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Productivity Measures for Selected Industries, 1958-85

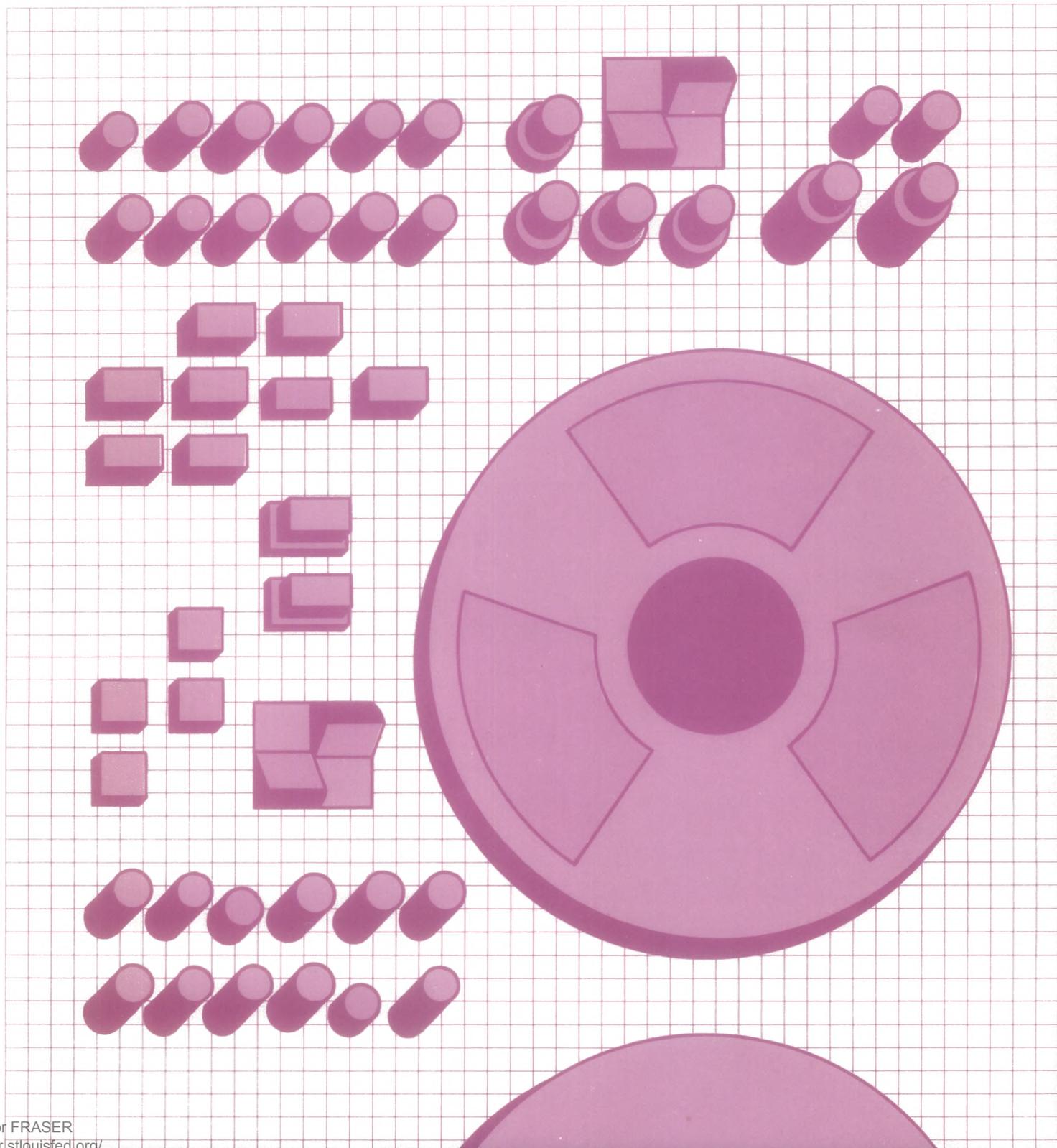


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Bureau of Labor Statistics
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Bulletin 2277



Productivity Measures for Selected Industries, 1958-85



U.S. Department of Labor
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Preface

This bulletin updates through 1985 indexes of output per employee hour and output per employee for the industries currently included in the productivity measurement program of the Federal Government. For most industries, indexes presented in this bulletin begin with 1958. However, for many of these industries data are available beginning with 1947 upon request to the Bureau of Labor Statistics.

Indexes are published for the first time for the following industries: Poultry dressing and processing; mining machinery; retail furniture, home furnishings, and equipment stores; and retail liquor stores. Articles on these industries will appear in the *Monthly Labor Review*.

The indexes represent 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 (BLS) publishes indexes of output per hour of all persons and related measures for the private business sector and the non-farm business, manufacturing, and nonfinancial corporate sectors. These productivity series show the relationship between gross product originating in these sectors and employment and hours. These data are presented in several publications of the BLS, including *Productivity and Costs* (quarterly news release), the *Monthly Labor Review*, and *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 to 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

Productivity, as measured by output per employee hour, increased in 1985 in about two-thirds of the industries for which data are presently available. These gains continued the productivity growth recorded in 1983 and 1984. However, the gains in 1985 were lower than the previous year in many industries.

Among important manufacturing industries, the motor vehicles industry registered an above-average gain of 5.7 percent. Demand for motor vehicles continued strong, and output was up 7.1 percent while employee hours grew 1.3 percent. This was the fifth consecutive annual gain in productivity in this industry.

Productivity also was up in the steel industry, growing 5.5 percent in 1985, following a 12.4-percent gain in the previous year. Steel industry productivity has grown for 3 consecutive years. The 1985 increase, however, reflected a decline in output of 3.0 percent and a larger drop in employee hours of 8.1 percent. Demand for steel was down sharply in 1985, especially from capital goods markets, and the industry continued shutting down less efficient plant and equipment.

Other important manufacturing industries with significant productivity gains in 1985 included construction machinery (10.4 percent), petroleum refining (8.4 percent), and synthetic fibers (7.6 percent). In the construction machinery industry, output was up 4.9 percent in 1985 as strong demand continued due to sustained expansion in construction activity. Petroleum refining output remained flat in 1985; however, employee hours dropped off sharply (-7.8 percent) as small inefficient refineries continued to be closed. In the synthetic fibers industry, output was up 1.5 percent based on divergent trends for noncellulosic fibers (up sharply) and cellulosic fibers (down sharply), while hours overall were declining (-5.7 percent).

A number of other large manufacturing industries posted gains in 1985, including soft drinks (4.8 percent), sawmills (2.8 percent), pharmaceutical preparations (2.7 percent), gray iron foundries (2.2 percent), motors and generators (1.7 percent), and paper, paperboard, and pulp mills (0.2 percent).

At the same time, several large manufacturing industries registered productivity declines. Some of these were: Farm and garden machinery (-6.3 percent), hosiery (-3.5 percent), footwear (-0.9 percent), tires and inner tubes (-0.7 percent), and nonwool yarn mills (-0.5 percent). With the exception of hosiery (where output declined and employee hours rose

modestly), output and hours declined in all of these industries. However, decreases in output exceeded decreases in hours, contributing to declines in productivity.

All of the mining industries (except for crushed and broken stone) recorded productivity gains in 1985. Coal mining, the largest, experienced a gain of 2.0 percent following a much larger gain of 11.2 percent in 1984. Coal mine output fell in 1985 (1.1 percent) due to a reduction in demand caused by mild weather and a drawdown of stockpiles built up because of an anticipated strike in 1984 which never took place. Hours in the industry declined 3.1 percent. Productivity in iron mining (usable ore) was up 7.8 percent compared with a 22.9-percent gain in the previous year. Output was down 5.3 percent as demand from the steel industry fell, and hours declined 12.2 percent as a number of mining operations were temporarily shut down. In copper mining (recoverable metal), productivity was up 21.9 percent. Output grew only 1.4 percent in 1985 due to a continued drop in the price of copper, while hours fell 16.8 percent as marginal mining operations were closed. Nonmetallic mineral mining had a productivity gain of 2.3 percent. Output grew 3.7 percent in this industry as demand continued from the construction industry.

Productivity changes were mixed among transportation and utility industries. In railroads (revenue traffic), productivity was up 6.2 percent, continuing the growth registered in the previous year. Railroad output fell 0.5 percent as shipments of coal, grain, metallic ores, forest products, and other commodities were down while hours fell 6.3 percent. Productivity in air transportation grew 3.3 percent, compared with a 3.9-percent gain in the previous year; output was up 8.6 percent and employment grew 5.1 percent. Petroleum pipelines productivity dropped 0.2 percent compared with a 10.8-percent gain in 1984. Output recorded no change (as in petroleum refining), while hours increased slightly. Productivity in telephone communications was up 4.8 percent with output growing 2.5 percent and hours falling 2.2 percent. Productivity declined in both gas and electric utilities. In gas utilities, productivity fell 3.5 percent as output decreased 3.7 percent, due mainly to mild weather in 1985, while hours dropped 0.3 percent. In electric utilities, productivity registered a 0.2-percent decline as output grew 2.0 percent, while hours were up 2.2 percent due partly to growth in the number of residential customers.

Productivity changes also varied among the trade and

service industries. Apparel and accessory stores had the largest gain in this group, up 5.7 percent, with all of the component retail apparel industries recording productivity gains. Output was up 4.0 percent and hours were off 1.6 percent in this industry. Based on substantial output and productivity increases in the appliance, radio, television, and music store segment, the furniture, home furnishings, and equipment stores industry recorded the second highest gain in output per hour (2.9 percent). Gasoline service stations had a productivity gain of 2.6 percent. Output increased only 0.2 percent, while hours continued their long-term decline, falling 2.2 percent. The remaining trade and service industries registered productivity declines. Despite an output gain in all but one of these industries, hours increased even more, resulting in productivity declines. Productivity fell 0.6 percent in liquor stores as output dropped 4.7 percent. New car dealer productivity dropped 0.5 percent, although there was a significant output gain. In retail food stores, productivity fell 1.0 percent, due in part to the continuing trend toward more service-oriented operations such as delicatessens, in-store bakeries, and salad bars. Productivity dropped 2.2 percent in eating and drinking places, 4.1 percent in beauty and barber shops, 4.2 percent in drug stores, and 5.0 percent in hotels and motels, and laundries and cleaning services.

Long-term trends

For nearly all of the industries in this report, productivity increased over the long term (1947-85 for many of the industries). Among the industries with the highest growth in productivity were the wet corn milling and telephone communications industries, with average annual increases in output per hour of 7.8 and 6.2 percent, respectively. 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 the resulting modernization of the industry. The long-term productivity growth in telephone communications was, in the early years, largely attributable to the diffusion of direct dialing, especially for long distance, which permitted a reduction in the number of telephone operators. In more recent years, electronic switching and increased computerization reduced the need for repair and maintenance labor.

On the other hand, several industries did fail to establish productivity growth over the long term. Among the most prominent of these was the mining machinery and equipment industry. Although the industry has introduced new technology and work methods, major shifts in the demand for coal have created wide variability in capacity utilization rates. These periods of both strained and excess capacity have resulted in lower productivity. 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 0.3 percent. This industry typically manufactures parts in small batches which require relatively large amounts of labor and it has

had few opportunities to install highly efficient machinery. Bus carriers, while not exhibiting declining productivity, experienced no growth during the long term. 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 1980-85 period (see chart 1 and table 1), about one-half of the industries recorded lower average annual gains in the more recent period than during 1947-80. The slower growth in productivity among many of these industries was associated with less rapid output growth in the later period.

However, among the industries that experienced an increase in the rate of productivity expansion, several were notable. The radio and television receiving sets industry substantially improved its rate of productivity growth in the last few years—18.9 percent a year during 1980-84 as opposed to 4.8 percent annually from 1958 to 1980. Output in this industry increased at a rate of 9.1 percent in the later period while employee hours declined in every year, averaging -8.3 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 1980-85 period—15.6 percent per year versus 2.4 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.

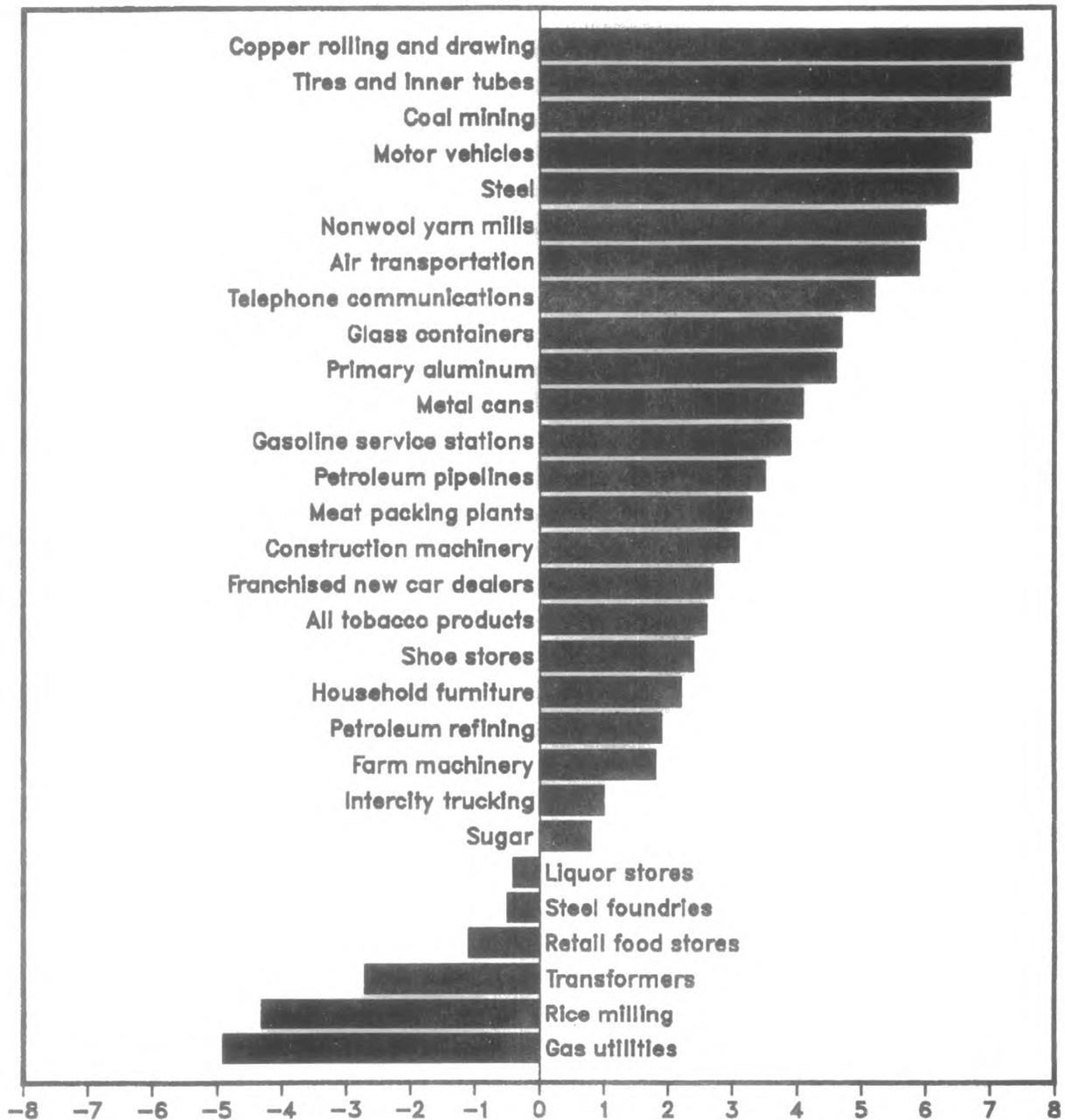
Among the industries that experienced productivity declines in the post-1980 period, gas utilities dropped the most—from a gain of 2.9 percent annually during the earlier period to a decline of 4.9 percent per year for the 1980-85 period. The output of this industry fell at a rate of 4.1 percent during 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. The rice milling industry also was among those industries that exhibited a marked falloff (-4.3 percent) in productivity during 1980-85. Prior to 1980, the industry posted an average annual gain in productivity of 2.3 percent. Output, which is to a large extent dependent on demand from abroad, increased only fractionally in 1985 after 3 years of marked declines. Thus, expanded foreign production and slackened domestic exports coupled with the effect of crop support programs have caused output to decline.

New measures

Poultry dressing and processing (SIC 2016, 2017). Output per employee hour in the poultry dressing and processing industry rose at an average annual rate of 2.9 percent

Chart 1. Growth in output per employee hour in selected industries, 1980–85

(Average annual percent change)



between 1963 and 1984—slightly higher than the rate for manufacturing as a whole, 2.2 percent. Output increased 5.2 percent a year and employee hours, 2.3 percent. This long-term trend in productivity, however, masks four distinct periods during which annual rates changed markedly.

Prior to 1970, poultry processing was still a predominantly manual operation, although some mechanization, such as killing machines, was introduced in the 1960's. Increases in output during this period were matched almost exactly by increases in employee hours, and productivity advanced by only 0.9 percent per year. In the early 1970's, automated eviscerating and cutting machines were widely installed.

These helped hold down employee hours even as the output of poultry products increased. Output per employee hour jumped to about three times the annual rate registered in the 1960's (2.7 percent per year). By the late 1970's, however, most of the productivity gains stemming from this wave of automation had been realized and output gains were often matched or exceeded by increases in employee hours. Growth in productivity retreated to 2.0 percent a year.

Between 1980 and 1984, output per employee hour again rose at a rapid pace (5.6 percent). During this period, poultry output increased at an average annual rate of 4.9 percent, spurred by growing consumer demand, higher valued poultry

products—such as preformed patties—and new retail outlets in the fast food industry. Concurrently, the introduction of new processing technologies and streamlined Federal inspection procedures contributed to a decline in employee hours that averaged 0.7 percent a year.

Mining machinery (SIC 3532). Productivity in the mining machinery industry, as measured by output per employee hour, declined at an average annual rate of 1.2 percent from 1972 to 1984. This trend was substantially below the rate for the manufacturing sector, which grew at a rate of 2.0 percent during this period. The decline in productivity was accompanied by a drop in output of 3.3 percent per year and a decline in employee hours of 2.2 percent annually. Capital expenditures for the industry were also at reduced levels.

The mining machinery industry produces heavy machinery and equipment which is specially designed for the underground mining of ores and coal. It includes extraction equipment such as augers, drills, drilling bits, continuous miners, roof bolting and cutting machines, and longwall mining machinery and supports. This machinery uses electric, diesel, or battery power. Other important products of the industry include beneficiation (ore-processing) and mineral pulverizing equipment, and mine transport equipment.

A highly competitive business, the mining machinery industry has felt not only the effects of falling coal prices, but also the repercussion of fuel shortages and various energy crises over the past 10 to 15 years. Currently, the coal mining industry is faced with excess capacity which has resulted in reduced demand for coal mining machinery. The general decline of U.S. mining over the years has led mining companies to purchase repair and replacement parts and to retrofit and rebuild existing machinery rather than purchase new equipment.

In recent years, this industry has introduced new techniques and work methods, the effects of which have not yet been reflected in an overall improvement in productivity. Research efforts have been successful in improving mining equipment but have resulted in higher costs and may have retarded productivity growth. Future improvements in industry productivity will, in large part, depend on increases in demand for the industry's output, the ability to introduce technological advances, and the wider diffusion of computer assisted design and computer assisted manufacturing systems.

Furniture, home furnishings, and equipment stores (SIC 57). Productivity, as measured by output per hour of all persons, grew at an average annual rate of 3.0 percent in the furniture and home furnishings stores industry from 1967 to 1985. This gain is significantly above the productivity growth rate for the nonfarm business sector of the economy, which increased at a rate of 0.9 percent over the same period. The productivity trend in the furniture store industry reflects an average annual increase in output of 4.8 percent and a gain in hours of all persons averaging 1.8 percent annually.

In addition to furniture stores, this industry includes a variety of retail stores. These include stores selling floor coverings, draperies, curtains, upholstery, miscellaneous home furnishings such as glassware, household appliances, radios and television sets, and music and records. Productivity measures have been developed for the furniture and home furnishings component of the industry and the appliance, radio, TV, and music store component, as well as for the overall industry.

Productivity growth was significantly different in the two components of the industry. Productivity grew at the high rate of 4.6 percent in the appliance, radio, and TV component from 1967 to 1985 while increasing at less than half that rate—1.9 percent—in the furniture and home furnishings component. The appliance, radio, and TV component had a significantly higher rate of output growth—6.6 percent per year, fueled by significant increases in demand for such fast selling items as microwave ovens, video recorders, color television sets, and personal audio equipment. On the other hand, output of the furniture and home furnishings component grew at a slower rate of 3.6 percent during 1967-85. This component of the industry was significantly affected by economic downturns during the period. The growth rate for hours of all persons was similar for the two components of this retail industry, increasing at a rate of 1.6 percent in furniture and home furnishings stores and at a rate of 2.0 percent in appliance, radio, and TV stores.

One of the most important innovations contributing to the advance of productivity in this industry has been the installation of computerized point-of-sale equipment. This technology varies in its sophistication but its object is to computerize the selling operation. In some cases, the items to be sold are coded using a label directly applied to the product with the price kept in the computer memory. Often, the computer terminals are tied into a companywide computer system that can be used for such purposes as inventory control, product reordering, and planning advertising campaigns.

Another innovation is the computerized warehouse. Such warehouses can use computer-controlled conveyor systems in which the computer controls the functions of storage, retrieval, and recording of information on inventories. However, such equipment is in limited use in this industry and is particularly difficult to adapt to furniture warehouses because of the bulky nature and large variety of items to be stored.

The shift toward chain store operations in this industry has gone hand-in-hand with a shift to more computerized sales and warehousing techniques. This is especially true in the appliance, radio, and TV component of the industry, where numerous regional chains and a few national chains have recorded significant growth during the period of exploding consumer electronics sales.

Retail liquor stores (SIC 592). Productivity in the retail liquor store industry, as measured by output per all-person

hour, increased at an average annual rate of 0.2 percent from 1972 to 1985. This is below the productivity growth rate for the total nonfarm business sector of the economy, which increased by 0.7 percent over the same period. This overall productivity gain reflects no change in output on an average annual basis and a corresponding decrease in all-person hours of 0.3 percent.

While overall growth in productivity and demand has been negligible in the liquor store industry, computer technology and the shift to self-service operations have helped to increase output per hour. Computers are often used in conjunction with other equipment, such as point-of-sale terminals and electronic scanning devices. The declining price of computers and the availability of inexpensive personal computers has

made this technology feasible for more and more liquor store operations.

Despite the benefits of computer technology, industry productivity has experienced very little growth over the years. Liquor store operations remain relatively labor intensive, which has prevented any significant advance in automation. The introduction of data processing equipment has enhanced the capabilities of managers and employees, but has not removed the basic need for their services. Opportunities to substitute machinery or equipment for employee time and effort have proven limited and have acted as a brake on productivity growth. Efforts to take advantage of the efficiencies associated with larger, multiunit operations have been limited by the restrictions of various State and local laws.

Table 1. Selected industries: Employment, 1985, and average annual rates of change in output per employee hour, 1980-85

SIC code	Industry	Employment, 1985 (thousands)			Output per employee hour: Average annual rate of change, 1980-85 (percent) ¹		
		All employees	Production workers	Non-production workers	All employees	Production workers	Non-production workers ²
Mining							
1011	Iron mining, crude ore	10	7	3	9.1	10.6	4.6
1011	Iron mining, usable ore	10	7	3	9.4	10.9	4.9
1021	Copper mining, crude ore	13	10	3	10.5	12.4	5.4
1021	Copper mining, recoverable metal	13	10	3	15.6	17.6	10.2
111,121	Coal mining	187	153	34	7.0	7.4	5.2
121	Bituminous coal and lignite mining	185	151	34	7.1	7.4	5.3
14	Nonmetallic minerals, except fuels	110	84	26	2.8	3.1	1.8
142	Crushed and broken stone	38	30	8	1.6	2.0	-0.5
Manufacturing							
2011,13	Red meat products	216	172	44	32.5	32.5	32.5
2011	Meat packing plants	142	118	24	3.3	3.1	4.3
2013	Sausages and other prepared meats	74	54	20	⁽³⁾ ⁽⁴⁾	³ -0.2	30.5
2016,17	Poultry dressing and processing	149	136	13	35.6	⁽⁵⁾	⁽⁵⁾
2026	Fluid milk	87	42	45	34.9	⁽⁵⁾	⁽⁵⁾
203	Preserved fruits and vegetables	237	195	42	33.3	33.6	32.1
2033	Canned fruits and vegetables	82	68	14	33.8	34.3	31.2
204	Grain mill products	126	85	41	36.0	36.8	34.2
2041,45	Flour including flour mixes) and other grains	30	20	10	36.4	36.6	35.6
2041	Flour and other grain mill products	22	14	8	5.9	5.0	9.3
2043	Cereal breakfast foods	19	14	5	34.9	36.6	³ -4.2
2044	Rice milling	5	4	1	-4.3	-3.1	-8.3
2046	Wet corn milling	10	7	3	311.1	310.7	312.1
2047,48	Prepared feeds for animals and fowls	62	40	22	36.2	37.2	34.5
205	Bakery products	211	126	85	33.7	35.2	31.6
2061,62,63	Sugar	22	18	4	0.8	0.6	1.7
2061,63	Raw and refined cane sugar	14	10	4	0.5	0.2	1.5
2063	Beet sugar	9	8	1	1.3	1.1	2.1
2065	Candy and confectionery products	54	44	10	⁽⁵⁾	⁽⁵⁾	⁽⁵⁾
2082	Malt beverages	43	28	15	3.8	3.4	4.9
2086	Bottled and canned soft drinks	127	41	86	6.0	6.8	5.6
2111,21,31	All tobacco products	54	40	14	2.6	4.7	-5.1
2111,31	Cigarettes, chewing and smoking tobacco	48	36	12	2.3	4.4	-5.1
2121	Cigars	5	4	1	5.9	6.9	-1.5
2251,52	Hosiery	69	62	7	1.0	1.0	1.2
2281	Nonwool yarn mills	72	65	7	6.0	6.0	6.2
2421	Sawmills and planing mills, general	161	143	18	5.9	5.6	8.0
2431	Millwork	89	72	17	³ -2.2	³ -2.8	30.5
2434	Wood kitchen cabinets	61	50	11	³ -1.0	³ -1.3	³ -1.0
2435,36	Veneer and plywood	60	54	6	34.4	33.6	31.0
2435	Hardwood veneer and plywood	23	20	3	31.1	31.2	1.0
2436	Softwood veneer and plywood	38	34	4	36.0	34.7	317.4
251	Household furniture	295	247	48	2.2	1.9	3.9
2511,17	Wood household furniture	140	122	18	32.0	31.7	34.1
2512	Upholstered household furniture	92	75	17	34.6	34.2	36.4
2514	Metal household furniture	28	22	6	36.2	36.1	36.4
2515	Mattresses and bedsprings	29	22	7	³ -1.0	³ -1.6	30.9
252	Office furniture	66	51	15	31.0	30.7	31.8
2521	Wood office furniture	32	25	7	³ -3.5	³ -4.9	1.8
2522	Metal office furniture	34	26	8	33.2	33.7	31.7
2611,21,31,61	Paper, paperboard, and pulp mills	254	193	61	3.7	3.8	3.6
2643	Paper and plastic bags	51	40	11	33.2	33.2	3.0
2651	Folding paperboard boxes	43	34	9	0.1	0.2	-0.6
2653	Corrugated and solid fiber boxes	103	78	25	1.7	1.2	3.2
2823,24	Synthetic fibers	83	61	22	3.1	2.8	4.0
2834	Pharmaceutical preparations	165	76	89	2.1	3.3	⁽⁵⁾
2841	Soaps and detergents	42	26	16	³ -2.5	³ -2.9	³ -1.6
2844	Cosmetics and other toiletries	66	45	21	31.5	⁽³⁾ , ⁽⁴⁾	34.4
2851	Paints and allied products	64	31	33	4.0	4.1	3.9
2911	Petroleum refining	140	81	59	1.9	1.4	3.0
3011	Tires and inner tubes	94	65	29	7.3	6.3	11.2
3079	Miscellaneous plastics products	552	437	115	33.7	33.1	35.7
314	Footwear	100	85	15	1.6	1.8	0.1
3221	Glass containers	47	42	5	4.7	4.8	4.3
3241	Hydraulic cement	23	18	5	9.5	10.5	6.0
325	Structural clay products	38	29	9	2.2	1.5	5.4
3251,53,59	Clay construction products	29	24	5	2.7	1.9	6.5

See footnotes at end of table.

Table 1. Selected industries: Employment, 1985, and average annual rates of change in output per employee hour, 1980-85—Continued

SIC code	Industry	Employment, 1985 (thousands)			Output per employee hour: Average annual rate of change, 1980-85 (percent) ¹		
		All employees	Production workers	Non-production workers	All employees	Production workers	Non-production workers ²
Manufacturing—Continued							
3251	Brick and structural clay tile	18	14	4	2.0	0.8	7.7
3253	Ceramic wall and floor tile	9	7	2	³ 3.2	³ 2.8	³ 5.1
3255	Clay refractories	8	6	2	1.4	1.0	2.5
3271,72	Concrete products	88	66	22	³ 2.6	³ 2.5	³ 2.7
3273	Ready-mixed concrete	99	80	19	³ 0.5	⁽⁵⁾	⁽⁵⁾
331	Steel	305	233	72	6.5	6.7	5.8
90	Gray iron foundries	90	74	16	4.1	3.6	6.3
43	Steel foundries	43	32	11	-0.5	⁽⁴⁾	-2.4
3331,32,33	Primary copper, lead, and zinc	10	7	3	11.6	11.8	10.9
3331	Primary copper	6	4	2	12.4	11.9	14.4
3334	Primary aluminum	25	19	6	4.6	4.3	5.3
3351	Copper rolling and drawing	24	18	6	7.5	6.9	9.4
3353,54,55	Aluminum rolling and drawing	58	45	13	4.2	4.1	4.8
3411	Metal cans	47	41	6	4.1	3.8	6.2
3423	Hand and edge tools	41	30	11	³ -2.4	³ -1.7	³ -4.4
3441	Fabricated structural metal	79	56	23	³ 2.4	³ 2.4	³ 1.6
3442	Metal doors, sash, and trim	89	65	24	³ 3.4	³ 3.8	³ 2.3
3465,66,69	Metal stamping	205	167	38	³ 2.1	³ 2.0	³ 2.7
3465	Automotive stampings	105	90	15	³ 6.1	³ 5.0	³ 12.5
3469	Metal stampings, n.e.c.	95	73	22	³ -1.9	³ -0.9	³ -5.8
3494	Valves and pipe fittings	87	58	29	³ 0.3	³ 1.2	³ -1.8
3498	Fabricated pipe and fittings	22	16	6	³ 1.7	³ 2.2	³ 0.2
3519	Internal combustion engines, n.e.c.	70	47	23	³ 0.4	³ 1.6	³ -2.2
352	Farm and garden machinery	98	66	32	1.6	1.5	1.9
3523	Farm machinery and equipment	75	49	26	1.8	2.7	-0.3
3524	Lawn and garden equipment	23	18	5	0.6	-2.2	9.6
3531	Construction machinery and equipment	87	53	34	3.1	3.7	2.0
3532	Mining machinery	21	13	8	³ -0.1	³ 2.7	³ -4.3
3533	Oilfield machinery and equipment	66	42	24	³ -3.3	³ -0.4	³ -9.1
3541,42	Machine tools	73	46	27	0.1	2.2	-3.8
3541	Metal-cutting machine tools	54	34	20	-0.8	2.0	-5.6
3542	Metal-forming machine tools	19	12	7	2.5	3.2	1.3
3545	Machine tool accessories	56	39	17	³ -2.6	³ -1.9	³ 4.1
3561,63	Pumps and compressors	76	44	32	³ 1.1	³ 3.6	³ -2.6
3561	Pumps and pumping equipment	51	30	21	³ 1.0	³ 3.3	³ -2.3
3562	Ball and roller bearings	47	35	12	-0.4	0.1	-2.4
3563	Air and gas compressors	25	14	11	³ 0.8	³ 3.8	³ -3.3
3585	Refrigeration and heating equipment	122	87	35	³ 2.3	³ 1.3	³ 4.5
3612	Transformers	54	39	15	-2.7	-3.6	-0.6
3613	Switchgear and switchboard apparatus	62	44	18	1.0	1.8	-0.9
3621	Motors and generators	99	77	22	2.2	1.9	3.0
3631,32,33,39	Major household appliances	83	67	16	4.1	3.4	7.3
3631	Household cooking equipment	22	18	4	5.9	5.1	8.4
3632	Household refrigerators and freezers	25	19	6	3.3	3.5	2.7
3633	Household laundry equipment	21	17	4	4.1	2.9	10.2
3639	Household appliances, n.e.c.	15	13	2	2.4	1.0	9.4
3641	Electric lamps	28	24	4	5.2	5.6	2.9
3645,46,47,48	Lighting fixtures	70	53	17	3.0	2.3	5.1
3651	Radio and television receiving sets	66	44	22	³ 18.9	³ 18.2	³ 21.0
371	Motor vehicles and equipment	876	679	197	6.7	5.1	11.9
3825	Instruments to measure electricity	110	58	52	³ 4.7	³ 4.2	³ 5.2
Other							
401 class I	Railroad transportation, revenue traffic	323	⁶ 276	⁷ 47	9.6	⁶ 9.9	⁷ 7.6
401 class I	Railroad transportation, car-miles	323	⁶ 276	⁷ 47	6.4	⁶ 6.7	⁷ 4.5
4111,413,414 PTS	Bus carriers, class I	24	⁽⁵⁾	⁽⁵⁾	³ -1.6	⁽⁵⁾	⁽⁵⁾
4213	Intercity trucking	436	⁽⁵⁾	⁽⁵⁾	1.0	⁽⁵⁾	⁽⁵⁾
4213	Intercity trucking (general freight)	275	⁽⁵⁾	⁽⁵⁾	0.8	⁽⁵⁾	⁽⁵⁾
4511,4521 Part	Air transportation	370	⁽⁵⁾	⁽⁵⁾	⁶ 5.9	⁽⁵⁾	⁽⁵⁾
4612,13	Petroleum pipelines	19	13	⁽⁶⁾	3.5	3.4	⁽⁵⁾
4811	Telephone communications	915	⁶ 83	⁷ 232	5.2	⁽⁵⁾	⁽⁵⁾
491,92,93	Gas and electric utilities	826	⁶ 52	⁷ 174	-1.2	⁶ -0.5	⁽⁵⁾
491,493 Part	Electric utilities	607	⁽⁵⁾	⁽⁵⁾	0.2	⁽⁵⁾	⁽⁵⁾
492,493 Part	Gas utilities	219	⁽⁵⁾	⁽⁵⁾	-4.9	⁽⁵⁾	⁽⁵⁾
54	Retail food stores ⁹	3022	⁽⁵⁾	⁽⁵⁾	-1.1	⁽⁵⁾	⁽⁵⁾

See footnotes at end of table.

Table 1. Selected industries: Employment, 1985, and average annual rates of change in output per employee hour, 1980-85—Continued

SIC code	Industry	Employment, 1985 (thousands)			Output per employee hour: Average annual rate of change, 1980-85 (percent) ¹		
		All employees	Production workers	Non-production workers	All employees	Production workers	Non-production workers ²
Other—Continued							
5511	Franchised new car dealers	854	(5)	(5)	2.7	(5)	(5)
5541	Gasoline service stations ⁹	655	(5)	(5)	3.9	(5)	(5)
56	Apparel and accessory stores ⁹	1109	(5)	(5)	5.2	(5)	(5)
5611	Men's and boys' clothing stores ⁹	118	(5)	(5)	3.9	(5)	(5)
5621	Women's ready-to-wear stores ⁹	388	(5)	(5)	7.7	(5)	(5)
5651	Family clothing stores ⁹	230	(5)	(5)	4.8	(5)	(5)
5661	Shoe stores ⁹	218	(5)	(5)	2.4	(5)	(5)
57	Furniture, furnishings and equip. stores ⁹	896	(5)	(5)	3.3	(5)	(5)
571	Furniture and home furnishings stores ⁹	518	(5)	(5)	2.4	(5)	(5)
572,73	Appliance, radio, TV, and music stores ⁹	378	(5)	(5)	4.5	(5)	(5)
58	Eating and drinking places ⁹	6058	(5)	(5)	-1.2	(5)	(5)
5912	Drug and proprietary stores ⁹	567	(5)	(5)	-1.0	(5)	(5)
592	Liquor stores ⁹	166	(5)	(5)	-0.4	(5)	(5)
602	Commercial banking	1550	⁶ 1130	⁷ 420	33.7	(5)	(5)
7011	Hotels, motels, and tourist courts ⁹	1420	(5)	(5)	1.4	(5)	(5)
721	Laundry and cleaning services ⁹	446	(5)	(5)	-1.0	(5)	(5)
723,24	Beauty and barber shops ⁹	717	(5)	(5)	-0.7	(5)	(5)
723	Beauty shops ⁹	610	(5)	(5)	0.2	(5)	(5)

¹ Based on the linear least squares trends of the logarithms of the index numbers.

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

³ 1980-84.

⁴ Less than 0.05 percent.

⁵ Not available.

⁶ Nonsupervisory personnel.

⁷ Supervisory personnel and force account construction workers.

⁸ Output per employee.

⁹ Data relate to all persons, including proprietors, partners, and unpaid family workers.

n.e.c. = Not elsewhere classified.

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 in this bulletin 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 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 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 hours at work and also payroll hours such as vacations, holidays, and sick leave paid by the establishment directly to the employee.¹ In general, because of increases in paid leave during the period, output per employee hour worked 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

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

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 non-production workers.² Although both BLS and the 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 former 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 the 17 trade and service industries, 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.

² The term "production workers" covers manufacturing and mining employees who work at the plant or mine and who are generally in non-supervisory occupations. The remaining employees, such as professional, technical, clerical, supervisory, etc., are identified as "nonproduction workers."

All-employee hour estimates for the manufacturing industries are derived by summing the aggregate hours for production workers and the estimated hours for nonproduction 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 nonproduction 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 many of the industries, the 1985 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 1985 indexes were developed by linking employment and employee-hour data from BLS, since 1985 census data are not yet available. Therefore, all 1985 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 are available on request from the Bureau of Labor Statistics.

More detailed information on the methods, limitations, and data sources is contained in *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.

Index to Charts and Tables

Indexes of output per employee hour and related data

SIC code	Industry	Chart	Page	Table	Page
Mining					
1011	Iron mining, crude ore	2	16	2,3	17
1011	Iron mining, usable ore	3	18	4,5	19
1021	Copper mining, crude ore	4	20	6,7	21
1021	Copper mining, recoverable metal	5	22	8,9	23
111,121	Coal mining	6	24	10,11	25
121	Bituminous coal and lignite mining	7	26	12,13	27
14	Nonmetallic minerals, except fuels	8	28	14,15	29
142	Crushed and broken stone	9	30	16,17	31
Manufacturing					
2011,13	Red meat products	10	32	18,19	33
2011	Meat packing plants	11	34	20,21	35
2013	Sausages and other prepared meats	12	36	22,23	37
2016,17	Poultry dressing and processing	13	38	24,25	39
2026	Fluid milk	14	40	26	41
203	Preserved fruits and vegetables	15	42	27,28	43
2033	Canned fruits and vegetables	16	44	29,30	45
204	Grain mill products	17	46	31,32	47
2041,45	Flour (including flour mixes) and other grains	18	48	33,34	49
2041	Flour and other grain mill products	19	50	35,36	51
2043	Cereal breakfast foods	20	52	37,38	53
2044	Rice milling	21	54	39,40	55
2046	Wet corn milling	22	56	41,42	57
2047,48	Prepared feeds for animals and fowls	23	58	43,44	59
205	Bakery products	24	60	45,46	61
2061,62,63	Sugar	25	62	47,48	63
2061,62	Raw and refined cane sugar	26	64	49,50	65
2063	Beet sugar	27	66	51,52	67
2065	Candy and confectionery products	28	68	53,54	69
2082	Malt beverages	29	70	55,56	71
2086	Bottled and canned soft drinks	30	72	57,58	73
2111,21,31	All tobacco products	31	74	59,60	75
2111,31	Cigarettes, chewing and smoking tobacco	32	76	61,62	77
2121	Cigars	33	78	63,64	79
2251,52	Hosiery	34	80	65,66	81
2281	Nonwool yarn mills	35	82	67,68	83
2421	Sawmills and planing mills, general	36	84	69,70	85
2431	Millwork	37	86	71,72	87
2434	Wood kitchen cabinets	38	88	73,74	89
2435,36	Veneer and plywood	39	90	75,76	91
2435	Hardwood veneer and plywood	40	92	77,78	93
2436	Softwood veneer and plywood	41	94	79,80	95
251	Household furniture	42	96	81,82	97
2511,17	Wood household furniture	43	98	83,84	99
2512	Upholstered household furniture	44	100	85,86	101
2514	Metal household furniture	45	102	87,88	103
2515	Mattresses and bedsprings	46	104	89,90	105
252	Office furniture	47	106	91,92	107
2521	Wood office furniture	48	108	93,94	109
2522	Metal office furniture	49	110	95,96	111
2611,21,31,61	Paper, paperboard, and pulp mills	50	112	97,98	113
2643	Paper and plastic bags	51	114	99,100	115
2651	Folding paperboard boxes	52	116	101,102	117
2653	Corrugated and solid fiber boxes	53	118	103,104	119
2823,24	Synthetic fibers	54	120	105,106	121
2834	Pharmaceutical preparations	55	122	107,108	123
2841	Soaps and detergents	56	124	109,100	125
2844	Cosmetics and other toiletries	57	126	111,112	127
2851	Paints and allied products	58	128	113,114	129
2911	Petroleum refining	59	130	115,116	131
3011	Tires and inner tubes	60	132	117,118	133
3079	Miscellaneous plastics products	61	134	119,120	135
314	Footwear	62	136	121,122	137
3221	Glass containers	63	138	123,124	139
3241	Hydraulic cement	64	140	125,126	141
325	Structural clay products	65	142	127,128	143
3251,53,59	Clay construction products	66	144	129,130	145
3251	Brick and structural clay tile	67	146	131,132	147
3253	Ceramic wall and floor tile	68	148	133,134	149
3255	Clay refractories	69	150	135,136	151
3271,72	Concrete products	70	152	137,138	153
3273	Ready-mixed concrete	71	154	139	155

Indexes of output per employee hour and related data—Continued

SIC code	Industry	Chart	Page	Table	Page
Manufacturing—Continued					
331	Steel	72	156	140,141	157
3321	Gray iron foundries	73	158	142,143	159
3324,25	Steel foundries	74	160	144,145	161
3331,32,33	Primary copper, lead, and zinc	75	162	146,147	163
3331	Primary copper	76	164	148,149	165
3334	Primary aluminum	77	166	150,151	167
3351	Copper rolling and drawing	78	168	152,153	169
3353,54,55	Aluminum rolling and drawing	79	170	154,155	171
3411	Metal cans	80	172	156,157	173
3423	Hand and edge tools	81	174	158,159	175
3441	Fabricated structural metal	82	176	160,161	177
3442	Metal doors, sash, and trim	83	178	162,163	179
3465,66,69	Metal stamping	84	180	164,165	181
3465	Automotive stampings	85	182	166,167	183
3469	Metal stampings, n.e.c.	86	184	168,169	185
3494	Valves and pipe fittings	87	186	170,171	187
3498	Fabricated pipe and fittings	88	188	172,173	189
3519	Internal combustion engines, n.e.c.	89	190	174,175	191
352	Farm and garden machinery	90	192	176,177	193
3523	Farm machinery and equipment	91	194	178,179	195
3524	Lawn and garden equipment	92	196	180,181	197
3531	Construction machinery and equipment	93	198	182,183	199
3532	Mining machinery	94	200	184,185	201
3533	Oilfield machinery and equipment	95	202	186,187	203
3541,42	Machine tools	96	204	188,189	205
3541	Metal-cutting machine tools	97	206	190,191	207
3542	Metal-forming machine tools	98	208	192,193	209
3545	Machine tool accessories	99	210	194,195	211
3561,63	Pumps and compressors	100	212	196,197	213
3561	Pumps and pumping equipment	101	214	198,199	215
3562	Ball and roller bearings	102	216	200,201	217
3563	Air and gas compressors	103	218	202,203	219
3585	Refrigeration and heating equipment	104	220	204,205	221
3612	Transformers	105	222	206,207	223
3613	Switchgear and switchboard apparatus	106	224	208,209	225
3621	Motors and generators	107	226	210,211	227
3631,32,33,39	Major household appliances	108	228	212,213	229
3631	Household cooking equipment	109	230	214,215	231
3632	Household refrigerators and freezers	110	232	216,217	233
3633	Household laundry equipment	111	234	218,219	235
3639	Household appliances, n.e.c.	112	236	220,221	237
3641	Electric lamps	113	238	222,223	239
3645,46,47,48	Lighting fixtures	114	240	224,225	241
3651	Radio and television receiving sets	115	242	226,227	243
371	Motor vehicles and equipment	116	244	228,229	245
3825	Instruments to measure electricity	117	246	230,231	247
Other					
401 class I	Railroad transportation, revenue traffic	118	248	232,233	249
401 class I	Railroad transportation, car-miles	119	250	234,235	251
4111,413,414 Part	Bus carriers, class I	120	252	236	253
4213 Part	Intercity trucking	121	254	237	255
4213 Part	Intercity trucking (general freight)	122	256	238	257
4511,4521 Part	Air transportation	123	258	239	259
4612,13	Petroleum pipelines	124	260	240,241	261
4811	Telephone communications	125	262	242	263
491,92,93	Gas and electric utilities	126	264	243,244	265
491,493 Part	Electric utilities	127	266	245	267
492,493 Part	Gas utilities	128	268	246	269
54	Retail food stores	129	270	247	271
5511	Franchised new car dealers	130	272	248	273
5541	Gasoline service stations	131	274	249	275
56	Apparel and accessory stores	132	276	250	277
5611	Men's and boys' clothing stores	133	278	251	279
5621	Women's ready-to-wear stores	134	280	252	281
5651	Family clothing stores	135	282	253	283
5661	Shoe stores	136	284	254	285
57	Furniture, home furnishings, and equipment stores	137	286	255	287
571	Furniture and home furnishings stores	138	288	256	289
572,573	Appliance, radio, TV, and music stores	139	290	257	291

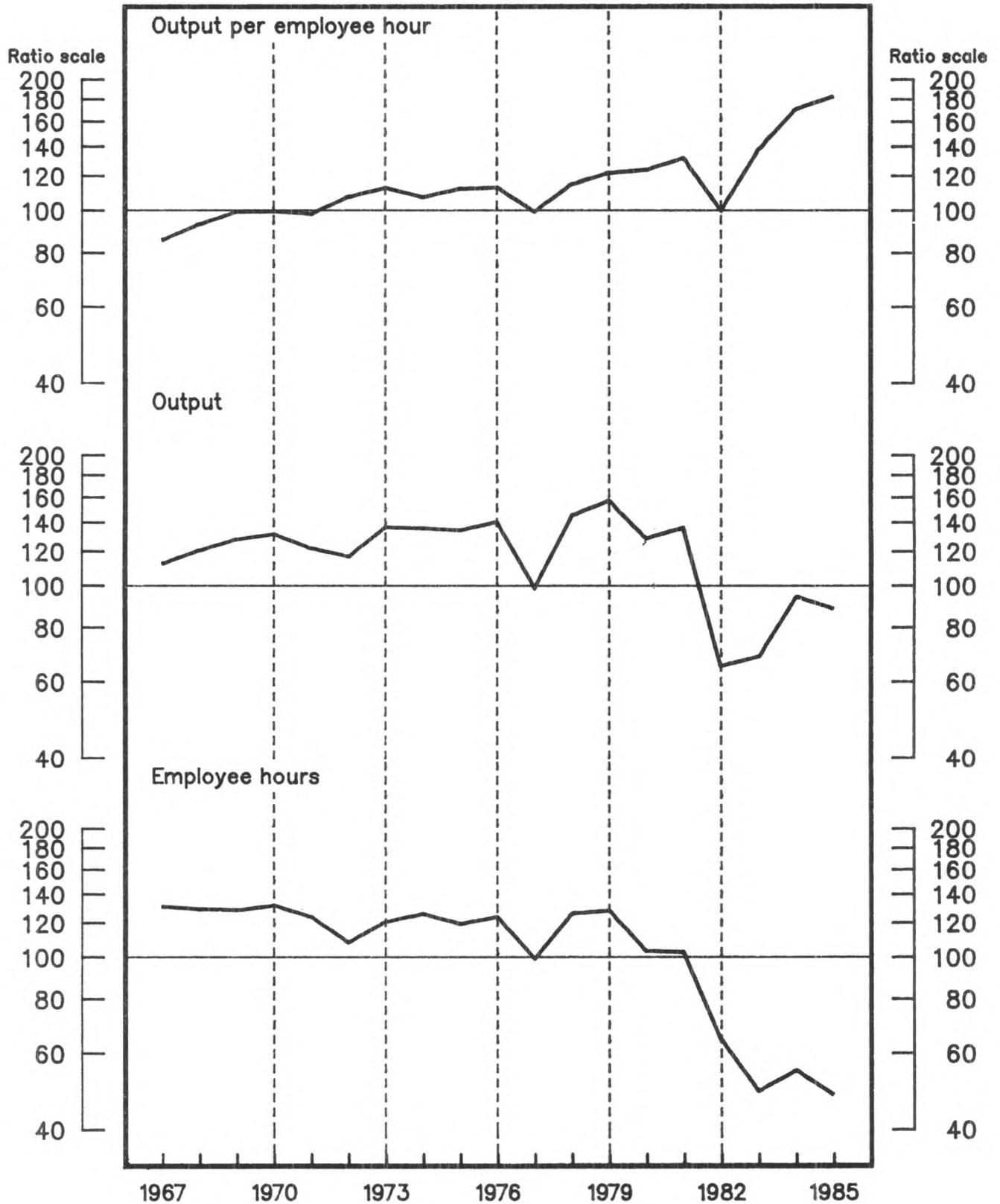
Indexes of output per employee hour and related data—Continued

SIC code	Industry	Chart	Page	Table	Page
Other—Continued					
58	Eating and drinking places	140	292	258	293
5912	Drug and proprietary stores	141	294	259	295
5921	Liquor stores	142	296	260	297
602	Commercial banking	143	298	261	299
7011	Hotels, motels, and tourist courts	144	300	262	301
721	Laundry and cleaning services	145	302	263	303
723,4	Beauty and barber shops	146	304	264	305
723	Beauty shops	147	306	265	307

Charts and Tables

Chart 2. Iron mining, crude ore (SIC 1011): Output per hour and related data, 1967-85

(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, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	126.4
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	172.1	176.2	161.2	160.4	166.9	143.6
1985 ²	183.7	183.7	184.1	175.0	177.8	167.1
Average annual percent change:						
1947-85	(³)	4.3	(³)	3.8	4.3	1.3
1980-85	9.1	10.6	4.6	9.3	10.7	5.3

¹ 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.

² Preliminary.

³ 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, 1958-85
(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	94.8	55.1	53.8	58.8	59.1	56.8	66.0
1985 ¹	88.9	48.4	48.4	48.3	50.8	50.0	53.2
Average annual percent change:							
1947-85	1.2	(²)	-3.0	(²)	-2.5	-3.0	-2
1980-85	-8.0	-15.7	-16.8	-12.1	-15.9	-16.9	-12.7

¹ Preliminary.

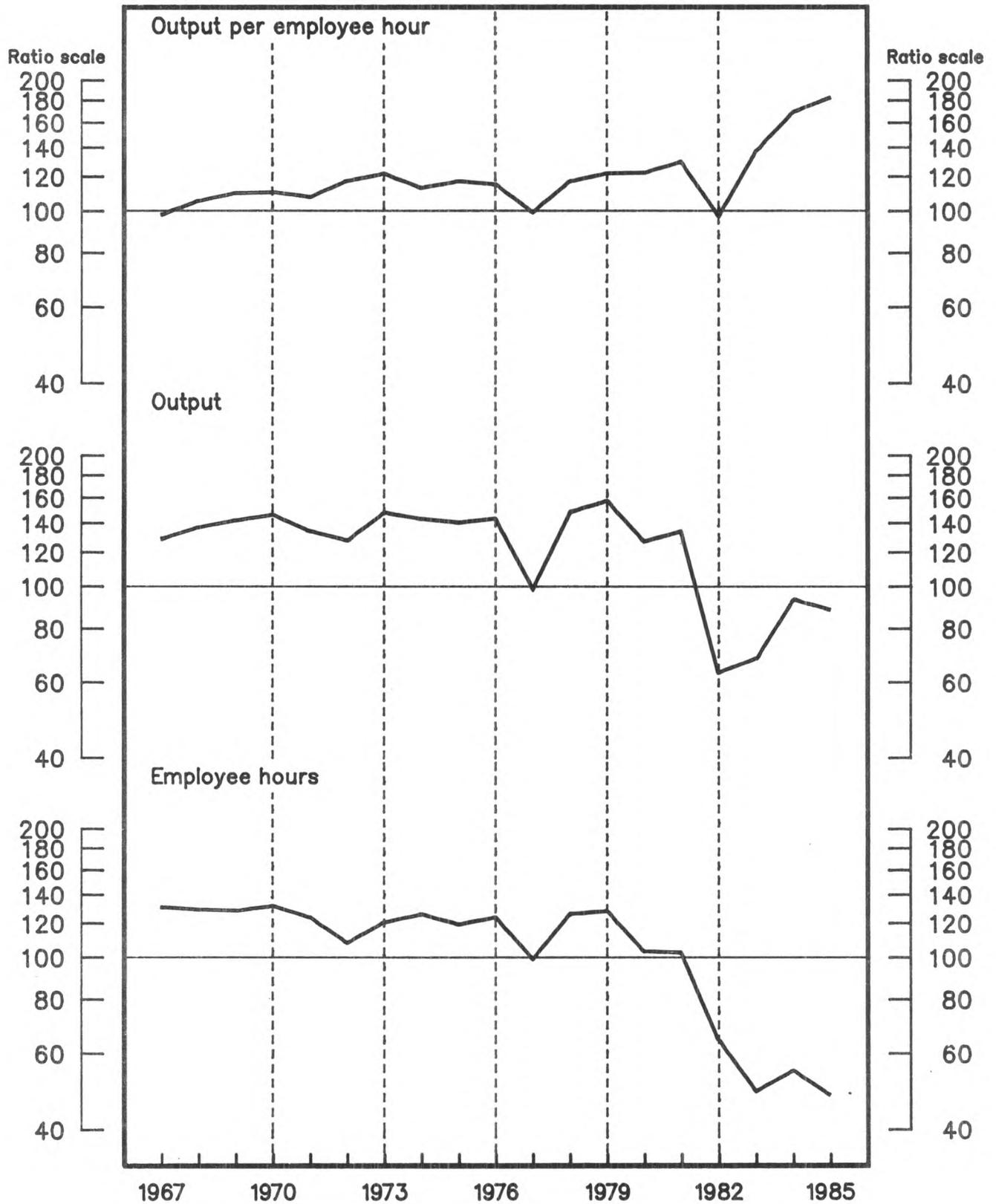
² Data not available.

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, 1967-85

(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, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	170.4	174.5	159.7	158.9	165.3	142.3
1985 ²	183.7	183.7	184.1	175.0	177.8	167.1
Average annual percent change:						
1947-85	(?)	3.1	(?)	2.6	3.2	.2
1980-85	9.4	10.9	4.9	9.6	11.0	5.7

¹ 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.

² Preliminary.

³ 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, 1958-85
(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	93.9	55.1	53.8	58.8	59.1	56.8	66.0
1985 ¹	88.9	48.4	48.4	48.3	50.8	50.0	53.2
Average annual percent change:							
1947-85	(?)	(?)	-3.0	(?)	-2.5	-3.0	-2
1980-85	-7.8	-15.7	-16.8	-12.1	-15.9	-16.9	-12.7

¹ Preliminary.

² Less than .05 percent.

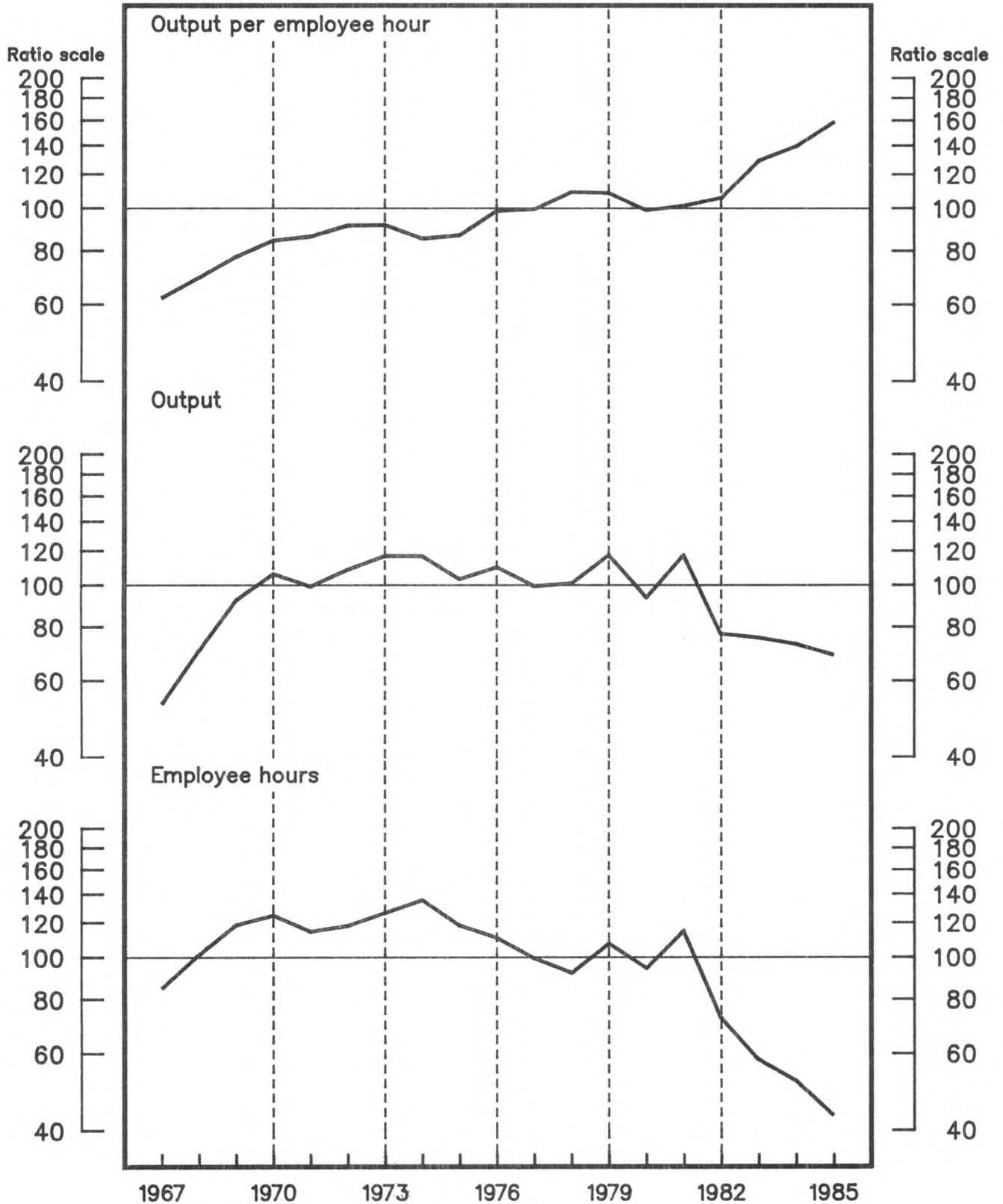
³ Data not available.

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, 1967-85

(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, 1958-85
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	140.3	153.2	110.4	151.3	164.9	119.7
1985 ²	159.3	167.4	138.0	173.7	182.8	149.7
Average annual percent change:						
1947-85	(³)	4.1	(³)	3.2	3.8	.8
1980-85	10.5	12.4	5.4	11.0	13.0	5.6

¹ 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.

² Preliminary.

³ 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, 1958-85
(1977=100)

Year	Output ¹	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	128.2	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	73.4	52.3	47.9	66.5	48.5	44.5	61.3
1985 ²	69.3	43.5	41.4	50.2	39.9	37.9	46.3
Average annual percent change:							
1947-85	3.2	(³)	-9	(³)	-1	-6	2.3
1980-85	-8.2	-17.0	-18.4	-12.9	-17.3	-18.7	-13.1

¹ Represents output in terms of copper ore sold or treated.

² Preliminary.

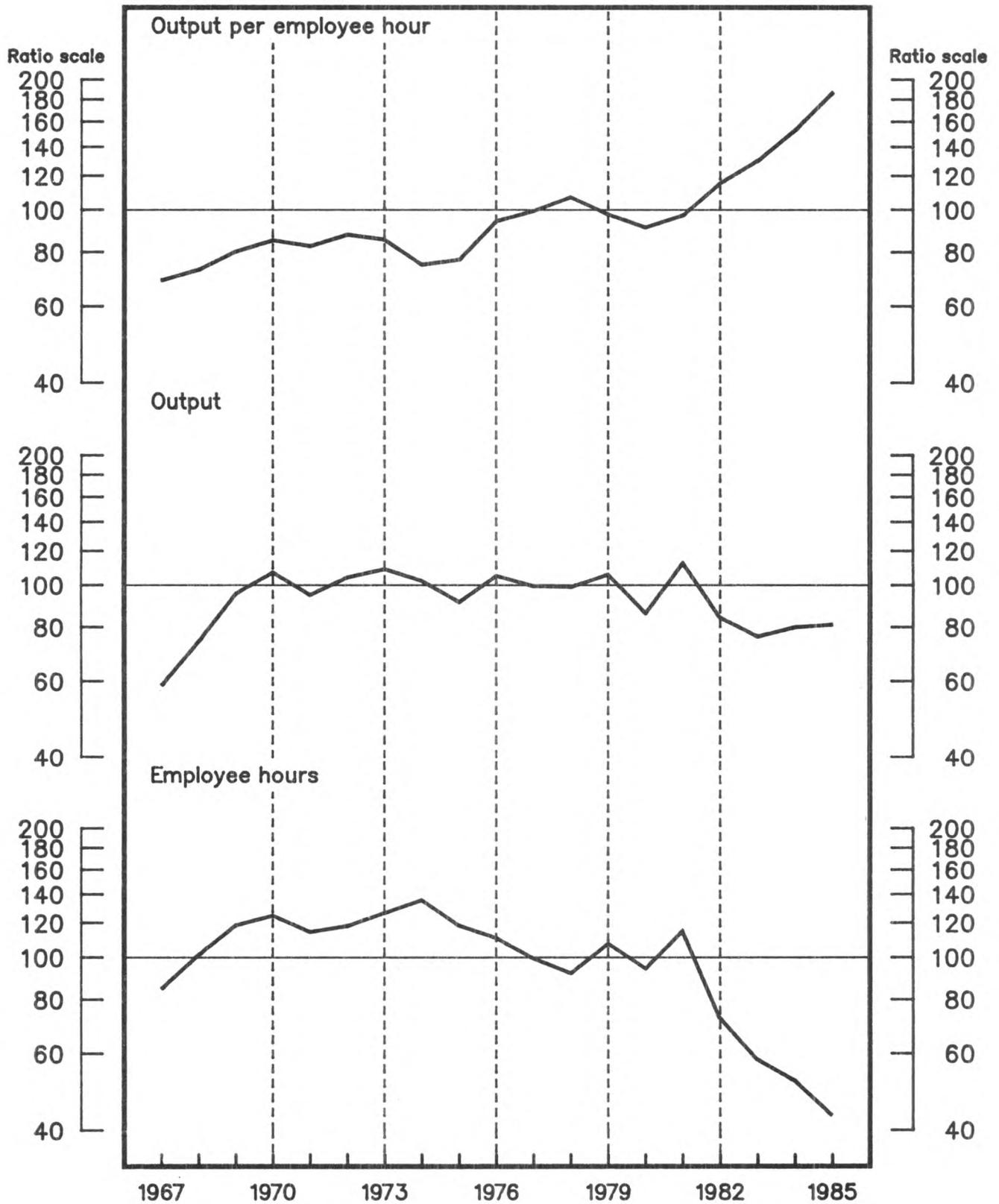
³ Data not available.

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, 1967-85

(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, 1958-85 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	83.9	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	153.9	168.1	121.1	166.0	180.9	131.3
1985 ²	187.6	197.1	162.5	204.5	215.3	176.2
Average annual percent change:						
1947-85	(³)	2.9	(³)	2.0	2.5	-4
1980-85	15.6	17.6	10.2	16.1	18.1	10.4

¹ 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.

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.

² Preliminary.

³ Data not available.

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

Table 9. Copper mining, recoverable metal (SIC 1021): Indexes of output, employee hours, and employees, 1958-85 (1977 = 100)

Year	Output ¹	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	76.7
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	96.7
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	80.5	52.3	47.9	66.5	48.5	44.5	61.3
1985 ²	81.6	43.5	41.4	50.2	39.9	37.9	46.3
Average annual percent change:							
1947-85	1.9	(³)	-9	(³)	-1	-6	2.3
1980-85	-4.0	-17.0	-18.4	-12.9	-17.3	-18.7	-13.1

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

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.

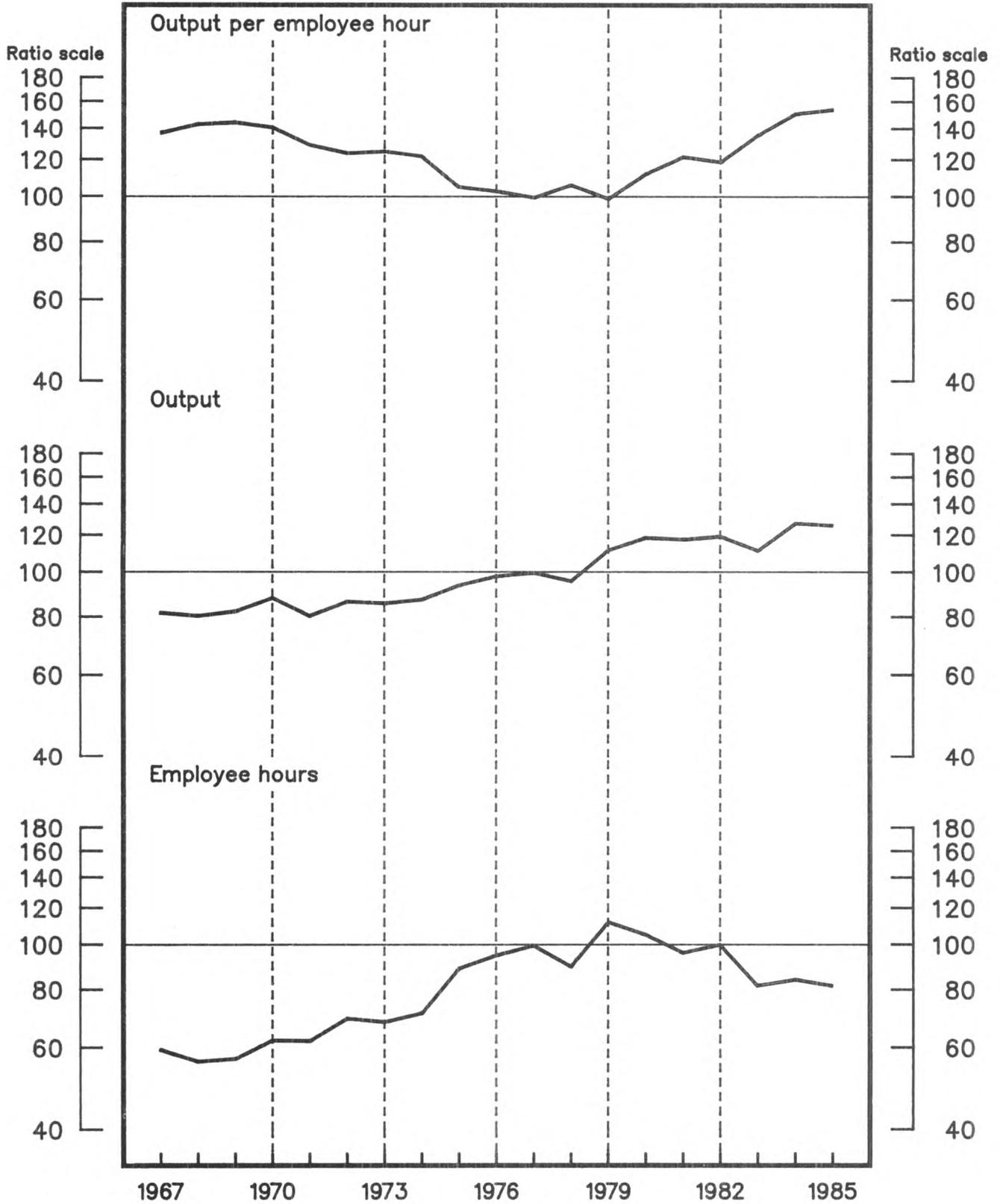
² Preliminary.

³ Data not available.

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

Chart 6. Coal mining (SIC 111, 121): Output per hour and related data, 1967-85

(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, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	151.3	158.2	120.8	147.1	155.0	114.3
1985 ²	154.4	160.3	128.4	152.2	158.7	122.6
Average annual percent change:						
1947-85	(³)	3.0	(³)	3.1	3.6	-9
1980-85	7.0	7.4	5.2	7.3	7.7	5.3

¹ 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.

² Preliminary.

³ 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, 1958-85
(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	127.7	84.4	80.7	105.7	86.8	82.4	111.7
1985 ¹	126.3	81.8	78.8	98.4	83.0	79.6	103.0
Average annual percent change:							
1947-85	1.1	(²)	-1.8	(²)	-1.9	-2.3	2.1
1980-85	1.4	-5.2	-5.6	-3.6	-5.5	-5.9	-3.7

¹ Preliminary.

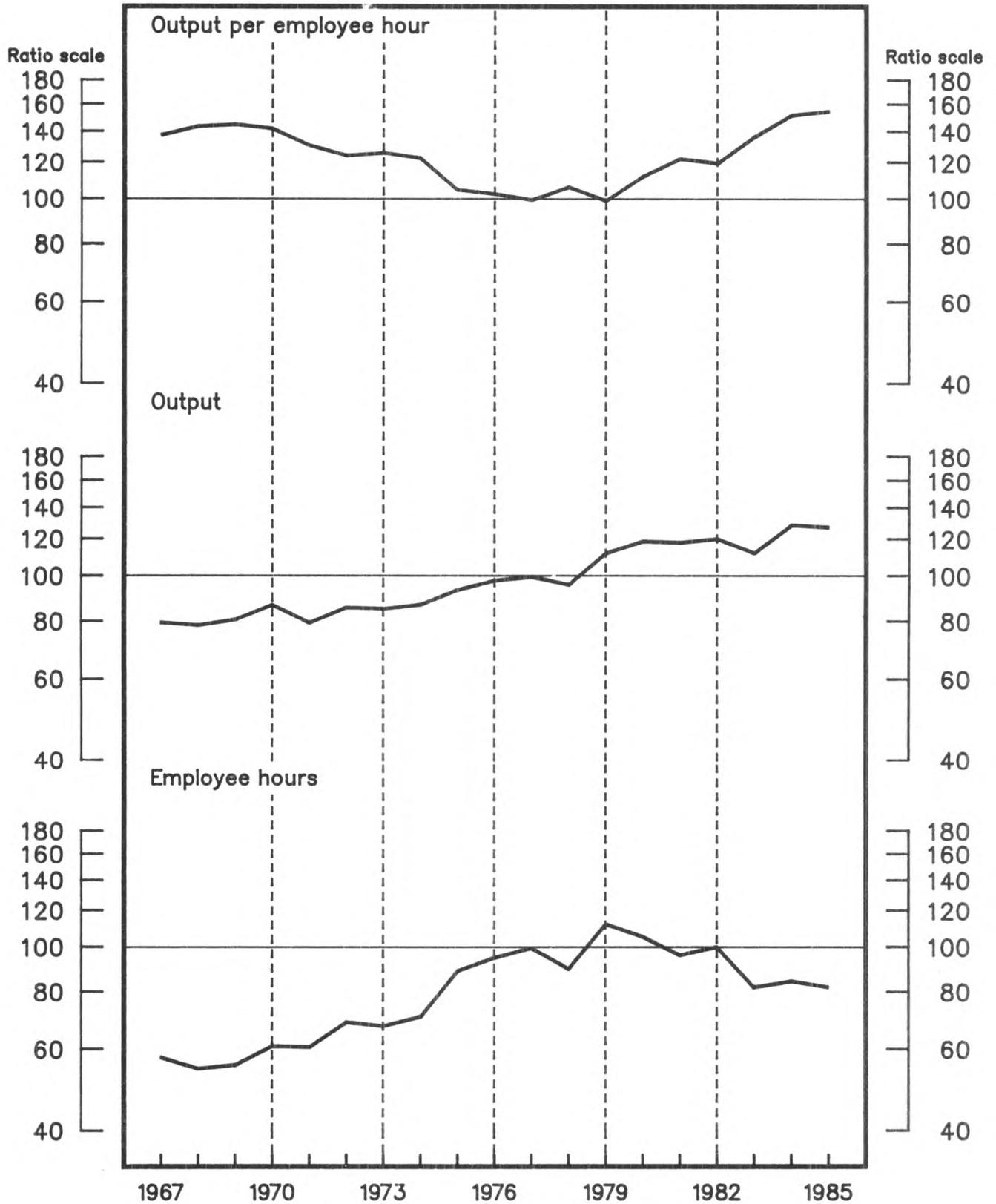
² Data not available.

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, 1967-85

(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, 1958-85
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	88.8	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	128.2	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	96.4
1984	152.3	159.5	121.9	148.6	156.4	115.3
1985 ²	155.2	161.1	128.9	153.4	160.1	123.5
Average annual percent change:						
1947-85	(³)	3.0	(³)	3.1	3.5	-1.2
1980-85	7.1	7.4	5.3	7.4	7.9	5.5

¹ 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.

² Preliminary.

³ 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, 1958-85
(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	129.0	84.7	80.9	105.8	86.8	82.5	111.9
1985 ¹	127.6	82.2	79.2	99.0	83.2	79.7	103.3
Average annual percent change:							
1947-85	1.6	(²)	-1.4	(²)	-1.4	-1.8	2.8
1980-85	1.5	-5.2	-5.5	-3.6	-5.5	-5.9	-3.7

¹ Preliminary.

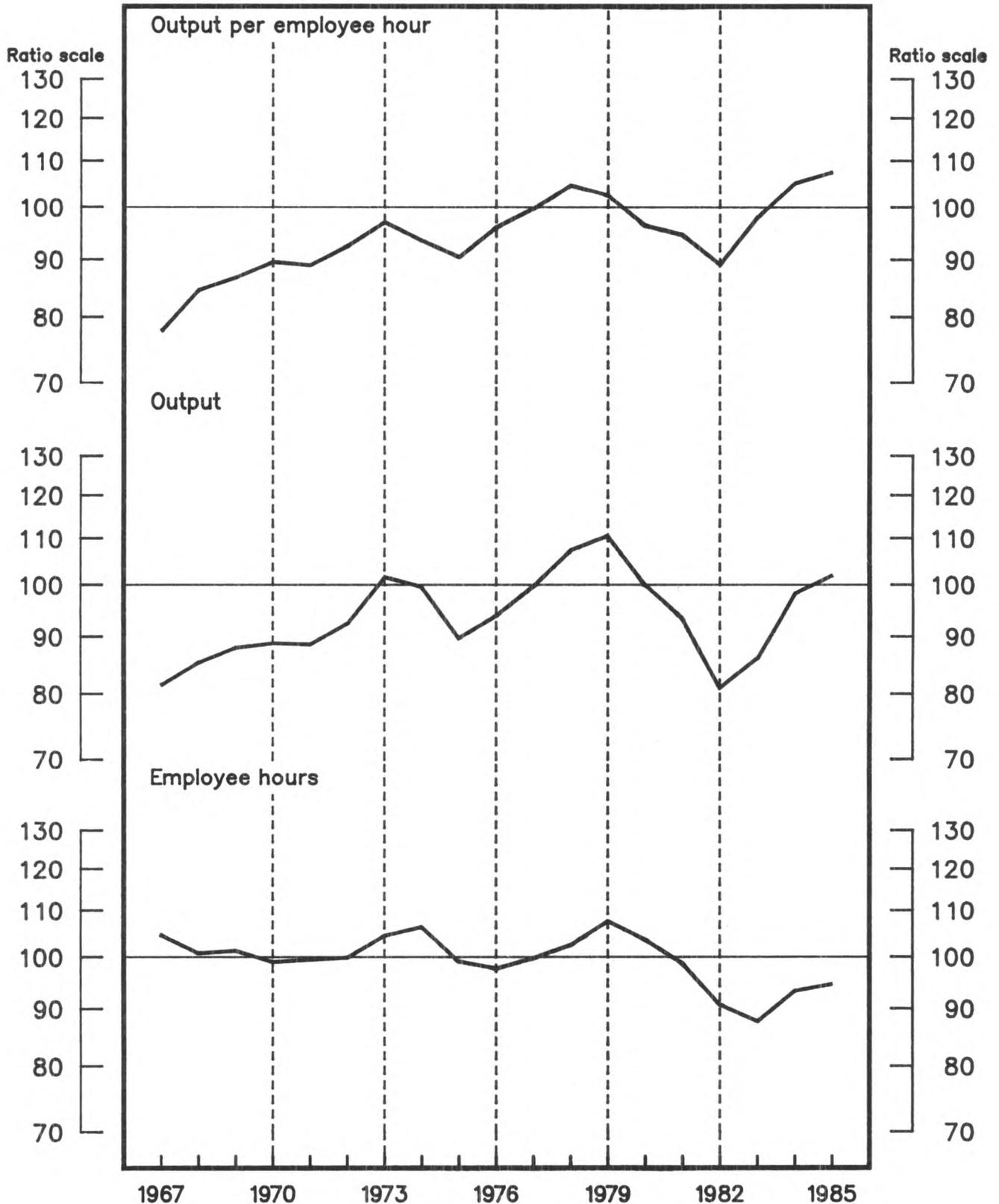
² Data not available.

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, 1967-85

(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, 1958-85 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	98.2	102.6	84.4	95.9	100.3	82.2
1984	105.3	109.0	93.5	105.2	109.2	92.4
1985 ²	107.7	111.7	94.7	107.1	111.5	93.2
Average annual percent change:						
1954-85	(³)	2.5	(³)	2.2	2.5	.5
1980-85	2.8	3.1	1.8	3.3	3.8	1.8

¹ 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.

² Preliminary.

³ 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, 1958-85 (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	106.8	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	86.3	87.9	84.1	102.3	90.0	86.0	105.0
1984	98.5	93.5	90.4	105.4	93.6	90.2	106.6
1985 ¹	102.1	94.8	91.4	107.8	95.3	91.6	109.5
Average annual percent change:							
1954-85	2.1	(²)	-4	(²)	(²)	-4	1.6
1980-85 .....	.9	-1.9	-2.1	-9	-2.4	-2.8	-9

¹ Preliminary.

² Data not available.

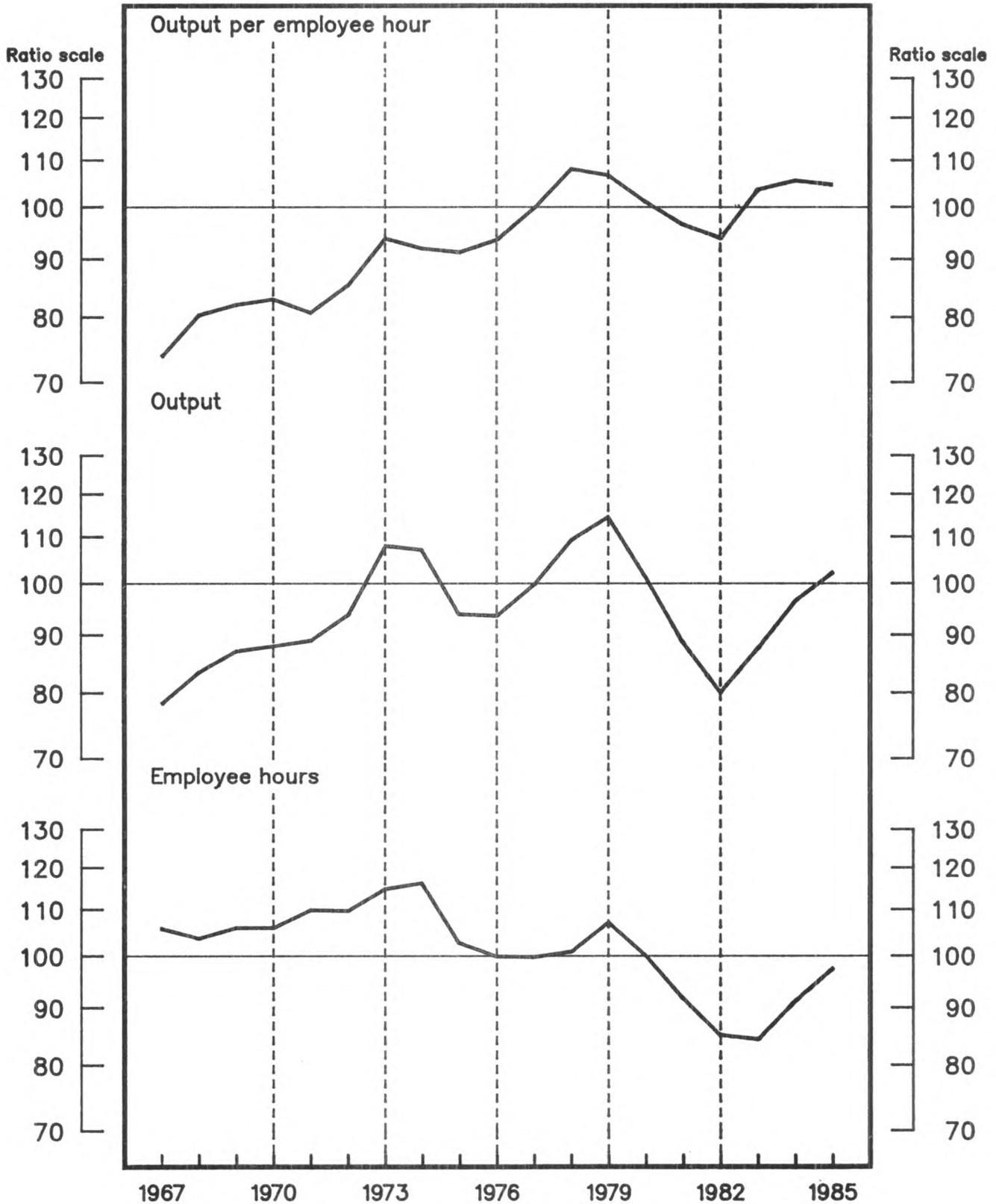
³ Less than .05 percent.

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, 1967-85

(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, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	105.8	109.8	89.9	107.2	111.9	88.8
1985 ²	104.9	107.0	95.6	106.9	109.9	94.0
Average annual percent change:						
1958-85	2.7	2.9	1.5	2.6	2.8	1.4
1980-85	1.6	2.0	-5	2.4	3.0	-5

¹ 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.

² 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, 1958-85
(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	109.3	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	96.8	91.5	88.2	107.7	90.3	86.5	109.0
1985 ¹	102.5	97.7	95.8	107.2	95.9	93.3	109.0
Average annual percent change:							
1958-85	2.1	-6	-8	.6	-5	-8	.6
1980-85	1.1	-4	-9	1.6	-1.2	-1.8	1.6

¹ Preliminary.

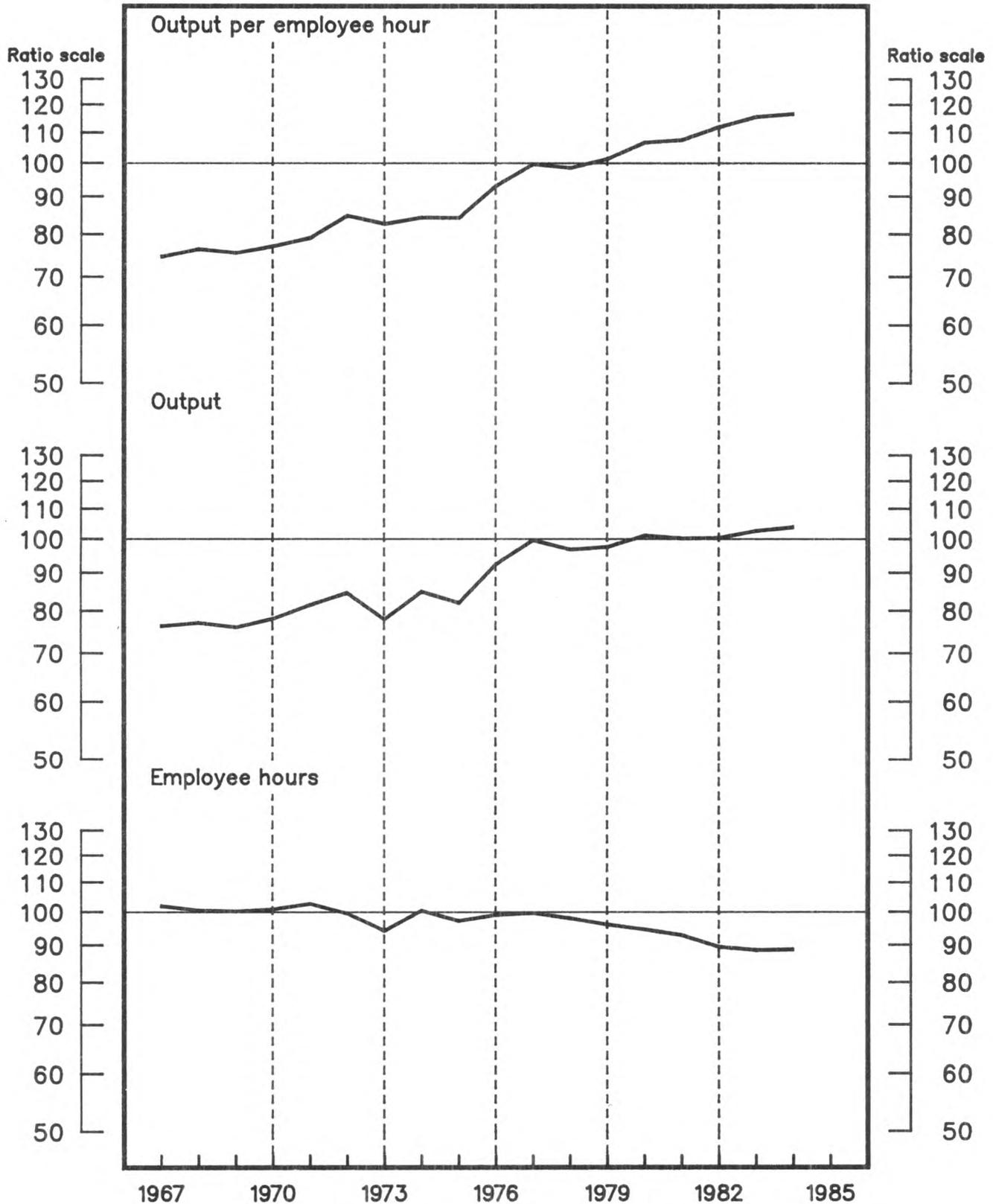
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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 ¹			Output per employee ¹		
	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	117.8	111.1	109.5	117.6
1983	115.9	115.0	119.5	115.2	114.1	119.5
1984 ²	117.0	115.3	123.6	115.7	113.6	123.6
Average annual percent change:						
1967-84	2.9	2.8	3.4	2.8	2.6	3.6
1980-84	2.5	2.5	2.5	2.4	2.4	2.5

¹ 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.

² 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	102.9	88.8	89.5	86.1	89.3	90.2	86.1
1984 ¹	104.1	89.0	90.3	84.2	90.0	91.6	84.2
Average annual percent change:							
1967-84	2.1	-.8	-.7	-1.2	-.6	-.4	-1.4
1980-84 .....	.8	-1.7	-1.7	-1.7	-1.6	-1.6	-1.7

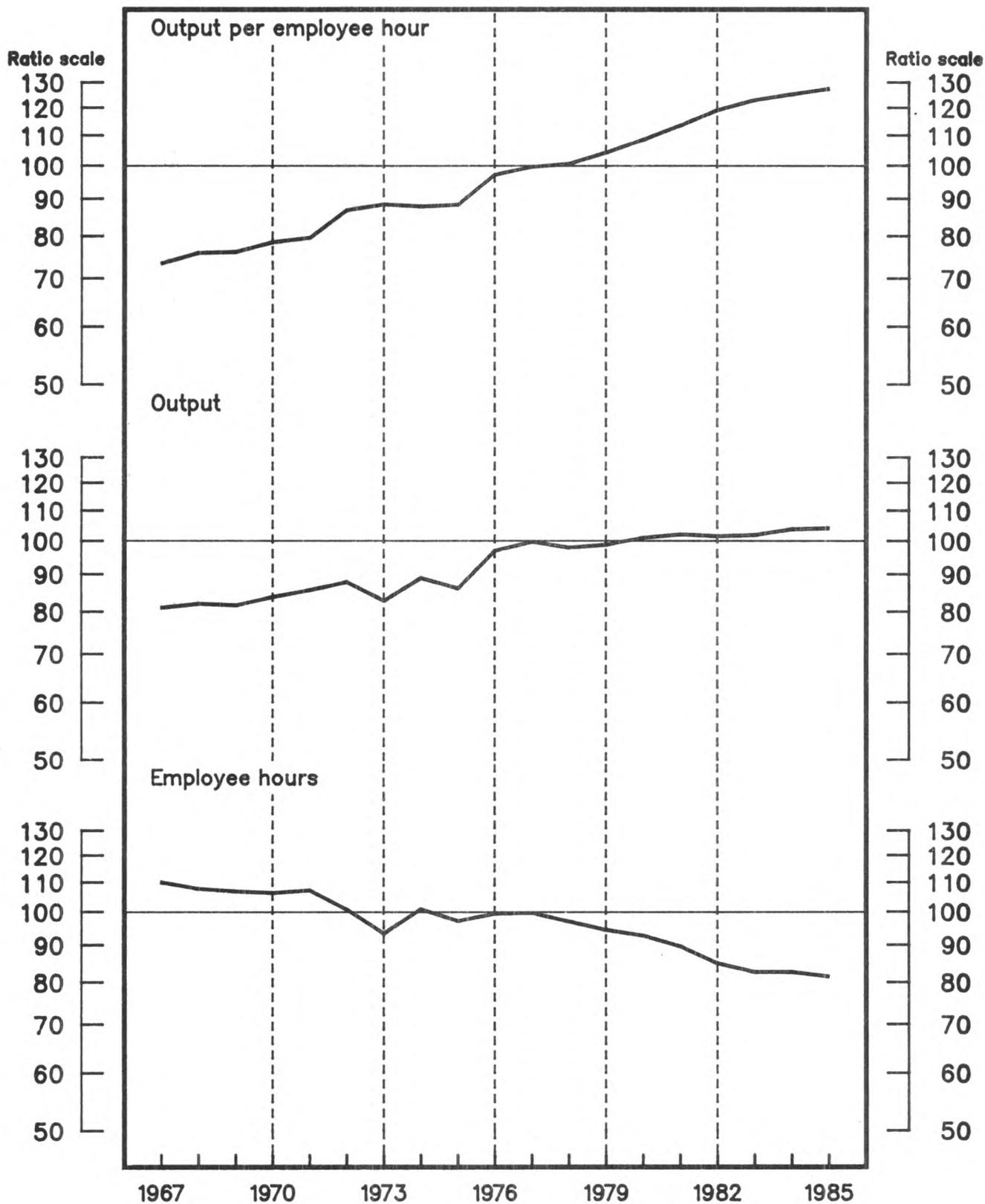
¹ Preliminary.

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, 1967-85

(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, 1967-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	87.2	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	123.3	122.2	128.2	122.4	121.1	128.2
1984	125.6	122.9	138.4	123.6	120.6	138.4
1985 ²	127.8	124.4	145.8	126.5	122.5	145.8
Average annual percent change:						
1967-85	3.3	3.1	4.2	3.2	2.9	4.4
1980-85	3.3	3.1	4.3	3.1	2.8	4.3

¹ 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.

² 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, 1967-85
(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	102.2	82.9	83.6	79.7	83.5	84.4	79.7
1984	104.1	82.9	84.7	75.2	84.2	86.3	75.2
1985 ¹	104.4	81.7	83.9	71.6	82.5	85.2	71.6
Average annual percent change:							
1967-85	1.6	-1.6	-1.4	-2.5	-1.5	-1.2	-2.7
1980-85 .....	.6	-2.6	-2.4	-3.6	-2.4	-2.2	-3.6

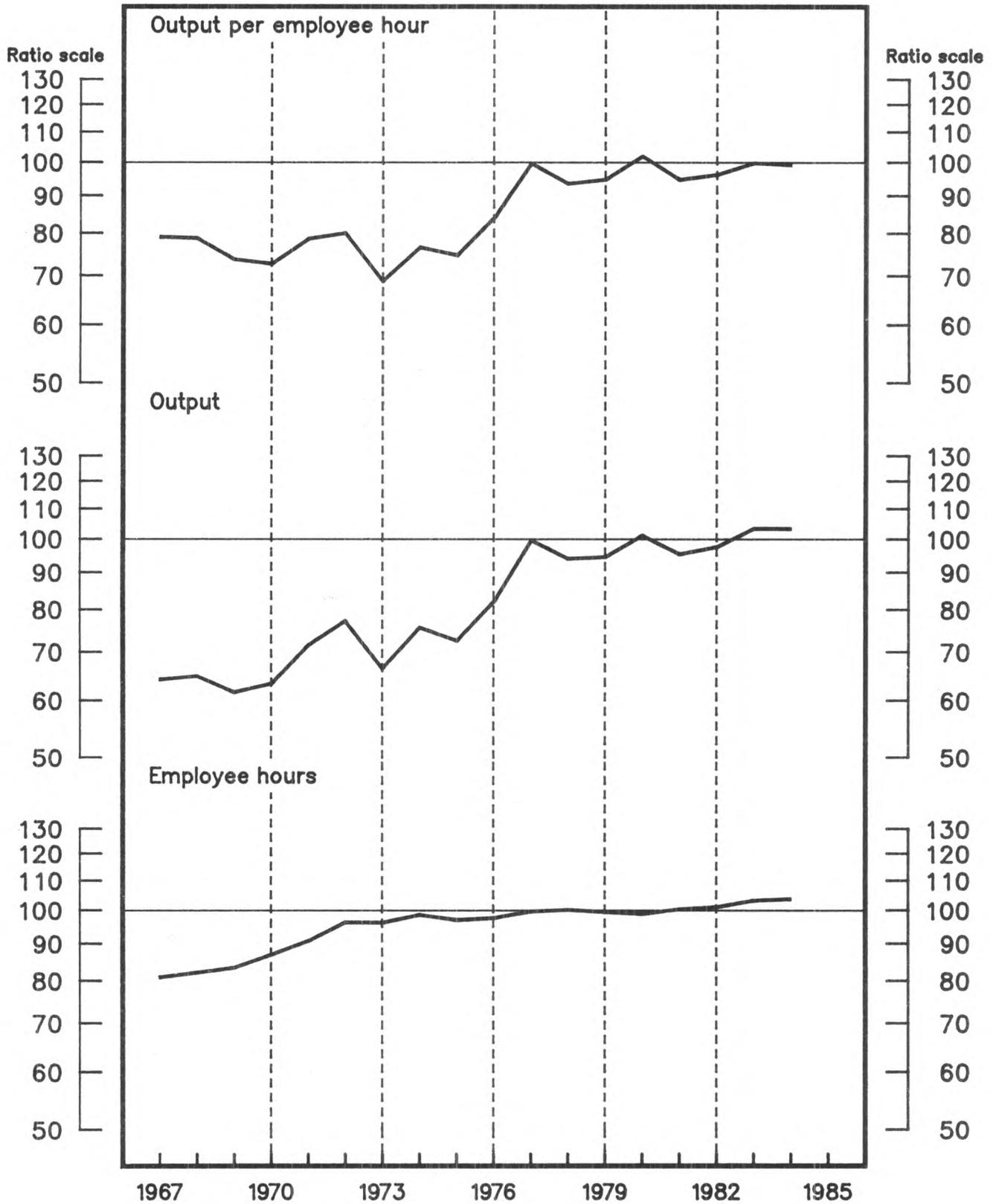
¹ Preliminary.

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 meats (SIC 2013): Output per hour and related data, 1967-84

(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 ¹			Output per employee ¹		
	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	100.1	97.8	106.5	100.3	98.1	106.5
1984 ²	99.5	98.1	103.6	99.3	97.8	103.6
Average annual percent change:						
1967-84	2.1	2.0	2.3	2.0	1.8	2.5
1980-84	(³)	-.2	.5	.2	.1	.5

¹ 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.

² Preliminary.

³ 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, 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	103.7	103.6	106.0	97.4	103.4	105.7	97.4
1984 ¹	103.6	104.1	105.6	100.0	104.3	105.9	100.0
Average annual percent change:							
1967-84	3.4	1.3	1.4	1.1	1.4	1.7	.9
1980-84	1.2	1.3	1.4	.7	1.0	1.1	.7

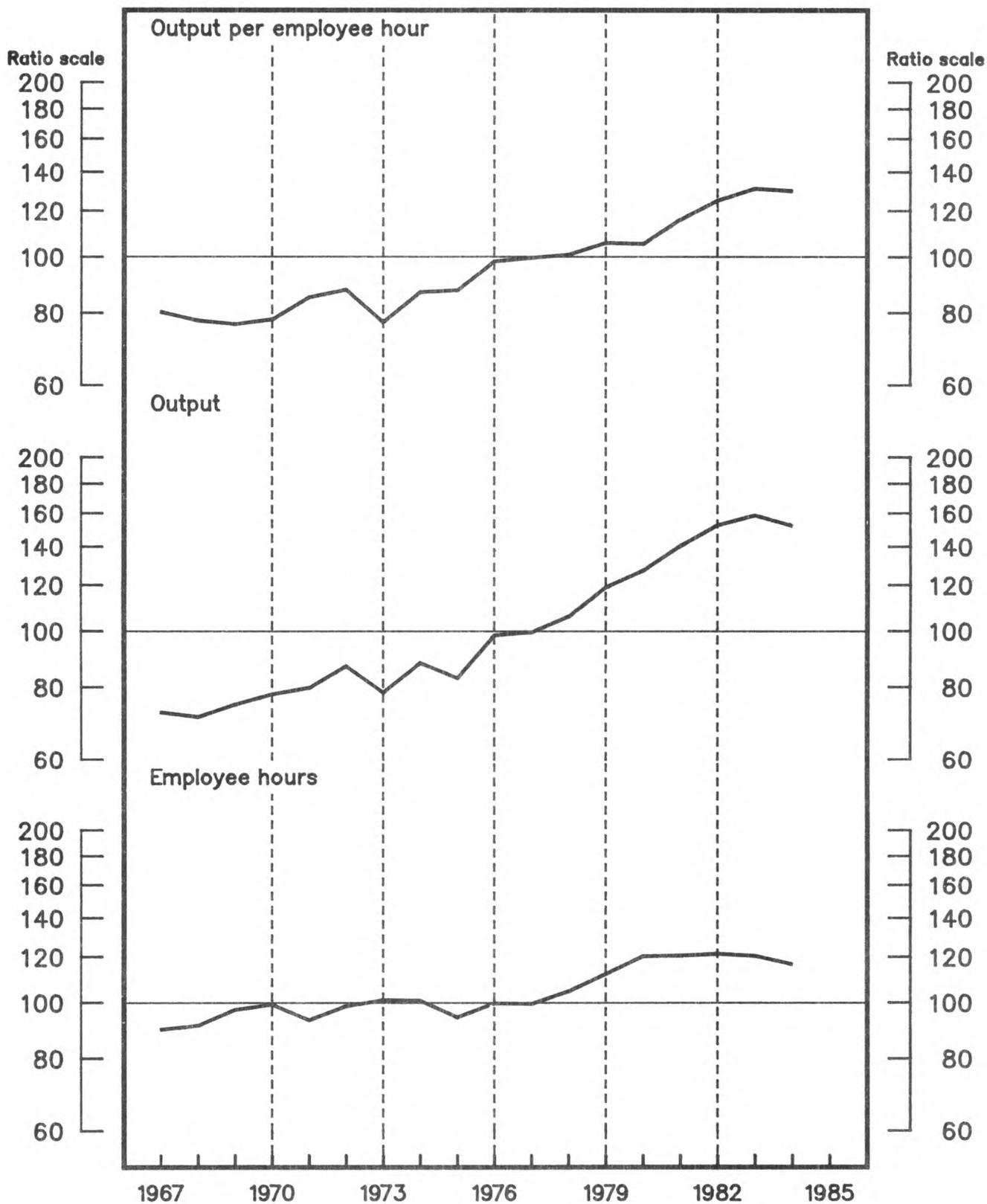
¹ Preliminary.

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. Poultry dressing and processing plants (SIC 2016, 2017): Output per hour and related data, 1967-84

(1977=100)



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

Table 24. Poultry dressing and processing plants (SIC 2016, 2017): Indexes of output per employee hour and output per employee, 1963-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	73.4	71.9	88.4	74.4	73.1	88.0
1964	75.1	73.8	89.3	77.2	75.8	89.9
1965	75.2	73.9	88.5	78.7	77.6	88.7
1966	74.1	72.6	89.6	78.1	77.0	89.2
1967	80.6	78.7	101.5	83.6	81.9	100.8
1968	77.9	76.2	95.6	79.8	78.7	90.6
1969	76.8	74.9	97.0	79.9	78.6	92.8
1970	78.3	76.5	98.4	82.3	80.9	95.6
1971	85.5	84.2	97.7	87.1	86.0	96.9
1972	88.1	86.4	106.5	92.7	91.2	106.9
1973	77.5	76.0	91.9	80.1	78.9	93.0
1974	87.3	87.2	88.0	90.1	90.3	89.3
1975	87.9	88.6	81.6	88.5	89.3	82.5
1976	98.6	100.2	86.7	99.7	101.3	87.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.3	99.8	115.4	101.9	100.6	115.4
1979	106.1	105.6	111.5	107.7	107.2	112.0
1980	105.7	105.5	108.2	106.2	105.9	108.9
1981	116.4	114.5	135.4	115.3	113.4	135.7
1982	125.6	124.4	136.8	127.3	126.1	137.3
1983	131.7	130.7	140.4	134.1	133.4	140.3
1984 ²	130.5	130.0	135.3	133.2	132.9	135.7
Average annual percent change:						
1963-84	2.9	3.0	1.9	2.7	2.8	2.0
1980-84	5.6	5.7	5.0	6.2	6.4	4.8

¹ 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.

² 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 25. Poultry dressing and processing plants (SIC 2016, 2017): 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	53.3	72.6	74.1	60.3	71.6	72.9	60.6
1964	56.2	74.8	76.2	62.9	72.8	74.1	62.5
1965	58.0	77.1	78.5	65.5	73.7	74.7	65.4
1966	60.0	81.0	82.7	67.0	76.8	77.9	67.3
1967	72.7	90.2	92.4	71.6	87.0	88.8	72.1
1968	71.4	91.7	93.7	74.7	89.5	90.7	78.8
1969	75.0	97.7	100.1	77.3	93.9	95.4	80.8
1970	78.1	99.7	102.1	79.4	94.9	96.5	81.7
1971	80.1	93.7	95.1	82.0	92.0	93.1	82.7
1972	87.3	99.1	101.1	82.0	94.2	95.7	81.7
1973	78.7	101.5	103.5	85.6	98.2	99.8	84.6
1974	88.4	101.3	101.4	100.5	98.1	97.9	99.0
1975	83.3	94.8	94.0	102.1	94.1	93.3	101.0
1976	98.8	100.2	98.6	113.9	99.1	97.5	112.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.5	105.1	106.7	92.3	104.5	105.9	92.3
1979	119.5	112.6	113.2	107.2	111.0	111.5	106.7
1980	127.7	120.8	121.1	118.0	120.2	120.6	117.3
1981	140.9	121.1	123.1	104.1	122.2	124.3	103.8
1982	153.1	121.9	123.1	111.9	120.3	121.4	111.5
1983	159.2	120.9	121.8	113.4	118.7	119.3	113.5
1984 ¹	152.7	117.0	117.5	112.9	114.6	114.9	112.5
Average annual percent change:							
1963-84	5.2	2.3	2.2	3.2	2.4	2.4	3.1
1980-84	4.9	-7	-7	(?)	-1.2	-1.4	.1

¹ Preliminary.

² Less than .05 percent.

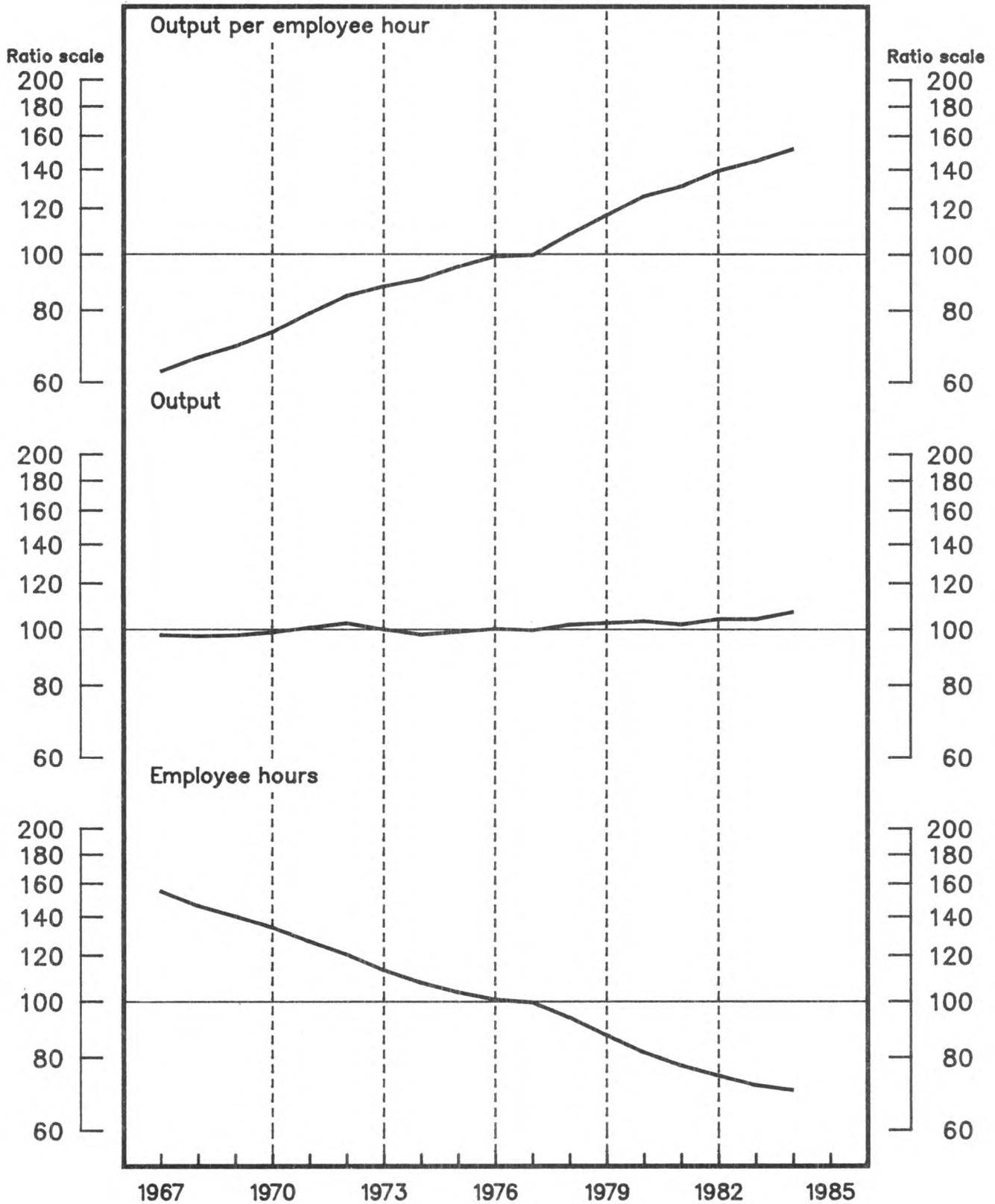
NOTE: Because of periodic revisions in source data, the measures in this table

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 14. Fluid milk (SIC 2026): Output per hour and related data, 1967-84

(1977 = 100)



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

Table 26. Fluid milk (SIC 2026): 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	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	145.5	142.5	104.6	71.9	73.4
1984 ¹	152.6	149.7	107.6	70.5	71.9
Average annual percent change:					
1958-84	4.7	4.6	.5	-4.0	-4.0
1980-84	4.9	4.8	1.0	-3.7	-3.7

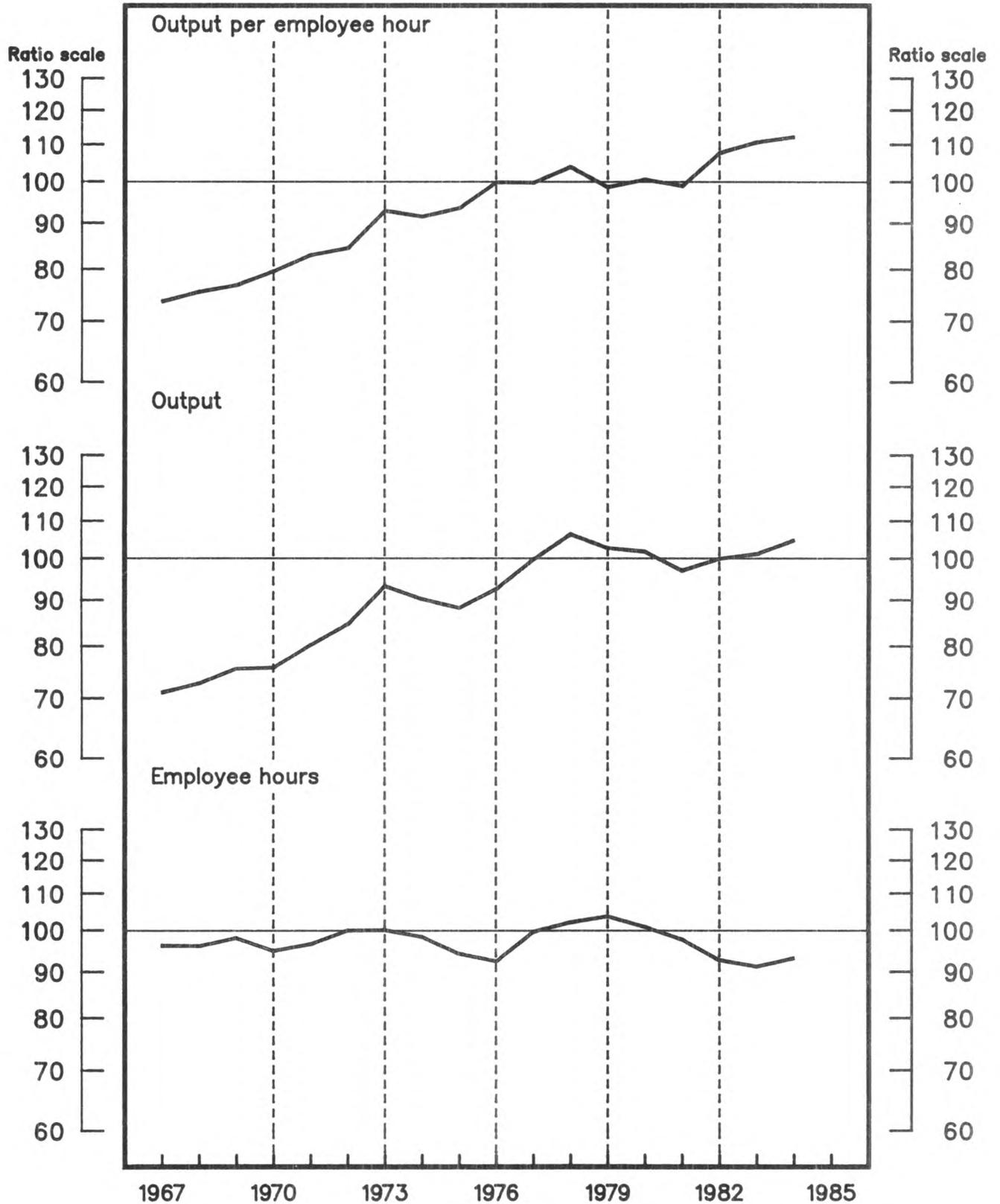
¹ Preliminary.

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 15. Preserved fruits and vegetables (SIC 203): Output per hour and related data, 1967-84

(1977=100)



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

Table 27. Preserved fruits and vegetables (SIC 203): Indexes of output per employee hour and output per employee, 1958-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	110.9	113.5	98.4	110.9	113.7	98.4
1984 ²	112.4	114.1	103.4	112.5	114.3	103.9
Average annual percent change:						
1947-84	2.8	2.9	1.9	2.8	2.9	1.8
1980-84	3.3	3.6	2.1	2.9	3.2	2.0

¹ 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.

² 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 28. Preserved fruits and vegetables (SIC 203): 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	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	101.4	91.4	89.3	103.1	91.4	89.2	103.1
1984 ¹	105.0	93.4	92.0	101.5	93.3	91.9	101.1
Average annual percent change:							
1947-84	3.4	.6	.5	1.5	.6	.4	1.6
1980-84	1.0	-2.3	-2.5	-1.1	-1.9	-2.1	-9

¹ Preliminary.

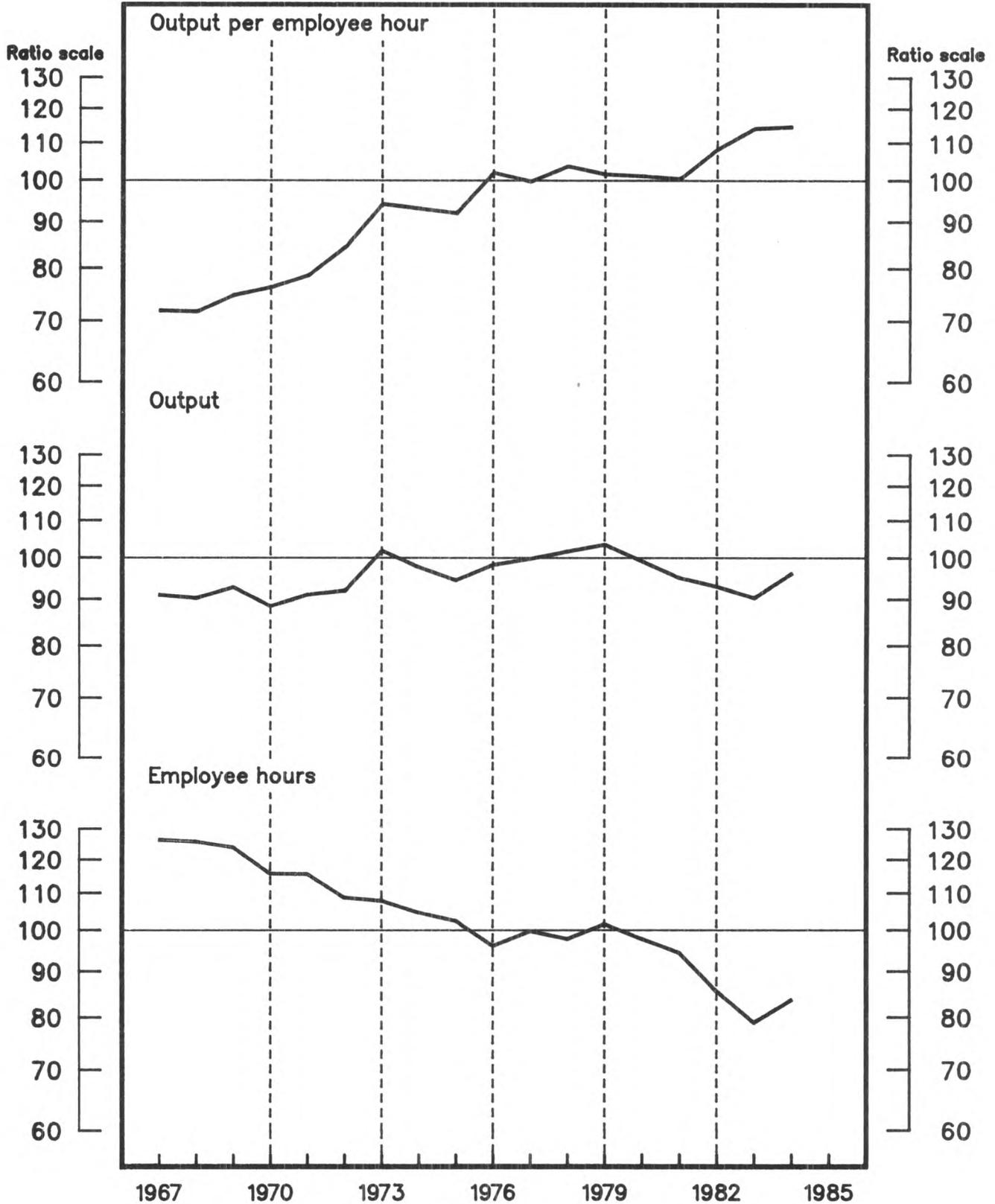
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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 16. Canned fruits and vegetables (SIC 2033): Output per hour and related data, 1967-84

(1977=100)



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

Table 29. Canned fruits and vegetables (SIC 2033): Indexes of output per employee hour and output per employee, 1958-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	114.4	117.7	94.7	114.8	118.3	94.4
1984 ²	114.9	119.0	91.5	115.4	119.6	91.8
Average annual percent change:						
1958-84	3.1	3.2	2.0	2.9	3.1	2.0
1980-84	3.8	4.3	1.2	3.7	4.1	1.1

¹ 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.

² Preliminary.

Table 30. Canned fruits and vegetables (SIC 2033): 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	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	98.3	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	90.6	79.2	77.0	95.7	78.9	76.6	96.0
1984 ¹	96.4	83.9	81.0	105.3	83.5	80.6	105.0
Average annual percent change:							
1958-84	1.2	-1.8	-2.0	-0.8	-1.7	-1.9	-0.8
1980-84	-1.1	-4.8	-5.2	-2.3	-4.6	-5.0	-2.2

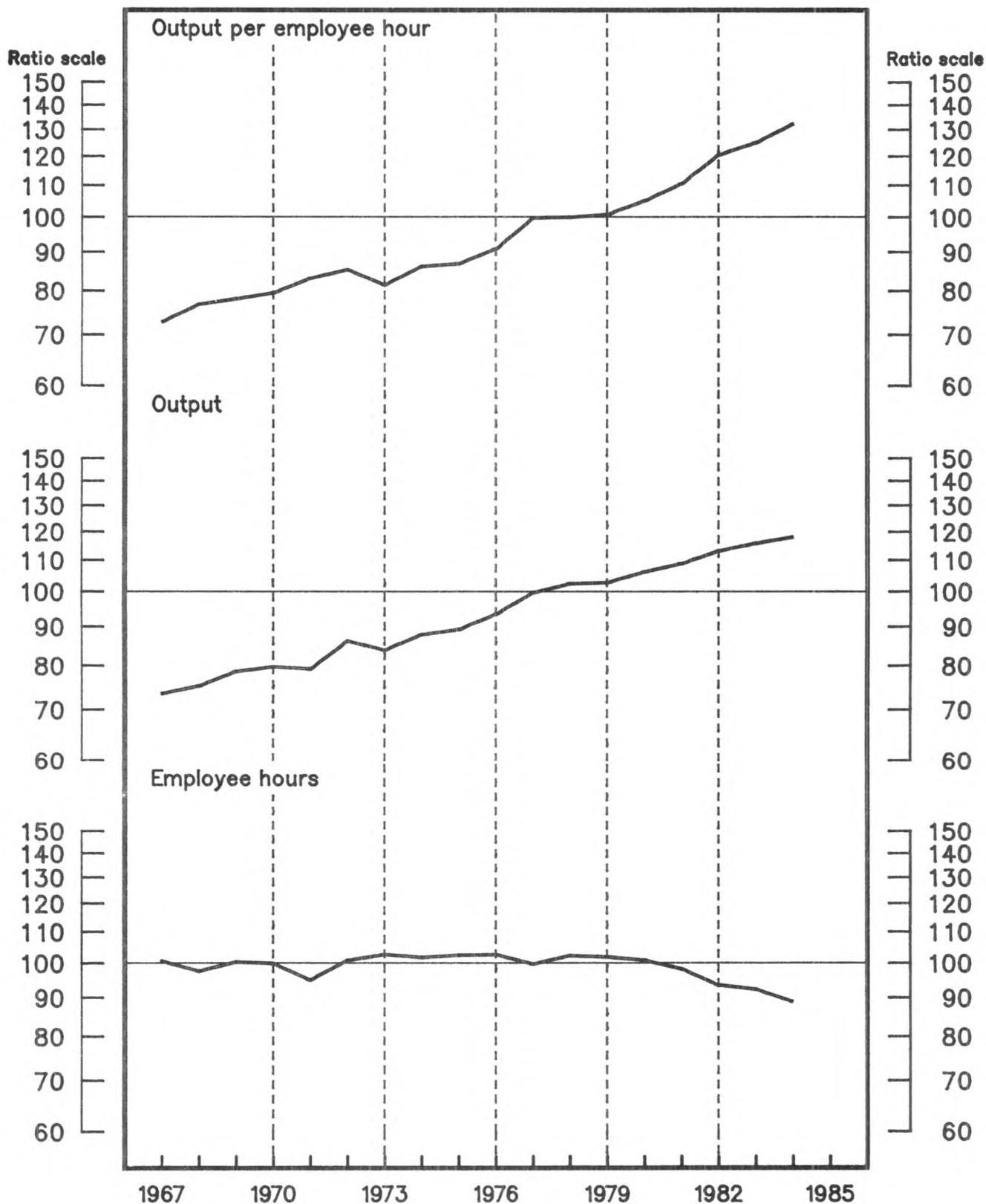
¹ Preliminary.

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 17. Grain mill products (SIC 204): Output per hour and related data, 1967-84

(1977 = 100)



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

Table 31. Grain mill products (SIC 204): Indexes of output per employee hour and output per employee, 1963-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	125.5	127.4	120.7	124.0	125.5	120.5
1984 ²	132.7	136.6	123.5	130.5	133.5	124.0
Average annual percent change:						
1963-84	3.4	3.5	3.1	3.2	3.1	3.2
1980-84	6.0	6.8	4.2	5.3	5.9	4.1

¹ 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.

² 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 32. Grain mill products (SIC 204): 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	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	116.2	92.6	91.2	96.3	93.7	92.6	96.4
1984 ¹	118.4	89.2	86.7	95.9	90.7	88.7	95.5
Average annual percent change:							
1963-84	3.1	-3	-4	(?)	-1	-1	-1
1980-84	2.8	-3.1	-3.7	-1.4	-2.4	-2.9	-1.3

¹ Preliminary.

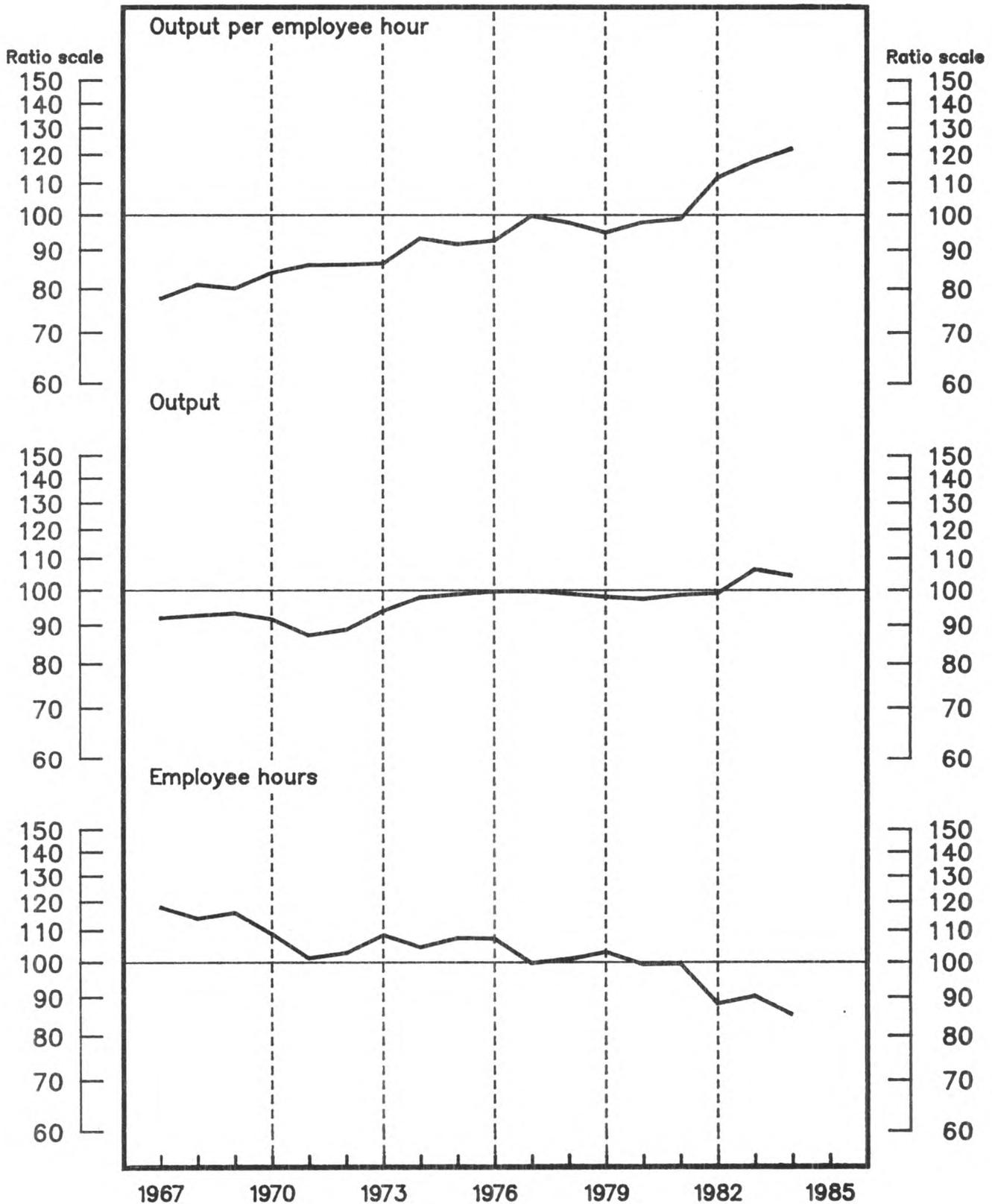
² Less than .05 percent.

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 18. Flour (including flour mixes) and other grains (SIC 2041, 2045): Output per hour and related data, 1967-84

(1977=100)



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

Table 33. Flour (including flour mixes) and other grains (SIC 2041, 2045): Indexes of output per employee hour and output per employee, 1963-84 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	117.9	116.2	122.9	117.5	115.5	122.6
1984 ²	122.5	120.5	128.6	120.2	117.0	128.9
Average annual percent change:						
1963-84	2.5	2.6	2.3	2.3	2.3	2.4
1980-84	6.4	6.6	5.6	5.4	5.4	5.6

¹ 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.

² 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 (including flour mixes) and other grains (SIC 2041, 2045): 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	84.1	129.4	133.8	117.1	123.3	125.7	117.4
1964	88.2	127.6	128.6	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	106.7	90.5	91.8	86.8	90.8	92.4	87.0
1984 ¹	104.7	85.5	86.9	81.4	87.1	89.5	81.2
Average annual percent change:							
1963-84	.9	-1.5	-1.6	-1.4	-1.4	-1.3	-1.5
1980-84	2.2	-4.0	-4.2	-3.3	-3.1	-3.0	-3.3

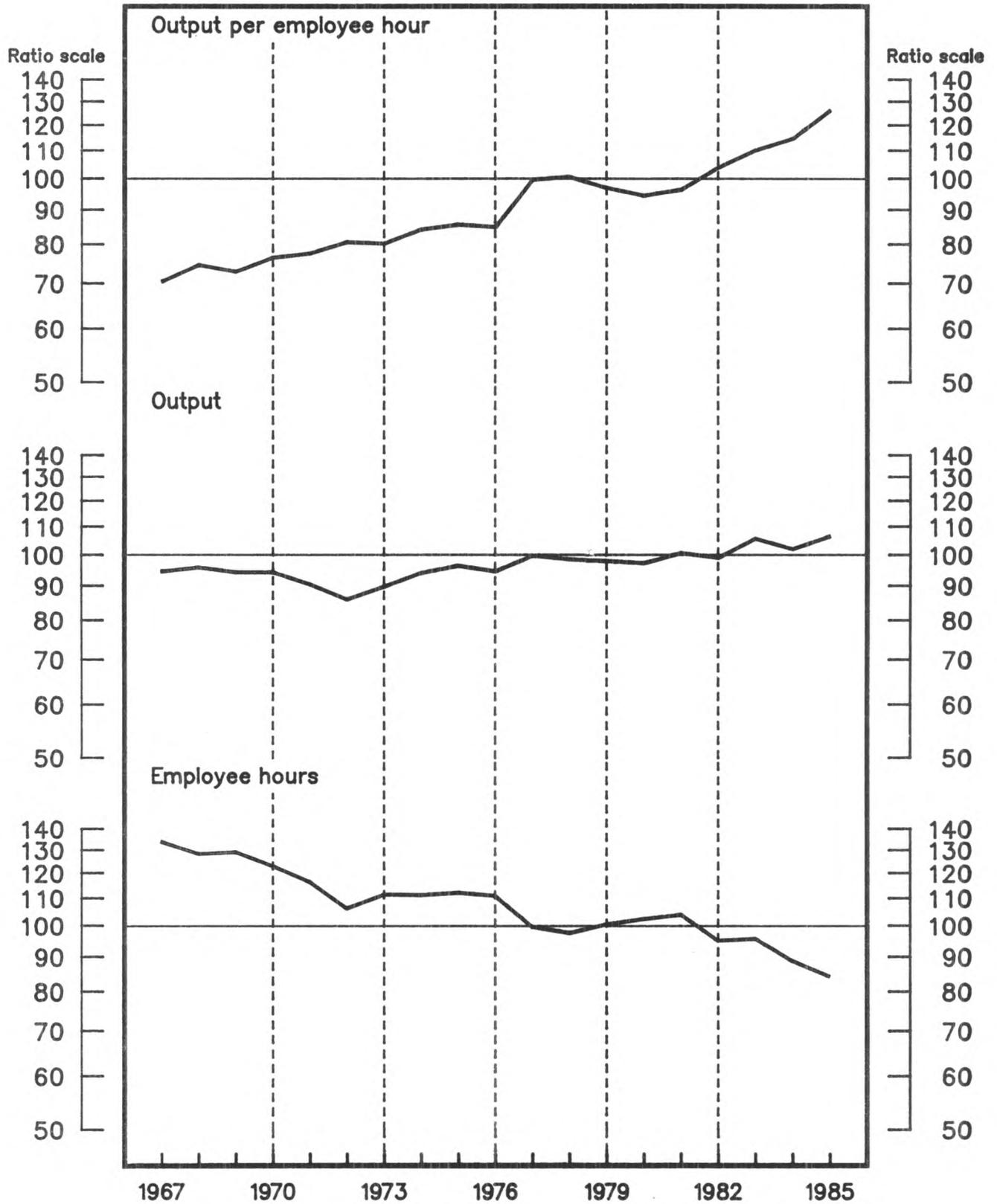
¹ Preliminary.

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. Flour and other grain mill products (SIC 2041): Output per hour and related data, 1967-85

(1977=100)



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

Table 35. Flour and other grain mill products (SIC 2041): Indexes of output per employee hour and output per employee, 1958-85 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	99.8	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	110.4	107.7	119.5	112.5	109.8	119.9
1984	114.9	112.8	122.2	114.8	112.2	122.2
1985 ²	126.5	117.8	164.3	130.1	120.7	164.1
Average annual percent change:						
1947-85	3.6	3.6	3.4	3.5	3.5	3.3
1980-85	5.9	5.0	9.3	5.7	4.6	9.0

¹ 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.

² Preliminary.

Table 36. Flour and other grain mill products (SIC 2041): Indexes of output, employee hours, and employees, 1958-85 (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	188.4	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	136.6	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	106.0	106.0	98.4	88.7	94.2	96.5	88.4
1984	102.3	89.0	90.7	83.7	89.1	91.2	83.7
1985 ¹	106.8	84.4	90.7	65.0	82.1	88.5	65.1
Average annual percent change:							
1947-85	.6	-2.8	-2.9	-2.7	-2.7	-2.8	-2.6
1980-85	1.6	-4.1	-3.3	-7.0	-3.8	-2.8	-6.8

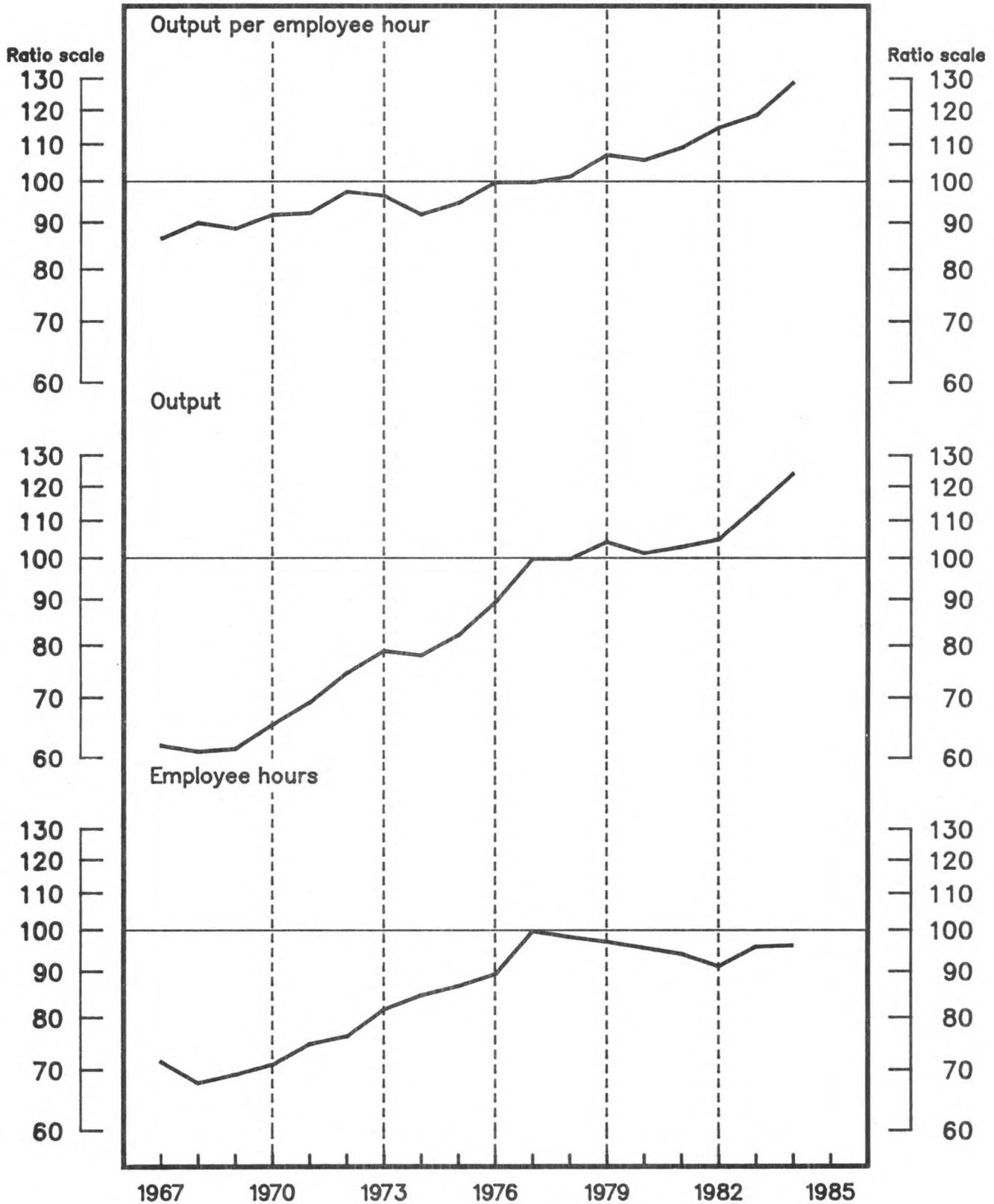
¹ Preliminary.

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. Cereal breakfast foods (SIC 2043): Output per hour and related data, 1967-84

(1977 = 100)



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

Table 37. Cereal breakfast foods (SIC 2043): Indexes of output per employee hour and output per employee, 1963-84
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	118.7	123.1	97.8	114.8	118.4	98.9
1984 ²	129.0	133.6	106.6	125.9	130.0	107.8
Average annual percent change:						
1963-84	1.9	1.9	2.3	2.0	1.9	2.4
1980-84	4.9	6.6	-4.2	4.4	6.1	-4.1

¹ 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.

² 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 38. Cereal breakfast foods (SIC 2043): 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	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	114.1	96.1	92.7	116.7	99.4	96.4	115.4
1984 ¹	124.4	96.4	93.1	116.7	98.8	95.7	115.4
Average annual percent change:							
1963-84	4.1	2.1	2.2	1.7	2.1	2.2	1.7
1980-84	5.2	.3	-1.3	9.8	.8	-.8	9.8

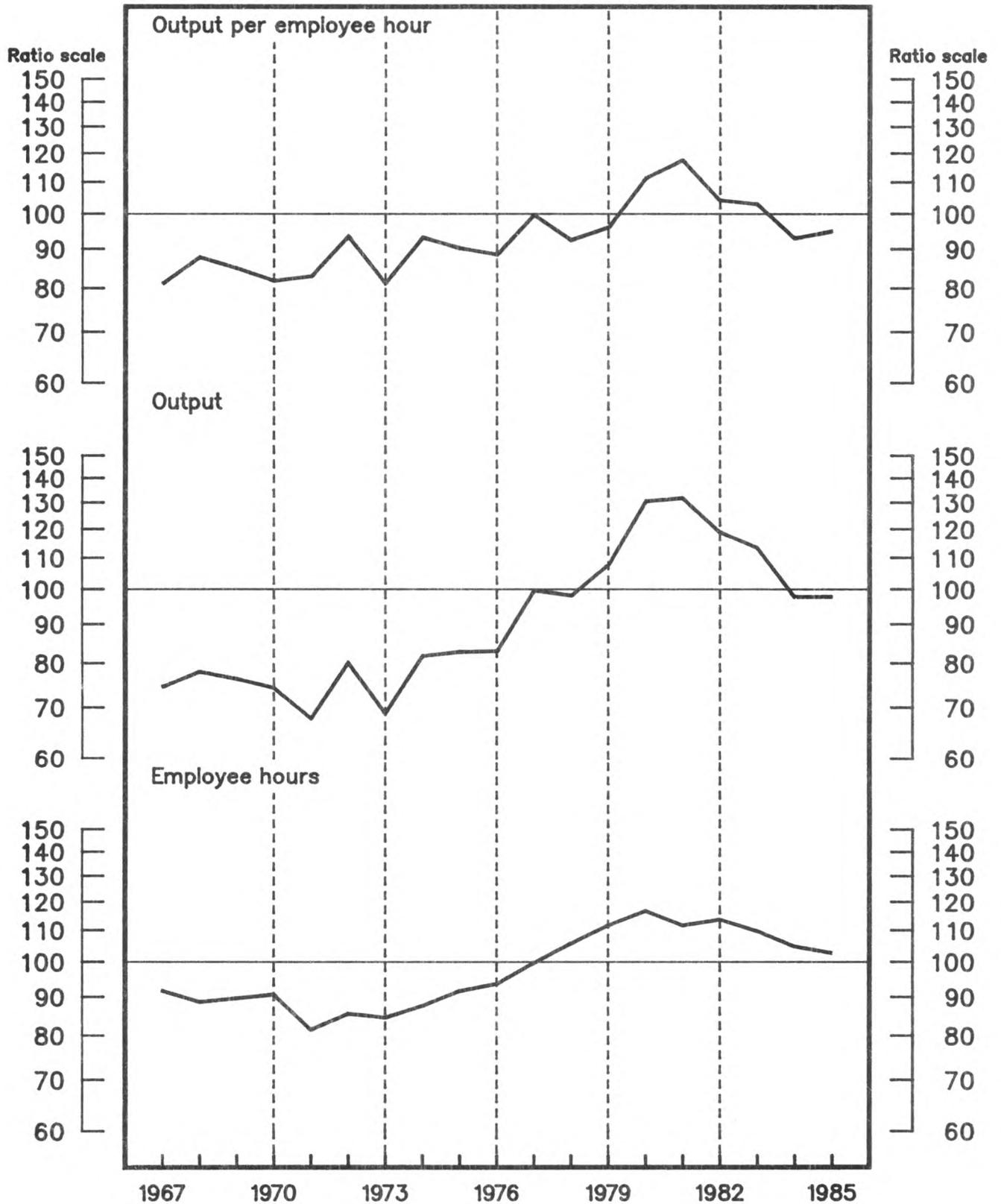
¹ Preliminary.

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 21. Rice milling (SIC 2044): Output per hour and related data, 1967-85

(1977 = 100)



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

Table 39. Rice milling (SIC 2044): Indexes of output per employee hour and output per employee, 1963-85
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	103.3	112.4	71.1	101.1	110.9	70.0
1984	93.2	105.5	56.5	92.3	105.9	56.0
1985 ²	95.2	105.6	61.3	96.1	109.0	60.4
Average annual percent change:						
1963-85	1.9	1.9	1.8	1.5	1.5	1.8
1980-85	-4.3	-3.1	-8.3	-4.7	-3.5	-8.5

¹ 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.

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.

² Preliminary.

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

Table 40. Rice milling (SIC 2044): Indexes of output, employee hours, and employees, 1963-85
(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	148.8	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	113.7	110.1	101.2	160.0	112.5	102.5	162.5
1984	98.0	105.1	92.9	173.3	106.2	92.5	175.0
1985 ¹	98.1	103.0	92.9	160.0	102.1	90.0	162.5
Average annual percent change:							
1963-85	3.0	1.1	1.1	1.2	1.5	1.5	1.2
1980-85	-6.6	-2.5	-3.6	1.8	-2.0	-3.2	2.1

¹ Preliminary.

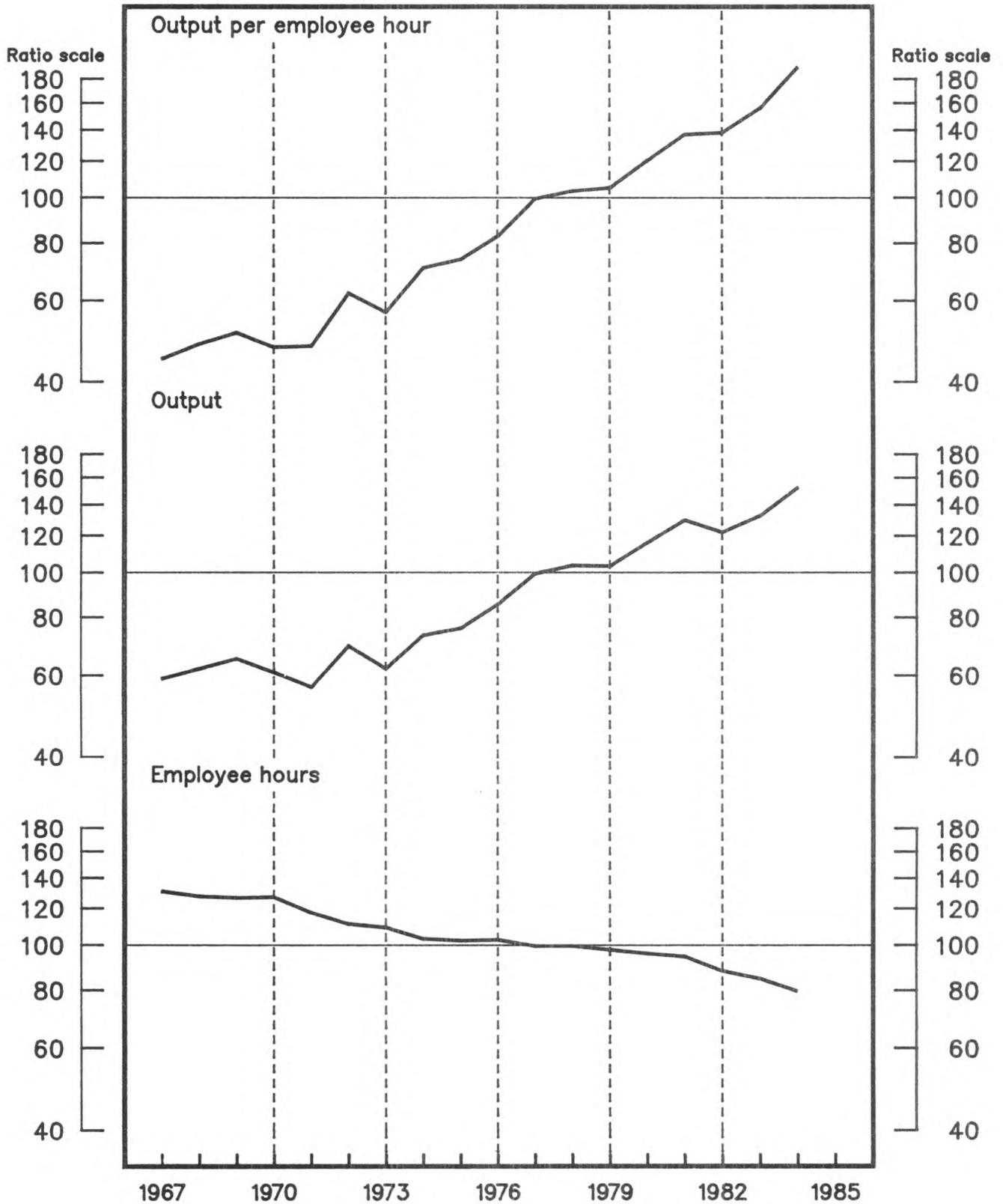
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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 22. Wet corn milling (SIC 2046): Output per hour and related data, 1967-84

(1977=100)



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

Table 41. Wet corn milling (SIC 2046): Indexes of output per employee hour and output per employee, 1963-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	156.6	155.0	161.0	163.2	165.0	158.9
1984 ²	191.6	192.6	189.3	198.8	202.8	190.2
Average annual percent change:						
1963-84	7.8	8.0	7.4	7.6	7.7	7.5
1980-84	11.1	10.7	12.1	12.9	13.2	12.1

¹ 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.

² 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. Wet corn milling (SIC 2046): 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	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	133.3	85.1	86.0	82.8	81.7	80.8	83.9
1984 ¹	153.3	80.0	79.6	81.0	77.1	75.6	80.6
Average annual percent change:							
1963-84	5.4	-2.2	-2.3	-1.8	-2.0	-2.1	-1.9
1980-84	5.9	-4.7	-4.3	-5.6	-6.2	-6.5	-5.6

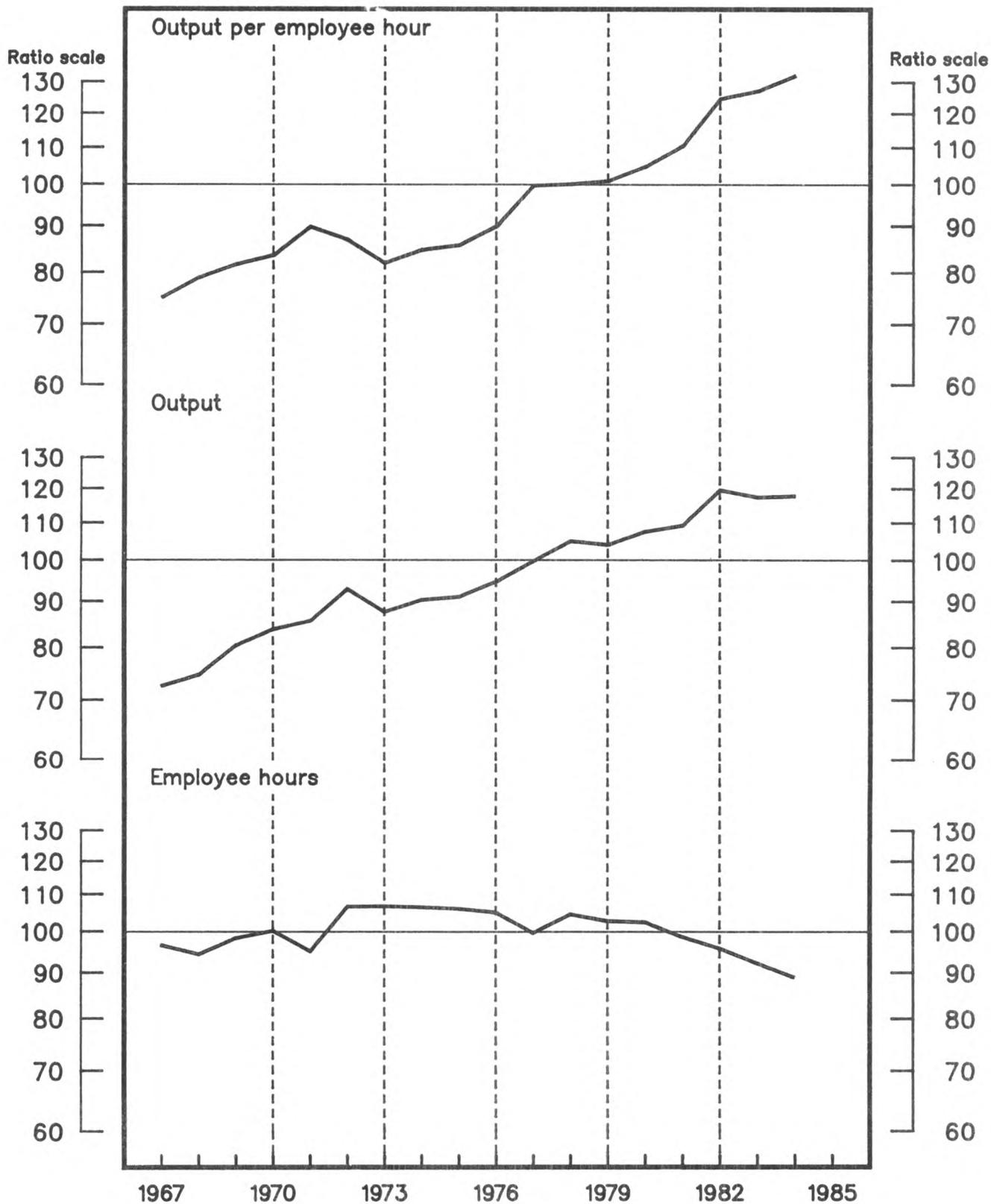
¹ Preliminary.

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 23. Prepared feeds for animals and fowls (SIC 2047, 2048): Output per hour and related data, 1967-84

(1977=100)



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

Table 43. Prepared feeds for animals and fowls (SIC 2047, 2048): Indexes of output per employee hour and output per employee, 1963-84 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	127.4	130.2	121.8	125.2	127.1	122.0
1984 ²	132.5	138.9	121.4	129.5	134.2	121.8
Average annual percent change:						
1963-84	3.3	3.5	2.8	3.0	3.1	2.9
1980-84	6.2	7.2	4.5	5.3	5.7	4.5

¹ 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.

² 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. Prepared feeds for animals and fowls (SIC 2047, 2048): 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	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	117.7	92.4	90.4	96.6	94.0	92.6	96.5
1984 ¹	118.1	89.1	85.0	97.3	91.2	88.0	97.0
Average annual percent change:							
1963-84	3.3	(²)	-.2	.5	-.2	-.2	.4
1980-84	2.6	-3.5	-4.3	-1.9	-2.5	-3.0	-1.8

¹ Preliminary.

² Less than .05 percent.

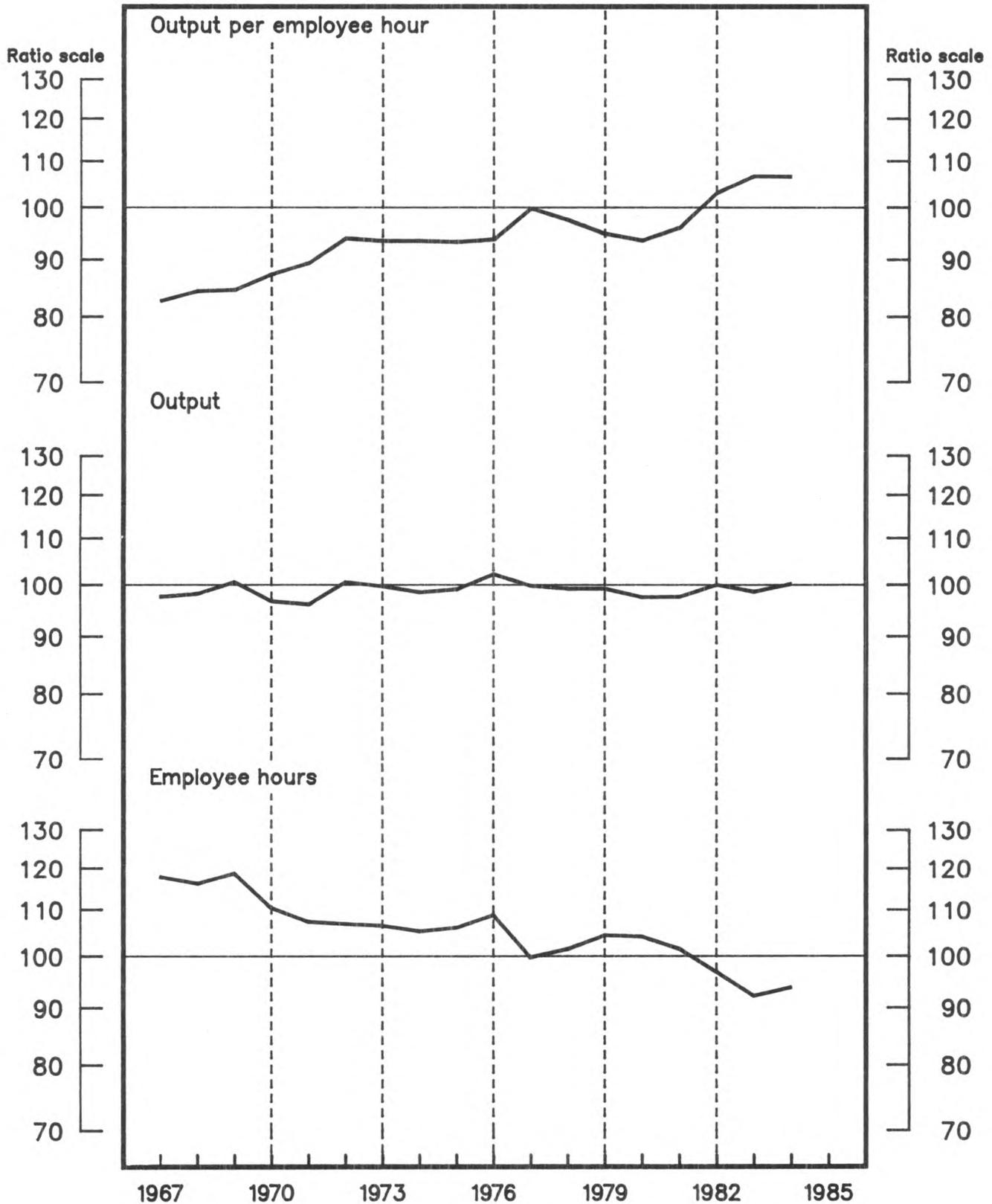
NOTE: Because of periodic revisions in source data, the measures in this table

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 24. Bakery products (SIC 205): Output per hour and related data, 1967-84

(1977=100)



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

Table 45. Bakery products (SIC 205): Indexes of output per employee hour and output per employee, 1958-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	97.7	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	96.4	94.4	92.6	97.0
1981	96.2	94.5	98.7	97.4	96.4	99.1
1982	103.3	107.4	97.6	102.7	106.1	97.9
1983	106.9	109.7	103.0	106.1	108.3	103.0
1984 ²	106.8	110.0	102.2	106.5	109.2	102.7
Average annual percent change:						
1947-84	2.1	2.4	1.5	2.0	2.2	1.6
1980-84	3.7	5.2	1.6	3.3	4.6	1.5

¹ 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.

² 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 46. Bakery products (SIC 205): 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	88.3	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	128.4
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	101.7	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	101.4	103.5	105.5	100.7
1981	97.8	101.7	103.5	99.1	100.4	101.5	98.7
1982	100.2	97.0	93.3	102.7	97.6	94.4	102.3
1983	98.8	92.4	90.1	95.9	93.1	91.2	95.9
1984 ¹	100.4	94.0	91.3	98.2	94.3	91.9	97.8
Average annual percent change:							
1947-84 .....	.9	-1.2	-1.5	-7	-1.1	-1.3	-7
1980-84 .....	.6	-3.0	-4.3	-1.0	-2.6	-3.8	-9

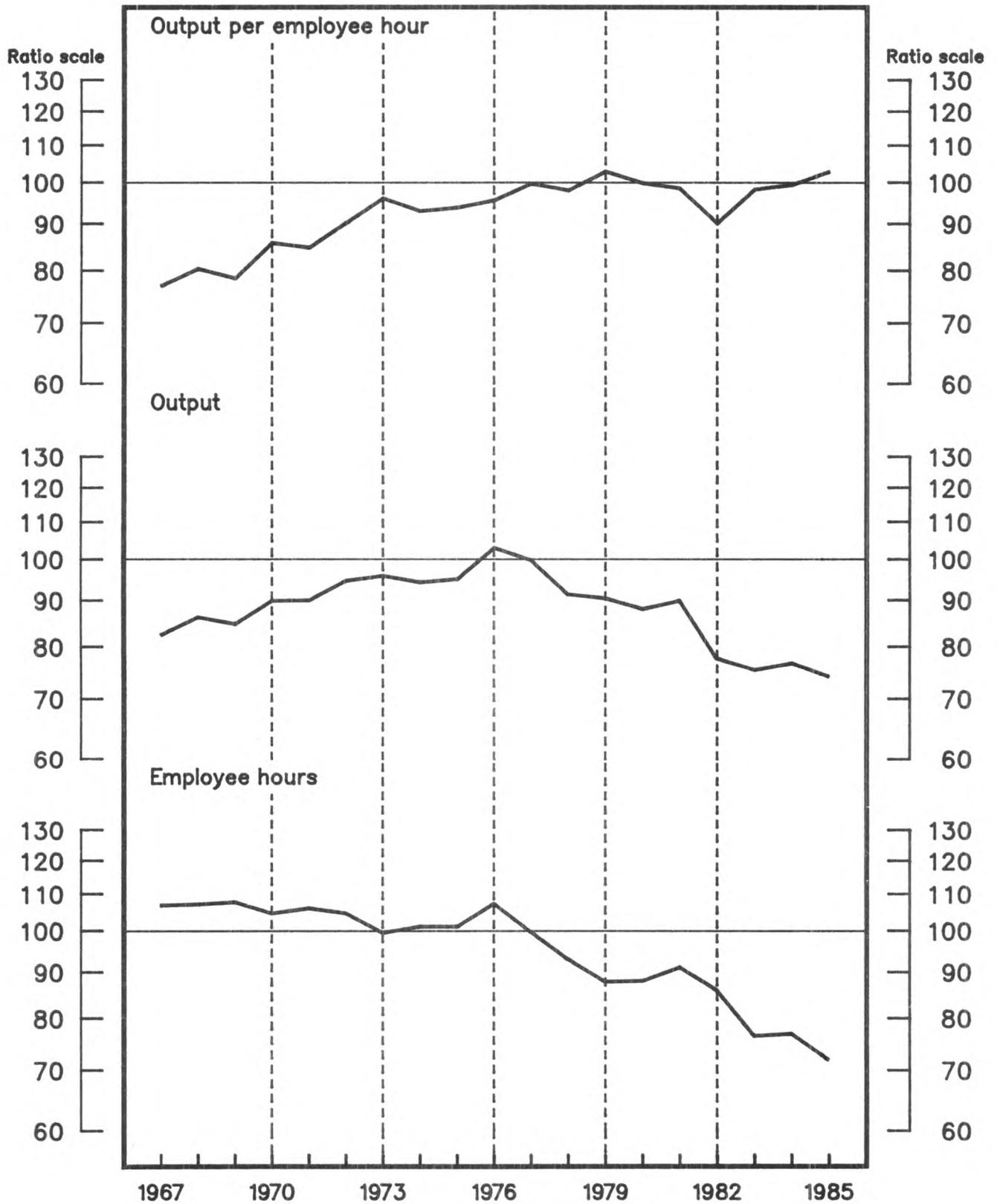
¹ Preliminary.

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 25. Sugar (SIC 2061, 2062, 2063): Output per hour and related data, 1967-85

(1977 = 100)



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

Table 47. Sugar (SIC 2061, 2062, 2063): Indexes of output per employee hour and output per employee, 1958–85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	99.7	99.0	103.8	99.0	97.8	103.6
1985 ²	103.1	101.2	111.9	104.2	102.3	112.4
Average annual percent change:						
1947-85	3.1	3.3	1.8	3.0	3.3	1.9
1980-85 .....	.8	.6	1.7	1.3	1.2	1.7

¹ 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.

² 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. Sugar (SIC 2061, 2062, 2063): Indexes of output, employee hours, and employees, 1958–85
(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	
1959	64.6	118.3	126.0	90.7	118.4	125.2	
1960	66.4	115.4	122.9	88.7	114.2	120.0	
1961	70.2	114.3	121.4	88.5	113.9	119.4	
1962	73.4	108.7	116.3	81.3	108.4	114.4	
1963	77.0	113.2	120.5	87.1	113.3	118.9	
1964	83.1	116.2	123.7	89.8	115.6	120.9	
1965	80.6	108.3	116.0	80.7	111.4	118.5	
1966	81.2	105.3	111.2	84.9	109.0	112.5	
1967	82.7	107.2	113.8	83.7	109.3	114.6	
1968	86.5	107.5	115.0	80.9	109.0	115.1	
1969	85.0	108.1	115.0	82.8	111.8	117.8	
1970	90.2	105.0	112.6	77.7	108.7	115.1	
1971	90.3	106.4	113.3	81.6	104.4	109.6	
1972	94.9	105.0	109.7	86.7	104.4	109.1	
1973	96.1	99.8	102.4	89.8	97.3	100.0	
1974	94.5	101.4	106.0	83.8	96.2	100.4	
1975	95.3	101.4	101.6	100.9	103.8	105.1	
1976	103.2	107.7	108.4	104.8	106.1	106.8	
1977	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	
1979	90.7	88.0	87.9	88.8	89.2	89.3	
1980	88.3	88.2	88.7	86.2	89.9	91.0	
1981	90.2	91.3	92.2	87.1	92.9	94.4	
1982	77.8	86.1	85.9	87.1	88.2	88.5	
1983	75.6	76.7	77.7	72.4	77.7	79.1	
1984	76.9	77.1	77.7	74.1	77.7	78.0	
1985 ¹	74.3	72.1	73.4	66.4	71.3	72.6	
Average annual percent change:							
1947-85	1.7	-1.4	-1.6	-1.1	-1.3	-1.6	
1980-85	-3.8	-4.6	-4.4	-5.5	-5.1	-5.0	

¹ Preliminary.

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

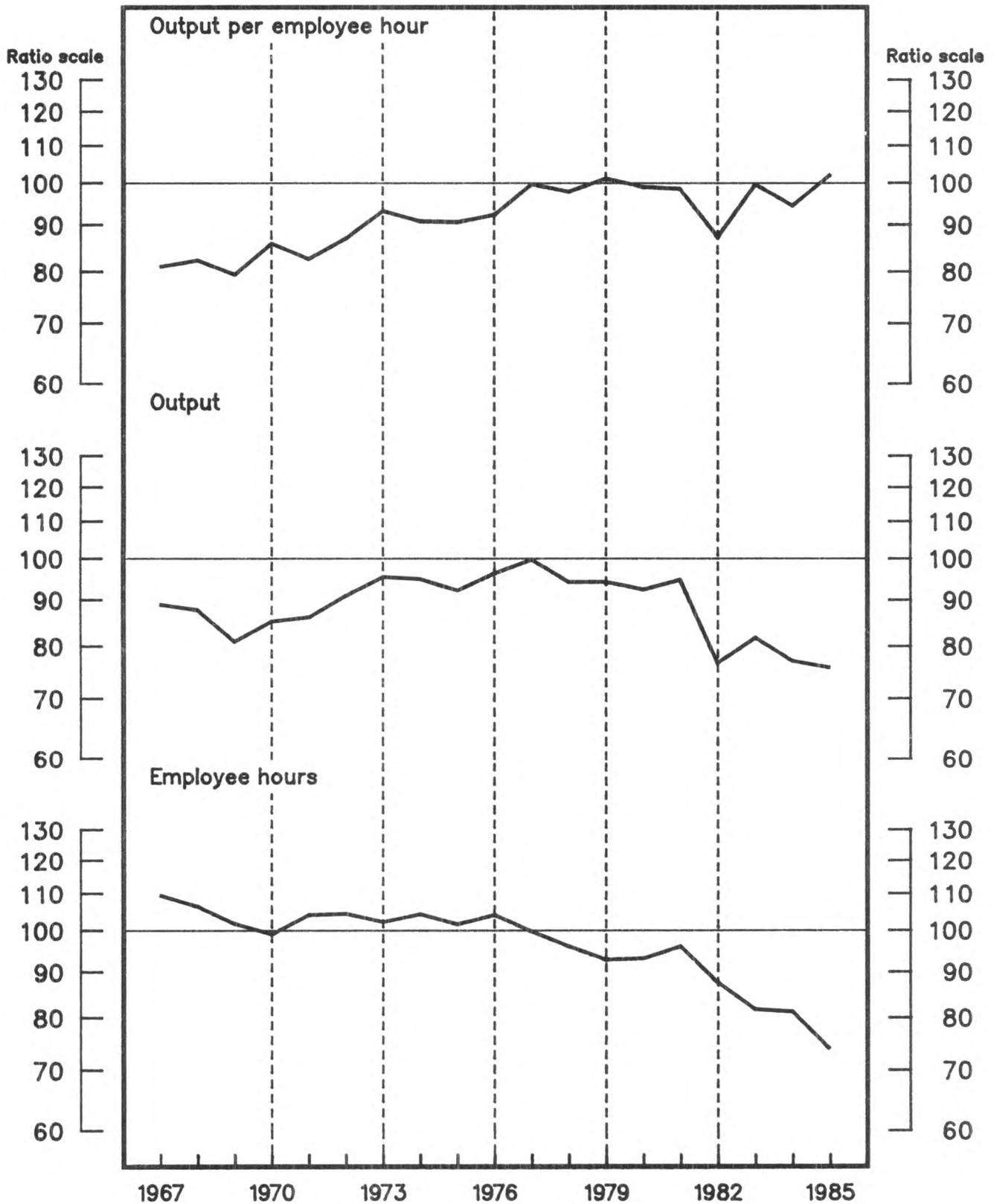
SOURCE: Output based on data from the Agricultural Marketing Service and Statistical

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. Raw and refined cane sugar (SIC 2061, 2062): Output per hour and related data, 1967-85

(1977=100)



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

Table 49. Raw and refined cane sugar (SIC 2061, 2062): Indexes of output per employee hour and output per employee, 1958-85 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	94.7	91.8	106.2	95.0	91.5	106.8
1985 ²	102.4	97.4	123.6	103.8	98.6	123.0
Average annual percent change:						
1958-85	2.1	2.3	1.5	2.2	2.3	2.0
1980-85 .....	.5	.2	1.5	.2	-2	1.4

¹ 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.

² 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 50. Raw and refined cane sugar (SIC 2061, 2062): Indexes of output, employee hours, and employees, 1958-85 (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	77.2	81.5	84.1	72.7	81.3	84.4	72.3
1985 ¹	75.9	74.1	77.9	61.4	73.1	77.0	61.7
Average annual percent change:							
1958-85 .....	.7	-1.4	-1.6	-7	-1.4	-1.5	-1.2
1980-85	-4.4	-4.8	-4.6	-5.7	-4.5	-4.2	-5.7

¹ Preliminary.

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

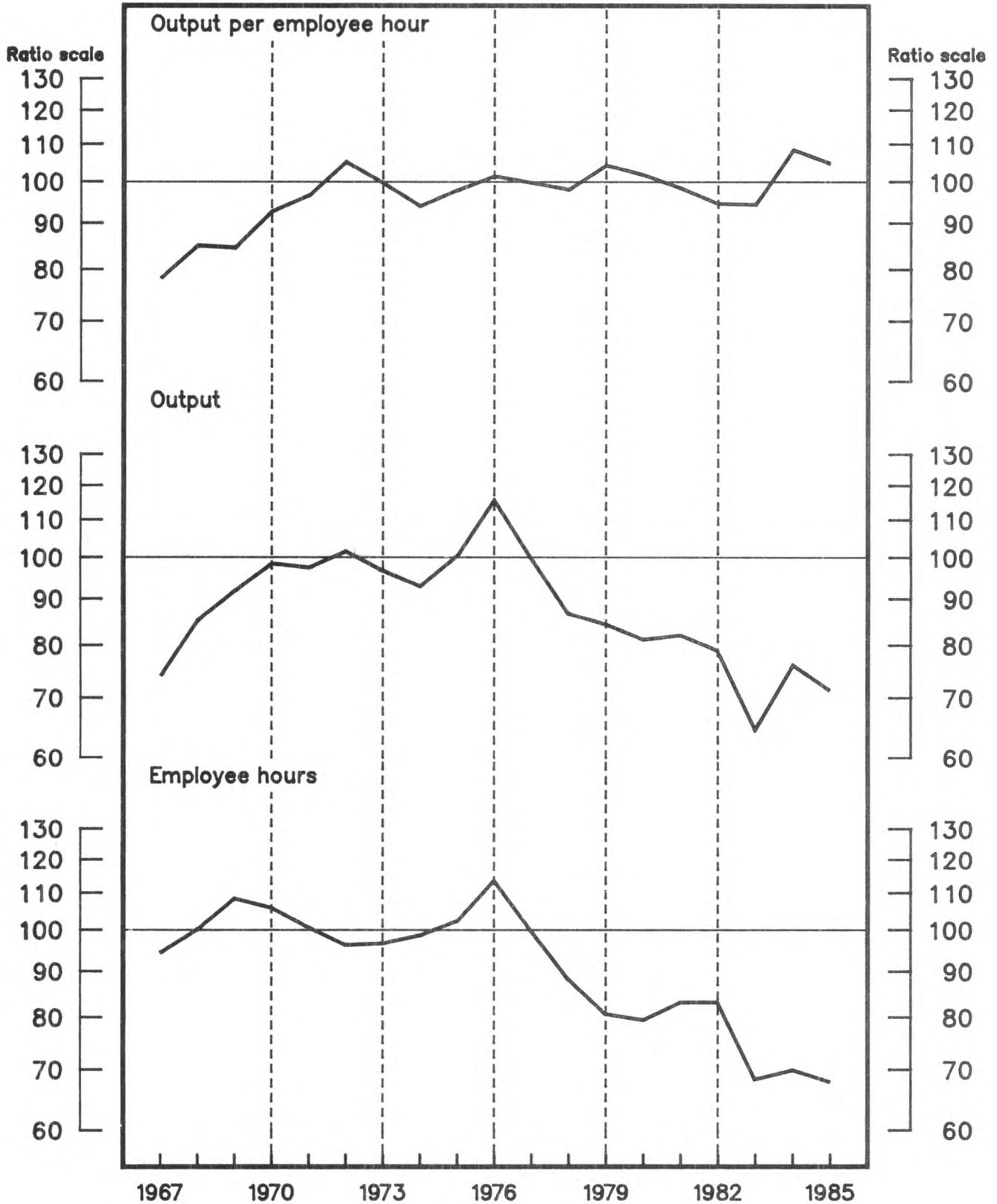
SOURCE: Output based on data from the Agricultural Marketing Service and Statistical

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 27. Beet sugar (SIC 2063): Output per hour and related data, 1967-85

(1977=100)



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

Table 51. Beet sugar (SIC 2063): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	108.8	110.6	97.1	106.1	107.9	95.4
1985 ²	105.1	107.2	91.0	104.5	107.2	89.4
Average annual percent change:						
1958-85	1.8	2.1	.1	1.6	1.8	.6
1980-85	1.3	1.1	2.1	3.1	3.4	1.7

¹ 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.

² 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 52. Beet sugar (SIC 2063): Indexes of output, employee hours, and employees, 1958-85
(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	76.3	70.1	69.0	78.6	71.9	70.7	80.0
1985 ¹	71.5	68.0	66.7	78.6	68.4	66.7	80.0
Average annual percent change:							
1958-85 .....	.8	-1.0	-1.2	.7	-.8	-1.0	.2
1980-85	-3.0	-4.2	-4.1	-5.0	-6.0	-6.2	-4.6

¹ Preliminary.

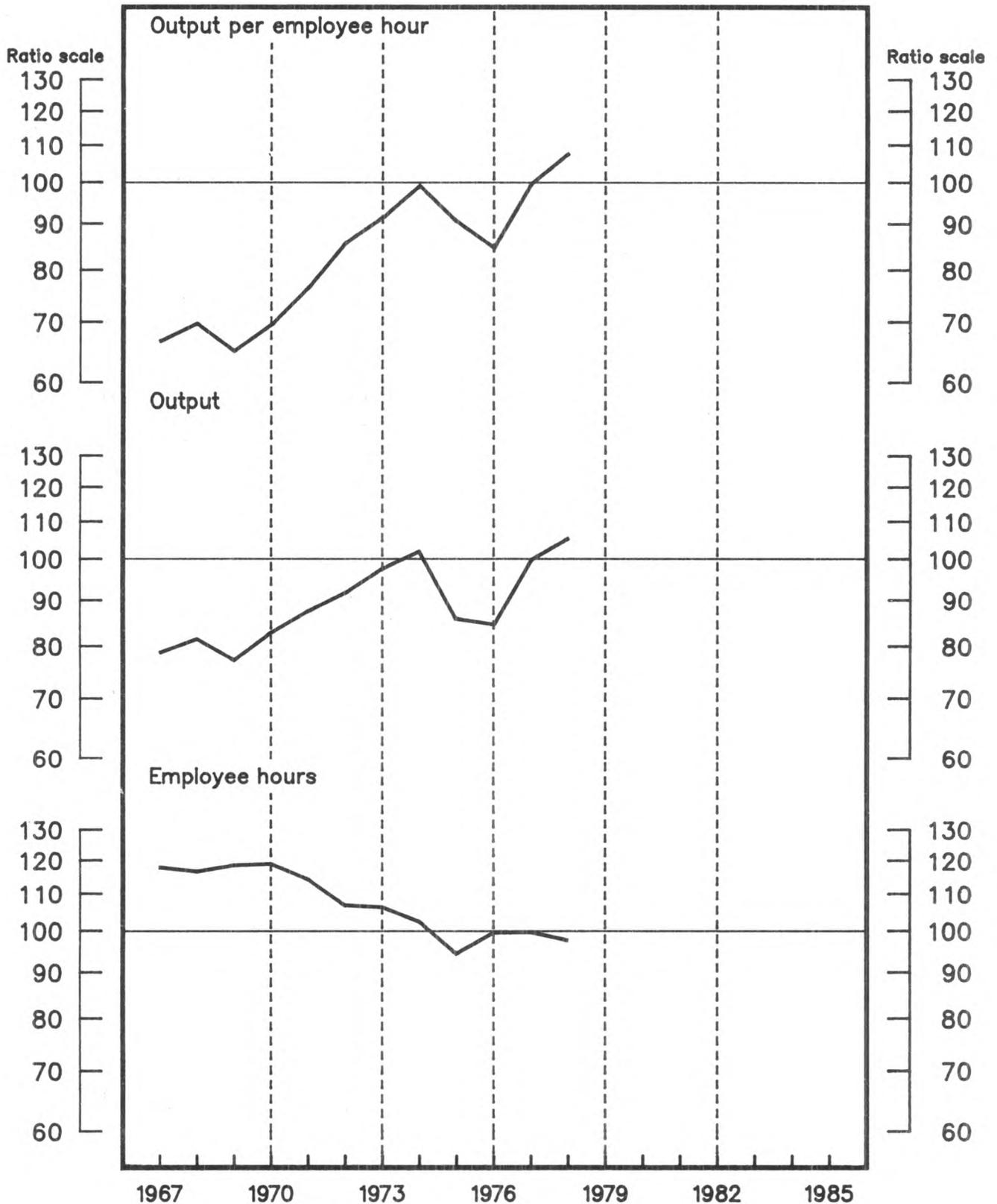
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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 28. 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 53. 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 ¹			Output per employee ¹		
	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

¹ 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 54. 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

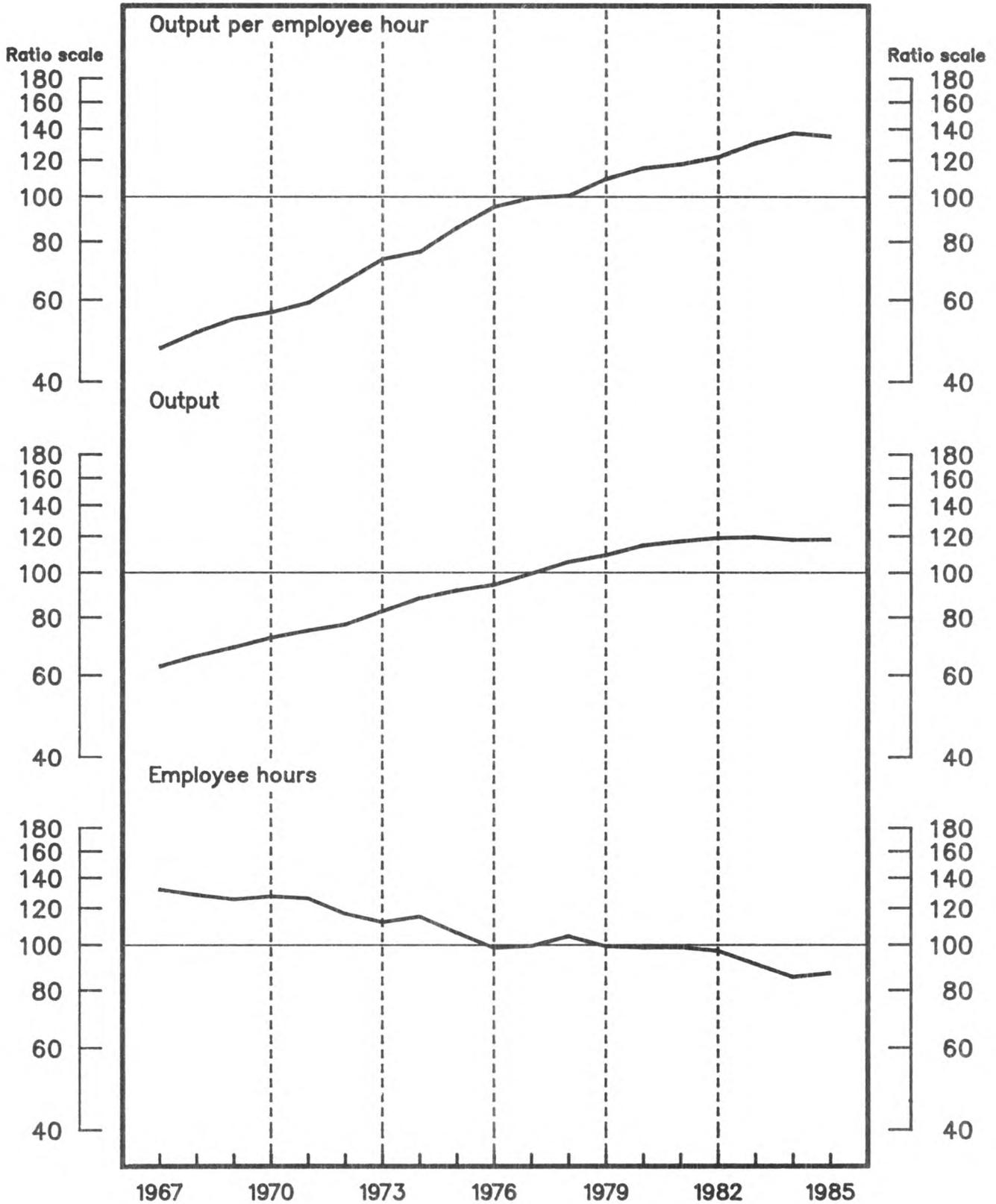
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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 29. Malt beverages (SIC 2082): Output per hour and related data, 1967-85

(1977=100)



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

Table 55. Malt beverages (SIC 2082): indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	137.9	139.5	133.8	134.1	134.3	133.8
1985 ²	135.7	133.4	141.5	130.8	126.7	141.7
Average annual percent change:						
1947-85	5.9	5.8	6.2	5.8	5.6	6.1
1980-85	3.8	3.4	4.9	2.9	2.1	4.7

¹ 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.

² 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 56. Malt beverages (SIC 2082): indexes of output, employee hours, and employees, 1958-85
(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	118.3	85.8	84.8	88.4	88.2	88.1	88.4
1985 ¹	118.6	87.4	88.9	83.8	90.7	93.6	83.7
Average annual percent change:							
1947-85	3.4	-2.3	-2.2	-2.6	-2.2	-2.1	-2.5
1980-85	.5	-3.2	-2.8	-4.2	-2.3	-1.6	-4.0

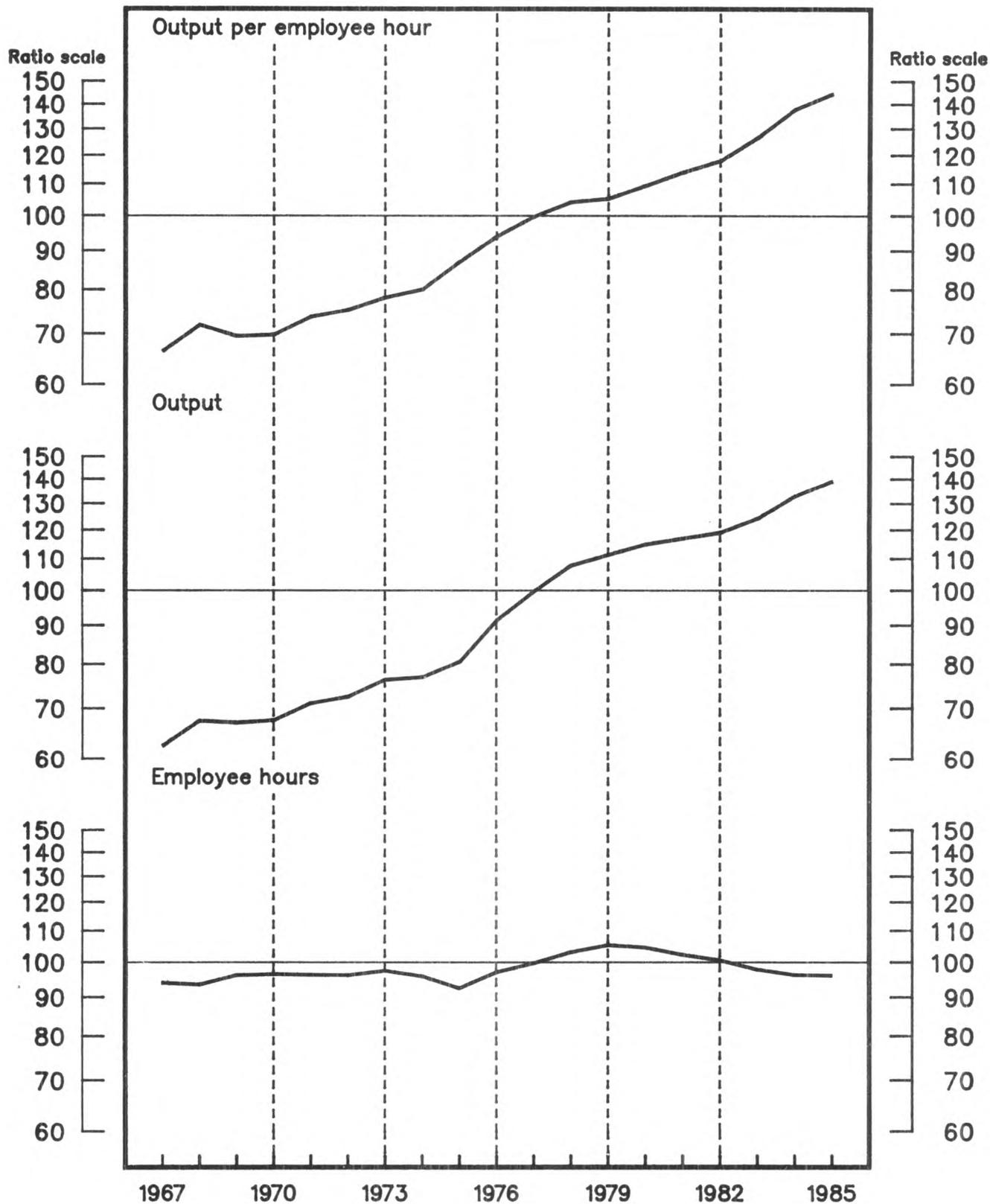
¹ Preliminary.

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 30. Bottled and canned soft drinks (SIC 2086): Output per hour and related data, 1967-85

(1977 = 100)



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

Table 57. Bottled and canned soft drinks (SIC 2086): Indexes of output per employee hour and output per employee, 1958-85
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	138.3	154.2	130.8	138.3	154.5	130.8
1985 ²	144.9	159.8	137.6	145.5	161.8	137.6
Average annual percent change:						
1958-85	3.3	4.3	2.7	3.4	4.1	3.0
1980-85	6.0	6.8	5.6	5.9	6.7	5.6

¹ 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.

² 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.

Table 58. Bottled and canned soft drinks (SIC 2086): Indexes of output, employee hours, and employees, 1958-85
(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	133.5	96.5	86.6	102.1	96.5	86.4	102.1
1985 ¹	139.5	96.3	87.3	101.4	95.9	86.2	101.4
Average annual percent change:							
1958-85	4.4	1.1	.1	1.7	1.0	.3	1.4
1980-85	4.0	-1.8	-2.6	-1.4	-1.8	-2.4	-1.4

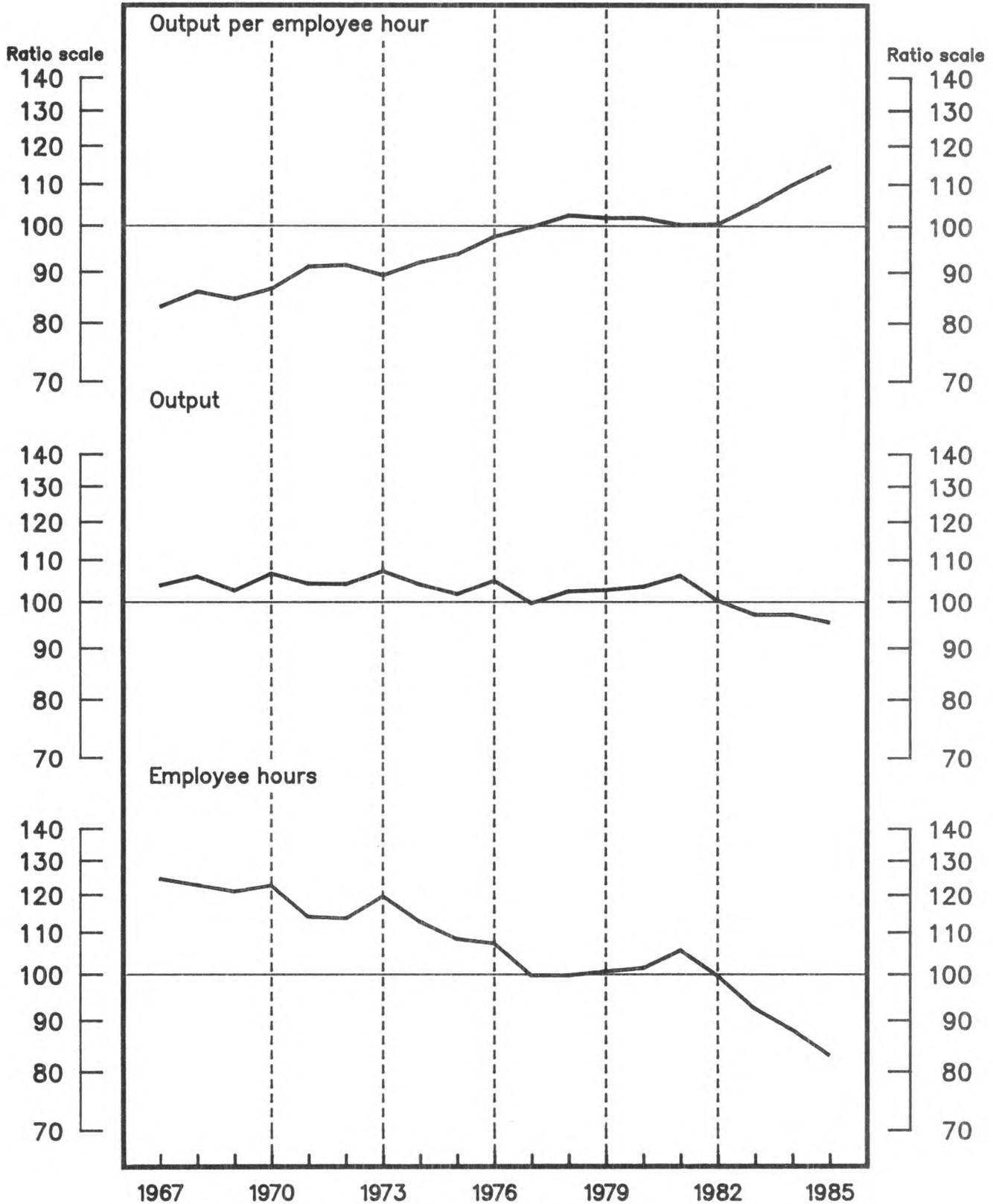
¹ Preliminary.

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 31. All tobacco products (SIC 2111, 2121, 2131): Output per hour and related data, 1967-85

(1977=100)



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

Table 59. All tobacco products (SIC 2111, 2121, 2131): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	110.3	123.0	69.1	111.4	125.8	69.3
1985 ²	114.9	129.7	69.4	110.8	124.8	69.3
Average annual percent change:						
1947-85	2.5	3.0	-4	2.4	2.9	-8
1980-85	2.6	4.7	-5.1	1.5	3.4	-5.2

¹ 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.

² 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 60. All tobacco products (SIC 2111, 2121, 2131): Indexes of output, employee hours, and employees, 1958-85
(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	97.4	88.3	79.2	140.9	87.4	77.4	140.5
1985 ¹	95.7	83.3	73.8	137.9	86.4	76.7	138.0
Average annual percent change:							
1947-85	.7	-1.8	-2.2	1.1	-1.6	-2.1	1.5
1980-85	-2.0	-4.5	-6.4	3.2	-3.4	-5.2	3.3

¹ Preliminary.

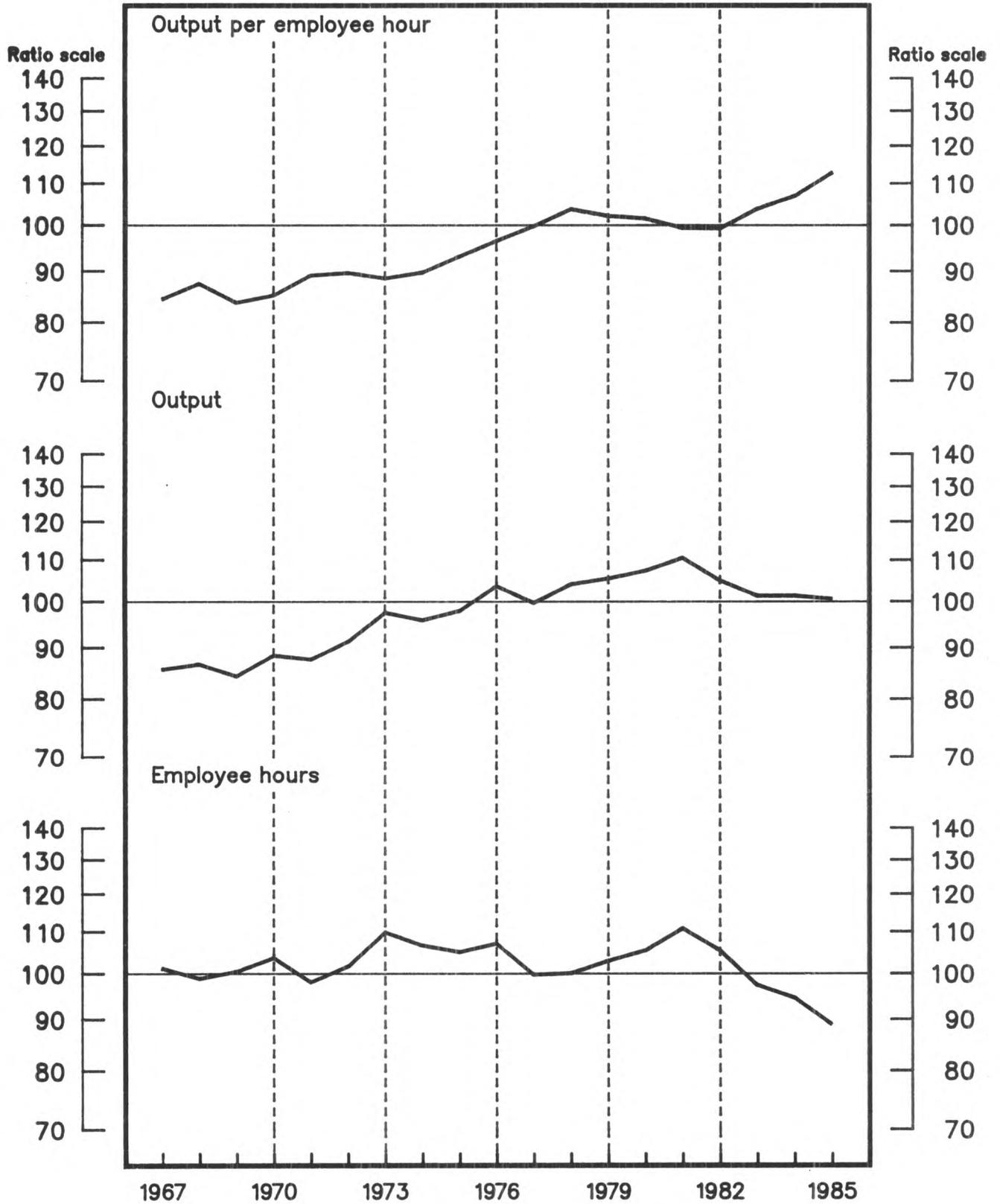
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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 32. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Output per hour and related data, 1967-85

(1977=100)



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

Table 61. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Indexes of output per employee hour and output per employee, 1958-85 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	107.2	119.5	69.3	108.8	123.0	69.7
1985 ²	113.1	128.2	69.6	108.8	123.0	69.9
Average annual percent change:						
1947-85	1.5	1.9	-1.1	1.2	1.7	-1.5
1980-85	2.3	4.4	-5.1	1.1	3.1	-5.2

¹ 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.

² 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 62. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Indexes of output, employee hours, and employees, 1958-85 (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	101.6	94.8	85.0	146.7	93.4	82.6	145.8
1985 ¹	100.9	89.2	78.7	145.0	92.7	82.0	144.4
Average annual percent change:							
1947-85	1.6	.2	-.3	2.7	.4	-.1	3.2
1980-85	-1.7	-3.9	-5.9	3.6	-2.8	-4.7	3.7

¹ Preliminary.

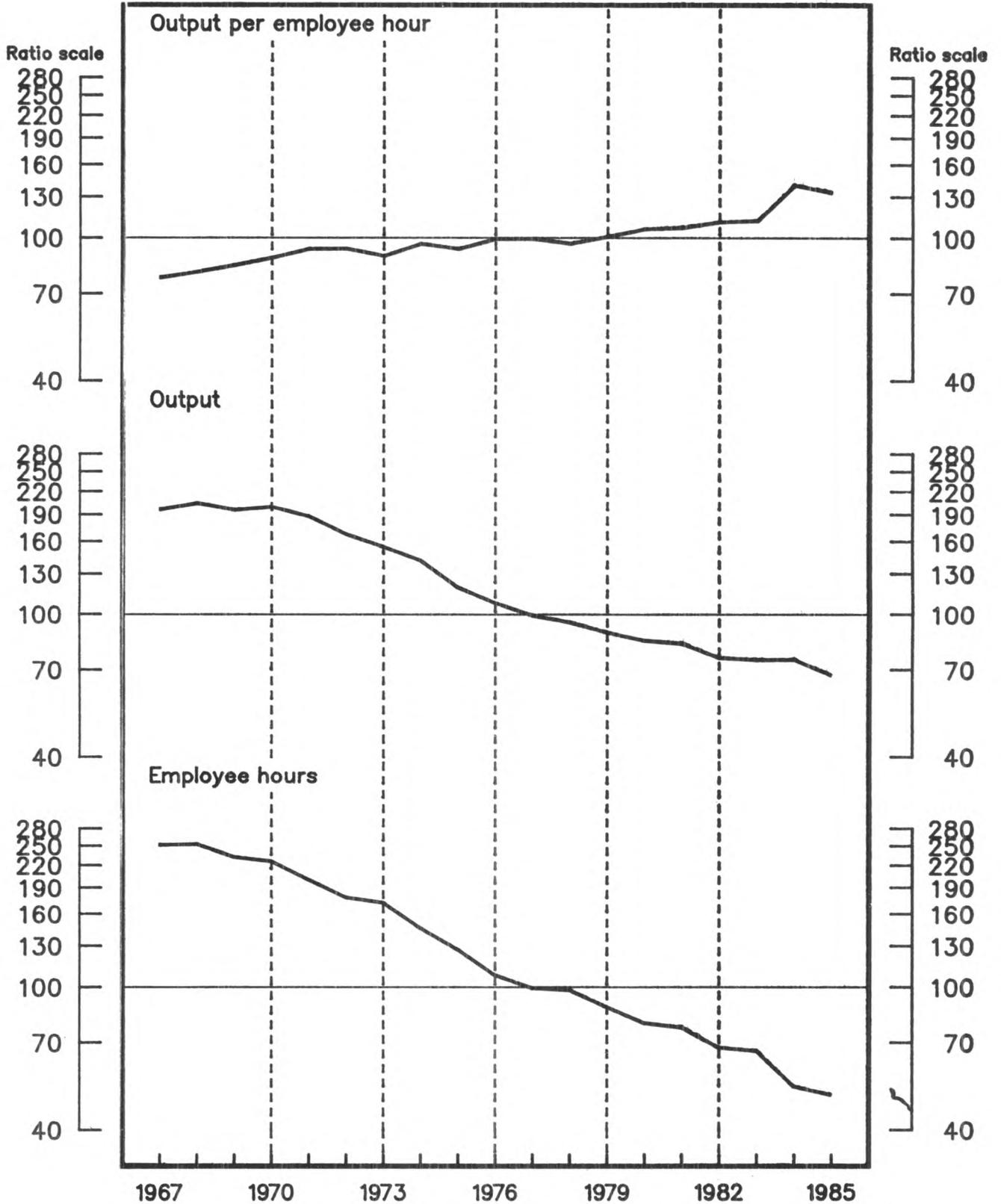
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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 33. Cigars (SIC 2121): Output per hour and related data, 1967-85

(1977=100)



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

Table 63. Cigars (SIC 2121): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	78.9
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	141.4	149.2	90.3	138.0	146.3	87.7
1985 ²	134.7	139.1	101.8	130.8	135.8	95.1
Average annual percent change:						
1947-85	4.3	4.4	2.7	4.3	4.5	2.2
1980-85	5.9	6.9	-1.5	4.7	5.6	-2.0

¹ 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.

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.

² Preliminary.

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

Table 64. Cigars (SIC 2121): Indexes of output, employee hours, and employees, 1958-85
(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	75.2	53.2	50.4	83.3	54.5	51.4	85.7
1985 ¹	67.9	50.4	48.8	66.7	51.9	50.0	71.4
Average annual percent change:							
1947-85	-2.3	-6.3	-6.5	-4.9	-6.3	-6.5	-4.5
1980-85	-4.0	-9.4	-10.2	-2.6	-8.3	-9.1	-2.1

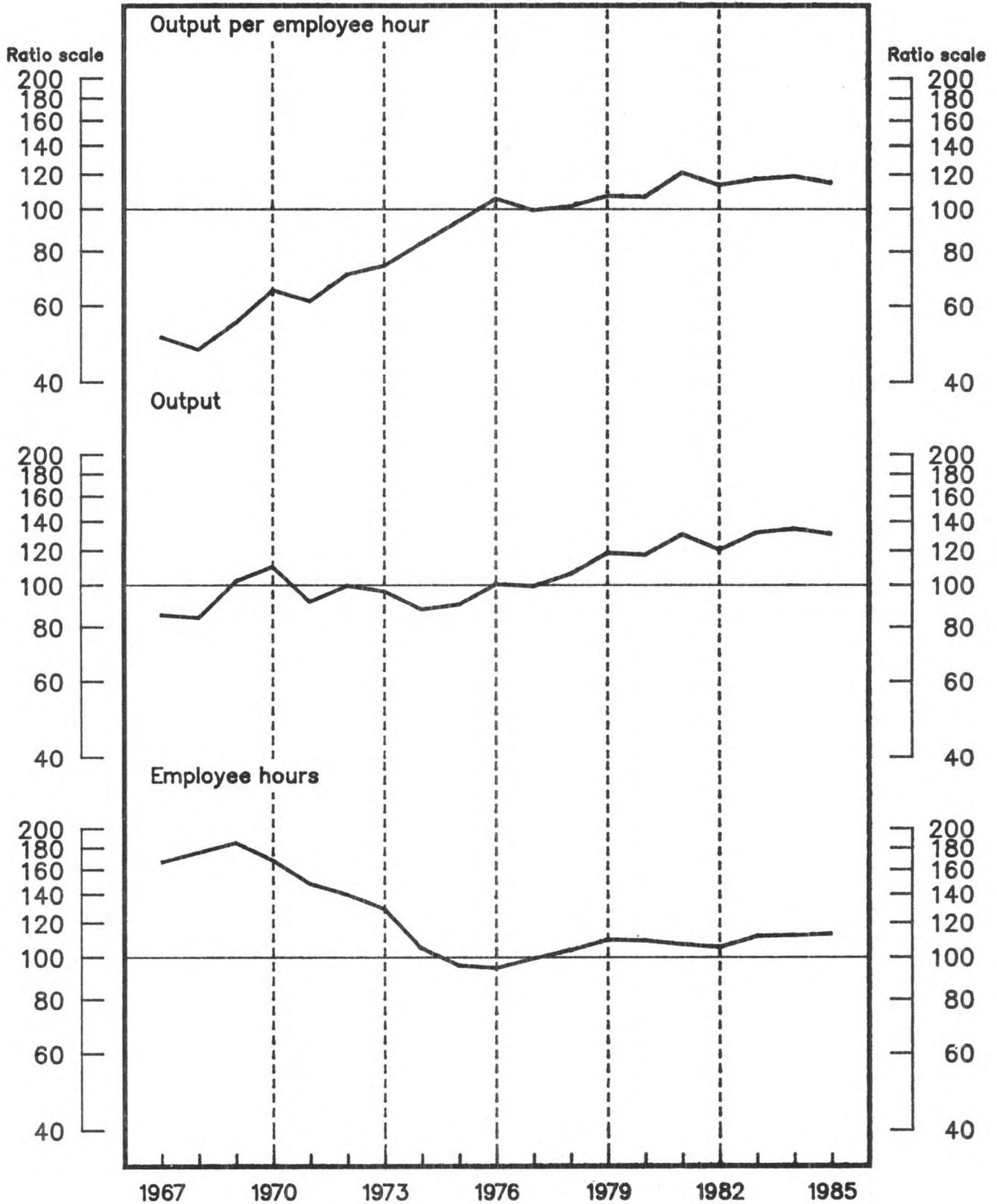
¹ Preliminary.

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 34. Hosiery (SIC 2251, 2252): Output per hour and related data, 1967-85

(1977=100)



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

Table 65. Hosiery (SIC 2251, 2252): indexes of output per employee hour and output per employee, 1958-85
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	119.7	123.1	96.4	123.3	127.3	96.6
1985 ²	115.5	119.1	91.4	119.6	123.8	91.8
Average annual percent change:						
1947-85	5.9	6.0	4.4	5.9	6.1	4.2
1980-85	1.0	1.0	1.2	.9	.9	1.1

¹ 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.

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.

² Preliminary.

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

Table 66. Hosiery (SIC 2251, 2252): indexes of output, employee hours, and employees, 1958-85
(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	189.3	188.5	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	135.3	113.0	109.9	140.4	109.7	106.3	140.0
1985 ¹	131.6	113.9	110.5	144.0	110.0	106.3	143.3
Average annual percent change:							
1947-85	3.2	-2.5	-2.6	-1.1	-2.4	-2.6	-0.9
1980-85	2.1	1.1	1.1	.9	1.1	1.2	1.0

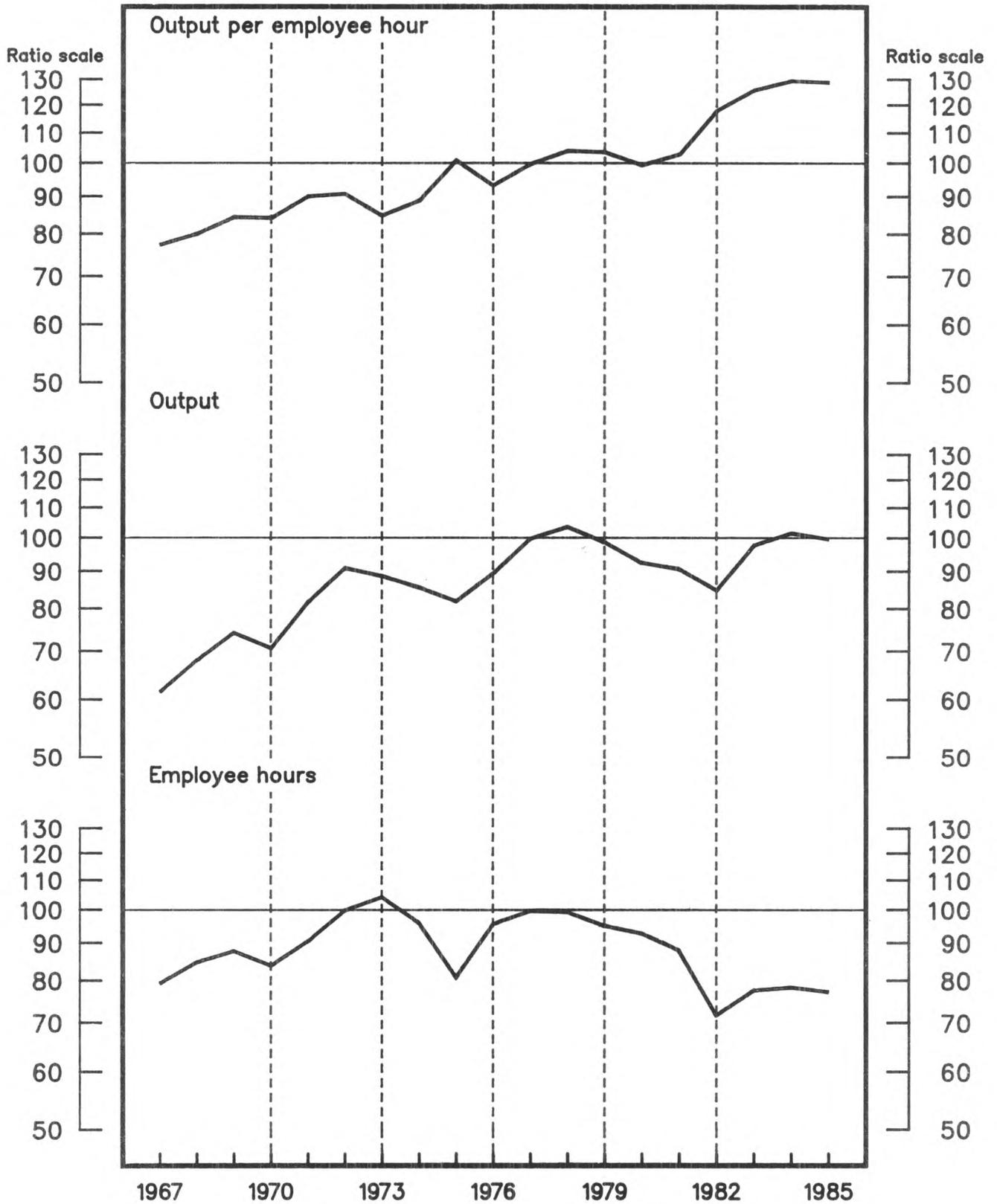
¹ Preliminary.

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 35. Yarn mills, except wool (SIC 2281): Output per hour and related data, 1967-85

(1977 = 100)



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

Table 67. Yarn mills, except wool (SIC 2281): Indexes of output per employee hour and output per employee, 1958-85
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	78.3	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	126.0	126.3	121.4	125.0	125.3	120.8
1984	129.7	130.8	115.6	125.4	126.3	115.9
1985 ²	129.1	130.1	117.3	126.1	126.9	117.4
Average annual percent change:						
1958-85	2.4	2.6	.8	2.4	2.5	.6
1980-85	6.0	6.0	6.2	6.4	6.4	6.2

¹ 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.

² 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 68. Yarn mills, except wool (SIC 2281): Indexes of output, employee hours, and employees, 1958-85
(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	98.0	77.8	77.6	80.7	78.4	78.2	81.1
1984	101.8	78.5	77.8	88.1	81.2	80.6	87.8
1985 ¹	99.9	77.4	76.8	85.2	79.2	78.7	85.1
Average annual percent change:							
1958-85	3.5	1.0	.9	2.6	1.1	.9	2.8
1980-85	2.5	-3.3	-3.3	-3.5	-3.7	-3.7	-3.5

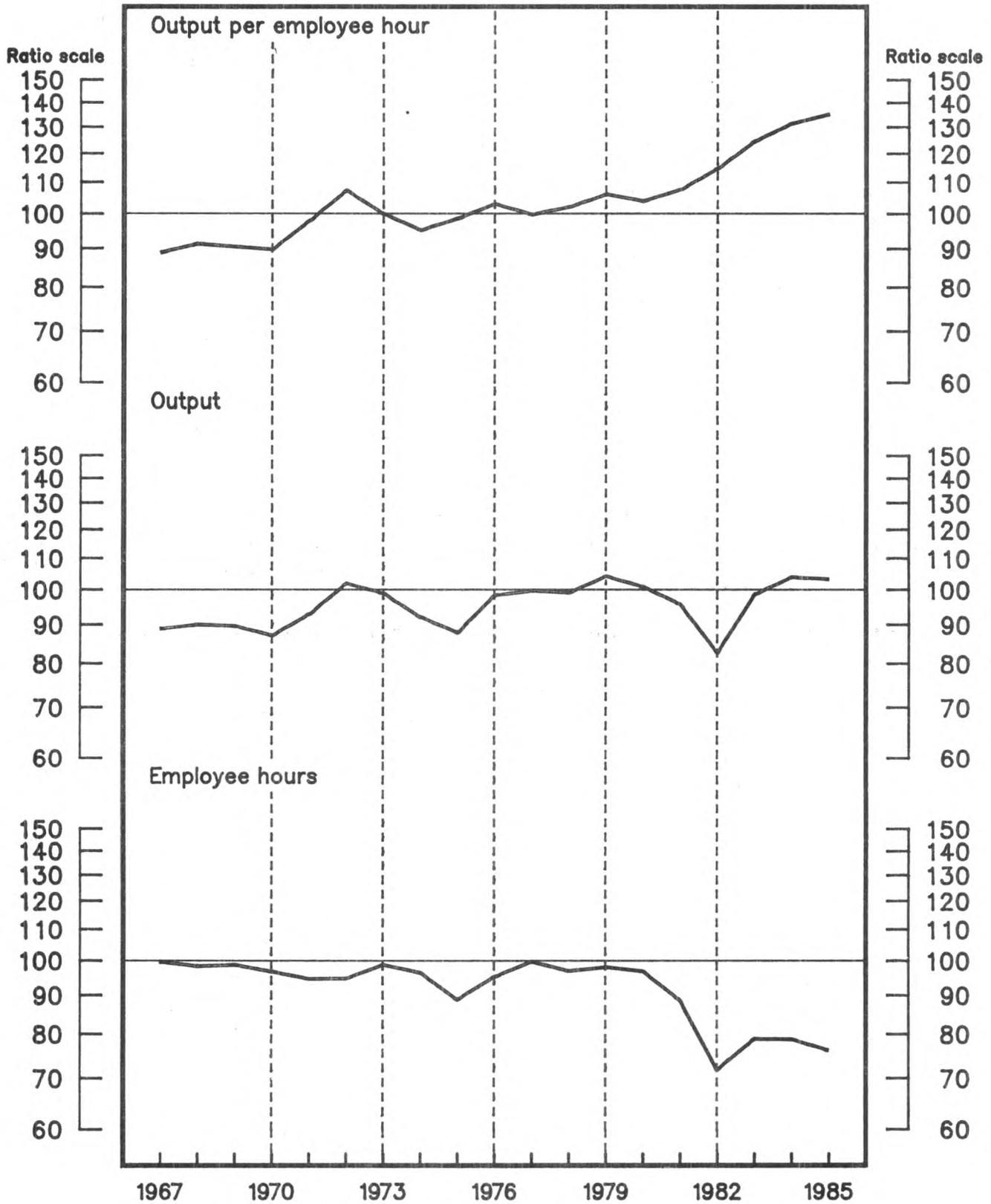
¹ Preliminary.

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. Sawmills and planing mills, general (SIC 2421): Output per hour and related data, 1967-85

(1977=100)



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

Table 69. Sawmills and planing mills, general (SIC 2421): Indexes of output per employee hour and output per employee, 1958-85 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	106.3	107.3	99.0	103.5	104.1	99.3
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	131.9	134.1	115.6	128.0	129.6	116.2
1985 ²	135.6	138.7	114.3	131.3	133.7	114.9
Average annual percent change:						
1958-85	2.3	2.5	.8	2.3	2.5	.8
1980-85	5.9	5.6	8.0	5.9	5.6	8.0

¹ 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.

² 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 Forest Product Association, 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 70. Sawmills and planing mills, general (SIC 2421): Indexes of output, employee hours, and employees, 1958-85 (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	98.3	97.4	105.6	101.0	100.4	105.2
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	73.3	73.1	92.8
1983	98.9	79.1	77.6	91.7	81.5	80.2	91.8
1984	104.2	79.0	77.7	90.1	81.4	80.4	89.7
1985 ¹	103.6	76.4	74.7	90.6	78.9	77.5	90.2
Average annual percent change:							
1958-85	.5	-1.7	-1.9	-3	-1.8	-2.0	-3
1980-85	1.6	-4.1	-3.8	-6.0	-4.1	-3.9	-5.9

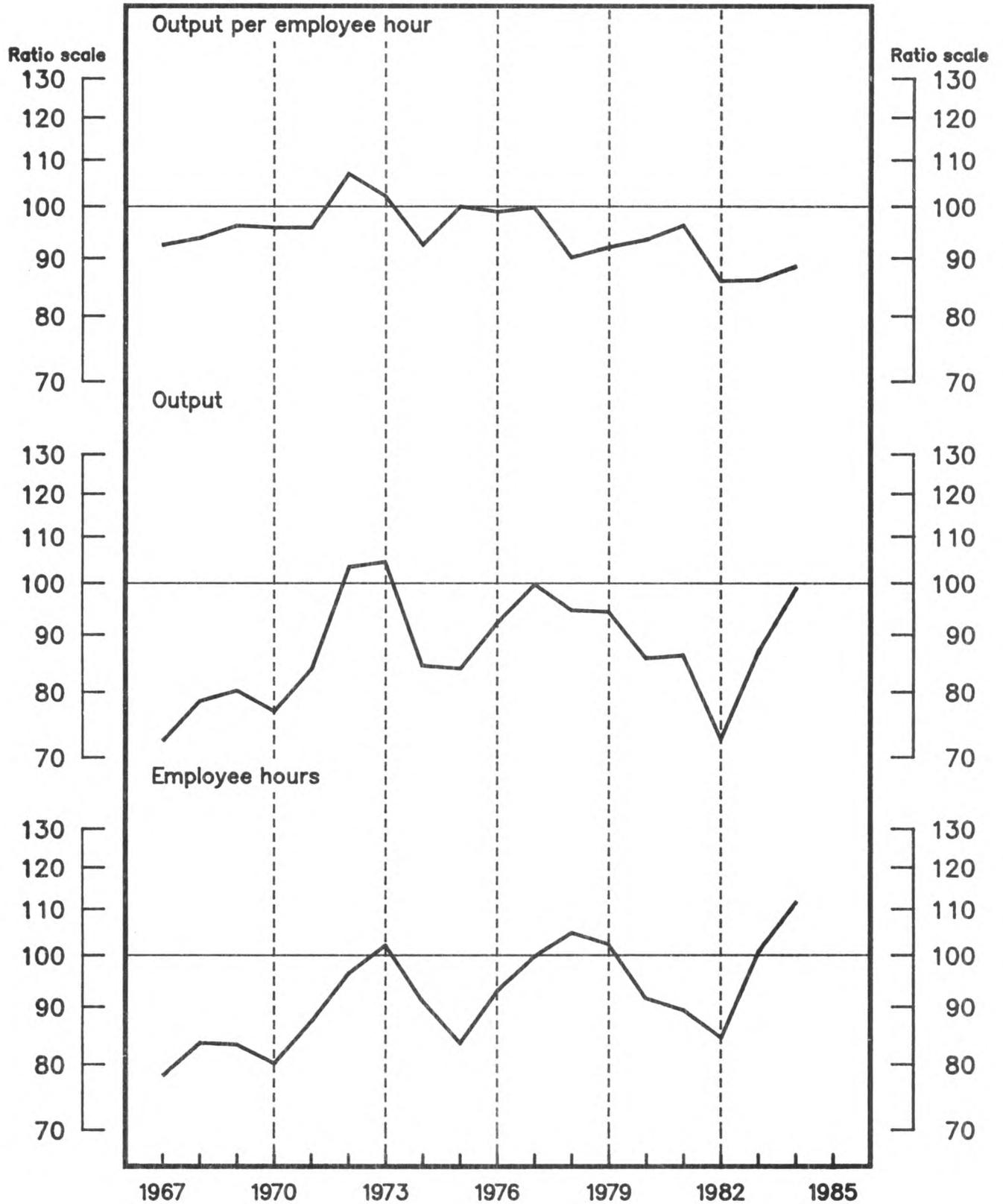
¹ Preliminary.

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 Forest Product Association, 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 37. Millwork (SIC 2431): Output per hour and related data, 1967-84

(1977=100)



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

Table 71. Millwork (SIC 2431): Indexes of output per employee hour and output per employee, 1958-84
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	99.6	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	86.3	88.1	78.8	87.9	90.1	78.8
1984 ²	88.7	89.8	83.9	89.4	90.7	83.9
Average annual percent change:						
1958-84	.8	.9	.5	.7	.7	.4
1980-84	-2.2	-2.8	.5	-1.3	-1.7	.5

¹ 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.

² 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 72. Millwork (SIC 2431): 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	58.5	77.4	78.0	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	87.2	101.0	99.0	110.7	99.2	96.8	110.7
1984 ¹	99.2	111.9	110.5	118.3	111.0	109.4	118.3
Average annual percent change:							
1958-84	2.0	1.1	1.1	1.5	1.3	1.2	1.6
1980-84	3.0	5.3	6.0	2.6	4.4	4.8	2.6

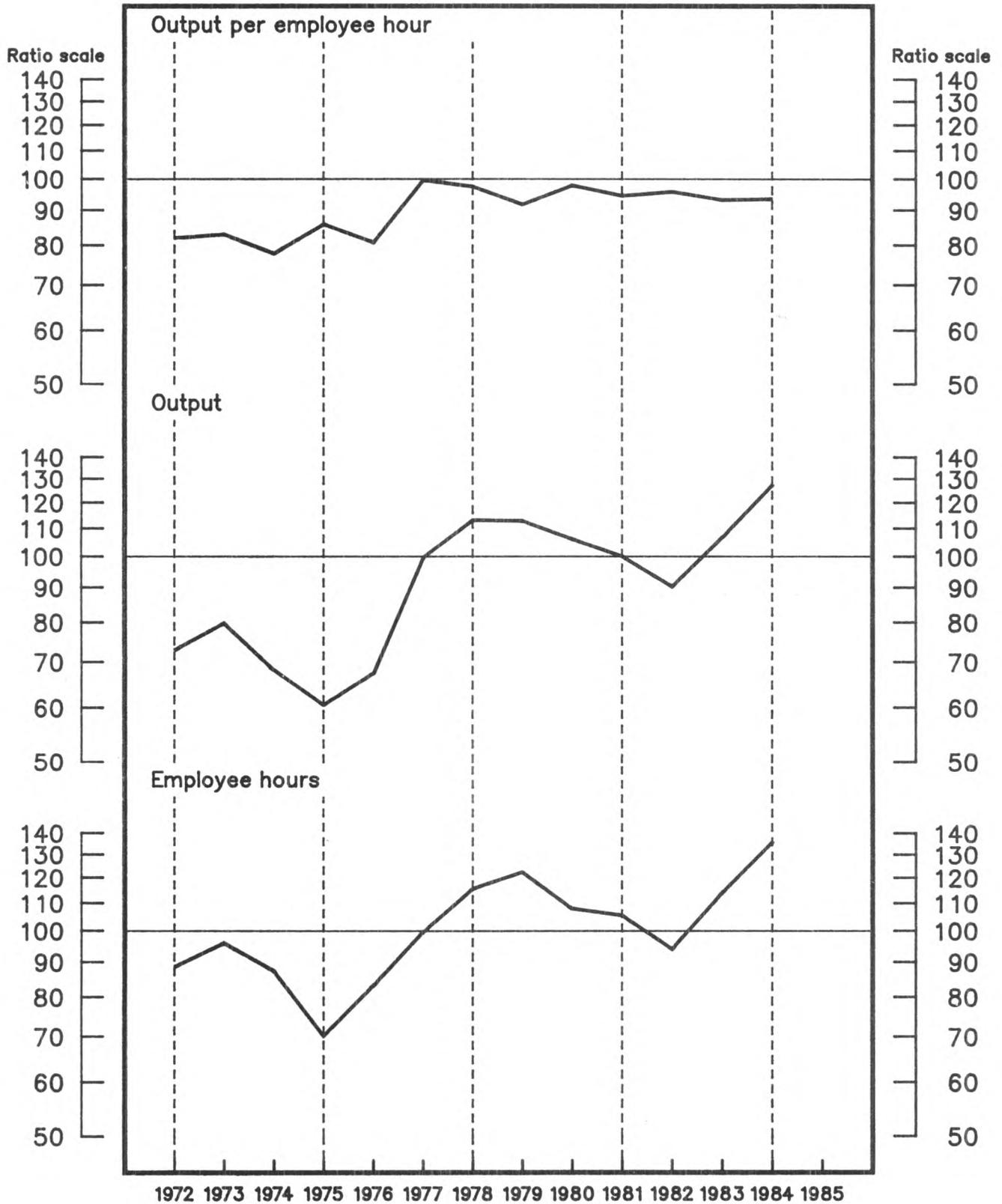
¹ Preliminary.

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 38. Wood kitchen cabinets (SIC 2434): Output per hour and related data, 1972-84

(1977=100)



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

Table 73. Wood kitchen cabinets (SIC 2434): Indexes of output per employee hour and output per employee, 1972-84
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	93.5	97.7	76.8	97.2	102.4	76.8
1984 ²	93.8	95.2	87.3	99.1	101.8	87.3
Average annual percent change:						
1972-84	1.6	1.9	(³)	1.7	2.0	.5
1980-84	-1.0	-1.3	-.1	.7	.9	-.1

¹ 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.

² Preliminary.

³ 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 74. Wood kitchen cabinets (SIC 2434): 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	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	107.1	114.6	109.6	139.4	110.2	104.6	139.4
1984 ¹	127.9	136.3	134.3	146.5	129.0	125.6	146.5
Average annual percent change:							
1972-84	4.8	3.2	2.8	4.8	3.0	2.8	4.3
1980-84	4.4	5.5	5.7	4.5	3.7	3.5	4.5

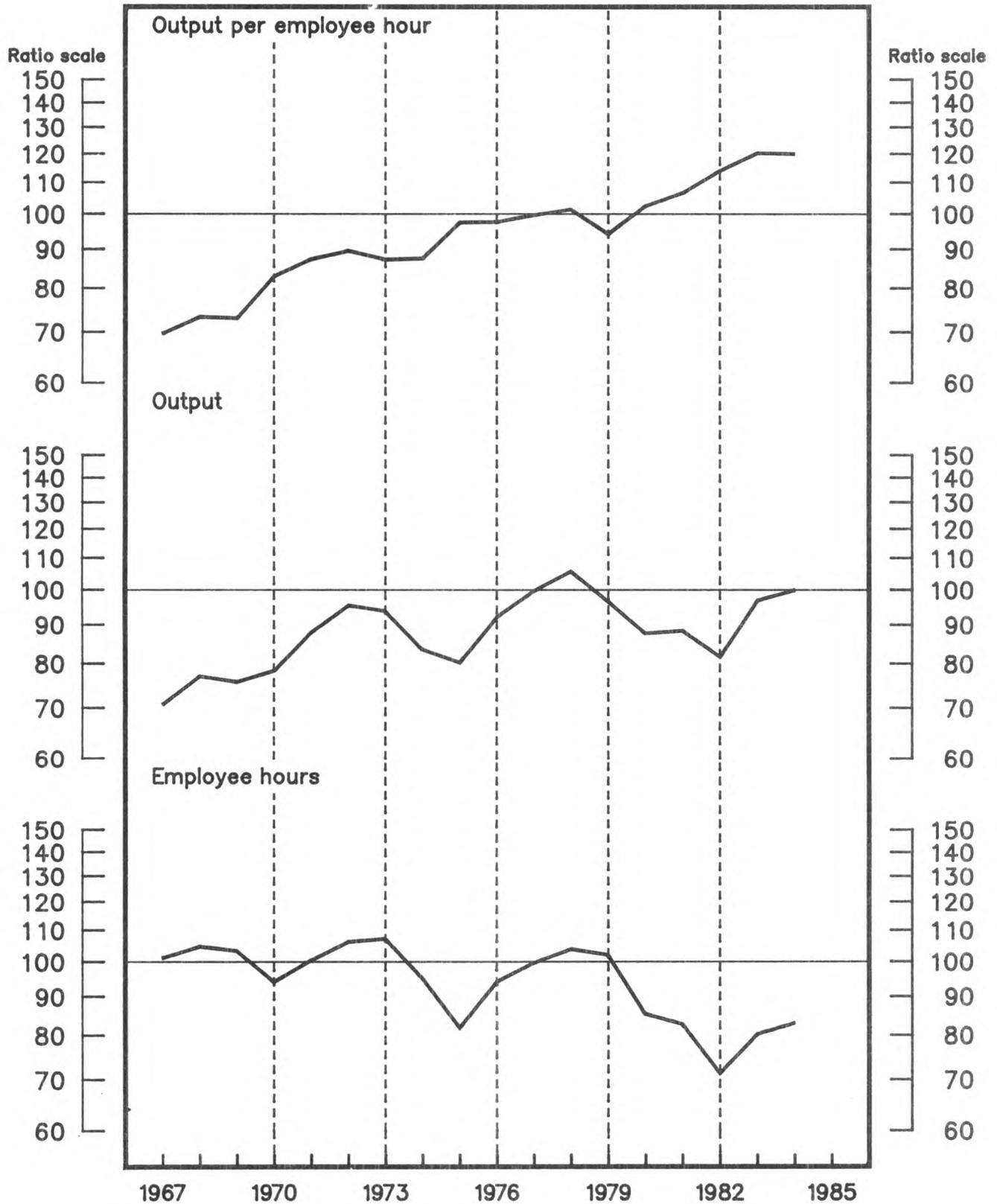
¹ Preliminary.

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

Year	Output per hour ¹			Output per employee ¹		
	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	120.6	120.9	117.5	119.0	119.1	117.5
1984 ²	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
1980-84	4.4	3.6	11.0	5.4	4.7	11.0

¹ 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.

² 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. 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	97.2	80.6	80.4	82.7	81.7	81.6	82.7
1984 ¹	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
1980-84	3.6	-8	-1	-6.7	-1.8	-1.1	-6.7

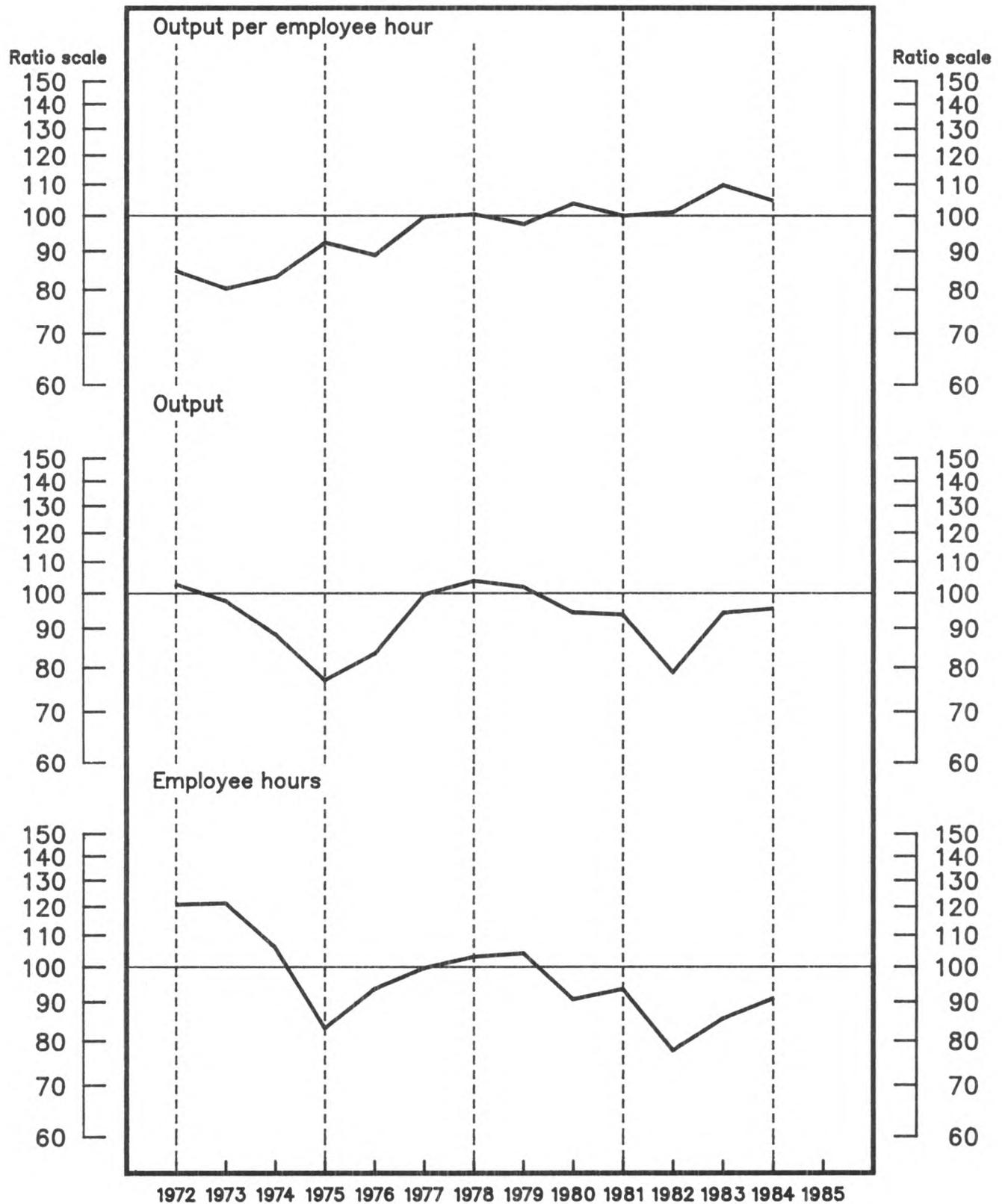
¹ Preliminary.

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

Year	Output per hour ¹			Output per employee ¹		
	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	110.1	111.8	97.8	108.6	110.3	97.8
1984 ²	105.0	105.9	99.1	103.7	104.4	99.1
Average annual percent change:						
1972-84	2.3	2.7	-3	1.9	2.2	-2
1980-84	1.1	1.2	1.0	1.5	1.7	1.0

¹ 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.

² 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. 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	94.6	85.9	84.6	96.7	87.1	85.8	96.7
1984 ¹	95.8	91.2	90.5	96.7	92.4	91.8	96.7
Average annual percent change:							
1972-84	-.1	-2.4	-2.7	.2	-2.0	-2.3	.1
1980-84 .....	.3	-.8	-.9	-.7	-1.2	-1.3	-.7

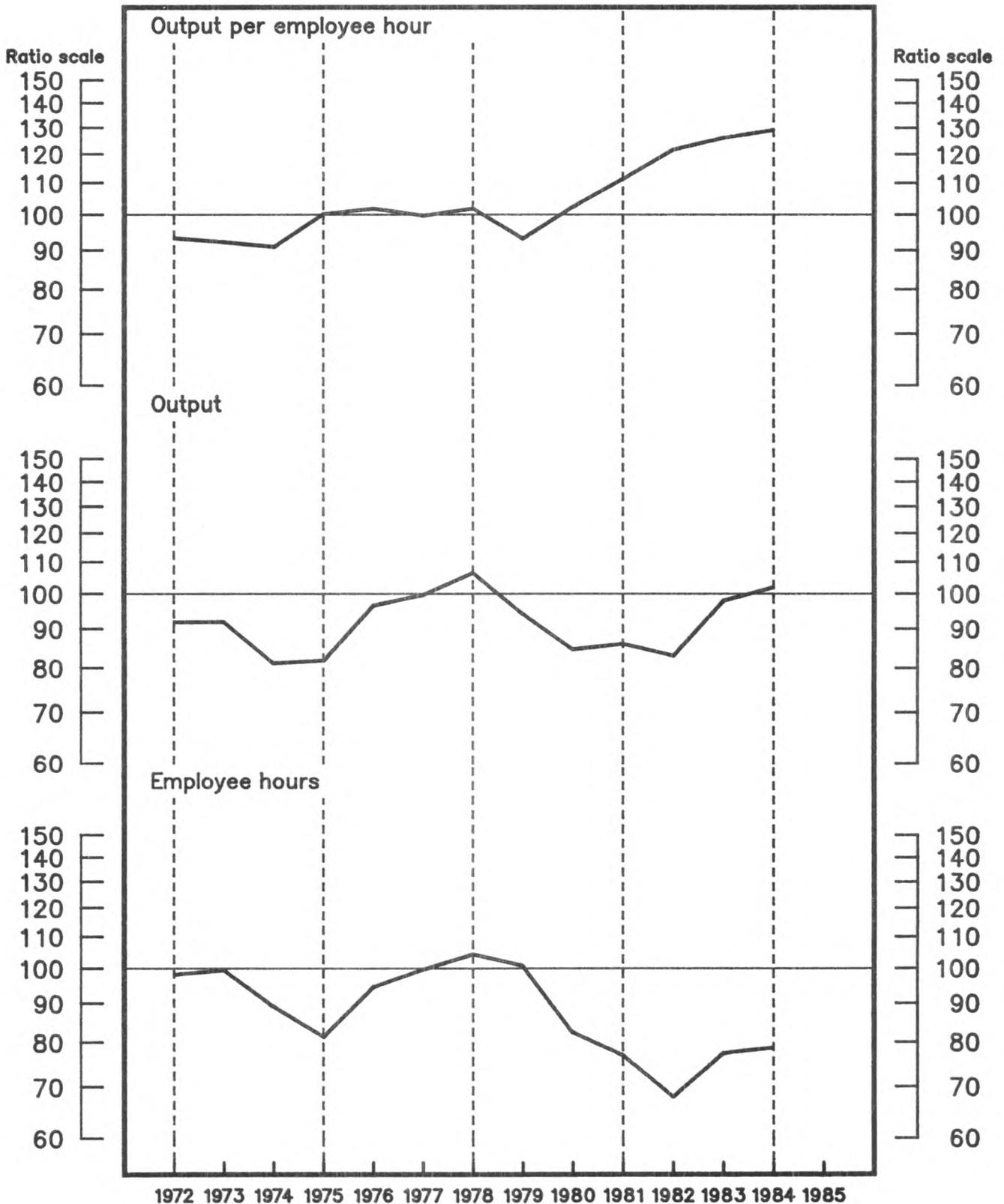
¹ Preliminary.

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

Year	Output per hour ¹			Output per employee ¹		
	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	126.5	126.0	131.9	124.9	124.1	131.9
1984 ²	129.5	127.6	149.1	127.6	125.4	149.1
Average annual percent change:						
1972-84	2.8	2.7	3.5	2.3	2.2	3.6
1980-84	6.0	4.7	17.4	7.4	6.2	17.4

¹ 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.

² 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 80. 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	98.3	77.7	78.0	74.5	78.7	79.2	74.5
1984 ¹	102.3	79.0	80.2	68.6	80.2	81.6	68.6
Average annual percent change:							
1972-84 .....	.5	-2.2	-2.1	-2.9	-1.8	-1.7	-3.0
1980-84	5.2	-8	.4	-10.4	-2.1	-9	-10.4

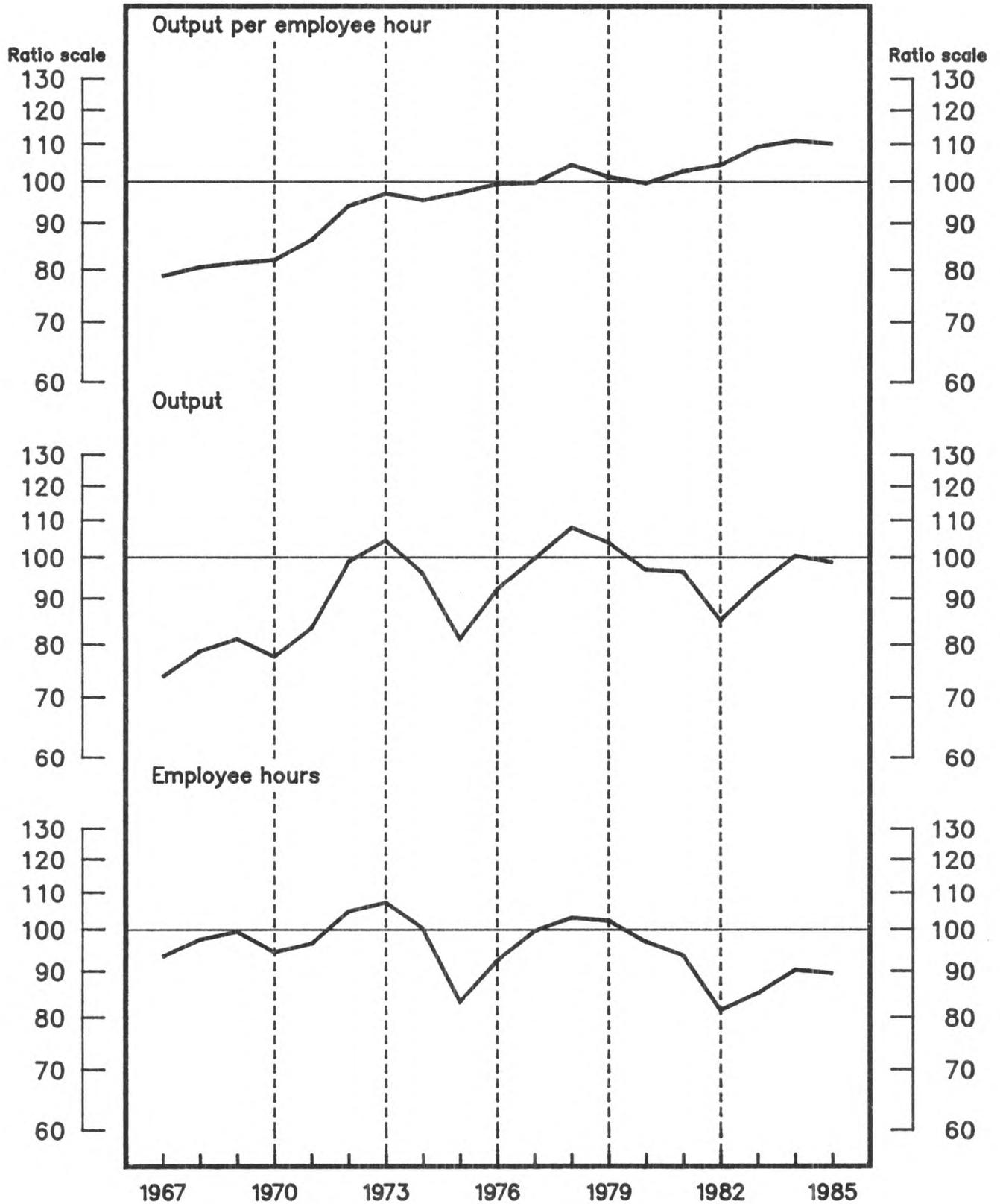
¹ Preliminary.

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 42. Household furniture (SIC 251): Output per hour and related data, 1967-85

(1977=100)



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

Table 81. Household furniture (SIC 251): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	109.6	110.5	104.8	108.8	109.6	104.8
1984	111.3	112.0	106.9	111.3	111.9	107.2
1985 ²	110.4	111.2	105.3	109.6	110.4	105.7
Average annual percent change:						
1958-85	2.1	2.2	1.4	1.8	1.9	1.3
1980-85	2.2	1.9	3.9	2.4	2.1	3.8

¹ 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.

² 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 82. Household furniture (SIC 251): Indexes of output, employee hours, and employees, 1958-85
(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	93.5	85.3	84.6	89.2	85.9	85.3	89.2
1984	100.7	90.5	89.9	94.2	90.5	90.0	93.9
1985 ¹	99.0	89.7	89.0	94.0	90.3	89.7	93.7
Average annual percent change:							
1958-85	2.4	.3	.2	1.1	.7	.6	1.1
1980-85 .....	.9	-1.3	-1.0	-2.9	-1.5	-1.2	-2.8

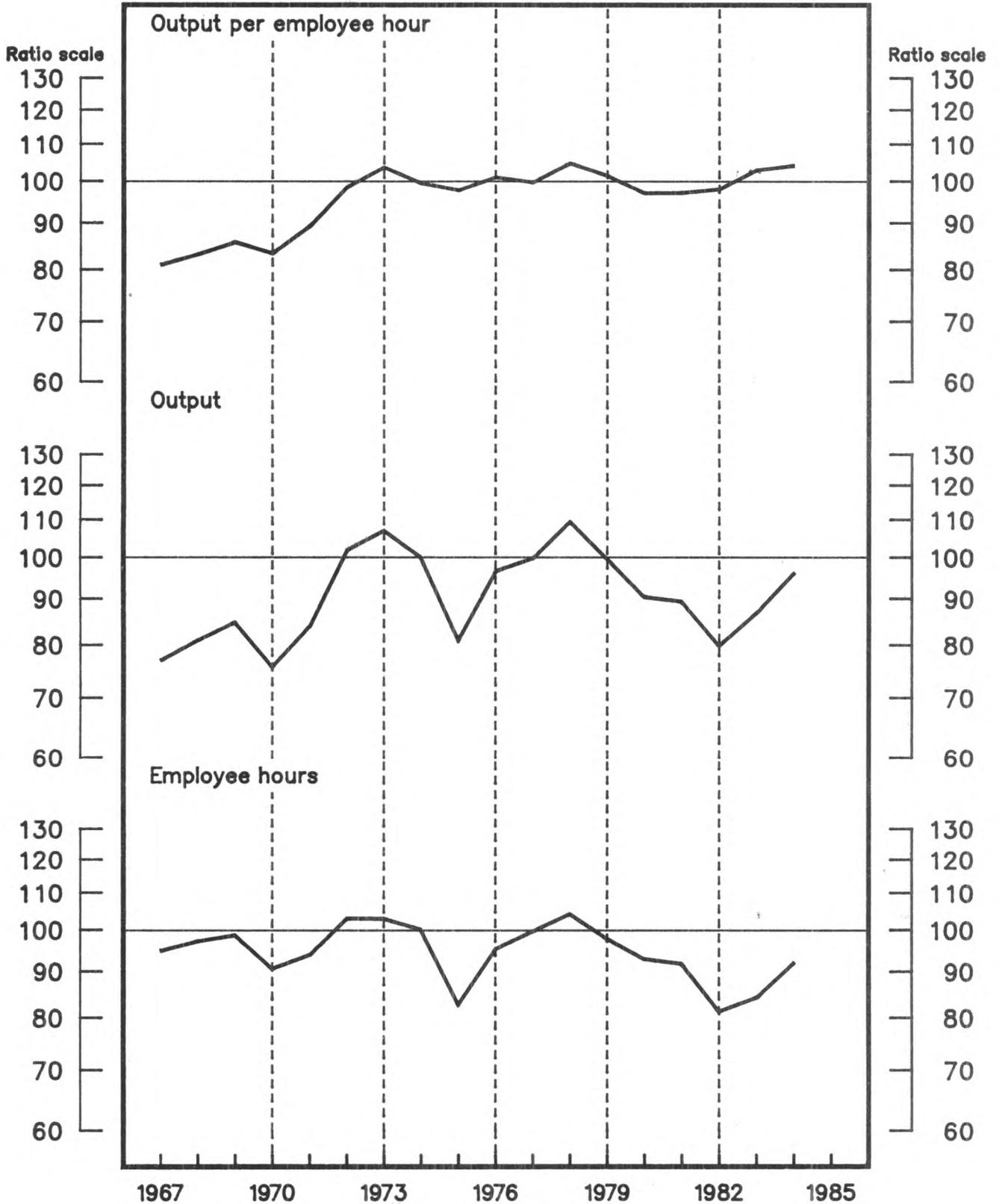
¹ Preliminary.

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. Wood household furniture (SIC 2511, 2517): Output per hour and related data, 1967-84

(1977=100)



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

Table 83. Wood household furniture (SIC 2511, 2517): Indexes of output per employee hour and output per employee, 1958-84 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	103.2	104.9	91.2	100.2	101.5	91.2
1984 ²	104.4	105.7	94.9	102.6	103.5	95.3
Average annual percent change:						
1958-84	1.9	2.1	.4	1.4	1.6	.3
1980-84	2.0	1.7	4.1	2.1	1.8	4.1

¹ 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.

² 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. Wood household furniture (SIC 2511, 2517): 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	49.5	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	80.2
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	87.1	84.4	83.0	95.5	86.9	85.8	95.5
1984 ¹	96.3	92.2	91.1	101.5	93.9	93.0	101.1
Average annual percent change:							
1958-84	2.3	.4	.2	1.9	.9	.7	2.0
1980-84 .....	.9	-1.1	-7	-3.1	-1.2	-9	-3.0

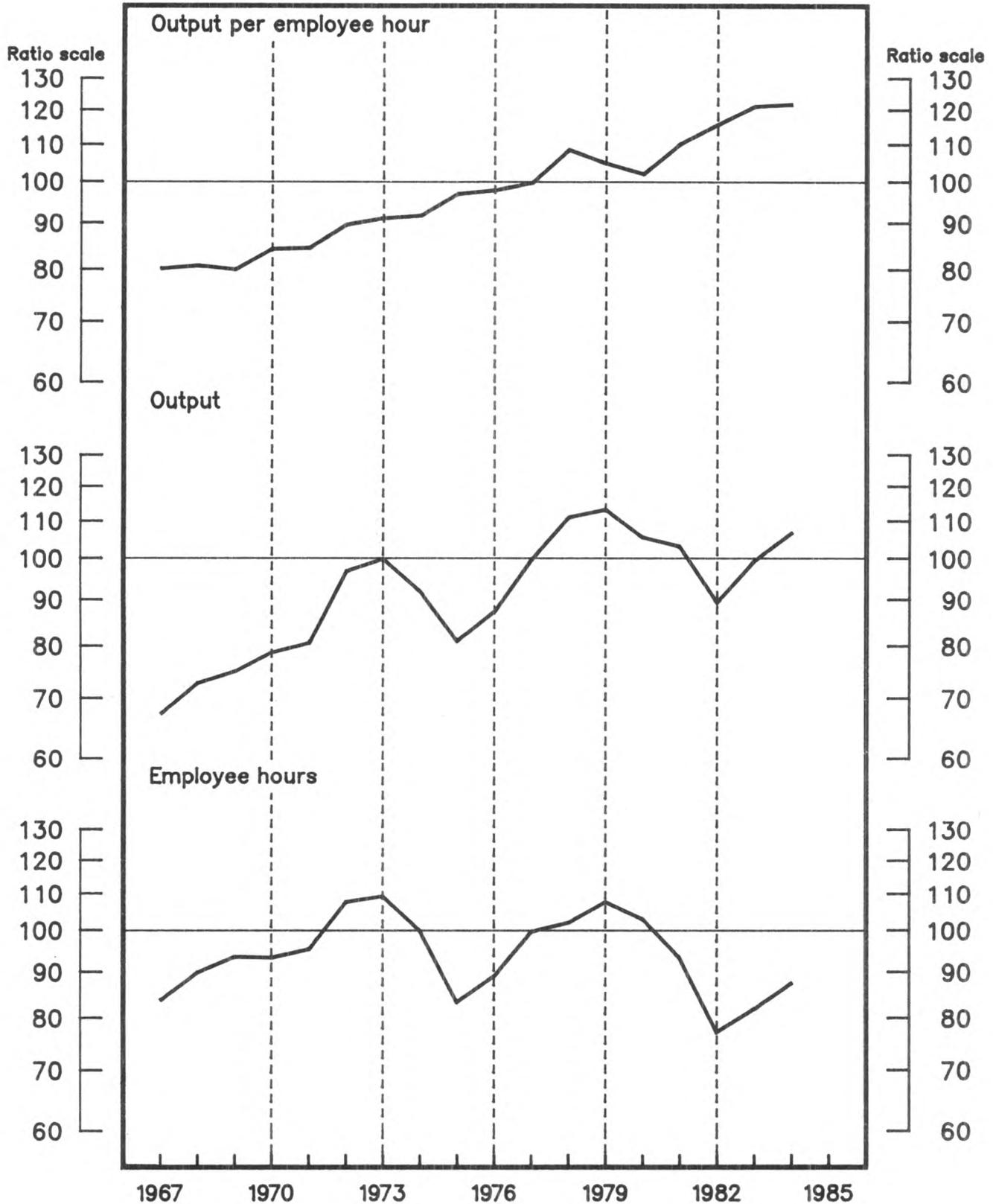
¹ Preliminary.

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. Upholstered household furniture (SIC 2512): Output per hour and related data, 1967-84

(1977=100)



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

Table 85. Upholstered household furniture (SIC 2512): Indexes of output per employee hour and output per employee, 1958-84 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	121.4	119.3	135.1	122.5	120.6	134.9
1984 ²	122.0	122.0	122.0	124.6	125.0	122.6
Average annual percent change:						
1958-84	2.1	2.1	1.8	1.7	1.7	1.7
1980-84	4.6	4.2	6.4	4.4	4.1	6.3

¹ 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.

² 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. Upholstered household furniture (SIC 2512): 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	48.5	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	102.7	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	99.7	82.1	83.6	73.8	81.4	82.7	73.9
1984 ¹	107.0	87.7	87.7	87.7	85.9	85.6	87.3
Average annual percent change:							
1958-84	3.1	1.0	1.0	1.3	1.3	1.3	1.4
1980-84	-1	-4.5	-4.2	-6.1	-4.3	-4.0	-6.1

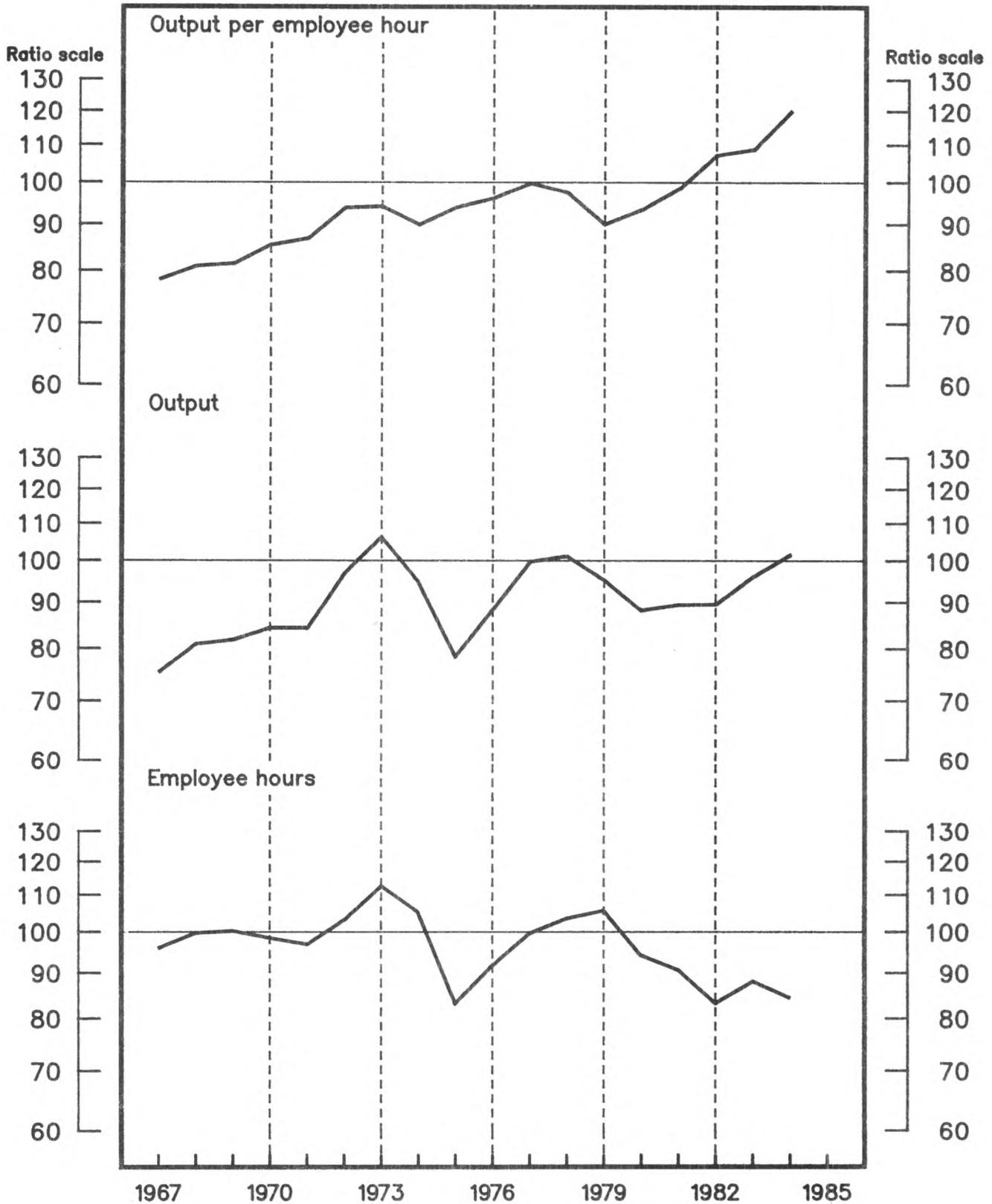
¹ Preliminary.

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 45. Metal household furniture (SIC 2514): Output per hour and related data, 1967-84

(1977=100)



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

Table 87. Metal household furniture (SIC 2514): Indexes of output per employee hour and output per employee, 1958-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	90.2	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	109.1	109.9	105.0	113.0	114.8	105.4
1984 ²	120.3	119.6	123.2	122.5	122.4	122.9
Average annual percent change:						
1958-84	2.1	2.2	1.5	1.9	2.0	1.5
1980-84	6.2	6.1	6.4	7.0	7.2	6.2

¹ 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.

² 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 88. Metal household furniture (SIC 2514): 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	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	96.3	88.3	87.6	91.7	85.2	83.9	91.4
1984 ¹	101.8	84.6	85.1	82.6	83.1	83.2	82.8
Average annual percent change:							
1958-84	1.8	-2	-3	3	-1	-2	4
1980-84	3.6	-2.5	-2.4	-2.7	-3.2	-3.3	-2.5

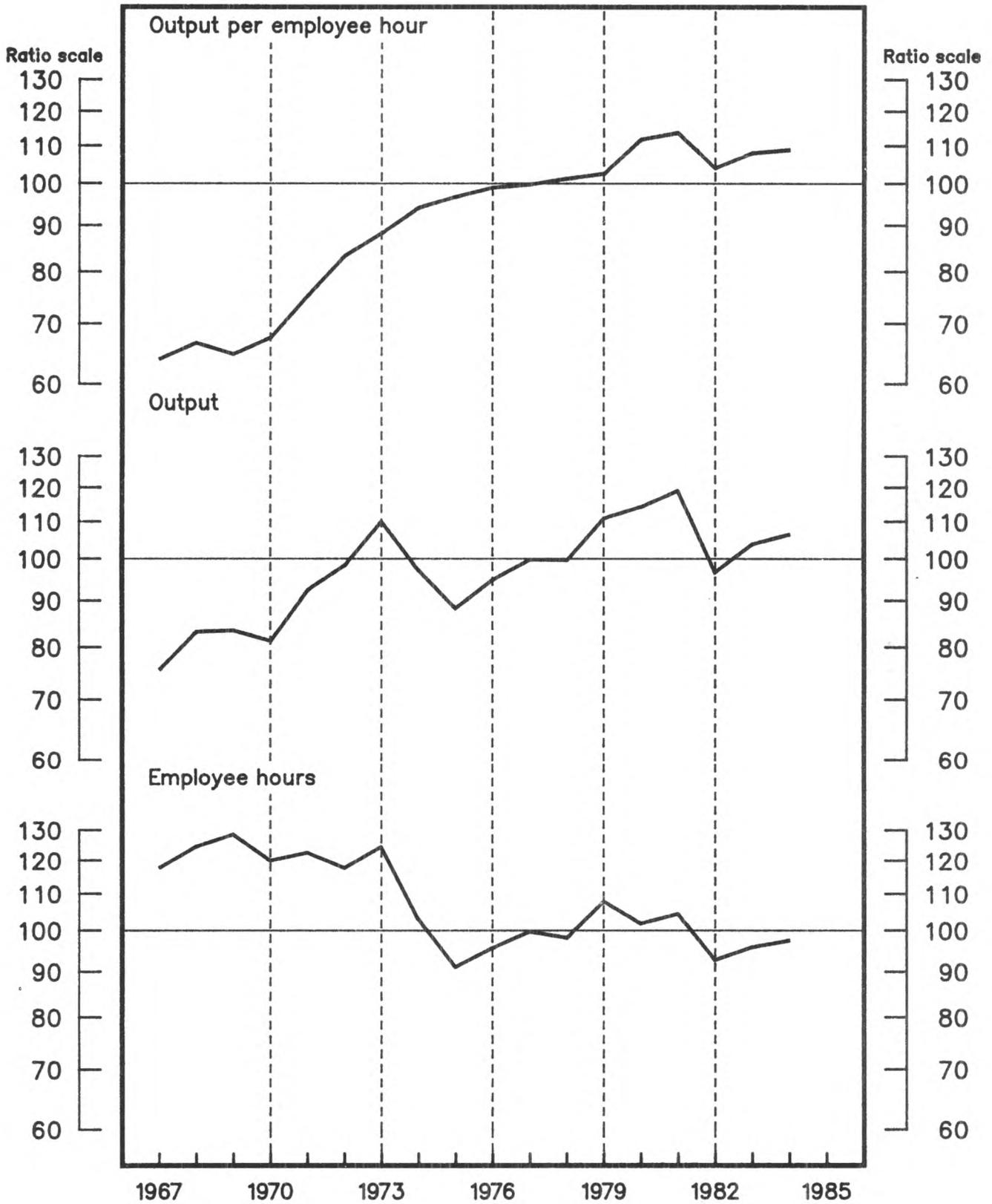
¹ Preliminary.

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. Mattresses and bedsprings (SIC 2515): Output per hour and related data, 1967-84

(1977=100)



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

Table 89. Mattresses and bedsprings (SIC 2515): Indexes of output per employee hour and output per employee, 1958-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	108.3	109.7	104.1	109.8	111.7	104.1
1984 ²	109.2	109.2	109.4	109.5	109.3	110.1
Average annual percent change:						
1958-84	3.6	3.7	3.2	3.4	3.5	3.1
1980-84	-1.0	-1.6	.9	-.7	-1.2	.8

¹ 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.
² 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. Mattresses and bedsprings (SIC 2515): Indexes of output, employee hours, and employees, 1958-84
(1977 = 100)

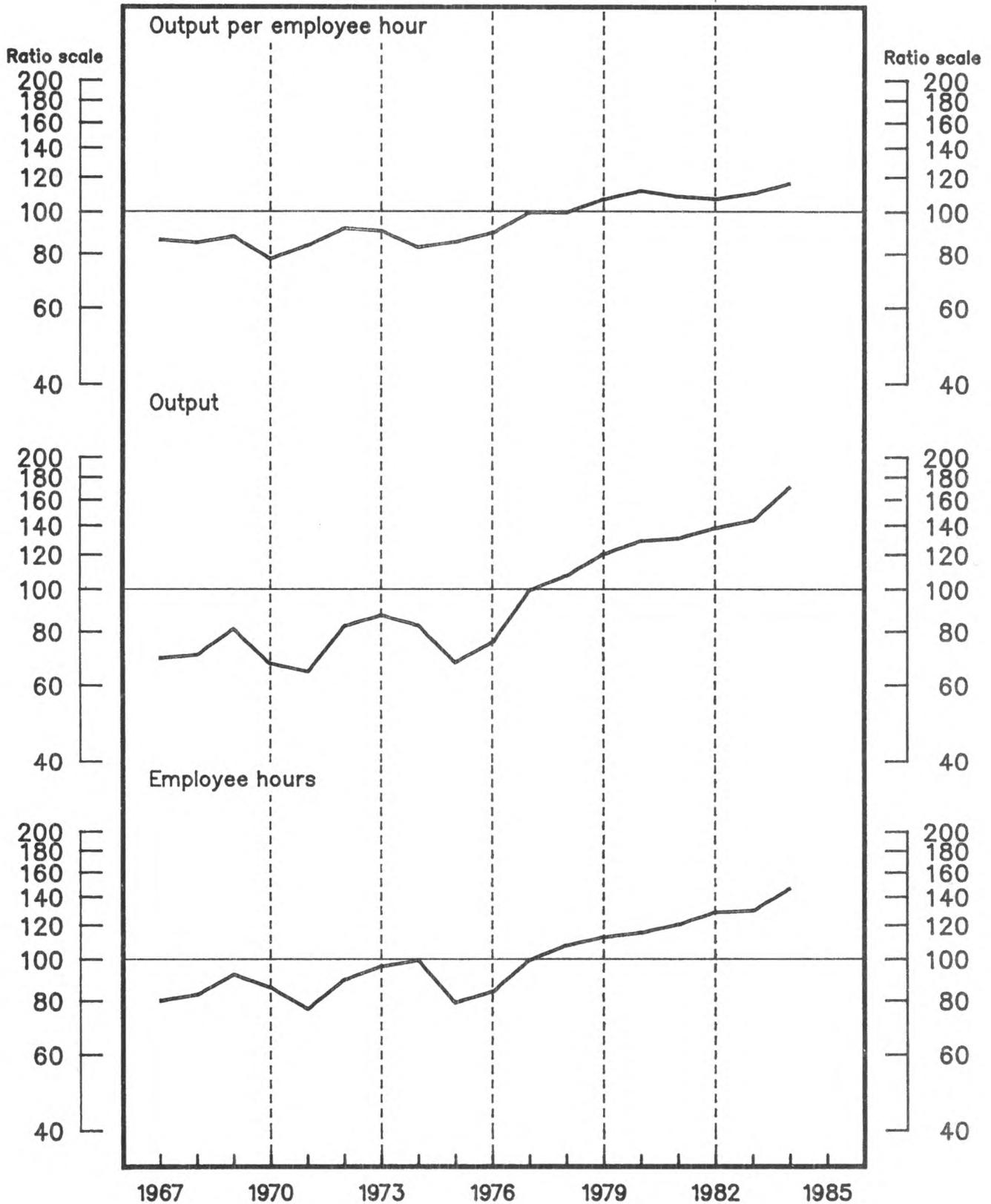
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	61.0	119.2	121.9	110.8	117.5	119.9	109.4
1959	65.1	125.5	128.8	114.9	120.8	122.9	114.1
1960	61.7	115.9	117.0	112.5	113.1	113.6	110.9
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	104.1	96.1	94.9	100.0	94.8	93.2	100.0
1984 ¹	106.7	97.7	97.7	97.5	97.4	97.6	96.9
Average annual percent change:							
1958-84	2.5	-1.0	-1.1	-6	-8	-9	-6
1980-84	-2.7	-1.7	-1.1	-3.6	-2.1	-1.6	-3.5

¹ 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. Office furniture (SIC 252): Output per hour and related data, 1967-84

(1977=100)



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

Table 91. Office furniture (SIC 252): Indexes of output per employee hour and output per employee, 1958-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	110.7	115.5	95.9	108.5	112.6	95.9
1984 ²	116.7	120.4	104.6	118.4	122.9	104.9
Average annual percent change:						
1958-84	1.9	2.3	6	1.8	2.1	6
1980-84	1.0	.7	1.8	1.5	1.5	1.7

¹ 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.

² 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. Office furniture (SIC 252): 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	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	144.4	130.4	125.0	150.5	133.1	128.2	150.5
1984 ¹	171.6	147.1	142.5	164.0	144.9	139.6	163.6
Average annual percent change:							
1958-84	5.7	3.8	3.4	5.1	3.9	3.6	5.1
1980-84	6.8	5.7	6.0	4.9	5.2	5.2	5.0

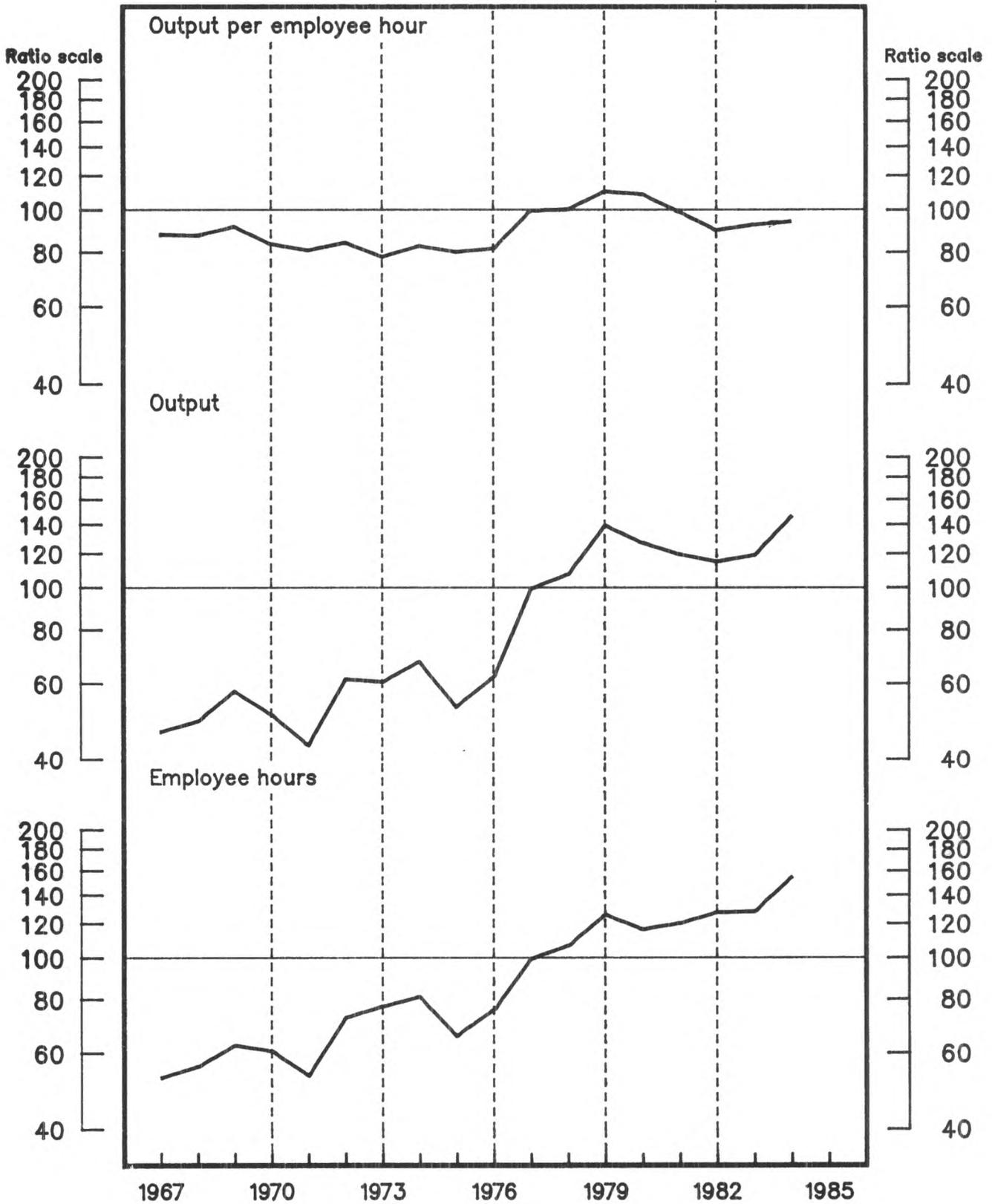
¹ Preliminary.

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. Wood office furniture (SIC 2521): Output per hour and related data, 1967-84

(1977=100)



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

Table 93. Wood office furniture (SIC 2521): Indexes of output per employee hour and output per employee, 1958-84
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	99.5	103.0	86.8	99.5	103.1	87.3
1982	90.3	92.0	83.5	88.0	89.1	84.0
1983	92.9	93.5	90.7	91.9	92.1	91.1
1984 ²	94.5	95.7	89.8	94.6	95.8	90.3
Average annual percent change:						
1958-84	1.4	1.8	-0.8	1.0	1.4	-0.9
1980-84	-3.5	-4.9	1.8	-2.0	-3.0	1.6

¹ 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.

² 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. Wood office furniture (SIC 2521): 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	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	120.0	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	119.5	128.6	127.8	131.7	130.0	129.7	131.2
1984 ¹	146.7	155.2	153.3	163.3	155.0	153.1	162.5
Average annual percent change:							
1958-84	7.1	5.7	5.2	8.0	6.0	5.6	8.1
1980-84	2.8	6.5	8.1	1.0	4.9	5.9	1.1

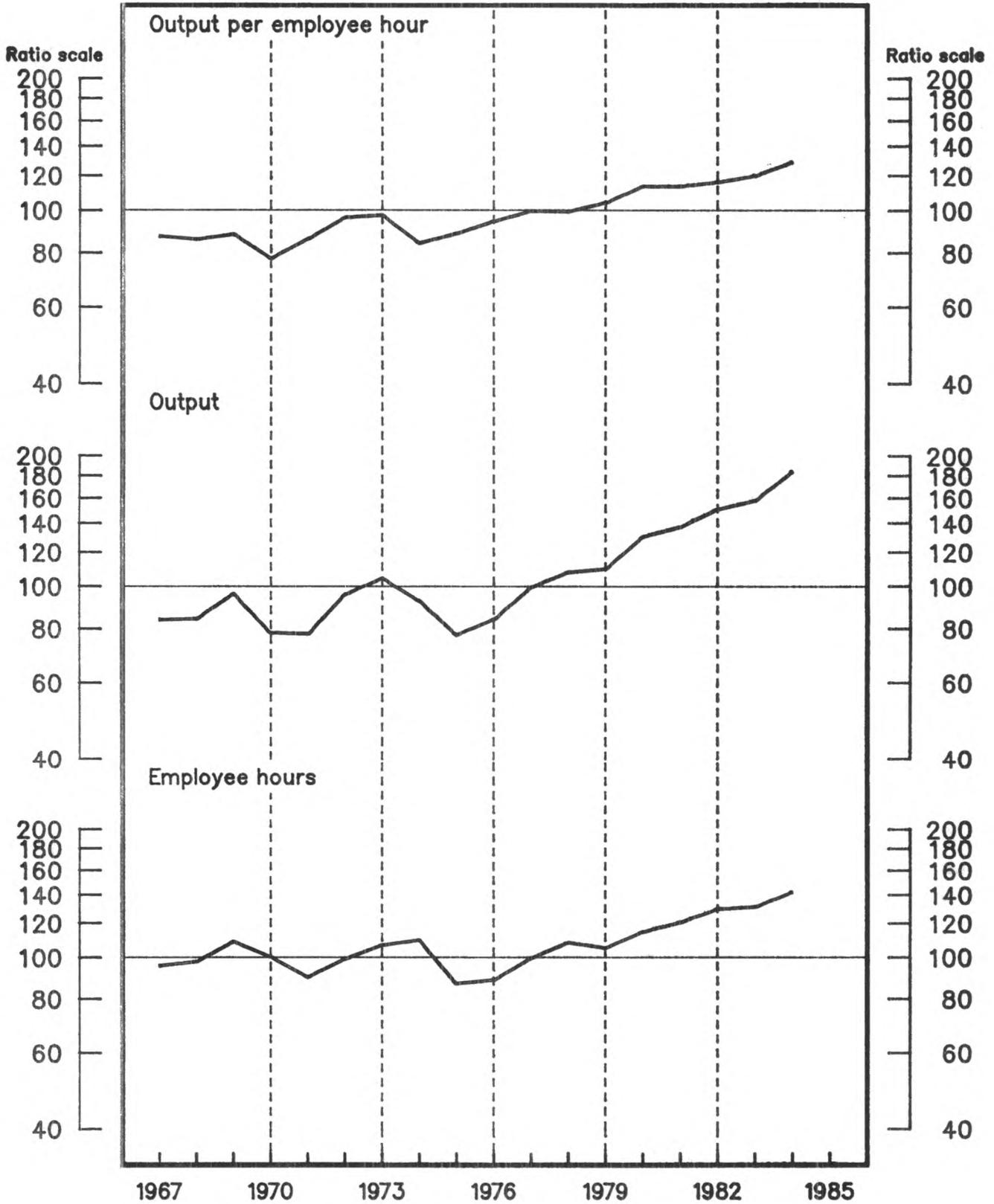
¹ Preliminary.

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. Metal office furniture (SIC 2522): Output per hour and related data, 1967-84

(1977=100)



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

Table 95. Metal office furniture (SIC 2522): Indexes of output per employee hour and output per employee, 1958-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	120.5	128.4	99.3	117.5	124.3	99.2
1984 ²	129.6	135.6	112.4	132.6	140.1	112.5
Average annual percent change:						
1958-84	2.1	2.4	.9	2.0	2.4	.9
1980-84	3.2	3.7	1.7	3.1	3.6	1.5

¹ 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.

² 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 96. Metal office furniture (SIC 2522): 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	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	98.2	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	106.7	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	158.4	131.5	123.4	159.5	134.8	127.4	159.7
1984 ¹	184.7	142.5	136.2	164.3	139.3	131.8	164.2
Average annual percent change:							
1958-84	5.1	2.9	2.6	4.1	3.0	2.6	4.1
1980-84	8.6	5.3	4.8	6.8	5.4	4.8	7.0

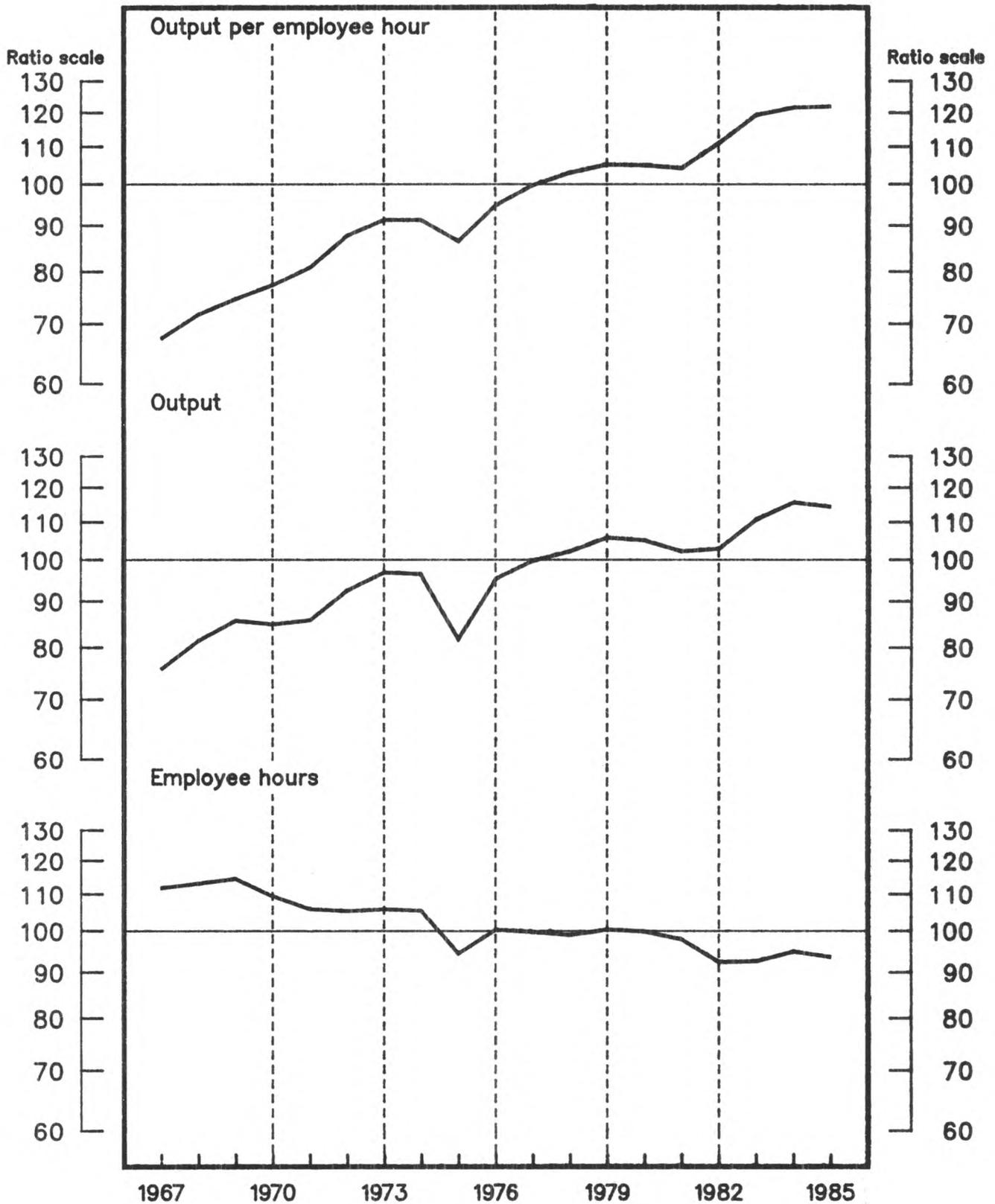
¹ Preliminary.

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 50. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661):
Output per hour and related data, 1967-85**

(1977=100)



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

Table 97. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	119.6	121.4	112.2	119.1	121.2	112.2
1984	121.9	124.0	114.0	122.8	125.2	114.4
1985 ²	122.2	123.6	116.7	123.1	124.8	117.2
Average annual percent change:						
1947-85	3.7	4.0	2.1	3.5	3.8	2.0
1980-85	3.7	3.8	3.6	3.9	4.0	3.5

¹ 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.

² 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 98. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Indexes of output, employee hours, and employees, 1958-85
(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	96.5
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	111.0	92.8	91.4	98.9	93.2	91.6	98.9
1984	115.9	95.1	93.5	101.7	94.4	92.6	101.3
1985 ¹	114.6	93.8	92.7	98.2	93.1	91.8	97.8
Average annual percent change:							
1947-85	3.6	-1	-4	1.4	.1	-2	1.5
1980-85	2.5	-1.2	-1.2	-1.0	-1.3	-1.5	-1.0

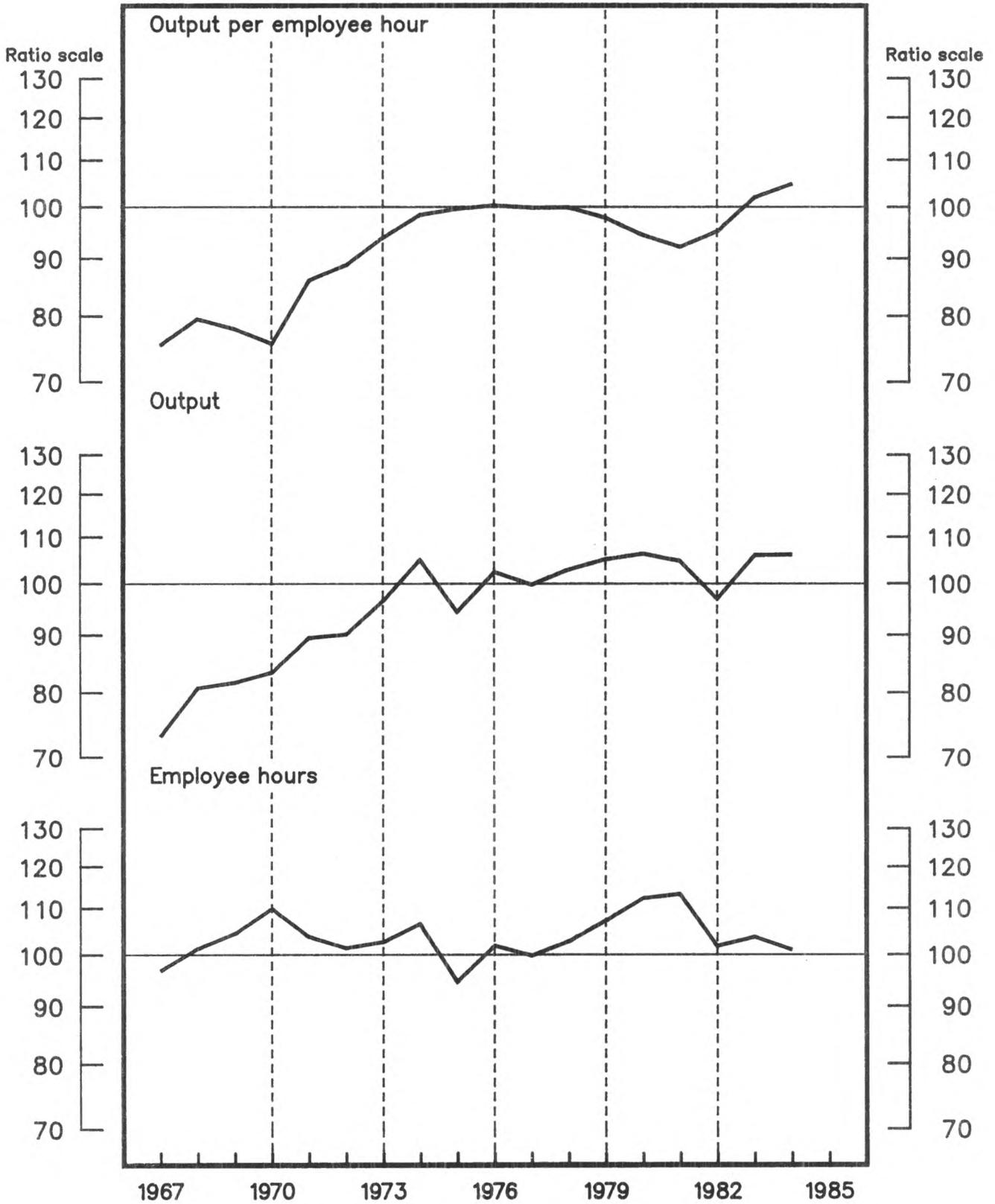
¹ Preliminary.

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 51. Paper and plastic bags (SIC 2643): Output per hour and related data, 1967-84

(1977 = 100)



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

Table 99. Paper and plastic bags (SIC 2643): Indexes of output per employee hour and output per employee, 1958-84
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	57.6	58.9	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	102.2	102.5	101.1	102.8	103.3	101.0
1984 ²	105.0	105.8	102.3	105.5	106.0	103.2
Average annual percent change:						
1954-84	2.3	2.4	1.8	2.3	2.4	1.7
1980-84	3.2	3.2	3.0	3.2	3.3	2.9

¹ 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.

² 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 100. Paper and plastic bags (SIC 2643): 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	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	106.2	103.9	103.6	105.0	103.3	102.8	105.1
1984 ¹	106.3	101.2	100.5	103.9	100.8	100.3	103.0
Average annual percent change:							
1954-84	3.7	1.3	1.2	1.8	1.4	1.2	1.9
1980-84 .....	.1	-3.0	-3.0	-2.9	-3.0	-3.1	-2.7

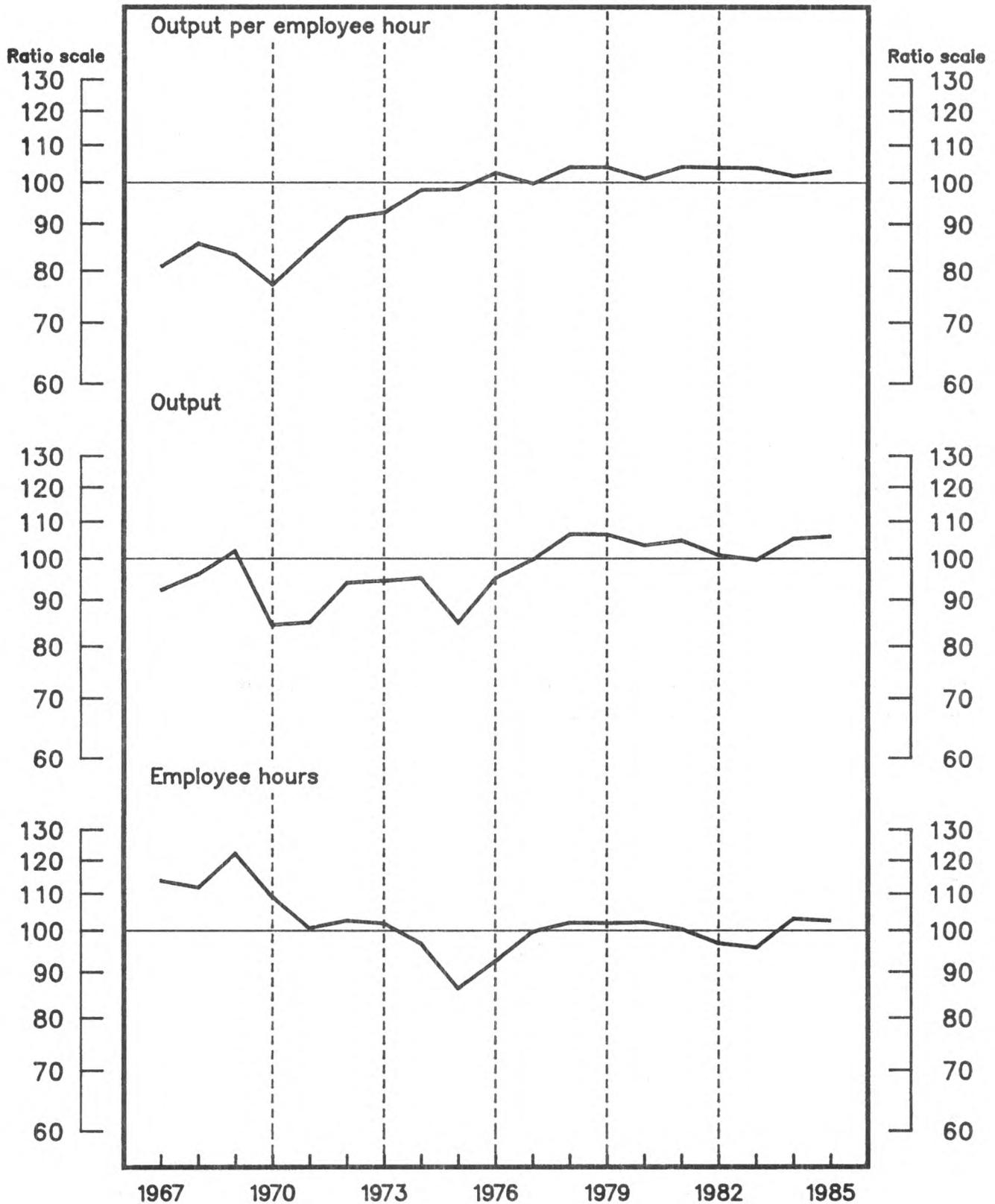
¹ Preliminary.

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 52. Folding paperboard boxes (SIC 2651): Output per hour and related data, 1967-85

(1977=100)



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

Table 101. Folding paperboard boxes (SIC 2651): Indexes of output per employee hour and output per employee, 1963-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	104.1	105.0	99.9	104.8	106.2	99.9
1984	102.0	103.2	97.1	104.4	106.1	97.8
1985 ²	103.2	103.9	99.9	104.2	105.3	100.5
Average annual percent change:						
1963-85	1.8	1.9	1.3	1.7	1.8	1.2
1980-85 .....	.1	.2	-6	.2	.4	-6

¹ 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.

² 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 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 102. Folding paperboard boxes (SIC 2651): Indexes of output, employee hours, and employees, 1963-85
(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	99.9	96.0	95.1	100.0	95.3	94.1	100.0
1984	105.5	103.4	102.2	108.6	101.1	99.4	107.9
1985 ¹	106.1	102.8	102.1	106.2	101.8	100.8	105.6
Average annual percent change:							
1963-85 .....	.8	-1.0	-1.1	-5	-8	-9	-4
1980-85 .....	.3	.3	.1	1.0	.1	-.1	1.0

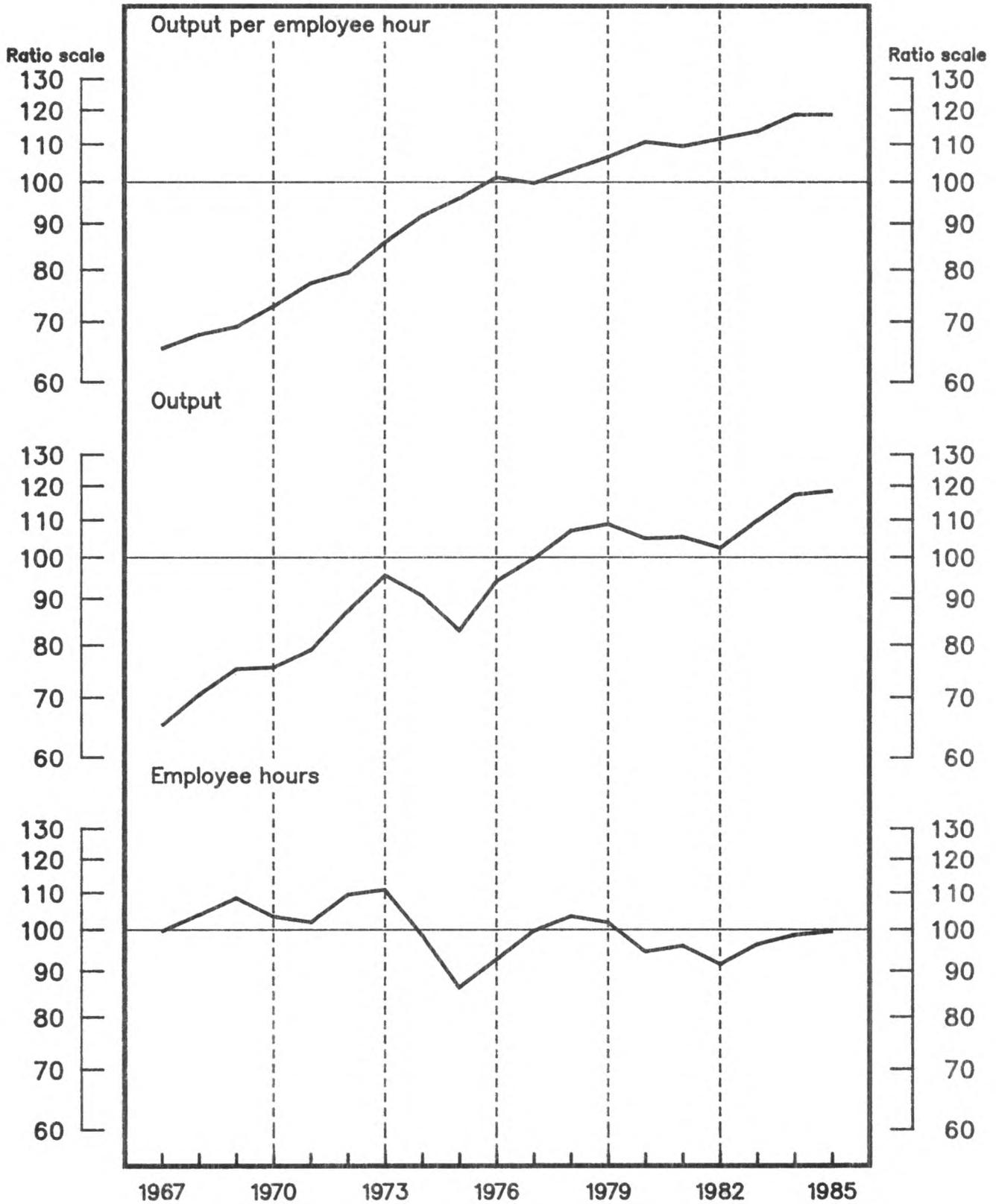
¹ Preliminary.

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 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 53. Corrugated and solid fiber boxes (SIC 2653): Output per hour and related data, 1967-85

(1977=100)



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

Table 103. Corrugated and solid fiber boxes (SIC 2653): Indexes of output per employee hour and output per employee, 1958-85 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	118.9	118.7	119.8	120.7	120.9	120.1
1985 ²	118.9	118.3	120.9	120.1	119.7	121.2
Average annual percent change:						
1958-85	3.7	4.0	2.8	3.4	3.7	2.6
1980-85	1.7	1.2	3.2	2.2	1.9	3.1

¹ 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.

² 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 104. Corrugated and solid fiber boxes (SIC 2653): Indexes of output, employee hours, and employment, 1958-85 (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	117.6	98.9	99.1	98.2	97.4	97.3	97.9
1985 ¹	118.7	99.8	100.3	98.2	98.8	99.2	97.9
Average annual percent change:							
1958-85	4.4	.7	.4	1.6	.9	.7	1.7
1980-85	2.9	1.1	1.6	-3	.7	1.0	-2

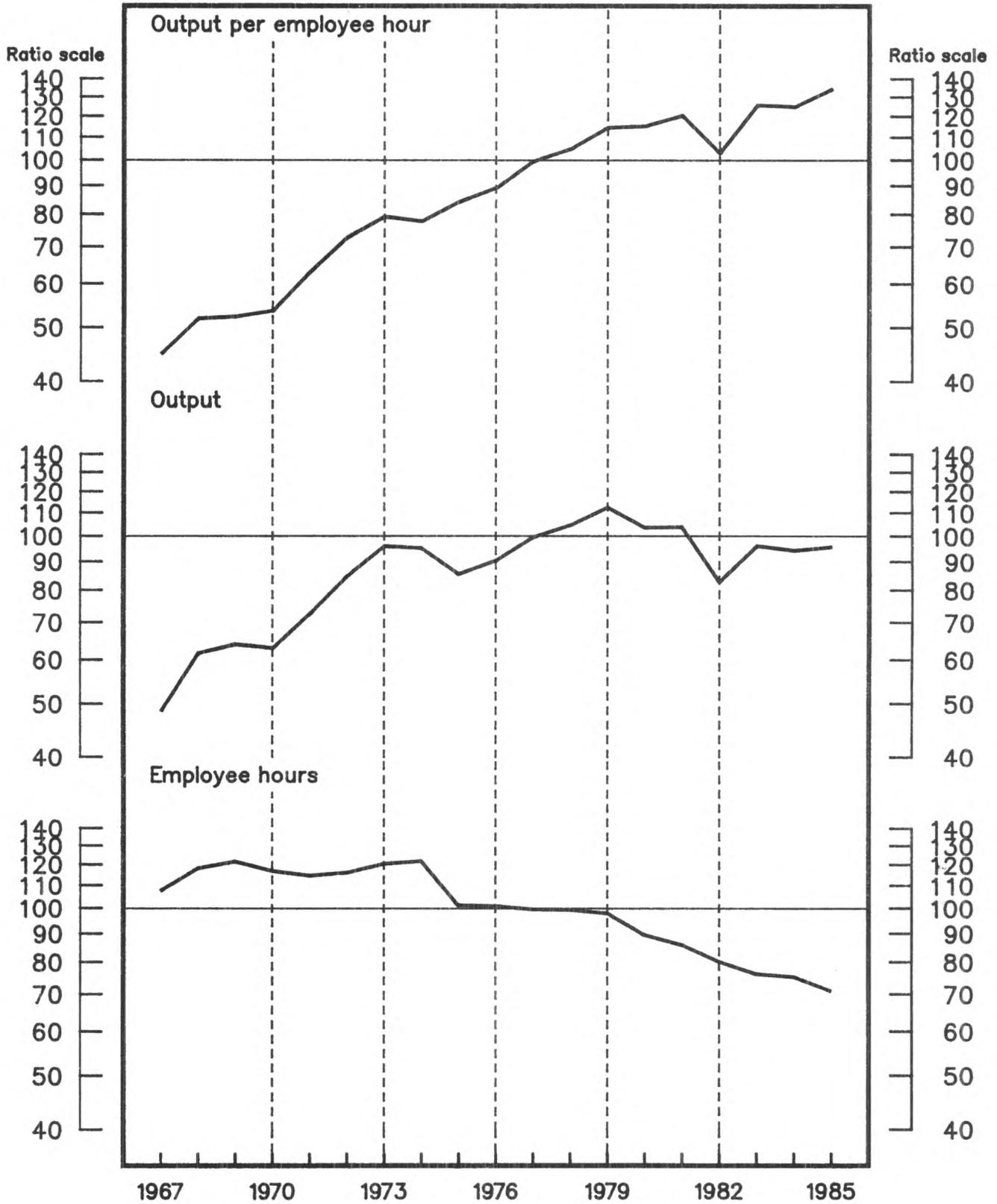
¹ Preliminary.

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.

Chart 54. Synthetic fibers (SIC 2823, 2824): Output per hour and related data, 1967-85

(1977 = 100)



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

Table 105. Synthetic fibers (SIC 2823, 2824): indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	126.2	128.9	118.4	124.5	126.7	118.4
1984	125.3	126.8	121.0	126.3	128.0	121.4
1985 ²	134.8	134.8	135.0	136.8	137.1	135.6
Average annual percent change:						
1957-85	6.1	6.1	5.9	6.0	6.0	5.8
1980-85	3.1	2.8	4.0	3.6	3.5	4.0

¹ 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.

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.

² Preliminary.

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

Table 106. Synthetic fibers (SIC 2823, 2824): indexes of output, employee hours, and employees, 1958-85
(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	96.4	76.4	74.8	81.4	77.4	76.1	81.4
1984	94.6	75.5	74.6	78.2	74.9	73.9	77.9
1985 ¹	96.0	71.2	71.2	71.1	70.2	70.0	70.8
Average annual percent change:							
1957-85	6.2	.1	(²)	.2	.2	.1	.3
1980-85	-1.5	-4.5	-4.2	-5.3	-5.0	-4.8	-5.3

¹ Preliminary.

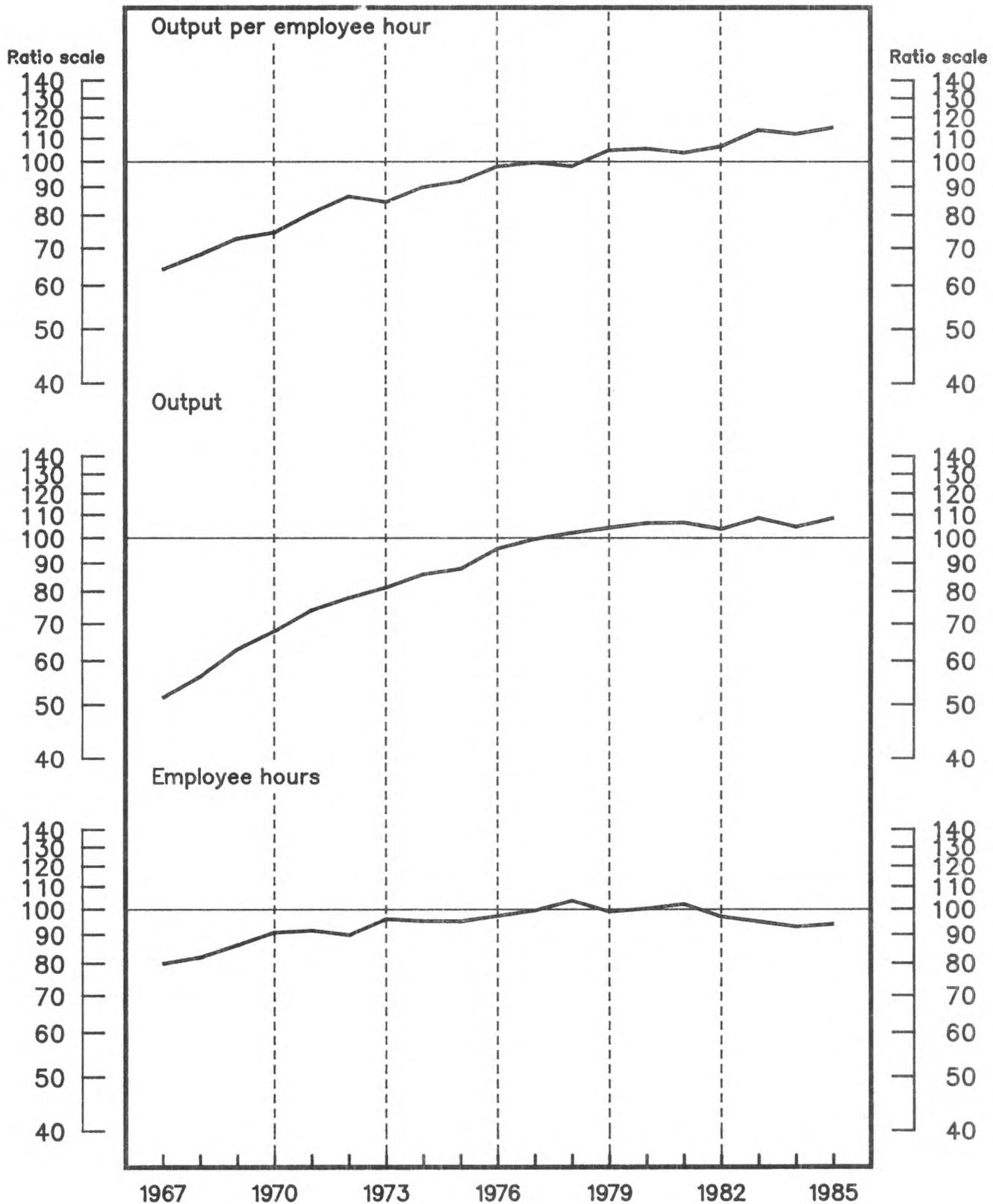
² Less than .05 percent.

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 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 55. Pharmaceutical preparations (SIC 2834): Output per hour and related data, 1967-85

(1977=100)



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

Table 107. Pharmaceutical preparations (SIC 2834): Indexes of output per employee hour and output per employee, 1963-85
(1977 = 100)

Year	Output per hour ¹		Output per employee ¹		
	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	112.6	116.5	107.4	111.1	103.8
1985 ²	115.6	121.5	111.3	117.0	106.1
Average annual percent change:					
1963-85	3.7	4.3	3.3	3.9	2.7
1980-85	2.1	3.3	2.0	3.2	.9

¹ 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.

² 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 Pharmaceutical Manufacturer's 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 108. Pharmaceutical preparations (SIC 2834): Indexes of output, employee hours, and employees, 1963-85
(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	105.1	93.3	90.2	97.9	94.6	101.3
1985 ¹	109.0	94.3	89.7	97.9	93.2	102.7
Average annual percent change:						
1963-85	5.1	1.4	.8	1.7	1.1	2.3
1980-85	.3	-1.8	-2.9	-1.7	-2.8	-6

¹ Preliminary.

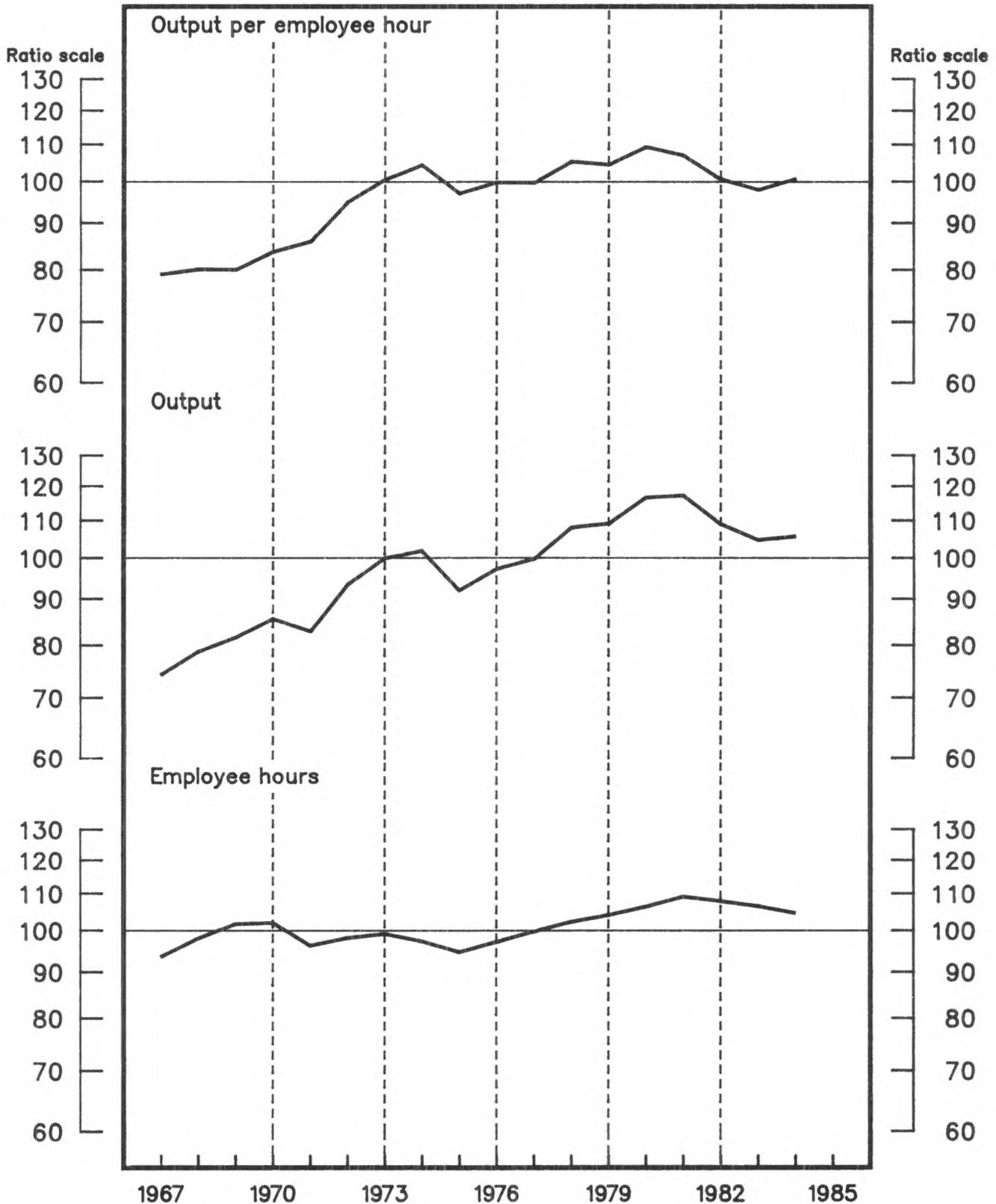
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Pharmaceutical

Manufacturer's 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 56. Soaps and detergents (SIC 2841): Output per hour and related data, 1967-84

(1977 = 100)



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

Table 109. Soaps and detergents (SIC 2841): Indexes of output per employee hour and output per employee, 1958-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	108.5	105.9	113.1
1981	107.3	103.9	114.4	106.1	101.7	114.4
1982	100.9	97.5	107.8	100.6	96.9	107.8
1983	98.2	95.2	104.2	99.0	96.1	104.2
1984 ²	101.0	96.9	109.6	103.1	99.5	109.6
Average annual percent change:						
1958-84	2.3	2.5	1.7	2.4	2.7	1.7
1980-84	-2.5	-2.9	-1.6	-1.7	-1.8	-1.6

¹ 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.

² 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. Soaps and detergents (SIC 2841): 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	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	107.7	110.4	103.4
1981	117.5	109.5	113.1	102.7	110.7	115.5	102.7
1982	109.2	108.2	112.0	101.3	108.5	112.7	101.3
1983	104.9	106.8	110.2	100.7	106.0	109.2	100.7
1984 ¹	105.9	104.9	109.3	96.6	102.7	106.4	96.6
Average annual percent change:							
1958-84	3.3	1.0	.8	1.6	.9	.6	1.6
1980-84	-3.1	-6	-1	-1.5	-1.4	-1.3	-1.5

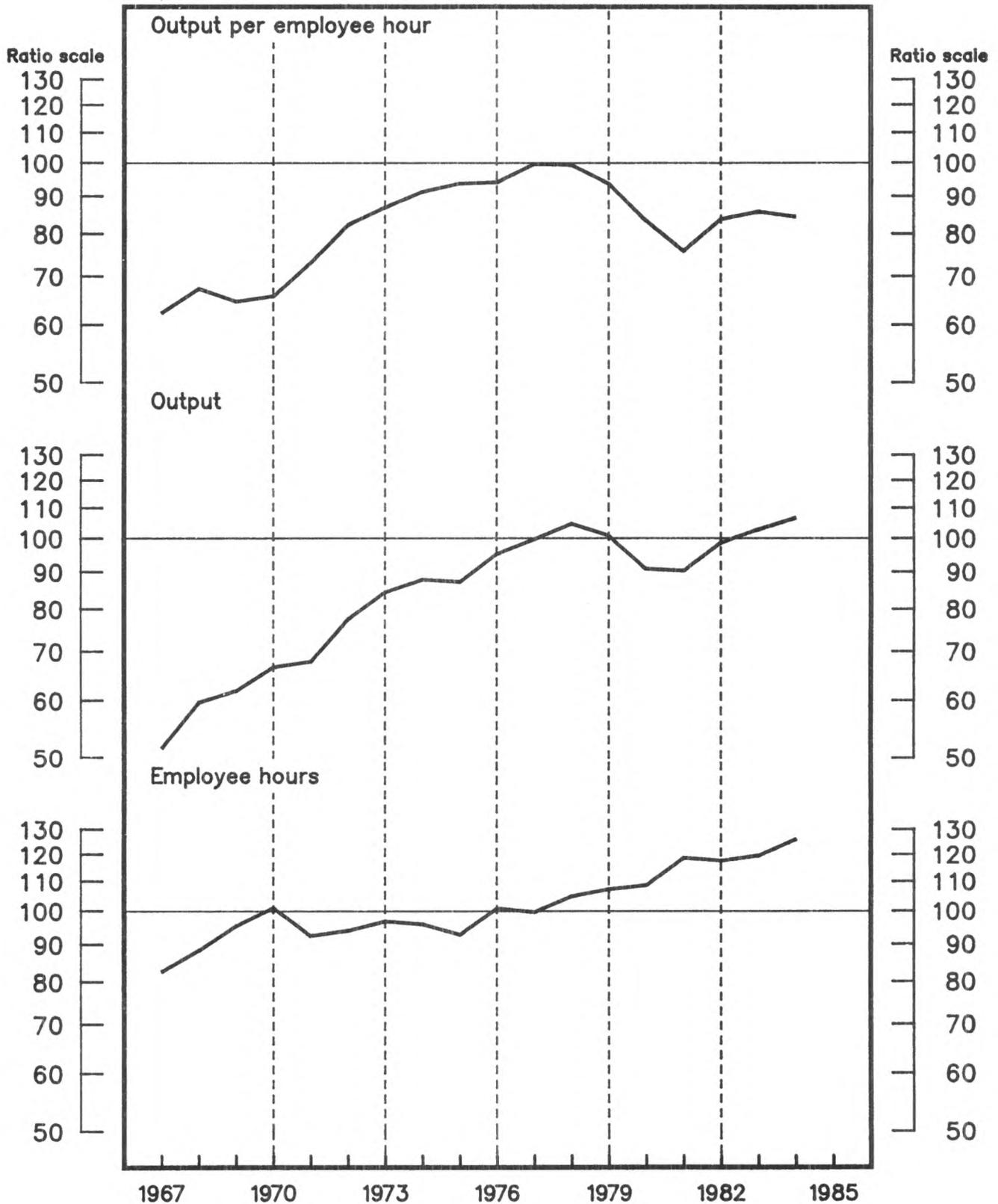
¹ Preliminary.

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. Cosmetics and other toiletries (SIC 2844): Output per hour and related data, 1967-84

(1977=100)



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

Table 111. Cosmetics and other toiletries (SIC 2844): Indexes of output per employee hour and output per employee, 1958-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	65.6	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	86.0	79.8	98.3	87.3	81.6	98.3
1984 ²	84.6	76.5	101.9	85.3	77.5	101.9
Average annual percent change:						
1958-84	3.0	2.9	3.4	3.0	2.8	3.4
1980-84	1.5	(³)	4.4	1.6	.1	4.4

¹ 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.

² Preliminary.

³ 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 112. Cosmetics and other toiletries (SIC 2844): 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	22.7	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	103.1	119.9	129.2	104.9	118.1	126.3	104.9
1984 ¹	106.9	126.3	139.7	104.9	125.3	137.9	104.9
Average annual percent change:							
1958-84	6.1	3.0	3.2	2.7	3.0	3.2	2.6
1980-84	4.6	3.1	4.6	.2	3.0	4.5	.2

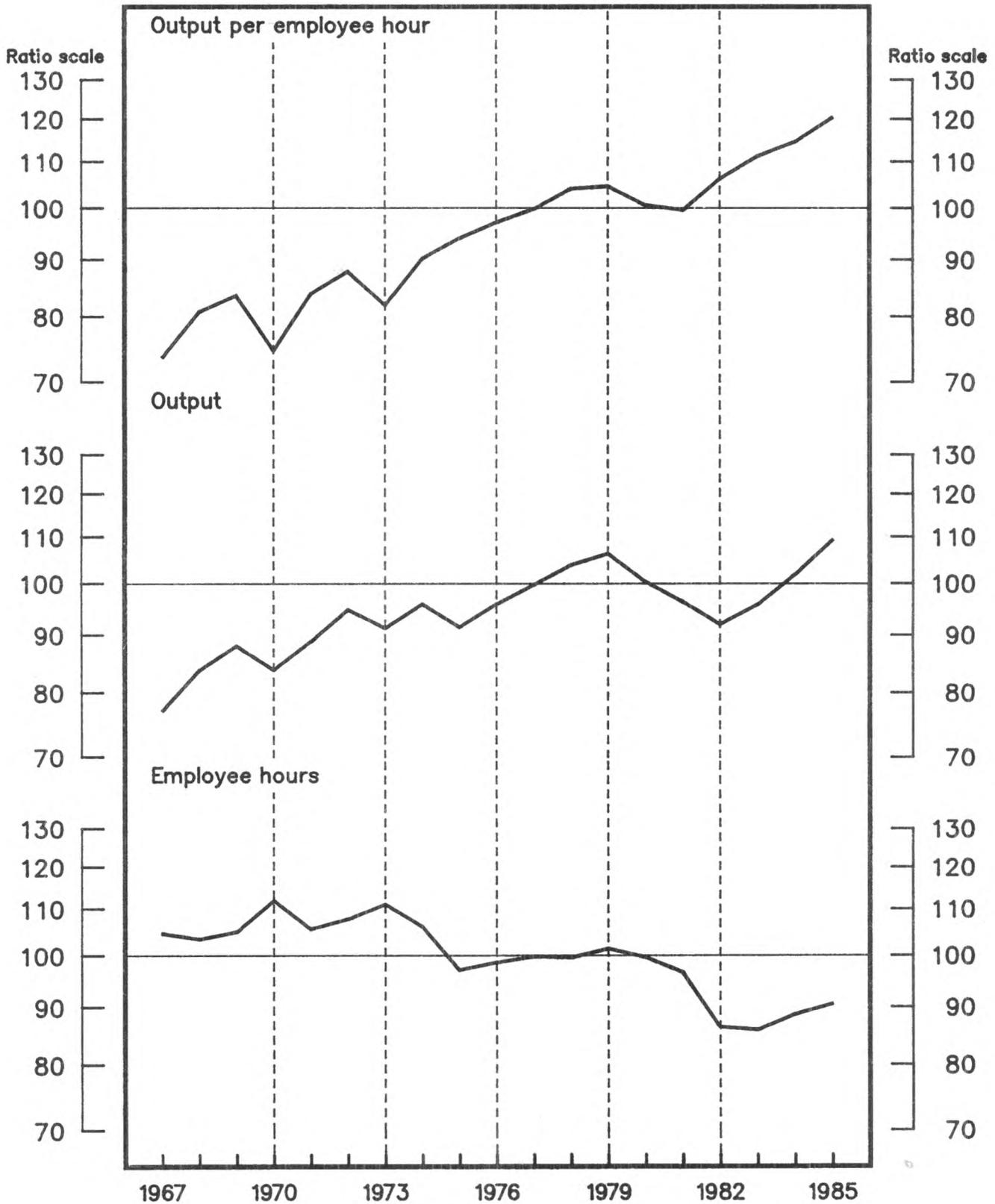
¹ Preliminary.

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 58. Paints and allied products (SIC 2851): Output per hour and related data, 1967-85

(1977=100)



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

Table 113. Paints and allied products (SIC 2851): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	111.5	117.5	104.6	110.0	115.2	104.5
1984	114.8	118.7	110.3	113.3	115.8	110.6
1985 ²	120.6	127.2	113.0	118.6	123.3	113.5
Average annual percent change:						
1958-85	2.6	2.9	2.2	2.4	2.7	2.1
1980-85	4.0	4.1	3.9	4.0	4.1	3.8

¹ 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.

² 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 114. Paints and allied products (SIC 2851): Indexes of output, employee hours, and employees, 1958-85
(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	96.0	86.1	81.7	91.8	87.3	83.3	91.9
1984	102.1	88.9	86.0	92.6	90.1	88.2	92.3
1985 ¹	109.5	90.8	86.1	96.9	92.3	88.8	96.5
Average annual percent change:							
1958-85	2.4	-.2	-.5	.2	-.1	-.4	.3
1980-85	1.8	-2.1	-2.2	-2.0	-2.1	-2.2	-1.9

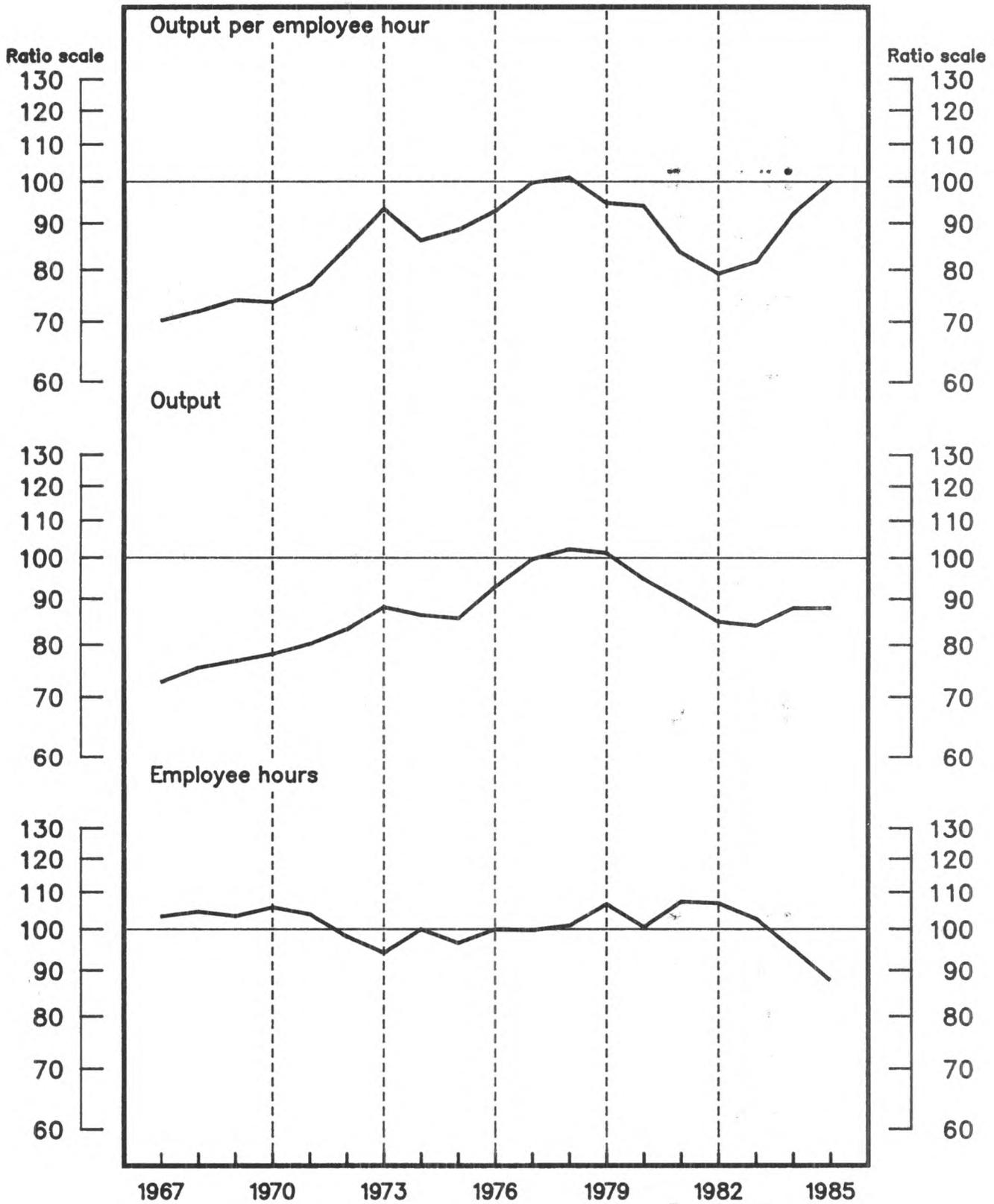
¹ Preliminary.

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 59. Petroleum refining (SIC 2911): Output per hour and related data, 1967-85

(1977=100)



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

Table 115. Petroleum refining (SIC 2911): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	92.5	96.6	83.7	95.6	101.8	84.0
1985 ²	100.3	101.8	96.7	103.0	106.0	97.0
Average annual percent change:						
1947-85	4.1	4.5	3.2	4.2	4.6	3.1
1980-85	1.9	1.4	3.0	2.3	2.8	1.5

¹ 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.

² 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 116. Petroleum refining (SIC 2911): Indexes of output, employee hours, and employees, 1958-85
(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	103.0	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	118.1
1984	88.2	95.3	91.3	105.4	92.3	86.6	105.0
1985 ¹	88.2	87.9	86.6	91.2	85.6	83.2	90.9
Average annual percent change:							
1947-85	2.8	-1.4	-1.7	-4	-1.4	-1.8	-4
1980-85	-1.3	-3.1	-2.6	-4.1	-3.5	-3.9	-2.7

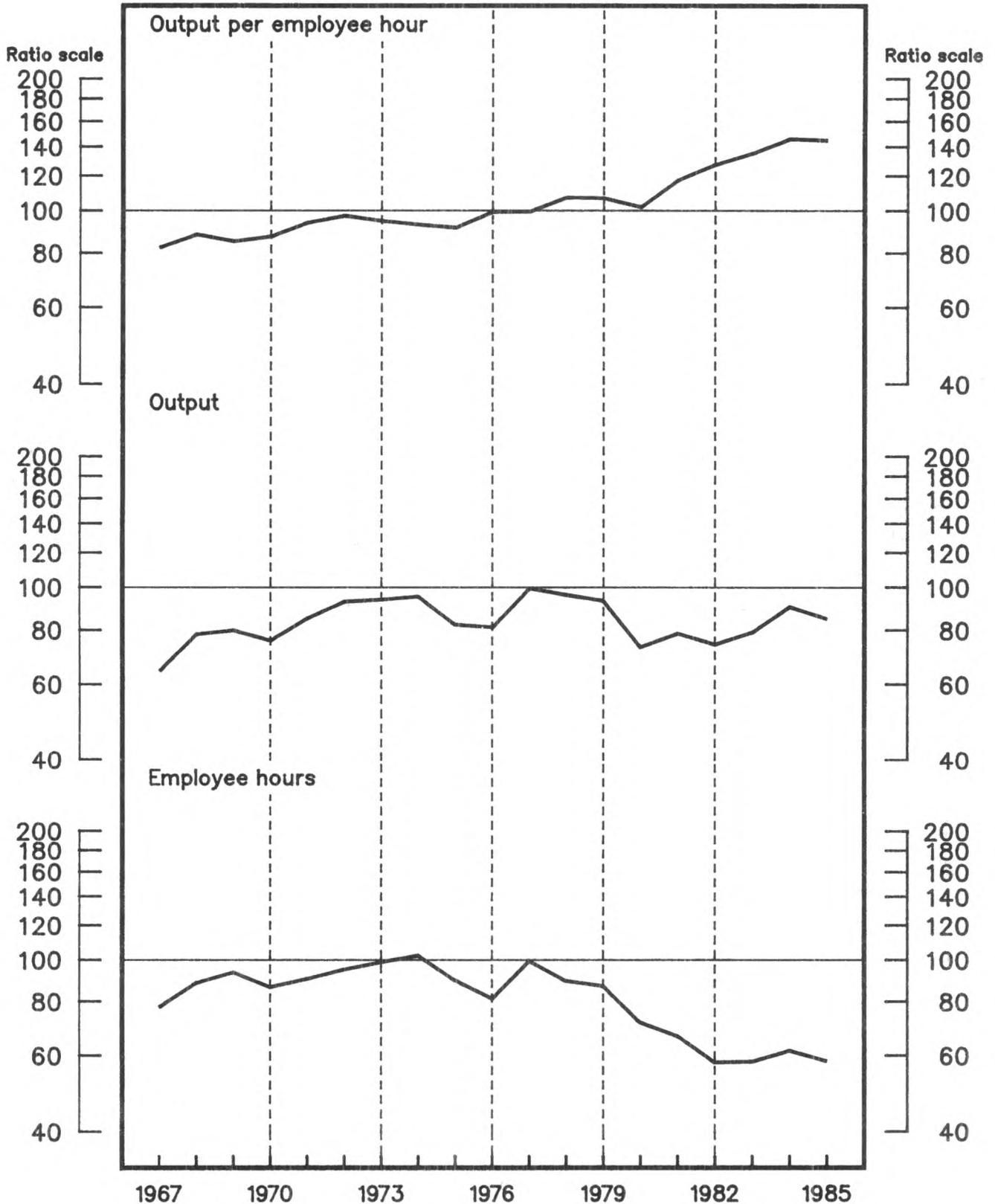
¹ Preliminary.

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 60. Tires and inner tubes (SIC 3011): Output per hour and related data, 1967-85

(1977=100)



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

Table 117. Tires and inner tubes (SIC 3011): Indexes of output per employee hour and output per employee, 1958-85
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	146.8	142.7	164.7	147.1	142.5	165.6
1985 ²	145.7	144.7	149.6	140.2	137.5	150.4
Average annual percent change:						
1947-85	3.5	3.6	2.9	3.4	3.6	2.9
1980-85	7.3	6.3	11.2	8.2	7.4	11.1

¹ 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.

² 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 118. Tires and inner tubes (SIC 3011): Indexes of output, employee hours, and employees, 1958-85
(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	90.9	61.9	63.7	55.2	61.8	63.8	54.9
1985 ¹	85.4	58.6	59.0	57.1	60.9	62.1	56.8
Average annual percent change:							
1947-85	3.0	-5	-6	.1	-4	-5	.1
1980-85	3.6	-3.5	-2.6	-6.8	-4.3	-3.6	-6.8

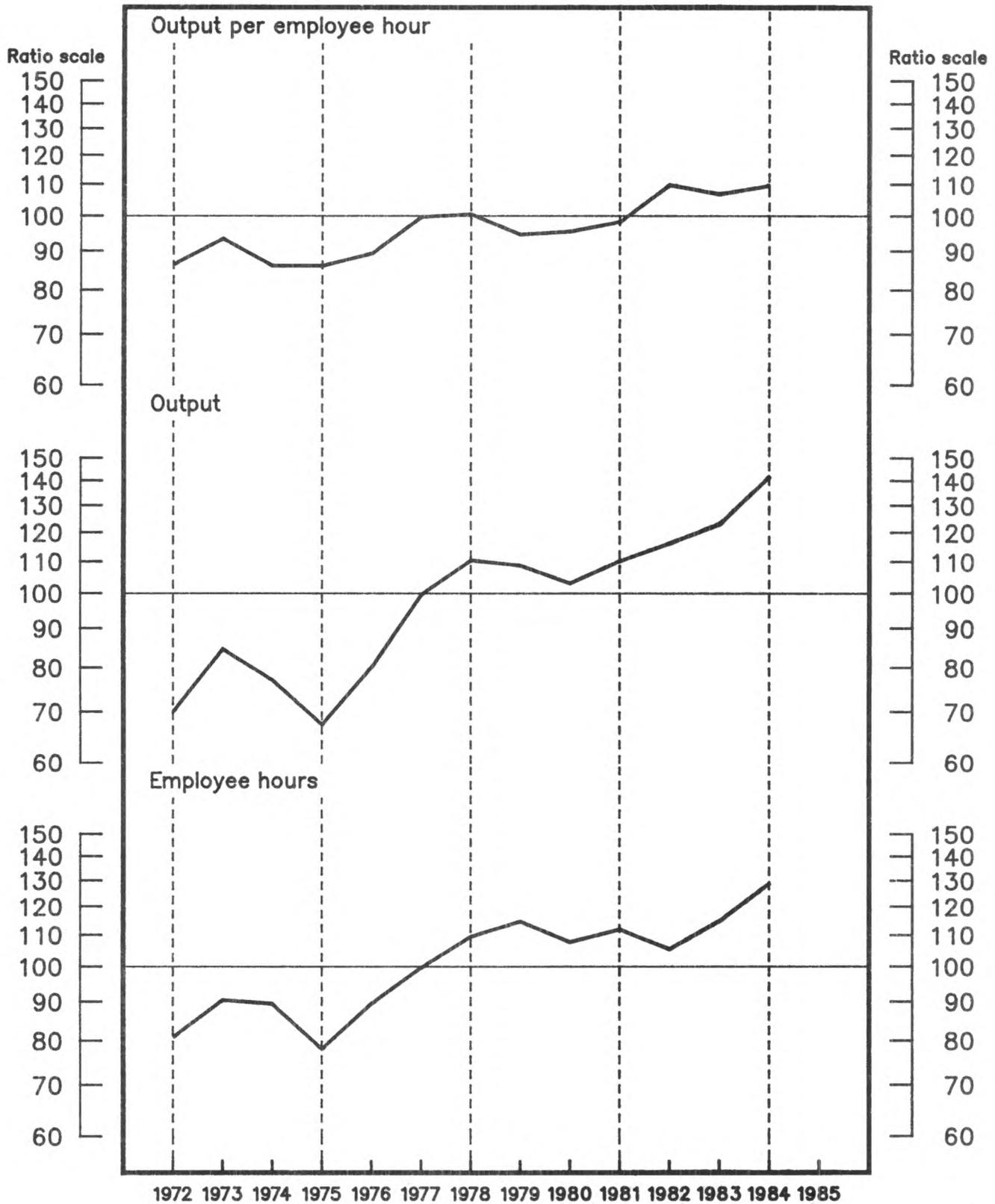
¹ Preliminary.

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.

Chart 61. Miscellaneous plastics products (SIC 3079): Output per hour and related products, 1972-84

(1977=100)



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

Table 119. Miscellaneous plastics products (SIC 3079): Indexes of output per employee hour and output per employee, 1972-84 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	107.1	107.6	105.2	108.5	109.4	105.2
1984 ²	109.9	109.1	112.7	111.8	111.6	112.7
Average annual percent change:						
1972-84	2.0	2.1	1.6	2.1	2.2	1.6
1980-84	3.7	3.1	5.7	4.4	4.1	5.7

¹ 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.

² 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 120. Miscellaneous plastics products (SIC 3079): 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	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	123.3	115.1	114.6	117.2	113.6	112.7	117.2
1984 ¹	142.1	129.3	130.2	126.1	127.1	127.3	126.1
Average annual percent change:							
1972-84	5.5	3.5	3.4	3.9	3.4	3.3	3.8
1980-84	7.7	3.9	4.5	1.9	3.2	3.5	1.9

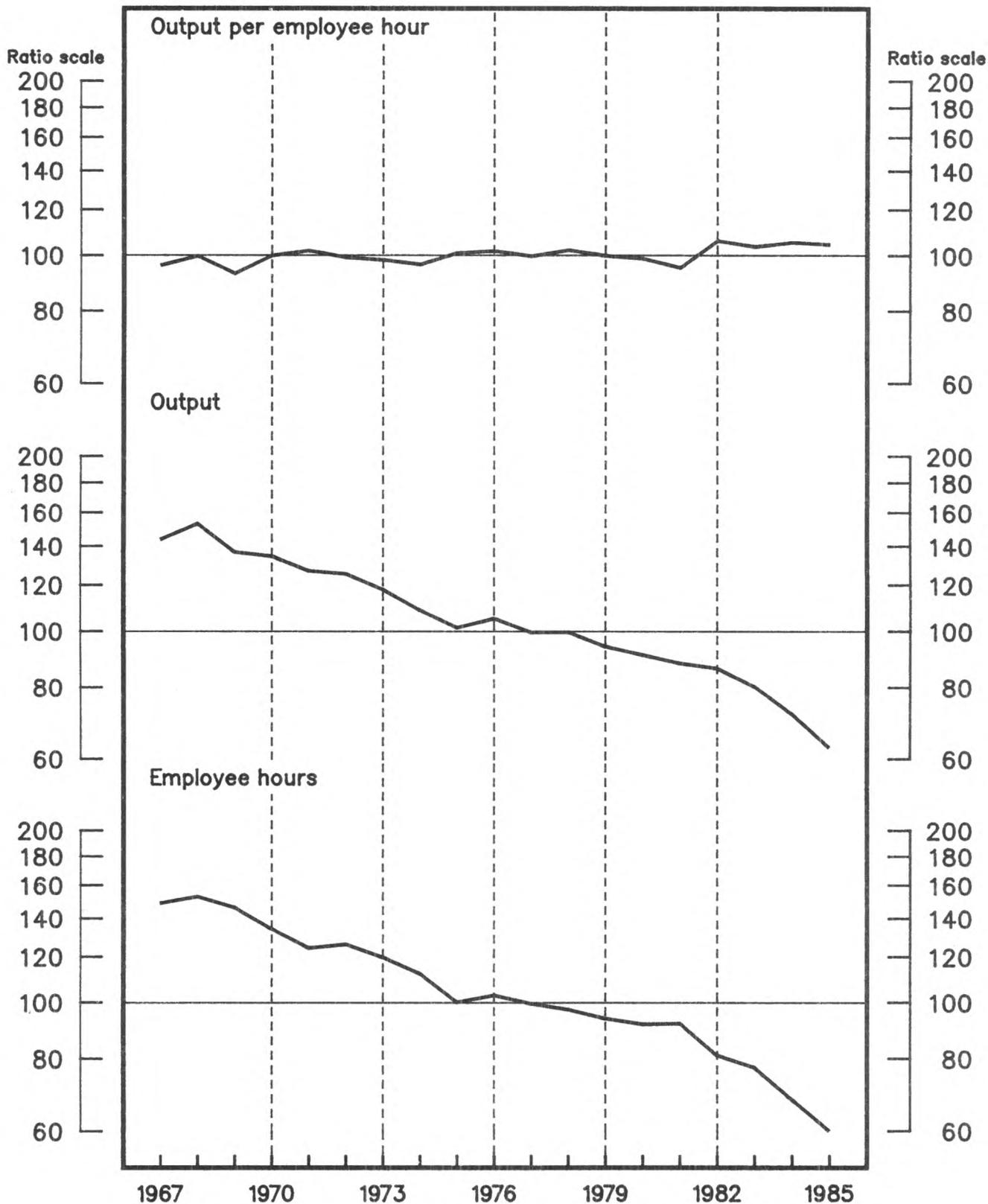
¹ Preliminary.

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 62. Footwear (SIC 314): Output per hour and related data, 1967-85

(1977=100)



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

Table 121. Footwear (SIC 314): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	106.4	107.3	99.9	103.8	104.2	100.2
1983	103.9	104.7	98.2	103.5	104.1	98.2
1984	105.7	107.4	94.1	103.7	104.9	94.4
1985 ²	104.8	106.9	91.9	104.3	106.0	92.3
Average annual percent change:						
1947-85 .....	.8	1.0	(³)	.8	.9	-.1
1980-85	1.6	1.8	.1	1.4	1.6	.1

¹ 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.

² Preliminary.

³ 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 122. Footwear (SIC 314): Indexes of output, employee hours, and employees, 1958-85
(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	81.4	80.7	86.7	83.4	83.1	86.4
1983	80.6	77.6	77.0	82.1	77.9	77.4	82.1
1984	72.2	68.3	67.2	76.7	69.6	68.8	76.5
1985 ¹	63.2	60.3	59.1	68.8	60.6	59.6	68.5
Average annual percent change:							
1947-85	-1.4	-2.3	-2.4	-1.4	-2.3	-2.4	-1.4
1980-85	-7.0	-8.4	-8.6	-7.1	-8.3	-8.4	-7.0

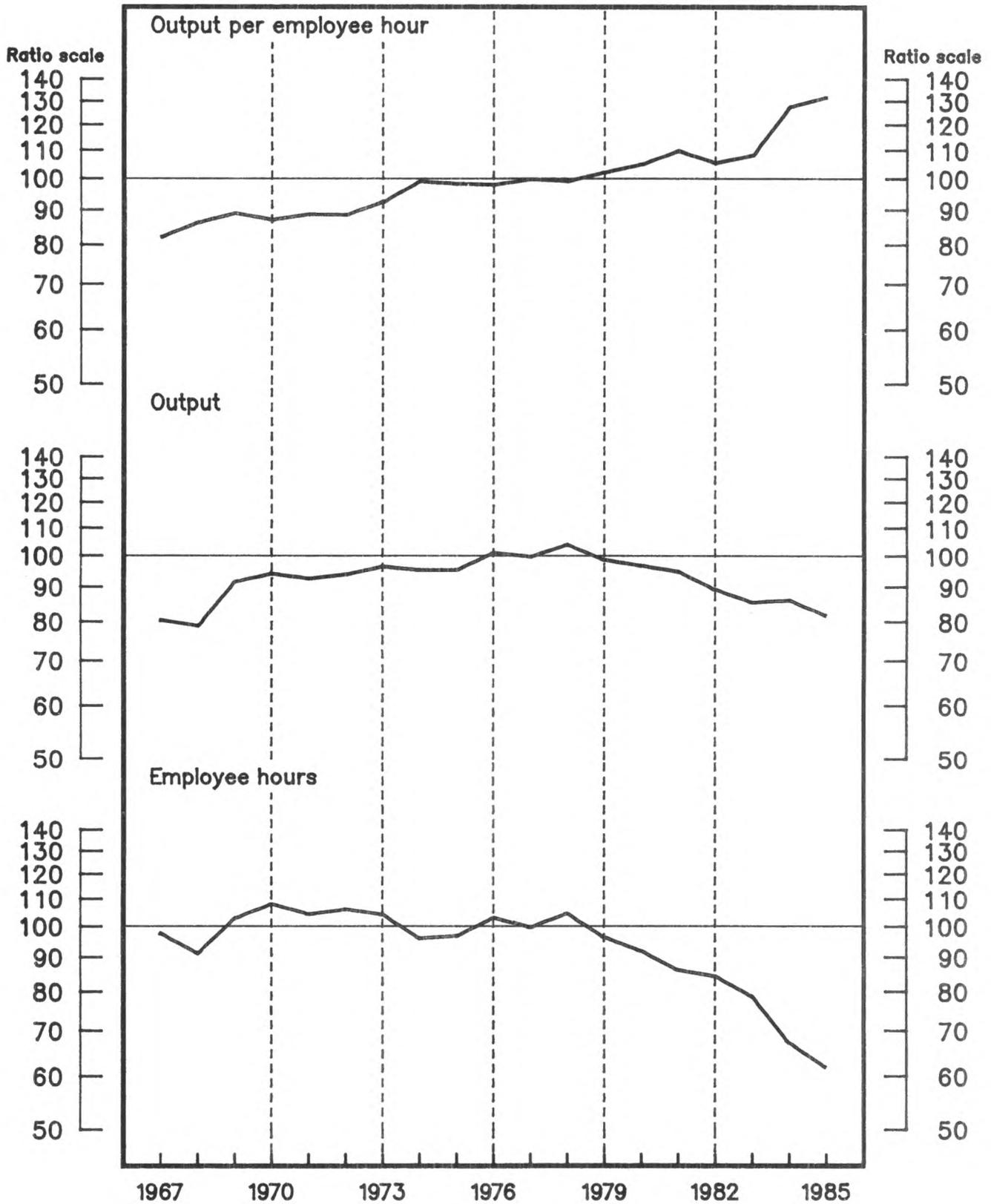
¹ Preliminary.

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. Glass containers (SIC 3221): Output per hour and related data, 1967-85

(1977=100)



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

Table 123. Glass containers (SIC 3221): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	128.0	130.0	115.5	126.0	127.5	115.5
1985 ²	132.1	133.0	125.6	130.8	131.7	125.8
Average annual percent change:						
1947-85	2.0	2.0	1.3	1.8	1.9	1.2
1980-85	4.7	4.8	4.3	4.2	4.3	4.2

¹ 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.

² 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 124. Glass containers (SIC 3221): Indexes of output, employee hours, and employees, 1958-85
(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	86.3	67.4	66.4	74.7	68.5	67.7	74.7
1985 ¹	81.9	62.0	61.6	65.2	62.6	62.2	65.1
Average annual percent change:							
1947-85	2.7	.7	.6	1.4	.8	.8	1.4
1980-85	-3.3	-7.7	-7.7	-7.3	-7.3	-7.3	-7.2

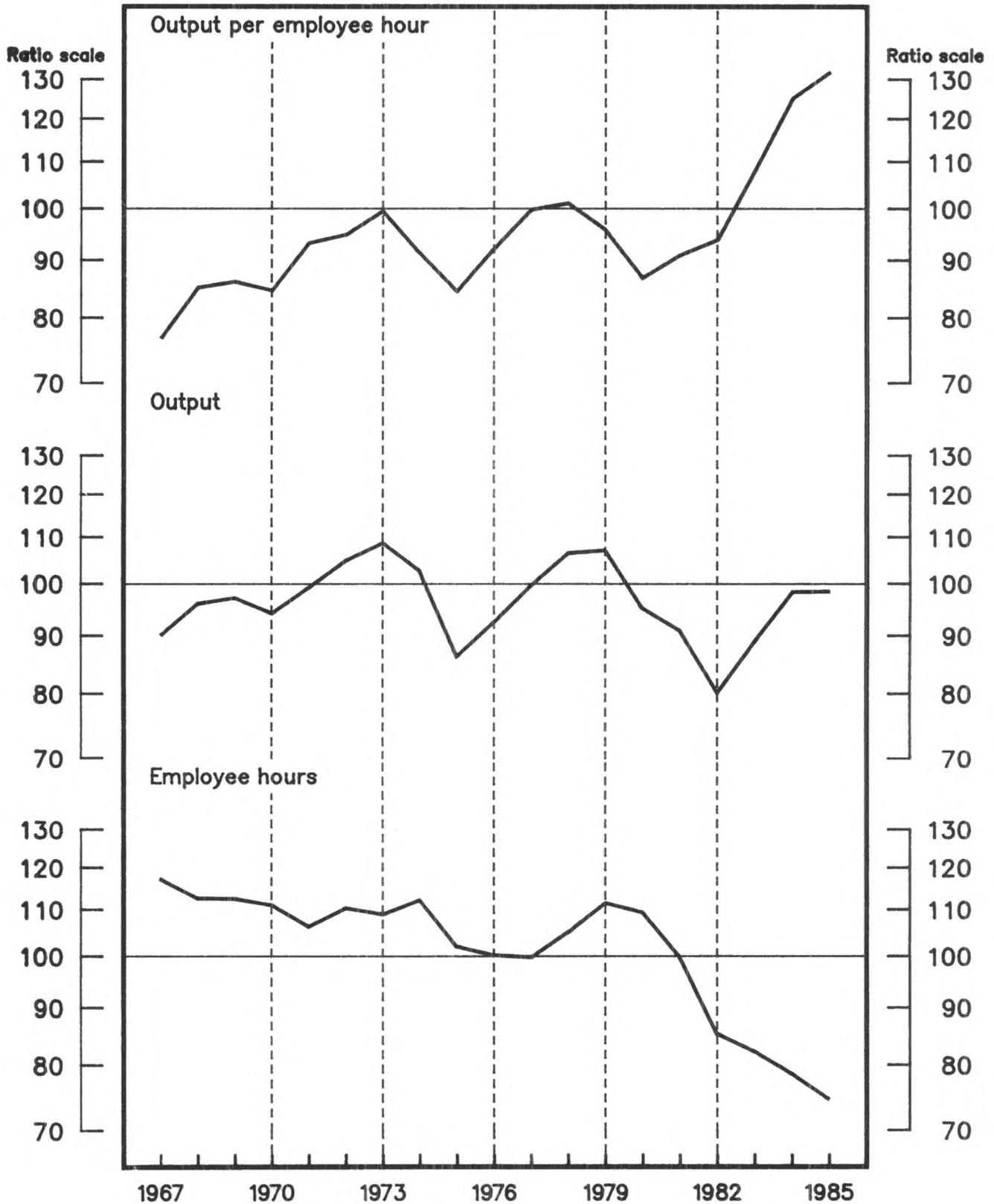
¹ Preliminary.

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 64. Hydraulic cement (SIC 3241): Output per hour and related data, 1967-85

(1977=100)



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

Table 125. Hydraulic cement (SIC 3241): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
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	125.3	131.1	105.6	121.3	125.8	106.1
1985 ²	132.1	138.6	110.2	126.4	131.3	110.5
Average annual percent change:						
1947-85	3.3	3.7	1.5	3.1	3.5	1.5
1980-85	9.5	10.5	6.0	8.7	9.6	5.7

¹ 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.

² 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 126. Hydraulic cement (SIC 3241): Indexes of output, employee hours, and employees, 1958-85
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
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	98.6	78.7	75.2	93.4	81.3	78.4	92.9
1985 ¹	98.7	74.7	71.2	89.6	78.1	75.2	89.3
Average annual percent change:							
1947-85	1.5	-1.9	-2.2	-1.1	-1.7	-2.0	-1.1
1980-85	1.5	-7.4	-8.2	-4.2	-6.6	-7.3	-4.0

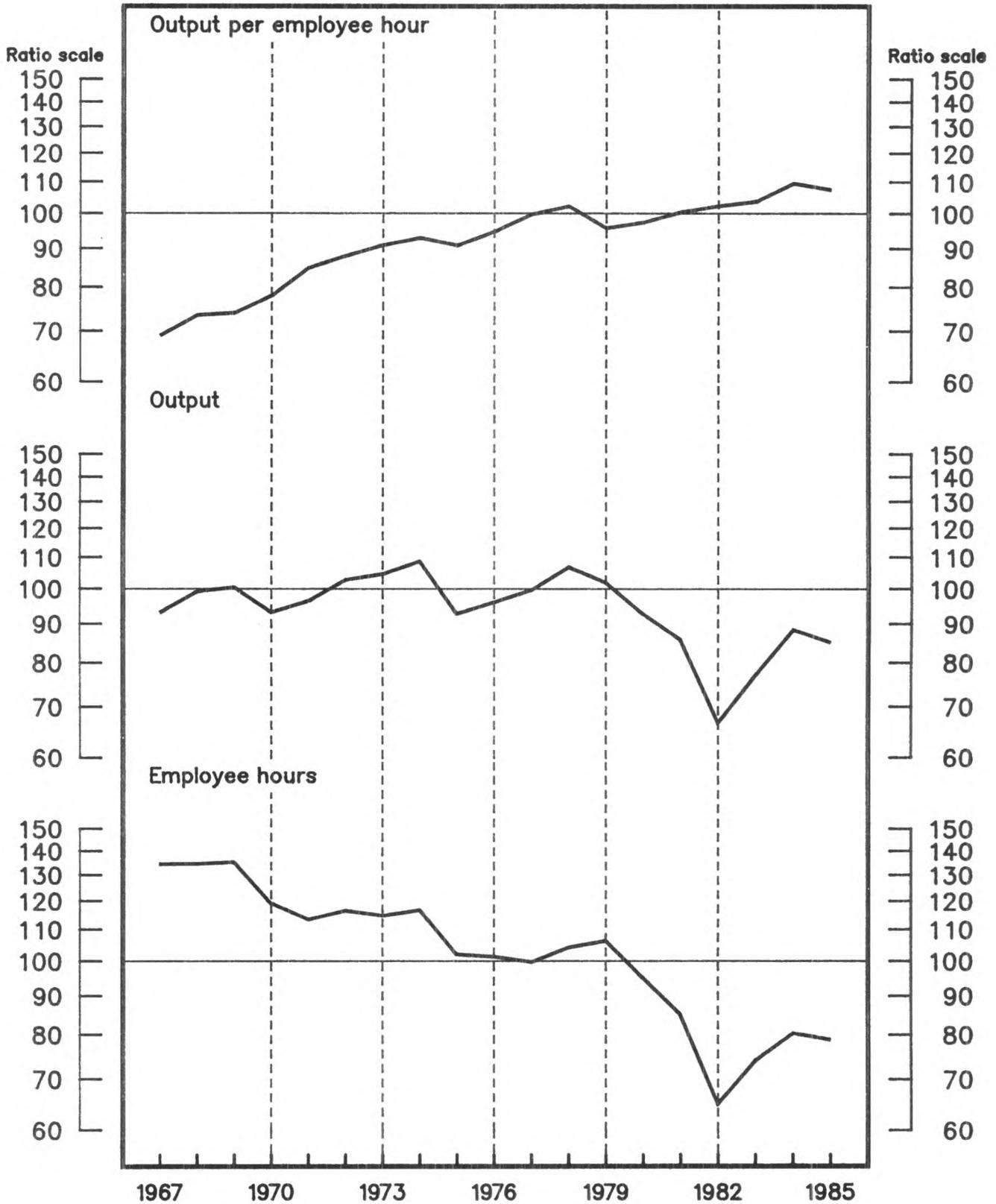
¹ Preliminary.

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 65. Structural clay products (SIC 325): Output per hour and related data, 1967-85

(1977=100)



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

Table 127. Structural clay products (SIC 325): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	109.9	109.5	112.3	111.2	110.7	112.6
1985 ²	107.8	107.8	108.0	107.4	107.3	108.2
Average annual percent change:						
1958-85	2.7	3.0	1.3	2.7	3.0	1.3
1980-85	2.2	1.5	5.4	2.7	2.0	5.3

¹ 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.

² 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. Structural clay products (SIC 325): Indexes of output, employee hours, and employees, 1958-85
(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	88.7	80.7	81.0	79.0	79.8	80.1	78.8
1985 ¹	85.3	79.1	79.1	79.0	79.4	79.5	78.8
Average annual percent change:							
1958-85	-4	-3.0	-3.3	-1.6	-3.0	-3.3	-1.7
1980-85	-6	-2.7	-2.0	-5.6	-3.1	-2.5	-5.6

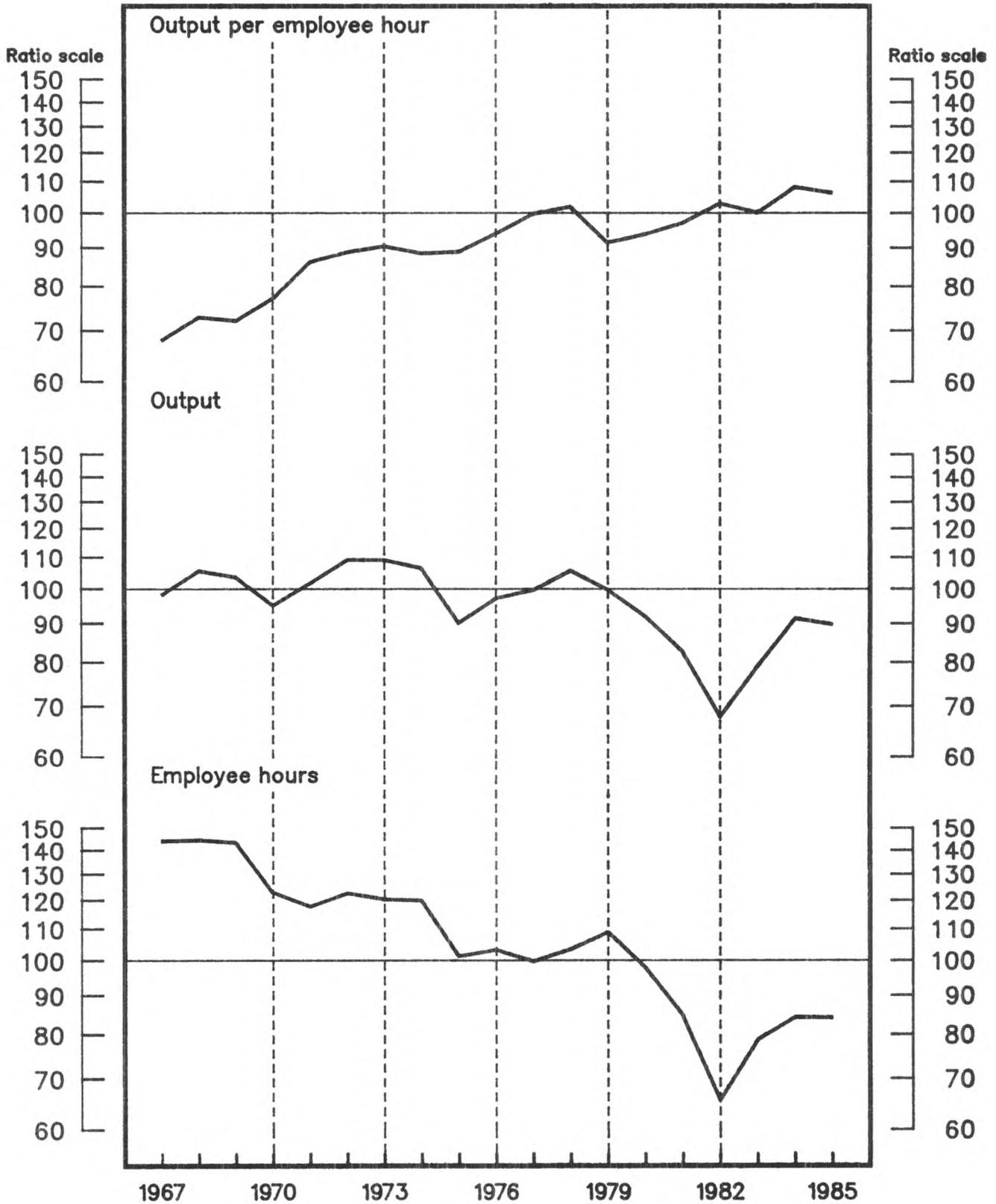
¹ Preliminary.

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. Clay construction products (SIC 3251, 3253, 3259): Output per hour and related data, 1967-85

(1977=100)



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

Table 129. Clay construction products (SIC 3251, 3253, 3259): Indexes of output per employee hour and output per employee, 1958-85 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	108.5	107.8	112.4	110.3	109.8	112.2
1985 ²	106.6	106.0	110.3	106.8	106.0	110.2
Average annual percent change:						
1958-85	2.7	2.9	1.5	2.6	2.9	1.5
1980-85	2.7	1.9	6.5	3.0	2.3	6.3

¹ 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.

² Preliminary.

Table 130. Clay construction products (SIC 3251, 3253, 3259): Indexes of output, employee hours, and employees, 1958-85 (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	91.7	84.5	85.1	81.6	83.1	83.5	81.7
1985 ¹	90.0	84.4	84.9	81.6	84.3	84.9	81.7
Average annual percent change:							
1958-85	-8	-3.4	-3.6	-2.2	-3.3	-3.5	-2.2
1980-85	.9	-1.7	-9	-5.2	-2.0	-1.3	-5.0

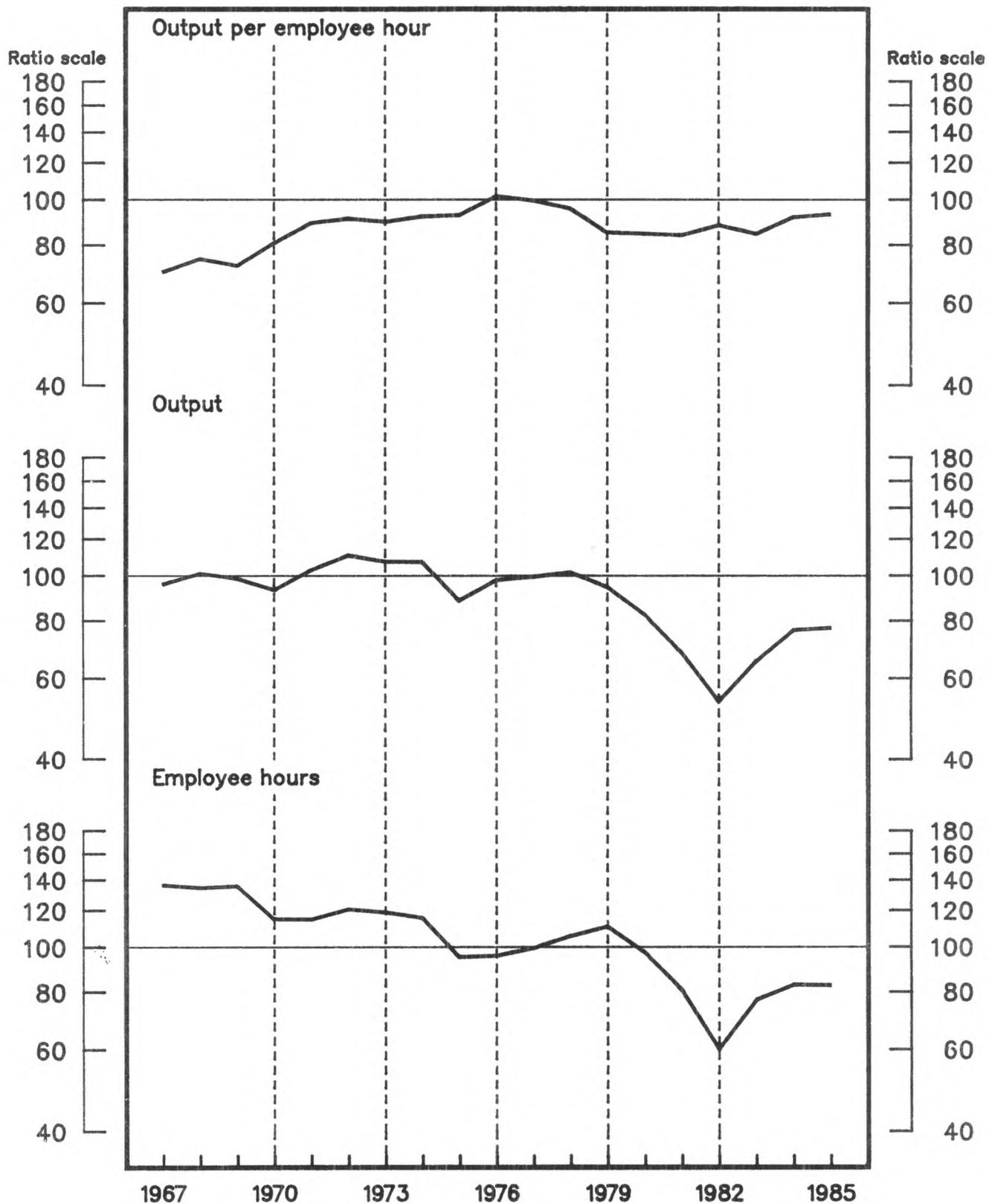
¹ Preliminary.

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. Brick and structural clay tile (SIC 3251): Output per hour and related data, 1967-85

(1977=100)



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

Table 131. Brick and structural clay tile (SIC 3251): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	92.2	92.6	90.2	93.2	93.9	89.6
1985 ²	93.5	93.3	94.5	93.6	93.6	93.6
Average annual percent change:						
1958-85	1.8	2.2	-2	1.7	2.0	-1
1980-85	2.0	.8	7.7	2.5	1.4	7.5

¹ 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.

² 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. Brick and structural clay tile (SIC 3251): Indexes of output, employee hours, and employees, 1958-85
(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	76.8	83.3	82.9	85.1	82.4	81.8	85.7
1985 ¹	77.6	83.0	83.2	82.1	82.9	82.9	82.9
Average annual percent change:							
1958-85	-1.3	-3.1	-3.4	-1.2	-3.0	-3.3	-1.2
1980-85 .....	.6	-1.4	-2	-6.6	-1.9	-.8	-6.4

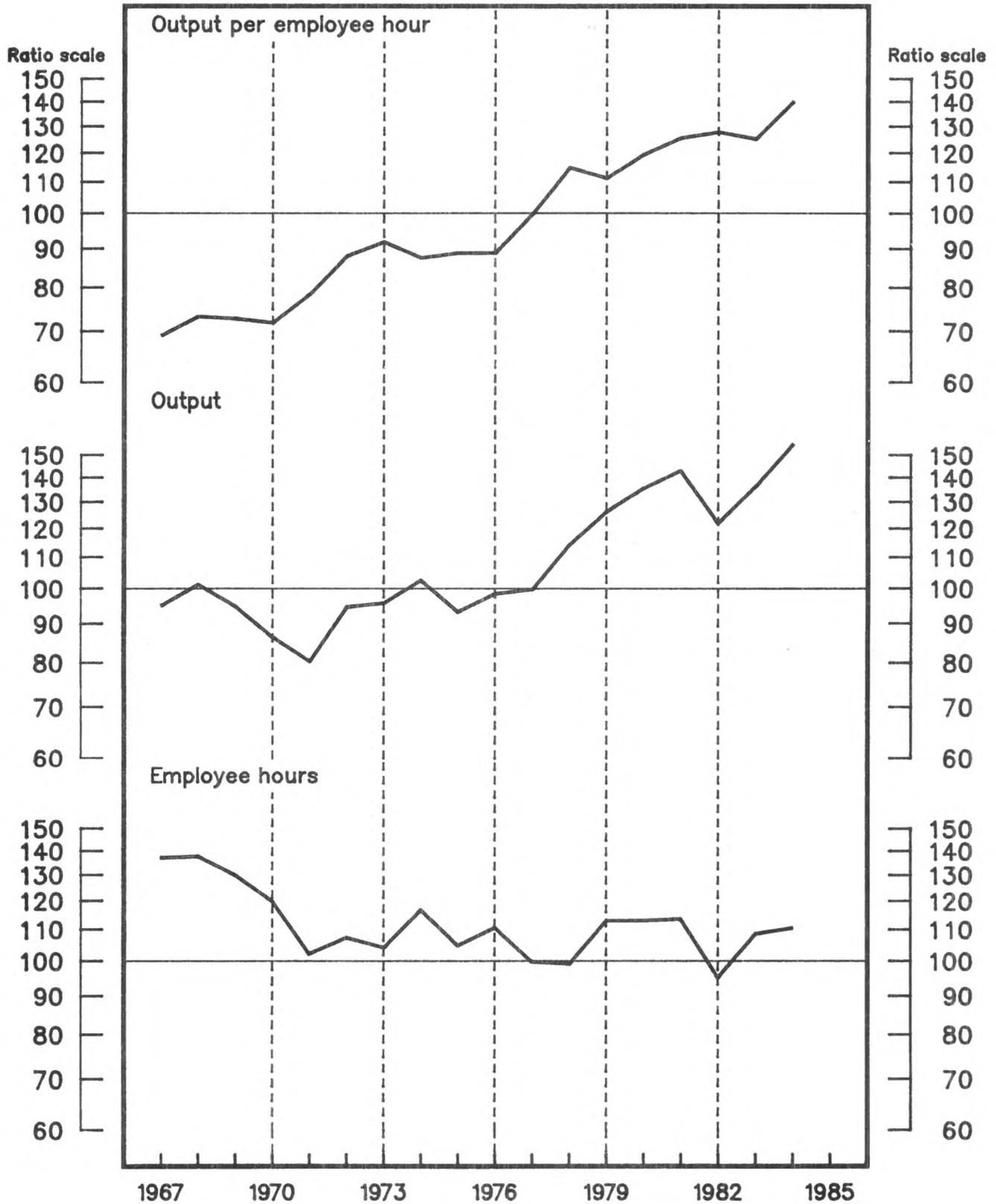
¹ Preliminary.

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. Ceramic wall and floor tile (SIC 3253): Output per hour and related data, 1967-84

(1977=100)



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

Table 133. Ceramic wall and floor tile (SIC 3253): Indexes of output per employee hour and output per employee, 1958-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	126.5
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	125.5	121.5	146.8	130.1	126.7	146.5
1984 ²	140.2	135.3	166.8	142.5	137.8	166.5
Average annual percent change:						
1958-84	3.9	3.9	4.3	4.0	3.9	4.4
1980-84	3.2	2.8	5.1	3.5	3.2	5.0

¹ 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.

² 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. Ceramic wall and floor tile (SIC 3253): 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	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	137.8	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	96.7	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	112.2	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	136.7	108.9	112.5	93.1	105.1	107.9	93.3
1984 ¹	155.3	110.8	114.8	93.1	109.0	112.7	93.3
Average annual percent change:							
1958-84	1.5	-2.3	-2.3	-2.7	-2.4	-2.3	-2.8
1980-84	2.2	-9	-5	-2.8	-1.3	-1.0	-2.7

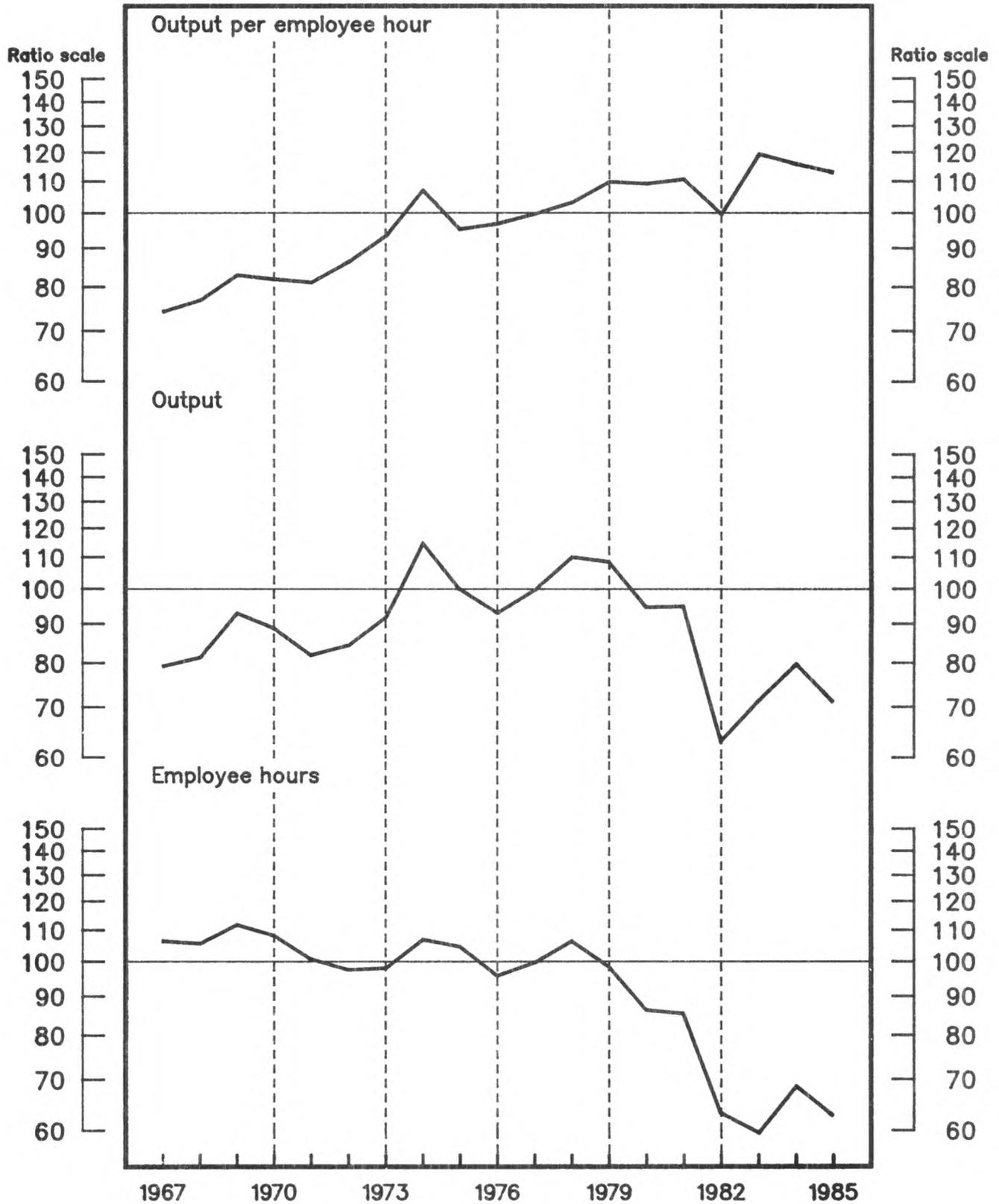
¹ Preliminary.

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. Clay refractories (SIC 3255): Output per hour and related data, 1967-85

(1977=100)



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

Table 135. Clay refractories (SIC 3255): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	116.3	117.3	113.0	114.4	115.4	111.1
1985 ²	113.4	117.3	100.7	110.4	114.1	99.0
Average annual percent change:						
1958-85	2.8	3.2	1.0	3.0	3.5	1.0
1980-85	1.4	1.0	2.5	1.9	1.9	2.1

¹ 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.

² 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 136. Clay refractories (SIC 3255): Indexes of output, employee hours, and employees, 1958-85
(1977 = 100)

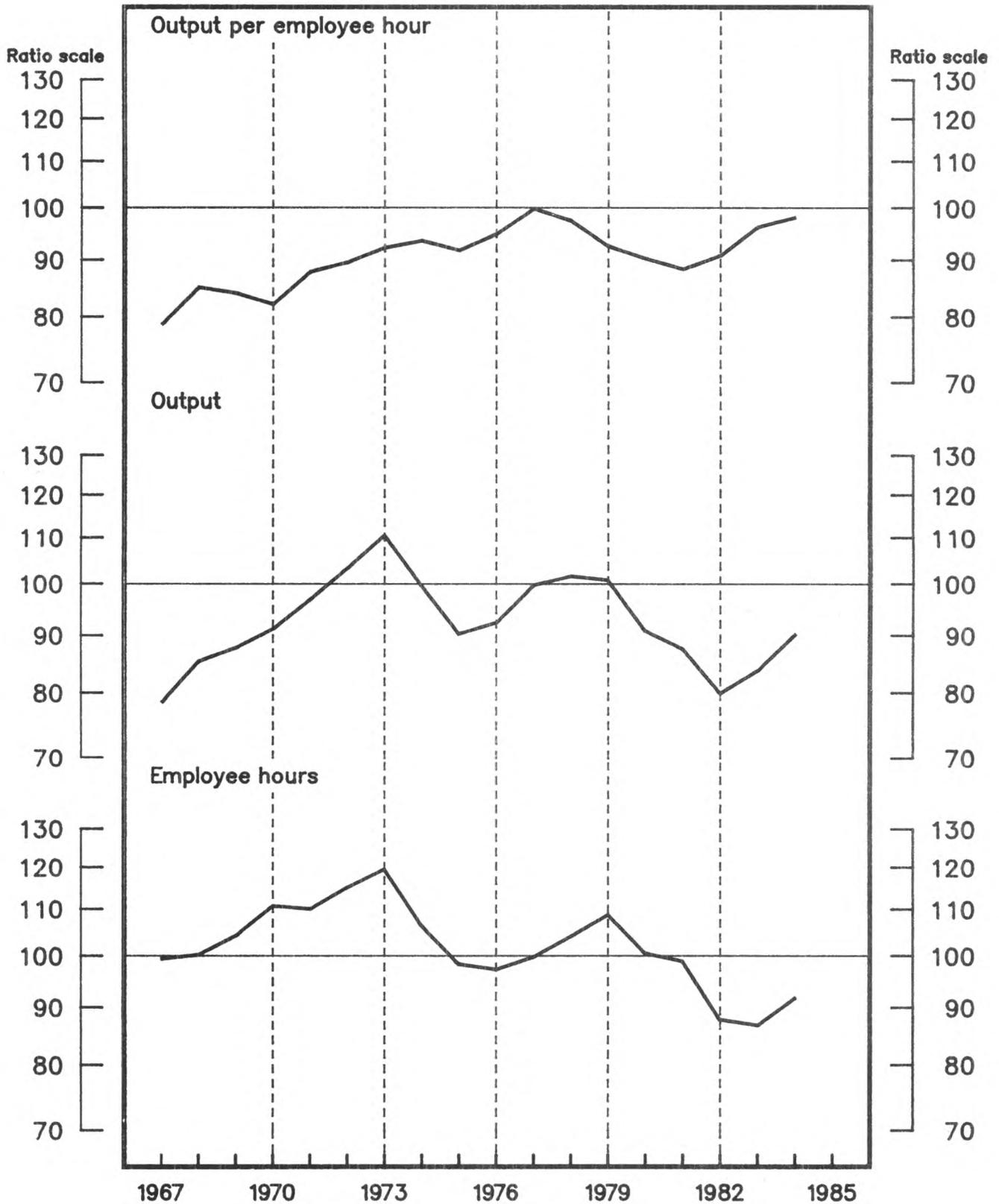
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	55.2	102.7	105.7	91.7	109.7	114.8	92.0
1959	65.4	109.8	120.4	70.8	120.3	134.1	72.0
1960	65.1	109.8	120.4	70.8	123.0	137.5	72.0
1961	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	80.0	68.8	68.2	70.8	69.9	69.3	72.0
1985 ¹	71.3	62.9	60.8	70.8	64.6	62.5	72.0
Average annual percent change:							
1958-85	1.2	-1.5	-2.0	.2	-1.7	-2.2	.2
1980-85	-5.1	-6.4	-6.1	-7.4	-6.9	-6.8	-7.0

¹ 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. Concrete products (SIC 3271, 3272): Output per hour and related data, 1967-84

(1977=100)



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

Table 137. Concrete products (SIC 3271, 3272): Indexes of output per employee hour and output per employee, 1958-84
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	91.0	93.8	83.5	90.4	93.0	83.8
1983	96.4	99.1	89.2	96.2	98.9	89.2
1984 ²	98.3	101.7	89.2	98.8	102.4	89.5
Average annual percent change:						
1947-84	2.5	2.9	1.1	2.3	2.7	1.1
1980-84	2.6	2.5	2.7	2.6	2.6	2.6

¹ 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.

² 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 138. Concrete products (SIC 3271, 3272): 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	51.5	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	88.0	85.4	95.9	88.6	86.1	95.6
1983	83.9	87.0	84.7	94.1	87.2	84.8	94.1
1984 ¹	90.4	92.0	88.9	101.3	91.5	88.3	101.0
Average annual percent change:							
1947-84	3.3	.8	.4	2.2	1.0	.6	2.2
1980-84	-6	-3.1	-3.0	-3.2	-3.1	-3.1	-3.1

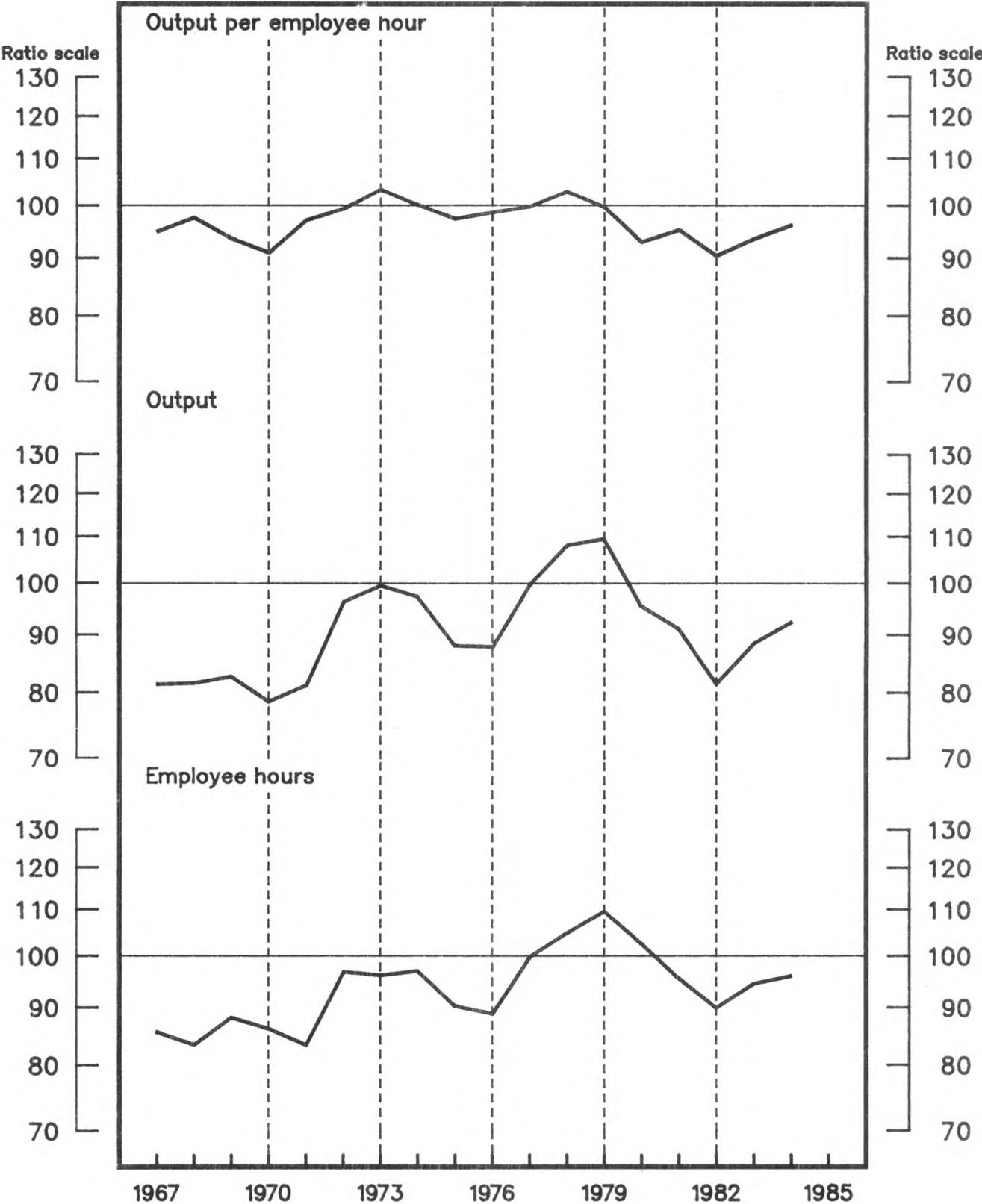
¹ Preliminary.

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 71. Ready-mixed concrete (SIC 3273): Output per hour and related data, 1967-84

(1977=100)



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

Table 139. Ready-mixed concrete (SIC 3273): 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	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	93.7	93.1	88.7	94.7	95.3
1984 ¹	96.3	97.7	92.6	96.2	94.8
Average annual percent change:					
1958-84 .....	.9	.7	2.0	1.2	1.3
1980-84 .....	.5	1.3	-9	-1.4	-2.2

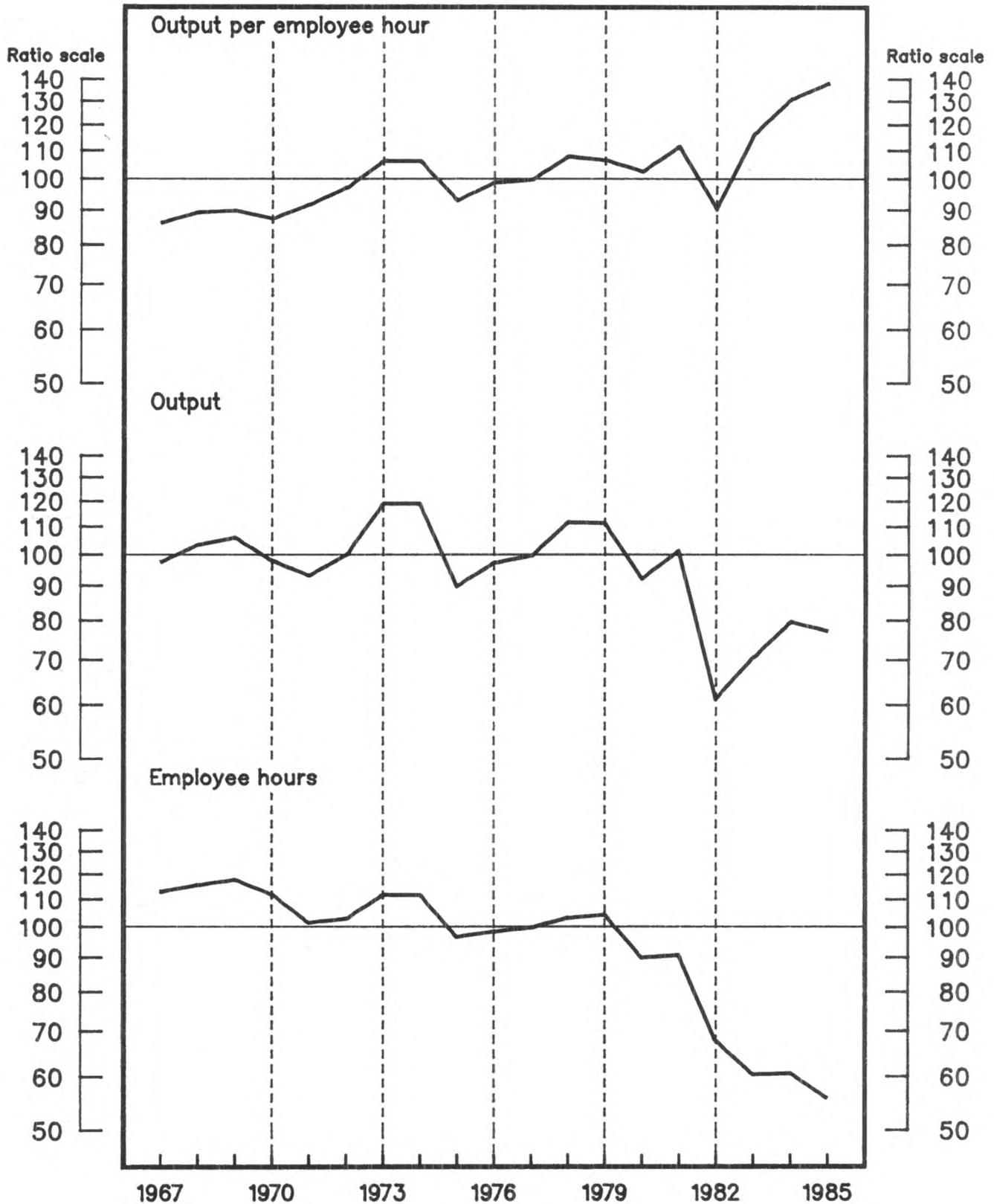
¹ Preliminary.

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 72. Steel (SIC 331): Output per hour and related data, 1967-85

(1977=100)



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

Table 140. Steel (SIC 331): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	131.3	133.9	122.4	132.3	134.3	125.7
1985 ²	138.5	141.5	128.1	140.7	143.6	131.6
Average annual percent change:						
1947-85	1.8	2.2	.2	1.9	2.2	.3
1980-85	6.5	6.7	5.8	7.4	7.6	6.8

¹ 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.

² 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 141. Steel (SIC 331): Indexes of output, employee hours, and employees, 1958-85
(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	79.8	60.8	59.6	65.2	60.3	59.4	63.5
1985 ¹	77.4	55.9	54.7	60.4	55.0	53.9	58.8
Average annual percent change:							
1947-85	.5	-1.3	-1.6	.4	-1.3	-1.7	.2
1980-85	-4.2	-10.0	-10.2	-9.4	-10.8	-10.9	-10.3

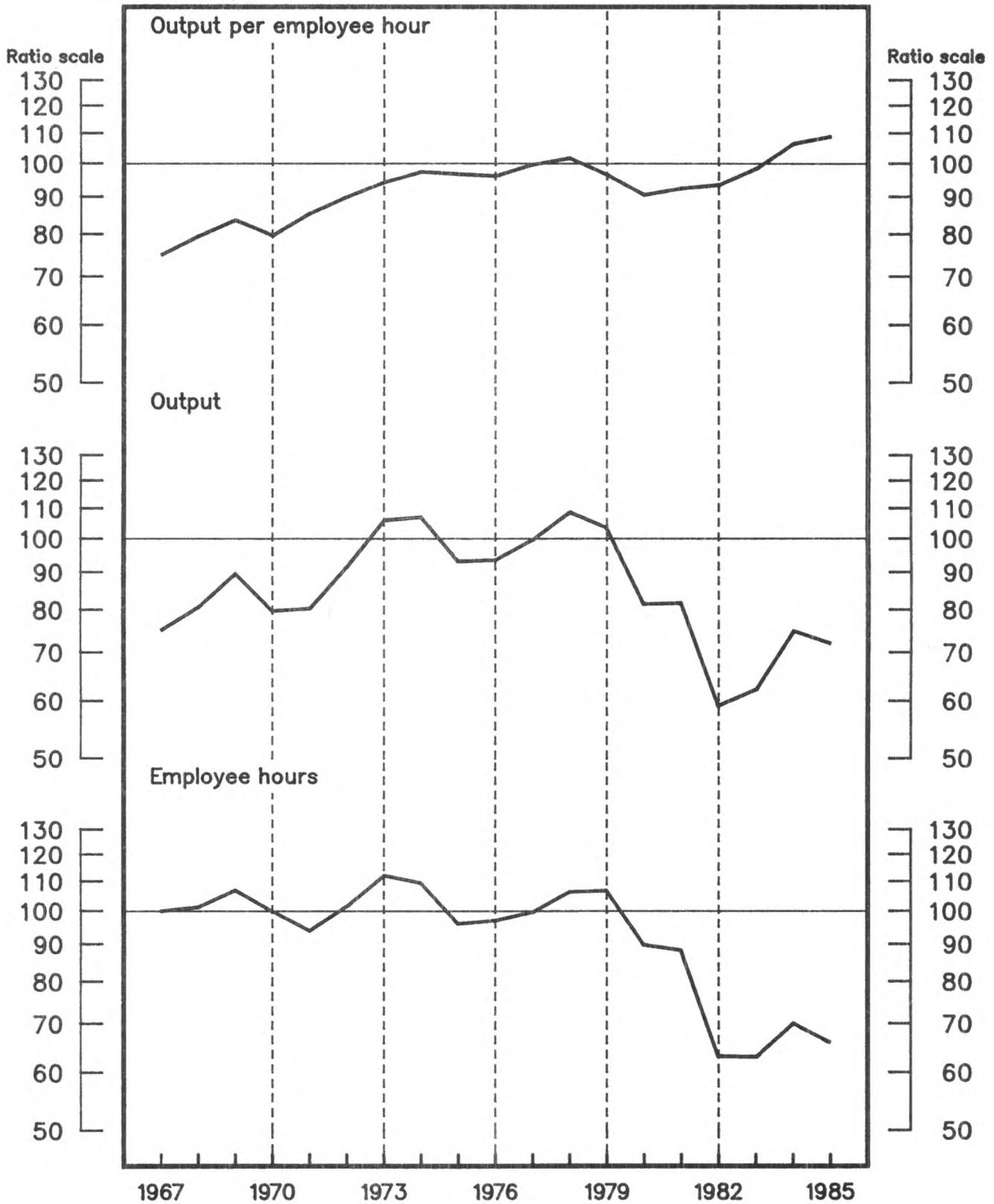
¹ Preliminary.

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 73. Gray iron foundries (SIC 3321): Output per hour and related data, 1967-85

(1977=100)



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

Table 142. Gray iron foundries (SIC 3321): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	99.6
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	98.7	102.6	80.7	94.4	97.5	80.7
1984	106.8	109.2	95.1	105.9	108.2	95.5
1985 ²	109.2	111.8	96.5	107.1	109.4	96.9
Average annual percent change:						
1954-85	1.9	2.2	.6	1.8	2.1	.5
1980-85	4.1	3.6	6.3	5.0	4.8	6.3

¹ 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.

² 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. Gray iron foundries (SIC 3321): Indexes of output, employee hours, and employees, 1958-85
(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	91.8
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	62.4	63.2	60.8	77.3	66.1	64.0	77.3
1984	75.1	70.3	68.8	79.0	70.9	69.4	78.6
1985 ¹	72.2	66.1	64.6	74.8	67.4	66.0	74.5
Average annual percent change:							
1954-85	1.4	-5	-7	.8	-4	-7	.9
1980-85	-2.3	-6.2	-5.7	-8.2	-7.0	-6.8	-8.1

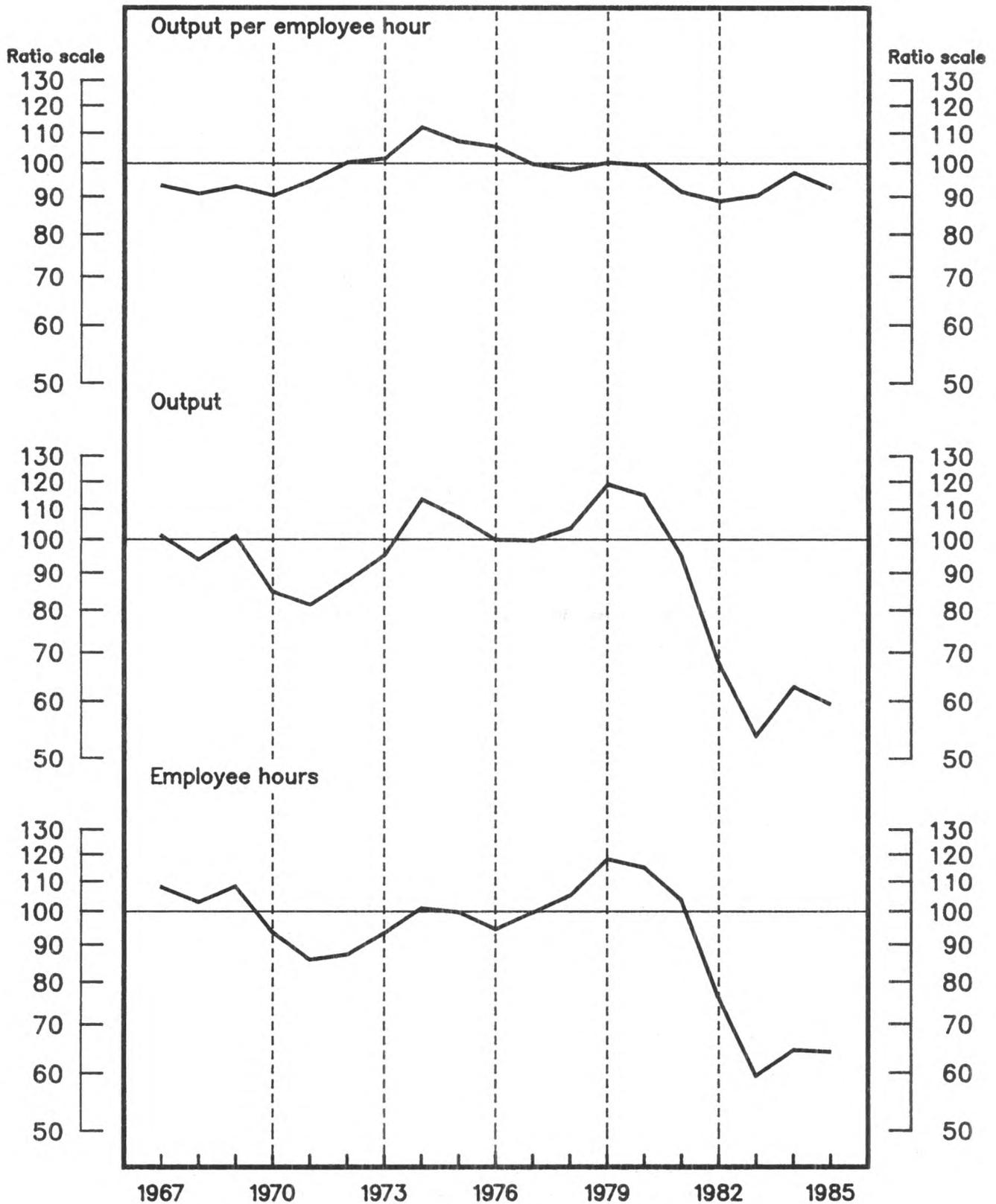
¹ Preliminary.

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 74. Steel foundries (SIC 3324, 3325): Output per hour and related data, 1967-85

(1977=100)



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

Table 144. Steel foundries (SIC 3324, 3325): Indexes of output per employee hour and output per employee, 1958-85
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	89.2	82.7	86.7	69.6
1983	90.6	98.0	68.1	87.0	93.4	68.3
1984	97.4	99.4	89.6	97.5	99.5	90.0
1985 ²	92.7	95.4	82.8	91.1	93.3	83.4
Average annual percent change:						
1954-85	.8	1.0	-.4	.7	.9	-.5
1980-85	-.5	(³)	-2.4	-.1	.5	-2.5

¹ 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.

² Preliminary.

³ 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 145. Steel foundries (SIC 3324, 3325): Indexes of output, employee hours, and employees, 1958-85
(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	63.0	64.7	63.4	70.3	64.6	63.3	70.0
1985 ¹	59.6	64.3	62.5	72.0	65.4	63.9	71.5
Average annual percent change:							
1954-85	.6	-.2	-.4	.9	-.1	-.4	1.0
1980-85	-12.7	-12.3	-12.8	-10.6	-12.6	-13.2	-10.5

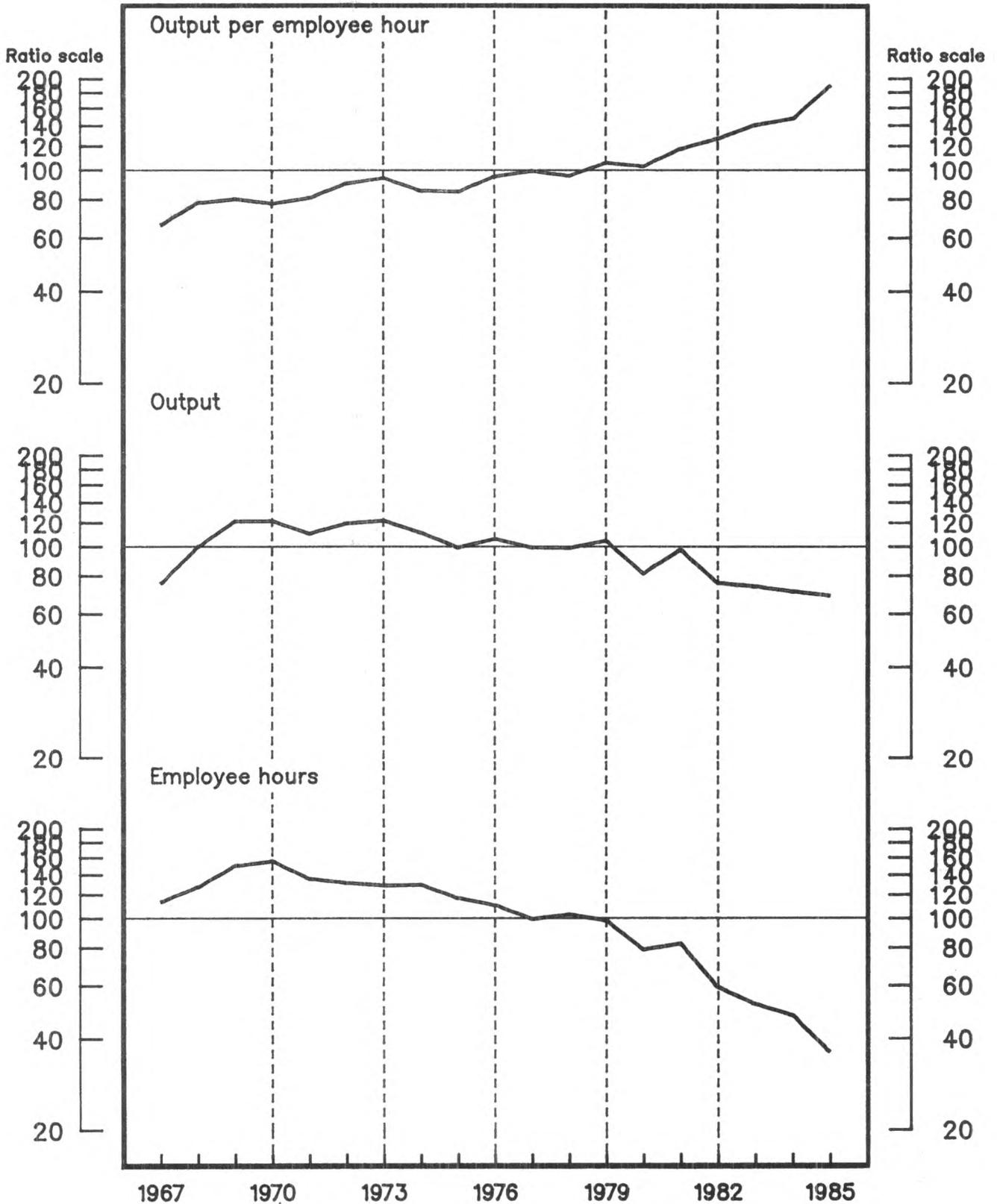
¹ Preliminary.

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 75. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Output per hour and related data, 1967-85

(1977=100)



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

Table 146. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Indexes of output per employee hour and output per employee, 1958-85 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	148.9	156.0	125.0	152.3	160.2	127.6
1985 ²	190.9	195.8	173.2	194.7	199.1	177.7
Average annual percent change:						
1947-85	2.7	3.0	1.4	2.6	2.8	1.3
1980-85	11.6	11.8	10.9	12.6	12.9	11.2

¹ 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.

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.

² Preliminary.

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

Table 147. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Indexes of output, employee hours, and employees, 1958-85 (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	100.0	98.7	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	71.6	48.1	45.9	57.3	47.0	44.7	56.1
1985 ¹	69.3	36.3	35.4	40.0	35.6	34.8	39.0
Average annual percent change:							
1947-85	.2	-2.6	-2.8	-1.2	-2.4	-2.7	-1.1
1980-85	-5.1	-15.0	-15.1	-14.4	-15.7	-16.0	-14.7

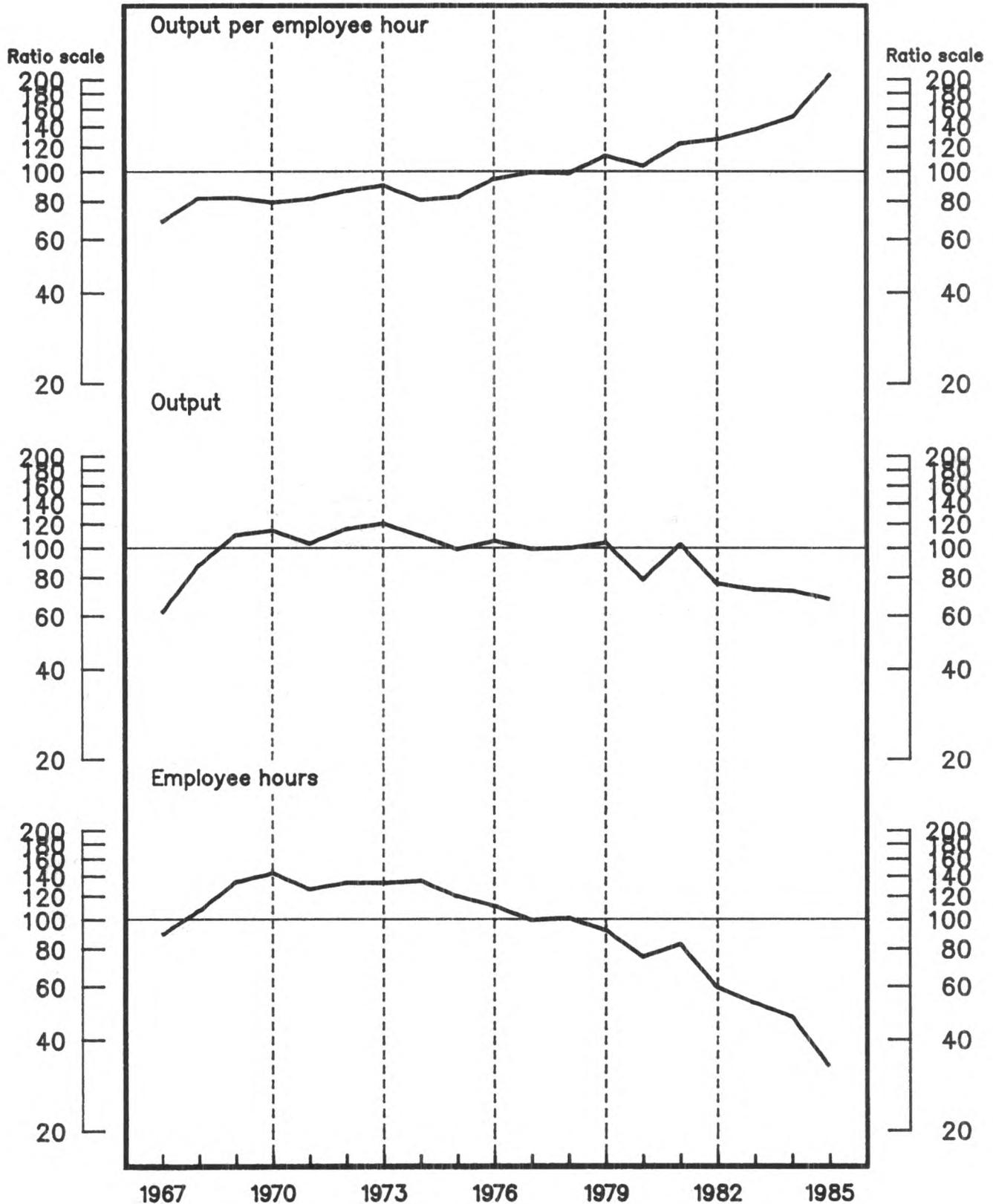
¹ Preliminary.

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 copper (SIC 3331): Output per hour and related data, 1967-85

(1977=100)



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

Table 148. Primary copper (SIC 3331): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	97.7
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	151.9	158.1	129.0	159.2	168.0	130.2
1985 ²	208.5	207.9	210.4	219.2	220.6	214.4
Average annual percent change:						
1947-85	2.4	2.7	.9	2.2	2.5	.8
1980-85	12.4	11.9	14.4	14.1	14.0	14.5

¹ 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.

² 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 149. Primary copper (SIC 3331): Indexes of output, employee hours, and employees, 1958-85
(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	72.9	48.0	46.1	56.5	45.8	43.4	56.0
1985 ¹	68.6	32.9	33.0	32.6	31.3	31.1	32.0
Average annual percent change:							
1947-85 .....	.8	-1.6	-1.9	-2	-1.4	-1.7	-1
1980-85	-5.2	-15.6	-15.2	-17.1	-16.9	-16.8	-17.2

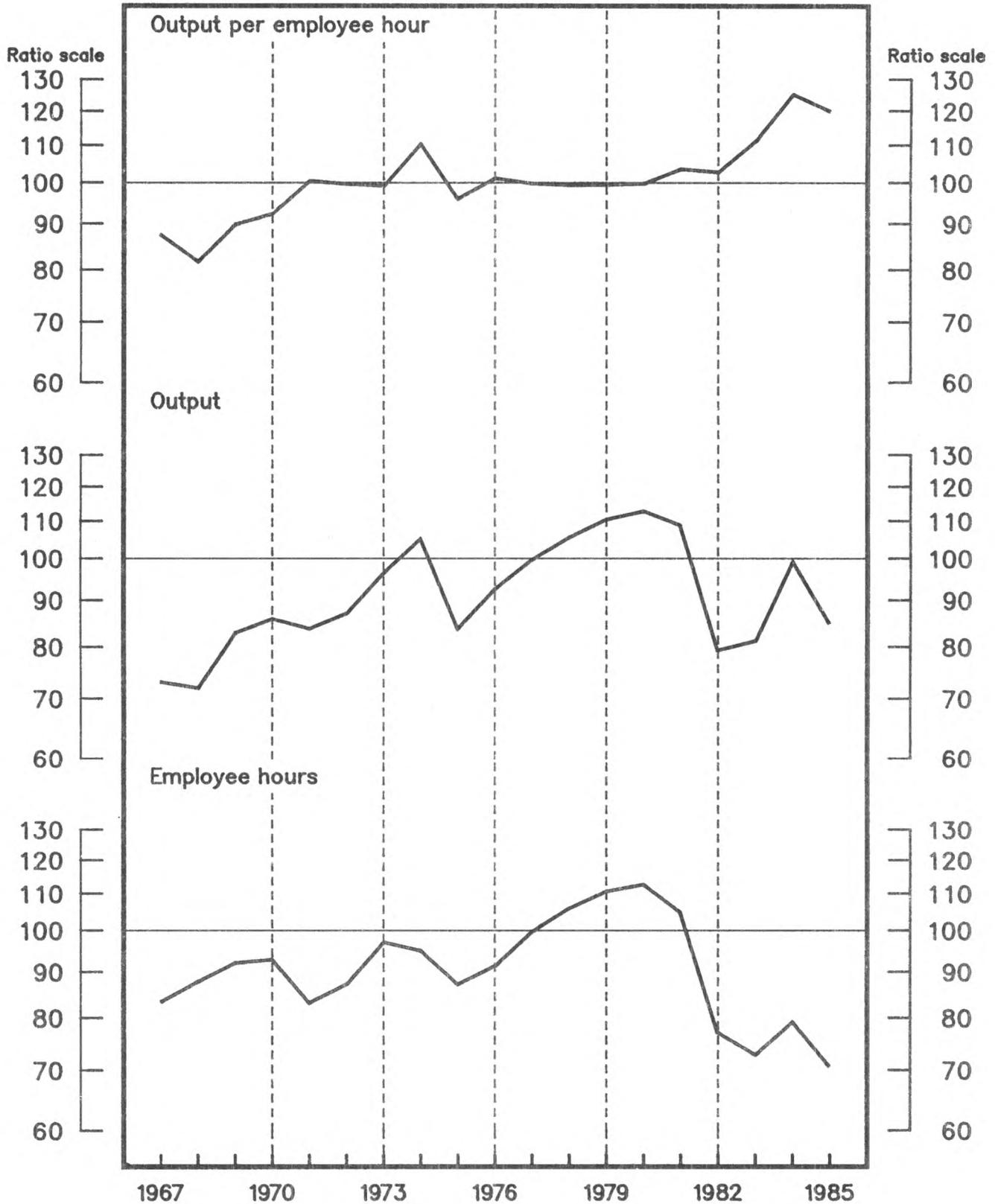
¹ Preliminary.

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 77. Primary aluminum (SIC 3334): Output per hour and related data, 1967-85

(1977=100)



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

Table 150. Primary aluminum (SIC 3334): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	76.9
1983	111.5	115.8	96.8	108.8	112.4	96.3
1984	125.4	126.2	122.5	126.6	127.5	123.0
1985 ²	120.1	124.3	104.6	119.7	124.3	104.9
Average annual percent change:						
1947-85	3.1	3.3	2.3	2.9	3.1	2.2
1980-85	4.6	4.3	5.3	4.9	4.8	5.3

¹ 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.

² 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 151. Primary aluminum (SIC 3334): Indexes of output, employee hours, and employees, 1958-85
(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	99.6	79.4	78.9	81.3	78.7	78.1	81.0
1985 ¹	85.0	70.8	68.4	81.3	71.0	68.4	81.0
Average annual percent change:							
1947-85	5.4	2.0	1.8	2.8	2.3	2.1	3.0
1980-85	-4.7	-8.8	-8.6	-9.5	-9.1	-9.1	-9.4

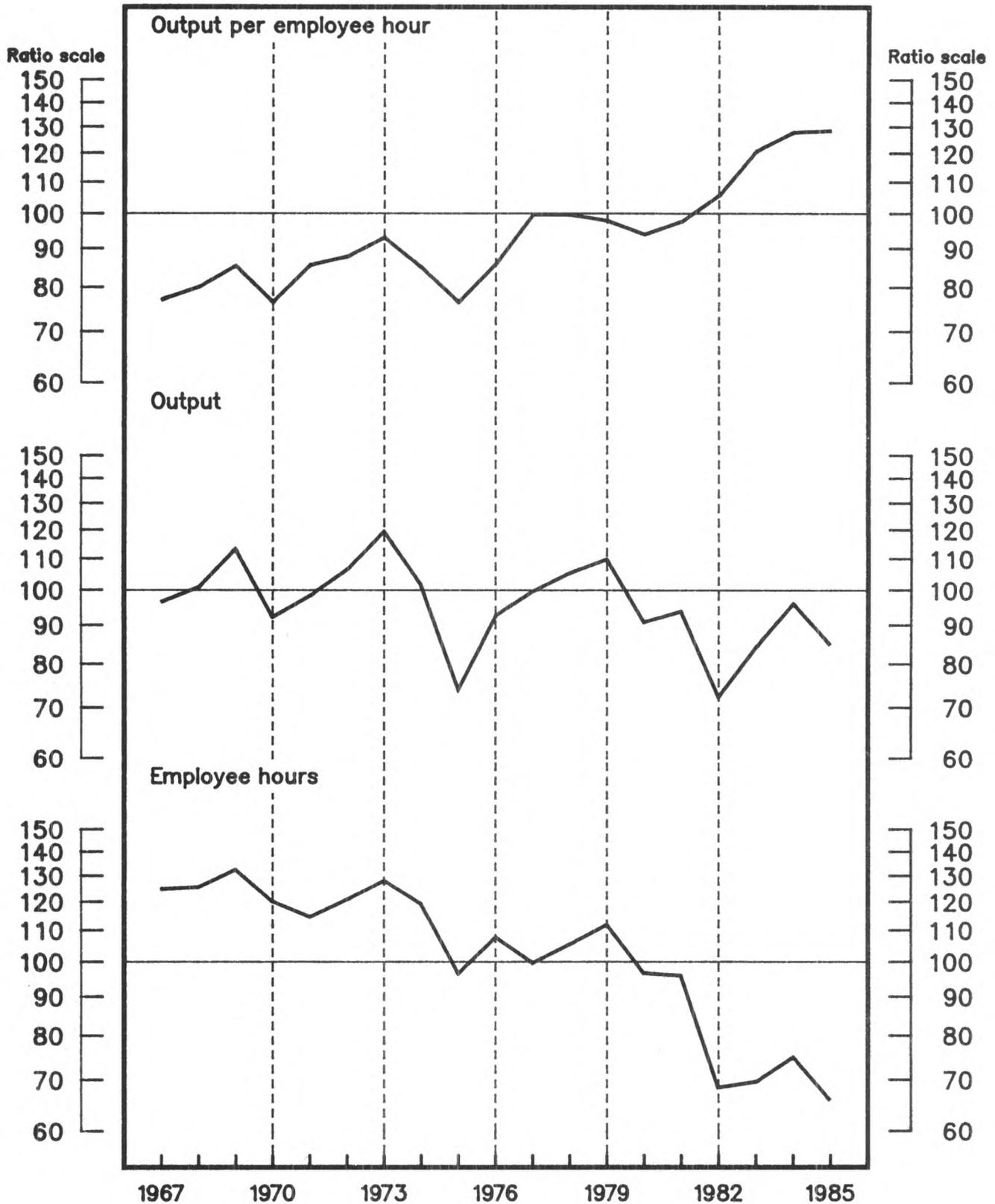
¹ Preliminary.

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 78. Copper rolling and drawing (SIC 3351): Output per hour and related data, 1967-85

(1977=100)



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

Table 152. Copper rolling and drawing (SIC 3351): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	121.2	126.1	105.5	116.2	119.7	105.4
1984	128.3	128.8	126.5	129.0	129.7	126.8
1985 ²	128.9	129.1	128.2	125.0	124.1	128.5
Average annual percent change:						
1958-85	2.4	2.6	1.6	2.3	2.5	1.5
1980-85	7.5	6.9	9.4	7.8	7.3	9.4

¹ 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.

² 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 153. Copper rolling and drawing (SIC 3351): Indexes of output, employee hours, and employees, 1958-85
(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	84.6	69.8	67.1	80.2	72.8	70.7	80.3
1984	96.5	75.2	74.9	76.3	74.8	74.4	76.1
1985 ¹	85.1	66.0	65.9	66.4	68.1	68.6	66.2
Average annual percent change:							
1958-85 .....	.2	-2.2	-2.4	-1.4	-2.0	-2.3	-1.3
1980-85	-3	-7.3	-6.8	-8.9	-7.6	-7.2	-8.9

¹ Preliminary.

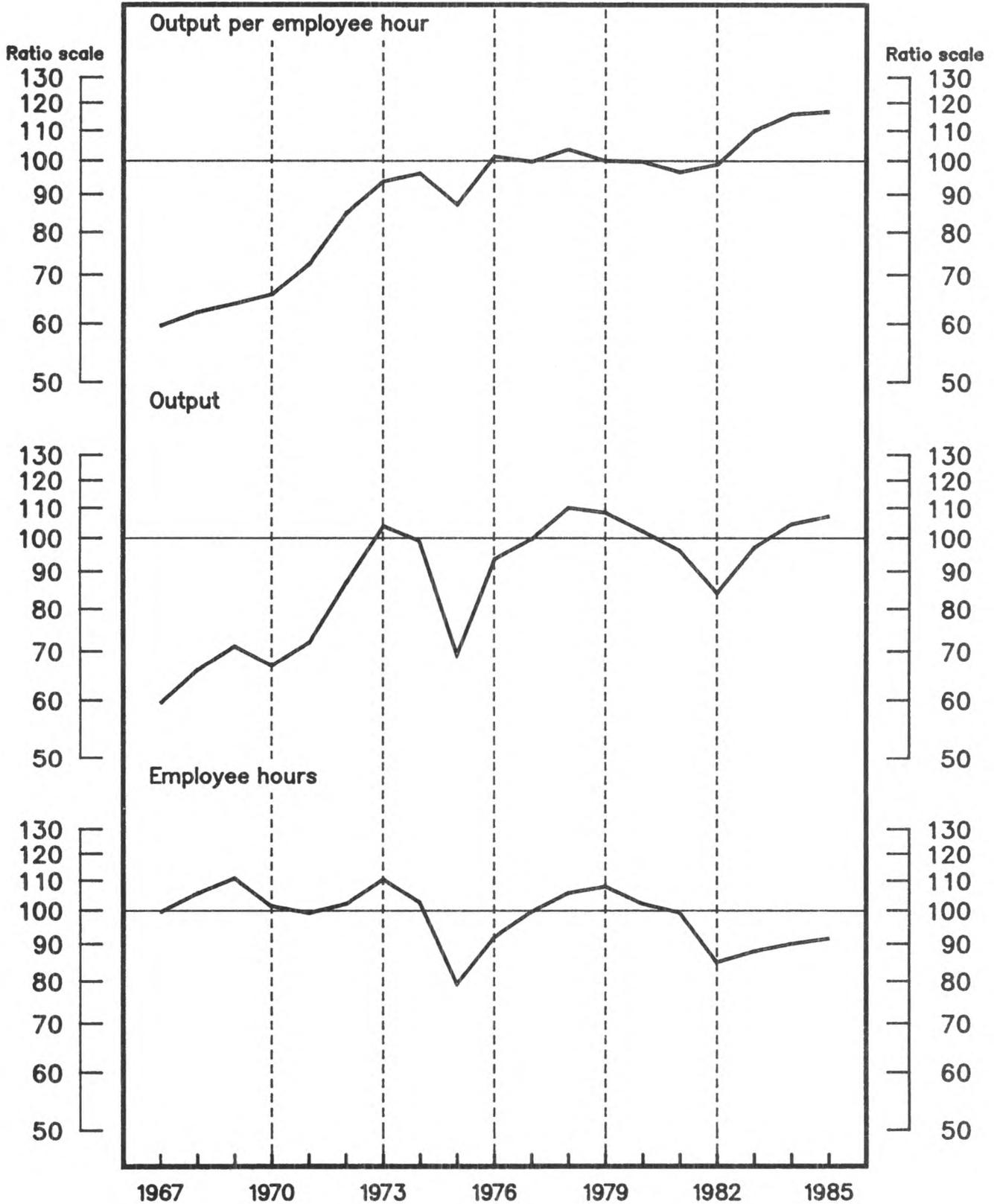
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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 79. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Output per hour and related data, 1967-85

(1977=100)



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

Table 154. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Indexes of output per employee hour and output per employee, 1958-85 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	56.9
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	116.2	118.1	108.1	115.1	117.1	108.3
1985 ²	117.1	122.4	98.7	115.0	120.0	99.0
Average annual percent change:						
1958-85	4.3	4.5	3.9	4.1	4.2	3.8
1980-85	4.2	4.1	4.8	4.4	4.3	4.7

¹ 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.

² 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 155. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Indexes of output, employee hours, and employees, 1958-85 (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	104.9	90.3	88.8	97.0	91.1	89.6	96.9
1985 ¹	107.5	91.8	87.8	108.9	93.5	89.6	108.6
Average annual percent change:							
1958-85	4.6	.3	.2	.7	.5	.4	.8
1980-85	1.8	-2.3	-2.1	-2.8	-2.4	-2.3	-2.8

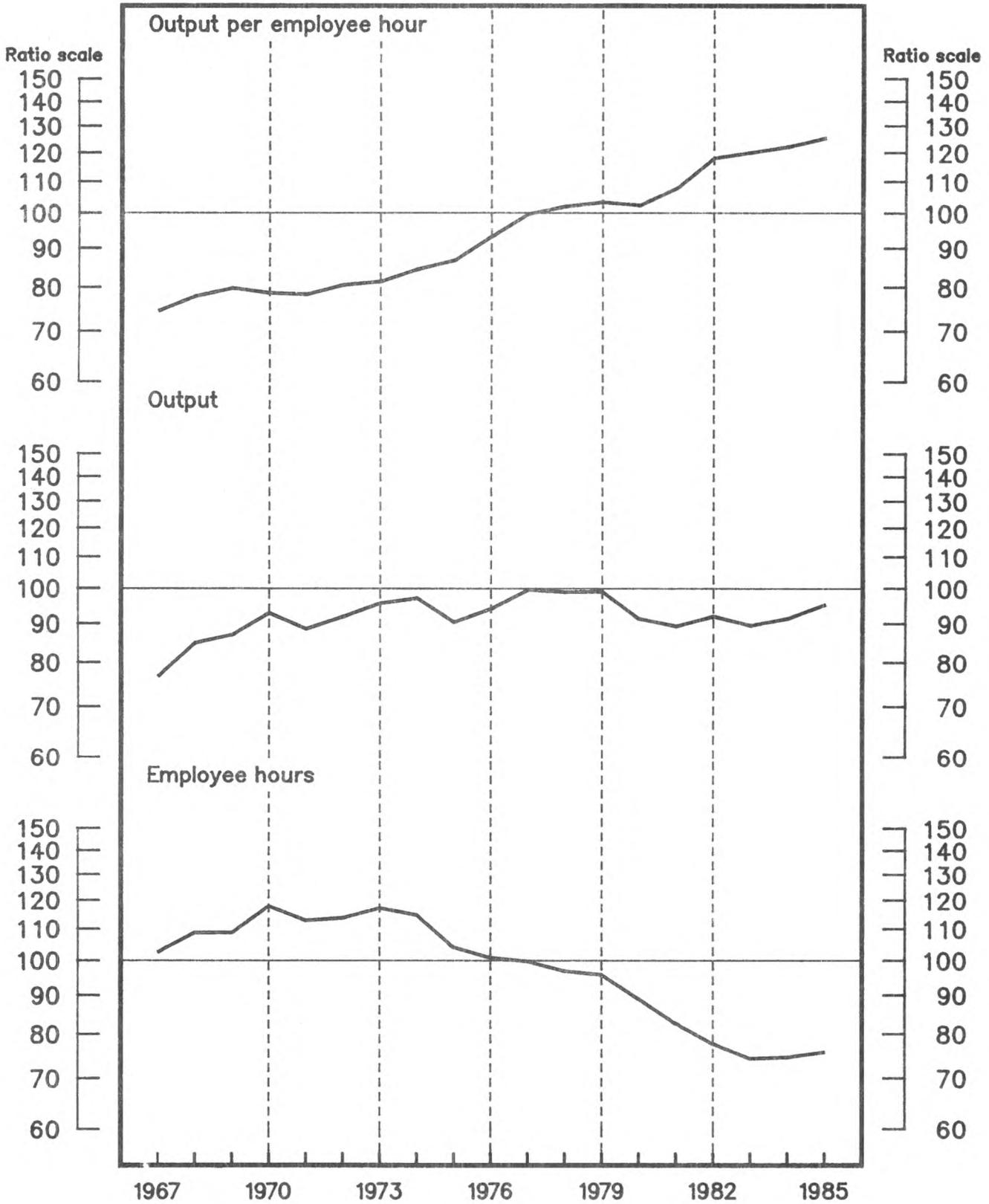
¹ Preliminary.

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 80. Metals cans (SIC 3411): Output per hour and related data, 1967-85

(1977=100)



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

Table 156. Metal cans (SIC 3411): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	118.5	120.5	107.5	112.7	113.5	108.1
1983	120.5	122.0	112.0	116.2	117.1	112.0
1984	122.6	123.6	116.8	120.0	120.5	117.4
1985 ²	125.8	125.6	127.3	125.1	124.6	127.5
Average annual percent change:						
1947-85	2.5	2.7	1.8	2.5	2.7	1.7
1980-85	4.1	3.8	6.2	4.1	3.7	6.2

¹ 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.

² 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 Can Manufacturing Association, 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 157. Metal cans (SIC 3411): Indexes of output, employee hours, and employees, 1958-85
(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	92.3	77.9	76.6	85.9	81.9	81.3	85.4
1983	89.8	74.5	73.6	80.2	77.3	76.7	80.2
1984	91.7	74.8	74.2	78.5	76.4	76.1	78.1
1985 ¹	95.6	76.0	76.1	75.1	76.4	76.7	75.0
Average annual percent change:							
1947-85	2.7	.2	.1	.8	.2	(²)	.9
1980-85 .....	.7	-3.3	-2.9	-5.2	-3.2	-2.8	-5.1

¹ Preliminary.

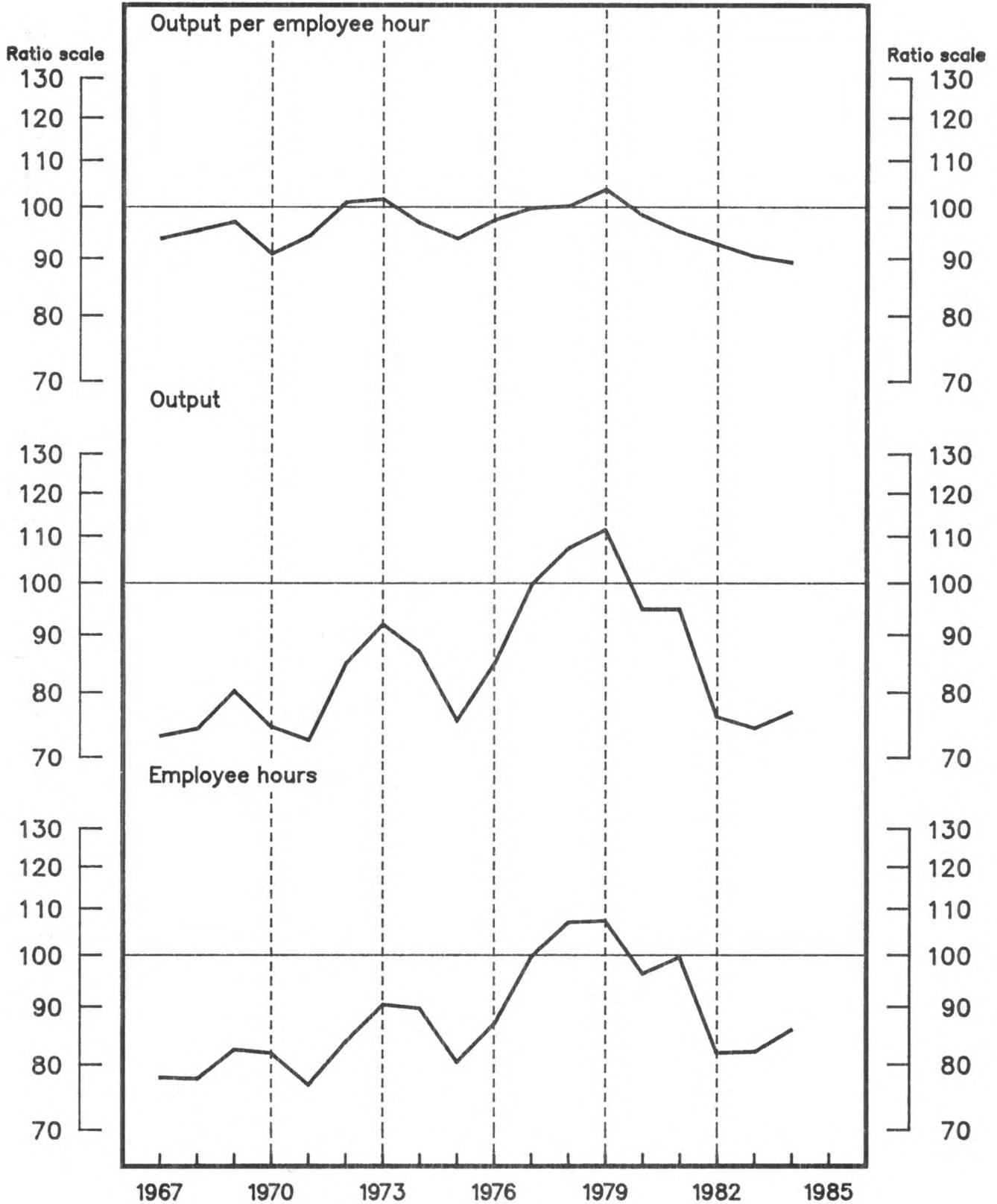
² Less than .05 percent.

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 Can Manufacturing Association, 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 81. Hand and edge tools (SIC 3423): Output per hour and related data, 1967-84

(1977=100)



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

Table 158. Hand and edge tools (SIC 3423): Indexes of output per employee hour and output per employee, 1958-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	90.5	96.9	72.2	87.5	92.9	72.3
1984 ²	89.4	93.9	75.3	88.7	93.1	75.5
Average annual percent change:						
1958-84 .....	.8	1.0	.4	.6	.7	.3
1980-84	-2.4	-1.7	-4.4	-2.0	-1.2	-4.6

¹ 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.

² 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. Hand and edge tools (SIC 3423): 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	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	106.7	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	88.0	80.8	105.0
1983	74.5	82.3	76.9	103.2	85.1	80.2	103.0
1984 ¹	77.0	86.1	82.0	102.2	86.8	82.7	102.0
Average annual percent change:							
1958-84	2.3	1.4	1.3	1.9	1.6	1.5	2.0
1980-84	-6.4	-4.1	-4.8	-2.1	-4.5	-5.3	-1.9

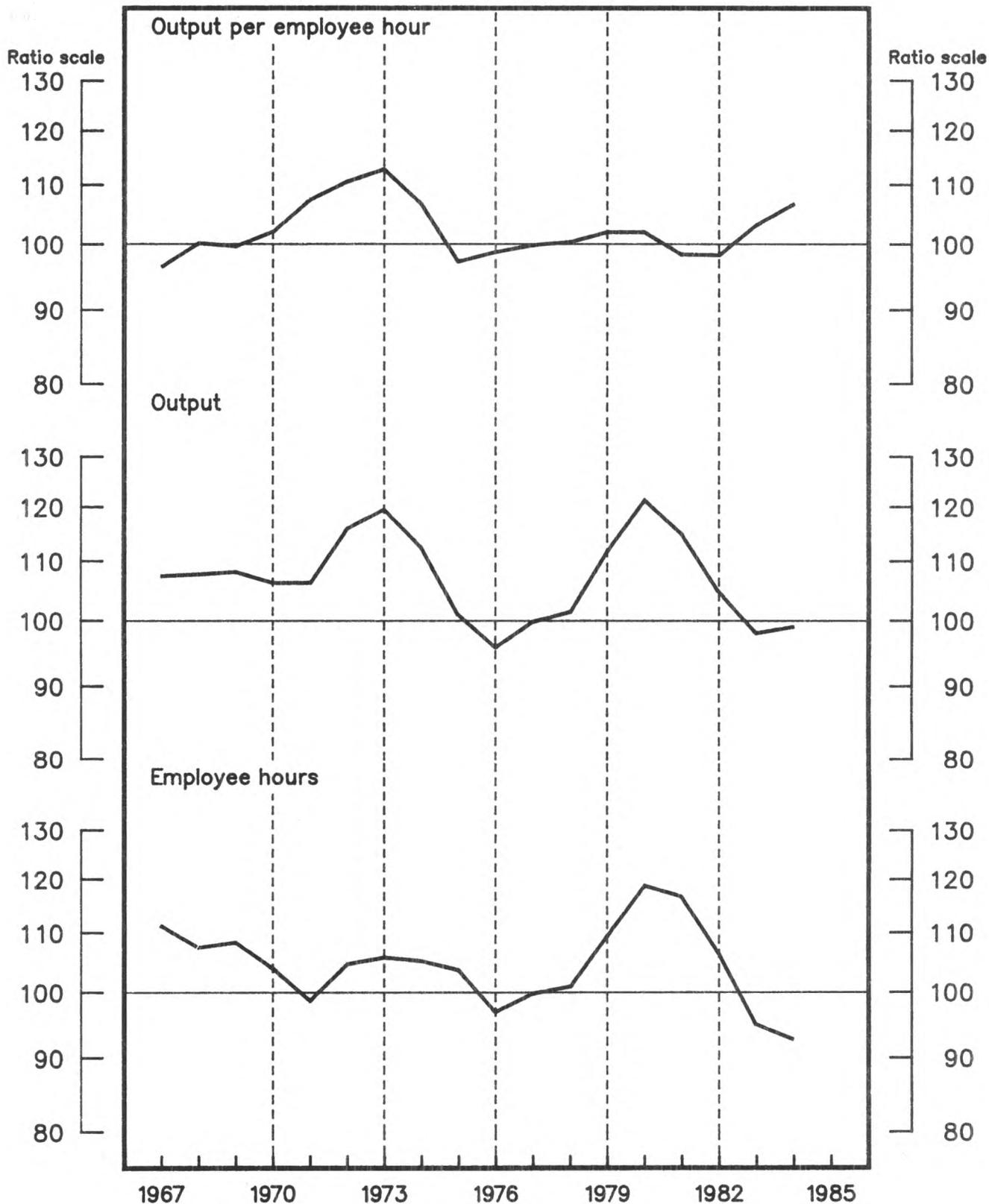
¹ Preliminary.

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. Fabricated structural metal (SIC 3441): Output per hour and related data, 1967-84

(1977=100)



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

Table 160. Fabricated structural metal (SIC 3441): Indexes of output per employee hour and output per employee, 1958-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	103.3	105.3	97.8	103.9	106.4	97.8
1984 ²	106.8	107.1	106.0	107.0	107.1	106.4
Average annual percent change:						
1958-84	.9	.9	.8	.7	.8	.7
1980-84	1.4	2.4	-1.6	1.4	2.5	-1.7

¹ 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.

² 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 161. Fabricated structural metal (SIC 3441): 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	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	86.8	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	98.2	95.1	93.3	100.4	94.5	92.3	100.4
1984 ¹	99.2	92.9	92.6	93.6	92.7	92.6	93.2
Average annual percent change:							
1958-84	1.6	.7	.7	.8	.8	.8	.9
1980-84	-5.5	-6.8	-7.7	-4.0	-6.8	-7.8	-3.9

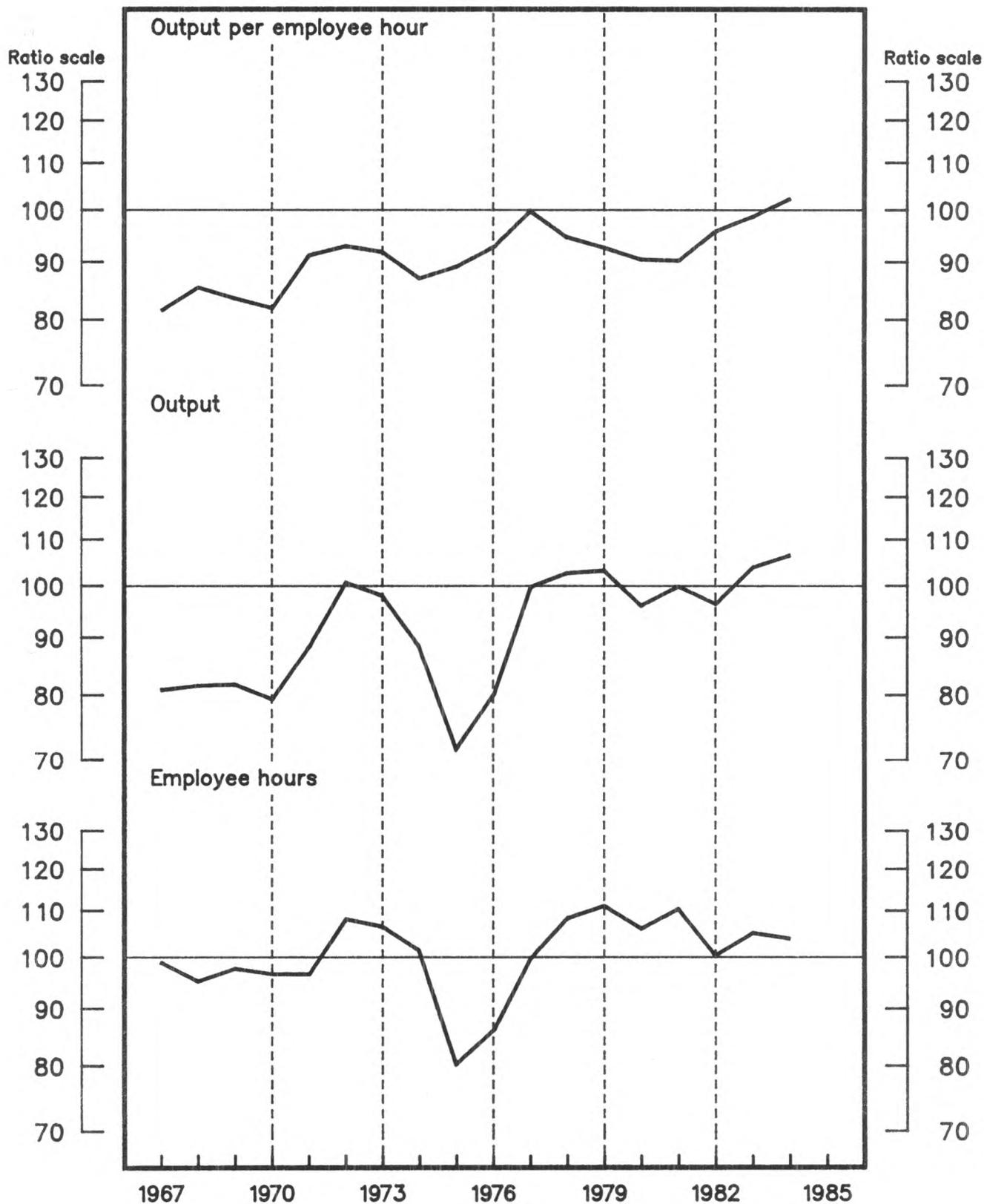
¹ Preliminary.

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 doors, sash, and trim (SIC 3442): Output per hour and related data, 1967-84

(1977=100)



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

Table 162. Metal doors, sash, and trim (SIC 3442): Indexes of output per employee hour and output per employee, 1967-84 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	98.9	102.6	88.2	97.2	100.3	88.4
1984 ²	102.5	106.7	90.7	102.6	106.9	91.0
Average annual percent change:						
1967-84	1.0	1.1	.6	.8	1.0	.5
1980-84	3.4	3.8	2.3	3.2	3.6	2.2

¹ 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.

² 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 163. Metal doors, sash, and trim (SIC 3442): 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	81.0	99.1	97.7	103.8	97.1	95.6	101.9
1968	81.7	95.4	94.5	96.3	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	104.1	105.3	101.5	118.0	107.1	103.8	117.8
1984 ¹	106.7	104.1	100.0	117.6	104.0	99.8	117.2
Average annual percent change:							
1967-84	1.5	.5	.4	.9	.7	.5	1.1
1980-84	2.5	-9	-1.3	.1	-8	-1.1	.3

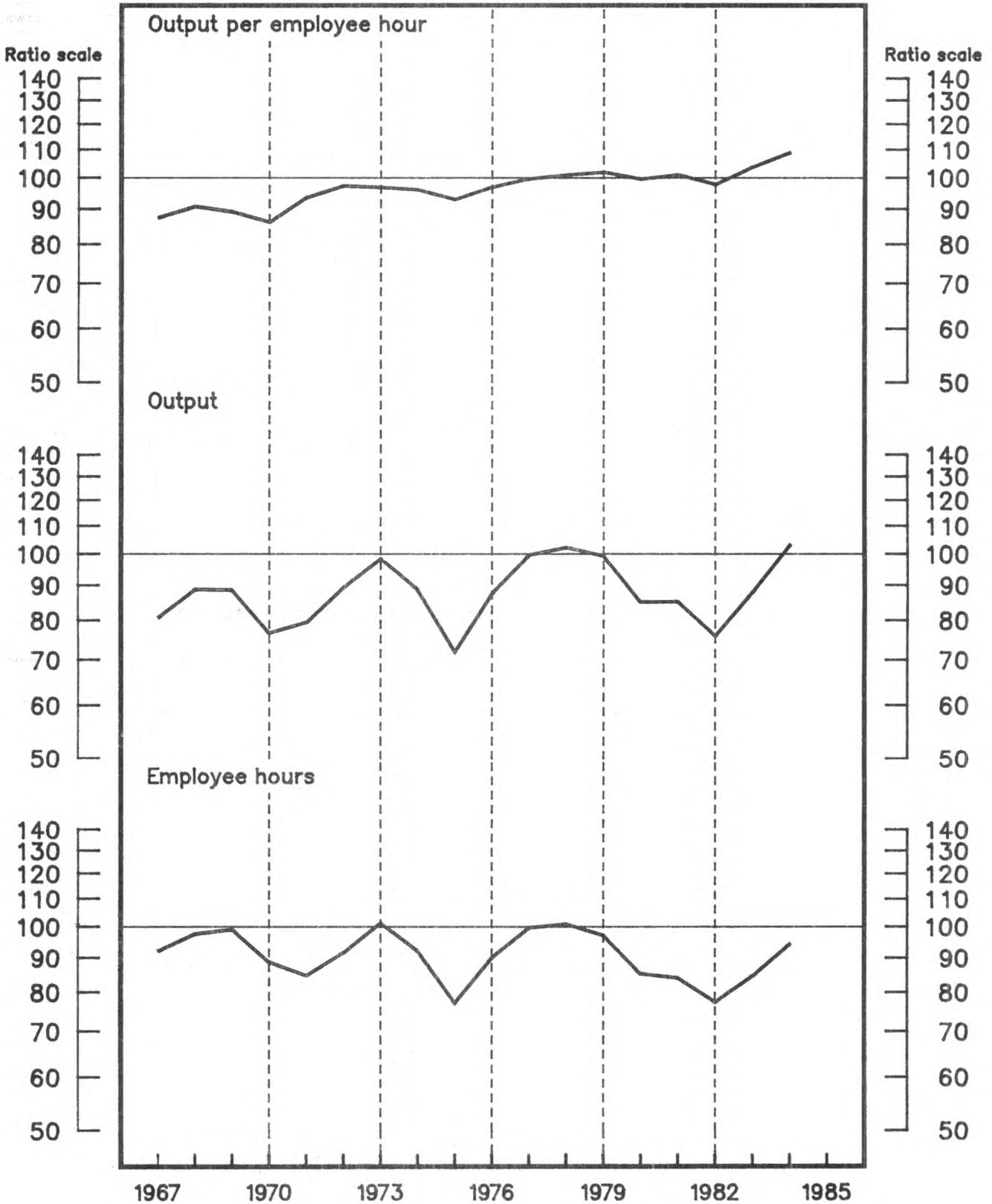
¹ Preliminary.

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 84. Metal stampings (SIC 3465, 3466, 3469): Output per hour and related data, 1967-84

(1977=100)



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

Table 164. Metal stampings (SIC 3465, 3466, 3469): Indexes of output per employee hour and output per employee, 1963-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	84.0	98.4	76.9
1983	104.1	107.0	91.2	104.2	107.4	91.2
1984 ²	109.3	111.1	101.1	109.7	111.5	101.5
Average annual percent change:						
1963-84	1.0	1.2	.2	.7	.8	(³)
1980-84	2.1	2.0	2.7	4.0	4.3	2.6

¹ 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.

² Preliminary.

³ 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 165. Metal stampings (SIC 3465, 3466, 3469): 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	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	82.9	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	96.1	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	73.8	99.4	81.1	77.4	99.1
1983	88.4	84.9	82.6	96.9	84.8	82.3	96.9
1984 ¹	103.4	94.6	93.1	102.3	94.3	92.7	101.9
Average annual percent change:							
1963-84	1.0	(²)	-.1	.9	.4	.2	1.0
1980-84	4.2	2.1	2.2	1.6	.3	(²)	1.6

¹ Preliminary.

² Less than .05 percent.

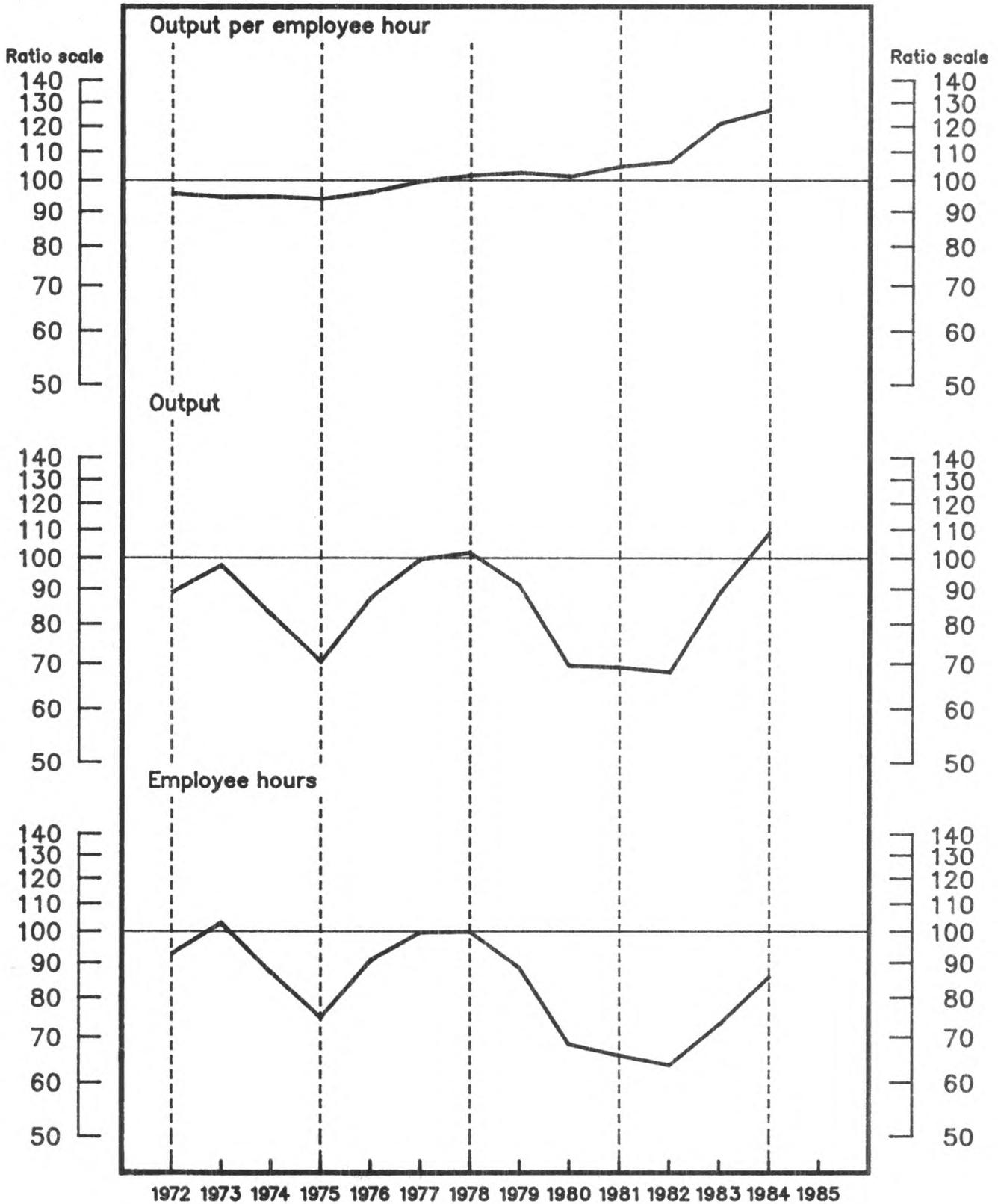
NOTE: Because of periodic revisions in source data, the measures in this table

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 85. Automotive stampings (SIC 3465): Output per hour and related data, 1972-84

(1977=100)



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

Table 166. Automotive stampings (SIC 3465): Indexes of output per employee hour and output per employee, 1972-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	121.5	122.7	114.5	122.2	123.7	114.5
1984 ²	127.1	127.1	126.3	128.9	129.3	126.6
Average annual percent change:						
1972-84	2.1	2.2	1.9	2.0	2.0	1.8
1980-84	6.1	5.0	12.5	9.7	9.1	12.4

¹ 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.

² 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. Automotive stampings (SIC 3465): 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	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	89.2	73.4	72.7	77.9	73.0	72.1	77.9
1984 ¹	109.4	86.1	86.1	86.6	84.9	84.6	86.4
Average annual percent change:							
1972-84	-4	-2.4	-2.5	-2.2	-2.3	-2.3	-2.1
1980-84	12.2	5.8	6.9	-2	2.4	2.8	-1

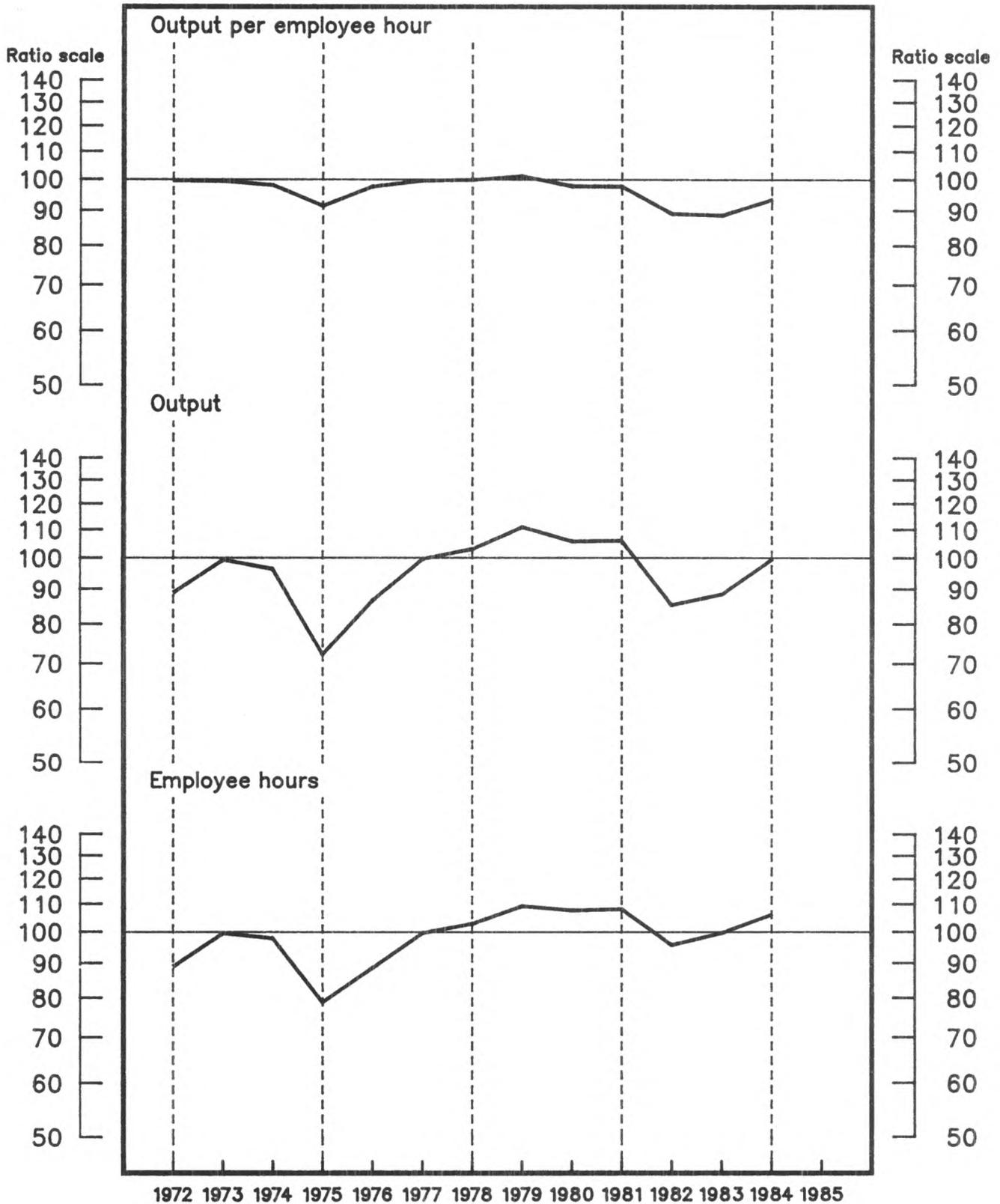
¹ Preliminary.

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. Metal stampings, not elsewhere classified (SIC 3469): Output per hour and related data, 1972-84

(1977=100)



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

Table 168. Metal stampings, not elsewhere classified (SIC 3469): Indexes of output per employee hour and output per employee, 1972-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	88.8	92.0	77.5	89.1	92.6	77.5
1984 ²	93.7	96.1	85.0	93.2	95.5	85.3
Average annual percent change:						
1972-84	-.6	-.3	-2.0	-.7	-.3	-2.0
1980-84	-1.9	-.9	-5.8	-1.5	-.3	-5.9

¹ 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.

² 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 169. Metal stampings, not elsewhere classified (SIC 3469): 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	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	88.8	100.0	96.5	114.6	99.7	95.9	114.6
1984 ¹	99.8	106.5	103.8	117.4	107.1	104.5	117.0
Average annual percent change:							
1972-84 .....	.7	1.3	1.0	2.7	1.4	1.0	2.8
1980-84	-3.0	-1.1	-2.1	3.0	-1.5	-2.7	3.1

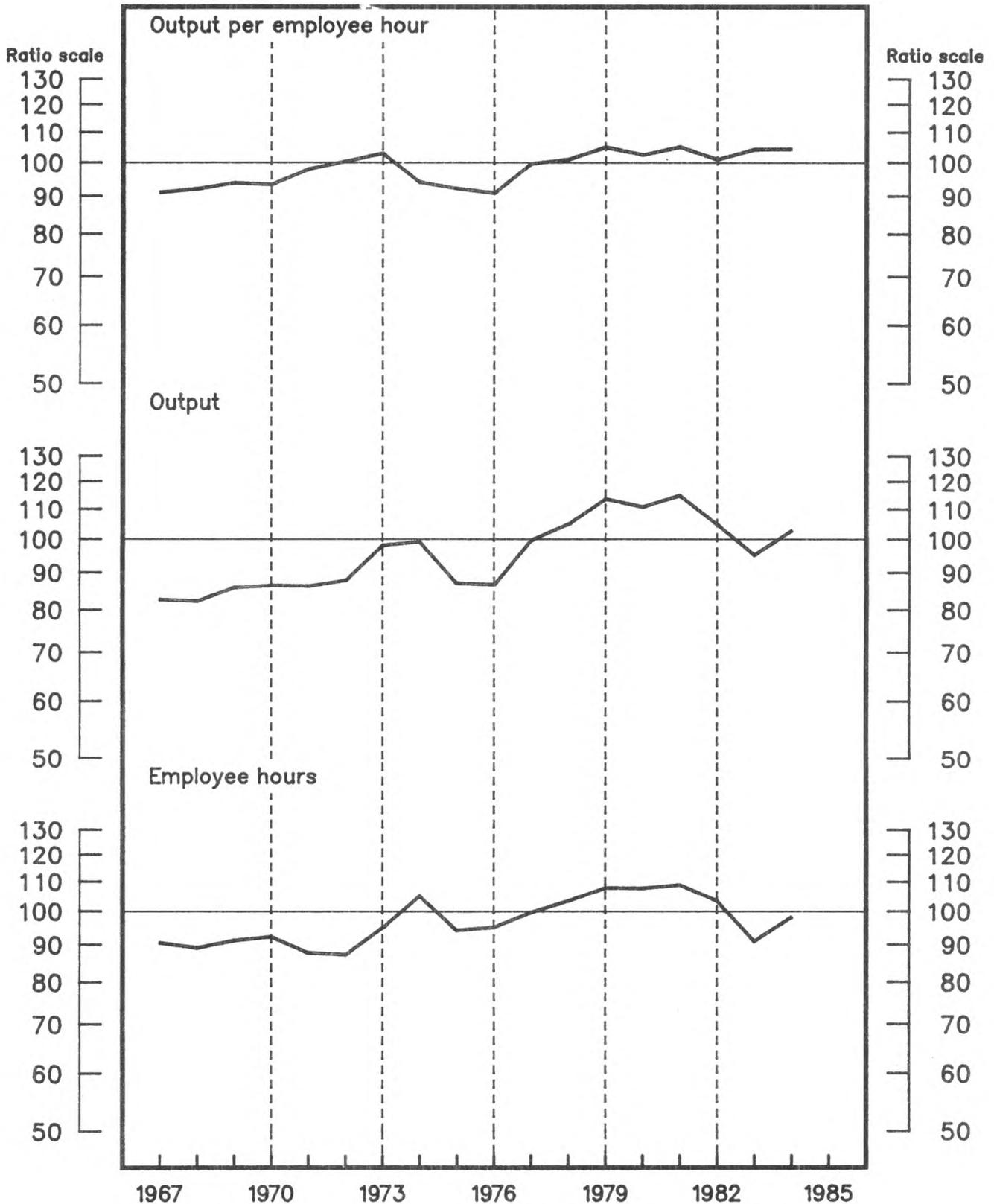
¹ Preliminary.

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. Valves and pipe fittings (SIC 3494): Output per hour and related data, 1967-84

(1977 = 100)



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

Table 170. Valves and pipe fittings (SIC 3494): Indexes of output per employee hour and output per employee, 1958-84
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	104.6	112.6	88.8	102.9	110.3	89.0
1984 ²	104.7	109.3	94.6	104.9	109.9	94.9
Average annual percent change:						
1954-84	1.2	1.7	(³)	1.1	1.5	-1
1980-84	.3	1.2	-1.8	.1	1.1	-1.9

¹ 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.

² Preliminary.

³ 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 171. Valves and pipe fittings (SIC 3494): 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	51.6	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	95.5	91.3	84.8	107.5	92.8	86.6	107.3
1984 ¹	103.1	98.5	94.3	109.0	98.3	93.8	108.6
Average annual percent change:							
1954-84	2.7	1.4	1.0	2.7	1.6	1.1	2.8
1980-84	-3.3	-3.6	-4.5	-1.6	-3.4	-4.4	-1.4

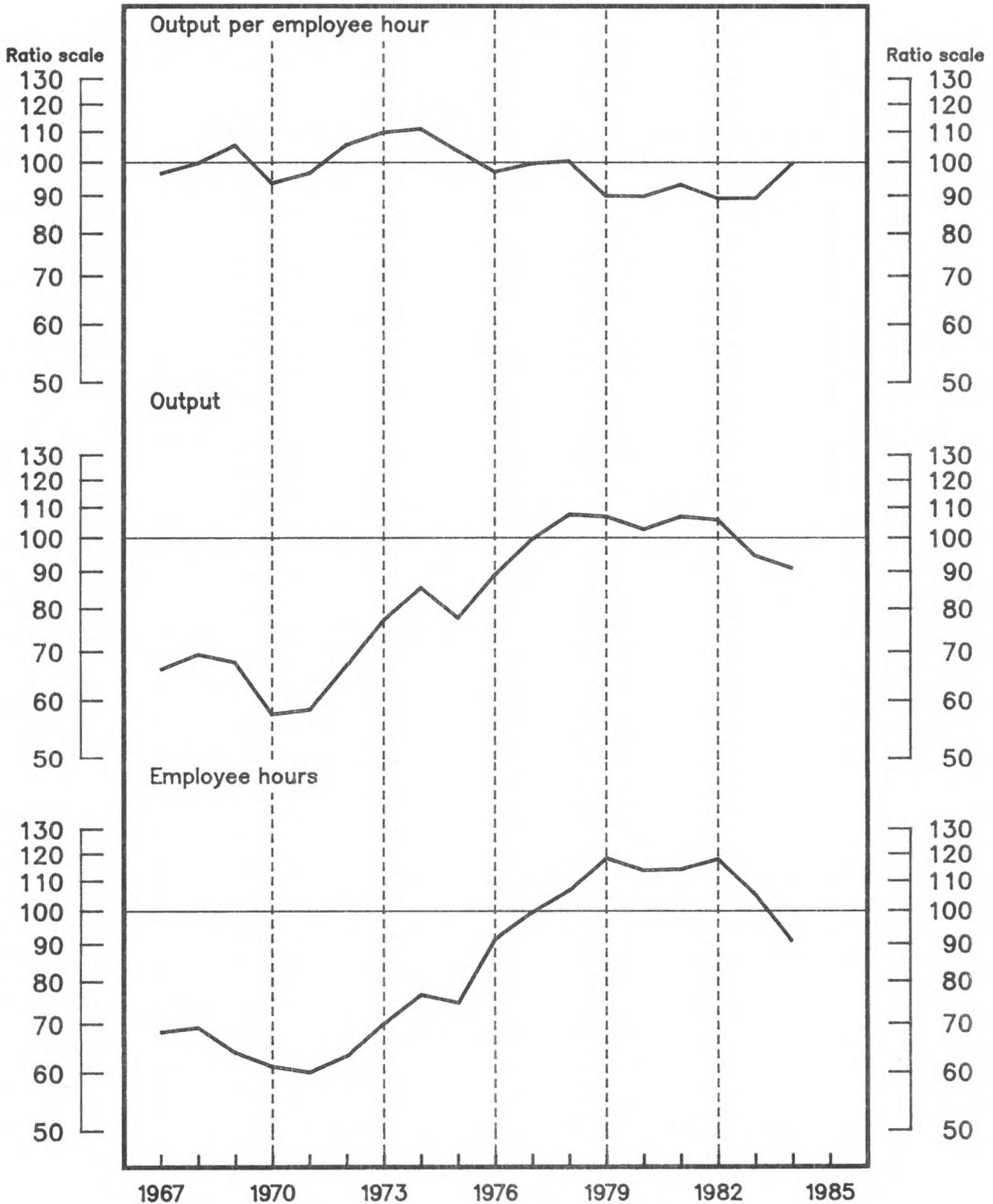
¹ Preliminary.

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. Fabricated pipe and fittings (SIC 3498): Output per hour and related data, 1967-84

(1977=100)



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

Table 172. Fabricated pipe and fittings (SIC 3498): Indexes of output per employee hour and output per employee, 1958-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	89.6	91.2	84.6	91.2	93.5	84.8
1984 ²	100.1	100.8	98.2	101.9	103.2	98.4
Average annual percent change:						
1958-84	.1	-.1	.6	-.1	-.3	.5
1980-84	1.7	2.2	.2	2.0	2.7	(³)

¹ 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.

² Preliminary.

³ 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 173. Fabricated pipe and fittings (SIC 3498): 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	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	111.2	113.5	114.5	110.3
1982	106.1	118.5	114.3	132.0	116.0	111.2	130.9
1983	94.8	105.8	103.9	112.0	103.9	101.4	111.8
1984 ¹	91.1	91.0	90.4	92.8	89.4	88.3	92.6
Average annual percent change:							
1958-84	3.9	3.8	3.9	3.3	4.0	4.2	3.4
1980-84	-3.6	-5.2	-5.7	-3.8	-5.5	-6.1	-3.6

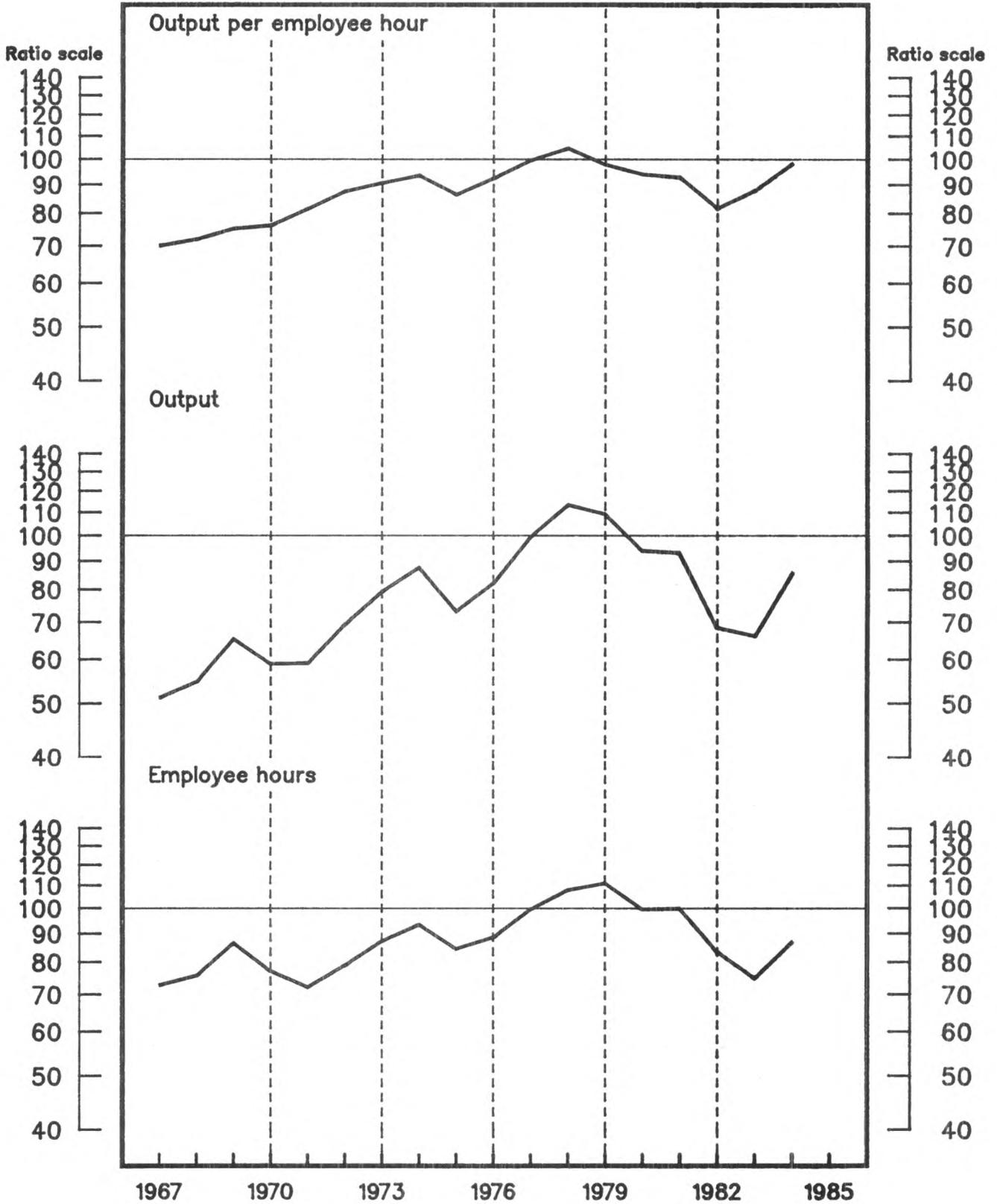
¹ Preliminary.

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. Internal combustion engines, not elsewhere classified (SIC 3519):
Output per hour and related data, 1967-84**

(1977=100)



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

Table 174. Internal combustion engines, not elsewhere classified (SIC 3519): Indexes of output per employee hour and output per employee, 1967-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	88.3	102.0	62.9	83.5	94.7	62.9
1984 ²	98.7	103.0	87.8	97.8	102.0	88.0
Average annual percent change:						
1967-84	1.6	2.2	-1	1.3	1.9	-2
1980-84	.4	1.6	-2.2	-2	.8	-2.3

¹ 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.

² 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. Internal combustion engines, not elsewhere classified (SIC 3519): 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	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	66.4	75.2	65.1	105.5	79.5	70.1	105.5
1984 ¹	86.2	87.3	83.7	98.2	88.1	84.5	97.9
Average annual percent change:							
1967-84	2.8	1.2	.6	2.9	1.5	.9	3.0
1980-84	-5.1	-5.4	-6.5	-3.0	-4.9	-5.8	-2.8

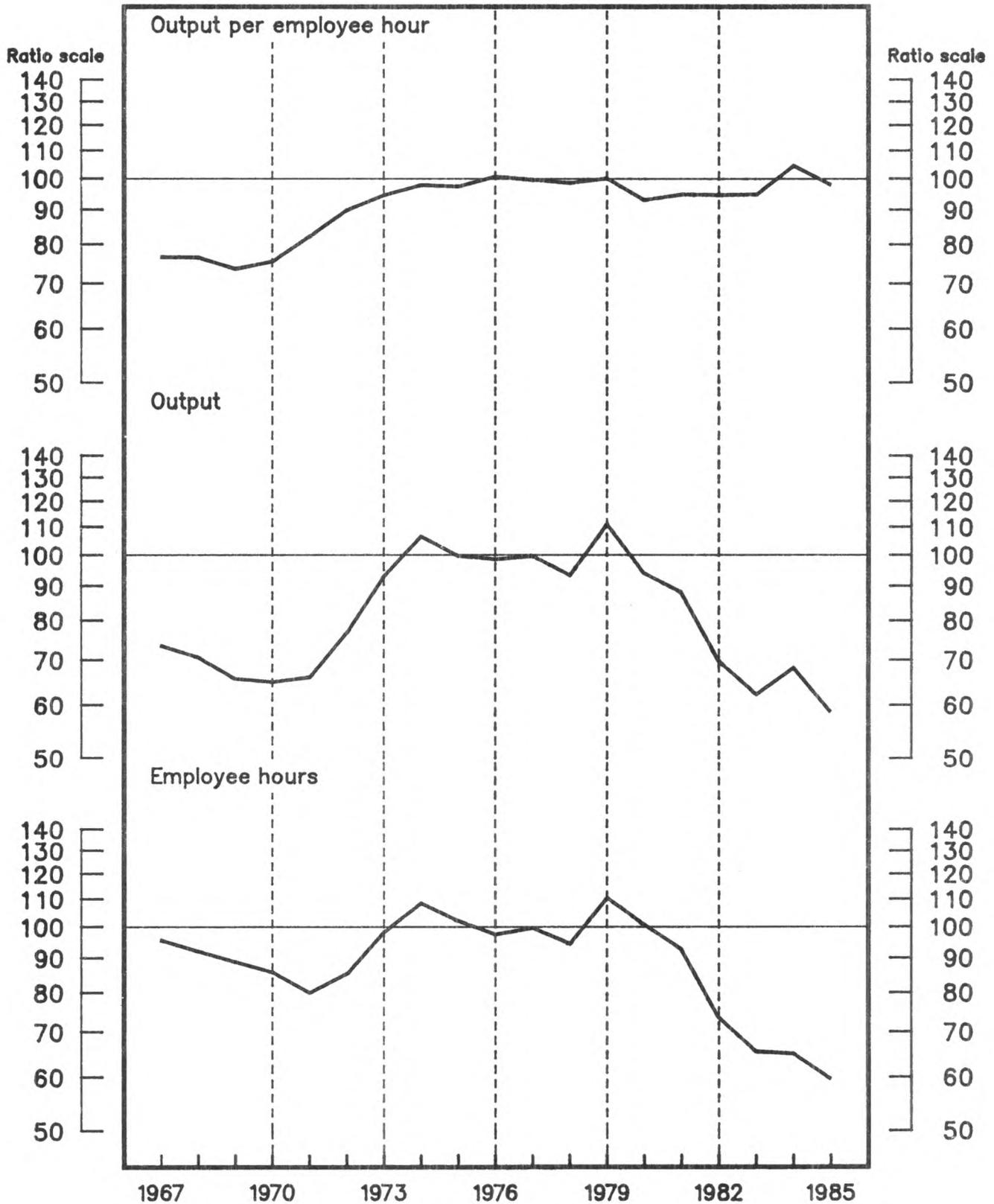
¹ Preliminary.

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 and garden machinery (SIC 352): Output per hour and related data, 1967-85

(1977=100)



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

Table 176. Farm and garden machinery (SIC 352): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	68.9	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	95.1	105.4	74.6	93.6	103.0	74.7
1984	104.9	109.6	83.4	104.6	109.3	93.7
1985 ²	98.3	101.6	90.2	98.5	101.6	90.5
Average annual percent change:						
1958-85	2.0	2.4	1.2	1.8	2.1	1.2
1980-85	1.6	1.5	1.9	1.9	2.0	1.8

¹ 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.

² 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 and garden machinery (SIC 352): Indexes of output, employee hours, and employees, 1958-85
(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	62.5	65.7	59.3	83.8	66.8	60.7	83.7
1984	68.4	65.2	62.4	73.2	65.4	62.6	73.0
1985 ¹	58.8	59.8	57.9	65.2	59.7	57.9	65.0
Average annual percent change:							
1958-85	2.1	.1	-.3	.9	.3	(²)	.9
1980-85	-8.9	-10.3	-10.2	-10.5	-10.6	-10.6	-10.5

¹ Preliminary.

² Less than .05 percent.

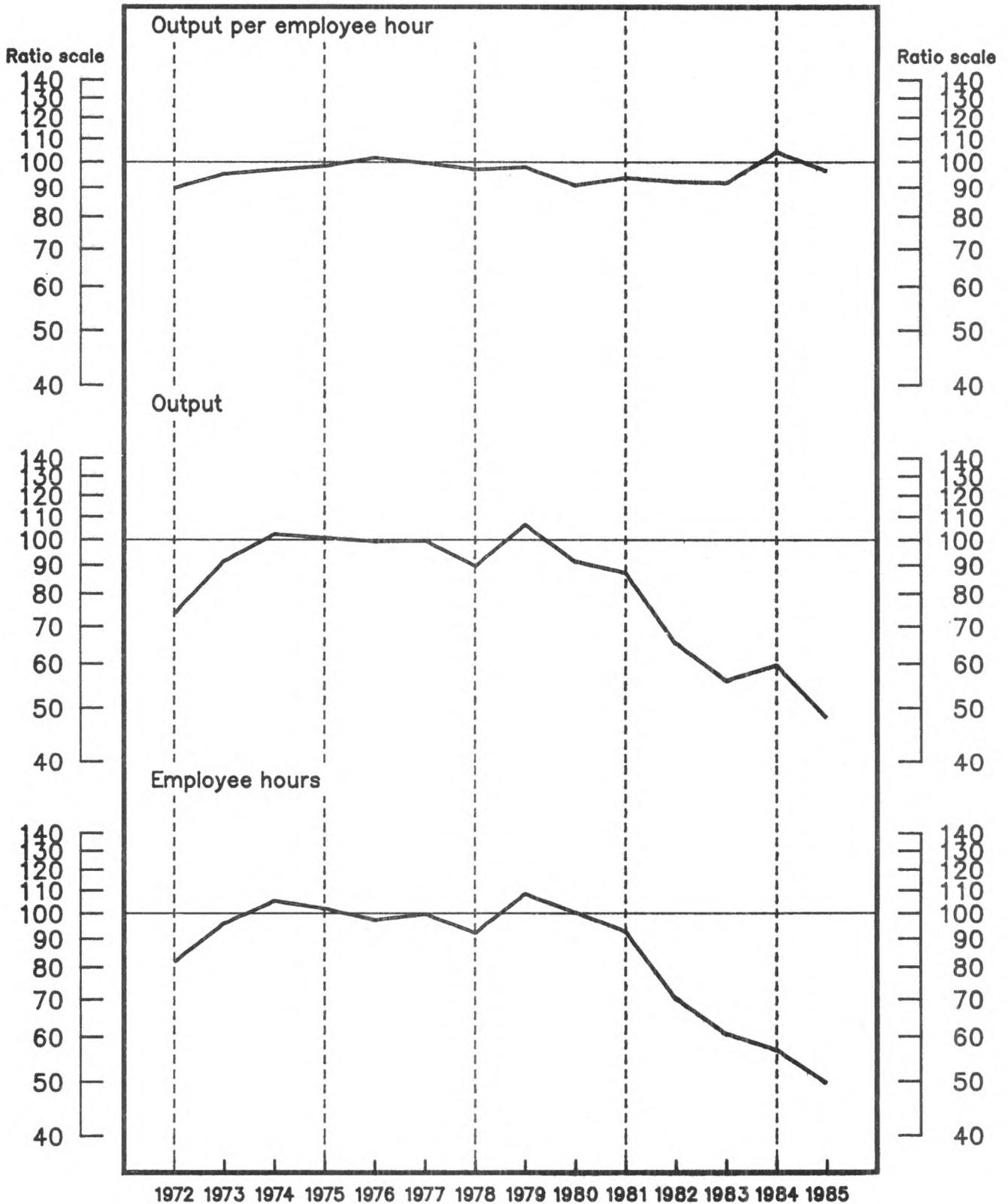
NOTE: Because of periodic revisions in source data, the measures in this table

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 91. Farm machinery and equipment (SIC 3523): Output per hour and related data, 1972-85

(1977=100)



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

Table 178. Farm machinery and equipment (SIC 3523): Indexes of output per employee hour and output per employee, 1972-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	83.8	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	104.7	112.6	87.4	104.2	111.8	87.8
1985 ²	96.8	104.8	79.7	96.0	103.6	80.0
Average annual percent change:						
1972-85 .....	.1	1.4	-3.4	-.4	.9	-3.6
1980-85	1.8	2.7	-.3	2.0	3.0	-.4

¹ 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.

² 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. Farm machinery and equipment (SIC 3523): Indexes of output, employee hours, and employees, 1972-85
(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	59.8	57.1	53.1	68.4	57.4	53.5	68.1
1985 ¹	48.3	49.9	46.1	60.6	50.3	46.6	60.4
Average annual percent change:							
1972-85	-4.2	-4.3	-5.6	-.8	-3.8	-5.0	-.7
1980-85	-12.1	-13.6	-14.4	-11.8	-13.8	-14.7	-11.7

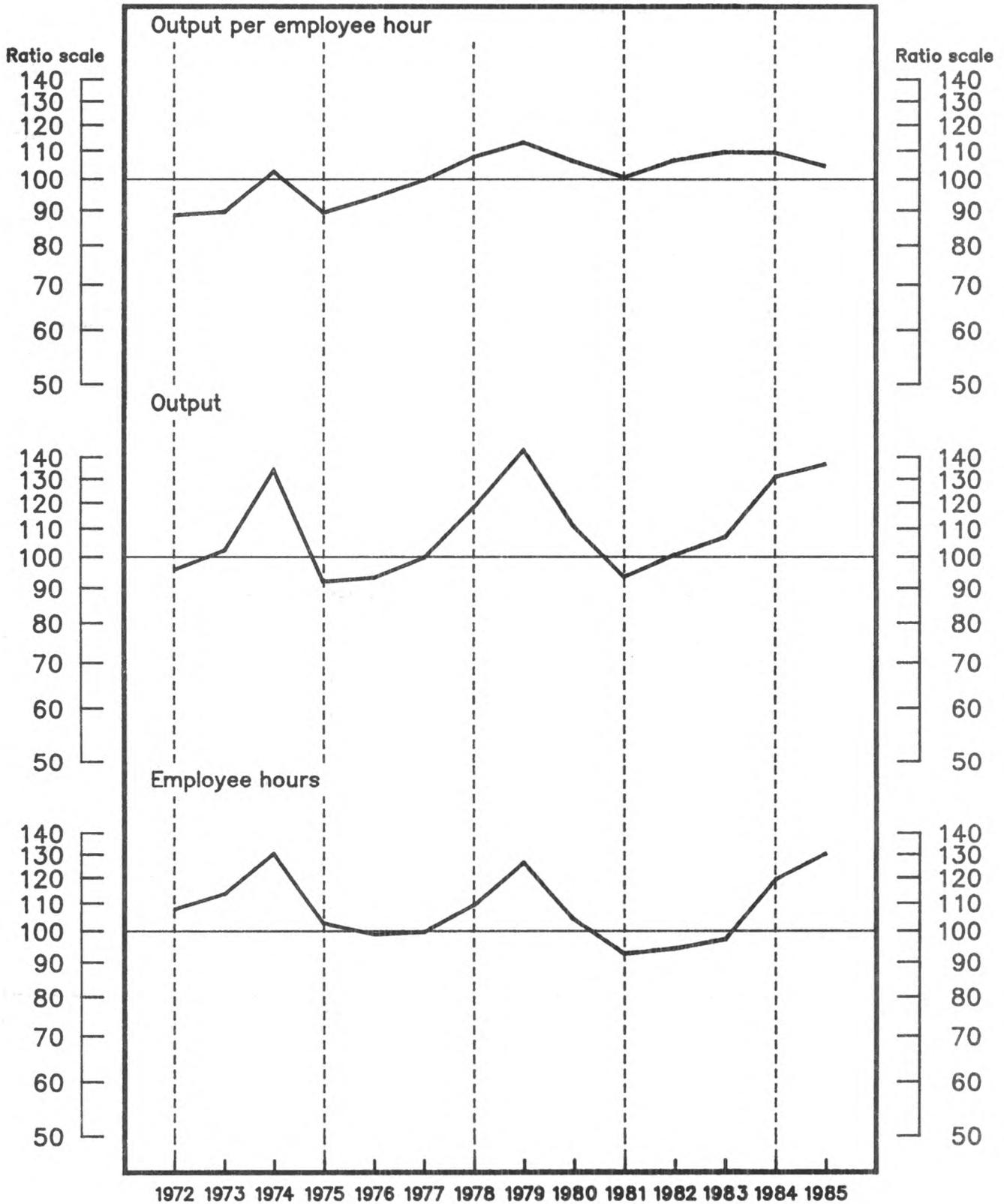
¹ Preliminary.

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. Lawn and garden equipment (SIC 3524): Output per hour and related data, 1972-85

(1977 = 100)



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

Table 180. Lawn and garden equipment (SIC 3524): Indexes of output per employee hour and output per employee, 1972-85
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	109.9	110.9	107.2	111.2	112.6	107.2
1984	109.7	106.0	122.1	110.5	107.3	121.5
1985 ²	104.8	97.2	137.2	108.3	101.2	137.2
Average annual percent change:						
1972-85	1.5	1.3	2.2	1.4	1.3	2.0
1980-85	.6	-2.2	9.6	1.0	-1.7	9.5

¹ 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.

² 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 181. Lawn and garden equipment (SIC 3524): Indexes of output, employee hours, and employees, 1972-85
(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	107.2	97.5	96.7	100.0	96.4	95.2	100.0
1984	131.5	119.9	124.0	107.7	119.0	122.6	108.2
1985 ¹	137.2	130.9	141.1	100.0	126.7	135.6	100.0
Average annual percent change:							
1972-85	1.4	-.1	.1	-.7	(²)	.2	-.6
1980-85	6.3	5.7	8.6	-3.0	5.2	8.1	-3.0

¹ Preliminary.

² Less than .05 percent.

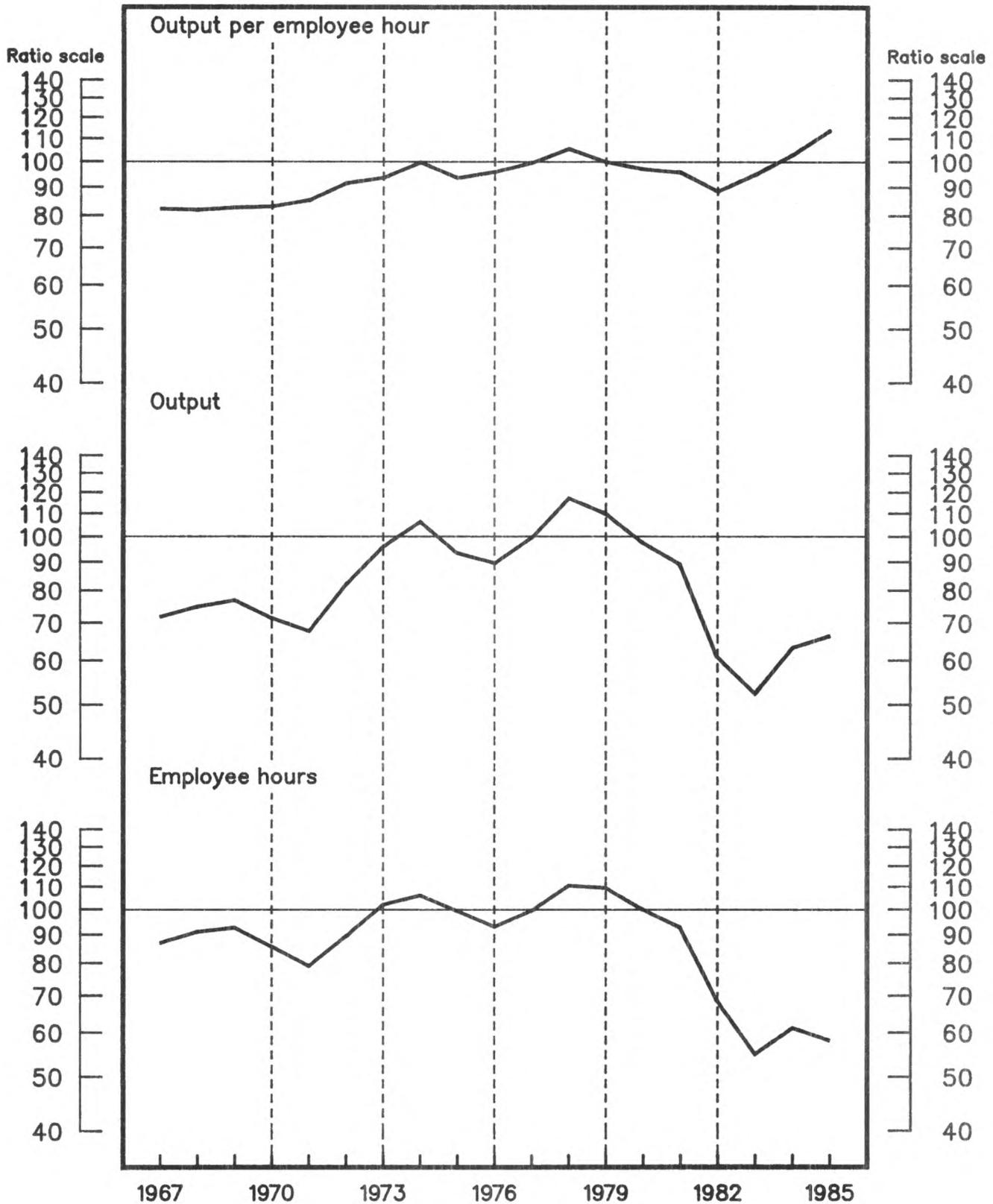
NOTE: Because of periodic revisions in source data, the measures in this table

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 93. Construction machinery and equipment (SIC 3531): Output per hour and related data, 1967-85

(1977 = 100)



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

Table 182. Construction machinery and equipment (SIC 3531): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	103.4	111.6	87.0	102.9	110.8	87.2
1985 ²	114.2	121.8	98.5	114.0	121.3	99.0
Average annual percent change:						
1958-85	1.6	2.1	.7	1.4	1.7	.6
1980-85	3.1	3.7	2.0	3.4	4.1	1.9

¹ 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.

² 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. Construction machinery and equipment (SIC 3531): Indexes of output, employee hours, and employees, 1958-85
(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	63.5	61.4	56.9	73.0	61.7	57.3	72.8
1985 ¹	66.6	58.3	54.7	67.6	58.4	54.9	67.3
Average annual percent change:							
1958-85	2.1	.4	(²)	1.4	.7	.3	1.4
1980-85	-8.5	-11.2	-11.7	-10.2	-11.5	-12.0	-10.2

¹ Preliminary.

² Less than .05 percent.

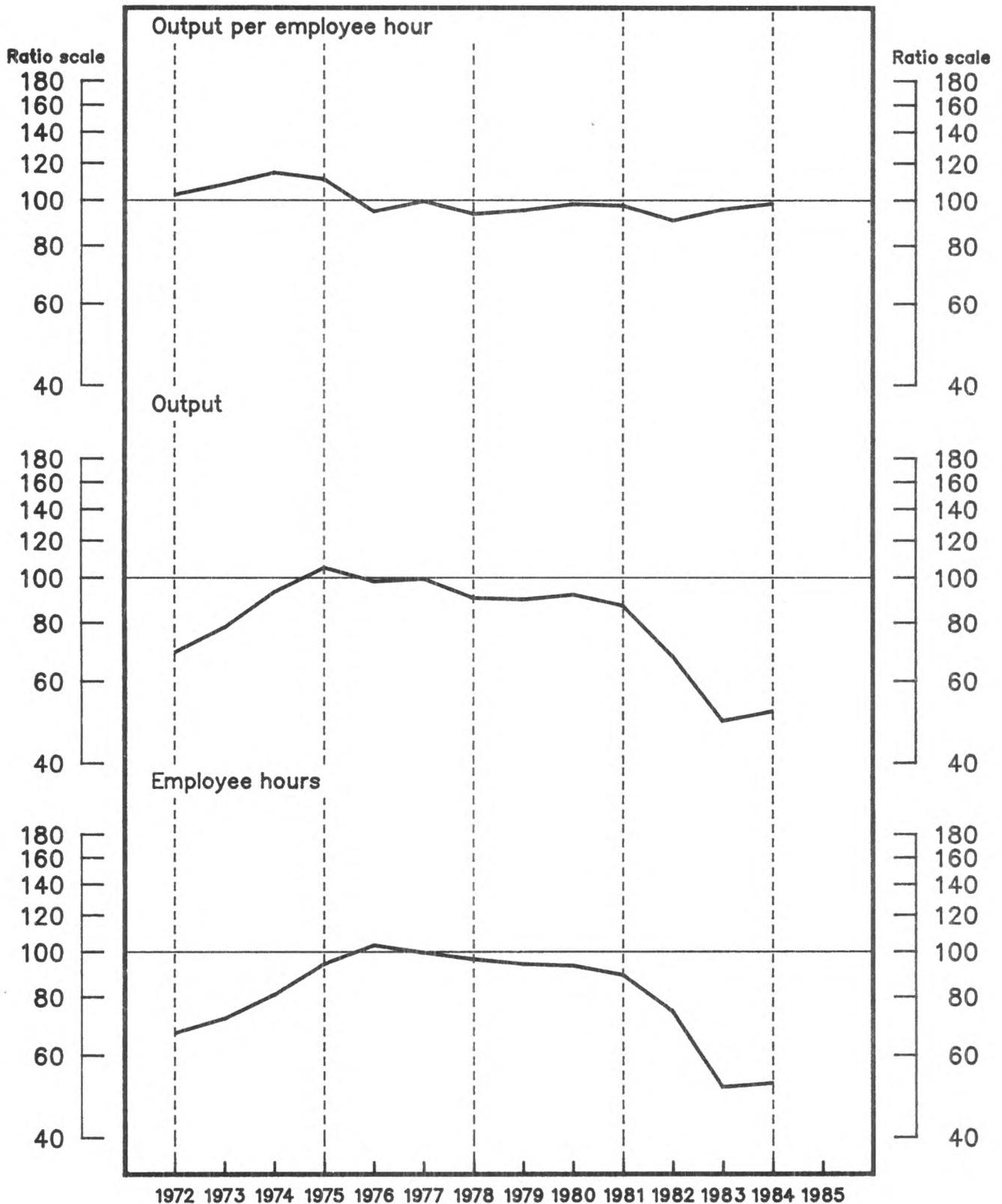
NOTE: Because of periodic revisions in source data, the measures in this table

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 94. Mining machinery and equipment (SIC 3532): Output per hour and related data, 1972-84

(1977 = 100)



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

Table 184. Mining machinery and equipment (SIC 3532): Indexes of output per employee hour and output per employee, 1972-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	103.3	100.9	108.1	102.7	98.9	110.3
1973	108.7	104.5	117.8	109.8	105.1	119.6
1974	115.2	108.3	131.7	116.4	108.8	133.4
1975	111.5	104.8	127.4	112.8	105.6	128.8
1976	95.1	90.3	105.9	97.1	92.3	107.4
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	93.9	96.0	90.0	92.1	93.2	90.1
1979	95.6	97.7	91.7	94.9	96.5	92.0
1980	98.6	102.8	91.5	97.4	100.3	92.4
1981	97.8	102.5	89.7	97.4	102.1	89.9
1982	91.0	104.4	73.1	87.0	96.7	73.4
1983	96.1	115.7	72.5	92.0	108.1	72.3
1984 ²	98.9	110.7	81.9	96.5	106.4	82.3
Average annual percent change:						
1972-84	-1.2	.6	-4.2	-1.6	.1	-4.4
1980-84	-1	2.7	-4.3	-1.8	1.8	-4.4

¹ 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.

² 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. Mining machinery and equipment (SIC 3532): 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	69.6	67.4	69.0	64.4	67.8	70.4	63.1
1973	78.7	72.4	75.3	66.8	71.7	74.9	65.8
1974	93.8	81.4	86.6	71.2	80.6	86.2	70.3
1975	105.6	94.7	100.8	82.9	93.6	100.0	82.0
1976	98.7	103.8	109.3	93.2	101.6	106.9	91.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	90.9	96.8	94.7	101.0	98.7	97.5	100.9
1979	90.3	94.5	92.4	98.5	95.2	93.6	98.2
1980	92.4	93.7	89.9	101.0	94.9	92.1	100.0
1981	87.5	89.5	85.4	97.6	89.8	85.7	97.3
1982	68.1	74.8	65.2	93.2	78.3	70.4	92.8
1983	49.5	51.5	42.8	68.3	53.8	45.8	68.5
1984 ¹	51.9	52.5	46.9	63.4	53.8	48.8	63.1
Average annual percent change:							
1972-84	-3.3	-2.2	-3.9	1.0	-1.8	-3.4	1.1
1980-84	-15.8	-15.7	-18.1	-12.1	-15.2	-17.3	-11.9

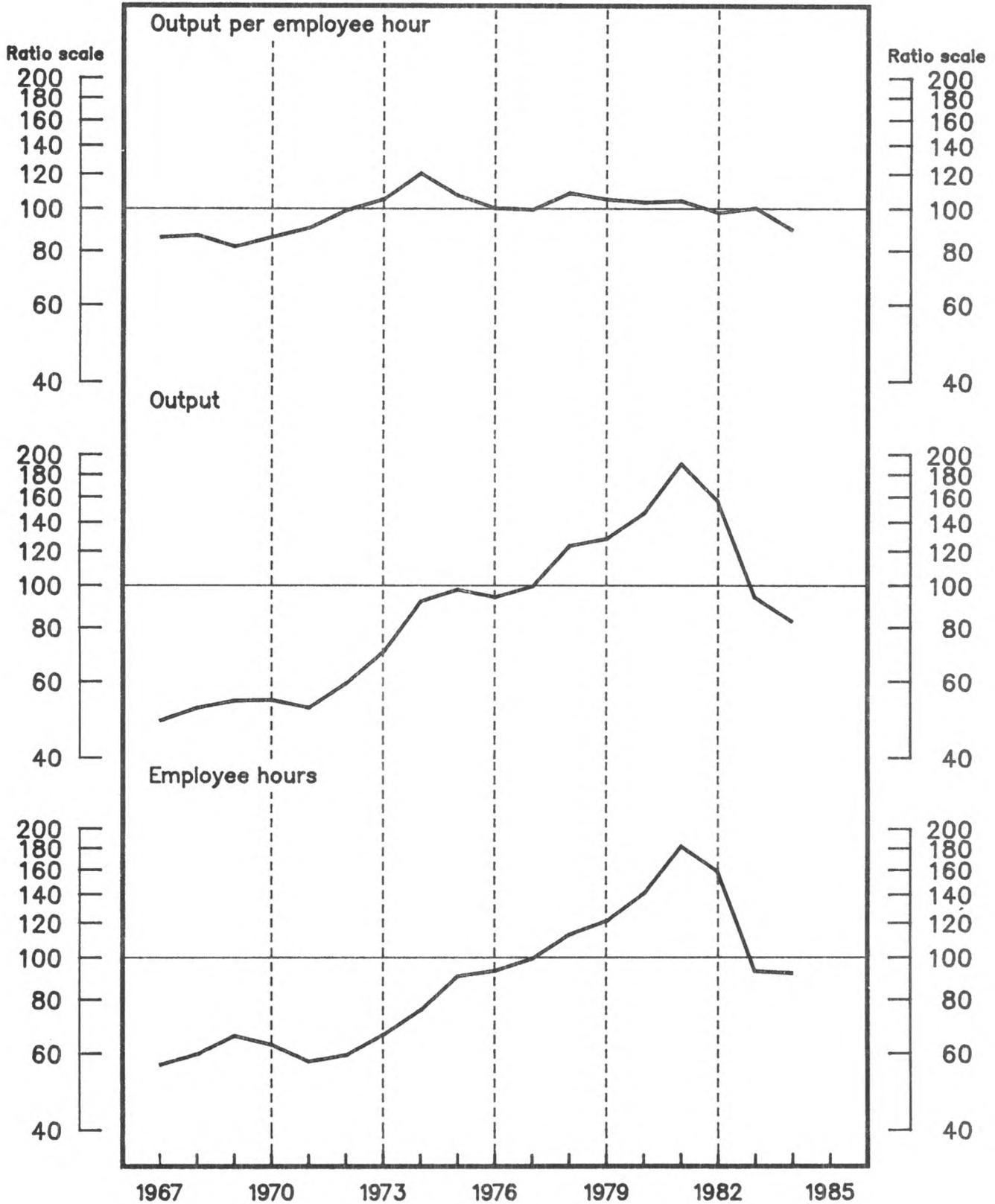
¹ Preliminary.

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. Oilfield machinery and equipment (SIC 3533): Output per hour and related data, 1967-84

(1977=100)



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

Table 186. Oilfield machinery and equipment (SIC 3533): Indexes of output per employee hour and output per employee, 1967-84 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	100.9	112.9	80.7	95.7	104.9	80.7
1984 ²	89.7	95.1	79.4	88.2	93.0	79.4
Average annual percent change:						
1967-84	.9	1.1	.5	.8	1.0	.5
1980-84	-3.3	-4	-9.1	-4.8	-2.6	-9.1

¹ 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.

² 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. Oilfield machinery and equipment (SIC 3533): 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	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	94.2	93.4	83.4	116.7	98.4	89.8	116.7
1984 ¹	83.0	92.5	87.3	104.5	94.1	89.2	104.5
Average annual percent change:							
1967-84	6.7	5.8	5.6	6.1	5.8	5.6	6.2
1980-84	-17.0	-14.2	-16.6	-8.7	-12.8	-14.8	-8.7

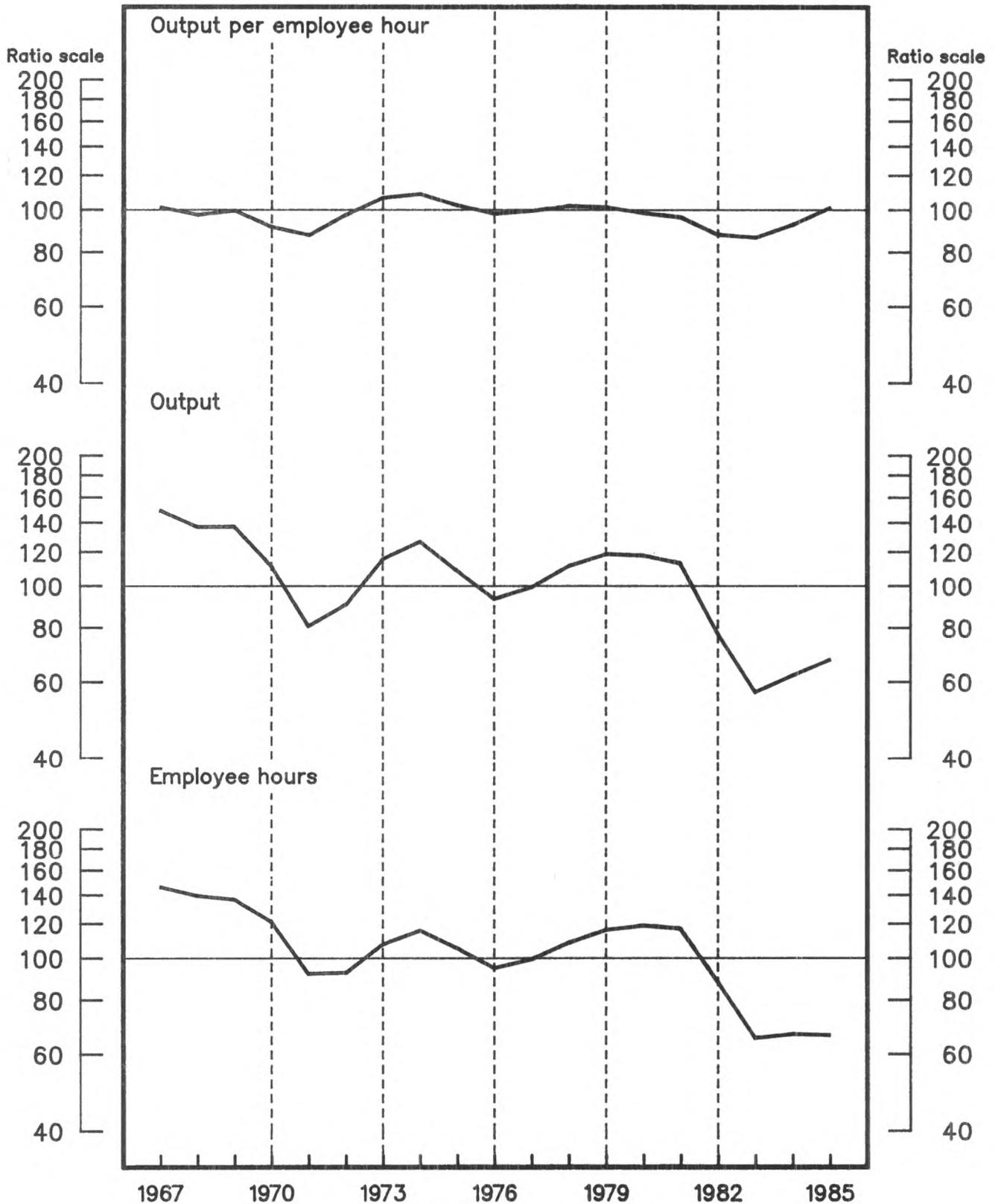
¹ Preliminary.

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. Machine tools (SIC 3541, 3542): Output per hour and related data, 1967-85

(1977=100)



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

Table 188. Machine tools (SIC 3541, 3542): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	93.0	101.8	79.6	88.9	94.8	75.9
1985 ²	101.8	108.8	90.1	97.1	101.5	90.4
Average annual percent change:						
1958-85	.4	1.0	-.8	.2	.8	-.8
1980-85	.1	2.2	-3.8	-1.0	.8	-3.9

¹ 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.

² 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. Machine tools (SIC 3541, 3542): Indexes of output, employee hours, and employees, 1958-85
(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	91.5	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	116.5	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	119.7	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	62.5	67.2	61.4	78.5	70.3	65.9	78.2
1985 ¹	68.0	66.8	62.5	75.5	70.0	67.0	75.2
Average annual percent change:							
1958-85	-.4	-.8	-1.4	.4	-.6	-1.2	.4
1980-85	-13.0	-13.0	-14.9	-9.5	-12.1	-13.7	-9.5

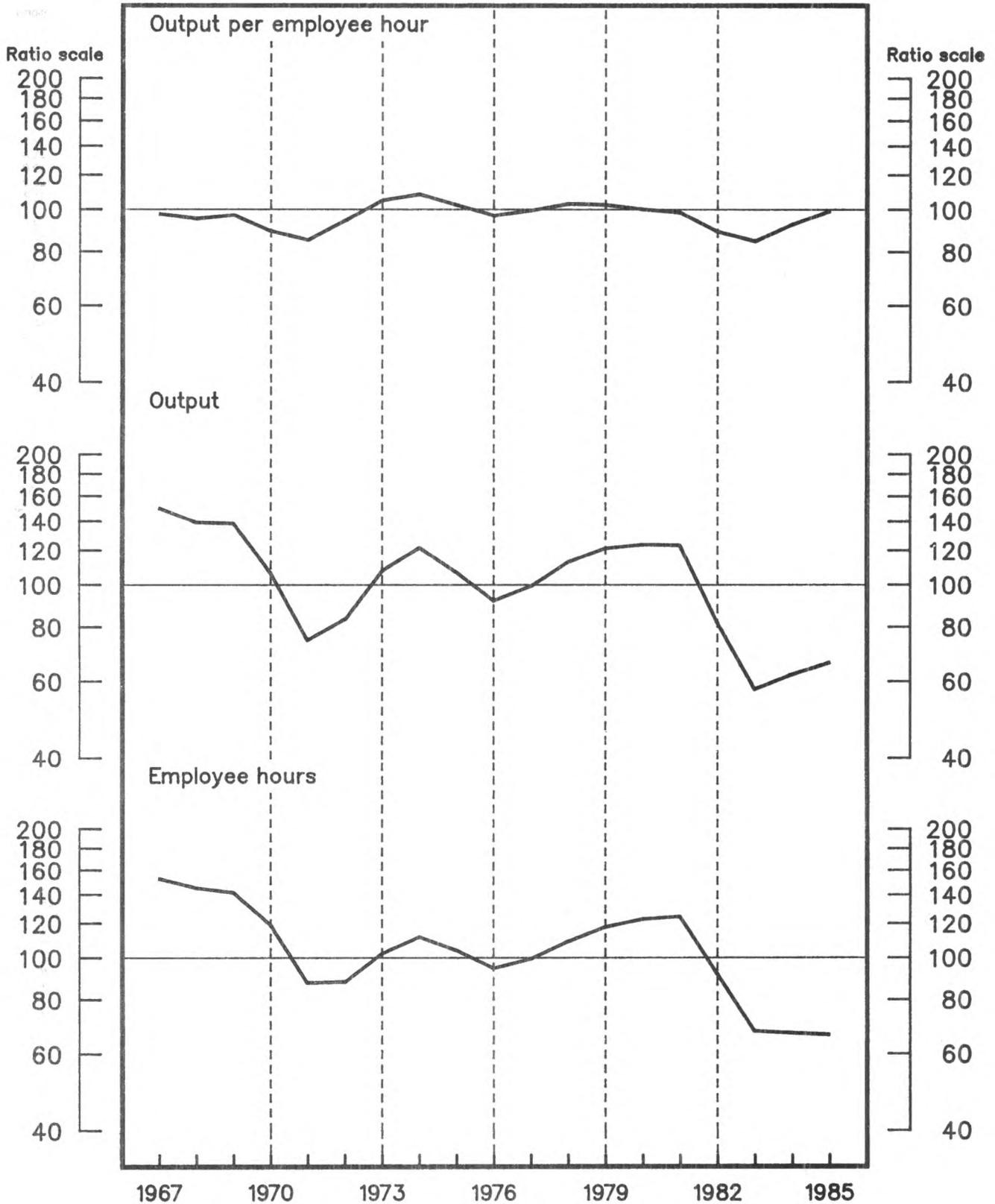
¹ Preliminary.

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. Metal cutting machine tools (SIC 3541): Output per hour and related data, 1967-85

(1977=100)



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

Table 190. Metal cutting machine tools (SIC 3541): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	92.9	103.1	78.2	87.8	94.6	78.5
1985 ²	99.7	107.2	88.1	94.7	99.0	88.6
Average annual percent change:						
1958-85	.7	1.3	-.3	.5	1.0	-.3
1980-85	-.8	2.0	-5.6	-2.2	(³)	-5.6

¹ 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.

² Preliminary.

³ 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 191. Metal cutting machine tools (SIC 3541): Indexes of output, employee hours, and employees, 1958-85
(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	62.6	67.4	60.7	80.0	71.3	66.2	79.7
1985 ¹	66.6	66.8	62.1	75.6	70.3	67.3	75.2
Average annual percent change:							
1958-85	-.1	-.8	-1.3	-.2	-.6	-1.1	.3
1980-85	-14.6	-13.9	-16.3	-9.5	-12.7	-14.6	-9.5

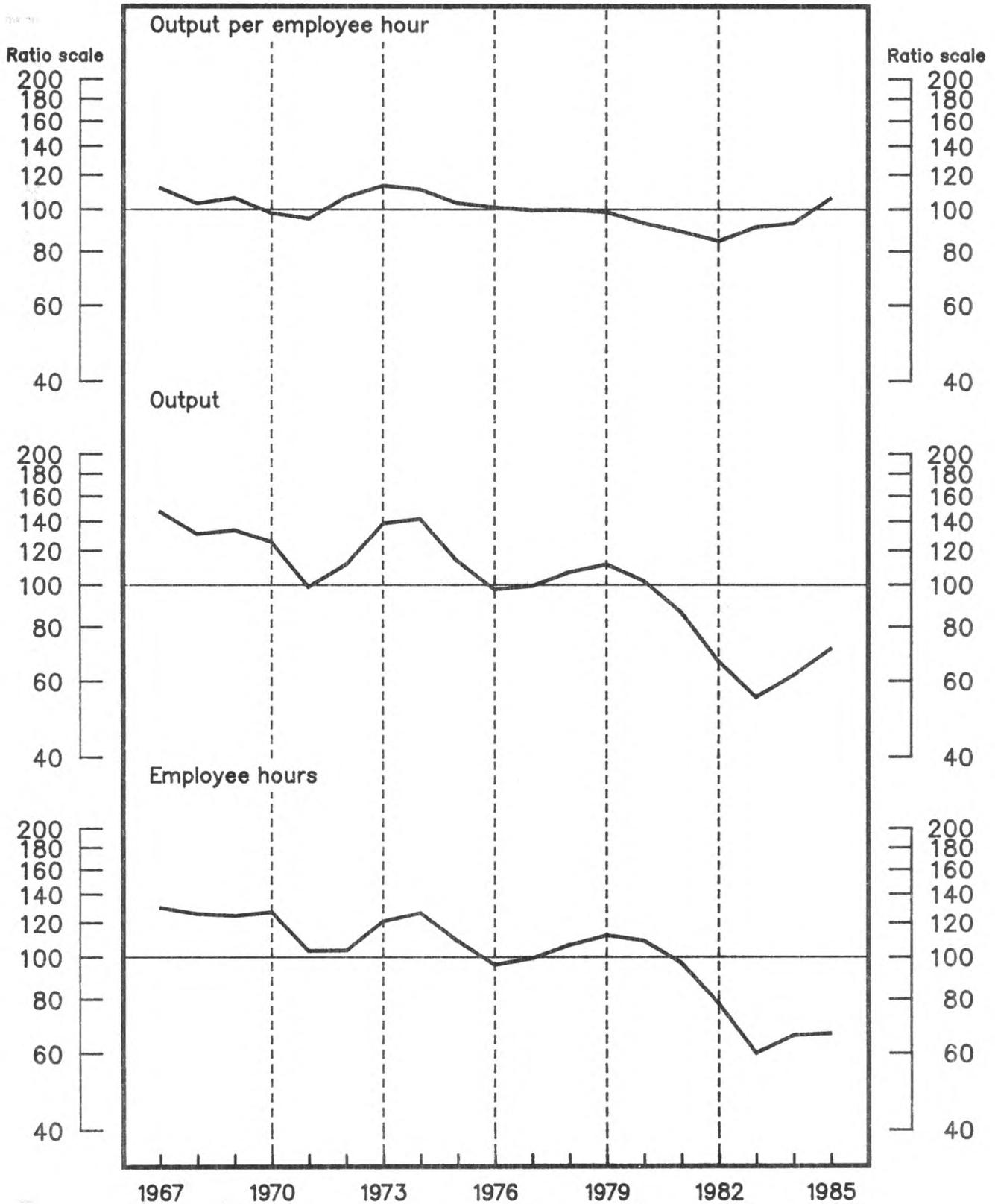
¹ Preliminary.

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 98. Metal forming machine tools (SIC 3542): Output per hour and related data, 1967-85

(1977 = 100)



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

Table 192. Metal forming machine tools (SIC 3542): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	93.5	98.6	83.7	91.6	95.4	84.4
1985 ²	106.9	113.1	94.7	103.6	107.8	95.6
Average annual percent change:						
1958-85	-3	.4	-2.2	-5	.1	-2.2
1980-85	2.5	3.2	1.3	2.7	3.3	1.3

¹ 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.

² 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. Metal forming machine tools (SIC 3542): Indexes of output, employee hours, and employees, 1958-85
(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	99.5	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	62.2	66.5	63.1	74.3	67.9	65.2	73.7
1985 ¹	71.7	67.1	63.4	75.7	69.2	66.5	75.0
Average annual percent change:							
1958-85	-1.3	-1.0	-1.7	.9	-8	-1.4	.9
1980-85	-8.2	-10.5	-11.0	-9.4	-10.6	-11.2	-9.4

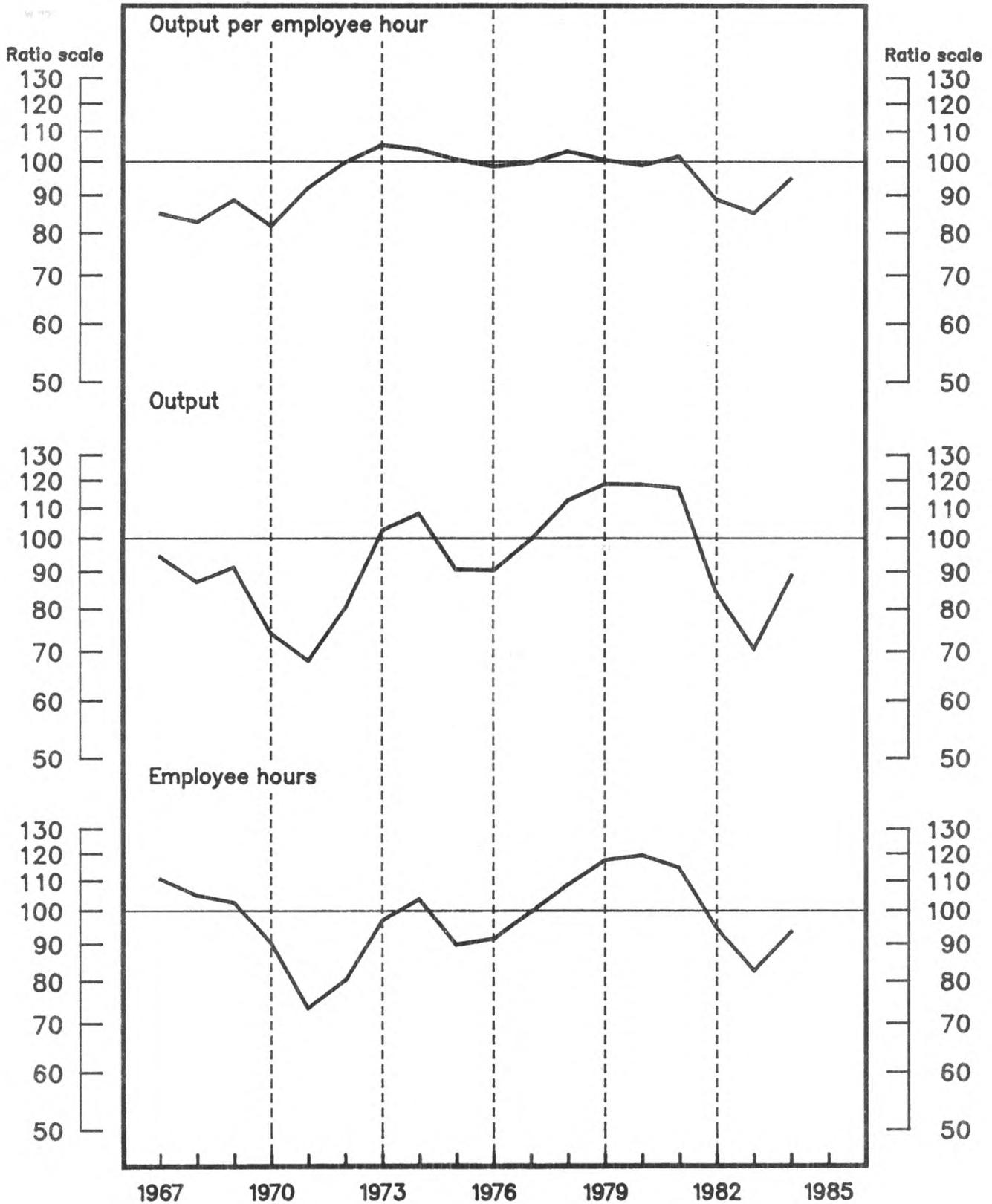
¹ Preliminary.

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. Machine tool accessories (SIC 3545): Output per hour and related data, 1967-84

(1977=100)



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

Table 194. Machine tool accessories (SIC 3545): Indexes of output per employee hour and output per employee, 1963-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	85.4	90.8	74.1	82.8	86.9	74.1
1984 ²	95.2	96.4	92.2	95.6	97.2	92.2
Average annual percent change:						
1963-84 .....	.9	1.3	(³)	.7	1.0	(³)
1980-84	-2.6	-1.9	-4.1	-2.4	-1.7	-4.1

¹ 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.

² Preliminary.

³ 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 195. Machine tool accessories (SIC 3545): 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	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	116.6	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	71.0	83.1	78.2	95.8	85.8	81.7	95.8
1984 ¹	89.4	93.9	92.7	97.0	93.5	92.0	97.0
Average annual percent change:							
1963-84	1.4	.5	.1	1.5	.7	.4	1.4
1980-84	-10.2	-7.8	-8.5	-6.3	-8.0	-8.7	-6.3

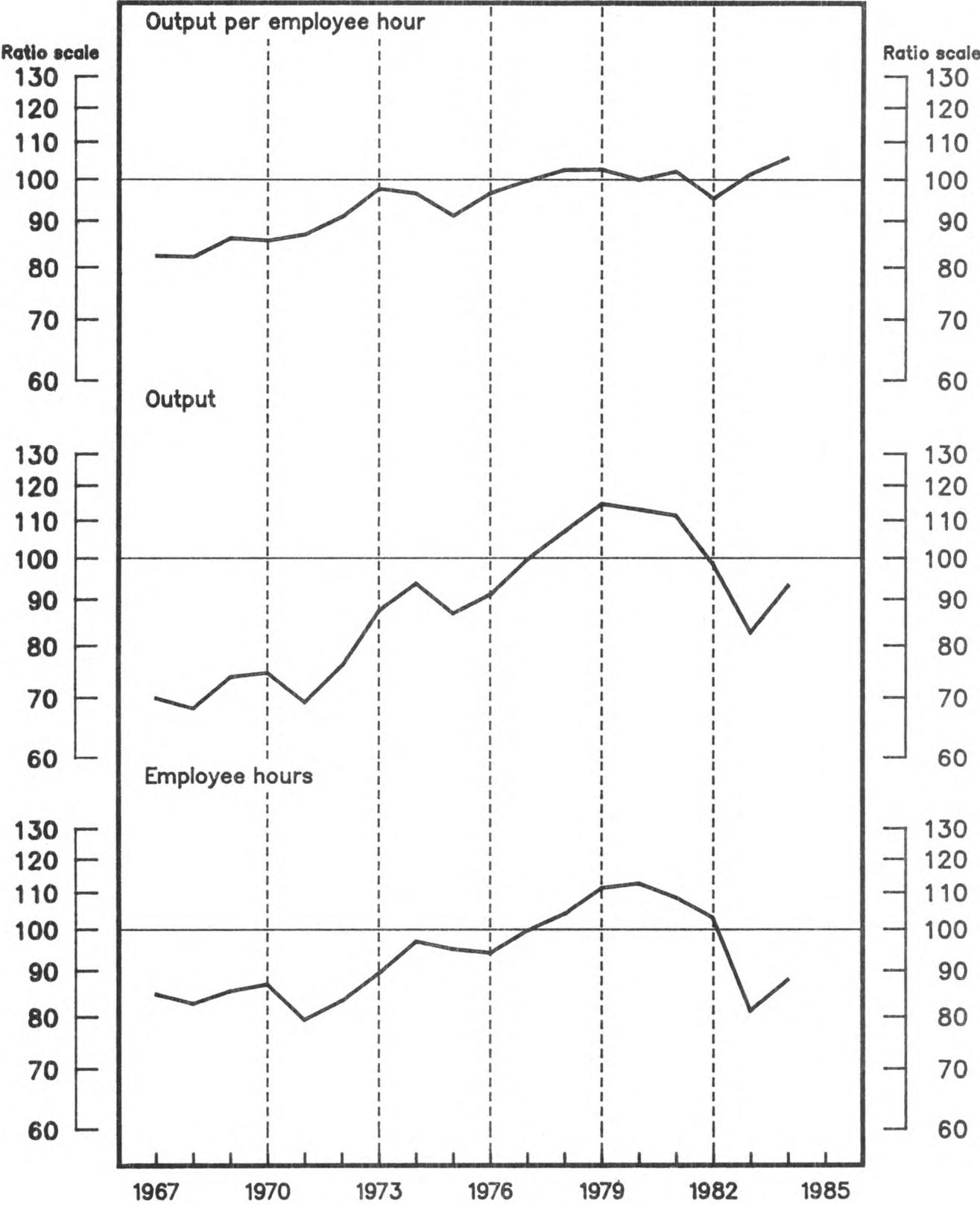
¹ Preliminary.

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 100. Pumps and compressors (SIC 3561, 3563): Output per hour and related data, 1967-84

(1977=100)



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

Table 196. Pumps and compressors (SIC 3561, 3563): Indexes of output per employee hour and output per employee, 1958-84 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	96.2
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	96.5
1982	95.5	106.8	80.7	93.2	102.7	81.0
1983	101.8	116.7	83.1	98.0	109.9	83.1
1984 ²	106.0	115.4	92.7	104.1	112.4	92.9
Average annual percent change:						
1958-84	1.8	2.2	1.1	1.6	1.9	1.1
1980-84	1.1	3.6	-2.6	.6	3.0	-2.7

¹ 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.

² 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. Pumps and compressors (SIC 3561, 3563): 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	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	83.1	81.6	71.2	100.0	84.8	75.6	100.0
1984 ¹	93.5	88.2	81.0	100.9	89.8	83.2	100.6
Average annual percent change:							
1958-84	3.8	1.9	1.5	2.6	2.1	1.8	2.6
1980-84	-6.5	-7.5	-9.8	-4.1	-7.1	-9.2	-4.0

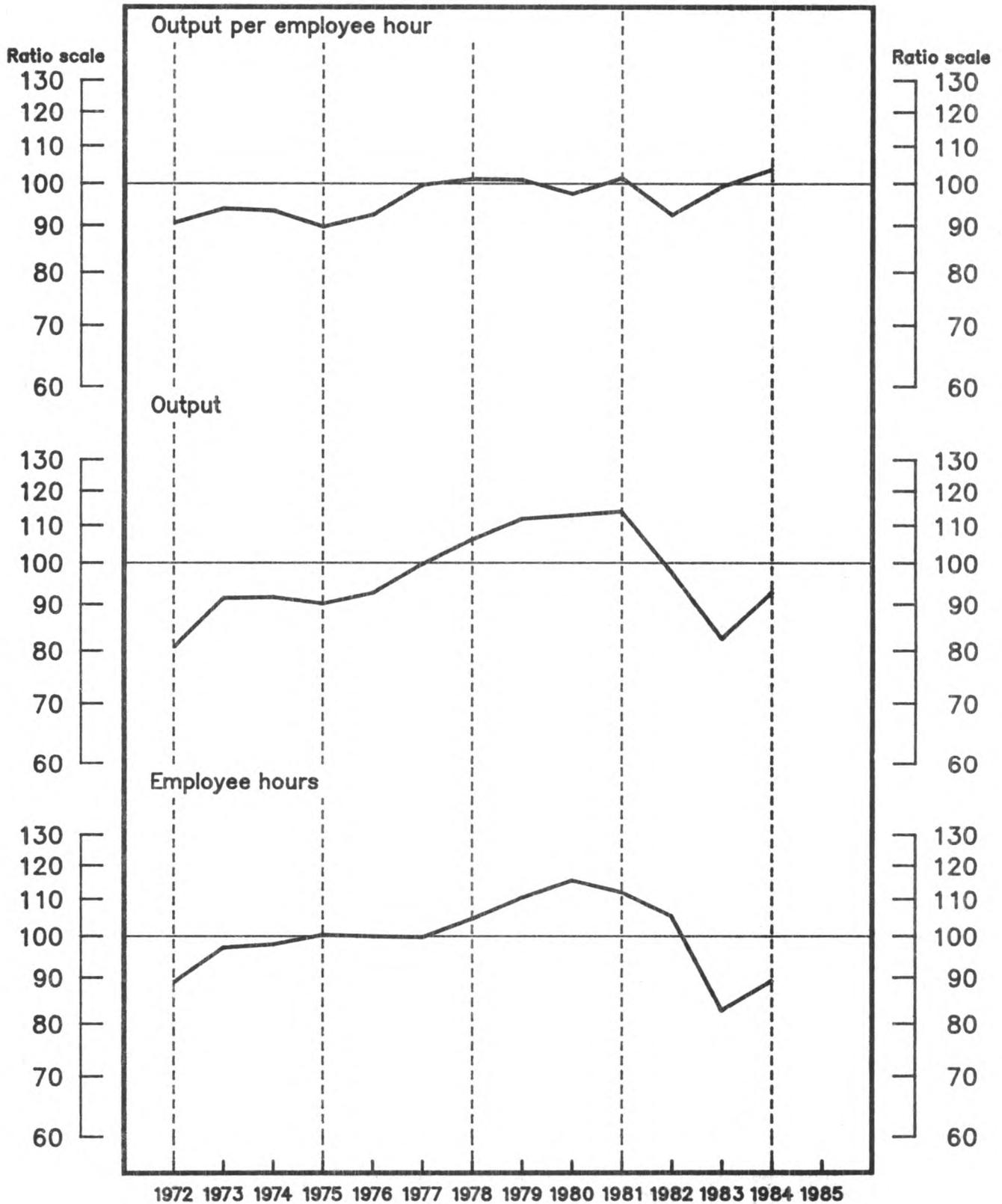
¹ Preliminary.

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 101. Pumps and pumping equipment (SIC 3561): Output per hour and related data, 1972-84

(1977 = 100)



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

Table 198. Pumps and pumping equipment (SIC 3561): Indexes of output per employee hour and output per employee, 1972-84 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	99.6	113.7	81.1	95.9	107.4	81.0
1984 ²	104.0	113.1	90.6	102.0	109.9	90.7
Average annual percent change:						
1972-84 .....	.9	2.0	-.9	.5	1.4	-1.1
1980-84	1.0	3.3	-2.3	.8	3.0	-2.4

¹ 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.

² 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. Pumps and pumping equipment (SIC 3561): 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	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	82.8	83.1	72.8	102.1	86.3	77.1	102.2
1984 ¹	93.1	89.5	82.3	102.8	91.3	84.7	102.6
Average annual percent change:							
1972-84	1.0	.1	-1.0	1.9	.5	-.4	2.1
1980-84	-6.9	-7.8	-9.8	-4.6	-7.6	-9.5	-4.5

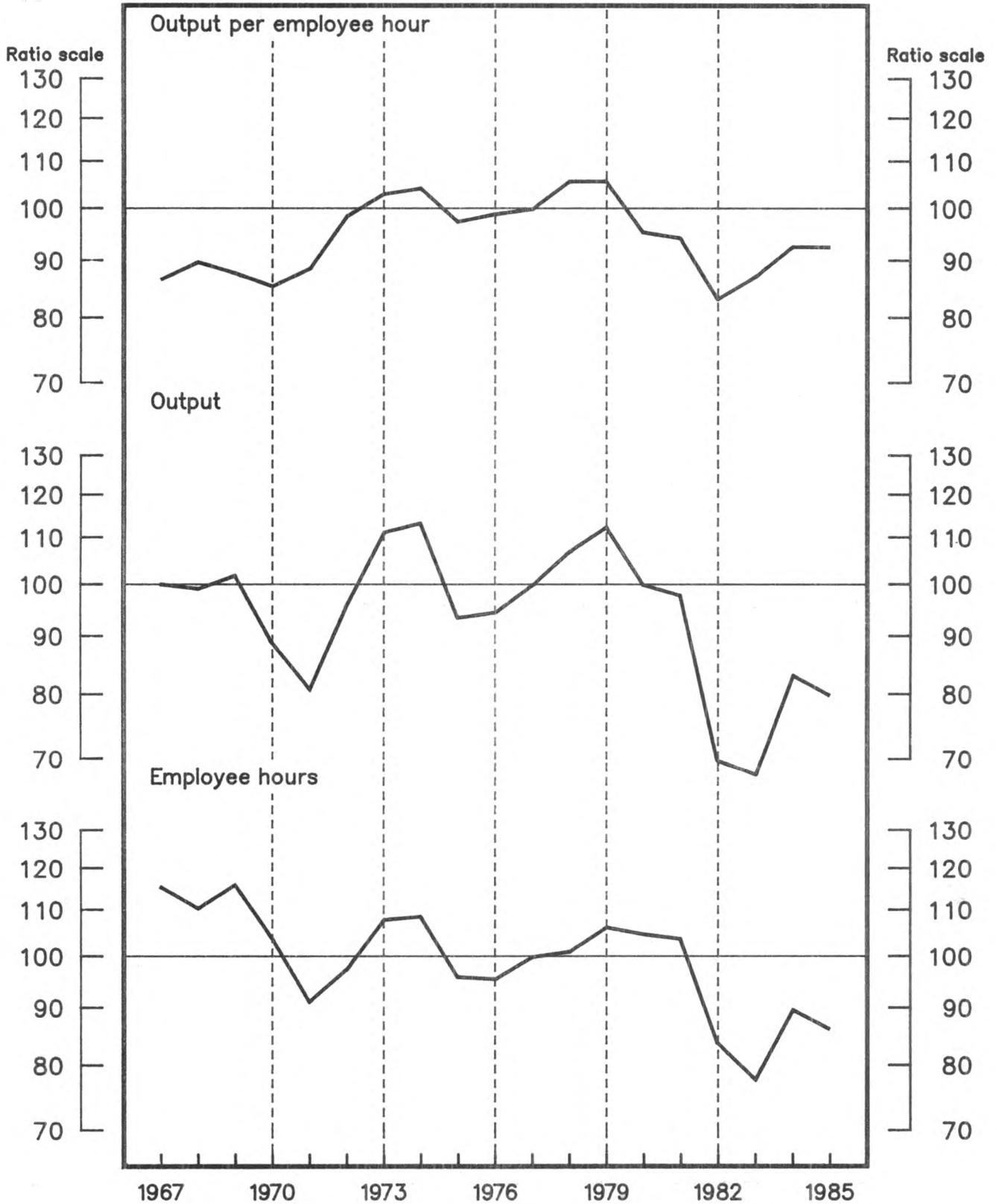
¹ Preliminary.

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. Ball and roller bearings (SIC 3562): Output per hour and related data, 1967-85

(1977=100)



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

Table 200. Ball and roller bearings (SIC 3562): Indexes of output per employee hour and output per employee, 1958-85
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	92.7	93.1	91.6	95.5	96.7	91.6
1985 ²	92.6	93.8	88.7	93.9	95.6	88.7
Average annual percent change:						
1958-85	1.5	1.7	.8	1.6	1.9	.9
1980-85	-4	.1	-2.4	.2	1.0	-2.4

¹ 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.

² 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 201. Ball and roller bearings (SIC 3562): Indexes of output, employee hours, and employees, 1958-85
(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	83.2	89.8	89.4	90.8	87.1	86.0	90.8
1985 ¹	79.9	86.3	85.2	90.1	85.1	83.6	90.1
Average annual percent change:							
1958-85	1.5	(²)	-2	.7	-1	-3	.7
1980-85	-4.6	-4.1	-4.7	-2.2	-4.8	-5.5	-2.2

¹ Preliminary.

² Less than .05 percent.

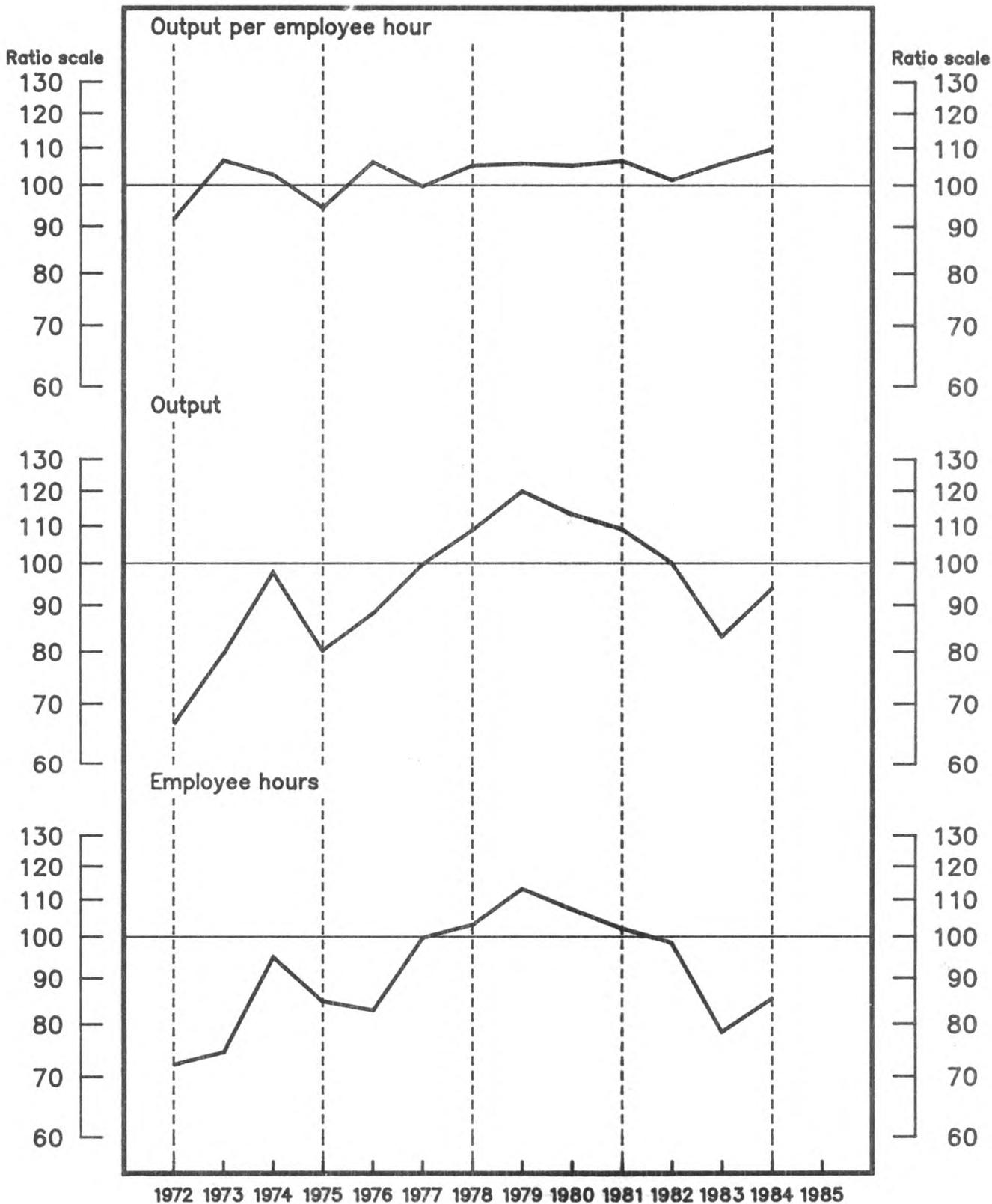
NOTE: Because of periodic revisions in source data, the measures in this table

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 103. Air and gas compressors (SIC 3563): Output per hour and related data, 1972-84

(1977=100)



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

Table 202. Air and gas compressors (SIC 3563): Indexes of output per employee hour and output per employee, 1972-84
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	106.5	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	106.1	123.2	86.8	102.0	115.5	86.9
1984 ²	110.0	120.3	96.6	108.4	117.6	97.2
Average annual percent change:						
1972-84 .....	.8	1.8	-.7	.6	1.7	-.8
1980-84 .....	.8	3.8	-3.3	-.1	2.5	-3.4

¹ 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.

² 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 203. Air and gas compressors (SIC 3563): 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	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	83.5	78.7	67.8	96.2	81.9	72.3	96.1
1984 ¹	94.2	85.6	78.3	97.5	86.9	80.1	96.9
Average annual percent change:							
1972-84	2.2	1.4	.4	2.9	1.6	.5	3.1
1980-84	-6.2	-7.0	-9.7	-3.0	-6.1	-8.5	-2.9

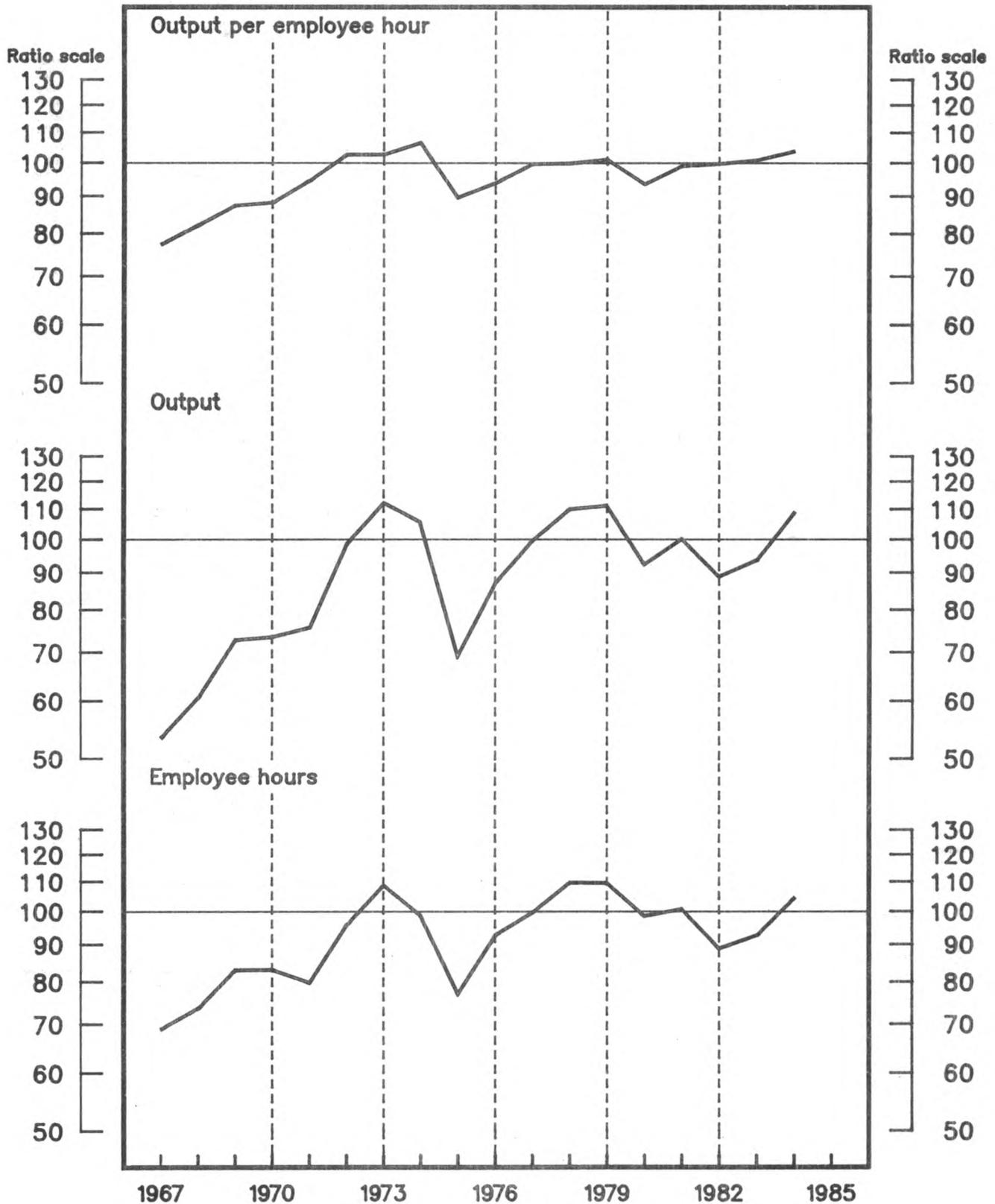
¹ Preliminary.

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 104. Refrigeration and heating equipment (SIC 3585): Output per hour and related data, 1967-84

(1977=100)



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

Table 204. Refrigeration and heating equipment (SIC 3585): Indexes of output per employee hour and output per employee, 1967-84 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	101.2	102.4	98.4	102.3	103.9	98.4
1984 ²	104.1	101.4	111.3	107.3	105.7	111.3
Average annual percent change:						
1967-84	1.1	1.2	.8	1.1	1.2	.8
1980-84	2.3	1.3	4.5	3.1	2.5	4.5

¹ 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.

² 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 205. Refrigeration and heating equipment (SIC 3585): 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	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	94.0	92.9	91.8	95.5	91.9	90.5	95.5
1984 ¹	109.1	104.8	107.6	98.0	101.7	103.2	98.0
Average annual percent change:							
1967-84	2.9	1.7	1.6	2.0	1.7	1.6	2.1
1980-84	2.6	.3	1.2	-1.9	-.5	.1	-1.9

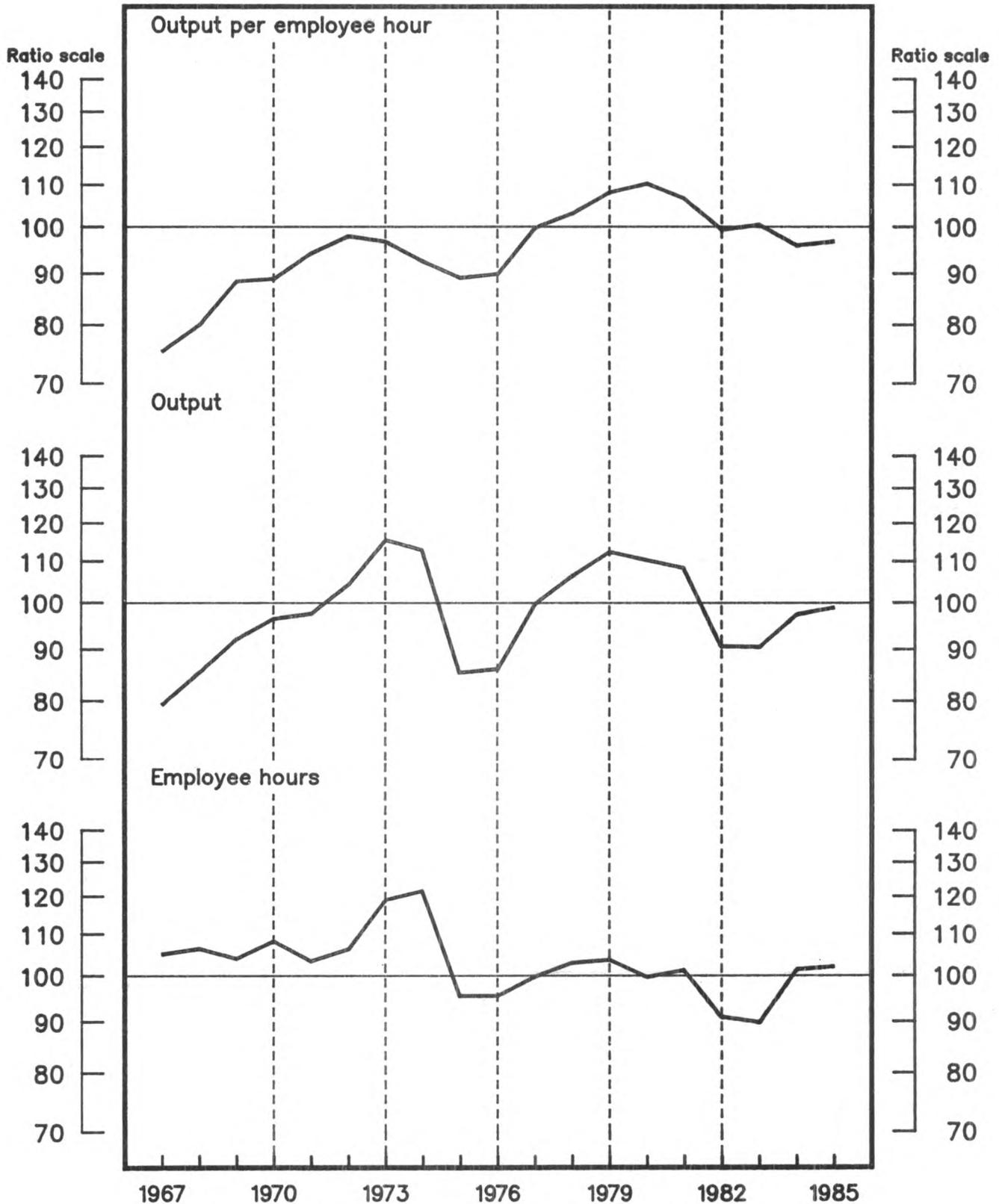
¹ Preliminary.

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 105. Transformers (SIC 3612): Output per hour and related data, 1967-85

(1977=100)



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

Table 206. Transformers (SIC 3612): Indexes of output per employee hour and output per employee, 1963-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	96.1	92.4	105.6	98.3	95.4	105.6
1985 ²	97.0	93.1	107.2	99.4	96.4	107.2
Average annual percent change:						
1963-85	1.7	1.8	1.4	1.7	1.6	1.7
1980-85	-2.7	-3.6	-6	-2.1	-2.7	-6

¹ 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.

² 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 207. Transformers (SIC 3612): Indexes of output, employee hours, and employees, 1963-85
(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	97.7	101.7	105.7	92.5	99.4	102.4	92.5
1985 ¹	99.2	102.3	106.5	92.5	99.8	102.9	92.5
Average annual percent change:							
1963-85	2.1	.4	.3	.6	.4	.4	.4
1980-85	-2.4	.3	1.2	-1.9	-4	.3	-1.9

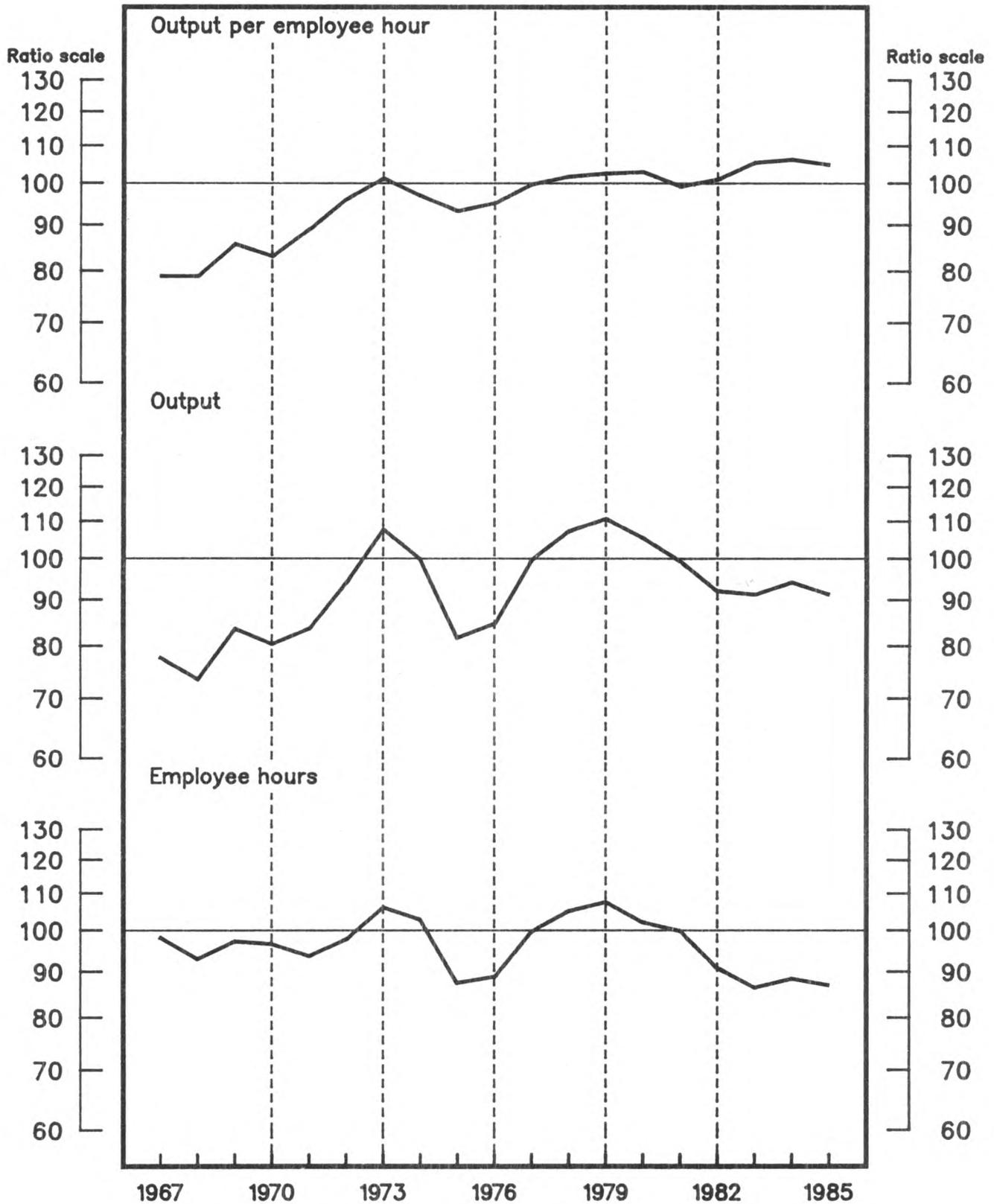
¹ Preliminary.

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 106. Switchgear and switchboard apparatus (SIC 3613): Output per hour and related data, 1967-85

(1977=100)



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

Table 208. Switchgear and switchboard apparatus (SIC 3613): indexes of output per employee hour and output per employee, 1963-85 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	98.8	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	108.6	84.1	99.9	107.2	84.6
1983	105.7	113.0	90.1	104.8	111.9	90.1
1984	106.5	114.3	90.2	107.3	115.4	90.7
1985 ²	105.1	114.5	85.9	105.5	115.4	86.2
Average annual percent change:						
1963-85	1.9	2.2	1.0	1.6	1.9	1.1
1980-85	1.0	1.8	-.9	.9	1.8	-1.0

¹ 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.

² 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. Switchgear and switchboard apparatus (SIC 3613): indexes of output, employee hours, and employees, 1963-85 (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	91.5	86.6	81.0	101.6	87.3	81.8	101.5
1984	94.4	88.6	82.6	104.6	88.0	81.8	104.1
1985 ¹	91.5	87.1	79.9	106.5	86.7	79.3	106.1
Average annual percent change:							
1963-85	2.2	.3	(²)	1.2	.6	.4	1.1
1980-85	-2.5	-3.4	-4.2	-1.6	-3.4	-4.2	-1.6

¹ Preliminary.

² Less than .05 percent.

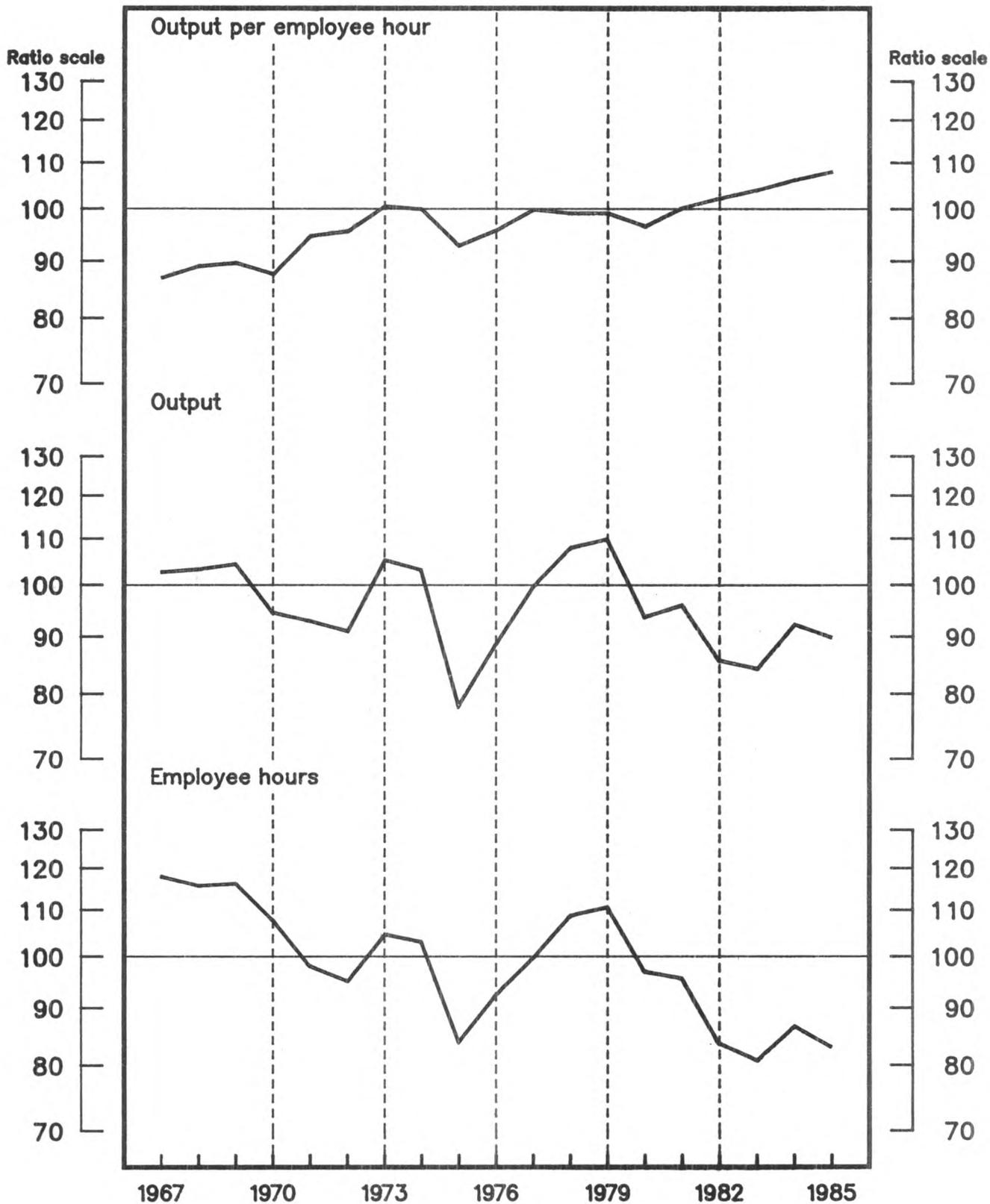
NOTE: Because of periodic revisions in source data, the measures in this table

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 107. Motors and generators (SIC 3621): Output per hour and related data, 1967-85

(1977=100)



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

Table 210. Motors and generators (SIC 3621): Indexes of output per employee hour and output per employee, 1958-85
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	99.3	98.5	102.0	98.8	97.9	101.9
1979	99.3	99.6	98.1	99.6	100.0	98.4
1980	96.7	100.2	86.4	96.7	100.1	87.0
1981	100.4	102.3	94.2	99.8	101.6	94.5
1982	102.4	109.4	84.0	98.8	104.4	84.3
1983	104.2	107.5	94.3	101.7	104.2	94.4
1984	106.4	108.3	100.2	106.4	108.4	100.4
1985 ²	108.2	110.8	99.8	107.0	109.4	100.1
Average annual percent change:						
1954-85	2.5	2.3	2.9	2.4	2.2	2.9
1980-85	2.2	1.9	3.0	2.1	1.8	2.9

¹ 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.

² 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. Motors and generators (SIC 3621): Indexes of output, employee hours, and employees, 1958-85
(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	109.0	109.9	106.1	109.5	110.5	106.2
1979	110.1	110.9	110.5	112.2	110.5	110.1	111.9
1980	93.9	97.1	93.7	108.7	97.1	93.8	107.9
1981	96.2	95.8	94.0	102.1	96.4	94.7	101.8
1982	85.8	83.8	78.4	102.1	86.8	82.2	101.8
1983	84.4	81.0	78.5	89.5	83.0	81.0	89.4
1984	92.5	86.9	85.4	92.3	86.9	85.3	92.1
1985 ¹	90.0	83.2	81.2	90.2	84.1	82.3	89.9
Average annual percent change:							
1954-85	1.6	-0.8	-0.7	-1.2	-0.7	-0.6	-1.2
1980-85	-1.0	-3.1	-2.8	-3.8	-3.0	-2.8	-3.8

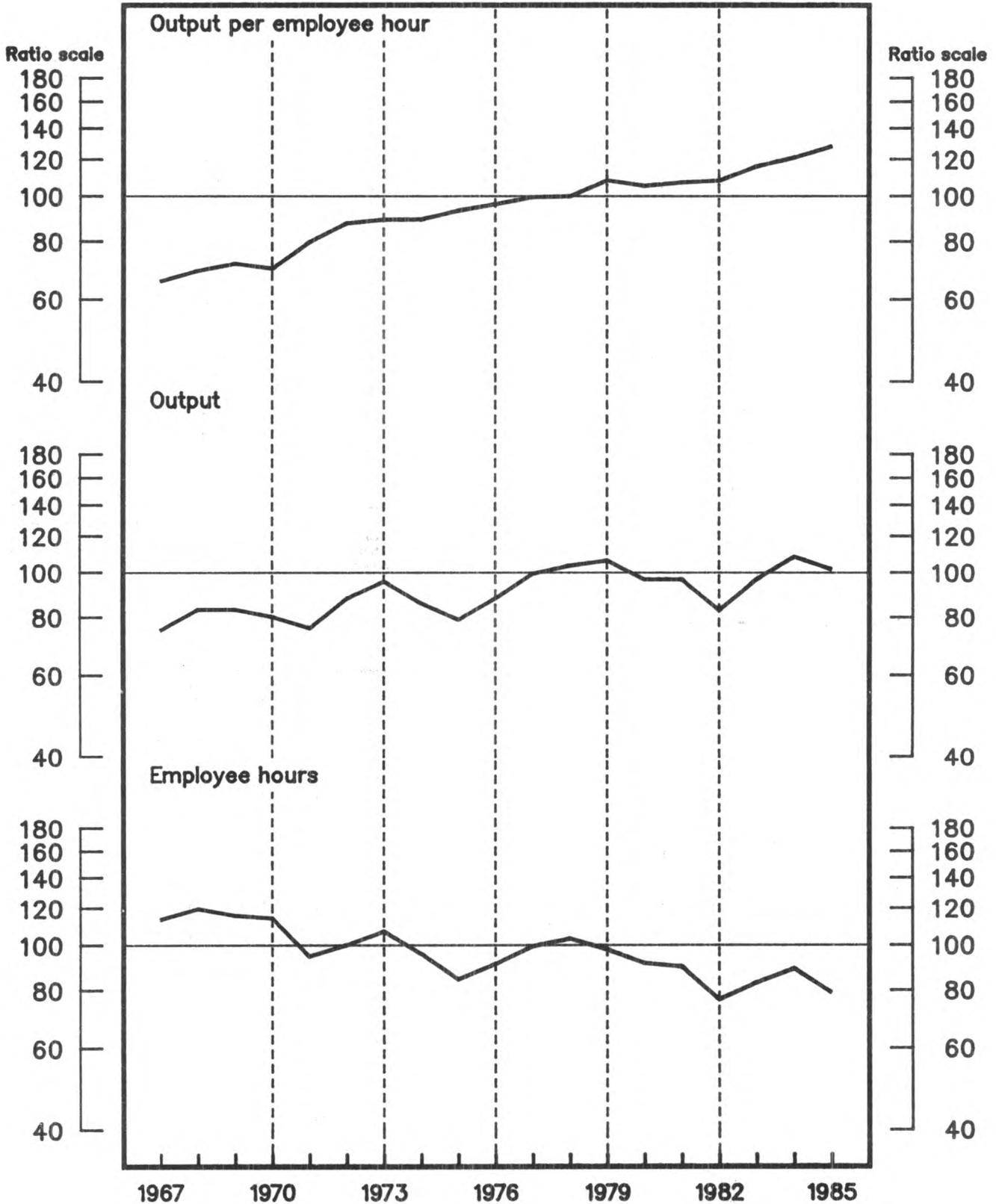
¹ Preliminary.

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. Major household appliances (SIC 3631, 3632, 3633, 3639):
Output per hour and related data, 1967-85**

(1977=100)



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

Table 212. Major household appliances (SIC 3631, 3632, 3633, 3639): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	116.5	116.2	117.7	118.2	118.4	117.4
1984	121.7	118.9	135.3	123.8	121.3	135.7
1985 ²	128.6	126.5	138.2	130.1	128.3	138.3
Average annual percent change:						
1958-85	4.2	4.2	4.5	4.1	3.9	4.6
1980-85	4.1	3.4	7.3	5.1	4.6	7.2

¹ 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.

² 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. Major household appliances (SIC 3631, 3632, 3633, 3639): Indexes of output, employee hours, and employees, 1958-85
(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	97.3	83.5	83.7	82.7	82.3	82.2	82.9
1984	108.8	89.4	91.5	80.4	87.9	89.7	80.2
1985 ¹	102.1	79.4	80.7	73.9	78.5	79.6	73.8
Average annual percent change:							
1958-85	3.1	-1.0	-1.0	-1.3	-0.9	-0.8	-1.4
1980-85	2.2	-1.9	-1.2	-4.8	-2.8	-2.3	-4.7

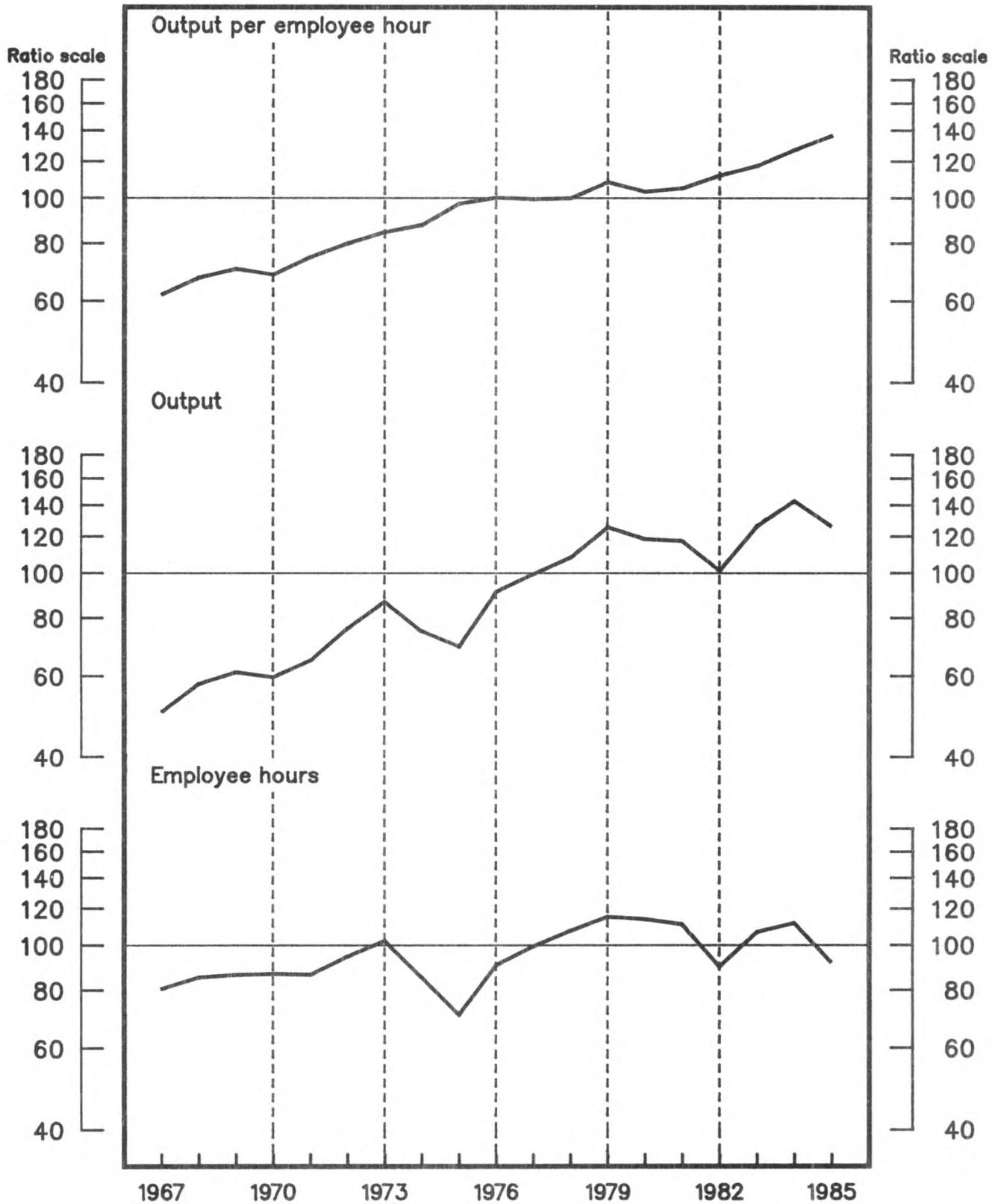
¹ Preliminary.

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 cooking equipment (SIC 3631): Output per hour and related data, 1967-85

(1977=100)



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

Table 214. Household cooking equipment (SIC 3631): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	96.2
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	118.2	118.5	117.0	121.7	123.1	117.6
1984	127.9	123.2	144.8	131.6	127.5	145.9
1985 ²	137.2	132.2	155.4	141.5	137.4	156.2
Average annual percent change:						
1958-85	3.8	4.0	3.3	3.8	3.9	3.4
1980-85	5.9	5.1	8.4	6.0	5.3	8.3

¹ 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.

² 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 cooking equipment (SIC 3631): Indexes of output, employee hours, and employees, 1958-85
(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	126.9	107.4	107.1	108.5	104.3	103.1	107.9
1984	143.6	112.3	116.6	99.2	109.1	112.6	98.4
1985 ¹	126.5	92.2	95.7	81.4	89.4	92.1	81.0
Average annual percent change:							
1958-85	5.3	1.4	1.3	1.9	1.5	1.3	1.8
1980-85	3.3	-2.5	-1.8	-4.8	-2.6	-1.9	-4.6

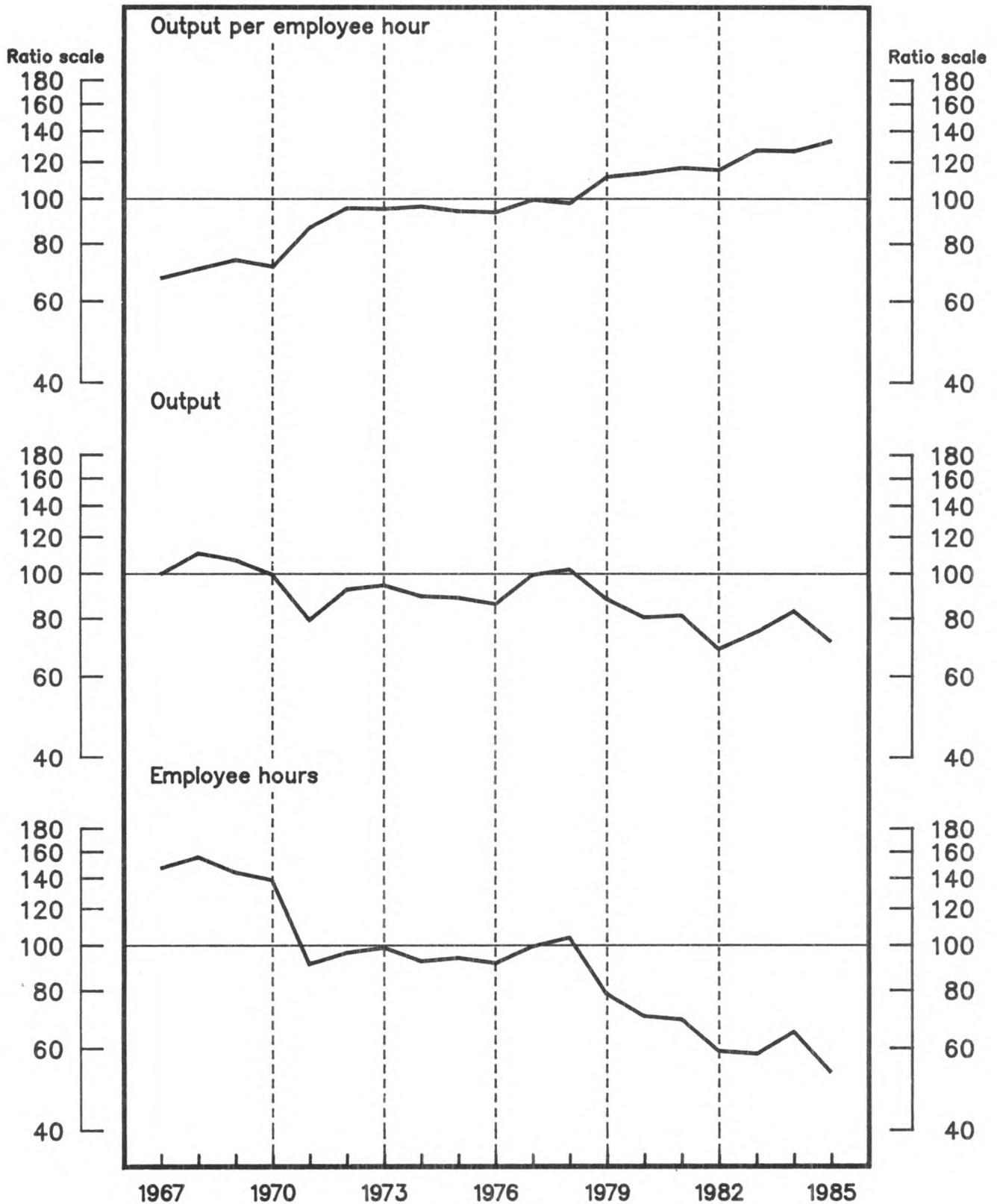
¹ Preliminary.

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 refrigerators and freezers (SIC 3632): Output per hour and related data, 1967-85

(1977=100)



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

Table 216. Household refrigerators and freezers (SIC 3632): Indexes of output per employee hour and output per employee, 1958-85 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	70.8	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	128.1	128.1	128.8	128.1	128.1	129.0
1984	127.5	125.4	138.7	124.6	121.9	139.2
1985 ²	134.0	137.4	119.1	129.0	131.1	119.5
Average annual percent change:						
1958-85	4.8	4.8	4.8	4.5	4.4	4.9
1980-85	3.3	3.5	2.7	4.5	4.9	2.6

¹ 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.

² 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 refrigerators and freezers (SIC 3632): Indexes of output, employee hours, and employees, 1958-85 (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	88.8	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	158.2	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	75.2	58.7	58.7	58.4	58.7	58.7	58.3
1984	83.5	65.5	66.6	60.2	67.0	68.5	60.0
1985 ¹	71.7	53.5	52.2	60.2	55.6	54.7	60.0
Average annual percent change:							
1958-85	1.4	-3.3	-3.3	-3.3	-3.0	-2.9	-3.3
1980-85	-1.3	-4.4	-4.6	-3.9	-5.5	-5.9	-3.8

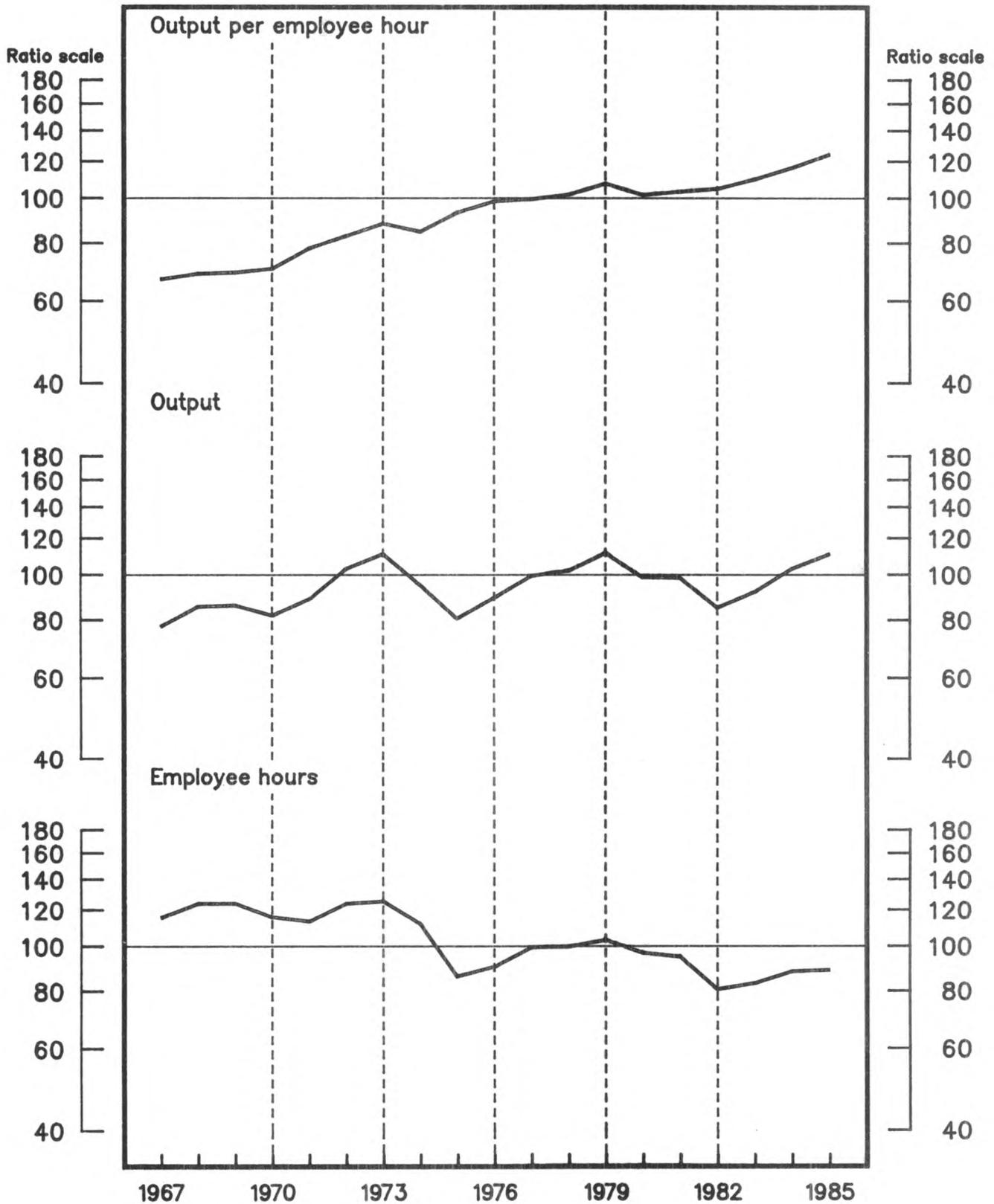
¹ Preliminary.

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 111. Household laundry equipment (SIC 3633): Output per hour and related data, 1967-85

(1977=100)



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

Table 218. Household laundry equipment (SIC 3633): indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	103.8	105.4	101.6	100.9	105.0
1982	105.4	107.4	97.3	100.5	101.4	96.5
1983	110.5	106.9	129.8	111.3	108.1	129.4
1984	117.0	113.0	139.8	120.4	116.9	139.6
1985 ²	124.9	119.5	156.5	127.9	123.0	156.0
Average annual percent change:						
1958-85	4.0	3.6	5.6	3.8	3.3	5.6
1980-85	4.1	2.9	10.2	5.4	4.4	10.2

¹ 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.

² 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. Household laundry equipment (SIC 3633): indexes of output, employee hours, and employees, 1958-85
(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	92.4	83.6	86.4	71.2	83.0	85.5	71.4
1984	103.7	88.6	91.8	74.2	86.1	88.7	74.3
1985 ¹	111.4	89.2	93.2	71.2	87.1	90.6	71.4
Average annual percent change:							
1958-85	2.6	-1.4	-1.0	-2.8	-1.2	-.7	-2.9
1980-85	2.3	-1.7	-6	-7.2	-2.9	-2.0	-7.2

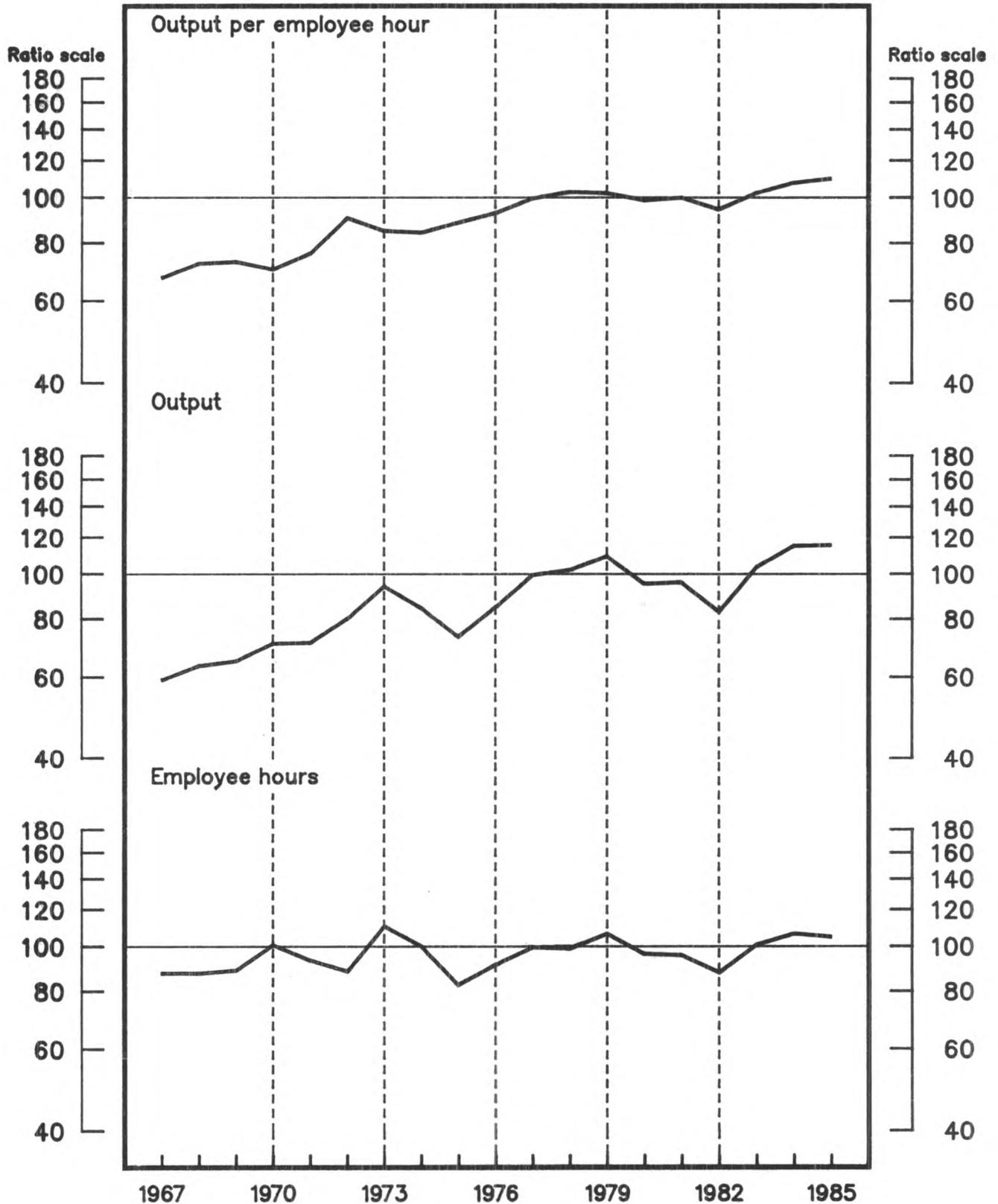
¹ Preliminary.

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. Household appliances, not elsewhere classified (SIC 3639):
Output per hour and related data, 1967-85**

(1977=100)



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

Table 220. Household appliances, not elsewhere classified (SIC 3639): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	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	102.8	100.9	112.3	104.1	102.5	111.8
1984	108.1	104.3	129.7	112.0	108.9	128.9
1985 ²	110.4	106.7	130.3	113.3	110.0	129.4
Average annual percent change:						
1958-85	3.1	2.5	5.0	3.0	2.4	5.1
1980-85	2.4	1.0	9.4	3.9	2.8	9.2

¹ 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.

² 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. Household appliances, not elsewhere classified (SIC 3639): Indexes of output, employee hours, and employees, 1958-85
(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	104.1	101.3	103.2	92.7	100.0	101.6	93.1
1984	115.6	106.9	110.8	89.1	103.2	106.2	89.7
1985 ¹	116.1	105.2	108.8	89.1	102.5	105.5	89.7
Average annual percent change:							
1958-85	3.9	.8	1.3	-1.1	.8	1.4	-1.2
1980-85	5.0	2.5	4.0	-4.0	1.1	2.2	-3.8

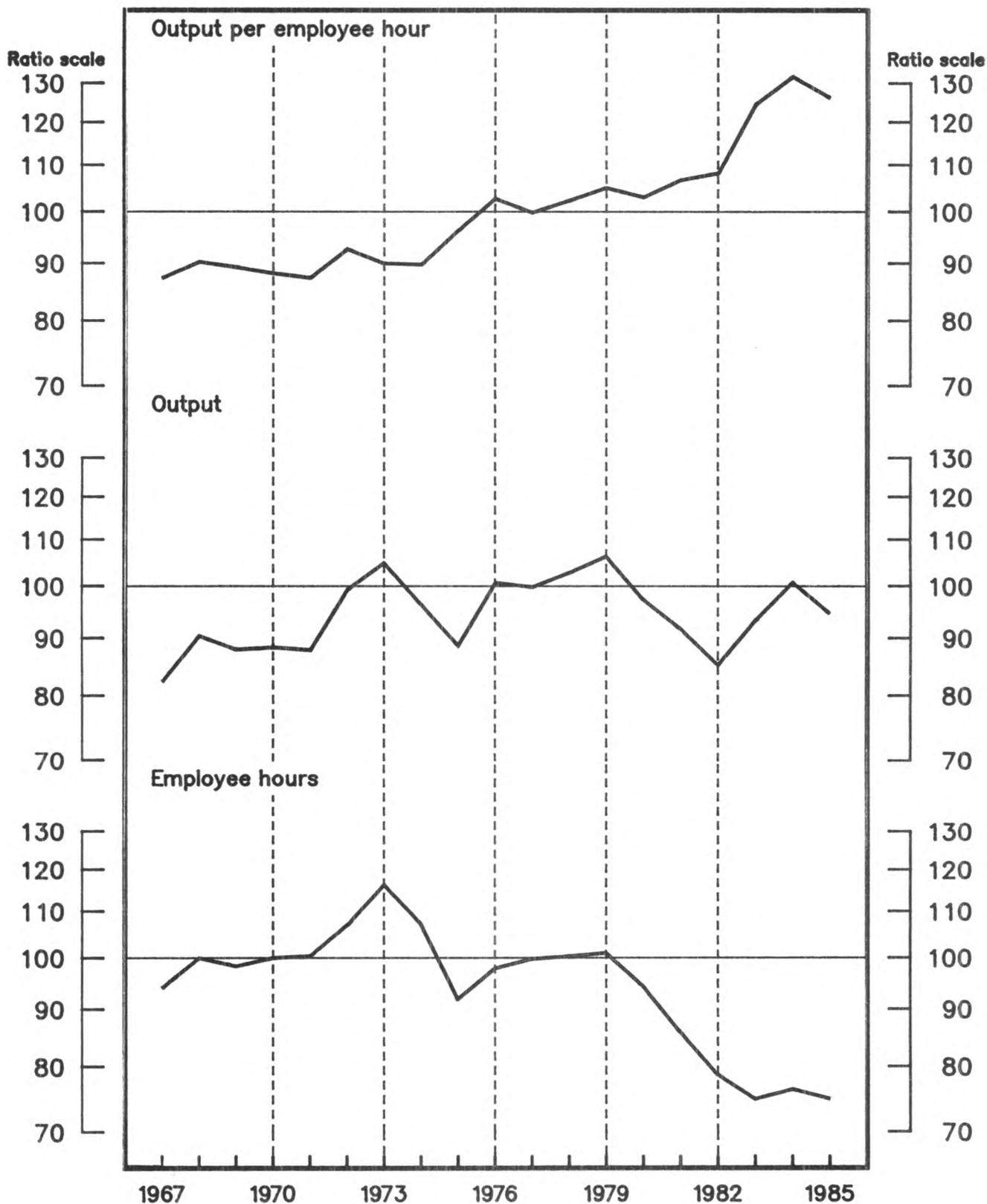
¹ Preliminary.

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. Electric lamps (SIC 3641): Output per hour and related data, 1967-85

(1977=100)



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

Table 222. Electric lamps (SIC 3641): Indexes of output per employee hour and output per employee, 1958-85
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	132.0	133.1	124.8	134.5	136.1	124.8
1985 ²	126.4	128.5	114.2	126.7	128.8	114.2
Average annual percent change:						
1954-85	2.0	2.0	2.1	2.1	2.1	2.2
1980-85	5.2	5.6	2.9	5.8	6.3	2.9

¹ 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.
² 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. Electric lamps (SIC 3641): Indexes of output, employee hours, and employees, 1958-85
(1977=100)

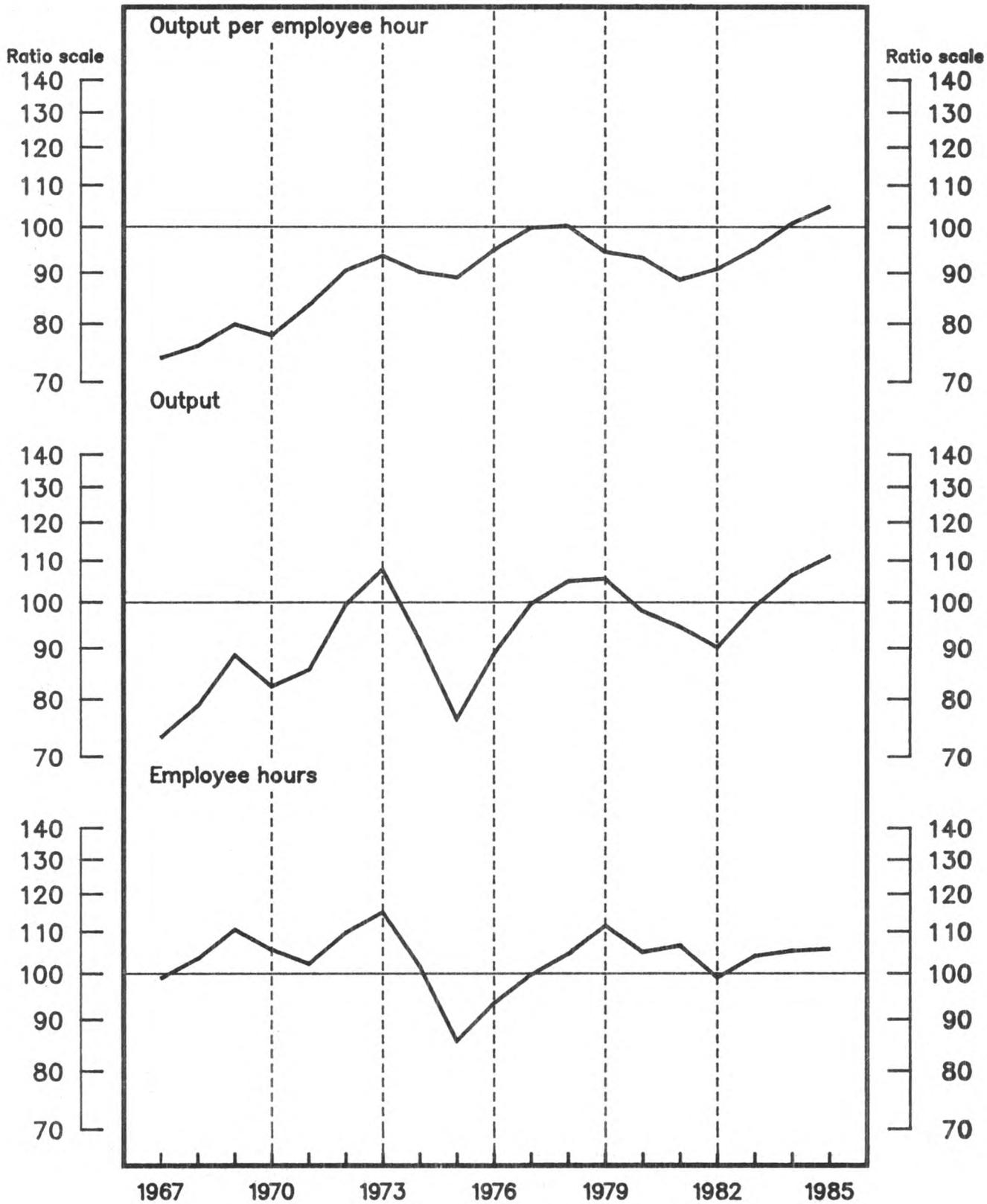
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	47.2	68.5	66.6	81.7	70.6	68.8	83.0
1959	56.2	76.3	75.5	81.7	76.1	75.1	83.0
1960	56.8	75.2	74.6	79.1	77.7	77.3	80.9
1961	52.8	70.9	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	110.6	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	101.0	76.5	75.9	80.9	75.1	74.2	80.9
1985 ¹	94.8	75.0	73.8	83.0	74.8	73.6	83.0
Average annual percent change:							
1954-85	2.8	.8	.8	.7	.7	.7	.6
1980-85	.7	-4.3	-4.7	-2.2	-4.9	-5.3	-2.2

¹ 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 114. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Output per hour and related data, 1967-85

(1977=100)



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

Table 224. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Indexes of output per employee hour and output per employee, 1961-85 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	95.3	94.6	97.3	96.3	96.1	97.1
1984	101.1	99.9	105.0	102.7	101.8	105.4
1985 ²	105.0	104.7	105.9	106.3	106.4	106.2
Average annual percent change:						
1961-85	1.9	2.2	.8	1.8	2.1	.9
1980-85	3.0	2.3	5.1	3.2	2.6	5.0

¹ 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.

² 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 225. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Indexes of output, employee hours, and employees, 1961-85 (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	99.4	104.3	105.1	102.2	103.2	103.4	102.4
1984	106.7	105.5	106.8	101.6	103.9	104.8	101.2
1985 ¹	111.3	106.0	106.3	105.1	104.7	104.6	104.8
Average annual percent change:							
1961-85	2.8	.9	.6	2.0	1.0	.7	1.9
1980-85	3.1	.1	.8	-1.9	-.1	.5	-1.8

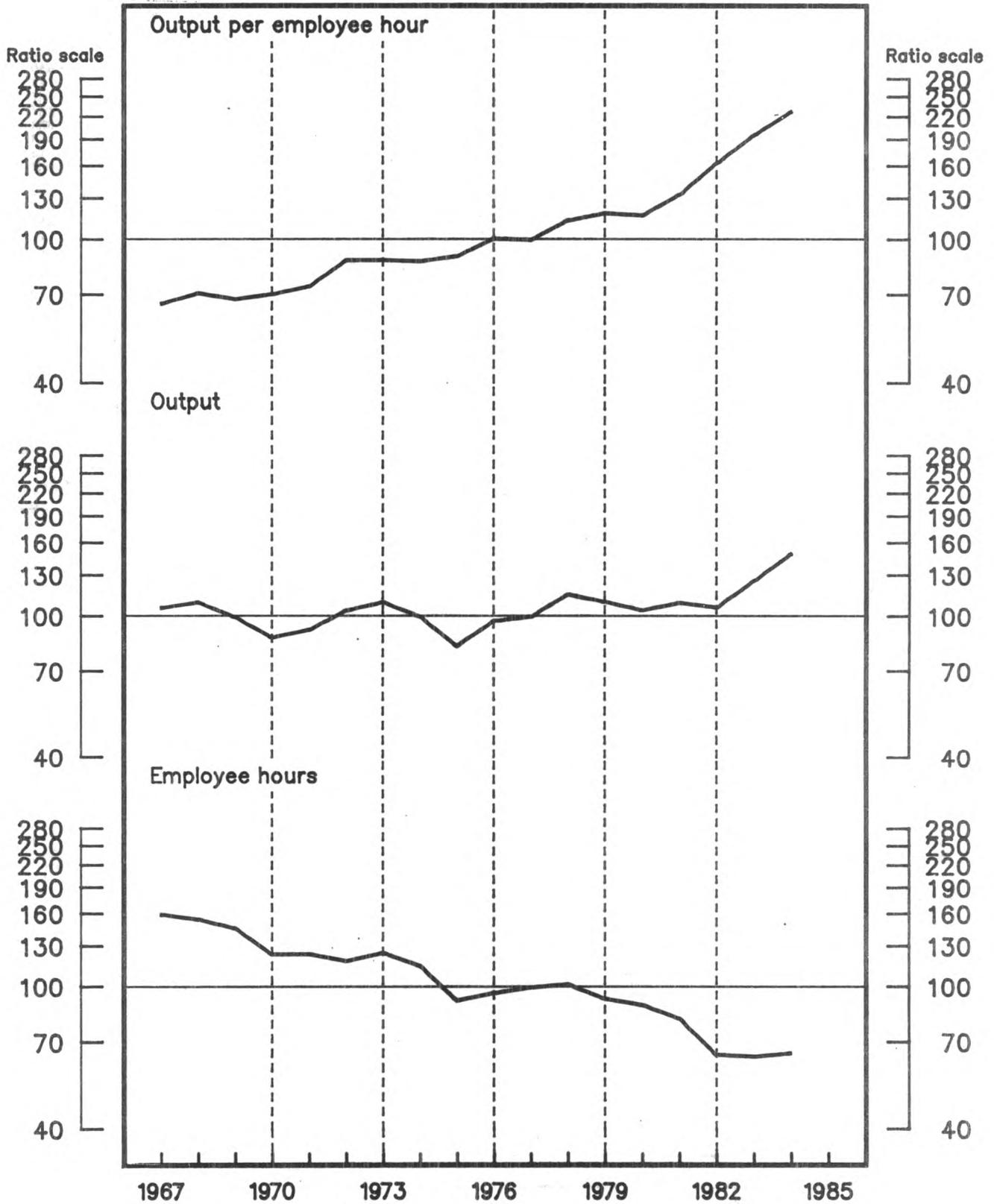
¹ Preliminary.

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 115. Radio and television receiving sets (SIC 3651): Output per hour and related data, 1967-84

(1977=100)



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

Table 226. Radio and television receiving sets (SIC 3651): Indexes of output per employee hour and output per employee, 1958-84 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	196.7	207.4	167.5	207.7	223.6	167.5
1984 ²	228.9	232.0	219.2	235.3	240.6	219.8
Average annual percent change:						
1958-84	5.6	6.1	4.0	5.5	5.9	4.1
1980-84	18.9	18.2	21.0	19.5	19.2	20.8

¹ 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.
² 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 227. Radio and television receiving sets (SIC 3651): Indexes of output, employee hours, and employees, 1958-84 (1977=100)

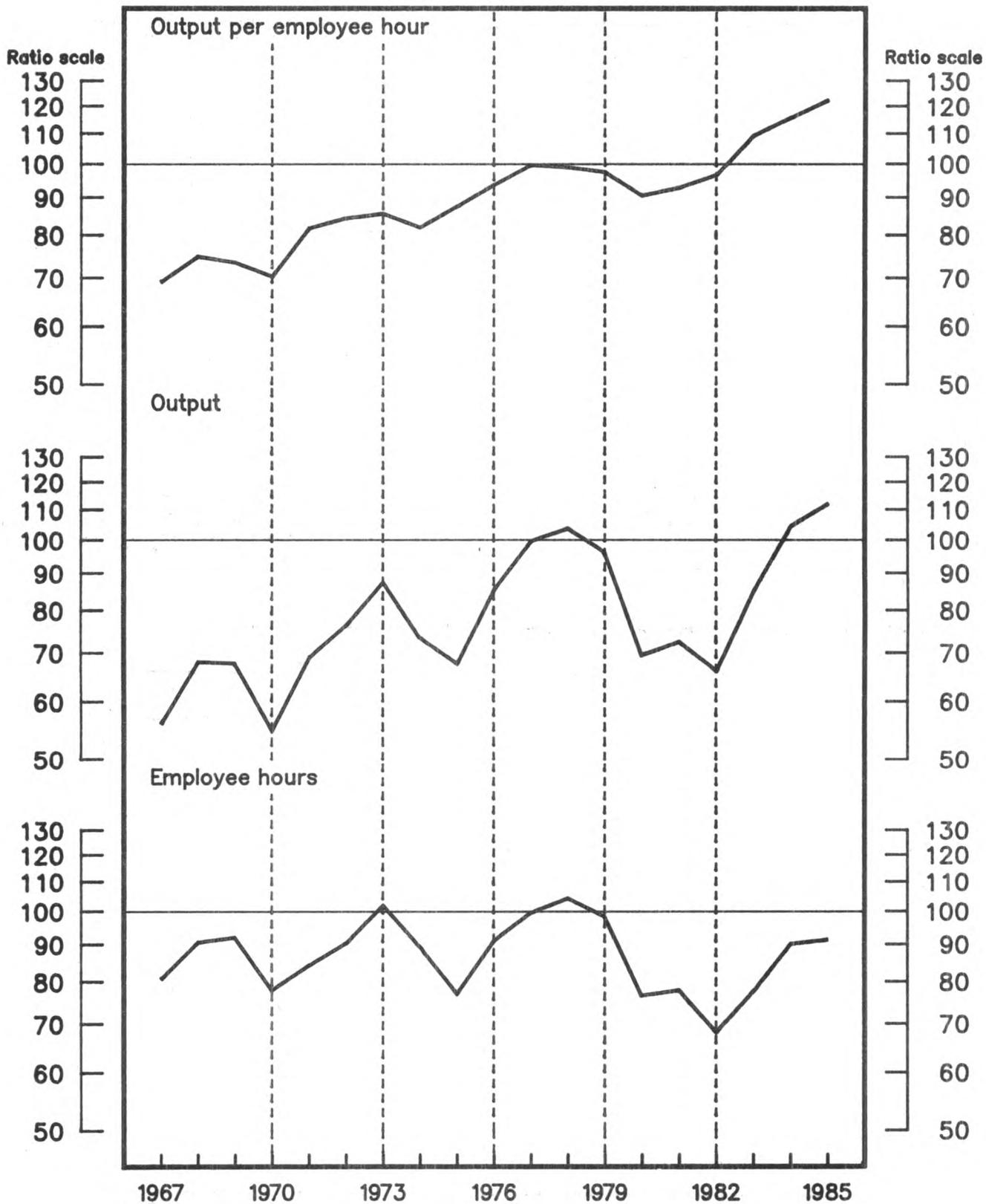
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	38.5	92.0	94.3	84.7	89.2	90.3	85.0
1959	46.3	103.7	109.0	86.1	100.5	104.5	86.5
1960	45.3	99.0	101.7	90.1	96.2	97.7	91.1
1961	48.7	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	126.1	64.1	60.8	75.3	60.7	56.4	75.3
1984 ¹	149.9	65.5	64.6	68.4	63.7	62.3	68.2
Average annual percent change:							
1958-84	3.6	-1.9	-2.3	-3	-1.8	-2.2	-4
1980-84	9.1	-8.3	-7.7	-9.8	-8.8	-8.5	-9.7

¹ 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. Motor vehicles and equipment (SIC 371): Output per hour and related data, 1967-85

(1977=100)



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

Table 228. Motor vehicles and equipment (SIC 371): Indexes of output per employee hour and output per employee, 1958-85 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
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	115.9	116.4	114.3	115.2	115.9	112.8
1985 ²	122.5	122.8	121.6	121.3	121.3	121.0
Average annual percent change:						
1957-85	3.1	3.1	2.8	3.2	3.2	2.9
1980-85	6.7	5.1	11.9	8.5	7.1	12.8

¹ 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.

² 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 229. Motor vehicles and equipment (SIC 371): Indexes of output, employee hours, and employees, 1958-85 (1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	27.2	58.7	55.9	68.6	64.4	62.0	72.8
1959	35.1	69.1	66.8	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	104.8	90.4	90.0	91.7	91.0	90.4	92.9
1985 ¹	112.2	91.6	91.4	92.3	92.5	92.5	92.7
Average annual percent change:							
1957-85	3.9	.8	.8	1.1	.8	.7	1.0
1980-85	11.2	4.2	5.9	-6	2.5	3.8	-1.4

¹ Preliminary.

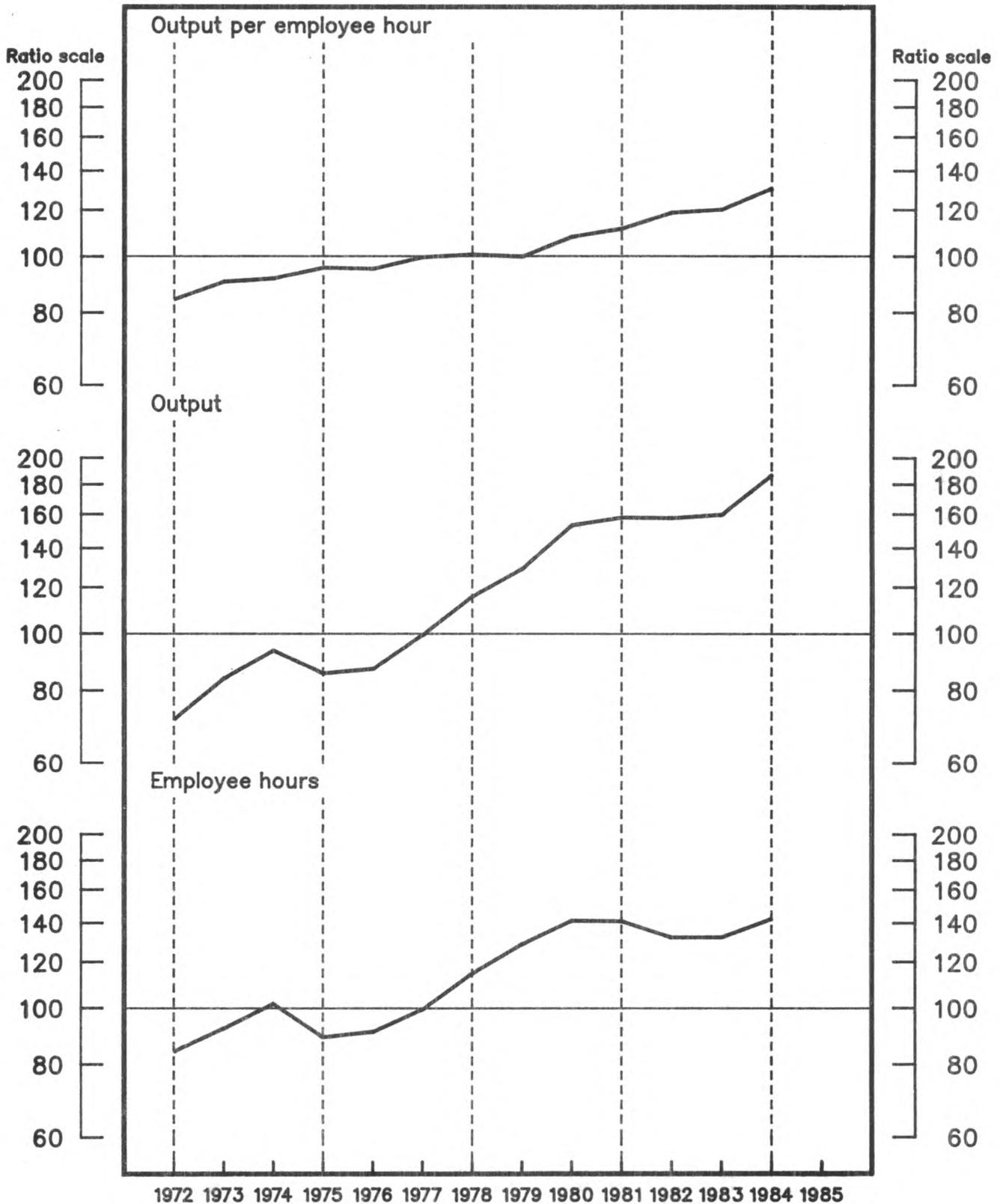
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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 117. Instruments to measure electricity (SIC 3825): Output per hour and related data, 1972-84

(1977=100)



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

Table 230. Instruments to measure electricity (SIC 3825): Indexes of output per employee hour and output per employee, 1972-84 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	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	119.2	134.0	101.0	117.3	130.8	101.3
1983	120.7	133.4	104.2	118.9	130.9	104.2
1984 ²	131.2	144.4	114.0	130.2	143.0	114.4
Average annual percent change:						
1972-84	3.2	4.9	.7	3.0	4.7	.6
1980-84	4.7	4.2	5.2	4.5	4.1	5.1

¹ 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.

² 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 231. Instruments to measure electricity (SIC 3825): 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	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	132.8	118.1	156.8	134.9	121.0	156.3
1983	160.4	132.9	120.2	153.9	134.9	122.5	154.0
1984 ¹	187.6	143.0	129.9	164.6	144.1	131.2	164.0
Average annual percent change:							
1972-84	8.2	4.8	3.1	7.4	5.0	3.3	7.6
1980-84	4.2	-5	-1	-1.0	-4	.1	-9

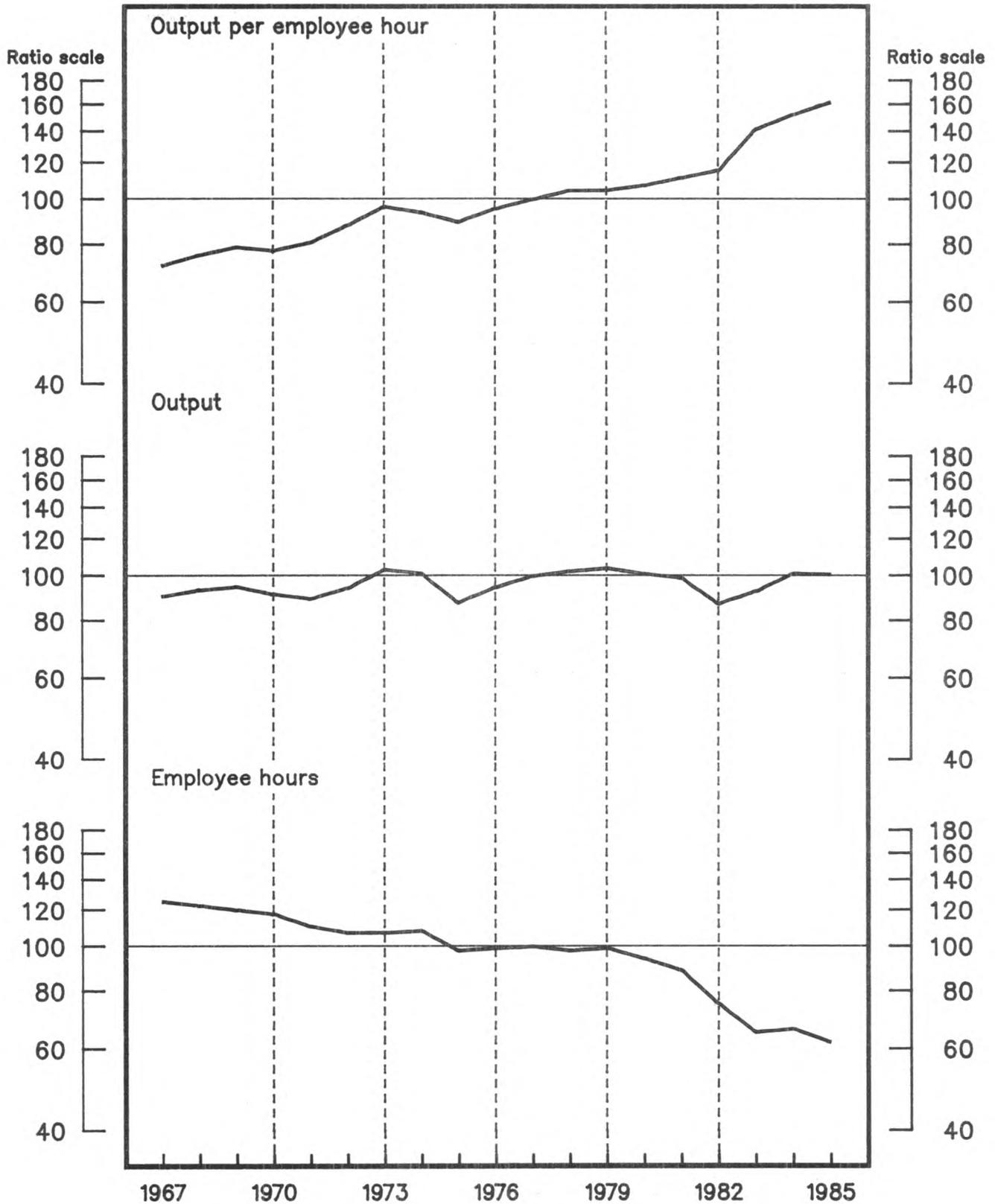
¹ Preliminary.

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 118. Railroad transportation, revenue traffic (SIC 401): Output per hour and related data, 1967-85

(1977=100)



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

Table 232. Railroad transportation, revenue traffic (SIC 401)¹: Indexes of output per employee hour and output per employee, 1958-85
(1977=100)

Year	Output per hour ²			Output per employee ²		
	All employees	Nonsupervisory workers	Supervisory workers	All employees	Nonsupervisory workers	Supervisory 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	152.6	155.8	133.6	147.9	150.5	131.6
1985 ³	162.1	166.3	138.3	156.5	159.7	137.5
Average annual percent change:						
1947-85	4.6	4.8	2.7	4.2	4.4	2.2
1980-85	9.6	9.9	7.6	9.3	9.6	7.4

¹ Class I railroads and Class I switching and terminal companies.

² 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.

³ 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 233. Railroad transportation, revenue traffic (SIC 401)¹: Indexes of output, employee hours, and employees, 1958-85
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Nonsupervisory workers	Supervisory workers	All employees	Nonsupervisory workers	Supervisory 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	98.5
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	101.3	66.4	65.0	75.8	68.5	67.3	77.0
1985 ²	100.8	62.2	60.6	72.9	64.4	63.1	73.3
Average annual percent change:							
1947-85 .....	.5	-3.9	-4.1	-2.1	-3.5	-3.7	-1.6
1980-85 .....	.3	-8.5	-8.7	-6.8	-8.2	-8.4	-6.6

¹ Class I railroads and Class I switching and terminal companies.

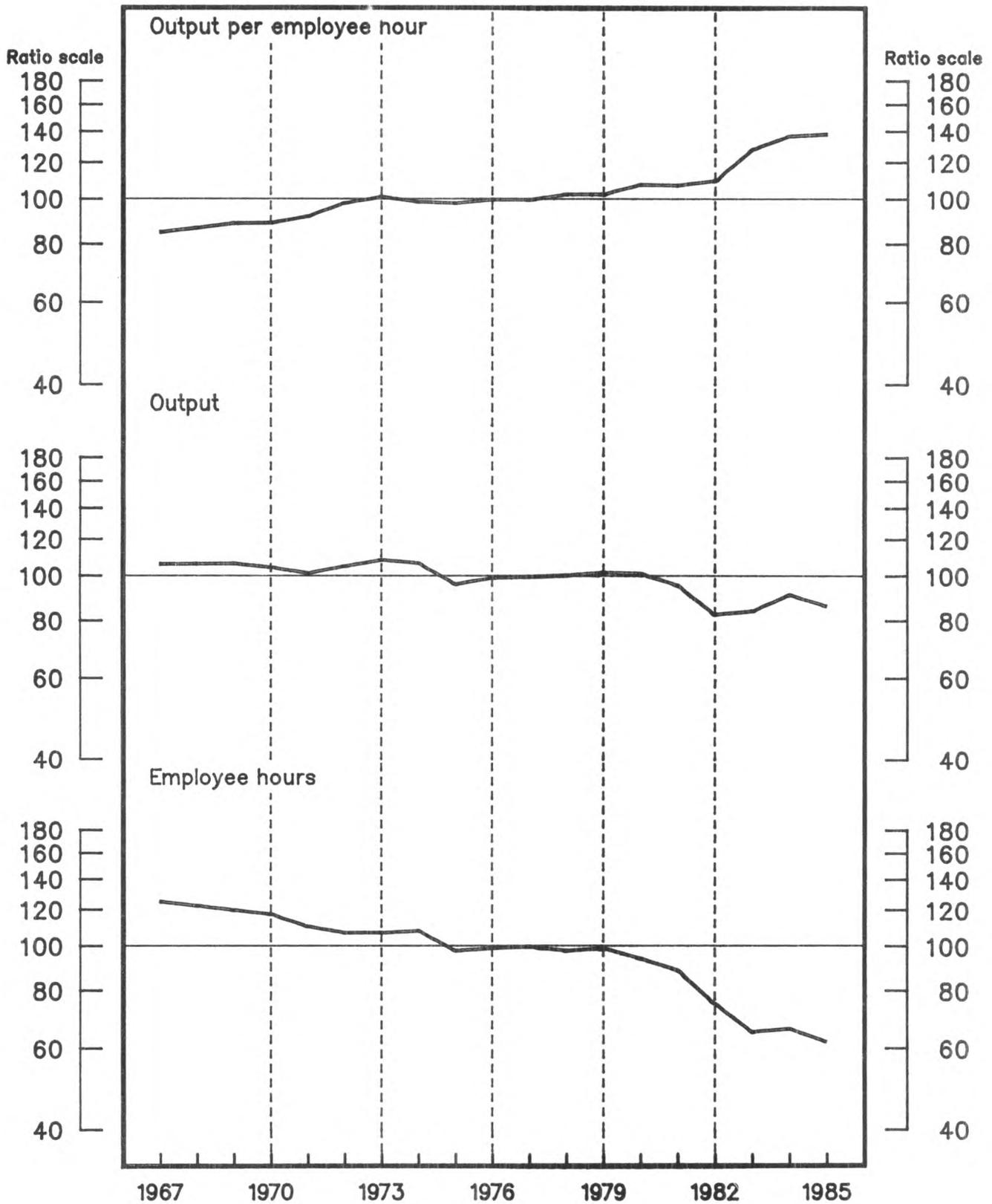
² Preliminary.

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 119. Railroad transportation, car miles (SIC 401): Output per hour and related data, 1967-85

(1977=100)



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

Table 234. Railroad transportation, car miles (SIC 401)¹: Indexes of output per employee hour and output per employee, 1958-85 (1977=100)

Year	Output per hour ²			Output per employee ²		
	All employees	Nonsupervisory workers	Supervisory workers	All employees	Nonsupervisory workers	Supervisory 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	98.6
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	137.7	140.6	120.6	133.4	135.8	118.7
1985 ³	138.9	142.6	118.5	134.2	136.9	117.9
Average annual percent change:						
1947-85	3.4	3.6	1.5	2.9	3.2	.9
1980-85	6.4	6.7	4.5	6.1	6.4	4.3

¹ Class I railroads and Class I switching and terminal companies.

² 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.

³ 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 235. Railroad transportation, car miles (SIC 401)¹: Indexes of output, employee hours, and employees, 1958-85 (1977=100)

Year	Output	Employee hours			Employees		
		All employees	Nonsupervisory workers	Supervisory workers	All employees	Nonsupervisory workers	Supervisory workers
Index:							
1958	104.5	177.0	181.6	145.6	171.1	177.2	126.6
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	106.7
1967	106.5	125.2	126.9	113.3	122.9	124.8	106.2
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	106.6	107.1	107.6	104.2	107.0	107.7	102.2
1974	106.9	106.1	108.6	104.6	107.1	107.6	102.9
1975	96.3	96.0	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	96.0	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	91.4	66.4	65.0	75.8	68.5	67.3	77.0
1985 ²	86.4	62.2	60.6	72.9	64.4	63.1	73.3
Average annual percent change:							
1947-85	-7	-3.9	-4.1	-2.1	-3.5	-3.7	-1.6
1980-85	-2.6	-8.5	-8.7	-6.8	-8.2	-8.4	-6.6

¹ Class I railroads and Class I switching and terminal companies.

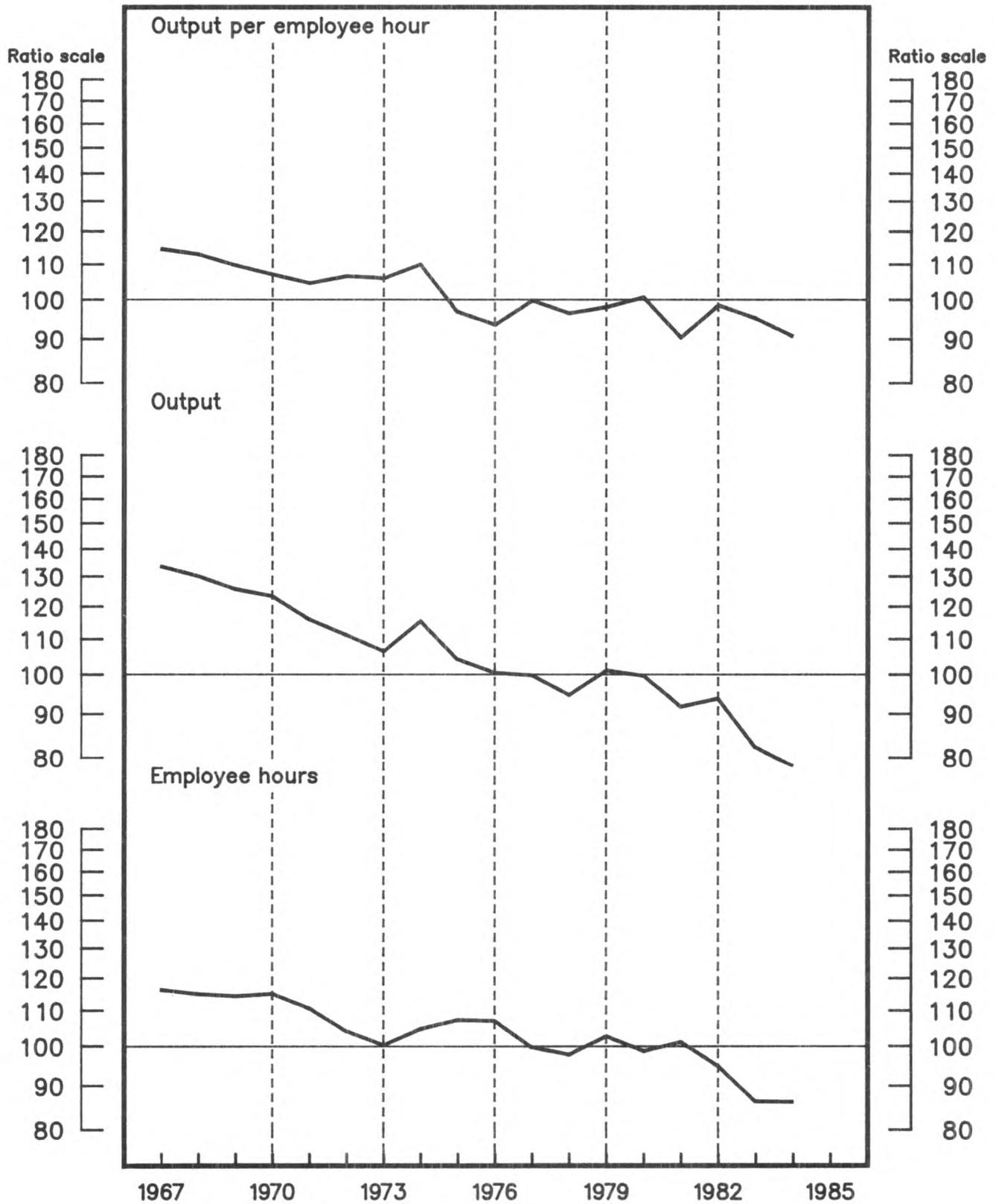
² Preliminary.

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 120. Bus carriers, Class I (Parts of SIC 4111, 4131, 414): Output per hour and related data, 1967-84

(1977=100)



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

Table 236. Bus carriers, Class 1 (Parts of SIC 4111, 4131, 414): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-84
(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	100.9	94.2	99.9	99.0	106.0
1981	90.7	86.2	92.0	101.4	106.7
1982	98.8	94.1	94.0	95.1	99.9
1983	95.4	93.0	82.5	86.5	88.7
1984 ¹	90.9	89.9	78.5	86.4	87.3
Average annual percent change:					
1954-84	(²)	-4	-6	-6	-2
1980-84	-1.6	-2	-5.7	-4.2	-5.6

¹ Preliminary.

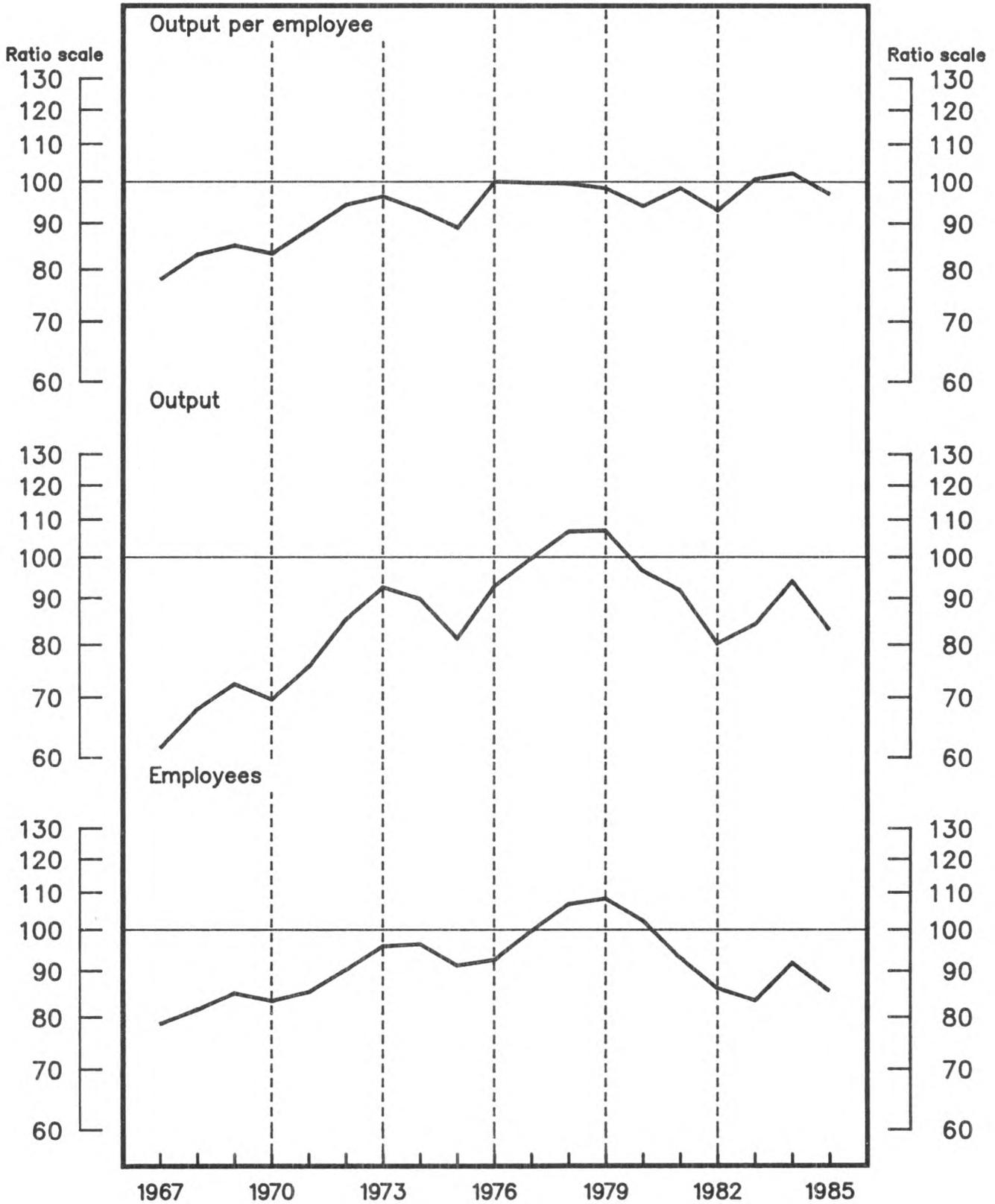
² Less than .05 percent.

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 121. Intercity trucking (SIC 4213, part): Output per employee and related data, 1967-85

(1977=100)



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

Table 237. Intercity trucking (SIC 4213 part)¹: Indexes of output per employee, output, and employees, 1958-85
(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	101.0	84.5	83.7
1984	102.5	94.4	92.1
1985 ²	97.2	83.3	85.7
Average annual percent change:			
1954-85	1.9	4.1	2.2
1980-85	1.0	-1.8	-2.7

¹ Class I and II common and contract carriers.

² Preliminary.

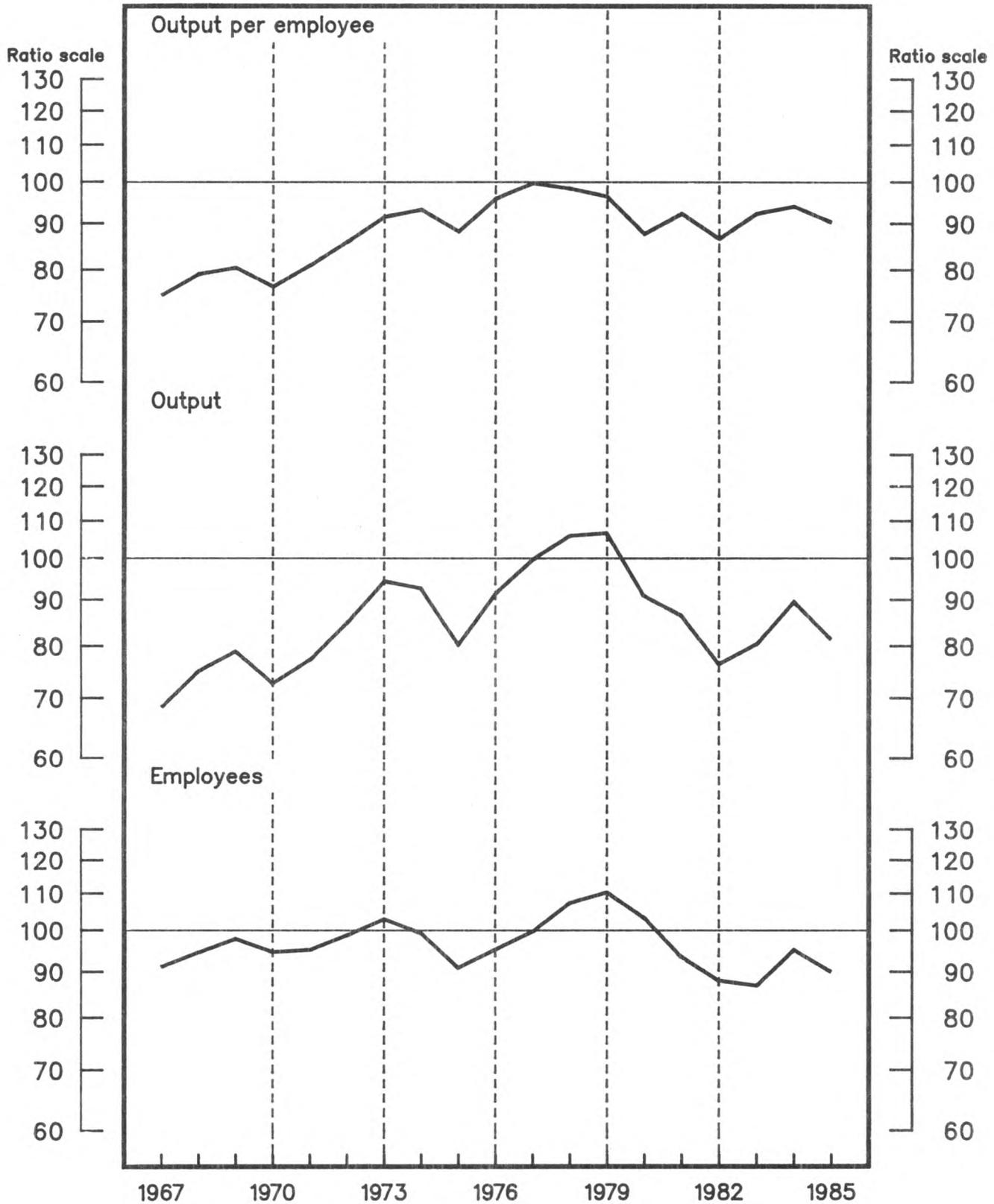
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those

previously published.

SOURCE: Based on data from the Interstate Commerce Commission and Trinc Transportation Consultants, a division of Dunn and Bradstreet, Inc.

Chart 122. Intercity trucking, general freight (SIC 4213, part): Output per employee and related data, 1967-85

(1977=100)



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

Table 238. Intercity trucking, general freight (SIC 4213 part)¹: Indexes of output per employee, output, and employees, 1958-85
(1977 = 100)

Year	Output per employee	Output	Employees
Index:			
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	92.5	80.6	87.1
1984	94.2	89.9	95.4
1985 ²	90.5	81.6	90.2
Average annual percent change:			
1954-85	1.7	3.1	1.4
1980-85	.8	-1.1	-1.8

¹ Class I and II common carriers of general freight.
² Preliminary.

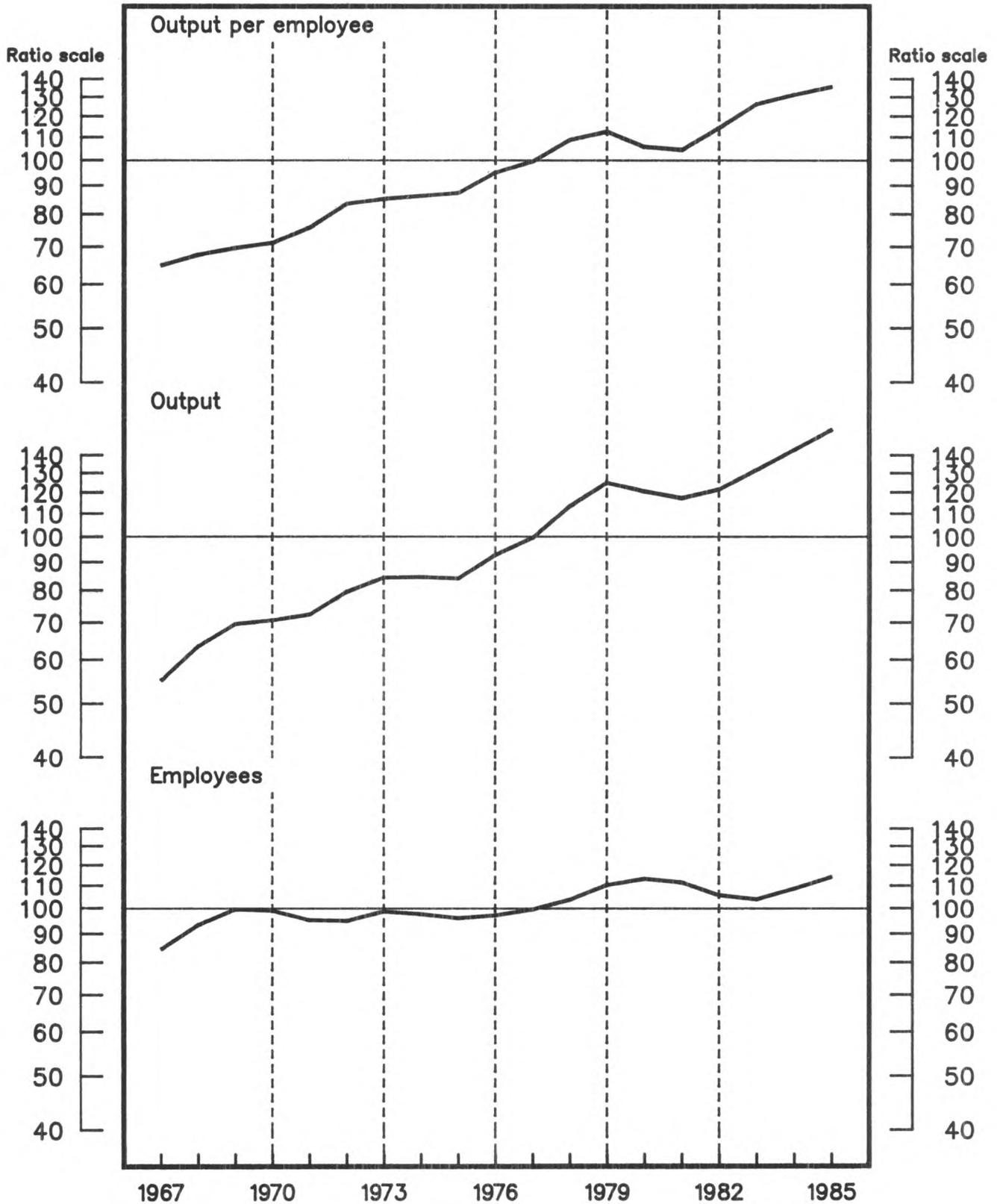
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those

previously published.

SOURCE: Based on data from the Interstate Commerce Commission and Trinc Transportation Consultants, a division of Dunn and Bradstreet, Inc.

Chart 123. Air transportation (SIC 4511, 4521, part): Output per employee and related data, 1967-85

(1977=100)



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

Table 239. Air transportation (SIC 4511, 4521 part)¹: Indexes of output per employee, output, and employees, 1958-85.
(1977 = 100)

Year	Output per employee	Output	Employees
Index:			
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	114.9	122.0	106.2
1983	126.8	132.4	104.4
1984	131.7	143.8	109.2
1985 ²	136.1	156.2	114.8
Average annual percent change:			
1947-85	6.3	10.7	4.2
1980-85	5.9	5.8	-2

¹ Due to airline deregulation, the measures from 1980 forward reflect the inclusion of some noncertificated carriers.

² Preliminary.

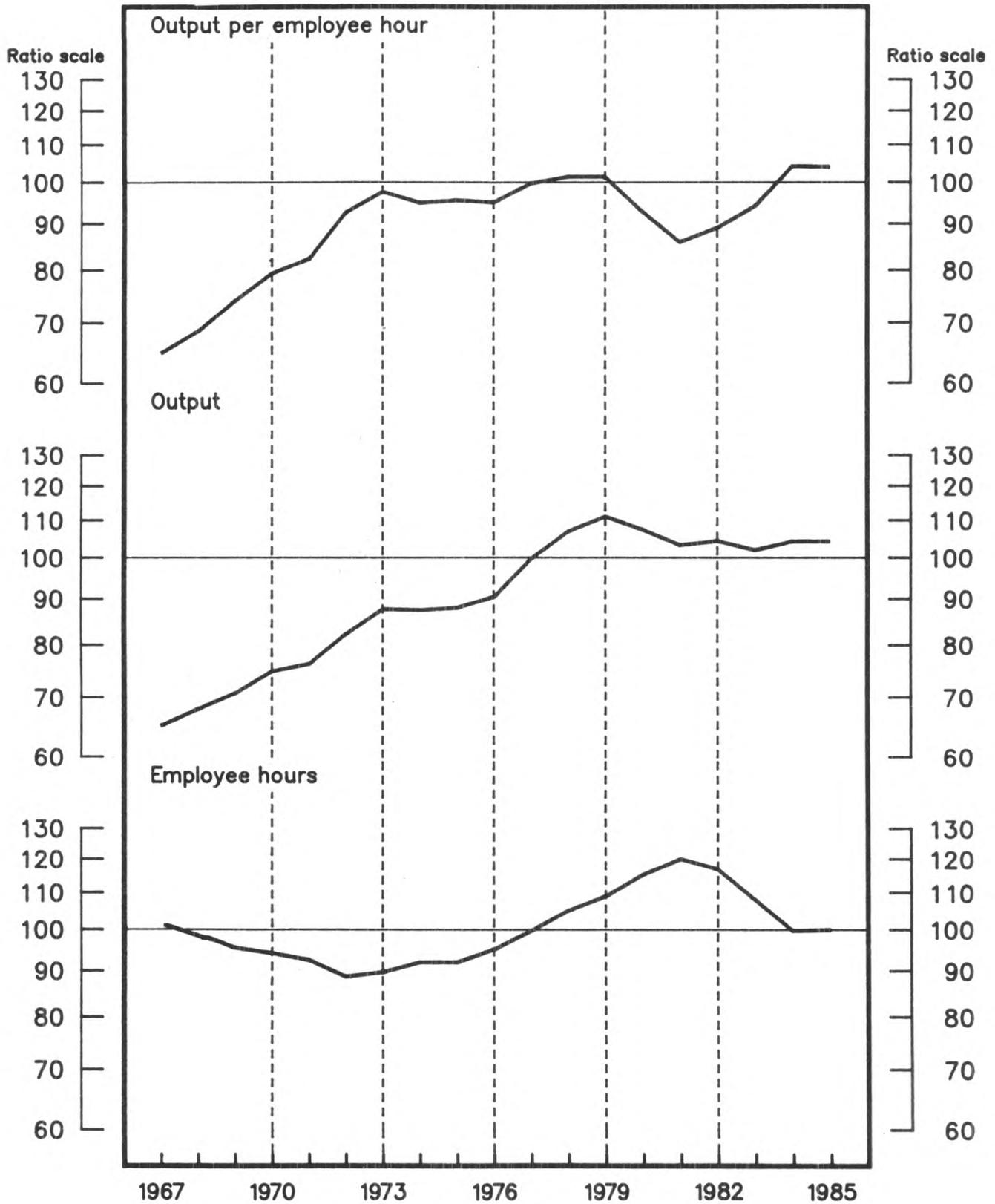
NOTE: Because of periodic revisions in source data,

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 124. Petroleum pipelines (SIC 4612, 4613): Output per hour and related data, 1967-85

(1977 = 100)



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

Table 240. Petroleum pipelines (SIC 4612, 4613): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹		Output per employee ¹	
	All employees	Nonsupervisory workers	All employees	Nonsupervisory workers
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	94.3	98.8	94.1	98.6
1984	104.5	108.6	101.3	105.2
1985 ²	104.3	107.6	102.9	106.1
Average annual percent change:				
1958-85	5.0	6.0	5.1	6.1
1980-85	3.5	3.4	2.7	2.6

¹ 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.

² 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 241. Petroleum pipelines (SIC 4612, 4613): Indexes of output, employee hours, and employees, 1958-85
(1977 = 100)

Year	Output	Employee hours		Employees	
		All employees	Nonsupervisory workers	All employees	Nonsupervisory workers
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	102.2	108.4	103.4	108.6	103.7
1984	104.5	100.0	96.2	103.2	99.3
1985 ¹	104.5	100.2	97.1	101.6	98.5
Average annual percent change:					
1958-85	4.6	-4	-1.3	-5	-1.4
1980-85	-4	-3.8	-3.7	-3.0	-3.0

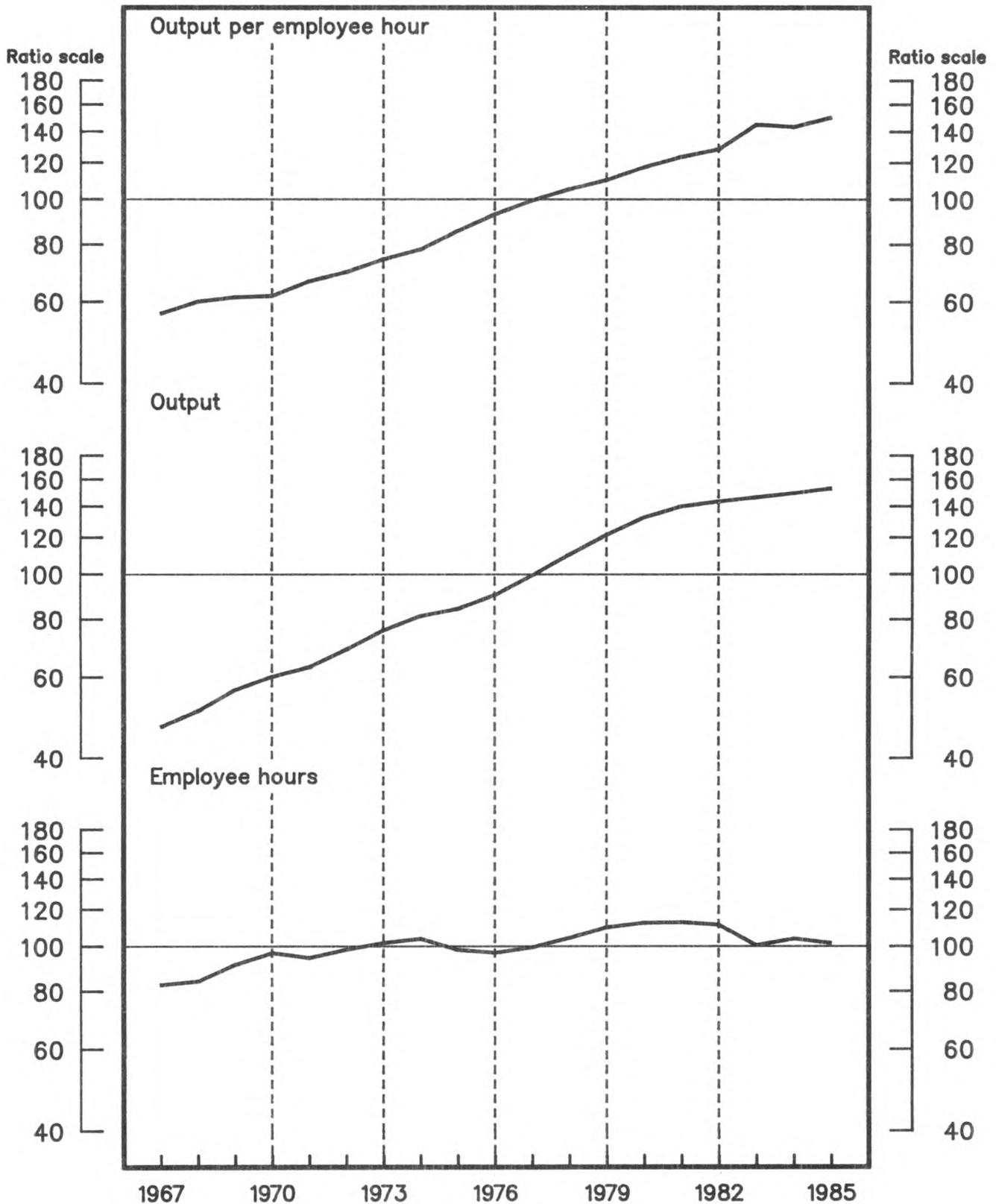
¹ Preliminary.

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 125. Telephone communications (SIC 4811): Output per hour and related data, 1967-85

(1977=100)



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

Table 242. Telephone communications (SIC 4811): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-85
(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	145.7	145.7	147.2	101.0	101.0
1984	144.0	145.8	150.2	104.3	103.0
1985 SOURCE:	150.9	155.5	153.9	102.0	99.0
Average annual percent change:					
1951-85	6.2	6.2	7.9	1.6	1.5
1980-85	5.2	5.7	2.7	-2.4	-2.8

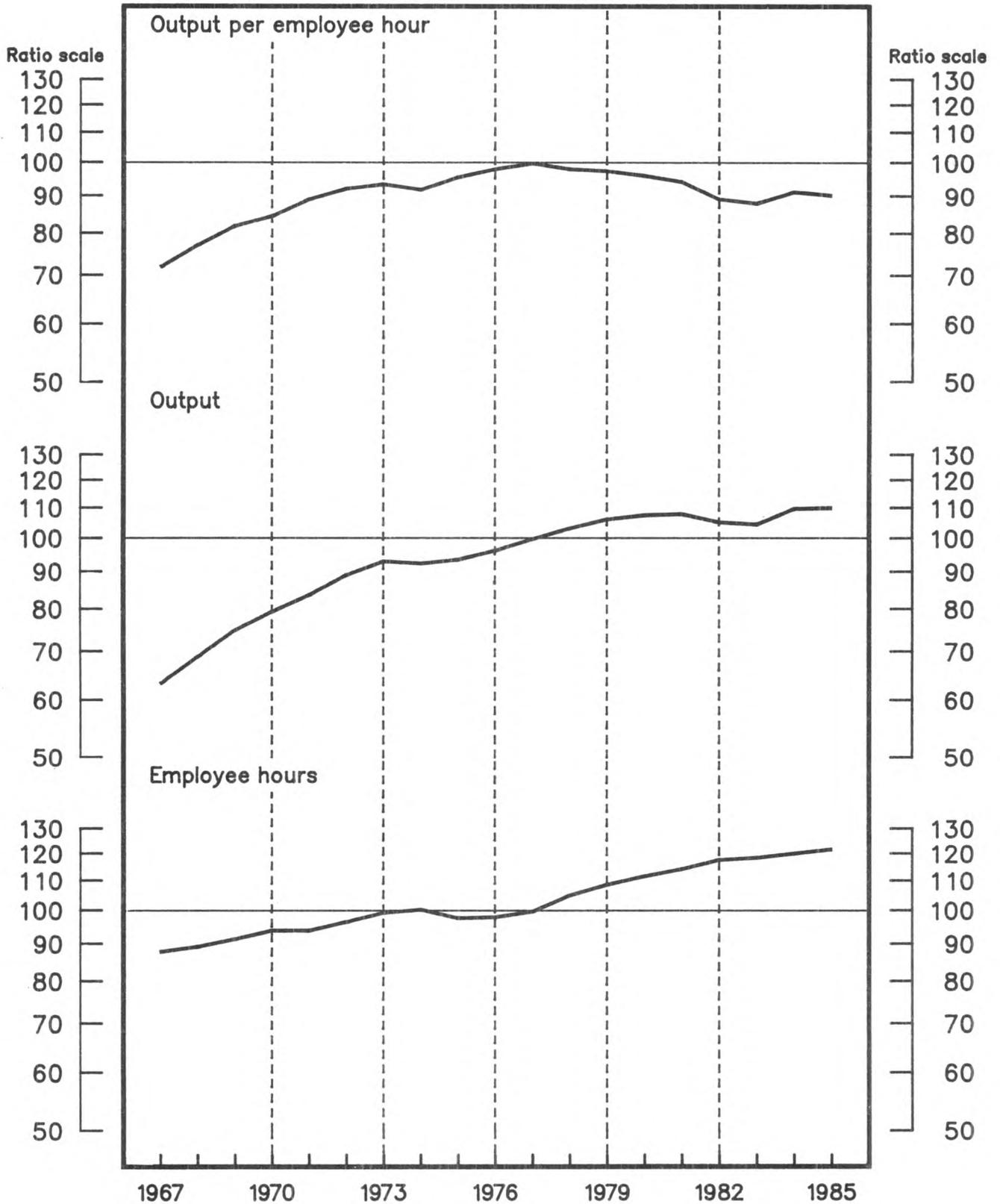
SOURCE: Output based on data from the Federal Communications Commission, the American Telephone and Telegraph Company, the GTE Corporation, and the seven regional operating companies. Employment and hours based on data from the

Bureau of Labor Statistics.

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

Chart 126. Gas and electric utilities (SIC 491, 492, 493): Output per hour and related data, 1967-85

(1977=100)



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

Table 243. Gas and electric utilities (SIC 491, 492, 493): Indexes of output per employee hour and output per employee, 1958-85
(1977 = 100)

Year	Output per hour ¹		Output per employee ¹	
	All employees	Nonsupervisory workers	All employees	Nonsupervisory workers
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	91.4	95.1	92.1	95.7
1985 ²	90.4	94.1	91.3	95.0
Average annual percent change:				
1947-85	4.6	5.1	4.6	5.1
1980-85	-1.2	-5	-1.2	-5

¹ 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.

² 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; the Rural Electrification Administration, U.S. Department of Agriculture; 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.

Table 244. Gas and electric utilities (SIC 491, 492, 493): Indexes of output, employee hours, and employees, 1958-85
(1977 = 100)

Year	Output	Employee hours		Employees	
		All employees	Nonsupervisory workers	All employees	Nonsupervisory workers
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	86.0	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	110.0	120.4	115.7	119.5	114.9
1985 ¹	110.3	122.0	117.2	120.8	116.1
Average annual percent change:					
1947-85	5.9	1.2	.8	1.2	.8
1980-85 .....	.5	1.7	1.0	1.7	1.0

¹ Preliminary.

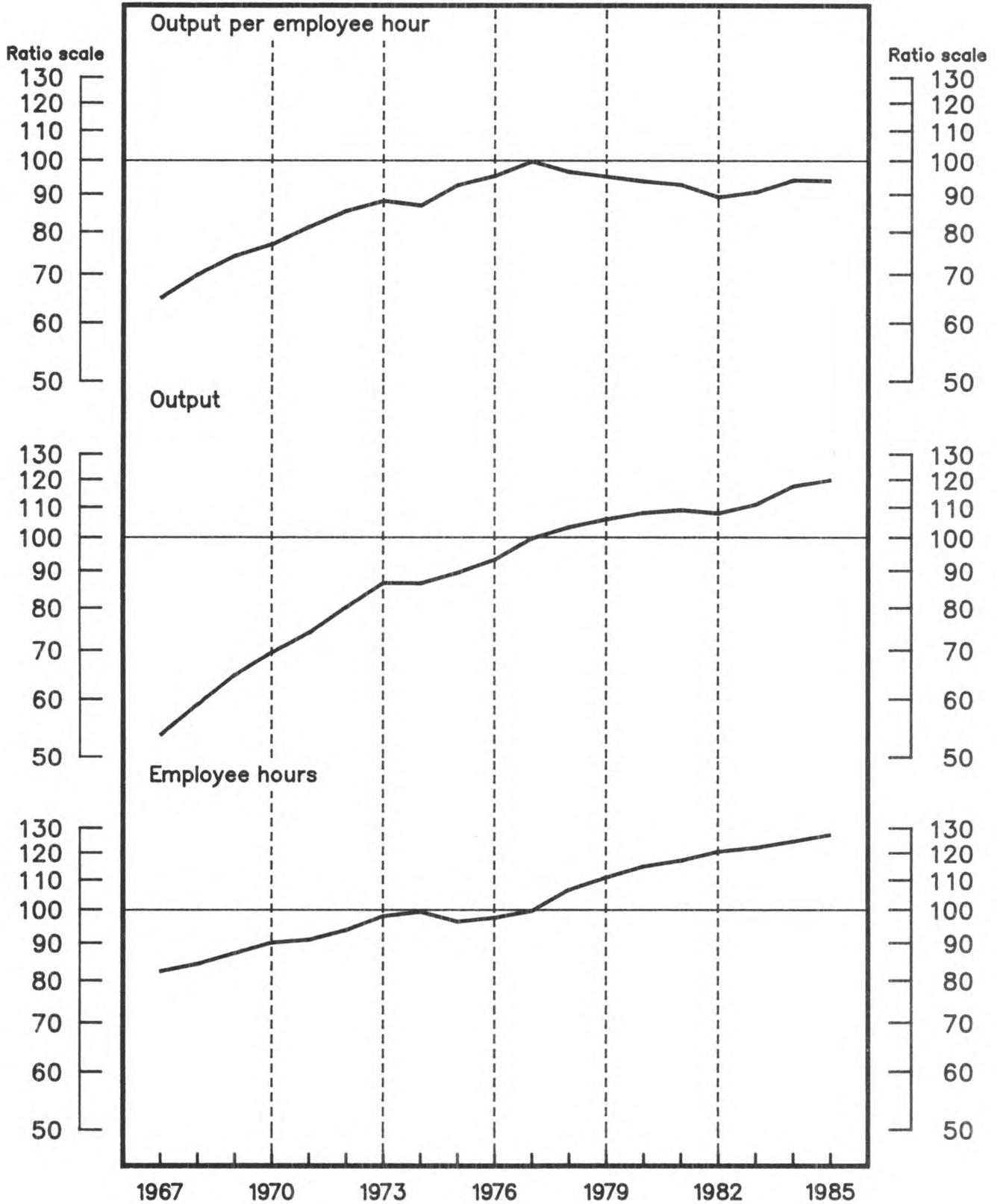
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the American Gas Association; the Rural

Electrification Administration, U.S. Department of Agriculture; 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.

Chart 127. Electric utilities (SIC 491, 493, part): Output per hour and related data, 1967-85

(1977=100)



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

Table 245. Electric utilities (SIC 491, 493 part): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-85
(1977 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
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	94.4	95.0	117.9	124.9	124.1
1985 ¹	94.2	95.4	120.2	127.6	126.0
Average annual percent change:					
1958-85	3.7	3.8	5.8	2.0	2.0
1980-85 .....	.2	.1	2.2	2.0	2.1

¹ Preliminary.

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

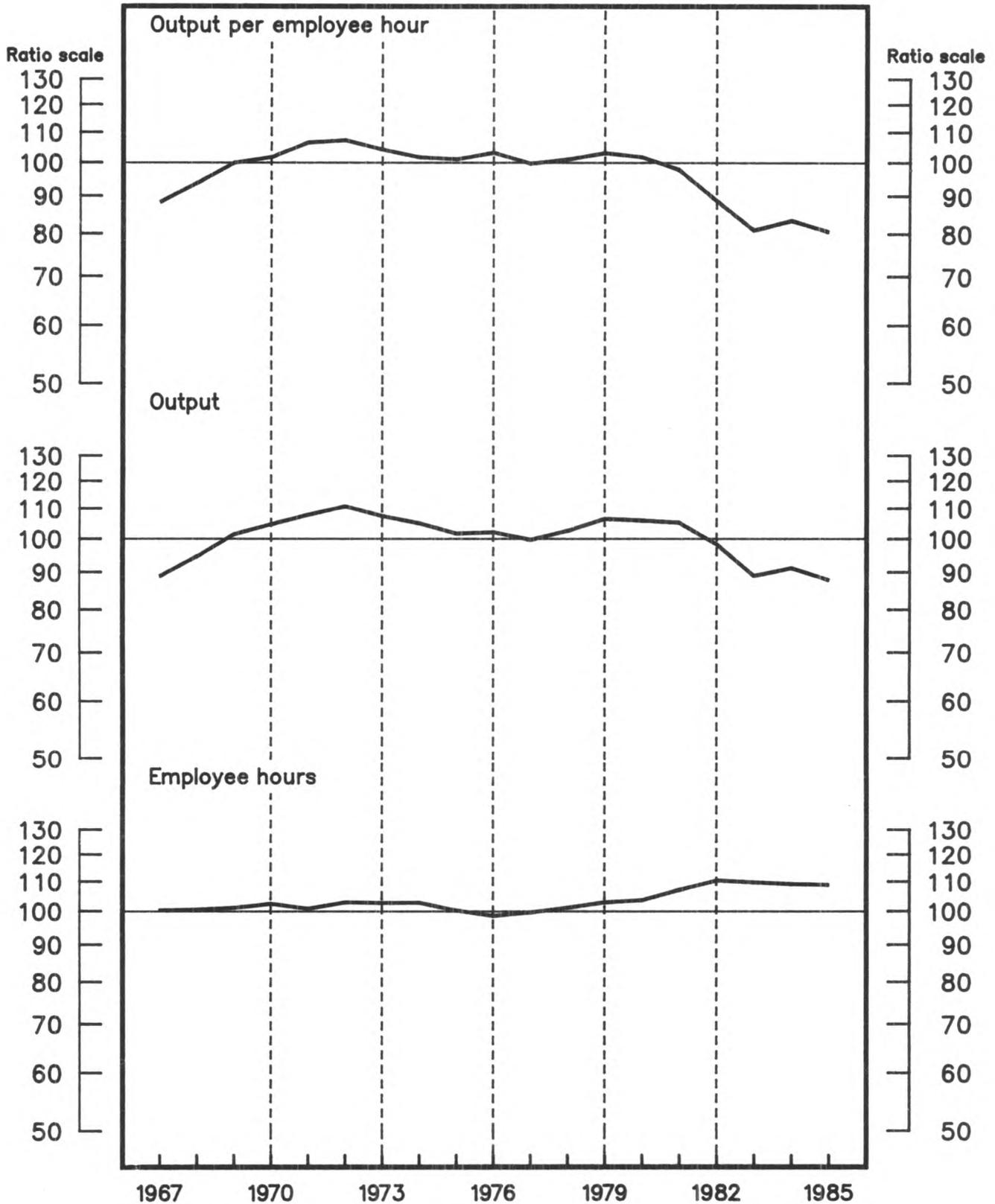
SOURCE: Output based on data from the Rural Electrification Administration, U.S.

Department of Agriculture; and the Energy Information Administration, U.S.

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

Chart 128. Gas utilities (SIC 492, 493, part): Output per hour and related data, 1967-85

(1977=100)



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

Table 246. Gas utilities (SIC 492, 493 part): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-85
(1977 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
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	83.6	84.3	91.5	109.5	108.5
1985 ¹	80.7	81.2	88.1	109.2	108.5
Average annual percent change:					
1958-85	1.5	1.5	1.9	.3	.3
1980-85	-4.9	-4.7	-4.1	.8	.7

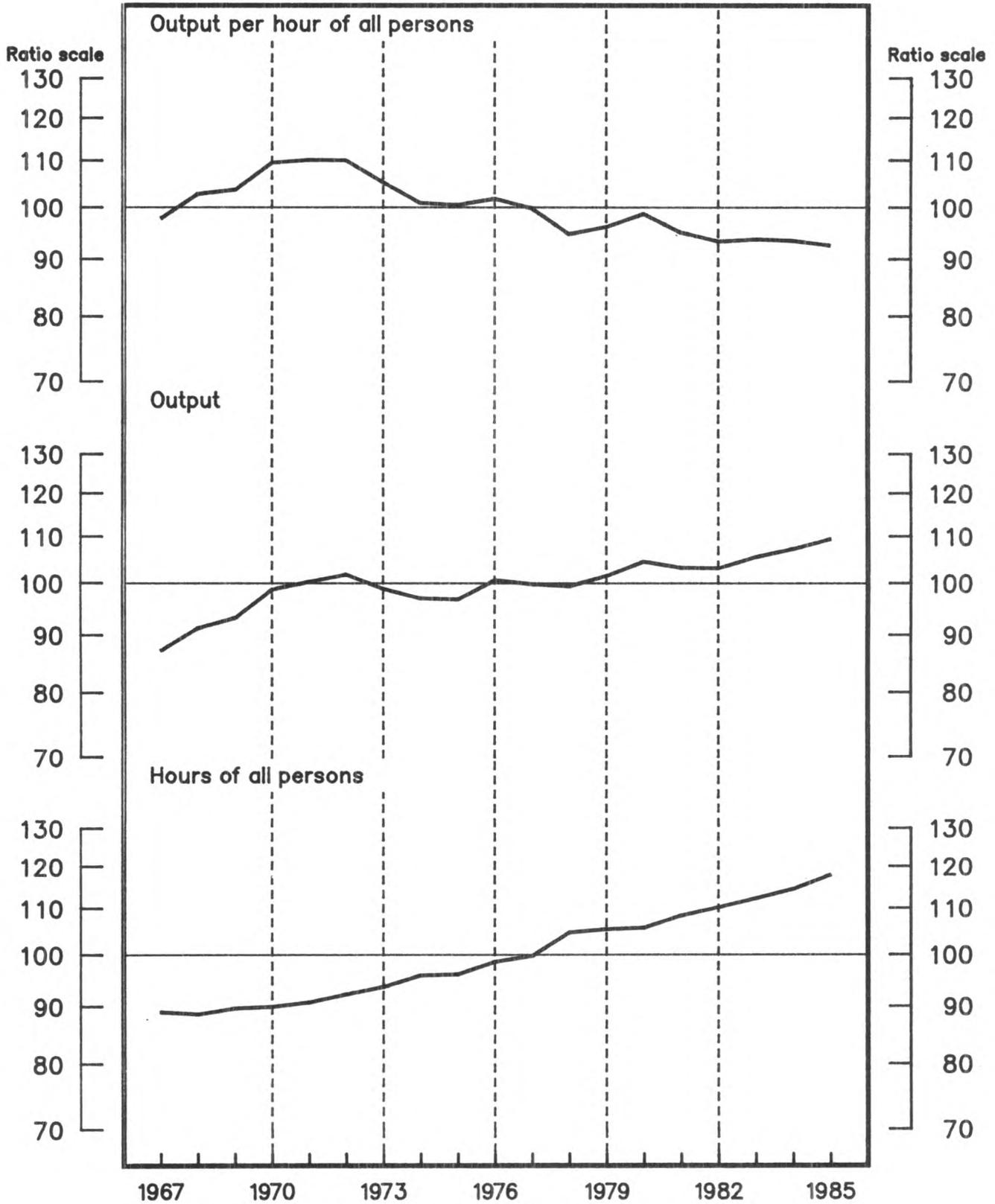
¹ Preliminary.

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 129. Retail food stores (SIC 54): Output per hour and related data, 1967-85

(1977=100)



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

Table 247. Retail food stores (SIC 54): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1958-85
(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	94.9	94.4	99.6	104.9	105.5
1979	96.3	94.3	101.7	105.6	107.9
1980	98.9	94.4	104.7	105.9	110.9
1981	95.2	90.6	103.4	108.6	114.1
1982	93.5	88.7	103.3	110.5	116.4
1983	93.9	88.9	105.7	112.6	118.9
1984 ²	93.6	88.0	107.4	114.8	122.1
1985 ²	92.7	86.0	109.6	118.2	127.4
Average annual percent change:					
1958-85 .....	.7	-.3	1.6	.9	1.9
1980-85	-1.1	-1.6	1.0	2.1	2.7

¹ All persons include paid employees, unpaid family workers, and the self-employed.

² Preliminary.

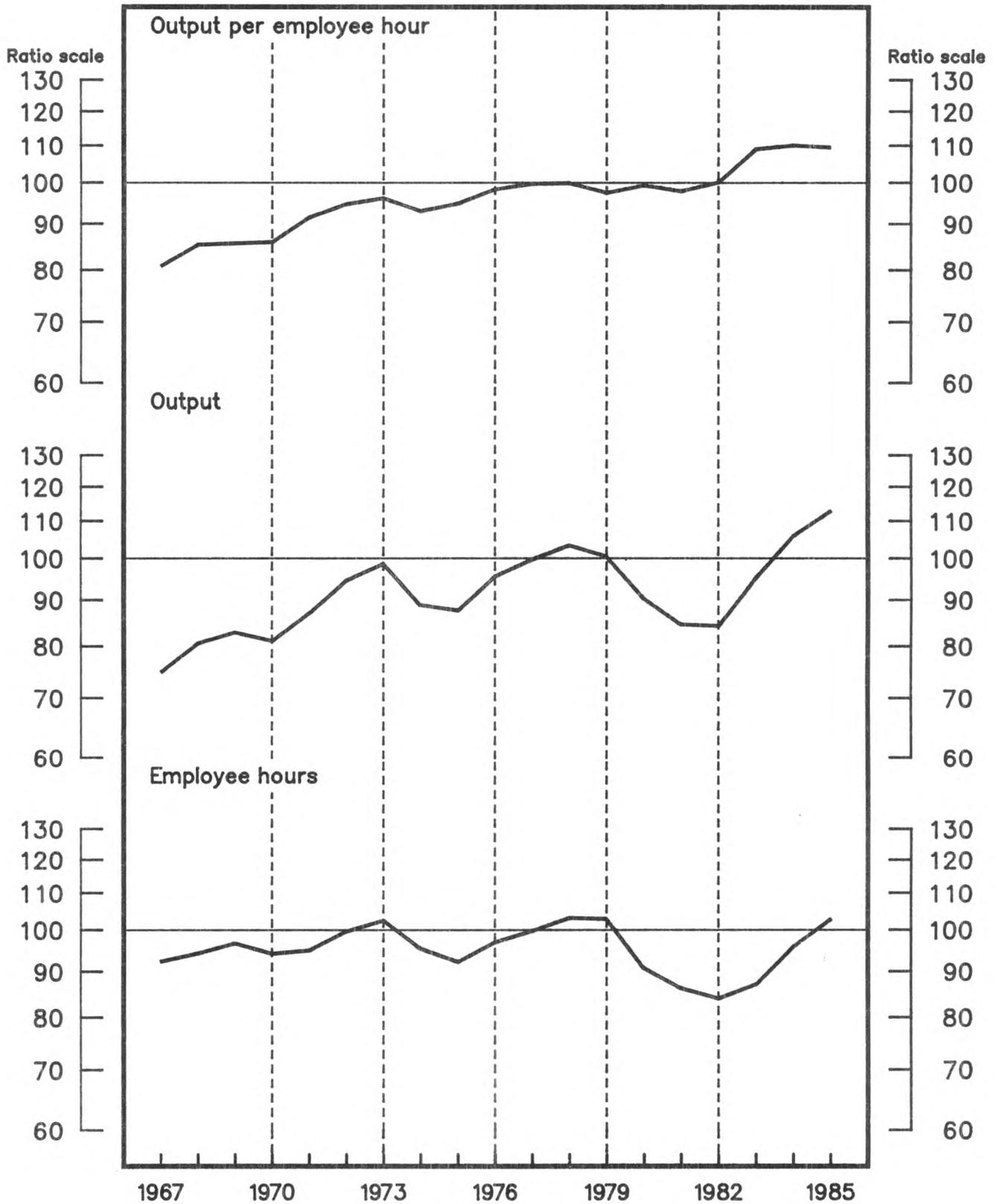
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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 130. Franchised new car dealers (SIC 5511): Output per hour and related data, 1967-85

(1977=100)



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

Table 248. Franchised new car dealers (SIC 5511): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-85
(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	88.0	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	100.2	98.9	103.6	103.4	104.7
1979	97.7	96.6	100.7	103.1	104.2
1980	99.6	97.5	90.6	91.0	92.9
1981	98.1	96.1	84.8	86.4	88.2
1982	100.4	97.6	84.5	84.2	86.6
1983	109.4	106.0	95.5	87.3	90.1
1984	110.4	107.1	106.1	96.1	99.1
1985 ¹	109.8	106.1	113.1	103.0	106.6
Average annual percent change:					
1958-85	1.9	1.2	2.3	.4	1.1
1980-85	2.7	2.4	5.6	2.8	3.1

¹ Preliminary.

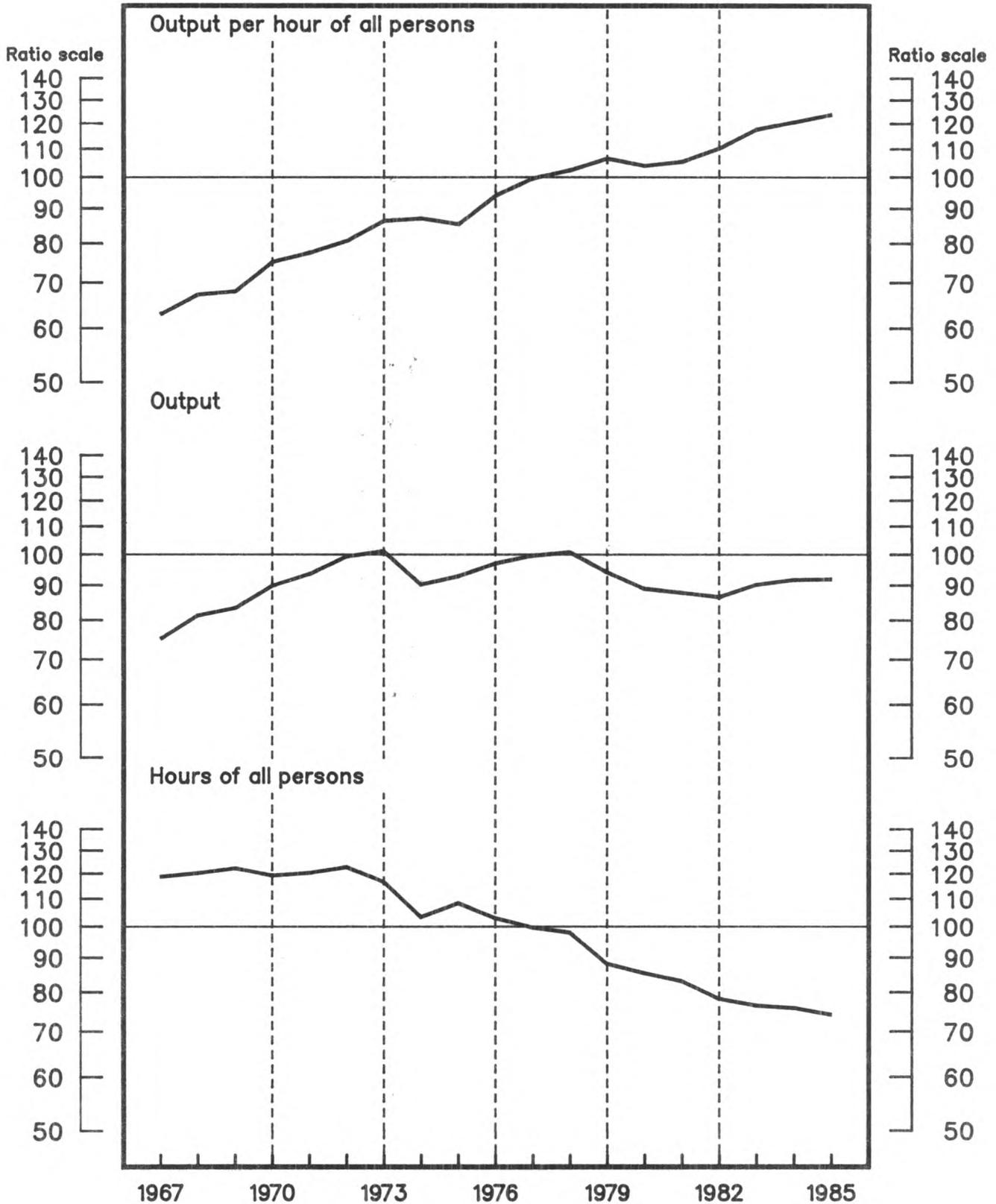
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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 131. Gasoline service stations (SIC 5541): Output per hour and related data, 1967-85

(1977=100)



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

Table 249. Gasoline service stations (SIC 5541): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1958-85
(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	118.1	112.7	90.6	76.7	80.4
1984 ²	121.0	114.3	92.1	76.1	80.6
1985 ²	124.1	114.7	92.3	74.4	80.5
Average annual percent change:					
1958-85	3.7	2.5	2.1	-1.6	-.4
1980-85	3.9	2.8	1.0	-2.8	-1.7

¹ All persons include paid employees, unpaid family workers, and the self-employed.

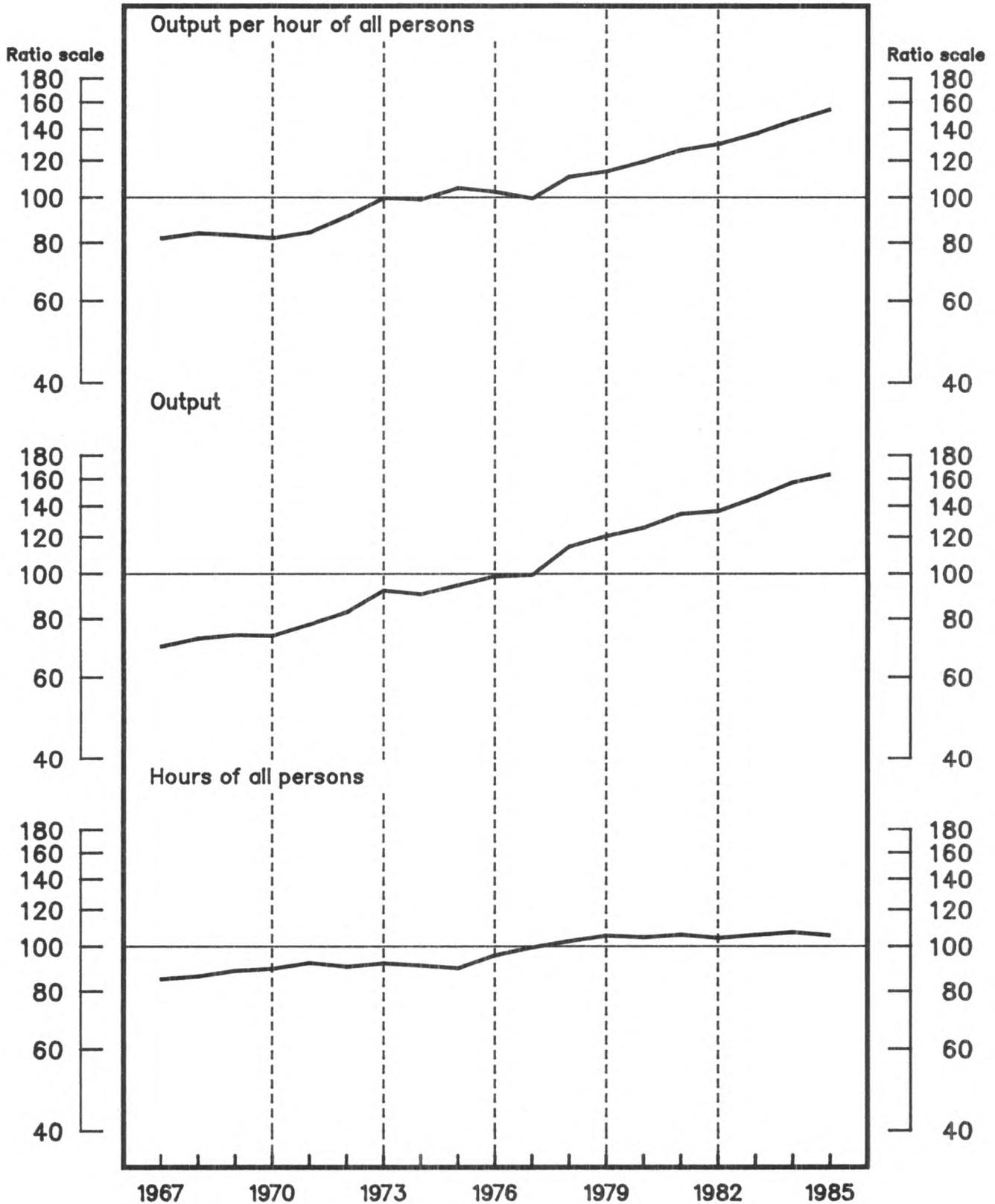
² Preliminary.

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. Apparel and accessory stores (SIC 56): Output per hour and related data, 1967-85

(1977=100)



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

Table 250. 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,¹ 1967-85
(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	137.8	132.5	146.5	106.3	110.6
1984 ²	146.8	141.2	158.1	107.7	112.0
1985 ²	155.2	145.8	164.5	106.0	112.8
Average annual percent change:					
1967-85	3.6	3.0	5.0	1.4	2.0
1980-85	5.2	4.6	5.5	.3	.9

¹ All persons include paid employees, unpaid family workers, and the self-employed.

² Preliminary.

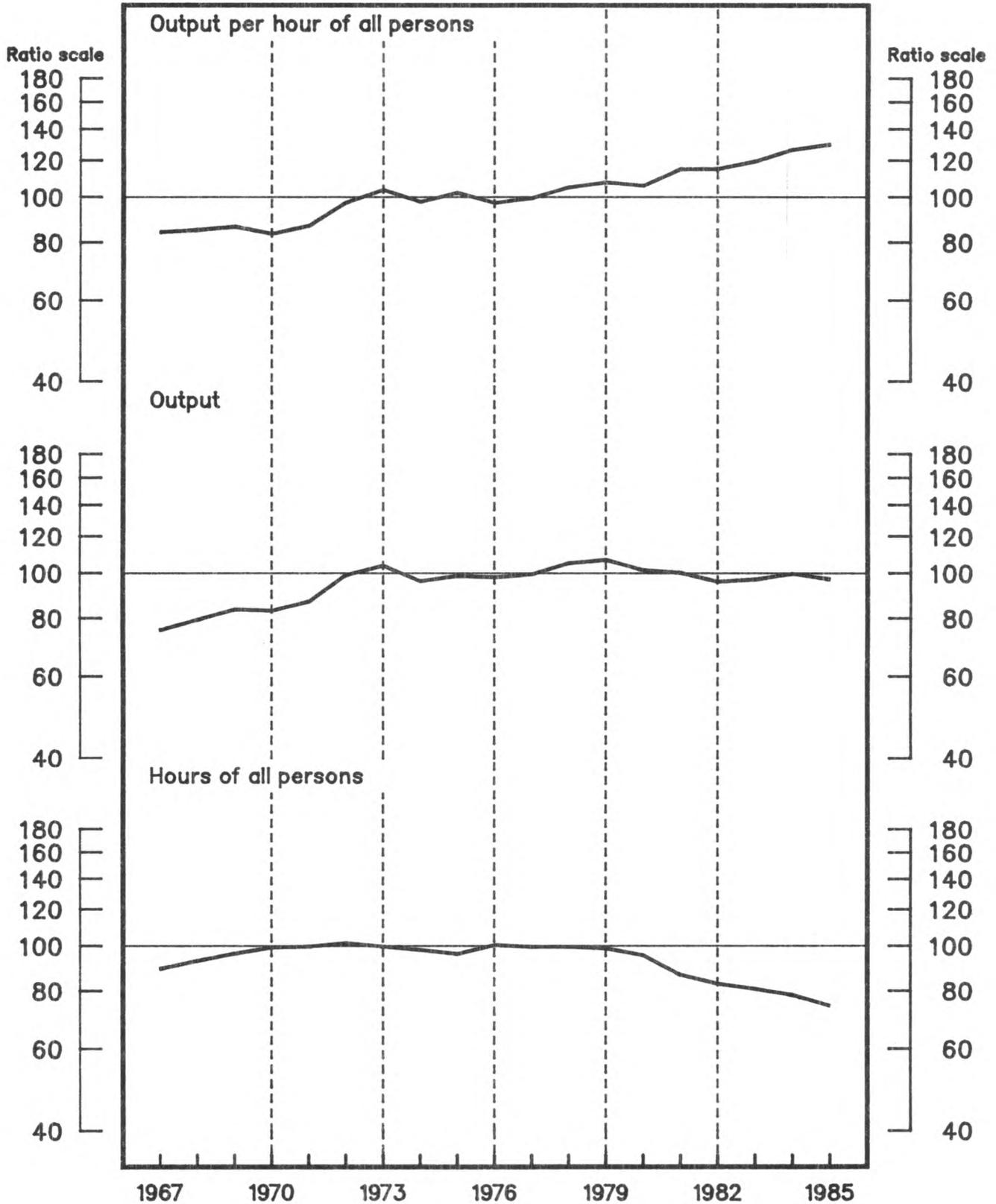
NOTE: Because of periodic revisions in source data, the measures in this table

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 133. Men's and boys' clothing stores (SIC 5611): Output per hour and related data, 1967-85

(1977=100)



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

Table 251. 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,¹ 1967-85
(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	120.1	115.7	97.5	81.2	84.3
1984 ²	127.2	122.2	100.2	78.8	82.0
1985 ²	130.5	123.3	97.5	74.7	79.1
Average annual percent change:					
1967-85	2.4	1.9	1.2	-1.1	-.6
1980-85	3.9	3.0	-.7	-4.4	-3.6

¹ All persons include paid employees, unpaid family workers, and the self-employed.

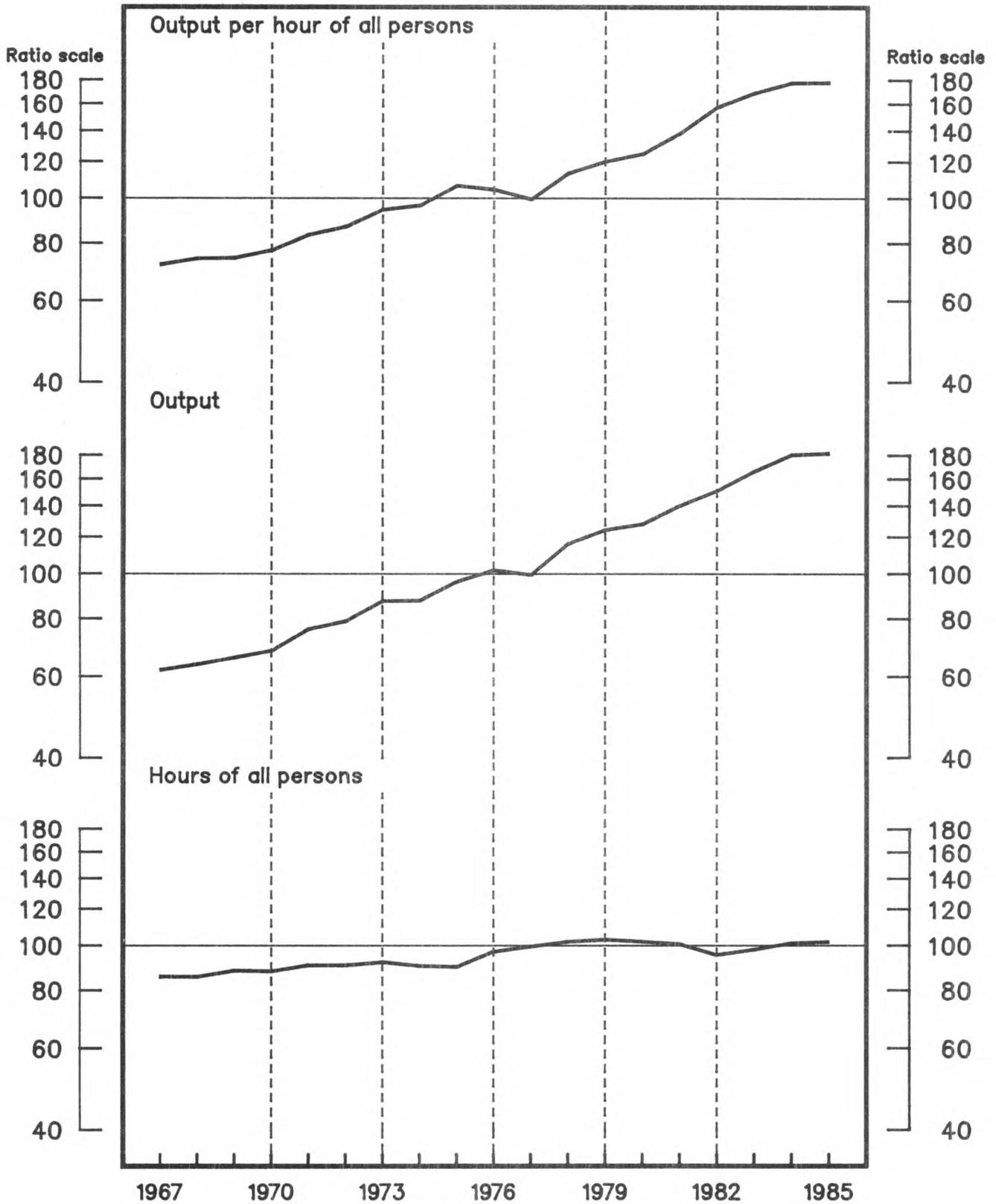
² Preliminary.

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. Women's ready-to-wear stores (SIC 5621): Output per hour and related data, 1967-85

(1977=100)



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

Table 252. 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,¹ 1967-85
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
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	169.7	162.6	167.2	98.5	102.8
1984 ²	178.4	171.3	181.4	101.7	105.9
1985 ²	178.6	167.2	182.7	102.3	109.3
Average annual percent change:					
1967-85	5.4	4.6	6.5	1.0	1.8
1980-85	7.7	7.3	7.8	.1	.4

¹ All persons include paid employees, unpaid family workers, and the self-employed.

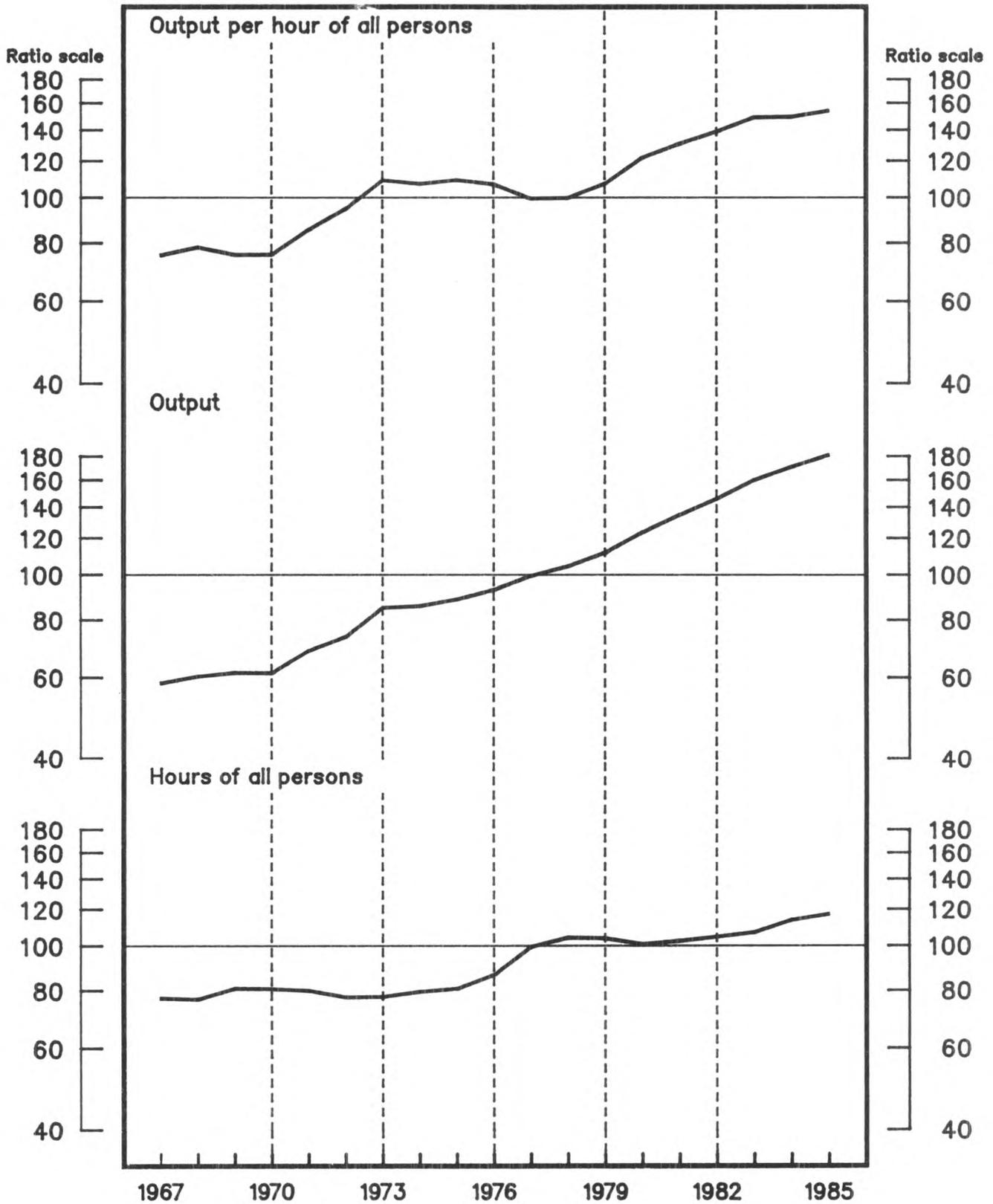
² Preliminary.

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 135. Family clothing stores (SIC 5651): Output per hour and related data, 1967-85

(1977=100)



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

Table 253. Family clothing stores (SIC 5651): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1967-85
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index					
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	106.1
1982	139.6	134.2	146.6	105.0	109.2
1983	149.6	141.8	160.9	107.4	113.5
1984 ²	150.2	142.3	171.7	114.3	120.7
1985 ²	154.8	143.7	182.2	117.7	126.6
Average annual percent change:					
1967-85	4.1	3.2	6.7	2.5	3.4
1980-85	4.8	4.5	8.1	3.2	3.5

¹ All persons include paid employees, unpaid family workers, and the self-employed.

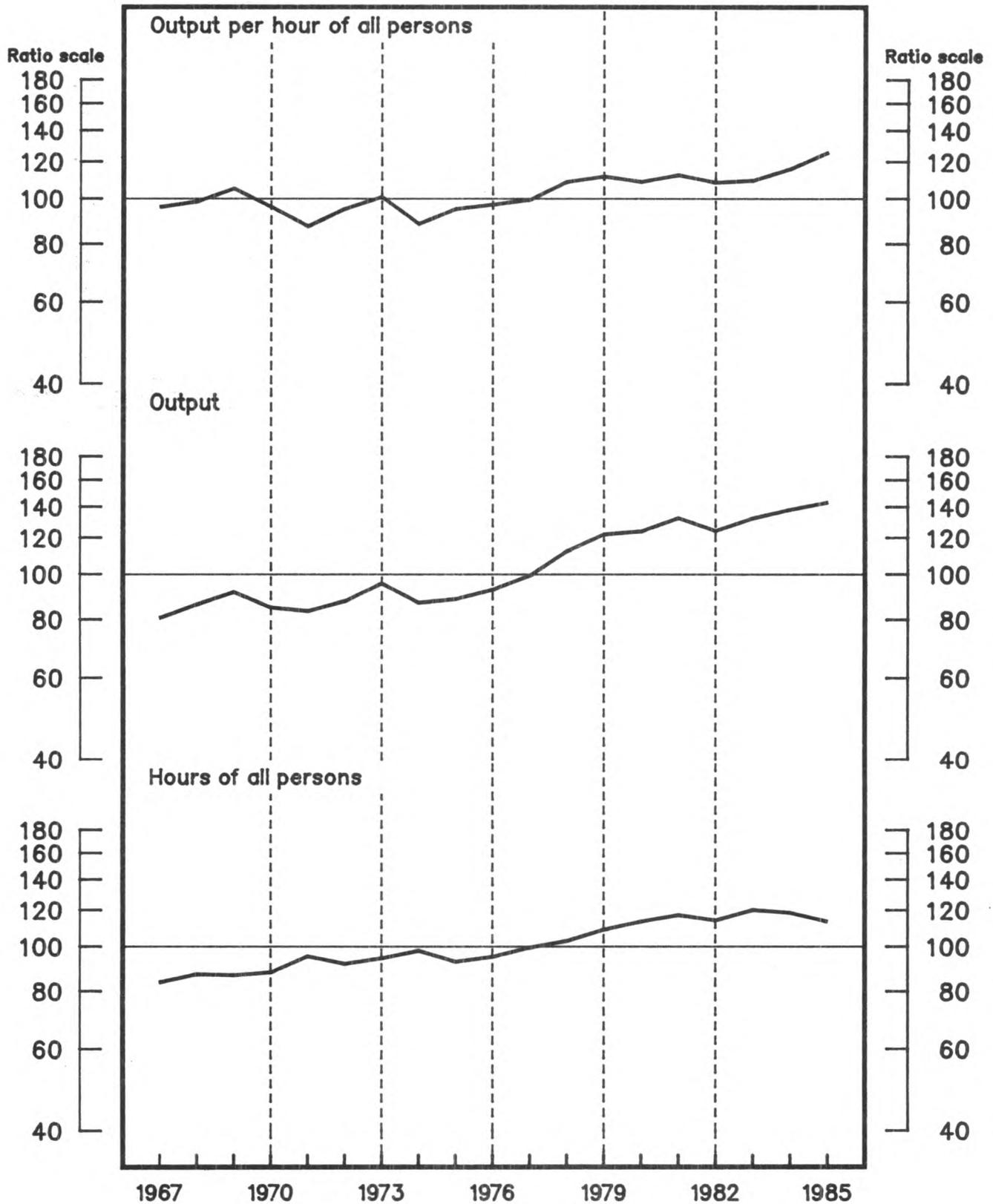
² Preliminary.

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 136. Shoe stores (SIC 5661): Output per hour and related data, 1967-85

(1977 = 100)



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

Table 254. Shoe stores (SIC 5661): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1967-85
(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	110.0	106.9	132.9	120.8	124.3
1984 ²	116.5	112.3	138.7	119.1	123.5
1985 ²	126.3	119.3	143.8	113.9	120.5
Average annual percent change:					
1967-85	1.3	.9	3.4	2.0	2.5
1980-85	2.4	1.6	2.6	.3	1.0

¹ All persons include paid employees, unpaid family workers, and the self-employed.

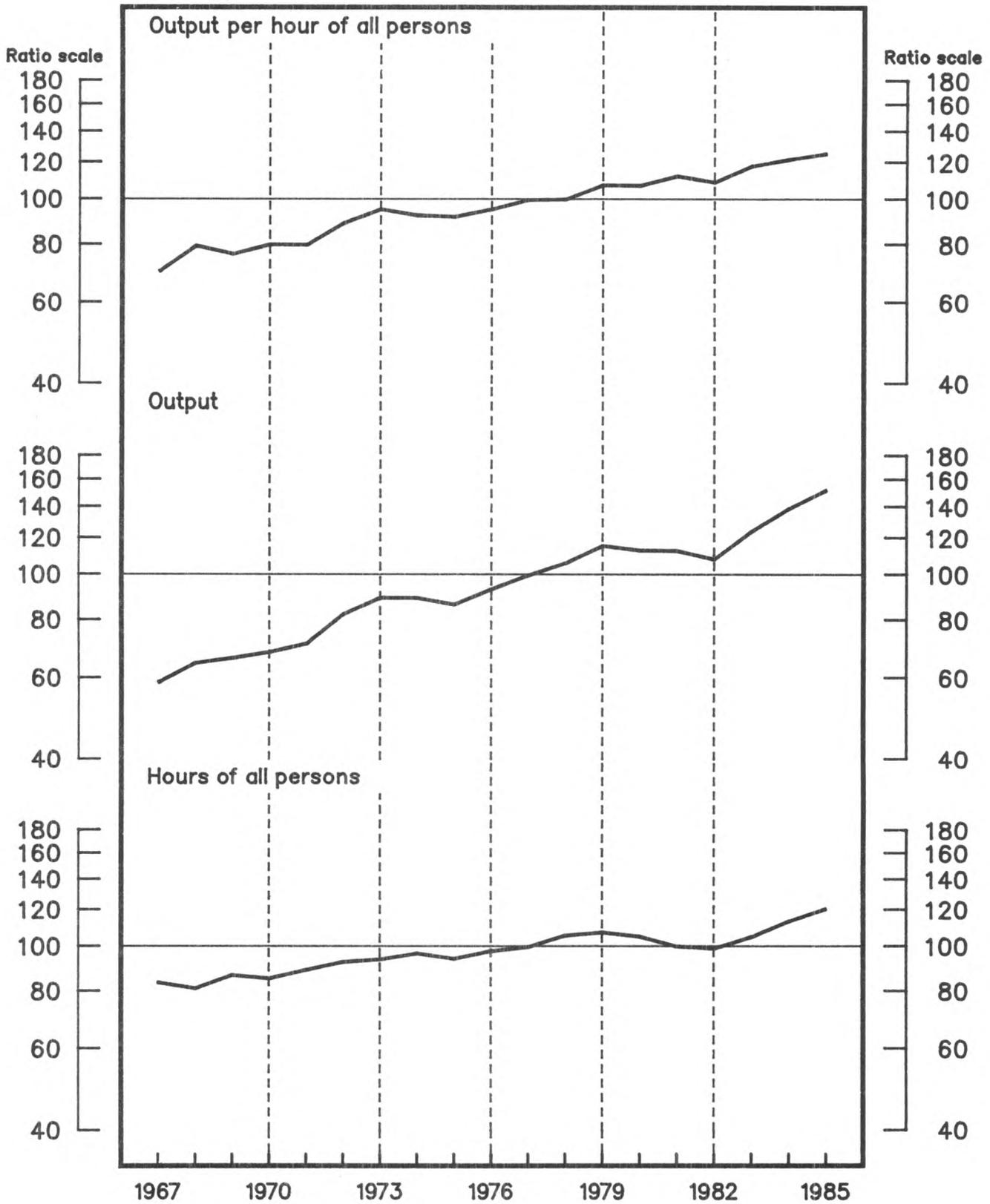
² Preliminary.

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 137. Furniture, home furnishings, and equipment stores (SIC 57):
Output per hour and related data, 1967-85**

(1977=100)



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

Table 255. Furniture, home furnishings, and equipment stores (SIC 57): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1967-85
(1977 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1967	70.2	75.8	58.8	83.8	77.6
1968	79.6	82.9	64.8	81.4	78.2
1969	76.5	79.9	66.5	86.9	83.2
1970	80.1	82.6	68.5	85.5	82.9
1971	80.0	83.3	71.4	89.2	85.7
1972	89.1	91.9	82.7	92.8	90.0
1973	95.3	96.4	89.6	94.0	92.9
1974	92.5	94.0	89.5	96.8	95.2
1975	91.9	93.8	86.7	94.3	92.4
1976	95.3	96.7	93.4	98.0	96.6
1977	100.0	100.0	100.0	100.0	100.0
1978	100.3	101.0	106.2	105.9	105.2
1979	107.6	107.4	115.7	107.5	107.7
1980	107.4	106.0	113.1	105.3	106.7
1981	112.6	110.0	112.9	100.3	102.6
1982	109.2	105.5	108.3	99.2	102.7
1983	118.4	116.2	124.4	105.1	107.1
1984 ²	122.4	119.1	139.2	113.7	116.9
1985 ²	125.9	121.9	152.5	121.1	125.1
Average annual percent change:					
1967-85	3.0	2.4	4.8	1.8	2.3
1980-85	3.3	3.0	6.7	3.3	3.6

¹ All persons include paid employees, unpaid family workers, and the self-employed.

² Preliminary.

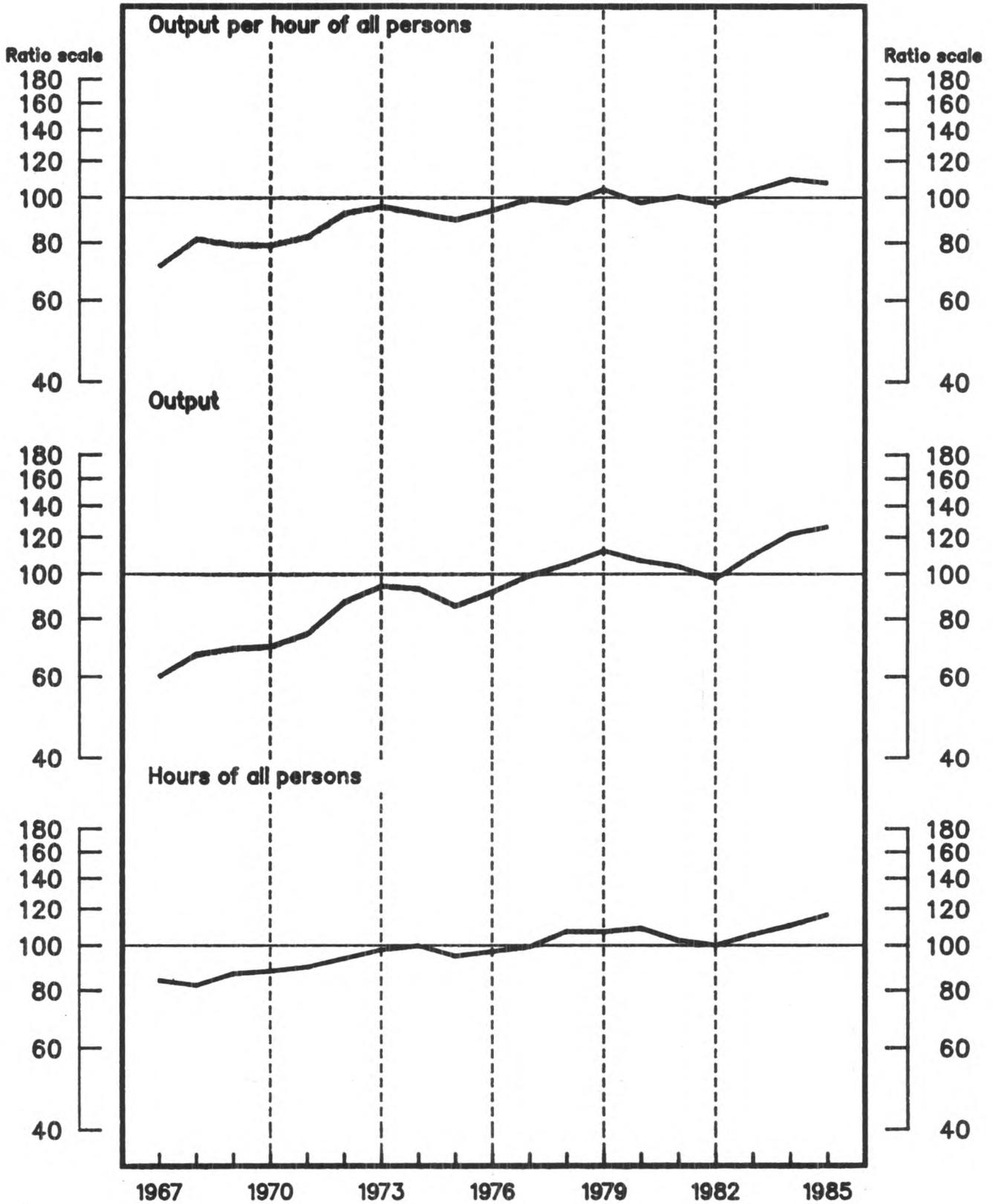
NOTE: Because of periodic revisions in source data, the measures in this table

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 138. Furniture and home furnishings stores (SIC 571): Output per hour and related data, 1967-85

(1977=100)



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

Table 256. Furniture and home furnishings stores (SIC 571): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1967-85
(1977 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1967	71.5	77.1	60.4	84.5	78.3
1968	81.8	85.1	67.5	82.5	79.3
1969	79.5	82.3	69.5	87.4	84.4
1970	79.3	82.1	70.2	88.5	85.5
1971	82.8	85.8	74.8	90.3	87.2
1972	93.0	95.7	87.6	94.2	91.5
1973	96.3	98.4	94.7	98.3	96.2
1974	93.1	95.5	93.5	100.4	97.9
1975	90.1	92.6	85.9	95.3	92.8
1976	94.4	95.8	92.0	97.5	96.0
1977	100.0	100.0	100.0	100.0	100.0
1978	97.9	98.7	105.4	107.7	106.8
1979	104.8	103.8	112.8	107.6	108.7
1980	98.0	97.6	107.3	109.5	109.9
1981	101.2	100.0	104.3	103.1	104.3
1982	97.6	94.2	98.2	100.6	104.2
1983	104.1	102.1	110.4	106.1	108.1
1984 ²	110.3	107.2	122.4	111.0	114.2
1985 ²	108.2	106.0	126.8	117.2	119.6
Average annual percent change:					
1967-85	1.9	1.4	3.6	1.6	2.1
1980-85	2.4	2.0	4.2	1.8	2.1

¹ All persons include paid employees, unpaid family workers, and the self-employed.

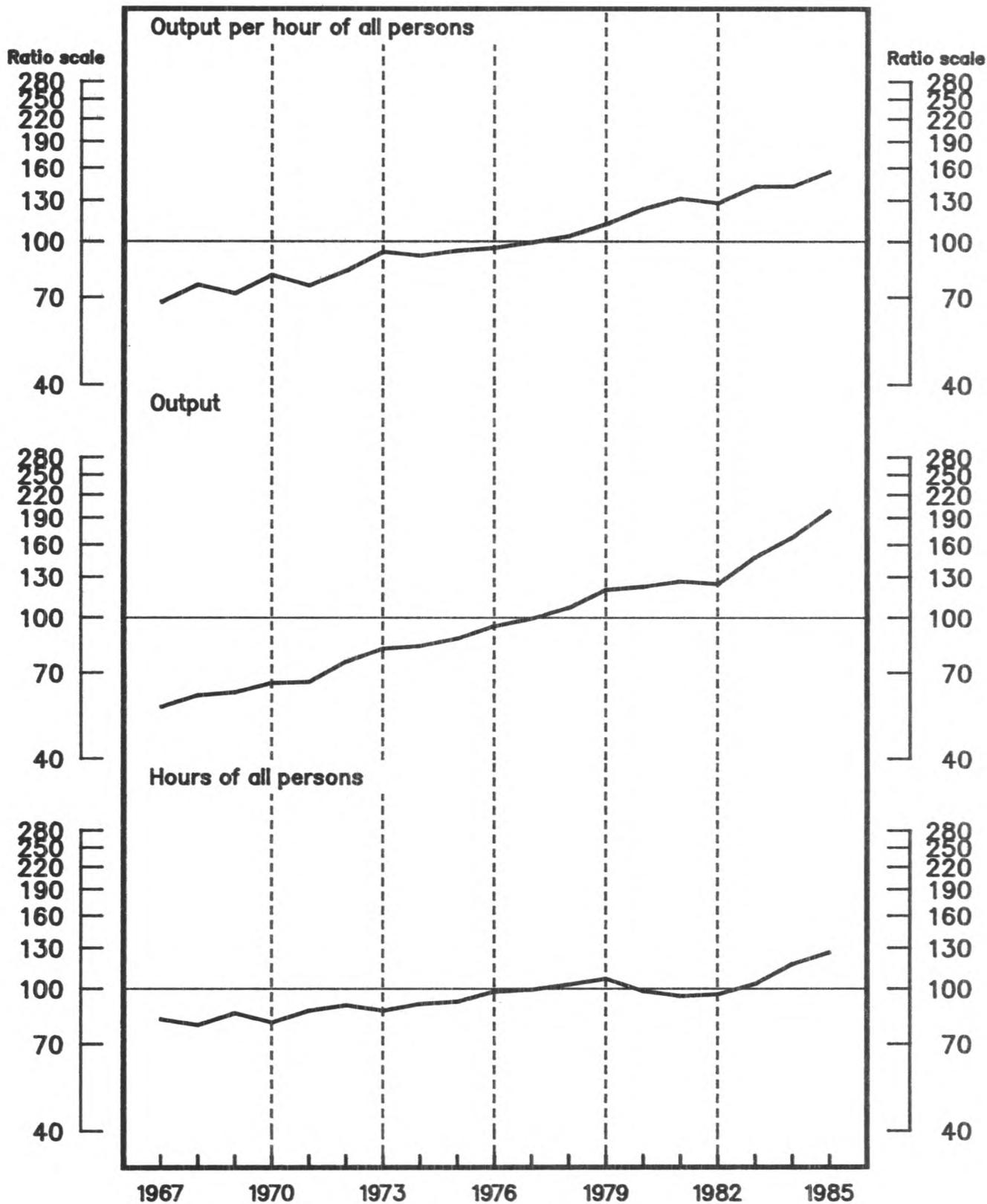
² Preliminary.

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 139. Appliance, radio, television and music stores (SIC 572, 573):
Output per hour and related data, 1967-85**

(1977=100)



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

Table 257. Appliance, radio, television, and music stores (SIC 572, 573): indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1967-85 (1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1967	68.2	74.0	56.5	82.8	76.4
1968	76.3	79.5	60.9	79.8	76.6
1969	72.1	76.3	62.1	86.1	81.4
1970	81.2	83.6	65.9	81.2	78.8
1971	75.9	79.7	66.4	87.5	83.3
1972	83.4	86.2	75.6	90.6	87.7
1973	94.1	93.7	82.3	87.5	87.8
1974	91.8	92.0	83.8	91.3	91.1
1975	94.8	95.6	87.9	92.7	91.9
1976	96.5	97.7	95.3	98.8	97.5
1977	100.0	100.0	100.0	100.0	100.0
1978	104.0	104.6	107.4	103.3	102.7
1979	112.4	113.5	120.5	107.2	106.2
1980	124.0	120.6	122.9	99.1	101.9
1981	132.5	127.1	127.2	96.0	100.1
1982	128.7	124.4	125.0	97.1	100.5
1983	143.3	140.7	148.7	103.8	105.7
1984 ²	143.4	139.5	168.9	117.8	121.1
1985 ²	157.6	149.8	200.1	127.0	133.6
Average annual percent change:					
1967-85	4.6	3.9	6.6	2.0	2.6
1980-85	4.5	4.3	10.4	5.6	5.8

¹ All persons include paid employees, unpaid family workers, and the self-employed.

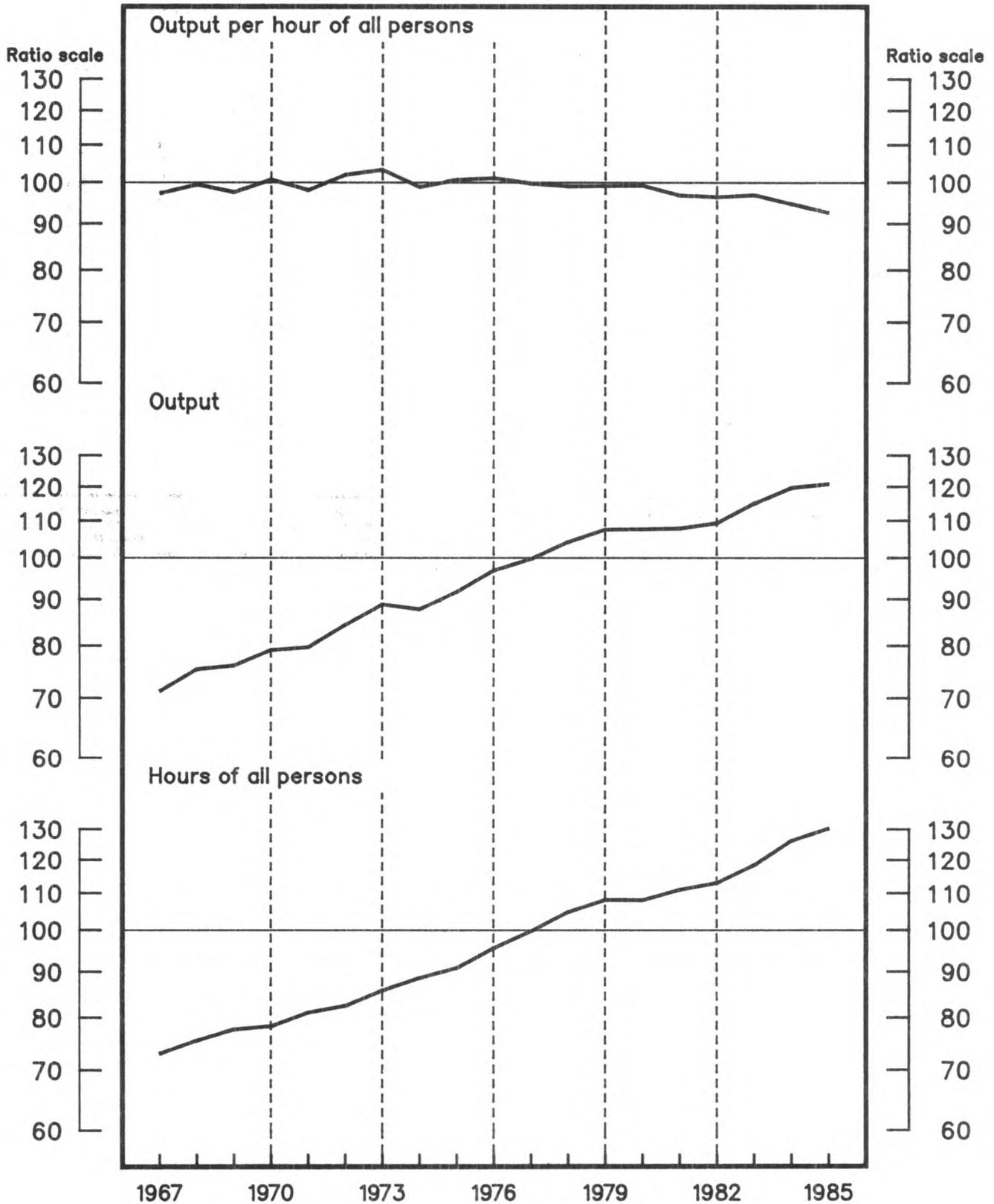
² Preliminary.

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 140. Eating and drinking places (SIC 58): Output per hour and related data, 1967-85

(1977=100)



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

Table 256. 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,¹ 1958-85
(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	82.9	46.7
1959	88.4	119.6	57.9	85.5	48.4
1960	88.1	118.3	58.3	86.2	49.3
1961	88.7	118.1	58.2	85.6	49.3
1962	89.3	118.1	60.0	87.2	50.8
1963	91.8	120.1	61.5	87.0	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	86.6	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	99.3	97.5	104.4	105.1	107.1
1979	99.4	95.4	107.8	106.5	113.0
1980	99.5	93.7	107.9	108.4	115.1
1981	97.0	91.7	108.1	111.4	117.9
1982	96.6	91.5	109.6	113.4	119.8
1983	97.1	92.4	115.3	118.8	124.8
1984 ²	94.9	90.4	120.0	126.5	132.8
1985 ²	92.8	86.7	121.2	130.6	139.8
Average annual percent change:					
1958-85 .....	.4	-1.3	3.1	2.7	4.4
1980-85	-1.2	-1.2	2.7	4.0	4.0

¹ All persons include paid employees, unpaid family workers, and the self-employed.

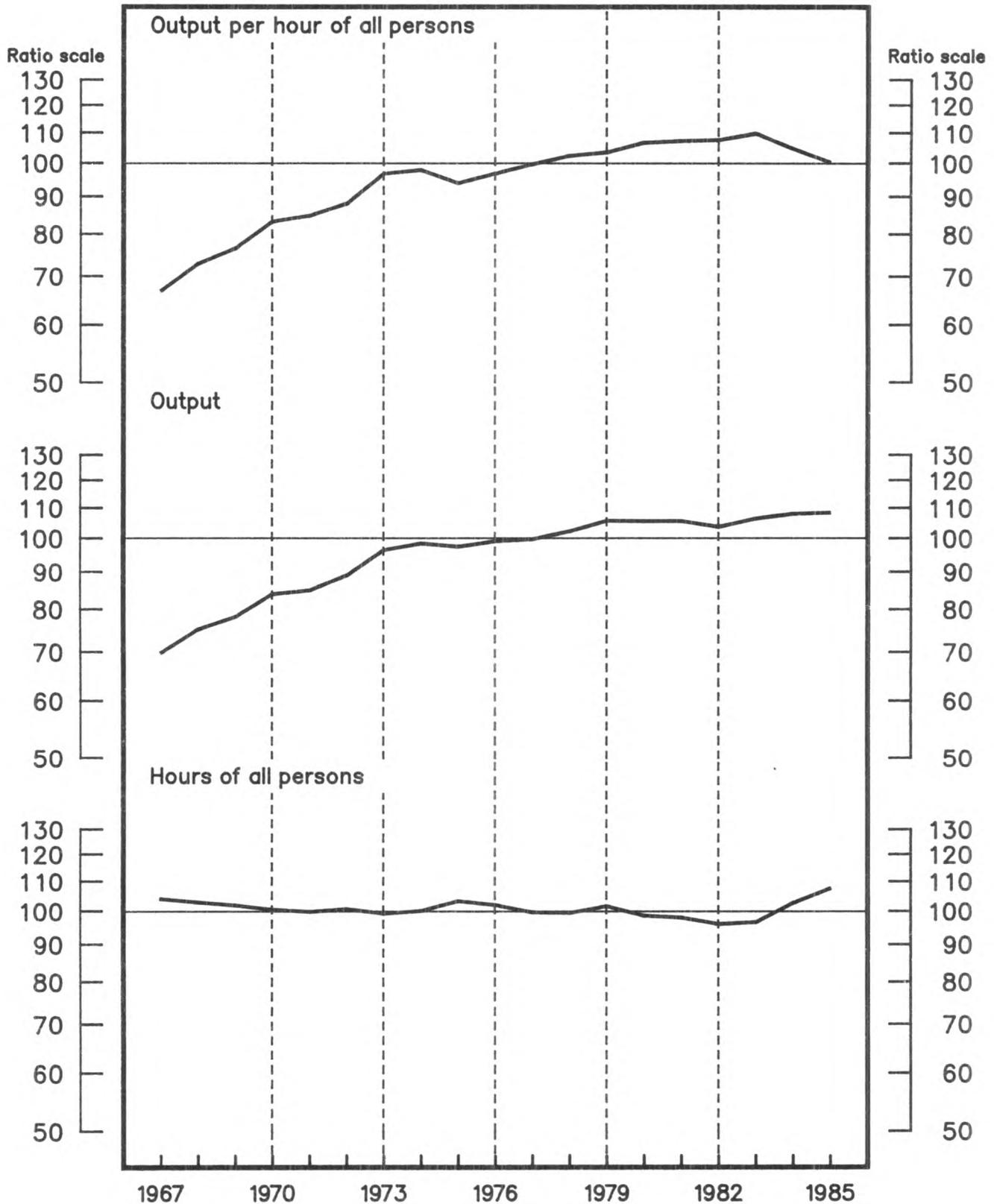
² Preliminary.

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 141. Drug and proprietary stores (SIC 5912): Output per hour and related data, 1967-85

(1977=100)



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

Table 259. 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,¹ 1958-85
(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	102.7	102.9	102.5	99.8	99.6
1979	103.8	104.7	105.9	102.0	101.1
1980	107.0	103.8	105.8	98.9	101.9
1981	107.6	103.4	105.8	98.3	102.3
1982	107.9	102.6	103.9	96.3	101.3
1983	110.1	104.2	106.7	96.9	102.4
1984 ²	105.0	101.7	108.3	103.1	106.5
1985 ²	100.6	97.9	108.7	108.0	111.0
Average annual percent change:					
1958-85	3.6	2.5	3.6	(³)	1.0
1980-85	-1.0	-9	.7	1.7	1.6

¹ All persons include paid employees, unpaid family workers, and the self-employed.

² Preliminary.

³ Less than .05 percent.

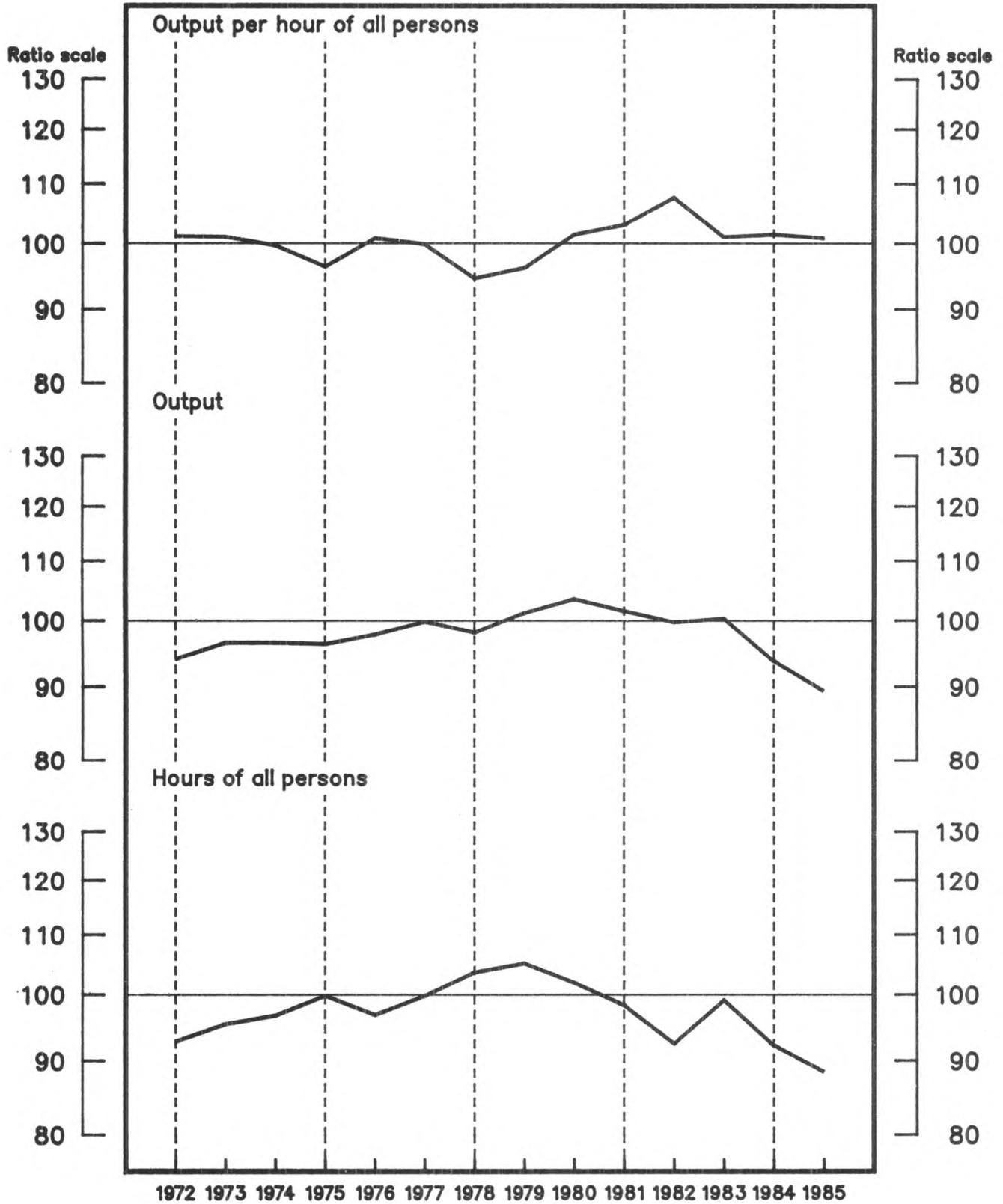
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. 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 142. Liquor stores (SIC 5921): Output per hour and related data, 1972-85

(1977=100)



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

Table 260. Liquor stores (SIC 5921): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1972-85
(1977 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1972	101.3	102.8	94.2	93.0	91.6
1973	101.2	104.7	96.7	95.6	92.4
1974	99.8	103.5	96.7	96.9	93.4
1975	96.5	99.4	96.5	100.0	97.1
1976	101.0	101.2	98.0	97.0	96.8
1977	100.0	100.0	100.0	100.0	100.0
1978	94.7	92.0	98.3	103.8	106.9
1979	96.3	91.9	101.4	105.3	110.3
1980	101.6	92.8	103.7	102.1	111.7
1981	103.2	93.2	101.7	98.5	109.1
1982	107.8	96.1	99.9	92.7	104.0
1983	101.2	93.4	100.5	99.3	107.6
1984 ²	101.6	91.6	93.9	92.4	102.5
1985 ²	101.0	88.6	89.5	88.6	101.0
Average annual percent change:					
1972-85 .....	.2	-1.1	(³)	-.3	1.1
1980-85	-.4	-.9	-2.7	-2.3	-1.9

¹ All persons include paid employees, unpaid family workers, and the self-employed.

² Preliminary.

³ Less than .05 percent.

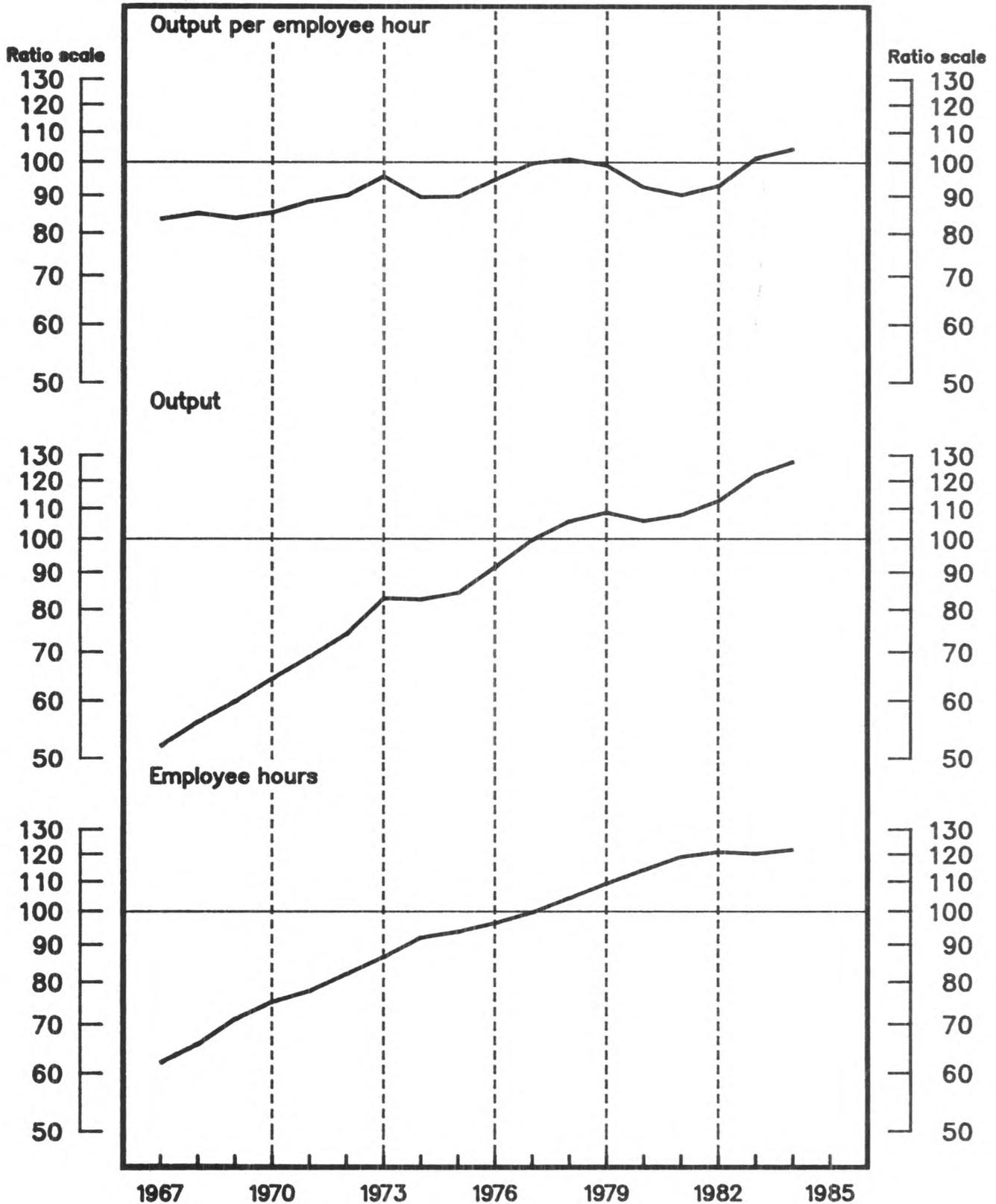
NOTE: Because of periodic revisions in source data, the measures in this table

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 143. Commercial banking (SIC 602): Output per hour and related data, 1967-84

(1977=100)



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

Table 261. Commercial banking (SIC 602): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1967-84
(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	88.6	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	101.7	100.9	122.7	120.6	121.6
1984 ¹	104.7	104.3	127.9	122.2	122.6
Average annual percent change:					
1967-84	1.0	1.1	5.2	4.1	4.1
1980-84	3.7	3.8	5.1	1.4	1.3

¹ Preliminary.

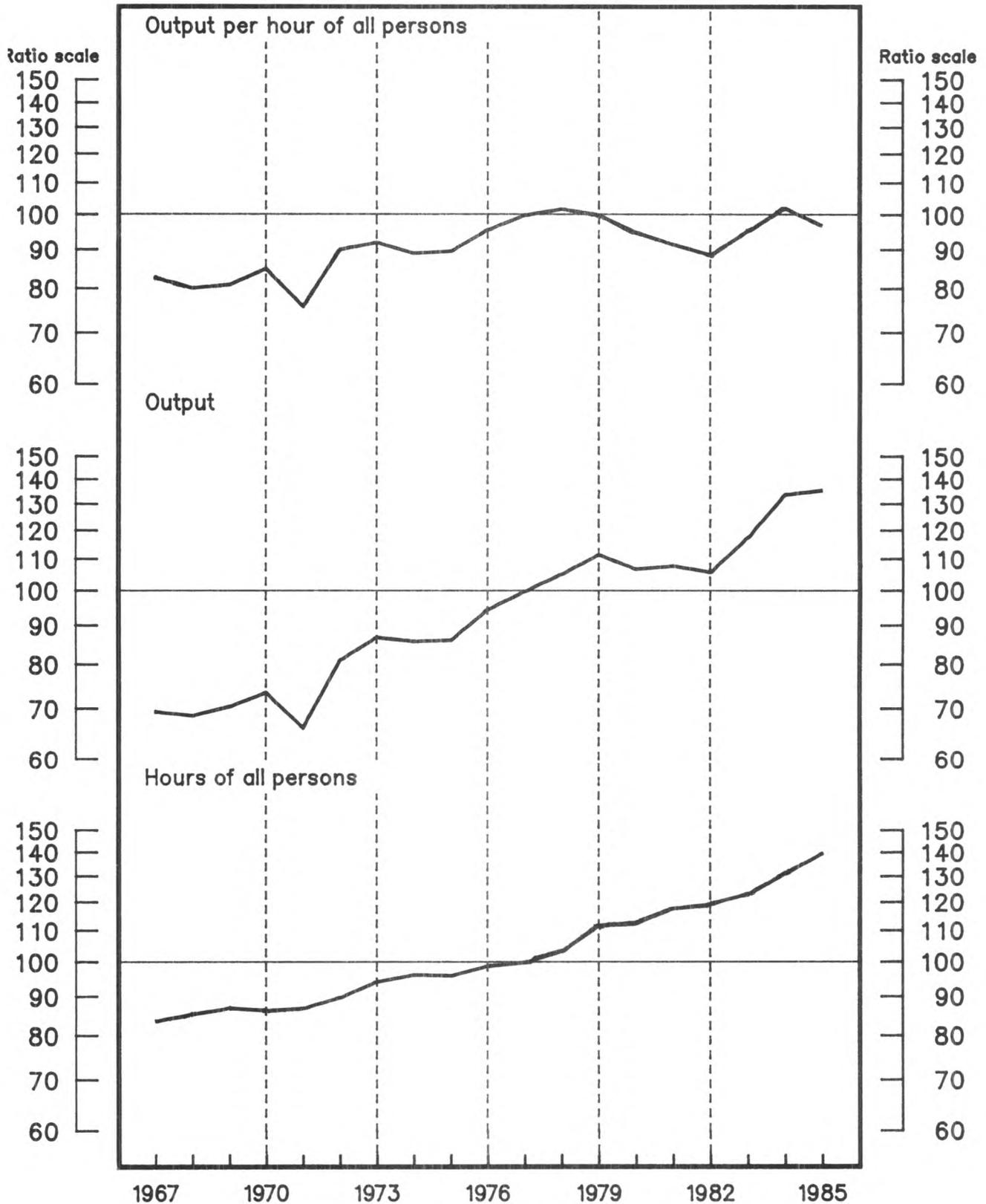
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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 144. Hotels, motels, and tourist courts (SIC 7011): Output per hour and related data, 1967-85

(1977=100)



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

Table 262. 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,¹ 1958-85
(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	101.8	101.9	105.3	103.4	103.3
1979	100.0	100.3	111.7	111.7	111.4
1980	95.0	94.5	107.0	112.6	113.2
1981	91.6	91.4	108.0	117.9	118.2
1982	88.8	88.1	106.0	119.4	120.3
1983	95.4	94.8	117.7	123.4	124.1
1984 ²	102.1	101.1	134.0	131.3	132.6
1985 ²	97.0	96.0	135.7	139.9	141.4
Average annual percent change:					
1958-85	1.7	.7	3.9	2.1	3.2
1980-85	1.4	1.3	5.7	4.2	4.3

¹ All persons include paid employees, and the self-employed.

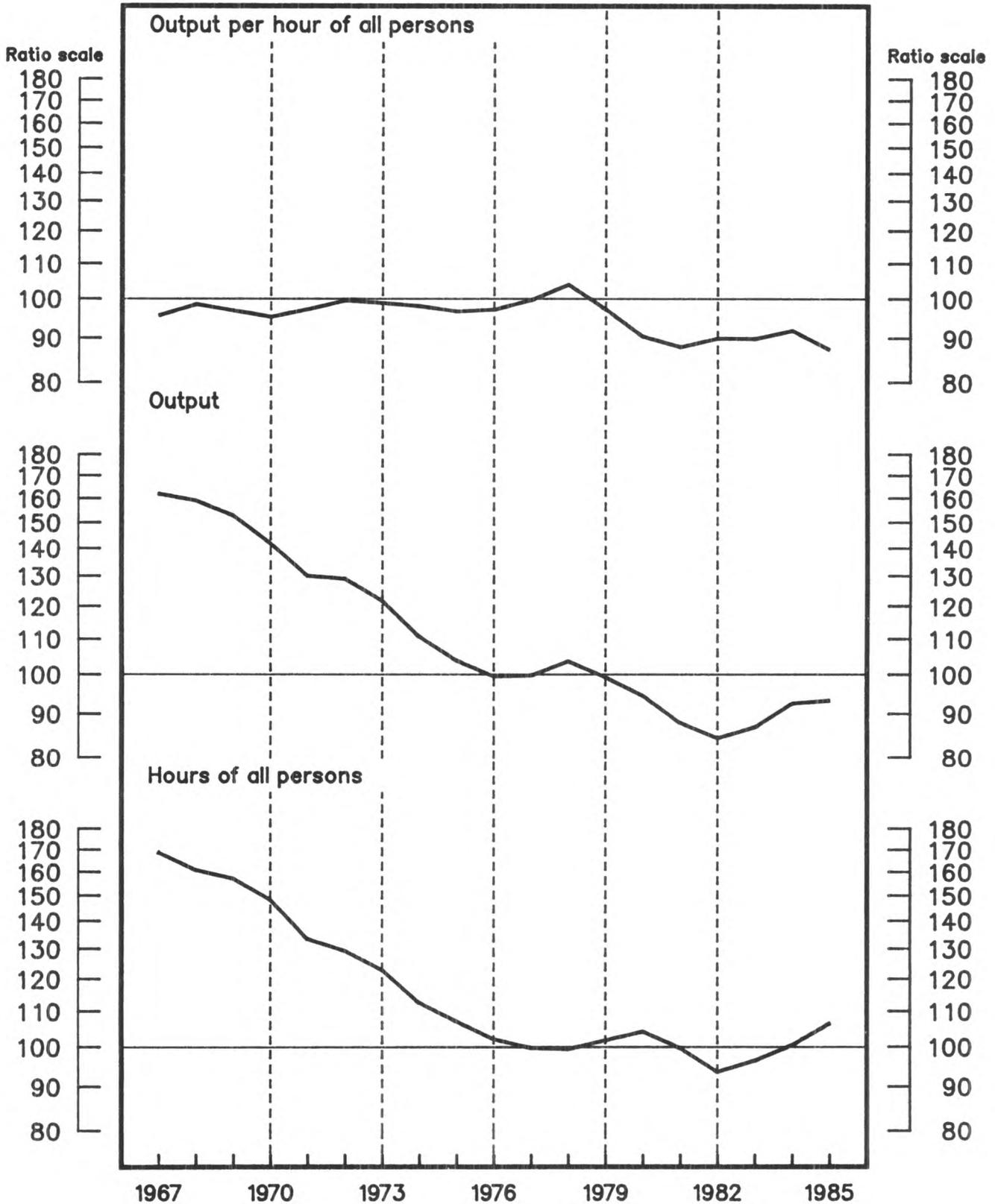
² Preliminary.

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 145. Laundry and cleaning services (SIC 721): Output per hour and related data, 1967-85

(1977=100)



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

Table 263. 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,¹ 1958-85
(1977 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
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	97.5	97.5	99.5	102.1	102.1
1980	90.6	90.7	94.7	104.5	104.4
1981	88.1	87.1	88.1	100.0	101.2
1982	90.2	87.4	84.6	93.8	96.8
1983	90.1	87.7	87.1	96.7	99.3
1984 ²	92.1	89.9	92.8	100.8	103.2
1985 ²	87.5	86.7	93.5	106.8	107.8
Average annual percent change:					
1958-85 .....	.5	-2	-2.4	-2.8	-2.2
1980-85	-.1	-4	.3	.5	.7

¹ All persons include paid employees, unpaid family workers, and the self-employed.

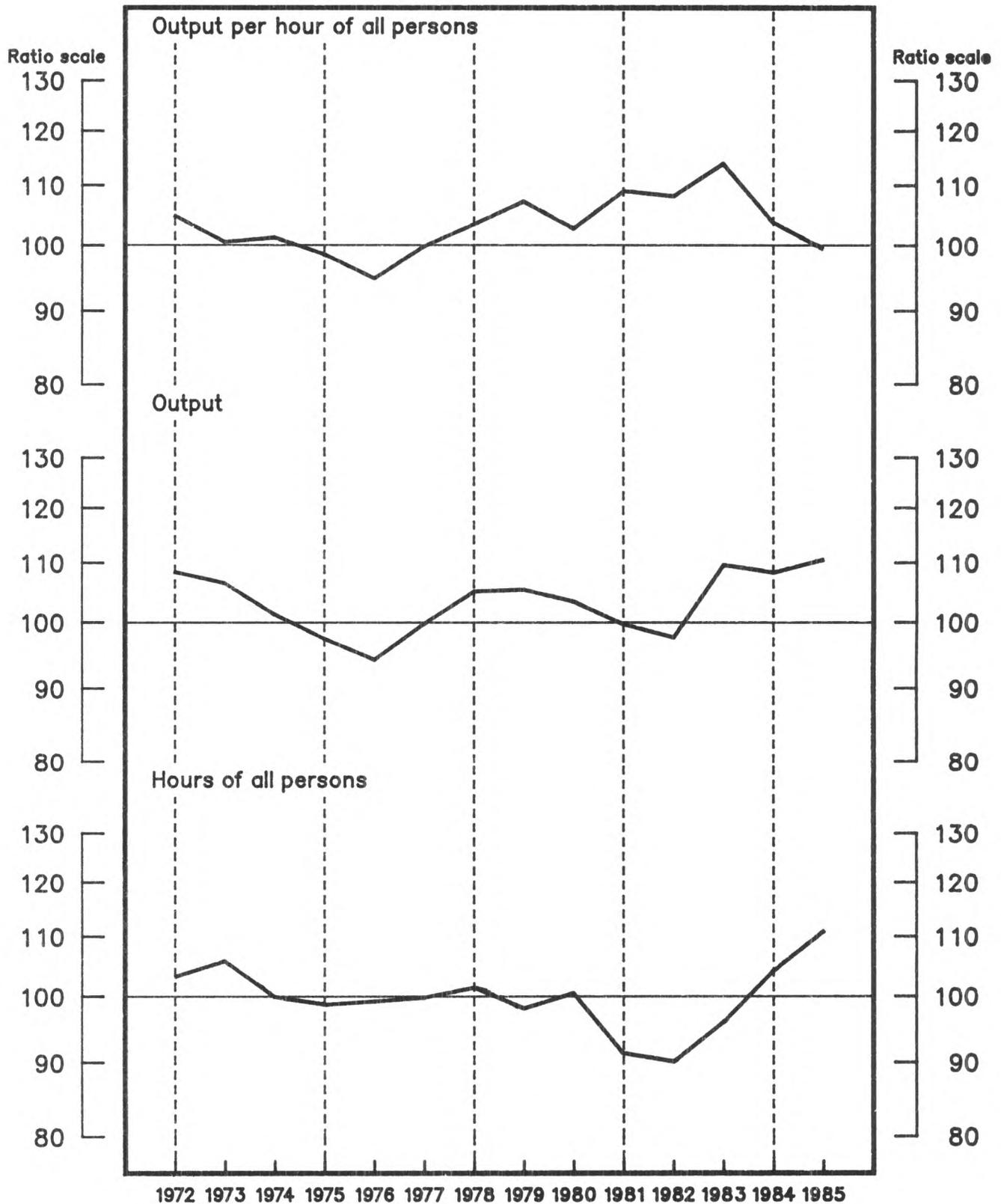
² Preliminary.

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 146. Beauty and barber shops (SIC 723, 724): Output per hour and related data, 1972-85

(1977=100)



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

Table 264. 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,¹ 1972-85
(1977 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
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	114.1	106.5	109.8	96.2	103.1
1984 ²	103.9	100.5	108.5	104.4	108.0
1985 ²	99.6	99.0	110.7	111.1	111.8
Average annual percent change:					
1972-85 .....	.5	-2	.3	-.1	.5
1980-85	-.7	-3	2.0	2.8	2.3

¹ All persons include paid employees and the self-employed.

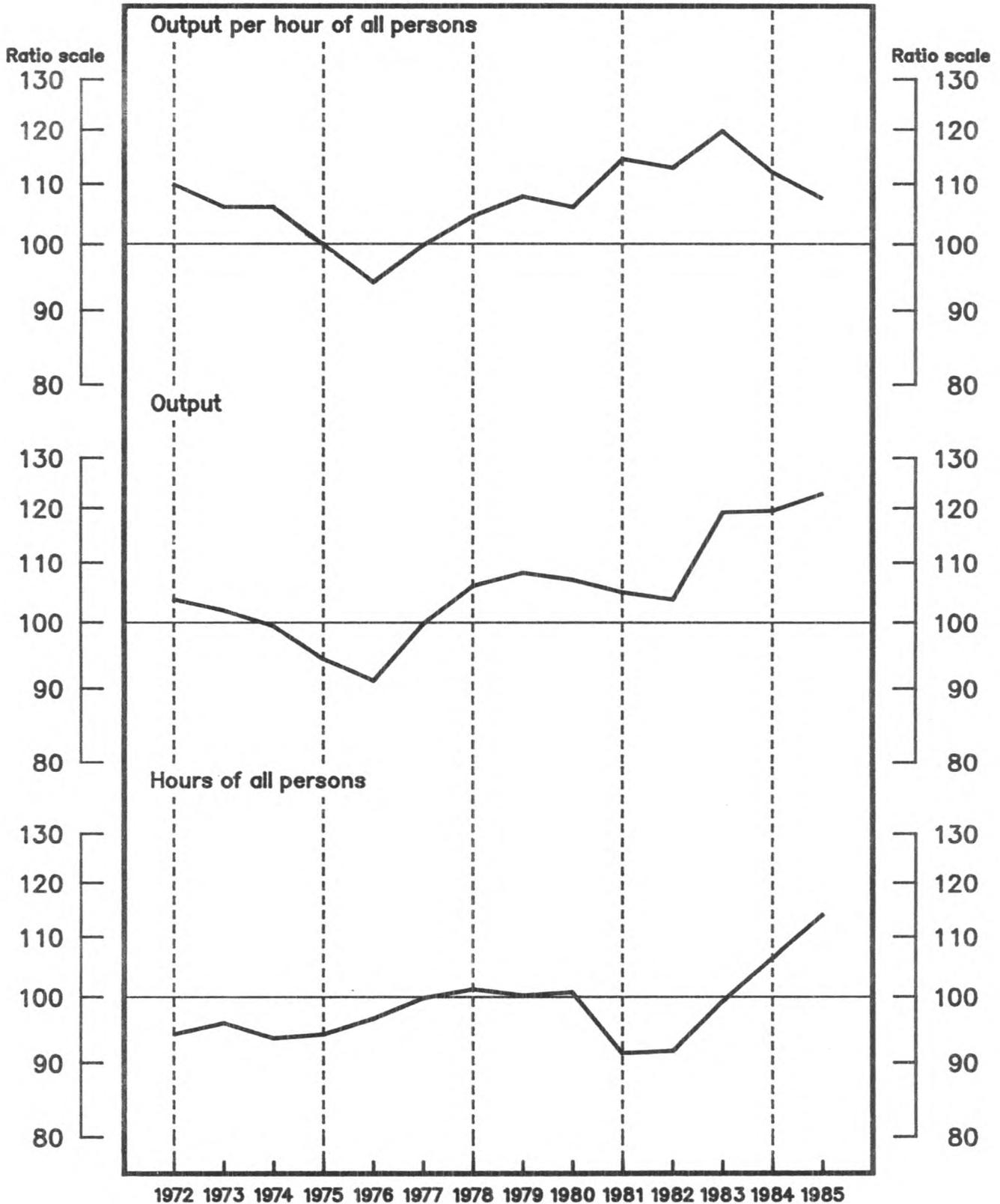
² Preliminary.

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 147. Beauty shops (SIC 723): Output per hour and related data, 1972-85

(1977=100)



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

Table 265. Beauty shops (SIC 723): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1972-85
(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	106.7	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	120.0	113.3	119.4	99.5	105.4
1984 ²	112.3	108.6	119.7	106.6	110.2
1985 ²	107.7	107.4	123.0	114.2	114.5
Average annual percent change:					
1972-85 .....	.8	.3	1.6	.8	1.3
1980-85 .....	.2	.8	3.5	3.4	2.7

¹ All persons include paid employees and the self-employed.

² 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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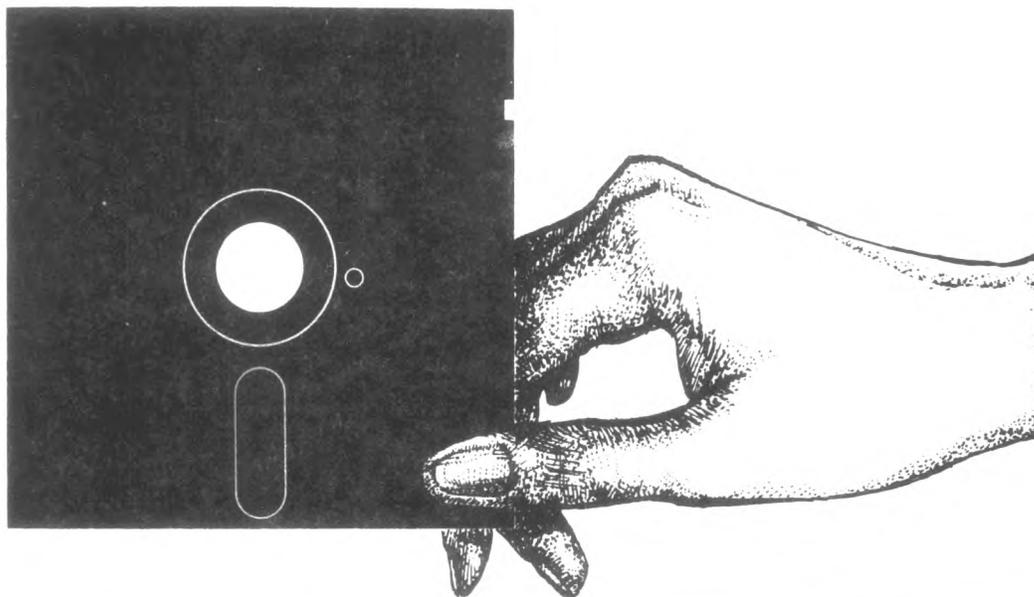
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