964 .....	63.8	65.3	61.4	63.1	64.4	60.9
1965 .....	65.7	66.6	64.5	66.0	67.4	64.0
1966 .....	65.2	65.1	65.4	66.9	68.1	64.9
1967 .....	62.5	63.1	61.6	62.8	64.0	61.2
1968 .....	67.5	67.4	67.7	67.6	67.9	67.0
1969 .....	64.8	64.7	65.1	65.2	65.8	64.2
1970 .....	65.9	68.9	61.6	66.8	71.1	60.8
1971 .....	73.3	80.4	64.2	73.4	81.4	63.3
1972 .....	82.5	89.1	73.9	82.8	90.3	73.1
1973 .....	87.2	97.4	74.9	87.7	97.9	75.1
1974 .....	91.6	95.2	86.4	92.4	95.8	87.7
1975 .....	94.0	95.6	91.6	94.8	96.4	92.5
1976 .....	94.4	94.3	94.6	95.3	95.5	95.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	99.7	99.0	101.0	99.0	97.8	101.0
1979 .....	94.0	94.7	92.8	93.5	94.0	92.8
1980 .....	83.6	81.3	87.7	84.4	82.5	87.7
1981 .....	76.1	70.8	86.4	76.3	71.2	86.4
1982 .....	84.0	78.1	95.3	84.3	78.8	95.3
1983 <sup>2</sup> .....	86.0	79.8	98.3	87.3	81.6	98.3
Average annual percent change:						
1958-83 .....	3.2	3.1	3.4	3.2	3.1	3.5
1979-83 .....	-1.7	-3.8	2.0	-1.4	-3.2	2.0

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Table 110. Cosmetics and other toiletries (SIC 2844): Indexes of output, employee hours, and employees, 1958-83**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	22.7	56.8	58.2	54.5	56.4	57.8	54.2
1959 .....	26.5	60.3	63.3	55.5	59.8	62.7	55.2
1960 .....	26.9	59.7	61.0	57.6	59.6	60.9	57.6
1961 .....	29.1	62.1	61.9	62.4	61.5	60.9	62.6
1962 .....	32.0	64.5	64.4	64.5	63.8	63.0	65.0
1963 .....	38.2	67.0	65.7	68.9	66.0	63.9	69.5
1964 .....	42.6	66.8	65.2	69.4	67.5	66.1	70.0
1965 .....	47.6	72.4	71.5	73.8	72.1	70.6	74.4
1966 .....	52.1	79.9	80.0	79.7	77.9	76.5	80.3
1967 .....	51.8	82.9	82.1	84.1	82.5	81.0	84.7
1968 .....	59.8	88.6	88.7	88.3	88.5	88.1	89.2
1969 .....	62.0	95.7	95.9	95.3	95.1	94.2	96.6
1970 .....	66.8	101.4	97.0	108.5	100.0	93.9	109.9
1971 .....	68.0	92.8	84.6	106.0	92.6	83.5	107.4
1972 .....	77.8	94.3	87.3	105.3	94.0	86.2	106.4
1973 .....	84.7	97.1	87.0	113.1	96.6	86.5	112.8
1974 .....	88.1	96.2	92.5	102.0	95.3	92.0	100.5
1975 .....	87.5	93.1	91.5	95.5	92.3	90.8	94.6
1976 .....	95.5	101.2	101.3	101.0	100.2	100.0	100.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	104.9	105.2	106.0	103.9	106.0	107.3	103.9
1979 .....	101.1	107.6	106.8	108.9	108.1	107.6	108.9
1980 .....	91.1	109.0	112.1	103.9	107.9	110.4	103.9
1981 .....	90.6	119.0	127.9	104.9	118.7	127.2	104.9
1982 .....	99.0	117.9	126.7	103.9	117.4	125.7	103.9
1983 <sup>1</sup> .....	103.1	119.9	129.2	104.9	118.1	126.3	104.9
Average annual percent change:							
1958-83 .....	6.3	3.0	3.1	2.8	3.0	3.1	2.8
1979-83 .....	1.2	3.0	5.2	-7	2.6	4.6	-7

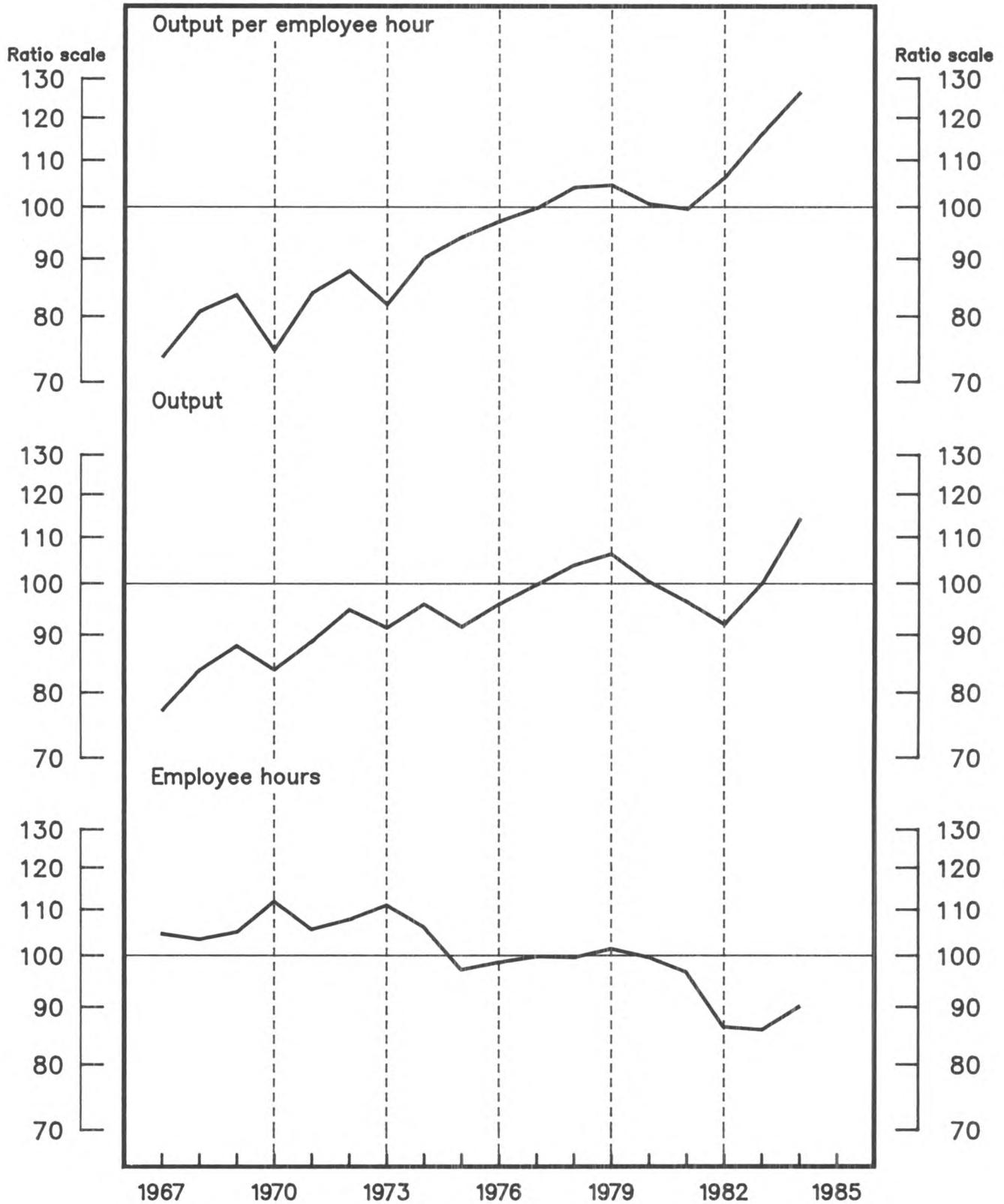
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 57. Paints and allied products (SIC 2851): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 111. Paints and allied products (SIC 2851): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	55.3	53.6	57.5	56.1	53.9	59.0
1959	60.4	58.8	62.4	61.0	58.6	63.9
1960	64.9	63.0	67.6	65.4	62.5	69.0
1961	63.3	61.7	65.5	63.8	61.7	66.4
1962	66.1	64.3	68.4	67.5	66.0	69.5
1963	68.2	66.9	69.9	69.4	68.2	70.9
1964	72.5	70.4	75.4	74.6	72.8	76.8
1965	73.3	72.0	75.1	74.6	73.2	76.1
1966	76.9	75.1	79.2	78.0	76.4	79.9
1967	73.7	72.9	74.6	74.2	73.2	75.2
1968	81.0	80.1	82.1	81.9	80.5	83.5
1969	83.8	81.8	86.3	84.0	81.4	87.2
1970	74.9	73.5	76.8	74.8	72.9	77.3
1971	84.1	84.4	83.8	83.1	82.2	84.3
1972	88.0	85.9	90.7	88.5	86.6	90.8
1973	82.2	80.3	84.7	81.0	77.2	86.0
1974	90.4	91.5	89.0	90.9	90.6	91.3
1975	94.2	99.0	88.8	94.0	97.2	90.4
1976	97.3	99.6	94.2	97.7	99.4	95.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.3	105.0	103.3	103.9	104.4	103.4
1979	104.8	103.5	106.5	103.6	100.9	106.9
1980	100.8	105.0	95.7	99.1	101.5	96.5
1981	99.8	103.4	95.5	98.7	101.2	95.9
1982	106.5	113.8	98.3	104.7	110.3	98.8
1983	116.5	122.8	109.3	114.9	120.4	109.1
1984 <sup>2</sup>	126.6	132.4	119.7	126.4	132.3	120.2
Average annual percent change:						
1958-84	2.7	3.0	2.2	2.5	2.8	2.2
1979-84	4.2	5.3	2.9	4.4	5.7	2.9

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 112. Paints and allied products (SIC 2851): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	51.9	93.9	96.9	90.2	92.5	96.3	88.0
1959	58.3	96.5	99.2	93.4	95.6	99.5	91.3
1960	60.9	93.8	96.7	90.1	93.1	97.4	88.3
1961	58.6	92.6	95.0	89.4	91.9	95.0	88.2
1962	61.9	93.7	96.3	90.5	91.7	93.8	89.1
1963	67.0	98.2	100.1	95.8	96.5	98.2	94.5
1964	71.6	98.7	101.7	94.9	96.0	98.4	93.2
1965	76.5	104.3	106.3	101.9	102.6	104.5	100.5
1966	82.5	107.3	109.9	104.2	105.8	108.0	103.3
1967	77.2	104.8	105.9	103.5	104.1	105.4	102.6
1968	83.9	103.6	104.7	102.2	102.5	104.2	100.5
1969	88.2	105.2	107.8	102.2	105.0	108.3	101.2
1970	84.0	112.2	114.3	109.4	112.3	115.3	108.7
1971	89.0	105.8	105.5	106.2	107.1	108.3	105.6
1972	95.0	108.0	110.6	104.7	107.4	109.7	104.6
1973	91.5	111.3	113.9	108.0	112.9	118.5	106.4
1974	96.1	106.3	105.0	108.0	105.7	106.1	105.3
1975	91.7	97.3	92.6	103.3	97.6	94.3	101.4
1976	96.1	98.8	96.5	102.0	98.4	96.7	100.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	99.8	99.1	100.8	100.2	99.7	100.7
1979	106.5	101.6	102.9	100.0	102.8	105.5	99.6
1980	100.6	99.8	95.8	105.1	101.5	99.1	104.2
1981	96.6	96.8	93.4	101.2	97.9	95.5	100.7
1982	92.2	86.6	81.0	93.8	88.1	83.6	93.3
1983	100.3	86.1	81.7	91.8	87.3	83.3	91.9
1984 <sup>1</sup>	114.3	90.3	86.3	95.5	90.4	86.4	95.1
Average annual percent change:							
1958-84	2.5	-.1	-.5	.3	( <sup>2</sup> )	-.3	.3
1979-84	.9	-3.2	-4.2	-2.0	-3.4	-4.6	-1.9

<sup>1</sup> Preliminary.

<sup>2</sup> Less than .05 percent.

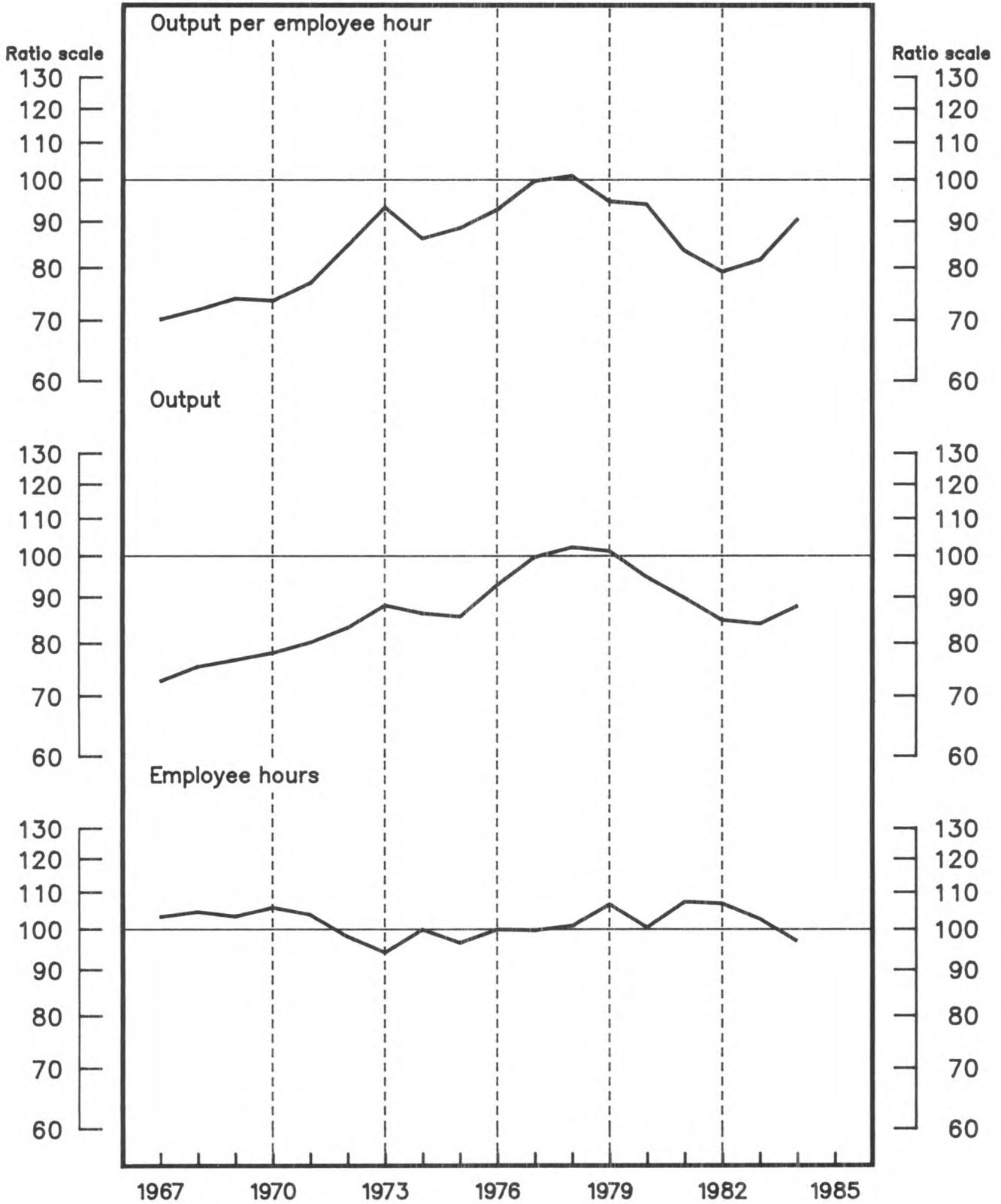
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 58. Petroleum refining (SIC 2911): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 113. Petroleum refining (SIC 2911): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	37.7	36.5	41.4	36.8	34.7	42.5
1959	42.4	41.1	46.5	41.6	39.4	47.6
1960	44.1	43.1	47.2	43.6	41.8	48.4
1961	47.5	46.7	50.3	46.9	45.1	51.3
1962	51.8	51.1	53.9	51.1	49.5	55.3
1963	55.7	54.6	58.7	54.5	52.3	60.2
1964	58.7	57.7	61.9	58.3	56.2	63.7
1965	63.6	62.5	67.2	62.7	60.4	68.8
1966	68.7	67.4	72.5	67.9	65.6	73.8
1967	70.4	69.5	72.9	70.0	68.3	74.3
1968	72.1	71.7	73.4	72.3	71.1	75.6
1969	74.2	75.8	70.4	76.6	76.4	77.1
1970	73.8	74.1	73.4	74.6	73.6	76.8
1971	77.2	78.1	75.0	77.2	76.6	78.6
1972	84.9	84.8	85.3	84.9	83.1	89.4
1973	93.6	94.7	91.1	92.6	91.3	95.4
1974	86.4	85.6	88.8	86.3	83.8	92.4
1975	88.7	89.7	86.7	87.7	86.9	89.2
1976	93.0	92.6	94.2	94.0	93.1	95.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.3	100.6	103.2	103.3	103.3	103.1
1979	94.9	96.8	90.4	96.0	98.7	90.6
1980	94.2	100.3	81.8	94.8	96.7	90.7
1981	83.7	85.7	78.7	84.9	87.9	78.9
1982	79.4	82.8	71.8	80.3	84.5	72.1
1983	81.8	86.1	72.5	83.5	89.5	72.6
1984 <sup>2</sup>	90.7	99.1	74.7	91.6	101.7	74.9
Average annual percent change:						
1947-84	4.2	4.6	3.2	4.3	4.7	3.1
1979-84	-2.0	-1.1	-3.9	-1.9	-3	-4.8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Energy Information Administration, U.S. Department of Energy; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 114. Petroleum refining (SIC 2911): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	52.4	139.1	143.7	126.6	142.5	150.9	123.4
1959	55.7	131.4	135.6	119.9	133.8	141.3	116.9
1960	57.4	130.1	133.1	121.6	131.6	137.2	118.5
1961	58.8	123.7	126.0	117.0	125.5	130.3	114.6
1962	61.3	118.4	119.9	113.7	120.0	123.9	110.9
1963	62.9	113.0	115.2	107.1	115.4	120.3	104.4
1964	64.7	110.2	112.2	104.6	111.0	115.2	101.6
1965	66.5	104.5	106.4	99.0	106.0	110.1	96.6
1966	69.9	101.8	103.7	96.4	102.9	106.6	94.7
1967	72.9	103.6	104.9	100.0	104.1	106.7	98.1
1968	75.6	104.9	105.5	103.0	104.5	106.4	100.0
1969	76.9	103.7	101.4	109.3	100.4	100.7	99.7
1970	78.3	106.1	105.7	106.7	105.0	106.4	102.0
1971	80.4	104.2	102.9	107.2	104.1	104.9	102.3
1972	83.5	98.4	98.5	97.9	98.3	100.5	93.4
1973	88.4	94.4	93.3	97.0	95.5	96.8	92.7
1974	86.6	100.2	101.2	97.5	100.3	103.3	93.7
1975	85.9	96.8	95.8	99.1	98.0	98.8	96.3
1976	93.2	100.2	100.6	98.9	99.2	100.1	97.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.5	101.2	101.9	99.3	99.2	99.2	99.4
1979	101.5	107.0	104.9	112.3	105.7	102.8	112.0
1980	95.0	100.8	94.7	116.2	100.2	98.2	104.7
1981	90.1	107.7	105.1	114.5	106.1	102.5	114.2
1982	85.1	107.2	102.8	118.5	106.0	100.7	118.0
1983	84.3	103.0	97.9	116.2	101.0	94.2	116.1
1984 <sup>1</sup>	88.2	97.2	89.0	118.1	96.3	86.7	117.7
Average annual percent change:							
1947-84	2.9	-1.3	-1.7	-3	-1.4	-1.8	-3
1979-84	-3.1	-1.2	-2.1	.8	-1.3	-2.8	1.7

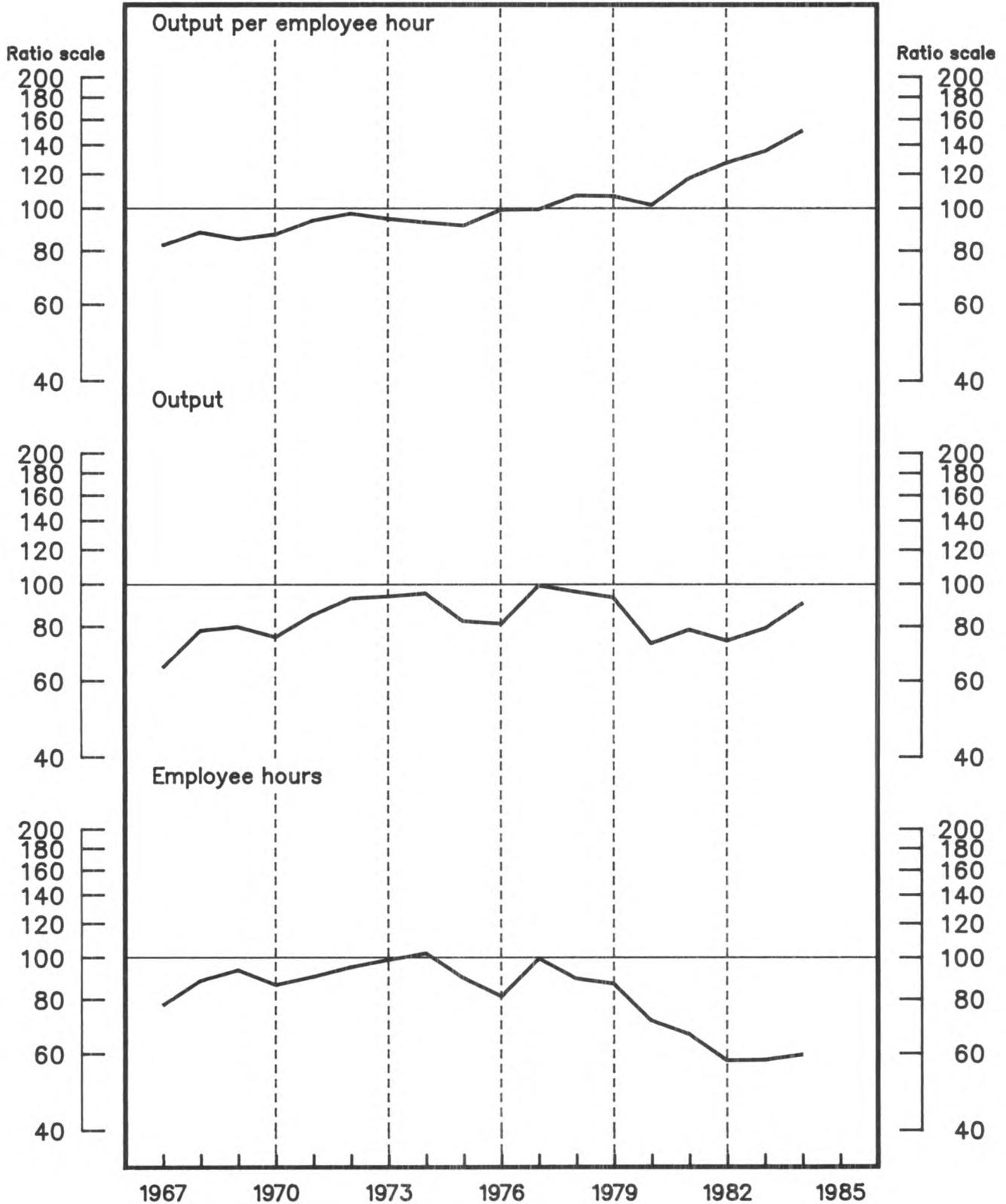
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Energy Information Administration, U.S. Department of Energy; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 59. Tires and inner tubes (SIC 3011): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 115. Tires and inner tubes (SIC 3011): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	52.6	52.6	52.3	50.8	50.3	52.6
1959 .....	58.3	57.0	63.0	57.3	55.8	63.3
1960 .....	59.7	59.2	61.2	58.4	57.7	61.1
1961 .....	61.6	62.1	59.8	60.3	60.7	59.0
1962 .....	67.9	66.7	72.3	68.7	67.9	71.3
1963 .....	72.9	72.4	74.3	72.3	72.1	73.3
1964 .....	79.6	78.8	81.7	81.1	81.3	80.8
1965 .....	81.3	80.8	82.6	83.5	84.1	81.4
1966 .....	83.0	82.1	85.7	85.3	85.7	84.0
1967 .....	82.7	83.6	79.7	79.6	80.1	78.0
1968 .....	88.5	88.4	88.7	91.4	91.6	90.3
1969 .....	85.4	85.1	86.6	89.0	89.2	88.6
1970 .....	87.6	90.1	79.6	86.3	87.7	81.8
1971 .....	94.3	95.7	89.2	93.0	94.0	90.6
1972 .....	97.8	97.6	98.3	99.0	99.3	98.4
1973 .....	95.1	96.3	90.7	93.9	94.4	92.3
1974 .....	93.3	95.0	87.0	93.3	94.3	89.6
1975 .....	91.8	95.5	79.9	88.8	91.4	81.5
1976 .....	99.8	105.8	82.3	89.6	91.5	83.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	107.7	106.0	114.0	107.2	105.5	114.0
1979 .....	107.3	107.1	108.2	103.6	102.3	108.6
1980 .....	102.4	106.7	89.0	96.2	98.3	89.6
1981 .....	118.1	117.7	118.8	113.5	111.9	119.5
1982 .....	128.2	130.2	121.3	120.9	120.7	122.1
1983 .....	136.1	135.4	138.7	135.4	134.5	139.0
1984 <sup>2</sup> .....	151.5	153.0	145.4	154.6	157.3	145.9
Average annual percent change:						
1947-84 .....	3.5	3.7	2.8	3.5	3.6	2.8
1979-84 .....	7.9	7.7	8.4	9.2	9.5	8.4

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Rubber Manufacturers Association, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 116. Tires and inner tubes (SIC 3011): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	39.8	75.7	75.6	76.1	78.4	79.2	75.6
1959 .....	47.5	81.5	83.4	75.4	82.9	85.2	75.0
1960 .....	47.1	78.9	79.5	77.0	80.7	81.6	77.1
1961 .....	45.6	74.0	73.4	76.3	75.6	75.1	77.3
1962 .....	52.0	76.6	78.0	71.9	75.7	76.6	72.9
1963 .....	54.1	74.2	74.7	72.8	74.8	75.0	73.8
1964 .....	61.1	76.8	77.5	74.8	75.3	75.2	75.6
1965 .....	64.9	79.8	80.3	78.6	77.7	77.2	79.7
1966 .....	69.6	83.9	84.8	81.2	81.6	81.2	82.9
1967 .....	64.7	78.2	77.4	81.2	81.3	80.8	82.9
1968 .....	78.7	88.9	89.0	88.7	86.1	85.9	87.2
1969 .....	80.3	94.0	94.4	92.7	90.2	90.0	90.6
1970 .....	76.1	86.9	84.5	95.6	88.2	86.8	93.0
1971 .....	85.6	90.8	89.4	96.0	92.0	91.1	94.5
1972 .....	93.4	95.5	95.7	95.0	94.3	94.1	94.9
1973 .....	94.4	99.3	98.0	104.1	100.5	100.0	102.3
1974 .....	95.9	102.8	100.9	110.2	102.8	101.7	107.0
1975 .....	82.7	90.1	86.6	103.5	93.1	90.5	101.5
1976 .....	81.6	81.8	77.1	99.2	91.1	89.2	97.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	96.7	89.8	91.2	84.8	90.2	91.7	84.8
1979 .....	93.8	87.4	87.6	86.7	90.5	91.7	86.4
1980 .....	73.6	71.9	69.0	82.7	76.5	74.9	82.1
1981 .....	79.0	66.9	67.1	66.5	69.6	70.6	66.1
1982 .....	74.6	58.2	57.3	61.5	61.7	61.8	61.1
1983 .....	79.5	58.4	58.7	57.3	58.7	59.1	57.2
1984 <sup>1</sup> .....	90.9	60.0	59.4	62.5	58.8	57.8	62.3
Average annual percent change:							
1947-84 .....	3.1	-4	-5	.3	-3	-5	.3
1979-84 .....	( <sup>2</sup> )	-7.3	-7.1	-7.7	-8.4	-8.6	-7.7

<sup>1</sup> Preliminary.

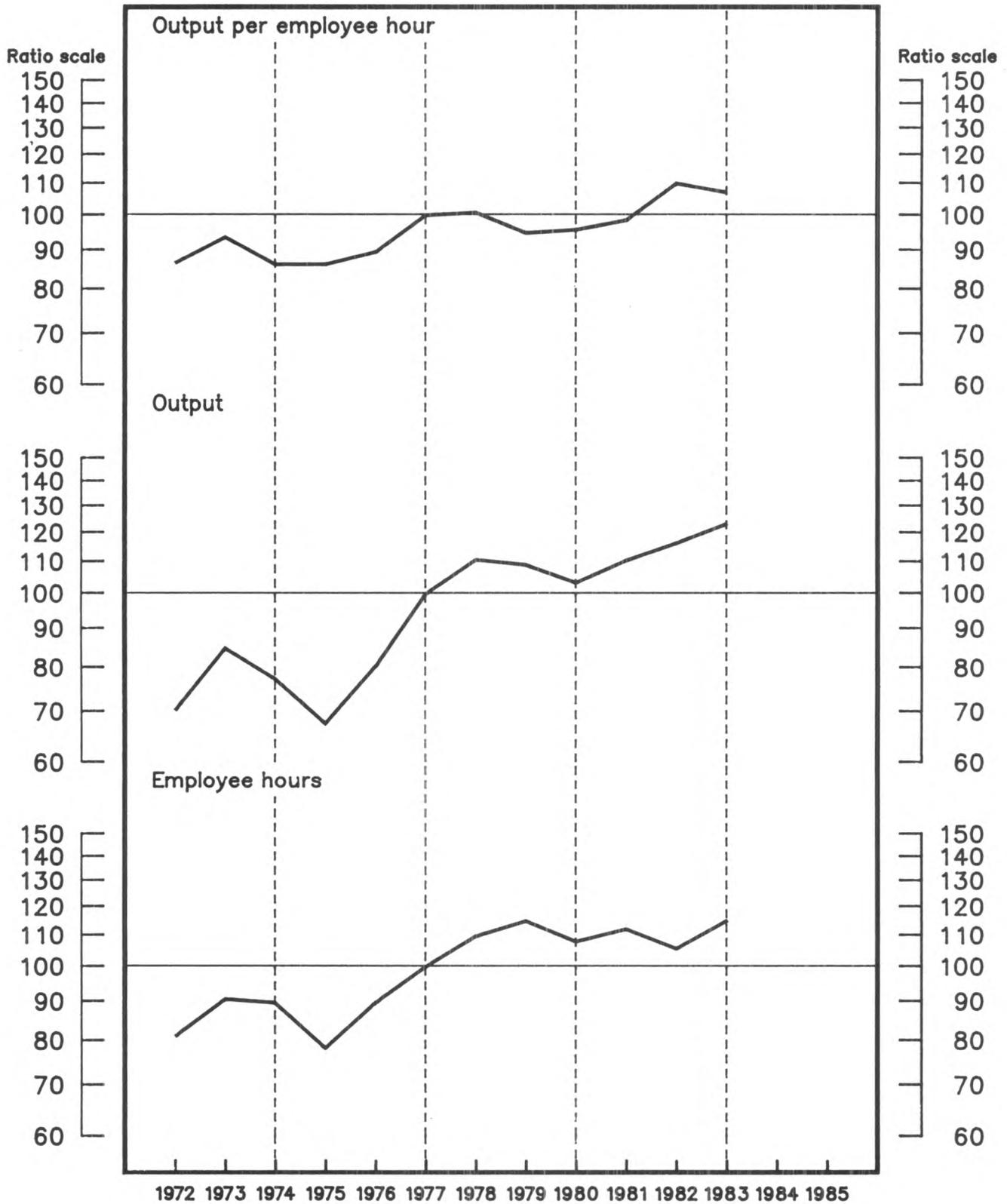
<sup>2</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Rubber Manufacturers Association and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 60. Miscellaneous plastics products (SIC 3079): Output per hour and related data, 1972-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 117. Miscellaneous plastics products (SIC 3079): Indexes of output per employee hour and output per employee, 1972-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972 .....	86.6	85.4	91.7	86.8	85.8	90.5
1973 .....	93.6	92.4	98.5	93.3	92.2	98.3
1974 .....	86.2	86.4	85.3	85.0	84.9	85.8
1975 .....	86.2	89.1	76.6	85.1	87.6	77.0
1976 .....	89.5	90.3	86.5	89.1	89.8	86.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.8	100.5	102.0	101.0	100.7	102.0
1979 .....	94.8	94.7	95.0	94.4	94.2	95.0
1980 .....	95.7	97.3	90.1	94.8	96.1	90.1
1981 .....	98.5	99.5	94.5	97.9	98.7	94.5
1982 .....	110.1	113.0	100.3	108.0	110.2	100.3
1983 <sup>2</sup> .....	107.1	107.6	105.2	108.5	109.4	105.2
Average annual percent change:						
1972-83 .....	1.9	2.1	1.2	1.9	2.1	1.3
1979-83 .....	3.9	4.1	3.2	4.2	4.5	3.2

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Table 118. Miscellaneous plastics products (SIC 3079): Indexes of output, employee hours, and employees, 1972-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972 .....	70.3	81.2	82.3	76.7	81.0	81.9	77.7
1973 .....	84.9	90.7	91.9	86.2	91.0	92.1	86.4
1974 .....	77.3	89.7	89.5	90.6	90.9	91.1	90.1
1975 .....	67.6	78.4	75.9	88.2	79.4	77.2	87.8
1976 .....	80.4	89.8	89.0	92.9	90.2	89.5	92.8
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	110.7	109.8	110.1	108.5	109.6	109.9	108.5
1979 .....	109.0	115.0	115.1	114.7	115.5	115.7	114.7
1980 .....	103.4	108.0	106.3	114.7	109.1	107.6	114.7
1981 .....	110.5	112.2	111.0	116.9	112.9	111.9	116.9
1982 .....	116.4	105.7	103.0	116.1	107.8	105.6	116.1
1983 <sup>1</sup> .....	123.3	115.1	114.6	117.2	113.6	112.7	117.2
Average annual percent change:							
1972-83 .....	5.3	3.3	3.1	4.0	3.3	3.1	3.9
1979-83 .....	3.7	-2	-4	.6	-5	-7	.6

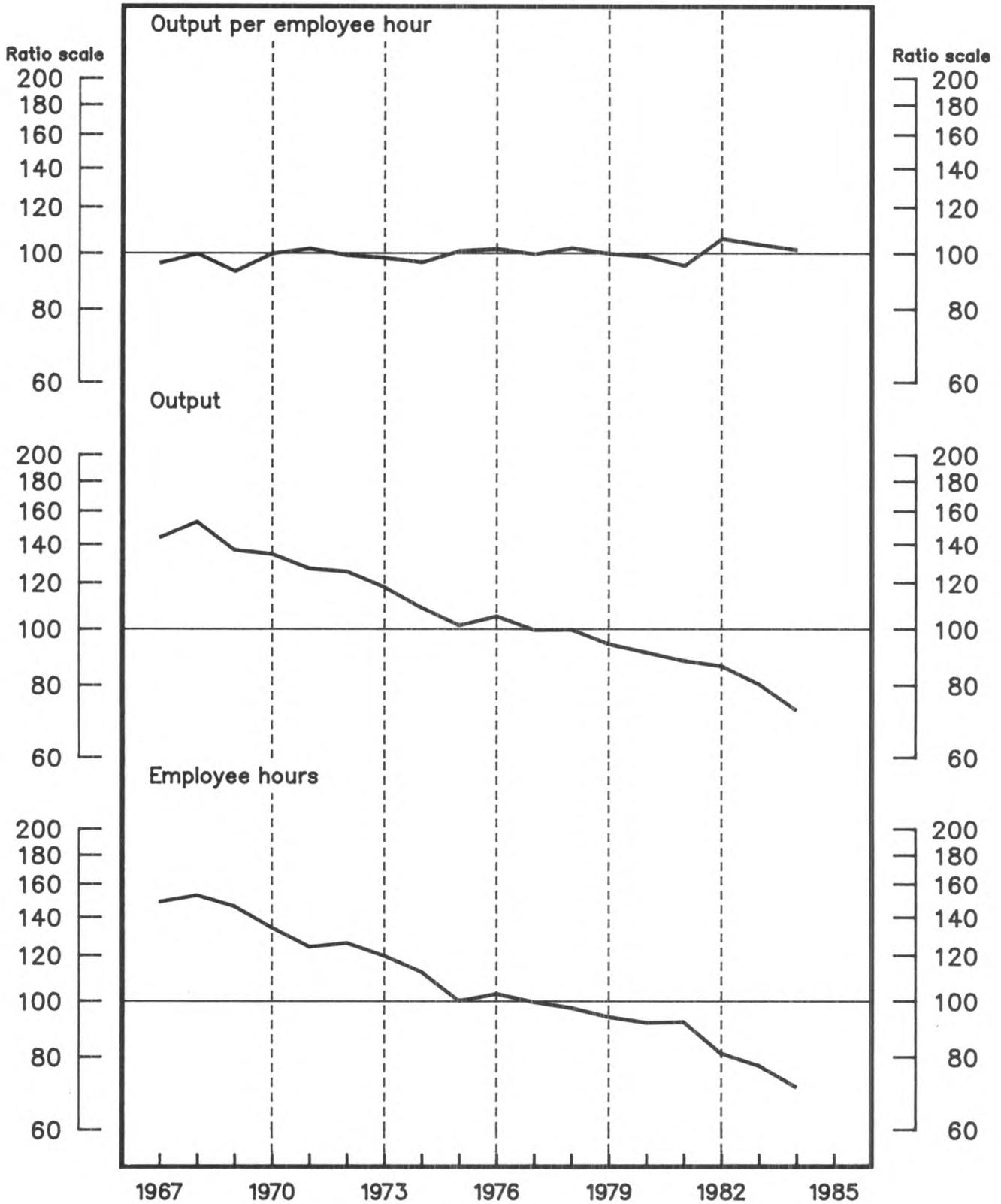
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 61. Footwear (SIC 314): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 119. Footwear (SIC 314): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	90.3	89.1	100.0	90.6	89.3	102.3
1959 .....	94.9	93.0	110.5	97.2	95.5	113.0
1960 .....	93.8	92.5	104.2	94.6	93.3	106.0
1961 .....	94.2	92.8	105.5	94.6	93.2	106.1
1962 .....	95.3	93.3	112.1	96.8	95.0	112.7
1963 .....	98.7	96.5	118.7	100.6	98.6	119.3
1964 .....	98.4	95.9	121.3	102.2	100.1	122.3
1965 .....	97.9	95.5	119.5	101.1	99.0	120.2
1966 .....	99.0	96.8	118.9	102.8	101.1	119.0
1967 .....	96.5	94.4	116.9	99.7	97.8	117.0
1968 .....	100.1	97.8	122.0	104.1	102.2	122.2
1969 .....	93.4	92.0	105.7	95.2	93.9	106.9
1970 .....	100.3	99.3	107.9	102.6	101.5	110.6
1971 .....	102.2	101.9	105.0	104.6	104.1	108.1
1972 .....	99.5	99.0	103.7	104.1	103.6	106.9
1973 .....	98.5	98.3	99.7	101.5	101.2	103.1
1974 .....	96.8	97.6	90.8	98.0	98.5	94.1
1975 .....	101.3	101.6	98.3	101.8	101.9	100.7
1976 .....	102.1	102.0	102.4	102.7	102.5	104.3
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.5	101.9	106.8	101.3	100.6	106.7
1979 .....	100.2	101.0	94.8	99.4	99.9	95.1
1980 .....	99.1	100.2	92.0	98.6	99.3	92.5
1981 .....	95.6	96.1	92.1	96.4	96.9	92.4
1982 .....	106.3	107.3	98.4	103.7	104.3	98.7
1983 .....	103.9	104.7	98.2	103.5	104.1	98.2
1984 <sup>2</sup> .....	101.8	102.7	95.4	101.1	101.8	95.7
Average annual percent change:						
1947-84 .....	.8	1.0	( <sup>3</sup> )	.8	.9	( <sup>3</sup> )
1979-84 .....	.9	.9	.8	.9	.9	.8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 120. Footwear (SIC 314): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	141.2	156.4	158.5	141.2	155.9	158.2	138.0
1959 .....	155.2	163.5	166.8	140.5	159.6	162.5	137.3
1960 .....	148.0	157.8	160.0	142.0	156.4	158.6	139.6
1961 .....	148.6	157.8	160.2	140.9	157.0	159.4	140.0
1962 .....	151.4	158.8	162.2	135.0	156.4	159.4	134.3
1963 .....	147.1	149.0	152.4	123.9	146.2	149.2	123.3
1964 .....	150.0	152.4	156.4	123.7	146.7	149.8	122.6
1965 .....	151.3	154.6	158.5	126.6	149.7	152.9	125.9
1966 .....	155.2	156.7	160.3	130.5	151.0	153.5	130.4
1967 .....	144.5	149.7	153.1	123.6	144.9	147.7	123.5
1968 .....	153.8	153.7	157.3	126.1	147.7	150.5	125.9
1969 .....	137.3	147.0	149.3	129.9	144.2	146.2	128.4
1970 .....	135.1	134.7	136.0	125.2	131.7	133.1	122.2
1971 .....	127.5	124.7	125.1	121.4	121.9	122.5	117.9
1972 .....	126.0	126.6	127.3	121.5	121.0	121.6	117.9
1973 .....	118.4	120.2	120.4	118.8	116.7	117.0	114.8
1974 .....	109.1	112.7	111.8	120.1	111.3	110.8	116.0
1975 .....	101.9	100.6	100.3	103.7	100.1	100.0	101.2
1976 .....	105.6	103.4	103.5	103.1	102.8	103.0	101.2
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.1	97.7	98.2	93.7	98.8	99.5	93.8
1979 .....	94.5	94.3	93.6	99.7	95.1	94.6	99.4
1980 .....	91.4	92.2	91.2	99.3	92.7	92.0	98.8
1981 .....	88.4	92.5	92.0	96.0	91.7	91.2	95.7
1982 .....	86.6	81.5	80.7	88.0	83.5	83.0	87.7
1983 .....	80.6	77.6	77.0	82.1	77.9	77.4	82.1
1984 <sup>1</sup> .....	72.6	71.3	70.7	76.1	71.8	71.3	75.9
Average annual percent change:							
1947-84 .....	-1.2	-2.1	-2.2	-1.3	-2.1	-2.2	-1.3
1979-84 .....	-4.8	-5.7	-5.7	-5.6	-5.6	-5.6	-5.5

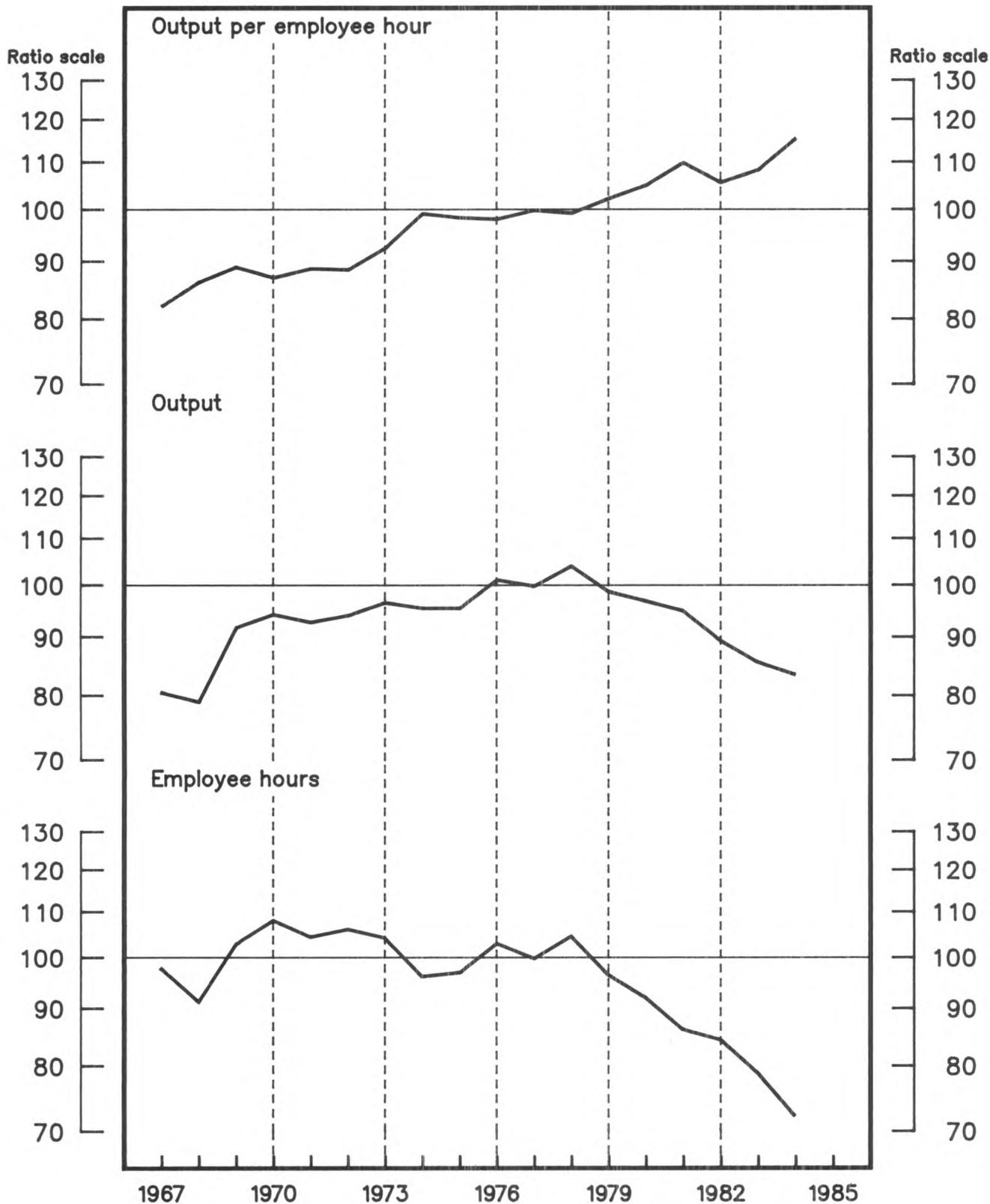
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 62. Glass container (SIC 3221): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 121. Glass containers (SIC 3221): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	64.8	64.2	68.6	67.3	67.1	68.8
1959 .....	68.8	67.9	75.6	70.3	69.8	75.7
1960 .....	67.1	66.3	73.5	69.6	69.2	73.5
1961 .....	68.4	67.3	76.7	70.4	69.7	76.4
1962 .....	70.9	70.0	77.6	73.6	73.1	77.4
1963 .....	73.5	72.3	82.5	76.2	75.4	82.2
1964 .....	75.5	74.4	84.0	78.9	78.4	84.2
1965 .....	80.3	79.2	88.8	82.7	82.1	88.5
1966 .....	80.2	79.0	90.0	83.2	82.4	89.4
1967 .....	82.3	81.1	93.0	85.6	84.8	91.6
1968 .....	86.4	86.4	87.4	87.6	87.7	87.5
1969 .....	89.1	88.7	92.5	91.0	90.5	95.3
1970 .....	87.2	86.4	92.6	90.0	89.0	97.9
1971 .....	88.8	88.7	89.0	91.1	90.9	92.9
1972 .....	88.6	88.3	90.8	91.5	91.3	93.1
1973 .....	92.6	92.5	93.2	93.7	93.7	93.3
1974 .....	99.3	98.8	102.8	100.1	100.1	100.4
1975 .....	98.5	98.5	98.1	96.7	96.7	96.8
1976 .....	98.2	97.7	102.6	100.6	100.3	102.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	99.4	99.0	102.9	101.4	101.2	103.0
1979 .....	102.4	102.2	103.5	103.5	103.3	103.9
1980 .....	105.2	105.9	100.2	106.5	107.3	100.6
1981 .....	110.1	111.0	103.6	110.3	111.4	103.8
1982 .....	105.8	106.3	101.7	107.2	108.0	101.7
1983 .....	108.5	109.2	103.4	110.3	111.3	103.1
1984 <sup>2</sup> .....	115.6	115.8	113.9	118.1	118.7	113.7
Average annual percent change:						
1947-84 .....	1.9	1.9	1.2	1.7	1.8	1.2
1979-84 .....	1.9	1.9	1.6	2.1	2.2	1.5

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 122. Glass containers (SIC 3221): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	52.2	80.6	81.3	76.1	77.6	77.8	75.9
1959 .....	55.9	81.3	82.3	73.9	79.5	80.1	73.8
1960 .....	57.6	85.8	86.9	78.4	82.7	83.2	78.4
1961 .....	59.8	87.4	88.8	78.0	85.0	85.8	78.3
1962 .....	62.4	88.0	89.1	80.4	84.8	85.4	80.6
1963 .....	64.5	87.8	89.2	78.2	84.7	85.6	78.5
1964 .....	67.4	89.3	90.6	80.2	85.4	86.0	80.0
1965 .....	71.9	89.5	90.8	81.0	86.9	87.6	81.2
1966 .....	75.7	94.4	95.8	84.1	91.0	91.9	84.7
1967 .....	80.6	97.9	99.4	86.7	94.2	95.0	88.0
1968 .....	79.1	91.5	91.6	90.5	90.3	90.2	90.4
1969 .....	91.9	103.1	103.6	99.4	101.0	101.6	96.4
1970 .....	94.4	108.3	109.2	101.9	104.9	106.1	96.4
1971 .....	92.9	104.6	104.7	104.4	102.0	102.2	100.0
1972 .....	94.2	106.3	106.7	103.8	103.0	103.2	101.2
1973 .....	96.7	104.4	104.5	103.8	103.2	103.2	103.6
1974 .....	95.6	96.3	96.8	93.0	95.5	95.5	95.2
1975 .....	95.6	97.1	97.1	97.5	98.9	98.9	98.8
1976 .....	101.3	103.2	103.7	98.7	100.7	101.0	98.8
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	104.2	104.8	105.2	101.3	102.8	103.0	101.2
1979 .....	98.9	96.6	96.8	95.6	95.6	95.7	95.2
1980 .....	97.0	92.2	91.6	96.8	91.1	90.4	96.4
1981 .....	95.1	86.4	85.7	91.8	86.2	85.4	91.6
1982 .....	89.5	84.6	84.2	88.0	83.5	82.9	88.0
1983 .....	85.7	79.0	78.5	82.9	77.7	77.0	83.1
1984 <sup>1</sup> .....	83.6	72.3	72.2	73.4	70.8	70.4	73.5
Average annual percent change:							
1947-84 .....	2.8	.9	.8	1.6	1.1	1.0	1.6
1979-84 .....	-3.6	-5.4	-5.4	-5.1	-5.6	-5.7	-5.0

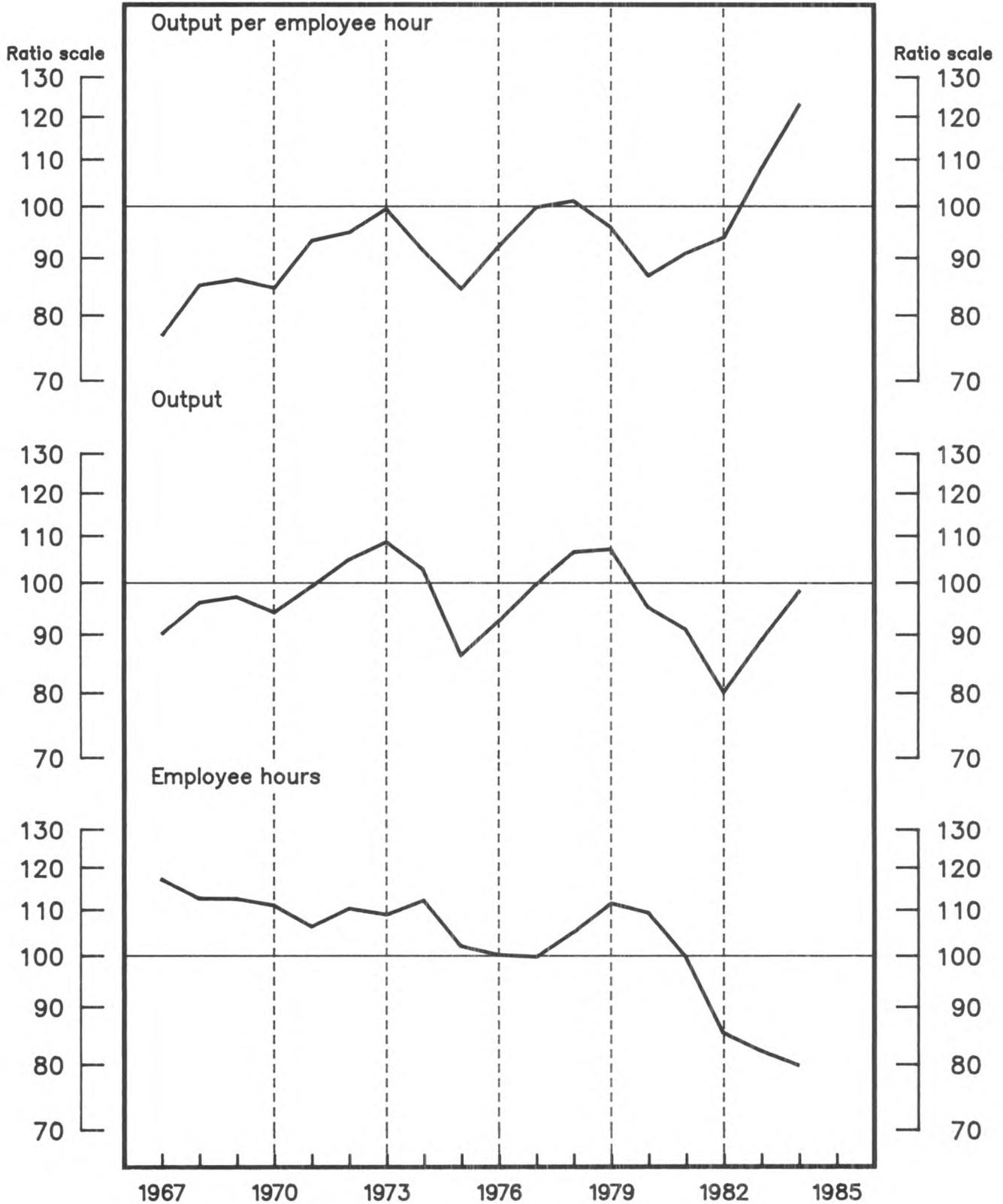
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 63. Hydraulic cement (SIC 3241): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 123. Hydraulic cement (SIC 3241): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
<b>Index:</b>						
1958 .....	52.1	49.4	68.3	52.6	49.6	68.5
1959 .....	55.9	52.5	77.6	57.2	53.6	77.8
1960 .....	55.3	52.5	72.5	55.9	52.9	72.7
1961 .....	61.2	58.4	76.7	61.2	58.2	76.5
1962 .....	64.9	62.2	79.9	65.0	62.1	80.0
1963 .....	68.7	66.7	79.3	69.3	67.2	79.3
1964 .....	71.0	70.1	75.7	72.6	71.8	76.0
1965 .....	73.2	72.3	77.3	73.7	72.8	77.3
1966 .....	76.7	76.1	80.1	78.2	77.7	79.6
1967 .....	76.9	76.4	79.1	77.0	76.5	79.0
1968 .....	85.3	84.2	90.3	86.9	85.8	91.4
1969 .....	86.3	85.5	90.6	89.0	87.8	94.1
1970 .....	84.8	85.0	84.1	86.9	86.3	89.6
1971 .....	93.4	93.3	95.0	96.1	95.2	99.5
1972 .....	95.0	93.9	100.4	97.4	96.1	103.2
1973 .....	99.7	98.7	104.9	102.0	101.1	105.2
1974 .....	91.5	90.5	96.5	92.3	91.7	94.5
1975 .....	84.7	85.3	82.7	83.9	84.3	82.2
1976 .....	92.4	93.3	89.4	91.8	92.3	89.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	101.3	101.0	102.8	103.4	103.4	103.0
1979 .....	96.0	94.9	100.7	98.1	97.2	101.8
1980 .....	87.0	87.4	84.9	87.1	87.4	86.1
1981 .....	91.1	92.1	87.0	90.1	90.6	87.9
1982 .....	94.0	97.8	81.1	90.8	93.5	81.9
1983 .....	108.4	112.6	93.7	107.5	111.3	94.4
1984 <sup>2</sup> .....	123.2	129.1	103.5	121.3	126.6	104.2
<b>Average annual percent change:</b>						
1947-84 .....	3.3	3.6	1.5	3.1	3.5	1.5
1979-84 .....	5.7	7.0	1.0	5.0	6.1	.9

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 124. Hydraulic cement (SIC 3241): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
<b>Index:</b>							
1958 .....	77.7	149.0	157.2	113.7	147.8	156.7	113.4
1959 .....	84.6	151.4	161.1	109.0	147.9	157.9	108.8
1960 .....	79.2	143.2	150.9	109.2	141.6	149.8	109.0
1961 .....	80.0	130.8	137.0	104.3	130.8	137.5	104.6
1962 .....	83.1	128.1	133.7	104.0	127.8	133.8	103.9
1963 .....	86.9	126.4	130.3	109.6	125.4	129.3	109.6
1964 .....	90.5	127.4	129.1	119.5	124.6	126.0	119.1
1965 .....	91.5	125.0	126.5	118.4	124.2	125.7	118.4
1966 .....	94.3	122.9	123.9	117.8	120.6	121.3	118.4
1967 .....	90.3	117.5	118.2	114.2	117.2	118.1	114.3
1968 .....	96.3	112.9	114.4	106.6	110.8	112.2	105.4
1969 .....	97.4	112.8	113.9	107.5	109.4	110.9	103.5
1970 .....	94.4	111.3	111.0	112.2	108.6	109.4	105.4
1971 .....	99.5	106.5	106.7	104.7	103.5	104.5	100.0
1972 .....	105.1	110.6	111.9	104.7	107.9	109.4	101.8
1973 .....	108.9	109.2	110.3	103.8	106.8	107.7	103.5
1974 .....	102.9	112.5	113.7	106.6	111.5	112.2	108.9
1975 .....	86.6	102.2	101.5	104.7	103.2	102.7	105.4
1976 .....	92.8	100.4	99.5	103.8	101.1	100.5	103.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	106.7	105.3	105.6	103.8	103.2	103.2	103.6
1979 .....	107.3	111.8	113.1	106.6	109.4	110.4	105.4
1980 .....	95.3	109.6	109.0	112.3	109.4	109.0	110.7
1981 .....	91.1	100.0	98.9	104.7	101.1	100.5	103.6
1982 .....	80.4	85.5	82.2	99.1	88.5	86.0	98.2
1983 .....	89.3	82.4	79.3	95.3	83.1	80.2	94.6
1984 <sup>1</sup> .....	98.6	80.0	76.4	95.3	81.3	77.9	94.6
<b>Average annual percent change:</b>							
1947-84 .....	1.5	-1.8	-2.1	(?)	-1.6	-1.9	(?)
1979-84 .....	-2.1	-7.4	-8.5	-3.1	-6.7	-7.7	-3.0

<sup>1</sup> Preliminary.

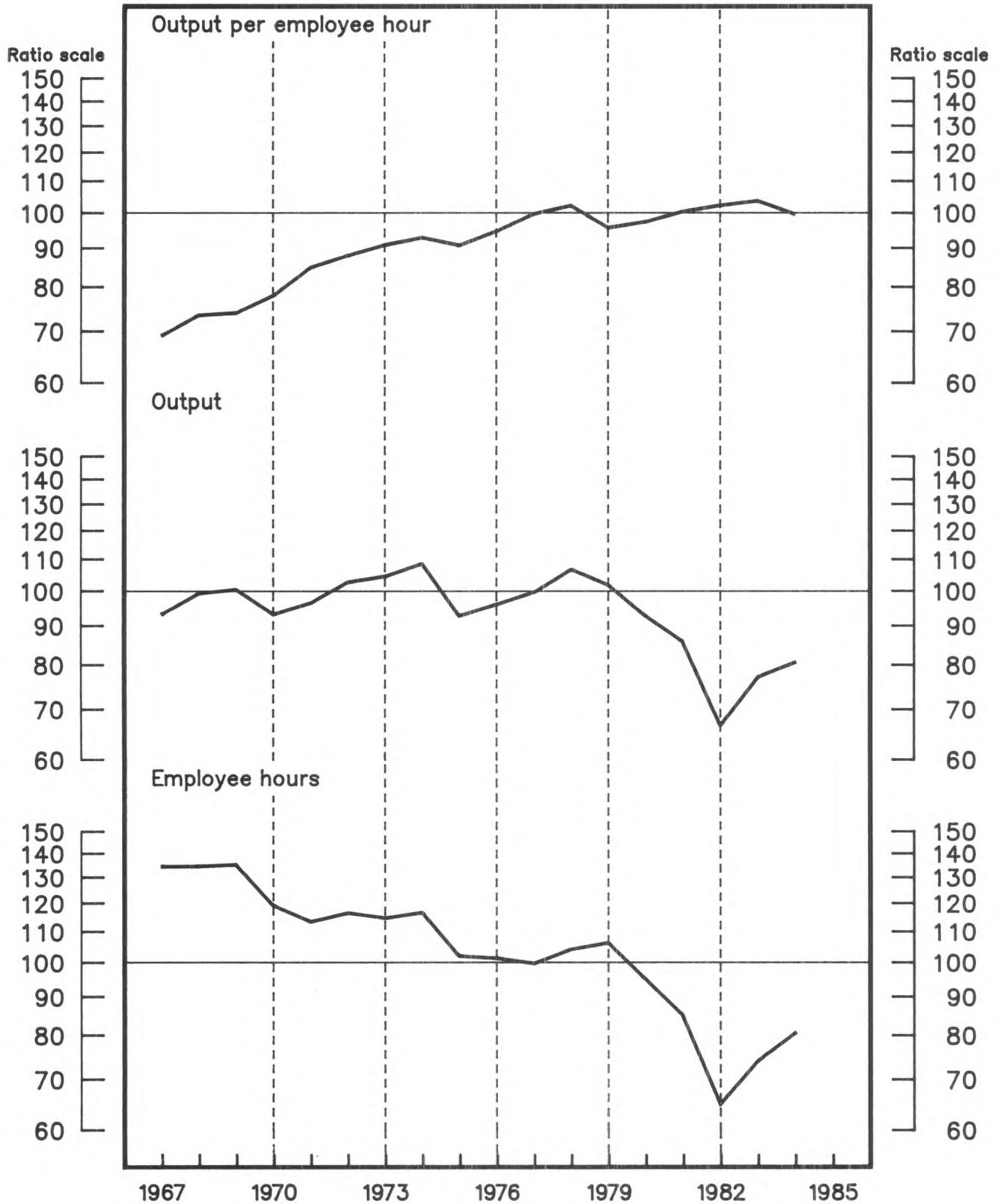
<sup>2</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 64. Structural clay products (SIC 325): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 125. Structural clay products (SIC 325): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	52.4	50.2	65.1	51.8	49.4	64.8
1959 .....	56.4	53.5	73.6	56.4	53.4	73.3
1960 .....	57.9	55.2	73.9	57.0	54.2	73.5
1961 .....	59.9	57.0	77.7	59.0	55.9	76.8
1962 .....	64.6	61.3	84.3	64.3	60.9	83.6
1963 .....	62.1	59.5	76.8	62.8	60.3	76.2
1964 .....	66.3	64.2	78.0	69.0	67.1	77.6
1965 .....	67.5	64.9	82.6	68.7	66.3	81.7
1966 .....	68.8	66.1	84.1	70.3	67.8	83.1
1967 .....	69.3	67.7	77.3	69.8	68.4	76.4
1968 .....	73.7	72.4	80.3	74.9	73.7	80.6
1969 .....	74.2	73.2	79.3	75.9	74.7	81.6
1970 .....	78.2	79.7	71.8	79.9	80.9	75.6
1971 .....	85.1	87.0	77.6	87.1	88.6	80.6
1972 .....	88.2	87.3	92.4	89.7	88.8	94.2
1973 .....	91.1	88.5	104.9	91.9	89.3	104.9
1974 .....	93.1	91.2	102.1	94.0	92.8	99.6
1975 .....	91.0	92.0	86.7	90.0	91.1	85.1
1976 .....	94.9	96.1	89.3	93.0	93.9	89.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.5	100.8	111.2	103.9	102.4	111.0
1979 .....	95.9	96.3	94.1	94.3	94.2	94.5
1980 .....	97.6	101.0	84.6	96.7	99.8	85.0
1981 .....	100.7	102.9	92.3	99.4	101.2	92.6
1982 .....	102.6	106.7	87.6	101.1	104.9	87.6
1983 .....	104.0	108.1	89.0	106.8	112.0	88.9
1984 <sup>2</sup> .....	99.9	101.3	94.3	103.7	106.2	94.2
Average annual percent change:						
1958-84 .....	2.7	3.0	1.1	2.7	3.1	1.1
1979-84 .....	1.2	1.4	.3	2.3	2.8	.2

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 126. Structural clay products (SIC 325): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	80.8	154.1	160.9	124.1	156.1	163.4	124.7
1959 .....	94.9	168.4	177.3	128.9	168.4	177.6	129.5
1960 .....	95.2	164.5	172.4	128.9	166.9	175.7	129.5
1961 .....	94.9	158.4	166.6	122.1	160.9	169.7	123.6
1962 .....	100.4	155.5	163.7	119.1	156.2	164.8	120.1
1963 .....	90.5	145.7	152.1	117.8	144.0	150.0	118.8
1964 .....	99.6	150.2	155.2	127.7	144.4	148.4	128.3
1965 .....	101.9	150.9	156.9	123.3	148.3	153.8	124.7
1966 .....	101.7	147.8	153.9	120.9	144.7	150.0	122.4
1967 .....	93.5	135.0	138.1	120.9	133.9	136.6	122.4
1968 .....	99.6	135.1	137.6	124.1	132.9	135.2	123.6
1969 .....	100.8	135.8	137.7	127.1	132.8	135.0	123.6
1970 .....	93.5	119.6	117.3	130.2	117.0	115.6	123.6
1971 .....	96.8	113.8	111.3	124.7	111.2	109.3	120.1
1972 .....	103.1	116.9	118.1	111.6	114.9	116.1	109.4
1973 .....	104.9	115.1	118.5	100.0	114.2	117.5	100.0
1974 .....	109.0	117.1	119.5	106.8	115.9	117.5	109.4
1975 .....	93.1	102.3	101.2	107.4	103.5	102.2	109.4
1976 .....	96.4	101.6	100.3	108.0	103.7	102.7	108.3
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	107.1	104.5	106.3	96.3	103.1	104.6	96.5
1979 .....	102.2	106.6	106.1	108.6	108.4	108.5	108.2
1980 .....	93.0	95.3	92.1	109.9	96.2	93.2	109.4
1981 .....	86.0	85.4	83.6	93.2	86.5	85.0	92.9
1982 .....	67.0	65.3	62.8	76.5	66.3	63.9	76.5
1983 .....	77.4	74.4	71.6	87.0	72.5	69.1	87.1
1984 <sup>1</sup> .....	80.9	81.0	79.9	85.8	78.0	76.2	85.9
Average annual percent change:							
1958-84 .....	-4	-3.0	-3.3	-1.5	-3.0	-3.3	-1.5
1979-84 .....	-5.5	-6.6	-6.8	-5.8	-7.6	-8.1	-5.6

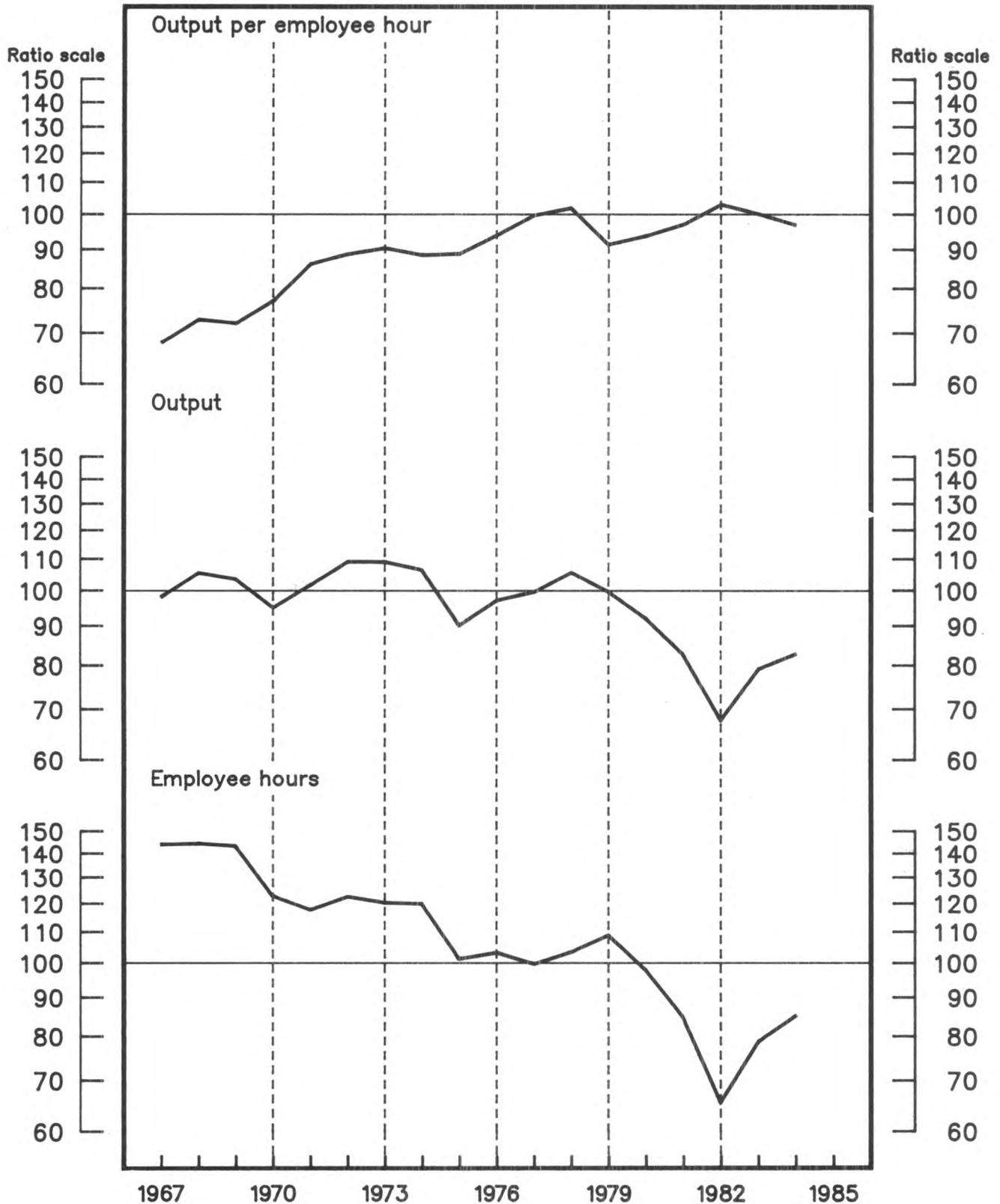
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 65. Clay construction products (SIC 3251, 3253, 3259): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 127. Clay construction products (SIC 3251, 3253, 3259): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	52.0	50.1	64.4	52.0	49.9	64.5
1959 .....	55.5	53.5	68.1	56.6	54.7	68.1
1960 .....	57.5	55.7	68.8	57.8	56.0	68.5
1961 .....	59.0	56.9	72.8	59.3	57.1	72.2
1962 .....	63.7	61.3	79.3	64.8	62.3	79.1
1963 .....	60.9	58.8	73.5	62.2	60.3	73.0
1964 .....	65.1	63.6	74.0	68.3	67.3	73.8
1965 .....	66.6	64.6	78.5	68.1	66.4	78.2
1966 .....	67.3	65.2	80.7	69.5	67.7	80.0
1967 .....	68.2	66.9	75.4	69.7	68.6	74.7
1968 .....	73.1	71.6	81.0	75.0	73.8	81.5
1969 .....	72.3	71.2	78.5	74.9	73.7	80.9
1970 .....	77.4	78.3	73.0	79.6	80.1	77.2
1971 .....	86.4	87.2	82.5	89.3	90.2	86.2
1972 .....	89.0	87.5	96.7	91.2	89.6	99.5
1973 .....	90.6	88.3	104.0	91.5	89.2	104.2
1974 .....	88.7	87.4	96.6	90.2	89.4	94.2
1975 .....	89.1	89.9	86.0	89.5	90.5	84.8
1976 .....	94.2	95.1	90.3	93.0	93.8	89.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.2	100.4	111.9	103.2	101.6	111.6
1979 .....	91.6	92.3	87.7	91.8	92.7	88.3
1980 .....	94.0	96.9	82.2	94.3	97.2	82.6
1981 .....	97.3	99.8	86.7	96.3	98.5	87.3
1982 .....	103.3	106.6	90.3	103.2	106.4	90.8
1983 .....	100.4	104.1	85.4	104.1	109.2	85.1
1984 <sup>2</sup> .....	97.1	99.4	86.8	101.2	104.9	87.4
Average annual percent change:						
1958-84 .....	2.7	2.9	1.2	2.6	2.9	1.2
1979-84 .....	1.6	1.9	.3	2.5	3.0	.2

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.  
SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 128. Clay construction products (SIC 3251, 3253, 3259): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

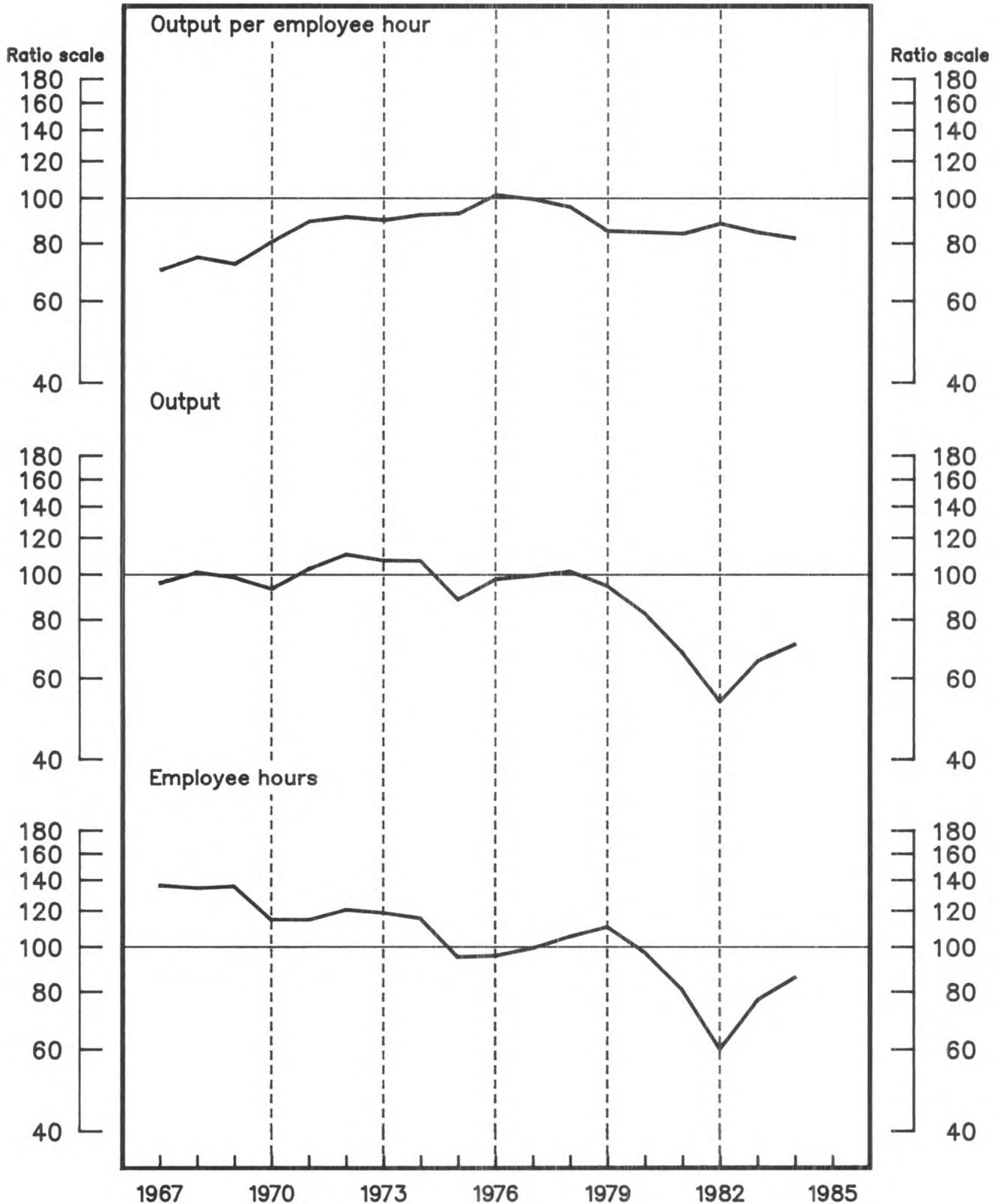
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	89.3	171.7	178.4	138.6	171.6	178.8	138.5
1959 .....	104.5	188.2	195.3	153.5	184.6	191.2	153.5
1960 .....	105.1	182.7	188.8	152.7	181.8	187.7	153.5
1961 .....	104.8	177.5	184.2	143.9	176.7	183.4	145.1
1962 .....	112.1	175.9	182.8	141.3	173.1	179.8	141.8
1963 .....	98.6	162.0	167.6	134.2	158.6	163.6	135.0
1964 .....	108.4	166.5	170.4	146.5	158.6	161.1	146.8
1965 .....	109.5	164.3	169.4	139.5	160.7	165.0	140.1
1966 .....	106.8	158.7	163.9	132.4	153.6	157.8	133.5
1967 .....	98.5	144.5	147.3	130.7	141.4	143.5	131.8
1968 .....	105.9	144.9	147.9	130.7	141.2	143.5	130.0
1969 .....	103.9	143.8	145.9	132.4	138.8	140.9	128.5
1970 .....	95.4	123.3	121.8	130.7	119.8	119.1	123.5
1971 .....	102.1	118.2	117.1	123.7	114.3	113.2	118.4
1972 .....	109.5	123.1	125.2	113.2	120.1	122.2	110.0
1973 .....	109.4	120.8	123.9	105.2	119.5	122.7	105.0
1974 .....	106.8	120.4	122.2	110.6	118.4	119.4	113.4
1975 .....	90.5	101.6	100.7	105.2	101.1	100.0	106.7
1976 .....	97.5	103.5	102.5	108.0	104.8	103.9	108.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	106.0	103.7	105.6	94.7	102.7	104.3	95.0
1979 .....	100.0	109.2	108.3	114.0	108.9	107.9	113.3
1980 .....	92.3	98.2	95.3	112.3	97.9	95.0	111.7
1981 .....	82.9	85.2	83.1	95.6	86.1	84.2	95.0
1982 .....	68.1	65.9	63.9	75.4	66.0	64.0	75.0
1983 .....	79.4	79.1	76.3	93.0	76.3	72.7	93.3
1984 <sup>1</sup> .....	83.0	85.5	83.5	95.6	82.0	79.1	95.0
Average annual percent change:							
1958-84 .....	-9	-3.4	-3.7	-2.1	-3.4	-3.7	-2.1
1979-84 .....	-4.4	-5.9	-6.2	-4.7	-6.7	-7.2	-4.6

<sup>1</sup> Preliminary.  
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 66. Brick and structural clay tile (SIC 3251): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 129. Brick and structural clay tile (SIC 3251): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	55.4	52.9	73.8	56.6	54.1	73.3
1959 .....	59.3	56.2	82.8	60.9	57.9	82.5
1960 .....	62.9	60.5	79.1	62.9	60.6	78.3
1961 .....	64.6	61.3	88.8	64.7	61.4	87.3
1962 .....	69.2	65.8	94.2	70.5	67.3	92.7
1963 .....	63.3	60.6	82.5	65.3	62.8	81.8
1964 .....	68.7	66.2	85.9	72.0	69.9	85.6
1965 .....	70.5	67.7	89.8	72.6	70.1	88.2
1966 .....	71.4	68.3	92.8	74.4	71.7	91.0
1967 .....	70.3	68.5	81.8	71.8	70.4	80.3
1968 .....	75.0	73.1	87.3	76.5	74.8	86.7
1969 .....	72.5	71.0	80.9	75.4	74.2	82.5
1970 .....	81.1	81.1	81.5	82.4	81.7	86.3
1971 .....	89.6	90.2	87.7	92.5	93.1	90.5
1972 .....	91.5	89.5	103.4	94.5	92.6	105.0
1973 .....	90.1	88.1	103.1	91.9	90.3	101.8
1974 .....	92.5	90.6	104.6	94.2	92.9	101.7
1975 .....	93.1	93.2	93.2	93.5	94.0	91.6
1976 .....	102.2	103.6	96.8	99.6	100.8	95.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	96.2	94.6	105.3	96.9	95.3	105.1
1979 .....	85.4	87.6	75.8	85.0	87.3	75.6
1980 .....	84.9	90.4	64.6	84.3	89.8	64.5
1981 .....	84.3	88.3	68.5	82.6	86.3	68.5
1982 .....	88.6	92.9	72.1	88.2	92.4	72.4
1983 .....	84.9	91.1	62.9	87.5	95.5	62.2
1984 <sup>2</sup> .....	82.4	87.2	64.6	86.0	92.5	64.0
Average annual percent change:						
1958-84 .....	1.8	2.2	-5	1.7	2.1	-5
1979-84 .....	-4	.1	-2.3	.7	1.6	-2.5

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 130. Brick and structural clay tile (SIC 3251): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	85.9	155.1	162.5	116.4	151.8	158.8	117.2
1959 .....	101.4	170.9	180.3	122.4	166.4	175.2	122.9
1960 .....	105.1	167.2	173.8	132.9	167.0	173.4	134.3
1961 .....	107.3	166.1	174.9	120.9	165.9	174.7	122.9
1962 .....	113.9	164.7	173.2	120.9	161.6	169.3	122.9
1963 .....	91.2	144.0	150.6	110.5	139.6	145.2	111.5
1964 .....	102.7	149.5	155.2	119.5	142.6	147.0	120.0
1965 .....	105.9	150.2	156.5	117.9	145.9	151.1	120.0
1966 .....	106.7	149.5	156.2	115.0	143.5	148.8	117.2
1967 .....	96.4	137.2	140.8	117.9	134.2	137.0	120.0
1968 .....	101.6	135.4	139.0	116.4	132.8	135.8	117.2
1969 .....	99.0	136.6	139.4	122.4	131.3	133.4	120.0
1970 .....	93.7	115.5	115.5	115.0	113.7	114.7	108.6
1971 .....	103.4	115.4	114.6	117.9	111.8	111.1	114.3
1972 .....	111.1	121.4	124.1	107.4	117.6	120.0	105.8
1973 .....	107.7	119.5	122.3	104.5	117.2	119.3	105.8
1974 .....	107.6	116.3	118.7	102.9	114.2	115.8	105.8
1975 .....	89.0	95.6	95.5	95.5	95.2	94.7	97.2
1976 .....	98.3	96.2	94.9	101.5	98.7	97.5	102.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.1	106.1	107.9	97.0	105.4	107.1	97.1
1979 .....	95.0	111.3	108.5	125.4	111.7	108.8	125.7
1980 .....	83.0	97.8	91.8	128.4	98.5	92.4	128.6
1981 .....	68.5	81.3	77.6	100.0	82.9	79.4	100.0
1982 .....	53.8	60.7	57.9	74.6	61.0	58.2	74.3
1983 .....	65.7	77.4	72.1	104.5	75.1	68.8	105.7
1984 <sup>1</sup> .....	71.3	86.5	81.8	110.4	82.9	77.1	111.4
Average annual percent change:							
1958-84 .....	-1.4	-3.1	-3.5	-8	-3.0	-3.4	-9
1979-84 .....	-6.6	-6.2	-6.7	-4.3	-7.2	-8.0	-4.2

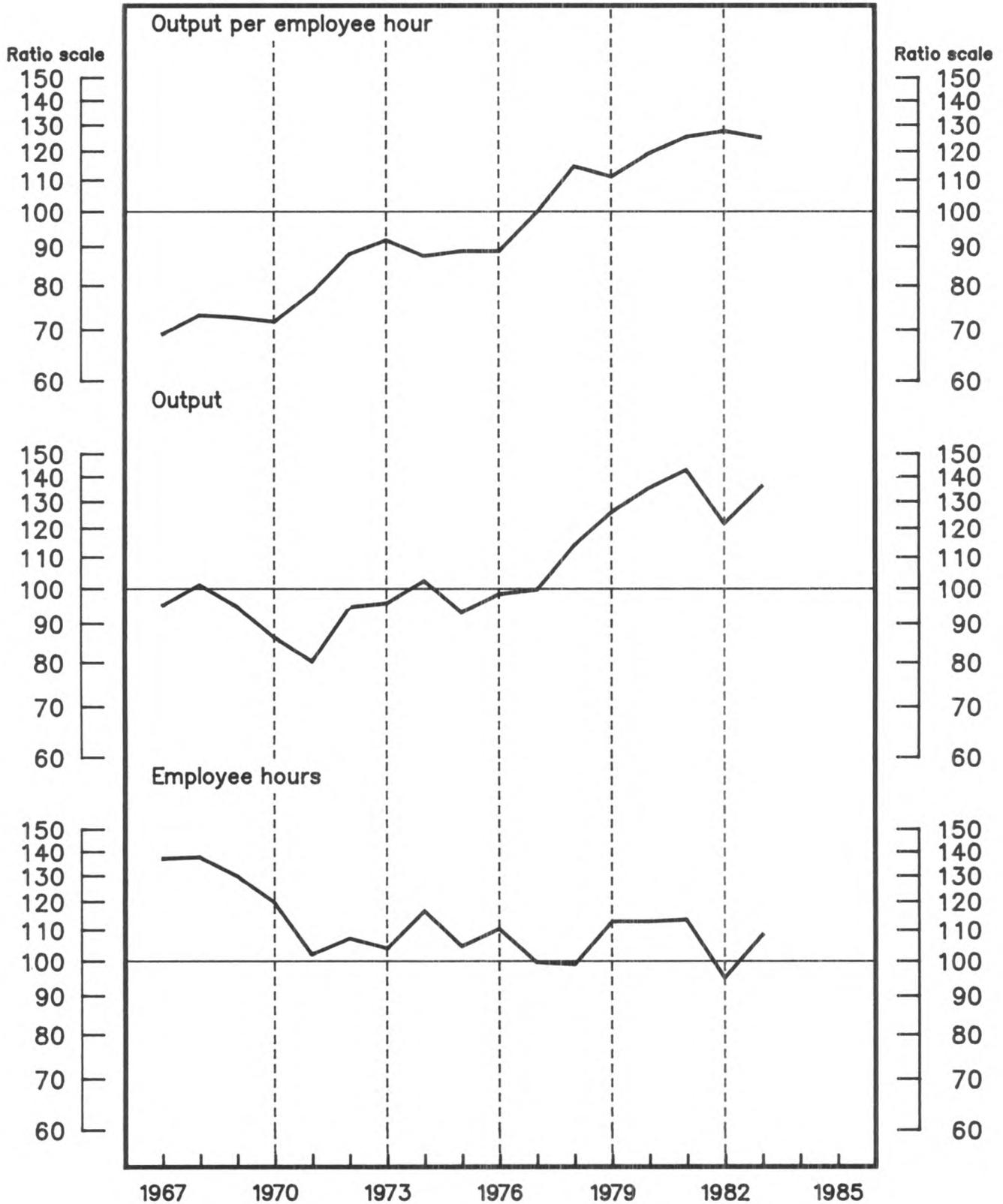
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 67. Ceramic wall and floor tile (SIC 3253): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 131. Ceramic wall and floor tile (SIC 3253): Indexes of output per employee hour and output per employee, 1958-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	49.6	48.2	56.8	49.0	47.5	56.0
1959 .....	53.9	53.3	56.8	54.1	53.8	55.5
1960 .....	52.4	52.2	53.3	53.0	53.2	52.1
1961 .....	55.8	56.4	52.7	55.2	56.1	51.4
1962 .....	61.4	60.7	64.3	61.6	61.4	62.6
1963 .....	60.2	59.5	63.0	59.5	59.1	61.0
1964 .....	62.8	63.2	60.7	63.5	64.6	59.2
1965 .....	64.1	63.5	66.8	64.2	64.1	64.8
1966 .....	64.9	63.9	69.2	65.9	65.6	66.7
1967 .....	69.3	69.3	69.1	70.1	70.6	68.0
1968 .....	73.4	74.3	70.1	74.7	76.1	69.1
1969 .....	72.9	73.3	70.7	73.4	74.0	71.3
1970 .....	72.0	74.4	62.9	74.4	76.9	65.0
1971 .....	78.6	78.8	77.9	79.6	79.3	80.6
1972 .....	88.2	86.7	94.9	89.2	87.9	94.9
1973 .....	92.0	89.7	103.1	91.3	88.9	102.8
1974 .....	87.7	87.1	90.3	87.2	87.5	85.7
1975 .....	89.0	91.4	79.8	87.9	90.6	77.9
1976 .....	89.0	88.9	89.5	88.5	88.8	87.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	115.2	111.9	132.8	117.6	114.5	132.1
1979 .....	111.6	108.7	126.5	113.5	110.7	128.5
1980 .....	119.8	116.8	135.9	121.9	118.9	135.9
1981 .....	125.9	124.1	134.2	125.8	123.8	134.5
1982 .....	128.1	127.3	131.4	127.1	126.3	131.1
1983 <sup>2</sup> .....	125.5	121.5	146.8	130.1	126.7	146.5
Average annual percent change:						
1958-83 .....	3.9	3.9	4.2	3.9	3.9	4.3
1979-83 .....	3.1	3.1	2.7	3.2	3.4	2.6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 132. Ceramic wall and floor tile (SIC 3253): Indexes of output, employee hours, and employees, 1958-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	82.2	165.6	170.4	144.8	167.9	173.0	146.8
1959 .....	99.9	185.3	187.6	175.9	184.5	185.7	180.1
1960 .....	93.8	179.0	179.8	175.9	176.9	176.2	180.1
1961 .....	89.1	159.8	157.9	169.0	161.5	158.7	173.4
1962 .....	104.3	170.0	171.9	162.1	169.2	169.9	166.7
1963 .....	97.7	162.4	164.1	155.2	164.1	165.2	160.1
1964 .....	106.7	170.0	168.8	175.9	167.9	165.2	180.1
1965 .....	103.7	161.8	163.4	155.2	161.5	161.9	160.1
1966 .....	97.9	150.9	153.2	141.4	148.6	149.3	146.8
1967 .....	95.3	137.6	137.6	137.9	135.9	135.0	140.1
1968 .....	101.5	138.2	136.7	144.8	135.9	133.3	146.8
1969 .....	95.1	130.5	129.7	134.5	129.5	128.6	133.3
1970 .....	86.7	120.4	116.5	137.9	116.6	112.7	133.3
1971 .....	80.6	102.5	102.3	103.4	101.2	101.6	100.0
1972 .....	94.9	107.6	109.4	100.0	106.4	108.0	100.0
1973 .....	96.0	104.4	107.0	93.1	105.2	108.0	93.4
1974 .....	102.8	117.2	118.0	113.8	117.9	117.5	120.0
1975 .....	93.5	105.1	102.3	117.2	106.4	103.2	120.0
1976 .....	98.7	110.9	111.0	110.3	111.5	111.2	113.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	114.5	99.4	102.3	86.2	97.4	100.0	86.7
1979 .....	126.5	113.4	116.4	100.0	111.5	114.3	100.0
1980 .....	135.9	113.4	116.4	100.0	111.5	114.3	100.0
1981 .....	143.5	114.0	115.6	106.9	114.1	115.9	106.7
1982 .....	122.3	95.5	96.1	93.1	96.2	96.8	93.3
1983 <sup>1</sup> .....	136.7	108.9	112.5	93.1	105.1	107.9	93.3
Average annual percent change:							
1958-83 .....	1.3	-2.5	-2.4	-2.7	-2.5	-2.5	-2.8
1979-83 .....	.5	-2.5	-2.6	-2.1	-2.6	-2.8	-2.1

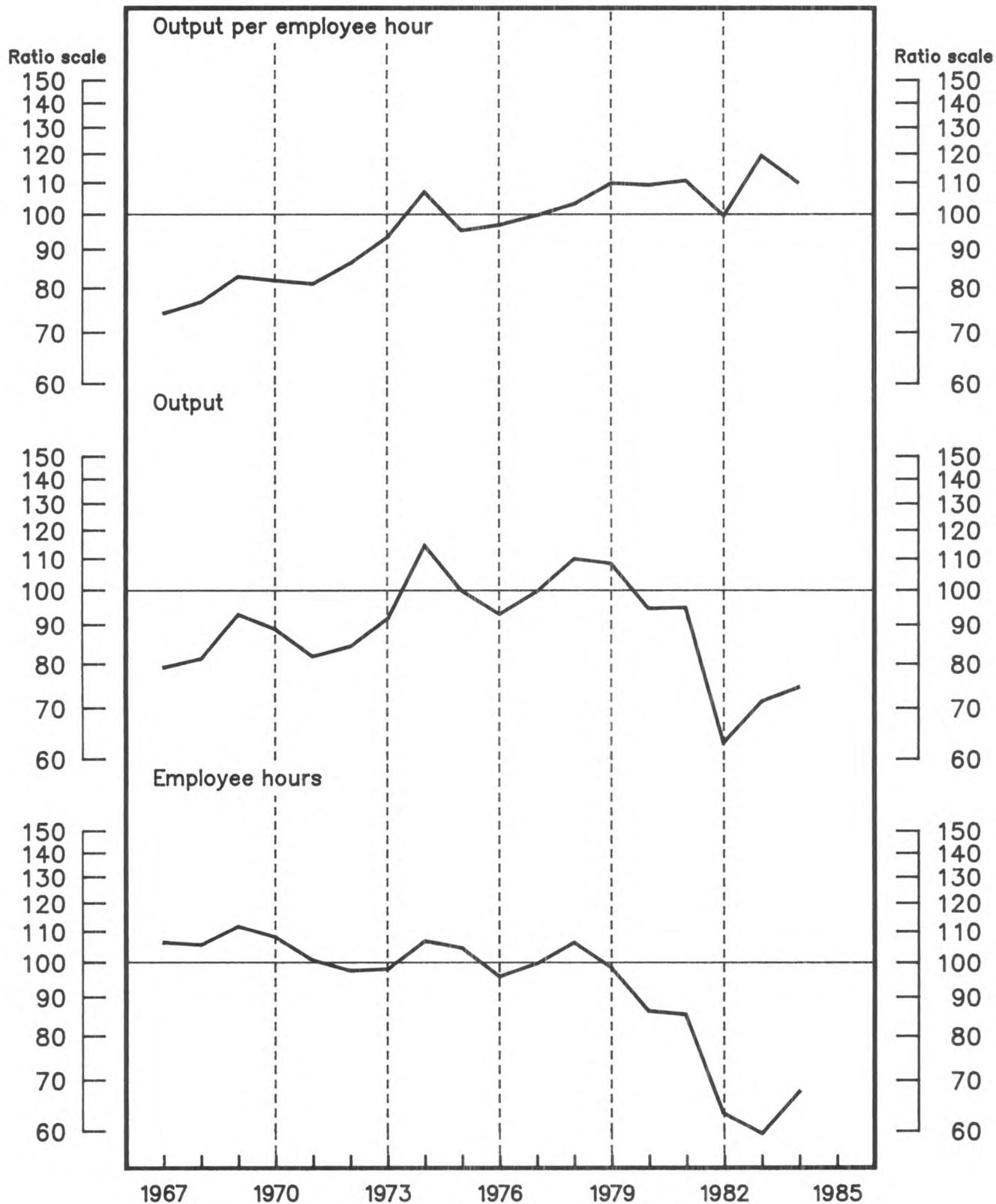
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 68. Clay refractories (SIC 3255): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 133. Clay refractories (SIC 3255): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	53.7	52.2	60.2	50.3	48.1	60.0
1959 .....	59.6	54.3	92.4	54.4	48.8	90.8
1960 .....	59.3	54.1	91.9	52.9	47.3	90.4
1961 .....	63.6	58.8	91.4	56.7	51.3	89.9
1962 .....	67.7	62.6	96.6	60.7	55.0	94.7
1963 .....	67.2	63.9	83.0	65.1	61.5	82.1
1964 .....	72.0	68.6	88.0	71.4	67.9	87.3
1965 .....	71.6	67.7	90.9	71.4	67.3	90.5
1966 .....	75.6	72.0	93.4	73.8	70.0	91.1
1967 .....	74.4	72.8	81.1	71.2	69.2	79.4
1968 .....	77.0	77.5	75.3	74.9	74.7	75.5
1969 .....	83.1	83.7	81.3	81.0	80.3	83.2
1970 .....	82.1	86.7	69.0	81.9	85.2	71.9
1971 .....	81.3	88.2	63.5	79.9	84.9	66.2
1972 .....	86.5	89.7	76.6	85.4	87.5	78.3
1973 .....	93.6	91.0	105.0	93.7	91.0	104.5
1974 .....	107.5	104.6	120.1	105.9	103.4	115.2
1975 .....	95.5	97.5	89.1	90.6	91.8	86.4
1976 .....	97.1	100.2	87.8	92.5	94.3	86.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	103.5	101.8	110.4	105.7	104.4	110.4
1979 .....	110.2	109.5	113.6	101.6	98.7	113.3
1980 .....	109.6	116.0	91.1	104.1	108.5	91.2
1981 .....	111.1	111.7	108.8	108.7	108.8	108.2
1982 .....	100.0	107.3	80.1	94.2	99.7	79.2
1983 .....	119.9	126.2	101.3	117.3	123.6	99.6
1984 <sup>2</sup> .....	110.2	108.9	115.8	112.7	111.6	116.9
Average annual percent change:						
1958-84 .....	2.8	3.3	1.0	3.0	3.5	1.0
1979-84 .....	.5	.5	.3	2.1	2.7	.3

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 134. Clay refractories (SIC 3255): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

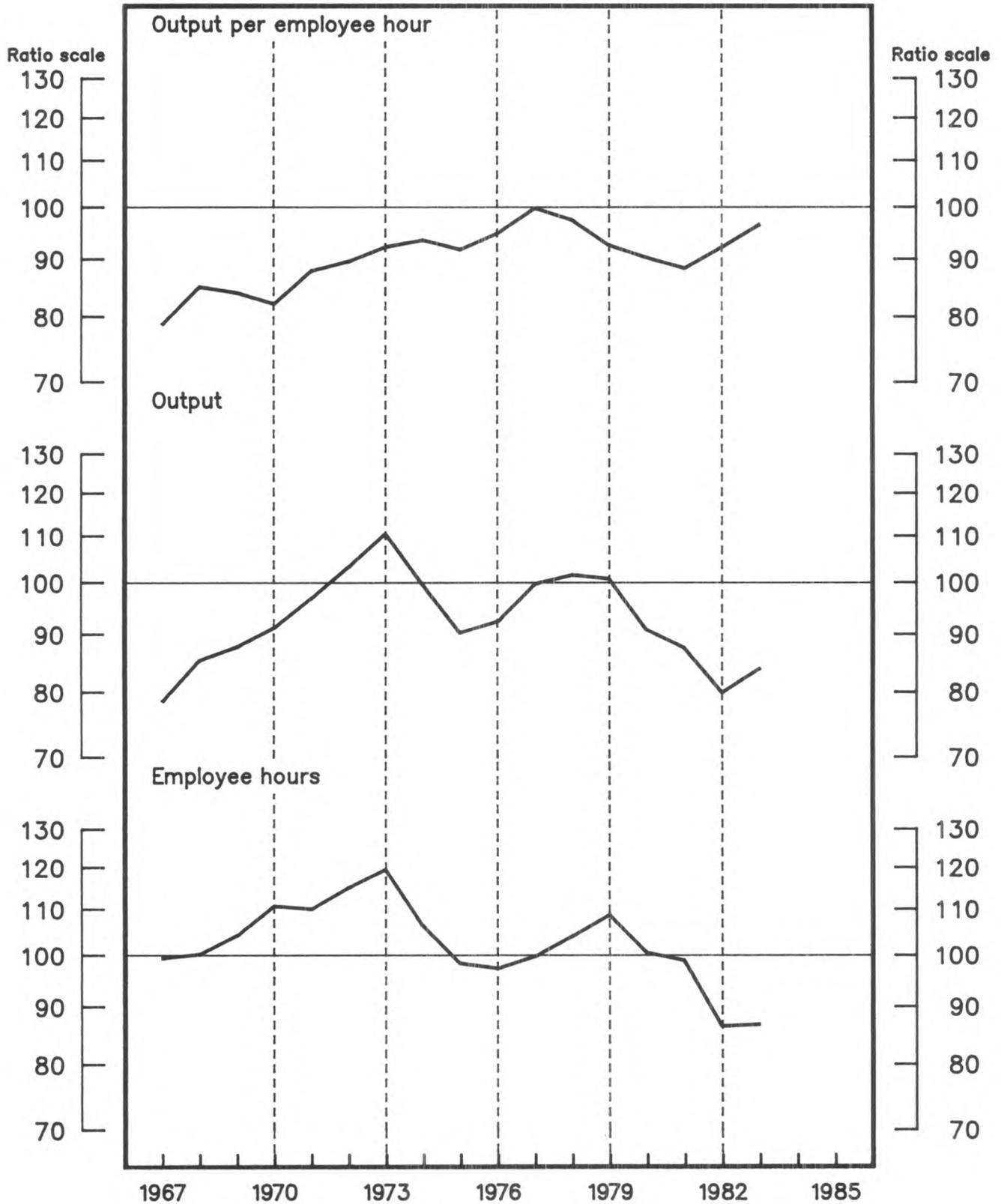
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	55.2	102.7	105.7	91.7	109.7	114.8	92.0
1959 .....	65.4	109.8	120.4	70.8	120.3	134.1	72.0
1960 .....	65.1	109.8	120.4	70.8	123.0	137.5	72.0
1961 .....	64.7	101.8	110.1	70.8	114.2	126.2	72.0
1962 .....	64.4	95.1	102.8	66.7	106.1	117.1	68.0
1963 .....	65.7	97.8	102.8	79.2	100.9	106.9	80.0
1964 .....	73.3	101.8	106.8	83.3	102.7	108.0	84.0
1965 .....	79.6	111.2	117.6	87.6	111.5	118.3	88.0
1966 .....	87.5	115.7	121.6	93.7	118.5	125.0	96.0
1967 .....	79.4	106.7	109.1	97.9	111.5	114.8	100.0
1968 .....	81.5	105.9	105.1	108.3	108.8	109.1	108.0
1969 .....	93.2	112.1	111.3	114.6	115.1	116.0	112.0
1970 .....	89.1	108.5	102.8	129.2	108.8	104.6	124.0
1971 .....	82.1	101.0	93.1	129.2	102.7	96.7	124.0
1972 .....	84.6	97.8	94.3	110.5	99.1	96.7	108.0
1973 .....	92.0	98.3	101.1	87.6	98.2	101.1	88.0
1974 .....	115.2	107.2	110.1	95.9	108.8	111.4	100.0
1975 .....	100.2	104.9	102.8	112.5	110.6	109.1	116.0
1976 .....	93.3	96.1	93.1	106.3	100.9	98.9	108.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	110.4	106.7	108.5	100.0	104.4	105.7	100.0
1979 .....	108.8	98.7	99.4	95.8	107.1	110.2	96.0
1980 .....	94.9	86.6	81.8	104.2	91.2	87.5	104.0
1981 .....	95.2	85.7	85.2	87.5	87.6	87.5	88.0
1982 .....	63.4	63.4	59.1	79.2	67.3	63.6	80.0
1983 .....	71.7	59.8	56.8	70.8	61.1	58.0	72.0
1984 <sup>1</sup> .....	74.8	67.9	68.7	64.6	66.4	67.0	64.0
Average annual percent change:							
1958-84 .....	1.4	-1.4	-1.8	.4	-1.6	-2.1	.4
1979-84 .....	-8.5	-9.0	-9.0	-8.8	-10.4	-10.9	-8.8

<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 69. Concrete products (SIC 3271, 3272): Output per hour and related data, 1967-83  
 (1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 135. Concrete products (SIC 3271, 3272): Indexes of output per employee hour and output per employee, 1958-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	59.1	58.0	64.5	60.0	58.5	64.5
1959 .....	60.2	57.1	74.6	63.1	59.9	74.4
1960 .....	57.6	54.5	72.4	62.2	59.4	72.1
1961 .....	58.7	55.8	72.1	63.5	61.2	71.5
1962 .....	59.8	56.7	74.6	65.2	62.6	74.2
1963 .....	64.8	63.1	73.1	68.4	67.2	72.7
1964 .....	68.7	67.2	75.6	72.9	72.0	75.5
1965 .....	71.3	69.6	80.0	74.4	72.8	79.4
1966 .....	75.7	75.2	80.1	77.5	76.9	79.2
1967 .....	78.9	75.6	91.0	81.1	78.4	90.0
1968 .....	85.2	81.9	96.9	88.3	85.6	97.3
1969 .....	84.2	81.5	93.9	88.8	86.3	96.9
1970 .....	82.3	79.6	92.1	86.9	83.7	97.5
1971 .....	88.0	86.1	94.4	90.2	87.7	98.6
1972 .....	89.7	87.9	95.4	91.9	90.1	97.7
1973 .....	92.4	90.4	98.6	95.0	93.9	98.8
1974 .....	93.7	91.1	102.9	94.9	93.1	100.2
1975 .....	91.9	92.4	90.0	91.5	92.4	88.7
1976 .....	95.0	94.6	96.0	96.5	96.6	95.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	97.6	97.5	98.1	97.4	97.2	98.0
1979 .....	92.7	93.1	91.4	93.0	93.5	91.7
1980 .....	90.4	93.5	82.0	90.5	93.5	82.6
1981 .....	88.5	91.4	80.7	88.7	91.6	81.0
1982 .....	92.4	95.0	85.4	91.8	94.1	85.5
1983 <sup>2</sup> .....	96.7	99.3	89.4	96.4	99.2	89.4
Average annual percent change:						
1947-83 .....	2.6	2.9	1.2	2.4	2.7	1.2
1979-83 .....	1.1	1.5	( <sup>3</sup> )	.9	1.3	-2

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 136. Concrete products (SIC 3271, 3272): Indexes of output, employee hours, and employees, 1958-83**  
(1977 = 100)

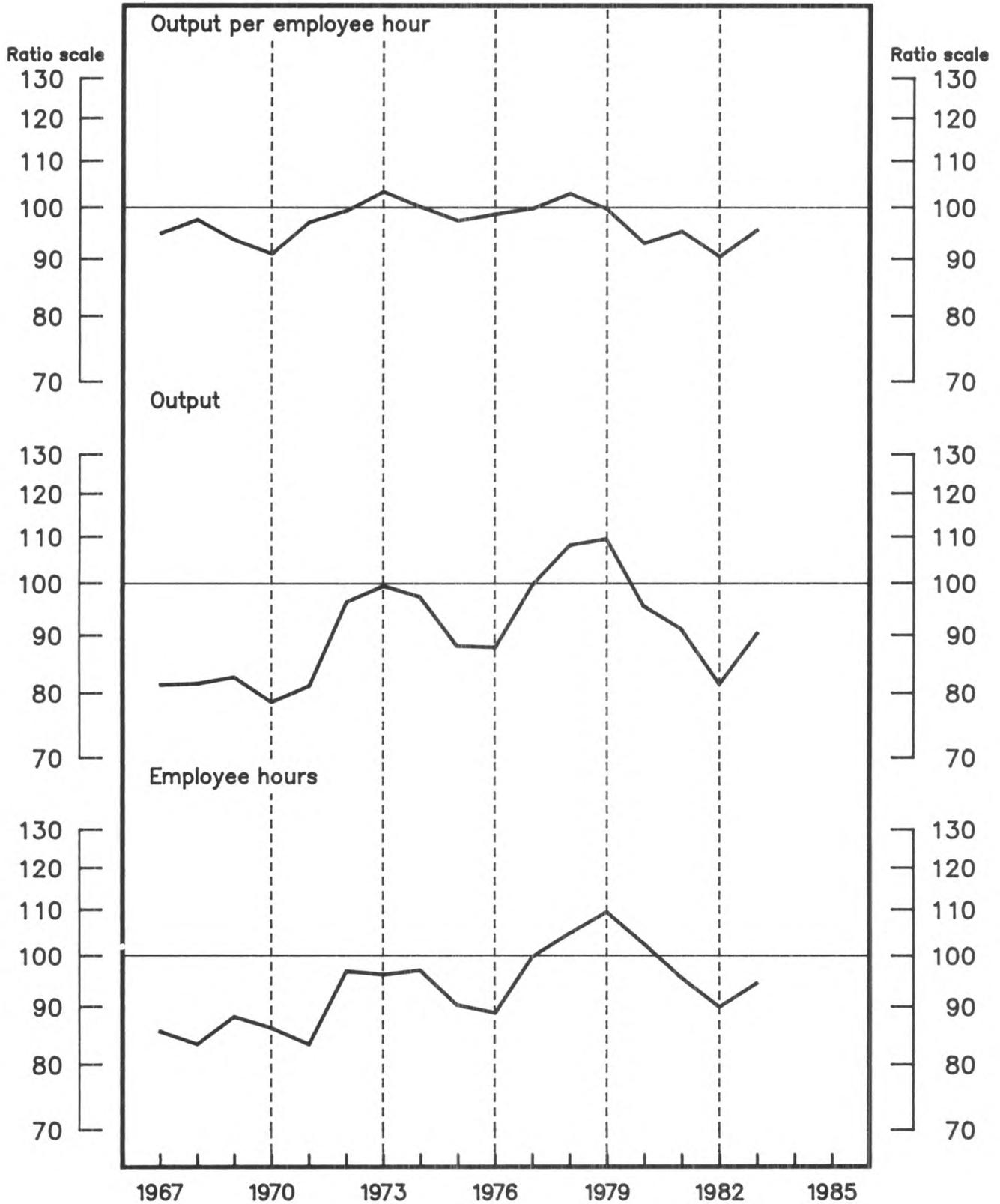
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	51.5	87.2	88.8	79.9	85.9	88.0	79.9
1959 .....	55.5	92.2	97.2	74.4	88.0	92.6	74.6
1960 .....	56.1	97.4	103.0	77.5	90.2	94.5	77.8
1961 .....	56.2	95.7	100.7	78.0	88.5	91.9	78.6
1962 .....	58.1	97.1	102.5	77.9	89.1	92.8	78.3
1963 .....	64.8	100.0	102.7	88.6	94.7	96.5	89.1
1964 .....	70.6	102.8	105.0	93.4	96.9	98.0	93.5
1965 .....	76.9	107.8	110.5	96.1	103.3	105.7	96.8
1966 .....	81.9	108.2	108.9	102.2	105.7	106.5	103.4
1967 .....	78.6	99.6	104.0	86.4	96.9	100.2	87.3
1968 .....	85.5	100.4	104.4	88.2	96.8	99.9	87.9
1969 .....	87.9	104.4	107.9	93.6	99.0	101.9	90.7
1970 .....	91.4	111.0	114.8	99.2	105.2	109.2	93.7
1971 .....	97.1	110.3	112.8	102.9	107.6	110.7	98.5
1972 .....	103.5	115.4	117.8	108.5	112.6	114.9	105.9
1973 .....	110.8	119.9	122.5	112.4	116.6	118.0	112.2
1974 .....	99.8	106.5	109.6	97.0	105.2	107.2	99.6
1975 .....	90.5	98.5	97.9	100.5	98.9	97.9	102.0
1976 .....	92.6	97.5	97.9	96.5	96.0	95.9	96.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	101.8	104.3	104.4	103.8	104.5	104.7	103.9
1979 .....	101.0	109.0	108.5	110.5	108.6	108.0	110.2
1980 .....	91.0	100.7	97.3	111.0	100.6	97.3	110.2
1981 .....	87.7	99.1	96.0	108.7	98.9	95.7	108.3
1982 .....	80.1	86.7	84.3	93.8	87.3	85.1	93.7
1983 <sup>1</sup> .....	84.1	87.0	84.7	94.1	87.2	84.8	94.1
Average annual percent change:							
1947-83 .....	3.5	.8	.5	2.2	1.1	.7	2.2
1979-83 .....	-4.8	-5.8	-6.2	-4.8	-5.6	-6.0	-4.7

<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 70. Ready-mixed concrete (SIC 3273): Output per hour and related data, 1967-83  
(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 137. Ready-mixed concrete (SIC 3273): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-83**  
(1977=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
<b>Index:</b>					
1958 .....	77.4	76.5	54.1	69.9	70.7
1959 .....	79.2	78.5	60.4	76.3	76.9
1960 .....	77.9	79.8	58.8	75.5	73.7
1961 .....	76.7	79.8	59.3	77.3	74.3
1962 .....	78.7	80.6	61.1	77.6	75.8
1963 .....	85.8	88.5	72.0	83.9	81.4
1964 .....	86.2	88.8	73.0	84.7	82.2
1965 .....	90.3	91.1	79.0	87.5	86.7
1966 .....	90.7	91.3	78.3	86.3	85.8
1967 .....	95.0	96.2	81.5	85.8	84.7
1968 .....	97.7	98.3	81.7	83.6	83.1
1969 .....	93.7	97.2	82.8	88.4	85.2
1970 .....	91.1	90.6	78.7	86.4	86.9
1971 .....	97.2	93.1	81.3	83.6	87.3
1972 .....	99.5	99.0	96.5	97.0	97.5
1973 .....	103.5	101.4	99.7	96.3	98.3
1974 .....	100.3	98.3	97.5	97.2	99.2
1975 .....	97.5	93.1	88.2	90.5	94.7
1976 .....	98.8	94.5	88.0	89.1	93.1
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	103.1	102.9	108.3	105.0	105.2
1979 .....	99.9	98.4	109.7	109.8	111.5
1980 .....	93.1	91.3	95.6	102.7	104.7
1981 .....	95.4	93.5	91.3	95.7	97.6
1982 .....	90.6	88.0	81.7	90.2	92.8
1983 <sup>1</sup> .....	95.7	95.1	90.6	94.7	95.3
<b>Average annual percent change:</b>					
1958-83 .....	.9	.8	2.2	1.2	1.4
1979-83 .....	-1.1	-1.0	-5.3	-4.2	-4.3

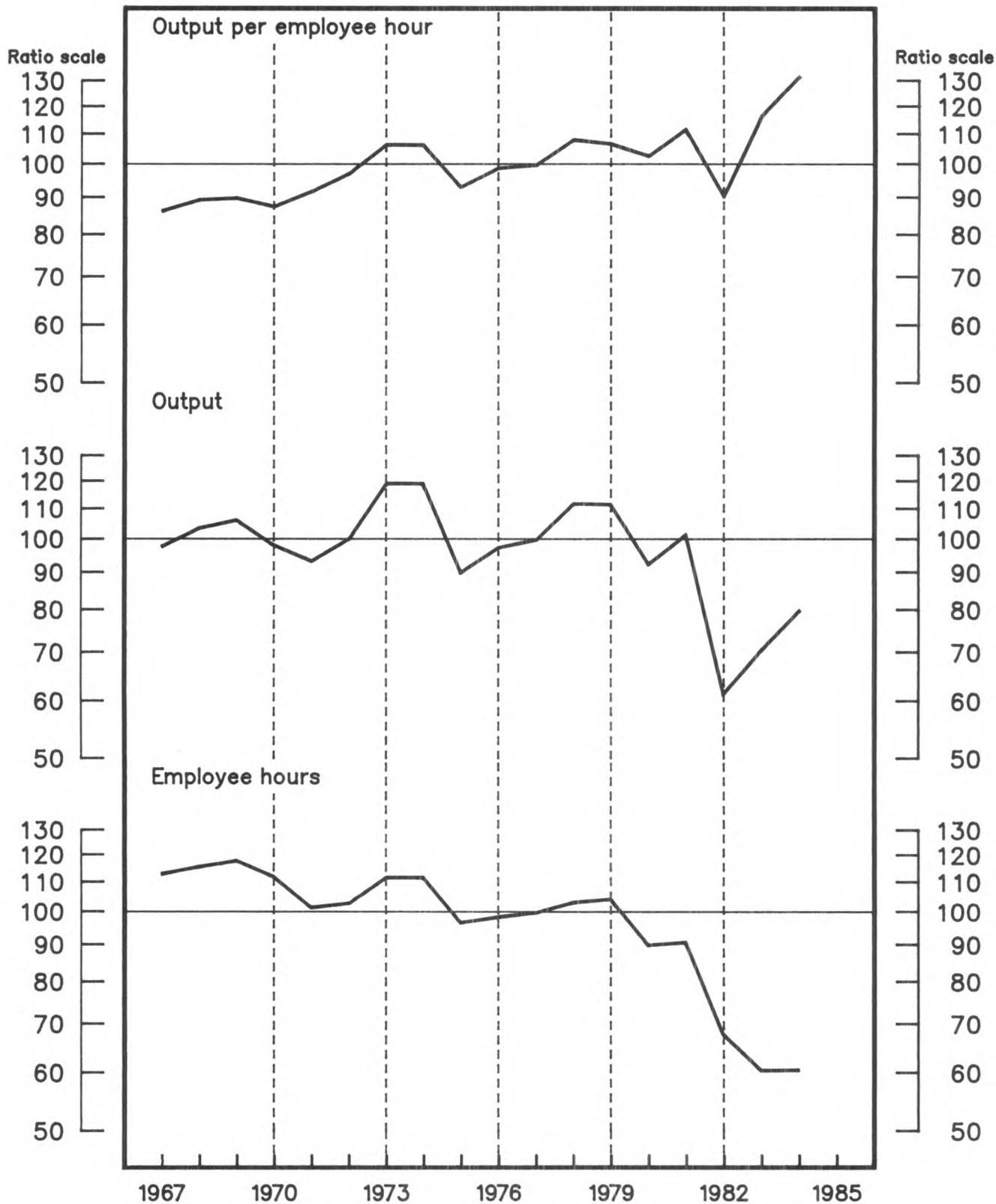
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census.

Chart 71. Steel (SIC 331): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 138. Steel (SIC 331): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	67.4	65.6	74.6	63.1	60.8	72.6
1959 .....	75.7	73.4	85.0	74.8	72.6	82.7
1960 .....	71.2	68.8	80.8	67.5	64.8	78.4
1961 .....	73.4	71.4	81.4	70.7	68.6	78.8
1962 .....	77.1	74.9	86.2	74.6	72.5	83.3
1963 .....	80.6	77.0	96.1	79.7	76.4	93.0
1964 .....	84.1	79.3	106.5	84.8	80.7	103.0
1965 .....	87.5	82.6	110.7	88.3	84.0	107.1
1966 .....	89.2	84.8	109.5	89.6	85.7	105.8
1967 .....	86.4	83.6	98.0	85.5	83.1	94.8
1968 .....	89.5	87.6	96.8	90.4	88.6	97.3
1969 .....	90.0	87.7	98.9	91.5	89.6	99.3
1970 .....	87.6	86.0	93.4	86.9	85.1	94.0
1971 .....	91.9	91.0	95.4	90.4	89.0	95.4
1972 .....	97.3	95.5	104.4	97.9	95.9	105.4
1973 .....	106.6	103.3	119.9	109.5	106.6	121.2
1974 .....	106.5	103.7	117.7	108.5	106.0	118.8
1975 .....	93.3	93.5	92.4	91.3	91.3	91.5
1976 .....	99.0	98.5	100.4	98.5	98.1	99.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	108.3	106.9	113.7	110.9	109.7	114.8
1979 .....	106.9	105.1	113.2	108.6	107.0	114.0
1980 .....	102.9	104.3	98.5	100.4	101.3	97.1
1981 .....	112.0	112.9	109.0	111.5	112.5	108.3
1982 .....	90.9	97.0	74.5	86.3	90.7	73.4
1983 .....	116.8	122.5	100.7	115.1	119.4	101.9
1984 <sup>2</sup> .....	132.0	134.6	123.0	133.1	135.1	126.3
Average annual percent change:						
1947-84 .....	1.7	2.1	.1	1.8	2.2	.2
1979-84 .....	3.6	4.6	.3	3.4	4.2	.8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the American Iron and Steel Institute; the Energy Information Administration, U.S. Department of Energy; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

**Table 139. Steel (SIC 331): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	68.4	101.5	104.2	91.7	108.4	112.5	94.2
1959 .....	79.1	104.5	107.8	93.1	105.8	109.0	95.7
1960 .....	79.3	111.4	115.2	98.2	117.4	122.3	101.1
1961 .....	75.9	103.4	106.3	93.3	107.3	110.6	96.3
1962 .....	79.8	103.5	106.6	92.6	106.9	110.1	95.8
1963 .....	84.7	105.1	110.0	88.1	106.3	110.8	91.1
1964 .....	96.2	114.4	121.3	90.3	113.4	119.2	93.4
1965 .....	104.6	119.6	126.7	94.5	118.4	124.5	97.7
1966 .....	105.3	118.0	124.2	96.2	117.5	122.9	99.5
1967 .....	97.9	113.3	117.1	99.9	114.5	117.8	103.3
1968 .....	103.7	115.9	118.4	107.1	114.7	117.1	106.6
1969 .....	106.3	118.1	121.2	107.5	116.2	118.7	107.0
1970 .....	98.3	112.2	114.3	105.2	113.1	115.5	104.6
1971 .....	93.5	101.7	102.8	98.0	103.4	105.1	98.0
1972 .....	100.3	103.1	105.0	96.1	102.5	104.6	95.2
1973 .....	119.4	112.0	115.6	99.6	109.0	112.0	98.5
1974 .....	119.3	112.0	115.0	101.4	110.0	112.6	100.4
1975 .....	90.3	96.8	96.6	97.7	98.9	98.9	98.7
1976 .....	97.6	98.6	99.1	97.2	99.1	99.5	97.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	112.0	103.4	104.8	98.5	101.0	102.1	97.6
1979 .....	111.7	104.5	106.3	98.7	102.9	104.4	98.0
1980 .....	92.7	90.1	88.9	94.1	92.3	91.5	95.5
1981 .....	101.8	90.9	90.2	93.4	91.3	90.5	94.0
1982 .....	61.7	67.9	63.6	82.8	71.5	68.0	84.1
1983 .....	70.8	60.6	57.8	70.3	61.5	59.3	69.5
1984 <sup>1</sup> .....	80.1	60.7	59.5	65.1	60.2	59.3	63.4
Average annual percent change:							
1947-84 .....	.6	-1.1	-1.5	.5	-1.2	-1.5	.4
1979-84 .....	-8.1	-11.3	-12.2	-8.4	-11.2	-11.9	-8.8

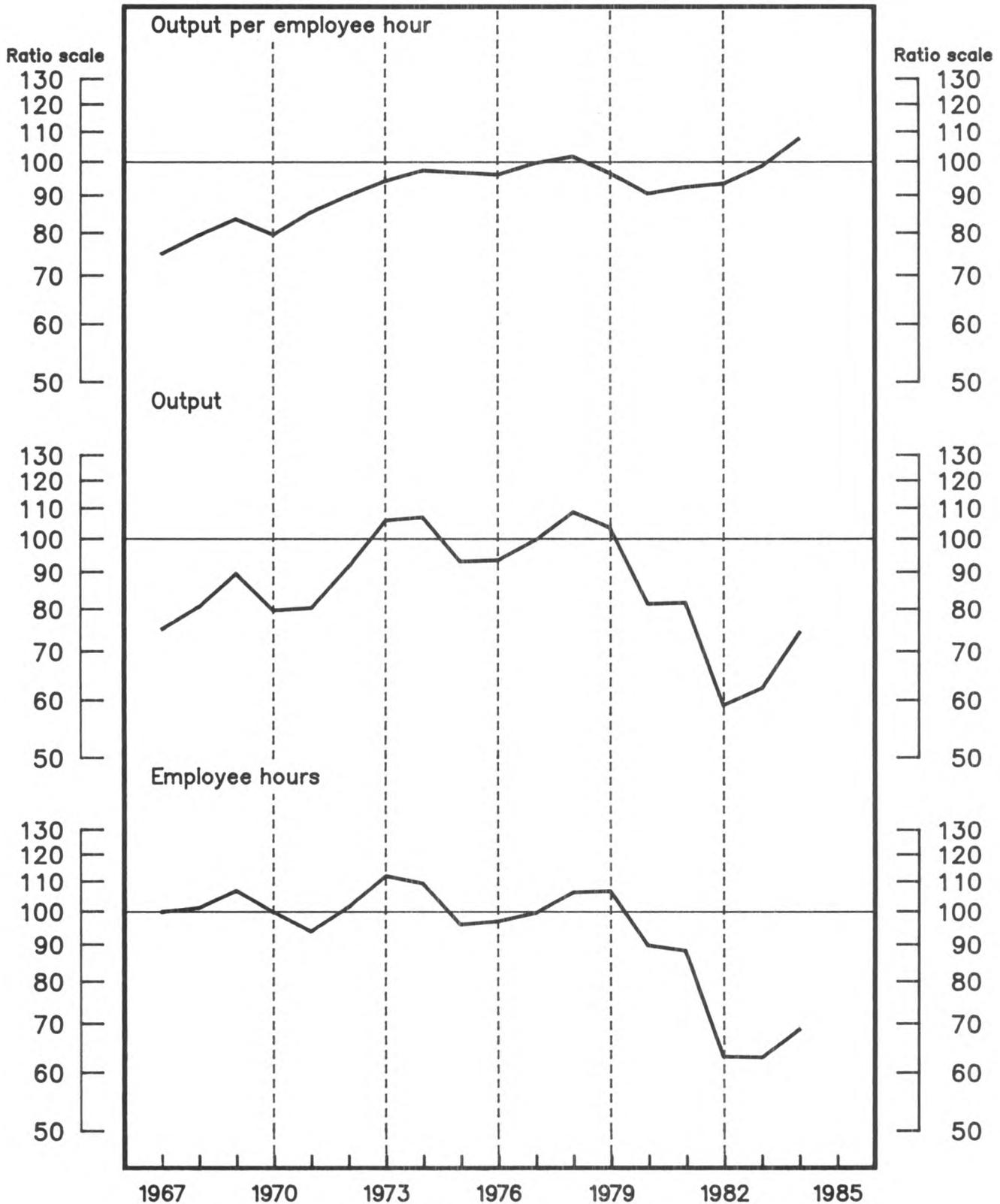
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the American Iron and Steel Institute; the Energy Information Administration, U.S. Department of Energy; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 72. Gray iron foundries (SIC 3321): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 140. Gray iron foundries (SIC 3321): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	63.3	63.3	63.5	58.9	57.9	64.7
1959 .....	65.3	63.9	76.0	64.8	62.9	77.3
1960 .....	65.0	64.4	68.4	62.2	61.0	69.8
1961 .....	66.7	66.4	68.9	63.1	61.9	70.1
1962 .....	69.2	68.1	77.1	68.5	66.8	78.7
1963 .....	70.7	69.1	82.8	72.2	70.2	84.6
1964 .....	75.1	72.6	94.2	79.6	77.1	96.7
1965 .....	78.8	76.2	98.8	84.1	81.5	101.0
1966 .....	79.3	76.7	98.3	83.3	80.8	100.1
1967 .....	75.1	73.3	87.2	75.8	73.8	88.6
1968 .....	79.6	77.9	91.5	82.6	80.4	96.2
1969 .....	83.8	81.6	99.1	86.7	84.3	101.9
1970 .....	79.8	78.8	86.6	78.7	77.3	87.1
1971 .....	85.6	84.7	91.2	84.4	83.4	90.1
1972 .....	90.2	88.3	103.4	92.2	90.9	98.6
1973 .....	94.5	92.1	110.8	96.9	94.9	107.8
1974 .....	97.7	95.7	111.2	98.2	96.4	108.3
1975 .....	97.0	96.9	97.3	94.0	93.6	95.5
1976 .....	96.4	96.4	96.4	95.7	95.6	95.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.1	102.0	102.4	101.4	101.2	102.4
1979 .....	96.8	98.1	90.2	94.7	95.6	90.7
1980 .....	90.8	94.8	73.0	86.5	89.5	73.7
1981 .....	92.7	95.8	78.2	88.6	90.8	78.5
1982 .....	93.7	100.2	68.0	84.6	88.5	68.3
1983 .....	98.9	102.8	80.9	94.6	97.7	80.9
1984 <sup>2</sup> .....	108.0	108.9	102.8	105.5	106.0	103.2
Average annual percent change:						
1954-84 .....	1.9	2.2	.7	1.8	2.1	.5
1979-84 .....	2.4	2.3	2.4	2.2	2.2	2.3

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 141. Gray iron foundries (SIC 3321): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	47.8	75.5	75.5	75.3	81.1	82.5	73.9
1959 .....	58.8	90.0	92.0	77.4	90.7	93.5	76.1
1960 .....	54.5	83.9	84.6	79.7	87.6	89.4	78.1
1961 .....	51.7	77.5	77.9	75.0	81.9	83.5	73.7
1962 .....	58.8	85.0	86.4	76.3	85.9	88.0	74.7
1963 .....	62.7	88.7	90.8	75.7	86.8	89.3	74.1
1964 .....	72.5	96.5	99.9	77.0	91.1	94.0	75.0
1965 .....	81.7	103.7	107.2	82.7	97.1	100.3	80.9
1966 .....	84.5	106.6	110.1	86.0	101.4	104.6	84.4
1967 .....	75.3	100.3	102.7	86.4	99.4	102.1	85.0
1968 .....	80.9	101.6	103.9	88.4	98.0	100.6	84.1
1969 .....	89.9	107.3	110.2	90.7	103.7	106.6	88.2
1970 .....	80.0	100.2	101.5	92.4	101.6	103.5	81.8
1971 .....	80.6	94.2	95.2	88.4	95.5	96.6	89.5
1972 .....	91.9	101.9	104.1	88.9	99.7	101.1	92.3
1973 .....	106.3	112.5	115.4	95.9	109.7	112.0	98.6
1974 .....	107.3	109.8	112.1	96.5	109.3	111.3	99.1
1975 .....	93.4	96.3	96.4	96.0	99.4	99.8	97.8
1976 .....	93.8	97.3	97.3	97.3	98.0	98.1	97.8
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	109.0	106.8	106.9	106.4	107.5	107.7	106.4
1979 .....	103.8	107.2	105.8	115.1	109.6	108.6	114.5
1980 .....	81.7	90.0	86.2	111.9	94.4	91.3	110.9
1981 .....	82.0	88.5	85.6	104.9	92.6	90.3	104.5
1982 .....	59.3	63.3	59.2	87.2	70.1	67.0	86.8
1983 .....	62.5	63.2	60.8	77.3	66.1	64.0	77.3
1984 <sup>1</sup> .....	74.6	69.1	68.5	72.6	70.7	70.4	72.3
Average annual percent change:							
1954-84 .....	1.6	-4	-6	.9	-3	-5	1.0
1979-84 .....	-7.6	-9.8	-9.7	-9.8	-9.6	-9.6	-9.7

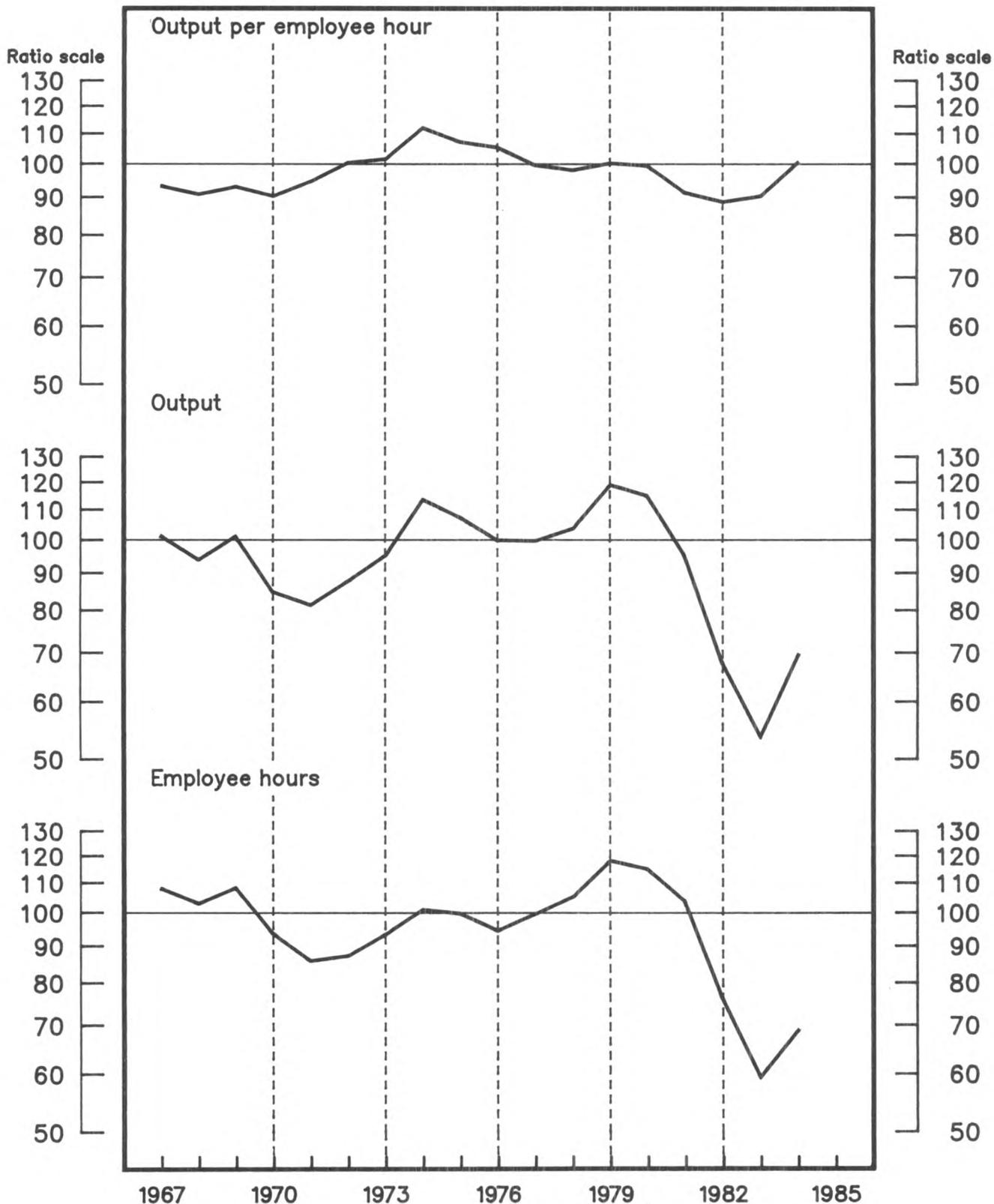
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 73. Steel foundries (SIC 3324, 3325): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 142. Steel foundries (SIC 3324, 3325): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	75.8	75.5	76.6	71.9	70.4	78.2
1959 .....	81.5	78.2	100.9	81.0	76.9	102.6
1960 .....	80.7	78.7	92.0	79.6	76.7	93.8
1961 .....	81.8	80.1	89.8	80.2	77.7	91.5
1962 .....	85.8	82.8	102.3	86.4	82.8	104.5
1963 .....	91.2	87.7	111.2	92.3	88.1	113.6
1964 .....	91.7	86.6	122.5	95.9	90.5	125.9
1965 .....	94.1	88.8	126.4	99.4	93.9	129.1
1966 .....	95.6	90.4	127.9	102.0	96.8	130.3
1967 .....	93.5	90.2	111.8	95.8	92.2	113.8
1968 .....	91.1	89.5	98.6	92.4	90.0	103.9
1969 .....	93.3	90.5	107.7	95.8	92.4	110.9
1970 .....	90.6	88.4	101.7	91.0	88.6	102.4
1971 .....	94.9	94.5	96.6	94.1	93.7	95.7
1972 .....	100.7	98.7	110.3	99.3	97.8	106.0
1973 .....	101.9	99.1	116.9	102.8	100.2	113.8
1974 .....	112.4	108.4	134.1	112.1	108.2	131.2
1975 .....	107.5	105.0	120.1	107.9	105.6	118.6
1976 .....	105.7	105.3	107.3	104.4	103.7	106.8
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	98.4	97.4	103.1	97.9	96.7	103.1
1979 .....	100.6	97.9	113.7	101.5	98.8	114.1
1980 .....	99.8	99.7	100.2	97.8	97.0	101.3
1981 .....	91.6	93.0	86.3	89.4	90.1	86.7
1982 .....	89.0	95.4	69.2	82.7	86.7	69.6
1983 .....	90.6	98.0	68.1	87.0	93.4	68.3
1984 <sup>2</sup> .....	100.9	102.3	94.8	101.5	103.1	95.5
Average annual percent change:						
1954-84 .....	.8	1.1	-.3	.7	1.0	-.4
1979-84 .....	-.9	.6	-6.3	-1.2	.2	-6.3

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 143. Steel foundries (SIC 3324, 3325): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	54.1	71.4	71.7	70.6	75.2	76.8	69.2
1959 .....	67.0	82.2	85.7	66.4	82.7	87.1	65.3
1960 .....	61.9	76.7	78.7	67.3	77.8	80.7	66.0
1961 .....	57.4	70.2	71.7	63.9	71.6	73.9	62.7
1962 .....	66.8	77.9	80.7	65.3	77.3	80.7	63.9
1963 .....	80.3	88.0	91.6	72.2	87.0	91.1	70.7
1964 .....	91.0	99.2	105.1	74.3	94.9	100.6	72.3
1965 .....	99.7	106.0	112.3	78.9	100.3	106.2	77.2
1966 .....	110.6	115.7	122.4	86.5	108.4	114.3	84.9
1967 .....	101.5	108.5	112.5	90.8	105.9	110.1	89.2
1968 .....	94.2	103.4	105.2	95.5	101.9	104.7	90.7
1969 .....	101.5	108.8	112.1	94.2	106.0	109.8	91.5
1970 .....	85.1	93.9	96.3	83.7	93.5	96.1	83.1
1971 .....	81.7	86.1	86.5	84.6	86.8	87.2	85.4
1972 .....	88.1	87.5	89.3	79.9	88.7	90.1	83.1
1973 .....	95.5	93.7	96.4	81.7	92.9	95.3	83.9
1974 .....	114.0	101.4	105.2	85.0	101.7	105.4	86.9
1975 .....	107.6	100.1	102.5	89.6	99.7	101.9	90.7
1976 .....	100.2	94.8	95.2	93.4	96.0	96.6	93.8
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	103.9	105.6	106.7	100.8	106.1	107.5	100.8
1979 .....	119.4	118.7	121.9	105.0	117.6	120.8	104.6
1980 .....	115.3	115.5	115.6	115.1	117.9	118.9	113.8
1981 .....	95.4	104.1	102.6	110.5	106.7	105.9	110.0
1982 .....	68.0	76.4	71.3	98.3	82.2	78.4	97.7
1983 .....	54.1	59.7	55.2	79.5	62.2	57.9	79.2
1984 <sup>1</sup> .....	69.8	69.2	68.2	73.6	68.8	67.7	73.1
Average annual percent change:							
1954-84 .....	.9	( <sup>2</sup> )	-.2	1.2	.1	-.1	1.3
1979-84 .....	-14.0	-13.3	-14.5	-8.2	-13.0	-14.2	-8.2

<sup>1</sup> Preliminary.

<sup>2</sup> Less than .05 percent.

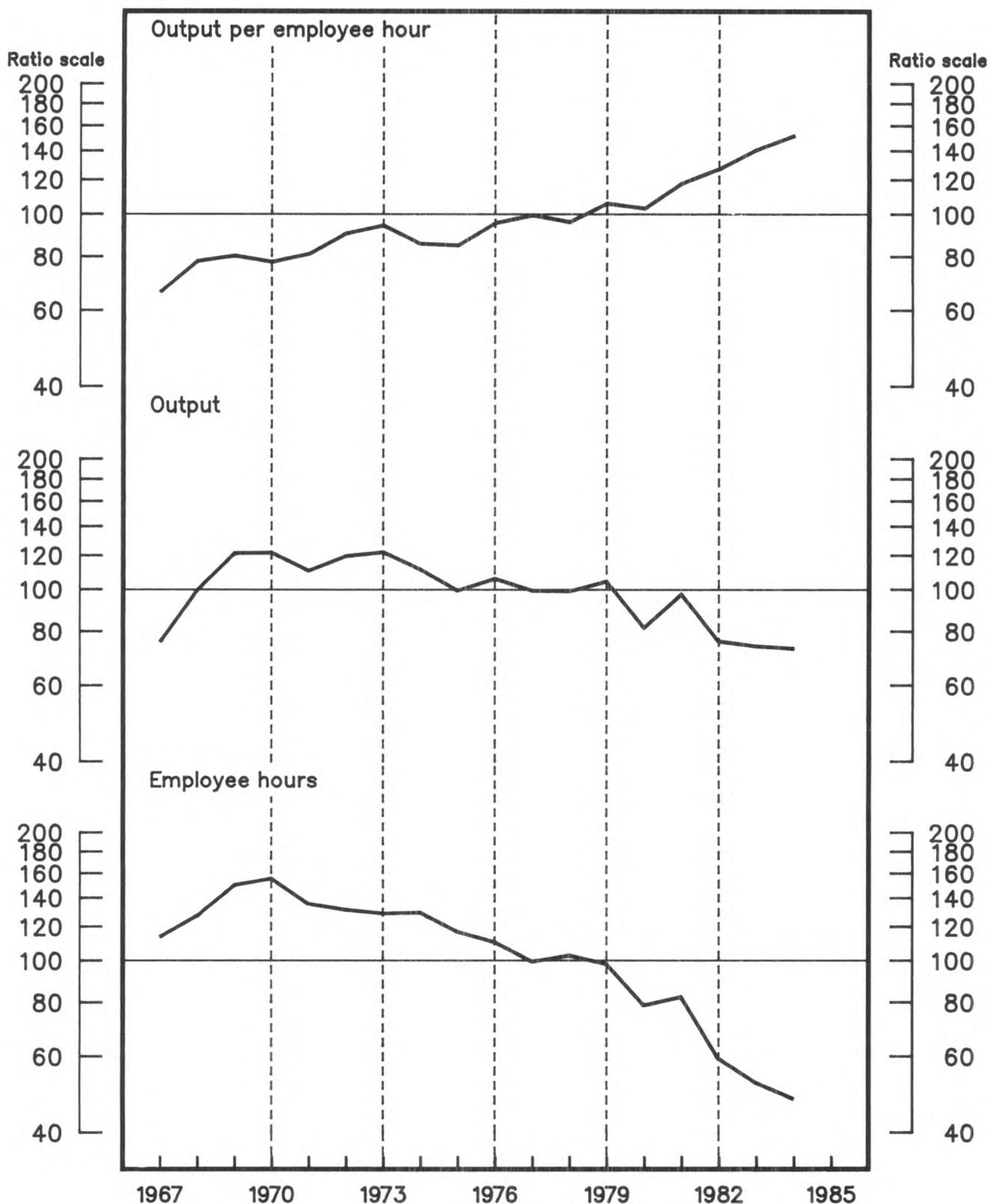
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 74. Primary cooper, lead, and zinc (SIC 3331,3332,3333); Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 144. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	62.6	61.2	69.3	63.7	62.1	71.0
1959 .....	58.9	58.1	63.0	59.0	57.8	64.5
1960 .....	65.7	63.2	78.6	68.0	65.3	80.6
1961 .....	68.7	66.3	81.2	71.7	69.2	83.2
1962 .....	73.0	70.2	87.7	75.9	73.0	90.2
1963 .....	74.7	71.3	92.9	77.0	73.3	95.5
1964 .....	77.6	73.8	99.0	79.2	74.9	102.3
1965 .....	80.0	75.8	104.6	83.2	78.4	107.8
1966 .....	79.0	74.8	103.6	82.9	78.5	106.1
1967 .....	66.6	67.0	64.8	68.6	69.2	66.3
1968 .....	78.5	75.6	93.1	80.9	77.4	98.0
1969 .....	80.7	76.3	106.5	83.3	78.7	108.7
1970 .....	78.1	74.6	96.5	80.8	77.3	98.4
1971 .....	81.5	79.9	88.8	83.0	81.5	89.5
1972 .....	90.9	86.7	114.0	92.3	88.4	112.0
1973 .....	94.8	91.5	110.9	95.0	92.0	109.3
1974 .....	86.0	84.8	91.3	87.4	86.8	90.0
1975 .....	85.3	86.4	80.7	85.6	87.2	80.5
1976 .....	96.0	96.2	95.1	96.6	97.0	94.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	96.5	95.8	99.7	97.7	97.3	99.7
1979 .....	106.5	105.1	112.6	106.7	105.1	113.4
1980 .....	103.7	106.1	94.8	101.2	102.6	96.3
1981 .....	118.6	121.4	108.4	118.1	120.8	109.0
1982 .....	128.0	131.8	114.4	130.7	135.0	115.8
1983 .....	141.8	143.2	135.8	145.7	147.7	138.4
1984 <sup>2</sup> .....	152.6	159.9	128.1	157.8	166.4	130.8
Average annual percent change:						
1947-84 .....	2.6	2.9	1.2	2.4	2.7	1.1
1979-84 .....	8.4	9.2	5.2	9.4	10.5	5.5

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 145. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	85.8	137.0	140.2	123.8	134.7	138.1	120.8
1959 .....	71.2	120.8	122.6	113.1	120.6	123.2	110.4
1960 .....	92.4	140.6	146.1	117.5	135.9	141.4	114.6
1961 .....	93.8	136.5	141.5	115.5	130.8	135.5	112.8
1962 .....	98.5	135.0	140.3	112.3	129.7	134.9	109.2
1963 .....	97.5	130.5	136.8	104.9	126.7	133.0	102.1
1964 .....	102.4	131.9	138.7	103.4	129.3	136.8	100.1
1965 .....	108.1	135.1	142.7	103.3	130.0	137.8	100.3
1966 .....	111.2	140.7	148.7	107.3	134.1	141.6	104.8
1967 .....	76.1	114.3	113.6	117.4	110.9	109.9	114.7
1968 .....	100.5	128.1	133.0	108.0	124.3	129.8	102.5
1969 .....	122.1	151.3	160.1	114.7	146.5	155.2	112.3
1970 .....	122.4	156.7	164.0	126.8	151.4	158.4	124.4
1971 .....	111.3	136.6	139.3	125.4	134.1	136.6	124.4
1972 .....	120.2	132.2	138.6	105.4	130.2	135.9	107.3
1973 .....	122.8	129.6	134.2	110.7	129.2	133.5	112.3
1974 .....	112.0	130.2	132.0	122.7	128.2	129.1	124.4
1975 .....	100.1	117.4	115.8	124.1	116.9	114.8	124.4
1976 .....	106.6	111.0	110.8	112.1	110.4	109.9	112.3
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	99.7	103.3	104.1	100.0	102.0	102.5	100.0
1979 .....	105.1	98.7	100.0	93.3	98.5	100.0	92.7
1980 .....	82.2	79.3	77.5	86.7	81.2	80.1	85.4
1981 .....	98.3	82.9	81.0	90.7	83.2	81.4	90.2
1982 .....	76.3	59.6	57.9	66.7	58.4	56.5	65.9
1983 .....	74.3	52.4	51.9	54.7	51.0	50.3	53.7
1984 <sup>1</sup> .....	73.4	48.1	45.9	57.3	46.5	44.1	56.1
Average annual percent change:							
1947-84 .....	.3	-2.2	-2.5	-.9	-2.1	-2.3	-.8
1979-84 .....	-6.5	-13.7	-14.4	-11.1	-14.5	-15.4	-11.4

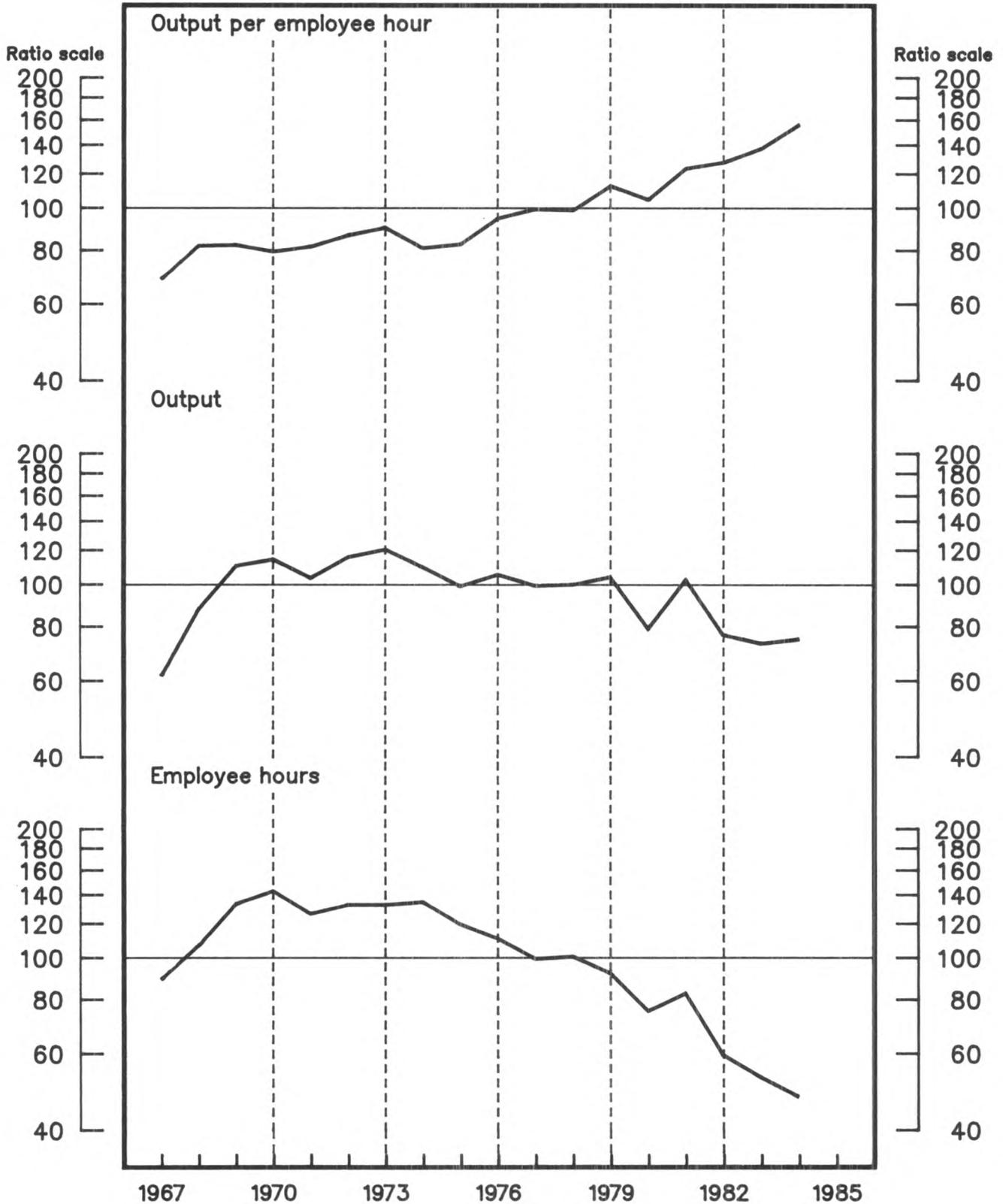
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 75. Primary copper (SIC 3331): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 146. Primary copper (SIC 3331): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	65.1	62.6	79.5	67.1	64.4	81.1
1959	61.4	60.1	68.0	59.2	57.2	69.4
1960	68.4	64.6	92.5	70.1	66.1	94.3
1961	69.7	67.4	82.7	72.3	69.9	84.2
1962	75.7	73.0	91.2	79.0	76.2	93.4
1963	75.4	71.7	98.3	78.8	75.0	100.7
1964	80.2	76.4	103.0	81.9	77.7	105.8
1965	81.9	76.9	116.3	86.2	80.9	119.0
1966	79.9	75.9	104.7	84.9	80.9	106.7
1967	69.0	70.4	63.3	69.9	71.3	64.5
1968	82.3	79.9	94.7	84.0	80.8	100.6
1969	82.6	78.4	108.7	85.1	80.6	111.1
1970	79.8	76.6	97.9	83.6	80.7	99.1
1971	81.9	80.7	87.2	82.8	81.9	86.9
1972	87.0	83.4	107.0	88.5	85.6	103.8
1973	90.6	87.5	107.1	93.3	91.0	104.5
1974	81.3	81.5	80.5	82.5	83.5	78.8
1975	83.0	85.3	74.0	84.4	87.5	73.4
1976	95.2	96.6	88.7	97.2	99.5	88.4
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.4	98.2	105.1	101.4	100.6	104.8
1979	113.3	111.3	123.6	115.4	113.3	124.8
1980	105.3	109.6	89.6	101.5	104.5	90.7
1981	124.4	126.3	116.3	126.8	129.2	117.7
1982	128.5	132.1	114.2	132.8	138.2	113.2
1983	138.3	140.5	130.3	144.0	147.2	131.4
1984 <sup>2</sup>	156.9	163.3	133.3	167.3	177.2	134.5
Average annual percent change:						
1947-84	2.2	2.5	.7	2.0	2.3	.6
1979-84	7.3	8.0	4.3	8.8	10.0	4.2

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 147. Primary copper (SIC 3331): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	75.4	115.8	120.4	94.9	112.4	117.0	93.0
1959	59.4	96.8	98.9	87.3	100.4	103.8	85.6
1960	86.3	126.1	133.5	93.3	123.1	130.6	91.5
1961	85.0	121.9	126.1	102.8	117.6	121.6	100.9
1962	92.0	121.5	126.1	100.9	116.5	120.7	98.5
1963	90.0	119.3	125.5	91.6	114.2	120.0	89.4
1964	93.1	116.1	121.9	90.4	113.7	119.8	88.0
1965	100.0	122.1	130.1	86.0	116.0	123.6	84.0
1966	102.4	128.2	135.0	97.8	120.6	126.5	96.0
1967	61.9	89.7	87.9	97.8	88.6	86.8	96.0
1968	88.5	107.5	110.7	93.5	105.4	109.5	88.0
1969	111.1	134.5	141.7	102.2	130.6	137.8	100.0
1970	114.9	144.0	150.0	117.4	137.5	142.4	115.9
1971	104.3	127.4	129.2	119.6	126.0	127.3	120.0
1972	116.3	133.7	139.4	108.7	131.4	135.9	112.0
1973	121.1	133.7	138.4	113.1	129.8	133.1	115.9
1974	110.3	135.7	135.4	137.0	133.7	132.1	139.9
1975	99.8	120.3	117.0	134.8	118.3	114.1	136.0
1976	106.1	111.5	109.8	119.6	109.2	106.6	120.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.6	101.2	102.4	95.7	99.2	100.0	96.0
1979	104.8	92.5	94.2	84.8	90.8	92.5	84.0
1980	79.8	75.8	72.8	89.1	78.6	76.4	88.0
1981	103.6	83.3	82.0	89.1	81.7	80.2	88.0
1982	77.0	59.9	58.3	67.4	58.0	55.7	68.0
1983	73.6	53.2	52.4	56.5	51.1	50.0	56.0
1984 <sup>1</sup>	75.3	48.0	46.1	56.5	45.0	42.5	56.0
Average annual percent change:							
1947-84	1.0	-1.3	-1.5	.3	-1.0	-1.3	.4
1979-84	-6.1	-12.5	-13.1	-10.0	-13.7	-14.6	-9.9

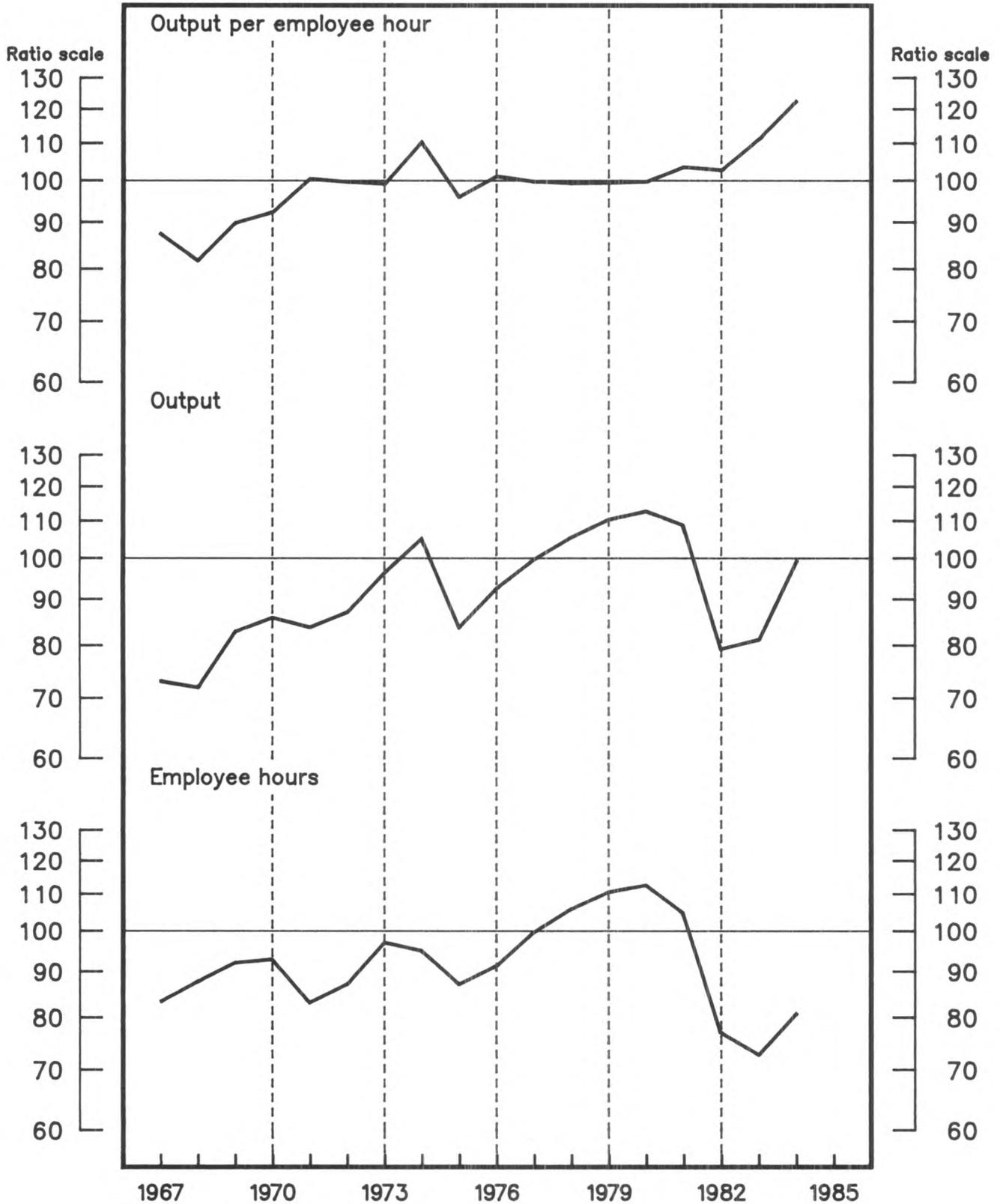
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 76. Primary aluminum (SIC 3334): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 148. Primary aluminum (SIC 3334): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	57.8	59.2	52.1	59.5	61.4	53.0
1959 .....	68.6	68.2	70.6	71.5	71.4	71.9
1960 .....	71.7	71.9	70.5	73.9	74.5	71.7
1961 .....	74.7	75.9	70.0	76.7	78.5	71.1
1962 .....	78.4	78.5	77.2	80.1	80.5	78.9
1963 .....	81.0	80.9	81.1	82.6	82.6	82.6
1964 .....	83.4	81.8	90.0	81.3	78.8	92.2
1965 .....	85.4	84.1	90.7	86.0	84.4	92.4
1966 .....	88.3	87.3	93.0	90.1	89.2	94.5
1967 .....	87.6	86.7	91.0	88.0	86.9	92.3
1968 .....	81.9	82.0	81.2	82.5	81.8	85.3
1969 .....	90.0	89.0	94.5	91.5	90.2	96.4
1970 .....	92.5	92.2	94.0	92.3	91.7	94.2
1971 .....	100.7	101.7	96.7	99.3	100.2	95.6
1972 .....	99.9	101.3	94.4	97.5	99.5	90.5
1973 .....	99.4	97.8	106.6	99.2	98.0	103.9
1974 .....	110.8	109.1	118.8	109.0	107.4	115.4
1975 .....	96.2	100.1	82.6	95.1	99.4	81.3
1976 .....	101.4	102.1	98.4	101.1	101.9	98.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	99.6	98.6	103.8	101.9	101.3	104.0
1979 .....	99.7	99.2	102.1	100.5	100.2	101.9
1980 .....	100.0	102.3	91.6	98.5	100.3	92.3
1981 .....	103.8	107.6	90.4	102.9	106.7	90.3
1982 .....	103.0	112.0	76.7	99.3	107.3	78.9
1983 .....	111.5	115.8	96.8	108.8	112.4	96.3
1984 <sup>2</sup> .....	122.8	124.2	117.2	123.3	124.8	117.9
Average annual percent change:						
1947-84 .....	3.2	3.4	2.3	2.9	3.1	2.2
1979-84 .....	4.0	4.5	2.0	3.7	4.2	2.0

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 149. Primary aluminum (SIC 3334): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

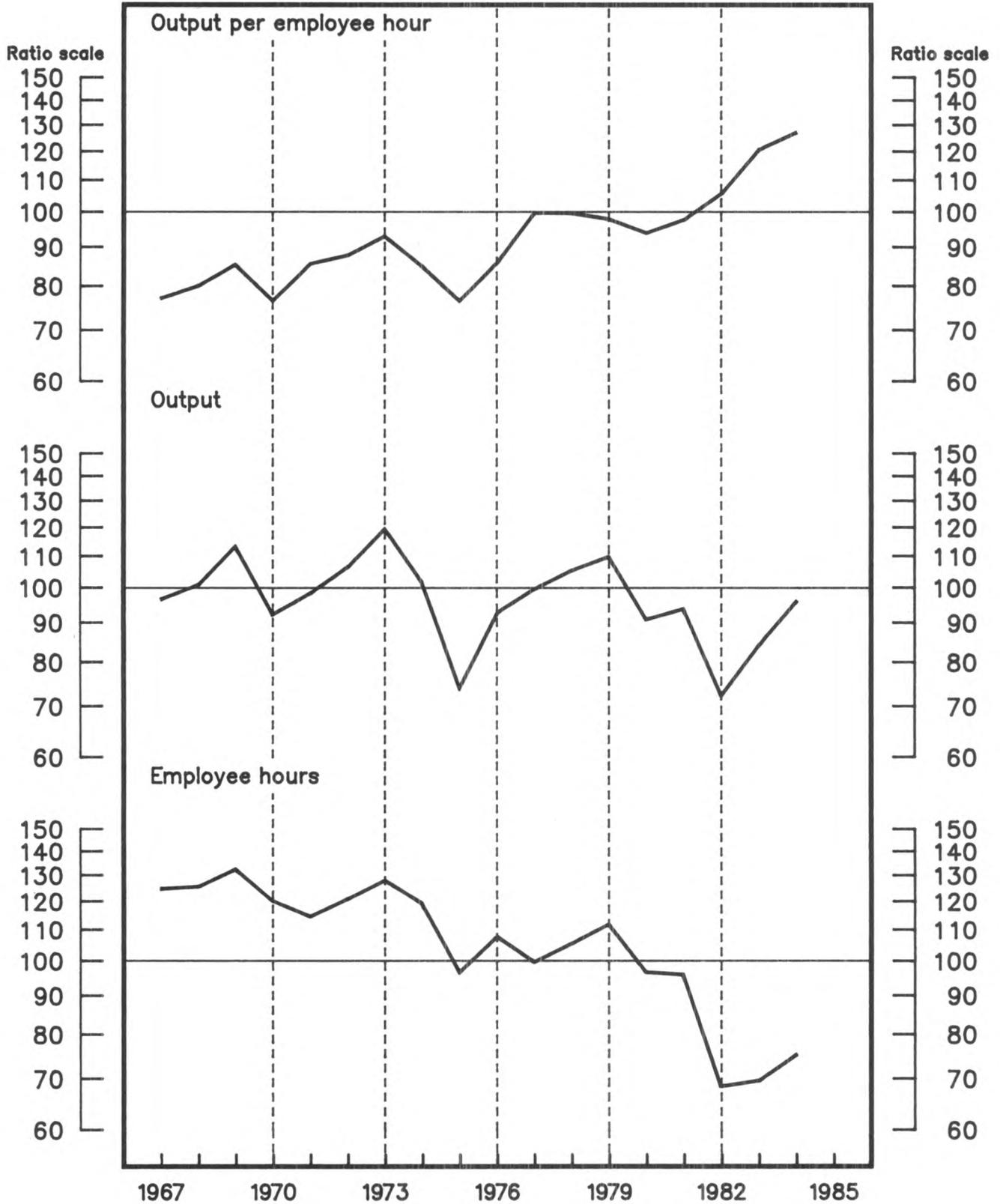
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	36.1	62.5	61.0	69.3	60.7	58.8	68.1
1959 .....	45.0	65.6	66.0	63.7	62.9	63.0	62.6
1960 .....	46.1	64.3	64.1	65.4	62.4	61.9	64.3
1961 .....	43.5	58.2	57.3	62.1	56.7	55.4	61.2
1962 .....	48.2	61.5	61.4	62.4	60.2	59.9	61.1
1963 .....	52.4	64.7	64.8	64.6	63.4	63.4	63.4
1964 .....	57.7	69.2	70.5	64.1	71.0	73.2	62.6
1965 .....	62.1	72.7	73.8	68.5	72.2	73.6	67.2
1966 .....	66.6	75.4	76.3	71.6	73.9	74.7	70.5
1967 .....	73.2	83.6	84.4	80.4	83.2	84.2	79.3
1968 .....	72.1	88.0	87.9	88.8	87.4	88.1	84.5
1969 .....	83.1	92.3	93.4	87.9	90.8	92.1	86.2
1970 .....	86.1	93.1	93.4	91.6	93.3	93.9	91.4
1971 .....	84.0	83.4	82.6	86.9	84.6	83.8	87.9
1972 .....	87.3	87.4	86.2	92.5	89.5	87.7	96.5
1973 .....	96.7	97.3	98.9	90.7	97.5	98.7	93.1
1974 .....	105.5	95.2	96.7	88.8	96.8	98.2	91.4
1975 .....	84.1	87.4	84.0	101.8	88.4	84.6	103.4
1976 .....	92.9	91.6	91.0	94.4	91.9	91.2	94.8
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	105.8	106.2	107.3	101.9	103.8	104.4	101.7
1979 .....	110.7	111.0	111.6	108.4	110.1	110.5	108.6
1980 .....	113.0	113.0	110.5	123.4	114.7	112.7	122.4
1981 .....	109.0	105.0	101.3	120.6	105.9	102.2	120.7
1982 .....	79.5	77.2	71.0	103.7	80.1	74.1	103.4
1983 .....	81.4	73.0	70.3	84.1	74.8	72.4	84.5
1984 <sup>1</sup> .....	99.6	81.1	80.2	85.0	80.8	79.8	84.5
Average annual percent change:							
1947-84 .....	5.6	2.2	2.0	3.0	2.5	2.3	3.2
1979-84 .....	-5.1	-8.7	-9.2	-6.9	-8.5	-8.9	-6.9

<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 77. Copper rolling and drawing (SIC 3351): Output per hour and related data, 1967-84  
 (1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 150. Copper rolling and drawing (SIC 3351): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	54.9	54.7	56.0	53.2	52.2	57.0
1959 .....	60.4	58.5	68.9	61.0	58.8	70.0
1960 .....	58.2	57.0	63.7	56.2	54.2	64.8
1961 .....	63.1	62.9	64.1	62.3	61.5	65.1
1962 .....	67.6	66.9	70.3	67.7	66.6	71.7
1963 .....	74.0	71.3	86.5	74.7	71.3	88.3
1964 .....	81.5	78.6	95.3	83.0	79.4	97.9
1965 .....	86.1	82.6	103.0	87.9	83.9	105.0
1966 .....	91.0	86.6	113.8	94.5	89.7	115.3
1967 .....	77.3	75.9	83.5	75.3	72.9	85.0
1968 .....	80.3	79.5	83.4	79.4	77.3	87.7
1969 .....	85.6	83.9	92.6	86.5	84.2	95.2
1970 .....	76.8	76.9	76.3	74.3	73.8	76.5
1971 .....	85.8	84.9	89.2	83.7	82.7	87.6
1972 .....	88.0	85.3	100.0	88.5	86.5	96.0
1973 .....	93.2	90.0	108.3	94.1	91.2	105.2
1974 .....	85.2	84.2	89.7	84.5	83.7	87.3
1975 .....	76.8	80.4	65.5	72.5	75.2	64.6
1976 .....	86.1	85.6	87.8	85.5	85.1	87.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	99.9	99.4	101.8	99.3	98.8	101.4
1979 .....	98.1	97.3	101.7	96.3	94.9	101.6
1980 .....	94.1	96.1	87.2	92.1	93.5	87.5
1981 .....	97.9	100.1	90.1	94.5	95.8	90.4
1982 .....	106.0	112.9	85.8	98.1	102.3	86.0
1983 .....	121.1	125.9	105.4	116.1	119.5	105.2
1984 <sup>2</sup> .....	127.5	129.6	120.1	124.1	125.2	119.9
Average annual percent change:						
1958-84 .....	2.3	2.6	1.5	2.2	2.4	1.3
1979-84 .....	6.3	7.0	3.9	5.9	6.4	3.9

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Copper Development Association Inc., the Bureau of the Census, and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 151. Copper rolling and drawing (SIC 3351): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	68.5	124.7	125.3	122.3	128.8	131.2	120.2
1959 .....	84.0	139.1	143.6	121.9	137.7	142.8	120.0
1960 .....	71.1	122.1	124.8	111.7	126.4	131.2	109.8
1961 .....	78.4	124.2	124.6	122.4	125.9	127.4	120.5
1962 .....	89.1	131.8	133.1	126.7	131.7	133.8	124.2
1963 .....	92.8	125.4	130.1	107.3	124.3	130.1	105.1
1964 .....	104.7	128.4	133.2	109.9	126.1	131.8	107.0
1965 .....	110.9	128.8	134.2	107.7	126.1	132.2	105.6
1966 .....	123.4	135.6	142.5	108.4	130.6	137.5	107.0
1967 .....	96.9	125.3	127.7	116.0	128.7	133.0	114.0
1968 .....	101.2	126.1	127.3	121.3	127.4	130.9	115.4
1969 .....	113.8	133.0	135.6	122.9	131.5	135.1	119.6
1970 .....	92.6	120.6	120.4	121.3	124.6	125.5	121.1
1971 .....	98.7	115.0	116.2	110.7	117.9	119.4	112.7
1972 .....	106.8	121.4	125.2	106.8	120.7	123.5	111.2
1973 .....	119.9	128.6	133.2	110.7	127.4	131.4	114.0
1974 .....	102.0	119.7	121.2	113.7	120.7	121.8	116.9
1975 .....	74.5	97.0	92.7	113.7	102.8	99.1	115.4
1976 .....	93.1	108.1	108.7	106.0	108.9	109.4	107.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	105.7	105.8	106.3	103.8	106.4	107.0	104.2
1979 .....	110.2	112.3	113.3	108.4	114.4	116.1	108.5
1980 .....	91.2	96.9	94.9	104.6	99.0	97.5	104.2
1981 .....	94.2	96.2	94.1	104.6	99.7	98.3	104.2
1982 .....	72.7	68.6	64.4	84.7	74.1	71.1	84.5
1983 .....	84.5	69.8	67.1	80.2	72.8	70.7	80.3
1984 <sup>1</sup> .....	96.3	75.5	74.3	80.2	77.6	76.9	80.3
Average annual percent change:							
1958-84 .....	.3	-2.0	-2.2	-1.1	-1.8	-2.1	-1.0
1979-84 .....	-3.3	-9.0	-9.6	-6.9	-8.6	-9.1	-6.9

<sup>1</sup> Preliminary.

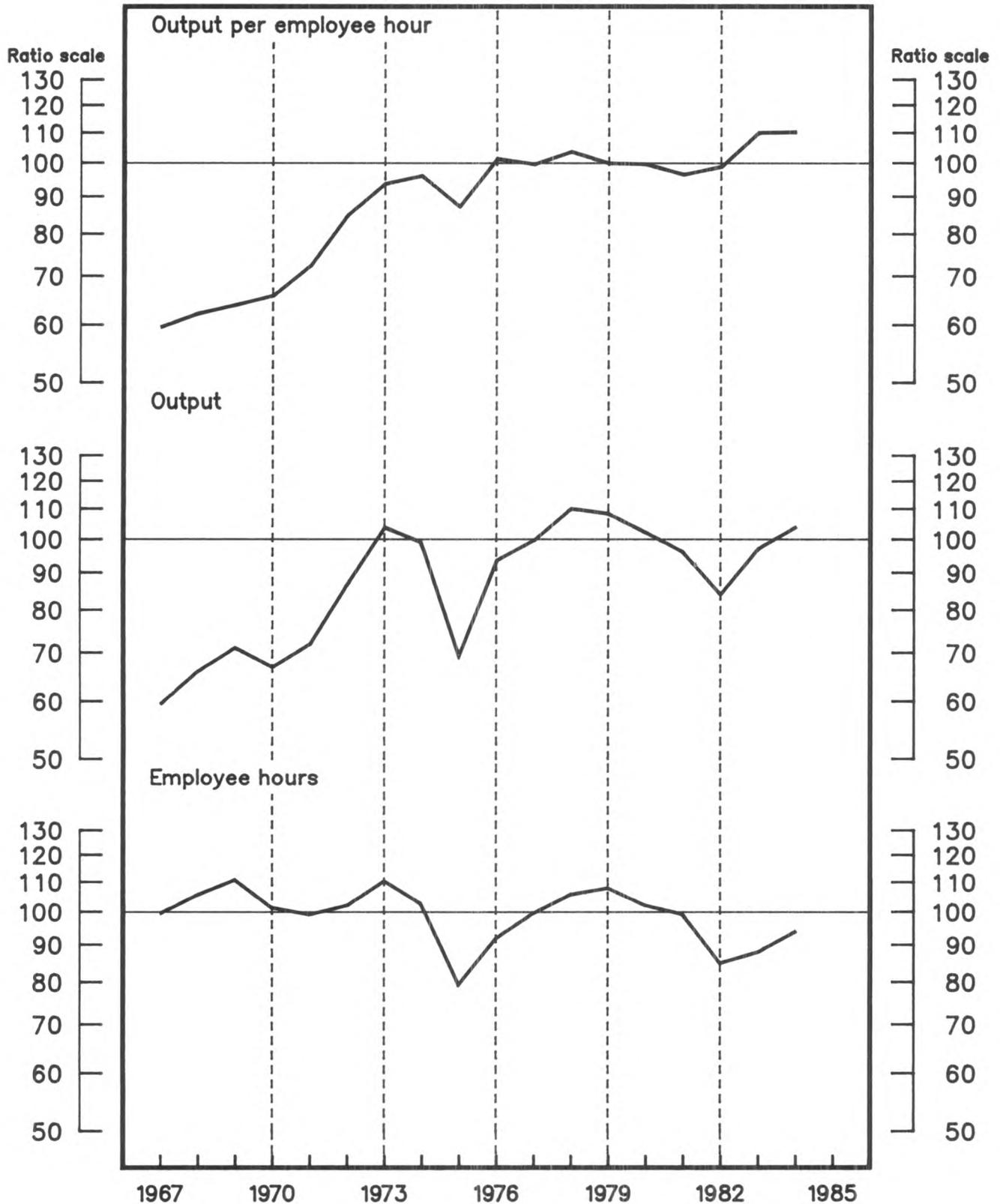
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Copper Development Association Inc.,

the Bureau of the Census, and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 78. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 152. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Indexes of output per employee hour and output per employee, 1958-84 (1977 = 100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	38.1	38.9	34.8	38.6	39.5	35.5
1959 .....	41.1	40.6	42.9	42.5	42.2	43.7
1960 .....	39.0	39.7	36.1	40.1	41.0	36.7
1961 .....	42.8	43.3	40.8	44.2	45.0	41.4
1962 .....	46.5	47.0	44.7	47.8	48.3	45.7
1963 .....	51.5	51.8	49.9	52.9	53.5	51.1
1964 .....	54.8	55.2	53.4	56.7	57.1	54.8
1965 .....	60.0	60.0	60.5	63.1	63.5	61.7
1966 .....	60.4	59.6	64.1	63.4	63.0	65.2
1967 .....	59.8	60.0	58.7	60.8	61.0	59.7
1968 .....	62.4	63.5	58.1	62.8	63.3	61.0
1969 .....	64.1	64.8	60.9	65.5	66.3	62.5
1970 .....	66.0	68.6	56.5	64.6	67.0	58.9
1971 .....	72.5	74.9	63.7	70.0	72.1	62.8
1972 .....	85.1	84.7	86.4	85.8	86.5	83.3
1973 .....	94.0	92.8	99.5	95.5	95.2	96.7
1974 .....	96.4	96.1	97.3	94.9	94.9	94.8
1975 .....	87.5	92.5	70.9	82.6	86.8	69.8
1976 .....	101.7	102.7	97.6	100.3	101.2	96.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	104.0	104.2	102.6	102.5	102.6	102.4
1979 .....	100.3	101.2	96.5	100.2	101.2	96.6
1980 .....	100.0	103.6	87.0	98.1	101.3	87.5
1981 .....	96.8	100.6	83.0	95.2	98.8	83.4
1982 .....	99.2	105.2	79.4	94.8	99.8	79.6
1983 .....	110.4	113.7	98.2	108.3	111.2	98.2
1984 <sup>2</sup> .....	110.6	114.8	95.7	109.7	113.8	95.9
Average annual percent change:						
1958-84 .....	4.4	4.5	4.0	4.1	4.2	3.8
1979-84 .....	2.3	2.8	.8	2.2	2.5	.8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 153. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Indexes of output, employee hours, and employees, 1958-84 (1977 = 100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	28.9	75.8	74.2	83.0	74.9	73.2	81.5
1959 .....	37.6	91.5	92.5	87.6	88.4	89.1	86.1
1960 .....	33.7	86.5	84.8	93.4	84.1	82.1	91.8
1961 .....	36.8	85.9	85.0	90.2	83.2	81.8	88.8
1962 .....	41.5	89.2	88.3	92.9	86.9	85.9	90.9
1963 .....	45.9	89.1	88.6	91.9	86.7	85.8	89.9
1964 .....	50.8	92.7	92.1	95.1	89.6	88.9	92.7
1965 .....	58.0	96.6	96.7	95.9	91.9	91.4	94.0
1966 .....	64.2	106.3	107.8	100.2	101.2	101.9	98.5
1967 .....	59.7	99.9	99.5	101.7	98.2	97.8	100.0
1968 .....	66.2	106.1	104.3	114.0	105.4	104.6	108.6
1969 .....	71.3	111.3	110.0	117.0	108.9	107.6	114.1
1970 .....	67.1	101.7	97.8	118.7	103.8	100.2	118.0
1971 .....	72.1	99.5	96.3	113.1	103.0	100.0	114.8
1972 .....	87.2	102.5	102.9	100.9	101.6	100.8	104.7
1973 .....	104.2	110.9	112.3	104.7	109.1	109.4	107.8
1974 .....	99.3	103.0	103.3	102.1	104.6	104.6	104.7
1975 .....	69.8	79.8	75.5	98.4	84.5	80.4	100.0
1976 .....	93.9	92.3	91.4	96.2	93.6	92.8	96.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	110.4	106.2	105.9	107.6	107.7	107.6	107.8
1979 .....	108.7	108.4	107.4	112.7	108.5	107.4	112.5
1980 .....	102.5	102.5	98.9	117.8	104.5	101.2	117.2
1981 .....	96.4	99.6	95.8	116.1	101.3	97.6	115.6
1982 .....	84.5	85.2	80.3	106.4	89.1	84.7	106.2
1983 .....	97.4	88.2	85.7	99.2	89.9	87.6	99.2
1984 <sup>1</sup> .....	104.2	94.2	90.8	108.9	95.0	91.6	108.6
Average annual percent change:							
1958-84 .....	4.8	.4	.3	.8	.6	.5	.9
1979-84 .....	-1.4	-3.7	-4.0	-2.2	-3.5	-3.8	-2.2

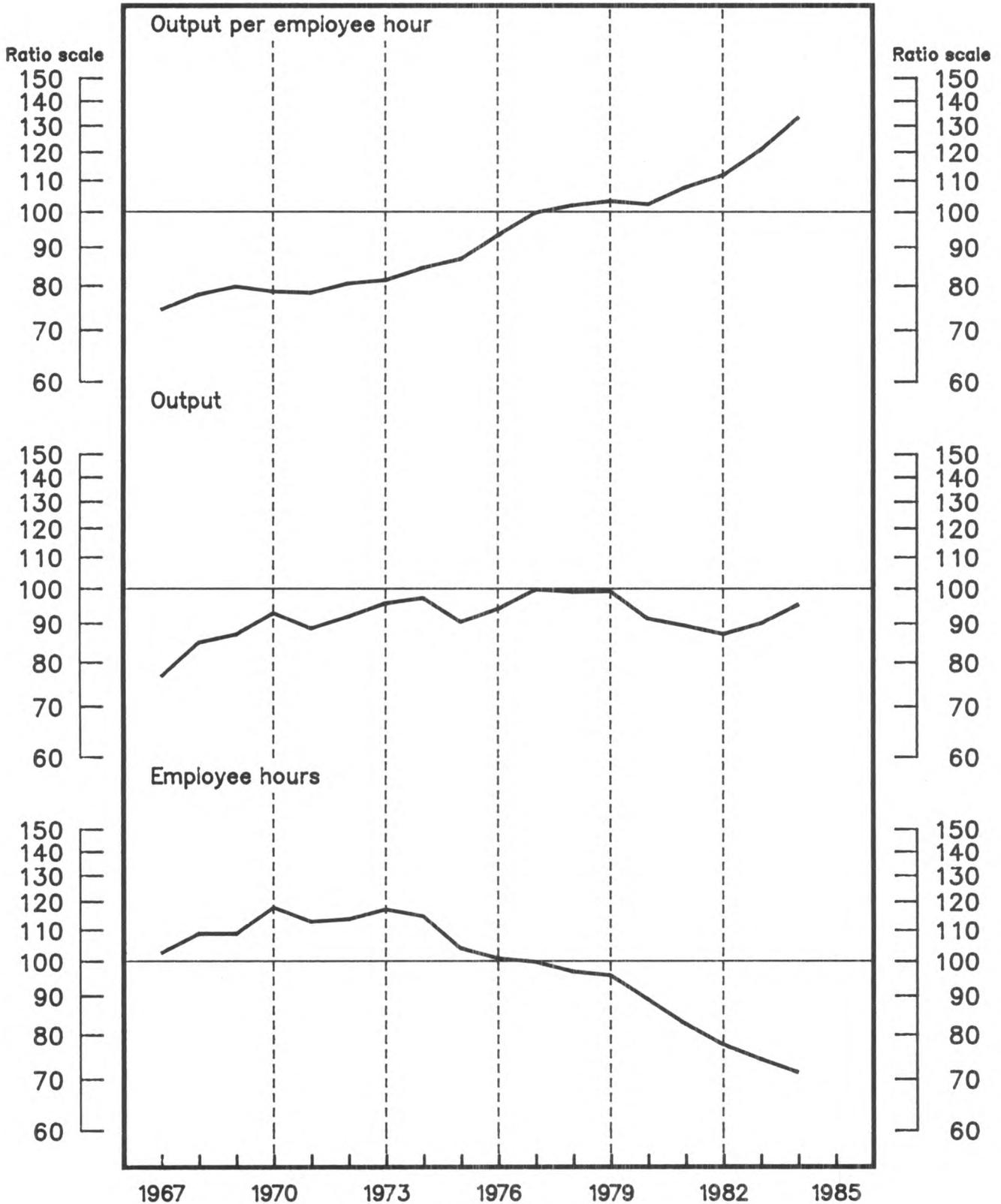
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 79. Metal cans (SIC 3411): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 154. Metal cans (SIC 3411): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	62.3	61.2	69.5	59.9	58.1	71.3
1959 .....	64.5	63.0	75.6	64.1	62.0	77.3
1960 .....	66.1	64.6	76.2	65.0	63.0	77.8
1961 .....	69.7	68.1	81.1	68.9	66.8	82.7
1962 .....	67.4	65.6	80.9	68.4	66.2	82.7
1963 .....	67.0	65.4	78.9	67.2	65.1	80.6
1964 .....	68.5	66.9	79.1	69.7	67.9	81.1
1965 .....	70.3	69.5	75.6	73.4	72.7	77.2
1966 .....	72.2	70.1	87.6	72.5	70.0	89.1
1967 .....	74.7	72.6	90.8	76.3	73.8	92.3
1968 .....	78.1	75.9	94.9	80.0	77.6	95.1
1969 .....	80.0	78.2	93.4	80.2	77.7	96.3
1970 .....	78.8	77.5	87.6	79.5	77.3	93.2
1971 .....	78.5	77.7	83.8	77.4	75.9	86.1
1972 .....	80.8	79.3	91.3	80.5	78.9	90.3
1973 .....	81.6	79.8	95.0	82.3	80.1	96.0
1974 .....	84.7	84.2	87.6	84.4	83.4	90.0
1975 .....	87.0	87.9	81.5	86.5	87.2	83.0
1976 .....	93.4	93.9	90.3	92.5	92.5	91.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.3	102.6	100.4	100.8	100.9	100.3
1979 .....	103.6	104.1	101.2	103.3	103.6	101.6
1980 .....	102.6	104.0	94.8	102.2	103.6	95.6
1981 .....	108.1	110.5	95.5	106.5	108.9	95.5
1982 .....	112.2	114.1	101.7	106.7	107.5	102.3
1983 .....	121.2	122.7	112.6	116.8	117.7	112.8
1984 <sup>2</sup> .....	133.5	134.8	125.3	129.7	130.4	125.8
Average annual percent change:						
1947-84 .....	2.5	2.7	1.8	2.5	2.7	1.7
1979-84 .....	5.3	5.3	4.8	4.5	4.4	4.8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 155. Metal cans (SIC 3411): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	54.3	87.1	88.7	78.1	90.7	93.4	76.2
1959 .....	57.6	89.3	91.5	76.2	89.9	92.9	74.5
1960 .....	58.2	88.1	90.1	76.4	89.5	92.4	74.8
1961 .....	61.5	88.2	90.3	75.8	89.2	92.1	74.4
1962 .....	60.7	90.0	92.6	75.0	88.7	91.7	73.4
1963 .....	59.8	89.2	91.5	75.8	89.0	91.9	74.2
1964 .....	64.2	93.7	95.9	81.2	92.1	94.6	79.2
1965 .....	67.3	95.7	96.9	89.0	91.7	92.6	87.2
1966 .....	71.2	98.6	101.5	81.3	98.2	101.7	79.9
1967 .....	76.9	102.9	105.9	84.7	100.8	104.2	83.3
1968 .....	85.2	109.1	112.2	89.8	106.5	109.8	89.6
1969 .....	87.3	109.1	111.7	93.5	108.9	112.3	90.7
1970 .....	93.2	118.3	120.3	106.4	117.2	120.5	100.0
1971 .....	88.9	113.2	114.4	106.1	114.8	117.1	103.2
1972 .....	92.2	114.1	116.3	101.0	114.5	116.9	102.1
1973 .....	96.0	117.6	120.3	101.1	116.7	119.9	100.0
1974 .....	97.5	115.1	115.8	111.3	115.5	116.9	108.3
1975 .....	90.7	104.3	103.2	111.3	104.8	104.0	109.3
1976 .....	94.4	101.1	100.5	104.5	102.1	102.0	103.2
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	99.3	97.1	96.8	98.9	98.5	98.4	99.0
1979 .....	99.5	96.0	95.6	98.3	96.3	96.0	97.9
1980 .....	91.6	89.3	88.1	96.6	89.6	88.4	95.8
1981 .....	89.6	82.9	81.1	93.8	84.1	82.3	93.8
1982 .....	87.4	77.9	76.6	85.9	81.9	81.3	85.4
1983 .....	90.3	74.5	73.6	80.2	77.3	76.7	80.2
1984 <sup>1</sup> .....	95.6	71.6	70.9	76.3	73.7	73.3	76.0
Average annual percent change:							
1947-84 .....	2.8	.2	.1	1.0	.3	.1	1.1
1979-84 .....	-8	-5.7	-5.8	-5.3	-5.0	-5.0	-5.3

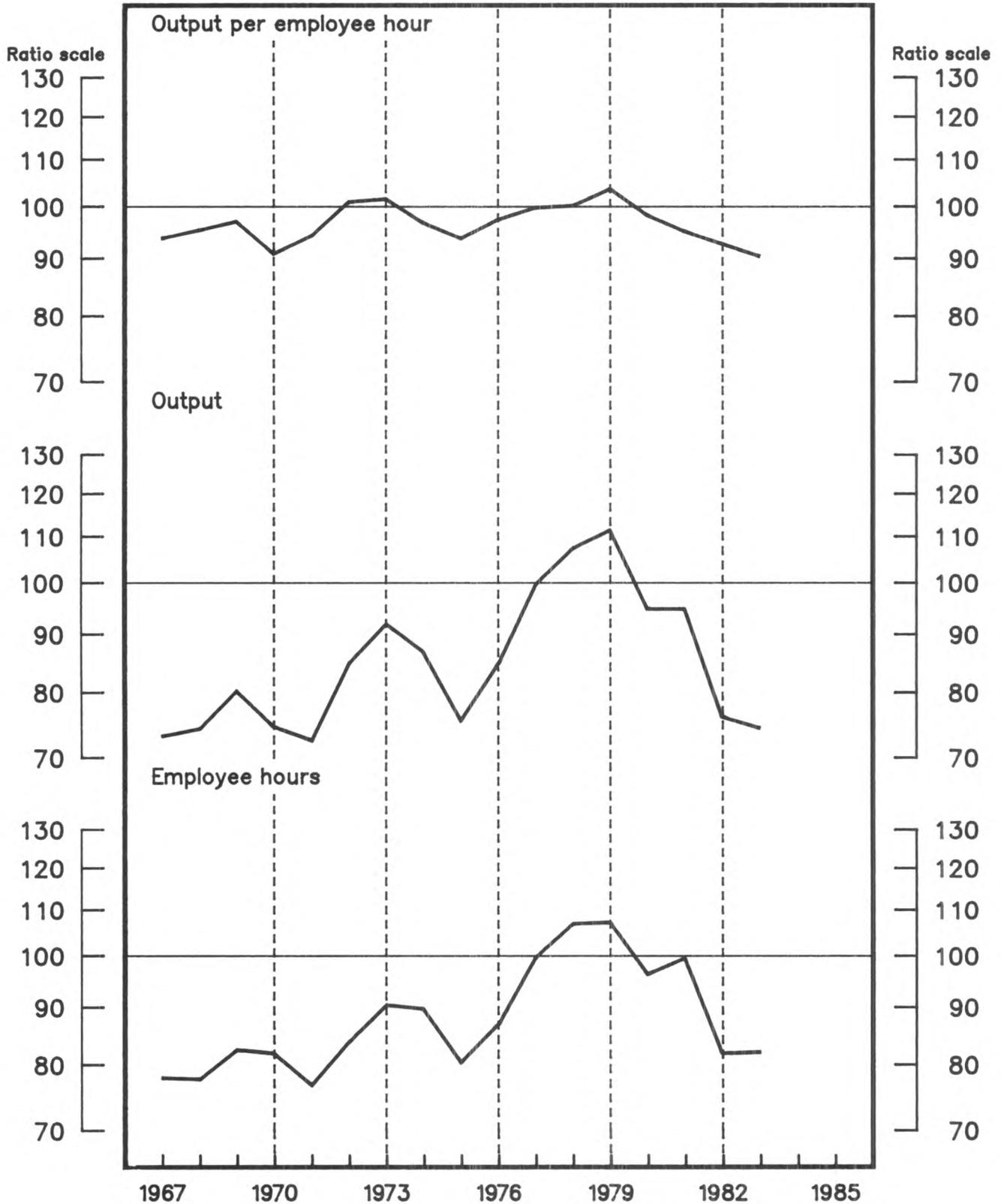
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 80. Hand and edge tools (SIC 3423): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 156. Hand and edge tools (SIC 3423): Indexes of output per employee hour and output per employee, 1958-83**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	74.0	75.2	69.7	73.2	73.7	71.2
1959 .....	79.0	78.8	79.9	81.0	80.9	81.7
1960 .....	77.0	77.5	74.5	78.7	79.4	76.3
1961 .....	79.8	81.3	74.6	81.8	83.5	76.0
1962 .....	81.5	82.2	79.1	84.8	86.0	80.9
1963 .....	84.0	85.1	80.1	84.9	85.7	82.1
1964 .....	86.1	87.0	82.9	88.4	89.4	85.1
1965 .....	91.2	91.1	91.3	93.5	93.5	93.4
1966 .....	88.8	87.6	93.8	93.4	93.0	95.5
1967 .....	93.9	92.2	101.0	95.9	94.2	102.8
1968 .....	95.5	94.2	100.9	97.1	96.0	101.5
1969 .....	97.2	96.3	101.0	99.1	97.9	104.1
1970 .....	91.0	90.8	92.0	93.1	91.9	98.0
1971 .....	94.4	93.6	98.0	96.0	94.8	100.6
1972 .....	101.2	99.9	106.2	101.8	100.9	104.8
1973 .....	101.8	101.4	103.4	102.7	102.2	104.7
1974 .....	96.9	96.2	99.4	97.4	96.2	102.4
1975 .....	93.9	94.5	91.5	93.7	93.8	93.3
1976 .....	97.6	98.4	94.8	97.0	97.3	96.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.4	98.6	107.6	100.7	99.0	107.6
1979 .....	103.9	104.8	100.4	102.8	103.3	100.7
1980 .....	98.4	102.3	85.7	94.6	97.1	86.4
1981 .....	95.2	97.4	87.5	94.4	96.3	88.0
1982 .....	92.8	100.1	72.3	88.6	94.3	72.6
1983 <sup>2</sup> .....	90.5	96.9	72.2	87.5	92.9	72.3
Average annual percent change:						
1958-83 .....	1.0	1.1	.5	.7	.8	.5
1979-83 .....	-3.3	-1.8	-8.0	-3.8	-2.4	-8.0

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 157. Hand and edge tools (SIC 3423): Indexes of output, employee hours, and employees, 1958-83**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	47.2	63.8	62.8	67.7	64.5	64.0	66.3
1959 .....	55.0	69.6	69.8	68.8	67.9	68.0	67.3
1960 .....	52.1	67.7	67.2	69.9	66.2	65.6	68.3
1961 .....	55.7	69.8	68.5	74.7	68.1	66.7	73.3
1962 .....	60.8	74.6	74.0	76.9	71.7	70.7	75.2
1963 .....	56.9	67.7	66.9	71.0	67.0	66.4	69.3
1964 .....	61.5	71.4	70.7	74.2	69.6	68.8	72.3
1965 .....	70.2	77.0	77.1	76.9	75.1	75.1	75.2
1966 .....	75.6	85.1	86.3	80.6	80.9	81.3	79.2
1967 .....	73.3	78.1	79.5	72.6	76.4	77.8	71.3
1968 .....	74.4	77.9	79.0	73.7	76.6	77.5	73.3
1969 .....	80.4	82.7	83.5	79.6	81.1	82.1	77.2
1970 .....	74.7	82.1	82.3	81.2	80.2	81.3	76.2
1971 .....	72.7	77.0	77.7	74.2	75.7	76.7	72.3
1972 .....	85.1	84.1	85.2	80.1	83.6	84.3	81.2
1973 .....	92.2	90.6	90.9	89.2	89.8	90.2	88.1
1974 .....	87.1	89.9	90.5	87.6	89.4	90.5	85.1
1975 .....	75.8	80.7	80.2	82.8	80.9	80.8	81.2
1976 .....	85.1	87.2	86.5	89.8	87.7	87.5	88.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	107.6	107.2	109.1	100.0	106.8	108.7	100.0
1979 .....	111.7	107.5	106.6	111.3	108.7	108.1	110.9
1980 .....	95.0	96.5	92.9	110.8	100.4	97.8	109.9
1981 .....	95.0	99.8	97.5	108.6	100.6	98.6	107.9
1982 .....	76.2	82.1	76.1	105.4	86.0	80.8	105.0
1983 <sup>1</sup> .....	74.5	82.3	76.9	103.2	85.1	80.2	103.0
Average annual percent change:							
1958-83 .....	2.5	1.5	1.4	2.0	1.8	1.7	2.0
1979-83 .....	-9.8	-6.7	-8.2	-2.0	-6.2	-7.6	-1.9

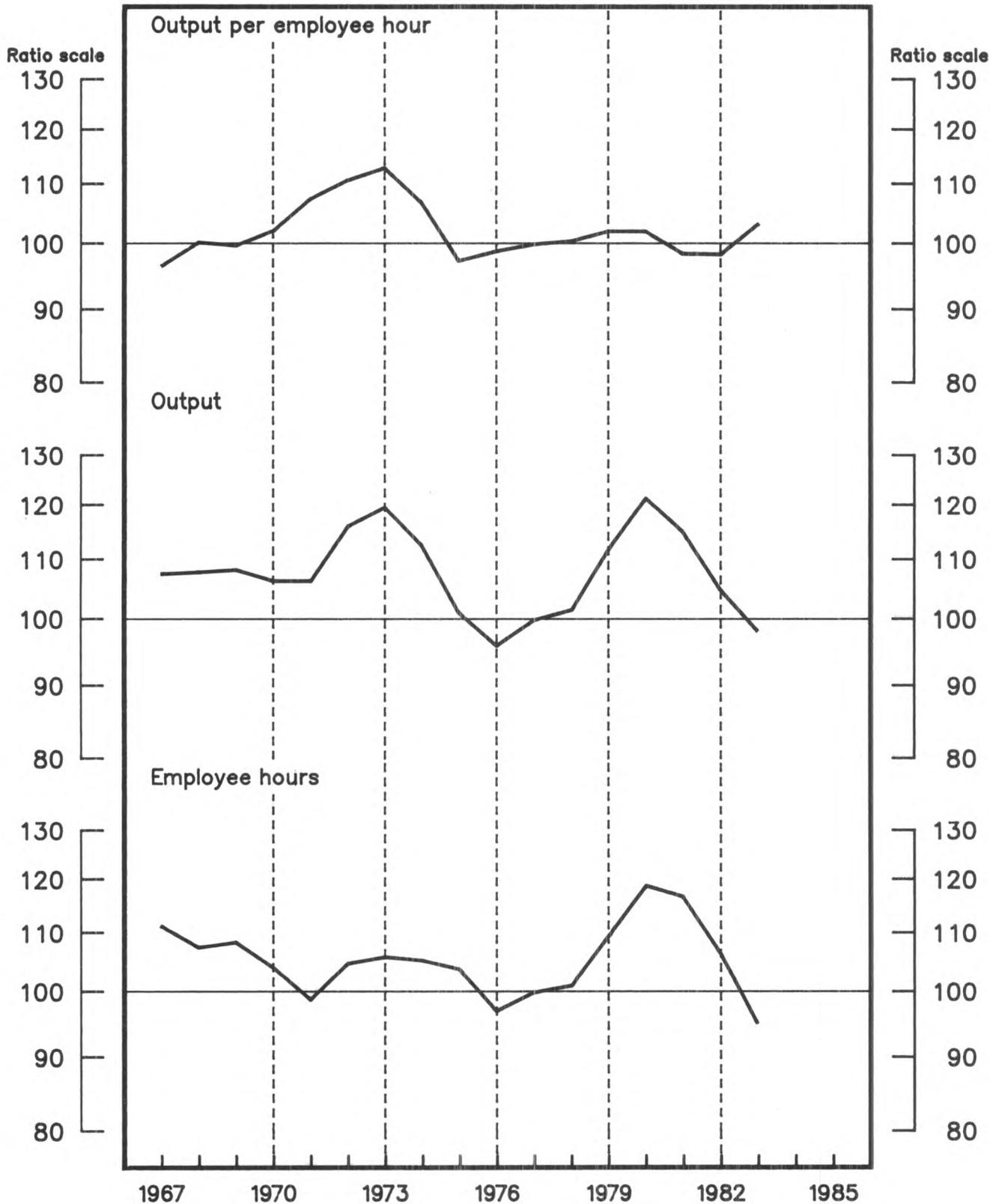
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 81. Fabricated structural metal (SIC 3441): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 158. Fabricated structural metal (SIC 3441): Indexes of output per employee hour and output per employee, 1958-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	80.2	79.3	83.2	81.3	80.0	85.2
1959 .....	78.6	79.7	75.2	79.7	80.7	76.8
1960 .....	81.1	81.0	81.1	84.7	85.3	82.9
1961 .....	85.2	84.4	87.8	87.3	86.3	89.4
1962 .....	88.5	86.7	94.0	91.6	90.1	95.9
1963 .....	91.9	90.4	95.8	93.4	91.8	97.8
1964 .....	92.9	91.5	97.7	96.5	95.1	100.2
1965 .....	97.1	94.9	103.9	99.5	97.3	106.2
1966 .....	95.0	92.3	103.4	97.0	94.4	105.1
1967 .....	96.6	94.8	102.3	99.4	97.8	104.1
1968 .....	100.3	98.5	105.9	102.7	101.3	106.2
1969 .....	99.8	99.0	102.2	102.9	102.0	105.5
1970 .....	102.2	102.2	102.0	105.8	104.6	108.5
1971 .....	107.6	106.9	109.5	109.7	108.7	112.8
1972 .....	110.8	109.8	113.3	110.6	109.9	112.3
1973 .....	113.0	112.7	113.8	112.8	111.9	115.3
1974 .....	106.9	106.0	109.4	108.0	106.3	112.6
1975 .....	97.4	96.9	98.6	97.1	95.8	100.7
1976 .....	98.9	98.7	99.0	98.7	98.1	100.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.5	99.4	104.0	100.3	99.0	104.0
1979 .....	102.1	100.3	107.6	102.0	100.0	107.9
1980 .....	102.1	99.8	109.4	102.4	99.8	110.3
1981 .....	98.5	95.8	107.4	98.9	96.0	107.8
1982 .....	98.4	98.8	97.1	99.4	100.1	97.6
1983 <sup>2</sup> .....	103.3	105.3	97.8	103.9	106.4	97.8
Average annual percent change:						
1958-83 .....	.9	.9	.8	.8	.8	.7
1979-83 .....	-1	.9	-3.1	.1	1.3	-3.1

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 159. Fabricated structural metal (SIC 3441): Indexes of output, employee hours, and employees, 1958-83**  
(1977 = 100)

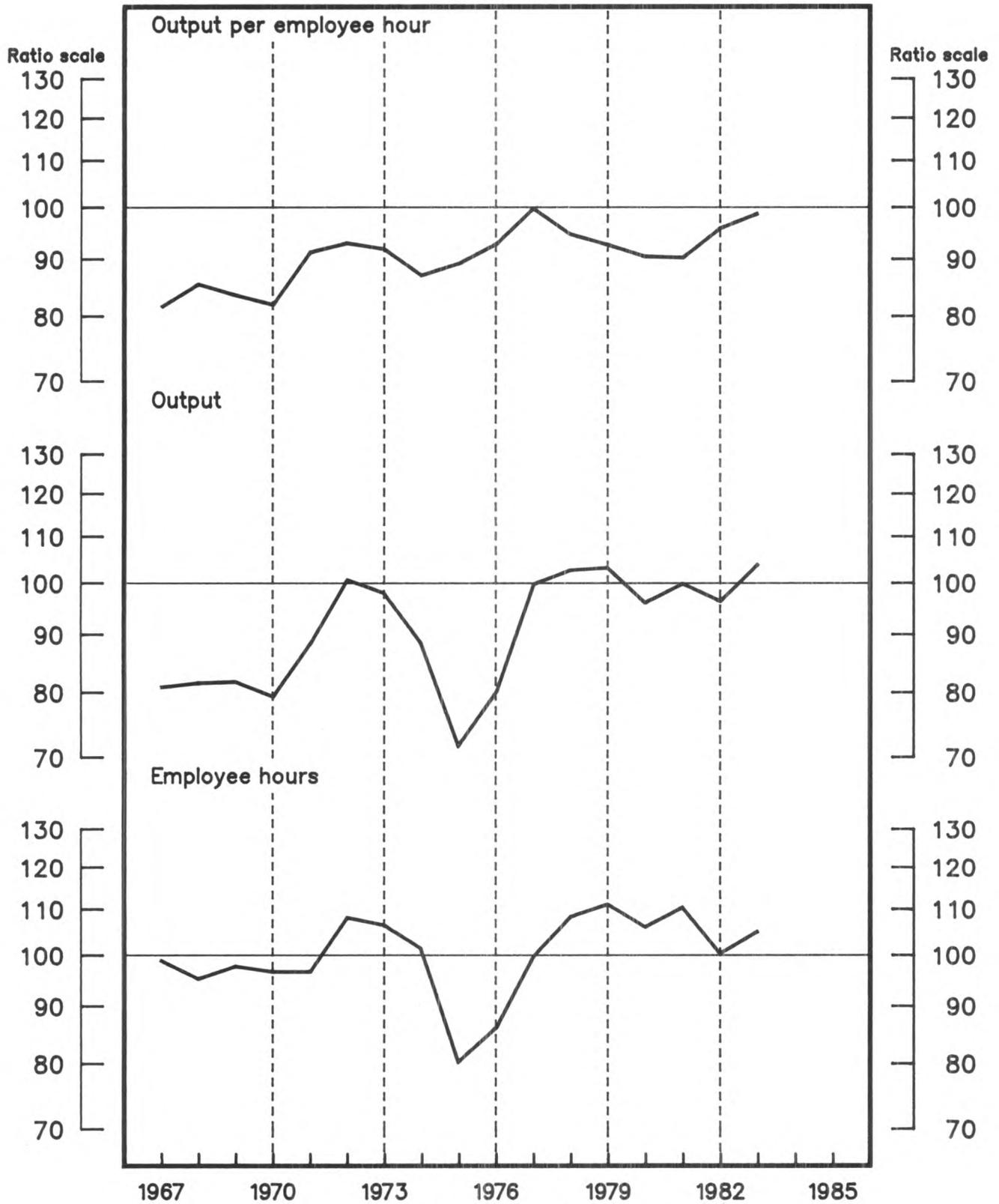
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	74.7	93.1	94.2	89.8	91.9	93.4	87.7
1959 .....	66.3	84.4	83.2	88.2	83.2	82.2	86.3
1960 .....	74.9	92.4	92.5	92.3	88.4	87.8	90.4
1961 .....	74.0	86.9	87.7	84.3	84.8	85.7	82.8
1962 .....	73.1	82.6	84.3	77.8	79.8	81.1	76.2
1963 .....	80.3	87.4	88.8	83.8	86.0	87.5	82.1
1964 .....	85.6	92.1	93.6	87.6	88.7	90.0	85.4
1965 .....	93.2	96.0	98.2	89.7	93.7	95.8	87.8
1966 .....	95.2	100.2	103.1	92.1	98.1	100.9	90.6
1967 .....	107.6	111.4	113.5	105.2	108.2	110.0	103.4
1968 .....	107.9	107.6	109.5	101.9	105.1	106.5	101.6
1969 .....	108.3	108.5	109.4	106.0	105.2	106.2	102.7
1970 .....	106.4	104.1	104.1	104.3	100.6	101.7	98.1
1971 .....	106.4	98.9	99.5	97.2	97.0	97.9	94.3
1972 .....	116.1	104.8	105.7	102.5	105.0	105.6	103.4
1973 .....	119.7	105.9	106.2	105.2	106.1	107.0	103.8
1974 .....	112.6	105.3	106.2	102.9	104.3	105.9	100.0
1975 .....	101.1	103.8	104.3	102.5	104.1	105.5	100.4
1976 .....	96.0	97.1	97.3	97.0	97.3	97.9	95.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	101.6	101.1	102.2	97.7	101.3	102.6	97.7
1979 .....	112.0	109.7	111.7	104.1	109.8	112.0	103.8
1980 .....	121.5	119.0	121.7	111.1	118.7	121.8	110.2
1981 .....	115.1	116.9	120.2	107.2	116.4	119.9	106.8
1982 .....	104.9	106.6	106.2	108.0	105.5	104.8	107.5
1983 <sup>1</sup> .....	98.2	95.1	93.3	100.4	94.5	92.3	100.4
Average annual percent change:							
1958-83 .....	1.7	.8	.8	.9	1.0	1.0	1.0
1979-83 .....	-4.0	-3.9	-4.8	-1.0	-4.1	-5.2	-9

<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 82. Metal doors, sash, and trim (SIC 3442): Output per hour and related data, 1967-83**  
 (1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 160. Metal doors, sash, and trim (SIC 3442): Indexes of output per employee hour and output per employee, 1967-83 (1977 = 100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1967 .....	81.7	82.9	78.0	83.4	84.7	79.5
1968 .....	85.6	86.5	83.1	86.2	87.1	83.3
1969 .....	83.7	85.0	79.4	85.0	86.0	81.9
1970 .....	82.1	85.9	71.6	83.9	86.8	76.1
1971 .....	91.4	93.8	84.4	92.5	94.3	86.8
1972 .....	93.1	93.9	90.3	93.9	95.4	89.5
1973 .....	92.0	94.1	86.0	92.8	94.8	87.1
1974 .....	87.2	88.6	82.9	87.5	88.2	85.4
1975 .....	89.3	92.1	81.3	88.2	90.0	83.1
1976 .....	92.9	93.6	90.9	93.6	93.9	92.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	94.8	95.9	91.2	94.8	96.0	91.3
1979 .....	92.8	94.9	86.4	92.8	94.9	86.8
1980 .....	90.6	93.0	83.3	90.0	92.1	84.0
1981 .....	90.4	92.9	83.1	91.8	94.6	83.6
1982 .....	96.0	101.9	80.7	95.8	101.7	81.1
1983 <sup>2</sup> .....	98.9	102.6	88.2	97.2	100.3	88.4
Average annual percent change:						
1967-83 .....	.9	1.0	.6	.7	.9	.4
1979-83 .....	1.9	2.5	.1	1.6	2.1	( <sup>3</sup> )

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 161. Metal doors, sash, and trim (SIC 3442): Indexes of output, employee hours, and employees, 1967-83 (1977 = 100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1967 .....	81.0	99.1	97.7	103.8	97.1	95.6	101.9
1968 .....	81.7	95.4	94.5	98.3	94.8	93.8	98.1
1969 .....	81.9	97.9	96.4	103.1	96.4	95.2	100.0
1970 .....	79.5	96.8	92.6	111.1	94.7	91.6	104.5
1971 .....	88.5	96.8	94.4	104.8	95.7	93.8	101.9
1972 .....	100.9	108.4	107.4	111.8	107.4	105.8	112.7
1973 .....	98.2	106.7	104.4	114.2	105.8	103.6	112.7
1974 .....	88.6	101.6	100.0	106.9	101.2	100.4	103.8
1975 .....	72.0	80.6	78.2	88.6	81.6	80.0	86.6
1976 .....	80.2	86.3	85.7	88.2	85.7	85.4	86.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.9	108.6	107.3	112.8	108.5	107.2	112.7
1979 .....	103.4	111.4	108.9	119.7	111.4	109.0	119.1
1980 .....	96.3	106.3	103.5	115.6	107.0	104.6	114.6
1981 .....	100.1	110.7	107.8	120.4	109.1	105.8	119.7
1982 .....	96.6	100.6	94.8	119.7	100.8	95.0	119.1
1983 <sup>1</sup> .....	104.1	105.3	101.5	118.0	107.1	103.8	117.8
Average annual percent change:							
1967-83 .....	1.5	.6	.5	.9	.7	.6	1.0
1979-83 .....	.2	-1.7	-2.3	.1	-1.4	-1.9	.2

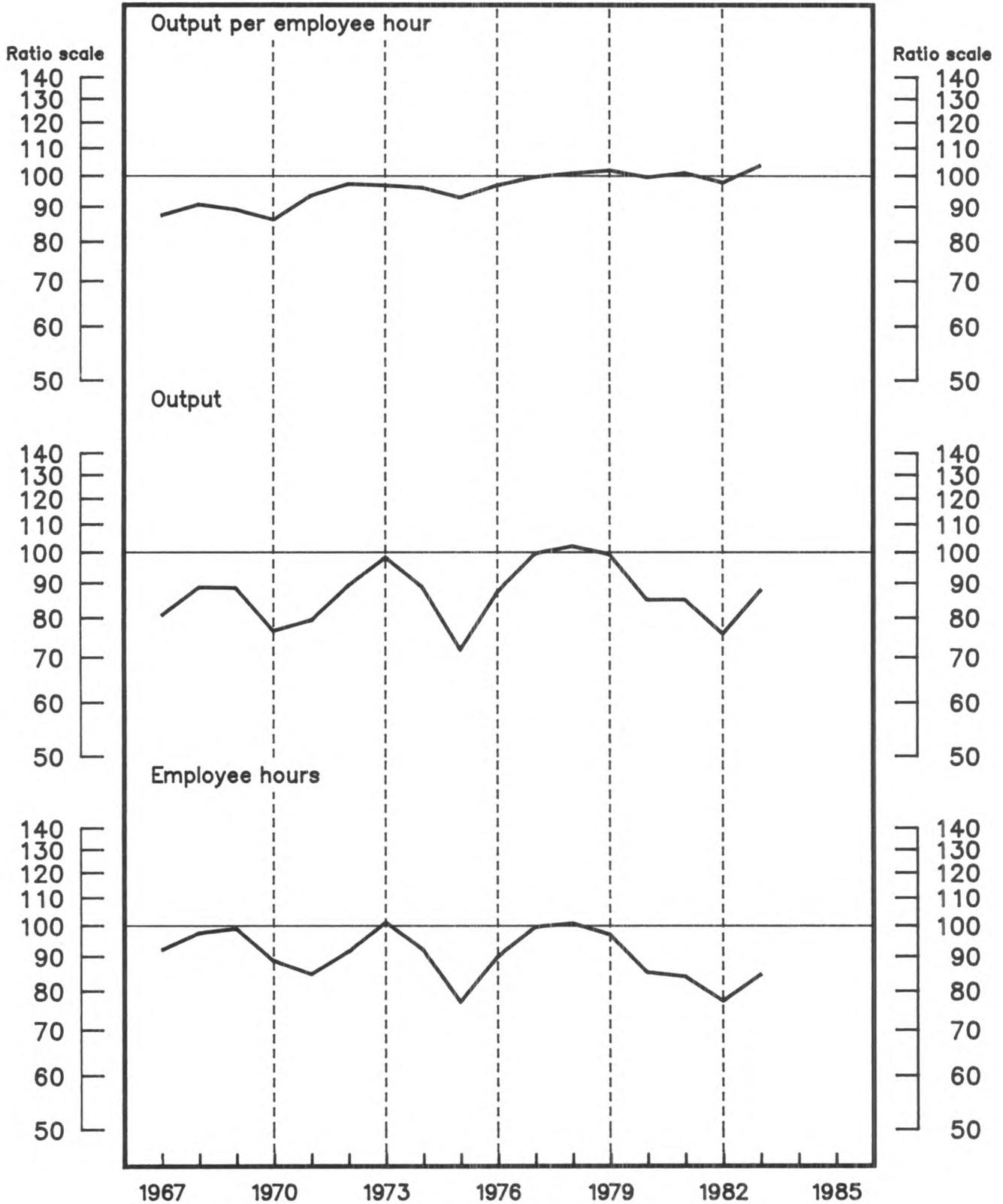
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 83. Metal stampings (SIC 3465, 3466, 3469): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 162. Metal stampings (SIC 3465, 3466, 3469): Indexes of output per employee hour and output per employee, 1963-83 (1977=100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	87.5	87.5	87.8	90.2	90.4	89.6
1964	84.0	83.1	89.1	87.3	86.5	91.3
1965	88.8	88.2	92.4	92.4	92.0	94.4
1966	87.1	85.6	96.3	88.9	87.3	97.8
1967	87.7	87.8	87.0	87.3	87.1	88.5
1968	91.0	90.0	96.6	93.5	92.8	96.8
1969	89.4	89.2	90.5	90.6	90.1	93.3
1970	86.4	88.4	77.6	87.8	89.0	82.5
1971	93.8	95.2	86.9	93.2	94.1	89.3
1972	97.6	97.6	97.5	97.8	98.0	96.6
1973	97.1	96.5	100.6	98.2	97.5	101.9
1974	96.3	97.7	90.0	94.0	94.3	92.6
1975	93.2	96.3	79.6	88.8	90.6	81.3
1976	97.2	98.0	93.2	96.3	96.6	94.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.3	100.8	103.5	99.7	99.0	103.4
1979	102.3	102.4	101.4	98.3	97.6	101.7
1980	99.9	102.3	88.6	93.7	94.8	89.1
1981	101.4	103.5	91.4	96.8	97.9	91.7
1982	98.1	103.5	76.7	94.0	98.4	76.9
1983 <sup>2</sup>	104.0	106.9	91.1	104.1	107.3	91.1
Average annual percent change:						
1963-83	1.0	1.1	( <sup>3</sup> )	.6	.7	-.1
1979-83	.1	1.0	-3.5	1.2	2.3	-3.6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 163. Metal stampings (SIC 3465, 3466, 3469): Indexes of output, employee hours, and employees, 1963-83 (1977=100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	67.5	77.1	77.1	76.9	74.8	74.7	75.3
1964	68.6	81.7	82.6	77.0	78.6	79.3	75.1
1965	79.1	89.1	89.7	85.6	85.6	86.0	83.8
1966	82.6	94.8	96.5	85.8	92.9	94.6	84.5
1967	81.0	92.4	92.3	93.1	92.8	93.0	91.5
1968	89.1	97.9	99.0	92.2	95.3	96.0	92.0
1969	88.9	99.4	99.7	98.2	98.1	98.7	95.3
1970	76.9	89.0	87.0	99.1	87.6	86.4	93.2
1971	79.7	85.0	83.7	91.7	85.5	84.7	89.2
1972	89.7	91.9	91.9	92.0	91.7	91.5	92.9
1973	98.7	101.6	102.3	98.1	100.5	101.2	96.9
1974	89.1	92.5	91.2	99.0	94.8	94.5	96.2
1975	72.3	77.6	75.1	90.8	81.4	79.8	88.9
1976	88.0	90.5	89.8	94.4	91.4	91.1	92.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.5	101.2	101.7	99.0	102.8	103.5	99.1
1979	99.6	97.4	97.3	98.2	101.3	102.0	97.9
1980	85.4	85.5	83.5	96.4	91.1	90.1	95.8
1981	85.5	84.3	82.6	93.5	88.3	87.3	93.2
1982	76.2	77.7	73.6	99.4	81.1	77.4	99.1
1983 <sup>1</sup>	88.3	84.9	82.6	96.9	84.8	82.3	96.9
Average annual percent change:							
1963-83	.9	( <sup>2</sup> )	-.2	.9	.4	.2	1.0
1979-83	-3.5	-3.6	-4.4	( <sup>2</sup> )	-4.6	-5.6	.1

<sup>1</sup> Preliminary.

<sup>2</sup> Less than .05 percent.

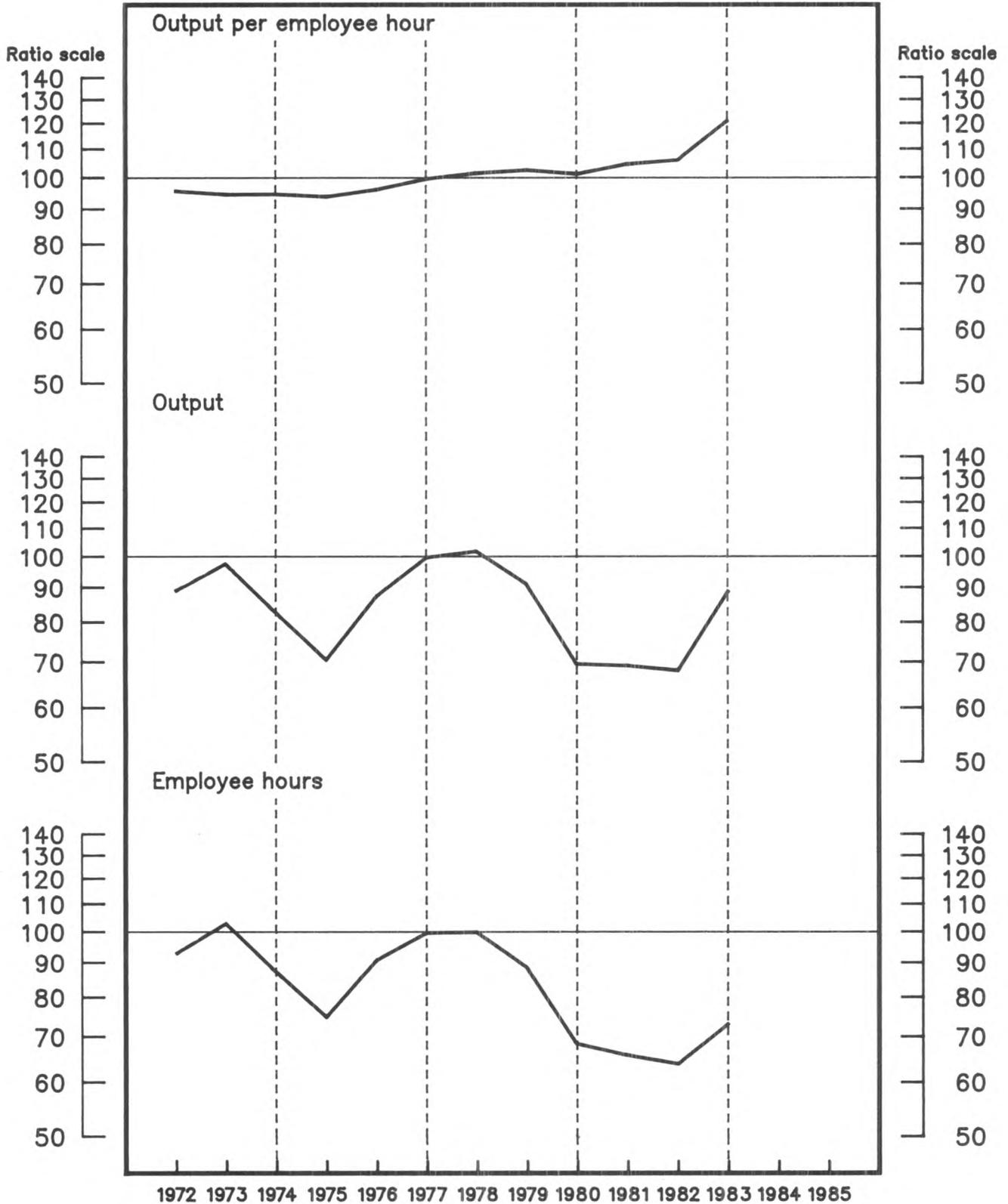
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 84. Automotive stampings (SIC 3465): Output per hour and related data, 1972-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 164. Automotive stampings (SIC 3465): Indexes of output per employee hour and output per employee, 1972-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972 .....	95.9	97.3	88.6	95.9	97.5	87.5
1973 .....	94.8	95.5	90.5	95.7	96.5	91.5
1974 .....	94.9	97.3	81.9	90.3	91.4	84.3
1975 .....	94.1	96.9	79.5	87.3	88.5	81.0
1976 .....	96.4	97.3	90.5	94.4	94.9	91.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	101.9	102.0	101.3	98.9	98.6	101.1
1979 .....	102.9	104.1	96.1	96.6	96.6	96.2
1980 .....	101.6	105.9	80.7	91.5	93.6	81.1
1981 .....	105.0	108.5	86.5	96.5	98.4	86.7
1982 .....	106.7	111.3	84.5	99.7	103.0	84.8
1983 <sup>2</sup> .....	121.5	122.7	114.5	122.2	123.7	114.5
Average annual percent change:						
1972-83 .....	1.8	1.9	1.0	1.3	1.4	.9
1979-83 .....	3.9	3.9	4.0	5.7	6.1	4.0

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 165. Automotive stampings (SIC 3465): Indexes of output, employee hours, and employees, 1972-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972 .....	89.3	93.1	91.8	100.8	93.1	91.6	102.0
1973 .....	97.9	103.3	102.5	108.2	102.3	101.4	107.0
1974 .....	83.0	87.5	85.3	101.4	91.9	90.8	98.5
1975 .....	70.8	75.2	73.1	89.1	81.1	80.0	87.4
1976 .....	87.8	91.1	90.2	97.0	93.0	92.5	95.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.1	100.2	100.1	100.8	103.2	103.6	101.0
1979 .....	91.4	88.8	87.8	95.1	94.6	94.6	95.0
1980 .....	69.7	68.6	65.8	86.4	76.2	74.5	85.9
1981 .....	69.3	66.0	63.9	80.1	71.8	70.4	79.9
1982 .....	68.2	63.9	61.3	80.7	68.4	66.2	80.4
1983 <sup>1</sup> .....	89.2	73.4	72.7	77.9	73.0	72.1	77.9
Average annual percent change:							
1972-83 .....	-1.5	-3.2	-3.4	-2.5	-2.8	-2.9	-2.5
1979-83 .....	-7	-4.4	-4.4	-4.6	-6.1	-6.4	-4.5

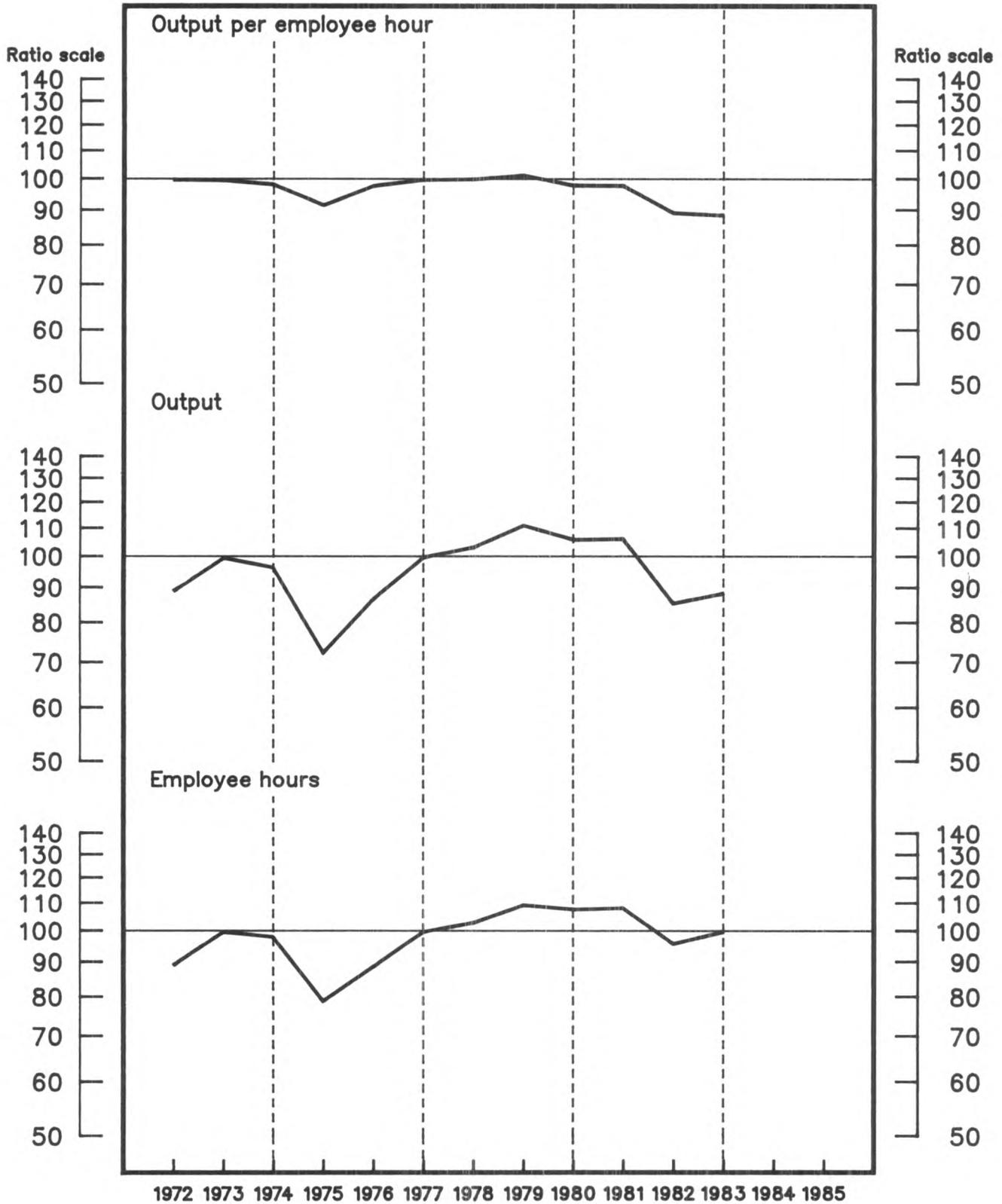
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 85. Metal stampings, not elsewhere classified (SIC 3469): Output per hour and related data, 1972-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 166. Metal stampings, not elsewhere classified (SIC 3469): Indexes of output per employee hour and output per employee, 1972-83 (1977 = 100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972 .....	100.0	98.2	107.7	100.2	98.7	106.3
1973 .....	99.8	97.1	113.0	101.0	98.0	114.2
1974 .....	98.4	98.0	100.2	98.6	97.6	102.9
1975 .....	91.7	95.2	79.5	90.0	92.6	81.0
1976 .....	98.0	98.8	94.9	97.8	98.2	96.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.2	98.8	106.7	100.5	99.0	106.4
1979 .....	101.5	99.6	109.9	100.4	98.1	110.3
1980 .....	98.1	97.6	100.7	96.2	95.0	101.3
1981 .....	98.0	97.4	100.5	97.3	96.6	100.7
1982 .....	89.3	94.4	73.0	88.1	93.0	73.2
1983 <sup>2</sup> .....	88.6	91.8	77.3	88.9	92.4	77.3
Average annual percent change:						
1972-83 .....	-.7	-.3	-2.0	-.8	-.4	-2.1
1979-83 .....	-3.6	-1.9	-9.7	-3.3	-1.4	-9.8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 167. Metal stampings, not elsewhere classified (SIC 3469): Indexes of output, employee hours, and employees, 1972-83 (1977 = 100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972 .....	89.3	89.3	90.9	82.9	89.1	90.5	84.0
1973 .....	99.7	99.9	102.7	88.2	98.7	101.7	87.3
1974 .....	96.6	98.2	98.6	96.4	98.0	99.0	93.9
1975 .....	72.6	79.2	76.3	91.3	80.7	78.4	89.6
1976 .....	87.1	88.9	88.2	91.8	89.1	88.7	90.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	103.4	103.2	104.7	96.9	102.9	104.4	97.2
1979 .....	111.3	109.7	111.8	101.3	110.9	113.5	100.9
1980 .....	106.1	108.1	108.7	105.4	110.3	111.7	104.7
1981 .....	106.4	108.6	109.2	105.9	109.3	110.2	105.7
1982 .....	85.7	96.0	90.8	117.4	97.3	92.2	117.0
1983 <sup>1</sup> .....	88.6	100.0	96.5	114.6	99.7	95.9	114.6
Average annual percent change:							
1972-83 .....	.7	1.3	1.0	2.8	1.5	1.1	2.8
1979-83 .....	-6.5	-3.0	-4.6	3.6	-3.3	-5.2	3.7

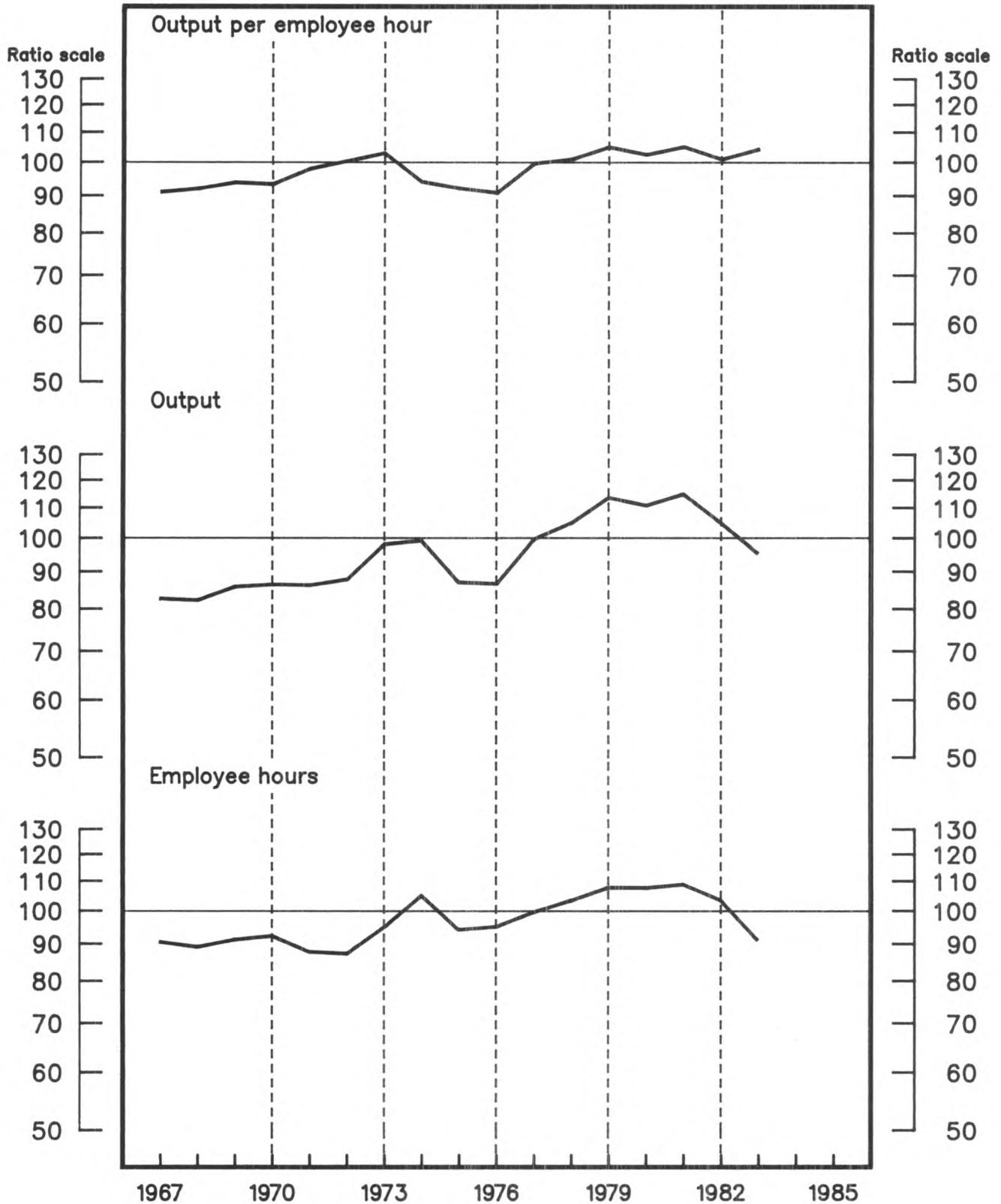
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 86. Valves and pipe fittings (SIC 3494): Output per hours and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 168. Valves and pipe fittings (SIC 3494): Indexes of output per employee hour and output per employee, 1958-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	72.2	69.8	78.9	73.0	70.1	80.8
1959 .....	76.5	73.0	86.7	77.3	73.2	88.7
1960 .....	75.0	73.3	79.6	75.1	72.7	81.4
1961 .....	81.3	80.4	83.5	82.1	80.9	85.0
1962 .....	83.4	82.0	87.3	85.3	83.7	89.1
1963 .....	84.3	81.7	91.7	86.2	83.5	93.5
1964 .....	86.6	83.4	95.9	91.2	88.3	98.6
1965 .....	96.4	93.5	104.7	100.1	97.6	106.9
1966 .....	95.1	91.7	104.7	100.2	97.7	106.5
1967 .....	91.3	89.2	97.0	94.5	92.9	98.6
1968 .....	92.3	90.8	96.5	93.9	92.8	96.7
1969 .....	94.1	92.7	97.8	97.3	95.8	100.9
1970 .....	93.6	95.5	89.4	96.7	97.3	95.2
1971 .....	98.3	99.1	96.4	99.8	100.1	99.2
1972 .....	100.7	100.3	101.4	101.5	102.1	100.3
1973 .....	103.3	102.8	104.2	105.6	105.6	105.5
1974 .....	94.3	92.7	98.3	100.5	100.2	101.3
1975 .....	92.4	95.3	85.8	92.7	95.1	87.6
1976 .....	91.1	92.8	87.1	92.0	93.5	88.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	101.3	100.9	102.6	101.2	100.5	102.7
1979 .....	105.3	105.7	104.5	105.6	105.9	104.9
1980 .....	102.8	104.8	98.2	103.0	104.7	99.0
1981 .....	105.4	108.4	98.6	105.7	108.8	99.1
1982 .....	101.3	109.1	85.8	99.2	106.2	86.2
1983 <sup>2</sup> .....	104.6	112.6	88.8	102.9	110.3	89.0
Average annual percent change:						
1954-83 .....	1.2	1.7	( <sup>3</sup> )	1.1	1.6	-1
1979-83 .....	-3	1.7	-4.5	-9	1.0	-4.6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 169. Valves and pipe fittings (SIC 3494): Indexes of output, employee hours, and employees, 1958-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	51.6	71.5	73.9	65.4	70.7	73.6	63.9
1959 .....	54.0	70.6	74.0	62.3	69.9	73.8	60.9
1960 .....	51.8	69.1	70.7	65.1	69.0	71.3	63.6
1961 .....	57.7	71.0	71.8	69.1	70.3	71.3	67.9
1962 .....	63.8	76.5	77.8	73.1	74.8	76.2	71.6
1963 .....	63.8	75.7	78.1	69.6	74.0	76.4	68.2
1964 .....	68.7	79.3	82.4	71.6	75.3	77.8	69.7
1965 .....	81.0	84.0	86.6	77.4	80.9	83.0	75.8
1966 .....	85.0	89.4	92.7	81.2	84.8	87.0	79.8
1967 .....	82.9	90.8	92.9	85.5	87.7	89.2	84.1
1968 .....	82.5	89.4	90.9	85.5	87.9	88.9	85.3
1969 .....	86.1	91.5	92.9	88.0	88.5	89.9	85.3
1970 .....	86.7	92.6	90.8	97.0	89.7	89.1	91.1
1971 .....	86.5	88.0	87.3	89.7	86.7	86.4	87.2
1972 .....	88.1	87.5	87.8	86.9	86.8	86.3	87.8
1973 .....	98.4	95.3	95.7	94.4	93.2	93.2	93.3
1974 .....	99.5	105.5	107.3	101.2	99.0	99.3	98.2
1975 .....	87.3	94.5	91.6	101.8	94.2	91.8	99.7
1976 .....	86.9	95.4	93.6	99.8	94.5	92.9	98.2
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	105.2	103.8	104.3	102.5	104.0	104.7	102.4
1979 .....	113.9	108.2	107.8	109.0	107.9	107.6	108.6
1980 .....	111.1	108.1	106.0	113.1	107.9	106.1	112.2
1981 .....	115.2	109.3	106.3	116.8	109.0	105.9	116.2
1982 .....	105.2	103.9	96.4	122.6	106.0	99.1	122.0
1983 <sup>1</sup> .....	95.5	91.3	84.8	107.5	92.8	86.6	107.3
Average annual percent change:							
1954-83 .....	2.7	1.5	1.0	2.8	1.6	1.2	2.8
1979-83 .....	-4.0	-3.7	-5.6	.5	-3.1	-4.9	.6

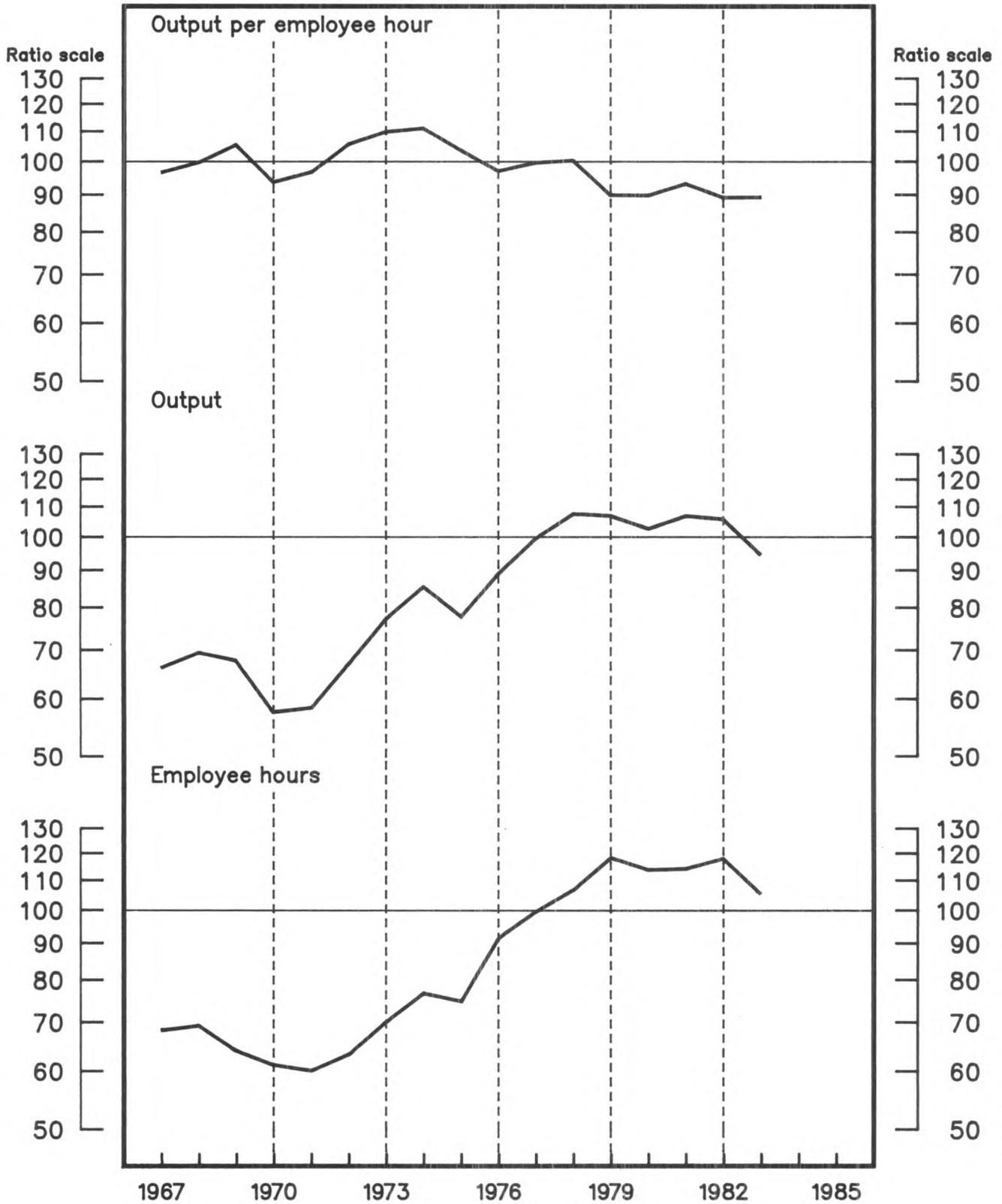
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 87. Fabricated pipe and fittings (SIC 3498): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 170. Fabricated pipe and fittings (SIC 3498): Indexes of output per employee hour and output per employee, 1958-83 (1977 = 100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	84.9	87.4	77.6	88.7	92.1	79.3
1959 .....	94.7	97.0	87.9	101.3	105.5	90.4
1960 .....	84.9	88.4	75.2	90.4	95.6	77.5
1961 .....	97.5	101.7	85.9	101.9	107.3	87.8
1962 .....	98.5	102.5	87.7	104.7	110.3	89.8
1963 .....	93.0	97.6	80.4	97.6	103.4	82.7
1964 .....	97.3	98.3	93.9	103.0	105.1	96.6
1965 .....	100.9	101.8	98.3	105.1	106.9	100.0
1966 .....	100.3	103.2	92.3	107.3	112.5	93.7
1967 .....	96.9	98.4	92.2	102.9	106.1	94.1
1968 .....	100.1	98.9	104.8	106.7	107.1	105.1
1969 .....	105.8	104.8	108.8	116.1	117.3	112.6
1970 .....	94.0	92.9	97.5	100.5	99.7	103.2
1971 .....	97.0	96.5	98.8	100.0	99.3	101.9
1972 .....	106.0	105.5	107.9	108.4	109.1	106.5
1973 .....	110.2	110.5	109.0	112.8	113.8	109.9
1974 .....	111.4	111.7	110.6	115.8	116.3	114.4
1975 .....	104.0	104.7	101.7	106.4	107.1	104.1
1976 .....	97.4	95.4	104.6	99.0	96.8	106.8
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.7	99.5	104.6	100.7	99.5	104.9
1979 .....	90.2	86.7	103.9	91.9	88.6	104.2
1980 .....	90.1	89.7	91.3	90.7	90.4	92.1
1981 .....	93.5	92.6	96.4	94.4	93.6	97.2
1982 .....	89.5	92.8	80.4	91.5	95.4	81.1
1983 <sup>2</sup> .....	89.6	91.2	84.6	91.2	93.5	84.8
Average annual percent change:						
1958-83 .....	.1	-.1	.6	-.2	-.4	.5
1979-83 .....	-2	1.4	-5.2	-1	1.6	-5.2

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 171. Fabricated pipe and fittings (SIC 3498): Indexes of output, employee hours, and employees, 1958-83 (1977 = 100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	47.8	56.3	54.7	61.6	53.9	51.9	60.3
1959 .....	47.8	50.5	49.3	54.4	47.2	45.3	52.9
1960 .....	43.3	51.0	49.0	57.6	47.9	45.3	55.9
1961 .....	42.6	43.7	41.9	49.6	41.8	39.7	48.5
1962 .....	44.9	45.6	43.8	51.2	42.9	40.7	50.0
1963 .....	45.0	48.4	46.1	56.0	46.1	43.5	54.4
1964 .....	51.1	52.5	52.0	54.4	49.6	48.6	52.9
1965 .....	57.4	56.9	56.4	58.4	54.6	53.7	57.4
1966 .....	62.0	61.8	60.1	67.2	57.8	55.1	66.2
1967 .....	66.4	68.5	67.5	72.0	64.5	62.6	70.6
1968 .....	69.6	69.5	70.4	66.4	65.2	65.0	66.2
1969 .....	67.9	64.2	64.8	62.4	58.5	57.9	60.3
1970 .....	57.7	61.4	62.1	59.2	57.4	57.9	55.9
1971 .....	58.5	60.3	60.6	59.2	58.5	58.9	57.4
1972 .....	67.3	63.5	63.8	62.4	62.1	61.7	63.2
1973 .....	77.6	70.4	70.2	71.2	68.8	68.2	70.6
1974 .....	85.8	77.0	76.8	77.6	74.1	73.8	75.0
1975 .....	78.1	75.1	74.6	76.8	73.4	72.9	75.0
1976 .....	89.5	91.9	93.8	85.6	90.4	92.5	83.8
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	107.9	107.2	108.4	103.2	107.1	108.4	102.9
1979 .....	107.2	118.8	123.6	103.2	116.7	121.0	102.9
1980 .....	103.0	114.3	114.8	112.8	113.5	114.0	111.8
1981 .....	107.2	114.7	115.8	112.0	113.5	114.5	110.3
1982 .....	106.1	118.5	114.3	132.0	116.0	111.2	130.9
1983 <sup>1</sup> .....	94.8	105.8	103.9	112.0	103.9	101.4	111.8
Average annual percent change:							
1958-83 .....	4.1	4.0	4.2	3.5	4.3	4.5	3.6
1979-83 .....	-2.1	-1.9	-3.5	3.3	-2.1	-3.7	3.3

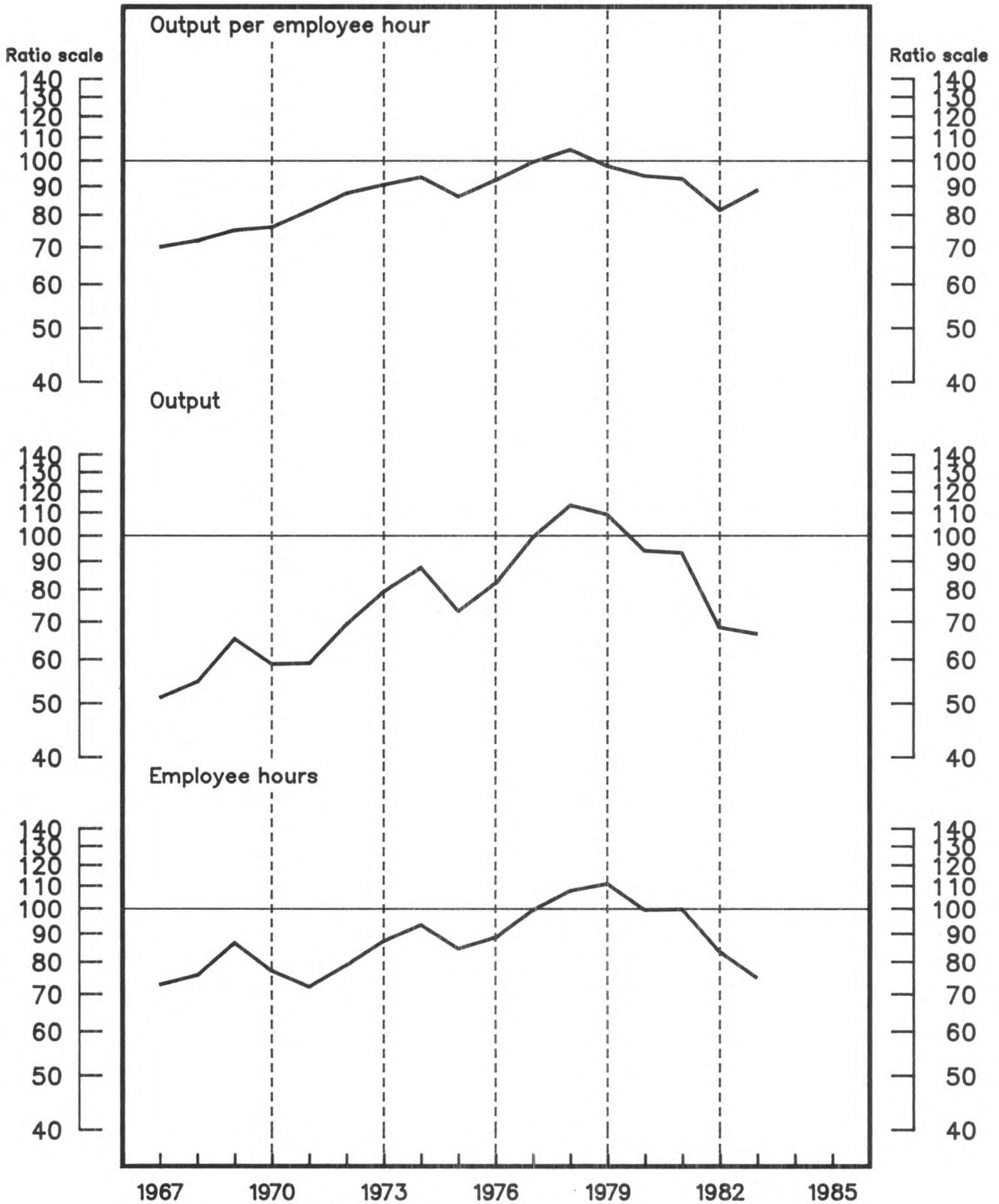
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 88. Internal combustion engines, not elsewhere classified (SIC 3519): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 172. Internal combustion engines, not elsewhere classified (SIC 3519): Indexes of output per employee hour and output per employee, 1967-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1967 .....	70.3	68.8	75.1	71.7	70.7	74.6
1968 .....	72.2	71.4	74.7	73.8	72.4	77.8
1969 .....	75.4	74.6	77.8	77.2	76.2	79.9
1970 .....	76.4	76.6	75.7	75.8	75.4	76.8
1971 .....	81.8	82.5	79.9	79.9	79.4	81.5
1972 .....	87.9	86.9	90.9	88.6	87.2	92.6
1973 .....	91.0	88.9	97.8	93.4	91.4	99.7
1974 .....	93.9	91.9	100.9	96.8	94.9	102.4
1975 .....	86.7	89.5	79.1	84.3	86.0	80.1
1976 .....	92.8	94.3	88.7	91.9	92.7	89.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	105.1	105.7	103.5	105.5	106.3	103.4
1979 .....	98.2	99.2	95.3	96.2	96.5	95.7
1980 .....	94.3	98.0	84.6	93.6	97.1	85.3
1981 .....	93.2	96.6	84.5	93.2	96.6	84.8
1982 .....	82.0	93.9	59.4	76.8	85.7	59.6
1983 <sup>2</sup> .....	89.0	102.8	63.4	84.2	95.4	63.4
Average annual percent change:						
1967-83 .....	1.6	2.4	-2	1.3	1.9	-4
1979-83 .....	-3.3	.3	-11.0	-4.5	-1.5	-11.1

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 173. Internal combustion engines, not elsewhere classified (SIC 3519): Indexes of output, employee hours, and employees, 1967-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1967 .....	51.4	73.1	74.7	68.4	71.7	72.7	68.9
1968 .....	54.9	76.0	76.9	73.5	74.4	75.8	70.6
1969 .....	65.6	87.0	87.9	84.3	85.0	86.1	82.1
1970 .....	59.1	77.4	77.2	78.1	78.0	78.4	77.0
1971 .....	59.3	72.5	71.9	74.2	74.2	74.7	72.8
1972 .....	69.7	79.3	80.2	76.7	78.7	79.9	75.3
1973 .....	79.8	87.7	89.8	81.6	85.4	87.3	80.0
1974 .....	88.1	93.8	95.9	87.3	91.0	92.8	86.0
1975 .....	73.6	84.9	82.2	93.1	87.3	85.6	91.9
1976 .....	82.6	89.0	87.6	93.1	89.9	89.1	91.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	113.9	108.4	107.8	110.1	108.0	107.2	110.2
1979 .....	109.6	111.6	110.5	115.0	113.9	113.6	114.5
1980 .....	94.3	100.0	96.2	111.5	100.7	97.1	110.6
1981 .....	93.5	100.3	96.8	110.6	100.3	96.8	110.2
1982 .....	68.7	83.8	73.2	115.7	89.5	80.2	115.3
1983 <sup>1</sup> .....	66.9	75.2	65.1	105.5	79.5	70.1	105.5
Average annual percent change:							
1967-83 .....	3.1	1.5	.7	3.3	1.8	1.2	3.5
1979-83 .....	-12.2	-9.2	-12.5	-1.3	-8.0	-10.9	-1.2

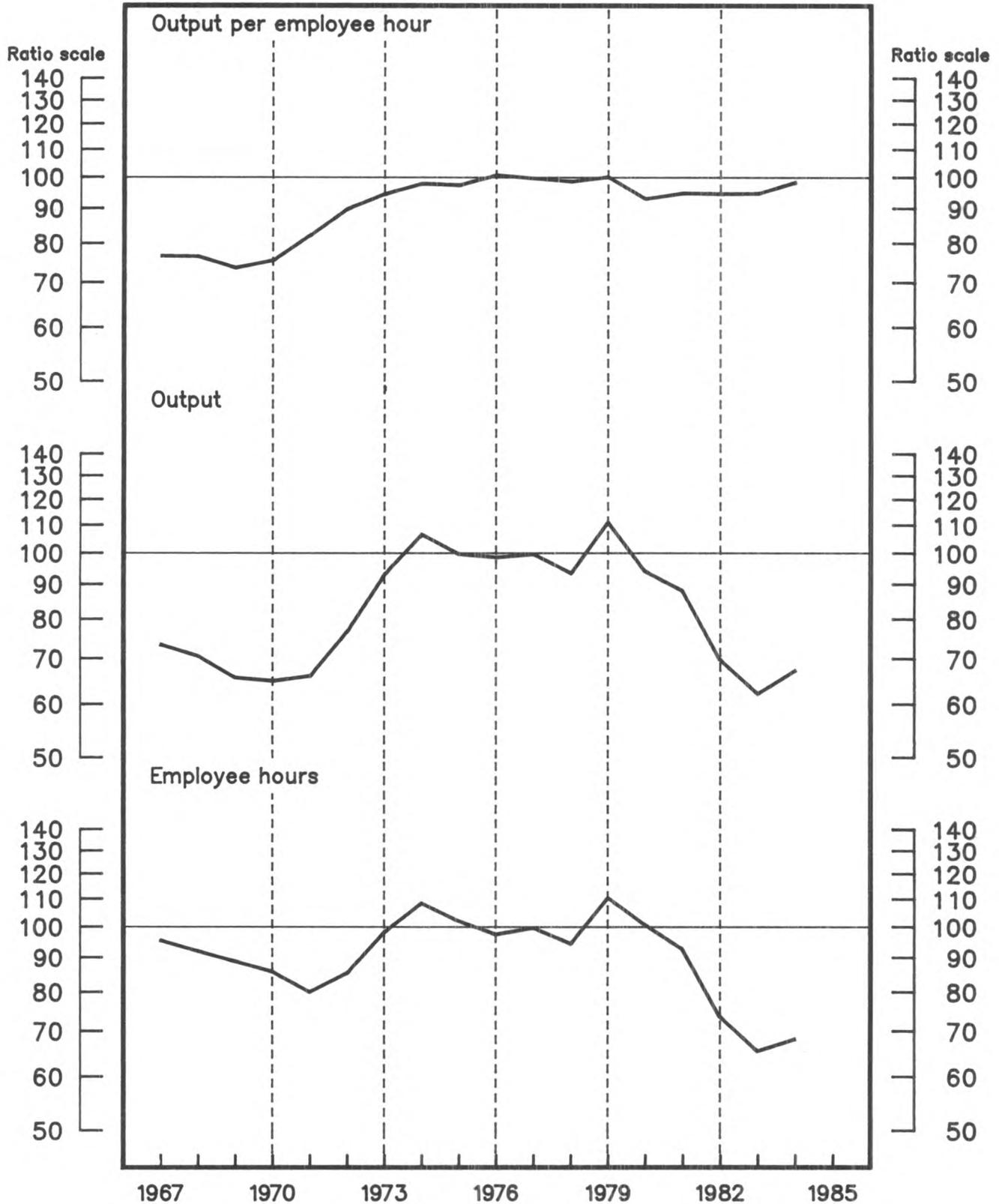
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 89. Farm and garden machinery (SIC 352): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 174. Farm and garden machinery (SIC 352): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	65.1	64.9	65.5	66.2	66.0	66.8
1959 .....	65.1	63.4	70.3	67.5	66.1	71.4
1960 .....	60.5	61.3	58.6	63.0	64.5	59.2
1961 .....	62.9	61.3	67.7	64.9	63.9	67.7
1962 .....	65.1	65.1	64.8	66.8	67.7	64.6
1963 .....	66.6	64.3	74.3	69.4	67.8	74.1
1964 .....	70.2	66.9	82.0	73.7	71.1	82.0
1965 .....	72.2	68.6	84.8	75.6	72.8	84.5
1966 .....	76.7	72.3	92.7	80.9	77.6	92.0
1967 .....	76.8	73.3	88.8	78.5	75.6	88.1
1968 .....	76.7	75.0	82.1	79.1	77.0	85.6
1969 .....	73.8	73.2	75.9	75.5	74.7	77.9
1970 .....	75.7	75.2	77.3	76.8	76.2	78.4
1971 .....	82.4	83.0	81.0	83.8	84.3	82.4
1972 .....	90.1	87.0	99.9	92.9	90.0	101.8
1973 .....	94.8	90.7	109.2	97.4	93.2	111.3
1974 .....	98.2	92.6	118.3	102.2	96.9	120.1
1975 .....	97.7	95.3	105.2	100.9	99.0	106.4
1976 .....	101.1	100.5	103.1	102.2	101.4	104.3
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	98.9	98.1	101.2	98.9	98.2	101.2
1979 .....	100.5	98.8	105.5	101.9	100.6	105.8
1980 .....	93.3	96.3	85.5	92.5	95.1	86.1
1981 .....	95.1	100.1	83.1	93.2	97.2	83.4
1982 .....	94.9	106.5	72.5	92.7	102.9	72.8
1983 .....	95.0	105.2	74.5	93.4	102.8	74.6
1984 <sup>2</sup> .....	98.7	105.6	83.0	97.7	104.2	83.3
Average annual percent change:						
1958-84 .....	2.1	2.4	1.2	1.9	2.1	1.2
1979-84 .....	-1	1.9	-4.9	-5	1.3	-4.9

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 175. Farm and garden machinery (SIC 352): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	49.4	75.9	76.1	75.4	74.6	74.8	74.0
1959 .....	52.5	80.7	82.8	74.7	77.8	79.4	73.5
1960 .....	42.9	70.9	70.0	73.2	68.1	66.5	72.5
1961 .....	45.7	72.7	74.5	67.5	70.4	71.5	67.5
1962 .....	48.8	75.0	75.0	75.3	73.0	72.1	75.5
1963 .....	53.7	80.6	83.5	72.3	77.4	79.2	72.5
1964 .....	60.1	85.6	89.9	73.3	81.5	84.5	73.3
1965 .....	64.0	88.6	93.3	75.5	84.7	87.9	75.7
1966 .....	76.4	99.6	105.6	82.4	94.4	98.5	83.0
1967 .....	73.6	95.8	100.4	82.9	93.7	97.4	83.5
1968 .....	70.8	92.3	94.4	86.2	89.5	92.0	82.7
1969 .....	65.8	89.1	89.9	86.7	87.1	88.1	84.5
1970 .....	65.1	86.0	86.6	84.2	84.8	85.4	83.0
1971 .....	66.2	80.3	79.8	81.7	79.0	78.5	80.3
1972 .....	77.1	85.6	88.6	77.2	83.0	85.7	75.7
1973 .....	93.5	98.6	103.1	85.6	96.0	100.3	84.0
1974 .....	106.9	108.9	115.4	90.4	104.6	110.3	89.0
1975 .....	100.0	102.4	104.9	95.1	99.1	101.0	94.0
1976 .....	98.9	97.8	98.4	95.9	96.8	97.5	94.8
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	93.8	94.8	95.6	92.7	94.8	95.5	92.7
1979 .....	111.6	111.1	112.9	105.8	109.5	110.9	105.5
1980 .....	94.3	101.1	97.9	110.3	101.9	99.2	109.5
1981 .....	88.4	93.0	88.3	106.4	94.9	90.9	106.0
1982 .....	70.0	73.8	65.7	96.6	75.5	68.0	96.2
1983 .....	62.4	65.7	59.3	83.8	66.8	60.7	83.7
1984 <sup>1</sup> .....	67.5	68.4	63.9	81.3	69.1	64.8	81.0
Average annual percent change:							
1958-84 .....	2.5	.4	.1	1.3	.6	.3	1.3
1979-84 .....	-10.8	-10.7	-12.4	-6.2	-10.3	-11.9	-6.2

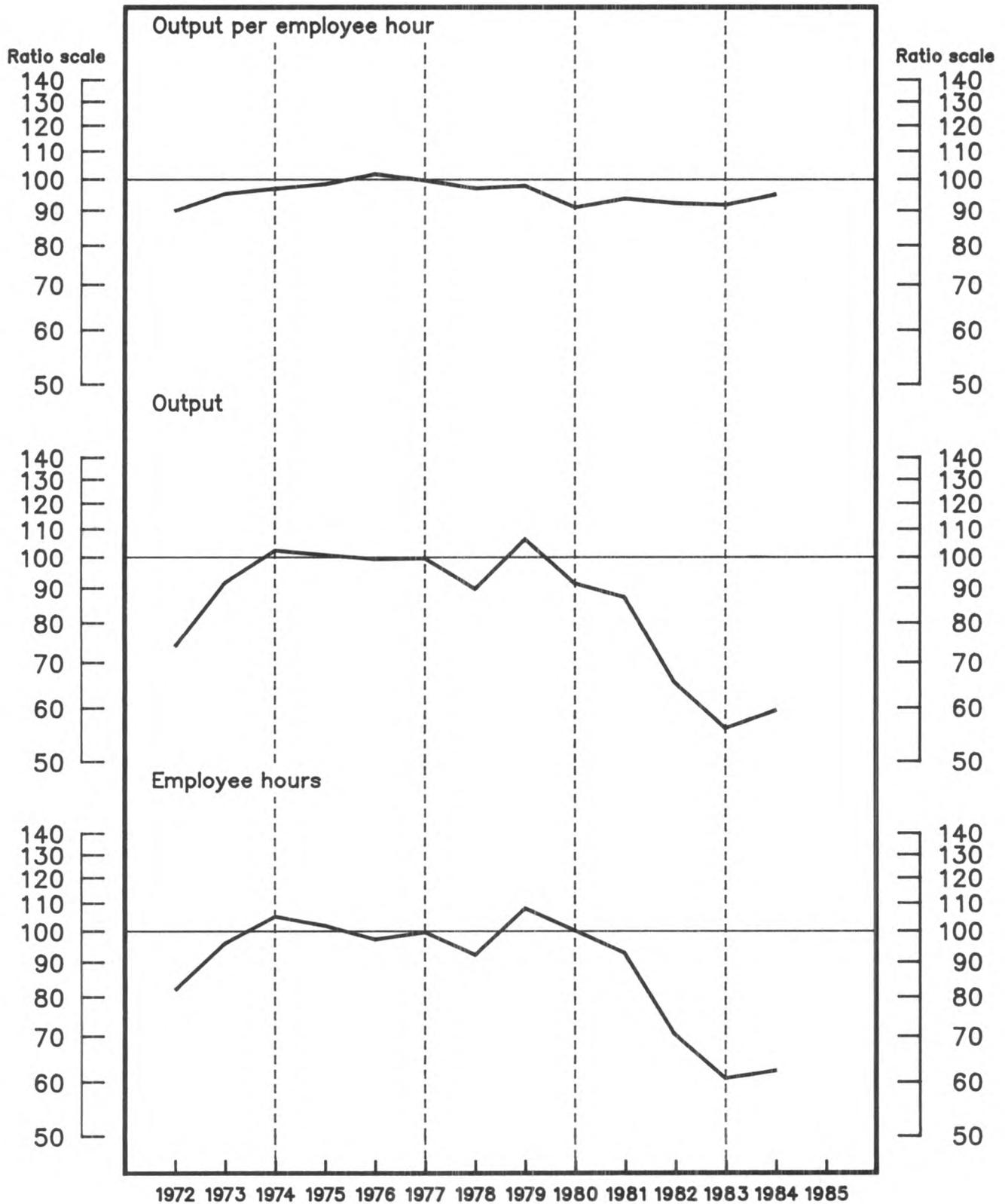
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 90. Farm machinery and equipment (SIC 3523): Output per hour and related data, 1972-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 176. Farm machinery and equipment (SIC 3523): Indexes of output per employee hour and output per employee, 1972-84 (1977=100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972 .....	90.2	86.3	103.3	93.1	89.3	105.4
1973 .....	95.6	91.1	111.5	98.2	93.6	113.8
1974 .....	97.3	91.0	120.5	101.7	95.7	122.6
1975 .....	98.8	95.6	109.2	102.1	99.3	110.5
1976 .....	102.2	101.3	104.7	102.8	101.7	106.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	97.4	96.7	99.6	97.8	97.3	99.6
1979 .....	98.3	96.7	103.2	99.9	98.7	103.6
1980 .....	91.3	93.8	84.6	90.4	92.4	85.2
1981 .....	94.1	99.2	82.3	92.0	95.9	82.6
1982 .....	92.6	105.3	69.1	89.6	100.2	69.5
1983 .....	92.1	104.7	69.0	89.9	101.3	69.0
1984 <sup>2</sup> .....	95.4	104.9	75.9	94.2	103.1	76.2
Average annual percent change:						
1972-84 .....	-2	1.3	-4.2	-.8	.6	-4.3
1979-84 .....	-4	2.3	-6.4	-1.0	1.5	-6.5

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 177. Farm machinery and equipment (SIC 3523): Indexes of output, employee hours, and employees, 1972-84 (1977=100)**

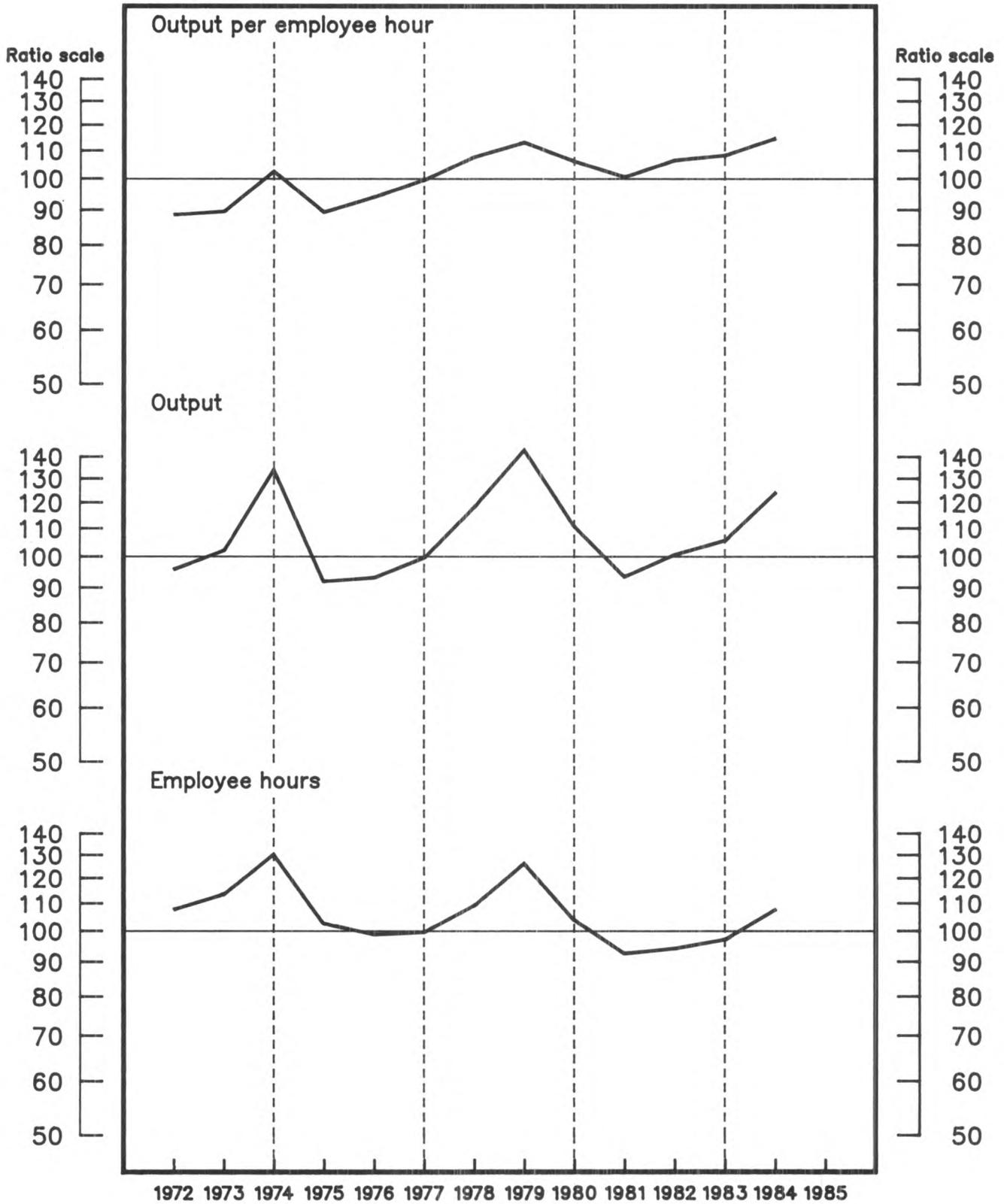
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972 .....	74.2	82.3	86.0	71.8	79.7	83.1	70.4
1973 .....	92.1	96.3	101.1	82.6	93.8	98.4	80.9
1974 .....	102.7	105.6	112.9	85.2	101.0	107.3	83.8
1975 .....	101.1	102.3	105.7	92.6	99.0	101.8	91.5
1976 .....	99.7	97.6	98.4	95.2	97.0	98.0	94.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	90.2	92.6	93.3	90.6	92.2	92.7	90.6
1979 .....	106.8	108.7	110.5	103.5	106.9	108.2	103.1
1980 .....	91.8	100.6	97.9	108.5	101.6	99.4	107.7
1981 .....	87.6	93.1	88.3	106.5	95.2	91.3	106.0
1982 .....	65.5	70.7	62.2	94.8	73.1	65.4	94.3
1983 .....	56.2	61.0	53.7	81.5	62.5	55.5	81.5
1984 <sup>1</sup> .....	59.7	62.6	56.9	78.7	63.4	57.9	78.3
Average annual percent change:							
1972-84 .....	-3.3	-3.1	-4.6	.9	-2.5	-3.9	1.0
1979-84 .....	-12.5	-12.2	-14.5	-6.5	-11.6	-13.8	-6.4

<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 91. Lawn and garden equipment (SIC 3524): Output per hour and related data, 1972-84  
(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 178. Lawn and garden equipment (SIC 3524): Indexes of output per employee hour and output per employee, 1972-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972 .....	88.8	90.8	83.3	91.0	93.6	84.1
1973 .....	89.8	88.2	95.2	92.6	91.4	96.6
1974 .....	103.0	102.1	105.8	104.5	103.8	106.6
1975 .....	89.6	92.7	81.5	92.3	96.2	82.3
1976 .....	94.3	94.8	92.5	98.0	99.6	93.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	108.1	107.4	110.2	105.7	104.4	109.7
1979 .....	113.5	112.0	118.1	113.3	111.9	117.7
1980 .....	106.5	113.2	90.3	106.8	113.6	90.8
1981 .....	101.0	105.7	88.9	101.1	106.1	88.4
1982 .....	106.9	112.8	91.9	110.6	119.0	91.7
1983 .....	108.7	109.6	106.0	110.0	111.3	106.0
1984 <sup>2</sup> .....	115.0	112.2	124.4	116.0	113.5	124.4
Average annual percent change:						
1972-84 .....	1.9	2.0	1.5	1.7	1.9	1.4
1979-84 .....	.5	-.1	2.2	.8	.4	2.2

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 179. Lawn and garden equipment (SIC 3524): Indexes of output, employee hours, and employees, 1972-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972 .....	96.1	108.2	105.8	115.4	105.6	102.7	114.3
1973 .....	102.5	114.1	116.2	107.7	110.7	112.2	106.1
1974 .....	134.9	131.0	132.1	127.5	129.1	129.9	126.5
1975 .....	92.3	103.0	99.6	113.2	100.0	95.9	112.2
1976 .....	93.5	99.2	98.6	101.1	95.4	93.9	100.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	118.7	109.8	110.5	107.7	112.3	113.7	108.2
1979 .....	144.1	127.0	128.7	122.0	127.2	128.8	122.4
1980 .....	111.2	104.4	98.2	123.1	104.1	97.9	122.4
1981 .....	93.8	92.9	88.7	105.5	92.8	88.4	106.1
1982 .....	101.0	94.5	89.5	109.9	91.3	84.9	110.2
1983 .....	106.0	97.5	96.7	100.0	96.4	95.2	100.0
1984 <sup>1</sup> .....	124.4	108.2	110.9	100.0	107.2	109.6	100.0
Average annual percent change:							
1972-84 .....	.7	-1.1	-1.3	-.8	-1.0	-1.1	-.7
1979-84 .....	-2.3	-2.8	-2.2	-4.4	-3.1	-2.6	-4.4

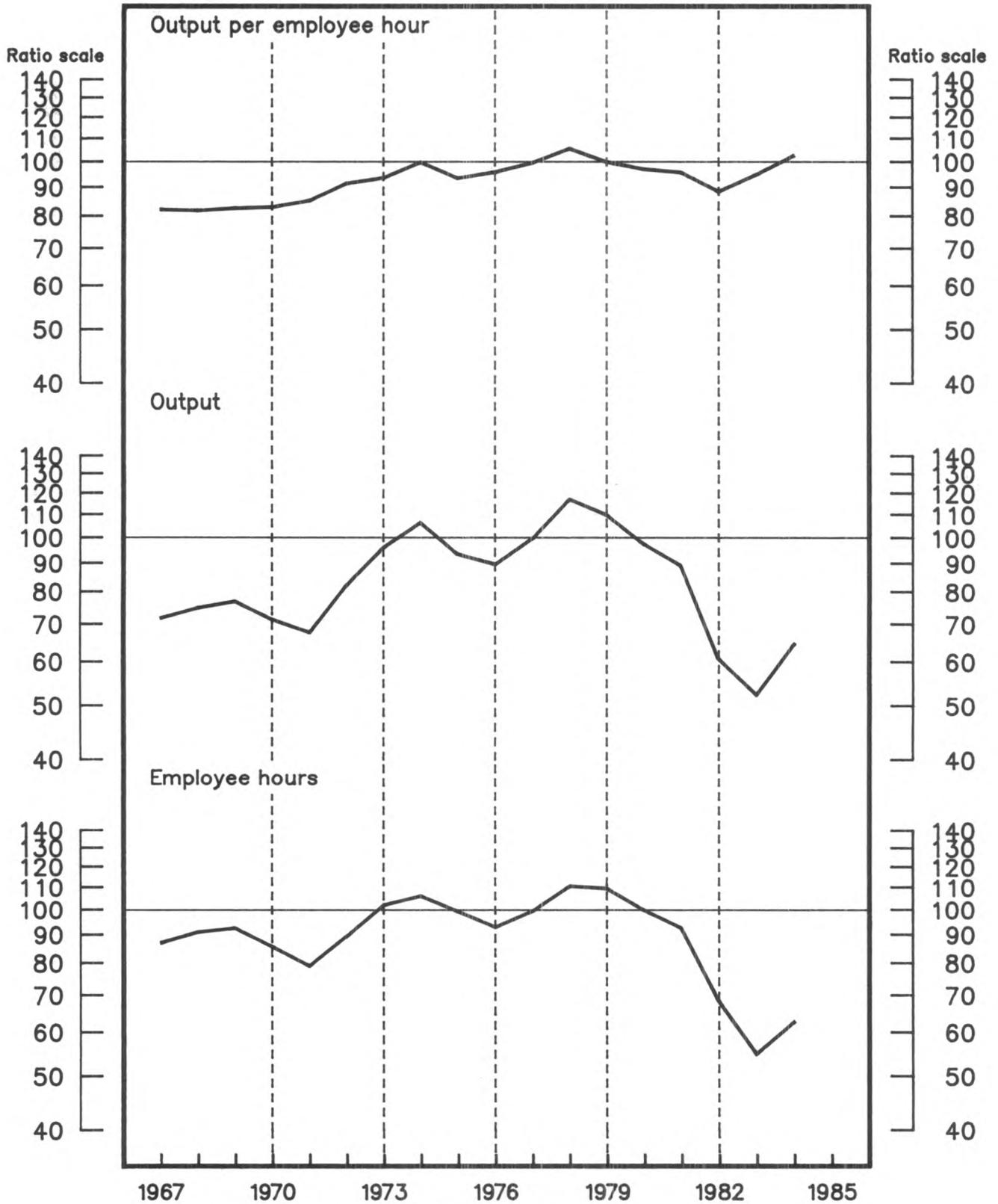
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 92. Construction machinery and equipment (SIC 3531): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 180. Construction machinery and equipment (SIC 3531): Indexes of output per employee hour and output per employee, 1958-84 (1977=100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	74.2	77.0	67.8	73.5	75.4	69.1
1959 .....	69.6	68.4	73.5	73.6	73.2	74.5
1960 .....	62.3	63.7	59.3	63.4	65.0	59.8
1961 .....	68.2	68.5	67.5	69.4	70.2	67.4
1962 .....	74.1	72.8	77.8	76.3	76.0	77.5
1963 .....	75.0	72.2	83.4	78.3	76.6	83.0
1964 .....	77.9	73.8	91.4	82.2	79.2	91.4
1965 .....	80.0	75.4	95.1	84.3	80.8	94.7
1966 .....	81.2	75.1	104.1	87.1	82.1	103.0
1967 .....	82.5	79.1	93.0	84.1	81.3	92.2
1968 .....	82.2	80.3	87.5	84.9	82.6	91.0
1969 .....	83.0	79.9	92.6	86.8	84.0	94.7
1970 .....	83.4	82.0	87.3	85.9	84.8	88.5
1971 .....	85.6	85.3	86.6	87.1	86.6	88.1
1972 .....	91.9	89.0	100.5	95.9	93.5	102.2
1973 .....	94.0	90.0	106.2	99.1	95.9	108.2
1974 .....	100.2	96.0	112.9	105.3	102.0	114.6
1975 .....	93.9	92.3	98.2	96.9	95.9	99.3
1976 .....	96.3	97.8	92.3	96.5	97.7	93.3
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	105.9	104.4	109.9	108.1	107.4	109.9
1979 .....	100.3	101.3	98.0	97.8	97.6	98.3
1980 .....	97.4	102.1	86.8	96.1	100.0	87.4
1981 .....	96.1	99.8	87.6	95.2	98.3	88.0
1982 .....	88.9	105.9	62.8	82.1	93.3	63.0
1983 .....	95.3	112.2	68.2	88.9	101.0	68.2
1984 <sup>2</sup> .....	103.0	102.0	105.4	97.6	94.7	105.5
Average annual percent change:						
1958-84 .....	1.6	1.9	.8	1.3	1.5	.8
1979-84 .....	( <sup>3</sup> )	1.1	-2.0	-1.1	-5	-2.0

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 181. Construction machinery and equipment (SIC 3531): Indexes of output, employee hours, and employees, 1958-84 (1977=100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	45.1	60.8	58.6	66.5	61.4	59.8	65.3
1959 .....	53.4	76.7	78.1	72.7	72.6	73.0	71.7
1960 .....	45.6	73.2	71.6	76.9	71.9	70.2	76.2
1961 .....	42.5	62.3	62.0	63.0	61.2	60.5	63.1
1962 .....	48.7	65.7	66.9	62.6	63.8	64.1	62.8
1963 .....	52.7	70.3	73.0	63.2	67.3	68.8	63.5
1964 .....	61.6	79.1	83.5	67.4	74.9	77.8	67.4
1965 .....	65.9	82.4	87.4	69.3	78.2	81.6	69.6
1966 .....	68.0	83.7	90.6	65.3	78.1	82.8	66.0
1967 .....	72.1	87.4	91.2	77.5	85.7	88.7	78.2
1968 .....	75.2	91.5	93.7	85.9	88.6	91.0	82.6
1969 .....	77.2	93.0	96.6	83.4	88.9	91.9	81.5
1970 .....	71.7	86.0	87.4	82.1	83.5	84.6	81.0
1971 .....	68.0	79.4	79.7	78.5	78.1	78.5	77.2
1972 .....	82.6	89.9	92.8	82.2	86.1	88.3	80.8
1973 .....	96.4	102.6	107.1	90.8	97.3	100.5	89.1
1974 .....	106.8	106.6	111.2	94.6	101.4	104.7	93.2
1975 .....	93.7	99.8	101.5	95.4	96.7	97.7	94.4
1976 .....	89.9	93.4	91.9	97.4	93.2	92.0	96.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	117.6	111.1	112.6	107.0	108.8	109.5	107.0
1979 .....	110.3	110.0	108.9	112.6	112.8	113.0	112.2
1980 .....	97.7	100.3	95.7	112.5	101.7	97.7	111.8
1981 .....	89.4	93.0	89.6	102.0	93.9	90.9	101.6
1982 .....	61.0	68.6	57.6	97.2	74.3	65.4	96.8
1983 .....	52.6	55.2	46.9	77.1	59.2	52.1	77.1
1984 <sup>1</sup> .....	64.9	63.0	63.6	61.6	66.5	68.5	61.5
Average annual percent change:							
1958-84 .....	2.4	.8	.4	1.6	1.1	.9	1.6
1979-84 .....	-13.0	-13.0	-14.0	-11.3	-12.1	-12.6	-11.2

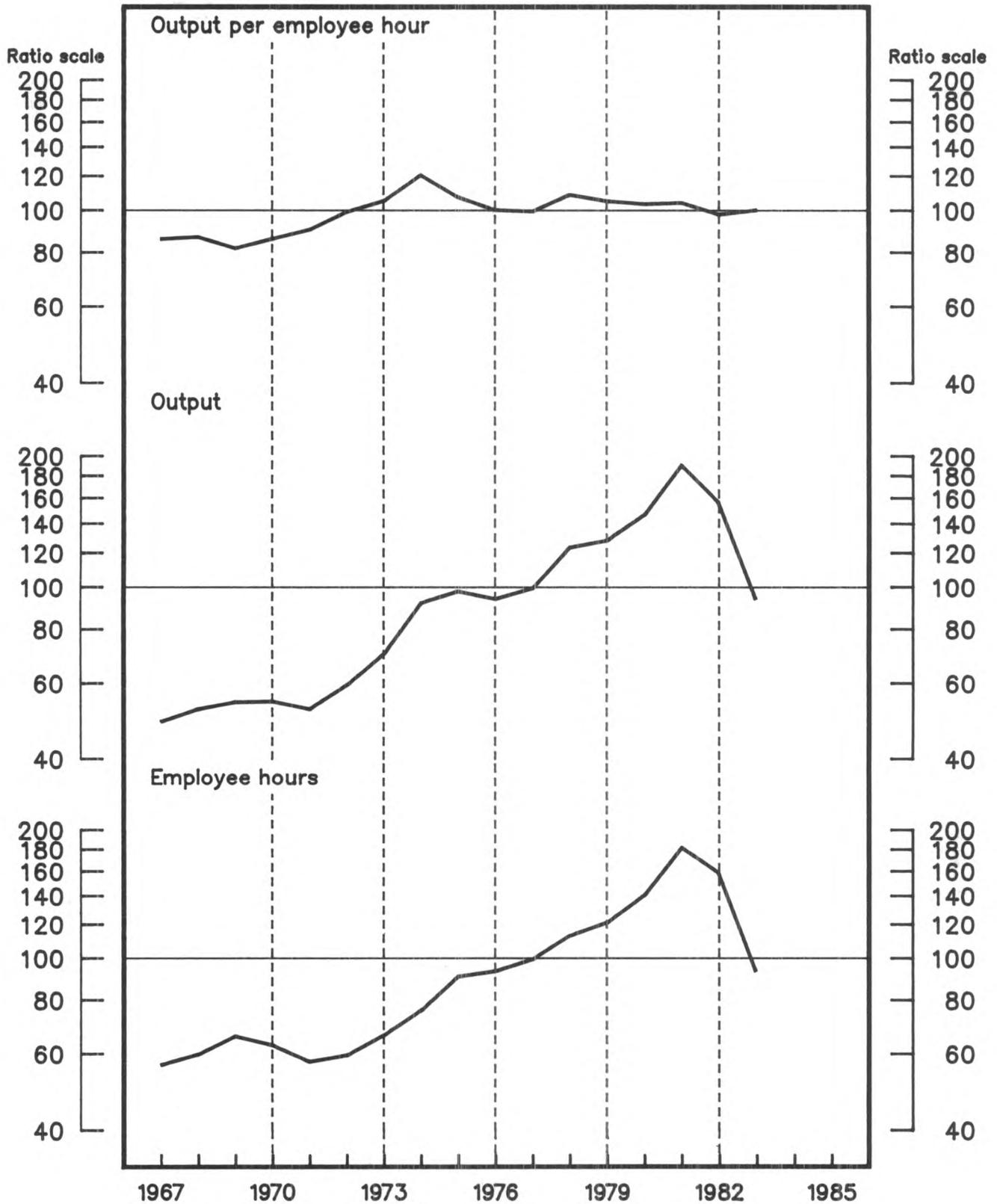
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 93. Oilfield machinery and equipment (SIC 3533): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 182. Oilfield machinery and equipment (SIC 3533): Indexes of output per employee hour and output per employee, 1967-83 (1977 = 100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1967 .....	86.3	86.6	85.4	85.4	85.8	84.5
1968 .....	87.2	86.3	89.1	87.8	86.3	91.0
1969 .....	82.1	80.6	86.0	83.0	81.1	87.1
1970 .....	86.4	87.2	84.7	84.7	84.7	84.9
1971 .....	90.7	95.1	82.0	88.7	91.8	82.7
1972 .....	99.7	103.1	92.8	99.3	102.1	94.0
1973 .....	105.7	107.3	102.2	108.0	110.3	103.1
1974 .....	121.4	120.4	123.5	124.2	124.0	124.5
1975 .....	107.9	105.0	115.0	109.8	107.3	115.6
1976 .....	100.7	100.9	100.6	99.3	98.4	100.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	109.3	107.2	114.8	111.4	109.9	114.8
1979 .....	105.6	104.6	107.9	105.7	104.6	107.9
1980 .....	104.0	102.7	107.3	105.8	105.1	107.3
1981 .....	104.7	101.1	114.5	108.9	106.4	114.5
1982 .....	98.4	99.7	95.6	96.6	97.1	95.6
1983 <sup>2</sup> .....	100.7	112.8	80.6	95.6	104.8	80.6
Average annual percent change:						
1967-83 .....	1.2	1.4	1.1	1.2	1.3	1.0
1979-83 .....	-1.5	1.2	-6.8	-2.9	-8	-6.8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 183. Oilfield machinery and equipment (SIC 3533): Indexes of output, employee hours, and employees, 1967-83 (1977 = 100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1967 .....	49.1	56.9	56.7	57.5	57.5	57.2	58.1
1968 .....	52.5	60.2	60.8	58.9	59.8	60.8	57.7
1969 .....	54.5	66.4	67.6	63.4	65.7	67.2	62.6
1970 .....	54.7	63.3	62.7	64.6	64.6	64.6	64.4
1971 .....	52.5	57.9	55.2	64.0	59.2	57.2	63.5
1972 .....	59.7	59.9	57.9	64.3	60.1	58.5	63.5
1973 .....	70.6	66.8	65.8	69.1	65.4	64.0	68.5
1974 .....	92.5	76.2	76.8	74.9	74.5	74.6	74.3
1975 .....	98.4	91.2	93.7	85.6	89.6	91.7	85.1
1976 .....	94.5	93.8	93.7	93.9	95.2	96.0	93.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	124.1	113.5	115.8	108.1	111.4	112.9	108.1
1979 .....	128.8	122.0	123.1	119.4	121.9	123.1	119.4
1980 .....	147.4	141.7	143.5	137.4	139.3	140.3	137.4
1981 .....	191.9	183.2	189.9	167.6	176.2	180.3	167.6
1982 .....	157.2	159.7	157.7	164.4	162.7	161.9	164.4
1983 <sup>1</sup> .....	94.1	93.4	83.4	116.7	96.4	89.8	116.7
Average annual percent change:							
1967-83 .....	8.1	6.8	6.7	7.0	6.8	6.7	7.0
1979-83 .....	-5.5	-4.1	-6.6	1.3	-2.7	-4.8	1.3

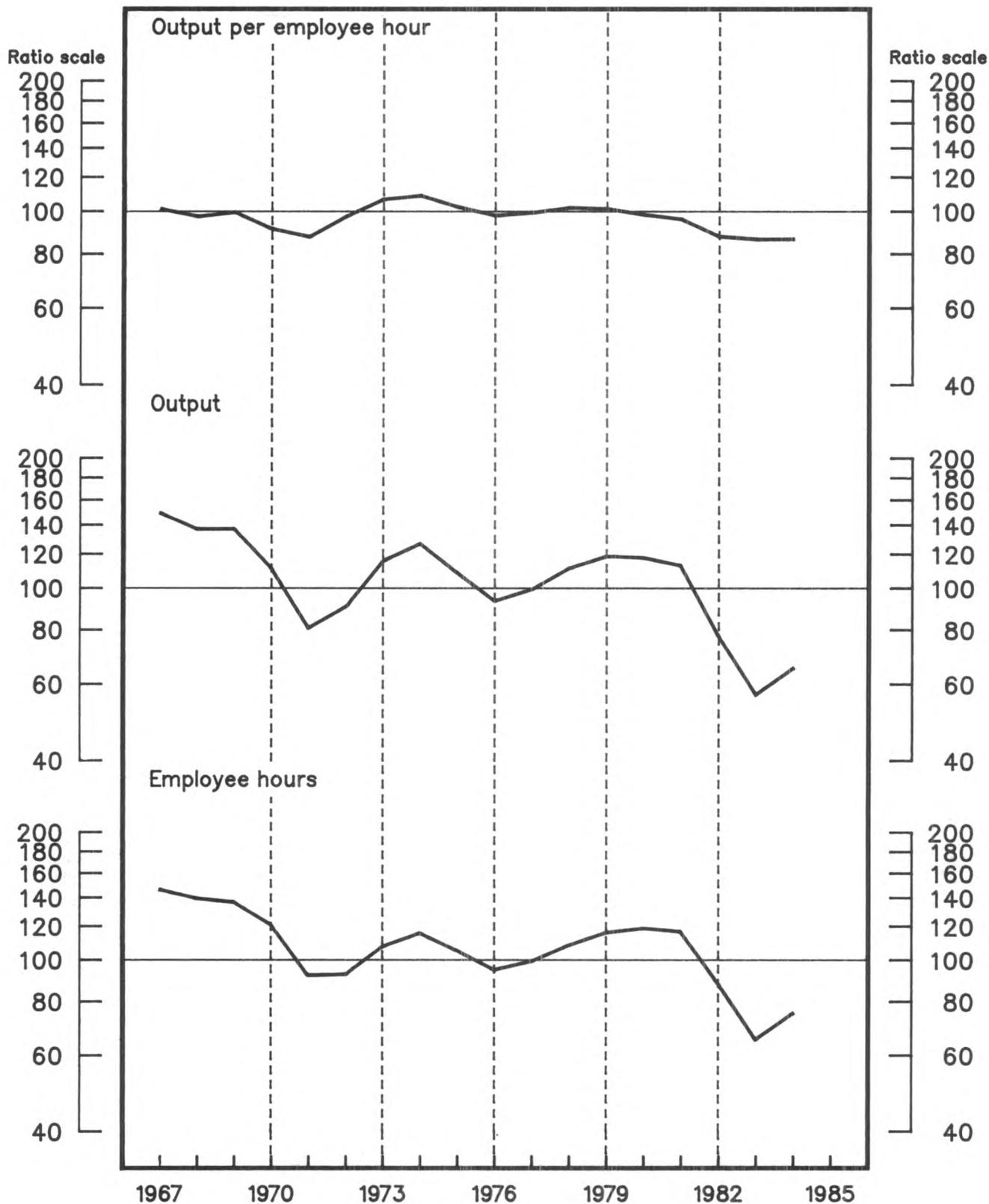
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 94. Machine tools (SIC 3541, 3542): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 184. Machine tools (SIC 3541, 3542): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	71.5	68.6	78.1	69.5	64.9	79.5
1959 .....	88.0	80.9	106.6	87.8	79.4	108.2
1960 .....	84.7	77.6	103.1	84.8	77.0	104.0
1961 .....	84.5	78.8	98.6	82.5	75.6	98.5
1962 .....	88.5	81.5	106.8	89.0	81.4	106.5
1963 .....	90.1	84.0	105.3	93.0	87.4	105.0
1964 .....	99.9	90.9	124.4	106.0	98.0	124.2
1965 .....	101.4	91.7	128.6	108.3	99.5	128.4
1966 .....	111.7	99.8	146.3	120.0	109.4	145.3
1967 .....	101.8	92.2	128.4	107.1	98.4	127.6
1968 .....	97.9	92.4	111.4	102.1	95.5	116.0
1969 .....	100.1	95.2	111.5	103.7	98.5	114.3
1970 .....	91.7	89.8	96.0	93.0	90.7	97.2
1971 .....	87.9	91.6	81.6	86.3	88.4	83.1
1972 .....	98.0	97.0	100.2	99.1	97.4	102.1
1973 .....	107.3	101.7	120.5	111.3	105.8	122.8
1974 .....	109.4	102.7	125.4	112.7	105.9	127.4
1975 .....	103.0	101.7	106.0	102.2	99.5	107.2
1976 .....	98.4	97.4	100.4	96.5	93.7	101.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.6	99.3	109.9	104.0	100.9	110.0
1979 .....	102.0	97.8	111.5	103.2	98.8	112.0
1980 .....	98.8	96.5	103.7	98.7	95.6	104.5
1981 .....	96.5	95.9	97.8	96.0	94.7	98.3
1982 .....	88.1	98.6	72.8	83.7	91.0	73.2
1983 .....	86.8	98.3	70.4	81.6	89.5	70.4
1984 <sup>2</sup> .....	86.9	90.3	80.9	86.6	89.9	81.3
Average annual percent change:						
1958-84 .....	.4	.9	-.8	.2	.7	-.8
1979-84 .....	-3.6	-.9	-8.4	-4.4	-2.0	-8.4

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 185. Machine tools (SIC 3541, 3542): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	63.0	88.1	91.9	80.7	90.6	97.0	79.2
1959 .....	79.2	90.0	97.9	74.3	90.2	99.8	73.2
1960 .....	82.8	97.8	106.7	80.3	97.6	107.6	79.6
1961 .....	77.4	91.6	98.2	78.5	93.8	102.4	78.6
1962 .....	88.0	99.4	108.0	82.4	98.9	108.1	82.6
1963 .....	93.0	103.2	110.7	88.3	100.0	106.4	88.6
1964 .....	112.3	112.4	123.6	90.3	105.9	114.6	90.4
1965 .....	125.3	123.6	136.6	97.4	115.7	125.9	97.6
1966 .....	156.1	139.8	156.4	106.7	130.1	142.7	107.4
1967 .....	149.9	147.3	162.6	116.7	139.9	152.4	117.5
1968 .....	137.6	140.5	148.9	123.5	134.8	144.1	118.6
1969 .....	137.8	137.7	144.7	123.6	132.9	139.9	120.6
1970 .....	112.0	122.1	124.7	116.7	120.4	123.5	115.2
1971 .....	81.4	92.6	88.9	99.8	94.3	92.1	98.0
1972 .....	91.2	93.1	94.0	91.0	92.0	93.6	89.3
1973 .....	116.3	108.4	114.3	96.5	104.5	109.9	94.7
1974 .....	127.4	118.5	124.1	101.6	113.0	120.3	100.0
1975 .....	109.1	105.9	107.3	102.9	106.7	109.6	101.8
1976 .....	93.9	95.4	96.4	93.5	97.3	100.2	92.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	111.9	109.1	112.7	101.8	107.6	110.9	101.7
1979 .....	119.2	116.9	121.9	106.9	115.5	120.6	106.4
1980 .....	118.2	119.6	122.5	114.0	119.8	123.6	113.1
1981 .....	113.4	117.5	118.2	116.0	118.1	119.7	115.4
1982 .....	78.1	88.6	79.2	107.3	93.3	85.8	106.7
1983 .....	57.2	65.9	58.2	81.3	70.1	63.9	81.2
1984 <sup>1</sup> .....	65.8	75.7	72.9	81.3	76.0	73.2	80.9
Average annual percent change:							
1958-84 .....	-.1	-.5	-1.0	.7	-.3	-.8	.7
1979-84 .....	-14.6	-11.4	-13.8	-6.8	-10.6	-12.8	-6.7

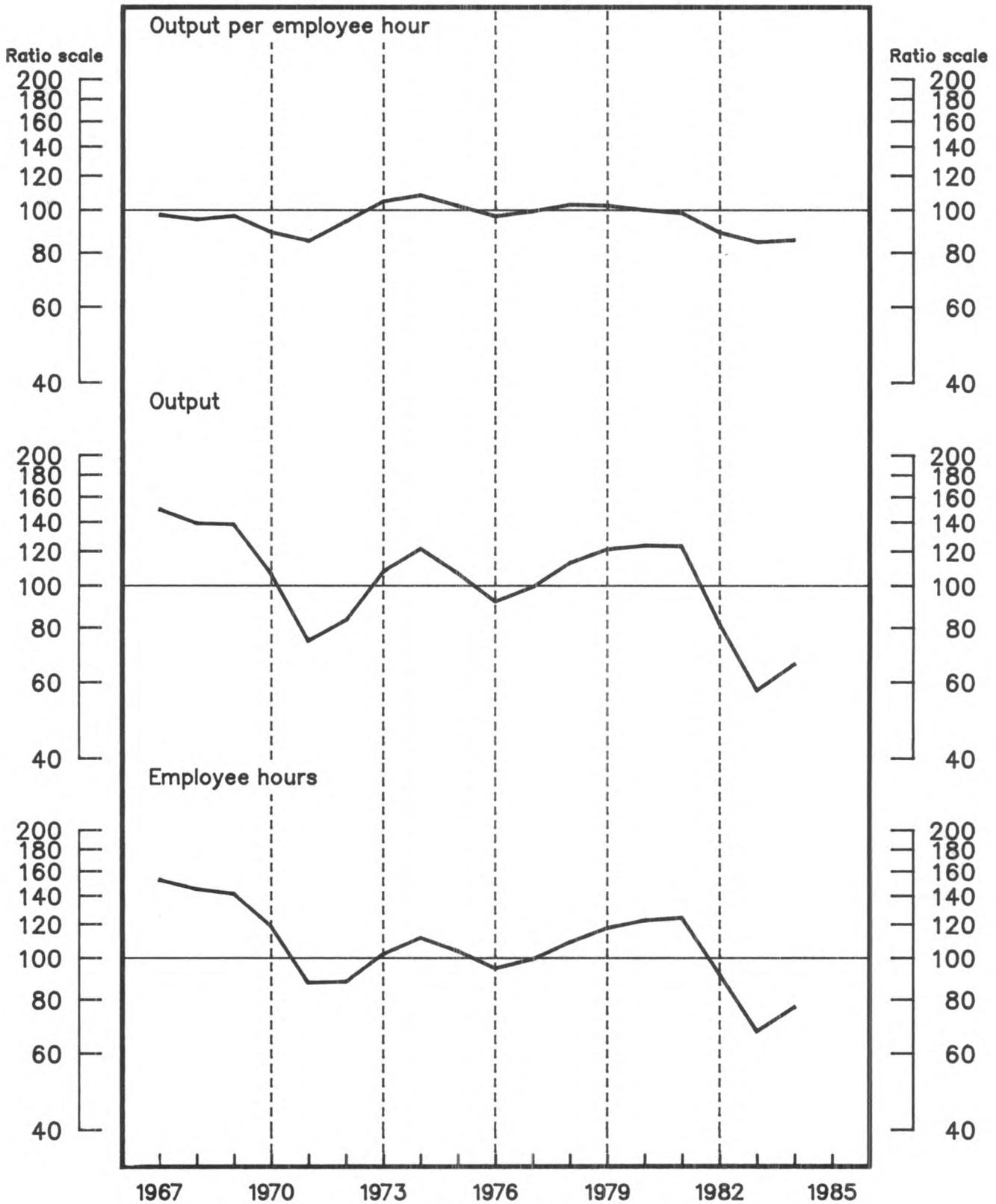
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 95. Metal cutting machine tools (SIC 3541): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 186. Metal cutting machine tools (SIC 3541): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	67.6	63.9	75.8	65.3	60.0	77.3
1959 .....	83.2	78.7	93.0	83.5	78.3	94.5
1960 .....	81.5	76.6	92.3	82.0	76.6	93.1
1961 .....	80.0	76.5	87.2	78.7	74.5	87.2
1962 .....	83.2	78.3	94.2	83.8	78.8	94.0
1963 .....	84.3	78.3	97.9	86.0	80.4	97.6
1964 .....	94.9	86.0	117.4	99.7	91.5	117.5
1965 .....	98.7	88.4	125.7	104.8	95.6	125.3
1966 .....	107.8	95.7	141.3	115.3	104.5	140.0
1967 .....	98.0	87.5	126.2	102.7	92.9	125.2
1968 .....	95.7	89.0	111.0	98.6	90.8	115.7
1969 .....	97.5	91.7	110.2	100.1	93.9	113.0
1970 .....	89.5	88.1	91.9	89.4	87.4	93.3
1971 .....	85.5	89.3	78.7	82.8	84.5	80.3
1972 .....	94.8	94.3	95.8	95.0	93.7	97.6
1973 .....	105.5	99.8	117.8	107.8	101.9	119.9
1974 .....	108.9	101.2	126.5	112.0	103.9	128.6
1975 .....	102.9	100.7	107.3	101.8	98.4	108.4
1976 .....	97.3	96.4	99.0	94.7	91.9	100.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	103.6	98.7	114.2	105.1	100.4	114.2
1979 .....	103.0	97.4	115.2	105.1	99.6	115.7
1980 .....	100.6	96.4	109.7	101.6	97.0	110.5
1981 .....	98.9	96.3	103.9	99.2	96.5	104.2
1982 .....	89.4	99.6	74.9	84.5	91.4	75.1
1983 .....	85.0	96.7	69.4	80.1	88.1	69.5
1984 <sup>2</sup> .....	85.9	89.5	79.9	85.5	88.9	80.2
Average annual percent change:						
1958-84 .....	.7	1.1	-.3	.5	1.0	-.3
1979-84 .....	-4.2	-1.1	-9.6	-5.3	-2.6	-9.6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 187. Metal cutting machine tools (SIC 3541): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	58.1	85.9	90.9	76.6	89.0	96.9	75.2
1959 .....	74.2	89.2	94.3	79.8	88.9	94.8	78.5
1960 .....	81.0	99.4	105.7	87.8	98.8	105.8	87.0
1961 .....	72.7	90.9	95.0	83.4	92.4	97.6	83.4
1962 .....	83.0	99.7	106.0	88.1	99.0	105.3	88.3
1963 .....	88.4	104.9	112.9	90.3	102.8	109.9	90.6
1964 .....	109.2	115.1	127.0	93.0	109.5	119.3	92.9
1965 .....	124.8	126.4	141.1	99.3	119.1	130.5	99.6
1966 .....	154.7	143.5	161.6	109.5	134.2	148.1	110.5
1967 .....	150.6	153.6	172.1	119.3	146.6	162.1	120.3
1968 .....	139.8	146.1	157.0	125.9	141.8	154.0	120.8
1969 .....	139.0	142.5	151.5	126.1	138.9	148.1	123.0
1970 .....	107.2	119.8	121.7	116.7	119.9	122.7	114.9
1971 .....	75.2	88.0	84.2	95.5	90.8	89.0	93.7
1972 .....	83.9	88.5	89.0	87.6	88.3	89.5	86.0
1973 .....	108.6	102.9	108.8	92.2	100.7	106.6	90.6
1974 .....	122.3	112.3	120.8	96.7	109.2	117.7	95.1
1975 .....	107.5	104.5	106.7	100.2	105.6	109.2	99.2
1976 .....	92.5	95.1	96.0	93.4	97.7	100.6	92.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	113.6	109.7	115.1	99.5	108.1	113.1	99.5
1979 .....	122.0	118.5	125.2	105.9	116.1	122.5	105.4
1980 .....	124.4	123.6	129.0	113.4	122.4	128.2	112.6
1981 .....	123.9	125.3	128.6	119.3	124.9	128.4	118.9
1982 .....	82.5	92.3	82.8	110.2	97.6	90.3	109.9
1983 .....	57.9	68.1	59.9	83.4	72.3	65.7	83.3
1984 <sup>1</sup> .....	66.5	77.4	74.3	83.2	77.8	74.8	82.9
Average annual percent change:							
1958-84 .....	.3	-.4	-.9	.5	-.3	-.7	.5
1979-84 .....	-15.1	-11.4	-14.2	-6.1	-10.4	-12.9	-6.0

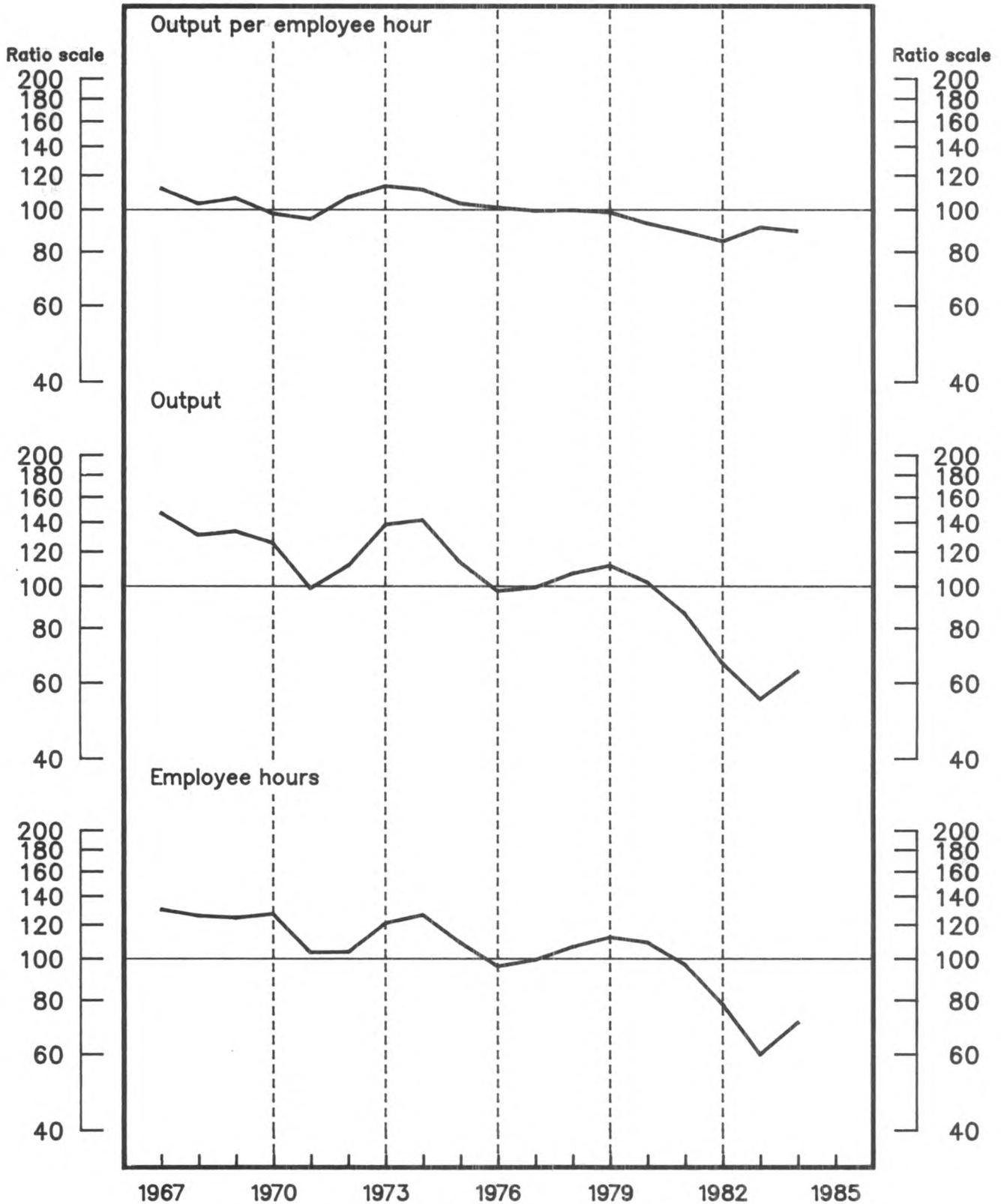
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 96. Metal forming machine tools (SIC 3542): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 188. Metal forming machine tools (SIC 3542): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	83.6	83.2	84.5	82.5	80.9	86.4
1959	102.8	89.0	160.4	101.1	85.5	164.2
1960	94.5	81.4	152.0	94.1	79.5	153.5
1961	98.0	86.6	141.4	93.9	80.8	142.7
1962	105.7	92.5	158.8	105.8	91.3	158.8
1963	108.4	101.3	129.8	115.3	109.5	129.7
1964	115.5	105.8	147.6	126.0	117.7	147.4
1965	109.3	100.5	137.9	118.2	110.6	138.2
1966	123.1	111.3	164.4	134.2	123.8	162.9
1967	112.7	105.0	136.2	120.0	113.9	135.4
1968	103.9	100.7	112.4	112.0	109.3	117.8
1969	107.0	103.9	115.4	113.7	111.5	118.7
1970	98.5	95.4	107.0	103.5	101.0	109.1
1971	95.7	99.3	88.3	96.7	100.1	90.1
1972	107.5	106.0	111.2	110.3	108.7	113.6
1973	114.1	109.2	127.4	122.2	118.6	130.6
1974	111.9	108.0	122.4	116.5	113.0	124.6
1975	104.0	104.5	102.8	104.1	103.7	104.5
1976	101.7	100.5	104.8	101.6	99.3	106.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.3	100.6	99.7	101.2	101.9	99.7
1979	99.2	98.1	101.9	98.4	96.6	102.7
1980	93.5	95.7	88.8	90.5	90.9	89.7
1981	89.4	92.8	82.4	86.0	87.6	82.7
1982	85.0	94.8	68.4	81.4	89.1	68.8
1983	91.6	102.0	73.9	85.8	93.0	73.9
1984 <sup>2</sup>	89.7	92.0	84.8	90.0	92.2	85.6
Average annual percent change:						
1958-84	-.4	.3	-2.3	-.6	.1	-2.3
1979-84	-1.7	-.3	-4.6	-1.9	-.4	-4.7

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 189. Metal forming machine tools (SIC 3542): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	78.4	93.8	94.2	92.8	95.0	96.9	90.7
1959	95.1	92.5	106.8	59.3	94.1	111.2	57.9
1960	88.9	94.1	109.2	58.5	94.5	111.8	57.9
1961	91.9	93.8	106.1	65.0	97.9	113.8	64.4
1962	104.3	98.7	112.8	65.7	98.6	114.3	65.7
1963	107.5	99.2	106.1	82.8	93.2	98.2	82.9
1964	122.2	105.8	115.5	82.8	97.0	103.8	82.9
1965	127.1	116.3	126.5	92.2	107.5	114.9	92.0
1966	160.8	130.6	144.5	97.8	119.8	129.9	98.7
1967	147.9	131.2	140.8	108.6	123.2	129.9	109.2
1968	131.7	126.8	130.8	117.2	117.6	120.5	111.8
1969	134.3	125.5	129.3	116.4	118.1	120.5	113.1
1970	126.2	128.1	132.3	117.9	121.9	124.9	115.7
1971	99.6	104.1	100.3	112.8	103.0	98.5	110.5
1972	112.1	104.3	105.8	100.8	101.6	103.1	98.7
1973	139.2	122.0	127.5	109.3	113.9	117.4	106.6
1974	142.5	127.4	132.0	116.4	122.3	126.1	114.4
1975	114.1	109.7	109.2	111.0	109.6	110.0	109.2
1976	98.1	96.5	97.6	93.6	96.6	98.8	92.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.6	107.3	107.0	107.9	106.3	105.6	107.9
1979	112.1	113.0	114.3	110.0	113.9	116.1	109.2
1980	102.7	109.8	107.3	115.7	113.5	113.0	114.5
1981	87.1	97.4	93.9	105.7	101.3	99.4	105.3
1982	67.0	78.8	70.7	97.9	82.3	75.2	97.4
1983	55.4	60.5	54.3	75.0	64.6	59.6	75.0
1984 <sup>1</sup>	64.2	71.6	69.8	75.7	71.3	69.6	75.0
Average annual percent change:							
1958-84	-1.1	-.7	-1.4	1.2	-.5	-1.2	1.2
1979-84	-13.1	-11.5	-12.8	-8.9	-11.4	-12.7	-8.8

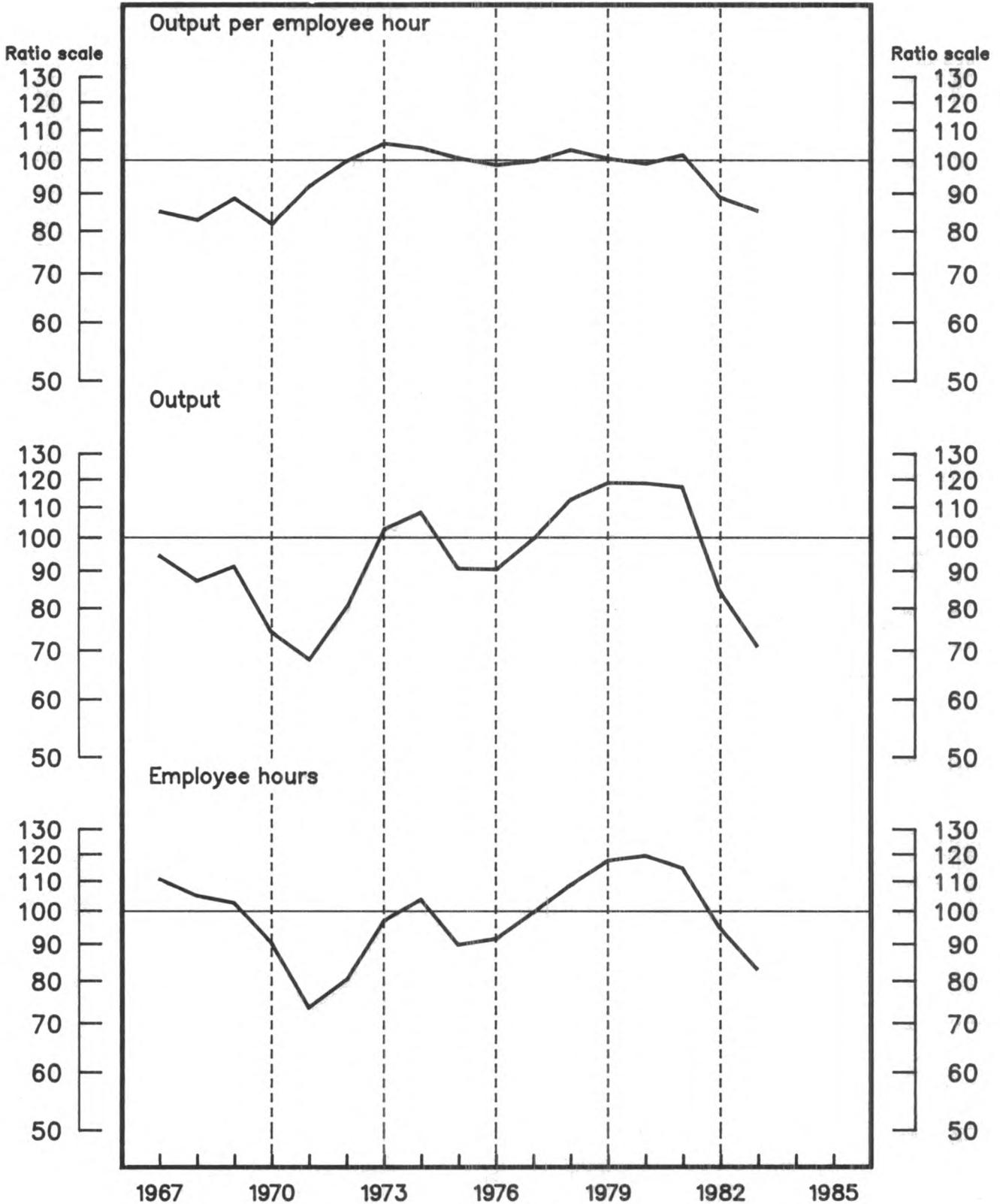
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 97. Machine tool accessories (SIC 3545): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 190. Machine tool accessories (SIC 3545): Indexes of output per employee hour and output per employee, 1963-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	80.0	78.2	85.3	79.4	77.5	84.5
1964	81.2	79.2	86.7	81.2	79.4	85.8
1965	82.0	78.5	92.8	85.4	83.0	91.9
1966	82.0	77.1	98.7	87.4	83.8	97.6
1967	85.2	81.1	97.9	87.5	84.2	97.0
1968	83.0	81.8	86.6	83.9	82.2	88.6
1969	88.9	87.4	93.3	90.1	88.4	94.4
1970	82.0	82.3	81.4	79.9	79.1	81.7
1971	92.4	96.2	83.7	88.2	90.0	84.3
1972	100.1	101.0	97.8	100.1	100.6	99.0
1973	105.7	102.7	115.0	109.0	106.3	116.1
1974	104.2	101.5	112.4	105.7	102.9	113.4
1975	100.9	102.8	96.2	96.2	96.0	96.7
1976	98.8	100.1	95.6	97.2	97.7	95.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.6	103.0	105.0	105.0	105.0	105.0
1979	100.8	99.4	104.7	102.0	100.8	104.7
1980	99.2	99.2	98.9	98.3	98.1	98.9
1981	102.0	103.7	97.8	100.0	100.9	97.8
1982	89.1	97.2	73.2	83.6	88.7	73.2
1983 <sup>2</sup>	85.4	90.8	74.1	82.8	86.9	74.1
Average annual percent change:						
1963-83	1.0	1.4	( <sup>3</sup> )	.8	1.1	( <sup>3</sup> )
1979-83	-4.3	-2.0	-9.4	-5.6	-3.9	-9.4

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Table 191. Machine tool accessories (SIC 3545): Indexes of output, employee hours, and employees, 1963-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	62.9	78.6	80.4	73.7	79.2	81.2	74.4
1964	68.5	84.4	86.5	79.0	84.4	86.3	79.8
1965	78.8	96.1	100.4	84.9	92.3	94.9	85.7
1966	90.7	110.6	117.7	91.9	103.8	108.2	92.9
1967	94.7	111.2	116.8	96.7	108.2	112.5	97.6
1968	87.5	105.4	107.0	101.0	104.3	106.5	98.8
1969	91.6	103.0	104.8	98.2	101.7	103.6	97.0
1970	74.4	90.7	90.4	91.4	93.1	94.0	91.1
1971	68.3	73.9	71.0	81.6	77.4	75.9	81.0
1972	80.7	80.6	79.9	82.5	80.6	80.2	81.5
1973	103.0	97.4	100.3	89.6	94.5	96.9	88.7
1974	108.6	104.2	107.0	96.6	102.7	105.5	95.8
1975	90.9	90.1	88.4	94.5	94.5	94.7	94.0
1976	90.7	91.8	90.6	94.9	93.3	92.8	94.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	113.1	109.2	109.8	107.7	107.7	107.7	107.7
1979	119.1	118.1	119.8	113.7	116.8	118.1	113.7
1980	118.9	119.9	119.8	120.2	120.9	121.2	120.2
1981	117.5	115.2	113.3	120.2	117.5	116.4	120.2
1982	84.6	94.9	87.0	115.5	101.2	95.4	115.5
1983 <sup>1</sup>	71.0	83.1	78.2	95.8	85.8	81.7	95.8
Average annual percent change:							
1963-83	1.7	.6	.2	1.7	.9	.6	1.6
1979-83	-12.8	-8.9	-11.1	-3.8	-7.6	-9.3	-3.8

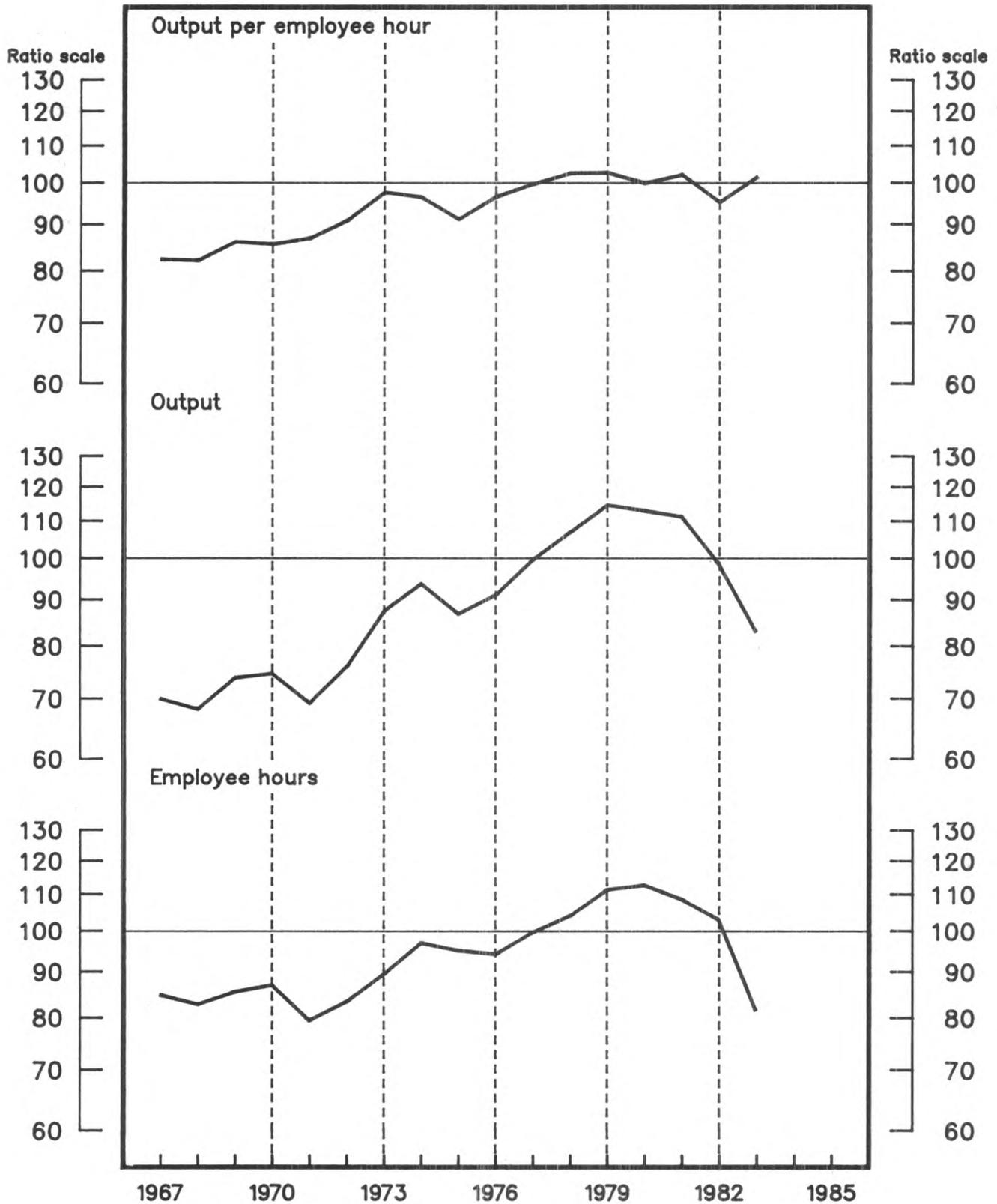
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Chart 98. Pumps and compressors (SIC 3561, 3563): Output per hour and related data, 1967-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 192. Pumps and compressors (SIC 3561, 3563): Indexes of output per employee hour and output per employee, 1958-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	64.5	64.5	64.5	65.1	64.7	65.7
1959 .....	68.8	66.9	72.5	69.3	67.1	73.6
1960 .....	66.6	65.2	69.0	67.5	66.2	69.7
1961 .....	69.2	68.3	70.7	70.1	69.9	70.8
1962 .....	73.6	72.8	75.2	74.9	75.0	75.0
1963 .....	78.2	75.5	84.0	80.2	78.5	83.5
1964 .....	79.4	76.2	85.6	82.5	80.8	85.5
1965 .....	81.0	77.2	88.8	83.8	81.1	88.7
1966 .....	81.2	76.5	91.1	85.2	82.4	90.4
1967 .....	82.5	78.9	89.6	85.1	83.0	88.8
1968 .....	82.3	82.0	82.8	85.1	84.3	86.2
1969 .....	86.3	84.5	89.6	88.8	87.1	91.8
1970 .....	85.8	85.8	85.9	87.2	87.3	87.1
1971 .....	87.1	89.8	82.8	87.4	89.4	84.4
1972 .....	91.1	90.7	91.9	92.4	91.6	93.5
1973 .....	97.9	95.9	101.4	99.1	96.7	103.3
1974 .....	96.7	93.6	102.5	96.6	92.6	104.1
1975 .....	91.4	92.2	89.9	90.7	90.6	90.9
1976 .....	96.8	97.8	95.1	96.9	97.4	98.2
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.8	102.5	103.3	102.1	101.4	103.3
1979 .....	102.9	102.5	103.6	102.0	100.7	104.0
1980 .....	100.2	101.4	98.1	99.4	99.8	98.7
1981 .....	102.4	106.2	96.2	101.2	104.2	98.5
1982 .....	95.5	106.8	80.7	93.2	102.7	81.0
1983 <sup>2</sup> .....	101.8	116.7	83.1	98.0	109.9	83.1
Average annual percent change:						
1958-83 .....	1.8	2.2	1.2	1.6	1.9	1.2
1979-83 .....	-7	3.2	-6.2	-1.4	2.1	-6.3

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 193. Pumps and compressors (SIC 3561, 3563): Indexes of output, employee hours, and employees, 1958-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	41.1	63.7	63.7	63.7	63.1	63.5	62.6
1959 .....	43.4	63.1	64.9	59.9	62.6	64.7	59.0
1960 .....	44.6	67.0	68.4	64.6	66.1	67.4	64.0
1961 .....	43.9	63.4	64.3	62.1	62.6	62.8	62.0
1962 .....	48.6	66.0	66.8	64.6	64.9	64.8	64.8
1963 .....	51.8	66.2	68.6	61.7	64.6	66.0	62.0
1964 .....	59.0	74.3	77.4	68.9	71.5	73.0	69.0
1965 .....	65.3	80.6	84.6	73.5	77.9	80.5	73.6
1966 .....	70.6	86.9	92.3	77.5	82.9	85.7	78.1
1967 .....	70.1	85.0	88.9	78.2	82.4	84.5	78.9
1968 .....	68.3	83.0	83.3	82.5	80.3	81.0	79.2
1969 .....	74.0	85.7	87.6	82.6	83.3	85.0	80.6
1970 .....	74.8	87.2	87.2	87.1	85.8	85.7	85.9
1971 .....	69.4	79.7	77.3	83.8	79.4	77.6	82.2
1972 .....	76.2	83.6	84.0	82.9	82.5	83.2	81.5
1973 .....	87.8	89.7	91.6	86.6	88.6	90.8	85.0
1974 .....	94.0	97.2	100.4	91.7	97.3	101.5	90.3
1975 .....	87.1	95.3	94.5	96.9	96.0	96.1	95.8
1976 .....	91.4	94.4	93.5	96.1	94.3	93.8	95.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	107.3	104.4	104.7	103.9	105.1	105.8	103.9
1979 .....	114.9	111.7	112.1	110.9	112.7	114.1	110.5
1980 .....	113.2	113.0	111.6	115.4	113.9	113.4	114.7
1981 .....	111.5	108.9	105.0	115.9	110.2	107.0	115.5
1982 .....	98.7	103.3	92.4	122.3	105.9	96.1	121.9
1983 <sup>1</sup> .....	83.1	81.6	71.2	100.0	84.8	75.6	100.0
Average annual percent change:							
1958-83 .....	4.0	2.1	1.8	2.8	2.3	2.1	2.8
1979-83 .....	-7.6	-6.9	-10.4	-1.5	-6.2	-9.4	-1.4

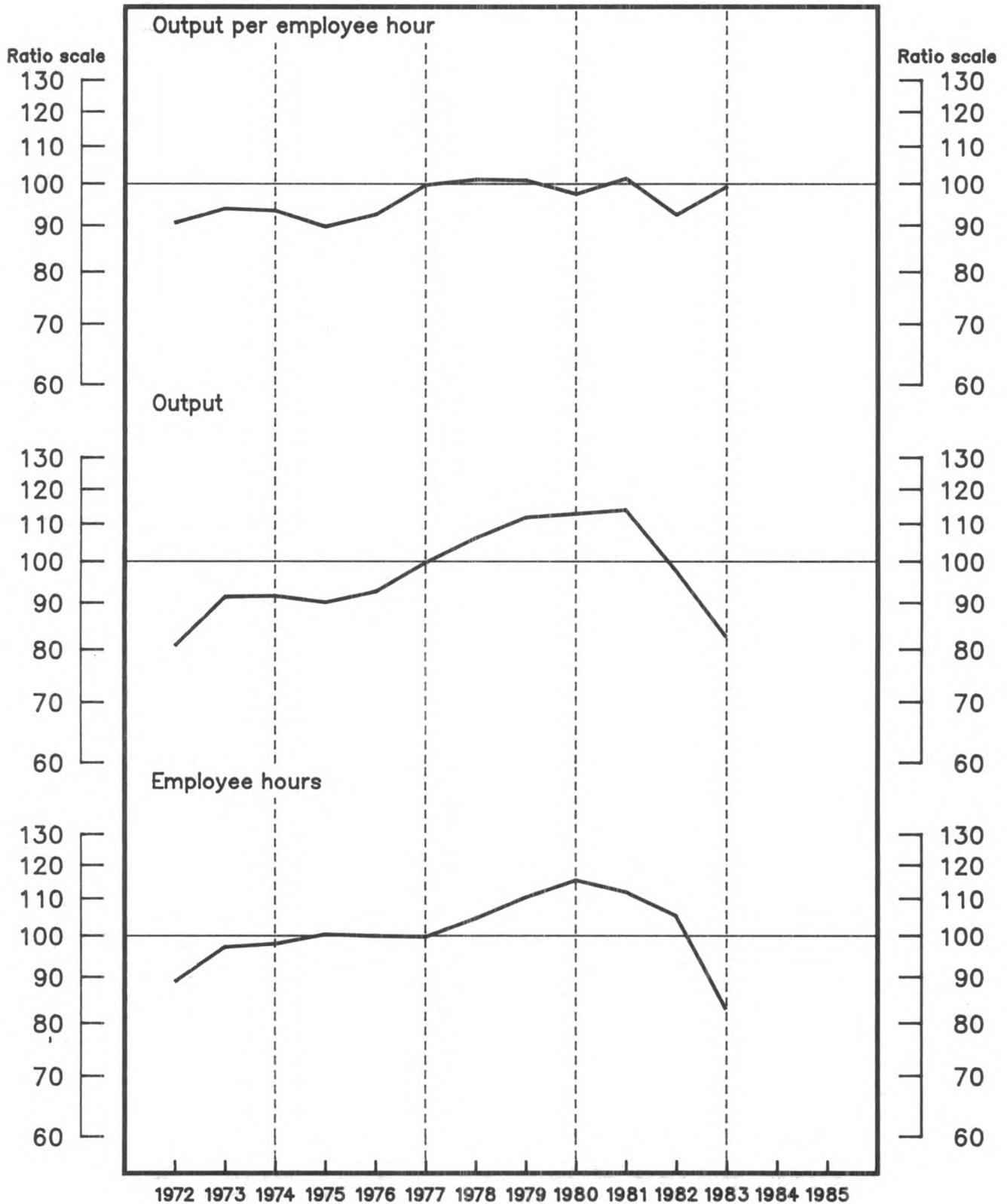
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 99. Pumps and pumping equipment (SIC 3561): Output per hour and related data, 1972-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 194. Pumps and pumping equipment (SIC 3561): Indexes of output per employee hour and output per employee, 1972-83 (1977=100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972 .....	90.8	89.9	92.5	91.9	90.8	94.0
1973 .....	94.1	92.0	98.6	96.7	94.8	100.3
1974 .....	93.6	90.6	99.6	93.5	89.7	101.1
1975 .....	89.9	92.2	85.8	89.2	90.7	86.7
1976 .....	92.7	94.6	89.6	93.2	94.8	90.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	101.4	101.5	101.2	100.2	99.6	101.1
1979 .....	101.2	101.2	101.3	99.2	97.8	101.6
1980 .....	97.7	99.5	94.4	96.2	96.8	95.0
1981 .....	101.7	106.2	94.4	99.9	103.3	94.6
1982 .....	92.7	104.1	77.1	90.1	99.7	77.3
1983 <sup>2</sup> .....	99.6	113.7	81.1	95.9	107.4	81.0
Average annual percent change:						
1972-83 .....	.8	1.9	-1.1	.3	1.3	-1.3
1979-83 .....	-8	2.8	-6.3	-1.3	2.2	-6.4

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 195. Pumps and pumping equipment (SIC 3561): Indexes of output, employee hours, and employees, 1972-83 (1977=100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972 .....	81.0	89.2	90.1	87.6	88.1	89.2	86.2
1973 .....	91.7	97.4	99.7	93.0	94.8	96.7	91.4
1974 .....	91.9	98.2	101.4	92.3	98.3	102.5	90.9
1975 .....	90.4	100.6	98.0	105.4	101.4	99.7	104.3
1976 .....	92.9	100.2	98.2	103.7	99.7	98.0	102.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	106.4	104.9	104.8	105.1	106.2	106.8	105.2
1979 .....	112.1	110.8	110.8	110.7	113.0	114.6	110.3
1980 .....	113.1	115.8	113.7	119.8	117.6	116.8	119.0
1981 .....	114.2	112.3	107.5	121.0	114.3	110.6	120.7
1982 .....	97.9	105.6	94.0	127.0	108.7	98.2	126.7
1983 <sup>1</sup> .....	82.8	83.1	72.8	102.1	86.3	77.1	102.2
Average annual percent change:							
1972-83 .....	1.4	.7	-.5	2.6	1.1	.1	2.7
1979-83 .....	-7.2	-6.5	-9.8	-1.0	-6.0	-9.2	-.9

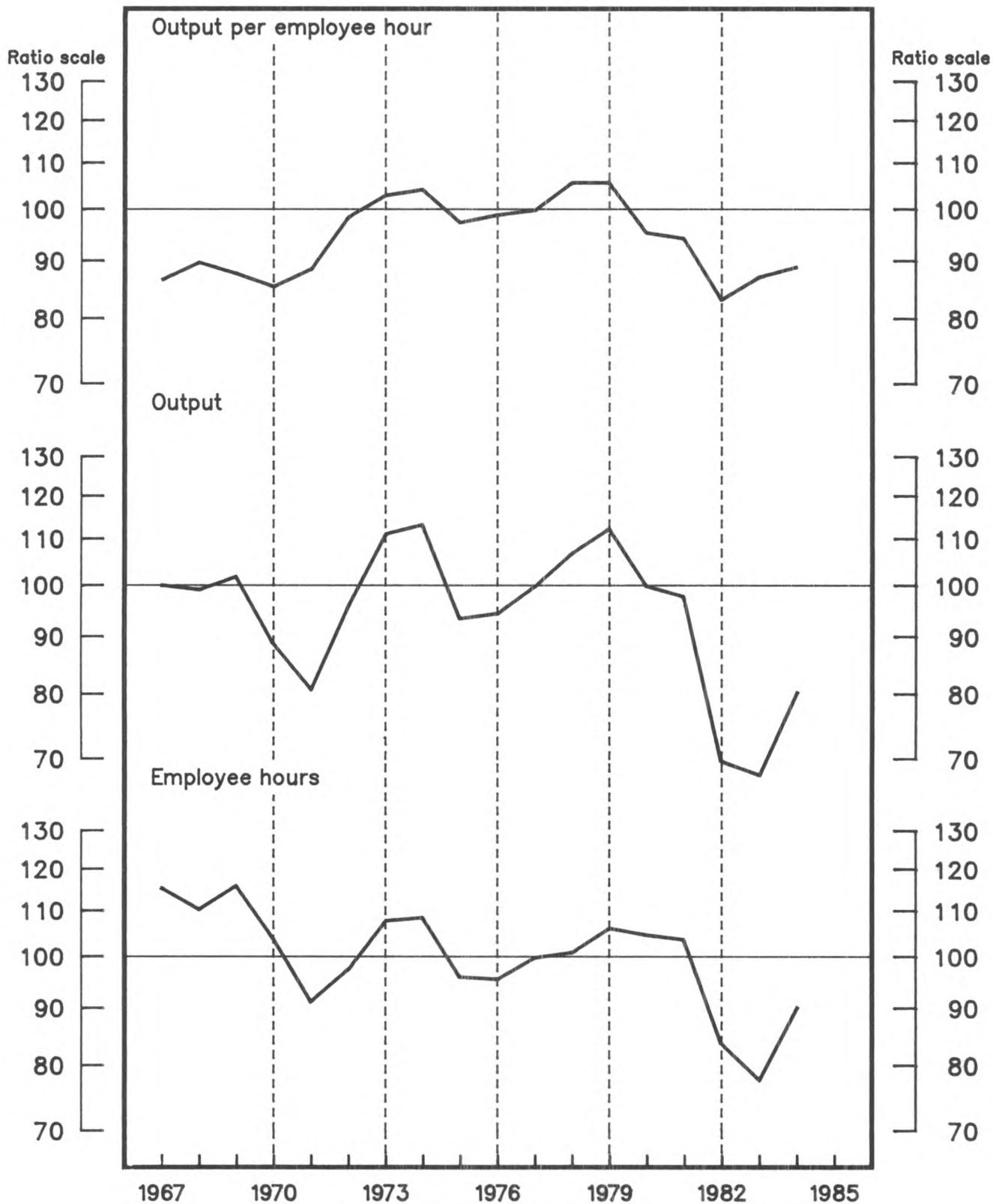
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 100. Ball and roller bearings (SIC 3562): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 196. Ball and roller bearings (SIC 3562): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	52.7	51.9	55.6	50.3	48.7	56.2
1959 .....	66.0	62.1	84.2	65.7	61.3	85.3
1960 .....	64.7	62.4	73.9	60.9	57.7	74.3
1961 .....	66.5	64.8	72.8	63.9	61.6	72.6
1962 .....	72.4	69.6	83.9	71.6	68.6	83.0
1963 .....	73.5	72.4	77.5	71.7	70.3	76.7
1964 .....	79.3	76.9	88.5	78.6	76.1	87.6
1965 .....	90.0	86.3	105.0	91.9	88.6	103.9
1966 .....	90.1	86.3	106.3	93.4	90.4	105.1
1967 .....	86.7	84.1	96.8	87.9	85.6	95.8
1968 .....	89.8	89.2	91.5	90.7	89.9	93.5
1969 .....	87.8	86.5	92.2	88.9	87.6	93.4
1970 .....	85.5	86.3	82.4	81.2	80.7	82.6
1971 .....	88.6	90.6	82.3	85.4	86.4	82.9
1972 .....	98.6	97.4	102.8	100.2	99.0	104.1
1973 .....	103.1	100.5	112.8	106.8	104.8	113.9
1974 .....	104.3	102.0	113.4	104.4	101.7	114.2
1975 .....	97.5	97.9	96.1	95.3	94.9	96.5
1976 .....	99.0	98.7	99.7	98.5	98.0	99.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	105.8	105.3	107.9	104.4	103.3	107.9
1979 .....	105.8	103.6	114.2	106.3	104.1	114.2
1980 .....	95.4	93.4	103.2	95.1	92.9	103.2
1981 .....	94.3	93.2	97.9	94.0	92.8	97.9
1982 .....	83.3	86.9	73.2	79.8	82.1	73.2
1983 .....	87.2	89.3	80.2	87.1	89.3	80.2
1984 <sup>2</sup> .....	89.0	89.4	87.8	91.7	93.1	87.8
Average annual percent change:						
1958-84 .....	1.6	1.8	.9	1.7	1.9	.9
1979-84 .....	-3.5	-2.7	-6.5	-3.3	-2.3	-6.5

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 197. Ball and roller bearings (SIC 3562): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	39.9	75.7	76.9	71.8	79.4	82.0	71.0
1959 .....	62.5	94.7	100.7	74.2	95.1	102.0	73.3
1960 .....	57.3	88.6	91.8	77.5	94.1	99.3	77.1
1961 .....	55.5	83.4	85.6	76.2	86.8	90.1	76.4
1962 .....	66.5	91.9	95.6	79.3	92.9	97.0	80.1
1963 .....	68.5	93.2	94.6	88.4	95.6	97.4	89.3
1964 .....	78.2	98.6	101.7	88.4	99.5	102.7	89.3
1965 .....	95.2	105.8	110.3	90.7	103.6	107.5	91.6
1966 .....	106.8	118.5	123.8	100.5	114.3	118.1	101.6
1967 .....	100.2	115.6	119.2	103.5	114.0	117.0	104.6
1968 .....	99.3	110.6	111.3	108.5	109.5	110.5	106.2
1969 .....	102.0	116.2	117.9	110.6	114.7	116.5	109.2
1970 .....	88.9	104.0	103.0	107.9	109.5	110.1	107.6
1971 .....	81.0	91.4	89.4	98.4	94.8	93.8	97.7
1972 .....	96.2	97.6	98.8	93.6	96.0	97.2	92.4
1973 .....	111.3	108.0	110.8	98.7	104.2	106.2	97.7
1974 .....	113.4	108.7	111.2	100.0	108.6	111.5	99.3
1975 .....	93.6	96.0	95.6	97.4	98.2	98.6	97.0
1976 .....	94.6	95.6	95.8	94.9	96.0	96.5	94.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	107.0	101.1	101.6	99.2	102.5	103.6	99.2
1979 .....	112.5	106.3	108.6	98.5	105.8	108.1	98.5
1980 .....	100.0	104.8	107.1	96.9	105.1	107.6	96.9
1981 .....	97.9	103.8	105.0	100.0	104.2	105.5	100.0
1982 .....	69.8	83.8	80.3	95.4	87.5	85.0	95.4
1983 .....	67.9	77.9	76.0	84.7	78.0	76.0	84.7
1984 <sup>1</sup> .....	80.4	90.3	89.9	91.6	87.7	86.4	91.6
Average annual percent change:							
1958-84 .....	1.7	.1	-.1	.8	( <sup>2</sup> )	-.2	.8
1979-84 .....	-8.7	-5.3	-6.2	-2.3	-5.6	-6.6	-2.3

<sup>1</sup> Preliminary.

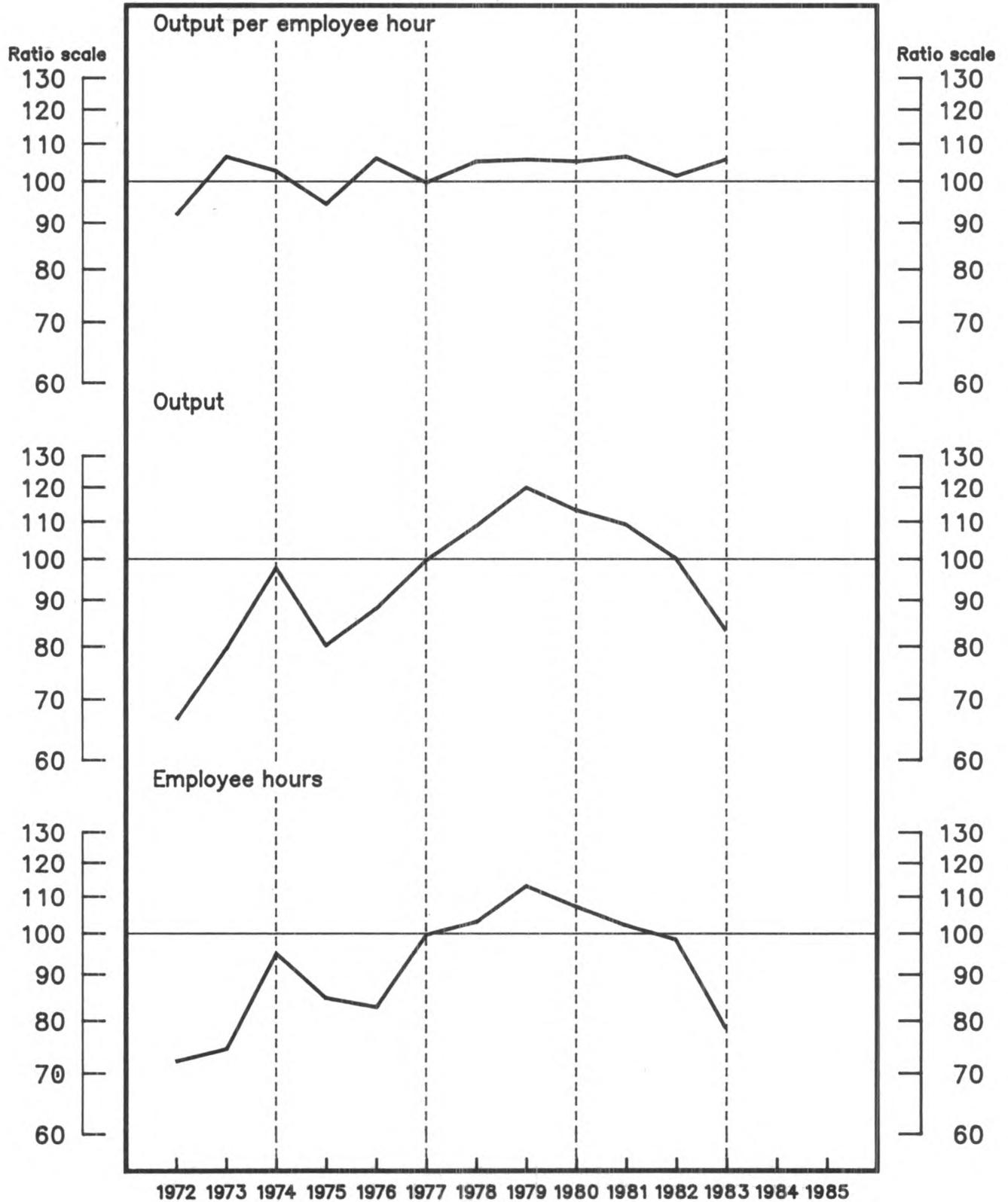
<sup>2</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 101. Air and gas compressors (SIC 3563): Output per hour and related data, 1972-83  
(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 198. Air and gas compressors (SIC 3563): Indexes of output per employee hour and output per employee, 1972-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972 .....	92.1	93.7	89.7	93.2	94.3	91.5
1973 .....	106.8	107.4	106.1	104.2	101.7	108.4
1974 .....	103.0	100.0	108.1	103.0	98.7	110.2
1975 .....	94.7	92.3	98.8	94.4	91.0	99.9
1976 .....	106.4	105.9	107.3	105.5	103.6	108.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	105.5	104.4	107.3	106.1	105.2	107.4
1979 .....	106.0	104.7	108.1	107.2	106.4	108.5
1980 .....	105.5	105.8	105.1	108.5	106.8	106.1
1981 .....	106.8	109.7	102.5	107.0	109.9	103.0
1982 .....	101.7	112.4	88.1	100.1	109.6	88.7
1983 <sup>2</sup> .....	106.1	123.2	86.8	102.0	115.5	86.9
Average annual percent change:						
1972-83 .....	.7	1.7	-.7	.6	1.6	-.9
1979-83 .....	-3	3.9	-6.0	-1.6	1.9	-6.0

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 199. Air and gas compressors (SIC 3563): Indexes of output, employee hours, and employees, 1972-83**  
(1977 = 100)

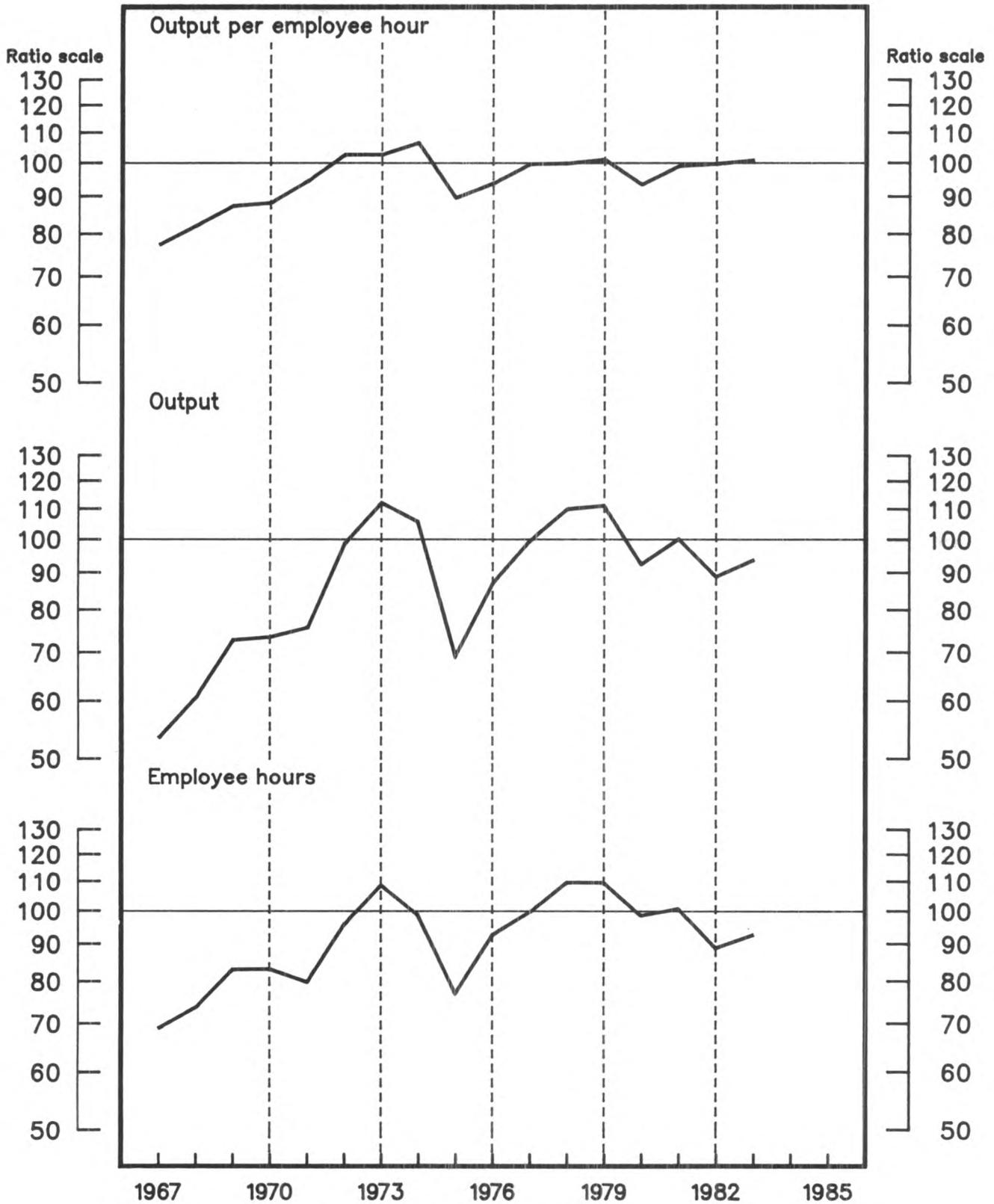
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972 .....	66.7	72.4	71.2	74.4	71.6	70.7	72.9
1973 .....	79.8	74.7	74.3	75.2	76.6	78.5	73.6
1974 .....	98.2	95.3	98.2	90.8	95.3	99.5	89.1
1975 .....	80.5	85.0	87.2	81.5	85.3	88.5	80.6
1976 .....	88.4	83.1	83.5	82.4	83.8	85.3	81.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	109.1	103.4	104.5	101.7	102.8	103.7	101.6
1979 .....	120.3	113.5	114.9	111.3	112.2	113.1	110.9
1980 .....	113.5	107.6	107.3	108.0	106.6	106.3	107.0
1981 .....	109.4	102.4	99.7	106.7	102.2	99.5	106.2
1982 .....	100.4	98.7	89.3	113.9	100.3	91.6	113.2
1983 <sup>1</sup> .....	83.5	78.7	67.8	96.2	81.9	72.3	96.1
Average annual percent change:							
1972-83 .....	2.8	2.1	1.1	3.6	2.3	1.2	3.7
1979-83 .....	-8.2	-7.9	-11.6	-2.4	-6.7	-9.9	-2.3

<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 102. Refrigeration and heating equipment (SIC 3585): Output per hour and related data, 1967-83**  
 (1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 200. Refrigeration and heating equipment (SIC 3585): Indexes of output per employee hour and output per employee, 1967-83**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1967 .....	77.5	76.8	79.1	78.4	78.4	78.2
1968 .....	82.3	82.5	81.8	83.2	82.9	83.6
1969 .....	87.6	85.6	93.0	89.4	87.5	94.1
1970 .....	88.4	87.1	91.3	87.9	86.5	91.7
1971 .....	94.8	93.6	97.4	94.3	92.7	98.2
1972 .....	103.0	99.5	112.9	105.9	102.7	114.3
1973 .....	103.0	100.0	111.1	105.1	102.5	112.2
1974 .....	106.9	105.7	109.7	106.8	105.2	110.7
1975 .....	89.9	93.8	81.6	88.3	91.2	82.1
1976 .....	94.1	93.4	96.0	95.5	95.2	96.3
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.2	98.4	104.6	102.5	101.6	104.6
1979 .....	101.4	99.6	106.1	101.9	100.3	106.1
1980 .....	93.8	96.2	88.8	93.4	95.4	88.8
1981 .....	99.4	99.6	99.1	99.2	99.3	99.1
1982 .....	100.1	103.4	93.2	98.8	101.2	93.2
1983 <sup>2</sup> .....	101.2	102.4	98.4	102.3	103.9	98.4
Average annual percent change:						
1967-83 .....	1.1	1.3	.7	1.0	1.2	.6
1979-83 .....	.6	1.3	-1.0	.6	1.3	-1.0

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Table 201. Refrigeration and heating equipment (SIC 3585): Indexes of output, employee hours, and employees, 1967-83**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1967 .....	53.6	69.2	69.8	67.8	68.4	68.4	68.5
1968 .....	60.8	73.9	73.7	74.3	73.1	73.3	72.7
1969 .....	73.0	83.3	85.3	78.5	81.7	83.4	77.6
1970 .....	73.7	83.4	84.6	80.7	83.8	85.2	80.4
1971 .....	75.9	80.1	81.1	77.9	80.5	81.9	77.3
1972 .....	99.0	96.1	99.5	87.7	93.5	96.4	86.6
1973 .....	112.5	109.2	112.5	101.3	107.0	109.8	100.3
1974 .....	105.9	99.1	100.2	96.5	99.2	100.7	95.7
1975 .....	69.7	77.5	74.3	85.4	78.9	76.4	84.9
1976 .....	87.5	93.0	93.7	91.1	91.6	91.9	90.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	110.3	110.1	112.1	105.4	107.6	108.6	105.4
1979 .....	111.5	110.0	112.0	105.1	109.4	111.2	105.1
1980 .....	92.8	98.9	96.5	104.5	99.4	97.3	104.5
1981 .....	100.5	101.1	100.9	101.4	101.3	101.2	101.4
1982 .....	89.2	89.1	86.3	95.7	90.3	88.1	95.7
1983 <sup>1</sup> .....	94.0	92.9	91.8	95.5	91.9	90.5	95.5
Average annual percent change:							
1967-83 .....	2.9	1.8	1.6	2.2	1.8	1.6	2.3
1979-83 .....	-3.7	-4.3	-5.0	-2.8	-4.3	-5.0	-2.8

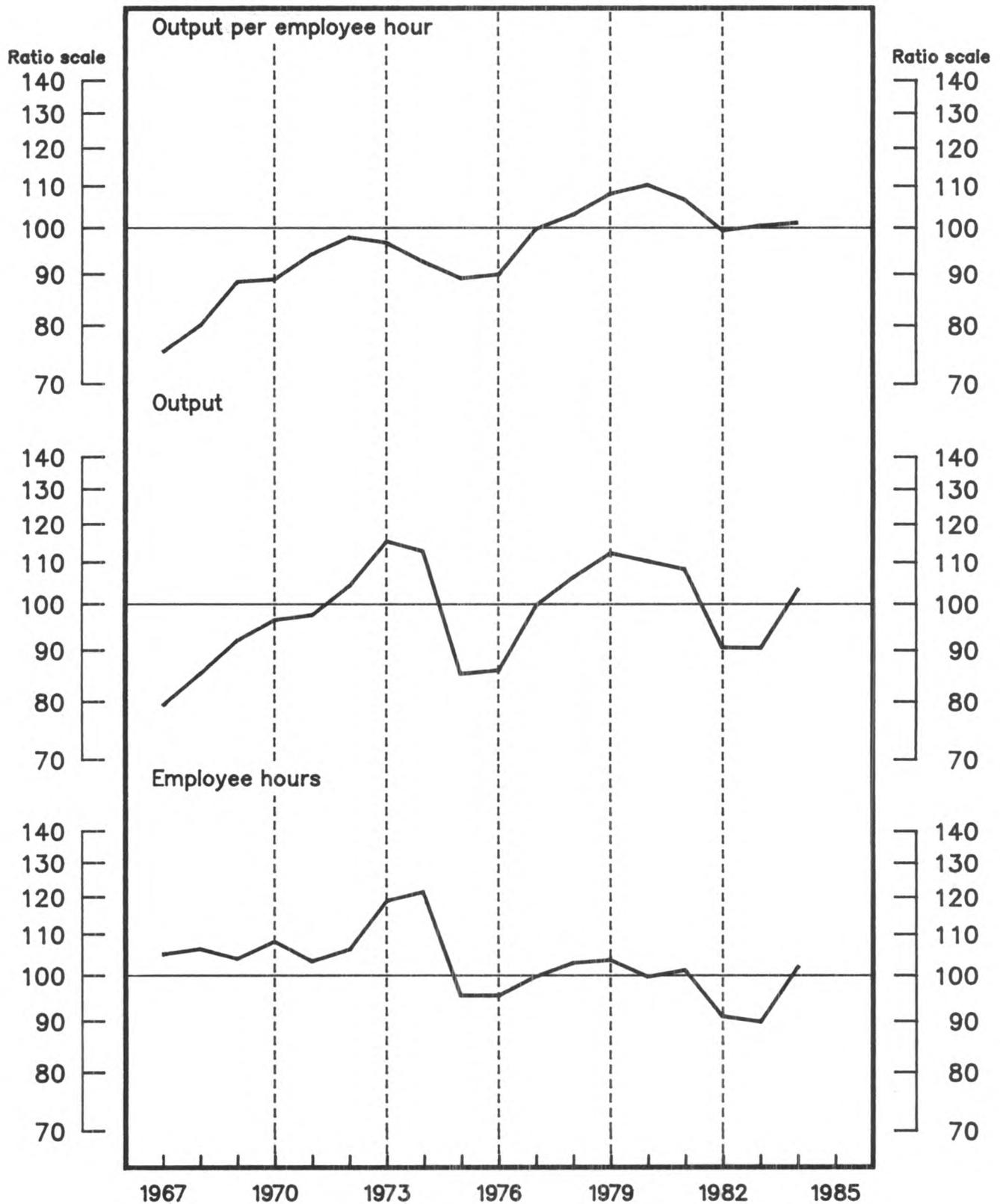
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 103. Transformers (SIC 3612): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 202. Transformers (SIC 3612): Indexes of output per employee hour and output per employee, 1963-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963 .....	67.5	67.6	67.1	67.1	68.5	64.2
1964 .....	73.3	71.9	77.0	73.7	73.7	73.7
1965 .....	79.9	77.0	87.4	81.1	80.0	83.7
1966 .....	75.8	72.9	83.7	77.9	76.9	80.1
1967 .....	75.5	73.0	82.1	76.7	75.9	78.6
1968 .....	80.2	77.5	87.1	80.6	79.1	84.0
1969 .....	88.6	85.1	97.7	89.6	87.3	95.3
1970 .....	89.1	84.9	100.6	89.6	86.1	99.2
1971 .....	94.4	90.1	105.8	92.8	88.6	104.4
1972 .....	98.1	94.1	109.1	97.2	93.6	107.2
1973 .....	96.9	91.5	112.4	96.9	92.1	110.2
1974 .....	92.7	88.5	104.2	91.9	88.3	101.7
1975 .....	89.3	92.0	83.9	86.6	88.6	82.4
1976 .....	90.1	92.0	85.9	89.1	91.0	85.2
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	103.3	102.0	106.6	103.7	102.5	106.6
1979 .....	108.4	105.8	114.8	108.6	106.1	114.8
1980 .....	110.6	111.3	109.2	110.1	110.5	109.2
1981 .....	106.9	106.0	109.2	107.1	106.3	109.2
1982 .....	99.6	99.3	100.1	96.9	95.7	100.1
1983 .....	100.7	101.2	99.3	100.7	101.2	99.3
1984 <sup>2</sup> .....	101.4	97.8	110.6	103.7	101.0	110.6
Average annual percent change:						
1963-84 .....	1.9	2.0	1.5	1.8	1.9	1.8
1979-84 .....	-1.9	-2.1	-1.6	-1.7	-1.7	-1.6

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Table 203. Transformers (SIC 3612): Indexes of output, employee hours, and employees, 1963-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963 .....	51.9	76.9	76.8	77.3	77.3	75.8	80.8
1964 .....	59.0	80.5	82.1	76.6	80.1	80.0	80.1
1965 .....	69.6	87.1	90.4	79.6	85.8	87.0	83.2
1966 .....	74.1	97.7	101.7	88.5	95.1	96.3	92.5
1967 .....	79.5	105.3	108.9	96.8	103.7	104.8	101.2
1968 .....	85.5	106.6	110.3	98.2	106.1	108.1	101.8
1969 .....	92.3	104.2	108.5	94.5	103.0	105.7	96.9
1970 .....	96.7	108.5	113.9	96.1	107.9	112.3	97.5
1971 .....	97.8	103.6	108.5	92.4	105.4	110.4	93.7
1972 .....	104.5	106.5	111.1	95.8	107.5	111.7	97.5
1973 .....	115.7	119.4	126.5	102.9	119.4	125.6	105.0
1974 .....	113.0	121.9	127.7	108.4	122.9	128.0	111.1
1975 .....	85.5	95.7	92.9	101.9	98.7	96.5	103.7
1976 .....	86.2	95.7	93.7	100.3	96.7	94.7	101.2
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	106.6	103.2	104.5	100.0	102.8	104.0	100.0
1979 .....	112.6	103.9	106.4	98.1	103.7	106.1	98.1
1980 .....	110.5	99.9	99.3	101.2	100.4	100.0	101.2
1981 .....	108.5	101.5	102.4	99.4	101.3	102.1	99.4
1982 .....	90.8	91.2	91.4	90.7	93.7	94.9	90.7
1983 .....	90.7	90.1	89.6	91.3	90.1	89.6	91.3
1984 <sup>1</sup> .....	103.7	102.3	106.0	93.8	100.0	102.7	93.8
Average annual percent change:							
1963-84 .....	2.3	.4	.3	.8	.5	.4	.5
1979-84 .....	-3.3	-1.4	-1.3	-1.8	-1.7	-1.6	-1.8

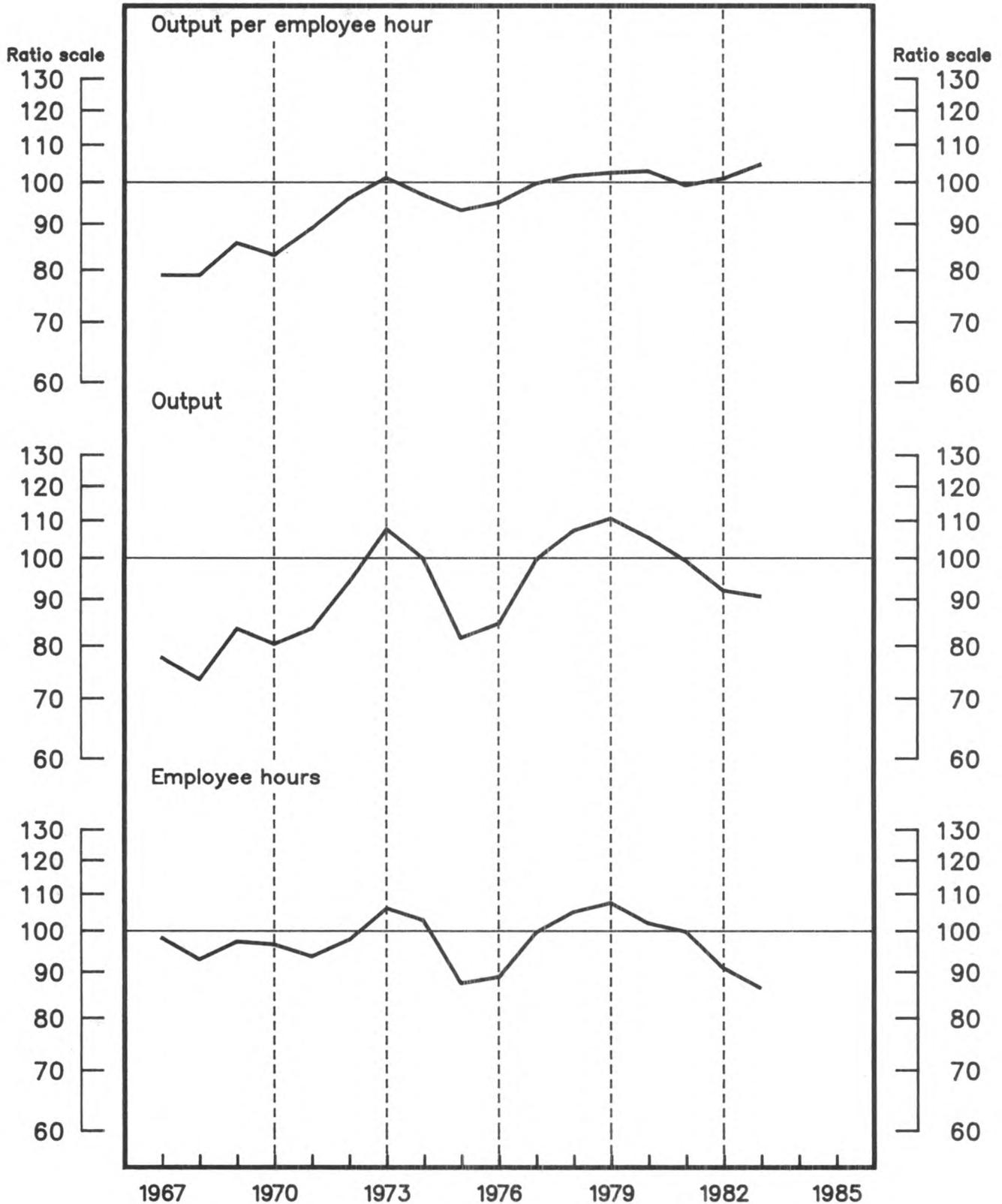
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Chart 104. Switchgear and switchboard apparatus (SIC 3613): Output per hour and related data, 1967-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 204. Switchgear and switchboard apparatus (SIC 3613): Indexes of output per employee hour and output per employee, 1963-83 (1977 = 100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	70.9	71.3	69.8	73.2	75.1	68.7
1964	70.2	72.4	64.8	74.1	78.9	64.0
1965	74.4	74.3	74.5	77.6	79.5	73.1
1966	78.7	76.8	84.5	82.8	82.9	82.8
1967	79.1	77.3	84.1	81.8	81.6	82.3
1968	79.1	78.8	79.7	82.0	82.7	80.1
1969	85.9	85.2	88.3	89.3	89.4	89.1
1970	83.3	84.1	81.0	86.1	87.5	82.7
1971	89.2	90.7	85.6	92.0	93.8	87.3
1972	96.3	97.1	94.4	98.2	99.2	95.8
1973	101.5	100.7	103.5	104.5	104.5	104.3
1974	97.1	96.2	99.8	98.4	98.0	99.6
1975	93.4	99.2	80.8	91.1	95.9	80.7
1976	95.3	99.1	86.5	93.6	96.4	87.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.0	102.3	101.2	102.2	102.6	101.3
1979	102.8	104.3	98.8	103.6	105.4	99.3
1980	103.2	107.9	92.6	104.2	109.2	93.3
1981	99.5	103.4	90.3	100.3	104.4	90.9
1982	101.3	109.6	84.1	99.9	107.2	84.6
1983 <sup>2</sup>	105.0	112.2	89.5	104.1	111.1	89.6
Average annual percent change:						
1963-83	2.0	2.3	1.3	1.7	1.9	1.4
1979-83	.2	1.6	-2.9	-.3	.9	-3.0

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 205. Switchgear and switchboard apparatus (SIC 3613): Indexes of output, employee hours, and employees, 1963-83 (1977 = 100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	54.9	77.4	77.0	78.6	75.0	73.1	79.9
1964	57.5	81.9	79.4	88.8	77.6	72.9	89.9
1965	62.1	83.5	83.6	83.4	80.0	78.1	84.9
1966	74.4	94.5	96.9	88.0	89.9	89.8	89.9
1967	77.8	98.4	100.6	92.5	95.1	95.4	94.5
1968	73.7	93.2	93.5	92.5	89.9	89.1	92.0
1969	83.8	97.5	98.4	94.9	93.8	93.7	94.0
1970	80.6	96.8	95.8	99.5	93.6	92.1	97.5
1971	83.8	93.9	92.4	97.9	91.1	89.3	96.0
1972	94.4	98.0	97.2	100.0	96.1	95.2	98.5
1973	108.0	106.4	107.2	104.3	103.3	103.3	103.5
1974	100.1	103.1	104.1	100.3	101.7	102.1	100.5
1975	81.9	87.7	82.6	101.3	89.9	85.4	101.5
1976	84.9	89.1	85.7	98.1	90.7	88.1	97.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.5	105.4	105.1	106.2	105.2	104.8	106.1
1979	110.9	107.9	106.3	112.2	107.0	105.2	111.7
1980	105.6	102.3	97.9	114.1	101.3	96.7	113.2
1981	99.6	100.1	96.3	110.3	99.3	95.4	109.6
1982	92.3	91.1	84.2	109.7	92.4	86.1	109.1
1983 <sup>1</sup>	90.9	86.6	81.0	101.6	87.3	81.8	101.5
Average annual percent change:							
1963-83	2.7	.7	.4	1.4	1.0	.8	1.3
1979-83	-5.2	-5.4	-6.7	-2.3	-4.9	-6.0	-2.3

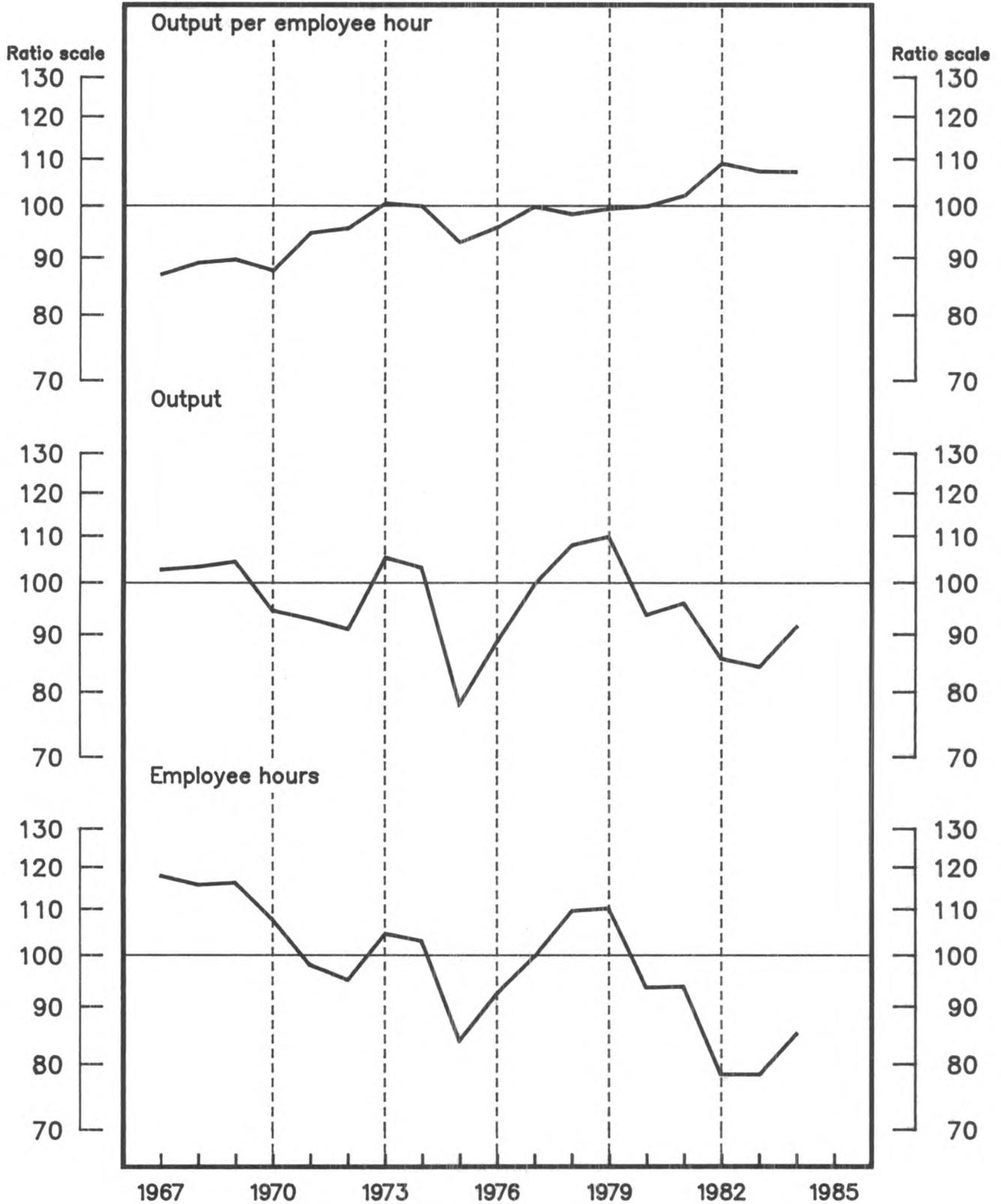
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 105. Motors and generators (SIC 3621): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 206. Motors and generators (SIC 3621): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	52.1	57.2	39.9	52.0	57.4	39.7
1959 .....	60.5	64.1	50.6	61.1	65.3	50.4
1960 .....	62.0	66.5	50.3	61.4	66.2	49.8
1961 .....	66.3	71.3	53.3	65.9	71.4	52.5
1962 .....	73.7	77.4	63.4	74.3	79.0	62.2
1963 .....	74.7	77.1	67.3	76.3	80.2	66.0
1964 .....	82.5	85.2	74.3	84.8	89.1	73.3
1965 .....	88.3	88.6	87.1	90.6	92.3	85.5
1966 .....	90.3	88.3	97.6	91.1	89.9	95.4
1967 .....	87.1	87.1	86.8	88.4	89.6	84.9
1968 .....	89.2	89.8	87.3	91.7	93.0	87.6
1969 .....	89.8	90.2	88.1	92.6	93.8	88.9
1970 .....	87.8	89.5	82.2	88.3	89.8	84.0
1971 .....	94.8	96.9	87.8	96.3	98.5	89.5
1972 .....	95.7	95.5	96.7	97.9	97.9	98.1
1973 .....	100.7	98.0	110.2	101.6	99.2	110.8
1974 .....	100.1	98.8	104.6	99.9	98.7	104.1
1975 .....	93.0	96.3	83.3	92.7	96.1	83.1
1976 .....	95.9	94.6	100.6	95.1	93.4	101.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	98.5	98.5	97.4	98.8	97.9	101.9
1979 .....	99.6	99.6	99.1	99.6	100.0	98.4
1980 .....	100.1	100.2	84.5	96.7	100.1	87.0
1981 .....	102.3	102.3	96.2	99.8	101.6	94.5
1982 .....	109.3	109.4	85.8	98.8	104.4	84.3
1983 .....	107.5	107.5	94.9	101.7	104.2	94.4
1984 <sup>2</sup> .....	107.4	107.4	103.1	104.7	105.5	102.0
Average annual percent change:						
1954-84 .....	2.6	2.4	3.0	2.5	2.3	3.0
1979-84 .....	1.9	1.9	1.2	1.1	1.2	.9

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 207. Motors and generators (SIC 3621): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	50.2	96.3	87.7	125.9	96.5	87.4	126.5
1959 .....	62.8	103.8	98.0	124.1	102.8	96.1	124.7
1960 .....	64.5	104.0	97.0	128.3	105.0	97.5	129.6
1961 .....	65.2	98.3	91.5	122.3	99.0	91.3	124.2
1962 .....	72.1	97.8	93.1	113.7	97.0	91.3	115.9
1963 .....	74.2	99.3	96.2	110.3	97.2	92.5	112.4
1964 .....	83.0	100.6	97.4	111.7	97.9	93.2	113.3
1965 .....	95.3	107.9	107.6	109.4	105.2	103.3	111.5
1966 .....	105.6	116.9	119.6	108.2	115.9	117.5	110.7
1967 .....	102.9	118.2	118.2	118.5	116.4	114.9	121.2
1968 .....	103.5	116.0	115.2	118.5	112.9	111.3	118.2
1969 .....	104.6	116.5	116.0	118.7	112.9	111.5	117.7
1970 .....	94.7	107.9	105.8	115.2	107.2	105.5	112.8
1971 .....	93.1	98.2	96.1	106.0	96.7	94.5	104.0
1972 .....	91.2	95.3	95.5	94.3	93.2	93.2	93.0
1973 .....	105.5	104.8	107.7	95.7	103.8	106.4	95.2
1974 .....	103.3	103.2	104.6	98.8	103.4	104.7	99.2
1975 .....	78.4	84.3	81.4	94.1	84.6	81.6	94.3
1976 .....	89.0	92.8	94.1	88.5	93.6	95.3	88.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	108.2	109.9	109.9	111.1	109.5	110.5	106.2
1979 .....	110.1	110.5	110.5	111.1	110.5	110.1	111.9
1980 .....	93.9	93.8	93.7	111.1	97.1	93.8	107.9
1981 .....	96.2	94.0	94.0	100.0	96.4	94.7	101.8
1982 .....	85.8	78.5	78.4	100.0	86.8	82.2	101.8
1983 .....	84.4	78.5	78.5	88.9	83.0	81.0	89.4
1984 <sup>1</sup> .....	91.7	85.4	85.4	88.9	87.6	86.9	89.9
Average annual percent change:							
1954-84 .....	1.7	-.8	-.6	-1.2	-.7	-.5	-1.2
1979-84 .....	-3.8	-5.6	-5.6	-5.0	-4.8	-4.9	-4.6

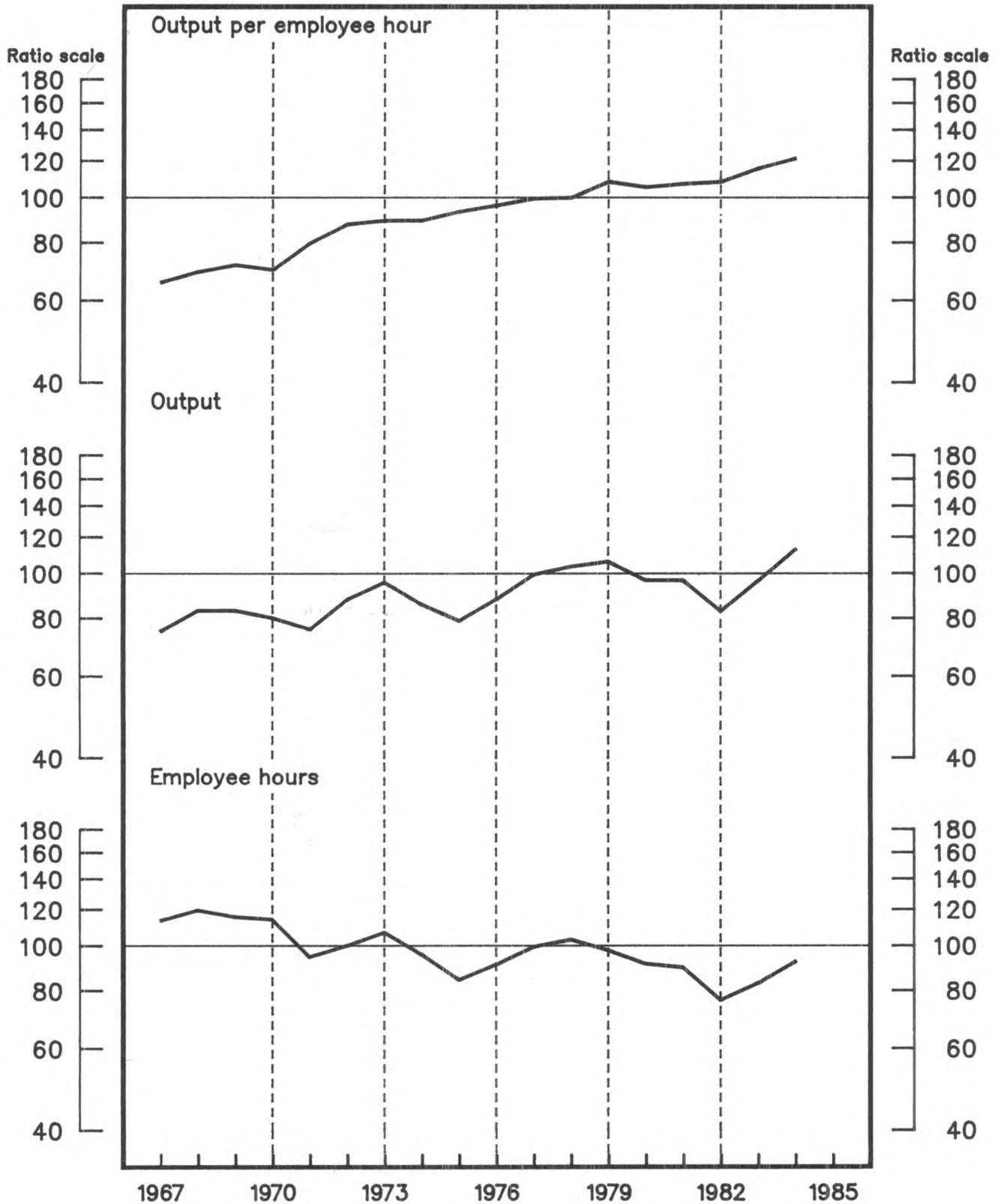
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 106. Major household appliances (SIC 3631, 3632, 3633, 3639): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 208. Major household appliances (SIC 3631, 3632, 3633, 3639): Indexes of output per employee hour and output per employee, 1958-84 (1977 = 100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	38.5	40.2	32.5	39.5	41.8	32.4
1959	42.0	42.8	38.9	42.9	44.2	38.7
1960	43.8	45.2	38.5	43.9	45.5	38.1
1961	46.6	48.4	40.3	47.6	50.1	39.6
1962	50.8	51.5	48.0	52.9	54.5	47.1
1963	57.9	57.7	59.1	59.6	60.0	58.0
1964	60.4	59.9	62.5	62.6	62.8	61.5
1965	62.2	61.9	63.4	65.0	65.7	62.2
1966	62.4	61.2	67.8	64.0	63.4	66.2
1967	66.0	65.7	67.7	66.5	66.7	66.2
1968	69.5	68.6	73.7	71.3	70.7	74.0
1969	71.9	71.9	71.8	72.6	72.8	72.4
1970	70.2	70.5	69.1	71.6	71.9	70.4
1971	80.1	80.7	77.5	81.7	82.4	79.2
1972	87.9	87.2	91.0	89.5	89.0	92.4
1973	89.5	88.5	94.1	90.7	89.8	94.7
1974	89.6	90.3	87.0	88.4	89.0	86.7
1975	93.6	96.0	84.6	91.7	93.6	84.5
1976	96.6	99.1	88.0	95.9	98.0	88.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.4	100.3	101.0	98.1	97.5	100.9
1979	108.7	108.9	107.7	107.7	107.7	107.9
1980	105.8	106.9	101.5	103.6	104.1	102.0
1981	107.6	107.8	107.2	105.4	105.0	107.4
1982	108.6	112.7	93.8	104.5	107.5	93.9
1983	116.2	115.9	117.3	117.9	118.0	117.0
1984 <sup>2</sup>	122.2	120.0	132.3	124.0	122.2	132.6
Average annual percent change:						
1958-84	4.3	4.2	4.5	4.1	4.0	4.6
1979-84	2.5	2.2	3.9	3.1	3.0	3.8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 209. Major household appliances (SIC 3631, 3632, 3633, 3639): Indexes of output, employee hours, and employees, 1958-84 (1977 = 100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	40.6	105.5	100.9	124.9	102.7	97.2	125.4
1959	47.4	112.8	110.7	121.8	110.4	107.3	122.4
1960	47.1	107.6	104.1	122.4	107.4	103.5	123.6
1961	46.6	99.9	96.2	115.7	98.0	93.1	117.8
1962	52.3	103.0	101.6	109.0	98.8	95.9	111.0
1963	58.0	100.1	100.6	98.1	97.3	96.7	100.0
1964	64.4	106.6	107.6	103.0	102.9	102.5	104.7
1965	69.8	112.2	112.7	110.1	107.4	106.2	112.2
1966	73.5	117.8	120.1	108.4	114.9	115.9	111.0
1967	75.4	114.2	114.8	111.4	113.3	113.0	113.9
1968	83.6	120.3	121.9	113.4	117.3	118.3	112.9
1969	83.6	116.3	116.2	116.5	115.2	114.9	115.5
1970	80.6	114.8	114.4	116.7	112.6	112.1	114.5
1971	76.2	95.1	94.4	98.3	93.3	92.5	96.2
1972	88.4	100.6	101.4	97.1	98.8	99.3	95.7
1973	96.2	107.5	108.7	102.2	106.1	107.1	101.6
1974	86.2	96.2	95.5	99.1	97.5	96.8	99.4
1975	79.5	84.9	82.8	94.0	86.7	84.9	94.1
1976	88.5	91.6	89.3	100.6	92.3	90.3	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	103.7	103.8	103.1	106.1	106.8	103.2
1979	106.7	98.2	98.0	99.1	99.1	99.1	98.9
1980	97.1	91.8	90.8	95.7	93.7	93.3	95.2
1981	97.1	90.2	90.1	90.6	92.1	92.5	90.4
1982	83.4	76.8	74.0	88.9	79.8	77.6	88.8
1983	97.0	83.5	83.7	82.7	82.3	82.2	82.9
1984 <sup>1</sup>	113.5	92.9	94.6	85.8	91.5	92.9	85.6
Average annual percent change:							
1958-84	3.3	-9	-9	-1.2	-8	-6	-1.2
1979-84	.4	-2.0	-1.7	-3.3	-2.6	-2.5	-3.2

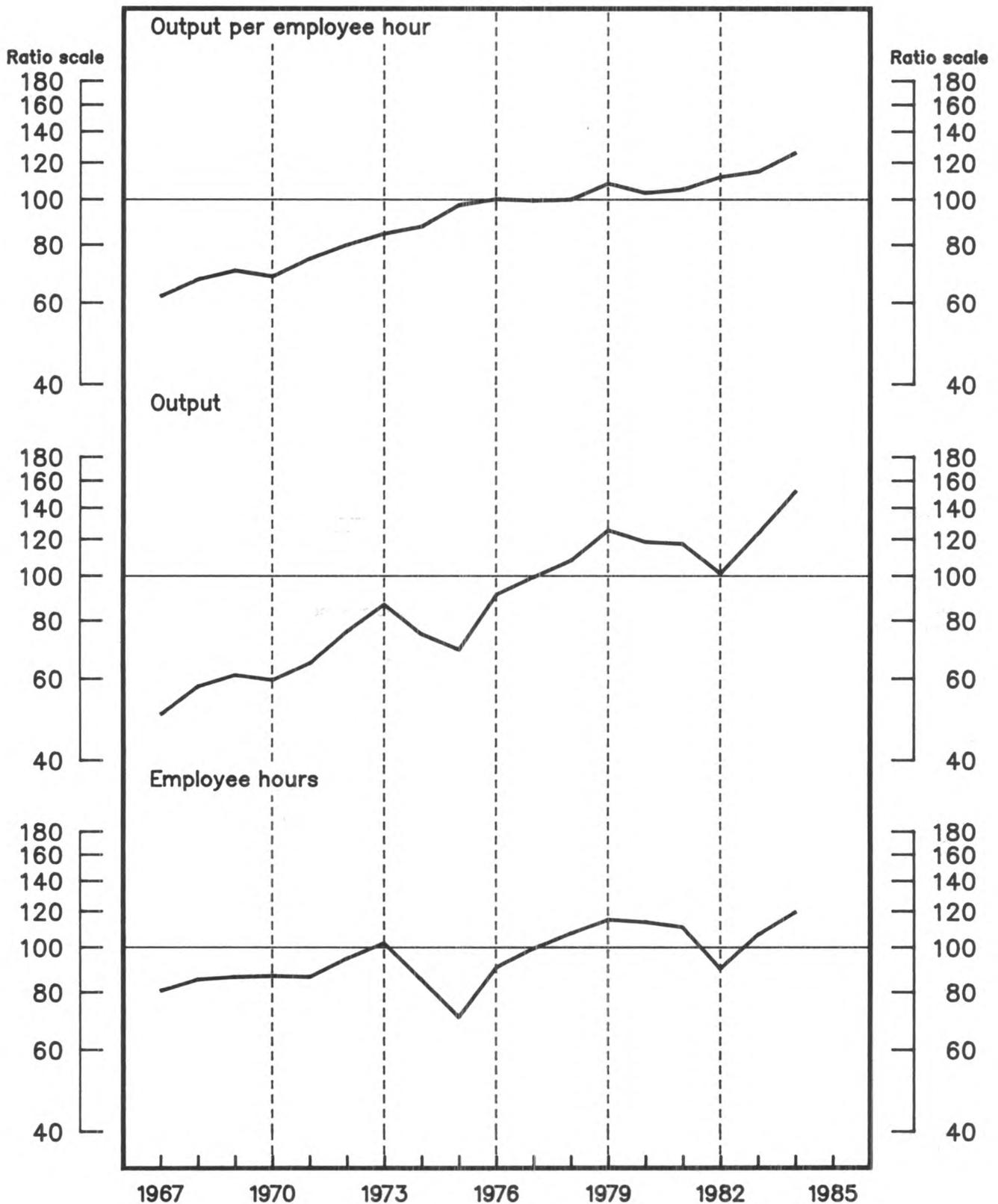
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 107. Household cooking equipment (SIC 3631): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 210. Household cooking equipment (SIC 3631): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	49.5	47.7	55.9	51.0	49.5	56.1
1959 .....	52.0	49.2	63.1	53.6	51.0	63.1
1960 .....	50.8	50.9	50.2	51.1	51.4	49.9
1961 .....	52.6	52.2	53.7	53.2	53.2	53.1
1962 .....	54.5	54.1	55.6	54.0	53.8	54.8
1963 .....	59.5	56.3	72.2	61.5	58.8	71.4
1964 .....	60.1	57.9	68.3	60.9	58.9	68.1
1965 .....	63.1	59.4	78.1	65.4	62.5	76.8
1966 .....	62.4	58.6	78.3	64.3	61.1	76.8
1967 .....	62.3	59.4	73.6	62.9	60.3	72.3
1968 .....	67.7	63.9	82.4	69.8	66.4	83.1
1969 .....	70.7	68.2	79.6	72.2	69.9	80.6
1970 .....	68.7	66.4	76.8	70.1	67.8	78.6
1971 .....	75.0	72.7	83.5	77.2	74.9	85.4
1972 .....	80.3	76.4	96.0	83.3	79.3	98.2
1973 .....	84.9	80.3	102.9	88.0	83.8	103.8
1974 .....	87.9	87.2	89.7	86.2	85.2	89.5
1975 .....	97.8	98.4	95.7	95.2	95.2	95.6
1976 .....	100.7	101.3	98.4	100.9	101.3	99.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.5	98.5	106.7	98.5	95.9	106.8
1979 .....	108.9	110.2	104.8	110.0	111.5	106.0
1980 .....	103.9	103.5	105.5	107.5	107.6	107.0
1981 .....	105.7	103.0	114.9	109.6	107.7	115.9
1982 .....	112.6	119.5	95.4	109.2	114.5	95.9
1983 .....	115.6	116.0	114.5	119.1	120.5	115.1
1984 <sup>2</sup> .....	126.8	123.5	138.6	130.6	127.9	139.5
Average annual percent change:						
1958-84 .....	3.7	3.9	3.1	3.7	3.8	3.2
1979-84 .....	3.3	3.1	4.3	3.4	3.2	4.1

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 211. Household cooking equipment (SIC 3631): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	36.5	73.8	76.6	65.3	71.6	73.8	65.1
1959 .....	40.1	77.1	81.5	63.6	74.8	78.6	63.5
1960 .....	40.4	79.6	79.3	80.5	79.1	78.6	80.9
1961 .....	39.6	75.3	75.8	73.7	74.4	74.4	74.6
1962 .....	40.0	73.4	73.9	72.0	74.1	74.4	73.0
1963 .....	46.5	78.1	82.6	64.4	75.6	79.1	65.1
1964 .....	47.5	79.0	82.1	69.5	78.0	80.6	69.8
1965 .....	53.6	84.9	90.2	68.6	81.9	85.8	69.8
1966 .....	52.4	84.0	89.4	66.9	81.5	85.8	68.2
1967 .....	50.5	81.0	85.0	68.6	80.3	83.8	69.8
1968 .....	58.0	85.7	90.7	70.4	83.1	87.4	69.8
1969 .....	61.4	86.8	90.0	77.1	85.1	87.9	76.2
1970 .....	59.9	87.2	90.2	78.0	85.5	88.4	76.2
1971 .....	65.1	86.8	89.6	78.0	84.3	86.9	76.2
1972 .....	76.4	95.1	100.0	79.6	91.7	96.3	77.8
1973 .....	87.3	102.8	108.7	84.8	99.2	104.2	84.1
1974 .....	75.3	85.7	86.4	83.9	87.4	88.4	84.1
1975 .....	69.8	71.4	70.9	72.9	73.3	73.3	73.0
1976 .....	91.7	91.1	90.5	93.2	90.9	90.5	92.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	108.5	108.0	110.1	101.7	110.2	113.1	101.6
1979 .....	126.1	115.8	114.4	120.3	114.6	113.1	119.0
1980 .....	118.9	114.4	114.9	112.7	110.6	110.5	111.1
1981 .....	117.8	111.5	114.4	102.5	107.5	109.4	101.6
1982 .....	101.9	90.5	85.3	106.8	93.3	89.0	106.3
1983 .....	124.2	107.4	107.1	108.5	104.3	103.1	107.9
1984 <sup>1</sup> .....	152.7	120.4	123.6	110.2	116.9	119.4	109.5
Average annual percent change:							
1958-84 .....	5.4	1.6	1.4	2.2	1.7	1.5	2.2
1979-84 .....	2.7	-6	-3	-1.5	-6	-4	-1.3

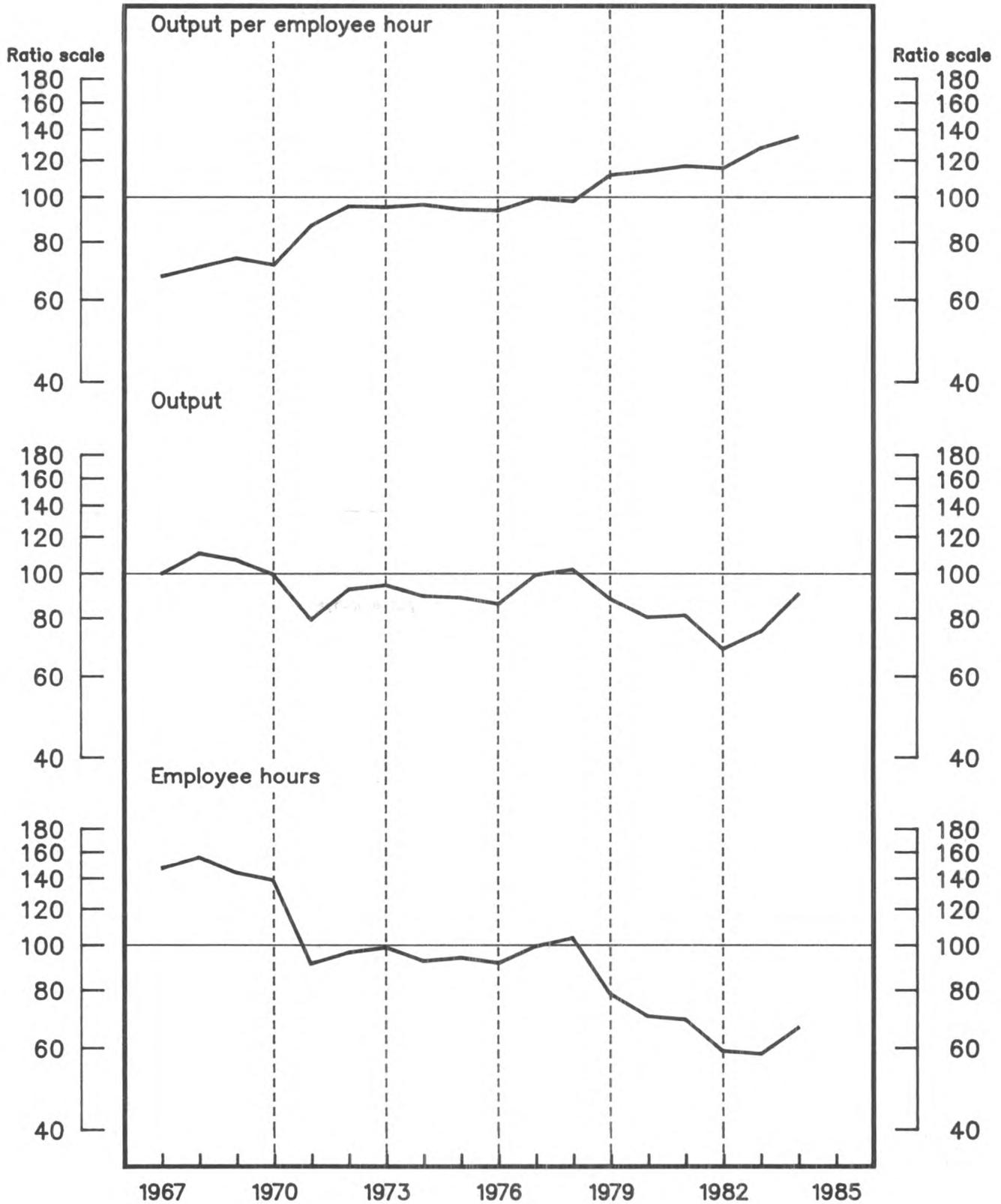
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 108. Household refrigerators and freezers (SIC 3632): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 212. Household refrigerators and freezers (SIC 3632): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	33.9	35.0	29.3	34.8	36.3	29.2
1959 .....	37.3	37.1	38.1	38.4	38.6	37.9
1960 .....	41.0	41.3	39.2	40.8	41.2	38.8
1961 .....	43.8	44.3	40.9	44.7	45.8	40.1
1962 .....	47.2	46.7	50.2	50.9	51.3	49.2
1963 .....	55.5	55.9	53.3	57.1	58.3	52.2
1964 .....	59.5	59.2	60.7	62.0	62.6	59.5
1965 .....	61.4	61.3	61.7	64.6	65.6	60.5
1966 .....	62.1	61.1	67.5	63.4	63.0	65.8
1967 .....	67.7	67.6	68.0	67.9	68.2	66.2
1968 .....	70.9	70.6	72.2	72.5	72.6	72.4
1969 .....	74.1	74.8	71.1	75.3	76.1	71.6
1970 .....	71.7	72.4	68.6	73.4	74.2	69.8
1971 .....	87.2	87.7	85.3	88.1	88.3	87.2
1972 .....	96.0	95.1	100.1	97.6	97.0	101.4
1973 .....	95.6	95.9	94.1	97.0	97.5	94.9
1974 .....	96.8	97.9	90.7	98.4	100.4	89.9
1975 .....	94.5	97.9	80.1	93.0	96.3	79.9
1976 .....	94.0	97.6	79.4	92.4	95.5	79.9
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	98.4	97.9	100.9	96.3	95.4	101.0
1979 .....	112.3	110.3	123.6	109.8	107.3	123.6
1980 .....	114.4	114.4	114.3	106.4	104.8	115.6
1981 .....	117.4	117.4	116.9	107.9	106.4	116.7
1982 .....	116.1	118.7	104.1	110.4	112.0	103.6
1983 .....	128.4	128.4	129.1	128.4	128.4	129.3
1984 <sup>2</sup> .....	135.9	134.7	142.7	134.5	132.7	143.6
Average annual percent change:						
1958-84 .....	5.0	5.0	5.0	4.6	4.5	5.1
1979-84 .....	3.8	4.0	2.8	4.7	5.0	2.8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 213. Household refrigerators and freezers (SIC 3632): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	40.4	119.0	115.3	138.0	116.0	111.3	138.4
1959 .....	50.5	135.5	136.1	132.6	131.4	130.8	133.4
1960 .....	53.7	131.0	130.0	137.1	131.7	130.2	138.4
1961 .....	52.1	119.0	117.5	127.3	116.6	113.7	130.0
1962 .....	59.9	126.9	128.4	119.4	117.6	116.8	121.7
1963 .....	68.8	124.0	123.0	129.1	120.4	118.1	131.7
1964 .....	79.4	133.5	134.2	130.9	128.0	126.8	133.4
1965 .....	87.8	143.0	143.2	142.4	135.9	133.9	145.1
1966 .....	95.5	153.7	156.2	141.5	150.7	151.7	145.1
1967 .....	100.5	148.4	148.6	147.7	148.1	147.3	151.7
1968 .....	111.1	156.7	157.4	153.9	153.2	153.0	153.4
1969 .....	107.5	145.0	143.8	151.3	142.8	141.2	150.1
1970 .....	100.1	139.6	138.3	145.9	136.4	134.9	143.4
1971 .....	80.0	91.7	91.2	93.8	90.8	90.6	91.7
1972 .....	93.0	96.9	97.8	92.9	95.3	95.9	91.7
1973 .....	94.9	99.3	99.0	100.9	97.8	97.3	100.0
1974 .....	89.9	92.9	91.8	99.1	91.4	89.5	100.0
1975 .....	89.2	94.4	91.1	111.4	95.9	92.6	111.7
1976 .....	86.5	92.0	88.6	108.9	93.6	90.6	108.3
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.7	104.4	104.9	101.8	106.7	107.7	101.7
1979 .....	88.6	78.9	80.3	71.7	80.7	82.6	71.7
1980 .....	80.9	70.7	70.7	70.8	76.0	77.2	70.0
1981 .....	81.7	69.6	69.6	69.9	75.7	76.8	70.0
1982 .....	69.1	59.5	58.2	66.4	62.6	61.7	66.7
1983 .....	75.4	58.7	58.7	58.4	58.7	58.7	58.3
1984 <sup>1</sup> .....	90.9	66.9	67.5	63.7	67.6	68.5	63.3
Average annual percent change:							
1958-84 .....	1.7	-3.1	-3.1	-3.1	-2.8	-2.7	-3.2
1979-84 .....	-7	-4.3	-4.5	-3.4	-5.1	-5.5	-3.4

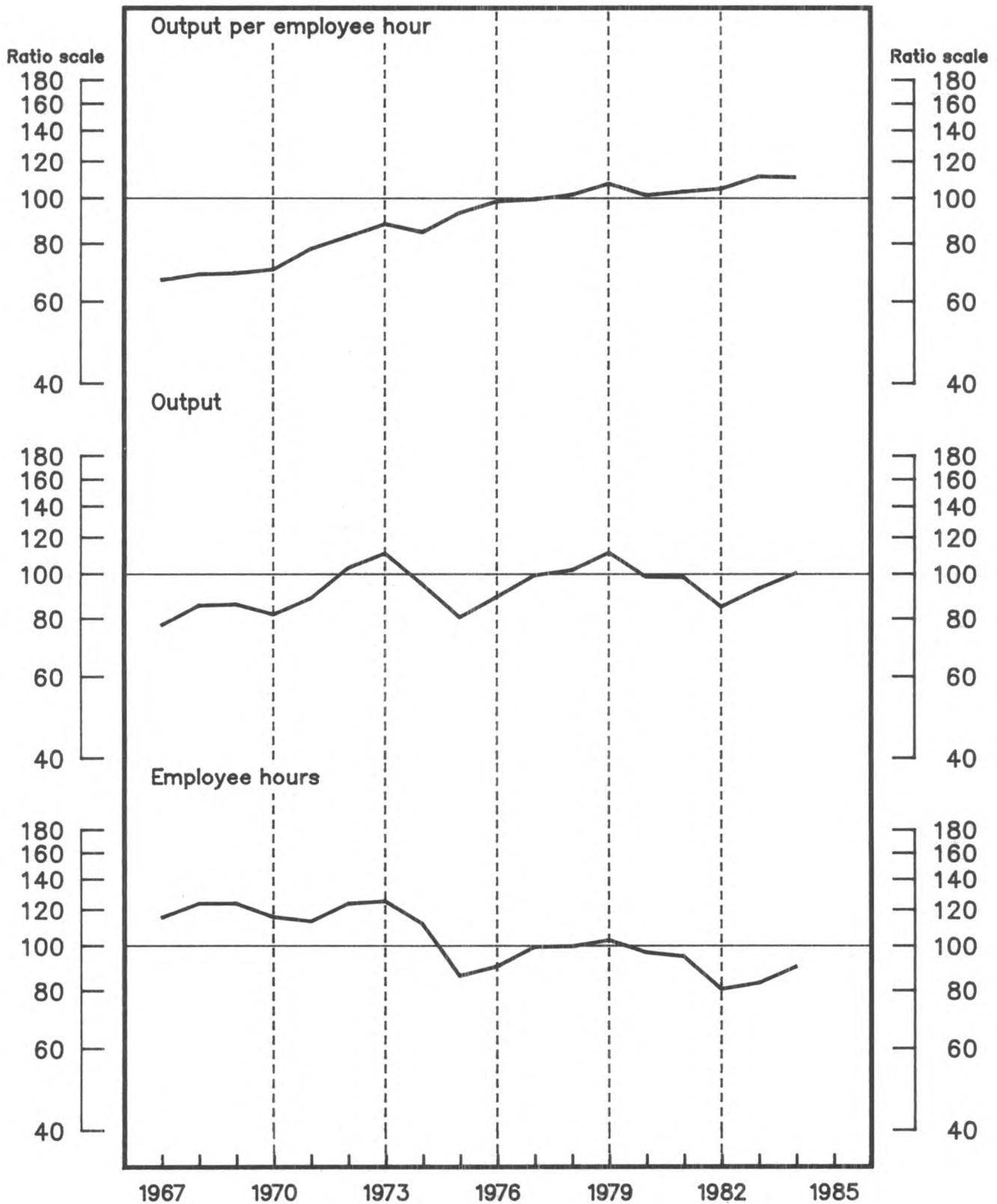
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart. 109. Household laundry equipment (SIC 3633): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 214. Household laundry equipment (SIC 3633): Indexes of output per employee hour and output per employee, 1958-84**  
(1977 = 100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	39.8	43.8	28.4	42.0	47.1	28.2
1959 .....	43.3	46.9	32.4	44.8	49.0	32.2
1960 .....	42.5	46.7	30.3	43.4	48.1	30.0
1961 .....	46.4	51.5	32.3	48.1	54.3	31.6
1962 .....	51.6	56.2	37.9	53.8	59.6	37.2
1963 .....	61.3	61.5	60.3	63.9	65.2	58.6
1964 .....	60.8	60.5	61.9	64.2	65.0	60.6
1965 .....	61.5	64.4	51.1	65.1	69.6	50.2
1966 .....	63.5	64.2	60.4	66.1	68.0	58.6
1967 .....	67.1	67.9	63.5	68.1	69.6	61.9
1968 .....	69.0	68.7	70.1	71.0	71.2	70.0
1969 .....	69.4	69.6	68.0	69.4	69.5	68.8
1970 .....	70.7	72.0	65.4	72.3	73.5	67.0
1971 .....	78.3	79.2	74.6	82.1	83.4	76.1
1972 .....	83.2	82.6	85.6	85.3	84.9	86.3
1973 .....	88.5	87.7	92.1	90.6	90.0	92.9
1974 .....	85.0	86.2	79.9	82.1	82.6	79.6
1975 .....	93.6	95.3	86.4	91.0	92.1	86.0
1976 .....	99.0	100.6	92.8	98.6	100.0	92.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.3	102.3	102.6	101.6	101.3	102.6
1979 .....	108.1	106.6	115.5	108.1	106.7	115.3
1980 .....	102.1	102.7	99.2	100.2	100.5	99.2
1981 .....	103.9	103.6	105.4	101.6	100.9	105.0
1982 .....	105.4	107.4	97.3	100.5	101.4	96.5
1983 .....	112.0	108.3	131.5	112.8	109.5	131.1
1984 <sup>2</sup> .....	111.6	106.5	142.0	112.7	107.9	141.6
Average annual percent change:						
1958-84 .....	4.0	3.7	5.5	3.8	3.3	5.6
1979-84 .....	1.3	.5	5.3	1.6	.9	5.2

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 215. Household laundry equipment (SIC 3633): Indexes of output, employee hours, and employees, 1958-84**  
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	53.3	133.9	121.8	187.9	126.8	113.2	188.7
1959 .....	59.8	138.1	127.6	184.8	133.5	122.1	185.8
1960 .....	52.3	123.1	111.9	172.6	120.6	108.8	174.3
1961 .....	53.3	114.8	103.4	165.2	110.8	98.1	168.7
1962 .....	58.5	113.4	104.1	154.5	108.7	98.1	157.2
1963 .....	60.3	98.4	98.1	100.0	94.3	92.5	102.9
1964 .....	67.5	111.1	111.6	109.1	105.1	103.8	111.4
1965 .....	70.4	114.5	109.3	137.8	108.2	101.2	140.1
1966 .....	78.7	123.9	122.5	130.3	119.1	115.8	134.3
1967 .....	77.9	116.1	114.7	122.7	114.4	112.0	125.8
1968 .....	86.0	124.7	125.2	122.7	121.2	120.8	122.9
1969 .....	86.5	124.7	124.2	127.2	124.7	124.5	125.8
1970 .....	82.3	116.4	114.3	125.8	113.8	112.0	122.9
1971 .....	89.2	113.9	112.6	119.6	108.7	106.9	117.2
1972 .....	103.7	124.7	125.6	121.2	121.6	122.1	120.1
1973 .....	111.6	126.1	127.3	121.2	123.2	124.0	120.1
1974 .....	95.6	112.5	110.9	119.6	116.5	115.8	120.1
1975 .....	81.1	86.6	85.1	93.9	89.1	88.1	94.3
1976 .....	89.9	90.8	89.4	96.9	91.2	89.9	97.2
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.6	100.3	100.3	100.0	101.0	101.3	100.0
1979 .....	112.0	103.6	105.1	97.0	103.6	105.0	97.1
1980 .....	99.2	97.2	96.6	100.0	99.0	98.7	100.0
1981 .....	99.0	95.3	95.6	93.9	97.4	98.1	94.3
1982 .....	85.5	81.1	79.6	87.9	85.1	84.3	88.6
1983 .....	93.6	83.6	86.4	71.2	83.0	85.5	71.4
1984 <sup>1</sup> .....	101.1	90.6	94.9	71.2	89.7	93.7	71.4
Average annual percent change:							
1958-84 .....	2.6	-1.4	-1.0	-2.8	-1.1	-7	-2.9
1979-84 .....	-2.4	-3.6	-2.9	-7.2	-3.9	-3.2	-7.2

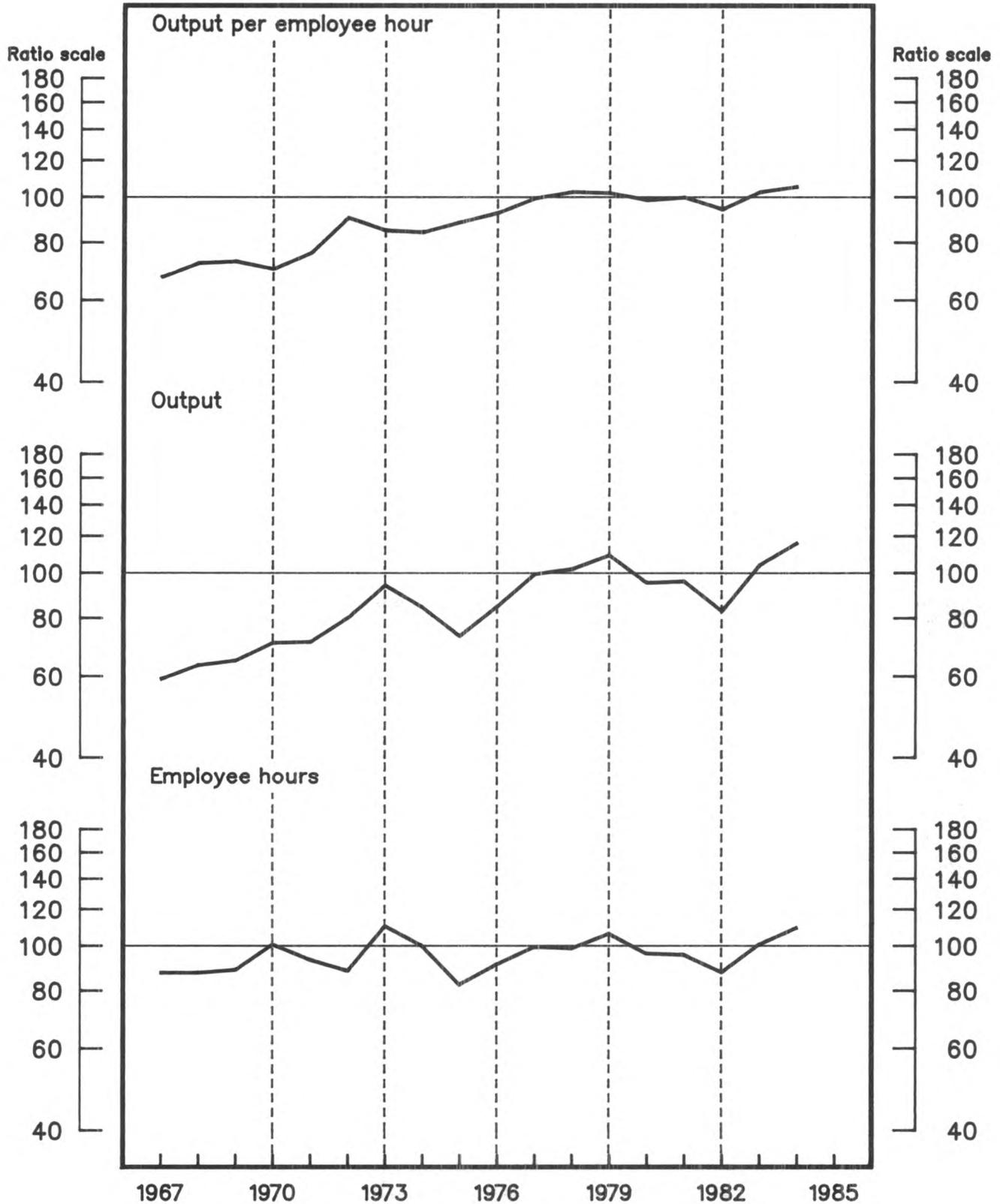
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 110. Household appliances, not elsewhere classified (SIC 3639): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 216. Household appliances, not elsewhere classified (SIC 3639): Indexes of output per employee hour and output per employee, 1958-84 (1977 = 100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	43.4	50.6	26.4	43.3	51.1	26.0
1959 .....	49.1	57.6	29.2	47.5	55.8	28.7
1960 .....	51.6	57.8	34.6	51.7	58.6	33.9
1961 .....	54.6	62.0	35.3	55.4	64.0	34.6
1962 .....	60.9	65.9	45.0	61.3	67.2	43.9
1963 .....	63.8	67.8	50.1	64.5	69.6	48.8
1964 .....	69.0	73.4	54.2	69.8	75.3	52.8
1965 .....	70.4	73.1	60.2	71.4	74.9	59.1
1966 .....	65.6	68.4	55.3	67.3	71.5	53.5
1967 .....	67.6	72.4	51.9	69.6	76.1	50.7
1968 .....	72.5	76.5	58.4	74.2	79.1	57.8
1969 .....	73.1	78.6	55.2	73.7	79.5	55.6
1970 .....	70.4	74.8	55.2	70.8	75.3	55.8
1971 .....	76.2	82.3	57.0	75.9	81.7	57.6
1972 .....	90.8	96.8	70.4	90.4	96.4	70.8
1973 .....	85.2	86.7	78.9	82.6	83.6	78.5
1974 .....	84.5	85.3	80.6	81.9	82.4	79.5
1975 .....	88.8	93.4	72.4	87.0	91.6	71.3
1976 .....	93.0	95.7	82.4	92.5	95.1	82.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	103.2	106.3	90.9	98.1	100.2	90.1
1979 .....	102.6	103.9	97.3	99.5	100.3	96.4
1980 .....	99.1	101.5	89.3	95.8	97.4	89.6
1981 .....	100.4	102.2	93.1	98.4	99.6	93.3
1982 .....	94.7	96.5	86.6	92.4	93.7	86.4
1983 .....	103.2	101.3	112.7	104.5	102.9	112.2
1984 <sup>2</sup> .....	105.9	103.1	121.0	109.0	106.6	120.7
Average annual percent change:						
1958-84 .....	3.1	2.6	5.0	3.0	2.4	5.1
1979-84 .....	.6	-.3	5.0	1.9	1.2	5.0

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 217. Household appliances, not elsewhere classified (SIC 3639): Indexes of output, employee hours, and employees, 1958-84 (1977 = 100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	40.3	92.8	79.7	152.7	93.0	78.9	155.2
1959 .....	43.6	88.8	75.7	149.1	91.7	78.1	151.7
1960 .....	42.1	81.6	72.9	121.8	81.5	71.9	124.2
1961 .....	43.0	78.7	69.4	121.8	77.6	67.2	124.2
1962 .....	51.5	84.6	78.1	114.5	84.0	76.6	117.2
1963 .....	53.8	84.3	79.3	107.3	83.4	77.3	110.3
1964 .....	58.2	84.3	79.3	107.3	83.4	77.3	110.3
1965 .....	59.1	83.9	80.9	98.2	82.8	78.9	100.0
1966 .....	55.3	84.3	80.9	100.0	82.2	77.3	103.4
1967 .....	59.4	87.9	82.1	114.5	85.3	78.1	117.2
1968 .....	63.7	87.9	83.3	109.0	85.9	80.5	110.3
1969 .....	65.2	89.2	82.9	118.2	88.5	82.0	117.2
1970 .....	71.2	101.2	95.2	129.1	100.6	94.5	127.5
1971 .....	71.5	93.8	86.9	125.4	94.2	87.5	124.2
1972 .....	80.6	88.8	83.3	114.5	89.2	83.6	113.8
1973 .....	94.7	111.1	109.2	120.0	114.6	113.3	120.6
1974 .....	85.0	100.6	99.7	105.5	103.8	103.1	106.9
1975 .....	73.7	83.0	78.9	101.8	84.7	80.5	103.4
1976 .....	85.4	91.8	89.2	103.7	92.3	89.8	103.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.5	99.3	96.4	112.7	104.5	102.3	113.8
1979 .....	109.7	106.9	105.6	112.7	110.2	109.4	113.8
1980 .....	95.8	96.7	94.4	107.3	100.0	98.4	106.9
1981 .....	96.5	96.1	94.4	103.6	98.1	96.9	103.4
1982 .....	83.5	88.2	86.5	96.4	90.4	89.1	96.6
1983 .....	104.5	101.3	103.2	92.7	100.0	101.6	93.1
1984 <sup>1</sup> .....	116.6	110.1	113.1	96.4	107.0	109.4	96.6
Average annual percent change:							
1958-84 .....	3.9	.8	1.3	-1.0	.9	1.5	-1.1
1979-84 .....	1.2	.6	1.5	-3.6	-.7	(?)	-3.7

<sup>1</sup> Preliminary.

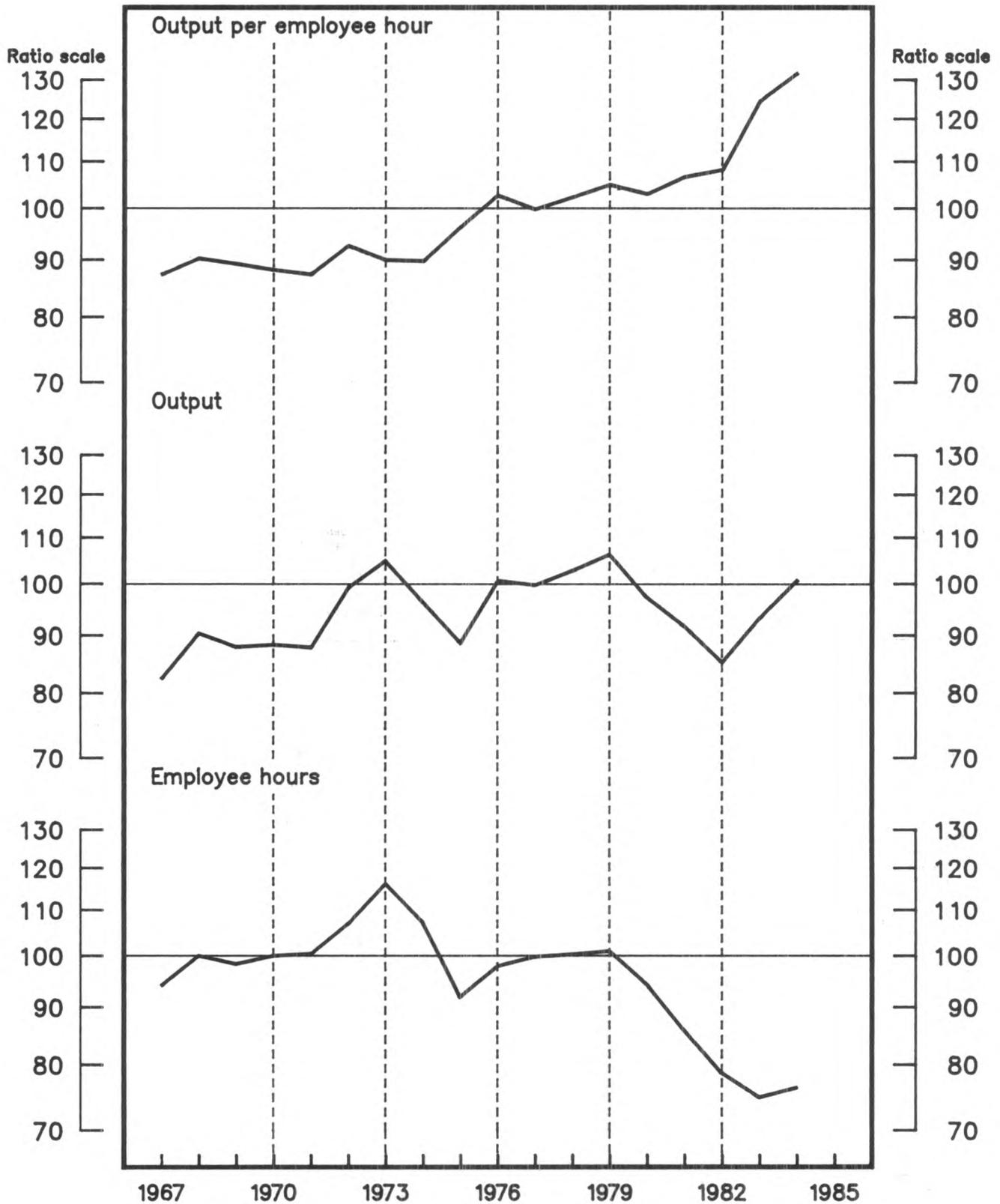
<sup>2</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 111. Electric lamps (SIC 3641): Output per hour and related data, 1967-84  
(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 218. Electric lamps (SIC 3641): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	68.9	70.9	57.8	66.9	68.6	56.9
1959	73.7	74.4	68.8	73.9	74.8	67.7
1960	75.5	76.1	71.8	73.1	73.5	70.2
1961	74.5	75.3	68.9	72.9	73.8	67.1
1962	79.2	79.6	76.1	78.3	79.0	73.7
1963	80.8	80.8	82.0	80.1	80.2	79.5
1964	83.4	83.4	84.0	82.4	82.6	81.3
1965	88.7	88.0	94.4	88.7	88.4	91.3
1966	89.3	88.0	100.1	89.4	88.3	96.9
1967	87.5	86.8	93.1	85.2	84.5	90.2
1968	90.4	89.6	97.0	89.0	88.2	94.6
1969	89.4	89.2	91.2	87.1	86.8	90.0
1970	88.3	87.3	96.9	87.5	86.4	96.7
1971	87.5	86.9	92.1	85.8	84.9	91.9
1972	92.8	91.6	101.9	92.5	91.2	101.6
1973	90.1	88.5	103.5	89.9	88.3	102.9
1974	89.9	89.5	91.7	87.7	87.3	90.8
1975	96.4	96.9	93.5	94.7	94.9	92.8
1976	102.9	102.7	103.5	103.7	103.7	103.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.5	102.1	105.2	103.8	103.6	105.2
1979	105.2	104.1	113.8	105.7	104.6	113.8
1980	103.2	102.7	106.6	101.8	101.1	106.6
1981	106.9	107.1	105.4	106.6	106.7	105.4
1982	108.4	108.4	108.5	107.0	106.7	108.5
1983	124.7	124.5	125.5	128.6	129.1	125.5
1984 <sup>2</sup>	132.0	133.1	124.8	134.5	136.1	124.8
Average annual percent change:						
1954-84	2.0	1.9	2.1	2.1	2.0	2.2
1979-84	5.0	5.3	2.8	5.6	6.0	2.8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 219. Electric lamps (SIC 3641): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	47.2	68.5	66.6	81.7	70.6	68.8	83.0
1959	56.2	76.3	75.5	81.7	76.1	75.1	83.0
1960	56.8	75.2	74.6	79.1	77.7	77.3	80.9
1961	52.8	70.9	70.1	76.6	72.4	71.5	78.7
1962	59.6	75.3	74.9	78.3	76.1	75.4	80.9
1963	62.6	77.5	77.5	76.3	78.2	78.1	78.7
1964	65.8	78.9	78.9	78.3	79.9	79.7	80.9
1965	73.9	83.3	84.0	78.3	83.3	83.6	80.9
1966	82.5	92.4	93.8	82.4	92.3	93.4	85.1
1967	82.5	94.3	95.1	88.6	96.8	97.6	91.5
1968	90.6	100.2	101.1	93.4	101.8	102.7	95.8
1969	88.1	98.5	98.8	96.6	101.1	101.5	97.9
1970	88.5	100.2	101.4	91.3	101.1	102.4	91.5
1971	88.0	100.6	101.3	95.6	102.6	103.6	95.8
1972	99.5	107.2	108.6	97.6	107.6	109.1	97.9
1973	105.1	116.6	118.7	101.5	116.9	119.0	102.1
1974	96.6	107.5	107.9	105.3	110.1	110.8	106.4
1975	88.9	92.2	91.7	95.1	93.9	93.7	95.8
1976	100.9	98.1	98.2	97.5	97.3	97.3	97.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.0	100.5	100.9	97.9	99.2	99.4	97.9
1979	106.5	101.2	102.3	93.6	100.8	101.8	93.6
1980	97.5	94.5	94.9	91.5	95.8	96.4	91.5
1981	91.9	86.0	85.8	87.2	86.2	86.1	87.2
1982	85.4	78.8	78.8	78.7	79.8	80.0	78.7
1983	93.5	75.0	75.1	74.5	72.7	72.4	74.5
1984 <sup>1</sup>	101.0	76.5	75.9	80.9	75.1	74.2	80.9
Average annual percent change:							
1954-84	2.9	.9	1.0	.7	.8	.9	.6
1979-84	-1.3	-6.0	-6.3	-4.1	-6.6	-6.9	-4.1

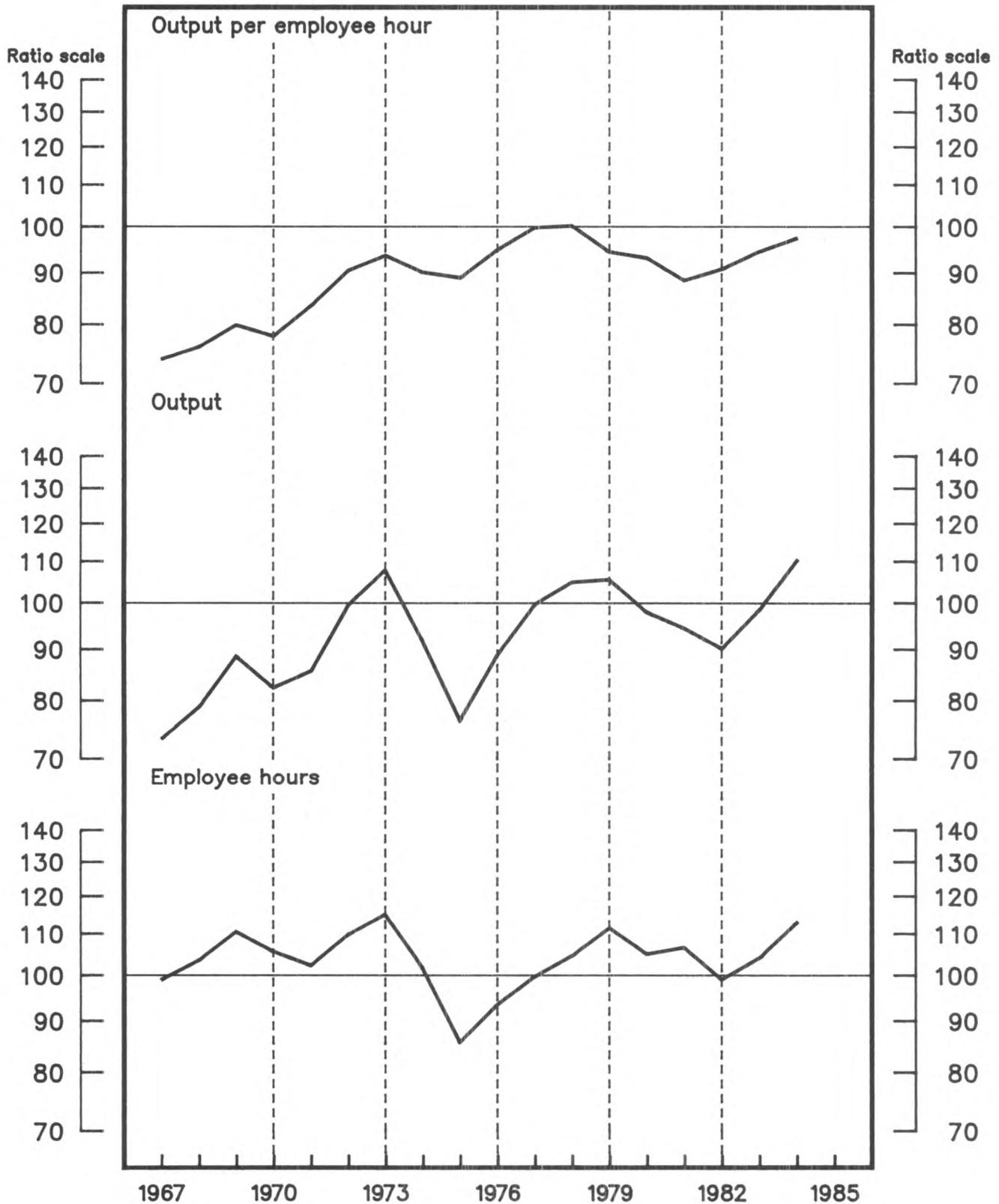
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 112. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 220. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Indexes of output per employee hour and output per employee, 1961-84**  
(1977=100)

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1961 .....	61.9	58.4	75.7	62.2	58.9	74.4
1962 .....	67.5	63.3	84.4	68.5	64.7	83.0
1963 .....	67.5	63.9	81.2	69.2	66.3	79.8
1964 .....	69.0	66.0	80.0	70.2	67.7	78.7
1965 .....	72.3	67.5	91.2	74.9	71.0	89.7
1966 .....	74.4	70.1	91.7	75.8	72.1	89.8
1967 .....	74.1	70.7	86.7	75.8	73.2	84.6
1968 .....	76.2	73.5	85.8	79.0	76.8	86.2
1969 .....	80.1	77.8	88.5	82.2	80.1	89.3
1970 .....	78.1	77.3	80.8	80.0	79.1	82.6
1971 .....	83.7	82.1	88.9	84.3	82.3	90.7
1972 .....	90.7	88.3	99.0	92.9	90.7	100.5
1973 .....	93.8	89.9	107.4	95.3	91.6	108.2
1974 .....	90.3	89.0	94.8	90.6	89.4	94.4
1975 .....	89.2	90.1	86.7	88.8	89.6	86.6
1976 .....	95.1	93.5	100.7	94.7	92.7	101.2
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	100.4	99.2	103.8	100.2	99.1	104.0
1979 .....	94.6	94.4	95.2	95.0	94.8	95.6
1980 .....	93.3	95.2	88.2	93.3	95.0	88.7
1981 .....	88.7	90.6	83.4	89.6	91.8	83.7
1982 .....	91.0	93.3	85.0	90.9	93.0	85.3
1983 .....	94.7	94.0	96.7	95.7	95.6	96.5
1984 <sup>2</sup> .....	97.6	96.3	101.9	98.3	97.1	102.1
Average annual percent change:						
1961-84 .....	1.9	2.2	.7	1.8	2.1	.8
1979-84 .....	.6	.3	1.8	.7	.4	1.7

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 221. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Indexes of output, employee hours, and employees, 1961-84**  
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1961 .....	46.5	75.1	79.6	61.4	74.8	78.9	62.5
1962 .....	53.4	79.1	84.3	63.3	77.9	82.5	64.3
1963 .....	56.0	83.0	87.6	69.0	80.9	84.5	70.2
1964 .....	60.0	87.0	90.9	75.0	85.5	88.6	76.2
1965 .....	69.3	95.9	102.6	76.0	92.5	97.6	77.3
1966 .....	73.7	99.0	105.2	80.4	97.2	102.2	82.1
1967 .....	73.5	99.2	104.0	84.8	97.0	100.4	86.9
1968 .....	79.0	103.7	107.5	92.1	100.0	102.8	91.7
1969 .....	88.8	110.8	114.2	100.3	108.0	110.8	99.4
1970 .....	82.6	105.8	106.9	102.2	103.3	104.4	100.0
1971 .....	85.8	102.5	104.5	96.5	101.8	104.2	94.6
1972 .....	99.9	110.1	113.1	100.9	107.5	110.2	99.4
1973 .....	108.2	115.4	120.3	100.7	113.5	118.1	100.0
1974 .....	92.1	102.0	103.5	97.2	101.6	103.0	97.6
1975 .....	76.8	86.1	85.2	88.6	86.5	85.7	88.7
1976 .....	89.2	93.8	95.4	88.6	94.2	96.2	88.1
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	105.2	104.8	106.0	101.3	105.0	106.2	101.2
1979 .....	105.8	111.8	112.1	111.1	111.4	111.6	110.7
1980 .....	98.2	105.2	103.2	111.4	105.3	103.4	110.7
1981 .....	94.7	106.8	104.5	113.6	105.7	103.2	113.1
1982 .....	90.4	99.3	96.9	106.3	99.4	97.2	106.0
1983 .....	98.8	104.3	105.1	102.2	103.2	103.4	102.4
1984 <sup>1</sup> .....	110.6	113.3	114.9	108.5	112.5	113.9	108.3
Average annual percent change:							
1961-84 .....	2.9	1.0	.7	2.2	1.1	.8	2.1
1979-84 .....	.6	-.1	.3	-1.3	-.2	.1	-1.2

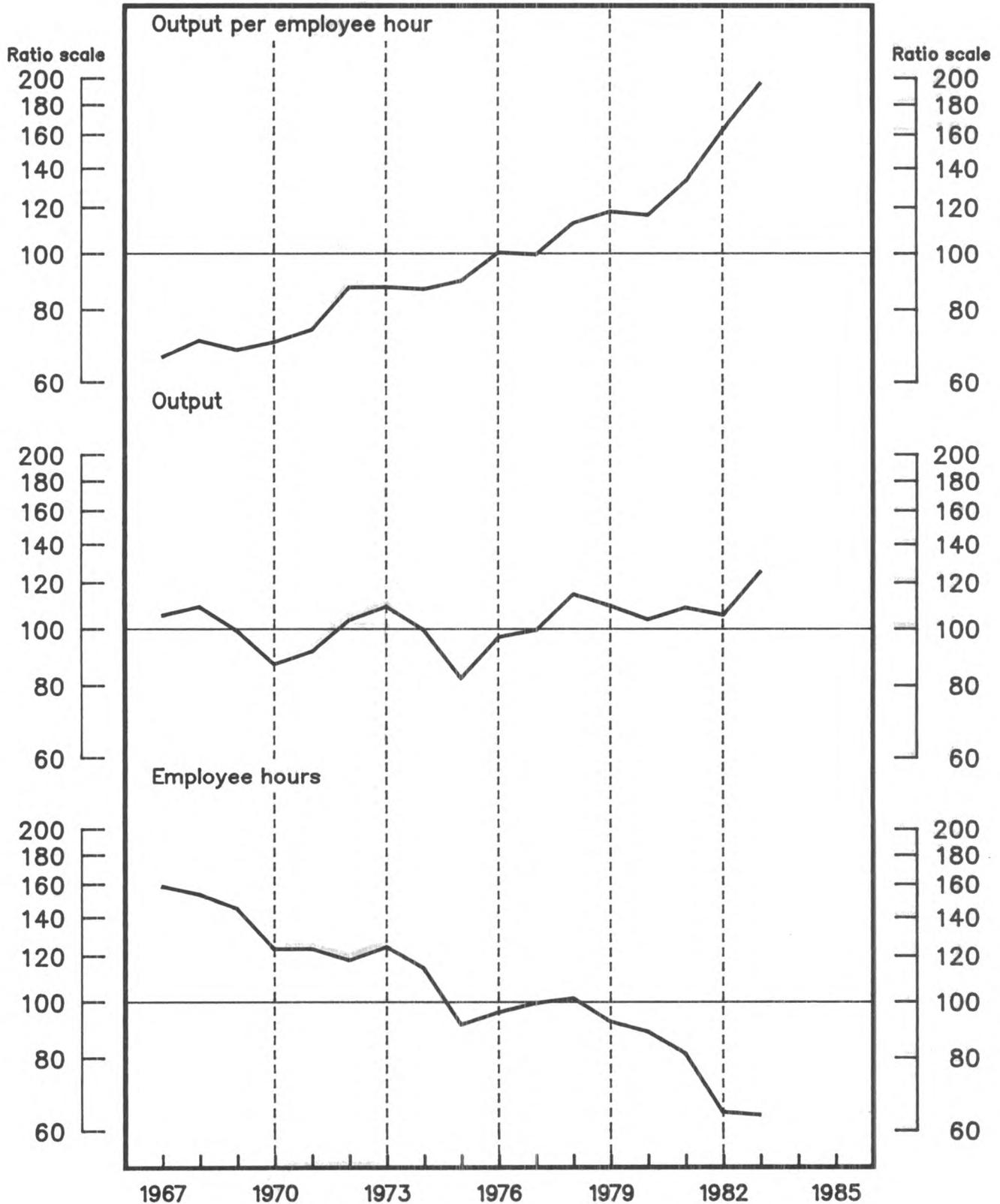
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 113. Radio and television receiving sets (SIC 3651): Output per hour and related data, 1967-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 222. Radio and television receiving sets (SIC 3651): Indexes of output per employee hour and output per employee, 1958-83 (1977=100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	41.8	40.8	45.5	43.2	42.6	45.3
1959	44.6	42.5	53.8	46.1	44.3	53.5
1960	45.8	44.5	50.3	47.1	46.4	49.7
1961	46.9	46.3	48.7	47.3	47.1	47.9
1962	52.2	50.0	61.2	53.6	52.0	60.1
1963	58.1	54.1	76.7	59.9	56.5	75.2
1964	57.9	53.7	77.8	60.8	57.3	76.7
1965	63.5	58.1	92.1	67.5	62.8	90.4
1966	65.5	59.1	101.3	68.0	62.3	99.0
1967	66.5	61.6	90.0	67.7	63.5	87.9
1968	71.0	66.7	90.2	72.7	68.8	90.5
1969	68.4	65.2	81.3	70.5	67.8	81.9
1970	70.6	71.2	68.4	72.7	73.6	69.8
1971	74.2	73.2	77.4	76.3	75.5	78.9
1972	87.8	83.7	104.5	89.7	85.9	105.9
1973	87.9	83.2	108.5	88.9	84.3	109.1
1974	87.2	85.9	91.0	85.2	83.8	90.5
1975	90.1	91.6	85.5	89.7	91.2	85.3
1976	100.8	103.4	92.9	101.5	104.3	93.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	113.2	116.8	102.2	112.2	115.5	102.1
1979	118.5	122.1	108.0	120.1	124.1	108.2
1980	116.9	122.3	101.8	119.7	126.0	102.5
1981	133.6	140.1	115.8	134.6	141.2	116.2
1982	163.9	173.2	138.6	163.6	172.7	138.8
1983 <sup>2</sup>	196.7	207.4	167.5	207.7	223.6	167.5
Average annual percent change:						
1958-83	5.3	5.8	3.6	5.2	5.6	3.7
1979-83	14.5	15.1	12.6	15.1	16.1	12.5

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 223. Radio and television receiving sets (SIC 3651): Indexes of output, employee hours, and employees, 1958-83 (1977=100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	38.5	92.0	94.3	84.7	89.2	90.3	85.0
1959	46.3	103.7	109.0	86.1	100.5	104.5	86.5
1960	45.3	99.0	101.7	90.1	96.2	97.7	91.1
1961	48.7	103.8	105.2	99.9	103.0	103.3	101.7
1962	59.7	114.4	119.4	97.6	111.3	114.7	99.4
1963	65.2	112.3	120.5	85.0	108.9	115.5	86.7
1964	70.5	121.7	131.2	90.6	116.0	123.0	91.9
1965	90.6	142.6	155.9	98.4	134.3	144.2	100.2
1966	118.7	181.3	200.9	117.2	174.5	190.5	119.9
1967	106.0	159.5	172.1	117.8	156.5	166.9	120.6
1968	109.7	154.5	164.5	121.6	150.9	159.4	121.2
1969	99.8	145.9	153.0	122.7	141.5	147.1	121.8
1970	87.4	123.8	122.7	127.8	120.3	118.7	125.3
1971	91.9	123.9	125.6	118.7	120.5	121.7	116.5
1972	104.1	118.5	124.3	99.6	116.0	121.2	98.3
1973	109.8	124.9	132.0	101.2	123.5	130.2	100.6
1974	100.1	114.8	116.5	110.0	117.5	119.5	110.6
1975	82.8	91.9	90.4	96.8	92.3	90.8	97.1
1976	97.3	96.5	94.1	104.7	95.9	93.3	104.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	115.3	101.9	98.7	112.8	102.8	99.8	112.9
1979	110.1	92.9	90.2	101.9	91.7	88.7	101.8
1980	104.3	89.2	85.3	102.5	87.1	82.8	101.8
1981	109.3	81.8	78.0	94.4	81.2	77.4	94.1
1982	106.2	64.8	61.3	76.6	64.9	61.5	76.5
1983 <sup>1</sup>	126.1	64.1	60.8	75.3	60.7	56.4	75.3
Average annual percent change:							
1958-83	3.6	-1.7	-2.1	( <sup>2</sup> )	-1.5	-2.0	-1
1979-83	2.9	-10.1	-10.6	-8.6	-10.6	-11.3	-8.5

<sup>1</sup> Preliminary.

<sup>2</sup> Less than .05 percent.

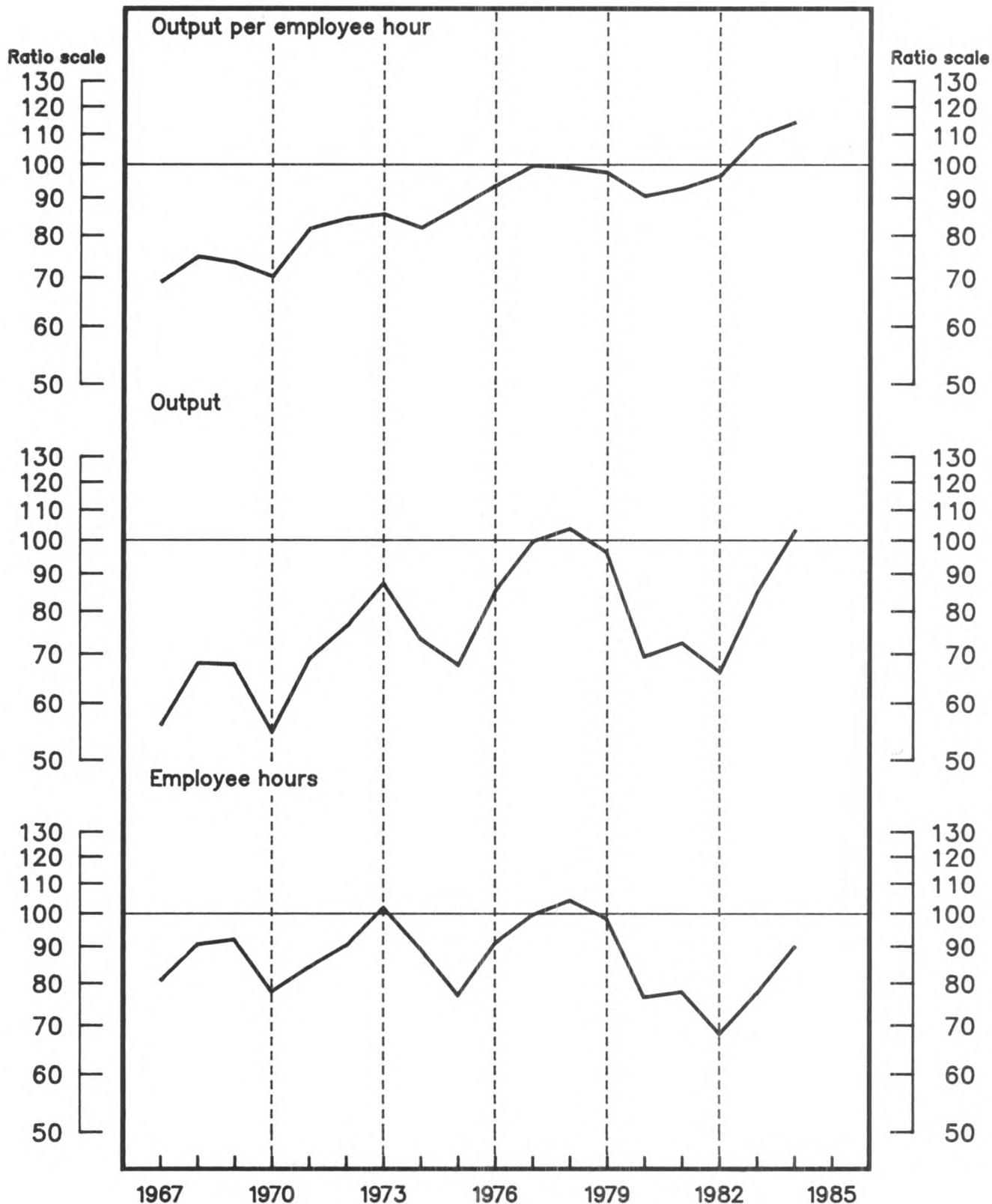
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 114. Motor vehicles and equipment (SIC 371): Output hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 224. Motor vehicles and equipment (SIC 371): Indexes of output per employee hour and output per employee, 1958-84 (1977 = 100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
<b>Index:</b>						
1958 .....	46.3	48.7	39.7	42.2	43.9	37.4
1959 .....	50.8	51.0	49.8	47.8	47.7	48.0
1960 .....	55.1	55.2	54.5	51.6	51.4	52.2
1961 .....	55.9	57.7	50.4	51.4	52.5	47.7
1962 .....	61.3	61.5	60.8	59.4	59.6	58.5
1963 .....	63.7	63.7	63.4	61.9	62.0	61.5
1964 .....	64.4	64.8	63.1	62.8	63.2	61.1
1965 .....	68.6	67.7	72.2	68.6	67.9	70.6
1966 .....	68.9	68.9	69.5	67.2	67.0	68.0
1967 .....	69.3	70.5	65.6	64.8	65.4	62.8
1968 .....	75.0	74.7	76.2	73.6	73.2	74.8
1969 .....	73.6	73.9	72.4	70.2	70.1	70.6
1970 .....	70.5	72.5	64.1	65.0	66.5	60.2
1971 .....	81.9	82.4	80.3	76.9	77.1	75.9
1972 .....	84.5	84.7	84.0	82.5	82.8	81.6
1973 .....	85.7	85.9	85.1	84.7	85.0	83.9
1974 .....	82.1	84.7	74.0	76.3	78.1	70.7
1975 .....	87.7	89.8	80.9	80.7	82.3	75.6
1976 .....	93.9	94.2	92.7	91.8	91.8	91.5
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	99.3	99.3	99.4	98.0	97.7	99.0
1979 .....	97.8	99.3	92.9	92.3	92.8	90.8
1980 .....	90.8	97.9	72.5	83.7	89.0	69.4
1981 .....	93.1	98.1	79.0	87.3	91.1	76.3
1982 .....	96.9	103.6	79.3	90.0	95.3	75.4
1983 .....	109.6	112.2	101.9	107.3	110.3	97.9
1984 <sup>2</sup> .....	114.6	115.1	113.0	113.9	114.6	111.4
<b>Average annual percent change:</b>						
1957-84 .....	3.0	3.1	2.7	3.1	3.2	2.8
1979-84 .....	4.1	3.5	5.9	5.4	5.1	6.0

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from company records; the Motor Vehicle Manufacturers Association of the U.S., Inc.; the Gousha/Times Mirror Company (Automobile Invoice Service); Ward's Communications, Inc. (Ward's Automotive Yearbooks); the Bureau of the Census; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics and company records.

**Table 225. Motor vehicles and equipment (SIC 371): Indexes of output, employee hours, and employees, 1958-84 (1977 = 100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
<b>Index:</b>							
1958 .....	27.2	58.7	55.9	68.6	64.4	62.0	72.8
1959 .....	35.1	69.1	68.8	70.5	73.5	73.6	73.1
1960 .....	39.7	72.1	71.9	72.9	76.9	77.2	76.0
1961 .....	34.5	61.7	59.8	68.5	67.1	65.7	72.4
1962 .....	43.6	71.1	70.9	71.7	73.4	73.1	74.5
1963 .....	48.7	76.5	76.4	76.8	78.7	78.5	79.2
1964 .....	50.2	78.0	77.5	79.6	79.9	79.4	82.1
1965 .....	61.3	89.3	90.6	84.9	89.4	90.3	86.8
1966 .....	61.5	89.2	89.3	88.5	91.5	91.8	90.4
1967 .....	56.1	80.9	79.6	85.5	86.6	85.8	89.3
1968 .....	68.2	90.9	91.3	89.5	92.7	93.2	91.2
1969 .....	67.9	92.3	91.9	93.8	96.7	96.9	96.2
1970 .....	55.1	78.2	76.0	86.0	84.8	82.9	91.5
1971 .....	69.2	84.5	84.0	86.2	90.0	89.7	91.2
1972 .....	76.6	90.6	90.4	91.2	92.8	92.5	93.9
1973 .....	87.8	102.4	102.2	103.2	103.6	103.3	104.7
1974 .....	73.6	89.6	86.9	99.5	96.4	94.2	104.1
1975 .....	67.9	77.4	75.6	83.9	84.1	82.5	89.8
1976 .....	85.8	91.4	91.1	92.6	93.5	93.5	93.8
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	104.0	104.7	104.7	104.6	106.1	106.4	105.0
1979 .....	96.5	98.7	97.2	103.9	104.5	104.0	106.3
1980 .....	69.7	76.8	71.2	96.1	83.3	78.3	100.4
1981 .....	72.7	78.1	74.1	92.0	83.3	79.8	95.3
1982 .....	66.4	68.5	64.1	83.7	73.8	69.7	88.1
1983 .....	85.4	77.9	76.1	83.8	79.6	77.4	87.2
1984 <sup>1</sup> .....	103.4	90.2	89.8	91.5	90.8	90.2	92.8
<b>Average annual percent change:</b>							
1957-84 .....	3.9	.9	.8	1.1	.8	.7	1.1
1979-84 .....	2.5	-1.5	-1.0	-3.2	-2.7	-2.5	-3.3

<sup>1</sup> Preliminary.

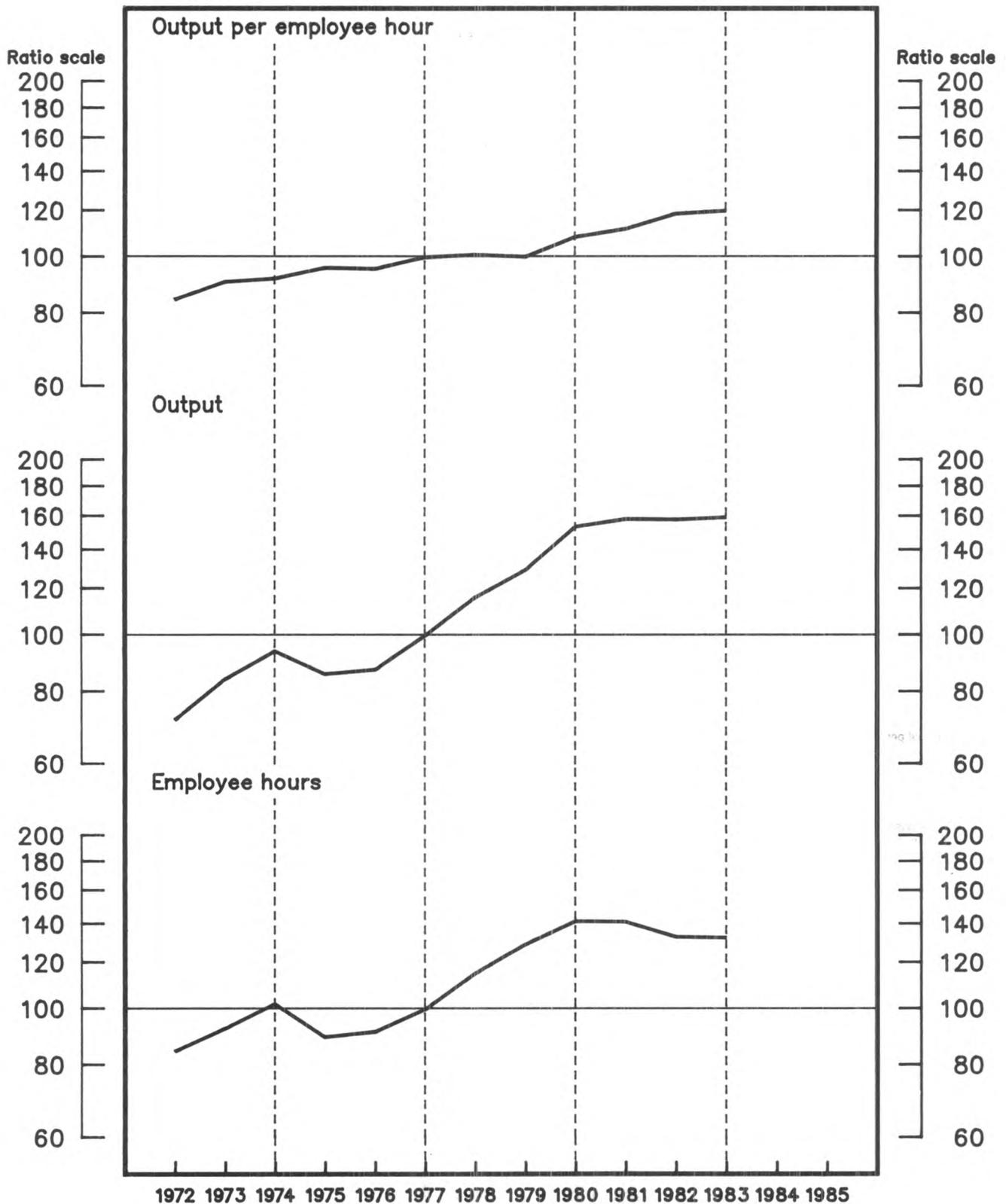
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from company records; the Motor Vehicle Manufacturers Association of the U.S., Inc.; the Gousha/Times Mirror Company

(Automobile Invoice Service); Ward's Communications, Inc. (Ward's Automotive Yearbooks); the Bureau of the Census; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics and company records.

**Chart 115. Instruments to measure electricity (SIC 3825): Output per hour and related data, 1972-83**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 226. Instruments to measure electricity (SIC 3825): Indexes of output per employee hour and output per employee, 1972-83 (1977=100)**

Year	Output per hour <sup>1</sup>			Output per employee <sup>1</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972 .....	84.7	81.8	90.0	87.1	83.8	93.1
1973 .....	90.8	85.4	101.4	93.0	87.4	103.2
1974 .....	92.0	87.1	101.2	92.1	87.1	101.0
1975 .....	95.9	95.4	96.6	93.8	92.1	96.6
1976 .....	95.5	94.7	97.0	95.1	93.7	97.4
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	101.0	102.7	98.0	101.0	103.0	97.9
1979 .....	100.2	105.2	93.1	101.9	108.2	93.4
1980 .....	108.4	119.7	93.9	107.8	118.7	94.5
1981 .....	111.9	128.4	92.5	111.2	127.6	92.8
1982 .....	118.8	133.7	100.4	117.1	130.8	100.8
1983 <sup>2</sup> .....	120.2	132.9	103.8	118.4	130.4	103.7
Average annual percent change:						
1972-83 .....	3.0	4.9	.2	2.7	4.6	( <sup>3</sup> )
1979-83 .....	4.7	6.0	2.9	3.9	4.8	2.8

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Table 227. Instruments to measure electricity (SIC 3825): Indexes of output, employee hours, and employees, 1972-83 (1977=100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972 .....	71.7	84.7	87.7	79.7	82.3	85.6	77.0
1973 .....	84.2	92.7	98.6	83.0	90.5	96.3	81.6
1974 .....	94.0	102.2	107.9	92.9	102.1	107.9	93.1
1975 .....	85.9	89.6	90.0	88.9	91.6	93.3	88.9
1976 .....	87.4	91.5	92.3	90.1	91.9	93.3	89.7
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	116.3	115.2	113.2	118.7	115.2	112.9	118.8
1979 .....	129.6	129.3	123.2	139.2	127.2	119.8	138.7
1980 .....	153.9	142.0	128.6	163.9	142.7	129.7	162.8
1981 .....	158.6	141.7	123.5	171.5	142.6	124.3	170.9
1982 .....	158.3	133.3	118.4	157.7	135.2	121.0	157.1
1983 <sup>1</sup> .....	159.7	132.9	120.2	153.9	134.9	122.5	154.0
Average annual percent change:							
1972-83 .....	8.1	5.0	3.1	7.9	5.3	3.4	8.1
1979-83 .....	4.6	-.1	-1.3	1.6	.6	-2	1.8

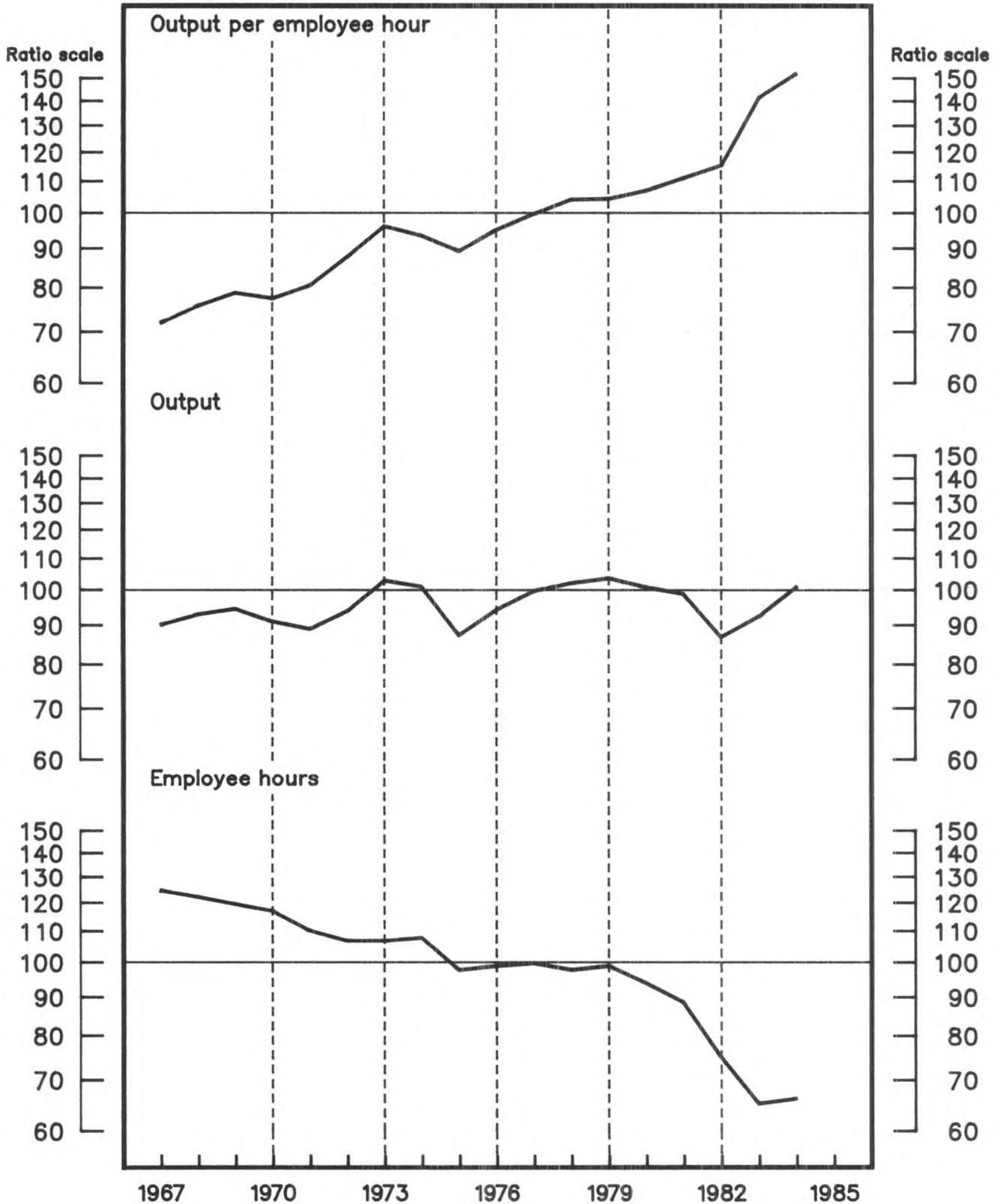
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

**Chart 116. Railroad transportation, revenue traffic (SIC 401): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 228. Railroad transportation, revenue traffic (SIC 401)<sup>1</sup>: Indexes of output per employee hour and output per employee, 1958-84 (1977 = 100)**

Year	Output per hour <sup>2</sup>			Output per employee <sup>2</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958 .....	41.1	40.0	49.9	42.5	41.0	56.5
1959 .....	43.9	42.8	53.3	45.6	44.1	60.5
1960 .....	45.1	44.1	53.3	46.6	45.1	60.3
1961 .....	48.7	47.9	55.2	50.1	48.7	62.2
1962 .....	52.2	51.3	59.7	54.1	52.7	67.4
1963 .....	54.9	53.9	62.7	57.3	55.8	70.7
1964 .....	58.4	57.4	66.5	61.7	60.2	75.6
1965 .....	65.1	64.3	71.4	68.1	66.6	81.0
1966 .....	70.2	69.2	77.3	73.1	71.6	85.5
1967 .....	72.2	71.2	79.8	73.6	72.4	83.5
1968 .....	76.0	75.2	82.9	78.4	77.3	87.2
1969 .....	79.0	78.1	85.7	81.3	80.3	89.4
1970 .....	77.7	76.9	83.1	79.8	79.0	86.5
1971 .....	80.8	80.5	83.5	79.6	78.9	86.3
1972 .....	88.0	87.7	89.5	89.0	88.5	92.0
1973 .....	96.4	95.9	99.0	96.4	95.8	101.0
1974 .....	93.7	93.3	96.8	94.6	94.1	98.4
1975 .....	89.5	89.9	86.1	88.5	88.7	87.2
1976 .....	95.4	95.5	94.0	95.3	95.3	95.6
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	104.5	104.7	103.5	104.5	104.6	103.5
1979 .....	104.7	104.8	104.1	105.4	105.5	104.4
1980 .....	107.3	108.4	101.4	105.5	106.2	101.0
1981 .....	111.5	113.3	101.4	108.8	109.9	102.0
1982 .....	115.8	119.3	96.9	110.1	112.5	96.2
1983 .....	141.9	146.1	118.2	136.3	139.5	117.5
1984 <sup>3</sup> .....	152.6	155.8	133.6	147.9	150.5	131.7
Average annual percent change:						
1947-84 .....	4.6	4.8	2.6	4.1	4.3	2.1
1979-84 .....	8.2	8.7	4.9	7.3	7.8	4.5

<sup>1</sup> Class I railroads and Class I switching and terminal companies.

<sup>2</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>3</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

SOURCE: Output based on data from the Interstate Commerce Commission; the Association of American Railroads; the Federal Railroad Administration, U.S. Department of Transportation; and the National Railroad Passenger Corporation. Employment and hours based on data from the Interstate Commerce Commission.

**Table 229. Railroad transportation, revenue traffic (SIC 401)<sup>1</sup>: Indexes of output, employee hours, and employees, 1958-84 (1977 = 100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958 .....	72.7	177.0	181.6	145.6	171.1	177.2	128.6
1959 .....	75.7	172.5	176.9	142.0	166.1	171.8	125.1
1960 .....	74.1	164.2	167.9	139.0	159.1	164.3	122.8
1961 .....	73.2	150.3	152.9	132.6	146.2	150.3	117.6
1962 .....	77.2	147.8	150.5	129.3	142.6	146.4	114.5
1963 .....	79.3	144.4	147.1	126.5	138.5	142.2	112.1
1964 .....	83.5	142.9	145.4	125.6	135.3	138.8	110.4
1965 .....	88.1	135.3	137.1	123.4	129.4	132.3	108.8
1966 .....	92.9	132.4	134.3	120.2	127.1	129.7	108.7
1967 .....	90.4	125.2	126.9	113.3	122.9	124.8	108.2
1968 .....	93.3	122.7	124.1	112.6	119.0	120.7	107.0
1969 .....	94.8	120.0	121.4	110.6	116.6	118.1	106.0
1970 .....	91.3	117.5	118.7	109.9	114.4	115.6	105.5
1971 .....	89.3	110.5	111.0	107.0	112.2	113.2	103.5
1972 .....	94.2	107.1	107.4	105.2	105.9	106.4	102.4
1973 .....	103.2	107.1	107.6	104.2	107.0	107.7	102.2
1974 .....	101.3	108.1	108.6	104.6	107.1	107.6	102.9
1975 .....	87.7	98.0	97.5	101.9	99.1	98.9	100.6
1976 .....	94.6	99.2	99.1	100.6	99.3	99.3	99.0
1977 .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978 .....	102.4	98.0	97.8	98.9	98.0	97.9	98.9
1979 .....	103.9	99.2	99.1	99.8	98.6	98.5	99.5
1980 .....	101.1	94.2	93.3	99.7	95.8	95.2	100.1
1981 .....	99.1	88.9	87.5	97.7	91.1	90.2	97.2
1982 .....	87.2	75.3	73.1	90.0	79.2	77.5	90.6
1983 .....	92.8	65.4	63.5	78.5	68.1	66.5	79.0
1984 <sup>2</sup> .....	101.3	66.4	65.0	75.8	68.5	67.3	76.9
Average annual percent change:							
1947-84 .....	.5	-3.9	-4.1	-2.1	-3.5	-3.7	-1.6
1979-84 .....	-1.5	-8.9	-9.4	-6.0	-8.2	-8.6	-5.7

<sup>1</sup> Class I railroads and Class I switching and terminal companies.

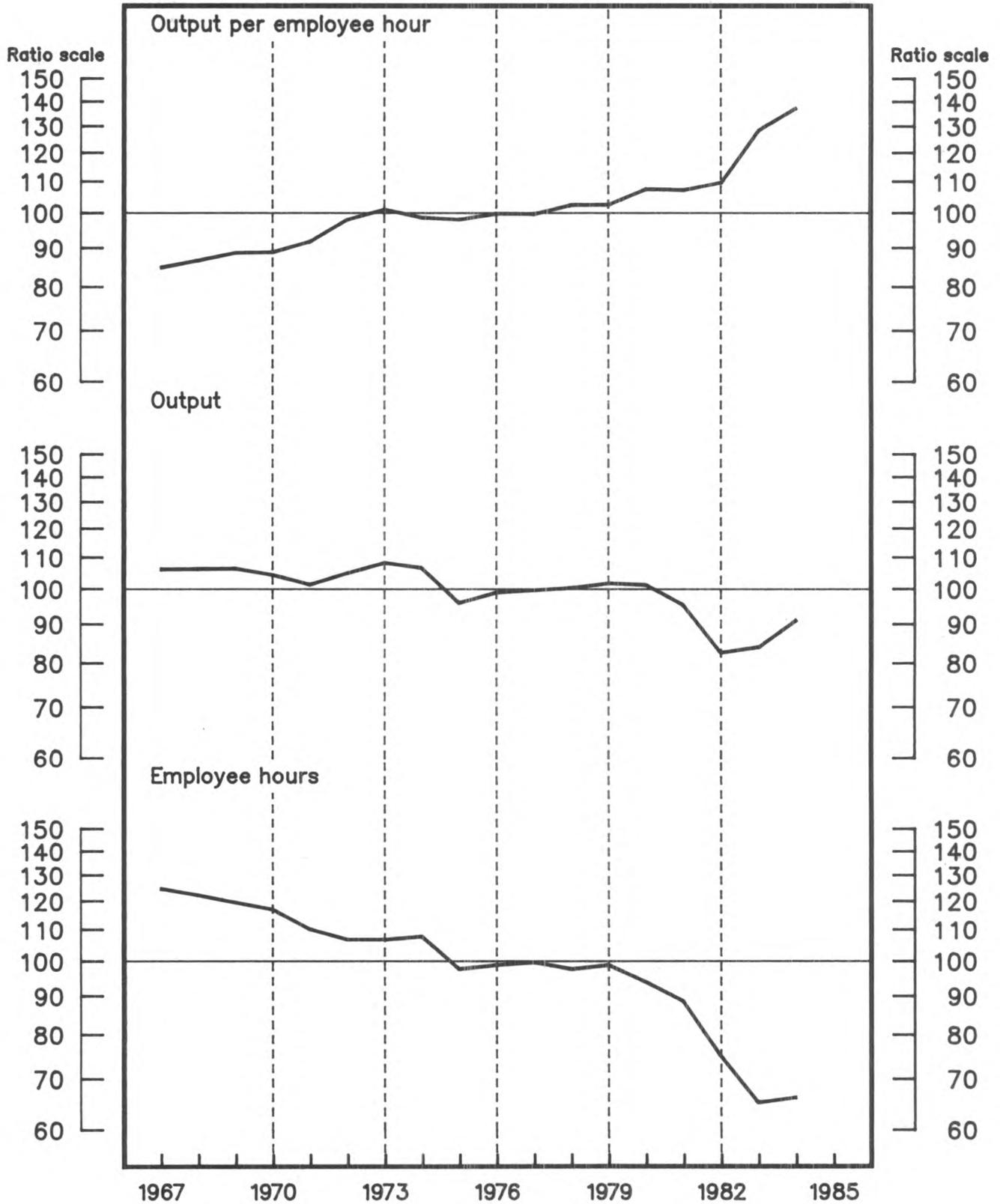
<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Interstate Commerce Commission; the Association of American Railroads; the Federal Railroad Administration, U.S. Department of Transportation; and the National Railroad Passenger Corporation. Employment and hours based on data from the Interstate Commerce Commission.

Chart 117. Railroad transportation, car miles (SIC 401): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 230. Railroad transportation, car miles (SIC 401)<sup>1</sup>: Indexes of output per employee hour and output per employee, 1958-84 (1977=100)**

Year	Output per hour <sup>2</sup>			Output per employee <sup>2</sup>		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	59.0	57.5	71.8	61.1	59.0	81.3
1959	61.4	59.9	74.6	63.8	61.6	84.7
1960	63.3	61.9	74.7	65.3	63.2	84.6
1961	66.7	65.5	75.6	68.5	66.7	85.2
1962	68.9	67.7	78.8	71.5	69.6	89.0
1963	71.3	70.0	81.4	74.4	72.4	91.9
1964	73.8	72.5	83.9	77.9	75.9	95.5
1965	78.7	77.7	86.3	82.3	80.5	97.9
1966	82.8	81.6	91.2	86.2	84.5	100.8
1967	85.1	83.9	94.0	86.7	85.3	98.4
1968	86.9	85.9	94.7	89.6	88.3	99.6
1969	88.9	87.9	96.5	91.5	90.3	100.7
1970	89.1	88.2	95.3	91.5	90.6	99.2
1971	92.0	91.6	95.0	90.6	89.8	98.3
1972	98.3	98.0	100.1	99.4	99.0	102.8
1973	101.4	100.9	104.2	101.5	100.8	106.3
1974	98.9	98.4	102.2	99.8	99.3	103.9
1975	98.3	98.8	94.5	97.2	97.4	95.7
1976	100.1	100.2	98.7	100.0	100.0	100.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.8	103.0	101.8	102.8	102.9	101.8
1979	102.9	103.0	102.3	103.5	103.7	102.6
1980	107.9	108.9	101.9	106.1	106.7	101.5
1981	107.6	109.4	98.0	105.0	106.1	98.5
1982	110.1	113.4	92.1	104.7	107.0	91.5
1983	128.9	132.8	107.4	123.8	126.8	106.7
1984 <sup>3</sup>	137.7	140.6	120.6	133.4	135.8	118.9
Average annual percent change:						
1947-84	3.4	3.6	1.5	2.9	3.1	.9
1979-84	5.9	6.4	2.7	5.1	5.5	2.4

<sup>1</sup> Class I railroads and Class I switching and terminal companies.

<sup>2</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>3</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Interstate Commerce Commission and the Association of American Railroads. Employment and hours based on data from the Interstate Commerce Commission.

**Table 231. Railroad transportation, car miles (SIC 401)<sup>1</sup>: Indexes of output, employee hours, and employees, 1958-84 (1977=100)**

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	104.5	177.0	181.6	145.6	171.1	177.2	128.6
1959	105.9	172.5	176.9	142.0	166.1	171.8	125.1
1960	103.9	164.2	167.9	139.0	159.1	164.3	122.8
1961	100.2	150.3	152.9	132.6	146.2	150.3	117.6
1962	101.9	147.8	150.5	129.3	142.6	146.4	114.5
1963	103.0	144.4	147.1	126.5	138.5	142.2	112.1
1964	105.4	142.9	145.4	125.6	135.3	138.8	110.4
1965	106.5	135.3	137.1	123.4	129.4	132.3	108.8
1966	109.6	132.4	134.3	120.2	127.1	129.7	108.7
1967	106.5	125.2	126.9	113.3	122.9	124.8	108.2
1968	106.6	122.7	124.1	112.6	119.0	120.7	107.0
1969	106.7	120.0	121.4	110.6	116.6	118.1	106.0
1970	104.7	117.5	118.7	109.9	114.4	115.6	105.5
1971	101.7	110.5	111.0	107.0	112.2	113.2	103.5
1972	105.3	107.1	107.4	105.2	105.9	106.4	102.4
1973	108.6	107.1	107.6	104.2	107.0	107.7	102.2
1974	106.9	108.1	108.6	104.6	107.1	107.6	102.9
1975	96.3	98.0	97.5	101.9	99.1	98.9	100.6
1976	99.3	99.2	99.1	100.6	99.3	99.3	99.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	98.0	97.8	98.9	98.0	97.9	98.9
1979	102.1	99.2	99.1	99.8	98.6	98.5	99.5
1980	101.6	94.2	93.3	99.7	95.8	95.2	100.1
1981	95.7	88.9	87.5	97.7	91.1	90.2	97.2
1982	82.9	75.3	73.1	90.0	79.2	77.5	90.6
1983	84.3	65.4	63.5	78.5	68.1	66.5	79.0
1984 <sup>2</sup>	91.4	66.4	65.0	75.8	68.5	67.3	76.9
Average annual percent change:							
1947-84	-6	-3.9	-4.1	-2.1	-3.5	-3.7	-1.6
1979-84	-3.5	-8.9	-9.4	-6.0	-8.2	-8.6	-5.7

<sup>1</sup> Class I railroads and Class I switching and terminal companies.

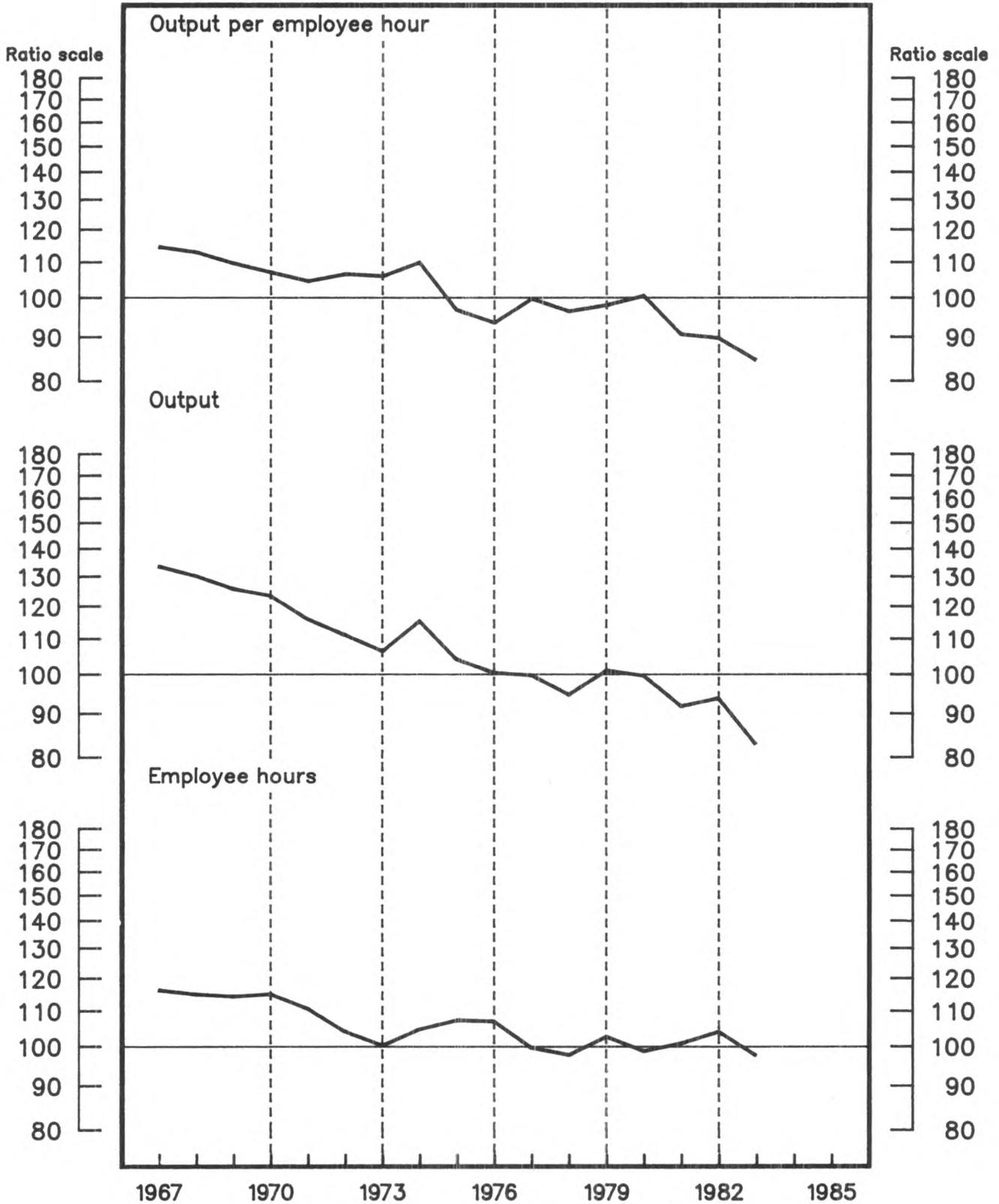
<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Interstate Commerce Commission and the Association of American Railroads. Employment and hours based on data from the Interstate Commerce Commission.

Chart 118. Bus carriers, Class I (Parts of SIC 4111, 4131, 414): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 232. Bus carriers, Class 1 (Parts of SIC 4111, 4131, 414): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-83**  
(1977=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958 .....	94.2	99.5	99.1	105.2	99.6
1959 .....	97.2	102.6	99.1	102.0	96.6
1960 .....	96.1	102.3	100.9	105.0	98.6
1961 .....	97.9	103.5	103.2	105.4	99.7
1962 .....	107.1	114.3	115.4	107.7	101.0
1963 .....	108.7	114.6	115.9	106.6	101.1
1964 .....	109.8	116.1	120.7	109.9	104.0
1965 .....	116.3	122.0	127.2	109.4	104.3
1966 .....	118.8	124.5	132.8	111.8	106.7
1967 .....	114.8	121.2	133.9	116.6	110.5
1968 .....	113.2	119.6	130.5	115.3	109.1
1969 .....	109.9	115.6	126.1	114.7	109.1
1970 .....	107.3	112.8	123.8	115.4	109.8
1971 .....	104.8	108.1	116.3	111.0	107.6
1972 .....	106.8	105.7	111.5	104.4	105.5
1973 .....	106.2	107.7	106.8	100.6	99.2
1974 .....	110.2	112.0	115.8	105.1	103.4
1975 .....	97.0	97.9	104.4	107.6	106.6
1976 .....	93.8	95.1	100.7	107.3	105.9
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	96.7	94.9	94.9	98.1	100.0
1979 .....	98.3	98.6	101.3	103.0	102.7
1980 .....	100.8	94.1	99.9	99.1	106.2
1981 .....	90.9	86.4	92.0	101.2	106.5
1982 .....	90.0	85.8	94.0	104.4	109.6
1983 <sup>1</sup> .....	84.8	82.8	83.0	97.9	100.3
Average annual percent change:					
1954-83 .....	-.1	-.5	-.4	-.4	( <sup>2</sup> )
1979-83 .....	-4.0	-4.3	-4.5	-5	-2

<sup>1</sup> Preliminary.

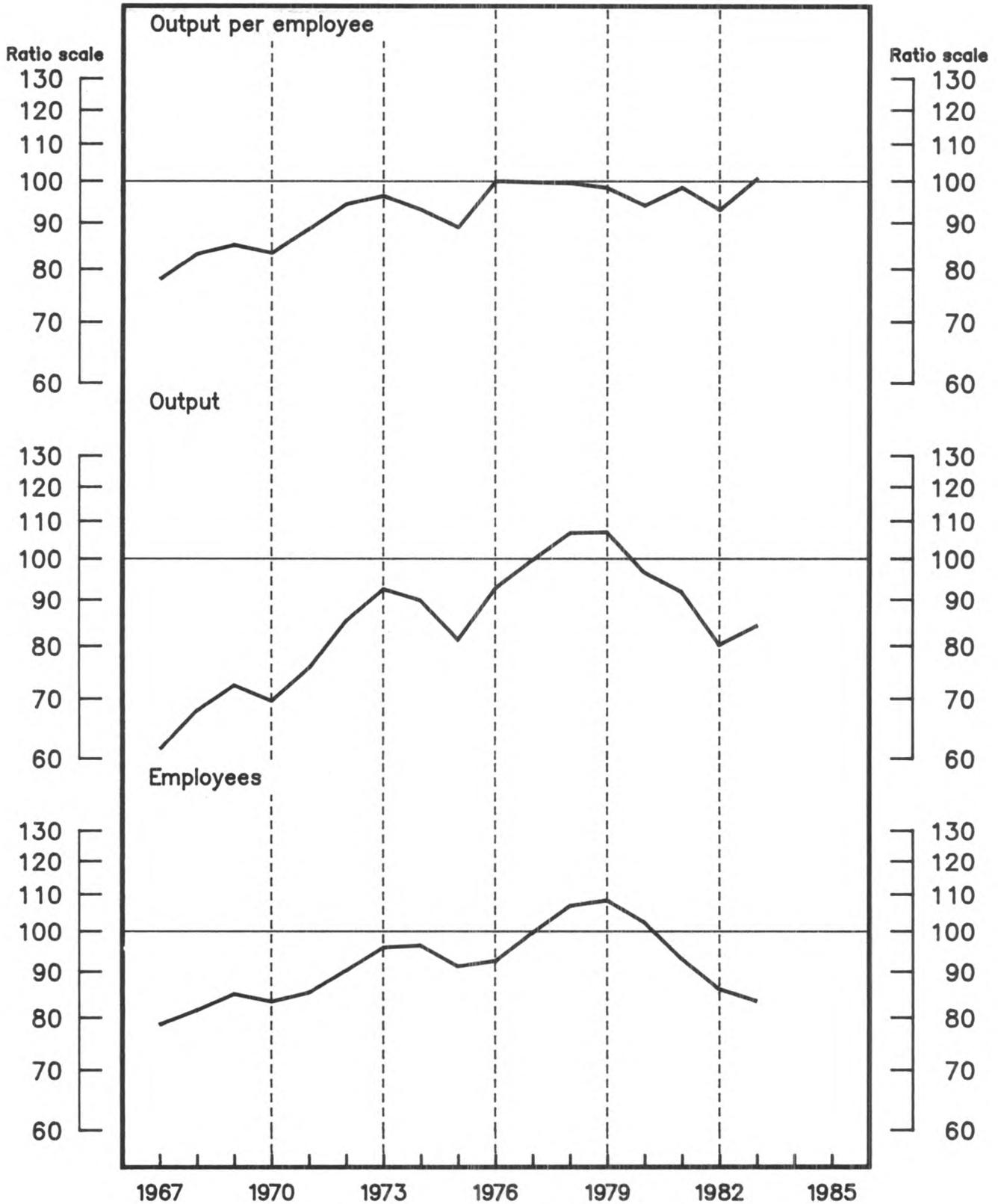
<sup>2</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Interstate Commerce Commission, the American Bus Association, and the Bureau of Labor Statistics.

Chart 119. Intercity trucking, (SIC 4213 part): Output per employee and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 233. Intercity trucking (SIC 4213 part)<sup>1</sup>: Indexes of output per employee, output, and employees, 1958-83**  
(1977=100)

Year	Output per employee	Output	Employees
Index:			
1958 .....	62.9	34.9	55.5
1959 .....	66.5	40.9	61.5
1960 .....	66.5	41.6	62.6
1961 .....	67.2	41.4	61.6
1962 .....	69.3	44.8	64.6
1963 .....	72.5	48.1	66.3
1964 .....	74.5	51.2	68.7
1965 .....	77.2	57.5	74.5
1966 .....	81.3	63.8	78.5
1967 .....	78.2	61.7	78.9
1968 .....	83.3	68.1	81.8
1969 .....	85.2	72.6	85.2
1970 .....	83.5	69.8	83.6
1971 .....	88.8	75.9	85.5
1972 .....	94.6	85.6	90.5
1973 .....	96.6	92.8	96.1
1974 .....	93.3	90.1	96.6
1975 .....	89.2	81.6	91.5
1976 .....	100.3	93.1	92.8
1977 .....	100.0	100.0	100.0
1978 .....	99.8	107.0	107.2
1979 .....	98.6	107.2	108.7
1980 .....	94.3	96.8	102.7
1981 .....	98.7	92.1	93.3
1982 .....	93.3	80.5	86.3
1983 <sup>2</sup> .....	101.0	84.5	83.7
Average annual percent change:			
1954-83 .....	2.1	4.5	2.4
1979-83 .....	.4	-6.4	-6.7

<sup>1</sup> Class I and II common and contract carriers.

<sup>2</sup> Preliminary.

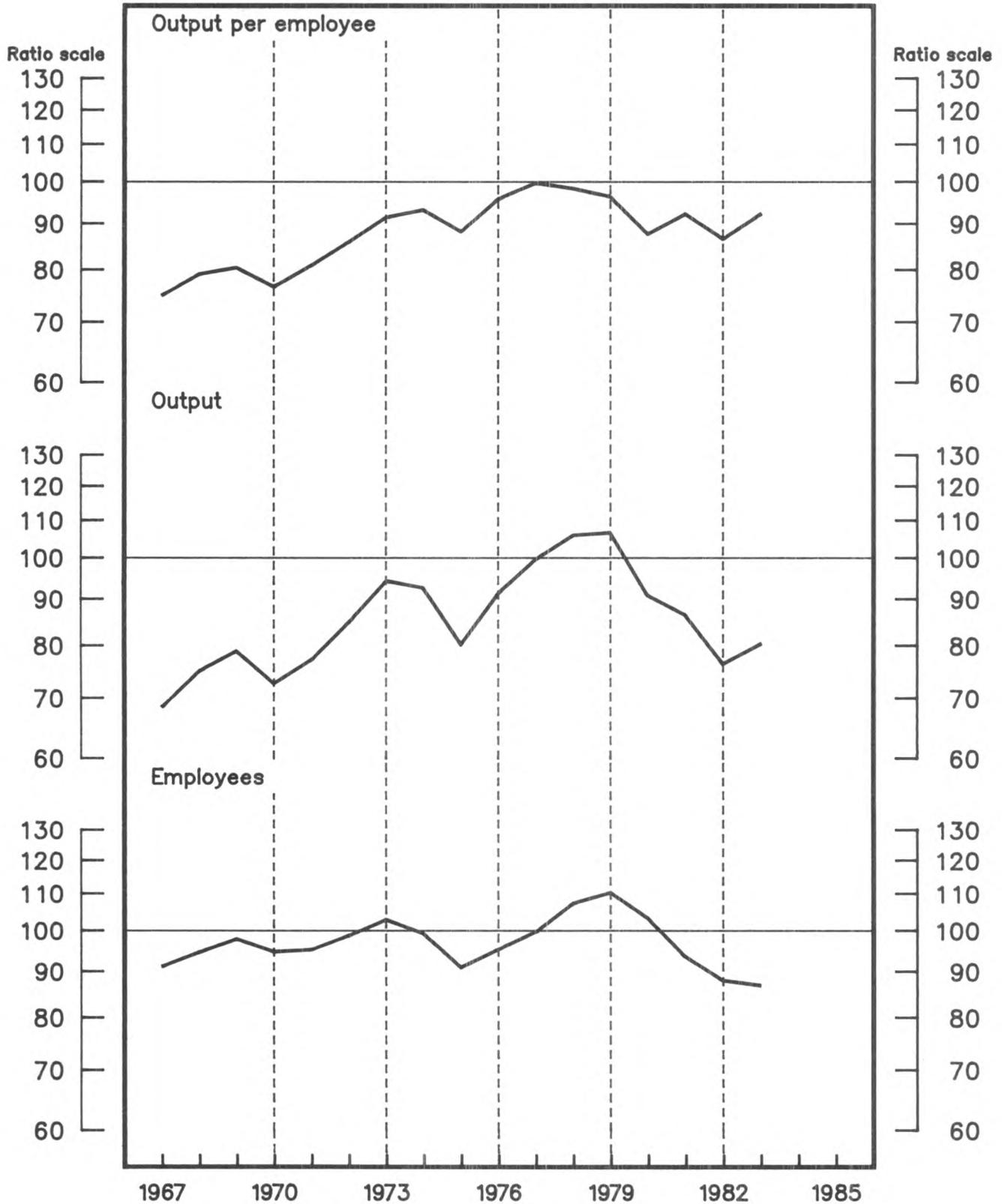
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those

previously published.

SOURCE: Based on data from the Interstate Commerce Commission and Trinc Transportation Consultants, a division of Dunn and Bradstreet, Inc.

Chart 120. Intercity trucking, general freight (SIC 4213 part): Output per employee and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 234. Intercity trucking, general freight (SIC 4213 part)<sup>1</sup>: Indexes of output per employee, output, and employees, 1958-83**  
(1977=100)

Year	Output per employee	Output	Employees
<b>Index:</b>			
1958 .....	61.5	42.1	68.4
1959 .....	66.0	48.9	74.1
1960 .....	65.0	48.5	74.6
1961 .....	65.0	47.7	73.4
1962 .....	66.9	51.3	76.7
1963 .....	69.6	54.2	77.9
1964 .....	72.7	58.5	80.5
1965 .....	78.7	64.2	81.6
1966 .....	77.4	70.9	91.6
1967 .....	75.1	68.6	91.4
1968 .....	79.3	75.2	94.8
1969 .....	80.6	79.1	98.1
1970 .....	76.8	72.9	94.9
1971 .....	81.1	77.4	95.4
1972 .....	86.1	85.2	99.0
1973 .....	91.7	94.6	103.2
1974 .....	93.4	92.9	99.5
1975 .....	88.4	80.6	91.2
1976 .....	96.1	91.8	95.5
1977 .....	100.0	100.0	100.0
1978 .....	98.6	106.2	107.7
1979 .....	96.6	106.9	110.7
1980 .....	87.9	91.1	103.6
1981 .....	92.5	86.7	93.7
1982 .....	86.8	76.6	88.2
1983 <sup>2</sup> .....	92.5	80.6	87.1
<b>Average annual percent change:</b>			
1954-83 .....	1.9	3.5	1.6
1979-83 .....	-1.0	-7.1	-6.2

<sup>1</sup> Class I and II common carriers of general freight.  
<sup>2</sup> Preliminary.

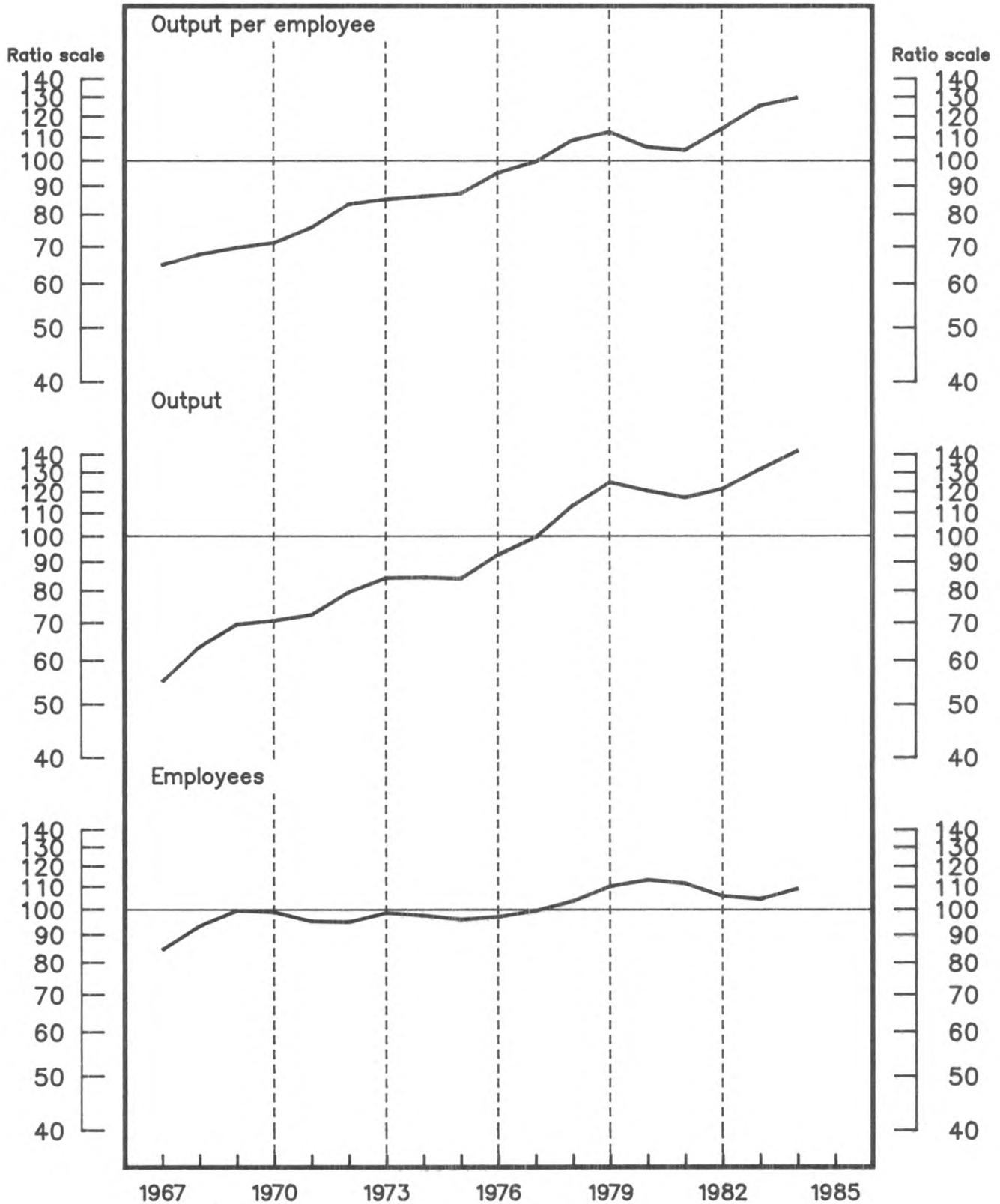
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those

previously published.

SOURCE: Based on data from the Interstate Commerce Commission and Trinc Transportation Consultants, a division of Dunn and Bradstreet, Inc.

Chart 121. Air transportation (SIC 4511,4521 part): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 235. Air transportation (SIC 4511, 4521 part)<sup>1</sup>: Indexes of output per employee, output, and employees, 1958-84**  
(1977=100)

Year	Output per employee	Output	Employees
<b>Index:</b>			
1958 .....	31.6	15.2	48.1
1959 .....	34.0	17.5	51.4
1960 .....	34.3	18.6	54.3
1961 .....	36.2	19.7	54.4
1962 .....	40.4	22.3	55.2
1963 .....	44.4	25.2	56.7
1964 .....	48.8	29.4	60.2
1965 .....	54.4	35.5	65.3
1966 .....	61.1	43.6	71.4
1967 .....	65.1	55.2	84.8
1968 .....	68.0	63.7	93.7
1969 .....	69.9	69.9	100.0
1970 .....	71.4	71.0	99.4
1971 .....	76.0	72.7	95.6
1972 .....	83.8	79.9	95.3
1973 .....	85.5	84.7	99.1
1974 .....	86.6	84.9	98.0
1975 .....	87.6	84.4	96.4
1976 .....	95.5	93.1	97.5
1977 .....	100.0	100.0	100.0
1978 .....	109.3	113.9	104.2
1979 .....	113.1	125.4	110.9
1980 .....	106.2	121.0	113.9
1981 .....	104.9	117.7	112.2
1982 .....	114.7	122.0	106.4
1983 .....	126.0	132.4	105.1
1984 <sup>2</sup> .....	130.1	142.8	109.8
<b>Average annual percent change:</b>			
1947-84 .....	6.3	10.9	4.3
1979-84 .....	3.8	2.8	-1.0

<sup>1</sup> Due to airline deregulation, the measures from 1980 forward reflect the inclusion of some noncertificated carriers.

<sup>2</sup> Preliminary.

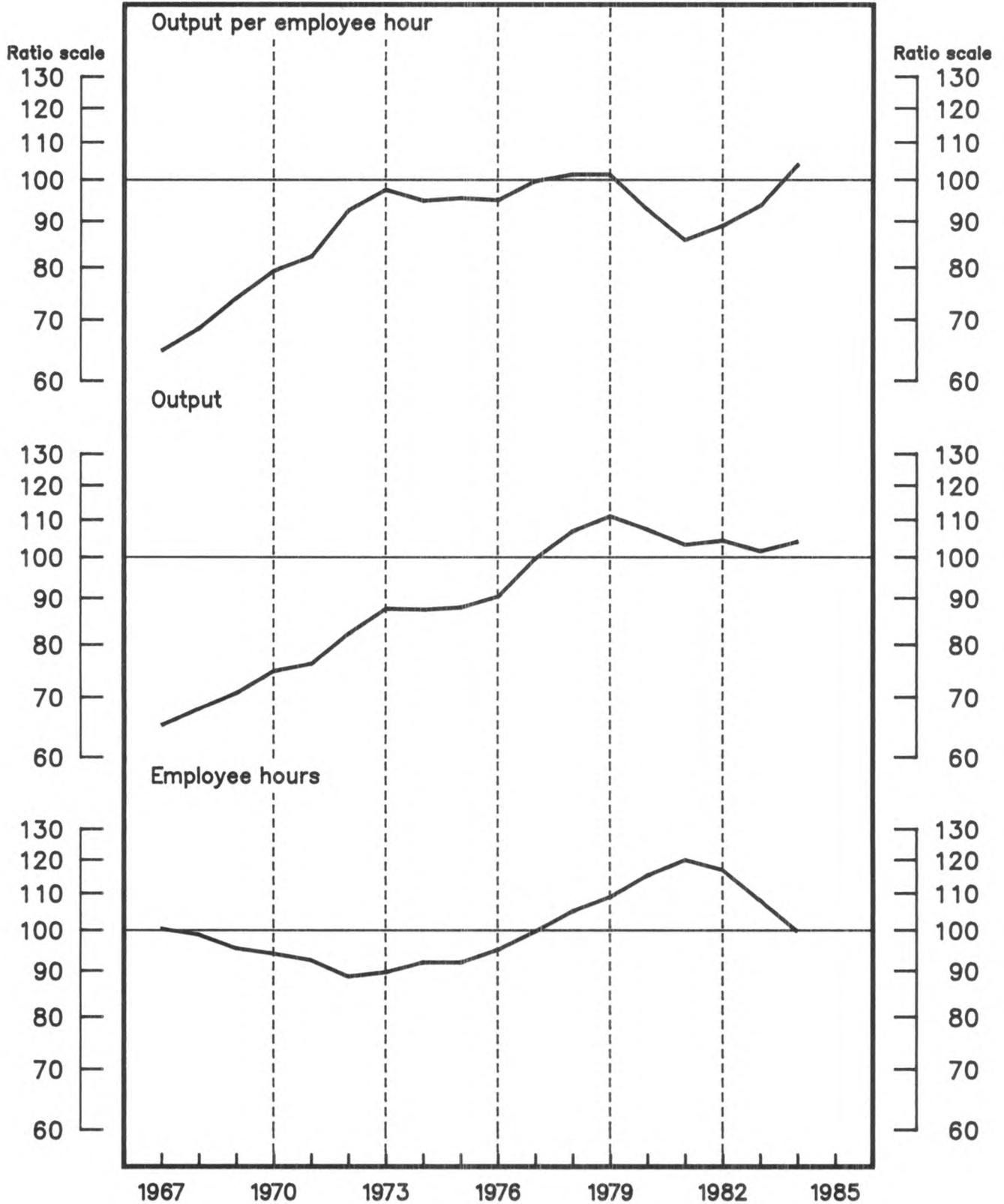
NOTE: Because of periodic revisions in source data,

the measures in this table may differ from those previously published.

SOURCE: Based on data from the Research and Special Programs Administration, U.S. Department of Transportation.

Chart 122. Petroleum pipelines (SIC 4612, 4613): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 236. Petroleum pipelines (SIC 4612, 4613): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>		Output per employee <sup>1</sup>	
	All employees	Production workers <sup>2</sup>	All employees	Production workers <sup>2</sup>
Index:				
1958 .....	26.3	22.4	25.7	21.9
1959 .....	30.3	25.7	29.5	25.1
1960 .....	32.6	28.0	31.5	27.0
1961 .....	34.8	30.4	33.5	29.2
1962 .....	36.3	31.2	35.3	30.3
1963 .....	40.0	34.2	39.0	33.3
1964 .....	43.4	37.7	42.7	37.2
1965 .....	51.6	45.3	50.8	44.7
1966 .....	58.1	51.1	56.9	50.1
1967 .....	64.9	57.2	64.6	56.9
1968 .....	68.7	61.1	68.1	60.5
1969 .....	74.2	67.3	73.2	66.6
1970 .....	79.5	73.6	78.9	72.9
1971 .....	82.4	77.7	81.7	77.0
1972 .....	92.8	86.8	91.4	85.7
1973 .....	97.8	92.1	96.8	91.3
1974 .....	95.1	89.7	93.8	88.4
1975 .....	95.7	92.6	93.2	90.2
1976 .....	95.2	93.9	94.7	93.5
1977 .....	100.0	100.0	100.0	100.0
1978 .....	101.7	103.2	101.2	102.7
1979 .....	101.7	105.1	102.5	105.9
1980 .....	93.0	95.8	93.5	96.2
1981 .....	86.0	90.1	87.9	92.0
1982 .....	89.2	94.9	90.9	96.8
1983 .....	93.9	98.5	93.7	98.2
1984 <sup>3</sup> .....	104.3	108.4	101.1	105.0
Average annual percent change:				
1958-84 .....	5.2	6.2	5.3	6.3
1979-84 .....	.5	.8	-.1	.2

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Represents nonsupervisory workers.

<sup>3</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the American Petroleum Institute and the Interstate Commerce Commission. Employment and hours based on data from the Bureau of Labor Statistics and the Interstate Commerce Commission.

**Table 237. Petroleum pipelines (SIC 4612, 4613): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours		Employees	
		All employees	Production workers <sup>1</sup>	All employees	Production workers <sup>1</sup>
Index:					
1958 .....	35.7	135.9	159.7	138.9	163.2
1959 .....	38.7	127.9	150.3	131.3	154.4
1960 .....	39.3	120.4	140.4	124.9	145.5
1961 .....	40.2	115.4	132.2	120.0	137.5
1962 .....	41.2	113.4	132.1	116.8	136.0
1963 .....	43.6	109.0	127.4	111.9	130.8
1964 .....	46.2	106.5	122.5	108.2	124.2
1965 .....	53.6	103.9	118.2	105.5	119.8
1966 .....	58.2	100.2	113.9	102.2	116.2
1967 .....	65.3	100.6	114.2	101.1	114.7
1968 .....	68.1	99.1	111.4	100.0	112.5
1969 .....	70.9	95.6	105.4	96.8	106.5
1970 .....	75.0	94.3	101.9	95.1	102.9
1971 .....	76.4	92.7	98.3	93.5	99.2
1972 .....	82.5	88.9	95.0	90.3	96.3
1973 .....	87.9	89.9	95.4	90.8	96.3
1974 .....	87.7	92.2	97.8	93.5	99.2
1975 .....	88.2	92.2	95.2	94.6	97.8
1976 .....	90.7	95.3	96.6	95.8	97.0
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	107.2	105.4	103.9	105.9	104.4
1979 .....	111.3	109.4	105.9	108.6	105.1
1980 .....	107.6	115.7	112.3	115.1	111.8
1981 .....	103.5	120.4	114.9	117.8	112.5
1982 .....	104.6	117.3	110.2	115.1	108.1
1983 .....	101.8	108.4	103.4	108.6	103.7
1984 <sup>2</sup> .....	104.3	100.0	96.2	103.2	99.3
Average annual percent change:					
1958-84 .....	4.8	-.4	-1.4	-.6	-1.5
1979-84 .....	-1.4	-1.9	-2.2	-1.3	-1.6

<sup>1</sup> Represents nonsupervisory workers.

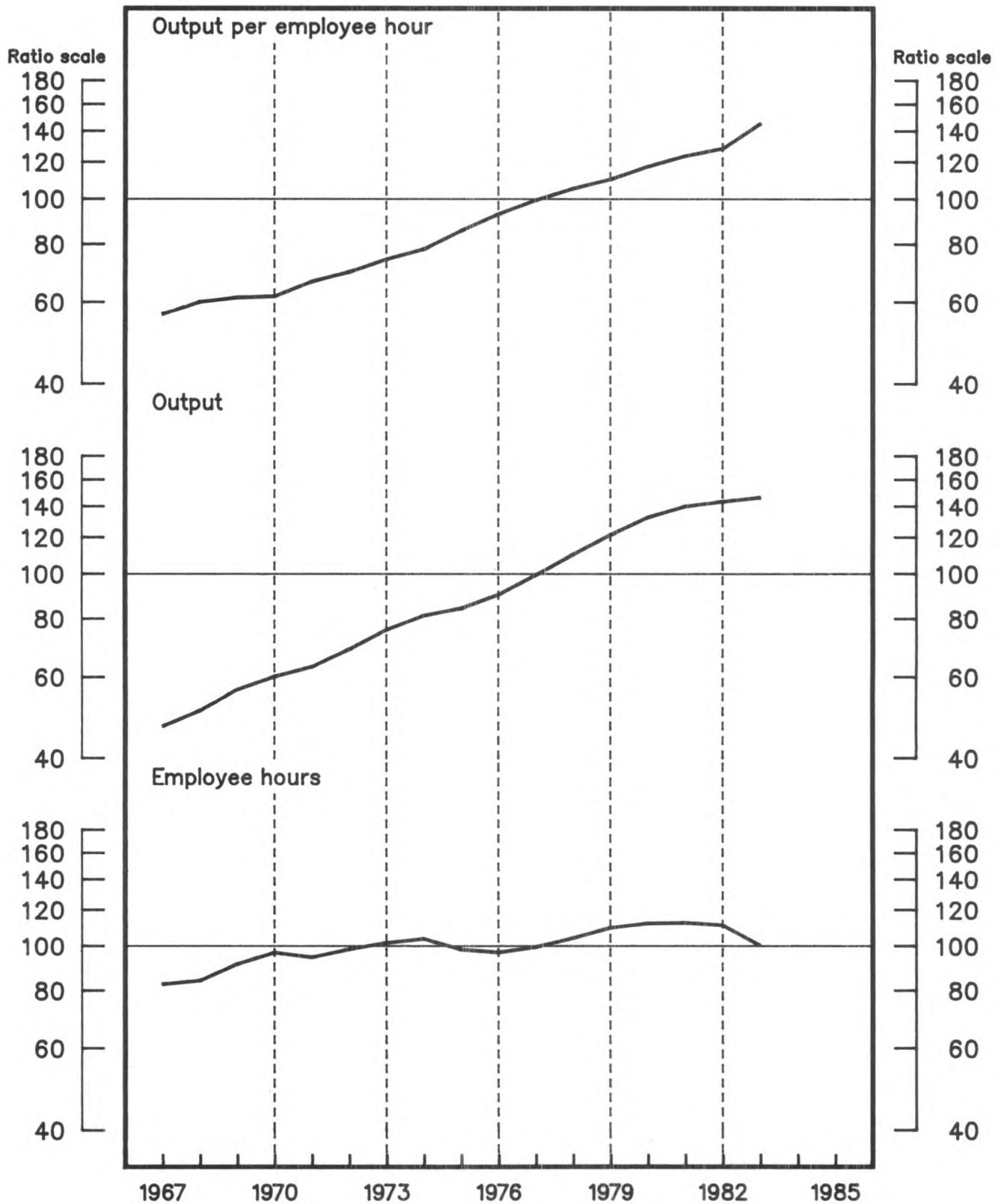
<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the American Petroleum Institute and the Interstate Commerce Commission. Employment and hours based on data from the Bureau of Labor Statistics and the Interstate Commerce Commission.

Chart 123. Telephone communications (SIC 4811): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 238. Telephone communications (SIC 4811): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-83**  
(1977=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958 .....	31.8	30.6	23.4	73.6	76.5
1959 .....	35.3	34.6	25.6	72.6	73.9
1960 .....	37.4	37.2	27.4	73.2	73.7
1961 .....	40.7	40.1	29.1	71.5	72.5
1962 .....	43.5	43.5	31.2	71.8	71.8
1963 .....	46.7	46.8	33.5	71.8	71.6
1964 .....	48.5	48.9	36.1	74.4	73.8
1965 .....	50.6	51.3	39.4	77.8	76.8
1966 .....	52.9	53.8	43.5	82.2	80.8
1967 .....	56.9	56.1	47.2	83.0	84.2
1968 .....	60.4	60.1	51.0	84.5	84.8
1969 .....	61.7	62.3	56.6	91.8	90.9
1970 .....	62.1	61.4	60.4	97.2	98.4
1971 .....	66.8	63.8	63.4	94.9	99.4
1972 .....	70.0	69.3	69.2	98.9	99.8
1973 .....	74.6	74.3	76.2	102.2	102.5
1974 .....	78.4	78.3	81.8	104.3	104.5
1975 .....	85.9	84.0	84.8	98.7	101.0
1976 .....	93.3	91.2	90.8	97.3	99.6
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	105.8	106.6	110.8	104.7	103.9
1979 .....	110.8	111.6	122.2	110.3	109.5
1980 .....	118.1	118.9	133.2	112.8	112.0
1981 .....	124.4	125.1	140.7	113.1	112.5
1982 .....	129.1	128.8	144.2	111.7	112.0
1983 .....	146.0	146.0	147.2	100.8	100.8
Average annual percent change:					
1951-83 .....	6.2	6.3	8.0	1.7	1.6
1979-83 .....	6.6	6.4	4.6	-1.9	-1.6

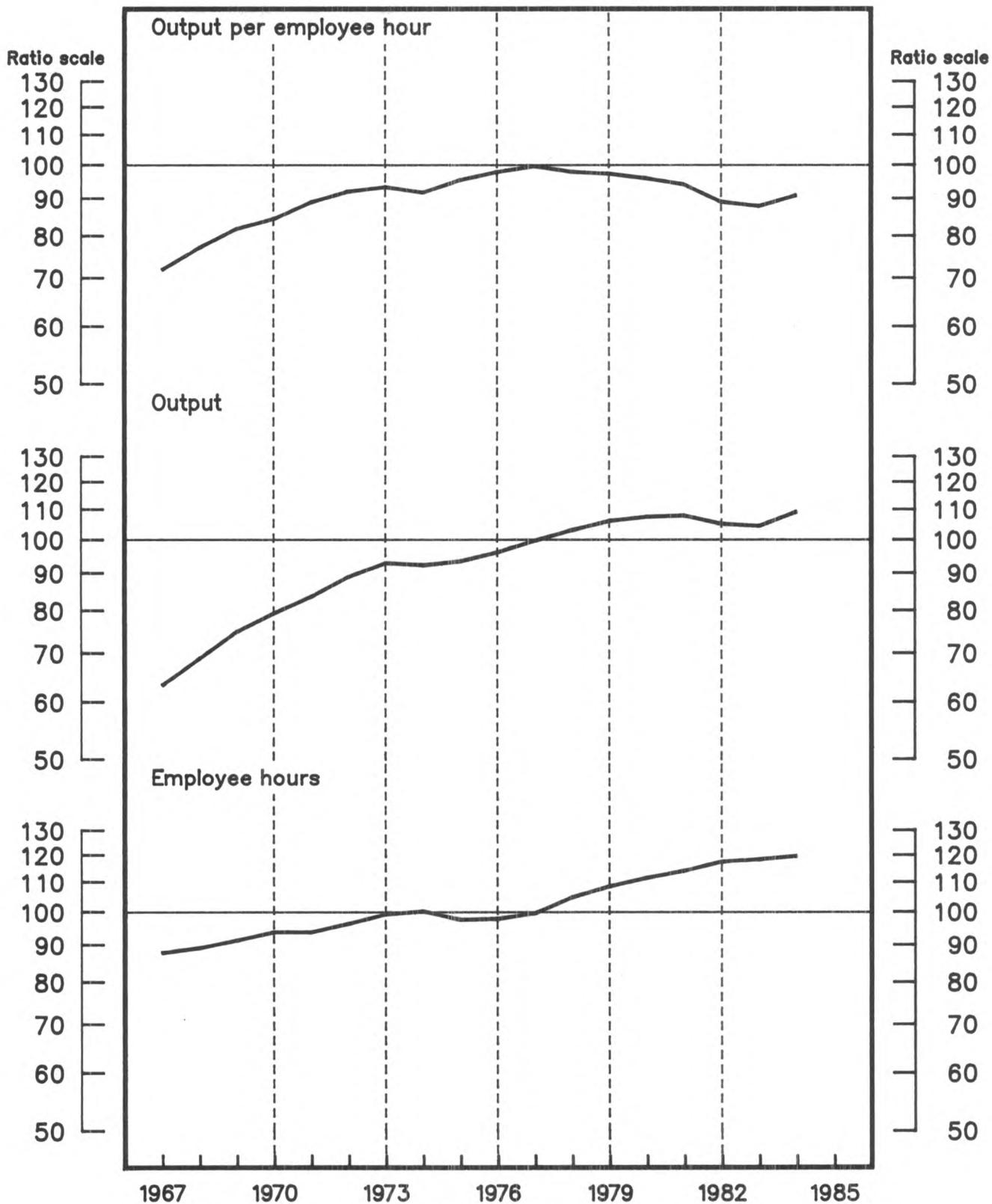
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Federal Communications Commission,

the American Telephone and Telegraph Company, and the GTE Corporation. Employment and hours based on data from the Bureau of Labor Statistics.

**Chart 124. Gas and electric utilities (SIC 491, 492, 493): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 239. Gas and electric utilities (SIC 491, 492, 493): Indexes of output per employee hour and output per employee, 1958-84**  
(1977=100)

Year	Output per hour <sup>1</sup>		Output per employee <sup>1</sup>	
	All employees	Production workers <sup>2</sup>	All employees	Production workers <sup>2</sup>
Index:				
1958 .....	40.6	37.4	40.2	36.9
1959 .....	44.3	41.0	44.1	40.7
1960 .....	47.2	43.9	46.9	43.6
1961 .....	50.0	46.6	49.5	46.2
1962 .....	54.0	50.5	53.8	50.3
1963 .....	57.4	54.1	57.3	53.9
1964 .....	61.6	58.3	61.6	58.1
1965 .....	64.3	60.8	64.5	61.0
1966 .....	69.0	65.5	69.5	65.9
1967 .....	72.0	68.7	72.5	69.1
1968 .....	77.2	73.6	77.6	74.0
1969 .....	82.0	78.6	82.7	79.2
1970 .....	84.6	81.1	85.2	81.7
1971 .....	89.2	85.9	89.4	86.1
1972 .....	92.3	89.2	92.9	89.8
1973 .....	93.6	91.0	94.8	92.2
1974 .....	92.0	91.1	92.5	90.5
1975 .....	95.7	94.3	95.3	93.9
1976 .....	98.2	97.4	98.1	97.2
1977 .....	100.0	100.0	100.0	100.0
1978 .....	98.2	99.3	99.4	100.5
1979 .....	97.6	98.7	98.8	99.9
1980 .....	96.2	97.3	97.5	98.5
1981 .....	94.4	95.5	94.9	95.9
1982 .....	89.3	91.2	89.9	91.8
1983 .....	88.1	91.0	88.6	91.4
1984 <sup>3</sup> .....	91.2	94.8	91.8	95.5
Average annual percent change:				
1947-84 .....	4.8	5.3	4.8	5.3
1979-84 .....	-1.9	-1.3	-2.0	-1.4

<sup>1</sup> The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

<sup>2</sup> Represents nonsupervisory workers.

<sup>3</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures

in this table may differ from those previously published.

SOURCE: Output based on data from the American Gas Association; Rural Electrification Administration, U.S. Department of Agriculture; Federal Energy Regulatory Commission, U.S. Department of Energy; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

**Table 240. Gas and electric utilities (SIC 491, 492, 493): Indexes of output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output	Employee hours		Employees	
		All employees	Production workers <sup>1</sup>	All employees	Production workers <sup>1</sup>
Index:					
1958 .....	34.2	84.2	91.5	85.1	92.6
1959 .....	37.5	84.6	91.5	85.1	92.1
1960 .....	40.0	84.7	91.2	85.2	91.8
1961 .....	42.0	84.0	90.1	84.8	91.0
1962 .....	45.2	83.7	89.5	84.0	89.8
1963 .....	48.1	83.8	88.9	83.9	89.2
1964 .....	51.9	84.2	89.0	84.3	89.3
1965 .....	55.0	85.6	90.5	85.3	90.2
1966 .....	59.7	86.5	91.1	85.9	90.6
1967 .....	63.4	88.0	92.3	87.5	91.7
1968 .....	69.0	89.4	93.8	88.9	93.3
1969 .....	75.1	91.6	95.5	90.8	94.8
1970 .....	79.6	94.1	98.2	93.4	97.4
1971 .....	83.9	94.1	97.7	93.8	97.4
1972 .....	89.3	96.7	100.1	96.1	99.4
1973 .....	93.2	99.6	102.4	98.3	101.1
1974 .....	92.6	100.6	101.7	100.1	102.3
1975 .....	93.7	97.9	99.4	98.3	99.8
1976 .....	96.4	98.2	99.0	98.3	99.2
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	103.4	105.3	104.1	104.0	102.9
1979 .....	106.4	109.0	107.8	107.7	106.5
1980 .....	107.8	112.0	110.8	110.6	109.4
1981 .....	108.2	114.6	113.3	114.0	112.8
1982 .....	105.4	118.0	115.6	117.2	114.8
1983 .....	104.7	118.8	115.1	118.2	114.5
1984 <sup>2</sup> .....	109.5	120.1	115.5	119.3	114.6
Average annual percent change:					
1947-84 .....	6.1	1.2	.7	1.2	.7
1979-84 .....	.1	2.0	1.4	2.1	1.5

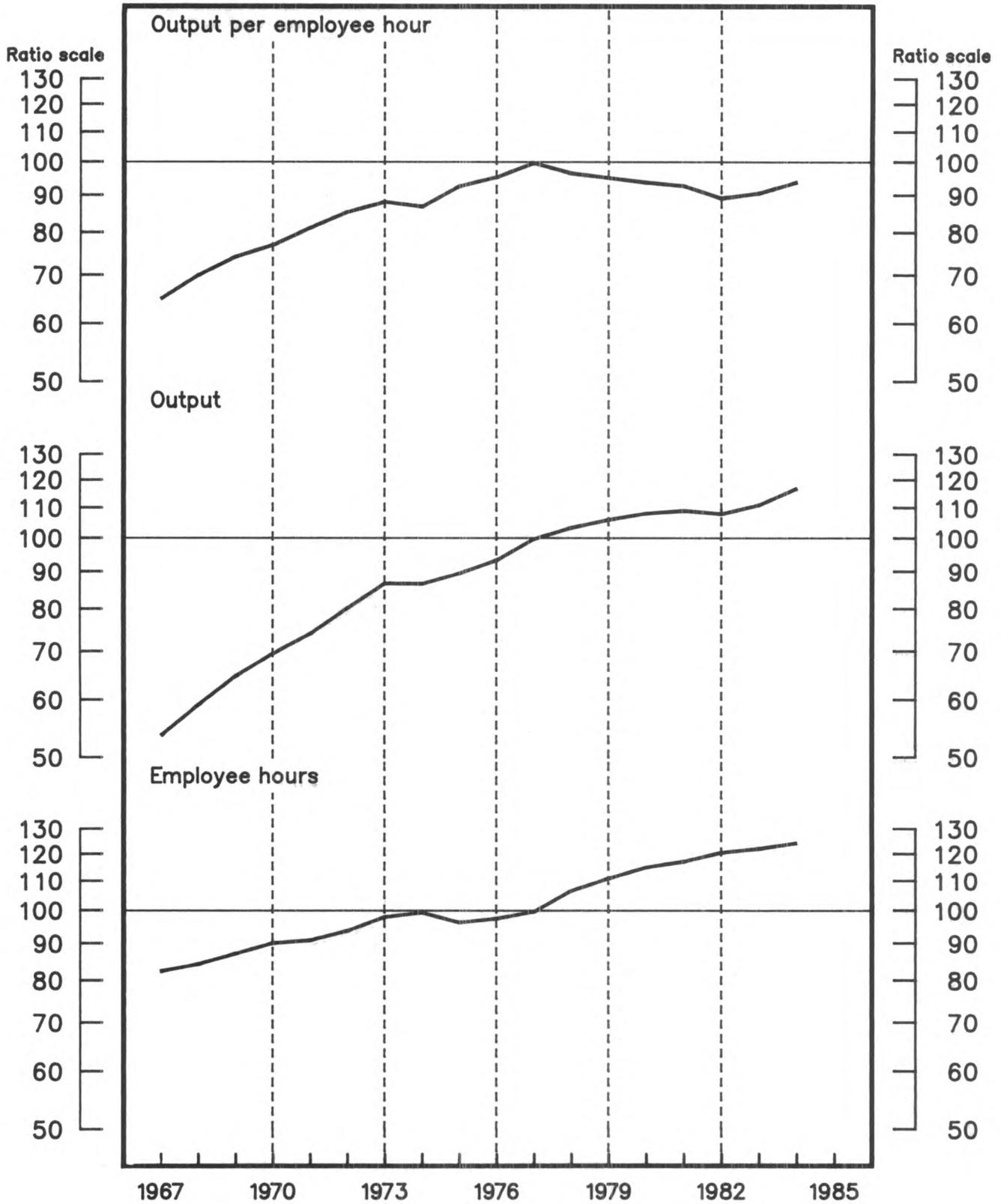
<sup>1</sup> Represents nonsupervisory workers.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the American Gas Association; Rural Electrification Administration, U.S. Department of Agriculture; Federal Energy Regulatory Commission, U.S. Department of Energy; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 125. Electric utilities (SIC 491, 493 part): Output per hour and related data, 1967-84  
 (1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 241. Electric utilities (SIC 491, 493 part): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
<b>Index:</b>					
1958 .....	34.7	34.4	27.4	78.9	79.7
1959 .....	38.7	38.4	30.3	78.3	78.9
1960 .....	41.3	41.0	32.4	78.5	79.0
1961 .....	44.1	43.6	34.2	77.6	78.4
1962 .....	47.6	47.3	36.8	77.3	77.8
1963 .....	51.0	50.8	39.5	77.4	77.7
1964 .....	54.9	54.7	42.8	77.9	78.3
1965 .....	57.9	58.1	46.1	79.6	79.4
1966 .....	62.5	62.8	50.4	80.7	80.2
1967 .....	65.1	65.4	53.8	82.6	82.3
1968 .....	70.1	70.4	59.2	84.5	84.1
1969 .....	74.3	75.0	64.9	87.4	86.5
1970 .....	77.1	77.6	69.7	90.4	89.8
1971 .....	81.4	81.7	74.2	91.2	90.8
1972 .....	85.6	86.3	80.5	94.0	93.3
1973 .....	88.4	90.1	86.9	98.3	96.5
1974 .....	87.1	87.9	86.8	99.7	98.8
1975 .....	92.9	92.1	89.7	96.6	97.4
1976 .....	95.6	95.4	93.5	97.8	98.0
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	96.8	98.6	103.6	107.0	105.1
1979 .....	95.4	97.0	106.2	111.3	109.5
1980 .....	94.0	95.6	108.4	115.3	113.4
1981 .....	93.0	93.5	109.3	117.5	116.9
1982 .....	89.5	90.2	108.2	120.9	119.9
1983 .....	90.9	91.5	111.3	122.4	121.7
1984 <sup>1</sup> .....	94.1	94.6	117.2	124.6	123.9
<b>Average annual percent change:</b>					
1958-84 .....	3.9	3.9	6.0	2.0	1.9
1979-84 .....	-6	-8	1.6	2.2	2.5

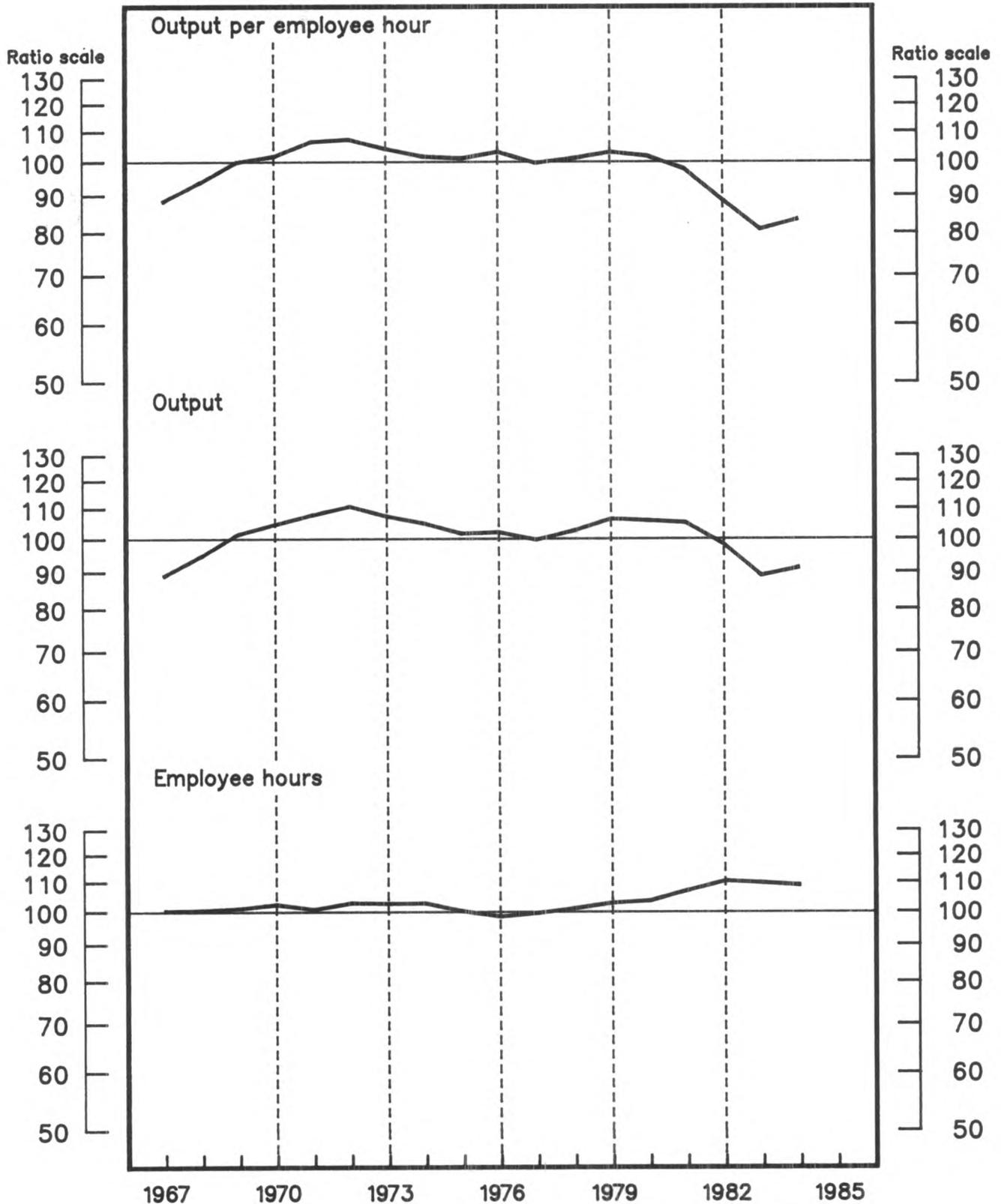
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Rural Electrification Administration, U.S.

Department of Agriculture; and the Federal Energy Regulatory Commission, U.S. Department of Energy. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 126. Gas utilities (SIC 492, 493 part): Output per hour and related data, 1967-84  
(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 242. Gas utilities (SIC 492, 493 part): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
<b>Index:</b>					
1958	55.7	55.1	54.1	97.2	98.1
1959	58.4	58.3	58.3	99.9	100.0
1960	62.3	62.0	62.2	99.8	100.3
1961	64.6	64.4	64.5	99.9	100.2
1962	69.6	69.6	69.0	99.2	99.2
1963	72.6	72.9	72.2	99.5	99.1
1964	77.7	78.0	77.3	99.5	99.1
1965	79.6	80.3	80.1	100.6	99.7
1966	84.5	85.3	85.2	100.8	99.9
1967	88.6	89.2	89.2	100.7	100.0
1968	94.1	94.6	94.9	100.9	100.3
1969	100.3	100.6	101.8	101.5	101.2
1970	102.1	102.9	105.0	102.8	102.0
1971	106.9	106.9	108.2	101.2	101.2
1972	107.6	108.2	111.1	103.3	102.7
1973	104.5	105.0	107.7	103.1	102.6
1974	102.0	102.1	105.3	103.2	103.1
1975	101.4	101.4	102.0	100.6	100.6
1976	103.5	103.1	102.4	98.9	99.3
1977	100.0	100.0	100.0	100.0	100.0
1978	101.4	101.5	102.9	101.5	101.4
1979	103.4	103.4	106.8	103.3	103.3
1980	102.1	102.1	106.2	104.0	104.0
1981	98.1	98.4	105.5	107.5	107.2
1982	89.0	89.2	98.6	110.8	110.5
1983	81.1	81.4	89.3	110.1	109.7
1984 <sup>1</sup>	83.7	84.5	91.5	109.3	108.3
<b>Average annual percent change:</b>					
1958-84	1.8	1.8	2.1	.3	.3
1979-84	-5.1	-5.0	-3.8	1.4	1.2

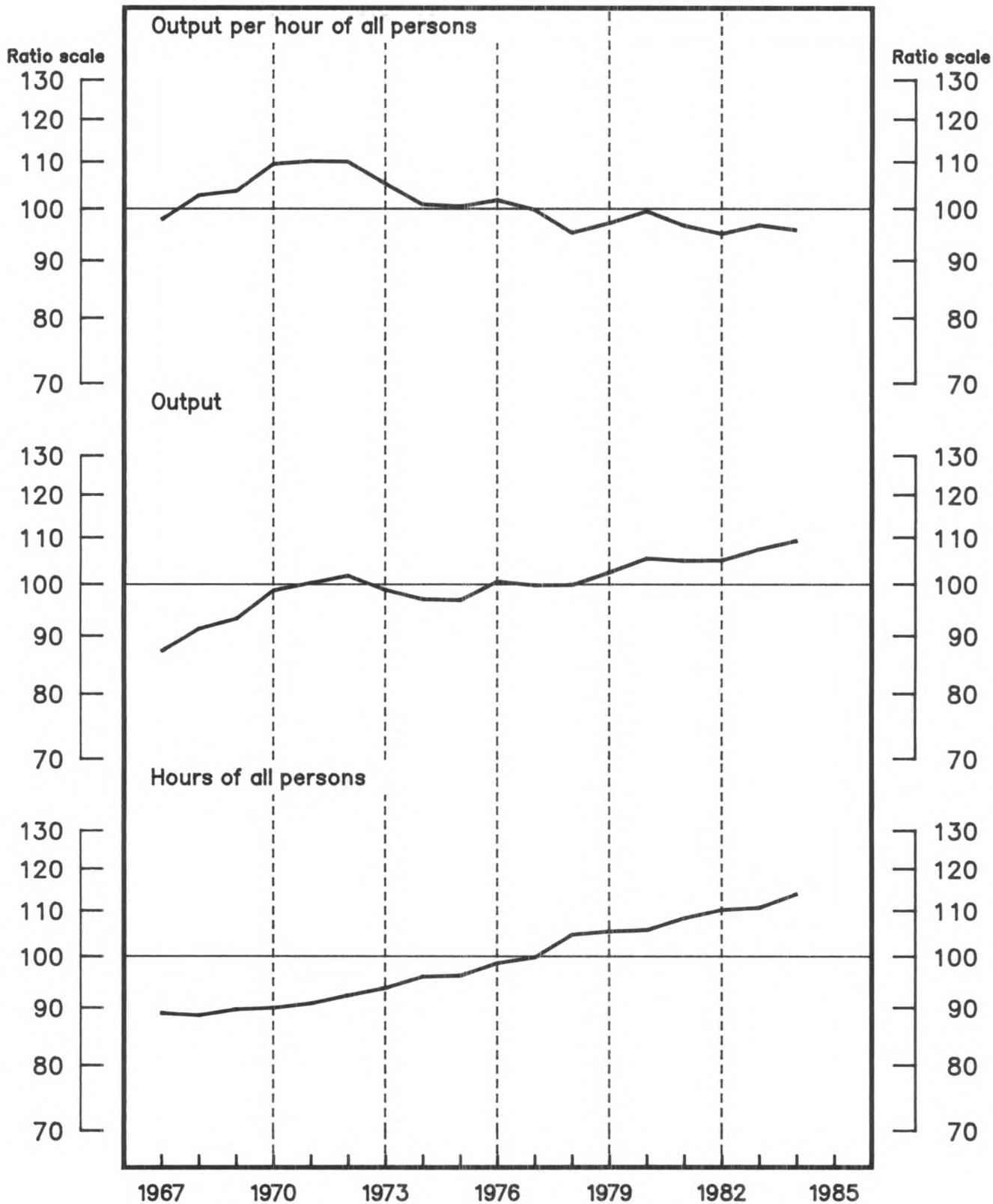
<sup>1</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the American Gas Association. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 127. Retail food stores (SIC 54): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 243. Retail food stores (SIC 54): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,<sup>1</sup> 1958-84**  
(1977 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958 .....	73.8	88.7	68.5	92.8	77.2
1959 .....	76.9	92.3	71.6	93.1	77.6
1960 .....	79.3	93.8	73.5	92.7	78.4
1961 .....	82.4	96.4	75.3	91.4	78.1
1962 .....	83.5	97.6	76.9	92.1	78.8
1963 .....	87.6	100.5	77.5	88.5	77.1
1964 .....	89.5	102.8	81.3	90.8	79.1
1965 .....	91.9	103.7	84.3	91.7	81.3
1966 .....	94.4	104.0	85.7	90.8	82.4
1967 .....	98.0	106.1	87.4	89.2	82.4
1968 .....	103.0	109.3	91.5	88.8	83.7
1969 .....	103.9	108.5	93.4	89.9	86.1
1970 .....	109.8	113.7	99.0	90.2	87.1
1971 .....	110.4	113.9	100.5	91.0	88.2
1972 .....	110.3	113.5	102.0	92.5	89.9
1973 .....	105.5	108.5	99.1	93.9	91.3
1974 .....	101.1	102.5	97.2	96.1	94.8
1975 .....	100.7	100.4	97.0	96.3	96.6
1976 .....	102.0	103.0	100.8	98.8	97.9
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	95.4	94.9	100.1	104.9	105.5
1979 .....	97.3	95.2	102.7	105.6	107.9
1980 .....	99.7	95.2	105.6	105.9	110.9
1981 .....	96.8	92.1	105.1	108.6	114.1
1982 .....	95.2	90.4	105.2	110.5	116.4
1983 <sup>2</sup> .....	96.9	91.3	107.6	111.0	117.9
1984 <sup>2</sup> .....	95.9	89.9	109.5	114.2	121.8
Average annual percent change:					
1958-84 .....	.8	-.2	1.7	.8	1.9
1979-84 .....	-.5	-1.2	1.1	1.6	2.3

<sup>1</sup> All persons include paid employees, unpaid family workers, and the self-employed.

<sup>2</sup> Preliminary.

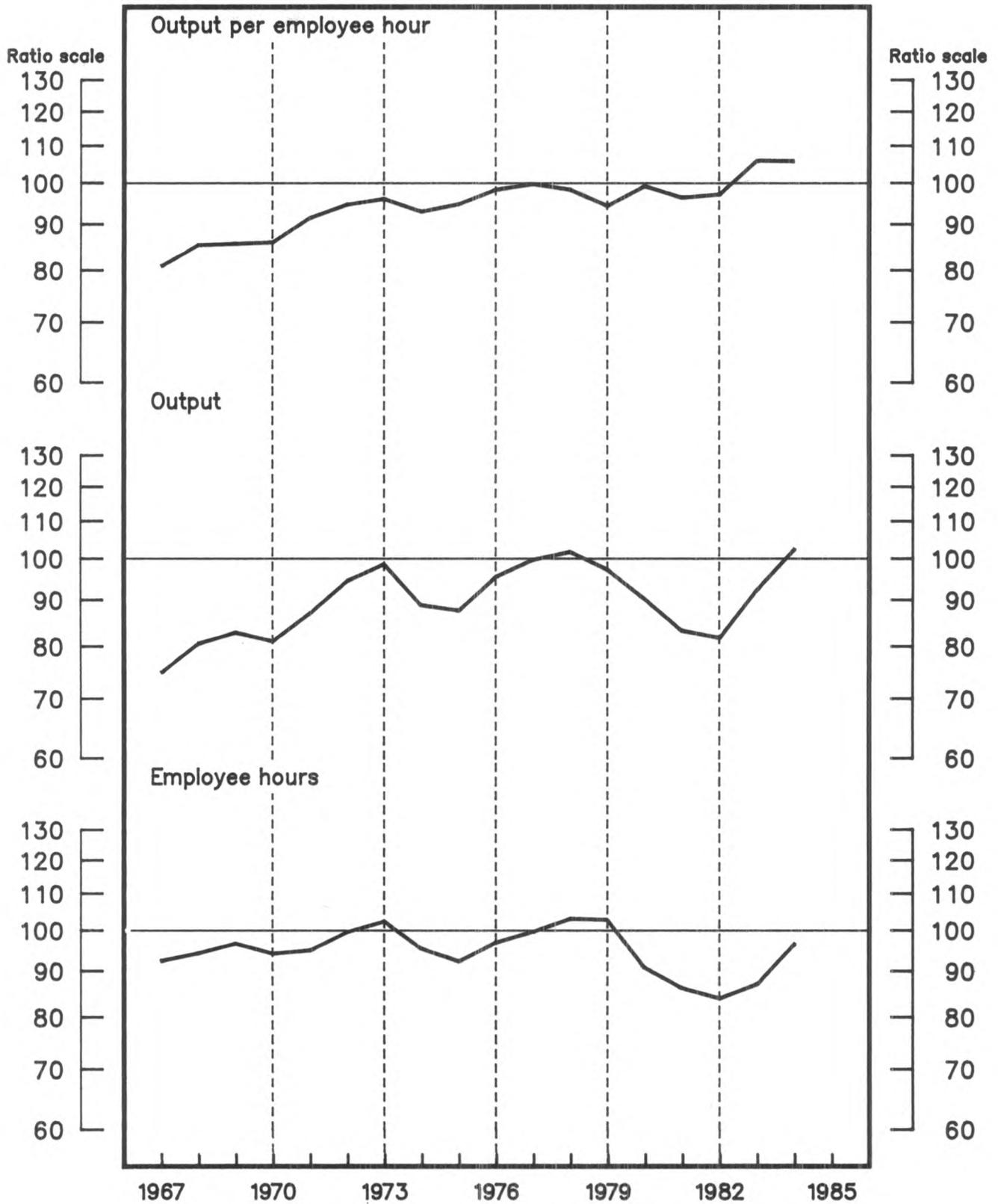
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of

Economic Analysis, U.S. Department of Commerce; the Bureau of Labor Statistics; and the Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture. Persons and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 128. Franchised new car dealers (SIC 5511): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 244. Franchised new car dealers (SIC 5511): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-84**  
(1977=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958 .....	62.3	70.6	52.4	84.1	74.2
1959 .....	70.6	80.7	61.2	86.7	75.8
1960 .....	71.5	81.4	62.9	86.0	77.3
1961 .....	68.1	76.8	56.1	82.4	73.0
1962 .....	73.0	81.8	61.2	83.8	74.8
1963 .....	74.4	83.5	65.2	87.6	78.1
1964 .....	73.8	83.3	67.4	91.3	80.9
1965 .....	79.2	88.8	75.2	95.0	84.7
1966 .....	79.9	88.0	76.1	95.2	86.5
1967 .....	81.0	87.4	75.0	92.6	85.8
1968 .....	85.5	91.0	80.8	94.5	88.8
1969 .....	85.8	90.2	83.1	96.9	92.1
1970 .....	86.1	89.7	81.3	94.4	90.6
1971 .....	91.7	95.2	87.3	95.2	91.7
1972 .....	94.9	98.0	94.8	99.9	96.7
1973 .....	96.3	98.8	98.9	102.7	100.1
1974 .....	93.2	94.9	89.1	95.6	93.9
1975 .....	95.0	96.5	87.9	92.5	91.1
1976 .....	98.6	99.8	95.8	97.2	96.0
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	98.6	97.4	102.0	103.4	104.7
1979 .....	94.6	93.6	97.5	103.1	104.2
1980 .....	99.5	97.4	90.5	91.0	92.9
1981 .....	96.6	94.7	83.5	86.4	88.2
1982 .....	97.4	94.7	82.0	84.2	86.6
1983 .....	106.2	102.9	92.7	87.3	90.1
1984 <sup>1</sup> .....	106.1	103.4	102.7	96.8	99.3
Average annual percent change:					
1958-84 .....	1.8	1.1	2.1	.3	1.1
1979-84 .....	2.2	1.9	.9	-1.3	-1.0

<sup>1</sup> Preliminary.

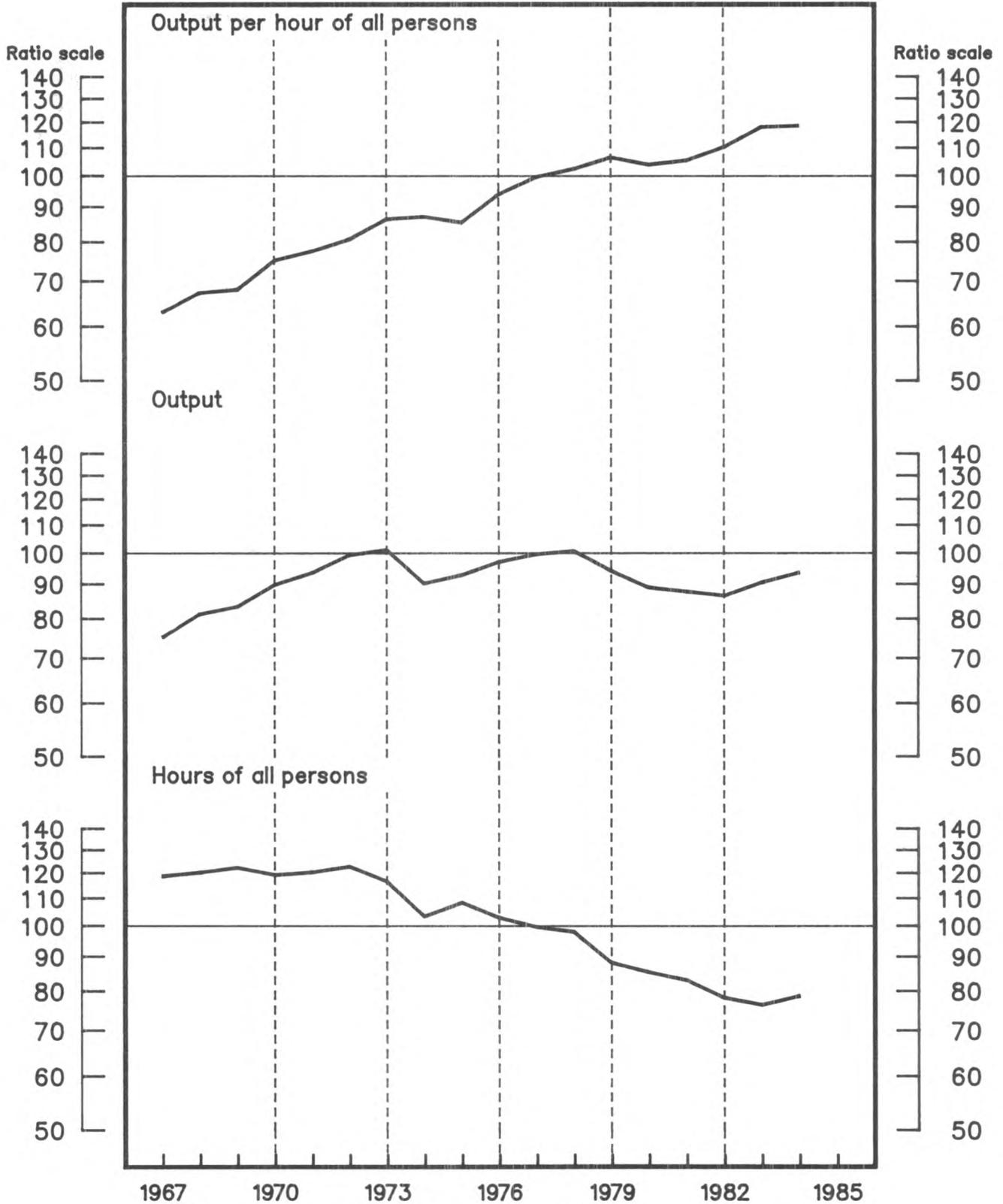
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census, the Bureau of

Labor Statistics, the National Automobile Dealers Association, and Ward's Communications, Inc. (Ward's Automotive Yearbooks). Employment and hours based on data from the Bureau of Labor Statistics.

Chart 129. Gasoline service stations (SIC 5541): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 245. Gasoline service stations (SIC 5541): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,<sup>1</sup> 1958-84 (1977=100)**

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958 .....	48.9	59.9	53.7	109.8	89.6
1959 .....	50.7	61.9	55.8	110.0	90.2
1960 .....	51.9	63.2	58.0	111.7	91.7
1961 .....	53.5	65.1	60.5	113.1	92.9
1962 .....	53.7	64.9	60.2	112.2	92.8
1963 .....	56.3	67.8	64.4	114.3	95.0
1964 .....	57.2	69.2	66.8	116.8	96.6
1965 .....	59.2	70.8	70.4	119.0	99.5
1966 .....	62.0	73.0	74.2	119.7	101.6
1967 .....	63.2	73.3	75.4	119.3	102.8
1968 .....	67.5	77.1	81.6	120.8	105.9
1969 .....	68.2	76.7	83.7	122.8	109.1
1970 .....	75.3	82.9	90.2	119.8	108.8
1971 .....	77.7	85.8	93.9	120.9	109.4
1972 .....	80.9	88.9	99.7	123.3	112.1
1973 .....	86.6	91.9	101.5	117.2	110.5
1974 .....	87.3	91.2	90.6	103.8	99.3
1975 .....	85.6	90.0	93.2	108.9	103.5
1976 .....	94.3	95.7	97.4	103.3	101.8
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	102.8	102.2	101.1	98.3	98.9
1979 .....	106.9	104.0	94.5	88.4	90.9
1980 .....	104.3	101.8	89.3	85.6	87.7
1981 .....	105.8	103.2	88.1	83.3	85.4
1982 .....	110.7	106.6	86.9	78.5	81.5
1983 <sup>2</sup> .....	118.5	113.1	90.9	76.7	80.4
1984 <sup>2</sup> .....	119.0	113.3	94.0	79.0	83.0
Average annual percent change:					
1958-84 .....	3.7	2.6	2.2	-1.4	-.3
1970-84 .....	2.8	2.2	( <sup>3</sup> )	-2.7	-2.2

<sup>1</sup> All persons include paid employees, unpaid family workers, and the self-employed.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than .05 percent.

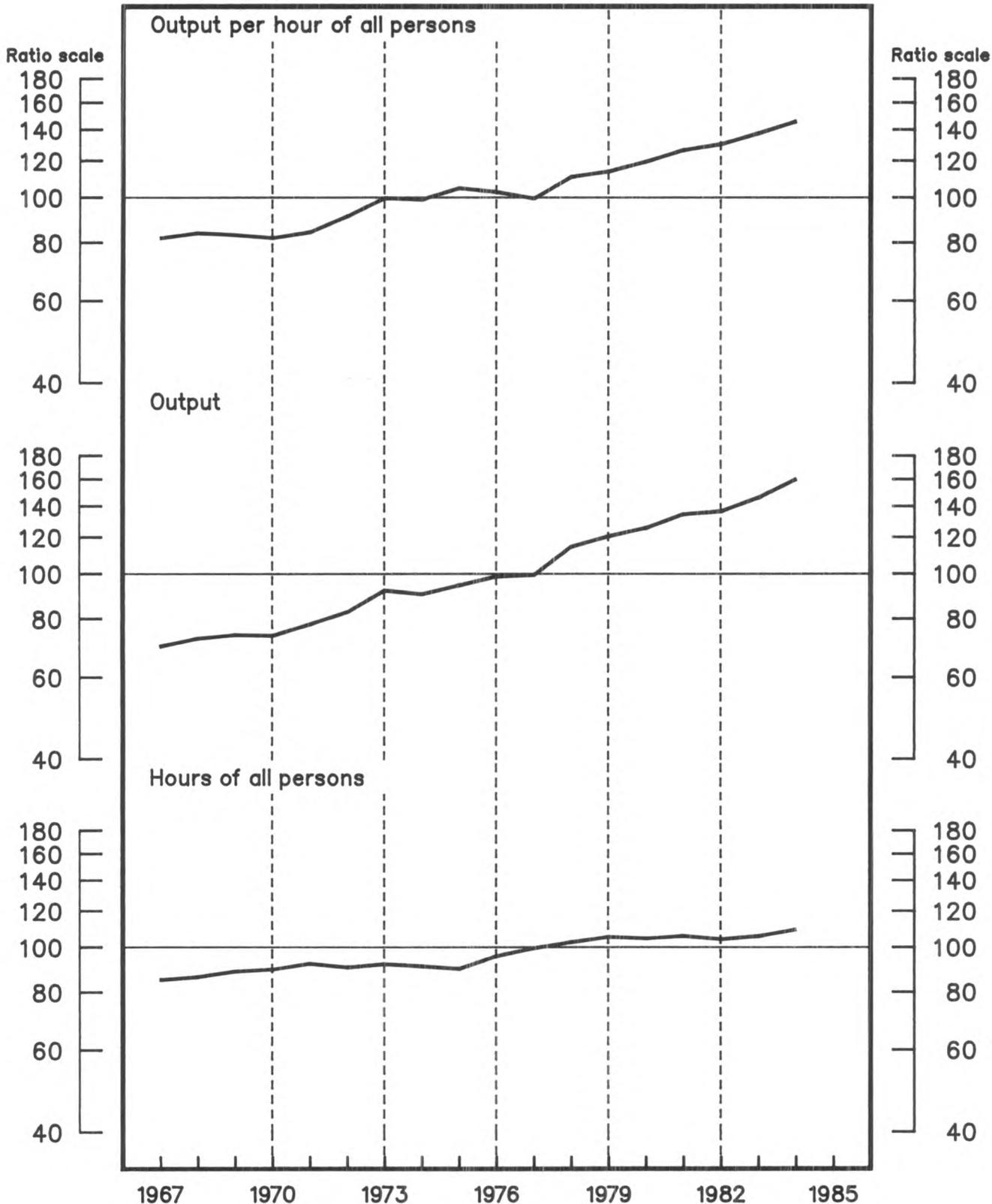
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output based on data from the Bureau of Labor Statistics and the Bureau of the Census. Persons and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

**Chart 130. Apparel and accessory stores (SIC 56): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 246. Apparel and accessory stores (SIC 56): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,<sup>1</sup> 1967-84**  
(1977 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1967 .....	82.1	87.7	70.2	85.5	80.0
1968 .....	84.2	88.0	73.0	86.7	83.0
1969 .....	83.4	86.9	74.3	89.1	85.5
1970 .....	82.2	85.9	74.0	90.0	86.1
1971 .....	84.6	88.1	78.3	92.6	88.9
1972 .....	91.5	93.2	83.2	90.9	89.3
1973 .....	100.2	101.9	92.6	92.4	90.9
1974 .....	99.5	100.6	90.9	91.4	90.4
1975 .....	105.3	106.1	95.0	90.2	89.5
1976 .....	103.3	104.1	99.3	96.1	95.4
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	111.4	110.6	114.9	103.1	103.9
1979 .....	114.4	112.3	121.1	105.9	107.8
1980 .....	120.1	116.7	126.2	105.1	108.1
1981 .....	127.1	123.4	135.2	106.4	109.6
1982 .....	130.9	126.7	137.1	104.7	108.2
1983 <sup>2</sup> .....	138.1	132.7	146.8	106.3	110.6
1984 <sup>2</sup> .....	146.4	141.3	160.9	109.9	113.9
Average annual percent change:					
1967-84 .....	3.5	2.9	5.0	1.5	2.1
1979-84 .....	4.9	4.6	5.5	.6	1.0

<sup>1</sup> All persons include paid employees, unpaid family workers, and the self-employed.

<sup>2</sup> Preliminary.

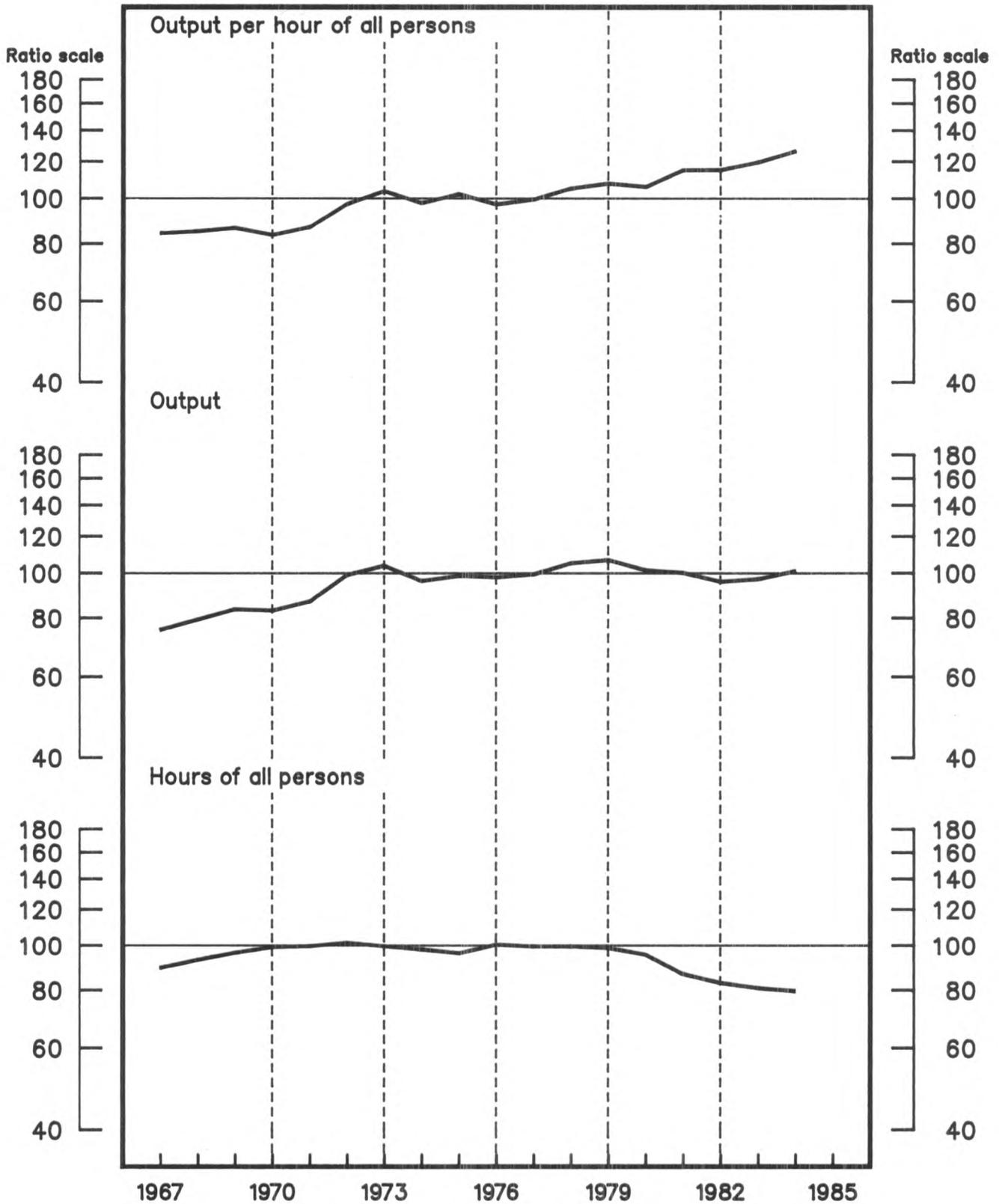
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output, persons, and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

**Chart 131. Men's and boys' clothing stores (SIC 5611): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 247. Men's and boys' clothing stores (SIC 5611): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,<sup>1</sup> 1967-84**  
(1977 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1967 .....	84.5	88.4	75.9	89.8	85.9
1968 .....	85.4	88.5	79.8	93.4	90.2
1969 .....	86.8	89.3	84.0	96.8	94.1
1970 .....	83.8	85.8	83.5	99.7	97.3
1971 .....	87.2	88.6	87.4	100.2	98.7
1972 .....	97.8	99.5	99.7	101.9	100.2
1973 .....	104.2	105.6	104.3	100.1	98.8
1974 .....	98.2	98.6	96.7	98.5	98.1
1975 .....	102.7	103.8	99.2	96.6	95.6
1976 .....	97.6	98.0	98.5	100.9	100.5
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	105.6	104.9	105.6	100.0	100.7
1979 .....	108.2	107.1	107.3	99.2	100.2
1980 .....	106.4	105.6	102.0	95.9	96.6
1981 .....	115.6	112.8	100.7	87.1	89.3
1982 .....	115.7	112.1	96.4	83.3	86.0
1983 <sup>2</sup> .....	120.2	115.8	97.6	81.2	84.3
1984 <sup>2</sup> .....	127.0	122.4	101.6	80.0	83.0
Average annual percent change:					
1967-84 .....	2.3	1.8	1.4	- .8	- .4
1979-84 .....	3.4	2.7	-1.3	-4.5	-3.9

<sup>1</sup> All persons include paid employees, unpaid family workers, and the self-employed.

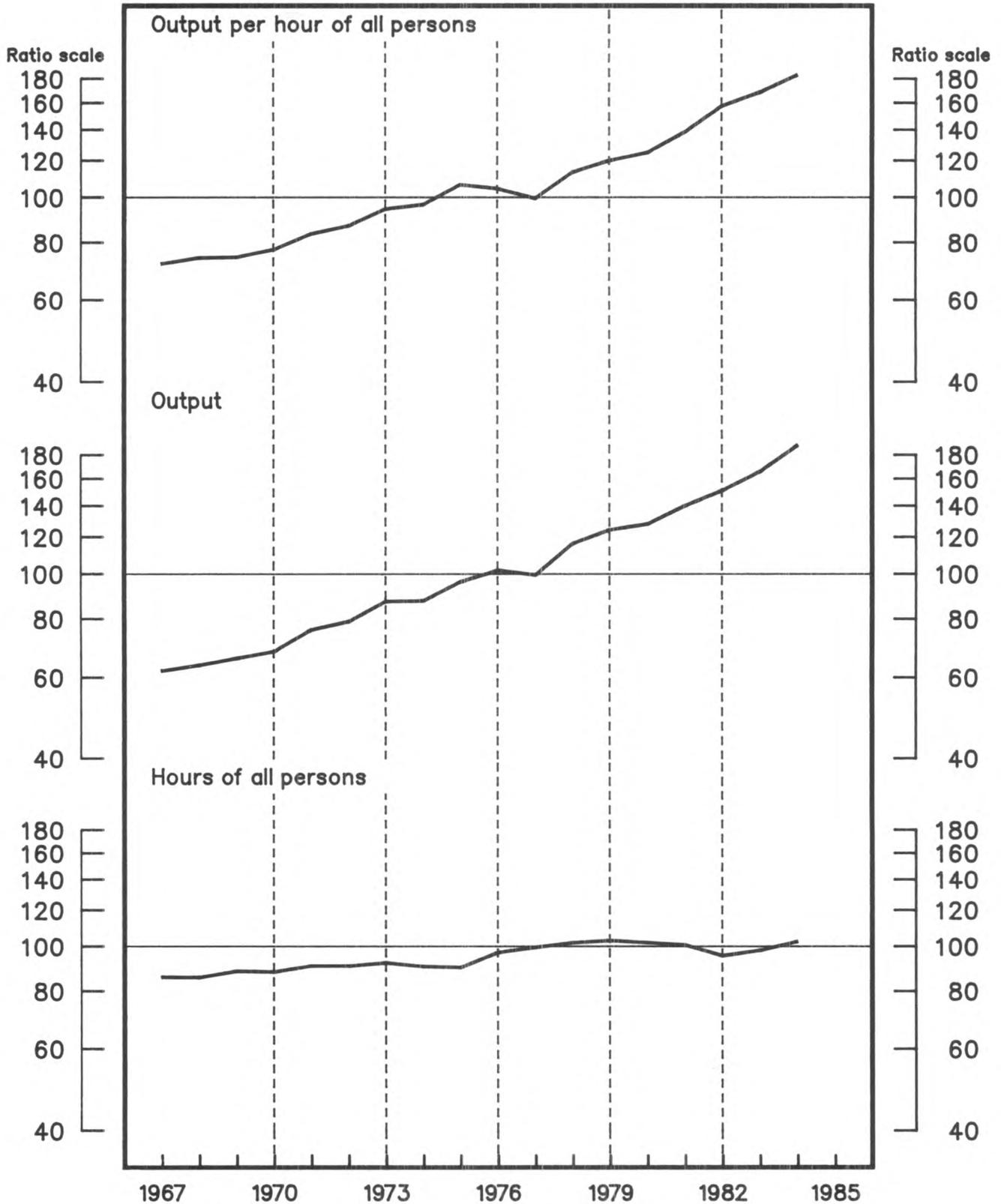
<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Labor Statistics and the Bureau of the Census. Persons and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 132. Women's ready-to-wear stores (SIC 5621): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 248. Women's ready-to-wear stores (SIC 5621): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,<sup>1</sup> 1967-84**  
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
<b>Index:</b>					
1967 .....	72.2	78.9	62.2	86.1	78.8
1968 .....	74.4	78.8	64.0	86.0	81.2
1969 .....	74.6	79.0	66.2	88.7	83.8
1970 .....	77.5	81.3	68.5	88.4	84.3
1971 .....	83.8	87.3	76.3	91.1	87.4
1972 .....	87.2	89.5	79.4	91.1	88.7
1973 .....	94.9	96.8	87.8	92.5	90.7
1974 .....	96.9	97.9	88.0	90.8	89.9
1975 .....	107.0	107.9	96.7	90.4	89.6
1976 .....	104.9	106.3	102.3	97.5	96.2
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	113.9	112.0	116.6	102.4	104.1
1979 .....	120.7	117.2	124.9	103.5	106.6
1980 .....	125.5	120.5	128.5	102.4	106.6
1981 .....	139.0	133.1	140.7	101.2	105.7
1982 .....	158.2	150.5	151.7	95.9	100.8
1983 <sup>2</sup> .....	169.0	162.0	166.5	98.5	102.8
1984 <sup>2</sup> .....	184.1	176.5	189.6	103.0	107.4
<b>Average annual percent change:</b>					
1967-84 .....	5.4	4.6	6.6	1.1	1.9
1979-84 .....	9.4	9.1	8.8	-6	-3

<sup>1</sup> All persons include paid employees, unpaid family workers, and the self-employed.

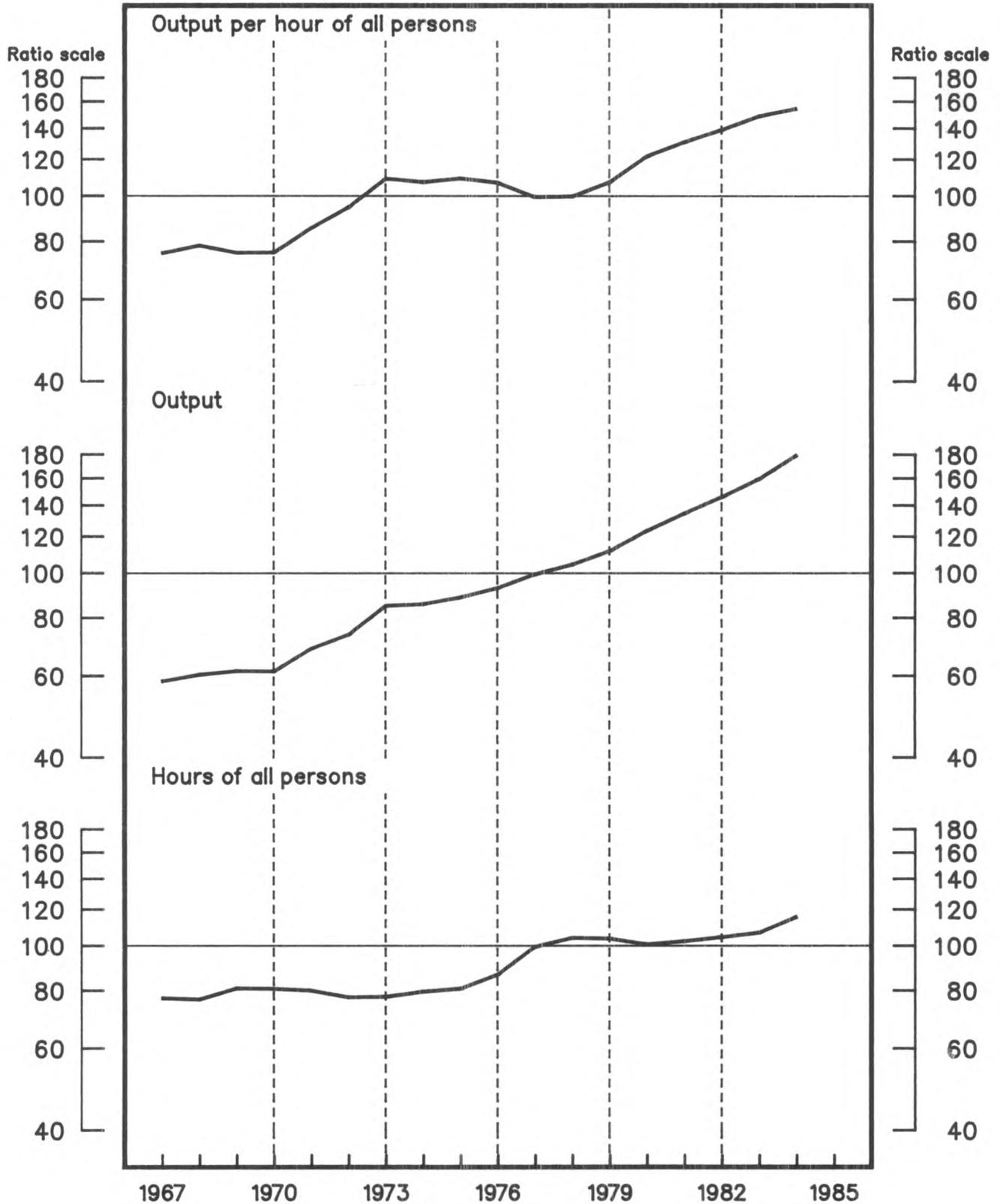
<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Labor Statistics and the Bureau of the Census. Persons and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 133. Family clothing stores (SIC 5651): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 249. Family clothing stores (SIC 5651): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,<sup>1</sup> 1967-84**  
(1977 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
<b>Index:</b>					
1967 .....	75.7	81.3	58.6	77.4	72.1
1968 .....	78.7	83.6	60.6	77.0	72.5
1969 .....	75.9	81.9	61.7	81.3	75.3
1970 .....	76.0	82.6	61.6	81.1	74.6
1971 .....	85.8	90.4	69.0	80.4	76.3
1972 .....	95.1	96.9	74.0	77.8	76.4
1973 .....	109.6	109.8	85.5	78.0	77.9
1974 .....	107.7	107.7	86.2	80.0	80.0
1975 .....	109.7	109.5	89.1	81.2	81.4
1976 .....	107.4	106.6	93.4	87.0	87.6
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	100.3	100.2	104.9	104.6	104.7
1979 .....	107.7	104.4	112.2	104.2	107.5
1980 .....	122.6	115.7	124.1	101.2	107.3
1981 .....	131.4	125.1	135.2	102.9	108.1
1982 .....	139.6	134.2	146.6	105.0	109.2
1983 <sup>2</sup> .....	149.3	141.3	160.4	107.4	113.5
1984 <sup>2</sup> .....	155.0	147.8	180.3	116.3	122.0
<b>Average annual percent change:</b>					
1967-84 .....	4.1	3.3	6.8	2.5	3.4
1979-84 .....	7.3	7.1	9.6	2.2	2.3

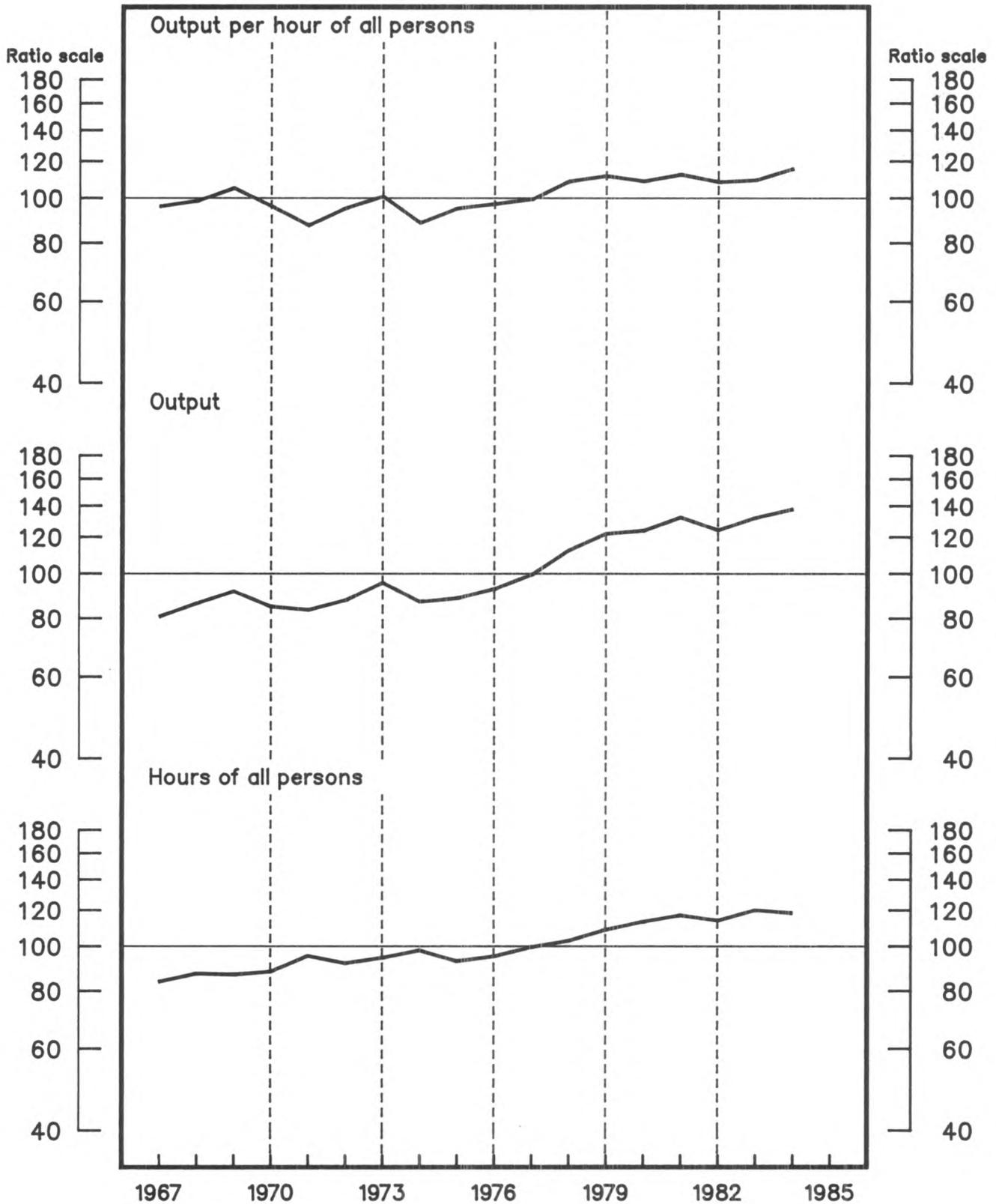
<sup>1</sup> All persons include paid employees, unpaid family workers, and the self-employed.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Labor Statistics and the Bureau of the Census. Persons and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

**Chart 134. Shoe stores (SIC 5661): Output per hour and related data, 1967-84**  
 (1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 250. Shoe stores (SIC 5661): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,<sup>1</sup> 1967-84**  
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1967 .....	96.4	101.1	81.1	84.1	80.2
1968 .....	99.1	101.4	86.7	87.5	85.5
1969 .....	105.7	105.3	92.1	87.1	87.5
1970 .....	96.5	98.6	85.3	88.4	86.5
1971 .....	87.7	90.3	83.9	95.7	92.9
1972 .....	95.6	95.4	88.1	92.2	92.3
1973 .....	101.4	102.5	96.1	94.8	93.8
1974 .....	88.8	90.6	87.4	98.4	96.5
1975 .....	95.5	95.3	89.0	93.2	93.4
1976 .....	97.6	97.6	93.2	95.5	95.5
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	109.3	108.7	112.9	103.3	103.9
1979 .....	112.2	110.8	122.6	109.3	110.6
1980 .....	109.3	107.6	124.5	113.9	115.7
1981 .....	113.0	111.0	133.0	117.7	119.8
1982 .....	108.9	105.6	124.8	114.6	118.2
1983 <sup>2</sup> .....	109.9	106.8	132.7	120.8	124.3
1984 <sup>2</sup> .....	116.3	112.1	138.4	119.0	123.5
Average annual percent change:					
1967-84 .....	1.1	.7	3.3	2.2	2.5
1979-84 .....	.5	( <sup>3</sup> )	2.1	1.7	2.2

<sup>1</sup> All persons include paid employees, unpaid family workers, and the self-employed.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than .05 percent.

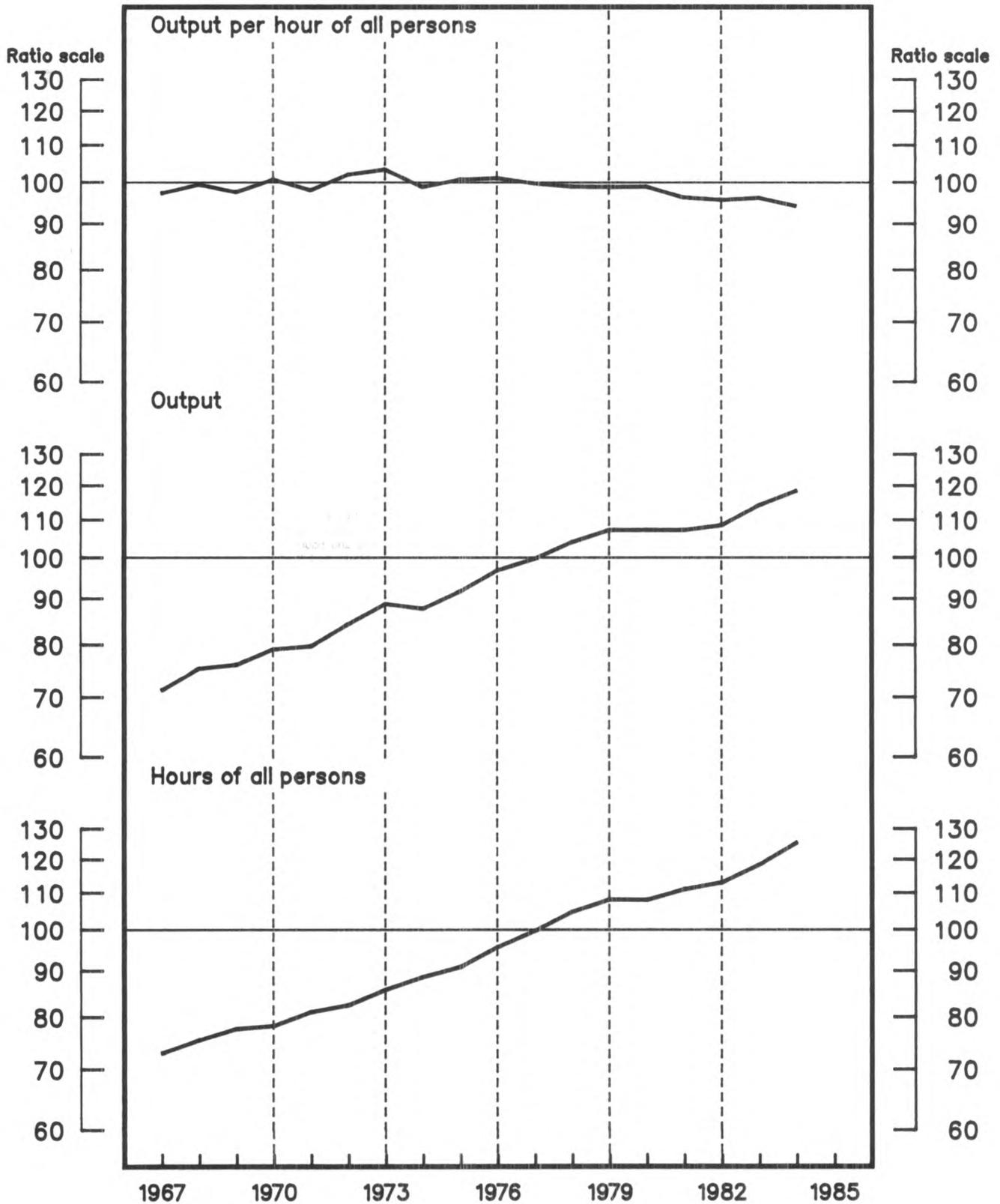
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output based on data from the Bureau of Labor Statistics and the Bureau of the Census. Persons and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 135. Eating and drinking places (SIC 58): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 251. Eating and drinking places (SIC 58): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,<sup>1</sup> 1958-84**  
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958 .....	89.5	120.6	56.3	62.9	46.7
1959 .....	88.4	119.6	57.9	65.5	48.4
1960 .....	88.1	118.3	58.3	66.2	49.3
1961 .....	88.7	118.1	58.2	65.6	49.3
1962 .....	89.3	118.1	60.0	67.2	50.8
1963 .....	91.8	120.1	61.5	67.0	51.2
1964 .....	90.9	119.8	64.2	70.6	53.6
1965 .....	93.7	121.0	68.0	72.6	56.2
1966 .....	94.6	118.4	70.2	74.2	59.3
1967 .....	97.5	118.6	71.4	73.2	60.2
1968 .....	99.7	119.5	75.5	75.7	63.2
1969 .....	97.8	114.1	76.2	77.9	66.8
1970 .....	101.0	114.6	79.3	78.5	69.2
1971 .....	98.3	110.7	79.9	81.3	72.2
1972 .....	102.3	112.2	84.6	82.7	75.4
1973 .....	103.6	111.7	89.1	86.0	79.8
1974 .....	99.1	104.9	88.0	88.8	83.9
1975 .....	101.0	105.5	92.0	91.1	87.2
1976 .....	101.4	104.0	97.1	95.8	93.4
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	99.2	97.4	104.3	105.1	107.1
1979 .....	99.1	95.1	107.5	108.5	113.0
1980 .....	99.2	93.4	107.5	108.4	115.1
1981 .....	96.5	91.2	107.5	111.4	117.9
1982 .....	95.9	90.8	108.8	113.4	119.8
1983 <sup>2</sup> .....	96.4	91.7	114.5	118.8	124.8
1984 <sup>2</sup> .....	94.4	89.5	118.8	125.8	132.7
Average annual percent change:					
1958-84 .....	.4	-1.3	3.1	2.7	4.4
1979-84 .....	-1.0	-1.0	2.0	3.0	3.1

<sup>1</sup> All persons include paid employees, unpaid family workers, and the self-employed.

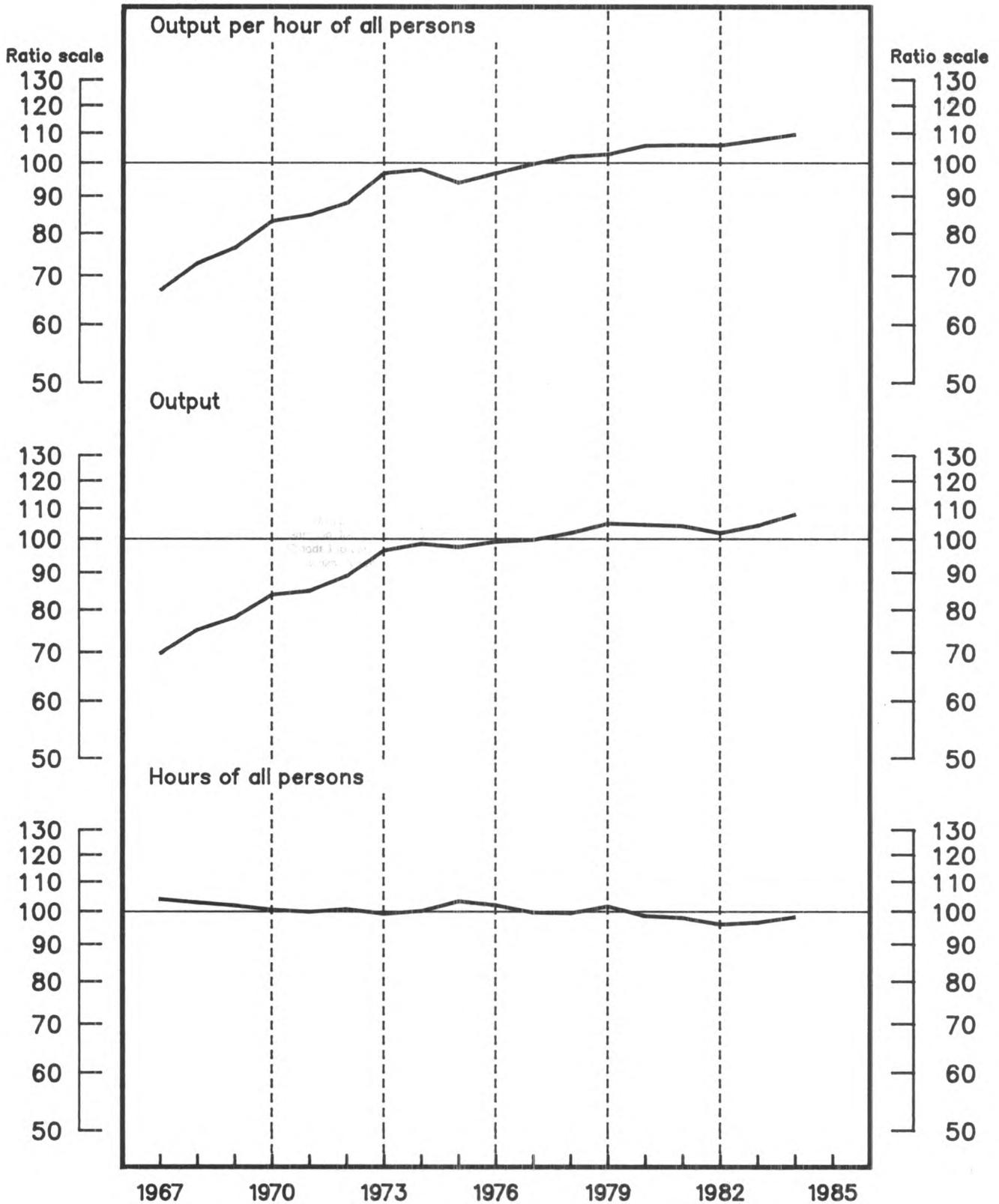
<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Economic Analysis, U.S. Department of Commerce; and the Bureau of Labor Statistics. Persons and hours based on data from the Bureau of Labor Statistics, Bureau of the Census, and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 136. Drug and proprietary stores (SIC 5912): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 252. Drug and proprietary stores (SIC 5912): indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,<sup>1</sup> 1958-84**  
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958 .....	45.6	55.7	44.2	96.9	79.3
1959 .....	47.4	58.1	47.2	99.6	81.3
1960 .....	49.1	59.6	49.8	101.5	83.6
1961 .....	50.8	61.4	51.3	101.0	83.5
1962 .....	51.8	64.0	54.2	104.6	84.7
1963 .....	54.3	66.0	55.9	103.0	84.7
1964 .....	56.4	67.2	58.1	103.1	86.4
1965 .....	59.9	70.2	62.0	103.5	88.3
1966 .....	62.3	72.0	65.9	105.7	91.5
1967 .....	67.0	75.6	70.0	104.4	92.6
1968 .....	73.0	80.4	75.4	103.3	93.8
1969 .....	76.6	82.2	78.4	102.3	95.4
1970 .....	83.4	88.1	84.2	100.9	95.6
1971 .....	85.0	90.0	85.2	100.2	94.7
1972 .....	88.3	92.6	89.3	101.1	96.4
1973 .....	97.1	99.8	96.7	99.6	96.9
1974 .....	98.2	101.2	98.7	100.5	97.5
1975 .....	94.2	100.0	97.7	103.7	97.7
1976 .....	97.1	100.6	99.4	102.4	98.8
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	102.4	102.6	102.2	99.8	99.6
1979 .....	103.1	104.1	105.2	102.0	101.1
1980 .....	106.0	102.8	104.8	98.9	101.9
1981 .....	106.2	102.1	104.4	98.3	102.3
1982 .....	106.1	100.9	102.2	96.3	101.3
1983 <sup>2</sup> .....	107.9	102.1	104.6	96.9	102.4
1984 <sup>2</sup> .....	109.8	101.7	108.3	98.6	106.5
Average annual percent change:					
1958-84 .....	3.8	2.6	3.6	-.1	1.0
1979-84 .....	1.1	-.4	.3	-.7	.8

<sup>1</sup> All persons include paid employees, unpaid family workers, and the self-employed.

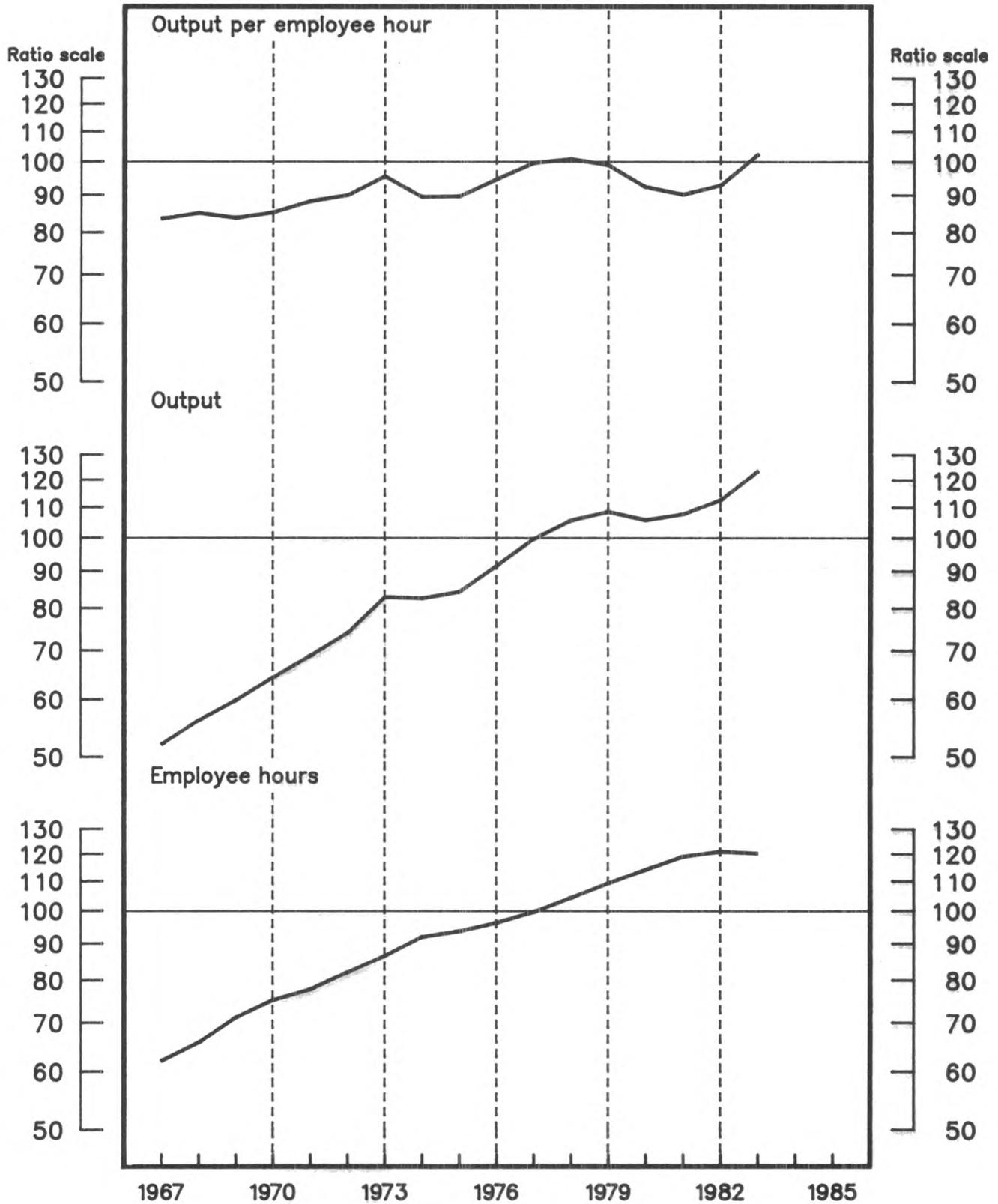
<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. All persons and hours based on data from the Bureau of the Census; the Bureau of Labor Statistics; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 137. Commercial banking (SIC 602): Output per hour and related data, 1967-83

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 253. Commercial banking (SIC 602): indexes of output per employee hour, output per employee, output, employee hours, and employees, 1967-83**  
(1977 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1967 .....	83.8	82.9	52.2	62.3	63.0
1968 .....	85.3	84.4	56.3	66.0	66.7
1969 .....	84.0	83.3	60.0	71.4	72.0
1970 .....	85.5	84.2	64.5	75.4	76.6
1971 .....	88.6	87.5	69.1	78.0	79.0
1972 .....	90.3	89.6	74.3	82.3	82.9
1973 .....	95.9	95.1	83.2	86.8	87.5
1974 .....	89.8	89.5	82.9	92.3	92.6
1975 .....	90.0	89.8	84.6	94.0	94.2
1976 .....	95.0	94.8	91.8	96.6	96.8
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	101.2	101.0	106.0	104.7	104.9
1979 .....	99.3	98.6	108.9	109.7	110.5
1980 .....	92.7	91.7	106.1	114.5	115.7
1981 .....	90.5	90.3	108.1	119.4	119.7
1982 .....	93.2	92.9	113.0	121.3	121.7
1983 <sup>1</sup> .....	102.7	101.9	123.9	120.6	121.8
Average annual percent change:					
1967-83 .....	1.0	1.0	5.3	4.3	4.2
1979-83 .....	.7	.8	3.3	2.5	2.4

<sup>1</sup> Preliminary.

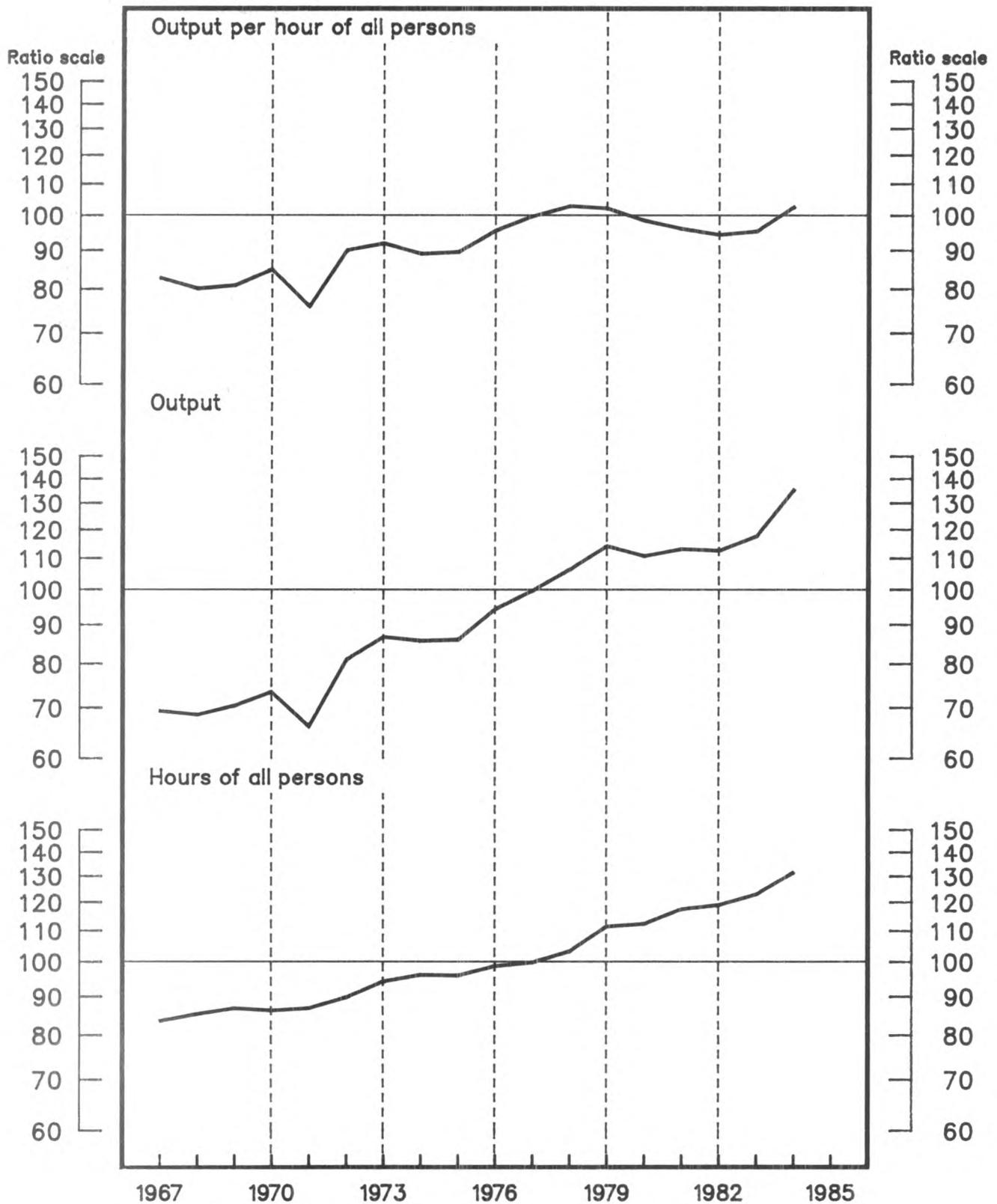
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Federal Reserve Bank of Atlanta; the Board of Governors, Federal Reserve System; the Federal Deposit Insurance

Corporation; the U.S. Department of Housing and Urban Development; the American Bankers Association; the VISA and Interbank Association; the American Council of Life Insurance; and the National Automatic Clearing House Association. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 138. Hotels, motels, and tourist courts (SIC 7011): Output per hour and related data, 1967-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 254. Hotels, motels, and tourist courts (SIC 7011): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,<sup>1</sup> 1958-84 (1977=100)**

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958 .....	63.7	80.1	47.8	75.0	59.7
1959 .....	64.5	81.0	49.5	76.8	61.1
1960 .....	66.0	82.6	51.7	78.3	62.6
1961 .....	63.9	79.1	50.0	78.2	63.2
1962 .....	68.3	83.5	53.6	78.5	64.2
1963 .....	71.5	87.0	56.2	78.6	64.6
1964 .....	71.7	86.3	57.9	80.7	67.1
1965 .....	77.1	91.8	63.4	82.2	69.1
1966 .....	77.3	90.3	64.6	83.6	71.5
1967 .....	82.9	95.3	69.5	83.8	72.9
1968 .....	80.3	90.9	68.7	85.6	75.6
1969 .....	81.1	90.7	70.6	87.1	77.8
1970 .....	85.1	93.3	73.6	86.5	78.9
1971 .....	76.2	81.7	66.4	87.1	81.3
1972 .....	90.2	95.4	81.2	90.0	85.1
1973 .....	92.1	97.9	86.9	94.4	88.8
1974 .....	89.2	93.5	85.9	96.3	91.9
1975 .....	89.7	91.7	86.2	96.1	94.0
1976 .....	95.7	97.6	94.6	98.9	96.9
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	103.1	103.2	106.6	103.4	103.3
1979 .....	102.4	102.7	114.4	111.7	111.4
1980 .....	98.6	98.1	111.0	112.6	113.2
1981 .....	96.2	95.9	113.4	117.9	118.2
1982 .....	94.5	93.8	112.8	119.4	120.3
1983 <sup>2</sup> .....	95.5	95.0	117.9	123.4	124.1
1984 <sup>2</sup> .....	102.9	102.1	135.8	132.0	133.0
Average annual percent change:					
1958-84 .....	1.9	.8	4.0	2.0	3.1
1979-84 .....	-3	-4	3.0	3.3	3.4

<sup>1</sup> All persons include paid employees, and the self-employed.

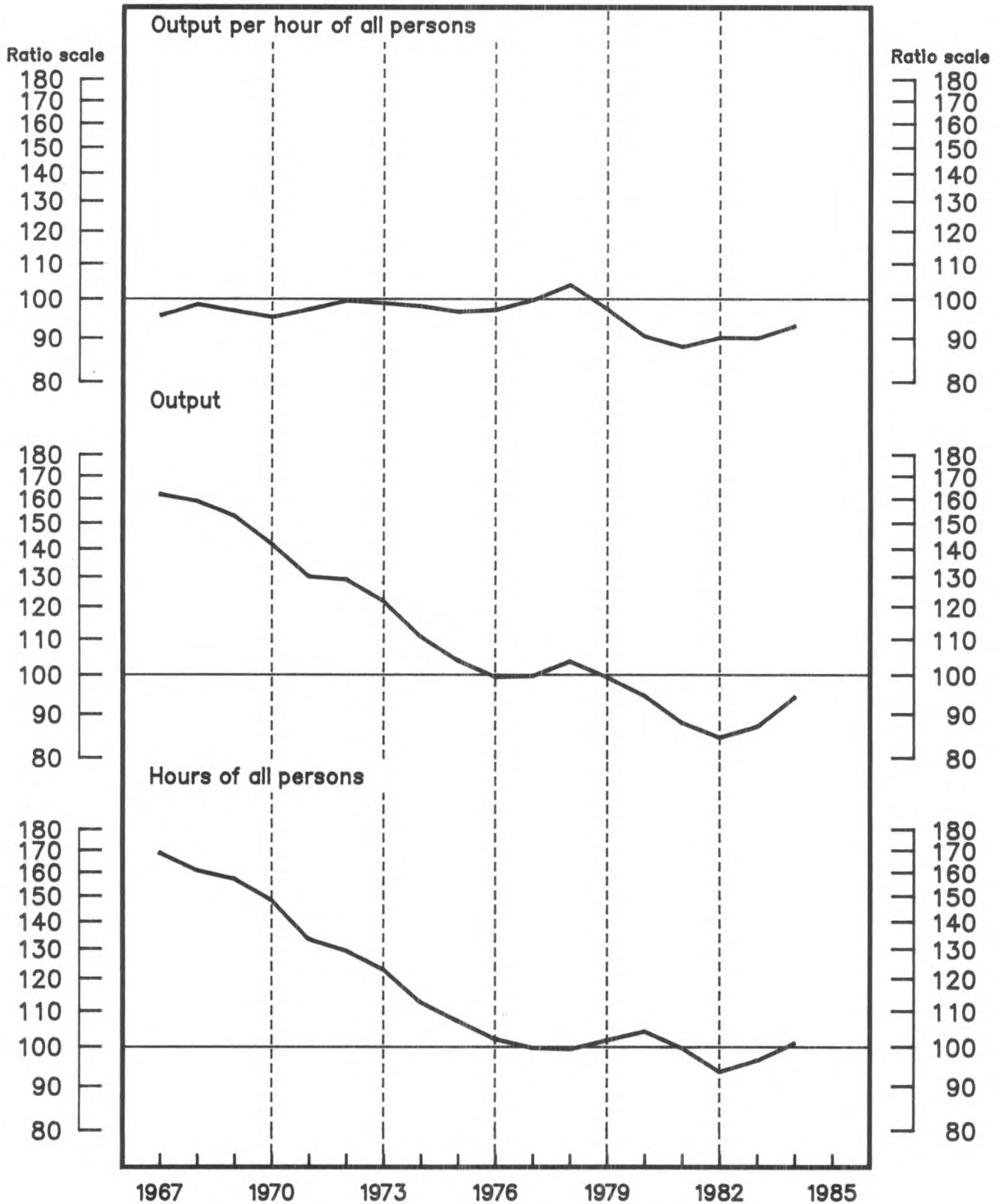
<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, persons, and hours based on data from the Bureau of Labor Statistics; Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

**Chart 139. Laundry and cleaning services (SIC 721): Output per hour and related data, 1967-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 255. Laundry and cleaning services (SIC 721): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,<sup>1</sup> 1958-84**  
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
<b>Index:</b>					
1958 .....	80.5	91.3	139.8	173.6	153.1
1959 .....	83.5	95.5	145.6	174.3	152.5
1960 .....	79.3	90.6	138.1	174.1	152.5
1961 .....	83.4	94.8	143.8	172.4	151.7
1962 .....	83.4	94.5	144.3	173.1	152.7
1963 .....	83.1	95.9	150.0	180.5	156.4
1964 .....	89.0	101.2	157.5	177.0	155.7
1965 .....	83.7	95.5	151.9	181.4	159.0
1966 .....	89.0	99.1	160.1	179.9	161.6
1967 .....	95.9	103.2	162.3	169.2	157.2
1968 .....	98.8	103.2	159.4	161.4	154.4
1969 .....	97.1	101.7	153.2	157.7	150.6
1970 .....	95.5	98.4	142.2	148.9	144.5
1971 .....	97.5	98.1	130.4	133.8	132.9
1972 .....	99.8	102.2	129.4	129.6	126.6
1973 .....	99.1	103.1	122.1	123.2	118.4
1974 .....	98.3	100.5	111.0	112.9	110.5
1975 .....	96.9	98.1	104.1	107.4	106.1
1976 .....	97.4	98.0	99.7	102.4	101.7
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	104.2	104.4	103.9	99.7	99.5
1979 .....	97.6	97.6	99.6	102.1	102.1
1980 .....	90.7	90.8	94.8	104.5	104.4
1981 .....	88.2	87.2	88.2	100.0	101.2
1982 .....	90.4	87.6	84.8	93.8	96.8
1983 <sup>2</sup> .....	90.3	87.9	87.3	96.7	99.3
1984 <sup>2</sup> .....	93.3	91.5	94.5	101.3	103.3
<b>Average annual percent change:</b>					
1958-84 .....	.8	-.1	-2.4	-3.0	-2.3
1979-84 .....	-.6	-1.2	-1.6	-1.0	-.4

<sup>1</sup> All persons include paid employees, unpaid family workers, and the self-employed.

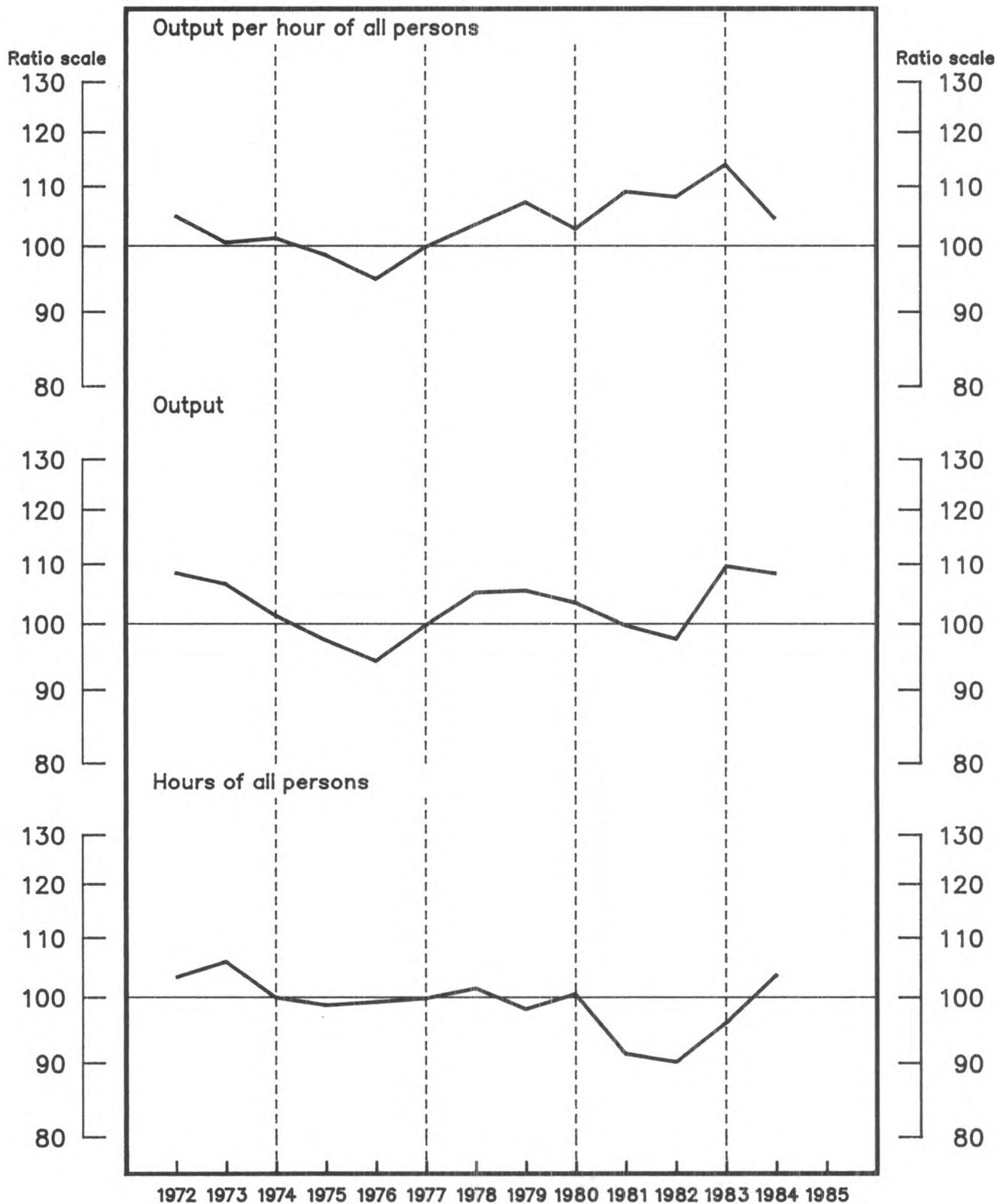
<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, persons, and hours based on data from the Bureau of Labor Statistics; Bureau of the Census and the Bureau of Economic Analysis, U.S. Department of Commerce; and the Internal Revenue Service, U.S. Department of the Treasury.

**Chart 140. Beauty and barber shops (SIC 723, 724): Output per hour and related data, 1972-84**

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 256. Beauty and barber shops (SIC 723, 724): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,<sup>1</sup> 1972-84**  
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
<b>Index:</b>					
1972 .....	105.0	109.0	108.6	103.4	99.6
1973 .....	100.7	105.1	106.7	106.0	101.5
1974 .....	101.4	102.6	101.5	100.1	98.9
1975 .....	98.7	99.3	97.6	98.9	98.3
1976 .....	95.0	95.8	94.4	99.4	98.5
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	103.6	102.9	105.3	101.6	102.3
1979 .....	107.4	104.2	105.6	98.3	101.3
1980 .....	102.9	99.7	103.6	100.7	103.9
1981 .....	109.2	104.7	99.9	91.5	95.4
1982 .....	108.3	101.1	97.8	90.3	96.7
1983 <sup>2</sup> .....	114.1	106.5	109.8	96.2	103.1
1984 <sup>2</sup> .....	104.5	100.6	108.5	103.8	107.9
<b>Average annual percent change:</b>					
1972-84 .....	.8	-.1	.2	-.6	.3
1979-84 .....	.5	( <sup>3</sup> )	.8	.3	.9

<sup>1</sup> All persons include paid employees and the self-employed.

<sup>2</sup> Preliminary.

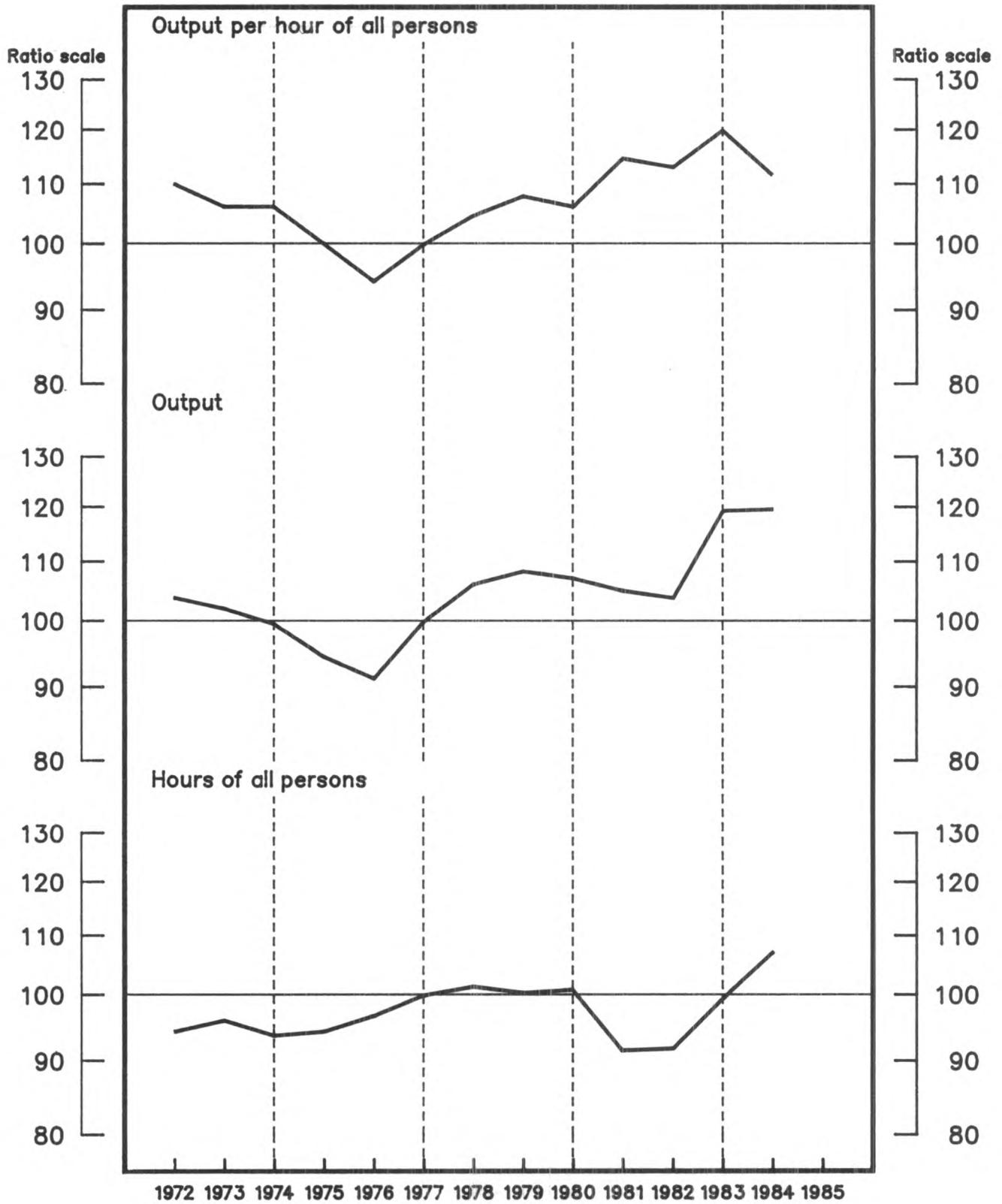
<sup>3</sup> Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Labor Statistics and the Bureau of the Census. Persons and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 141. Beauty shops (SIC 723): Output per hour and related data, 1972-84

(1977 = 100)



SOURCE—Bureau of Labor Statistics, U.S. Department of Labor

**Table 257. Beauty shops (SIC 723): indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,<sup>1</sup> 1972-84**  
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1972 .....	110.1	112.8	103.9	94.4	92.1
1973 .....	106.2	108.7	102.1	96.1	93.9
1974 .....	106.2	106.1	99.6	93.8	93.9
1975 .....	100.1	99.0	94.5	94.4	95.5
1976 .....	94.3	94.7	91.3	96.8	96.4
1977 .....	100.0	100.0	100.0	100.0	100.0
1978 .....	104.7	104.2	106.2	101.4	101.9
1979 .....	108.0	106.0	108.4	100.4	102.3
1980 .....	106.2	102.7	107.2	100.9	104.4
1981 .....	114.7	109.6	105.1	91.6	95.9
1982 .....	113.1	105.6	103.9	91.9	98.4
1983 <sup>2</sup> .....	120.0	113.3	119.4	99.5	105.4
1984 <sup>2</sup> .....	111.7	107.8	119.7	107.2	111.0
Average annual percent change:					
1972-84 .....	.9	.2	1.4	.5	1.1
1979-84 .....	1.5	1.0	2.3	.8	1.3

<sup>1</sup> All persons include paid employees and the self-employed.

<sup>2</sup> Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Labor Statistics and the Bureau of the Census. Persons and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

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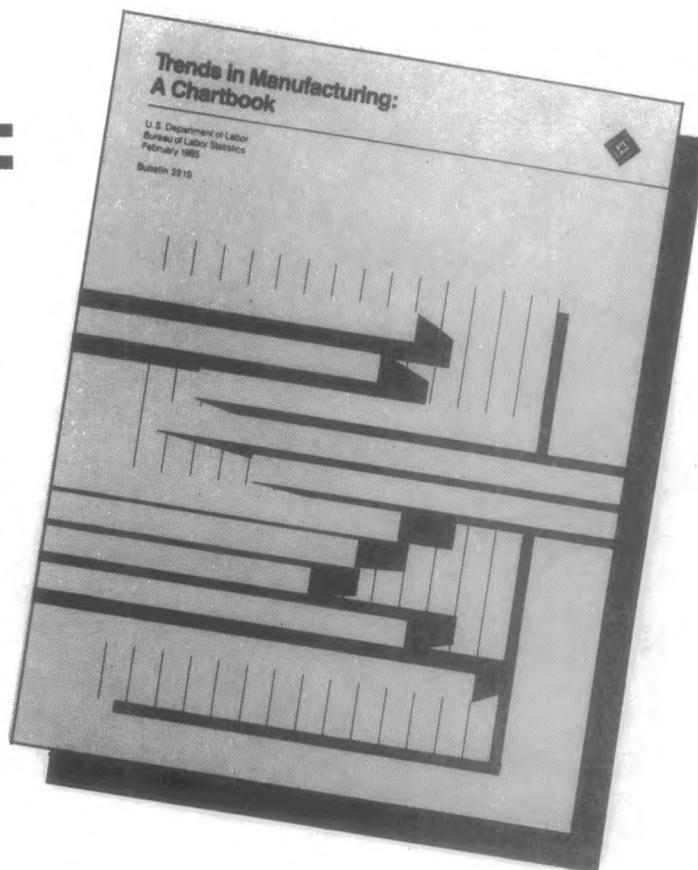
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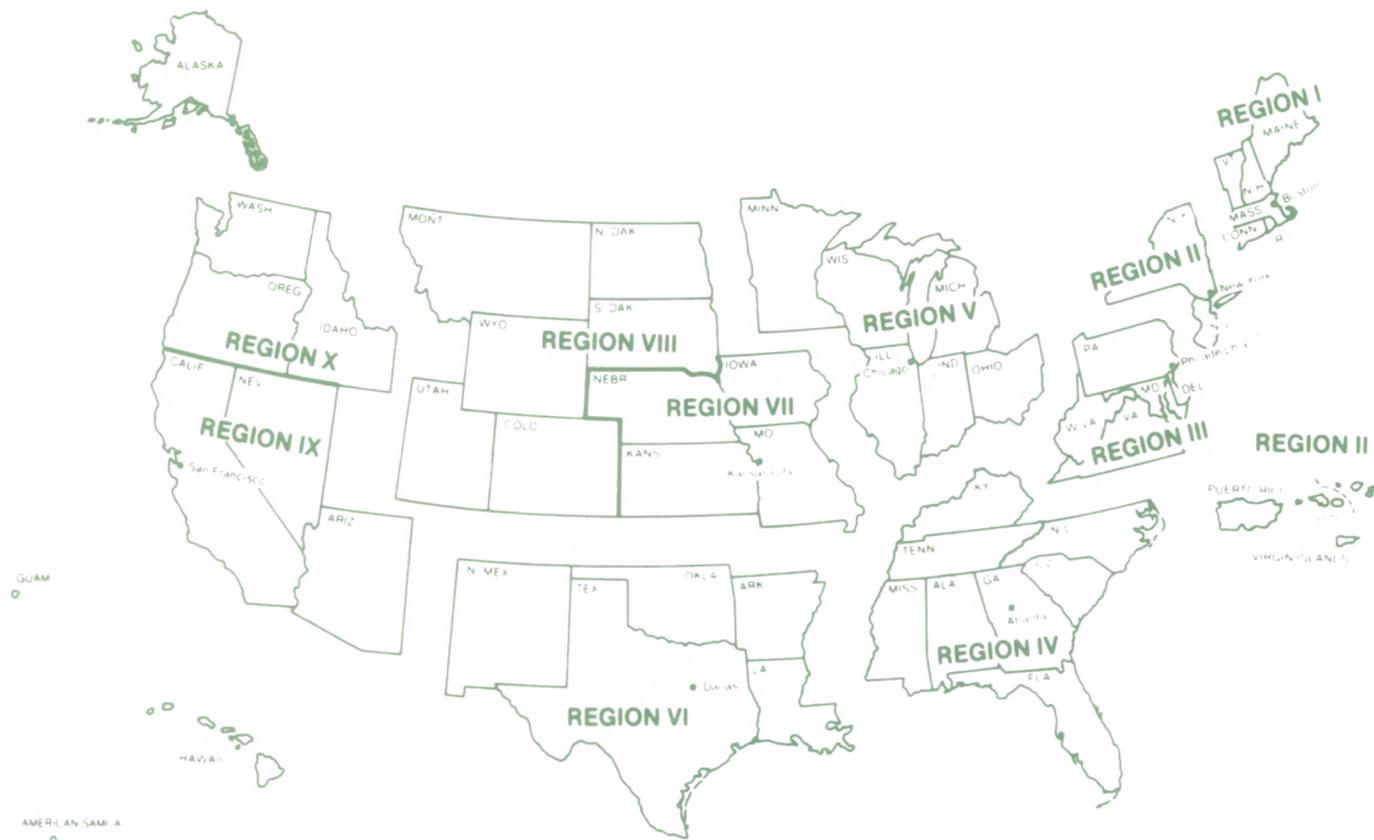
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