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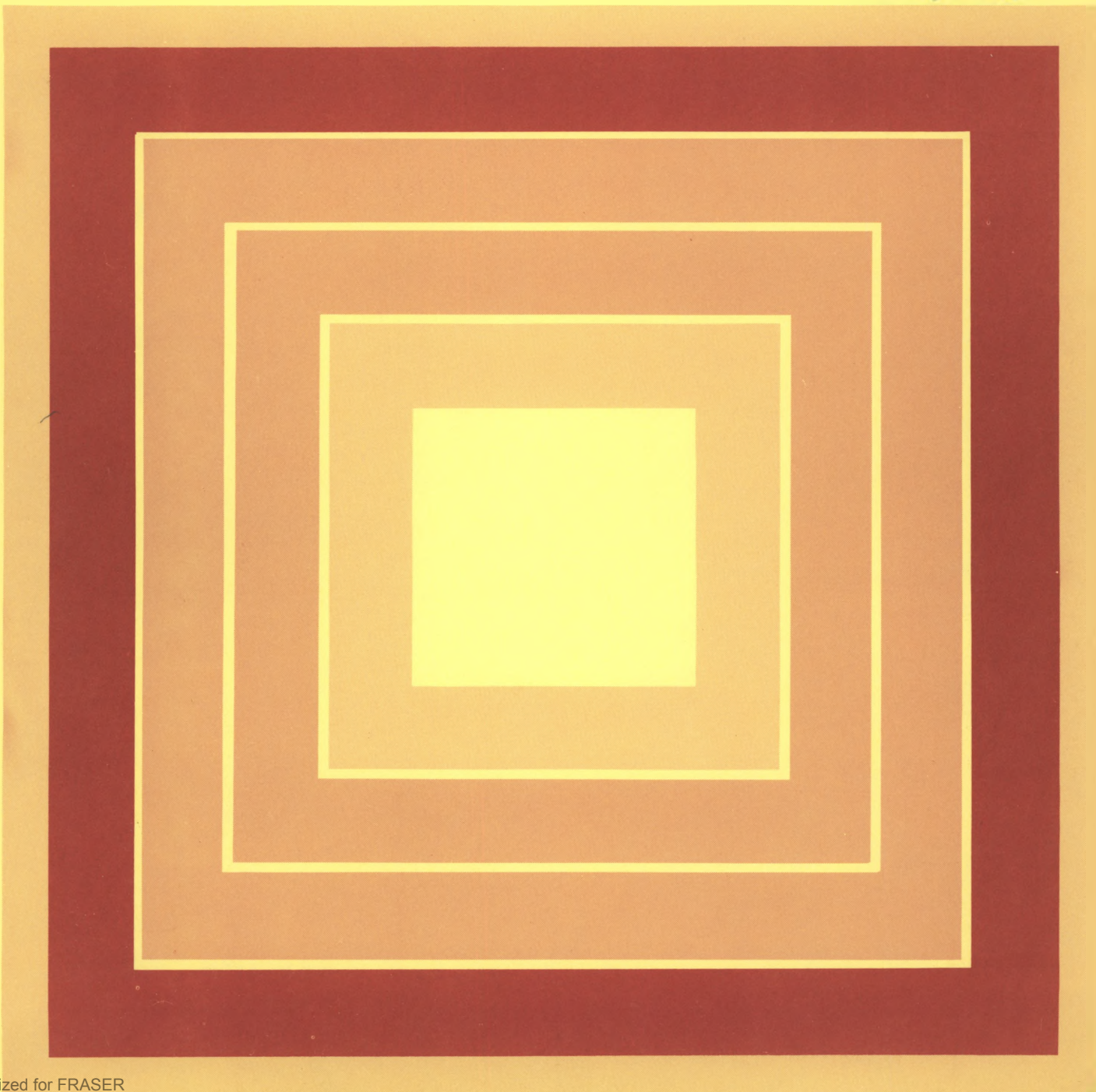
Productivity Measures for Selected Industries, 1954-79



U.S. Department of Labor
Bureau of Labor Statistics
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U.S. Department of Labor
Raymond J. Donovan, Secretary
Bureau of Labor Statistics
Janet L. Norwood, Commissioner
April 1981

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Preface

This bulletin updates through 1979 indexes of output per employee hour and output per employee for the industries currently included in the U.S. Government's productivity measurement program. For most industries, indexes are presented in this bulletin beginning with 1954. For many of these industries, however, data can be obtained beginning with 1947 upon request.

Indexes are published for the first time for the following industries: Paper and plastic bags; fabricated structural metal; construction machinery; drug and proprietary stores; ball and roller bearings; and bus carriers. An article on the paper and plastic bag industry appeared in the May 1980 issue of the *Monthly Labor Review*. Articles on other new industries were also published in the *Monthly Labor Review*: Fabricated structural metal (June 1980), construction machinery (July 1980), drug and proprietary stores (November 1980), and ball and roller bearings (January 1981). An article on bus carriers will appear in a forthcoming issue. Indexes for electric utilities and gas utilities are presented separately for the first time.

Each index is intended to represent only 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. They should not be combined, therefore, to obtain an overall measure for the entire U.S. economy or for any sector. However, the Bureau of Labor Statistics does publish indexes of output per hour of all persons and related measures for the private business sector and the nonfarm business, manufacturing, and nonfinancial corporate sectors. These productivity series show the relationship between gross product originating in these sectors and employment and hours. (The data are presented in the Bureau of Labor Statistics press releases *Productivity and Costs* (quarterly), in the

Monthly Labor Review, and in *Employment and Earnings*.)

The productivity measures in this bulletin describe the relationship between output in real terms and the labor time involved in its production. They show the changes from year to year in the amount of labor time required to produce a unit of output. Although these measures relate output to employment and employee hours, they do not measure the specific contributions of labor, capital, or any other factor of production. Rather, they reflect the joint effect of a number of interrelated influences, such as changes in technology; capital investment per worker; level of output; utilization of capacity; layout and flow of material; managerial skill; and skills and effort of the work force. Some of the productivity measures use a labor input series based on hours paid and some use a labor input series based on hours at the plant.

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

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Highlights of Trends in Output per Employee Hour

Current developments

From 1978 to 1979, output per employee hour increased in only slightly more than one-half of the industries for which data are presented in this report. In contrast, from 1977 to 1978, productivity advanced in two-thirds of the industries. This slowdown in productivity was consistent with the performance of the non-farm business sector as a whole, where productivity fell 0.8 percent in 1979.

Among the large manufacturing industries, the motor vehicle industry sustained a 3.7 percent decline in output per employee hour in 1979 as output dropped 8.8 percent and employee hours fell 5.3 percent. The gasoline shortage and higher prices caused a substantial shift in consumer demand from large to smaller cars. Gains in the production of smaller models were not enough to offset the decline in the production of larger models. Interruptions in the production flow caused by the demand shift had a negative influence on productivity.

Steel, another large manufacturing industry, also experienced a decline in productivity—1.3 percent—based on a reduction of 0.3 percent in output and an increase of 1.0 percent in employee hours. Steel mill shipments remained strong in the first half of 1979 but declined sharply in the second half. Demand from the automobile market, a major steel consumer, started out strongly but slumped in the second half of the year, and shipments to this market were down sharply by yearend. Another weakened market for steel in 1979 was the appliance industry because of a decline in residential construction.

Other large manufacturing industries posting productivity declines in 1979 were: Sawmills, -3.1 percent; petroleum refining, -2.2 percent; gray iron foundries, -0.8 percent; pulp and paper, -0.4 percent; and construction machinery, -0.3 percent. All of these industries except pulp and paper had declines in output in 1979.

On the positive side, however, several large manufacturing industries did post productivity gains. Of these, the fabricated structural metal industry scored one of the highest gains. Productivity in this industry increased 6 percent in 1979 as output went up by over 14 percent and employee hours climbed by nearly 8 per-

cent. Output growth was stimulated by a substantial rise in use of steel in construction, particularly in buildings for industrial use and in bridges.

Other large industries recording productivity gains were: Fluid milk, 5.3 percent; motors and generators, 3.6 percent; major household appliances, 3.0 percent; tires and inner tubes, 2.9 percent; household furniture, 2.8 percent; bakery products, 1.6 percent; footwear, 1.1 percent; bottled and canned soft drinks, 0.9 percent; corrugated and solid fiber boxes, 0.5 percent; and pharmaceutical preparations, 0.5 percent.

Most of the mining industries experienced productivity declines, though all recorded increases in output in 1979. Productivity in coal mining dropped 9.5 percent. Even though output in this industry increased dramatically—by nearly 16 percent—production worker hours rose even more as the industry recovered from a major strike in 1978. Copper mining (recoverable metal) and nonmetallic minerals recorded large productivity declines of 10.0 and 3.7 percent, respectively. The only exception to the falloff in productivity among the mining industries was iron mining (usable ore), where productivity increased 6.9 percent as output posted an above-average gain.

Among the transportation industries, intercity trucking experienced the largest falloff in productivity, 1.2 percent. Output in this industry advanced only 0.2 percent while employment increased 1.4 percent. The output of the trucking industry was adversely affected by declines in the shipments of petroleum products and motor vehicles. Additionally, several nationwide strikes in 1979 had a negative impact on productivity. Posting a small decline in productivity of 0.1 percent, the railroad transportation industry saw output rise 2.4 percent while hours advanced 2.5 percent in 1979. The rise in industry output, sustained by coal shipments, was more than balanced by the 1979 growth in hours, which rose sharply after a work stoppage in 1978. Productivity in the air transportation industry increased 3.4 percent. Output in this industry was up by about 10 percent while the number of employees increased by over 6 percent. In the petroleum pipelines industry, productivity was up by 2.2 percent as output grew by 4.0 percent while employee hours were up 1.7 percent. Bus carriers posted a small increase in productivity of 0.4 percent in 1979.

In utilities, both the gas and electric industries experienced declines in productivity, dropping by 0.1 and 0.4 percent, respectively. On the other hand, the telephone communications industry had a productivity gain of 3.6 percent.

Productivity declined in most retail trade and service industries: Laundry and cleaning services, -6.3 percent; hotels and motels, -5.8 percent; eating and drinking places, -5.5 percent; and new car dealers, -4.7 percent. All of these industries, except hotels and motels, had output declines in 1979. Productivity fell 0.8 percent in retail food stores as output rose slightly while hours rose even more. On the other hand, productivity rose 0.6 percent in gasoline service stations as hours declined more steeply than output. Productivity increased 0.8 percent in drug stores based on small gains in output and hours.

Long-term trends

All of the industries presented in this report have recorded productivity growth over the long term (1947-79 for many of the industries). Among these, the petroleum pipelines industry posted the highest rate, 7.1 percent between 1958 and 1979, because of a large gain in the volume of petroleum products shipped coupled with the continuing utilization of highly automatic equipment. The air transportation industry experienced the second highest rate of productivity growth, 6.9 percent annually from 1947 to 1979. This industry had the highest rate of growth in output (12.1 percent per year) over this time period. On the other hand, bus carriers recorded the lowest rate of growth in productivity, only 0.4 percent per year from 1954 to 1979. This low rate of productivity growth reflects low output growth, reduced bus speeds, stable load factors, and only modest technological innovation.

Although the rates of productivity change varied widely among the industries during the 1974-79 period (see chart 1), three-fourths of the industries recorded lower average annual gains in this more recent period than during 1947-74. This experience matches the productivity record of the economy as a whole. From 1947 to 1974, productivity in the nonfarm business sector grew 2.4 percent per year while from 1974 to 1979 the annual growth rate was only 1.4 percent. The slower growth in productivity among the industries included in this report was associated with less rapid output growth in the later period. Nearly 70 percent of the industries recorded lower output growth rates in the last 5 years than in the earlier period.

There were a few notable exceptions to the falloff in productivity growth in the last few years. The wet corn milling industry, with a 9.0 percent average annual gain, posted the highest growth in productivity during the later period. During the earlier period, productivity in

this industry advanced at an annual rate of 4.4 percent. Rapid growth in the later period was aided by a sharp gain in output for one of the industry's products, high fructose corn syrup, a sugar substitute. In addition, a number of new plants, utilizing the latest computerized controls, came on line during this period. Other industries with high rates of growth in productivity during the 1974-79 period were the synthetic fibers and the telephone communications industries. Productivity advanced at a rate of 7.8 and 7.3 percent, respectively, in these industries. In the synthetic fibers industry, productivity growth was augmented by substantial output growth in the late seventies coupled with cost-cutting measures which reduced the number of employee hours. In the telephone communications industry, the accelerated introduction of electronic switching in long-distance service contributed to the growth in productivity.

Among the industries that experienced productivity declines during the 1974-79 period, blended and prepared flour dropped the most, down 6.4 percent per year. Steel foundries also experienced a decline, dropping 3.1 percent annually. Other industries in which productivity declined during the 1974-79 period were: Coal mining (-2.5 percent), eating and drinking places (-2.4 percent), primary aluminum (-1.1 percent), bus carriers (-0.9 percent), retail food stores (-0.9 percent), brick and structural clay tile (-0.3 percent), and gas utilities (-0.2 percent). (See table 1.)

New measures

Paper and plastic bags (SIC 2643). Productivity rose at an average annual rate of 2.9 percent between 1954 and 1978. This was due to an annual increase in output of 4.6 percent and in employee hours of 1.7 percent. The long-term productivity rise resulted primarily from improved technologies, especially in plastic bag production. Comparatively high output rates were induced by expansion in consumer spending on soft goods, the chief market for bags, which improved the industry's use of staff and equipment.

The long-term trend in productivity has been marked by two distinct phases. Between 1954 and 1967, gains in output per employee hour averaged 2.6 percent per year. From 1967 forward, the rate of gain accelerated, rising to 3.3 percent a year. The acceleration was associated with intensified and widely diffused mechanization of work.

Fabricated structural metal (SIC 3441). Output per employee hour in the industry rose at an average annual rate of 1.2 percent from 1958 to 1979. This was the result of an average annual increase of 2.2 percent in output and 1.0 percent in employee hours.

Chart 1. Growth in output per employee hour in selected industries, 1974-79

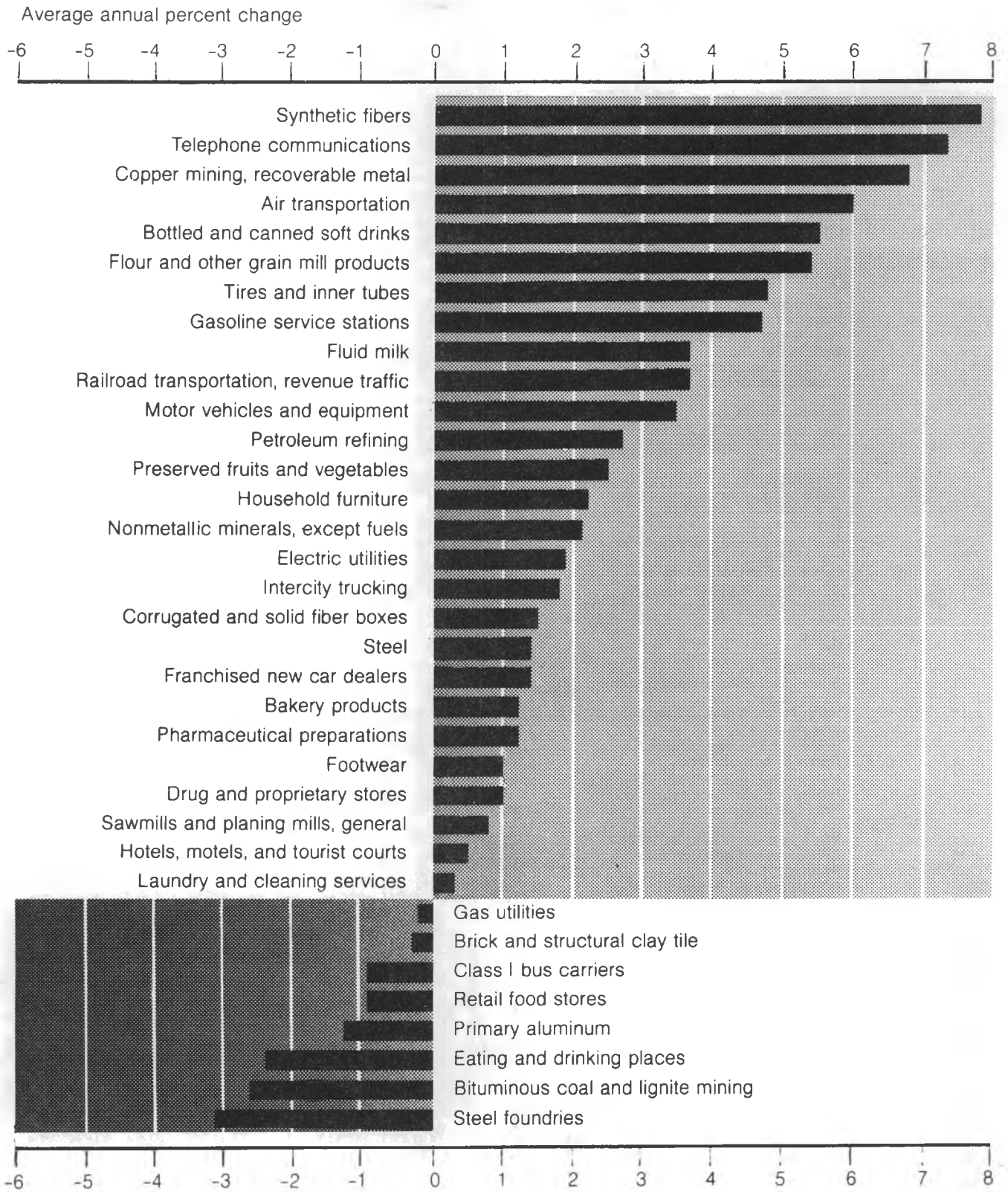


Table 1. Selected industries: Employment, 1979, and average annual rates of change in output per employee hour, 1974-79

SIC code	Industry	Employment, 1979 (thousands)			Output per employee hour: Average annual rate of change, 1974-79 (percent) ¹		
		All employees	Production workers	Non-production workers	All employees	Production workers	Non-production workers ²
Mining							
1011	Iron mining, crude ore	25	20	5	(³)	2.7	(³)
1011	Iron mining, usable ore	25	20	5	(³)	1.9	(³)
1021	Copper mining, crude ore	33	26	7	(³)	6.2	(³)
1021	Copper mining, recoverable metal	33	26	7	(³)	6.8	(³)
111, 121	Coal mining	263	219	44	(³)	-2.5	(³)
121	Bituminous coal and lignite mining	260	216	44	(³)	-2.6	(³)
14	Nonmetallic minerals, except fuels	123	98	25	(³)	2.1	(³)
142	Crushed and broken stone	41	34	7	(³)	2.6	(³)
Manufacturing							
2026	Fluid milk	110	(³)	(³)	3.7	(³)	(³)
203	Preserved fruits and vegetables	255	209	46	*2.5	*2.9	*.4
2033	Canned fruits and vegetables	103	86	17	*2.3	*3.0	*-3.0
204	Grain mill products	144	99	45	*2.8	*3.2	*1.7
2041	Flour and other grain mill products	25	16	9	5.4	5.6	4.8
2043	Cereal breakfast foods	16	12	4	*1.6	*1.5	*2.2
2044	Rice milling	5	4	1	*.9	*1.4	*.1
2045	Blended and prepared flour	9	6	3	*-6.4	*-5.0	*-10.2
2046	Wet corn milling	13	9	4	*9.0	*8.4	*10.6
2047, 48	Prepared feeds for animals and fowls ..	76	52	24	*2.6	*3.5	*.7
205	Bakery products	233	136	97	1.2	1.4	1.0
2061, 62, 63	Sugar	30	21	9	3.4	4.1	.8
2061, 62	Raw and refined cane sugar	18	13	5	*2.8	*2.8	*2.8
2063	Beet sugar	11	9	2	*1.4	*2.2	*-4.1
2065	Candy and confectionery products	58	46	12	*2.6	*1.2	*8.6
2082	Malt beverages	52	36	16	5.1	4.3	7.0
2086	Bottled and canned soft drinks	140	49	91	5.5	6.6	4.9
2111, 21, 31	All tobacco products	57	45	12	2.8	3.3	-.6
2111, 31	Cigarettes, chewing and smoking tobacco	49	38	11	3.0	3.7	-.5
2121	Cigars	8	7	1	2.8	2.3	9.7
2251, 52	Hosiery	65	58	7	5.6	5.2	9.1
2421	Sawmills and planing mills, general ..	197	176	21	.8	.9	(³)
2435, 36	Veneer and plywood	77	68	9	*3.3	*3.0	*6.2
251	Household furniture	331	279	52	2.2	2.2	2.4
2511, 17	Wood household furniture	158	138	20	*1.0	*.8	*2.3
2512	Upholstered household furniture	102	84	18	*3.9	*3.8	*4.1
2514	Metal household furniture	32	26	6	*2.0	*1.2	*5.9
2515	Mattresses and bedsprings	32	24	8	*2.2	*2.4	*1.5
2611, 21, 31, 61	Paper, paperboard, and pulp mills	272	207	65	3.4	3.7	2.1
2643	Paper and plastic bags	51	40	11	*.5	*.9	*-1.3
2651	Folding paperboard boxes	45	36	9	.9	.8	1.2
2653	Corrugated and solid fiber boxes	110	82	28	1.5	1.5	1.7
2823, 24	Synthetic fibers	89	68	21	7.8	7.3	9.4
2834	Pharmaceutical preparations	154	74	80	1.2	1.4	(³)
2841	Soaps and detergents	41	27	14	*.2	*.4	*-.2
2851	Paints and allied products	69	36	33	4.0	4.0	3.9
2911	Petroleum refining	165	104	61	2.7	2.8	2.4
3011	Tires and inner tubes	122	88	34	4.8	3.9	8.0
314	Footwear	151	130	21	1.0	1.1	.6
3221	Glass containers	74	65	9	1.1	1.1	.8
3241	Hydraulic cement	33	27	6	2.9	2.7	3.9
325	Structural clay products	52	40	12	2.4	2.3	2.6
3251, 53, 59	Clay construction products	38	31	7	3.0	2.8	3.9
3251	Brick and structural clay tile	22	19	3	-.3	-.5	.8
3253	Ceramic wall and floor tile	8	6	2	(³)	(³)	(³)
3255	Clay refractories	14	10	4	.5	.9	-.6
3271, 72	Concrete products	95	72	23	*1.3	*1.5	*.3
3273	Ready-mixed concrete	92	(³)	(³)	*.8	(³)	(³)
331	Steel	569	450	119	1.4	1.4	1.4
3321	Gray iron foundries	146	121	25	1.1	1.5	-.9
3324, 25	Steel foundries	72	57	15	-3.1	-2.8	-4.5
3331, 32, 33	Primary copper, lead, and zinc	25	19	6	3.5	3.4	4.1
3331	Primary copper	16	12	4	5.2	4.7	7.5
3334	Primary aluminum	36	29	7	-1.1	-1.5	.2

See footnotes at end of table.

Table 1. Continued—Selected industries: Employment, 1979, and average annual rates of change in output per employee hour, 1974-79

SIC code	Industry	Employment, 1979 (thousands)			Output per employee hour: Average annual rate of change, 1974-79 (percent) ¹		
		All employees	Production workers	Non-production workers	All employees	Production workers	Non-production workers ²
3351	Copper rolling and drawing	34	27	7	4.2	3.6	6.2
3353, 54, 55	Aluminum rolling and drawing	70	57	13	1.8	.9	5.2
3411	Metal cans	67	57	10	*5.1	*5.2	*4.1
3441	Fabricated structural metal	105	76	29	(³)	-.1	.3
3531	Construction machinery and equipment	158	107	51	.7	1.4	-1.2
3562	Ball and roller bearings	59	46	13	.7	.6	.7
3621	Motors and generators	131	99	32	.9	.6	2.0
3631, 32, 33, 39	Major household appliances	97	79	18	2.7	2.1	4.9
3631	Household cooking equipment	28	22	6	.3	-.1	1.9
3632	Household refrigerators and freezers ..	33	28	5	3.0	2.1	7.8
3633	Household laundry equipment	20	16	4	3.7	3.1	6.4
3639	Household appliances, n.e.c.	17	13	4	4.1	4.1	4.0
3641	Electric lamps	38	33	5	3.6	3.4	5.0
3645, 46, 47, 48	Lighting fixtures	70	54	16	*3.0	*3.0	*3.1
3651	Radio and television receiving sets ...	87	63	24	4.0	4.9	1.4
371	Motor vehicles and equipment	995	768	227	3.5	3.0	5.1
Other							
401 Class I	Railroad transportation, revenue traffic	503	438	65	3.7	3.8	2.8
401 Class I	Railroad transportation, car miles	503	438	65	1.4	1.5	.5
4111, 31, 414 parts	Bus carriers, class I	35	(³)	(³)	-.9	(³)	(³)
4213 part	Intercity trucking	780	(³)	(³)	*1.8	(³)	(³)
4213 part	Intercity trucking (general freight)	488	(³)	(³)	*1.6	(³)	(³)
4511	Air transportation	343	(³)	(³)	*6.0	(³)	(³)
4612, 13	Petroleum pipelines	20	14	6	1.9	3.8	(³)
4811	Telephone communications	1,050	(³)	(³)	7.3	(³)	(³)
491, 92, 93	Gas and electric utilities	736	*599	*137	1.2	*1.8	(³)
491, 493 part	Electric utilities	525	(³)	(³)	1.9	(³)	(³)
492, 493 part	Gas utilities	211	(³)	(³)	-.2	(³)	(³)
54	Retail food stores*	2,548	(³)	(³)	-.9	(³)	(³)
5511	Franchised new car dealers	841	(³)	(³)	1.4	(³)	(³)
5541	Gasoline service stations*	740	(³)	(³)	4.7	(³)	(³)
58	Eating and drinking places*	4,935	(³)	(³)	-2.4	(³)	(³)
5912	Drug and proprietary stores*	524	(³)	(³)	1.0	(³)	(³)
7011	Hotels, motels, and tourist courts* ...	1,012	(³)	(³)	.5	(³)	(³)
721	Laundry and cleaning services*	422	(³)	(³)	.3	(³)	(³)

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

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

³ Not available.

⁴ 1974-78.

⁵ Less than 0.05 percent.

⁶ Output per employee.

⁷ Nonsupervisory personnel.

⁸ Supervisory personnel and force account construction workers.

⁹ Data relate to all persons.

Productivity growth has been retarded by increased requirements for quality control, the made-to-order nature of goods produced in the industry, and the lag in adjusting employment to changing output levels. Because of the high skill level of the work force, some employers attempt to retain employees during business downturns. When demand drops, employers tend to make lower bids for work, or bid on smaller jobs than they normally handle. This enables them to continue operating and retain their employees, and to cover some overhead costs in paying for capital equipment. However, this results in productivity declines during cyclical downturns.

The most important new technological development in the industry is the automatic beam line, which has been an important aid to productivity growth. Using the old techniques, beam handling was a time-consuming

and costly process in the shop. The introduction of automatic beam lines eliminated much of this burden. This process has facilitated the use of automatic equipment for cutting, punching, drilling, and welding. Usually, the layout of the plant is altered to accommodate beam handling equipment, which minimizes the number of times and the distances the metal must be moved.

Construction machinery and equipment (SIC 3531). Productivity in the construction machinery industry rose at a 1.9 percent average annual rate between 1958 and 1979. Output increases averaged 4.4 percent per year and employee hour increases 2.5 percent per year during this period. Productivity gains resulted mainly from innovations in machining and welding operations at the industry's plants, and from improvements in material handling and storage.

This industry, highly dependent on construction industry demand, experienced sharp cyclical swings in output and productivity over the period. In half of the years examined, year-to-year output changes exceeded 10 percent. Changes in productivity ranged from a 10.5 percent decrease to a 9.6 percent increase, with declines occurring in 5 of the 21 years examined.

Ball and roller bearings (SIC 3562). Productivity in the ball and roller bearings industry grew at an average annual rate of 2.7 percent during 1958-79, slightly less than the 2.8 percent rate for all manufacturing. This rise was associated with average annual increases of 3.5 percent in output and 0.8 percent in employee hours. The adoption of electronic control equipment to run production machinery, coupled with continuing improvements in this machinery, has been an important factor in the industry's productivity gains.

Productivity changes have displayed great variation from year to year. Annual increases over the period measured ranged from 0.2 percent to 25.4 percent. There were decreases in 6 years. Bearings are used to reduce the friction between moving parts of machines or various types of equipment. Because so many different products have moving parts, the overall market for bearings is very diverse. Consequently, changes in the level of economic activity, particularly in transportation-related industries such as motor vehicles, can cause sharp shifts in output and employee hours. These fluctuations have affected short-term productivity movements but, over the long term, improvements in production machinery have resulted in an above-average rate of productivity increase.

Class I bus carriers (pts of SIC's 4111, 4131, 414). Productivity advanced slowly during 1954-79—at an average of 0.4 percent a year—reflecting low output growth, reduced bus speeds, and only modest technological innovations such as improved engine designs. The 0.4 percent growth in productivity resulted from a small average annual increase in industry output of 0.1 percent combined with an average annual decline in employee hours of 0.3 percent.

Bus operations have suffered from the recent energy shortages. The 55-mile-per-hour national speed limit has resulted in longer running times between cities. Lower speeds have increased the labor time needed to drive a given distance and have acted to reduce productivity. However, while total travel might be expected to decline as a result of higher fuel costs, the relative fuel efficiency of buses may act to enhance demand for this mode of transportation, especially for shorter distances. In 1974, when the energy crisis started, output in the bus industry increased 8.4 percent and productivity rose 3.7 percent as the bus became an important alternative to the automobile. Again in 1979, gas shortages in the 2nd

quarter helped boost industry output 6.1 percent for the year, and productivity increased 0.4 percent.

The class I regulated bus industry comprises 43 intercity and 13 local carriers certificated by the Interstate Commerce Commission. The sources of revenue for bus carriers have changed substantially since 1954. Intercity and local passenger revenue has declined in relative terms while charter and package express service has shown significant growth. Charter service has expanded due to the increase in group travel and tourism in general, while package express service has benefited from the large distribution network provided by intercity buses.

Load factors have changed little since 1954; this helps to explain the low rate of productivity advance experienced in the industry. The percent of capacity utilized during this period has remained at about 47 percent. Reduced investment has also affected bus industry productivity. Since 1954, investment in plant and equipment by intercity bus carriers has declined; capital investment per worker fell over 20 percent.

Drug and proprietary stores (SIC 5912). Output per hour of all persons in the drug and proprietary store industry increased at an average annual rate of 4.6 percent from 1958 through 1979, compared with an average of 2.1 percent for the nonfarm business sector of the economy during the same period. The gain in productivity over the 22-year period reflects an average annual increase of 4.7 percent in output with virtually no average change in hours of all persons in the industry. For the most recent 6-year period, 1973-79, productivity increased at a slower annual rate—averaging 1.0 percent.

The strong growth in output per hour of all persons has been influenced by a trend toward fewer and larger stores. Large chainstore organizations and groups of stores known as cooperatives and voluntaries have grown to dominate industry sales, while the number of unaffiliated, independently owned, smaller drugstores has declined significantly. Chains have increased the number of stores in high-volume shopping centers and have expanded the number and type of products offered. In contrast to independents, chains, cooperatives, and voluntaries can more easily take advantage of technological advances and use better management and marketing techniques.

A number of technological innovations have been introduced into drugstore operations. These include electronic price-marking machines and electronic prescription-filling and -logging machines. Electronic cash registers now tabulate and keep accurate sales and inventory records. Computers are used for bookkeeping operations, data processing, and inventory control. They are also used to forecast seasonal needs in stores and warehouses and to handle the increased paperwork involved in third-party payment plans in prescription departments.

Methods and Data

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

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

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

Although the weights relate to fixed periods, they are updated periodically, usually in conjunction with economic censuses. Thus, most indexes for 1947–58 are based on 1947 weights; for 1958–63, 1958 weights; for 1963–67, 1963 weights; for 1967–72, 1967 weights; and for 1972–79, 1972 weights. For three industries—railroads, iron mining, and copper mining—two alternative productivity measures, using different concepts of industry output, are presented.

Beginning in 1978, the productivity and output measures for the steel industry (SIC 331) reflect the introduction of 1977 weights and a modification in the methodology used to construct the output measure. Previously, the individual steel mill products were combined with relative weights which reflected only those hours required beyond the raw steel or ingot stage of production. The new relative weights reflect all of the employee hours associated with the production of each individual product, not just the hours required beyond the raw steel or ingot stage. The measure is also adjusted for net additions to inventory. The change in methodology was necessary because of the increasing use of continuous casting techniques. These techniques eliminate the ingot stage in the production of steel mill products.

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 1972 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 not only hours at work but 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 BLS data are used for the measures of employment and hours have been revised to reflect adjustments to new universe levels. In other industries, the indexes have been revised back to 1977.

This report includes indexes of output per employee hour and output per employee. In most cases, the indexes are shown for all employees, production workers, and nonproduction workers.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 nonproduc-

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

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

tion worker. Prior to 1968, the estimates of average annual hours paid were calculated by multiplying the number of workweeks in the year by the scheduled weekly hours. Estimated hours for vacations, holidays, disability, and personal time off were subtracted from average annual hours paid to obtain an estimate of average annual hours worked. Vacation and holiday trends were based on studies by the U.S. Department of Health and Human Services and on data from BLS surveys. Personal time off was estimated as a constant on the basis of data obtained from various sources. Since 1968, 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*.

For six service industries—retail food stores; gasoline service stations; eating and drinking places; drug stores and proprietary stores; hotels, motels, and tourist courts; and laundry and cleaning services—measures of the hours of partners, proprietors, and supervisory workers were developed. Except for hotels, motels, and tourist courts, 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 1960 and 1970 censuses of population. Estimates for intercensal years were derived using extrapolation and linear interpolation techniques.

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

Manufacturing 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 errors in these estimates, however, would have a relatively insignificant effect on the trend in the hours for all employees.

The output indexes and employee hour components of the industry productivity indexes are based on data from a number of different sources which are identified in the accompanying tables. For most of the industries, the 1979 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 using the Bureau of the Census as the primary source of employment and employee hours, the 1979 indexes were developed by linking employment and employee hour data from BLS, since 1979 Census Bureau data are not yet available. Therefore, all 1979 output per employee hour measures are considered preliminary and are subject to revision.

The indexes refer to the standard reference base 1967 = 100 and, beginning in 1972, conform to the 1972 Standard Industrial Classification (SIC) definitions.

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

More detailed information on the methods, limitations, and data sources is contained in the *BLS Handbook of Methods*, Bulletin 1910 (1976), chapter 31, and in a number of individual industry reports. Industry reports as well as additional information are available on request. The *Handbook* is for sale by the Superintendent of Documents, Washington, D.C. 20402, or at the BLS regional offices listed on the inside back cover of this bulletin.

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	12	2, 3	13
1011	Iron mining, usable ore	3	14	4, 5	15
1021	Copper mining, crude ore	4	16	6, 7	17
1021	Copper mining, recoverable metal	5	18	8, 9	19
111, 121	Coal mining	6	20	10, 11	21
121	Bituminous coal and lignite mining	7	22	12, 13	23
14	Nonmetallic minerals, except fuels	8	24	14, 15	25
142	Crushed and broken stone	9	26	16, 17	27
Manufacturing					
2026	Fluid milk	10	28	18	29
203	Preserved fruits and vegetables	11	30	19, 20	31
2033	Canned fruits and vegetables	12	32	21, 22	33
204	Grain mill products	13	34	23, 24	35
2041	Flour and other grain mill products	14	36	25, 26	37
2043	Cereal breakfast foods	15	38	27, 28	39
2044	Rice milling	16	40	29, 30	41
2045	Blended and prepared flour	17	42	31, 32	43
2046	Wet corn milling	18	44	33, 34	45
2047, 48	Prepared feeds for animals and fowls	19	46	35, 36	47
205	Bakery products	20	48	37, 38	49
2061, 62, 63	Sugar	21	50	39, 40	51
2061, 62	Raw and refined cane sugar	22	52	41, 42	53
2063	Beet sugar	23	54	43, 44	55
2065	Candy and other confectionery products	24	56	45, 46	57
2082	Malt beverages	25	58	47, 48	59
2086	Bottled and canned soft drinks	26	60	49, 50	61
2111, 21, 31	All tobacco products	27	62	51, 52	63
2111, 2131	Cigarettes, chewing and smoking tobacco	28	64	53, 54	65
2121	Cigars	29	66	55, 56	67
2251, 52	Hosiery	30	68	57, 58	69
2421	Sawmills and planing mills, general	31	70	59, 60	71
2435, 2436	Veneer and plywood	32	72	61, 62	73
251	Household furniture	33	74	63, 64	75
2511, 2517	Wood household furniture	34	76	65, 66	77
2512	Upholstered household furniture	35	78	67, 68	79
2514	Metal household furniture	36	80	69, 70	81
2515	Mattresses and bedsprings	37	82	71, 72	83

Indexes of output per employee hour and related data— Continued

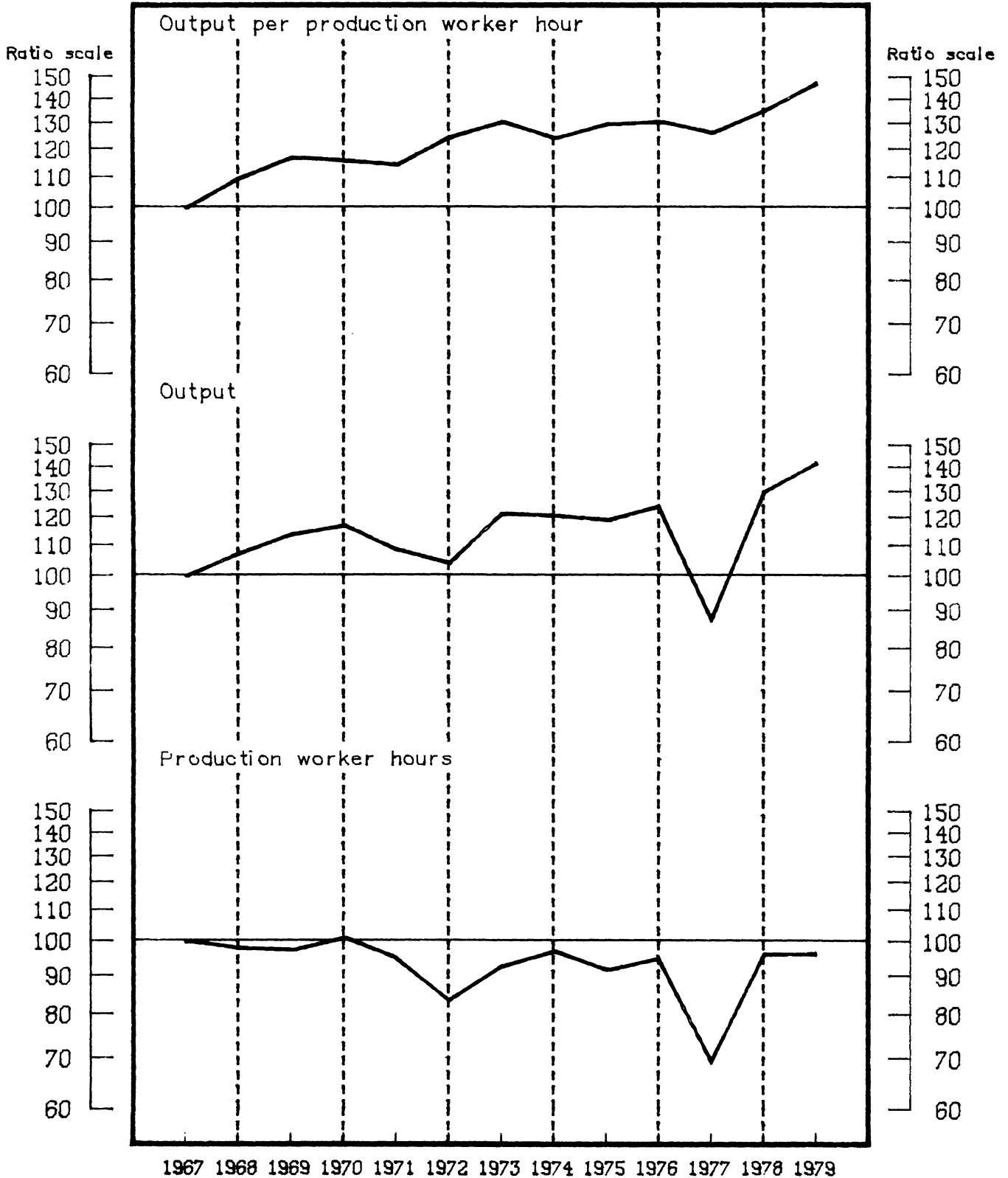
SIC code	Industry	Chart	Page	Table	Page
2611, 21, 31, 61	Paper, paperboard, and pulp mills	38	84	73, 74	85
2643	Paper and plastic bags	39	86	75, 76	87
2651	Folding paperboard boxes	40	88	77, 78	89
2653	Corrugated and solid fiber boxes	41	90	79, 80	91
2823, 24	Synthetic fibers	42	92	81, 82	93
2834	Pharmaceutical preparations	43	94	83, 84	95
2841	Soaps and detergents	44	96	85, 86	97
2851	Paints and allied products	45	98	87, 88	99
2911	Petroleum refining	46	100	89, 90	101
3011	Tires and inner tubes	47	102	91, 92	103
314	Footwear	48	104	93, 94	105
3221	Glass containers	49	106	95, 96	107
3241	Hydraulic cement	50	108	97, 98	109
325	Structural clay products	51	110	99, 100	111
3251, 53, 59	Clay construction products	52	112	101, 102	113
3251	Brick and structural clay tile	53	114	103, 104	115
3253	Ceramic wall and floor tile	54	116	105, 106	117
3255	Clay refractories	55	118	107, 108	119
3271, 72	Concrete products	56	120	109, 110	121
3273	Ready-mixed concrete	57	122	111	123
331	Steel	58	124	112, 113	125
3321	Gray iron foundries	59	126	114, 115	127
3324, 25	Steel foundries	60	128	116, 117	129
3331, 32, 33	Primary copper, lead, and zinc	61	130	118, 119	131
3331	Primary copper	62	132	120, 121	133
3334	Primary aluminum	63	134	122, 123	135
3351	Copper rolling and drawing	64	136	124, 125	137
3353, 54, 55	Aluminum rolling and drawing	65	138	126, 127	139
3411	Metal cans	66	140	128, 129	141
3441	Fabricated structural metal	67	142	130, 131	143
3531	Construction machinery and equipment	68	144	132, 133	145
3562	Ball and roller bearings	69	146	134, 135	147
3621	Motors and generators	70	148	136, 137	149
3631, 32, 33, 39	Major household appliances	71	150	138, 139	151
3631	Household cooking equipment	72	152	140, 141	153
3632	Household refrigerators and freezers	73	154	142, 143	155
3633	Household laundry equipment	74	156	144, 145	157
3639	Household appliances, not elsewhere classified	75	158	146, 147	159
3641	Electric lamps	76	160	148, 149	161
3645, 46, 47, 48	Lighting fixtures	77	162	150, 151	163
3651	Radio and television receiving sets	78	164	152, 153	165
371	Motor vehicles and equipment	79	166	154, 155	167
Other					
401	Railroad transportation, revenue traffic	80	168	156, 157	169
401	Railroad transportation, car miles	81	170	158, 159	171
4111, 4131, 414 pts	Bus carriers, class I	82	172	160	173
4213 part	Intercity trucking	83	174	161	175

Indexes of output per employee hour and related data— Continued

SIC code	Industry	Chart	Page	Table	Page
4213 part	Intercity trucking, general freight	84	176	162	177
4511	Air transportation	85	178	163	179
4612, 13	Petroleum pipelines	86	180	164, 165	181
4811	Telephone communications	87	182	166	183
491, 492, 493	Gas and electric utilities	88	184	167, 168	185
491, 493 part	Electric utilities	89	186	169	187
492, 493 part	Gas utilities	90	188	170	189
54	Retail food stores	91	190	171	191
5511	Franchised new car dealers	92	192	172	193
5541	Gasoline service stations	93	194	173	195
58	Eating and drinking places	94	196	174	197
5912	Drug and proprietary stores	95	198	175	199
7011	Hotels, motels and tourist courts	96	200	176	201
721	Laundry and cleaning services	97	202	177	203

Chart 2. Iron mining, crude ore (SIC 1011): Output per hour and related data, 1967-79

(1967 = 100)



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

Table 2. Iron mining, crude ore (SIC 1011): Indexes of output per hour of production workers and output per employee, 1954-79
(1967 = 100)

Year	Output per hour of production workers ¹	Output per employee ¹		
		All employees	Production workers	Nonproduction workers
Index:				
1954	41.0	39.6	38.3	46.0
1955	52.9	53.6	52.5	58.0
1956	55.5	53.9	54.2	52.8
1957	56.2	53.3	54.2	50.2
1958	55.1	45.4	48.4	36.6
1959	57.1	48.7	52.3	38.2
1960	64.9	61.3	62.6	56.3
1961	75.2	66.9	70.3	56.2
1962	81.0	74.9	78.1	64.4
1963	90.0	83.5	84.7	78.4
1964	97.6	94.3	94.3	94.3
1965	94.5	93.3	92.6	96.1
1966	95.8	96.6	96.2	97.8
1967	100.0	100.0	100.0	100.0
1968	109.6	108.2	109.1	104.9
1969	116.9	113.7	115.7	106.8
1970	115.6	113.8	116.2	105.4
1971	114.1	108.8	110.8	101.8
1972	124.4	119.2	122.2	108.6
1973	130.6	129.7	131.3	123.8
1974	124.0	127.7	128.1	125.7
1975	129.7	127.9	130.4	118.8
1976	130.6	128.1	130.6	119.0
1977	126.0	114.6	125.3	85.8
1978	135.1	135.2	138.2	124.4
1979 ²	147.0	145.6	150.1	130.4
Average annual percent change:				
1947-79	4.8	4.4	4.8	2.6
1974-79	2.7	2.1	2.7	()

¹ The output measures underlying the output per hour of production workers 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 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 3. Iron mining, crude ore (SIC 1011): Indexes of output, hours of production workers, and employees, 1954-79
(1967 = 100)

Year	Output	Hours of production workers	Employees		
			All employees	Production workers	Nonproduction workers
Index:					
1954	60.0	146.5	151.4	156.7	130.5
1955	78.2	147.7	146.0	148.9	134.9
1956	80.4	144.9	149.2	148.4	152.2
1957	88.5	157.4	165.9	163.4	176.2
1958	60.5	109.8	133.2	125.0	165.3
1959	56.6	99.1	116.3	108.3	148.0
1960	85.7	132.1	139.9	136.8	152.2
1961	75.8	100.8	113.3	107.8	134.9
1962	79.8	98.5	106.6	102.2	124.0
1963	85.3	94.8	102.2	100.7	108.8
1964	96.4	98.8	102.2	102.2	102.2
1965	98.2	103.9	105.3	106.1	102.2
1966	100.0	104.4	103.5	103.9	102.2
1967	100.0	100.0	100.0	100.0	100.0
1968	107.2	97.8	99.1	98.3	102.2
1969	113.7	97.3	100.0	98.3	106.5
1970	116.9	101.1	102.7	100.6	110.9
1971	108.4	95.0	99.6	97.8	106.5
1972	103.9	83.5	87.2	85.0	95.7
1973	121.1	92.7	93.4	92.2	97.8
1974	120.3	97.0	94.2	93.9	95.7
1975	118.8	91.6	92.9	91.1	100.0
1976	124.1	95.0	96.9	95.0	104.3
1977	87.7	69.6	76.5	70.0	102.2
1978	129.8	96.1	96.0	93.9	104.2
1979 ¹	141.7	96.4	97.3	94.4	108.7
Average annual percent change:					
1947-79	2.2	-2.5	-2.1	-2.4	-3
1974-79	2.1	-6	.1	-5	2.1

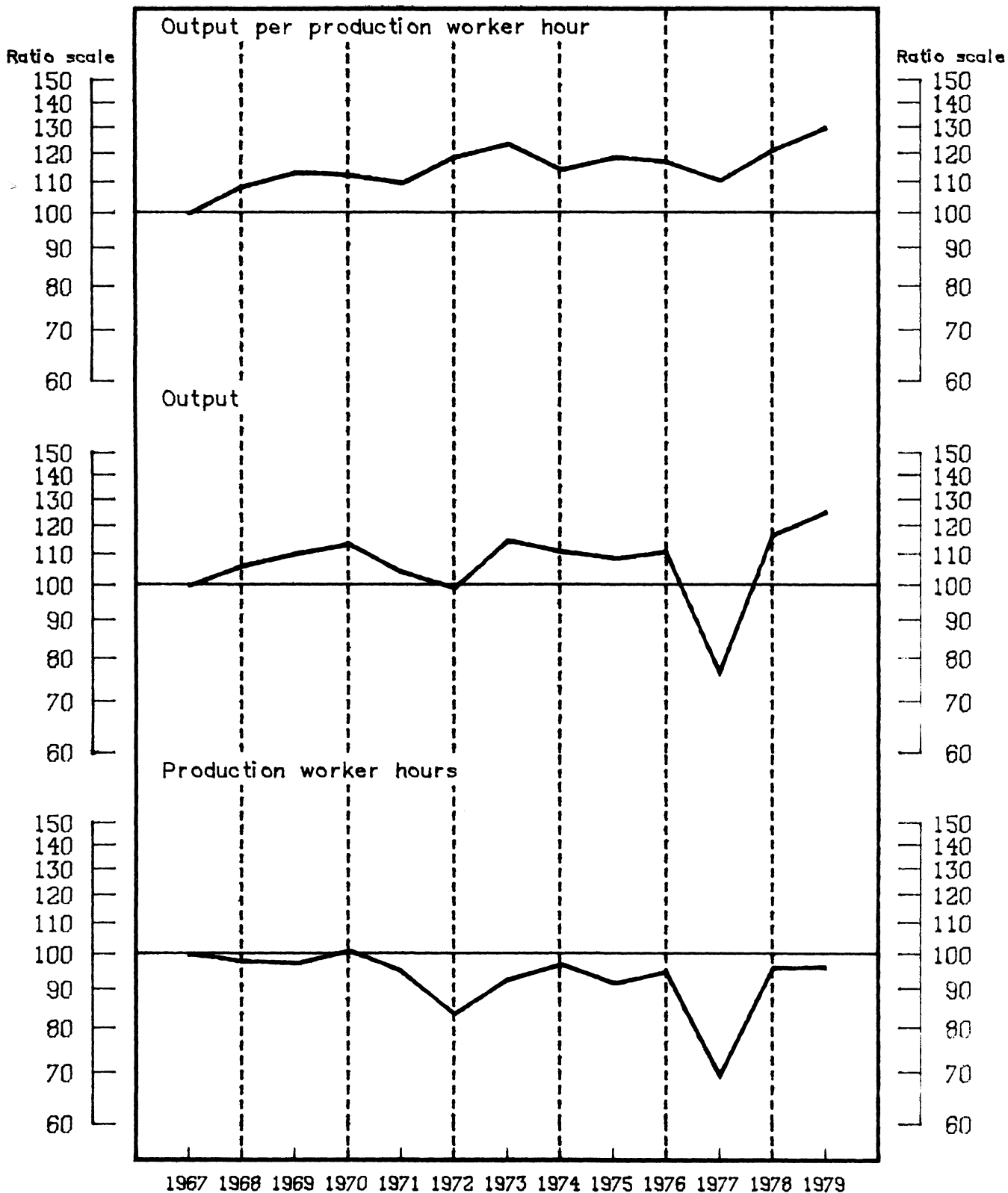
¹ Preliminary.

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 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 3. Iron mining, usable ore (SIC 1011): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 4. Iron mining, usable ore (SIC 1011): Indexes of output per hour of production workers and output per employee, 1954-79
(1967 = 100)

Year	Output per hour of production workers ¹	Output per employee ¹		
		All employees	Production workers	Nonproduction workers
Index:				
1954	48.3	46.7	45.1	54.2
1955	63.4	64.2	62.9	69.5
1956	63.4	61.5	61.9	60.3
1957	64.0	60.8	61.7	57.2
1958	60.1	49.5	52.8	39.9
1959	59.9	51.1	54.8	40.1
1960	66.8	63.1	64.5	58.0
1961	71.6	63.7	67.0	53.5
1962	75.5	69.8	72.8	60.0
1963	82.9	76.9	78.1	72.2
1964	91.8	88.7	88.7	88.7
1965	92.2	91.0	90.3	93.7
1966	97.5	98.4	98.0	99.6
1967	100.0	100.0	100.0	100.0
1968	108.6	107.2	108.0	103.9
1969	113.3	110.2	112.1	103.5
1970	112.3	110.5	112.8	102.3
1971	109.6	104.5	106.4	97.7
1972	118.8	113.8	116.7	103.7
1973	123.6	122.7	124.3	117.2
1974	114.2	117.6	118.0	115.8
1975	118.6	116.9	119.2	108.6
1976	116.8	114.6	116.8	106.4
1977	110.5	100.5	109.9	75.2
1978	121.4	121.6	124.3	111.9
1979 ²	129.9	128.7	132.6	115.2
Average annual percent change:				
1947-79	3.6	3.2	3.5	1.4
1974-79	1.9	1.3	1.9	-8

¹ The output measures underlying the output per hour of production workers 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 5. Iron mining, usable ore (SIC 1011): Indexes of output, hours of production workers, and employees, 1954-79
(1967 = 100)

Year	Output	Hours of production workers	Employees		
			All employees	Production workers	Nonproduction workers
Index:					
1954	70.7	146.5	151.4	156.7	130.5
1955	93.7	147.7	146.0	148.9	134.9
1956	91.8	144.9	149.2	148.4	152.2
1957	100.8	157.4	165.9	163.4	176.2
1958	66.0	109.8	133.2	125.0	165.3
1959	59.4	99.1	116.3	108.3	148.0
1960	88.3	132.1	139.9	136.8	152.2
1961	72.2	100.8	113.3	107.8	134.9
1962	74.4	98.5	106.6	102.2	124.0
1963	78.6	94.8	102.2	100.7	108.8
1964	90.7	98.8	102.2	102.2	102.2
1965	95.8	103.9	105.3	106.1	102.2
1966	101.8	104.4	103.5	103.9	102.2
1967	100.0	100.0	100.0	100.0	100.0
1968	106.2	97.8	99.1	98.3	102.2
1969	110.2	97.3	100.0	98.3	106.5
1970	113.5	101.1	102.7	100.6	110.9
1971	104.1	95.0	99.6	97.8	106.5
1972	99.2	83.5	87.2	85.0	95.7
1973	114.6	92.7	93.4	92.2	97.8
1974	110.8	97.0	94.2	93.9	95.7
1975	108.6	91.6	92.9	91.1	100.0
1976	111.0	95.0	96.9	95.0	104.3
1977	76.9	69.6	76.5	70.0	102.2
1978	116.7	96.1	96.0	93.9	104.3
1979 ¹	125.2	96.4	97.3	94.4	108.7
Average annual percent change:					
1947-79	1.0	-2.5	-2.1	-2.4	-3
1974-79	1.3	-6	.1	-5	2.1

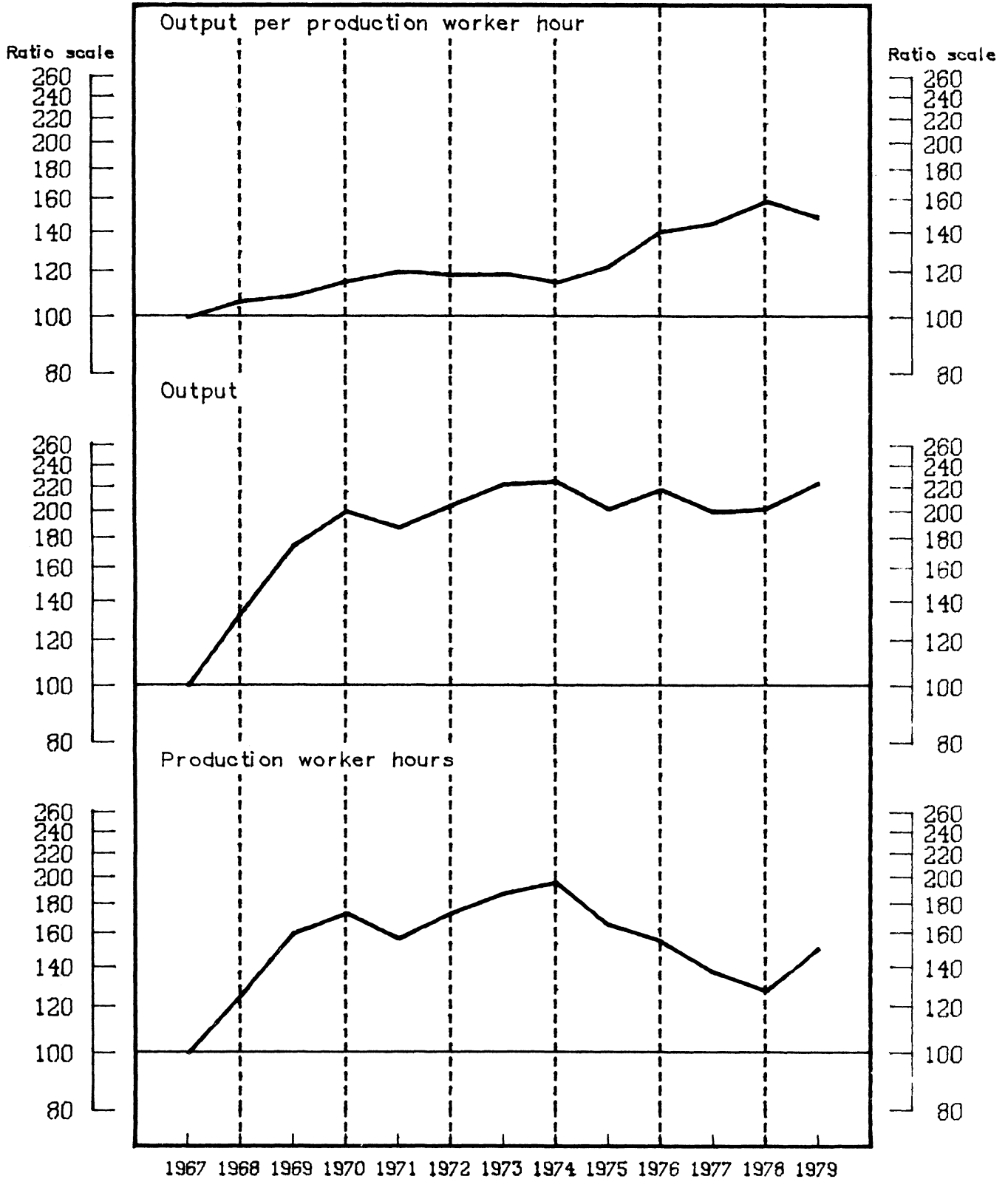
¹ Preliminary.

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 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 4. Copper mining, crude ore (SIC 1021): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 6. Copper mining, crude ore (SIC 1021): Indexes of output per hour of production workers and output per employee, 1954-79
(1967 = 100)

Year	Output per hour of production workers ¹	Output per employee ¹		
		All employees	Production workers	Nonproduction workers
Index:				
1954	49.9	56.5	53.8	64.7
1955	56.4	65.6	62.7	75.5
1956	57.5	66.7	63.0	80.0
1957	63.1	67.8	64.8	77.7
1958	69.8	70.0	68.1	76.0
1959	71.5	75.6	75.2	76.8
1960	73.3	82.2	80.2	88.7
1961	75.2	86.0	80.5	106.7
1962	82.3	93.1	86.1	120.5
1963	82.0	94.5	86.2	129.6
1964	93.5	105.3	96.6	140.5
1965	96.2	109.3	99.4	151.2
1966	101.9	114.1	104.3	154.7
1967	100.0	100.0	100.0	100.0
1968	106.5	117.7	117.3	118.8
1969	109.0	125.8	119.1	148.7
1970	115.3	128.9	123.1	148.6
1971	119.8	126.3	125.3	129.3
1972	118.1	123.7	119.3	138.1
1973	118.6	124.9	119.8	141.9
1974	114.7	116.6	112.9	128.0
1975	122.2	116.9	116.8	117.1
1976	140.5	134.2	134.7	133.0
1977	145.4	134.3	135.3	131.5
1978	158.6	152.5	153.2	150.5
1979 ²	148.6	153.5	152.5	156.5
Average annual percent change:				
1947-79	4.4	3.6	3.9	2.5
1974-79	6.2	6.4	6.9	5.1

¹ The output measures underlying the output per hour of production workers 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 7. Copper mining, crude ore (SIC 1021): Indexes of output, hours of production workers, and employees, 1954-79
(1967 = 100)

Year	Output ¹	Hours of production workers	Employees		
			All employees	Production workers	Nonproduction workers
Index:					
1954	71.4	143.0	126.4	132.7	110.3
1955	85.9	152.3	130.9	137.0	113.8
1956	100.7	175.2	150.9	159.9	125.9
1957	99.2	157.1	146.4	153.1	127.6
1958	87.8	125.7	125.5	129.0	115.5
1959	79.4	111.0	105.0	105.6	103.4
1960	103.9	141.7	126.4	129.6	117.2
1961	110.3	146.6	128.2	137.0	103.4
1962	116.4	141.5	125.0	135.2	96.6
1963	113.9	138.9	120.5	132.1	87.9
1964	121.1	129.5	115.0	125.3	86.2
1965	135.6	141.0	124.1	136.4	89.7
1966	146.7	144.0	128.6	140.7	94.8
1967	100.0	100.0	100.0	100.0	100.0
1968	133.2	125.1	113.2	113.6	112.1
1969	174.3	159.9	138.6	146.3	117.2
1970	199.8	173.3	155.0	162.3	134.5
1971	187.2	156.3	148.2	149.4	144.8
1972	204.8	173.4	165.5	171.6	148.3
1973	222.6	187.7	178.2	185.8	156.9
1974	225.2	196.3	193.2	199.4	175.9
1975	201.8	165.2	172.7	172.8	172.4
1976	217.8	155.0	162.3	161.7	163.8
1977	199.5	137.2	148.6	147.5	151.7
1978	202.4	127.6	132.7	132.1	134.5
1979 ²	224.0	150.7	145.9	146.9	143.1
Average annual percent change:					
1947-79	4.5	.1	.9	.6	2.0
1974-79	-3	-6.1	-6.3	-6.7	-5.2

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

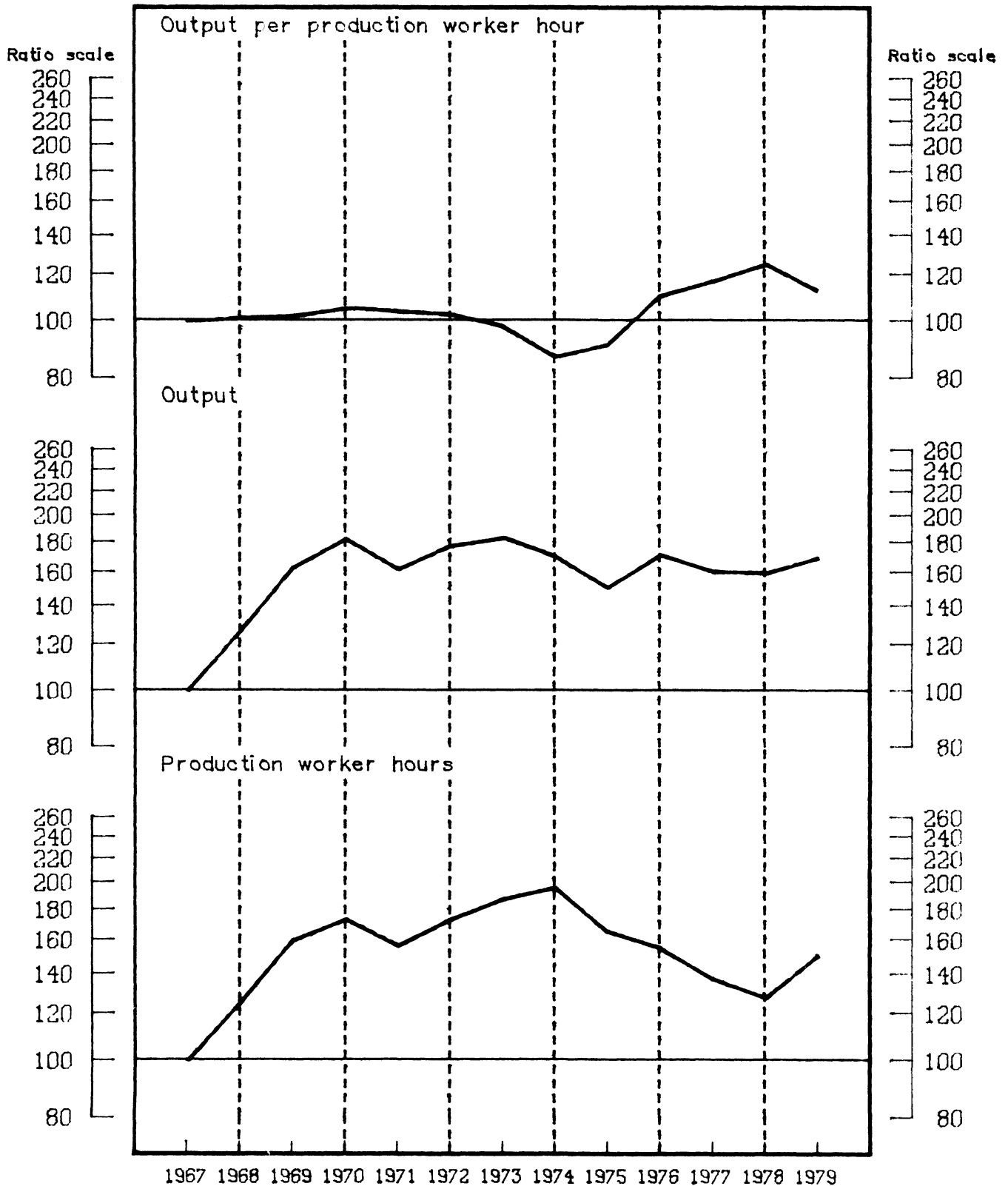
² Preliminary.

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.

Chart 5. Copper mining, recoverable metal (SIC 1021): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 8. Copper mining, recoverable metal (SIC 1021): Indexes of output per hour of production workers and output per employee, 1954-79
(1967 = 100)

Year	Output per hour of production workers ¹	Output per employee ¹		
		All employees	Production workers	Nonproduction workers
Index:				
1954	60.5	68.4	65.2	78.4
1955	68.2	79.3	75.8	91.2
1956	65.6	76.1	71.9	91.3
1957	71.8	77.0	73.7	88.4
1958	81.1	81.3	79.1	88.3
1959	77.2	81.6	81.2	82.9
1960	79.4	89.0	86.8	96.0
1961	82.9	94.8	88.7	117.5
1962	90.4	102.3	94.6	132.4
1963	90.9	104.8	95.6	143.7
1964	100.3	113.0	103.7	150.7
1965	100.1	113.8	103.5	157.4
1966	103.8	116.3	106.3	157.7
1967	100.0	100.0	100.0	100.0
1968	101.3	111.9	111.5	113.0
1969	102.0	117.7	111.5	139.2
1970	105.2	117.6	112.3	135.5
1971	103.6	109.3	108.4	111.9
1972	102.5	107.4	103.6	119.9
1973	97.8	103.0	98.8	117.0
1974	86.9	88.3	85.5	96.9
1975	91.3	87.4	87.3	87.5
1976	110.6	105.7	106.1	104.7
1977	117.1	108.1	108.9	105.9
1978	125.2	120.4	121.0	118.8
1979 ²	112.7	116.4	115.7	118.7
Average annual percent change:				
1947-79	2.4	1.6	1.9	.6
1974-79	6.8	7.0	7.4	5.7

¹ The output measures underlying the output per hour of production workers 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 9. Copper mining, recoverable metal (SIC 1021): Indexes of output, hours of production workers, and employees, 1954-79
(1967 = 100)

Year	Output ¹	Hours of production workers	Employees		
			All employees	Production workers	Nonproduction workers
Index:					
1954	86.5	143.0	126.4	132.7	110.3
1955	103.8	152.3	130.9	137.0	113.8
1956	114.9	175.2	150.9	159.9	125.9
1957	112.8	157.1	146.4	153.1	127.6
1958	102.0	125.7	125.5	129.0	115.5
1959	85.7	111.0	105.0	105.6	103.4
1960	112.5	141.7	126.4	129.6	117.2
1961	121.5	146.6	128.2	137.0	103.4
1962	127.9	141.5	125.0	135.2	96.6
1963	126.3	138.9	120.5	132.1	87.9
1964	129.9	129.5	115.0	125.3	86.2
1965	141.2	141.0	124.1	136.4	89.7
1966	149.5	144.0	128.6	140.7	94.8
1967	100.0	100.0	100.0	100.0	100.0
1968	126.7	125.1	113.2	113.6	112.1
1969	163.1	159.9	138.6	146.3	117.2
1970	182.3	173.3	155.0	162.3	134.5
1971	162.0	156.3	148.2	149.4	144.8
1972	177.8	173.4	165.5	171.6	148.3
1973	183.5	187.7	178.2	185.8	156.9
1974	170.5	196.3	193.2	199.4	175.9
1975	150.9	165.2	172.7	172.8	172.4
1976	171.5	155.0	162.3	161.7	163.8
1977	160.6	137.2	148.6	147.5	151.7
1978	159.8	127.6	132.7	132.1	134.5
1979 ²	169.9	150.7	145.9	146.9	143.1
Average annual percent change:					
1947-79	2.5	.1	.9	.6	2.0
1974-79 .....	.3	-6.1	-6.3	-6.7	-5.2

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

² Preliminary.

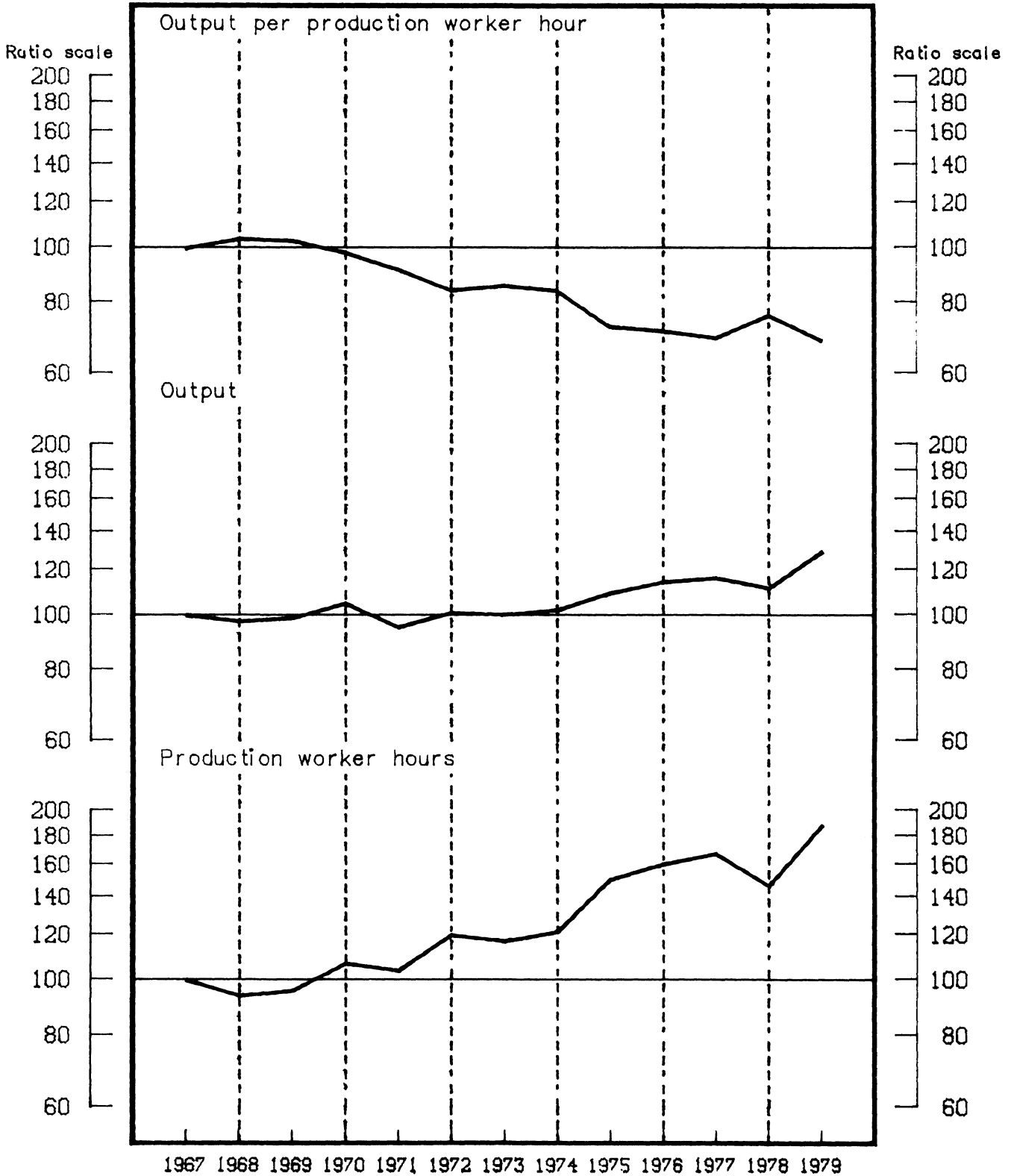
NOTE: Because of periodic revisions in source data, the measures in this table

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.

Chart 6. Coal mining (SIC 111,121): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 10. Coal mining (SIC 111, 121): Indexes of output per hour of production workers and output per employee, 1954-79
(1967 = 100)

Year	Output per hour of production workers ¹	Output per employee ¹		
		All employees	Production workers	Nonproduction workers
Index:				
1954	47.7	40.7	39.3	55.5
1955	51.2	50.1	48.3	68.4
1956	54.1	52.6	50.9	68.2
1957	54.8	50.8	49.7	60.9
1958	61.2	50.8	51.0	49.7
1959	62.7	55.2	55.7	52.0
1960	66.8	58.6	59.2	54.9
1961	74.0	65.2	65.7	62.3
1962	79.2	72.0	71.9	73.4
1963	83.1	79.2	78.4	86.2
1964	87.8	84.5	83.6	91.3
1965	93.1	91.4	91.0	94.7
1966	98.0	97.6	97.6	97.9
1967	100.0	100.0	100.0	100.0
1968	103.8	101.3	102.6	93.7
1969	103.1	99.6	101.0	90.7
1970	98.1	97.7	98.5	92.2
1971	91.6	87.4	91.4	67.2
1972	84.2	83.3	85.4	71.6
1973	85.8	82.3	84.9	67.9
1974	84.1	75.7	78.3	61.4
1975	72.7	68.5	71.1	54.5
1976	71.4	67.7	70.6	52.5
1977	69.5	68.7	71.6	53.4
1978	76.1	70.8	76.5	46.9
1979	68.8	65.5	69.9	45.6
Average annual percent change:				
1947-79	3.2	3.3	3.7	.1
1974-79	-2.5	-1.7	-9	-5.3

¹ The output measures underlying the output per hour of production workers 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; 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 11. Coal mining (SIC 111, 121): Indexes of output, hours of production workers, and employees, 1954-79
(1967 = 100)

Year	Output	Hours of production workers	Employees		
			All employees	Production workers	Nonproduction workers
Index:					
1954	79.4	166.6	195.0	202.2	143.0
1955	91.6	178.9	182.7	189.6	133.9
1956	99.7	184.4	189.7	195.8	146.1
1957	97.1	177.3	191.0	195.5	159.4
1958	81.3	132.9	160.1	159.4	163.7
1959	81.2	129.6	147.2	145.9	156.3
1960	80.8	120.9	138.0	136.6	147.2
1961	77.8	105.1	119.4	118.5	124.8
1962	80.9	102.2	112.3	112.5	110.2
1963	87.8	105.6	110.8	112.0	101.8
1964	91.8	104.5	108.7	109.8	100.6
1965	94.7	101.7	103.6	104.1	100.0
1966	97.3	99.3	99.7	99.7	99.4
1967	100.0	100.0	100.0	100.0	100.0
1968	97.6	94.0	96.3	95.1	104.2
1969	99.0	96.0	99.4	98.0	109.1
1970	105.0	107.0	107.5	106.6	113.9
1971	95.3	104.0	109.0	104.3	141.8
1972	101.1	120.0	121.3	118.4	141.2
1973	100.4	117.0	122.0	118.2	147.9
1974	102.3	121.6	135.2	130.7	166.7
1975	109.6	150.8	160.0	154.1	201.2
1976	114.6	160.6	169.4	162.4	218.2
1977	116.5	167.7	169.5	162.6	218.2
1978	111.8	147.0	157.8	146.2	238.2
1979	129.6	188.3	197.8	185.4	284.2
Average annual percent change:					
1947-79	.3	-2.8	-2.9	-3.3	.2
1974-79	3.7	6.3	5.5	4.7	9.5

¹ Preliminary.

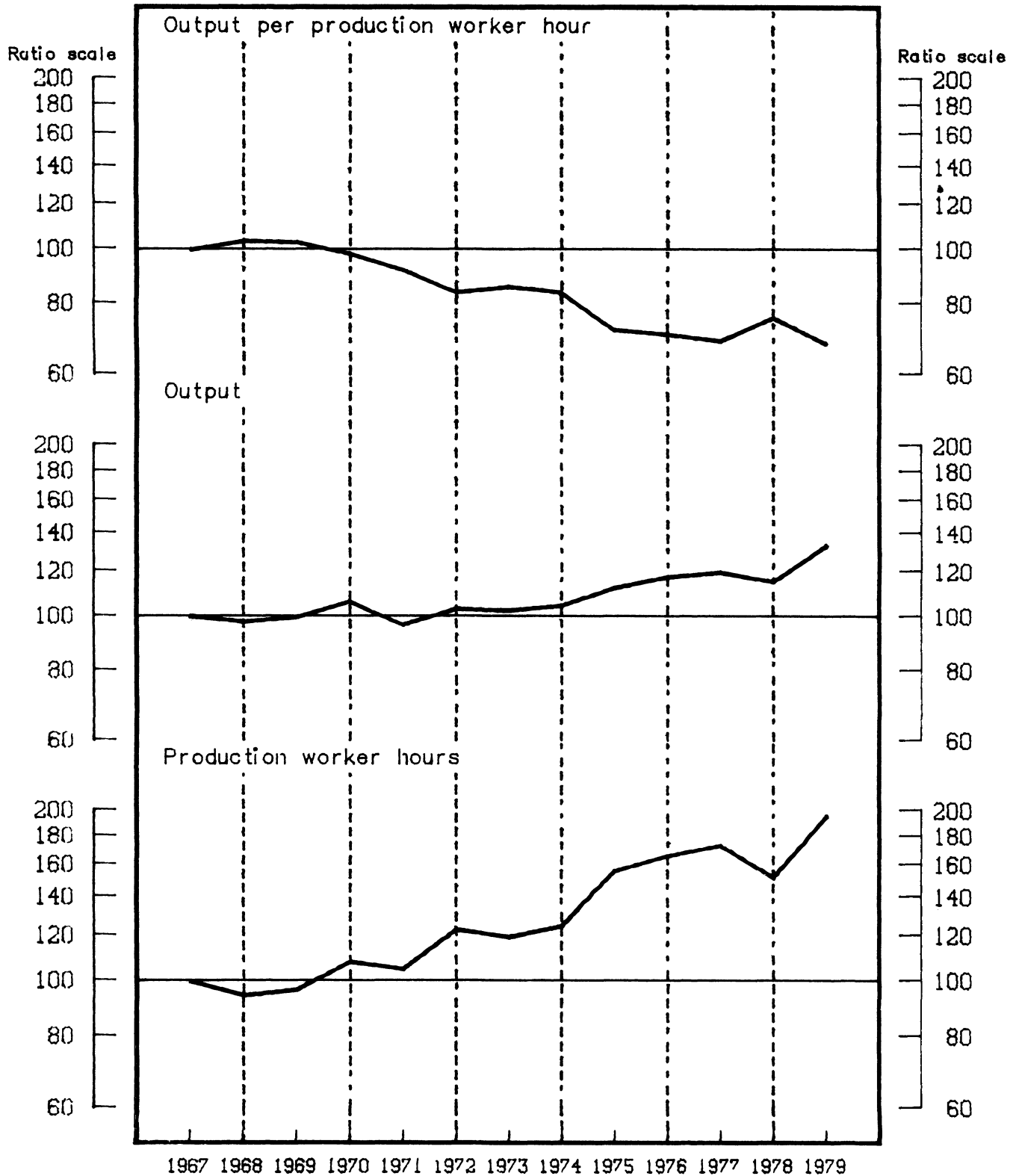
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Energy Information Administration, U.S.

Department of Energy, 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 7. Bituminous coal and lignite mining (SIC 121): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 12. Bituminous coal and lignite mining (SIC 121): Indexes of output per hour of production workers and output per employee, 1954-79
(1967 = 100)

Year	Output per hour of production workers	Output per employee		
		All employees	Production workers	Nonproduction workers
Index:				
1954	46.4	40.4	38.7	57.6
1955	50.3	50.1	48.1	69.8
1956	52.4	51.6	50.0	66.9
1957	53.9	50.6	49.5	59.2
1958	60.2	50.1	50.4	48.5
1959	61.6	54.4	55.0	50.3
1960	66.2	58.0	58.6	54.1
1961	73.8	64.3	64.9	60.7
1962	78.5	70.8	70.7	71.0
1963	82.3	78.2	77.2	85.1
1964	87.9	84.4	83.4	91.4
1965	93.5	92.0	91.6	95.1
1966	98.4	97.9	98.1	96.9
1967	100.0	100.0	100.0	100.0
1968	103.6	101.1	102.5	92.4
1969	103.1	99.6	101.2	89.8
1970	96.3	97.7	98.6	92.0
1971	92.0	87.4	91.5	66.9
1972	83.9	82.8	84.8	70.8
1973	85.9	81.8	84.4	67.1
1974	83.9	74.9	77.6	60.0
1975	72.1	67.7	70.3	53.6
1976	70.8	66.9	69.8	51.8
1977	69.0	68.0	71.1	52.3
1978	75.8	70.3	76.0	46.2
1979	68.2	64.7	69.1	44.6
Average annual percent change:				
1947-79	3.3	3.3	3.8	.1
1974-79	-2.6	-1.7	-9	-5.4

The output measures underlying the output per hour of production workers 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.

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 13. Bituminous coal and lignite mining (SIC 121): Indexes of output, hours of production workers, and employees, 1954-79
(1967 = 100)

Year	Output	Hours of production workers	Employees		
			All employees	Production workers	Nonproduction workers
Index:					
1954	71.0	153.1	175.9	183.5	123.3
1955	84.7	168.3	169.2	176.0	121.4
1956	91.6	174.8	177.5	183.2	136.9
1957	90.5	168.0	179.0	182.7	153.0
1958	75.7	125.7	151.0	150.2	156.2
1959	75.9	123.2	139.6	138.0	151.0
1960	76.4	115.4	131.8	130.3	141.3
1961	74.0	100.3	115.0	114.0	122.0
1962	77.5	98.7	109.4	109.6	109.1
1963	84.1	102.2	107.6	108.9	98.8
1964	89.0	101.3	105.5	106.7	97.4
1965	93.3	99.8	101.4	101.9	98.1
1966	96.9	98.5	99.0	98.8	100.0
1967	100.0	100.0	100.0	100.0	100.0
1968	97.8	94.4	96.7	95.4	105.8
1969	99.7	96.7	100.1	98.5	111.0
1970	106.3	108.1	108.8	107.8	115.5
1971	96.6	105.0	110.5	105.6	144.5
1972	103.2	123.0	124.7	121.7	145.8
1973	102.6	119.5	125.4	121.5	152.9
1974	104.6	124.7	139.7	134.8	174.2
1975	112.4	156.0	166.1	159.9	209.7
1976	117.6	166.2	175.7	168.4	227.1
1977	119.8	173.5	176.1	168.6	229.0
1978	115.3	152.1	163.9	151.7	249.7
1979	133.4	195.6	206.3	193.0	299.4
Average annual percent change:					
1947-79	.9	-2.2	-2.3	-2.7	.8
1974-79	3.8	6.5	5.6	4.8	9.7

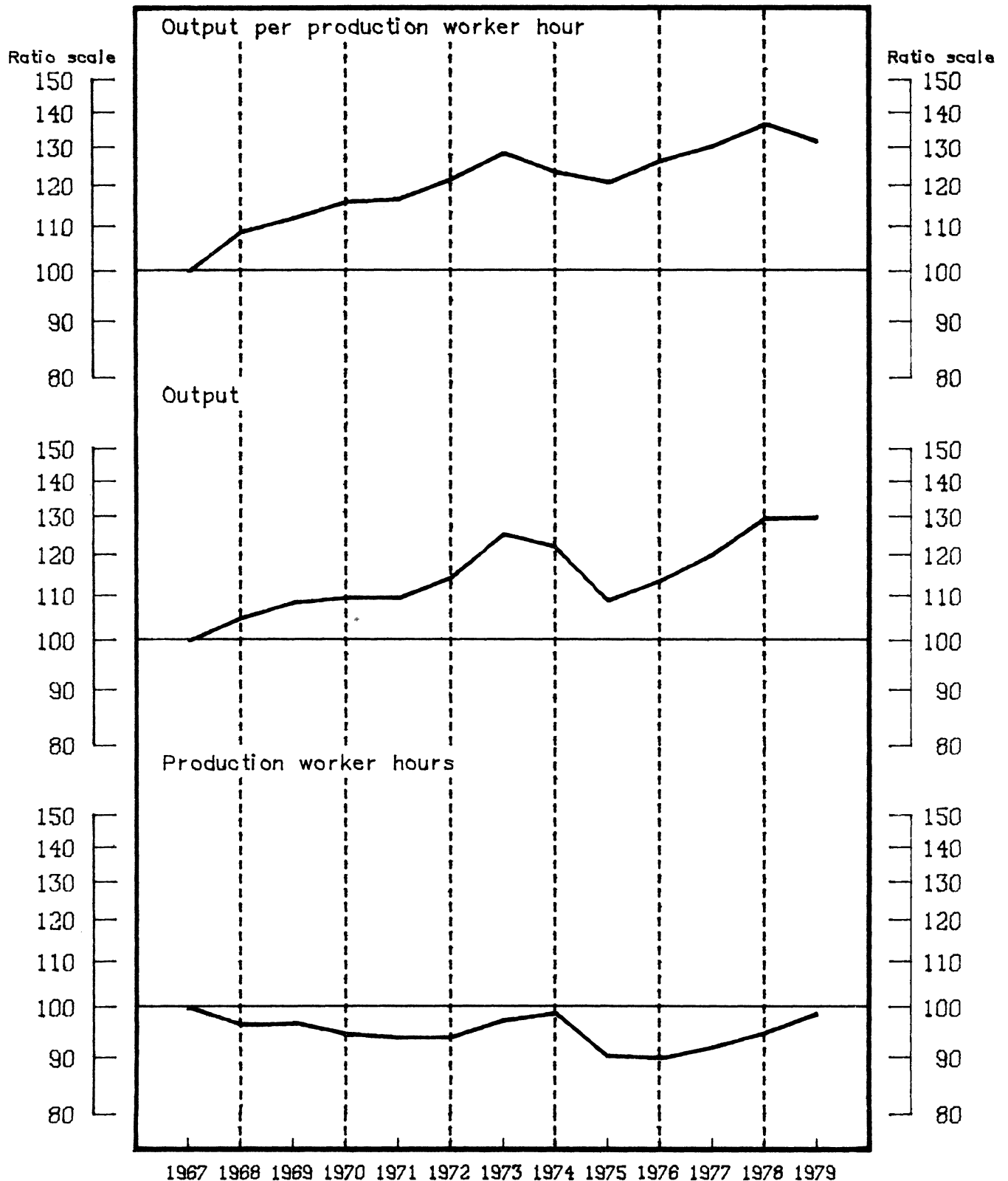
Preliminary.

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 8. Nonmetallic minerals, except fuels (SIC 14): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 14. Nonmetallic minerals, except fuels (SIC 14): Indexes of output per hour of production workers and output per employee, 1954-79
(1967 = 100)

Year	Output per hour of production workers ¹	Output per employee ¹		
		All employees	Production workers	Nonproduction workers
Index:				
1954	58.4	63.5	58.9	91.4
1955	62.8	68.0	63.5	94.0
1956	65.5	70.0	65.9	92.1
1957	70.5	72.2	69.2	87.3
1958	73.0	72.4	70.4	81.2
1959	74.4	75.9	73.5	86.7
1960	74.7	74.5	72.6	83.1
1961	78.1	77.9	76.0	85.7
1962	81.9	82.5	80.3	92.0
1963	85.7	86.5	84.5	94.8
1964	91.1	92.5	90.8	99.0
1965	93.7	96.3	94.5	103.9
1966	98.9	101.4	100.1	106.1
1967	100.0	100.0	100.0	100.0
1968	108.9	108.6	108.5	108.9
1969	112.1	113.9	113.4	115.5
1970	116.0	115.7	115.5	116.7
1971	116.7	115.9	116.7	112.7
1972	121.7	120.2	121.4	115.3
1973	128.5	128.8	130.4	122.7
1974	123.3	122.1	123.9	115.8
1975	120.7	113.9	117.3	102.7
1976	126.4	121.0	124.6	108.7
1977	130.4	126.4	129.8	114.9
1978	136.6	133.3	136.6	122.6
1979 ²	131.5	129.0	132.1	118.4
Average annual percent change:				
1954-79	3.4	3.1	3.5	1.5
1974-79	2.1	2.3	2.4	2.0

¹ The output measures underlying the output per hour of production workers 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 15. Nonmetallic minerals, except fuels (SIC 14): Indexes of output, hours of production workers, and employees, 1954-79
(1967 = 100)

Year	Output	Hours of production workers	Employees		
			All employees	Production workers	Nonproduction workers
Index:					
1954	60.3	103.3	94.9	102.4	66.0
1955	65.8	104.8	96.7	103.6	70.0
1956	71.2	108.7	101.7	108.0	77.3
1957	72.1	102.2	99.8	104.2	82.6
1958	71.7	98.2	99.1	101.9	88.3
1959	78.6	105.7	103.6	106.9	90.7
1960	79.0	105.7	106.0	108.8	95.1
1961	80.5	103.1	103.4	105.9	93.9
1962	84.2	102.8	102.1	104.8	91.5
1963	87.5	102.1	101.2	103.6	92.3
1964	92.2	101.2	99.7	101.5	93.1
1965	98.0	104.6	101.8	103.7	94.3
1966	103.6	104.7	102.2	103.5	97.6
1967	100.0	100.0	100.0	100.0	100.0
1968	105.0	96.4	96.7	96.8	96.4
1969	108.5	96.8	95.3	95.7	93.9
1970	109.6	94.5	94.7	94.9	93.9
1971	109.5	93.8	94.5	93.8	97.2
1972	114.4	94.0	95.2	94.2	99.2
1973	125.2	97.4	97.2	96.0	102.0
1974	121.9	98.9	99.8	98.4	105.3
1975	109.0	90.3	95.7	92.9	106.1
1976	113.6	89.9	93.9	91.2	104.5
1977	120.1	92.1	95.0	92.5	104.5
1978	129.6	94.9	97.2	94.9	105.7
1979 ¹	129.9	98.8	100.7	98.3	109.7
Average annual percent change:					
1954-79	2.9	-5	-2	-6	1.4
1974-79	2.6	.5	.3	.2	.6

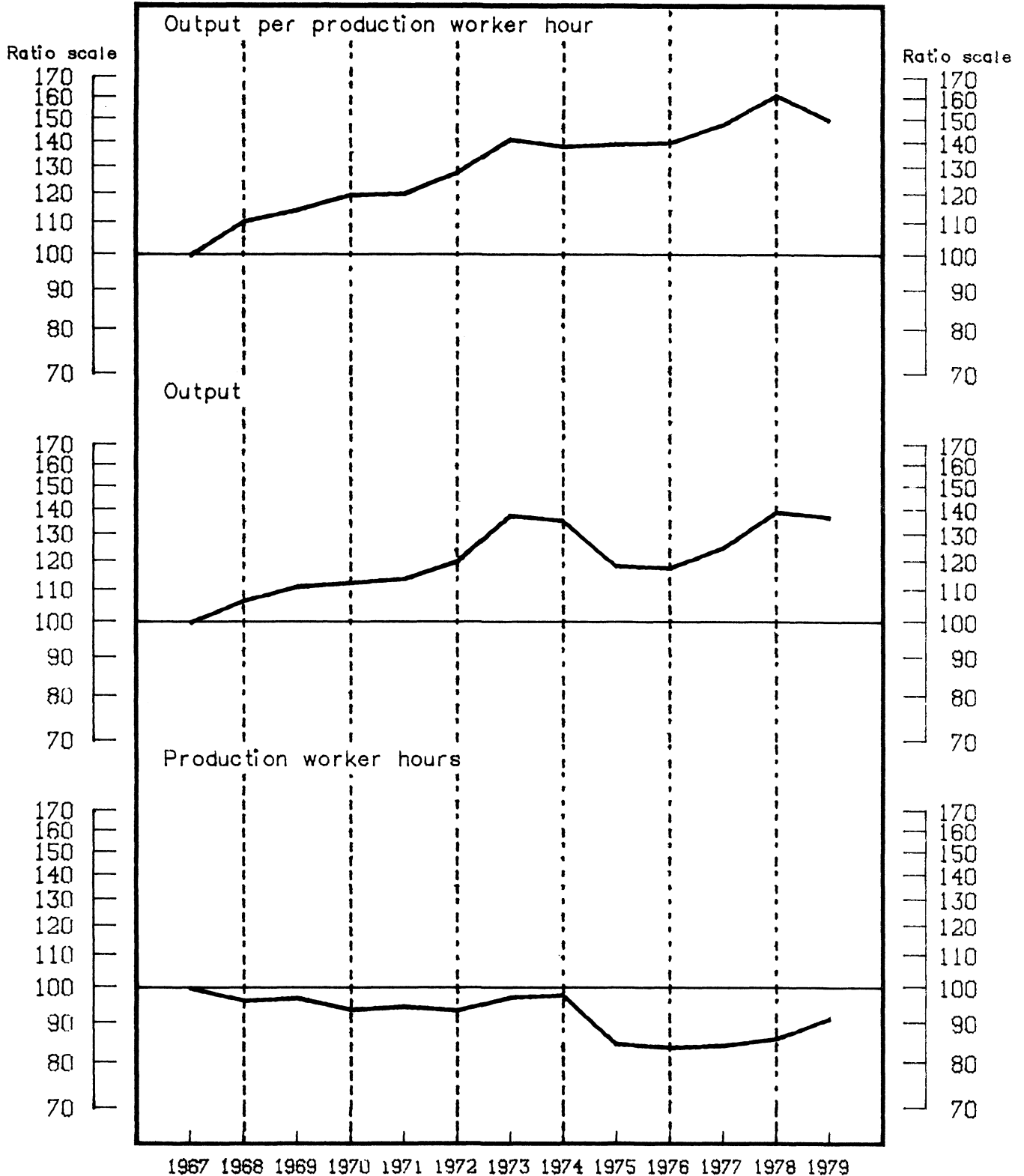
¹ Preliminary.

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 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 9. Crushed and broken stone (SIC 142): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 16. Crushed and broken stone (SIC 142): Indexes of output per hour of production workers and output per employee, 1958-79
(1967 = 100)

Year	Output per hour of production workers ¹	Output per employee ¹		
		All employees	Production workers	Nonproduction workers
Index:				
1958	73.9	71.8	71.0	75.9
1959	75.9	75.5	74.9	79.2
1960	76.7	74.1	73.6	76.7
1961	78.2	76.4	75.8	79.5
1962	81.4	80.9	79.8	86.4
1963	84.7	84.2	83.7	87.0
1964	91.5	90.5	90.2	92.5
1965	94.4	96.7	95.8	102.2
1966	99.8	101.8	101.0	105.6
1967	100.0	100.0	100.0	100.0
1968	110.7	110.3	110.5	109.8
1969	114.6	116.4	116.5	116.2
1970	119.9	117.3	119.7	106.6
1971	120.3	117.4	121.3	101.2
1972	128.2	124.5	127.6	110.9
1973	141.6	140.5	144.3	124.0
1974	138.6	135.8	140.6	116.4
1975	139.6	128.0	133.9	105.3
1976	140.2	132.2	137.0	113.1
1977	148.0	141.2	145.0	125.1
1978	161.7	157.7	161.0	143.4
1979 ²	150.1	148.6	151.1	137.2
Average annual percent change:				
1958-79	4.0	3.8	4.1	2.7
1974-79	2.6	3.3	2.8	5.4

¹ The output measures underlying the output per hour of production workers 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 17. Crushed and broken stone (SIC 142): Indexes of output, hours of production workers, and employees, 1958-79
(1967 = 100)

Year	Output	Hours of production workers	Employees		
			All employees	Production workers	Nonproduction workers
Index:					
1958	69.6	94.2	97.0	98.0	91.7
1959	75.9	100.0	100.5	101.4	95.8
1960	78.8	102.8	106.3	107.0	102.8
1961	77.3	98.9	101.2	102.0	97.2
1962	81.6	100.3	100.9	102.2	94.4
1963	84.6	99.9	100.5	101.1	97.2
1964	89.9	98.3	99.3	99.7	97.2
1965	97.9	103.7	101.2	102.2	95.8
1966	104.1	104.3	102.3	103.1	98.6
1967	100.0	100.0	100.0	100.0	100.0
1968	106.7	96.4	96.7	96.6	97.2
1969	111.3	97.1	95.6	95.5	95.8
1970	112.6	93.9	96.0	94.1	105.6
1971	113.9	94.7	97.0	93.9	112.5
1972	120.1	93.7	96.5	94.1	108.3
1973	137.8	97.3	98.1	95.5	111.1
1974	135.8	98.0	100.0	96.6	116.7
1975	118.5	84.9	92.6	88.5	112.5
1976	117.8	84.0	89.1	86.0	104.2
1977	125.1	84.5	88.6	86.3	100.0
1978	139.4	86.2	88.4	86.6	97.2
1979 ¹	137.2	91.4	92.3	90.8	100.0
Average annual percent change:					
1958-79	3.2	-7	-6	-8	.6
1974-79	1.7	-8	-1.5	-1.1	-3.5

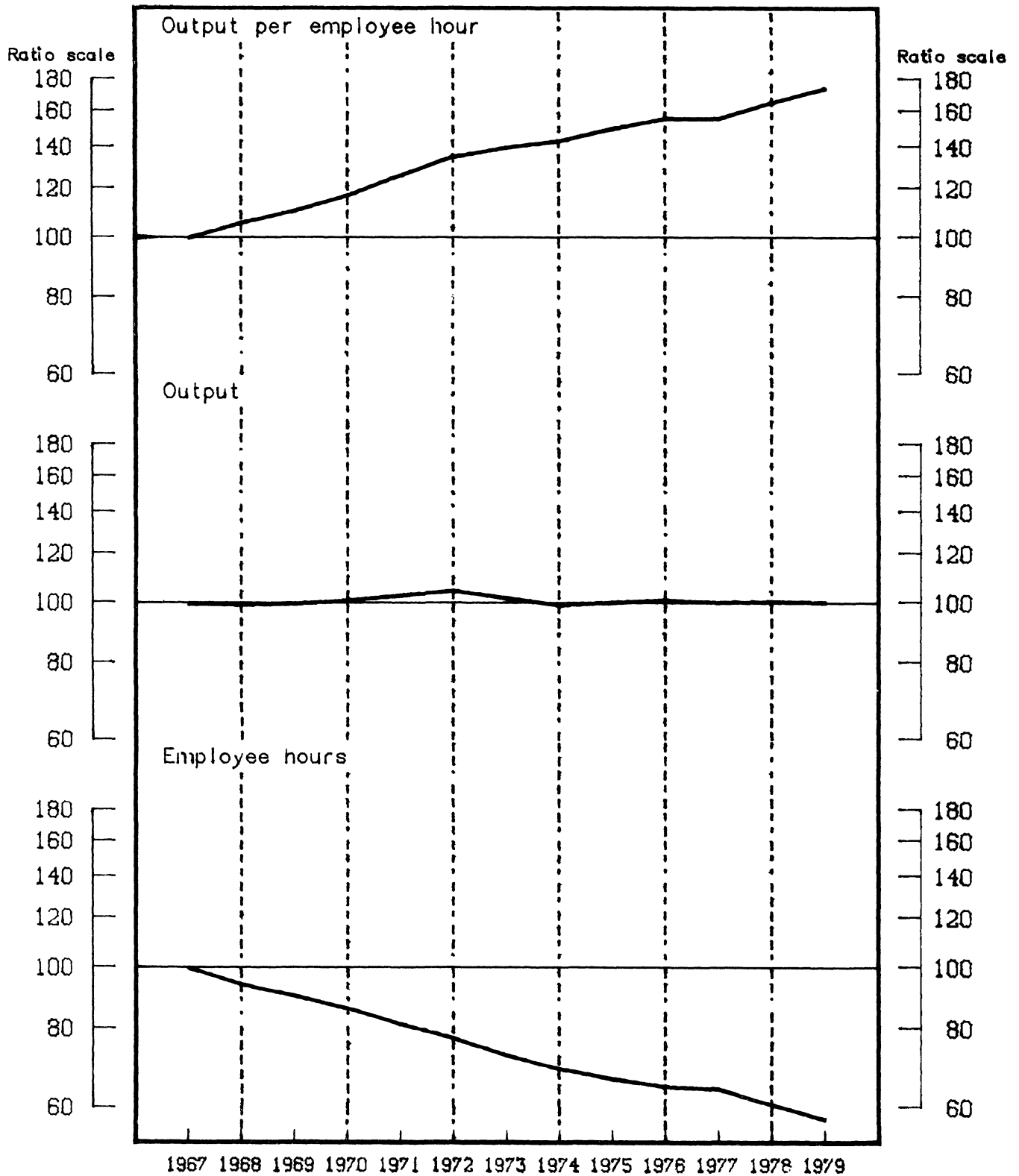
¹ Preliminary.

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

SOURCE: Output 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 10. Fluid milk (SIC 2026): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 18. Fluid milk (SIC 2026): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	77.2	77.7	91.5	118.6	117.7
1959	79.1	79.9	93.7	118.5	117.3
1960	81.0	81.6	95.1	117.4	116.5
1961	82.5	83.3	95.5	115.8	114.6
1962	86.2	86.4	97.1	112.7	112.4
1963	91.3	91.3	100.5	110.1	110.1
1964	93.1	93.1	101.9	109.4	109.4
1965	94.3	94.3	101.7	107.8	107.8
1966	97.0	96.9	100.4	103.5	103.6
1967	100.0	100.0	100.0	100.0	100.0
1968	105.7	103.5	99.6	94.2	96.2
1969	110.6	108.2	99.9	90.3	92.3
1970	117.1	114.6	101.1	86.3	88.2
1971	126.2	124.2	103.0	81.6	82.9
1972	135.4	134.7	104.9	77.5	77.9
1973	140.1	139.7	102.0	72.8	73.0
1974	143.6	143.2	99.5	69.3	69.5
1975	150.3	150.3	100.4	66.8	66.8
1976	156.1	155.8	101.3	64.9	65.0
1977	156.1	158.5	100.5	64.4	63.4
1978	165.8	166.3	100.8	60.8	60.6
1979 ¹	174.7	174.4	100.6	57.6	57.7
Average annual percent change:					
1958-79	4.2	4.1	.3	-3.7	-3.6
1974-79	3.7	3.8	.2	-3.4	-3.5

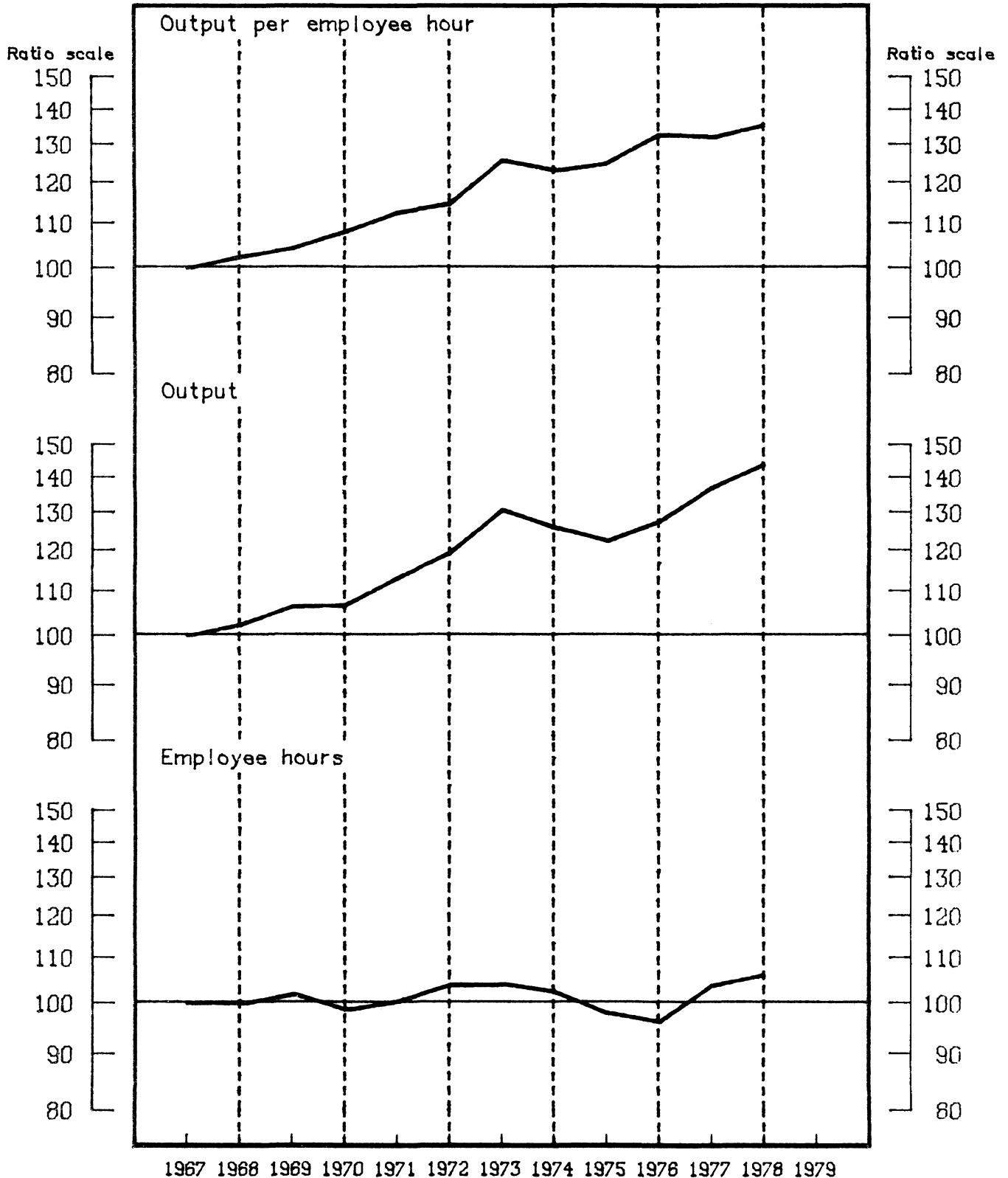
¹ Preliminary.

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

SOURCE: Output based on data from the Economics, Statistics, and Cooperatives 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 11. Preserved fruits and vegetables (SIC 203): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 19. Preserved fruits and vegetables (SIC 203): Indexes of output per employee hour and output per employee, 1954-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	71.8	71.4	74.4	70.7	69.8	77.4
1955	73.5	73.2	75.1	70.7	69.8	77.8
1956	79.2	79.1	79.4	77.6	76.9	82.5
1957	74.9	78.9	55.3	73.9	77.3	57.4
1958	74.1	75.1	67.5	73.2	73.7	69.9
1959	74.2	75.0	69.3	74.5	74.9	71.8
1960	79.5	80.0	76.4	80.4	80.8	78.2
1961	81.9	82.1	80.2	81.7	81.8	81.0
1962	85.8	86.0	84.5	86.7	86.9	84.9
1963	89.3	90.0	84.1	87.4	87.8	84.3
1964	92.1	93.3	84.7	91.2	92.2	85.3
1965	95.4	96.5	88.2	94.7	95.7	88.6
1966	94.9	96.0	88.3	93.9	94.7	88.3
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.5	102.6	101.6	99.4	99.8	96.9
1969	104.4	104.7	101.9	102.1	102.7	98.4
1970	108.2	109.9	97.6	105.4	107.1	95.5
1971	112.6	115.1	98.4	111.1	113.2	98.0
1972	114.8	117.2	100.4	113.1	115.0	101.5
1973	125.6	129.3	104.5	123.4	126.4	106.2
1974	123.0	124.9	110.4	121.3	122.6	112.4
1975	124.9	127.1	111.2	121.9	123.3	113.1
1976	132.7	135.8	114.3	127.4	129.0	116.9
1977	131.9	136.2	107.7	128.9	132.4	109.4
1978 ²	135.5	139.2	114.2	133.1	136.0	116.0
Average annual percent change:						
1947-78	2.9	3.0	2.2	2.9	3.0	2.0
1974-78	2.5	2.9	.4	2.4	2.8	.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 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 20. Preserved fruits and vegetables (SIC 203): Indexes of output, employee hours, and employees, 1954-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	59.7	83.1	83.6	80.2	84.4	85.5	77.1
1955	62.4	84.9	85.2	83.1	88.2	89.4	80.2
1956	69.8	88.1	88.2	87.9	90.0	90.8	84.6
1957	66.8	89.2	84.7	120.7	90.4	86.4	116.3
1958	65.9	88.9	87.7	97.7	90.0	89.4	94.3
1959	67.1	90.4	89.5	96.8	90.1	89.6	93.4
1960	74.0	93.1	92.5	96.9	92.0	91.6	94.6
1961	75.9	92.7	92.4	94.6	92.9	92.8	93.7
1962	79.3	92.4	92.2	93.8	91.5	91.3	93.4
1963	82.3	92.2	91.4	97.9	94.2	93.7	97.6
1964	86.3	93.7	92.5	101.9	94.6	95.6	101.2
1965	91.5	95.9	94.8	103.7	96.6	95.6	103.3
1966	93.6	96.6	97.5	106.0	99.7	98.8	106.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.4	99.9	99.8	100.8	103.0	102.6	105.7
1969	106.4	101.9	101.6	104.4	104.2	103.6	108.1
1970	106.7	98.6	97.1	109.3	101.2	99.6	111.7
1971	113.1	100.4	98.3	114.9	101.8	99.9	115.4
1972	119.3	103.9	101.8	118.8	105.5	103.7	117.5
1973	130.6	104.0	101.0	125.0	105.8	103.3	123.0
1974	125.8	102.3	100.7	114.0	103.7	102.6	111.9
1975	122.3	97.9	96.2	110.0	100.3	99.2	108.1
1976	127.5	96.1	93.9	111.5	100.1	98.8	109.1
1977	136.9	103.8	100.5	127.1	106.2	103.4	125.1
1978 ¹	143.9	106.2	103.4	126.0	108.1	105.8	124.1
Average annual percent change:							
1947-78	3.7	.8	.7	1.5	.8	.6	1.6
1974-78	3.9	1.3	1.0	3.5	1.4	1.0	3.6

¹ Preliminary.

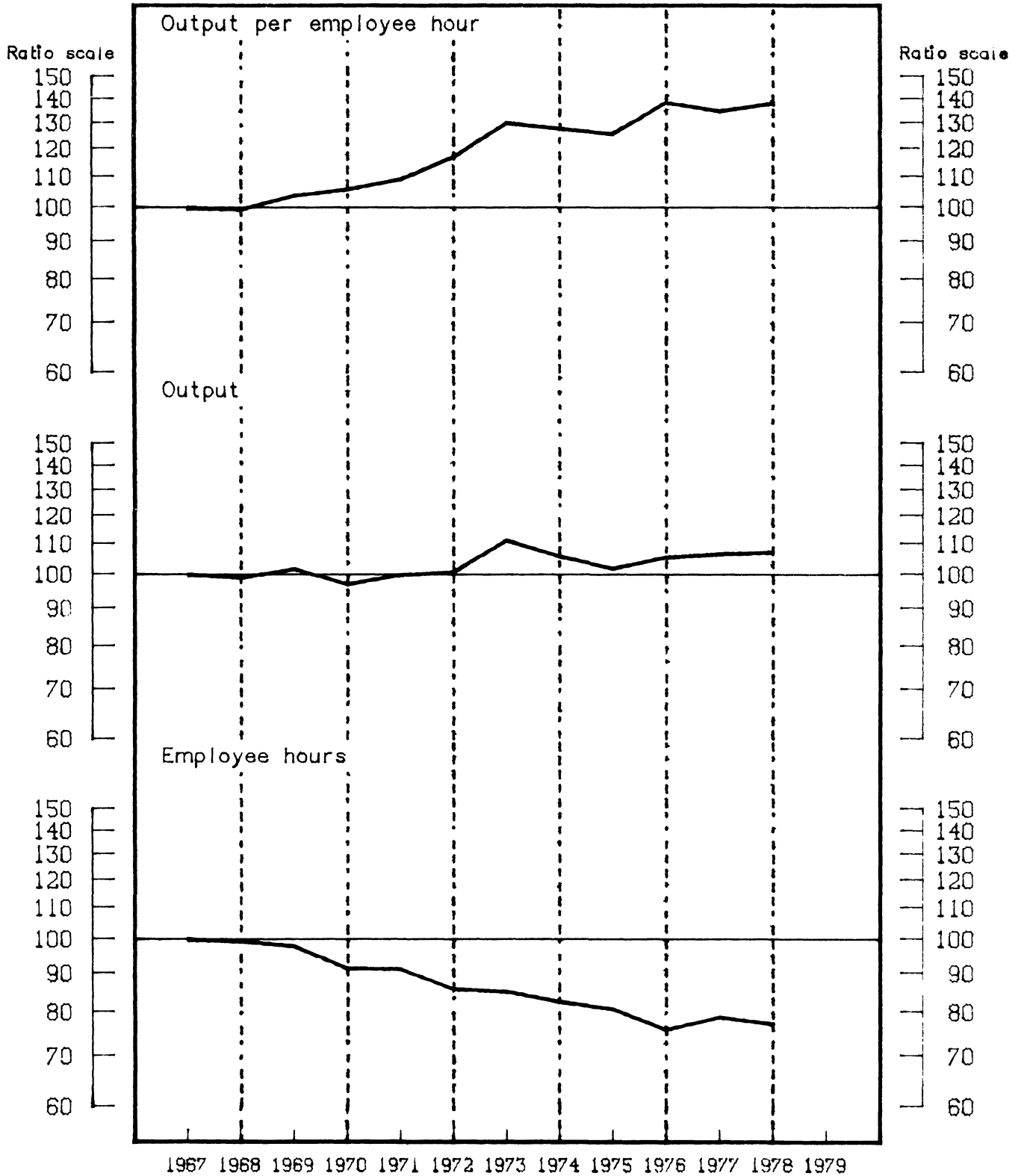
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output 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 12. Canned fruits and vegetables (SIC 2033): Output per hour and related data, 1967-78

(1967 = 100)



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

Table 21. Canned fruits and vegetables (SIC 2033): Indexes of output per employee hour and output per employee, 1958-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	74.4	75.3	67.0	72.1	72.4	69.4
1959	73.3	73.3	73.3	72.3	71.9	75.9
1960	80.2	79.8	83.3	80.2	79.6	85.4
1961	80.5	79.9	85.5	79.0	78.2	86.4
1962	83.0	82.2	90.5	83.6	82.7	91.0
1963	92.3	93.1	85.8	88.0	88.2	86.1
1964	94.5	96.1	82.9	91.3	92.4	83.6
1965	95.3	97.0	82.6	92.1	93.4	83.0
1966	97.1	98.9	84.6	94.4	95.8	84.6
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	99.7	99.5	101.2	95.5	95.4	96.6
1969	104.0	103.7	106.6	100.5	100.2	102.8
1970	106.1	107.3	97.6	101.0	101.8	95.5
1971	109.4	110.6	99.5	106.4	107.3	99.2
1972	117.3	119.5	101.6	112.6	114.0	102.9
1973	130.3	132.3	115.6	125.8	126.9	117.7
1974	128.1	127.2	137.3	124.4	122.7	139.8
1975	126.0	125.6	129.1	122.3	121.1	131.4
1976	138.9	140.0	130.0	128.7	128.1	133.0
1977	135.2	137.6	117.9	129.5	130.7	119.6
1978 ²	138.6	140.6	123.3	129.9	130.5	125.2
Average annual percent change:						
1958-78	3.3	3.4	3.0	3.1	3.1	2.9
1974-78	2.3	3.0	-3.0	1.4	2.0	-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, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 22. Canned fruits and vegetables (SIC 2033): Indexes of output, employee hours, and employees, 1958-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	78.1	105.0	103.7	116.6	108.3	107.8	112.5
1959	77.3	105.5	105.5	105.4	106.9	107.5	101.8
1960	83.1	103.6	104.1	99.8	103.6	104.4	97.3
1961	84.1	104.5	105.3	98.4	106.5	107.6	97.3
1962	86.9	104.7	105.7	96.0	104.0	105.1	95.5
1963	90.0	97.5	96.7	104.9	102.3	102.0	104.5
1964	93.3	98.7	97.1	112.6	102.2	101.0	111.6
1965	92.6	97.2	95.5	112.1	100.5	99.1	111.6
1966	95.2	98.0	96.3	112.5	100.9	99.4	112.5
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	99.2	99.5	99.7	98.0	103.9	104.0	102.7
1969	101.9	98.0	98.3	95.6	101.4	101.7	99.1
1970	97.2	91.6	90.6	99.6	96.2	95.5	101.8
1971	100.1	91.5	90.5	100.6	94.1	93.3	100.9
1972	101.0	86.1	84.5	99.4	89.7	88.6	98.2
1973	111.3	85.4	84.1	96.3	88.5	87.7	94.6
1974	106.1	82.8	83.4	77.3	85.3	86.5	75.9
1975	102.1	81.0	81.3	79.1	83.5	84.3	77.7
1976	105.7	76.1	75.5	81.3	82.1	82.5	79.5
1977	106.8	79.0	77.6	90.6	82.5	81.7	89.3
1978 ¹	107.3	77.4	76.3	87.0	82.6	82.2	85.7
Average annual percent change:							
1958-78	1.6	-1.7	-1.7	-1.3	-1.5	-1.5	-1.3
1974-78 .....	.7	-1.6	-2.2	3.8	-8	-1.3	3.9

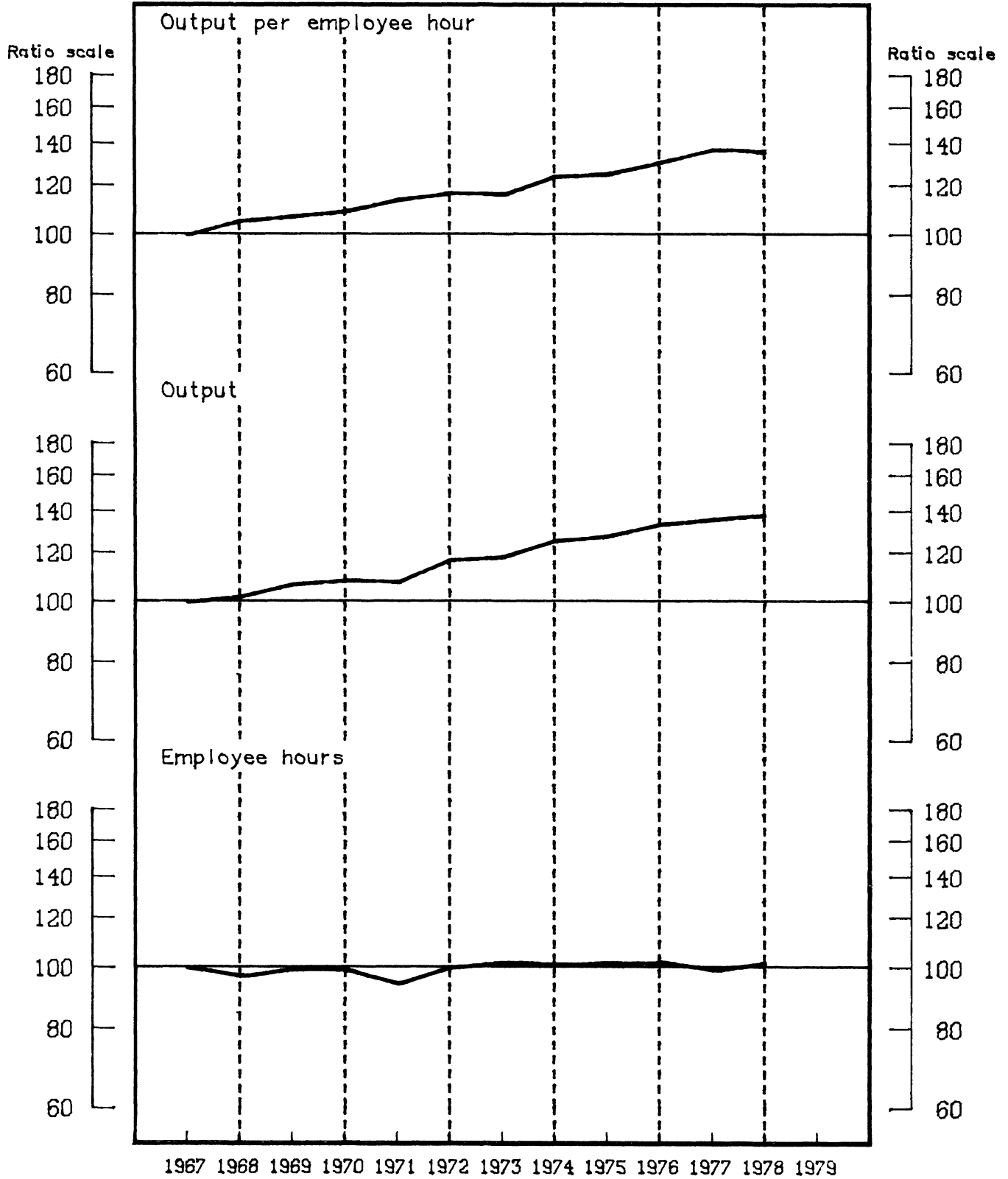
¹ Preliminary.

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 13. Grain mill products (SIC 204): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 23. Grain mill products (SIC 204): Indexes of output per employee hour and output per employee, 1963-78
(1967=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	83.4	83.3	83.5	84.5	85.0	83.5
1964	88.0	88.2	87.3	89.5	90.1	87.9
1965	90.3	90.6	89.3	91.8	92.9	89.6
1966	94.2	95.0	92.0	95.4	96.9	91.9
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.4	104.2	108.6	103.9	104.1	103.4
1969	107.2	106.5	109.3	106.5	106.9	105.3
1970	109.2	108.3	111.4	107.2	106.6	108.7
1971	114.1	113.4	116.1	111.6	110.0	115.6
1972	116.9	115.9	119.2	117.6	116.5	120.3
1973	116.1	114.1	121.4	120.0	118.4	123.5
1974	124.4	124.2	124.8	123.5	122.0	126.9
1975	125.5	124.7	127.6	125.4	123.6	129.8
1976	131.0	131.5	129.4	130.6	129.9	132.1
1977	137.5	138.2	135.7	135.1	134.2	137.3
1978 ²	136.2	137.8	131.8	133.7	133.8	133.4
Average annual percent change:						
1963-78	3.3	3.3	3.3	3.2	3.0	3.5
1974-78	2.8	3.2	1.7	2.4	2.7	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; 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 24. Grain mill products (SIC 204): Indexes of output, employee hours, and employees, 1963-78
(1967=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	85.5	102.5	102.6	102.4	101.2	100.6	102.4
1964	88.4	100.5	100.2	101.3	98.8	98.1	100.6
1965	88.8	98.3	98.0	99.4	96.7	95.6	99.1
1966	92.5	98.2	97.4	100.5	97.0	95.5	100.6
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.2	97.0	98.1	94.1	98.4	98.2	98.8
1969	106.9	99.7	100.4	97.8	100.4	100.0	101.5
1970	108.4	99.3	100.1	97.3	101.1	101.7	99.7
1971	107.7	94.4	95.0	92.8	96.5	97.9	93.2
1972	117.1	100.2	101.0	98.2	99.6	100.5	97.3
1973	118.4	102.0	103.8	97.5	98.7	100.0	95.9
1974	125.8	101.1	101.3	100.8	101.9	103.1	99.1
1975	127.9	101.9	102.6	100.2	102.0	103.5	98.5
1976	133.7	102.1	101.7	103.3	102.4	102.9	101.2
1977	136.5	99.3	98.8	100.6	101.0	101.7	99.4
1978 ¹	138.9	102.0	100.8	105.4	103.9	103.8	104.1
Average annual percent change:							
1963-78	3.4	.1	.1	.1	.3	.4	(²)
1974-78	2.7	-.1	-.5	.9	.3	(²)	1.1

¹ Preliminary.

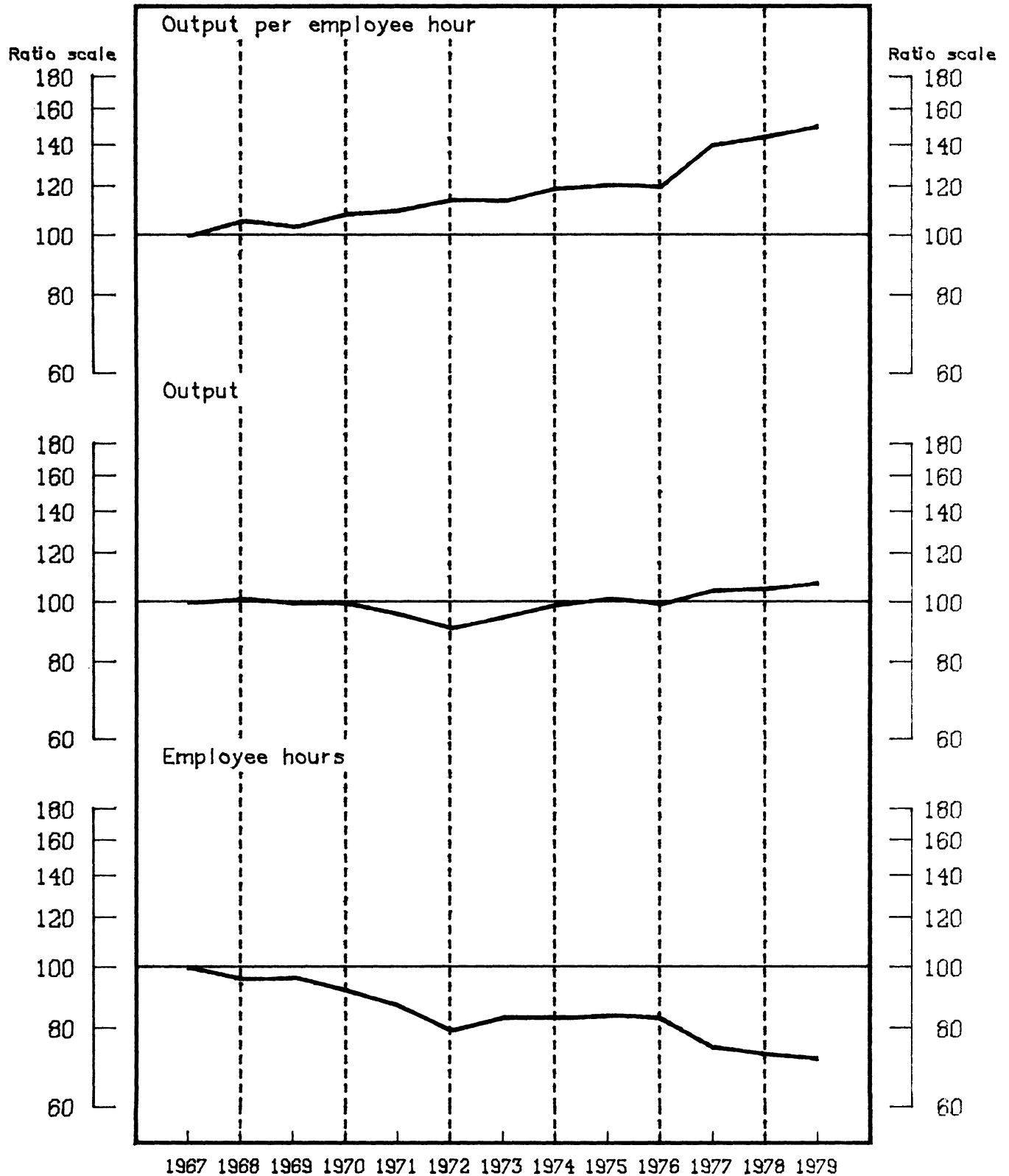
² Less than .05 percent.

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 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 14. Flour and other grain mill products (SIC 2041): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 25. Flour and other grain mill products (SIC 2041): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	56.9	56.3	59.1	57.5	56.1	61.6
1955	59.3	59.1	60.0	59.3	58.3	62.1
1956	62.3	62.1	63.5	62.2	60.8	66.0
1957	67.7	67.5	68.4	67.4	66.2	71.0
1958	69.0	70.0	66.3	67.5	67.0	68.8
1959	66.7	66.7	66.7	67.2	66.4	69.1
1960	70.0	70.4	68.8	71.6	72.0	70.5
1961	72.8	72.1	75.4	74.4	73.7	76.3
1962	74.9	73.4	80.6	77.2	75.8	80.9
1963	84.2	82.5	90.7	87.3	85.9	91.1
1964	88.7	87.5	92.8	91.1	90.1	93.6
1965	91.3	90.7	93.7	92.3	91.7	94.1
1966	96.9	95.6	101.7	98.0	96.8	101.6
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.7	103.9	112.2	105.0	104.2	107.1
1969	103.3	102.2	107.0	102.2	101.7	103.3
1970	108.5	108.1	109.6	107.6	107.7	107.2
1971	110.0	108.7	114.1	109.0	107.3	113.7
1972	114.3	112.2	121.8	115.8	113.1	123.3
1973	113.7	110.9	123.3	114.4	110.5	125.7
1974	119.2	117.3	126.0	116.8	113.0	128.5
1975	120.8	121.7	118.3	117.6	116.4	120.5
1976	119.7	122.8	110.8	116.5	117.8	113.5
1977	140.3	141.4	136.8	137.7	137.2	139.0
1978	144.7	143.5	148.2	143.1	140.7	150.3
1979 ²	150.2	151.3	146.9	147.9	147.3	149.8
Average annual percent change:						
1947-79	3.8	4.0	3.4	3.7	3.8	3.2
1974-79	5.4	5.6	4.8	5.7	6.0	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.

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 26. Flour and other grain mill products (SIC 2041): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	81.2	142.7	144.3	137.5	141.3	144.8	131.9
1955	83.4	140.7	141.2	139.0	140.6	143.0	134.2
1956	84.9	136.2	136.8	133.7	136.5	139.6	128.6
1957	89.1	131.7	132.0	130.2	132.2	134.6	125.5
1958	92.9	134.7	132.8	140.1	137.6	138.6	135.1
1959	93.4	140.1	140.1	140.1	139.0	140.6	135.2
1960	95.1	135.9	135.0	138.3	132.0	132.0	134.8
1961	96.4	132.4	133.7	127.8	129.6	130.8	126.4
1962	96.7	129.1	131.8	120.0	125.3	127.6	119.5
1963	95.4	113.3	115.7	105.2	109.3	111.0	104.7
1964	97.2	109.6	111.1	104.7	106.7	107.9	103.8
1965	93.4	102.3	103.0	99.7	101.2	101.9	99.3
1966	96.0	99.1	100.4	94.4	98.0	99.2	94.5
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	101.4	95.9	97.6	90.4	96.6	97.3	94.7
1969	99.7	96.5	97.6	93.2	97.6	98.0	96.5
1970	99.7	91.9	92.2	91.0	92.7	92.6	93.0
1971	95.7	87.0	88.0	83.9	87.8	89.2	84.2
1972	90.9	79.5	81.0	74.6	78.5	80.4	73.7
1973	94.8	83.4	85.5	76.9	82.9	85.8	75.4
1974	99.2	83.2	84.6	78.7	84.9	87.8	77.2
1975	101.5	84.0	83.4	85.8	86.3	87.2	84.2
1976	99.5	83.1	81.0	89.8	85.4	84.5	87.7
1977	104.8	74.7	74.1	76.6	76.1	76.4	75.4
1978	105.5	72.9	73.5	71.2	73.7	75.0	70.2
1979 ¹	107.7	71.7	71.2	73.3	72.8	73.1	71.9
Average annual percent change:							
1947-79	.5	-3.1	-3.2	-2.7	-2.9	-3.1	-2.5
1974-79	1.7	-3.6	-3.7	-3.0	-3.8	-4.1	-3.0

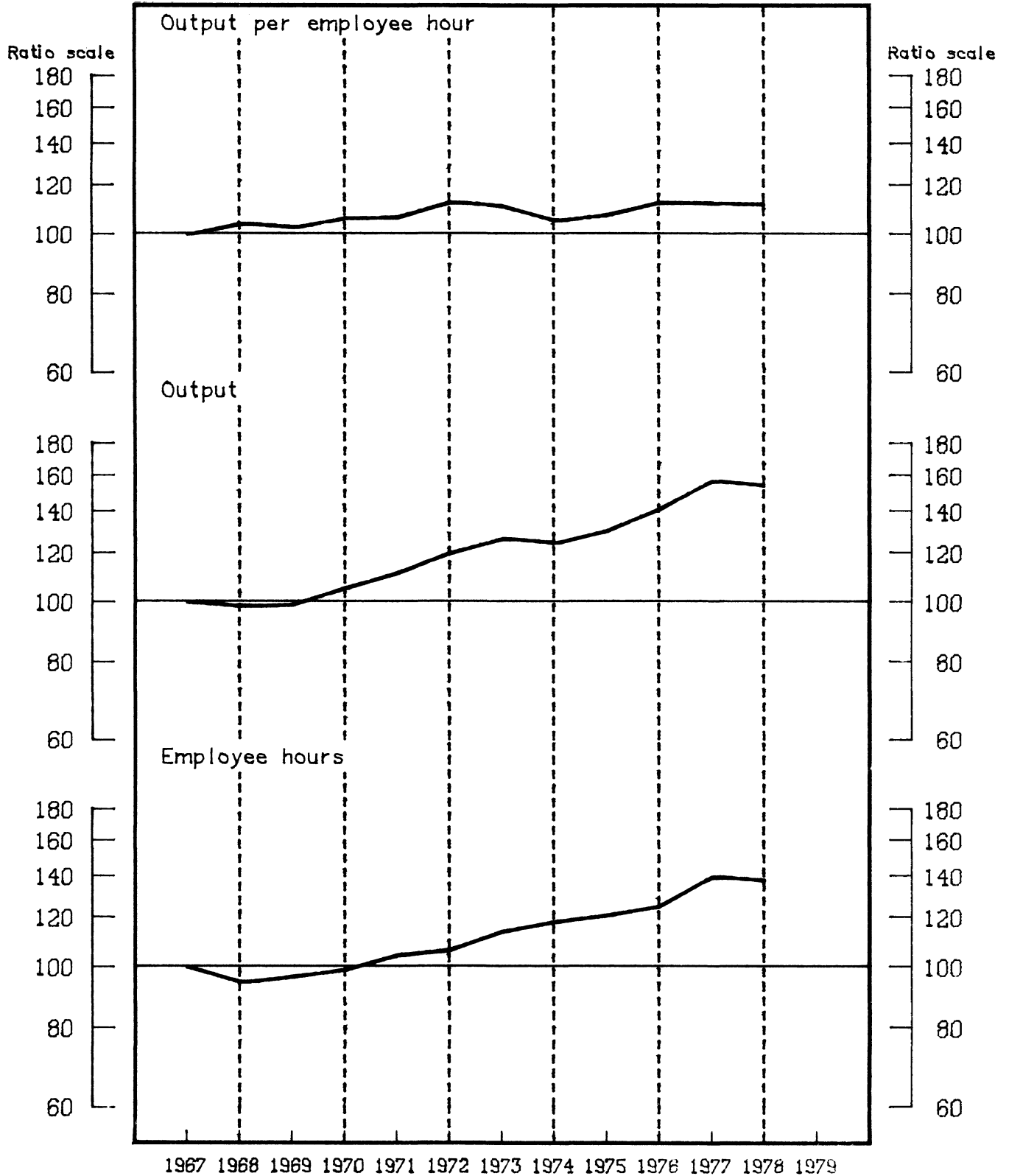
¹ Preliminary.

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 15. Cereal breakfast foods (SIC 2043): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 27. Cereal breakfast foods (SIC 2043): Indexes of output per employee hour and output per employee, 1963-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	91.5	91.8	90.1	91.5	91.8	89.8
1964	93.5	92.9	96.6	94.6	93.9	98.6
1965	95.7	95.2	98.3	95.7	95.2	98.0
1966	97.2	96.5	100.6	98.8	98.5	100.3
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.1	104.1	103.8	105.5	106.9	98.5
1969	102.6	102.8	101.8	105.2	106.6	99.2
1970	106.4	106.0	108.3	107.2	107.7	105.5
1971	106.7	106.8	106.2	108.9	109.4	106.5
1972	112.8	112.4	114.4	113.7	113.5	114.7
1973	111.0	108.9	123.5	118.0	116.3	126.7
1974	105.3	104.0	113.0	109.4	108.4	113.8
1975	107.7	105.8	118.3	114.6	113.6	119.2
1976	112.8	111.5	119.8	114.9	113.2	123.6
1977	112.2	110.0	124.8	116.7	114.8	126.7
1978	111.8	110.0	122.7	113.2	111.2	124.5
Average annual percent change:						
1963-78	1.3	1.2	2.0	1.6	1.5	2.2
1974-78	1.6	1.5	2.2	.9	.6	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.
Preliminary.

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

Table 28. Cereal breakfast foods (SIC 2043): Indexes of output, employee hours, and employees, 1963-78
(1967 = 100)

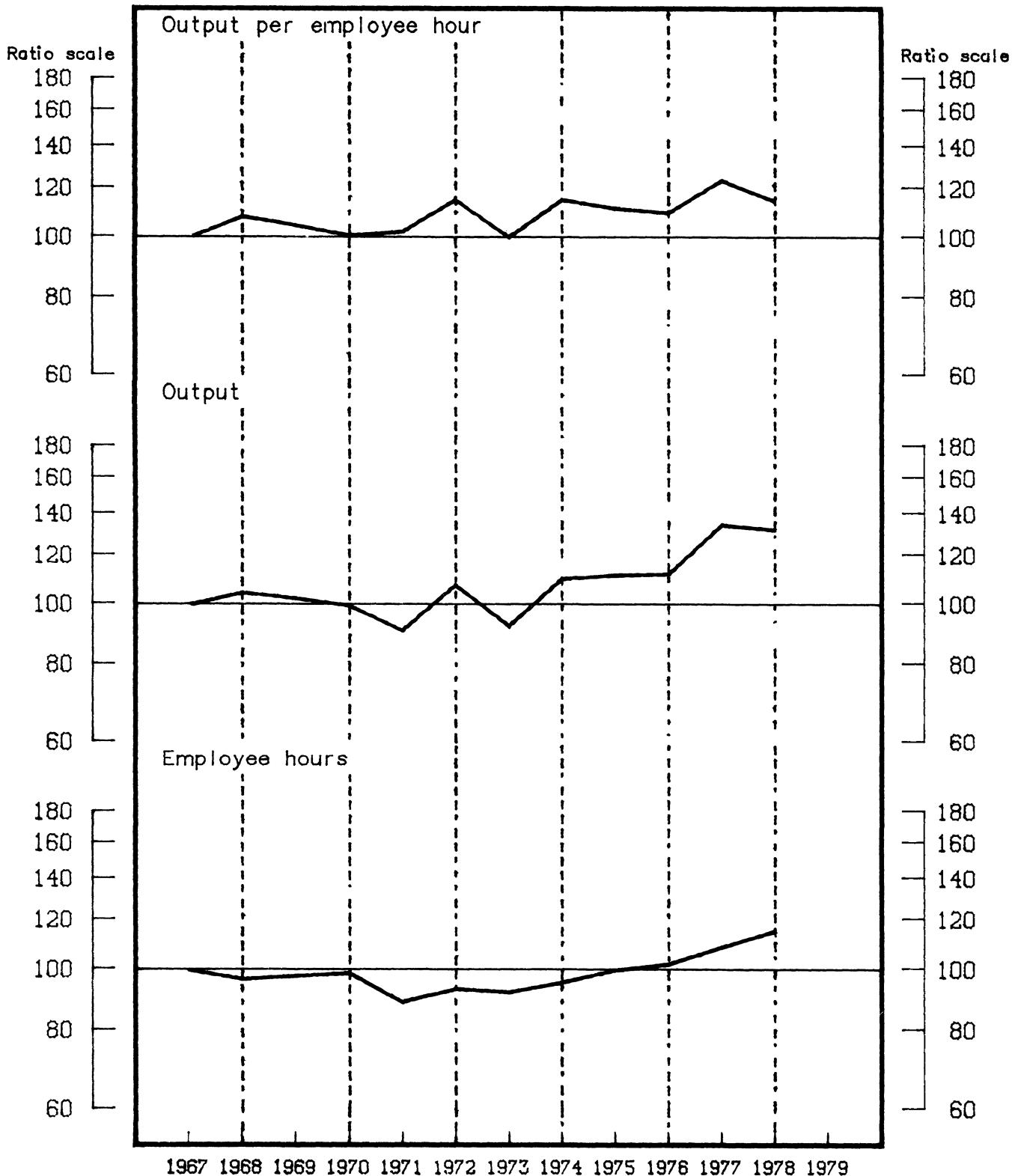
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	85.5	93.4	93.1	94.9	93.4	93.1	95.2
1964	89.2	95.4	96.0	92.3	94.3	95.0	90.5
1965	93.3	97.5	98.0	94.9	97.5	98.0	95.2
1966	95.5	98.3	99.0	94.9	96.7	97.0	95.2
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	98.5	94.6	94.6	94.9	93.4	92.1	100.0
1969	99.2	96.7	96.5	97.4	94.3	93.1	100.0
1970	105.5	99.2	99.5	97.4	98.4	98.0	100.0
1971	111.6	104.6	104.5	105.1	102.5	102.0	104.8
1972	120.2	106.6	106.9	105.1	105.7	105.9	104.8
1973	126.7	114.1	116.3	102.6	107.4	108.9	100.0
1974	124.6	118.3	119.8	110.3	113.9	114.9	109.5
1975	130.5	121.2	123.3	110.3	113.9	114.9	109.5
1976	141.3	125.3	126.7	117.9	123.0	124.8	114.3
1977	156.8	139.8	142.6	125.6	134.4	136.6	123.8
1978	154.1	137.8	140.1	125.6	136.1	138.6	123.8
Average annual percent change:							
1963-78	4.0	2.7	2.8	2.0	2.4	2.5	1.8
1974-78	6.3	4.6	4.7	4.0	5.4	5.6	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 16. Rice milling (SIC 2044): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 29. Rice milling (SIC 2044): Indexes of output per employee hour and output per employee, 1963-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	75.3	75.9	73.1	75.2	77.0	70.0
1964	85.9	85.6	86.8	86.8	86.8	86.8
1965	90.3	89.5	93.3	93.3	93.3	93.3
1966	97.3	98.2	94.1	98.8	100.3	94.1
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	108.2	107.6	110.5	104.6	104.6	104.6
1969	104.7	103.9	108.1	102.4	102.4	102.4
1970	100.8	105.6	86.1	99.7	106.3	83.1
1971	102.2	104.0	96.1	100.6	104.0	91.0
1972	115.3	117.4	107.7	113.1	114.8	107.7
1973	100.3	102.5	92.6	99.7	102.2	92.6
1974	115.2	113.3	123.0	105.1	100.6	122.3
1975	111.7	108.7	124.8	106.6	102.1	124.1
1976	109.7	106.2	125.3	100.2	94.4	124.6
1977	123.8	115.4	170.7	117.8	107.8	168.4
1978 ²	114.6	117.6	104.8	109.0	111.4	101.8
Average annual percent change:						
1963-78	2.3	2.1	3.1	1.7	1.3	3.1
1974-78 .....	.9	1.4	-.1	1.8	2.6	-.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; Agricultural Marketing Service, U.S. Department of Agriculture; the Rice Millers' Association; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 30. Rice milling (SIC 2044): Indexes of output, employee hours, and employees, 1963-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	77.0	102.2	101.4	105.3	102.4	100.0	110.0
1964	86.8	101.1	101.4	100.0	100.0	100.0	100.0
1965	93.3	103.3	104.2	100.0	100.0	100.0	100.0
1966	94.1	96.7	95.8	100.0	95.2	93.8	100.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.6	96.7	97.2	94.7	100.0	100.0	100.0
1969	102.4	97.8	98.6	94.7	100.0	100.0	100.0
1970	99.7	98.9	94.4	115.8	100.0	93.8	120.0
1971	91.0	89.0	87.5	94.7	90.5	87.5	100.0
1972	107.7	93.4	91.7	100.0	95.2	93.8	100.0
1973	92.6	92.3	90.3	100.0	92.9	90.6	100.0
1974	110.1	95.6	97.2	89.5	104.8	109.4	90.0
1975	111.7	100.0	102.8	89.5	104.8	109.4	90.0
1976	112.1	102.2	105.6	89.5	111.9	118.8	90.0
1977	134.7	108.8	116.7	78.9	114.3	125.0	80.0
1978 ¹	132.3	115.4	112.5	126.3	121.4	118.8	130.0
Average annual percent change:							
1963-78	2.6	.3	.5	-.5	.9	1.3	-.5
1974-78	5.7	4.7	4.3	5.8	3.9	3.0	6.4

¹ Preliminary.

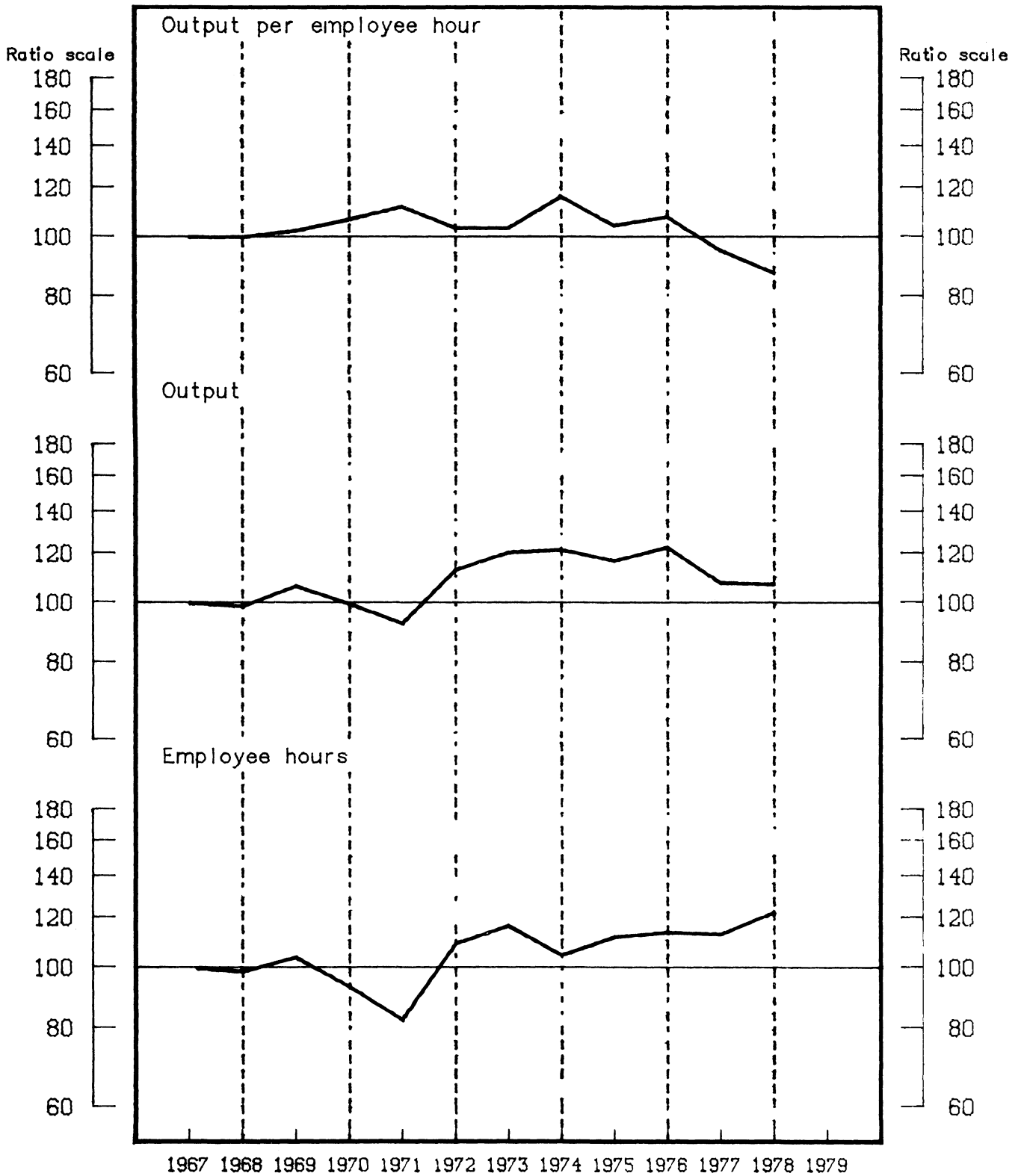
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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

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

Chart 17. Blended and prepared flour (SIC 2045): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 31. Blended and prepared flour (SIC 2045): Indexes of output per employee hour and output per employee, 1963-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	81.3	83.5	75.0	82.4	85.3	75.3
1964	89.2	99.8	67.4	89.8	102.1	67.4
1965	91.3	96.0	79.7	92.0	97.1	80.3
1966	93.9	98.7	81.9	93.3	98.0	82.5
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	100.1	98.8	104.4	100.1	100.6	98.8
1969	102.5	102.1	103.8	103.8	104.7	101.5
1970	106.9	108.4	102.5	103.9	105.5	99.7
1971	112.1	111.4	114.3	110.4	108.4	115.9
1972	103.6	104.0	102.2	107.5	109.3	102.9
1973	103.5	101.1	111.7	111.9	110.7	115.0
1974	116.4	115.8	118.7	117.2	115.5	121.9
1975	104.6	105.0	103.2	107.1	107.3	106.5
1976	108.0	114.0	93.0	112.6	120.9	94.7
1977	95.2	100.7	81.5	96.3	102.3	83.0
1978 ²	87.5	91.2	77.9	89.5	93.8	79.6
Average annual percent change:						
1963-78 .....	.9	.8	1.2	1.1	.9	1.5
1974-78	-6.4	-5.0	-10.2	-6.3	-4.5	-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.

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 32. Blended and prepared flour (SIC 2045): Indexes of output, employee hours, and employees, 1963-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	79.1	97.3	94.7	105.4	96.0	92.7	105.0
1964	91.0	102.0	91.2	135.1	101.3	89.1	135.0
1965	88.3	96.7	92.0	110.8	96.0	90.9	110.0
1966	90.8	96.7	92.0	110.8	97.3	92.7	110.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	98.8	98.7	100.0	94.6	98.7	98.2	100.0
1969	106.6	104.0	104.4	102.7	102.7	101.8	105.0
1970	99.7	93.3	92.0	97.3	96.0	94.5	100.0
1971	92.7	82.7	83.2	81.1	84.0	85.5	80.0
1972	113.2	109.3	108.8	110.8	105.3	103.6	110.0
1973	120.8	116.7	119.5	108.1	108.0	109.1	105.0
1974	121.9	104.7	105.3	102.7	104.0	105.5	100.0
1975	117.1	112.0	111.5	113.5	109.3	109.1	110.0
1976	123.1	114.0	108.0	132.4	109.3	101.8	130.0
1977	107.9	113.3	107.1	132.4	112.0	105.5	130.0
1978	107.4	122.7	117.7	137.8	120.0	114.5	135.0
Average annual percent change:							
1963-78	2.3	1.4	1.5	1.0	1.2	1.3	.8
1974-78	-3.3	3.3	1.8	7.7	3.2	1.3	8.0

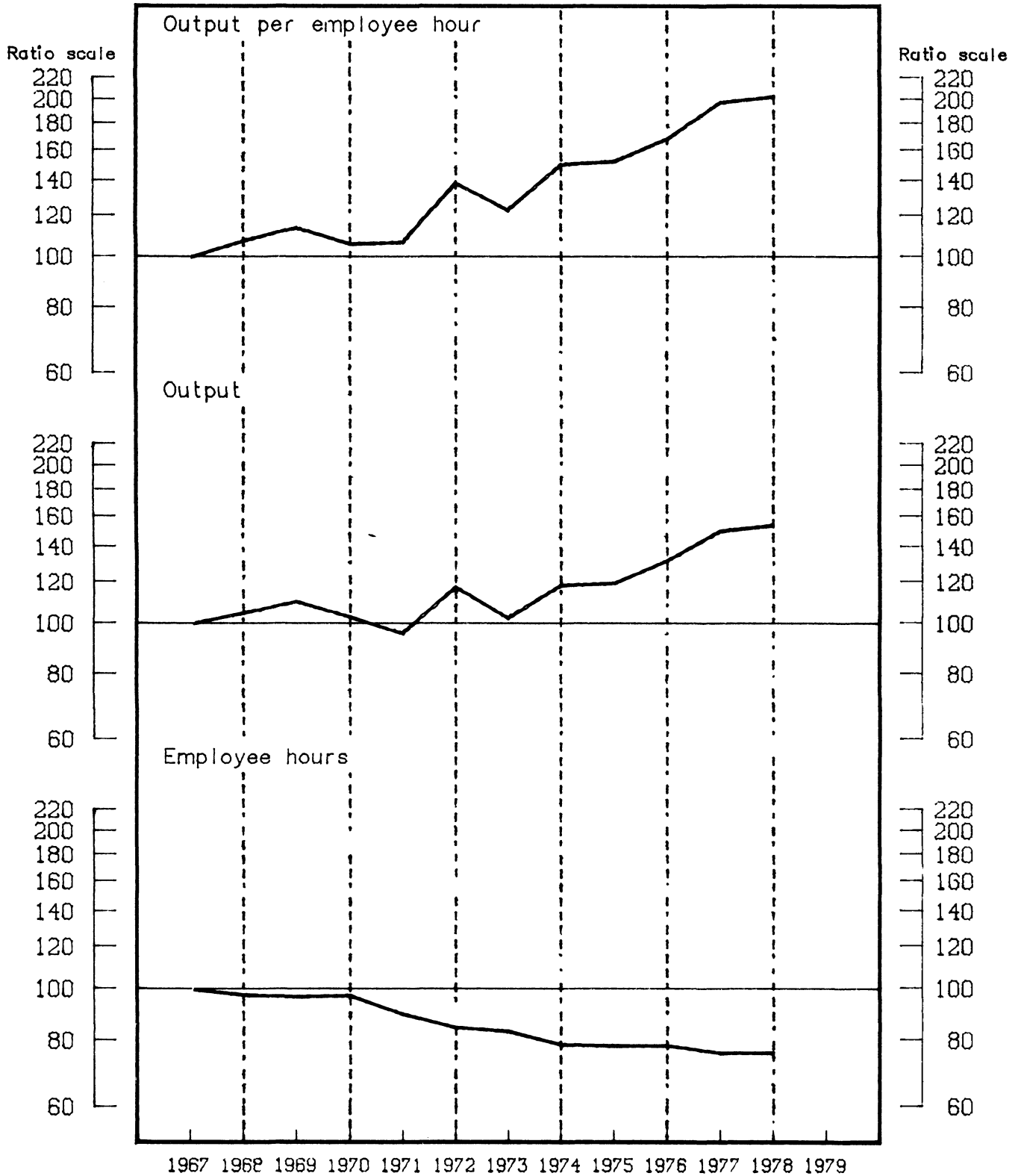
Preliminary

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

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

Chart 18. Wet corn milling (SIC 2046): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 33. Wet corn milling (SIC 2046): Indexes of output per employee hour and output per employee, 1963-78
(1967=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	87.0	81.2	106.1	89.3	83.6	105.7
1964	93.0	87.7	109.8	95.9	90.6	111.0
1965	92.1	87.8	105.3	96.4	92.9	105.4
1966	93.5	90.8	101.5	95.2	93.0	101.0
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	107.7	105.5	113.5	105.0	104.0	107.5
1969	114.0	111.5	121.1	115.4	115.1	115.8
1970	106.2	105.3	108.6	107.8	108.7	105.6
1971	106.9	108.2	103.8	104.1	104.6	103.2
1972	138.9	139.9	136.7	137.3	137.5	137.0
1973	123.3	122.8	124.6	123.9	122.8	126.3
1974	150.6	151.6	148.4	150.8	151.0	150.1
1975	152.7	147.2	168.1	154.9	148.5	171.5
1976	168.7	162.7	185.8	169.6	162.1	189.5
1977	198.3	195.0	207.9	195.0	189.3	209.0
1978 ²	203.3	197.3	220.7	196.3	186.8	221.3
Average annual percent change:						
1963-78	5.7	5.9	5.1	5.4	5.5	5.2
1974-78	9.0	8.4	10.6	7.9	6.9	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 34. Wet corn milling (SIC 2046): Indexes of output, employee hours, and employees, 1963-78
(1967=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	83.6	96.1	103.0	78.8	93.6	100.0	79.1
1964	85.1	91.5	97.0	77.5	88.7	93.9	76.7
1965	88.2	95.8	100.5	83.8	91.5	94.9	83.7
1966	93.9	100.4	103.4	92.5	98.6	101.0	93.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.0	97.5	99.5	92.5	100.0	101.0	97.7
1969	110.4	96.8	99.0	91.2	95.7	95.9	95.3
1970	103.2	97.2	98.0	95.0	95.7	94.9	97.7
1971	96.0	88.7	88.7	92.5	92.2	91.8	93.0
1972	117.8	84.8	84.2	86.2	85.8	85.7	86.0
1973	102.8	83.4	83.7	82.5	83.0	83.7	81.4
1974	118.7	78.8	78.3	80.0	78.7	78.6	79.1
1975	119.7	78.4	81.3	71.2	77.3	80.6	69.8
1976	132.3	78.4	81.3	71.2	78.0	81.6	69.8
1977	150.7	76.0	77.3	72.5	77.3	79.6	72.1
1978 ¹	154.5	76.0	78.3	70.0	78.7	82.7	69.8
Average annual percent change:							
1963-78	3.7	-1.9	-2.1	-1.3	-1.6	-1.7	-1.5
1974-78	7.9	-1.0	-5	-2.5	(²)	.9	-2.2

¹ Preliminary.

² Less than .05 percent.

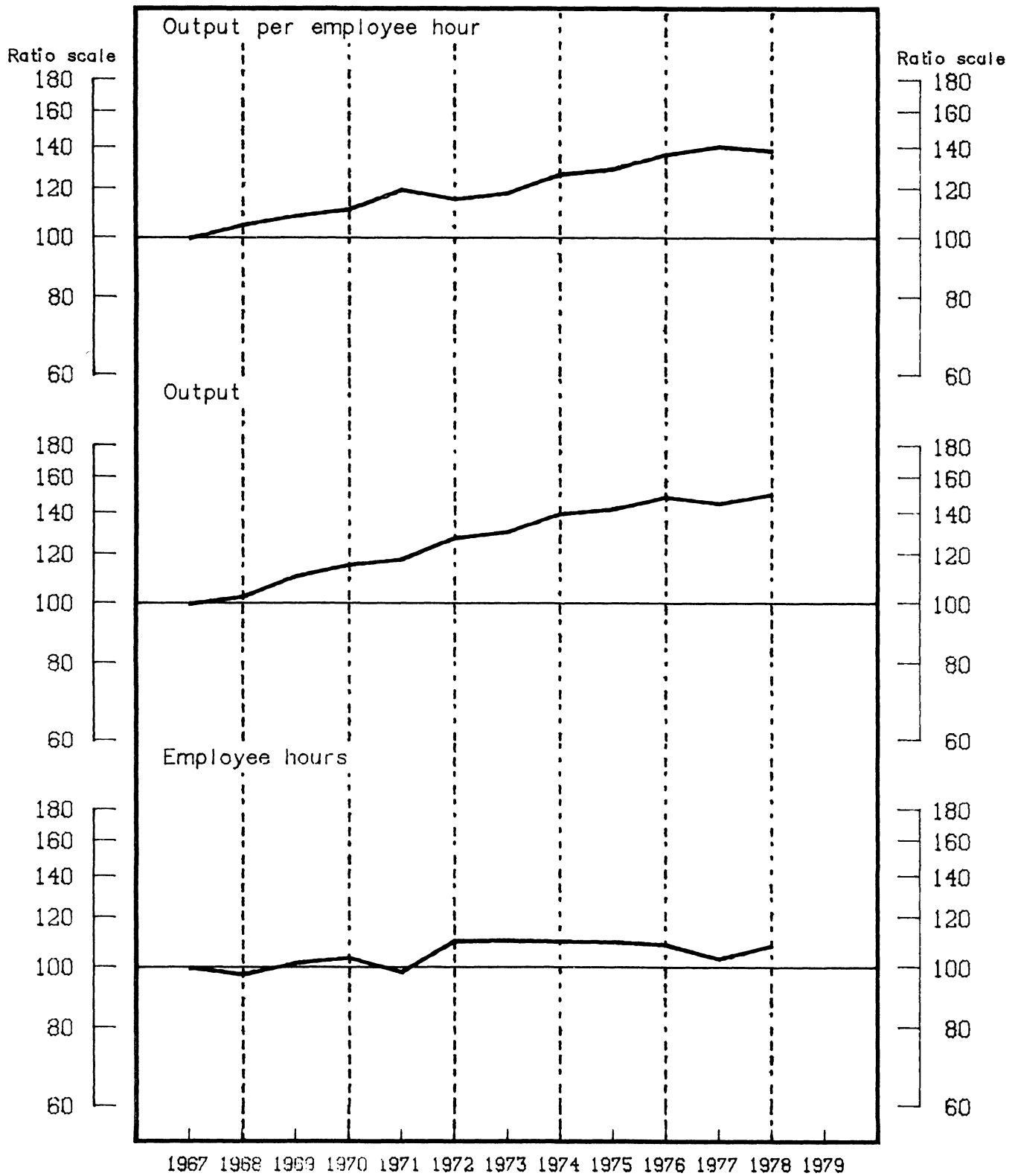
NOTE: Because of periodic revisions in source data, the measures in this table

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 19. Prepared feeds for animals and fowls (SIC 2047, 2048): Output per hour and related data 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 35. Prepared feeds for animals and fowls (SIC 2047, 2048): Indexes of output per employee hour and output per employee, 1963-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	81.7	83.4	78.2	81.8	83.8	78.3
1964	85.3	86.6	82.6	86.3	88.1	83.3
1965	88.2	90.3	83.9	89.6	92.8	84.3
1966	92.4	95.1	87.1	93.7	97.6	87.1
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.2	104.0	107.8	103.2	103.4	102.8
1969	108.8	108.2	110.2	106.7	106.8	106.3
1970	111.5	109.0	117.1	108.0	104.8	114.4
1971	119.9	118.2	123.8	115.9	112.3	123.4
1972	115.9	113.9	120.6	117.0	114.5	122.1
1973	118.5	116.1	124.1	123.3	121.8	126.2
1974	127.1	127.8	125.7	125.9	125.0	127.8
1975	129.5	129.5	129.4	129.0	127.5	131.9
1976	136.9	137.6	135.1	137.1	136.6	138.1
1977	140.9	144.6	133.2	136.8	137.8	135.0
1978 ²	138.7	144.0	128.4	135.3	138.2	130.4
Average annual percent change:						
1963-78	3.7	3.7	3.8	3.6	3.4	3.9
1974-78	2.6	3.5	.7	2.1	2.8	.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 36. Prepared feeds for animals and fowls (SIC 2047, 2048): Indexes of output, employee hours, and employees, 1963-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	83.8	102.6	100.5	107.2	102.4	100.0	107.0
1964	85.5	100.2	98.7	103.5	99.1	97.1	102.7
1965	86.1	97.6	95.4	102.6	96.1	92.8	102.1
1966	90.3	97.7	95.0	103.7	96.4	92.5	103.7
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.8	97.7	98.8	95.4	99.6	99.4	100.0
1969	110.9	101.9	102.5	100.6	103.9	103.8	104.3
1970	115.7	103.8	106.1	98.8	107.1	110.4	101.1
1971	118.1	98.5	99.9	95.4	101.9	105.2	95.7
1972	128.0	110.4	112.4	106.1	109.4	111.8	104.8
1973	130.9	110.5	112.7	105.5	106.2	107.5	103.7
1974	140.1	110.2	109.6	111.5	111.3	112.1	109.6
1975	142.5	110.0	110.0	110.1	110.5	111.8	108.0
1976	149.2	109.0	108.4	110.4	108.8	109.2	108.0
1977	145.8	103.5	100.8	109.5	106.6	105.8	108.0
1978 ¹	150.6	108.6	104.6	117.3	111.3	109.0	115.5
Average annual percent change:							
1963-78	4.5	.7	.8	.7	.9	1.1	.5
1974-78	1.7	-9	-1.8	1.0	-4	-1.1	1.1

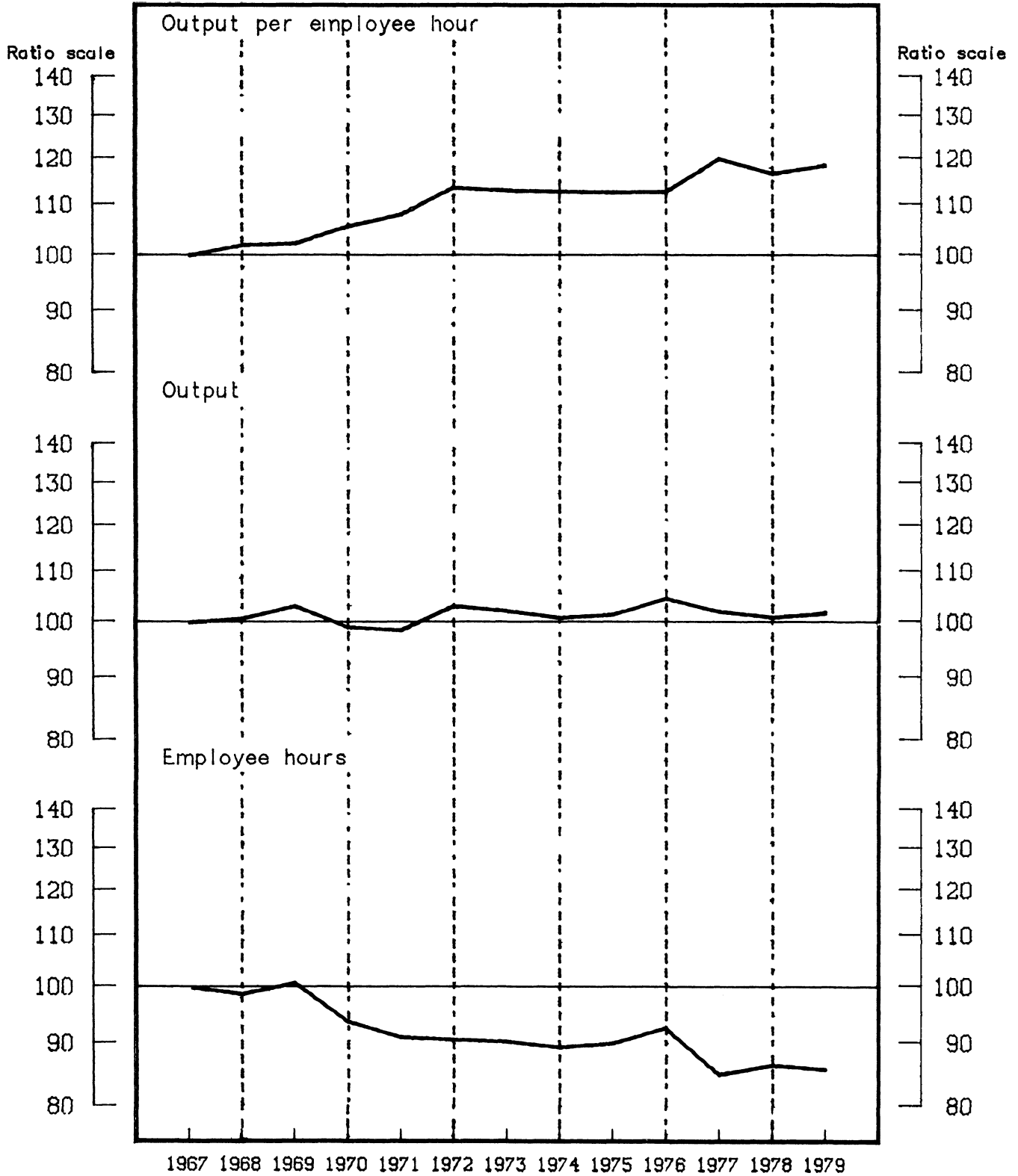
¹ Preliminary.

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 20. Bakery products (SIC 205): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 37. Bakery products (SIC 205): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	70.5	70.0	71.1	72.0	70.7	74.1
1955	71.1	71.0	71.3	72.6	71.7	73.9
1956	72.5	73.1	71.4	73.3	72.8	74.3
1957	74.7	77.3	70.7	75.4	76.6	73.5
1958	77.3	79.0	74.6	78.9	79.9	77.4
1959	77.2	79.5	73.8	78.8	80.4	76.5
1960	77.7	79.8	74.3	79.8	82.3	76.3
1961	79.0	81.0	75.7	80.6	83.4	76.6
1962	81.1	84.1	76.7	82.7	86.9	77.1
1963	87.3	89.3	84.0	88.4	91.1	84.6
1964	90.1	91.8	87.4	93.1	96.6	88.1
1965	93.5	95.1	90.8	94.3	96.4	91.2
1966	94.6	95.6	92.7	96.0	98.1	92.9
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.0	101.2	103.5	103.3	102.7	104.0
1969	102.3	101.9	103.0	102.9	101.6	104.9
1970	105.7	105.1	106.7	106.8	104.6	110.0
1971	108.1	109.9	105.0	109.8	109.4	110.4
1972	113.7	116.0	109.9	116.1	115.3	117.3
1973	113.1	115.1	109.7	115.7	114.4	117.9
1974	112.9	119.4	103.1	113.2	115.1	110.8
1975	112.7	119.6	102.3	113.3	115.6	110.0
1976	112.8	118.5	104.3	114.3	115.5	112.6
1977	120.1	126.4	110.5	121.5	123.9	118.3
1978	116.8	124.5	105.2	117.9	121.5	112.6
1979 ²	118.6	126.5	107.3	119.5	122.5	115.3
Average annual percent change:						
1947-79	2.2	2.6	1.6	2.1	2.4	1.7
1974-79	1.2	1.4	1.0	1.3	1.5	.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 38. Bakery products (SIC 205): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	79.7	113.1	113.9	112.1	110.7	112.8	107.5
1955	81.5	114.6	114.8	114.3	112.3	113.7	110.3
1956	84.7	116.8	115.9	118.7	115.5	116.4	114.0
1957	87.0	116.4	112.5	123.0	115.4	113.6	118.4
1958	90.3	116.8	114.3	121.1	114.4	113.0	116.6
1959	90.9	117.7	114.4	123.1	115.3	113.1	118.8
1960	91.8	118.1	115.0	123.5	115.0	111.6	120.3
1961	91.0	115.2	112.3	120.2	112.9	109.1	118.8
1962	92.9	114.5	110.5	121.2	112.3	106.9	120.5
1963	93.7	107.3	104.9	111.5	106.0	102.8	110.8
1964	97.4	108.1	106.1	111.5	104.6	100.8	110.5
1965	99.1	106.0	104.2	109.2	105.1	102.8	108.7
1966	99.7	105.4	104.3	107.5	103.9	101.6	107.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	100.7	98.7	99.5	97.3	97.5	98.1	96.8
1969	103.1	100.8	101.2	100.1	100.2	101.5	98.3
1970	99.1	93.8	94.3	92.9	92.8	94.7	90.1
1971	98.5	91.1	89.6	93.8	89.7	90.0	89.2
1972	103.1	90.7	88.9	93.8	88.8	89.4	87.9
1973	102.2	90.4	88.8	93.2	88.3	89.3	86.7
1974	100.9	89.4	84.5	97.9	89.1	87.7	91.1
1975	101.5	90.1	84.9	99.2	89.6	87.8	92.3
1976	104.6	92.7	88.3	100.3	91.5	90.6	92.9
1977	102.1	85.0	80.8	92.4	84.0	82.4	86.3
1978	101.0	86.5	81.1	96.0	85.7	83.1	89.7
1979 ¹	101.8	85.8	80.5	94.9	85.2	83.1	88.3
Average annual percent change:							
1947-79	1.0	-1.2	-1.5	-6	-1.0	-1.3	-7
1974-79	(²)	-1.2	-1.3	-1.0	-1.3	-1.5	-9

¹ Preliminary.

² Less than .05 percent.

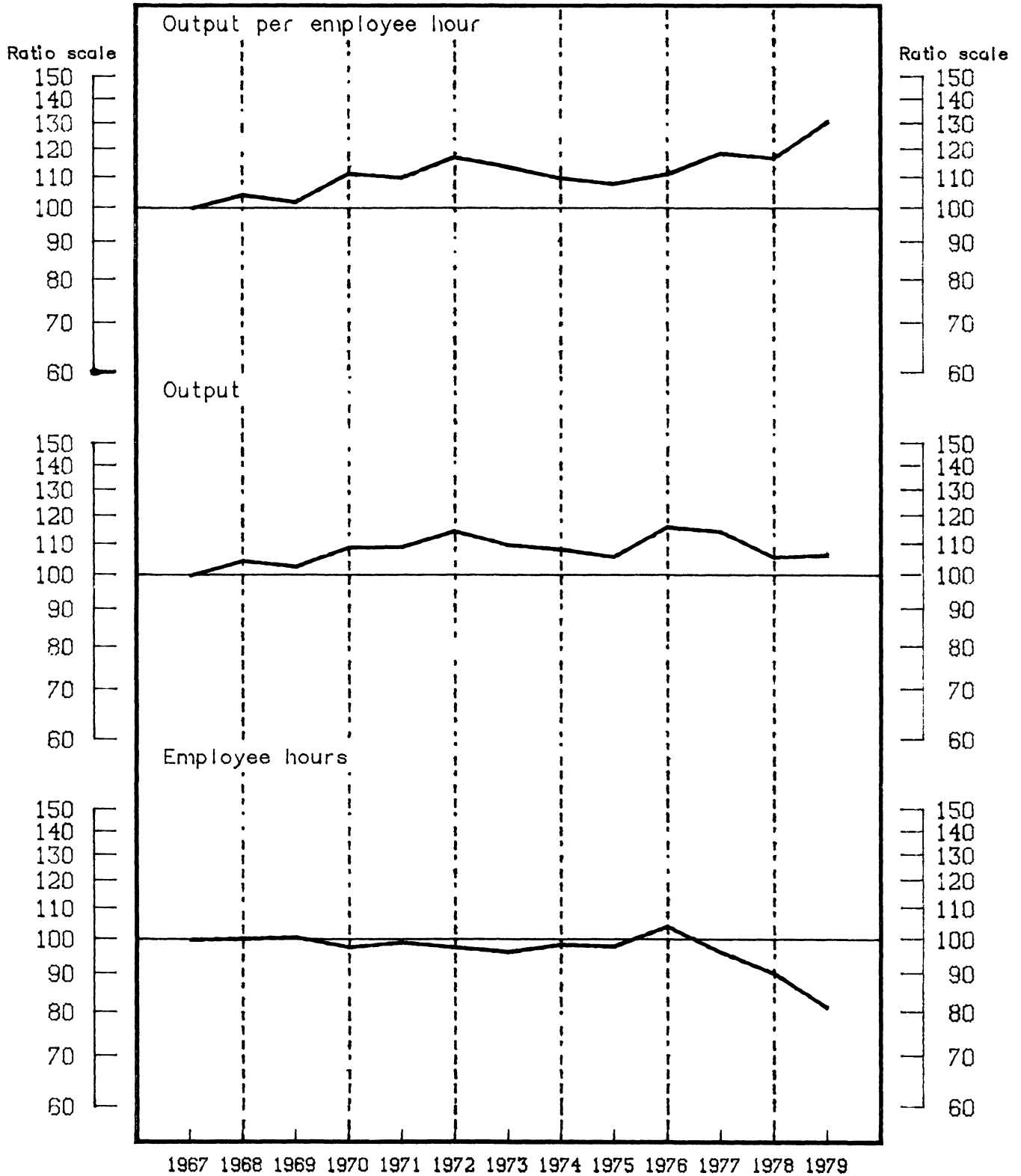
NOTE: Because of periodic revisions in source data, the measures in this table

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 21. Sugar (SIC 2061, 2062, 2063): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 39. Sugar (SIC 2061, 2062, 2063): Indexes of output per employee hour and output per employee¹, 1954-79
(1967 = 100)

Year	Output per hour ²			Output per employee ²		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	60.4	60.3	60.7	60.5	60.0	63.3
1955	62.8	62.5	64.4	62.6	61.8	66.7
1956	66.2	65.4	70.2	68.4	67.4	73.0
1957	65.3	64.3	70.5	66.7	65.5	73.2
1958	67.2	67.3	66.2	69.9	70.3	68.7
1959	70.8	70.6	72.0	72.1	71.5	74.7
1960	74.6	74.4	75.8	76.8	76.7	77.7
1961	79.7	79.6	80.3	81.5	81.5	81.3
1962	87.7	86.9	91.5	89.6	89.0	91.9
1963	88.2	87.9	89.4	89.9	89.8	89.9
1964	92.7	92.5	93.7	95.1	95.3	94.5
1965	96.5	95.6	101.0	95.6	94.2	101.6
1966	100.1	100.5	96.7	98.5	100.1	96.8
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.3	103.5	108.3	104.9	104.2	108.3
1969	102.1	101.7	103.9	100.5	100.0	102.8
1970	111.6	110.3	117.6	109.8	108.7	115.0
1971	110.1	109.6	112.0	114.3	114.2	115.1
1972	117.4	119.1	110.8	120.2	120.6	118.8
1973	114.0	114.2	112.5	118.0	117.5	120.2
1974	110.0	112.1	102.0	113.3	114.5	108.5
1975	108.1	111.0	96.5	106.6	107.7	102.5
1976	111.4	114.0	101.0	114.4	116.2	107.1
1977	118.9	122.6	104.5	120.0	123.0	109.0
1978	117.1	121.3	101.4	115.6	118.2	105.9
1979	131.0	139.2	103.9	128.1	133.9	108.4
Average annual percent change:						
1947-79	3.4	3.6	2.3	3.3	3.5	2.3
1974-79	3.4	4.1	.8	2.6	3.3	.3

¹ Series revised from 1947-66 to reflect the summation of the component industries.
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 40. Sugar (SIC 2061, 2062, 2063): Indexes of output, employee hours, and employees¹, 1954-79
(1967 = 100)

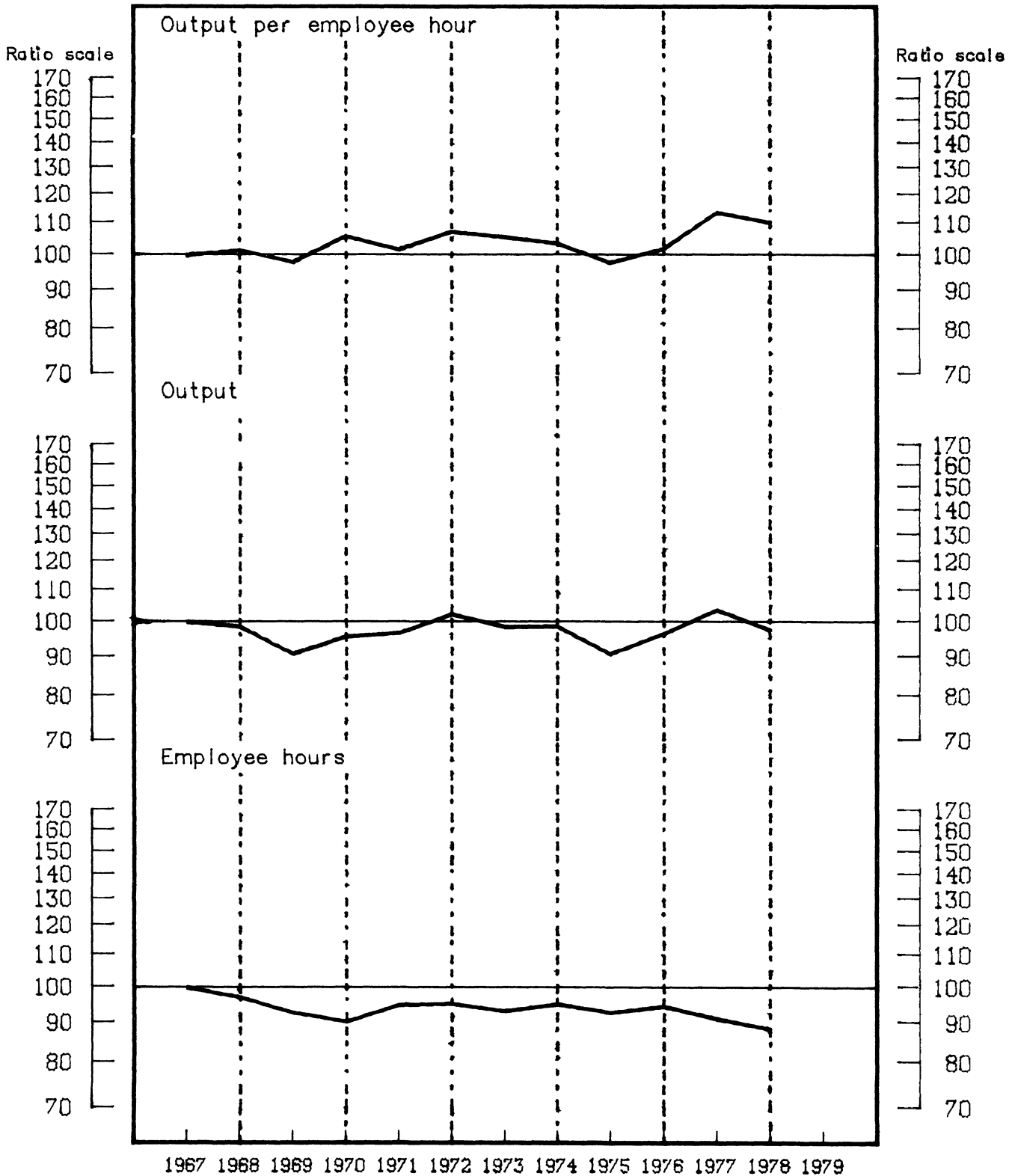
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	68.0	112.6	112.8	112.0	112.4	113.4	107.4
1955	67.7	107.8	108.4	105.2	108.1	109.5	101.5
1956	71.0	107.3	108.5	101.1	103.8	105.3	97.2
1957	70.3	107.7	109.3	99.7	105.4	107.4	96.0
1958	74.4	110.7	110.5	112.4	106.4	105.9	108.3
1959	78.1	110.3	110.7	108.4	108.3	109.2	104.6
1960	80.3	107.6	108.0	106.0	104.5	104.7	103.3
1961	84.9	106.5	106.7	105.7	104.2	104.2	104.4
1962	88.8	101.3	102.2	97.1	99.1	99.8	96.6
1963	93.1	105.6	105.9	104.1	103.6	103.7	103.6
1964	100.5	108.4	108.7	107.3	105.7	105.5	106.4
1965	97.4	100.9	101.9	96.4	101.9	103.4	95.9
1966	98.2	98.1	97.7	101.5	99.7	98.1	101.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.6	100.3	101.1	96.6	99.7	100.4	96.6
1969	102.8	100.7	101.1	98.9	102.3	102.8	100.0
1970	109.1	97.8	98.9	92.8	99.4	100.4	94.9
1971	109.2	99.2	99.6	97.5	95.5	95.6	94.9
1972	114.8	97.8	96.4	103.6	95.5	95.2	96.6
1973	110.0	96.5	96.3	97.8	93.2	93.6	91.5
1974	108.5	98.6	96.8	106.4	95.8	94.8	100.0
1975	106.0	98.1	95.5	109.9	99.4	98.4	103.4
1976	116.2	104.3	101.9	115.0	101.6	100.0	108.5
1977	114.6	96.4	93.5	109.7	95.5	93.2	105.1
1978	105.9	90.4	87.3	104.4	91.6	89.6	100.0
1979	106.6	81.4	76.6	102.6	83.2	79.6	98.3
Average annual percent change:							
1947-79	2.3	-1.0	-1.2	(¹)	-1.0	-1.2	(¹)
1974-79	-3	-3.6	-4.3	-1.1	-2.9	-3.4	-6

¹ Series revised from 1947-66 to reflect the summation of the component industries.
² Preliminary.
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 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 22. Raw and refined cane sugar (SIC 2061, 2062): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 41. Raw and refined cane sugar (SIC 2061, 2062): Indexes of output per employee hour and output per employee, 1958-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	63.8	63.1	67.0	62.3	61.9	63.8
1959	68.3	66.7	74.9	65.4	63.8	71.4
1960	70.3	69.0	75.7	68.0	67.1	71.3
1961	79.2	78.1	84.2	77.1	76.7	78.3
1962	87.5	85.5	95.3	85.6	85.0	88.1
1963	85.8	84.8	89.8	84.5	85.0	82.8
1964	85.7	85.3	86.6	84.0	85.1	80.3
1965	94.7	93.0	101.2	91.7	91.1	93.4
1966	99.9	98.4	105.8	97.2	97.2	97.2
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	101.5	101.1	103.2	101.9	101.4	103.2
1969	98.0	100.3	90.0	94.9	96.8	89.0
1970	105.9	108.1	98.0	103.8	106.6	95.8
1971	101.8	104.0	94.3	103.8	106.0	96.8
1972	107.3	111.8	93.4	110.3	113.9	100.2
1973	105.6	108.4	96.6	108.1	109.7	103.1
1974	103.7	108.6	88.9	107.0	111.5	94.6
1975	97.8	104.2	80.2	96.5	100.4	85.3
1976	102.0	106.9	87.3	102.4	105.8	92.5
1977	113.7	120.1	95.2	111.3	115.5	99.4
1978 ¹	110.3	115.9	93.6	108.3	112.0	97.7
Average annual percent change:						
1958-78	2.3	2.8	.8	2.5	2.8	1.6
1974-78	2.8	2.8	2.8	1.7	1.5	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 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 42. Raw and refined cane sugar (SIC 2061, 2062): Indexes of output, employee hours, and employees, 1958-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	72.4	113.4	114.8	108.1	116.2	117.0	113.4
1959	77.3	113.2	115.9	103.2	118.2	121.2	108.3
1960	77.2	109.8	111.9	102.0	113.5	115.1	108.2
1961	84.0	106.0	107.6	99.8	109.0	109.5	107.3
1962	87.0	99.4	101.8	91.3	101.6	102.4	98.8
1963	90.2	105.1	106.4	100.5	106.7	106.1	108.9
1964	89.0	103.9	104.3	102.8	106.0	104.6	110.8
1965	90.8	95.9	97.6	89.7	99.0	97.9	97.2
1966	95.2	95.3	96.7	90.0	97.9	97.9	97.9
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	98.7	97.2	97.6	95.6	96.9	97.3	95.6
1969	91.0	92.9	90.7	101.1	95.9	94.0	102.2
1970	95.8	90.5	88.6	97.8	92.3	89.9	100.0
1971	96.8	95.1	93.1	102.7	93.3	91.3	100.0
1972	102.4	95.4	91.6	109.6	92.8	89.9	102.2
1973	98.6	93.4	91.0	102.1	91.2	89.9	95.6
1974	98.8	95.3	91.0	111.1	92.3	88.6	104.4
1975	91.0	93.0	87.3	113.4	94.3	90.6	106.7
1976	96.6	94.7	90.4	110.7	94.3	91.3	104.4
1977	103.8	91.3	86.4	109.0	93.3	89.9	104.4
1978 ¹	97.7	88.6	84.3	104.4	90.2	87.2	100.0
Average annual percent change:							
1958-78	1.3	-1.0	-1.5	.5	-1.2	-1.5	-3
1974-78	1.1	-1.6	-1.6	-1.6	-6	-4	-1.1

¹ Preliminary.

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

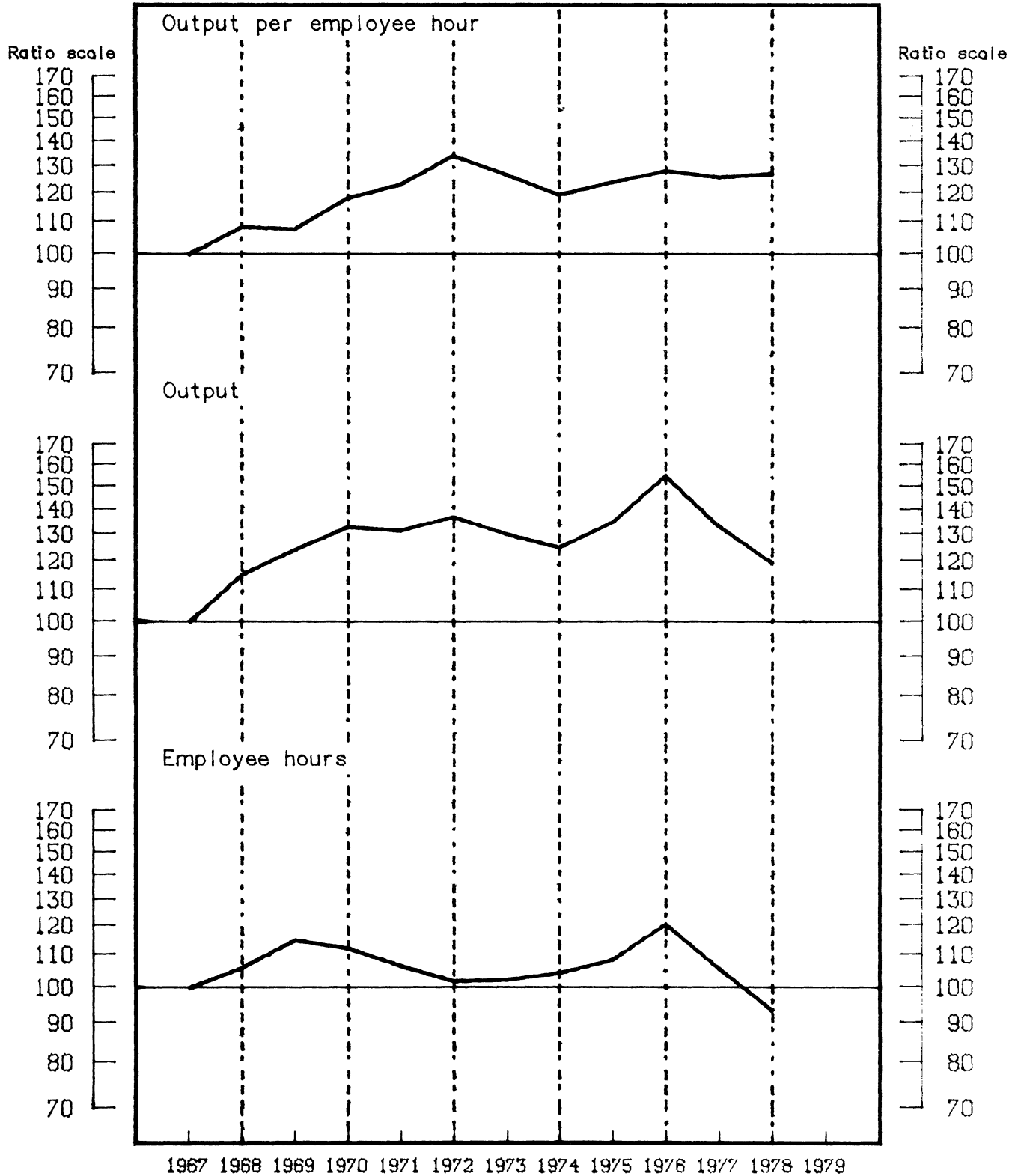
SOURCE: Output based on data from the Agricultural Marketing Service and Statistical

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 23. Beet sugar (SIC 2063): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 43. Beet sugar (SIC 2063): Indexes of output per employee hour and output per employee, 1958-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	77.4	76.0	89.4	87.3	87.6	85.2
1959	79.3	78.0	90.4	86.9	87.1	86.1
1960	87.6	85.6	105.6	97.5	97.3	99.5
1961	84.0	82.3	98.1	89.9	89.8	91.1
1962	92.1	89.9	111.9	97.2	96.4	103.2
1963	97.0	94.0	124.2	100.8	99.1	114.6
1964	110.3	107.0	142.2	118.3	116.6	131.9
1965	104.7	102.2	127.7	104.0	102.4	117.8
1966	104.5	105.0	100.7	101.7	103.1	92.5
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	108.7	107.9	115.3	110.5	109.8	115.3
1969	108.0	105.1	135.3	109.9	107.3	133.7
1970	118.5	115.4	146.6	118.6	115.8	143.3
1971	123.4	119.4	163.2	132.9	129.1	167.6
1972	134.5	131.4	162.9	137.2	133.2	174.6
1973	127.2	124.2	155.1	135.0	131.6	165.8
1974	119.7	117.6	137.3	123.0	120.3	146.0
1975	124.3	124.0	127.0	125.2	124.0	135.0
1976	128.6	128.6	128.2	137.3	137.5	135.8
1977	126.2	127.3	119.4	134.7	136.2	124.6
1978 ²	127.6	129.6	114.7	127.2	128.2	119.4
Average annual percent change:						
1958-78	2.6	2.7	1.7	2.3	2.3	2.5
1974-78	1.4	2.2	-4.1	1.4	2.2	-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 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 44. Beet sugar (SIC 2063): Indexes of output, employee hours, and employees, 1958-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	78.4	101.3	103.2	87.7	89.8	89.5	92.0
1959	79.7	100.5	102.2	88.2	91.7	91.5	92.6
1960	86.9	99.2	101.5	82.3	89.1	89.3	87.3
1961	86.5	103.0	105.1	88.2	96.2	96.3	94.9
1962	92.4	100.3	102.8	82.6	95.1	95.9	89.5
1963	99.0	102.1	105.3	79.7	98.2	99.9	86.4
1964	124.1	112.5	116.0	87.3	104.9	106.4	94.1
1965	111.2	106.2	108.8	87.1	106.9	108.6	94.4
1966	104.3	99.8	99.3	103.6	102.6	101.2	112.7
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	115.3	106.1	106.9	100.0	104.3	105.0	100.0
1969	124.2	115.0	118.2	91.8	113.0	115.8	92.9
1970	133.1	112.3	115.3	90.8	112.2	114.9	92.9
1971	131.7	106.7	110.3	80.7	99.1	102.0	78.6
1972	137.2	102.0	104.4	84.2	100.0	103.0	78.6
1973	130.3	102.4	104.9	84.0	96.5	99.0	78.6
1974	125.1	104.5	106.4	91.1	101.7	104.0	85.7
1975	135.0	108.6	108.9	106.3	107.8	108.9	100.0
1976	155.2	120.7	120.7	121.1	113.0	112.9	114.3
1977	133.5	105.8	104.9	111.8	99.1	98.0	107.1
1978 ¹	119.4	93.6	92.1	104.1	93.9	93.1	100.0
Average annual percent change:							
1958-78	2.8	.2	.1	1.1	.5	.6	.3
1974-78	-1.0	-2.4	-3.2	3.2	-2.4	-3.2	3.8

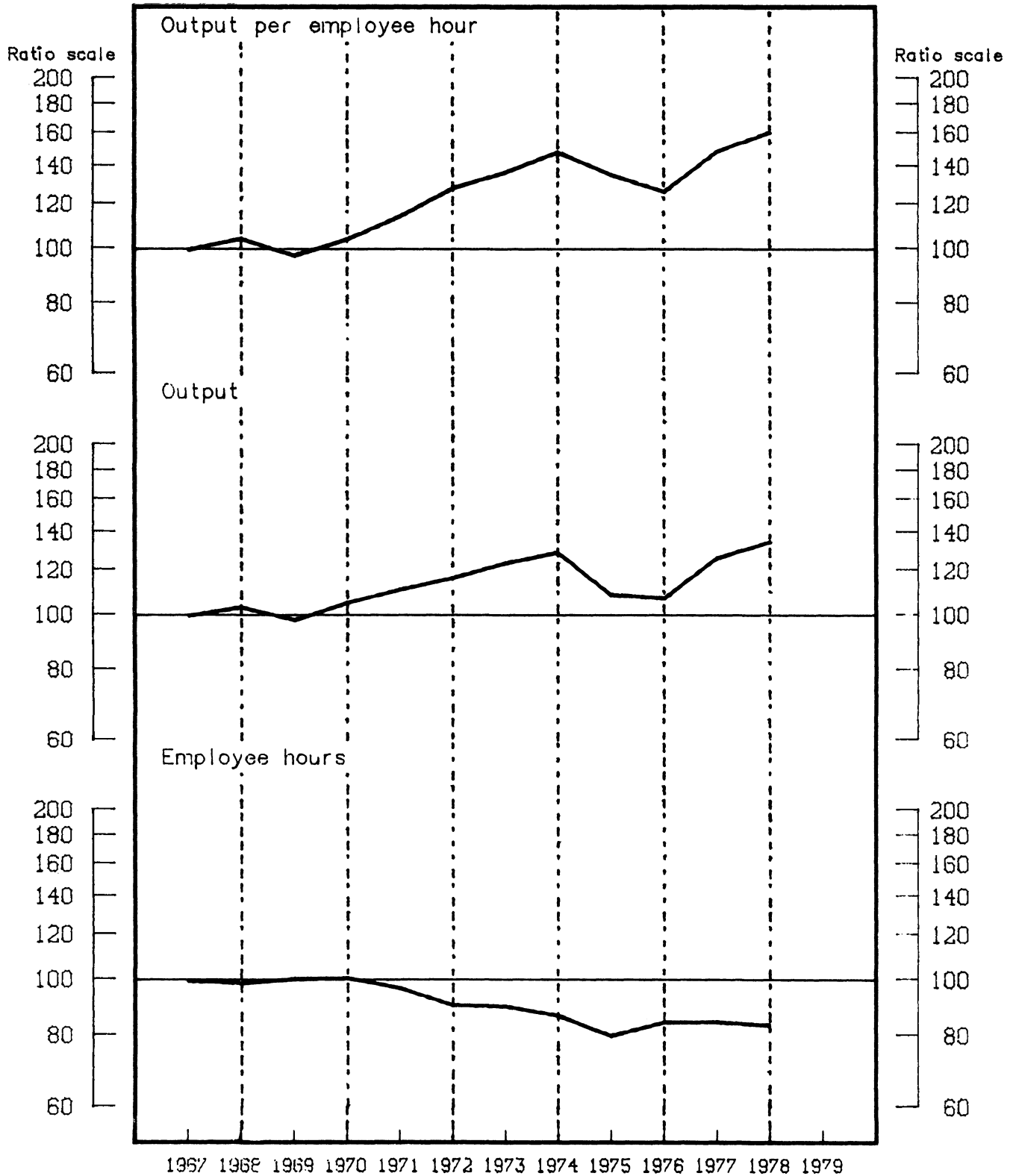
¹ Preliminary.

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

SOURCE: Output 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 24. Candy and other confectionery products (SIC 2065): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 45. Candy and other confectionery products (SIC 2065): Indexes of output per employee hour and output per employee, 1954-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	61.9	63.1	55.9	63.4	64.5	58.3
1955	63.8	66.8	51.4	65.0	67.9	53.4
1956	64.5	68.6	48.7	66.5	70.6	50.7
1957	70.0	74.3	53.4	71.3	75.4	55.6
1958	73.2	75.7	62.0	74.2	76.4	64.5
1959	74.9	77.8	62.1	77.4	80.5	64.5
1960	78.3	81.5	64.3	80.8	84.4	66.0
1961	78.1	80.9	66.0	80.7	84.0	66.8
1962	79.6	82.5	67.0	82.3	86.0	67.4
1963	88.0	89.1	82.3	89.0	90.5	82.6
1964	89.7	90.8	84.4	90.5	91.6	85.1
1965	93.4	93.7	92.1	94.7	95.1	92.6
1966	97.2	97.9	93.7	97.2	97.8	93.7
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.6	105.1	102.7	104.5	106.0	97.3
1969	97.6	98.4	93.7	98.3	100.1	89.8
1970	104.4	107.0	92.2	104.2	107.4	89.6
1971	114.6	119.0	95.6	118.0	123.9	94.6
1972	128.7	133.1	109.1	130.5	135.4	109.6
1973	137.3	148.5	97.6	138.7	150.3	98.5
1974	149.0	158.8	111.5	144.5	152.7	112.9
1975	136.0	147.2	96.2	129.3	137.8	97.4
1976	126.9	134.9	96.1	123.7	130.3	97.5
1977	149.4	155.5	123.4	148.4	153.9	124.3
1978 ²	161.5	164.2	148.5	162.0	164.8	149.2
Average annual percent change:						
1947-78	3.7	3.8	3.4	3.5	3.6	3.2
1974-78	2.6	1.2	8.6	3.7	2.7	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 based on data from the Bureau of Competitive Assessment and Business Policy, and the Bureau of the Census, U.S. Department of Commerce. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 46. Candy and other confectionery products (SIC 2065): Indexes of output, employee hours, and employees, 1954-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	62.8	101.5	99.5	112.4	99.0	97.3	107.8
1955	65.7	103.0	98.4	127.7	101.0	96.7	123.0
1956	67.9	105.3	99.0	139.5	102.1	96.2	133.9
1957	70.7	101.0	95.2	132.3	99.1	93.8	127.2
1958	72.7	99.3	96.0	117.2	98.0	95.1	112.8
1959	73.8	98.5	94.8	118.8	95.3	91.7	114.4
1960	76.8	98.1	94.2	119.5	95.0	91.0	116.3
1961	77.8	99.6	96.2	117.9	96.4	92.6	116.4
1962	79.7	100.1	96.6	118.9	96.8	92.7	118.2
1963	83.5	94.9	93.7	101.5	93.8	92.3	101.1
1964	87.4	97.4	96.3	103.6	96.6	95.4	102.7
1965	91.0	97.4	97.1	98.8	96.1	95.7	98.3
1966	95.4	98.1	97.4	101.8	98.1	97.5	101.8
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.6	99.0	98.6	100.9	99.1	97.7	106.5
1969	98.2	100.6	99.8	104.8	99.9	98.1	109.3
1970	105.4	101.0	98.5	114.3	101.2	98.1	117.6
1971	111.3	97.1	93.5	116.4	94.3	89.8	117.6
1972	116.7	90.7	87.7	107.0	89.4	86.2	106.5
1973	124.0	90.3	83.5	127.1	89.4	82.5	125.9
1974	129.6	87.0	81.6	116.2	89.7	84.9	114.8
1975	109.1	80.2	74.1	113.4	84.4	79.2	112.0
1976	107.5	84.7	79.7	111.9	86.9	82.5	110.2
1977	126.7	84.8	81.5	102.7	85.4	82.3	101.9
1978 ¹	135.3	83.8	82.4	91.1	83.5	82.1	90.7
Average annual percent change:							
1947-78	2.7	-1.0	-1.0	-7	-7	-8	-4
1974-78	2.4	-2	1.2	-5.7	-1.3	-3	-5.5

¹ Preliminary.

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

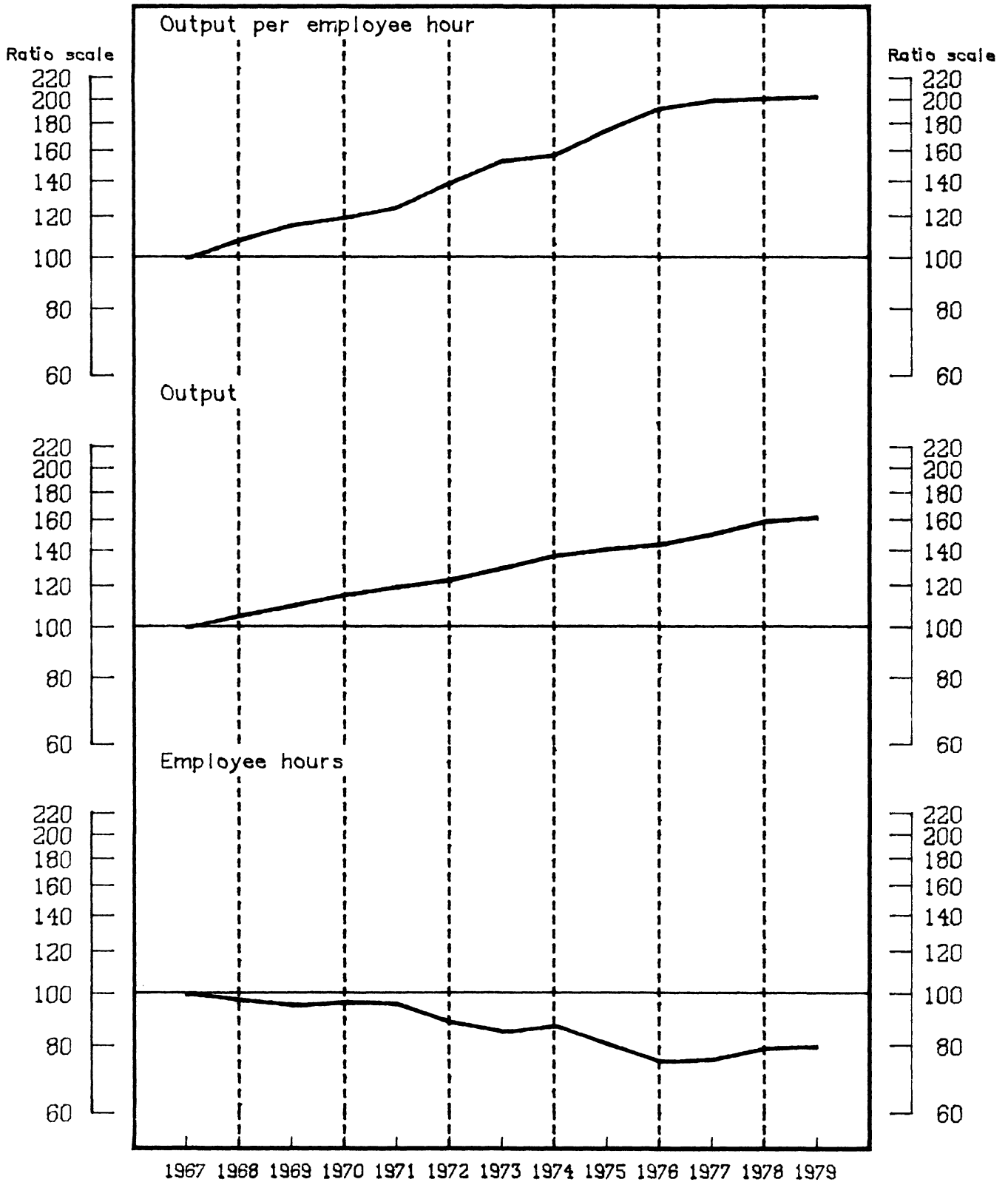
SOURCE: Output based on data from the Bureau of Competitive Assessment and

Business Policy, and the Bureau of the Census, U.S. Department of Commerce.

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

Chart 25. Malt beverages (SIC 2082): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 47. Malt beverages (SIC 2082): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	49.4	50.5	47.3	51.0	51.9	49.2
1955	51.4	51.9	50.3	52.8	53.0	52.1
1956	52.4	53.3	50.5	53.9	54.5	52.4
1957	54.1	55.4	51.4	55.1	55.9	53.4
1958	59.9	60.8	57.8	60.3	60.4	60.0
1959	62.7	62.9	62.0	63.3	62.8	64.3
1960	65.2	64.9	65.5	65.0	63.8	67.2
1961	68.3	68.2	68.5	68.0	67.2	69.3
1962	71.8	71.1	73.1	71.9	71.1	73.5
1963	78.9	77.9	81.1	79.0	77.7	81.4
1964	84.6	83.9	86.0	84.9	83.7	86.8
1965	89.0	88.7	89.3	89.6	89.6	89.6
1966	93.7	93.9	92.8	94.6	95.3	92.8
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	108.3	105.8	113.9	107.0	106.2	108.8
1969	115.7	114.0	119.5	114.6	114.1	115.4
1970	119.6	119.4	119.9	120.2	121.6	117.3
1971	125.1	128.3	118.8	125.1	128.6	118.4
1972	139.3	141.6	134.9	142.7	145.9	136.5
1973	153.2	148.6	163.4	157.6	153.7	166.3
1974	157.2	151.7	170.1	163.0	158.5	173.3
1975	175.3	169.4	189.7	178.6	172.1	193.3
1976	192.9	186.7	207.6	201.3	196.1	212.2
1977	199.6	189.3	225.6	204.2	193.7	229.0
1978	201.3	190.7	228.0	208.4	198.8	231.3
1979 ²	203.0	189.3	239.9	209.8	195.9	244.6
Average annual percent change:						
1947-79	5.6	5.5	5.9	5.5	5.4	5.7
1974-79	5.1	4.3	7.0	5.1	4.3	6.9

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 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 48. Malt beverages (SIC 2082): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	69.8	141.3	138.3	147.7	136.8	134.6	141.9
1955	71.4	138.8	137.5	142.0	135.3	134.6	137.0
1956	72.0	137.4	135.0	142.7	133.6	132.1	137.3
1957	71.8	132.7	129.5	139.7	130.2	128.4	134.5
1958	72.6	121.3	119.4	125.5	120.3	120.1	121.1
1959	75.3	120.1	119.7	121.4	119.0	120.0	117.1
1960	76.1	116.8	117.2	116.1	117.1	119.3	113.2
1961	77.7	113.7	114.0	113.5	114.3	115.6	112.2
1962	79.6	110.8	111.9	108.9	110.7	112.0	108.3
1963	83.0	105.2	106.6	102.4	105.0	106.8	102.0
1964	88.1	104.1	105.0	102.4	103.8	105.2	101.5
1965	90.9	102.1	102.5	101.8	101.4	101.5	101.4
1966	96.0	102.5	102.2	103.4	101.5	100.7	103.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.4	97.3	99.6	92.5	98.5	99.2	96.9
1969	110.1	95.2	96.6	92.1	96.1	96.5	95.4
1970	115.5	96.6	96.7	96.3	96.1	95.0	98.5
1971	119.6	95.6	93.2	100.7	95.6	93.0	101.0
1972	123.3	88.5	87.1	91.4	86.4	84.5	90.3
1973	129.9	84.8	87.4	79.5	82.4	84.5	78.1
1974	137.1	87.2	90.4	80.6	84.1	86.5	79.1
1975	141.1	80.5	83.3	74.4	79.0	82.0	73.0
1976	144.1	74.7	77.2	69.4	71.6	73.5	67.9
1977	150.7	75.5	79.6	66.8	73.8	77.8	65.8
1978	159.4	79.2	83.6	69.9	76.5	80.2	68.9
1979 ¹	162.2	79.9	85.7	67.6	77.3	82.8	66.3
Average annual percent change:							
1947-79	3.1	-2.3	-2.2	-2.6	-2.2	-2.1	-2.4
1974-79	3.6	-1.3	-6	-3.1	-1.4	-7	-3.1

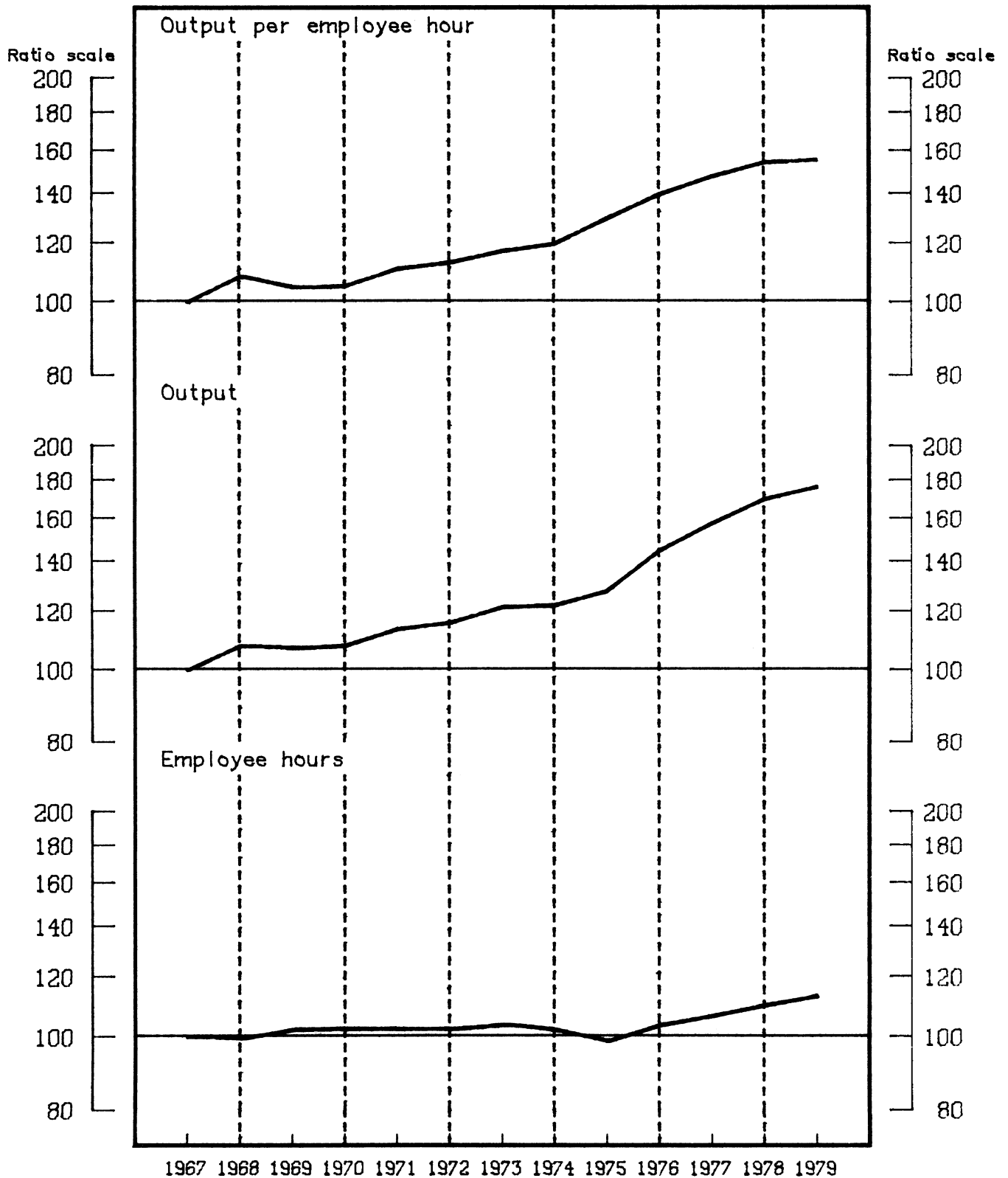
¹ Preliminary.

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

SOURCE: Output 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 26. Bottled and canned soft drinks (SIC 2086): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 49. Bottled and canned soft drinks (SIC 2086): Indexes of output per employee hour and output per employee¹, 1958-79
(1967=100)

Year	Output per hour ²			Output per employee ²		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	86.6	86.1	87.0	88.6	86.3	90.1
1959	90.7	90.7	90.8	93.9	93.8	94.1
1960	87.6	88.3	87.2	89.6	90.2	89.3
1961	91.2	92.5	90.4	92.2	93.3	91.5
1962	97.6	99.9	96.3	97.7	100.0	96.3
1963	100.7	101.2	100.6	101.8	103.6	100.6
1964	101.0	102.7	100.0	101.7	104.4	100.0
1965	101.8	104.1	100.3	102.3	105.6	100.3
1966	102.4	101.4	103.2	103.3	103.3	103.2
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	108.3	109.8	107.4	107.4	107.4	107.4
1969	104.6	109.2	101.7	104.2	105.7	103.4
1970	105.2	113.0	100.3	105.8	109.4	103.6
1971	111.0	122.8	104.0	112.9	119.0	109.4
1972	113.2	124.2	106.5	116.7	120.6	114.4
1973	117.3	130.3	109.5	121.0	126.0	118.2
1974	119.9	133.5	111.9	123.3	127.0	121.1
1975	129.6	146.1	120.2	133.3	138.5	130.1
1976	139.7	158.0	129.2	144.0	151.5	139.8
1977	147.7	168.8	135.9	152.3	161.7	147.1
1978	154.3	177.3	141.3	159.6	171.7	153.0
1979 ³	155.6	183.7	140.5	161.0	177.9	152.0
Average annual percent change:						
1958-79	2.6	3.5	2.1	2.7	3.1	2.5
1974-79	5.5	6.6	4.9	5.7	7.1	4.9

¹ Series revised to incorporate new information on output by container type and size.
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 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 50. Bottled and canned soft drinks (SIC 2086): Indexes of output, employee hours, and employees¹, 1958-79
(1967=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	68.5	79.1	79.6	78.7	77.3	79.4	76.0
1959	74.3	81.9	81.9	81.8	79.1	79.2	79.0
1960	73.3	83.7	83.0	84.1	81.8	81.3	82.1
1961	75.7	83.0	81.8	83.7	82.1	81.1	82.7
1962	81.7	83.7	81.8	84.8	83.6	81.7	84.8
1963	87.1	86.5	86.1	86.6	85.6	84.1	86.6
1964	90.9	90.0	88.5	90.9	89.4	87.1	90.9
1965	94.4	92.7	90.7	94.1	92.3	89.4	94.1
1966	100.6	98.2	99.2	97.5	97.4	97.4	97.5
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	107.8	99.5	98.2	100.4	100.4	100.4	100.4
1969	107.0	102.3	98.0	105.2	102.7	101.2	103.5
1970	107.9	102.6	95.5	107.6	102.0	98.6	104.2
1971	113.6	102.3	92.5	109.2	100.6	95.5	103.8
1972	115.9	102.4	93.3	108.8	99.3	96.1	101.3
1973	121.6	103.7	93.3	111.1	100.5	96.5	102.9
1974	122.3	102.0	91.6	109.3	99.2	96.3	101.0
1975	127.8	98.6	87.5	106.3	95.9	92.3	98.2
1976	144.7	103.6	91.6	112.0	100.5	95.5	103.5
1977	157.5	106.6	93.3	115.9	103.4	97.4	107.1
1978	170.0	110.2	95.9	120.3	106.5	99.0	111.1
1979 ²	176.5	113.4	96.1	125.6	109.6	99.2	116.1
Average annual percent change:							
1958-79	4.2	1.5	.7	2.1	1.4	1.1	1.6
1974-79	8.3	2.6	1.5	3.2	2.4	1.1	3.2

¹ Series revised to incorporate new information on output by container type and size.

² Preliminary.

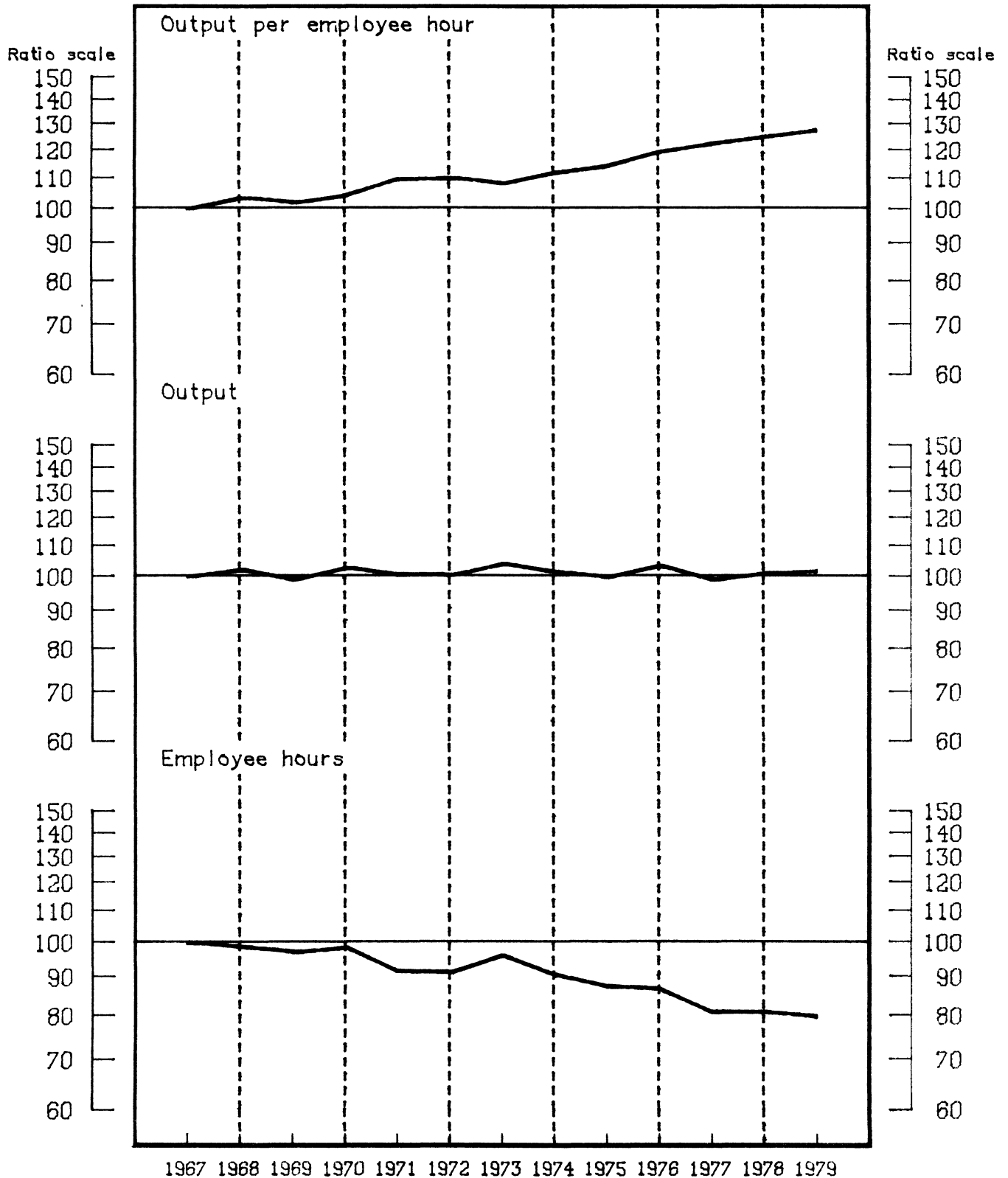
NOTE: Because of periodic revisions in source data, the measures in this table

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.

Chart 27. All tobacco products (SIC 2111, 2121, 2131): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 51. All tobacco products (SIC 2111, 2121, 2131): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	62.6	60.3	89.2	62.0	59.8	89.2
1955	62.4	60.1	89.2	62.2	60.0	88.9
1956	66.3	64.1	94.1	65.9	63.6	93.9
1957	69.4	67.1	96.5	69.1	66.9	96.3
1958	74.6	72.8	93.9	75.1	73.4	93.6
1959	78.4	77.0	91.1	79.3	78.1	90.7
1960	83.7	82.4	96.2	84.3	83.2	96.0
1961	86.6	85.9	93.0	87.9	87.4	92.8
1962	89.3	89.1	90.6	90.8	90.8	91.0
1963	94.1	93.5	99.9	95.7	95.1	100.3
1964	96.4	94.8	111.3	99.7	98.4	112.3
1965	100.2	99.5	106.4	99.4	98.7	106.8
1966	99.9	99.2	106.0	100.3	99.6	106.0
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.5	103.4	104.1	100.7	100.6	102.1
1969	101.9	102.5	96.9	99.9	100.6	94.6
1970	104.3	104.4	103.6	104.7	105.1	101.2
1971	109.7	110.5	104.5	108.9	109.7	101.9
1972	110.0	111.6	98.6	108.2	109.9	95.9
1973	108.1	110.2	93.5	107.1	109.5	91.3
1974	111.9	114.7	93.4	107.9	110.7	89.0
1975	114.2	119.0	86.1	110.9	115.9	82.1
1976	119.3	124.3	90.0	117.1	122.5	86.2
1977	122.4	129.3	85.6	117.3	124.1	81.4
1978	125.0	131.7	88.5	123.3	130.8	84.2
1979 ²	127.6	134.9	88.9	125.1	132.9	84.7
Average annual percent change:						
1947-79	2.9	3.2	.4	2.8	3.1	.2
1974-79	2.8	3.3	-6	3.1	3.8	-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 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 52. All tobacco products (SIC 2111, 2121, 2131): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	79.7	127.3	132.1	89.3	128.5	133.2	89.3
1955	80.4	128.9	133.7	90.1	129.2	133.9	90.4
1956	81.0	122.1	126.4	86.1	122.9	127.4	86.3
1957	83.5	120.3	124.5	86.5	120.9	124.9	86.7
1958	88.3	118.3	121.3	94.0	117.5	120.3	94.3
1959	93.5	119.3	121.4	102.6	119.9	119.7	103.1
1960	95.8	114.4	116.3	99.6	113.7	115.2	99.8
1961	95.3	110.0	110.9	102.5	108.4	109.1	102.7
1962	95.5	107.0	107.2	105.4	105.2	105.2	104.9
1963	97.6	103.7	104.4	97.7	102.0	102.6	97.3
1964	106.0	110.0	111.8	95.2	106.3	107.7	94.4
1965	103.2	103.0	103.7	97.0	103.8	104.6	96.6
1966	100.5	100.6	101.3	94.8	100.2	100.9	94.8
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.1	98.6	98.7	98.1	101.4	101.5	100.0
1969	98.9	97.1	96.5	102.1	99.0	98.3	104.6
1970	102.7	98.5	98.4	99.1	98.1	97.7	101.5
1971	100.4	91.5	90.9	96.1	92.2	91.5	98.5
1972	100.3	91.2	89.9	101.7	92.7	91.3	104.6
1973	103.9	96.1	94.3	111.1	97.0	94.9	113.8
1974	101.3	90.5	88.3	108.5	93.9	91.5	113.8
1975	99.7	87.3	83.8	115.8	89.9	86.0	121.5
1976	103.4	86.7	83.2	114.9	88.3	84.4	120.0
1977	98.9	80.8	76.5	115.5	84.3	79.7	121.5
1978	101.0	80.8	76.7	114.1	81.9	77.2	120.0
1979 ¹	101.7	79.7	75.4	114.4	81.3	76.5	120.0
Average annual percent change:							
1947-79	1.1	-1.7	-2.0	.7	-1.7	-2.0	.9
1974-79	(²)	-2.6	-3.2	.6	-2.9	-3.6	.7

¹ Preliminary.

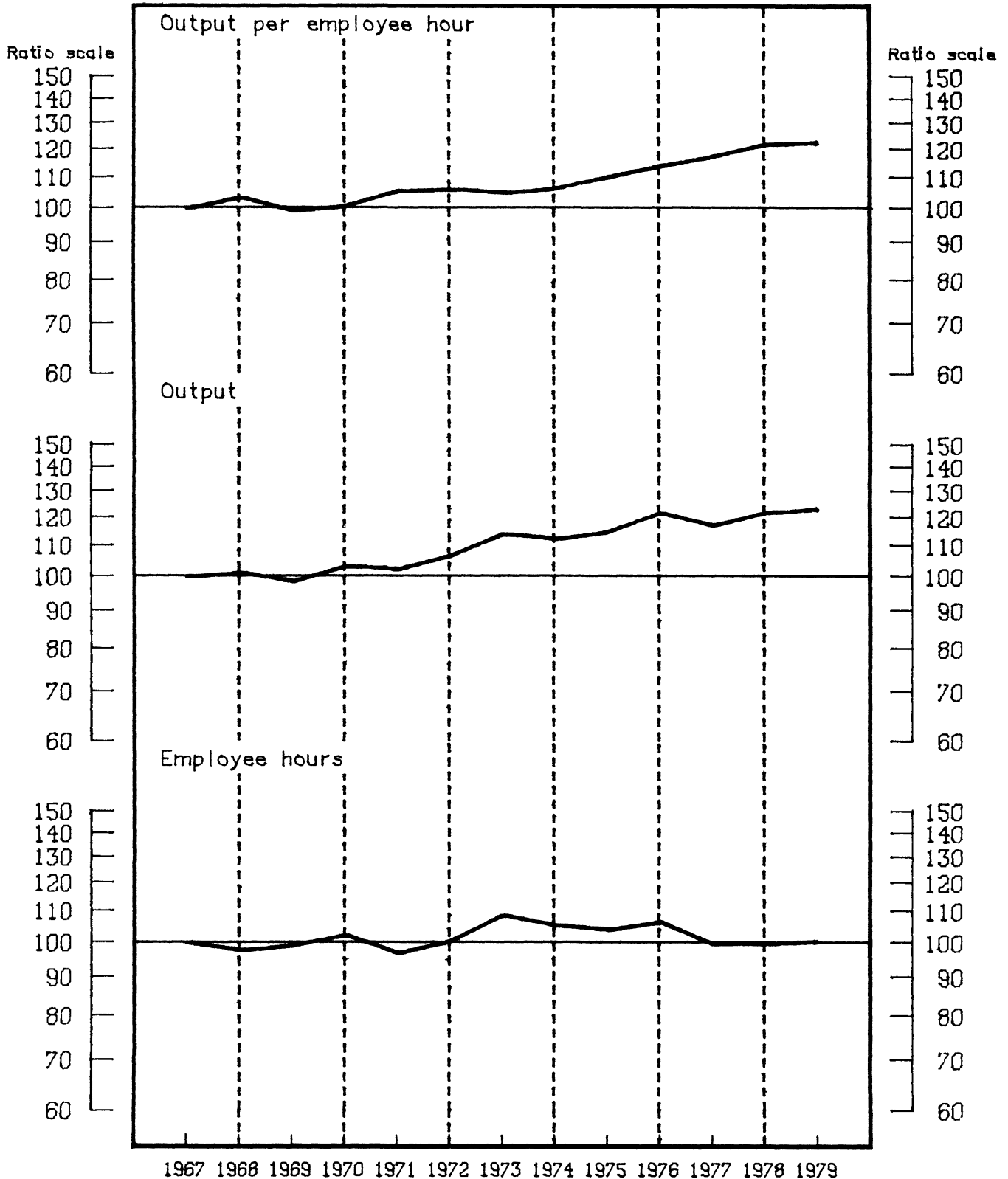
² Less than .05 percent.

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 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 28. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 53. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	78.7	76.3	101.7	79.2	76.9	102.6
1955	77.8	75.3	104.3	79.7	77.2	104.7
1956	80.1	77.3	109.2	81.8	79.0	110.1
1957	82.3	79.6	110.0	83.8	81.1	110.8
1958	83.5	81.3	103.8	85.0	82.9	104.3
1959	85.4	84.2	96.3	87.2	86.0	96.9
1960	89.2	88.0	98.4	90.4	89.3	98.9
1961	91.1	90.4	96.8	92.7	92.2	96.9
1962	91.5	91.5	90.7	94.0	94.4	91.2
1963	95.5	95.0	99.1	98.0	97.7	99.5
1964	94.1	93.5	98.0	96.4	96.0	98.8
1965	98.4	98.1	99.9	96.9	96.4	100.4
1966	98.5	98.6	97.5	99.2	99.3	97.6
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.5	103.6	102.6	99.1	98.8	101.1
1969	99.2	100.1	92.7	96.1	96.9	90.8
1970	100.8	101.0	99.0	100.7	101.2	97.0
1971	105.6	106.9	96.2	103.9	105.2	94.3
1972	106.1	107.7	95.1	103.5	105.1	92.8
1973	104.9	107.4	88.2	103.3	105.9	86.4
1974	106.5	110.2	84.9	102.8	106.5	81.2
1975	110.3	115.5	81.8	106.3	111.7	78.2
1976	114.1	119.4	85.0	111.4	111.1	81.7
1977	117.5	125.1	80.2	111.5	118.8	76.4
1978	122.0	129.8	83.4	119.9	128.5	79.6
1979 ²	122.7	131.3	81.9	119.6	128.4	78.4
Average annual percent change:						
1947-79	1.5	1.8	-.6	1.3	1.6	-.8
1974-79	3.0	3.7	-.5	3.2	4.0	-.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.

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.

² Preliminary.

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

Table 54. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	73.9	93.9	96.8	72.7	93.3	96.1	72.0
1955	75.8	97.4	100.6	72.7	95.1	98.2	72.4
1956	77.1	96.3	99.7	70.6	94.3	97.6	70.0
1957	80.1	97.3	100.6	72.8	95.6	98.8	72.3
1958	84.9	101.7	104.4	81.8	99.9	102.4	81.4
1959	89.7	105.0	106.5	93.1	102.9	104.3	92.6
1960	92.0	103.1	104.5	93.5	101.8	103.0	93.0
1961	94.0	103.2	104.0	97.1	101.4	101.9	97.0
1962	93.7	102.4	102.4	103.3	99.7	99.3	102.7
1963	96.5	101.0	101.6	97.4	98.5	98.8	97.0
1964	95.6	101.6	102.3	97.6	99.2	99.6	96.8
1965	97.3	98.9	99.2	97.4	100.4	100.9	96.9
1966	98.5	100.0	99.9	101.0	99.3	99.2	100.9
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	101.1	97.7	97.6	98.5	102.0	102.3	100.0
1969	98.5	99.3	98.4	106.3	102.5	101.7	108.5
1970	103.2	102.4	102.2	104.2	102.5	102.0	106.4
1971	102.3	96.9	95.7	106.3	98.5	97.2	108.5
1972	106.6	100.5	99.0	112.1	103.0	101.4	114.9
1973	114.0	108.7	106.1	129.2	110.4	107.6	131.9
1974	112.3	105.4	101.9	132.2	109.2	105.4	138.3
1975	114.8	104.1	99.4	140.4	108.0	102.8	146.8
1976	121.7	106.7	101.9	143.1	109.2	103.9	148.9
1977	117.1	99.7	93.6	146.1	105.0	98.6	153.2
1978	121.9	99.9	93.9	146.1	101.7	94.9	153.2
1979 ¹	123.4	100.6	94.0	150.7	103.2	96.1	157.4
Average annual percent change:							
1947-79	1.8	.3	(²)	2.4	.5	.2	2.6
1974-79	1.8	-1.2	-1.9	2.3	-1.4	-2.1	2.3

¹ Preliminary.

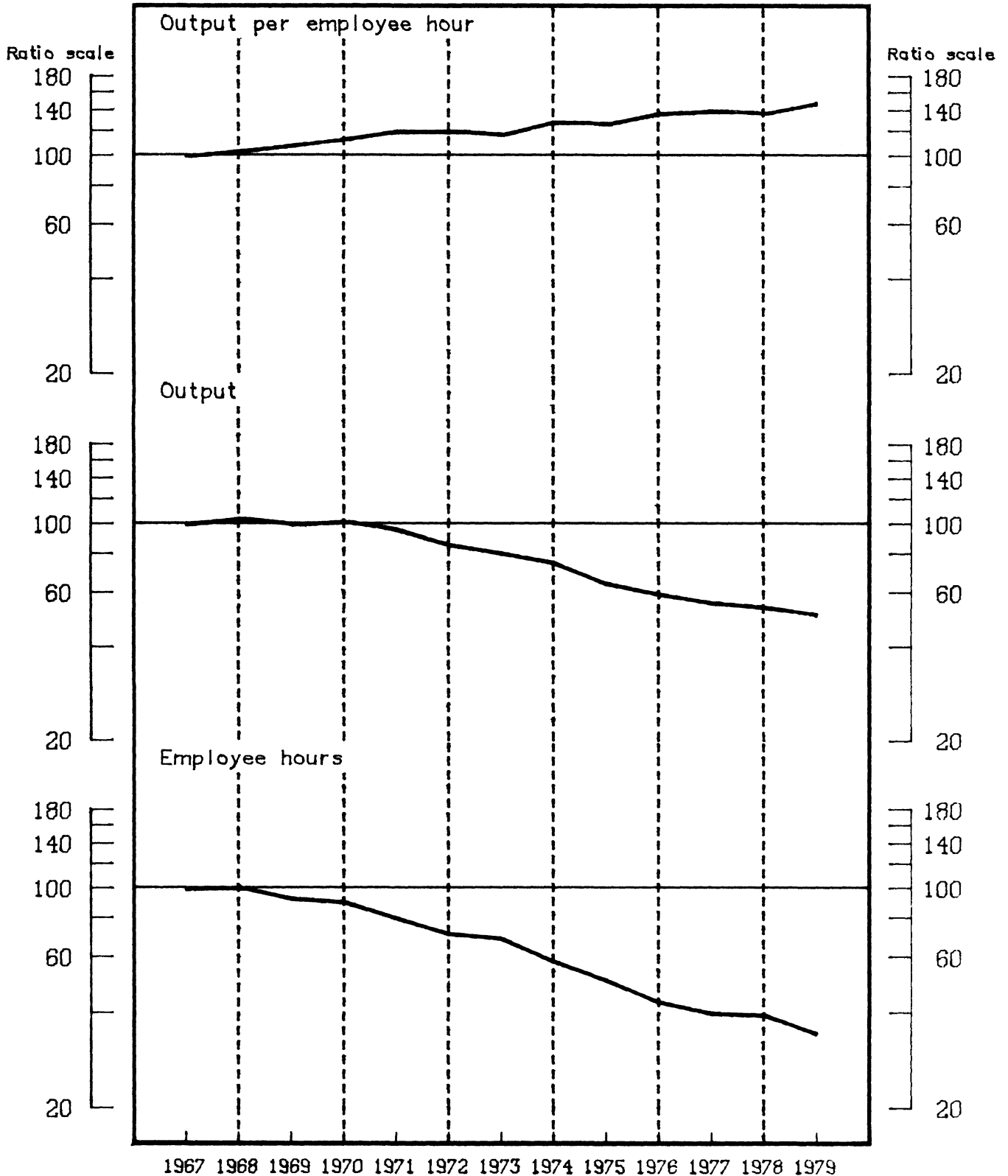
² Less than .05 percent.

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 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 29. Cigars (SIC 2121): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 55. Cigars (SIC 2121): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	45.4	43.8	69.4	44.8	43.3	67.6
1955	45.8	44.2	67.8	44.8	43.4	65.6
1956	50.5	48.9	71.8	49.0	47.6	69.8
1957	54.0	52.3	76.2	52.8	51.2	74.0
1958	62.6	61.2	77.7	62.4	61.3	75.4
1959	67.9	66.7	81.0	68.4	67.5	78.5
1960	75.1	73.7	90.5	75.3	74.1	88.8
1961	79.5	78.9	85.3	80.4	79.9	84.3
1962	85.2	84.6	89.8	85.4	85.0	90.3
1963	91.7	90.5	102.1	91.8	90.9	102.5
1964	101.3	97.9	145.8	107.0	104.1	147.2
1965	104.4	102.8	121.1	105.2	103.6	121.6
1966	103.2	100.8	133.4	103.0	100.6	133.4
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.6	103.2	107.7	104.1	104.1	104.1
1969	108.1	108.0	109.8	109.0	109.3	105.7
1970	113.3	112.7	118.9	114.4	114.3	114.4
1971	120.1	118.4	137.7	121.3	120.1	132.5
1972	120.1	120.7	114.3	120.0	121.3	109.6
1973	116.8	115.9	125.0	117.1	116.8	120.1
1974	128.6	126.0	158.9	121.3	118.9	149.4
1975	126.5	126.7	122.6	124.0	125.0	115.1
1976	137.1	136.8	140.7	133.7	133.7	133.1
1977	139.8	138.4	152.5	137.0	136.4	142.7
1978	137.0	133.9	172.1	134.2	131.9	161.3
1979 ²	148.4	142.6	243.5	146.7	141.4	229.3
Average annual percent change:						
1947-79	5.0	5.1	3.5	5.0	5.1	3.4
1974-79	2.8	2.3	9.7	3.5	3.0	9.6

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 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. Cigars (SIC 2121): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	90.8	199.8	207.5	130.8	202.5	209.8	134.3
1955	90.2	197.0	204.1	133.1	201.3	208.0	137.5
1956	89.8	177.8	183.8	125.1	183.1	188.8	128.7
1957	91.8	170.1	175.5	120.5	173.9	179.2	124.1
1958	96.4	154.1	157.5	124.1	154.5	157.2	127.9
1959	102.2	150.5	153.2	126.2	149.4	151.4	130.2
1960	104.3	138.9	141.5	115.2	138.5	140.8	117.5
1961	99.0	124.5	125.4	116.1	123.2	123.9	117.5
1962	99.6	116.9	117.7	110.9	116.6	117.2	110.3
1963	100.2	109.3	110.7	98.1	109.1	110.2	97.8
1964	129.5	127.8	132.3	88.8	121.0	124.4	88.0
1965	116.5	111.6	113.3	96.2	110.7	112.4	95.8
1966	105.0	101.7	104.2	78.7	101.9	104.4	78.7
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.1	100.5	100.9	96.7	100.0	100.0	100.0
1969	99.8	92.3	92.4	90.9	91.6	91.3	94.4
1970	101.7	89.8	90.2	85.5	88.9	89.0	88.9
1971	95.7	79.7	80.8	69.5	78.9	79.7	72.2
1972	85.3	71.0	70.7	74.6	71.1	70.3	77.8
1973	80.1	68.6	69.1	64.1	68.4	68.6	66.7
1974	74.7	58.1	59.3	47.0	61.6	62.8	50.0
1975	64.0	50.6	50.5	52.2	51.6	51.2	55.6
1976	59.1	43.1	43.2	42.0	44.2	44.2	44.4
1977	55.5	39.7	40.1	36.4	40.5	40.7	38.9
1978	53.7	39.2	40.1	31.2	40.0	40.7	33.3
1979 ¹	50.9	34.3	35.7	20.9	34.7	36.0	22.2
Average annual percent change:							
1947-79	-1.0	-5.7	-5.8	-4.4	-5.7	-5.8	-4.3
1974-79	-6.9	-9.5	-9.0	-15.1	-10.1	-9.7	-15.1

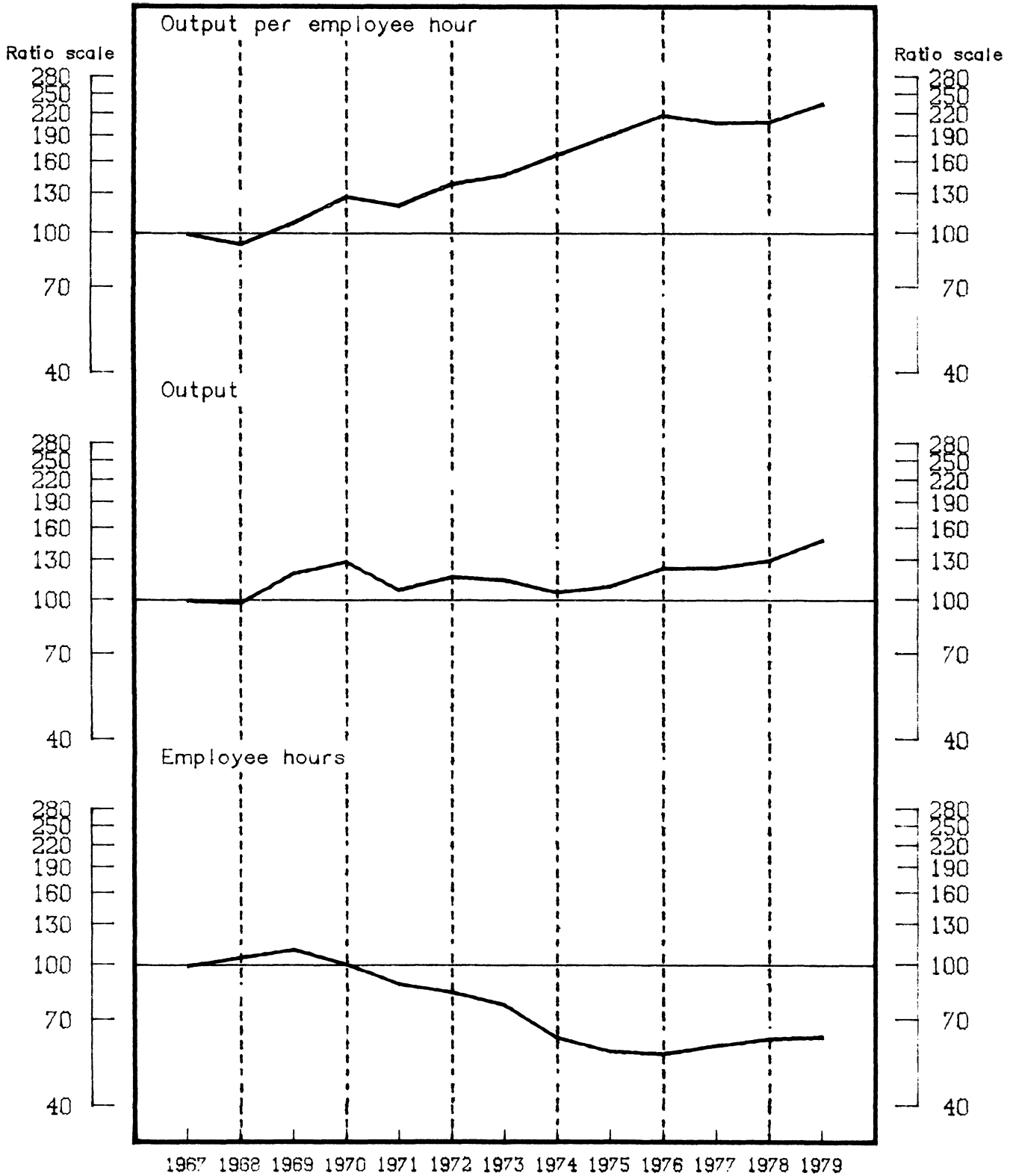
¹ Preliminary.

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 30. Hosiery (SIC 2251, 2252): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 57. Hosiery (SIC 2251, 2252): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	46.8	45.9	57.2	45.8	44.8	57.5
1955	46.1	45.4	54.0	45.3	44.5	54.2
1956	47.0	46.3	54.2	46.0	45.3	54.5
1957	49.2	48.7	54.1	48.1	47.5	54.3
1958	58.1	57.9	60.2	56.2	55.8	60.4
1959	57.8	57.2	63.6	57.5	57.0	63.8
1960	59.3	58.6	66.0	58.7	58.0	66.4
1961	64.8	64.5	67.5	64.5	64.2	67.5
1962	67.1	66.9	69.4	66.9	66.5	69.5
1963	75.8	75.2	82.7	74.7	73.9	82.9
1964	81.1	80.2	90.0	81.8	81.0	90.7
1965	80.9	80.1	89.9	81.2	80.4	90.0
1966	89.1	88.4	95.0	90.4	89.9	94.8
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	93.5	94.1	89.0	94.0	94.3	92.2
1969	107.9	108.5	102.0	108.5	109.0	103.1
1970	128.1	129.8	113.6	122.0	123.0	112.5
1971	120.9	124.6	94.0	115.8	118.7	93.6
1972	139.2	143.1	109.7	138.0	141.7	109.4
1973	147.7	152.5	114.1	140.2	143.9	111.0
1974	168.5	173.7	130.0	158.4	163.0	122.7
1975	191.6	197.5	148.0	178.0	182.7	140.7
1976	219.5	223.8	183.2	212.3	217.2	173.9
1977	208.6	210.3	190.4	204.8	207.5	180.1
1978	209.5	212.2	184.6	207.8	211.5	174.7
1979 ²	236.5	239.9	207.5	231.7	235.7	196.6
Average annual percent change:						
1947-79	6.3	6.5	4.9	6.2	6.4	4.6
1974-79	5.6	5.2	9.1	6.9	6.6	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 based on data from the National Association of Hosiery Manufacturers, Inc., and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 58. Hosiery (SIC 2251, 2252): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	58.3	124.7	127.0	102.0	127.4	130.1	101.4
1955	59.1	128.3	130.3	109.4	130.6	132.8	109.1
1956	57.7	122.8	124.6	106.4	125.3	127.4	105.9
1957	57.7	117.3	118.5	106.6	119.9	121.4	106.2
1958	59.8	103.0	103.3	99.4	106.5	107.2	99.0
1959	63.0	109.0	110.1	99.1	109.5	110.6	98.8
1960	62.8	105.9	107.1	95.2	106.9	108.3	94.6
1961	68.8	106.1	106.6	101.9	106.6	107.2	101.9
1962	70.6	105.2	105.5	101.8	105.6	106.1	101.6
1963	73.1	96.4	97.2	88.4	97.9	98.9	88.2
1964	77.7	95.8	96.9	86.3	95.0	95.9	85.7
1965	81.8	101.1	102.1	91.0	100.7	101.7	90.9
1966	90.3	101.4	102.1	95.1	99.9	100.5	95.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	98.6	105.4	104.8	110.8	104.9	104.6	106.9
1969	119.7	110.9	110.3	117.4	110.3	109.8	116.1
1970	129.3	100.9	99.6	113.8	106.0	105.1	114.9
1971	107.5	88.9	86.3	114.4	92.8	90.6	114.9
1972	116.9	84.0	81.7	106.6	84.7	82.5	106.9
1973	114.8	77.7	75.3	100.6	81.9	79.8	103.4
1974	105.8	62.8	60.9	81.4	66.8	64.9	86.2
1975	110.0	57.4	55.7	74.3	61.8	60.2	78.2
1976	124.0	56.5	55.4	67.7	58.4	57.1	71.3
1977	124.3	59.6	59.1	65.3	60.7	59.9	69.0
1978	130.5	62.3	61.5	70.7	62.8	61.7	74.7
1979 ¹	149.2	63.1	62.2	71.9	64.4	63.3	75.9
Average annual percent change:							
1947-79	3.4	-2.7	-2.9	-1.4	-2.6	-2.8	-1.2
1974-79	6.6	.9	1.3	-2.3	-3	(²)	-2.3

¹ Preliminary.

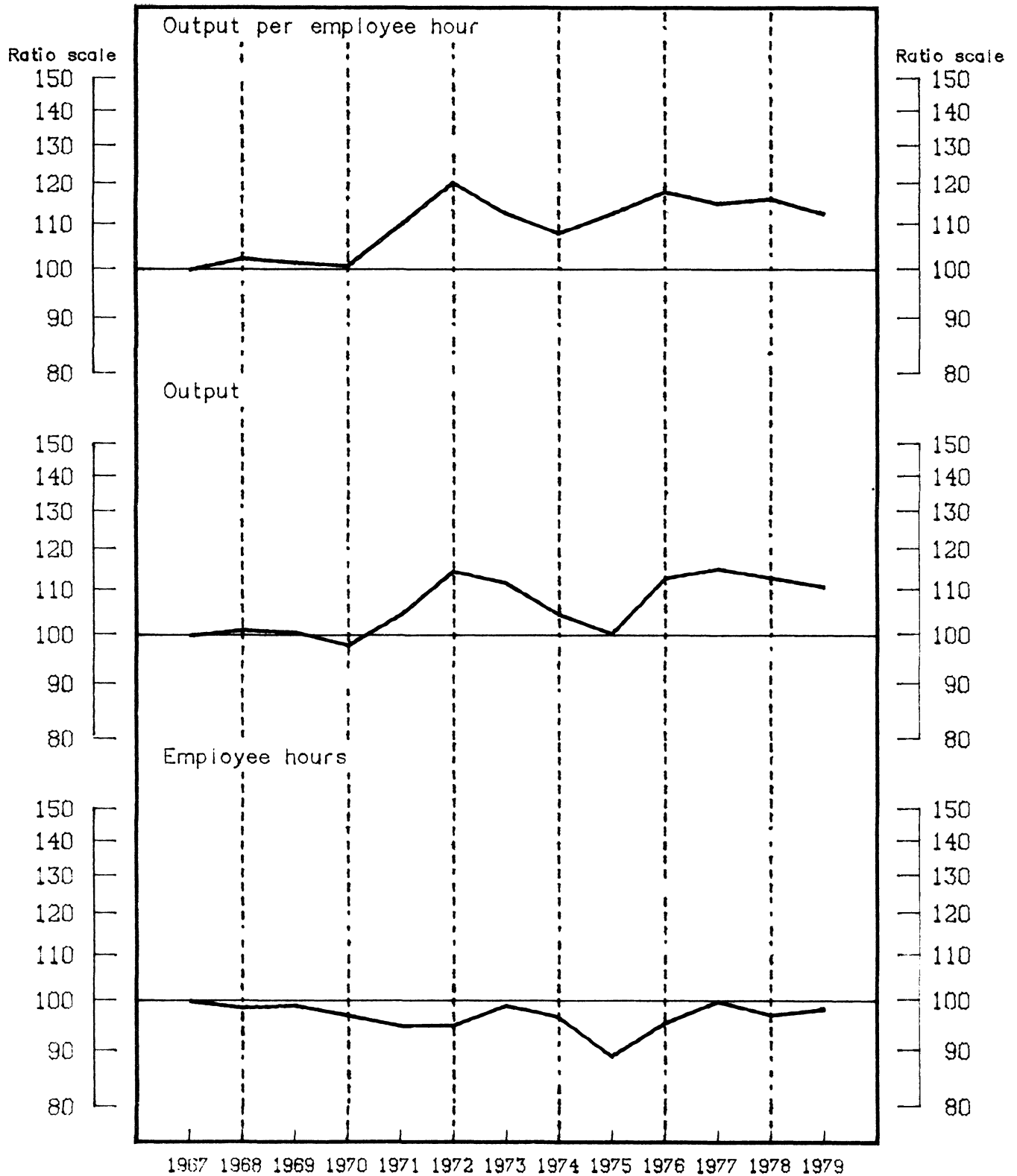
² Less than .05 percent.

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 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 31. Sawmills and planing mills, general (SIC 2421): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 59. Sawmills and planing mills, general (SIC 2421): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	73.1	76.5	49.7	70.9	73.6	50.8
1959	75.7	75.4	78.8	73.9	73.4	80.4
1960	75.2	75.0	77.4	75.4	75.1	78.6
1961	82.0	81.6	85.4	81.1	80.7	86.0
1962	85.6	84.9	93.9	85.6	84.9	94.1
1963	89.3	90.6	77.4	89.0	90.3	77.7
1964	94.9	96.7	78.6	96.4	98.3	79.1
1965	91.7	92.8	80.8	92.4	93.6	81.1
1966	92.6	93.6	83.7	93.1	94.0	83.5
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.5	103.3	95.5	103.9	104.5	97.5
1969	101.6	102.7	91.5	102.3	103.2	93.6
1970	100.9	103.4	80.3	101.8	104.0	82.8
1971	110.0	111.6	94.7	111.2	112.6	97.7
1972	120.6	122.5	102.7	124.3	126.3	106.0
1973	112.9	114.9	95.9	116.3	118.4	98.2
1974	108.2	111.3	83.2	108.9	112.1	84.4
1975	112.7	115.4	90.0	113.6	116.3	91.3
1976	118.2	120.9	95.2	120.6	123.5	97.0
1977	115.3	117.9	92.9	118.7	121.9	93.9
1978	116.4	119.7	88.8	117.8	121.5	89.8
1979 ²	112.8	116.5	84.2	113.1	116.7	85.6
Average annual percent change:						
1958-79	2.3	2.4	1.2	2.5	2.6	1.3
1974-79 .....	.8	.9	(³)	.8	.9	(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.

³ Less than .05 percent.

Table 60. Sawmills and planing mills, general (SIC 2421): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	96.5	132.0	126.2	194.0	136.2	131.1	189.9
1959	103.3	136.5	137.0	131.1	139.7	140.8	128.5
1960	100.5	133.7	134.0	129.8	133.3	133.8	127.8
1961	96.3	117.5	118.0	112.7	118.7	119.4	112.0
1962	99.5	116.2	117.2	106.0	116.2	117.2	105.7
1963	102.3	114.5	112.9	132.1	114.9	113.3	131.6
1964	106.2	111.9	109.8	135.1	110.2	108.0	134.2
1965	103.2	112.6	111.2	127.8	111.7	110.2	127.2
1966	100.5	108.5	107.4	120.1	108.0	106.9	120.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	101.2	98.7	98.0	106.0	97.4	96.8	103.8
1969	100.7	99.1	98.1	110.0	98.4	97.6	107.6
1970	98.0	97.1	94.8	122.1	96.3	94.2	118.4
1971	104.5	95.0	93.6	110.4	94.0	92.8	107.0
1972	114.7	95.1	93.6	111.7	92.3	90.8	108.2
1973	111.9	99.1	97.4	116.7	96.2	94.5	113.9
1974	104.7	96.8	94.1	125.8	96.1	93.4	124.1
1975	100.5	89.2	87.1	111.7	88.5	86.4	110.1
1976	113.0	95.6	93.5	118.7	93.7	91.5	116.5
1977	115.3	100.0	97.8	124.1	97.1	94.6	122.8
1978	113.1	97.2	94.5	127.4	96.0	93.1	125.9
1979 ¹	111.0	98.4	95.3	131.8	98.1	95.1	129.7
Average annual percent change:							
1958-79 .....	.6	-1.6	-1.7	-6	-1.8	-1.9	-6
1974-79	1.9	1.1	1.0	1.9	1.1	1.0	1.9

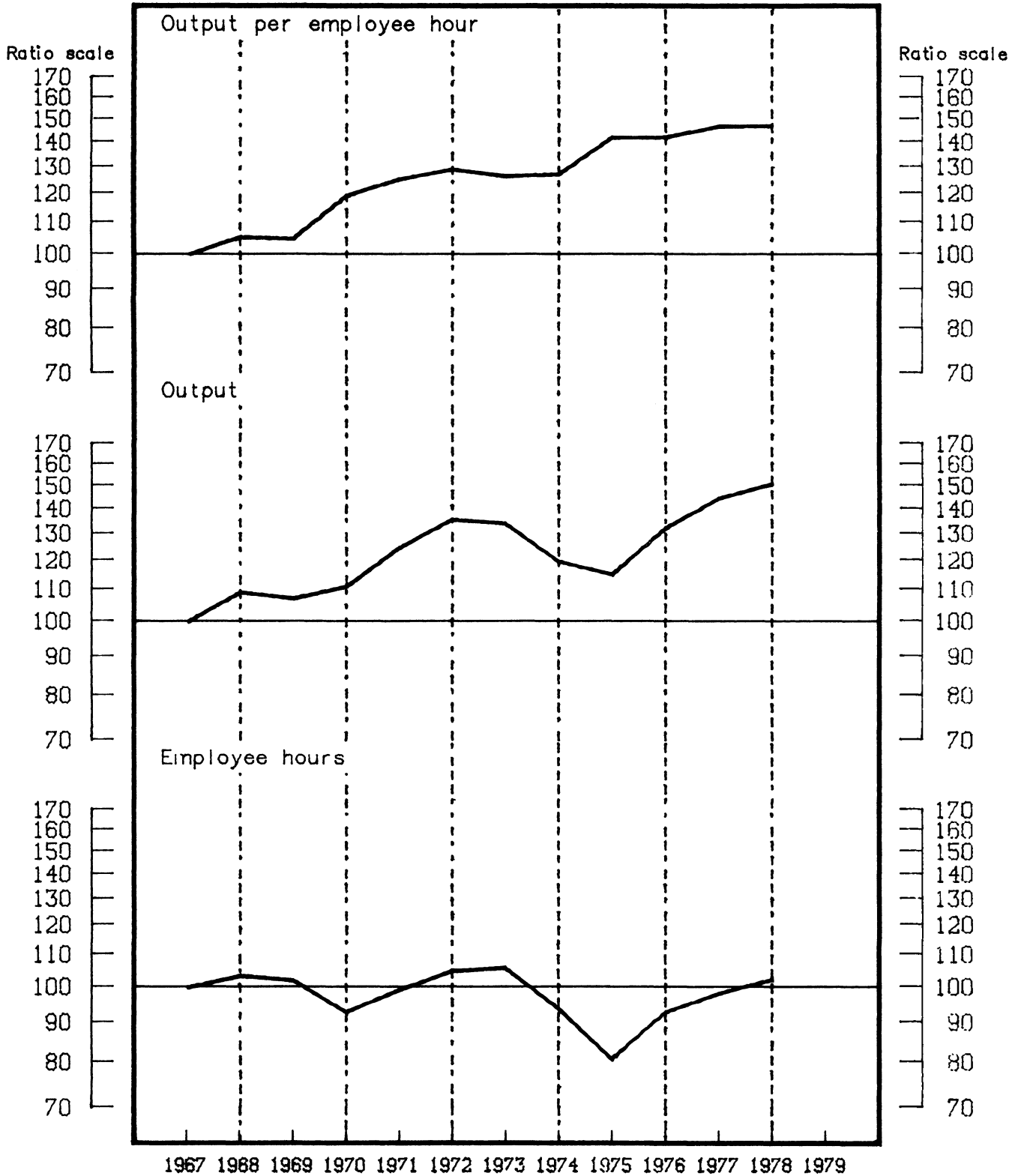
¹ Preliminary.

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 32. Veneer and plywood (SIC 2435, 2436): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 61. Veneer and plywood (SIC 2435, 2436): Indexes of output per employee hour and output per employee, 1958-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	58.8	58.1	65.7	58.0	57.1	67.0
1959	65.9	64.7	82.0	67.0	65.6	83.6
1960	69.4	68.4	80.5	67.6	66.4	81.7
1961	75.9	74.8	88.2	75.1	73.9	88.8
1962	82.1	80.5	102.4	82.6	80.9	102.4
1963	85.3	83.6	107.6	86.2	84.4	107.6
1964	89.1	87.6	107.2	90.7	89.3	107.0
1965	91.8	90.8	103.8	94.2	93.4	103.8
1966	91.5	90.7	100.3	93.1	92.5	100.3
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.5	105.0	110.6	107.3	107.3	107.7
1969	105.0	105.1	104.6	105.1	105.3	102.8
1970	119.4	121.4	101.6	117.3	119.4	100.8
1971	125.6	127.5	110.1	125.7	127.8	108.9
1972	129.3	130.3	120.1	133.3	135.0	118.6
1973	126.7	129.3	105.7	127.1	130.0	104.1
1974	127.4	131.2	98.9	124.0	127.6	97.2
1975	142.2	147.9	102.4	136.5	141.7	100.6
1976	142.4	145.2	119.2	141.0	144.1	117.2
1977	147.2	149.8	125.4	146.0	148.9	123.3
1978 ²	147.4	150.8	120.6	145.7	149.3	118.5
Average annual percent change:						
1958-78	4.5	4.8	1.9	4.5	4.8	1.7
1974-78	3.3	3.0	6.2	4.0	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 Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Table 62. Veneer and plywood (SIC 2435, 2436): Indexes of output, employee hours, and employees, 1958-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	47.6	81.0	81.9	72.4	82.1	83.3	71.0
1959	60.6	91.9	93.7	73.9	90.5	92.4	72.5
1960	59.2	85.3	86.5	73.5	87.6	89.1	72.5
1961	64.4	84.9	86.1	73.0	85.8	87.2	72.5
1962	75.7	92.2	94.0	73.9	91.7	93.6	73.9
1963	78.0	91.4	93.3	72.5	90.5	92.4	72.5
1964	86.9	97.5	99.2	81.1	95.8	97.3	81.2
1965	96.3	104.9	106.1	92.8	102.2	103.1	92.8
1966	101.7	111.1	112.1	101.4	109.2	110.0	101.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	109.2	103.5	104.0	98.7	101.8	101.8	101.4
1969	107.2	102.1	102.0	102.5	102.0	101.8	104.3
1970	111.0	93.0	91.4	109.3	94.6	93.0	110.1
1971	124.7	99.3	97.8	113.3	99.2	97.6	114.5
1972	135.8	105.0	104.2	113.1	101.9	100.6	114.5
1973	134.3	106.0	103.9	127.0	105.7	103.3	129.0
1974	119.8	94.0	91.3	121.1	96.6	93.9	123.2
1975	115.2	81.0	77.9	112.5	84.4	81.3	114.5
1976	132.4	93.0	91.2	111.1	93.9	91.9	113.0
1977	144.7	98.3	96.6	115.4	99.1	97.2	117.4
1978 ¹	151.1	102.5	100.2	125.3	103.7	101.2	127.5
Average annual percent change:							
1958-78	5.1	.5	.3	3.1	.6	.3	3.3
1974-78	7.2	3.7	4.1	.9	3.1	3.3	.9

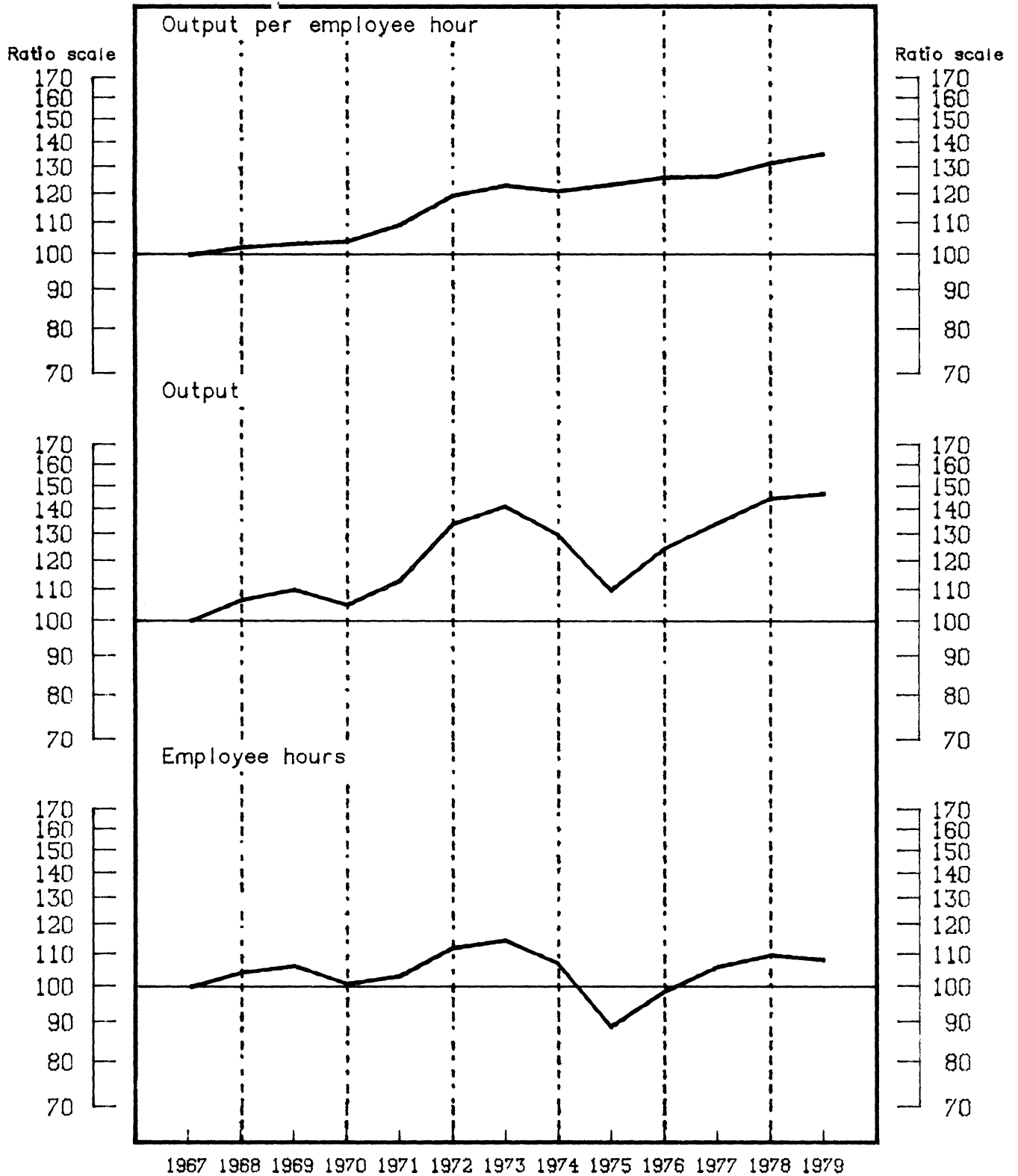
¹ Preliminary.

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

SOURCE: Output 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 33. Household furniture (SIC 251): Output per hour and related data, 1967-79

(1967 = 100)



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

Table 63. Household furniture (SIC 251): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 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	85.7	71.5	82.6	84.5	72.3
1959	85.9	86.4	83.2	87.7	88.2	84.0
1960	85.1	85.9	79.7	85.8	86.7	80.4
1961	85.8	86.6	80.5	86.0	86.9	80.8
1962	88.5	88.8	86.1	90.4	91.1	86.5
1963	92.7	93.3	89.1	94.1	94.9	89.3
1964	94.6	95.3	89.8	96.6	97.6	90.6
1965	97.9	97.9	97.7	99.7	99.9	98.2
1966	99.7	99.7	99.9	101.5	101.8	100.0
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.3	103.3	96.6	103.9	103.9	104.0
1969	103.5	104.5	97.2	104.4	104.6	103.3
1970	104.2	106.4	91.6	103.8	105.1	96.4
1971	109.6	111.6	97.7	109.3	110.9	100.4
1972	119.5	121.2	108.5	117.7	119.3	108.2
1973	123.3	122.5	130.3	120.6	119.5	128.8
1974	121.2	124.0	105.1	116.1	118.5	102.7
1975	123.6	127.3	103.3	115.2	117.9	100.6
1976	126.3	129.2	109.0	119.9	122.3	106.8
1977	126.7	128.9	113.3	121.0	122.9	110.1
1978	131.9	134.4	117.6	127.5	129.9	114.2
1979 ²	135.6	139.5	114.2	129.7	133.2	111.4
Average annual percent change:						
1958-79	2.4	2.5	2.0	2.1	2.1	1.8
1974-79	2.2	2.2	2.4	2.5	2.5	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 64. Household furniture (SIC 251): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	69.6	83.3	81.2	97.4	84.3	82.4	96.3
1959	79.5	92.5	92.0	95.5	90.7	90.1	94.6
1960	75.8	89.1	88.2	95.1	88.3	87.4	94.3
1961	73.0	85.1	84.3	90.7	84.9	84.0	90.4
1962	80.3	90.7	90.4	93.3	88.8	88.1	92.8
1963	85.4	92.1	91.5	95.9	90.8	90.0	95.6
1964	91.2	96.4	95.7	101.6	94.4	93.4	100.7
1965	98.4	100.5	100.5	100.7	98.7	98.5	100.2
1966	104.4	104.7	104.7	104.5	102.9	102.6	104.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.8	104.4	103.4	110.6	102.8	102.8	102.7
1969	110.2	106.5	105.5	113.4	105.6	105.4	106.7
1970	105.2	101.0	98.9	114.8	101.3	100.1	109.1
1971	113.2	103.3	101.4	115.9	103.6	102.1	112.8
1972	134.2	112.3	110.7	123.7	114.0	112.5	124.0
1973	141.6	114.8	115.6	108.7	117.4	118.5	109.9
1974	130.1	107.3	104.9	123.8	112.1	109.8	126.7
1975	110.1	89.1	86.5	106.6	95.6	93.4	109.4
1976	124.7	96.7	96.5	114.4	104.0	102.0	116.8
1977	134.6	106.2	104.4	118.8	111.2	109.5	122.3
1978	145.0	109.9	107.9	123.3	113.7	111.6	127.0
1979 ¹	147.0	108.4	105.4	128.7	113.3	110.4	132.0
Average annual percent change:							
1958-79	3.5	1.0	.9	1.5	1.4	1.3	1.6
1974-79	4.4	2.2	2.2	1.9	1.8	1.8	2.0

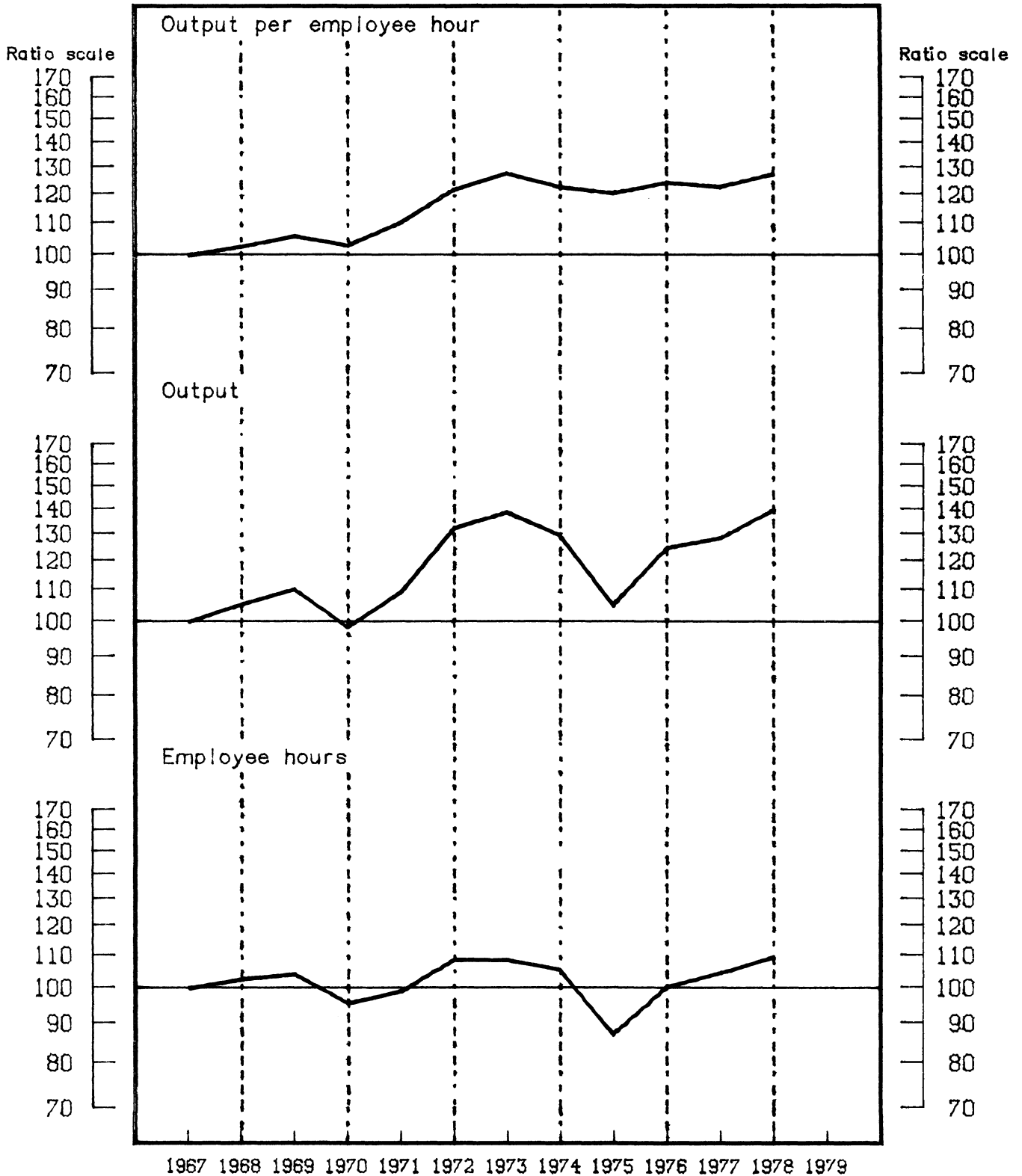
¹ Preliminary.

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 34. Wood household furniture (SIC 2511, 2517): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 65. Wood household furniture (SIC 2511, 2517): Indexes of output per employee hour and output per employee, 1958-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	81.8	83.6	69.0	80.5	82.1	69.7
1959	84.4	84.7	82.0	85.8	86.2	82.9
1960	83.7	84.2	80.1	84.3	84.8	80.8
1961	84.1	84.7	78.4	83.8	84.5	78.5
1962	87.0	87.2	85.6	89.3	89.9	85.9
1963	92.2	92.4	91.2	94.2	94.5	91.6
1964	94.1	94.6	90.4	97.8	98.8	91.1
1965	97.4	97.0	100.8	100.2	100.1	101.2
1966	99.9	99.6	101.9	102.7	102.8	101.8
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.6	103.4	96.3	104.8	104.9	103.5
1969	105.9	107.1	96.8	107.0	107.6	102.7
1970	103.0	105.3	86.3	102.5	104.1	90.8
1971	110.3	112.8	92.3	109.0	111.1	94.7
1972	121.8	124.3	104.0	119.9	122.4	103.7
1973	127.9	124.7	179.0	125.0	121.5	176.9
1974	122.8	126.9	94.9	117.1	120.8	92.6
1975	120.5	125.7	87.3	109.7	113.6	85.0
1976	124.4	128.8	95.3	116.5	120.1	93.1
1977	122.9	126.0	101.7	117.4	120.2	98.6
1978 ²	127.6	132.0	98.7	123.0	127.3	95.9
Average annual percent change:						
1958-78	2.5	2.6	1.5	2.1	2.2	1.3
1974-78	1.0	.8	2.3	1.7	1.6	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 66. Wood household furniture (SIC 2511, 2517): Indexes of output, employee hours, and employees, 1958-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	64.2	78.5	76.8	93.1	79.8	78.2	92.1
1959	74.9	88.7	88.4	91.3	87.3	86.9	90.4
1960	71.2	85.1	84.6	88.9	84.5	84.0	88.1
1961	68.3	81.2	80.6	87.1	81.5	80.8	87.0
1962	77.1	88.6	88.4	90.1	86.3	85.8	89.8
1963	84.4	91.5	91.3	92.5	89.6	89.3	92.1
1964	90.1	95.7	95.2	99.7	92.1	91.2	98.9
1965	97.2	99.8	100.2	96.4	97.0	97.1	96.0
1966	104.7	104.8	105.1	102.7	101.9	101.8	102.8
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.3	102.6	101.8	109.3	100.5	100.4	101.7
1969	110.2	104.1	102.9	113.8	103.0	102.4	107.3
1970	98.5	95.6	93.5	114.1	96.1	94.6	108.5
1971	109.2	99.0	96.8	118.3	100.2	98.3	115.3
1972	132.4	108.7	106.5	127.3	110.4	108.2	127.7
1973	138.9	108.6	111.4	77.6	111.1	114.3	78.5
1974	129.7	105.6	102.2	136.6	110.8	107.4	140.0
1975	105.2	87.3	83.7	120.5	95.9	92.6	123.7
1976	124.9	100.4	97.0	131.1	107.2	104.0	134.1
1977	128.6	104.6	102.1	126.4	109.5	107.0	130.4
1978 ¹	139.9	109.6	106.0	141.7	113.7	109.9	145.9
Average annual percent change:							
1958-78	3.7	1.2	1.0	2.1	1.6	1.5	2.3
1974-78	3.6	2.6	2.8	1.2	1.9	1.9	1.4

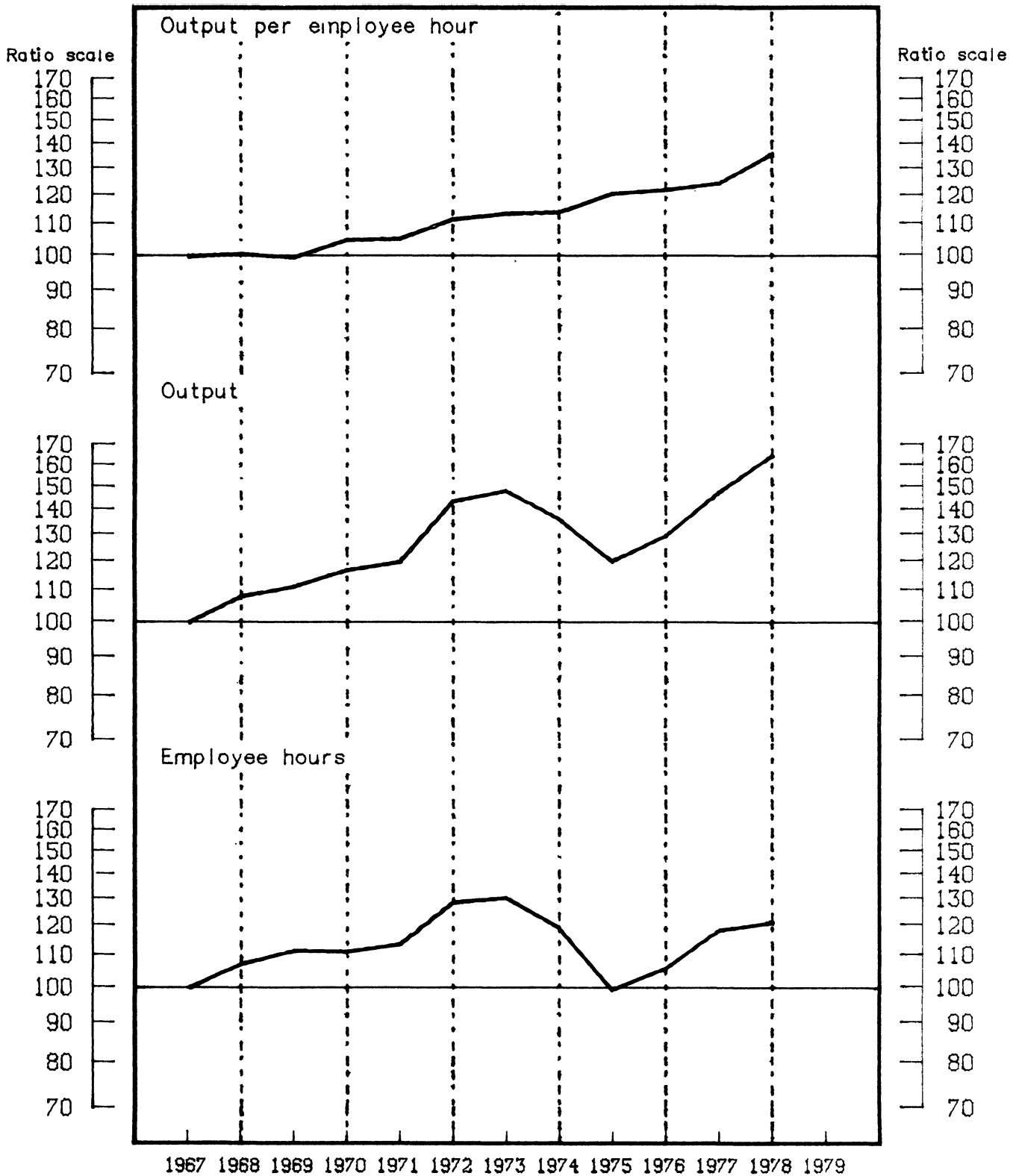
¹ Preliminary.

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 35. Upholstered household furniture (SIC 2512): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 67. Upholstered household furniture (SIC 2512): Indexes of output per employee hour and output per employee, 1958-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	89.3	91.6	77.2	88.7	90.6	78.0
1959	92.0	92.6	88.7	94.6	95.5	89.7
1960	90.4	91.7	82.6	91.7	93.3	83.3
1961	92.1	92.0	93.1	93.0	92.9	93.5
1962	93.2	93.0	94.6	96.0	96.1	95.5
1963	95.0	95.9	89.9	95.6	96.4	90.5
1964	97.4	98.2	92.2	96.6	97.2	93.1
1965	99.9	100.1	98.4	100.2	100.4	98.9
1966	101.9	102.1	100.9	101.4	101.4	101.2
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	100.7	100.8	100.5	101.3	100.3	108.2
1969	99.7	100.4	96.1	100.4	100.0	102.5
1970	105.1	106.0	99.7	105.2	105.2	105.0
1971	105.4	105.8	102.6	107.0	107.1	105.6
1972	111.8	112.8	105.5	110.4	111.3	105.4
1973	113.7	115.3	104.1	110.5	111.6	103.1
1974	114.2	115.5	106.1	108.9	109.7	103.5
1975	120.8	122.3	112.0	114.1	114.8	109.4
1976	122.2	123.5	114.5	115.6	116.1	111.8
1977	124.6	126.5	113.5	117.2	118.2	110.4
1978 ²	136.1	137.1	128.9	130.5	131.1	125.2
Average annual percent change:						
1958-78	1.9	1.9	1.7	1.5	1.5	1.6
1974-78	3.9	3.8	4.1	4.0	3.9	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.

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 68. Upholstered household furniture (SIC 2512): Indexes of output, employee hours, and employees, 1958-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	72.0	80.6	78.6	93.3	81.2	79.5	92.3
1959	82.8	90.0	89.4	93.3	87.5	86.7	92.3
1960	80.9	89.5	88.2	97.9	88.2	86.7	97.1
1961	78.3	85.0	85.1	84.1	84.2	84.3	83.7
1962	85.4	91.6	91.8	90.3	89.0	88.9	89.4
1963	86.2	90.7	89.9	95.9	90.2	89.4	95.2
1964	93.1	95.6	94.8	101.0	96.4	95.8	100.0
1965	99.9	100.0	99.8	101.5	99.7	99.5	101.0
1966	105.0	103.0	102.8	104.1	103.6	103.5	103.8
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	108.2	107.4	107.3	107.7	106.8	107.9	100.0
1969	111.4	111.7	111.0	115.9	111.0	111.4	108.7
1970	117.1	111.4	110.5	117.4	111.3	111.3	111.5
1971	119.9	113.8	113.3	116.9	112.1	111.9	113.5
1972	143.9	128.7	127.6	136.4	130.3	129.3	136.5
1973	148.5	130.6	128.8	142.6	134.4	133.1	144.0
1974	136.6	119.6	118.3	128.7	125.4	124.5	132.0
1975	120.3	99.6	98.4	107.4	105.4	104.8	110.0
1976	129.7	106.1	105.0	113.3	112.2	111.7	116.0
1977	147.9	118.7	116.9	130.3	126.2	125.1	134.0
1978 ¹	165.2	121.4	120.5	128.2	126.6	126.0	132.0
Average annual percent change:							
1958-78	3.8	1.9	1.9	2.0	2.2	2.3	2.2
1974-78	6.0	2.1	2.1	1.9	2.0	2.0	2.0

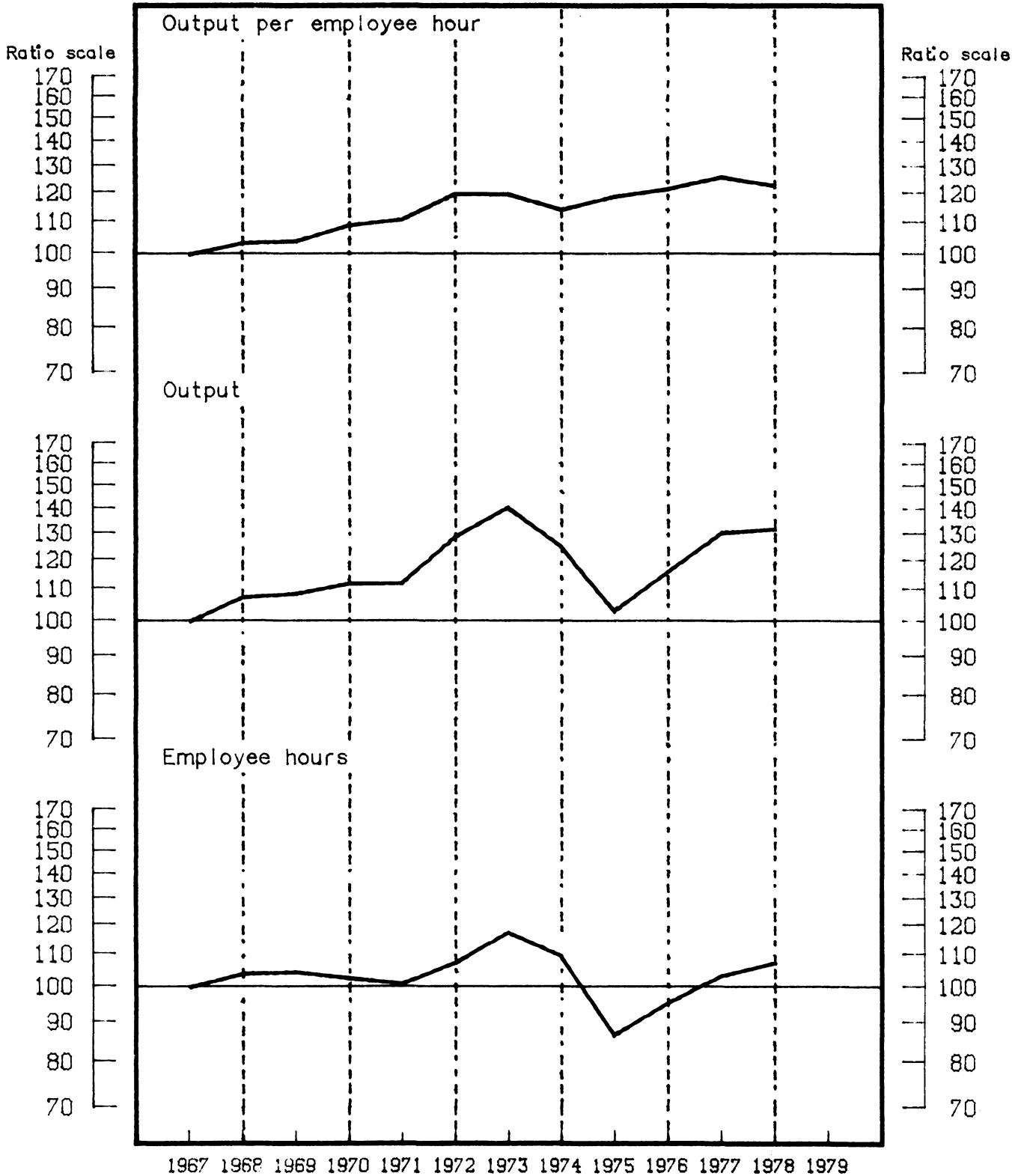
¹ Preliminary.

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 36. Metal household furniture (SIC 2514): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 69. Metal household furniture (SIC 2514): Indexes of output per employee hour and output per employee, 1958-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	85.0	87.2	75.8	85.5	87.6	76.2
1959	85.4	84.2	92.3	87.2	86.1	93.2
1960	82.3	81.9	85.0	83.9	83.5	85.8
1961	83.7	83.2	86.2	84.4	84.2	85.9
1962	87.8	86.9	93.1	88.7	87.8	93.4
1963	94.1	94.2	93.5	94.9	95.2	93.2
1964	94.6	94.4	95.5	96.2	96.1	96.5
1965	98.7	98.8	98.2	99.6	99.8	98.3
1966	96.6	97.3	93.2	98.8	100.2	92.7
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.4	105.6	93.2	103.9	104.7	99.8
1969	104.0	104.3	102.5	102.7	101.6	108.7
1970	109.1	111.8	97.1	107.2	108.2	102.2
1971	111.0	113.5	99.9	110.3	112.1	102.3
1972	119.9	120.7	115.9	116.1	116.2	115.6
1973	119.9	120.3	118.0	118.4	118.8	116.3
1974	114.3	117.2	101.5	109.8	112.4	98.8
1975	119.0	124.1	98.4	113.3	117.5	96.0
1976	121.7	124.7	108.5	118.1	120.9	106.0
1977	126.2	127.3	120.7	121.9	123.0	117.1
1978 ²	122.8	122.9	122.0	120.0	120.3	118.4
Average annual percent change:						
1958-78	2.3	2.4	1.7	1.9	2.0	1.5
1974-78	2.0	1.2	5.9	2.5	1.8	5.8

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 70. Metal household furniture (SIC 2514): Indexes of output, employee hours, and employees, 1958-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	83.5	98.2	95.8	110.2	97.7	95.3	109.6
1959	91.4	107.0	108.5	99.0	104.8	106.2	98.1
1960	85.8	104.2	104.8	101.0	102.3	102.7	100.0
1961	80.9	96.7	97.2	93.9	95.8	96.1	94.2
1962	82.7	94.2	95.2	88.8	93.2	94.2	88.5
1963	89.7	95.3	95.2	95.9	94.5	94.2	96.2
1964	96.5	102.0	102.2	101.0	100.3	100.4	100.0
1965	100.2	101.5	101.4	102.0	100.6	100.4	101.9
1966	99.8	103.3	102.6	107.1	101.0	99.6	107.7
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	107.5	104.0	101.8	115.3	103.5	102.7	107.7
1969	108.7	104.5	104.2	106.1	105.8	107.0	100.0
1970	112.0	102.7	100.2	115.3	104.5	103.5	109.6
1971	112.1	101.0	98.8	112.2	101.6	100.0	109.6
1972	128.9	107.5	106.8	111.2	111.0	110.9	111.5
1973	140.9	117.5	117.1	119.4	118.6	118.6	121.2
1974	125.4	109.7	107.0	123.5	114.2	111.6	126.9
1975	103.4	86.9	83.3	105.1	91.3	88.0	107.7
1976	116.2	95.5	93.2	107.1	98.4	96.1	109.6
1977	130.6	103.5	102.6	108.2	107.1	106.2	111.5
1978 ¹	132.0	107.5	107.4	108.2	110.0	109.7	111.5
Average annual percent change:							
1958-78	2.4	.2	.1	.8	.5	.4	.9
1974-78	3.4	1.4	2.2	-2.3	.9	1.5	-2.2

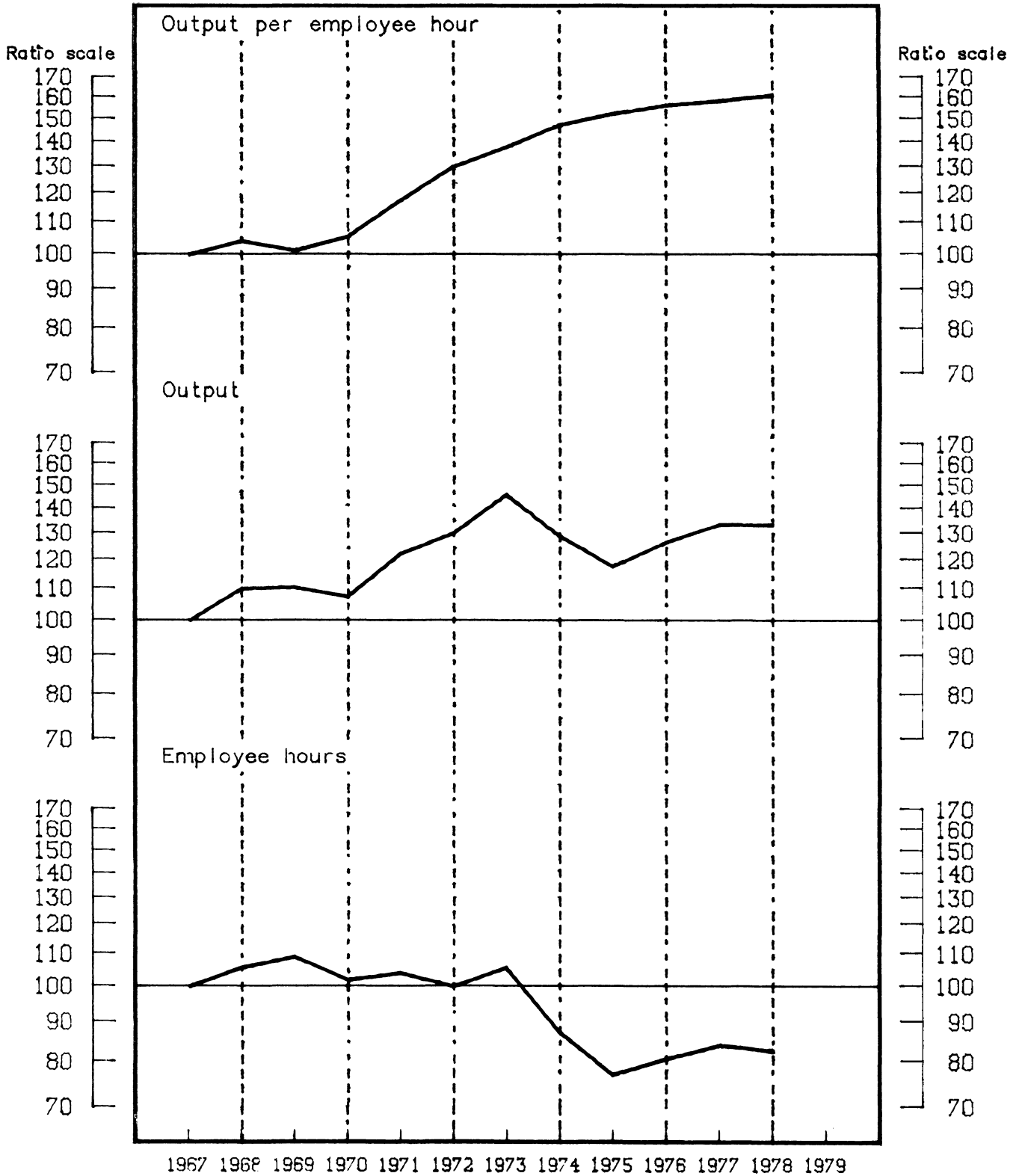
¹ Preliminary.

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 37. Mattresses and bedsprings (SIC 2515): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 71. Mattresses and bedsprings (SIC 2515): Indexes of output per employee hour and output per employee, 1958-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	79.8	80.4	77.6	79.3	79.6	78.3
1959	80.9	81.2	79.8	82.3	82.9	80.1
1960	83.0	84.7	77.3	83.3	85.0	78.1
1961	82.8	85.6	73.8	84.0	87.4	73.7
1962	86.5	89.0	78.3	87.2	89.9	78.8
1963	89.7	91.4	83.7	90.8	92.9	83.9
1964	92.1	94.5	84.1	93.1	95.8	84.5
1965	95.6	96.7	91.7	96.8	98.1	92.1
1966	97.3	97.3	97.4	98.1	98.3	96.9
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.2	106.0	98.0	107.1	107.5	105.6
1969	101.3	102.5	96.9	104.2	104.6	103.0
1970	105.5	108.0	97.0	107.6	109.3	101.6
1971	117.7	119.5	111.2	118.0	119.0	114.1
1972	130.2	132.2	123.4	129.4	131.2	122.9
1973	138.3	138.8	136.7	135.8	136.2	134.5
1974	147.8	149.3	142.7	143.0	144.0	139.6
1975	152.7	153.5	149.4	147.2	147.6	145.7
1976	156.7	159.5	147.6	153.3	156.4	143.8
1977	158.8	162.7	146.3	154.6	158.4	142.1
1978 ²	161.4	162.9	155.5	156.1	157.5	151.5
Average annual percent change:						
1958-78	4.0	4.0	4.1	3.8	3.7	3.9
1974-78	2.2	2.4	1.5	2.3	2.5	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, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 72. Mattresses and bedsprings (SIC 2515): Indexes of output, employee hours, and employees, 1958-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	80.6	101.0	100.2	103.9	101.6	101.2	102.9
1959	86.0	106.3	105.9	107.8	104.5	103.7	107.4
1960	81.5	98.2	96.2	105.5	97.8	95.9	104.4
1961	81.3	98.2	95.0	110.2	96.8	93.0	110.3
1962	88.1	101.8	99.0	112.5	101.0	98.0	111.8
1963	87.6	97.7	95.8	104.7	96.5	94.3	104.4
1964	90.7	98.5	96.0	107.8	97.4	94.7	107.4
1965	98.9	103.5	102.3	107.8	102.2	100.8	107.4
1966	101.2	104.0	104.0	103.9	103.2	102.9	104.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	110.2	105.8	104.0	112.5	102.9	102.5	104.4
1969	110.6	109.2	107.9	114.1	106.1	105.7	107.4
1970	107.6	102.0	99.6	110.9	100.0	98.4	105.9
1971	122.5	104.1	102.5	110.2	103.8	102.9	107.4
1972	130.2	100.0	98.5	105.5	100.6	99.2	105.9
1973	146.3	105.8	105.4	107.0	107.7	107.4	108.8
1974	129.3	87.5	86.6	90.6	90.4	89.8	92.6
1975	117.9	77.2	76.8	78.9	80.1	79.9	80.9
1976	126.8	80.9	79.5	85.9	82.7	81.1	88.2
1977	133.7	84.2	82.2	91.4	86.5	84.4	94.1
1978 ¹	133.6	82.8	82.0	85.9	85.6	84.8	88.2
Average annual percent change:							
1958-78	2.9	-1.0	-1.0	-1.1	-8	-7	-9
1974-78	1.9	-2	-4	.4	-3	-6	.5

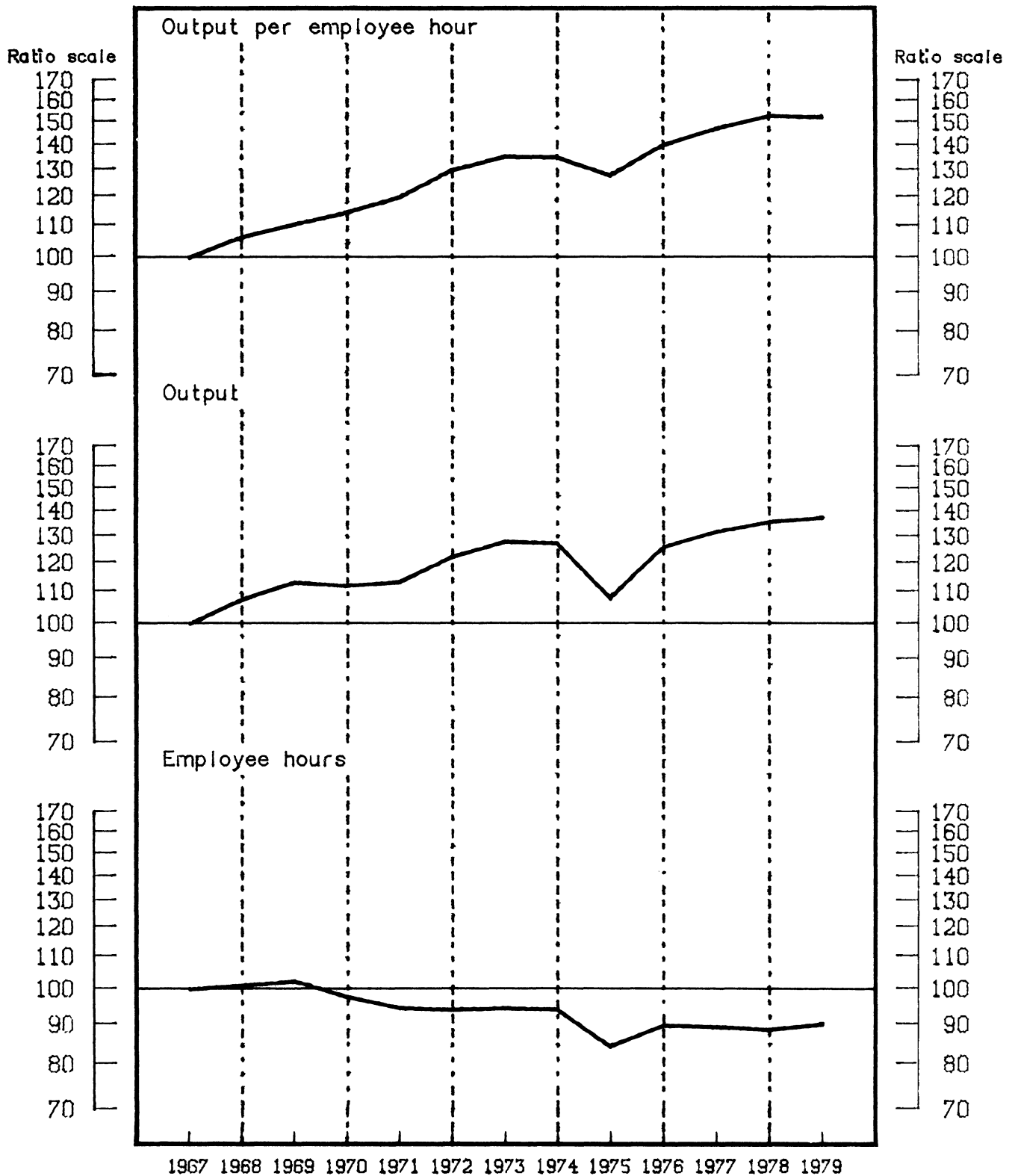
¹ Preliminary.

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 38. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 73. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	59.7	57.4	75.1	60.0	57.1	75.9
1955	63.9	61.0	83.1	65.6	62.3	83.6
1956	66.7	64.3	81.6	68.1	65.3	82.2
1957	66.6	64.9	77.0	66.4	64.1	77.6
1958	68.3	66.7	77.7	67.7	65.4	78.3
1959	72.4	70.9	81.1	73.2	71.5	81.6
1960	74.8	73.9	79.8	74.7	73.5	80.2
1961	79.7	79.0	83.1	79.4	78.5	83.3
1962	82.8	82.0	87.2	82.7	81.6	87.7
1963	87.6	86.9	91.6	87.7	86.7	92.0
1964	92.2	91.3	97.5	93.1	91.9	98.3
1965	96.9	96.4	99.5	97.4	96.7	100.0
1966	101.6	101.2	104.2	102.9	102.5	104.2
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.4	105.8	109.8	107.2	106.5	109.6
1969	110.5	109.7	114.7	111.2	110.8	112.7
1970	114.6	114.7	114.3	112.3	112.7	110.9
1971	119.9	121.3	113.6	118.2	119.6	112.6
1972	130.0	131.2	124.2	129.6	130.8	125.1
1973	135.4	136.5	131.1	134.3	134.7	132.4
1974	135.2	137.0	126.9	132.3	133.4	127.9
1975	128.0	132.8	109.0	121.4	124.5	109.8
1976	140.2	143.8	124.5	135.6	138.2	126.0
1977	147.3	151.3	129.9	141.4	144.5	130.4
1978	152.9	157.9	132.1	147.4	151.6	132.6
1979 ²	152.3	157.7	130.1	146.9	151.3	131.2
Average annual percent change:						
1947-79	3.9	4.2	2.1	3.7	4.0	2.0
1974-79	3.4	3.7	2.1	3.3	3.7	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 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 74. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	54.5	91.3	95.0	72.6	90.8	95.4	71.8
1955	61.1	95.6	100.1	73.5	93.2	98.0	73.1
1956	64.8	97.2	100.8	79.4	95.2	99.2	78.8
1957	63.1	94.7	97.3	81.9	95.1	98.4	81.3
1958	63.4	92.8	95.0	81.6	93.7	96.9	81.0
1959	70.6	97.5	99.6	87.0	96.4	98.8	86.5
1960	72.2	96.5	97.7	90.5	96.6	98.2	90.0
1961	74.5	93.5	94.3	89.6	93.8	94.9	89.4
1962	78.4	94.7	95.6	89.9	94.8	96.1	89.4
1963	82.6	94.3	95.1	90.2	94.2	95.3	89.8
1964	87.9	95.3	96.3	90.2	94.4	95.6	89.4
1965	93.1	96.1	96.6	93.6	95.6	96.3	93.1
1966	100.3	98.7	99.1	95.3	97.5	97.9	96.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	107.6	101.1	101.7	98.0	100.4	101.0	98.2
1969	113.2	102.4	103.2	98.7	101.8	102.2	100.4
1970	112.1	97.8	97.7	98.1	99.8	99.5	101.1
1971	113.4	94.6	93.5	99.8	95.9	94.8	100.7
1972	122.3	94.1	93.2	98.5	94.4	93.5	97.8
1973	128.0	94.5	93.8	97.6	95.3	95.0	96.7
1974	127.4	94.2	93.0	100.4	96.3	95.5	99.6
1975	108.2	84.5	81.5	99.3	89.1	86.9	98.5
1976	126.0	89.9	87.6	101.2	92.9	91.2	100.0
1977	131.8	89.5	87.1	101.5	93.2	91.2	101.1
1978	135.8	88.8	86.0	102.8	92.1	89.6	102.4
1979 ¹	137.5	90.3	87.2	105.7	93.6	90.9	104.8
Average annual percent change:							
1947-79	4.0	.1	-.2	1.9	.3	(²)	1.9
1974-79	3.2	-.2	-.5	1.0	-.1	-.4	1.1

¹ Preliminary.

² Less than .05 percent.

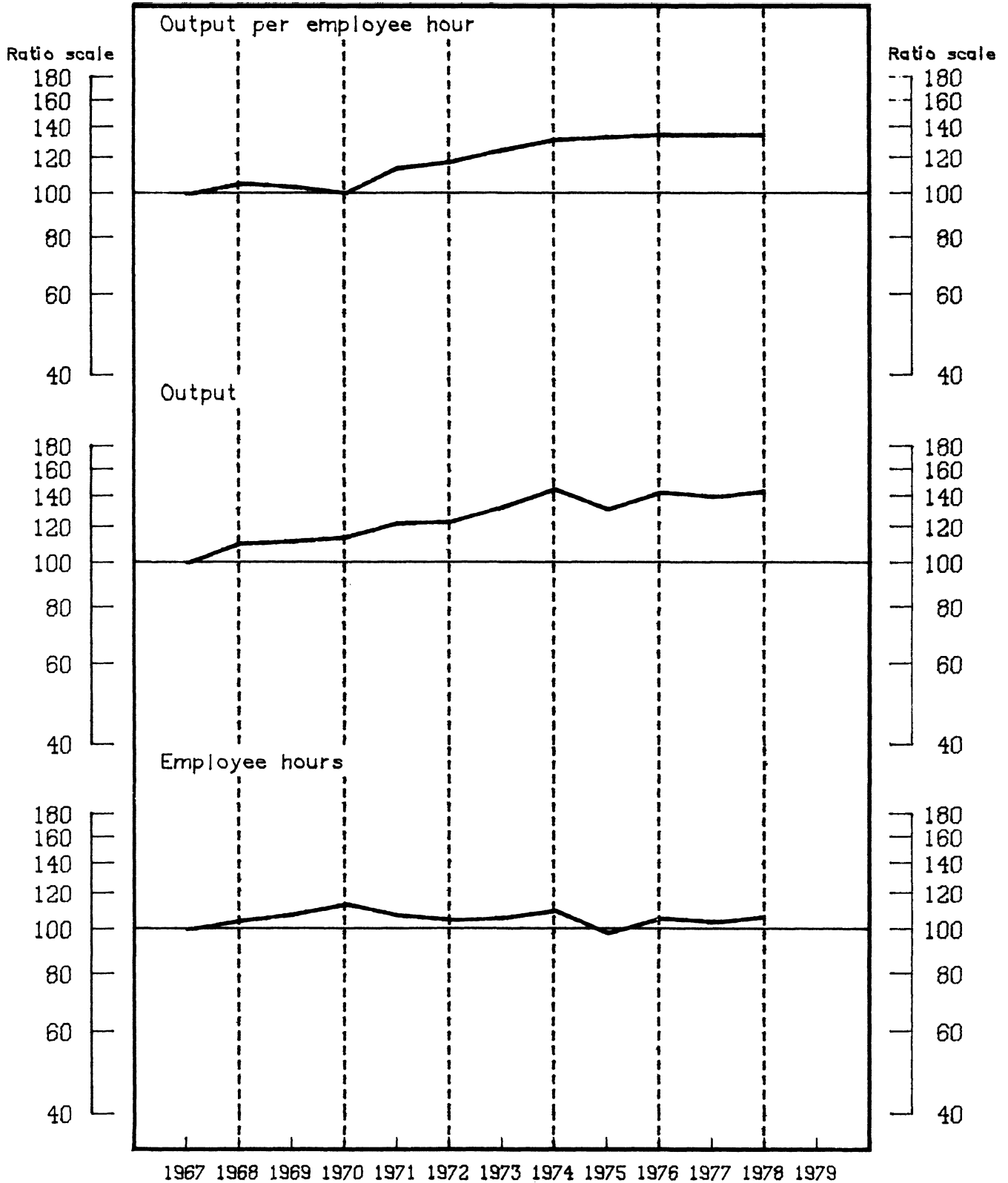
NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

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

Chart 39. Paper and plastic bags (SIC 2643): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 75. Paper and plastic bags (SIC 2643): Indexes of output per employee hour and output per employee, 1954-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	73.0	70.5	86.2	72.9	70.0	87.6
1955	76.5	74.0	90.0	77.3	74.6	91.0
1956	73.5	72.1	80.1	72.9	71.1	81.0
1957	74.8	73.5	81.3	75.0	73.4	82.4
1958	76.4	75.8	79.2	75.3	74.2	79.9
1959	80.0	79.9	80.8	79.3	78.8	81.4
1960	80.9	80.2	84.1	76.1	74.2	85.0
1961	86.1	84.9	91.3	83.2	81.3	92.0
1962	88.4	87.2	93.7	85.5	83.6	94.4
1963	92.3	91.6	95.4	91.6	90.5	96.2
1964	91.7	91.4	92.8	92.3	91.9	94.0
1965	96.3	96.6	94.8	96.5	96.7	95.6
1966	95.8	95.6	96.7	97.2	97.3	96.8
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.5	104.9	107.9	107.8	107.8	108.0
1969	103.5	104.1	101.1	104.3	105.5	99.7
1970	100.4	99.0	106.5	99.2	98.1	103.8
1971	114.2	113.2	118.3	112.7	111.6	117.4
1972	117.8	118.1	115.9	117.4	117.5	117.0
1973	125.1	126.0	120.7	124.1	124.6	122.1
1974	131.8	129.7	141.8	130.3	127.3	143.5
1975	133.6	135.4	126.7	124.4	123.4	128.3
1976	135.0	135.6	131.9	130.3	129.5	134.0
1977	134.6	136.1	129.0	132.7	133.5	129.7
1978 ²	134.8	135.6	131.6	134.7	135.2	132.5
Average annual percent change:						
1954-78	2.9	3.0	2.3	2.9	3.0	2.3
1974-78	.5	.9	-1.3	1.3	2.0	-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 76. Paper and plastic bags (SIC 2643): Indexes of output, employee hours, and employees, 1954-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	52.4	71.8	74.3	60.8	71.9	74.9	59.8
1955	57.3	74.9	77.4	63.7	74.1	76.8	63.0
1956	58.1	79.1	80.6	72.5	79.7	81.7	71.7
1957	60.9	81.4	82.9	74.9	81.2	83.0	73.9
1958	63.4	83.0	83.6	80.1	84.2	85.4	79.3
1959	69.0	86.2	86.4	85.4	87.0	87.6	84.8
1960	67.4	83.3	84.0	80.1	88.6	90.8	79.3
1961	71.0	82.5	83.6	77.8	85.3	87.3	77.2
1962	73.9	83.6	84.7	78.9	86.4	88.4	78.3
1963	83.7	90.7	91.4	87.7	91.4	92.5	87.0
1964	86.9	94.8	95.1	93.6	94.2	94.6	92.4
1965	91.5	95.0	94.7	96.5	94.8	94.6	95.7
1966	98.9	103.2	103.4	102.3	101.7	101.6	102.2
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	110.4	104.6	105.2	102.3	102.4	102.4	102.2
1969	111.7	107.9	107.3	110.5	107.1	105.9	112.0
1970	114.0	113.6	115.1	107.0	114.9	116.2	109.8
1971	122.4	107.2	108.1	103.5	108.6	109.7	104.3
1972	123.3	104.7	104.4	106.4	105.0	104.9	105.4
1973	132.7	106.1	105.3	109.9	106.9	106.5	108.7
1974	145.1	110.1	111.9	102.3	111.4	114.0	101.1
1975	131.1	98.1	96.8	103.5	105.4	106.2	102.2
1976	142.7	105.7	105.2	108.2	109.5	110.2	106.5
1977	139.6	103.7	102.6	108.2	105.2	104.6	107.6
1978 ¹	144.0	106.8	106.2	109.4	106.9	106.5	108.7
Average annual percent change:							
1954-78	4.6	1.7	1.5	2.2	1.7	1.6	2.3
1974-78	.5	-1	-5	1.8	-8	-1.5	2.0

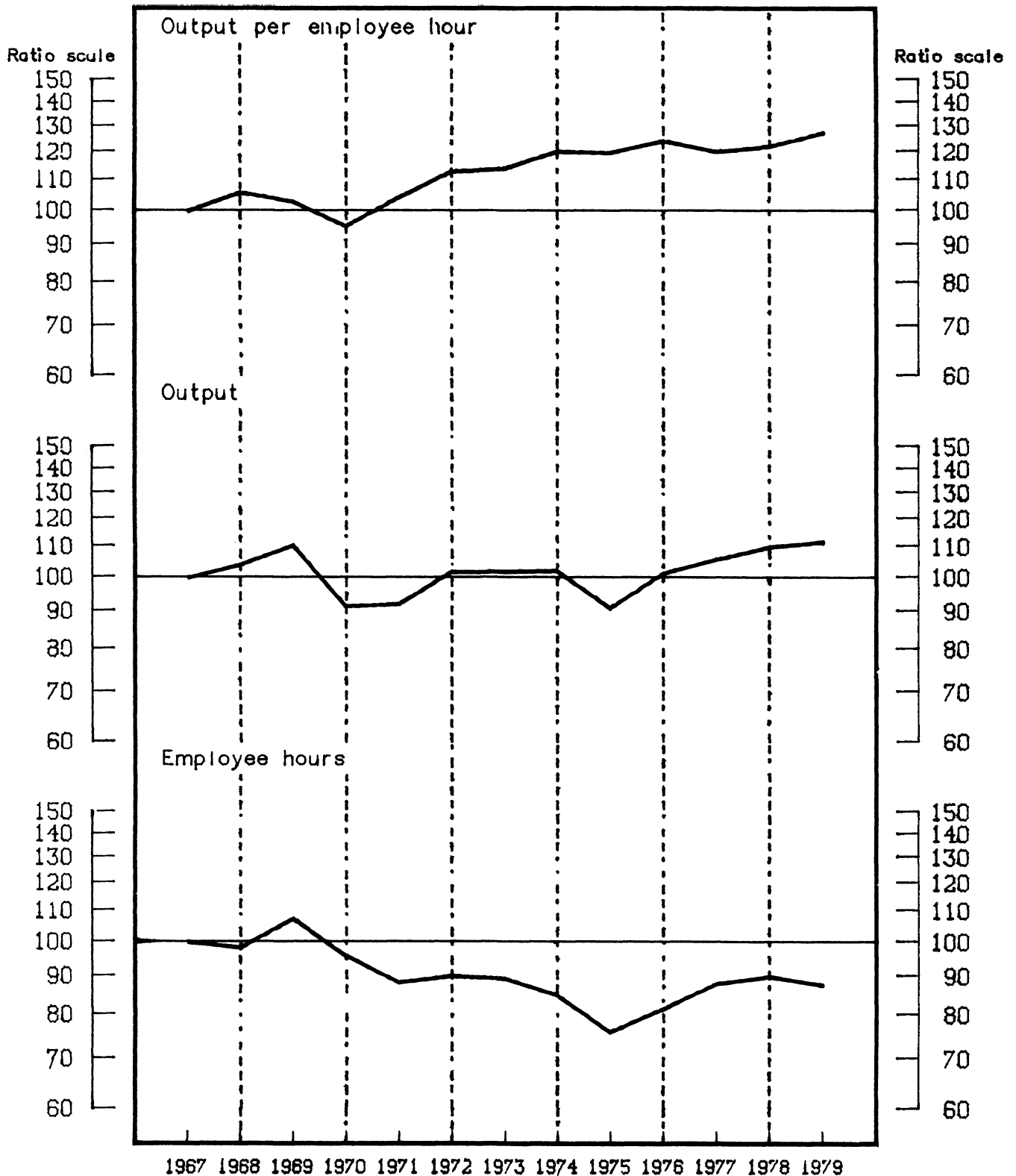
¹ Preliminary.

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 40. Folding paperboard boxes (SIC 2651): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 77. Folding paperboard boxes (SIC 2651): Indexes of output per employee hour and output per employee, 1963-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	93.6	93.0	96.8	93.0	92.1	96.8
1964	95.7	94.9	99.3	96.1	95.2	100.2
1965	90.7	90.1	93.4	91.2	90.7	93.6
1966	91.3	90.7	94.2	91.6	91.0	94.2
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.9	104.7	111.5	105.6	104.4	110.9
1969	103.0	101.7	109.4	101.9	100.6	107.3
1970	95.5	95.3	96.3	92.7	92.5	93.5
1971	104.3	104.9	101.7	101.2	101.4	100.4
1972	113.1	113.1	113.0	110.2	109.3	113.5
1973	114.1	114.0	114.5	111.0	110.0	114.9
1974	120.4	121.8	114.8	116.8	117.2	115.2
1975	119.9	122.8	108.2	117.2	119.6	108.8
1976	124.4	126.1	117.6	123.2	124.5	118.4
1977	120.3	121.1	116.1	116.9	117.0	116.7
1978	122.3	123.4	117.1	119.0	119.4	117.3
1979 ²	127.5	129.2	119.7	121.1	121.3	120.3
Average annual percent change:						
1963-79	2.2	2.4	1.5	1.9	2.1	1.5
1974-79 .....	.9	.8	1.2	.5	.3	1.2

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 Paperboard Packaging Council, the Bureau of the Census, and the Bureau of Labor Statistics.

Table 78. Folding paperboard boxes (SIC 2651): Indexes of output, employee hours, and employees, 1963-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	96.8	103.4	104.1	100.0	104.1	105.1	100.0
1964	97.1	101.5	102.3	97.8	101.0	102.0	96.9
1965	95.5	105.3	106.0	102.2	104.7	105.3	102.0
1966	100.9	110.5	111.2	107.1	110.1	110.9	107.1
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.1	98.3	99.4	93.4	98.6	99.7	93.9
1969	110.6	107.4	108.8	101.1	108.5	109.9	103.1
1970	91.6	95.9	96.1	95.1	98.8	99.0	98.0
1971	92.2	88.4	87.9	90.7	91.1	90.9	91.8
1972	101.9	90.1	90.1	90.2	92.5	93.2	89.8
1973	102.0	89.4	89.5	89.1	91.9	92.7	88.8
1974	102.3	85.0	84.0	89.1	87.6	87.3	88.8
1975	91.1	76.0	74.2	84.2	77.7	76.2	83.7
1976	101.5	81.6	80.5	86.3	82.4	81.5	85.7
1977	106.0	88.1	87.5	91.3	90.7	90.6	90.8
1978	110.1	90.0	89.2	94.0	92.5	92.2	93.9
1979 ¹	111.8	87.7	86.5	93.4	92.3	92.2	92.9
Average annual percent change:							
1963-79 .....	.5	-1.6	-1.8	-.9	-1.4	-1.5	-.9
1974-79	3.1	2.1	2.3	1.8	2.5	2.8	1.8

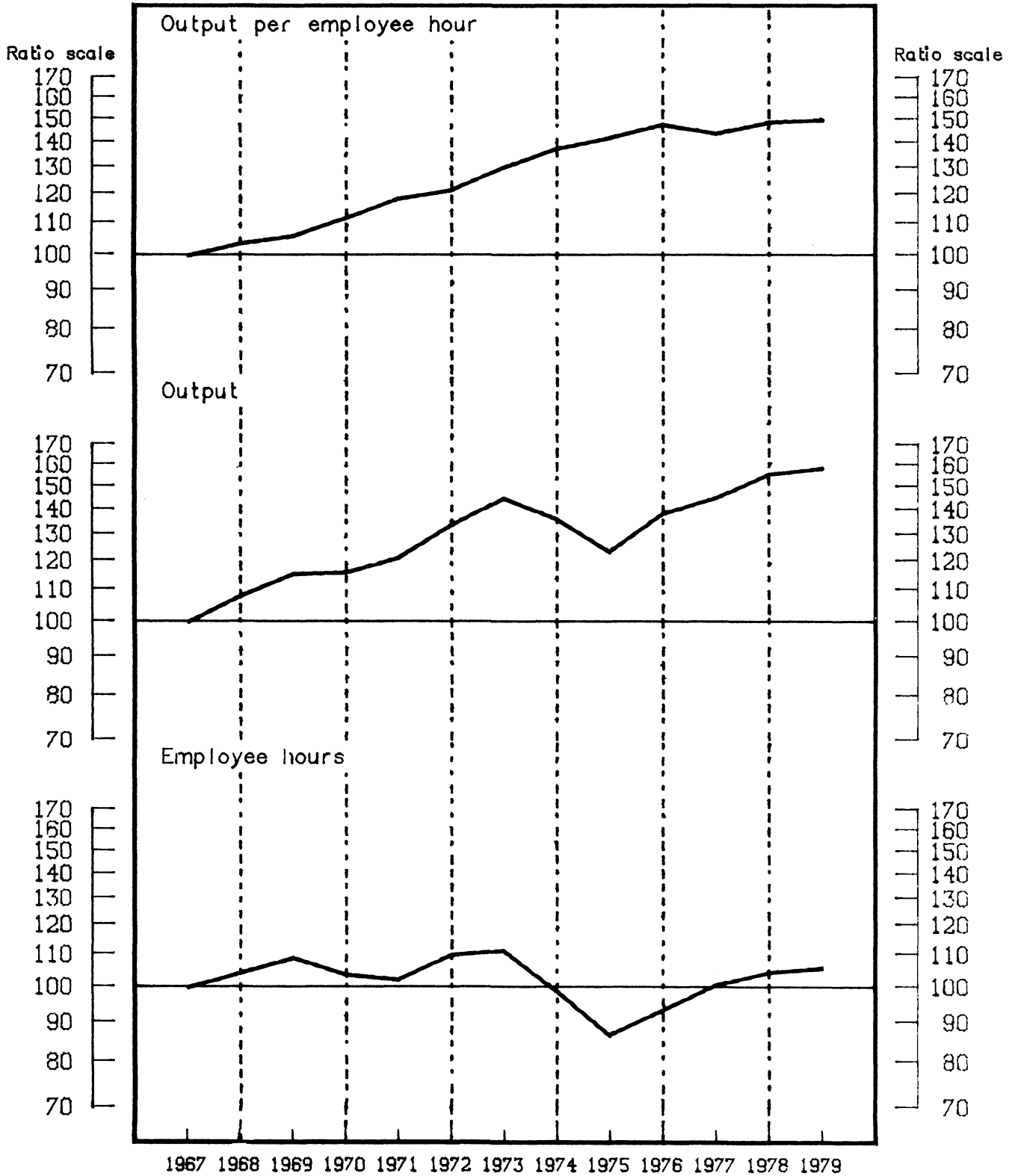
¹ Preliminary.

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 Paperboard Packaging Council, the Bureau of the Census, and the Bureau of Labor Statistics.

Chart 41. Corrugated and solid fiber boxes (SIC 2653): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 79. Corrugated and solid fiber boxes (SIC 2653): Indexes on output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	76.4	76.3	76.7	75.9	75.4	77.2
1959	77.6	76.2	83.1	78.6	77.2	83.6
1960	77.2	76.5	79.5	76.5	75.5	80.1
1961	81.6	80.7	84.5	82.0	81.1	84.8
1962	82.7	81.4	88.0	83.8	82.5	88.4
1963	88.2	87.9	89.5	88.8	88.6	89.9
1964	90.0	89.8	90.8	92.6	93.0	91.7
1965	92.8	92.7	93.7	95.9	96.5	94.2
1966	96.6	94.8	103.4	98.6	97.2	103.5
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.6	103.1	105.8	104.2	103.8	105.5
1969	106.0	105.5	107.6	106.2	106.4	105.9
1970	111.8	112.8	108.3	107.6	108.4	105.1
1971	118.5	120.8	110.8	114.6	116.3	109.8
1972	121.6	123.0	117.4	120.4	121.2	118.1
1973	130.2	130.9	127.4	128.3	128.1	129.0
1974	137.7	143.2	121.7	128.5	130.6	122.6
1975	142.2	151.8	116.8	134.2	140.8	117.7
1976	148.0	154.9	128.7	141.8	145.9	130.4
1977	144.0	151.1	124.4	138.9	144.2	125.0
1978	149.0	155.7	130.4	143.0	147.6	130.9
1979 ²	149.9	157.3	129.1	141.8	146.1	130.1
Average annual percent change:						
1958-79	3.7	4.1	2.6	3.4	3.6	2.6
1974-79	1.5	1.5	1.7	1.9	2.0	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.

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.

² Preliminary.

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

Table 80. Corrugated and solid fiber boxes (SIC 2653): Indexes of output, employee hours, and employment, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	55.3	72.4	72.5	72.1	72.9	73.3	71.6
1959	63.0	81.2	82.7	75.8	80.2	81.6	75.4
1960	63.0	81.6	82.3	79.2	82.3	83.4	78.7
1961	67.3	82.5	83.4	79.6	82.1	83.0	79.4
1962	71.9	86.9	88.3	81.7	85.8	87.2	81.3
1963	76.2	86.4	86.7	85.1	85.8	86.0	84.8
1964	82.4	91.6	91.8	90.7	89.0	88.6	89.9
1965	89.5	96.4	96.6	95.5	93.3	92.7	95.0
1966	97.6	101.0	102.9	94.4	99.0	100.4	94.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	108.1	104.3	104.9	102.2	103.7	104.1	102.5
1969	115.5	109.0	109.5	107.3	108.8	108.6	109.1
1970	116.0	103.8	102.8	107.1	107.8	107.0	110.4
1971	121.2	102.3	100.3	109.4	105.8	104.2	110.4
1972	133.8	110.0	108.8	114.0	111.1	110.4	113.3
1973	145.0	111.4	110.8	113.8	113.0	113.2	112.4
1974	136.3	99.0	95.2	112.0	106.1	104.4	111.2
1975	123.6	86.9	81.4	105.8	92.1	87.8	105.0
1976	138.5	93.6	89.4	107.6	97.7	94.9	106.2
1977	145.2	100.8	96.1	116.7	104.5	100.7	116.2
1978	155.9	104.6	100.1	119.6	109.0	105.6	119.1
1979 ¹	158.7	105.9	100.9	122.9	111.9	108.6	122.0
Average annual percent change:							
1958-79	5.1	1.3	.9	2.4	1.6	1.4	2.4
1974-79	4.4	2.8	2.8	2.6	2.4	2.3	2.7

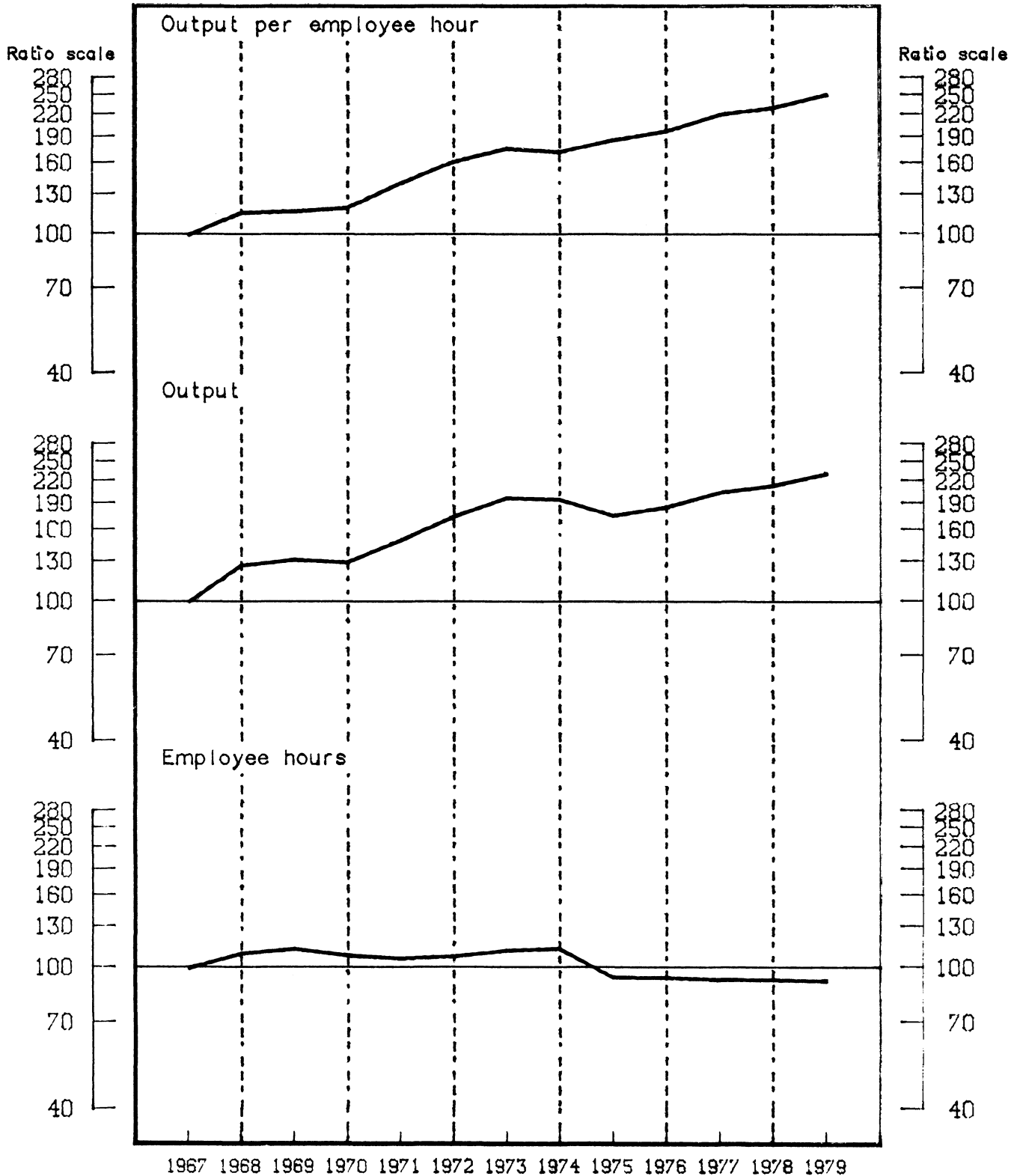
¹ Preliminary.

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 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 42. Synthetic fibers (SIC 2823, 2824): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 81. Synthetic fibers (SIC 2823, 2824): Indexes of output per employee hour and output per employee, 1957-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1957	68.6	67.4	72.2	68.1	66.4	73.5
1958	65.9	67.2	62.1	66.0	67.1	63.1
1959	75.4	73.8	81.0	75.9	73.8	82.2
1960	72.1	71.9	72.8	71.3	70.4	73.6
1961	77.5	77.7	76.7	77.0	76.9	77.0
1962	85.0	83.6	89.9	85.2	83.6	90.4
1963	84.3	85.0	82.2	85.3	86.1	82.7
1964	89.8	89.8	89.6	91.7	92.0	90.5
1965	92.8	91.9	95.0	93.7	93.2	95.4
1966	93.3	94.7	89.6	93.7	95.2	89.7
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	115.7	112.9	124.9	117.5	114.8	125.9
1969	116.8	114.5	124.6	118.1	115.9	124.9
1970	119.5	119.1	121.1	118.9	118.2	120.8
1971	140.7	137.8	150.0	139.8	136.7	149.7
1972	162.2	157.0	180.9	163.5	158.6	179.6
1973	176.8	170.4	200.2	179.0	172.3	201.2
1974	173.1	170.9	180.6	172.2	168.7	183.3
1975	187.2	192.0	173.4	182.5	184.6	176.3
1976	198.4	203.6	183.4	193.3	195.3	187.2
1977	221.0	221.0	221.0	218.9	217.2	223.6
1978	231.7	230.4	235.5	230.2	227.5	236.4
1979 ²	251.9	246.0	271.0	249.7	241.9	275.9
Average annual percent change:						
1957-79	6.4	6.4	6.5	6.4	6.3	6.5
1974-79	7.8	7.3	9.4	8.0	7.5	9.3

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

Table 82. Synthetic fibers (SIC 2823, 2824): Indexes of output, employee hours, and employees, 1957-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1957	49.7	72.4	73.7	68.8	73.0	74.9	67.6
1958	45.4	68.9	67.6	73.1	68.8	67.7	72.0
1959	54.2	71.9	73.4	66.9	71.4	73.4	65.9
1960	51.0	70.7	70.9	70.1	71.5	72.4	69.3
1961	53.6	69.2	69.0	69.9	69.6	69.7	69.6
1962	64.0	75.3	76.6	71.2	75.1	76.6	70.8
1963	68.4	81.1	80.5	83.2	80.2	79.4	82.7
1964	78.4	87.3	87.3	87.5	85.5	85.2	86.6
1965	89.9	96.9	97.8	94.6	95.9	96.5	94.2
1966	98.2	105.2	103.7	109.6	104.8	103.2	109.5
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	127.0	109.8	112.5	101.7	108.1	110.6	100.9
1969	131.9	112.9	115.2	105.9	111.7	113.8	105.6
1970	129.7	108.5	108.9	107.1	109.1	109.7	107.4
1971	149.7	106.4	108.6	99.8	107.1	109.5	100.0
1972	174.9	107.8	111.4	96.7	107.0	110.3	97.4
1973	197.8	111.9	116.1	98.8	110.5	114.8	98.3
1974	196.0	113.2	114.7	108.5	113.8	116.2	106.9
1975	176.3	94.2	91.8	101.7	96.6	95.5	100.0
1976	185.5	94.0	91.6	101.7	96.5	95.5	99.6
1977	205.3	92.9	92.9	92.9	93.8	94.5	91.8
1978	215.0	92.8	93.3	91.3	93.4	94.5	90.2
1979 ¹	232.0	92.1	94.3	85.6	92.9	95.9	84.1
Average annual percent change:							
1957-79	8.3	1.8	1.8	1.7	1.8	1.9	1.7
1974-79	4.5	-3.1	-2.6	-4.5	-3.2	-2.8	-4.4

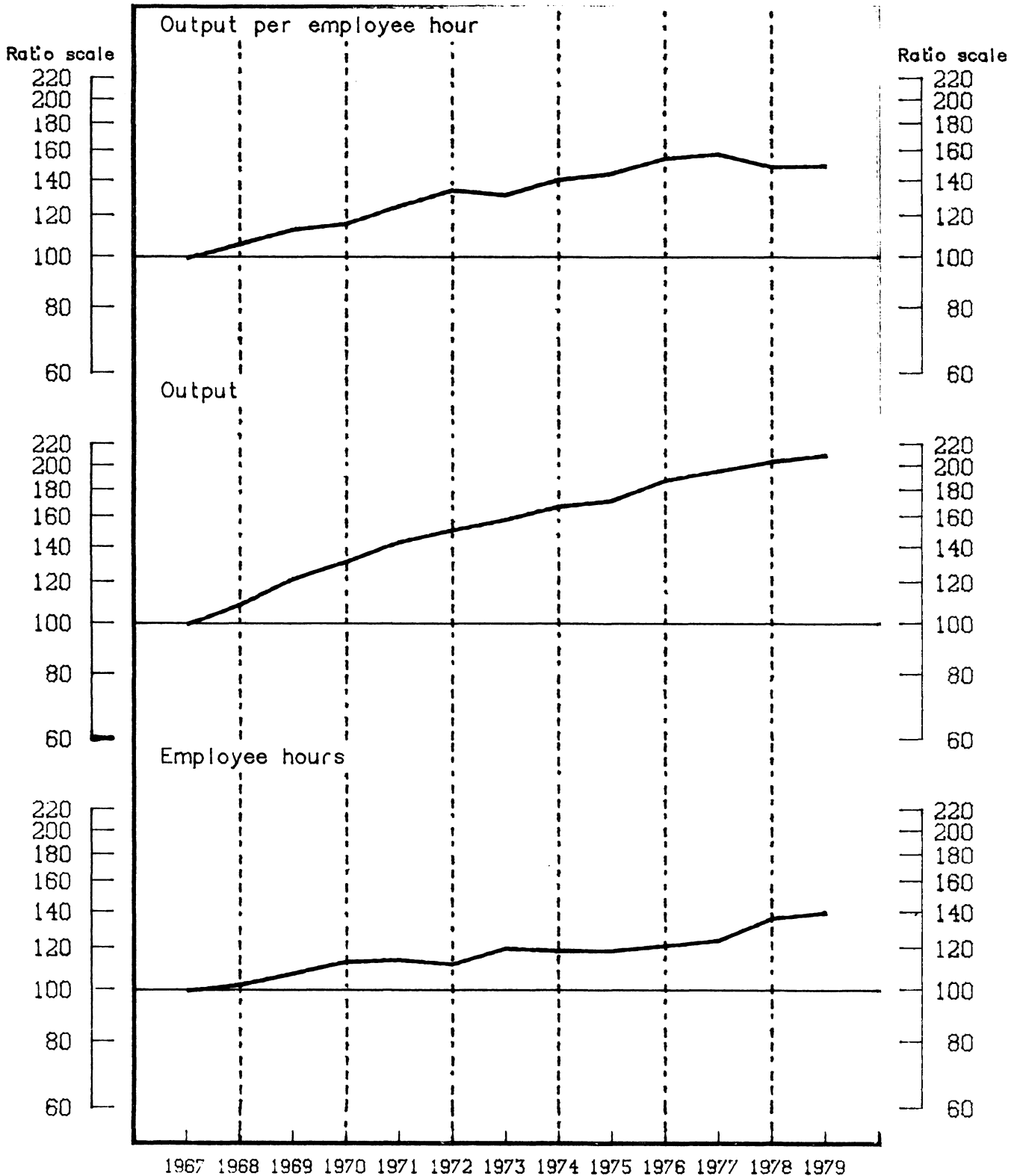
¹ Preliminary.

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 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 43. Pharmaceutical preparations (SIC 2834): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 83. Pharmaceutical preparations (SIC 2834): Indexes of output per employee hour and output per employee, 1963-79
(1967 = 100)

Year	Output per hour ¹		Output per employee ¹		
	All employees	Production workers	All employees	Production workers	Nonproduction workers
Index:					
1963	82.1	82.5	84.5	84.7	84.1
1964	83.9	83.0	86.9	85.8	88.1
1965	90.9	90.7	93.1	92.7	93.5
1966	94.1	93.4	97.6	96.9	98.5
1967	100.0	100.0	100.0	100.0	100.0
1968	106.3	107.2	108.8	109.6	107.7
1969	113.4	112.2	115.6	114.5	116.9
1970	116.2	118.0	120.2	121.9	118.3
1971	125.7	134.8	129.1	138.3	119.7
1972	134.9	143.5	138.0	146.7	128.9
1973	132.1	143.0	133.9	144.8	122.9
1974	141.3	152.4	142.2	153.2	131.0
1975	145.2	160.3	143.4	158.2	129.0
1976	155.2	167.7	155.2	167.7	142.6
1977	158.2	171.5	158.9	172.3	145.5
1978	149.6	167.7	153.1	171.5	135.7
1979 ²	150.3	163.1	152.9	165.9	139.8
Average annual percent change:					
1963-79	4.4	5.2	4.2	5.1	3.3
1974-79	1.2	1.4	1.7	1.9	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 Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 84. Pharmaceutical preparations (SIC 2834): Indexes of output, employee hours, and employees, 1963-79
(1967 = 100)

Year	Output	Employee hours		Employees		
		All employees	Production workers	All employees	Production workers	Nonproduction workers
Index:						
1963	70.5	85.9	85.5	83.4	83.2	83.8
1964	76.8	91.5	92.5	88.4	89.5	87.2
1965	86.3	94.9	95.2	92.7	93.1	92.3
1966	94.1	100.0	100.7	96.4	97.1	95.5
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	109.1	102.6	101.8	100.3	99.5	101.3
1969	122.2	107.8	108.9	105.7	106.7	104.5
1970	131.9	113.5	111.8	109.7	108.2	111.5
1971	143.8	114.4	106.7	111.4	104.0	120.1
1972	151.5	112.3	105.6	109.8	103.3	117.5
1973	158.7	120.1	111.0	118.5	109.6	129.1
1974	168.2	119.0	110.4	118.3	109.8	128.4
1975	172.6	118.9	107.7	120.4	109.1	133.8
1976	188.7	121.6	112.5	121.6	112.5	132.3
1977	196.9	124.5	114.8	123.9	114.3	135.3
1978	205.1	137.1	122.3	134.0	119.6	151.1
1979 ¹	211.0	140.4	129.4	138.0	127.2	150.9
Average annual percent change:						
1963-79	7.2	2.7	1.8	2.8	2.0	3.7
1974-79	5.0	3.7	3.5	3.2	3.0	3.5

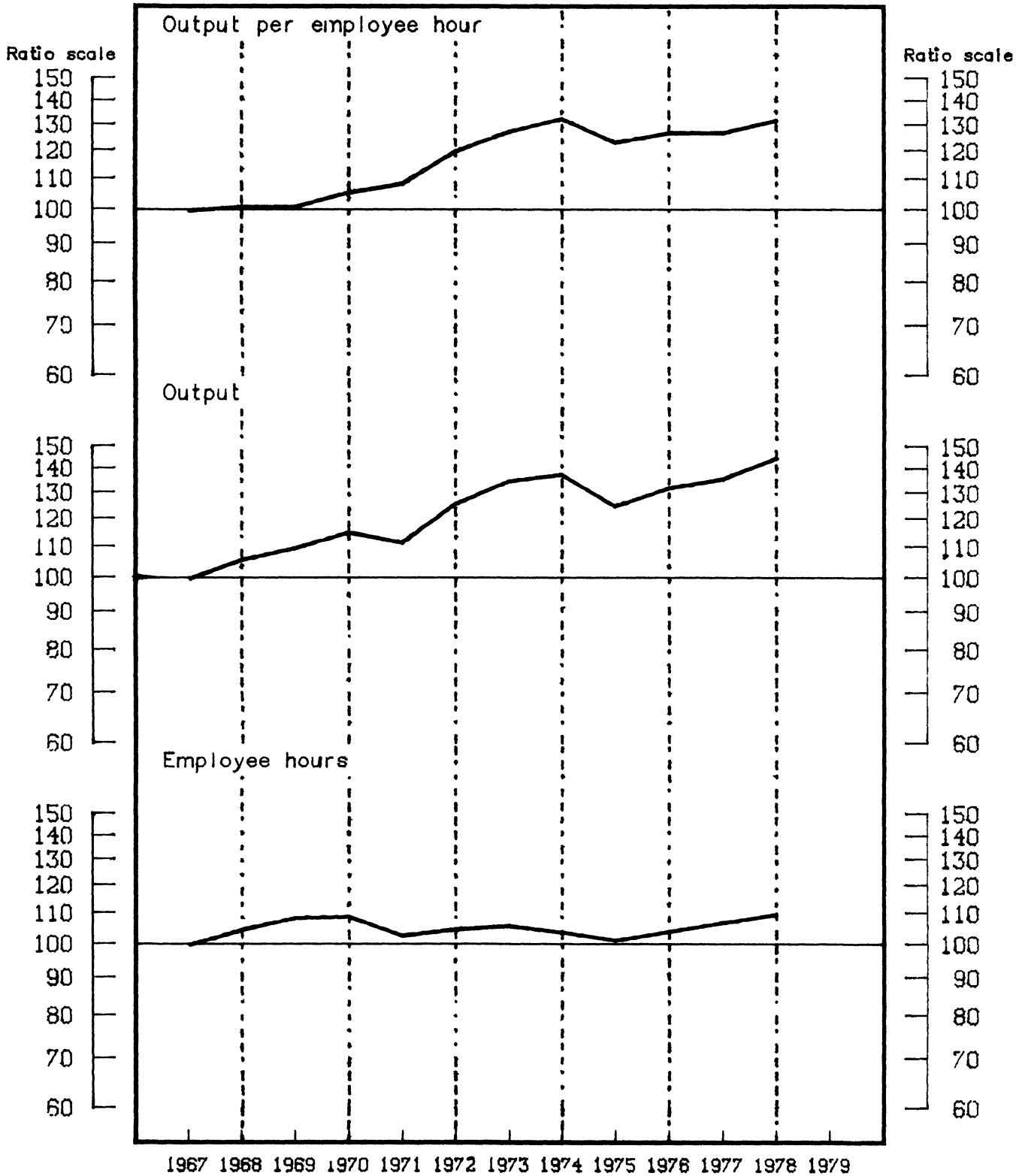
¹ Preliminary.

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

SOURCE: Output 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 44. Soaps and detergents (SIC 2841): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 85. Soaps and detergents (SIC 2841): Indexes of output per employee hour and output per employee, 1958-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	77.7	78.3	76.3	77.2	77.2	77.3
1959	84.4	85.4	82.2	84.2	84.6	83.3
1960	81.7	81.5	82.0	81.7	81.3	82.6
1961	82.6	81.7	84.2	83.1	82.4	84.7
1962	83.9	81.7	89.7	84.1	81.7	89.7
1963	90.7	87.5	98.8	90.4	86.9	98.8
1964	90.7	88.3	96.5	90.3	87.6	96.5
1965	88.1	87.0	90.7	88.1	86.8	90.7
1966	94.2	94.0	94.6	94.7	94.9	94.6
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	101.1	102.4	98.2	101.0	102.4	98.1
1969	101.1	104.1	95.0	101.4	105.1	94.5
1970	105.7	110.4	96.3	105.6	111.0	95.8
1971	108.6	114.8	96.5	107.2	113.4	96.0
1972	120.0	125.1	110.1	120.8	126.9	109.9
1973	127.5	134.4	114.2	129.0	136.7	115.4
1974	132.7	139.6	119.3	134.0	140.6	122.0
1975	123.3	129.0	112.1	125.0	130.5	114.8
1976	127.0	135.0	112.0	129.6	138.1	114.6
1977	127.0	136.4	109.8	129.9	140.4	112.3
1978 ²	132.0	138.5	119.5	135.9	143.4	122.2
Average annual percent change:						
1958-78	2.9	3.3	1.9	3.0	3.5	2.0
1974-78 .....	.2	.4	-.2	.7	1.1	-.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 and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Table 86. Soaps and detergents (SIC 2841): Indexes of output, employee hours, and employees, 1958-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	64.7	83.3	82.6	84.8	83.8	83.8	83.7
1959	71.8	85.1	84.1	87.3	85.3	84.9	86.2
1960	71.9	88.0	88.2	87.7	88.0	88.4	87.0
1961	75.7	91.7	92.6	89.9	91.1	91.9	89.4
1962	78.8	93.9	96.5	87.8	93.7	96.5	87.8
1963	85.2	93.9	97.4	86.2	94.2	98.1	86.2
1964	88.7	97.8	100.4	91.9	98.2	101.2	91.9
1965	88.5	100.4	101.7	97.6	100.5	101.9	97.6
1966	93.8	99.6	99.8	99.2	99.0	98.8	99.2
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.0	104.8	103.5	107.9	105.0	103.5	108.1
1969	109.9	108.7	105.6	115.7	108.4	104.6	116.3
1970	115.3	109.1	104.4	119.7	109.2	103.9	120.3
1971	111.7	102.9	97.3	115.7	104.2	98.5	116.3
1972	125.9	104.9	100.6	114.3	104.2	99.2	114.6
1973	135.1	106.0	100.5	118.3	104.7	98.8	117.1
1974	137.9	103.9	98.8	115.6	102.9	98.1	113.0
1975	125.0	101.4	96.9	111.5	100.0	95.8	108.9
1976	132.3	104.2	98.0	118.1	102.1	95.8	115.4
1977	136.0	107.1	99.7	123.9	104.7	96.9	121.1
1978 ¹	145.1	109.9	104.8	121.4	106.8	101.2	118.7
Average annual percent change:							
1958-78	4.0	1.1	.7	2.1	1.0	.5	2.0
1974-78	1.9	1.7	1.5	2.1	1.2	.7	2.1

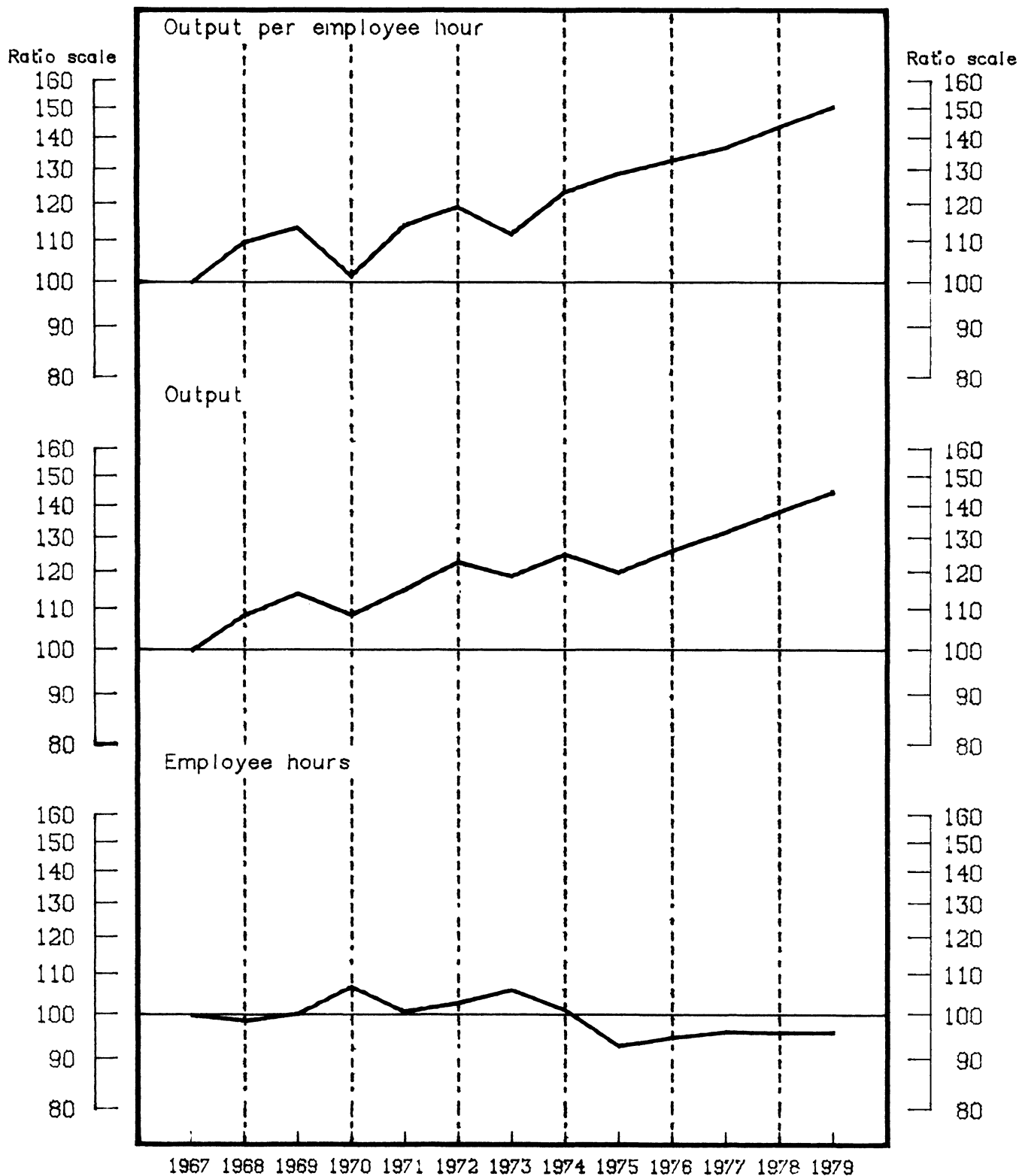
¹ Preliminary.

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

Chart 45. Paints and allied products (SIC 2851): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 87. Paints and allied products (SIC 2851): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	75.1	73.6	77.3	75.7	73.6	78.4
1959	82.0	80.7	83.7	82.2	80.0	84.8
1960	88.2	86.4	90.7	88.2	85.4	91.6
1961	86.0	84.6	87.8	86.0	84.1	88.3
1962	89.7	88.2	91.8	91.0	90.1	92.3
1963	92.6	91.9	93.8	93.6	93.1	94.2
1964	98.5	96.7	101.2	100.5	99.4	102.1
1965	99.6	98.8	100.7	100.5	99.9	101.1
1966	104.4	103.1	106.2	105.1	104.3	106.2
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	110.0	110.0	110.1	110.4	109.9	110.9
1969	113.8	112.3	115.8	113.3	111.2	115.8
1970	101.7	100.8	102.9	100.8	99.5	102.6
1971	114.4	115.9	112.5	112.1	112.3	112.0
1972	119.5	117.9	121.8	119.3	118.3	120.7
1973	112.1	110.8	114.2	109.8	105.9	114.9
1974	123.7	126.5	120.2	123.4	124.5	122.1
1975	129.1	137.5	119.5	128.1	134.3	121.5
1976	133.2	138.9	126.5	133.7	137.8	129.2
1977	137.2	139.9	133.6	137.5	139.2	135.5
1978	144.2	148.2	139.4	143.9	146.5	141.1
1979 ²	150.9	158.5	142.0	150.4	155.6	144.6
Average annual percent change:						
1958-79	2.9	3.2	2.5	2.8	3.1	2.5
1974-79	4.0	4.0	3.9	4.0	4.0	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 88. Paints and allied products (SIC 2851): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	67.3	89.6	91.5	87.1	88.9	91.4	85.8
1959	75.5	92.1	93.6	90.2	91.9	94.4	89.0
1960	78.9	89.5	91.3	87.0	89.5	92.4	86.1
1961	75.9	88.3	89.7	86.4	88.3	90.2	86.0
1962	80.2	89.4	90.9	87.4	88.1	89.0	86.9
1963	86.8	93.7	94.5	92.5	92.7	93.2	92.1
1964	92.8	94.2	96.0	91.7	92.3	93.4	90.9
1965	99.1	99.5	100.3	98.4	98.6	99.2	98.0
1966	106.9	102.4	103.7	100.7	101.7	102.5	100.7
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	108.7	98.8	98.8	98.7	98.5	98.9	98.0
1969	114.3	100.4	101.8	98.7	100.9	102.8	98.7
1970	108.8	107.0	107.9	105.7	107.9	109.4	106.0
1971	115.4	100.9	99.6	102.6	102.9	102.8	103.0
1972	123.1	103.0	104.4	101.1	103.2	104.1	102.0
1973	119.1	106.2	107.5	104.3	108.5	112.5	103.7
1974	125.4	101.4	99.1	104.3	101.6	100.7	102.7
1975	120.2	93.1	87.4	100.6	93.8	89.5	98.9
1976	126.5	95.0	91.1	100.0	94.6	91.8	97.9
1977	132.1	96.3	94.4	98.9	96.1	94.9	97.5
1978	138.6	96.1	93.5	99.4	96.3	94.6	98.2
1979	145.0	96.1	91.5	102.1	96.4	93.2	100.3
Average annual percent change:							
1958-79	3.3	.4	.1	.8	.5	.3	.8
1974-79	3.5	-.5	-.5	-.4	-.5	-.5	-.4

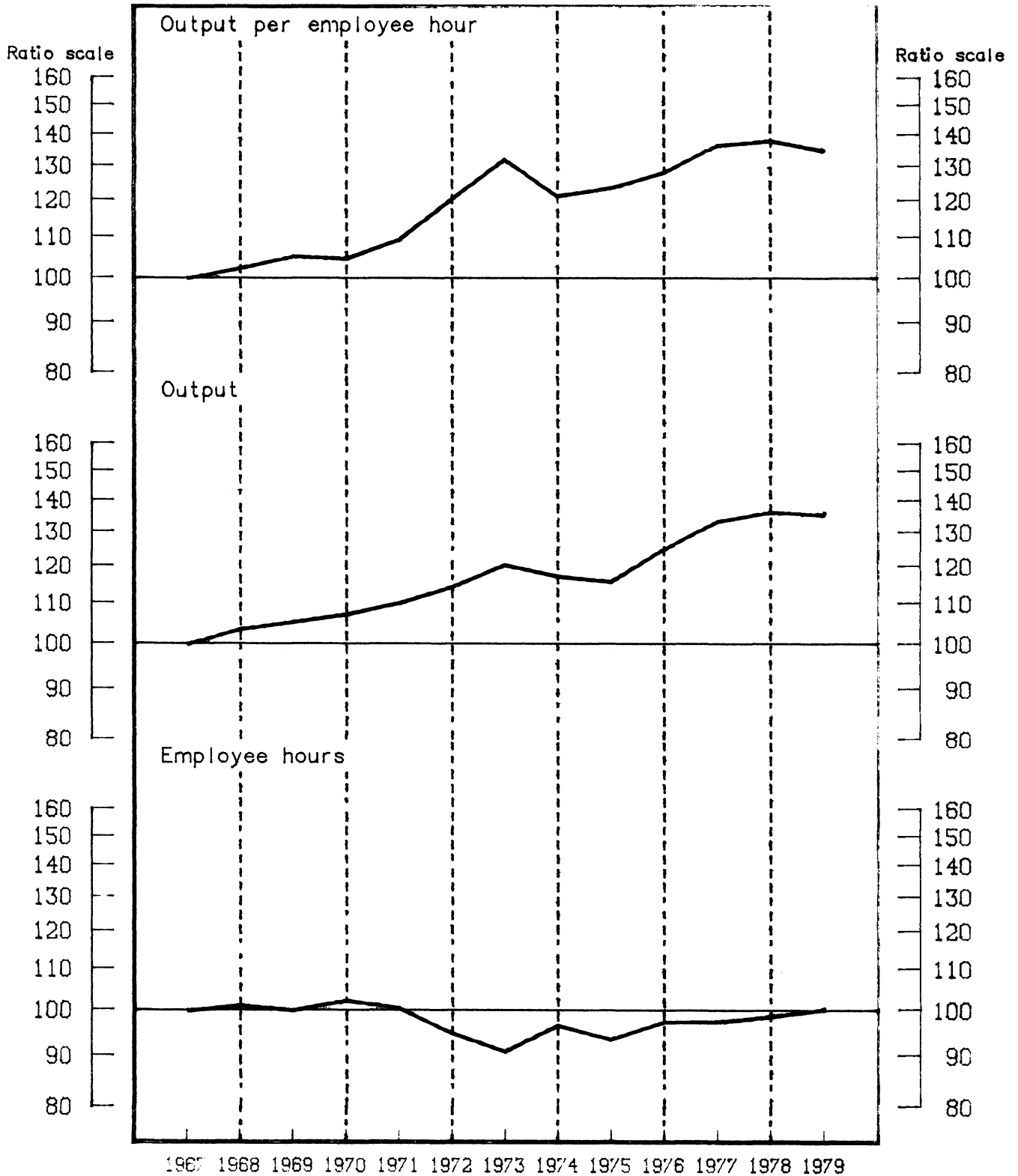
¹ Preliminary.

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 46. Petroleum refining (SIC 2911): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 89. Petroleum refining (SIC 2911): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	44.7	43.1	49.6	44.2	42.1	50.3
1955	48.9	47.1	54.7	48.5	46.3	55.1
1956	50.9	49.1	56.9	50.6	48.3	57.4
1957	51.0	49.9	54.6	50.7	49.2	55.0
1958	53.6	52.5	56.8	52.5	50.8	57.2
1959	60.2	59.1	63.6	59.3	57.6	64.1
1960	62.7	62.1	64.7	62.2	61.2	65.1
1961	67.5	67.1	68.9	66.8	66.0	69.0
1962	73.5	73.5	73.9	72.9	72.4	74.3
1963	79.1	78.5	80.5	77.7	76.5	81.0
1964	83.4	83.0	84.8	83.1	82.2	85.7
1965	90.5	89.9	92.1	89.5	88.4	92.7
1966	97.7	97.1	99.5	97.0	96.0	99.4
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.4	103.1	100.6	103.2	103.9	101.7
1969	105.3	109.1	96.4	109.2	111.7	103.7
1970	104.8	106.6	100.6	106.3	107.6	103.3
1971	109.5	112.3	102.8	110.2	112.1	105.8
1972	120.5	121.9	117.0	121.2	121.5	120.3
1973	132.4	135.7	124.3	131.4	133.0	127.6
1974	121.4	121.8	120.4	121.8	121.3	122.9
1975	123.7	126.9	115.7	123.0	125.2	118.1
1976	128.3	130.4	123.1	131.3	133.4	126.4
1977	136.8	140.1	128.7	138.9	142.5	131.0
1978	138.2	140.6	132.3	143.2	146.9	134.7
1979 ²	135.1	136.8	130.4	141.1	144.7	133.1
Average annual percent change:						
1947-79	5.0	5.4	4.0	5.1	5.4	4.1
1974-79	2.7	2.8	2.4	3.6	4.2	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 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 90. Petroleum refining (SIC 2911): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	63.4	141.9	147.0	127.7	143.6	150.6	126.1
1955	68.6	140.4	145.8	125.3	141.4	148.2	124.6
1956	73.0	143.4	148.8	128.3	144.3	151.1	127.1
1957	73.2	143.4	146.6	134.1	144.3	148.9	133.0
1958	71.9	134.2	136.9	126.6	136.9	141.4	125.7
1959	76.3	126.8	129.2	119.9	128.6	132.4	119.1
1960	78.7	125.5	126.8	121.6	126.5	128.6	120.8
1961	80.6	119.4	120.1	117.0	120.6	122.1	116.8
1962	84.0	114.3	114.3	113.7	115.3	116.1	113.0
1963	86.2	109.0	109.8	107.1	110.9	112.7	106.4
1964	88.7	106.3	106.9	104.6	106.7	107.9	103.5
1965	91.2	100.8	101.4	99.0	101.9	103.2	98.4
1966	95.9	98.2	98.8	96.4	98.9	99.9	96.5
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.6	101.2	100.5	103.0	100.4	99.7	101.9
1969	105.4	100.1	96.6	109.3	96.5	94.4	101.6
1970	107.3	102.4	100.7	106.7	100.9	99.7	103.9
1971	110.2	100.6	98.1	107.2	100.0	98.3	104.2
1972	114.5	95.0	93.9	97.9	94.5	94.2	95.2
1973	120.6	91.1	88.9	97.0	91.8	90.7	94.5
1974	117.4	96.7	96.4	97.5	96.4	96.8	95.5
1975	115.9	93.7	91.3	100.2	94.2	92.6	98.1
1976	125.1	97.5	95.9	101.6	95.3	93.8	99.0
1977	133.5	97.6	95.3	103.7	96.1	93.7	101.9
1978	136.5	98.8	97.1	103.2	95.3	92.9	101.3
1979 ¹	135.6	100.4	99.1	104.0	96.1	93.7	101.9
Average annual percent change:							
1947-79	3.3	-1.6	-2.0	-7	-1.7	-2.0	-7
1974-79	3.7	1.0	.9	1.2	.1	-.4	1.3

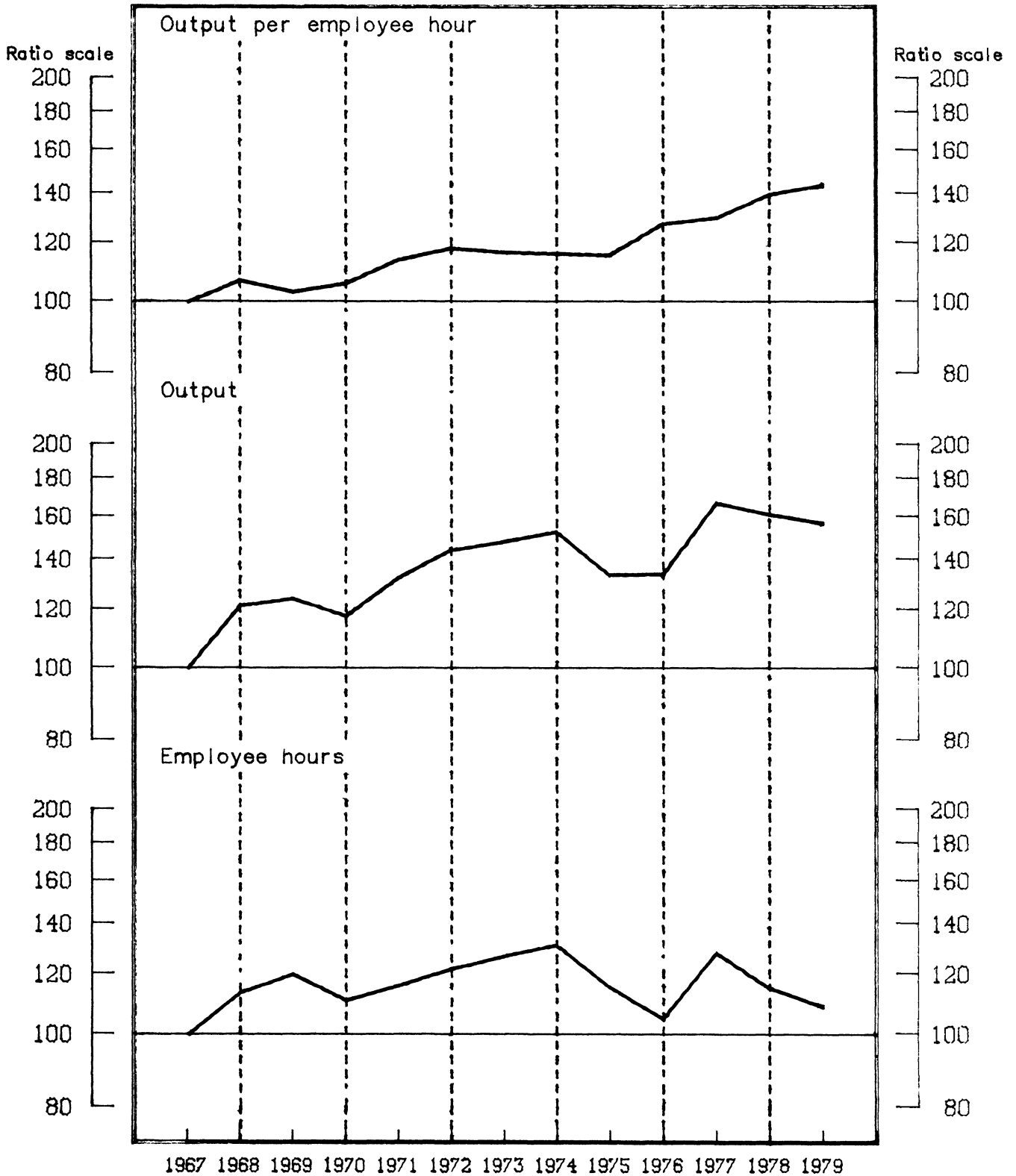
¹ Preliminary.

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 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 47. Tires and inner tubes (SIC 3011): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 91. Tires and inner tubes (SIC 3011): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	54.5	53.2	59.4	53.9	52.0	61.2
1955	58.0	54.8	72.7	63.1	60.4	74.4
1956	57.9	56.3	64.1	58.6	56.7	65.9
1957	61.0	59.6	66.6	62.2	60.5	68.4
1958	63.5	62.9	65.6	63.8	62.8	67.4
1959	70.5	68.2	79.2	72.1	69.7	81.2
1960	72.2	70.9	76.8	73.4	72.1	78.2
1961	74.5	74.4	75.1	75.8	75.9	75.6
1962	82.0	79.8	90.8	86.4	84.9	91.4
1963	88.2	86.7	93.4	91.0	90.2	93.9
1964	96.2	94.4	102.6	102.6	101.6	103.5
1965	98.2	96.7	103.7	104.9	105.0	104.3
1966	100.3	98.3	107.6	107.2	107.1	107.6
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.9	105.7	111.4	114.8	114.5	115.6
1969	103.3	101.8	108.9	112.0	111.6	113.5
1970	105.9	107.8	100.0	108.5	109.6	104.9
1971	114.0	114.6	112.0	117.1	117.5	116.0
1972	118.2	116.7	123.5	124.5	124.1	126.0
1973	116.7	117.1	115.6	119.9	119.8	120.0
1974	116.3	117.3	112.8	120.9	121.5	118.4
1975	115.7	119.5	104.0	116.8	119.4	109.1
1976	127.6	134.6	108.1	119.6	121.5	113.8
1977	130.0	129.3	132.4	135.9	135.1	138.4
1978	139.9	136.9	151.0	145.5	142.3	157.8
1979 ²	143.9	142.7	148.3	147.1	144.8	155.6
Average annual percent change:						
1947-79	3.7	4.0	2.9	3.7	4.0	2.9
1974-79	4.8	3.9	8.0	5.2	4.4	7.9

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.

differ from those previously published.

² Preliminary.
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.

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

Table 92. Tires and inner tubes (SIC 3011): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

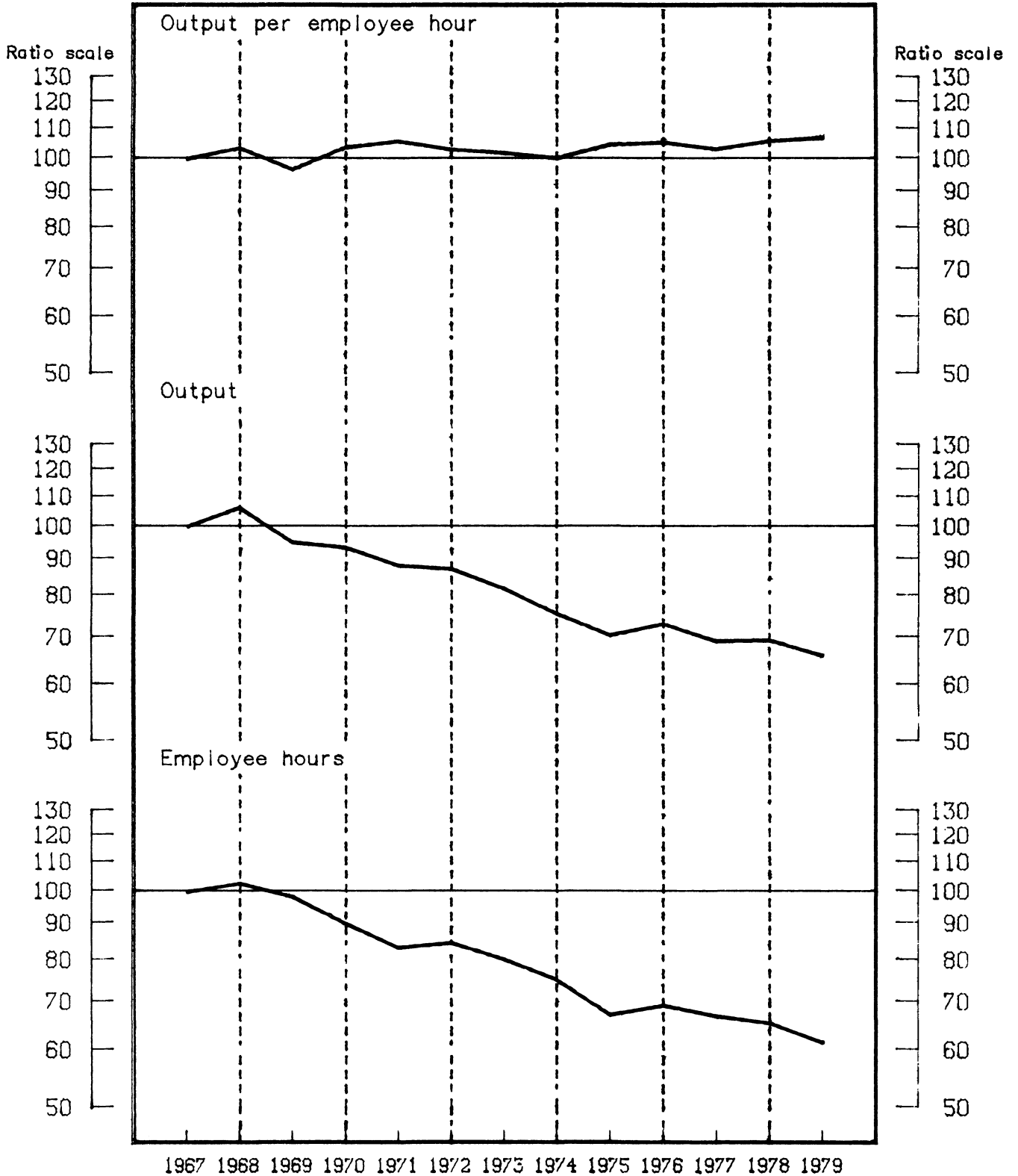
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	55.2	101.3	103.7	93.0	102.4	106.2	90.2
1955	68.8	118.7	125.6	94.7	109.1	114.0	92.5
1956	63.6	109.8	112.9	99.2	108.6	112.2	96.5
1957	66.6	109.1	111.7	100.0	107.0	110.0	97.3
1958	61.5	96.8	97.7	93.7	96.4	98.0	91.3
1959	73.5	104.3	107.7	92.8	102.0	105.4	90.5
1960	72.8	100.9	102.7	94.8	99.2	101.0	93.1
1961	70.5	94.6	94.8	93.9	93.0	92.9	93.3
1962	80.4	98.0	100.8	88.5	93.1	94.7	88.0
1963	83.7	94.9	96.5	89.6	92.0	92.8	89.1
1964	94.5	98.2	100.1	92.1	92.6	93.0	91.3
1965	100.3	102.1	103.7	96.7	95.6	95.5	96.2
1966	107.6	107.3	109.5	100.0	100.4	100.5	100.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	121.6	113.7	115.0	109.2	105.9	106.2	105.2
1969	124.2	120.2	122.0	114.1	110.9	111.3	109.4
1970	117.7	111.1	109.2	117.7	108.5	107.4	112.2
1971	132.4	116.1	115.5	118.2	113.1	112.7	114.1
1972	144.4	122.2	123.7	116.9	116.0	116.4	114.6
1973	148.2	127.0	126.6	128.2	123.6	123.7	123.5
1974	152.9	131.5	130.3	135.6	126.5	125.8	129.1
1975	133.7	115.6	111.9	128.5	114.5	112.0	122.5
1976	134.1	105.1	99.6	124.1	112.1	110.4	117.8
1977	167.1	128.5	129.2	126.2	123.0	123.7	120.7
1978	161.4	115.4	117.9	106.9	110.9	113.4	102.3
1979 ¹	157.0	109.1	110.0	105.9	106.7	108.4	100.9
Average annual percent change:							
1947-79	4.1	.4	.1	1.2	.3	.1	1.2
1974-79	2.7	-2.1	-1.2	-4.9	-2.4	-1.7	-4.9

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 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 48. Footwear (SIC 314): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 93. Footwear (SIC 314): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	84.3	84.3	83.9	81.4	80.9	85.9
1955	88.2	88.1	88.1	88.3	87.9	89.7
1956	89.8	90.0	87.1	88.6	88.5	89.1
1957	91.5	92.0	85.4	89.3	89.5	87.3
1958	93.5	94.4	85.6	90.8	91.2	87.4
1959	98.4	98.6	94.5	97.5	97.6	96.6
1960	97.2	98.0	89.1	94.9	95.3	90.5
1961	97.5	98.3	90.2	94.9	95.3	90.7
1962	98.8	99.0	96.0	97.1	97.1	96.3
1963	102.3	102.3	101.6	100.9	100.8	101.9
1964	102.0	101.7	103.7	102.6	102.4	104.5
1965	101.4	101.2	102.2	101.4	101.2	102.6
1966	102.6	102.6	101.7	103.1	103.4	101.7
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.6	103.6	104.3	104.4	104.4	104.3
1969	96.7	97.4	90.4	95.5	96.0	91.3
1970	103.9	105.3	92.3	102.9	103.8	94.4
1971	105.9	108.0	89.8	104.9	106.4	92.4
1972	103.1	104.9	88.7	104.4	106.0	91.3
1973	102.0	104.2	85.2	101.7	103.4	88.1
1974	100.3	103.4	77.7	98.3	100.7	80.3
1975	104.8	107.6	83.1	102.0	104.1	86.0
1976	105.5	108.1	85.9	103.1	104.9	89.1
1977	103.3	106.0	83.0	100.3	102.2	85.4
1978	106.0	108.3	88.6	101.8	103.1	91.3
1979 ²	107.1	111.5	78.3	101.4	104.1	81.0
Average annual percent change:						
1947-79	1.0	1.1	.2	1.1	1.1	.2
1974-79	1.0	1.1	.6	.3	.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. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 94. Footwear (SIC 314): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	88.8	105.4	105.4	105.9	109.1	109.7	103.4
1955	97.7	110.8	110.9	110.9	110.7	111.1	108.9
1956	99.0	110.3	110.0	113.7	111.8	111.9	111.1
1957	99.5	108.8	108.1	116.5	111.4	111.2	114.0
1958	97.7	104.5	103.5	114.2	107.6	107.1	111.8
1959	107.4	109.2	108.9	113.7	110.1	110.0	111.2
1960	102.4	105.4	104.5	114.9	107.9	107.4	113.1
1961	102.8	105.4	104.6	114.0	108.3	107.9	113.4
1962	104.8	106.1	105.9	109.2	107.9	107.9	108.8
1963	101.8	99.5	99.5	100.2	100.9	101.0	99.9
1964	103.8	101.8	102.1	100.1	101.2	101.4	99.3
1965	104.7	103.3	103.5	102.4	103.3	103.5	102.0
1966	107.4	104.7	104.7	105.6	104.2	103.9	105.6
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.4	102.7	102.7	102.0	101.9	101.9	102.0
1969	95.0	98.2	97.5	105.1	99.5	99.0	104.0
1970	93.5	90.0	88.8	101.3	90.9	90.1	99.0
1971	88.2	83.3	81.7	98.2	84.1	82.9	95.5
1972	87.2	84.6	83.1	98.3	83.5	82.3	95.5
1973	81.9	80.3	78.6	96.1	80.5	79.2	93.0
1974	75.5	75.3	73.0	97.2	76.8	75.0	94.0
1975	70.5	67.3	65.5	84.8	69.1	67.7	82.0
1976	73.1	69.3	67.6	85.1	70.9	69.7	82.0
1977	69.2	67.0	65.3	83.4	69.0	67.7	81.0
1978	69.4	65.5	64.1	78.3	68.2	67.3	76.0
1979 ¹	66.0	61.6	59.2	84.3	65.1	63.4	81.5
Average annual percent change:							
1947-79	-1.6	-1.7	-1.8	-9	-1.7	-1.8	-9
1974-79	-2.2	-3.1	-3.2	-2.7	-2.5	-2.5	-2.7

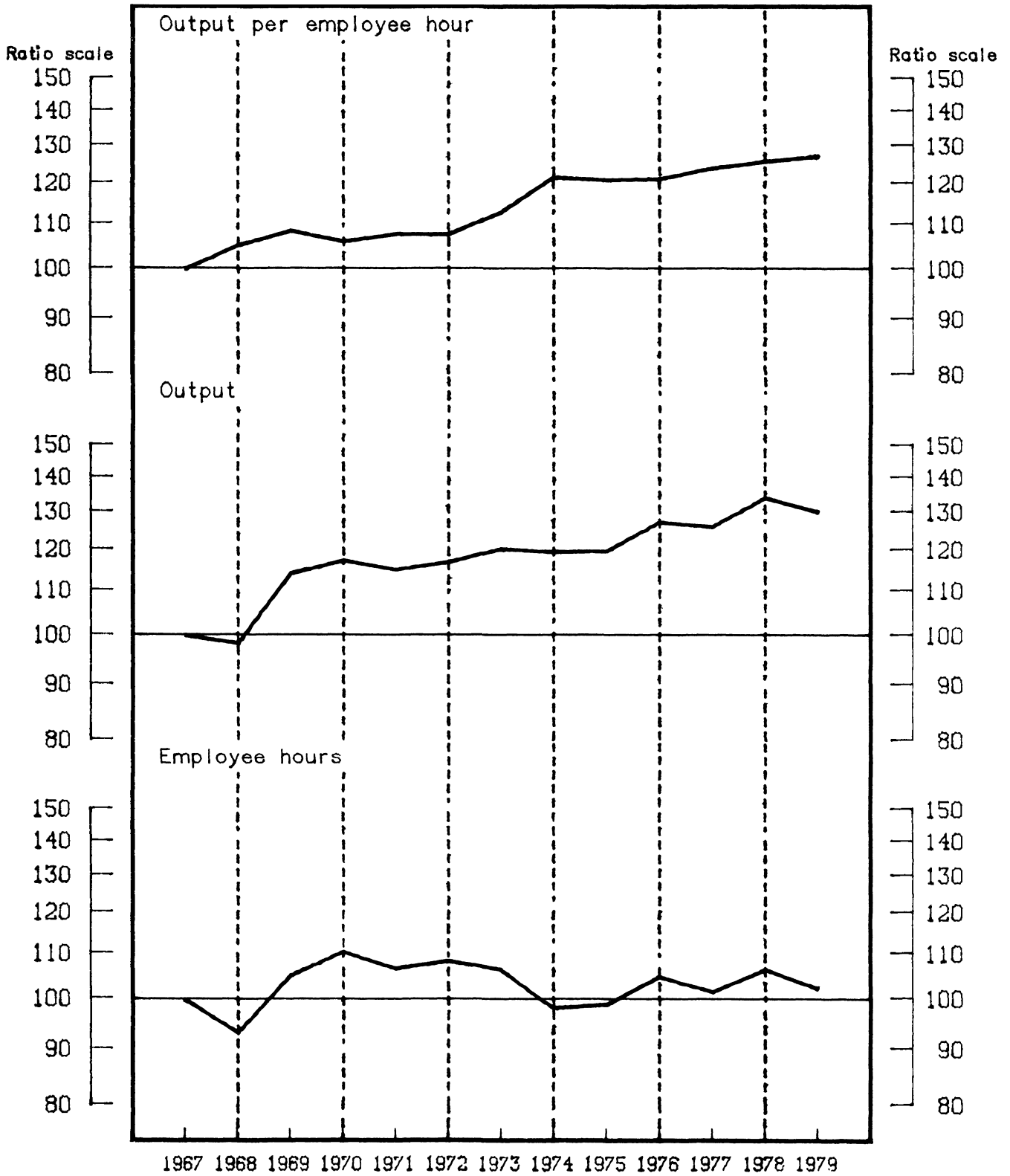
¹ Preliminary.

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

Chart 49. Glass containers (SIC 3221): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 95. Glass containers (SIC 3221): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	78.4	78.5	77.6	77.8	77.6	78.9
1955	81.6	81.2	84.4	81.9	81.4	85.3
1956	81.8	81.5	84.3	82.9	82.5	85.4
1957	81.5	81.4	82.5	81.7	81.5	83.5
1958	78.7	79.2	74.1	78.7	79.2	75.1
1959	83.6	83.8	81.8	82.3	82.3	82.7
1960	81.6	81.8	79.4	81.5	81.7	80.2
1961	83.2	83.1	82.9	82.3	82.2	83.4
1962	86.3	86.5	84.0	86.1	86.3	84.6
1963	89.4	89.3	89.2	89.1	89.0	89.8
1964	91.8	91.9	90.9	92.4	92.5	92.0
1965	97.6	97.7	95.9	96.7	96.7	96.6
1966	97.4	97.4	97.2	97.2	97.1	97.5
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.2	106.7	94.2	102.6	103.6	95.7
1969	108.5	109.5	99.9	106.4	106.7	104.1
1970	106.1	106.8	100.1	105.3	105.1	107.0
1971	107.8	109.3	96.1	106.4	107.0	101.2
1972	107.7	108.9	98.1	107.0	107.6	101.6
1973	112.9	114.5	100.9	109.8	110.8	102.1
1974	121.6	122.8	112.2	118.0	118.9	110.4
1975	120.9	122.5	108.3	114.1	115.1	106.6
1976	121.2	121.9	114.7	119.1	119.9	113.4
1977	124.0	125.3	113.1	118.9	119.9	110.9
1978	125.8	126.6	118.9	122.9	123.7	116.5
1979 ²	127.1	129.2	112.3	124.5	126.4	110.5
Average annual percent change:						
1947-79	1.9	2.0	1.3	1.8	1.8	1.2
1974-79	1.1	1.1	.8	1.4	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. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 96. Glass containers (SIC 3221): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	57.6	73.5	73.4	74.2	74.0	74.2	73.0
1955	62.7	76.8	77.2	74.3	76.6	77.0	73.5
1956	64.3	78.6	78.9	76.3	77.6	77.9	75.3
1957	66.4	81.5	81.6	80.5	81.3	81.5	79.5
1958	64.8	82.3	81.8	87.4	82.3	81.8	86.3
1959	69.4	83.0	82.8	84.8	84.3	84.3	83.9
1960	71.5	87.6	87.4	90.0	87.7	87.5	89.1
1961	74.2	89.2	89.3	89.5	90.2	90.3	89.0
1962	77.5	89.8	89.6	92.3	90.0	89.8	91.6
1963	80.1	89.6	89.7	89.8	89.9	90.0	89.2
1964	83.7	91.2	91.1	92.1	90.6	90.5	91.0
1965	89.2	91.4	91.3	93.0	92.2	92.2	92.3
1966	93.9	96.4	96.4	96.6	96.6	96.7	96.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	98.3	93.4	92.1	104.3	95.8	94.9	102.7
1969	114.1	105.2	104.2	114.2	107.2	106.9	109.6
1970	117.3	110.6	109.8	117.2	111.4	111.6	109.6
1971	115.1	106.8	105.3	119.8	108.2	107.6	113.7
1972	116.9	108.5	107.3	119.2	109.3	108.6	115.1
1973	120.3	106.6	105.1	119.2	109.6	108.6	117.8
1974	119.5	98.3	97.3	106.5	101.3	100.5	108.2
1975	119.7	99.0	97.7	110.5	104.9	104.0	112.3
1976	127.3	105.0	104.4	111.0	106.9	106.2	112.3
1977	126.1	101.7	100.6	111.5	106.1	105.2	113.7
1978	134.1	106.6	105.9	112.8	109.1	108.4	115.1
1979 ¹	130.2	102.4	100.8	115.9	104.6	103.0	117.8
Average annual percent change:							
1947-79	3.6	1.6	1.5	2.2	1.8	1.7	2.3
1974-79	2.2	1.1	1.1	1.4	.8	.7	1.5

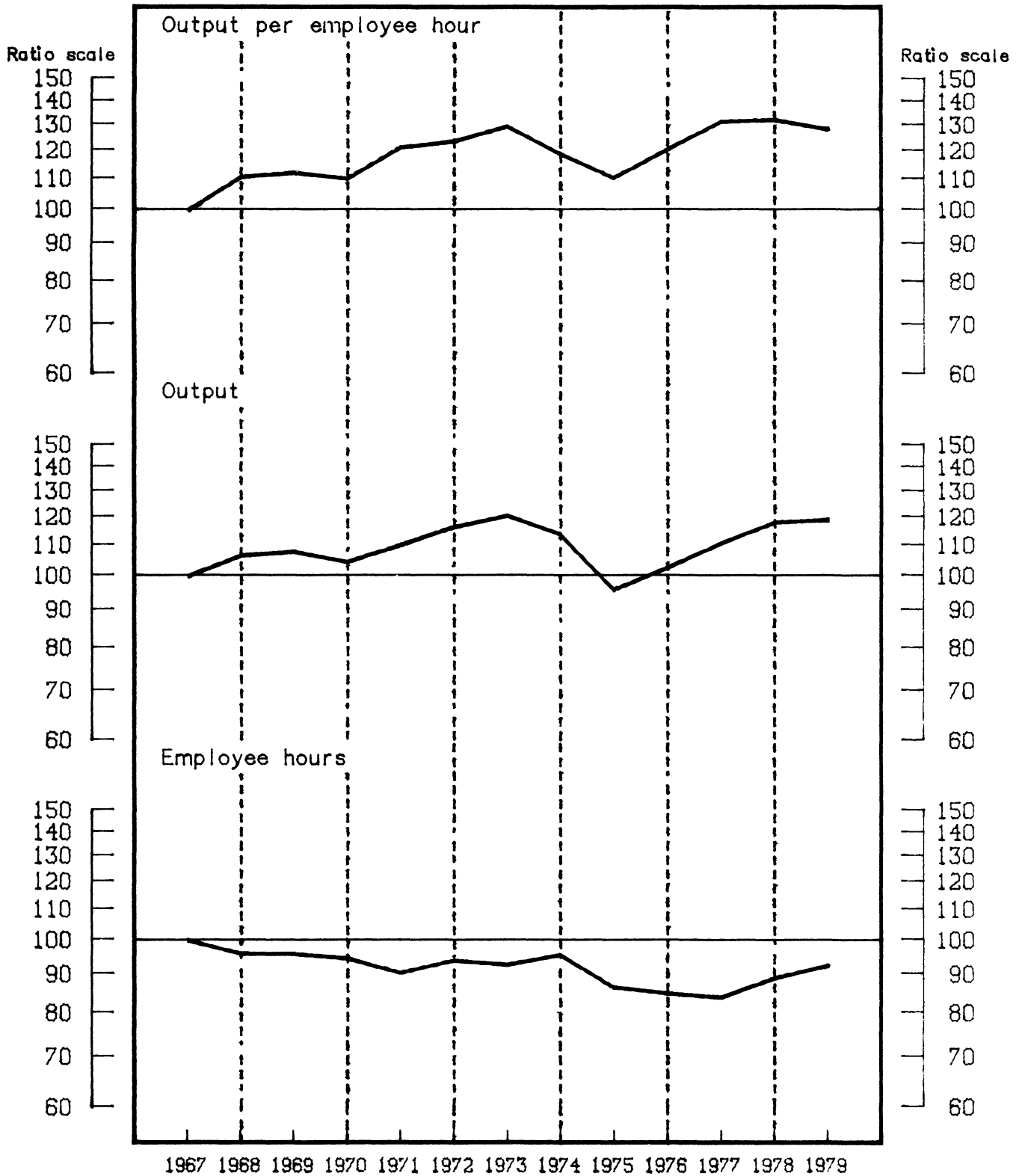
¹ Preliminary.

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

Chart 50. Hydraulic cement (SIC 3241): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 97. Hydraulic cement (SIC 3241): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	60.8	57.0	85.6	63.4	59.6	86.5
1955	64.2	59.9	94.9	67.2	62.8	95.2
1956	67.6	62.9	100.3	69.8	64.9	101.0
1957	65.6	61.6	92.4	64.9	60.5	92.9
1958	67.8	64.7	86.3	68.2	64.8	86.7
1959	72.7	68.7	98.1	74.2	70.1	98.4
1960	71.9	68.7	91.6	72.6	69.1	91.9
1961	79.6	76.4	96.9	79.4	76.1	96.8
1962	84.4	81.3	101.0	84.4	81.2	101.2
1963	89.4	87.3	100.2	89.9	87.9	100.3
1964	92.4	91.8	95.7	94.3	93.9	96.2
1965	95.2	94.7	97.7	95.7	95.1	97.8
1966	99.8	99.6	101.2	101.5	101.7	100.8
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	110.9	110.1	114.1	112.8	112.2	115.6
1969	112.3	111.8	114.4	115.5	114.8	119.0
1970	110.3	111.3	106.3	112.9	112.7	113.3
1971	121.5	121.9	120.1	124.7	124.4	125.8
1972	123.7	122.9	126.9	126.5	125.6	130.6
1973	129.7	129.2	132.6	132.3	132.1	133.0
1974	119.0	118.4	121.9	119.8	119.9	119.5
1975	110.6	111.6	106.4	109.0	110.2	104.0
1976	120.7	122.0	115.0	119.1	120.7	113.4
1977	131.6	132.1	130.1	130.7	131.8	126.5
1978	132.4	132.3	133.6	134.2	135.1	130.4
1979 ²	128.5	127.0	135.8	131.5	131.1	133.6
Average annual percent change:						
1947-79	3.8	4.1	1.9	3.6	4.0	1.9
1974-79	2.9	2.7	3.9	3.4	3.3	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 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 98. Hydraulic cement (SIC 3241): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	77.4	127.2	135.7	90.4	122.0	129.8	89.5
1955	84.1	130.9	140.5	88.6	125.1	134.0	88.3
1956	88.7	131.2	141.0	88.4	127.1	136.6	87.8
1957	82.7	126.1	134.3	89.5	127.5	136.8	89.0
1958	86.0	126.8	133.0	99.6	126.1	132.7	99.2
1959	93.7	128.8	136.3	95.5	126.2	133.7	95.2
1960	87.7	121.9	127.7	95.7	120.8	126.9	95.4
1961	88.6	111.3	115.9	91.4	111.6	116.5	91.5
1962	92.0	109.0	113.1	91.1	109.0	113.3	90.9
1963	96.2	107.6	110.2	96.0	107.0	109.5	95.9
1964	100.2	108.4	109.2	104.7	106.3	106.7	104.2
1965	101.3	106.4	107.0	103.7	105.9	106.5	103.6
1966	104.4	104.6	104.8	103.2	102.9	102.7	103.6
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.6	96.1	96.8	93.4	94.5	95.0	92.2
1969	107.8	96.0	96.4	94.2	93.3	93.9	90.6
1970	104.5	94.7	93.9	98.3	92.6	92.7	92.2
1971	110.1	90.6	90.3	91.7	88.3	88.5	87.5
1972	116.4	94.1	94.7	91.7	92.0	92.7	89.1
1973	120.5	92.9	93.3	90.9	91.1	91.2	90.6
1974	113.9	95.7	96.2	93.4	95.1	95.0	95.3
1975	95.9	86.7	85.9	90.1	88.0	87.0	92.2
1976	102.7	85.1	84.2	89.3	86.2	85.1	90.6
1977	110.7	84.1	83.8	85.1	84.7	84.0	87.5
1978	118.1	89.2	89.3	88.4	88.0	87.4	90.6
1979 ¹	119.0	92.6	93.7	87.6	90.5	90.8	89.1
Average annual percent change:							
1947-79	2.0	-1.7	-2.1	.1	-1.6	-1.9	.1
1974-79	2.7	-3	-1	-1.2	-8	-6	-1.2

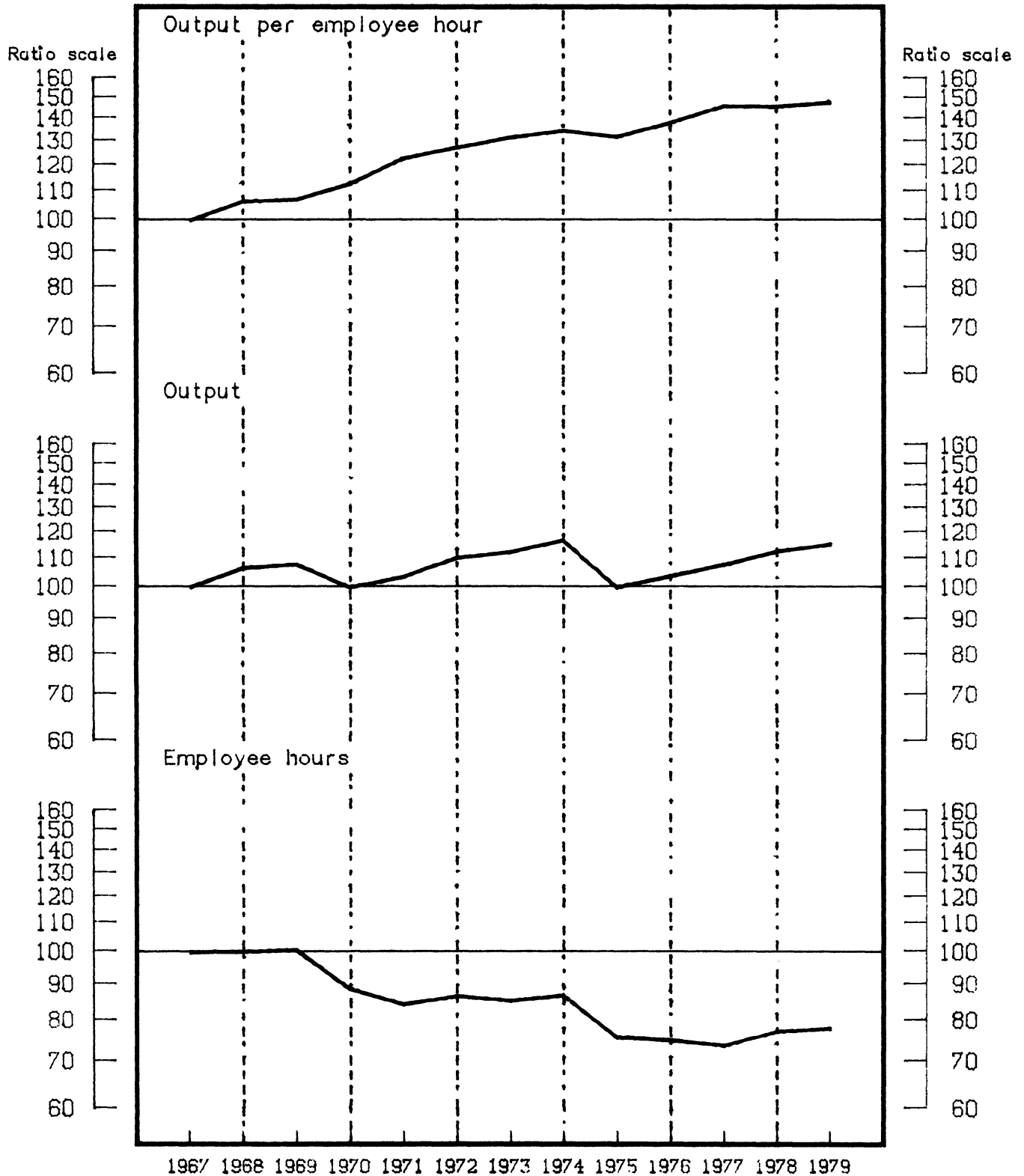
¹ Preliminary.

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 51. Structural clay products (SIC 325): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 99. Structural clay products (SIC 325): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	75.7	74.2	84.2	74.1	72.2	84.8
1959	81.2	79.0	95.1	80.6	78.0	95.8
1960	83.5	81.6	95.5	81.6	79.2	96.2
1961	86.5	84.2	100.5	84.4	81.7	100.5
1962	93.1	90.5	108.9	91.9	89.0	109.4
1963	89.5	87.8	99.3	89.9	88.1	99.6
1964	95.7	94.8	100.9	98.7	98.1	101.6
1965	97.4	95.9	106.8	98.3	96.7	106.9
1966	99.3	97.6	108.7	100.6	99.0	108.7
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.4	106.9	103.8	107.3	107.6	105.4
1969	107.2	108.1	102.6	108.7	109.1	106.7
1970	112.8	117.7	92.8	114.3	118.1	98.9
1971	122.8	128.4	100.4	124.5	129.4	105.5
1972	127.3	128.9	119.4	128.4	129.6	123.3
1973	131.7	130.9	135.8	131.7	130.6	137.5
1974	134.6	135.0	132.3	134.9	135.8	130.6
1975	132.0	136.5	113.1	129.2	133.6	111.7
1976	138.3	142.8	118.9	133.6	137.5	117.2
1977	146.1	148.8	134.5	144.2	147.1	131.8
1978	145.9	146.2	144.2	145.9	147.0	141.1
1979 ²	147.8	150.9	133.8	147.8	151.7	131.8
Average annual percent change:						
1958-79	3.3	3.5	1.8	3.3	3.6	1.8
1974-79	2.4	2.3	2.6	2.6	2.6	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 and the Bureau of Labor Statistics.

Table 100. Structural clay products (SIC 325): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	86.4	114.2	116.5	102.6	116.6	119.6	101.9
1959	101.4	124.8	128.4	106.6	125.8	130.0	105.8
1960	101.8	121.9	124.8	106.6	124.7	128.6	105.8
1961	101.5	117.4	120.6	101.0	120.2	124.2	101.0
1962	107.3	115.2	118.5	98.5	116.7	120.6	98.1
1963	96.7	108.0	110.1	97.4	107.6	109.8	97.1
1964	106.5	111.3	112.4	105.6	107.9	108.6	104.8
1965	108.9	111.8	113.6	102.0	110.8	112.6	101.9
1966	108.7	109.5	111.4	100.0	108.1	109.8	100.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.5	100.1	99.6	102.6	99.3	99.0	101.0
1969	107.8	100.6	99.7	105.1	99.2	98.8	101.0
1970	99.9	88.6	84.9	107.7	87.4	84.6	101.0
1971	103.5	84.3	80.6	103.1	83.1	80.0	98.1
1972	110.2	86.6	85.5	92.3	85.8	85.0	89.4
1973	112.3	85.3	85.8	82.7	85.3	86.0	81.7
1974	116.8	86.8	86.5	88.3	86.6	86.0	89.4
1975	99.9	75.7	73.2	88.3	77.3	74.8	89.4
1976	103.7	75.0	72.6	87.2	77.6	75.4	88.5
1977	107.7	73.7	72.4	80.1	74.7	73.2	81.7
1978	112.6	77.2	77.0	78.1	77.2	76.6	79.8
1979	115.3	78.0	76.4	86.2	78.0	76.0	87.5
Average annual percent change:							
1958-79	6	-2.6	-2.8	-1.2	-2.6	-2.9	-1.1
1974-79	1.0	-1.4	-1.3	-1.6	-1.6	-1.6	-1.5

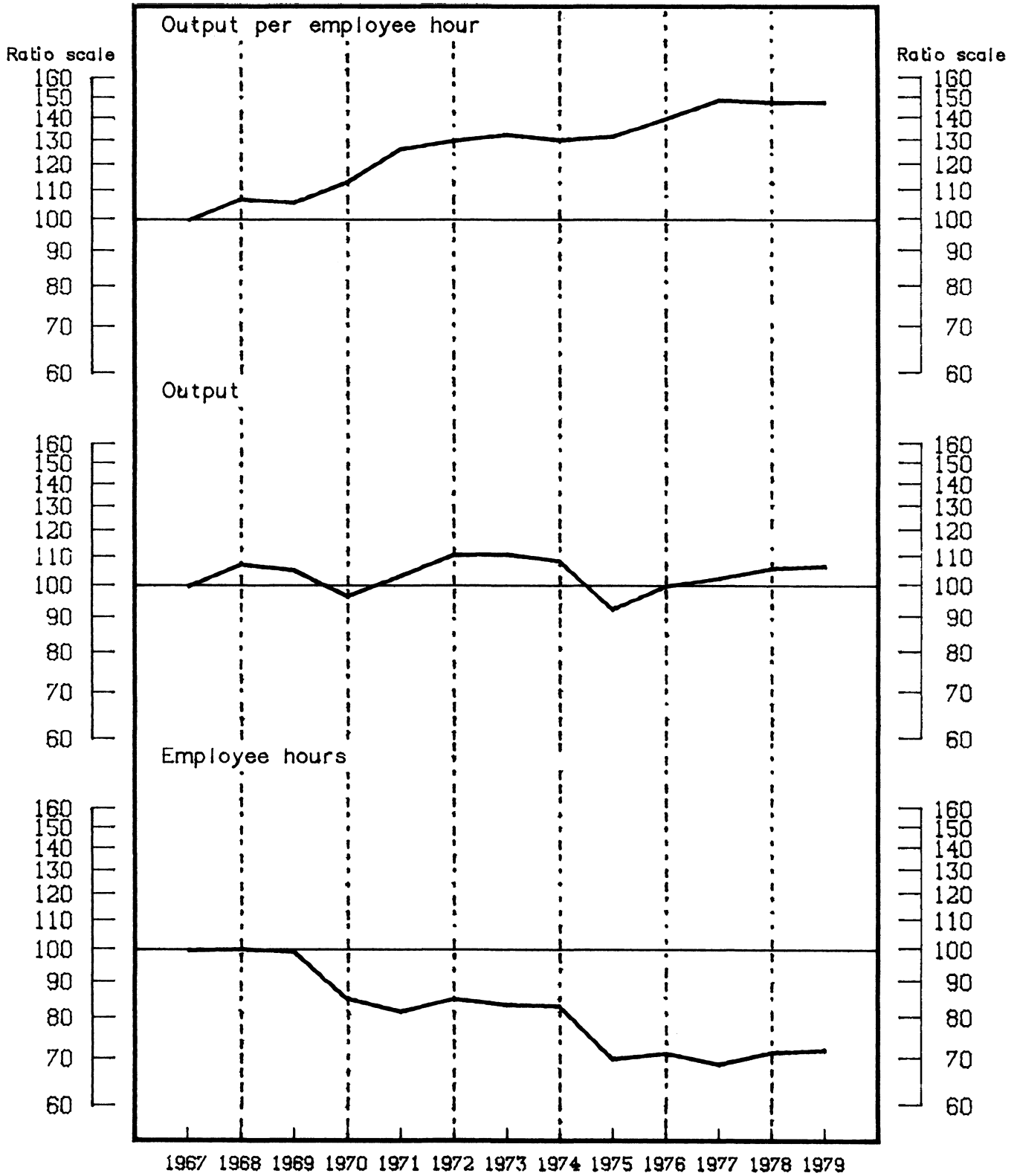
¹ Preliminary.

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

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

Chart 52. Clay construction products (SIC 3251, 3253, 3259): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 101. Clay construction products (SIC 3251, 3253, 3259): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	76.3	74.8	85.5	74.7	72.7	86.2
1959	81.5	80.0	90.4	81.3	79.6	91.1
1960	84.4	83.2	91.4	83.0	81.6	91.6
1961	86.6	85.1	96.6	85.2	83.3	96.6
1962	93.5	91.7	105.3	93.0	90.8	105.8
1963	89.3	88.0	97.5	89.3	87.8	97.7
1964	95.5	95.1	98.1	98.1	98.0	98.7
1965	97.7	96.6	104.1	97.8	96.6	104.5
1966	98.7	97.4	107.0	99.8	98.5	107.0
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	107.2	107.1	107.5	107.7	107.5	108.9
1969	106.0	106.5	104.1	107.5	107.4	108.2
1970	113.5	117.0	96.8	114.3	116.6	103.3
1971	126.7	130.3	109.5	128.2	131.3	115.2
1972	130.4	130.7	128.3	130.9	130.4	133.1
1973	133.0	132.2	138.1	131.6	130.1	139.5
1974	130.7	131.2	128.7	130.1	130.9	126.5
1975	132.2	135.7	116.0	129.7	133.0	114.4
1976	140.2	143.8	123.3	134.7	137.7	121.6
1977	149.2	151.4	138.0	145.4	147.5	135.4
1978	148.1	148.1	147.9	145.9	146.1	144.7
1979 ²	148.2	149.2	142.3	146.2	147.2	141.0
Average annual percent change:						
1958-79	3.3	3.5	2.3	3.2	3.4	2.2
1974-79	3.0	2.8	3.9	2.9	2.7	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 102. Clay construction products (SIC 3251, 3253, 3259): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	90.6	118.8	121.1	106.0	121.3	124.6	105.1
1959	106.1	130.2	132.6	117.4	130.5	133.3	116.5
1960	106.7	126.4	128.2	116.8	128.5	130.8	116.5
1961	106.4	122.8	125.1	110.1	124.9	127.8	110.1
1962	113.8	121.7	124.1	108.1	122.4	125.3	107.6
1963	100.1	112.1	113.8	102.7	112.1	114.0	102.5
1964	110.0	115.2	115.7	112.1	112.1	112.3	111.4
1965	111.1	113.7	115.0	106.7	113.6	115.0	106.3
1966	108.4	109.8	111.3	101.3	108.6	110.0	101.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	107.5	100.3	100.4	100.0	99.8	100.0	98.7
1969	105.5	99.5	99.1	101.3	98.1	98.2	97.5
1970	96.8	85.3	82.7	100.0	84.7	83.0	93.7
1971	103.6	81.8	79.5	94.6	80.8	78.9	89.9
1972	111.1	85.2	85.0	86.6	84.9	85.2	83.5
1973	111.2	83.6	84.1	80.5	84.5	85.5	79.7
1974	108.9	83.3	83.0	84.6	83.7	83.2	86.1
1975	92.7	70.1	68.3	79.9	71.5	69.7	81.0
1976	100.1	71.4	69.6	81.2	74.3	72.7	82.3
1977	102.8	68.9	67.9	74.5	70.7	69.7	75.9
1978	106.2	71.7	71.7	71.8	72.6	72.7	73.4
1979 ¹	107.0	72.2	71.7	75.2	73.2	72.7	75.9
Average annual percent change:							
1958-79	(²)	-3.2	-3.4	-2.2	-3.1	-3.3	-2.1
1974-79	1.0	-1.9	-1.7	-2.8	-1.9	-1.7	-2.8

¹ Preliminary.

² Less than .05 percent.

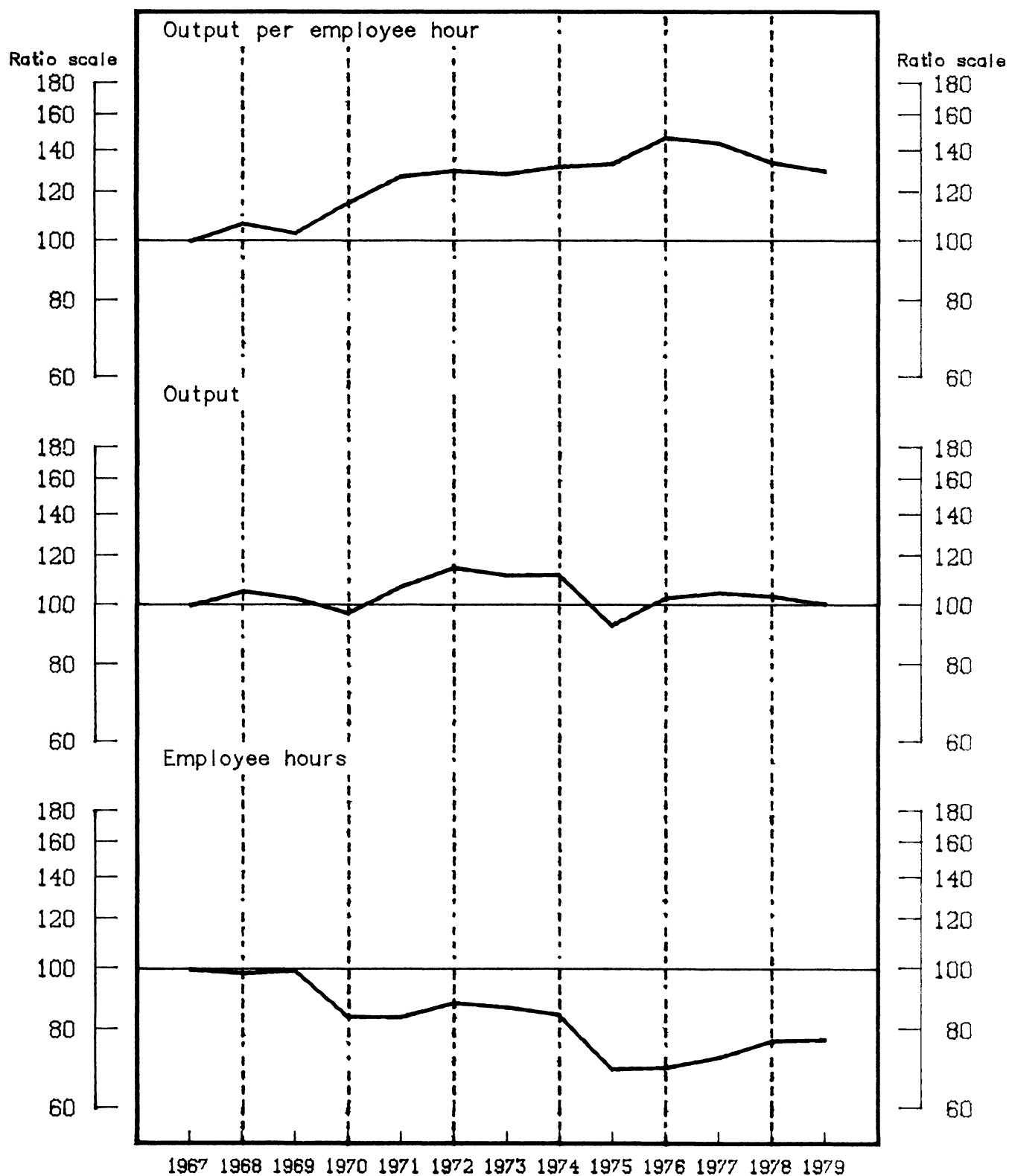
NOTE: Because of periodic revisions in source data, the measures in this table

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 53. Brick and structural clay tile (SIC 3251): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 103. Brick and structural clay tile (SIC 3251): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	78.8	77.2	90.3	78.8	76.9	91.3
1959	84.4	82.2	101.3	84.8	82.3	102.7
1960	89.4	88.3	96.7	87.6	86.1	97.4
1961	91.9	89.6	108.6	90.0	87.3	108.7
1962	98.3	96.0	115.2	98.1	95.6	115.3
1963	90.1	88.5	101.0	91.0	89.2	101.8
1964	97.7	96.6	105.1	100.3	99.3	106.5
1965	100.3	98.8	109.8	101.0	99.5	109.8
1966	101.5	99.7	113.4	103.5	101.8	113.3
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.8	106.8	106.8	106.6	106.4	108.0
1969	103.1	103.7	98.9	105.0	105.4	102.7
1970	115.4	118.5	99.7	114.8	116.1	107.4
1971	127.5	131.7	107.2	128.7	132.2	112.6
1972	130.2	130.8	126.5	131.5	131.5	130.8
1973	128.6	129.0	126.4	128.3	128.6	127.1
1974	132.3	133.1	128.5	131.8	132.8	127.4
1975	133.7	137.0	116.6	131.0	134.4	114.7
1976	147.2	152.7	121.3	140.0	144.5	120.1
1977	144.5	147.7	127.5	140.8	143.7	125.9
1978	134.4	135.2	130.0	132.0	132.7	127.9
1979 ²	130.0	130.6	126.2	128.6	129.5	124.2
Average annual percent change:						
1958-79	2.8	3.0	1.3	2.7	2.9	1.2
1974-79	-3	-5	.8	-3	-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, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 104. Brick and structural clay tile (SIC 3251): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	89.1	113.1	115.4	98.7	113.1	115.9	97.6
1959	105.2	124.6	128.0	103.8	124.0	127.9	102.4
1960	109.0	121.9	123.4	112.7	124.4	126.6	111.9
1961	111.3	121.1	124.2	102.5	123.6	127.5	102.4
1962	118.1	120.1	123.0	102.5	120.4	123.6	102.4
1963	94.6	105.0	106.9	93.7	104.0	106.0	92.9
1964	106.5	109.0	110.2	101.3	106.2	107.3	100.0
1965	109.8	109.5	111.1	100.0	108.7	110.3	100.0
1966	110.6	109.0	110.9	97.5	106.9	108.6	97.6
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.4	98.7	98.7	98.7	98.9	99.1	97.6
1969	102.7	99.6	99.0	103.8	97.8	97.4	100.0
1970	97.2	84.2	82.0	97.5	84.7	83.7	90.5
1971	107.2	84.1	81.4	100.0	83.3	81.1	95.2
1972	115.2	88.5	88.1	91.1	87.6	87.6	88.1
1973	112.0	87.1	86.8	88.6	87.3	87.1	88.1
1974	112.2	84.8	84.3	87.3	85.1	84.5	88.1
1975	92.9	69.5	67.8	79.7	70.9	69.1	81.0
1976	102.9	69.9	67.4	84.8	73.5	71.2	85.7
1977	104.9	72.6	71.0	82.3	74.5	73.0	83.3
1978	103.6	77.1	76.6	79.7	78.5	78.1	81.0
1979 ¹	100.6	77.4	77.0	79.7	78.2	77.7	81.0
Average annual percent change:							
1958-79	(²)	-2.7	-3.0	-1.3	-2.6	-2.9	-1.2
1974-79	-6	-3	-1	-1.4	-3	-1	-1.3

¹ Preliminary.

² Less than .05 percent.

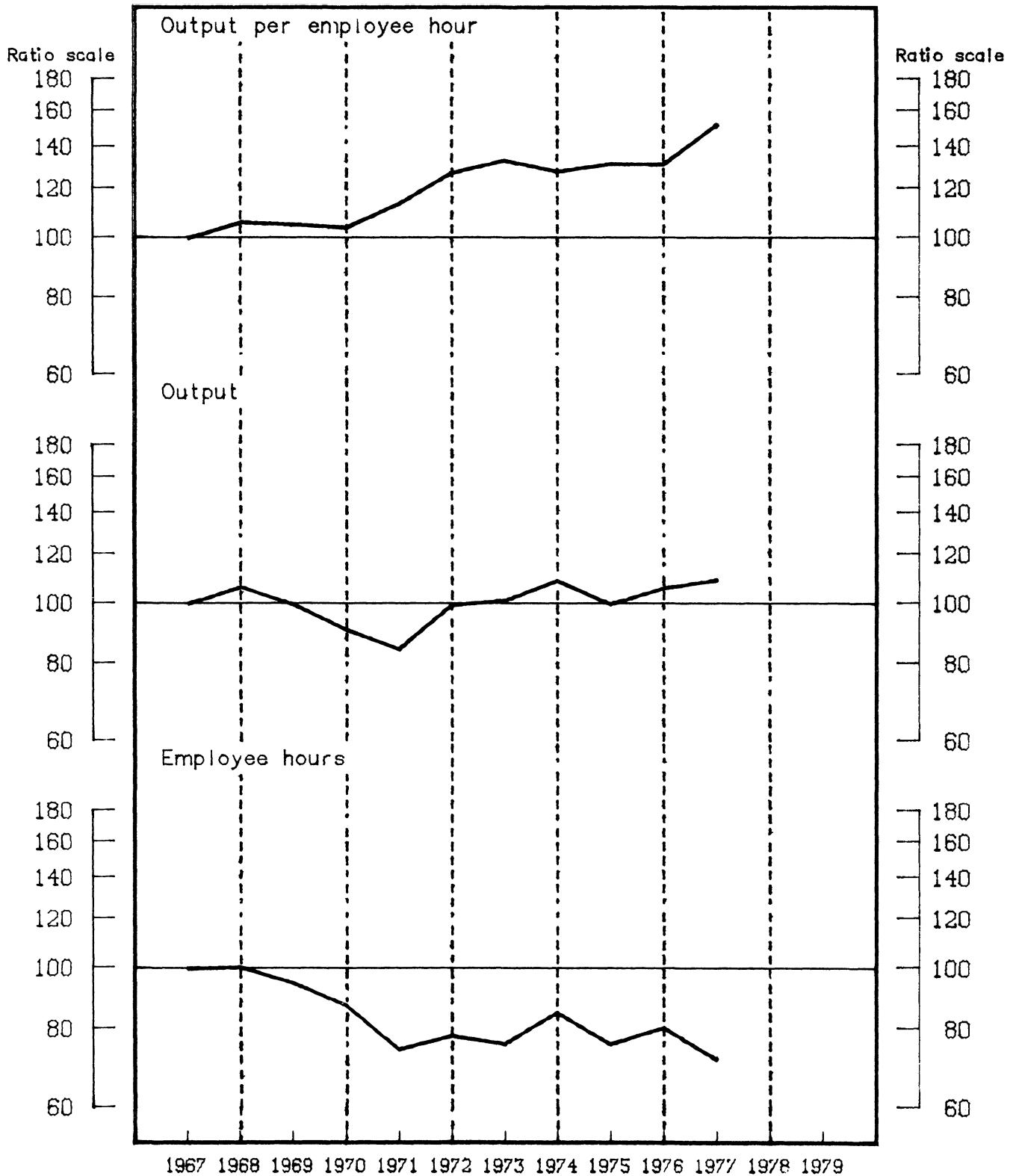
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

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

Chart 54. Ceramic wall and floor tile (SIC 3253): Output per hour and related data, 1967-77

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 105. Ceramic wall and floor tile (SIC 3253): Indexes of output per employee hour and output per employee, 1958-77
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	71.6	69.6	82.1	69.7	67.2	82.3
1959	77.8	76.8	82.2	77.2	76.2	81.5
1960	75.6	75.3	77.2	75.6	75.3	76.5
1961	80.5	81.4	76.3	78.6	79.5	75.5
1962	88.5	87.5	93.1	87.9	86.9	91.9
1963	86.8	85.9	91.1	84.9	83.7	89.7
1964	90.5	91.2	87.8	90.5	91.4	87.0
1965	92.5	91.6	96.7	91.5	90.7	95.2
1966	93.6	92.2	100.2	93.9	92.9	98.0
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.0	107.1	101.4	106.5	107.8	101.6
1969	105.2	105.8	102.4	104.7	104.7	104.8
1970	104.0	107.4	91.0	106.1	109.0	95.6
1971	113.6	113.7	112.8	113.6	112.4	118.5
1972	127.4	125.3	137.4	127.2	124.5	139.5
1973	133.5	130.2	150.1	130.9	126.6	151.9
1974	128.1	127.2	132.2	125.7	125.3	127.3
1975	131.8	134.4	121.2	127.7	130.7	116.7
1976	131.6	131.5	132.6	129.2	128.8	131.0
1977	149.9	148.8	154.6	147.0	146.0	151.5
Average annual percent change:						
1958-77	3.7	3.7	3.4	3.6	3.7	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.

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 106. Ceramic wall and floor tile (SIC 3253): Indexes of output, employee hours, and employees, 1958-77
(1967 = 100)

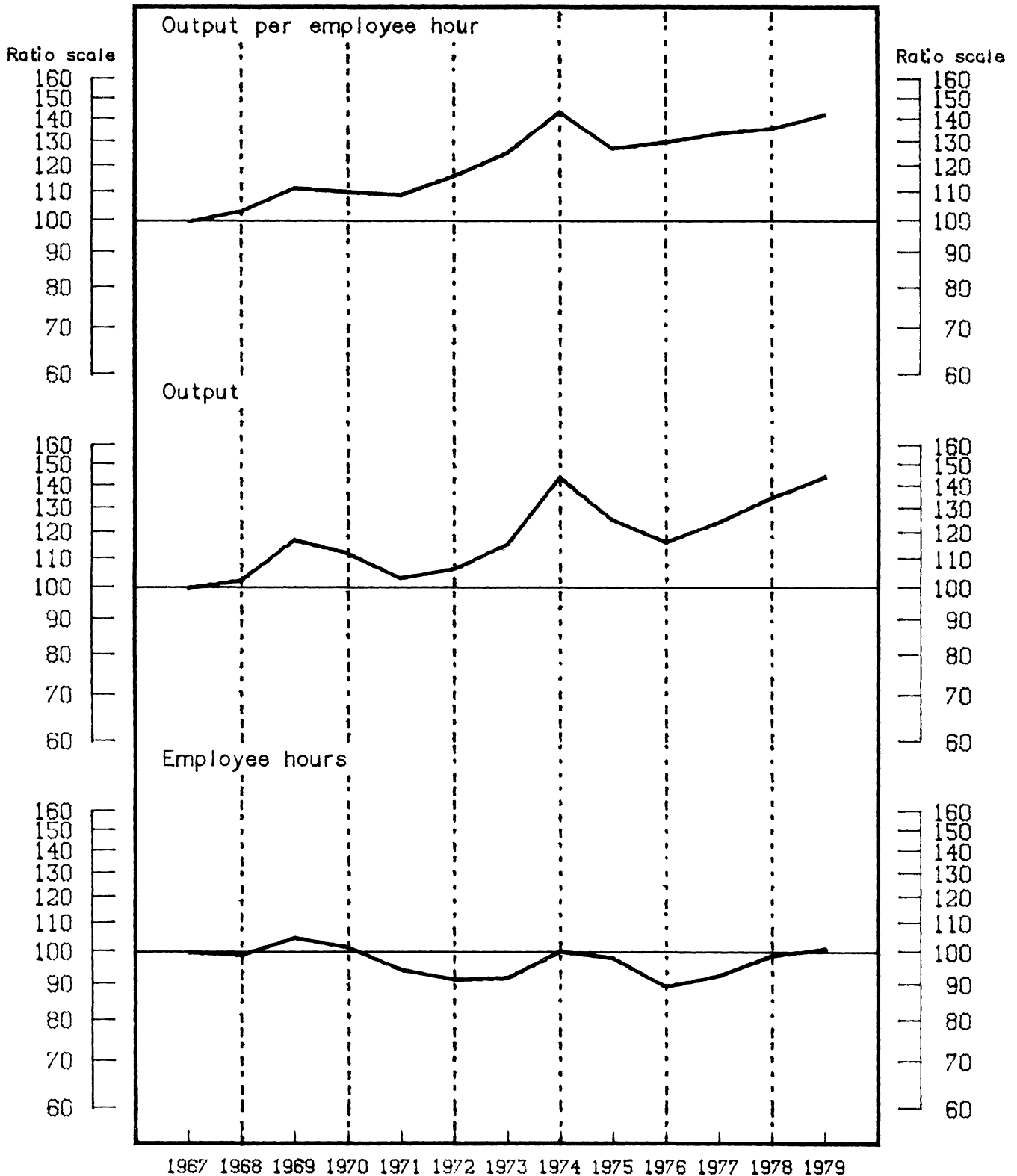
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	86.2	120.4	123.9	105.0	123.6	128.2	104.8
1959	104.8	134.7	136.4	127.5	135.8	137.6	128.6
1960	98.4	130.1	130.7	127.5	130.2	130.6	128.6
1961	93.5	116.2	114.8	122.5	118.9	117.6	123.8
1962	109.4	123.6	125.0	117.5	124.5	125.9	119.0
1963	102.5	118.1	119.3	112.5	120.8	122.4	114.3
1964	111.9	123.6	122.7	127.5	123.6	122.4	128.6
1965	108.8	117.6	118.8	112.5	118.9	120.0	114.3
1966	102.7	109.7	111.4	102.5	109.4	110.6	104.8
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.5	100.5	99.4	105.0	100.0	98.8	104.8
1969	99.8	94.9	94.3	97.5	95.3	95.3	95.2
1970	91.0	87.5	84.7	100.0	85.8	83.5	95.2
1971	84.6	74.5	74.4	75.0	74.5	75.3	71.4
1972	99.6	78.2	79.5	72.5	78.3	80.0	71.4
1973	101.3	75.9	77.8	67.5	77.4	80.0	66.7
1974	109.1	85.2	85.8	82.5	86.8	87.1	85.7
1975	100.0	75.9	74.4	82.5	78.3	76.5	85.7
1976	106.1	80.6	80.7	80.0	82.1	82.4	81.0
1977	108.2	72.2	72.7	70.0	73.6	74.1	71.4
Average annual percent change:							
1958-77 .....	.2	-3.3	-3.4	-3.1	-3.3	-3.4	-3.1

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 55. Clay refractories (SIC 3255): output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 107. Clay refractories (SIC 3255): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	72.3	71.8	74.4	70.7	69.6	75.7
1959	80.1	74.6	114.0	76.4	70.5	114.4
1960	79.7	74.3	113.4	74.3	68.4	113.9
1961	85.4	80.7	112.7	79.6	74.2	113.2
1962	91.1	86.1	119.2	85.3	79.6	119.4
1963	90.4	87.8	102.3	91.5	88.9	103.5
1964	96.9	94.4	108.6	100.3	98.2	110.0
1965	96.3	93.0	112.2	100.3	97.4	114.0
1966	101.8	98.9	115.3	103.8	101.3	114.9
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.5	106.5	92.9	105.2	108.1	95.1
1969	111.8	115.0	100.3	113.8	116.2	104.8
1970	110.4	119.1	85.1	115.1	123.3	90.6
1971	109.3	121.1	78.4	112.3	122.8	83.4
1972	116.4	123.2	94.5	119.9	126.6	98.7
1973	125.6	124.8	129.4	131.3	131.3	131.5
1974	143.9	143.1	147.6	148.1	149.0	144.5
1975	127.6	133.0	109.1	126.4	132.0	108.1
1976	130.3	136.5	109.6	128.8	135.4	108.0
1977	134.1	135.9	127.3	138.9	143.1	124.6
1978	136.3	135.9	138.1	144.3	146.8	135.2
1979 ²	142.7	150.0	119.2	150.6	162.3	116.6
Average annual percent change:						
1958-79	3.1	3.6	.9	3.5	4.1	.8
1974-79	.5	.9	-6	1.6	2.3	-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 108. Clay refractories (SIC 3255): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	69.6	96.2	96.9	93.6	98.4	100.0	92.0
1959	82.4	102.9	110.4	72.3	107.9	116.8	72.0
1960	82.0	102.9	110.4	72.3	110.3	119.8	72.0
1961	81.5	95.4	101.0	72.3	102.4	109.9	72.0
1962	81.2	89.1	94.3	68.1	95.2	102.0	68.0
1963	82.8	91.6	94.3	80.9	90.5	93.1	80.0
1964	92.4	95.4	97.9	85.1	92.1	94.1	84.0
1965	100.3	104.2	107.8	89.4	100.0	103.0	88.0
1966	110.3	108.4	111.5	95.7	106.3	108.9	96.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.7	99.2	96.4	110.6	97.6	95.0	108.0
1969	117.4	105.0	102.1	117.0	103.2	101.0	112.0
1970	112.3	101.7	94.3	131.9	97.6	91.1	124.0
1971	103.4	94.6	85.4	131.9	92.1	84.2	124.0
1972	106.6	91.6	86.5	112.8	88.9	84.2	108.0
1973	115.7	92.1	92.7	89.4	88.1	88.1	88.0
1974	144.5	100.4	101.0	97.9	97.6	97.0	100.0
1975	125.4	98.3	94.3	114.9	99.2	95.0	116.0
1976	116.6	89.5	85.4	106.4	90.5	86.1	108.0
1977	124.6	92.9	91.7	97.9	89.7	87.1	100.0
1978	135.2	99.2	99.5	97.9	93.7	92.1	100.0
1979 ¹	144.6	101.3	96.4	121.3	96.0	89.1	124.0
Average annual percent change:							
1958-79	3.0	-.1	-.6	2.0	-.5	-1.1	2.1
1974-79	.8	.3	(²)	1.5	-.7	-1.4	1.6

¹ Preliminary.

² Less than .05 percent.

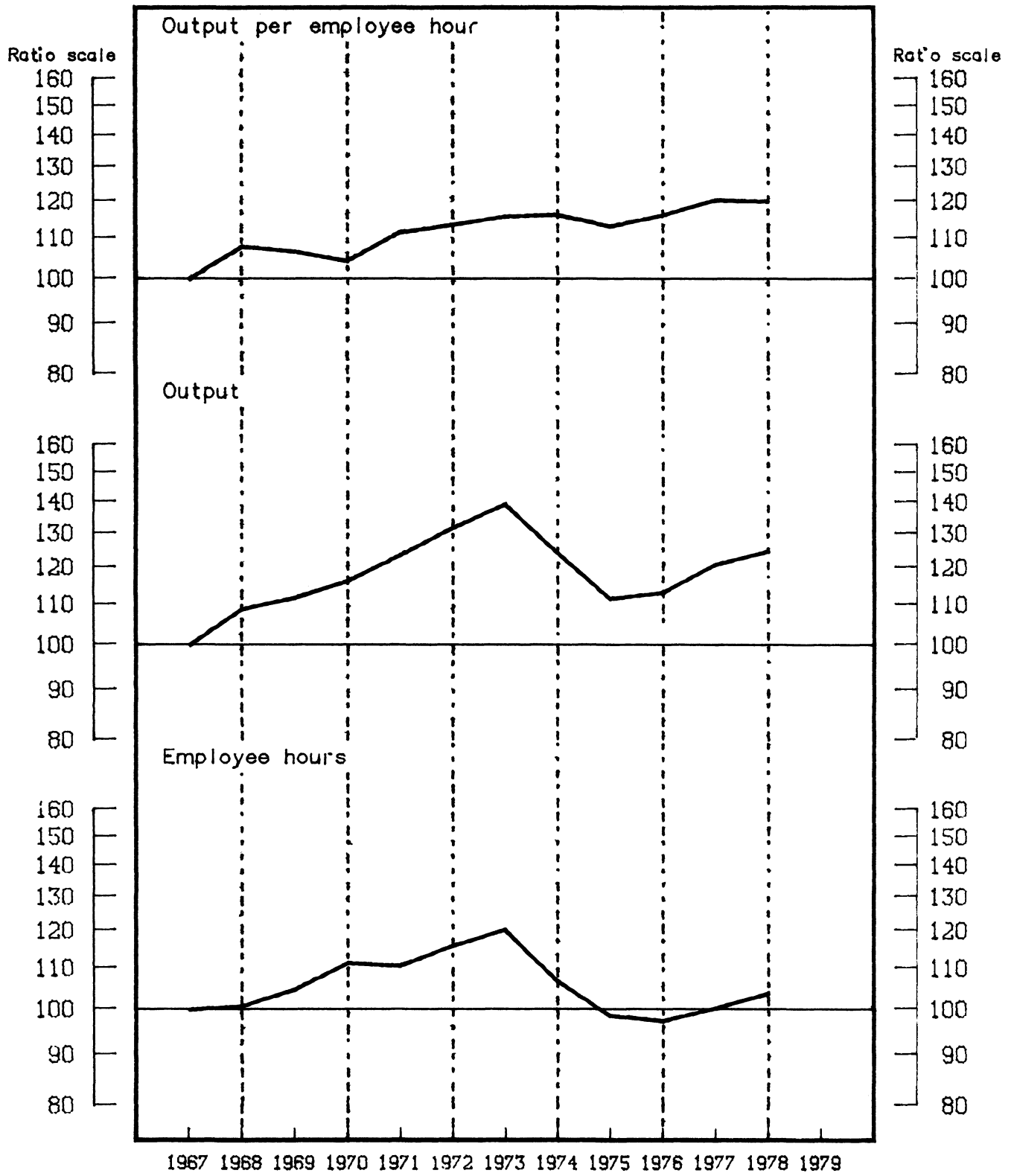
NOTE: Because of periodic revisions in source data, the measures in this table

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 56. Concrete products (SIC 3271, 3272): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 109. Concrete products (SIC 3271, 3272): Indexes of output per employee hour and output per employee, 1954-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	67.3	67.9	67.5	67.8	67.7	68.5
1955	71.3	71.3	73.8	71.3	70.4	74.4
1956	77.7	77.9	80.0	79.1	78.7	80.8
1957	76.1	77.1	75.1	76.6	76.8	75.9
1958	75.0	76.8	71.0	74.0	74.7	71.7
1959	76.2	75.5	82.0	77.8	76.4	82.7
1960	73.0	72.0	79.6	76.7	75.7	80.1
1961	74.5	73.9	79.3	78.4	78.1	79.6
1962	75.9	75.1	82.1	80.5	79.9	82.6
1963	82.2	83.5	80.5	84.4	85.7	80.9
1964	87.1	89.0	83.2	89.9	91.9	83.9
1965	90.5	92.1	88.0	91.8	92.8	88.4
1966	95.9	99.4	88.1	95.5	98.0	88.0
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	108.0	108.5	106.7	109.0	109.2	108.3
1969	106.8	107.8	103.3	109.5	110.0	107.7
1970	104.4	105.3	101.3	107.1	106.7	108.4
1971	111.7	113.9	103.9	111.4	111.9	109.6
1972	113.7	116.3	105.0	113.4	114.9	108.7
1973	115.9	118.4	107.3	116.0	118.4	108.6
1974	116.4	118.0	110.9	114.5	116.3	109.1
1975	113.3	118.6	97.3	109.4	114.3	95.6
1976	116.3	120.3	103.8	114.3	118.4	102.4
1977	120.5	124.5	107.8	117.2	121.2	105.7
1978 ²	120.1	124.2	107.0	115.8	119.4	104.9
Average annual percent change:						
1947-78	3.0	3.3	1.6	2.8	3.1	1.5
1974-78	1.3	1.5	.3	.9	1.1	.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 110. Concrete products (SIC 3271, 3272): Indexes of output, employee hours, and employees, 1954-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	52.6	78.1	77.5	77.9	77.6	77.7	76.8
1955	60.7	85.1	85.1	82.2	85.1	86.2	81.6
1956	71.1	91.5	91.3	88.9	89.9	90.4	88.0
1957	68.7	90.3	89.1	91.5	89.7	89.4	90.5
1958	65.6	87.5	85.4	92.4	88.6	87.8	91.5
1959	70.6	92.6	93.5	86.1	90.8	92.4	85.4
1960	71.4	97.8	99.1	89.7	93.1	94.3	89.1
1961	71.6	96.1	96.9	90.3	91.3	91.7	90.0
1962	74.0	97.5	98.6	90.1	91.9	92.6	89.6
1963	82.5	100.4	98.8	102.5	97.7	96.3	102.0
1964	89.9	103.2	101.0	108.1	100.0	97.8	107.1
1965	97.9	108.2	106.3	111.2	106.6	105.5	110.8
1966	104.2	108.6	104.8	118.3	109.1	106.3	118.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	108.9	100.8	100.4	102.1	99.9	99.7	100.6
1969	111.9	104.8	103.8	108.3	102.2	101.7	103.9
1970	116.3	111.4	110.4	114.8	108.6	109.0	107.3
1971	123.6	110.7	108.5	119.0	111.0	110.5	112.8
1972	131.8	115.9	113.3	125.5	116.2	114.7	121.2
1973	139.5	120.4	117.8	130.0	120.3	117.8	128.5
1974	124.4	106.9	105.4	112.2	108.6	107.0	114.0
1975	111.7	98.6	94.2	114.8	102.1	97.7	116.8
1976	113.3	97.4	94.2	109.2	99.1	95.7	110.6
1977	121.0	100.4	97.2	112.2	103.2	99.8	114.5
1978 ¹	124.8	103.9	100.5	116.6	107.8	104.5	119.0
Average annual percent change:							
1947-78	4.3	1.3	1.0	2.7	1.5	1.2	2.7
1974-78 .....	.9	-4	-6	.5	(²)	-3	.7

¹ Preliminary.

² Less than .05 percent.

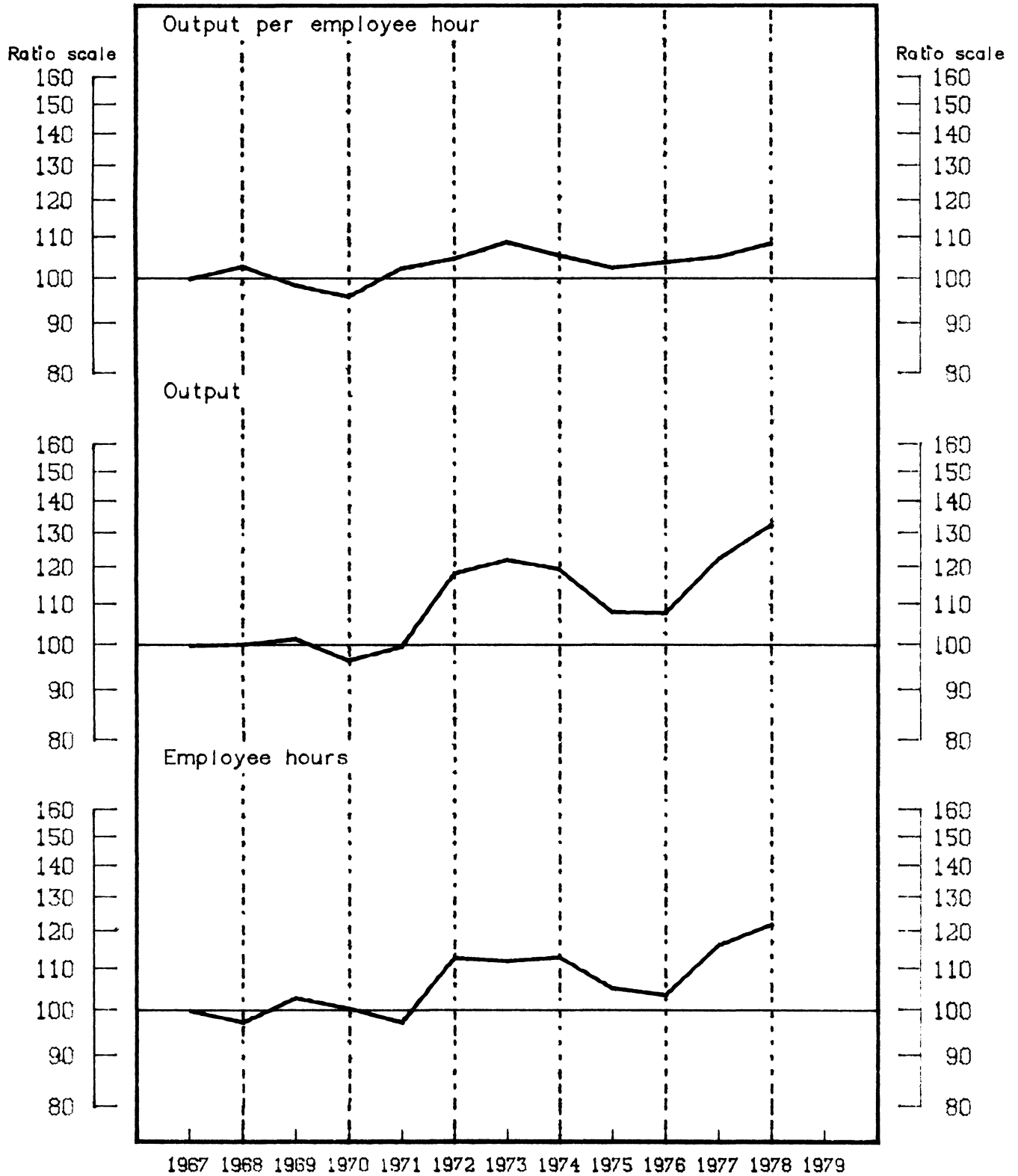
NOTE: Because of periodic revisions in source data, the measures in this table

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 57. Ready-mixed concrete (SIC 3273): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 111. Ready-mixed concrete (SIC 3273): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-78
(1967 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	81.6	79.6	66.4	81.4	83.4
1959	83.4	81.7	74.1	88.9	90.7
1960	82.0	83.0	72.2	88.0	87.0
1961	80.9	83.0	72.8	90.0	87.7
1962	83.0	83.8	75.0	90.4	89.5
1963	90.3	92.0	88.3	97.8	96.0
1964	90.8	92.4	89.6	98.7	97.0
1965	95.1	94.7	96.9	101.9	102.3
1966	95.6	95.0	96.1	100.5	101.2
1967	100.0	100.0	100.0	100.0	100.0
1968	103.0	102.2	100.3	97.4	98.1
1969	98.6	101.1	101.6	103.0	100.5
1970	96.0	94.2	96.6	100.6	102.6
1971	102.5	96.9	99.8	97.4	103.0
1972	104.8	103.0	118.4	113.0	115.0
1973	109.0	105.4	122.3	112.2	116.0
1974	105.7	102.2	119.6	113.2	117.0
1975	102.7	96.9	108.2	105.4	111.7
1976	104.0	98.4	108.0	103.8	109.8
1977	105.3	104.0	122.7	116.5	118.0
1978 ¹	108.7	106.9	132.8	122.2	124.2
Average annual percent change:					
1958-78	1.5	1.3	3.0	1.5	1.7
1974-78 .....	.8	1.6	3.4	2.6	1.8

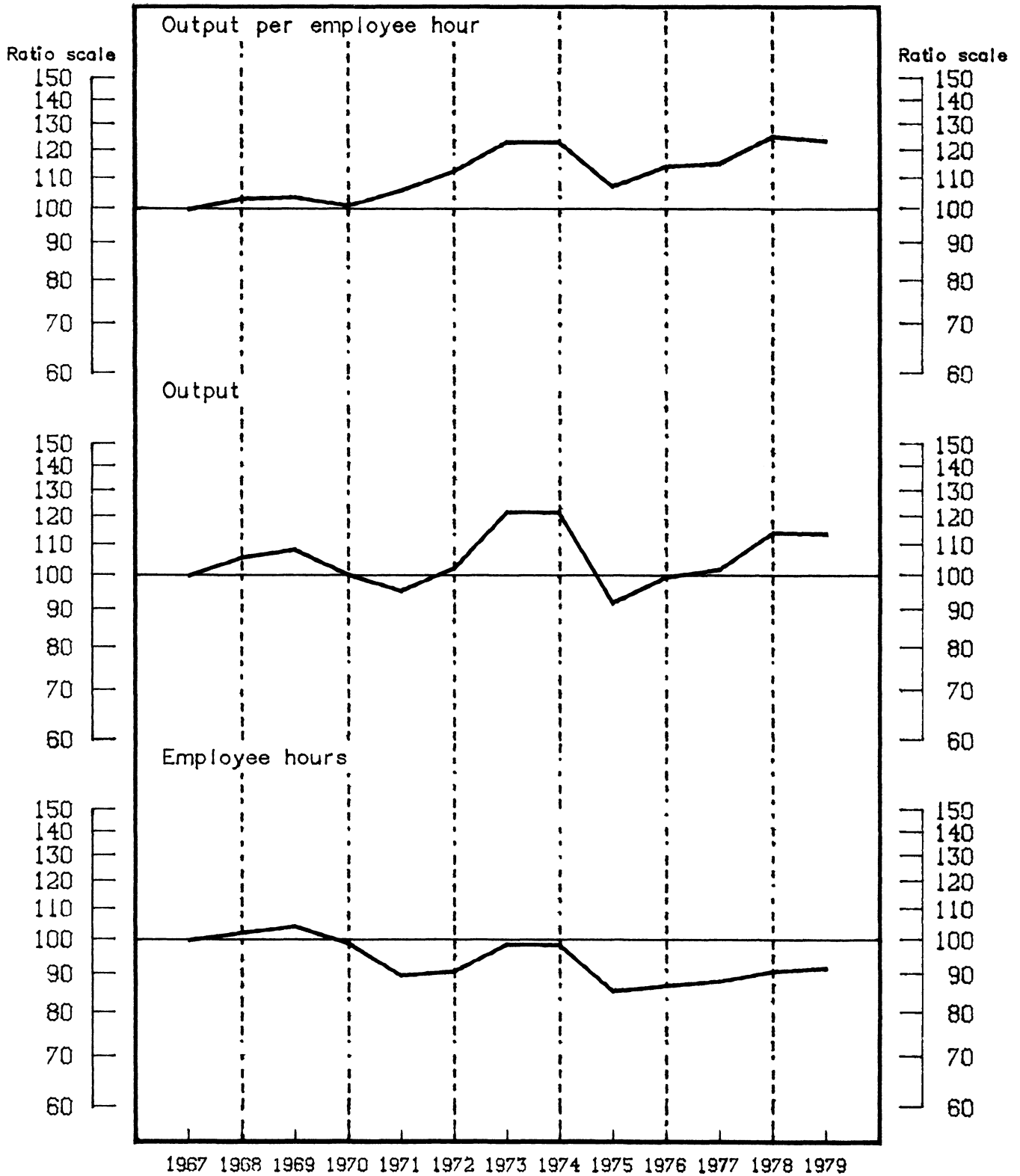
¹ Preliminary.

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

SOURCE: Output 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 58. Steel (SIC 331): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 112. Steel (SIC 331): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	77.2	74.1	93.7	73.4	69.6	94.3
1955	87.8	82.4	120.0	88.5	82.9	120.7
1956	86.4	82.3	108.8	87.1	82.8	109.4
1957	84.3	81.6	97.3	82.4	79.3	98.0
1958	77.9	78.4	76.0	73.8	73.1	76.5
1959	87.5	87.7	86.7	87.4	87.4	87.3
1960	82.3	82.3	82.4	79.0	78.0	82.7
1961	84.9	85.4	83.0	82.7	82.5	83.2
1962	89.2	89.6	87.9	87.4	87.2	87.9
1963	93.2	92.1	98.1	93.2	91.9	98.1
1964	97.2	94.8	108.6	99.2	97.0	108.6
1965	101.1	98.7	112.9	103.3	101.0	112.9
1966	103.2	101.3	111.6	104.8	103.1	111.6
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.5	104.7	98.8	105.8	106.5	102.6
1969	104.0	104.8	100.8	107.0	107.6	104.7
1970	101.3	102.9	95.3	101.7	102.3	99.1
1971	106.2	108.8	96.9	105.8	107.1	100.6
1972	112.7	114.2	106.9	114.4	115.3	111.1
1973	123.5	123.5	123.4	128.0	128.2	127.9
1974	123.5	124.0	121.6	126.9	127.4	125.3
1975	107.6	111.8	93.6	106.8	109.8	96.5
1976	114.5	117.8	102.3	115.3	118.0	105.4
1977	115.6	119.6	102.3	117.0	120.3	105.5
1978	125.7	127.8	117.5	129.7	131.9	121.1
1979 ²	124.0	125.8	116.8	127.2	129.0	120.5
Average annual percent change:						
1947-79	1.8	2.1	.1	1.9	2.3	.2
1974-79	1.4	1.4	1.4	1.8	1.8	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 American Iron and Steel Institute, and the Energy Information Administration, U.S. Department of Energy. Employment and hours based on data from the Bureau of Labor Statistics.

Table 113. Steel (SIC 331): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	74.6	96.6	100.7	79.6	101.6	107.2	79.1
1955	98.4	112.1	119.4	82.0	111.2	118.7	81.5
1956	96.8	112.0	117.6	89.0	111.2	116.9	88.5
1957	93.4	110.8	114.5	96.0	113.3	117.8	95.3
1958	69.8	89.6	89.0	91.8	94.6	95.5	91.2
1959	80.8	92.3	92.1	93.2	92.4	92.5	92.6
1960	81.0	98.4	98.4	98.3	102.5	103.8	97.9
1961	77.5	91.3	90.8	93.4	93.7	93.9	93.2
1962	81.5	91.4	91.0	92.7	93.7	93.5	92.7
1963	86.5	92.8	93.9	88.2	92.8	94.1	88.2
1964	98.2	101.0	103.6	90.4	99.0	101.2	90.4
1965	106.8	105.6	108.2	94.6	103.4	105.7	94.6
1966	107.5	104.2	106.1	96.3	102.6	104.3	96.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.9	102.3	101.1	107.2	100.1	99.4	103.2
1969	108.5	104.3	103.5	107.6	101.4	100.8	103.6
1970	100.4	99.1	97.6	105.3	98.7	98.1	101.3
1971	95.5	89.9	87.8	98.6	90.3	89.2	94.9
1972	102.4	90.9	89.7	95.8	89.5	88.8	92.2
1973	121.9	98.7	98.7	98.8	95.2	95.1	95.3
1974	121.8	98.6	98.2	100.2	96.0	95.6	97.2
1975	92.2	85.7	82.5	98.5	86.3	84.0	95.5
1976	99.7	87.1	84.6	97.5	86.5	84.5	94.6
1977	102.1	88.3	85.4	99.8	87.3	84.9	96.8
1978	114.4	91.0	89.5	97.4	88.2	86.7	94.5
1979 ¹	114.0	91.9	90.6	97.6	89.6	88.4	94.6
Average annual percent change:							
1947-79	1.3	-5	-8	1.2	-6	-9	1.1
1974-79	1.0	-5	-4	-4	-8	-8	-4

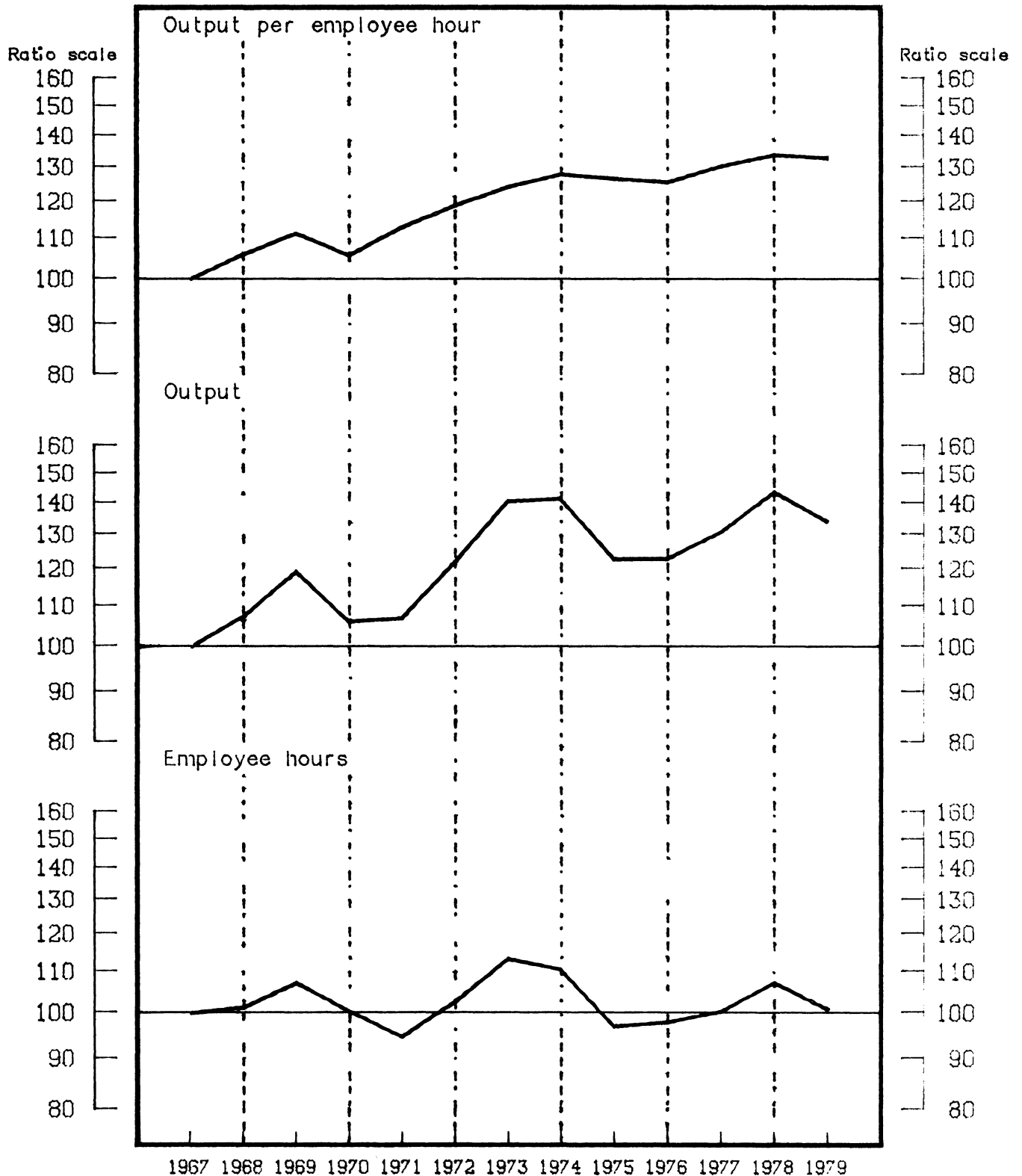
¹ Preliminary.

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 American Iron and Steel Institute, and the Energy Information Administration, U.S. Department of Energy. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 59. Gray iron foundries (SIC 3321): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 114. Gray iron foundries (SIC 3321): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	78.2	77.2	87.2	75.5	73.9	87.7
1955	84.3	82.3	101.7	86.0	84.1	101.8
1956	83.8	82.6	92.2	83.3	81.9	92.6
1957	81.3	81.3	81.6	77.4	76.7	81.9
1958	84.3	86.4	72.9	77.8	78.6	73.1
1959	87.1	87.2	87.2	85.6	85.4	87.3
1960	86.6	87.9	78.5	82.2	82.7	78.8
1961	88.7	90.4	79.0	83.3	84.0	79.1
1962	92.2	92.8	88.4	90.4	90.6	89.0
1963	94.1	94.1	95.0	95.3	95.2	95.5
1964	100.1	99.0	108.1	105.1	104.7	109.2
1965	104.9	103.9	113.4	111.1	110.5	114.1
1966	105.6	104.7	112.8	110.0	109.6	113.0
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.1	106.2	105.1	109.0	109.1	108.7
1969	111.4	111.3	112.0	114.5	114.4	115.1
1970	105.8	107.4	95.8	103.9	104.8	98.3
1971	113.0	115.4	99.1	111.3	113.1	101.6
1972	118.9	120.3	110.0	121.6	123.2	112.3
1973	124.2	125.2	117.8	127.4	128.4	121.3
1974	128.0	129.7	117.4	128.7	129.9	121.4
1975	126.7	130.9	103.4	122.9	125.8	106.9
1976	125.6	129.7	103.0	124.7	128.1	107.0
1977	130.4	134.4	108.1	130.1	133.7	111.3
1978	134.0	138.0	111.6	133.0	136.4	114.9
1979 ²	133.0	138.5	104.6	127.6	131.2	108.1
Average annual percent change:						
1954-79	2.3	2.4	1.2	2.4	2.5	1.4
1974-79	1.1	1.5	-.9	.7	1.0	-.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 115. Gray iron foundries (SIC 3321): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	73.3	93.7	95.0	84.1	97.1	99.2	83.6
1955	90.2	107.0	109.6	88.7	104.9	107.3	88.6
1956	86.1	102.8	104.2	93.4	103.4	105.1	93.0
1957	76.3	93.8	93.8	93.5	98.6	99.5	93.2
1958	63.5	75.3	73.5	87.1	81.6	80.8	86.9
1959	78.1	89.7	89.6	89.6	91.2	91.5	89.5
1960	72.4	83.6	82.4	92.2	88.1	87.5	91.9
1961	68.6	77.3	75.9	86.8	82.4	81.7	86.7
1962	78.1	84.7	84.2	88.3	86.4	86.2	87.8
1963	83.2	88.4	88.4	87.6	87.3	87.4	87.1
1964	96.3	96.2	97.3	89.1	91.6	92.0	88.2
1965	108.5	103.4	104.4	95.7	97.7	98.2	95.1
1966	112.2	106.3	107.2	99.5	102.0	102.4	99.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	107.5	101.3	101.2	102.3	98.6	98.5	98.9
1969	119.4	107.2	107.3	106.6	104.3	104.4	103.7
1970	106.2	100.4	98.9	110.9	102.2	101.3	108.0
1971	107.0	94.7	92.7	108.0	96.1	94.6	105.3
1972	122.0	102.6	101.4	110.9	100.3	99.0	108.6
1973	140.7	113.3	112.4	119.4	110.4	109.6	116.0
1974	141.6	110.6	109.2	120.6	110.0	109.0	116.6
1975	122.9	97.0	93.9	118.9	100.0	97.7	115.0
1976	123.0	97.9	94.8	119.4	98.6	96.0	115.0
1977	130.9	100.4	97.4	121.1	100.6	97.9	117.6
1978	143.8	107.3	104.2	128.9	108.1	105.4	125.1
1979 ¹	134.2	100.9	96.9	128.3	105.2	102.3	124.1
Average annual percent change:							
1954-79	2.9	.7	.5	1.7	.6	.4	1.6
1974-79	.8	-.4	-.7	1.6	.1	-.2	1.7

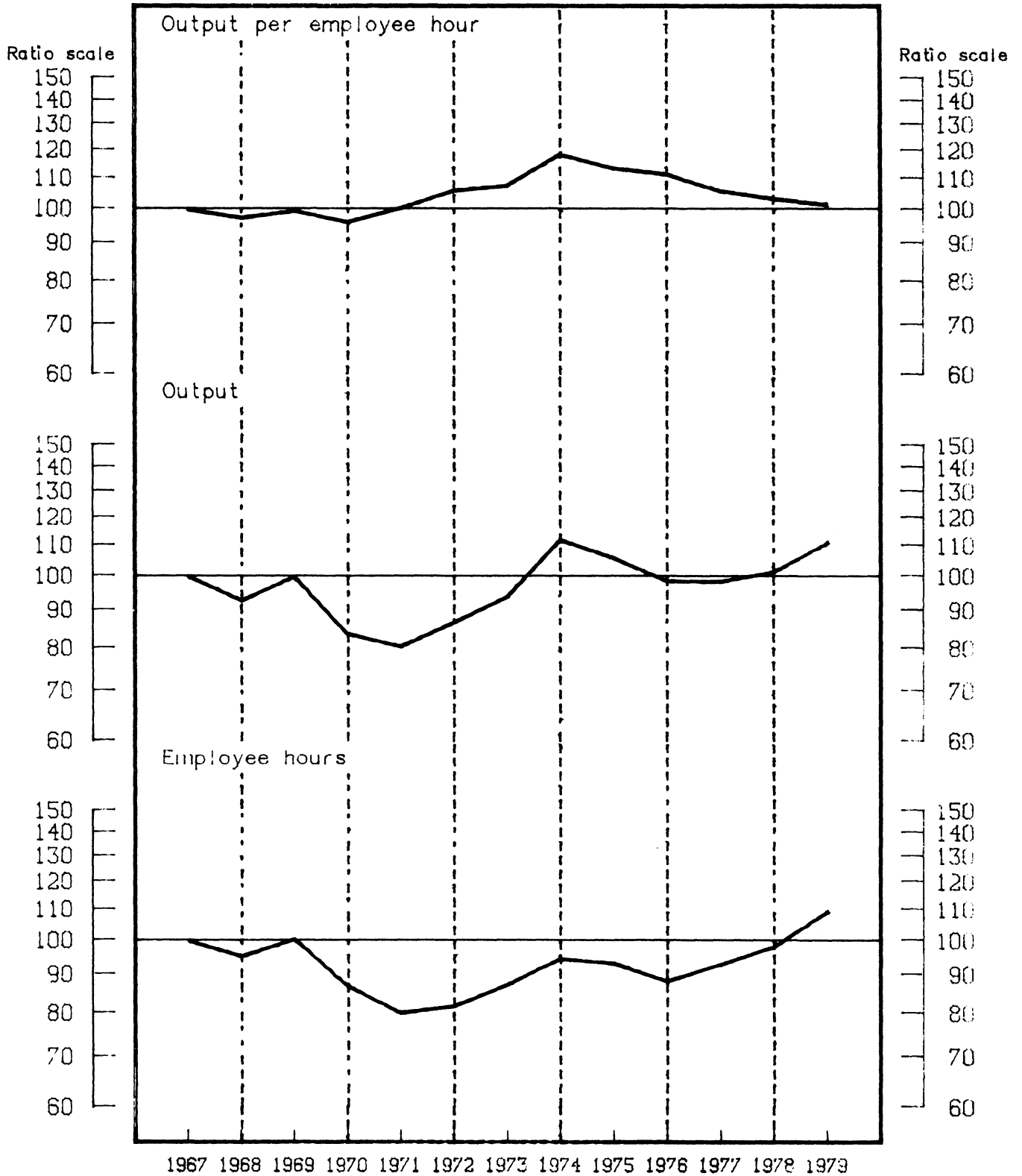
¹ Preliminary.

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 and the Bureau of Labor Statistics.

Chart 60. Steel foundries (SIC 3324, 3325): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 116. Steel foundries (SIC 3324, 3325): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	78.2	79.4	71.4	73.3	73.5	71.8
1955	85.9	84.9	91.3	85.9	84.7	91.4
1956	90.8	88.2	107.8	92.6	90.0	108.2
1957	88.8	87.8	94.8	87.5	86.1	95.1
1958	81.0	83.7	68.6	75.1	76.5	68.7
1959	87.1	86.6	90.3	84.5	83.4	90.2
1960	86.3	87.1	82.3	83.1	83.2	82.4
1961	87.3	88.7	80.4	83.6	84.2	80.4
1962	91.6	91.8	91.5	90.1	89.8	91.9
1963	97.5	97.2	99.5	96.3	95.6	99.9
1964	97.9	95.9	109.5	100.0	98.1	110.5
1965	100.5	98.4	113.0	103.7	101.9	113.5
1966	102.1	100.1	114.4	106.5	104.9	114.4
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	97.5	99.4	88.4	96.6	97.7	91.3
1969	99.5	100.3	95.1	99.9	100.3	97.5
1970	96.2	97.9	87.9	94.9	96.0	90.0
1971	100.4	104.7	82.1	98.3	101.6	84.1
1972	106.0	109.3	91.2	103.7	106.1	93.2
1973	107.6	109.7	97.3	107.2	108.7	100.0
1974	118.5	119.9	111.8	116.8	117.1	115.1
1975	113.6	116.4	100.7	112.6	114.6	104.2
1976	111.5	116.5	90.5	108.8	112.4	93.7
1977	105.9	110.8	85.7	104.3	108.5	87.9
1978	103.4	107.0	87.6	101.4	104.0	89.9
1979 ²	101.6	104.3	89.1	100.0	101.7	92.0
Average annual percent change:						
1954-79	1.2	1.4	.3	1.2	1.4	.5
1974-79	-3.1	-2.8	-4.5	-3.2	-2.9	-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 117. Steel foundries (SIC 3324, 3325): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

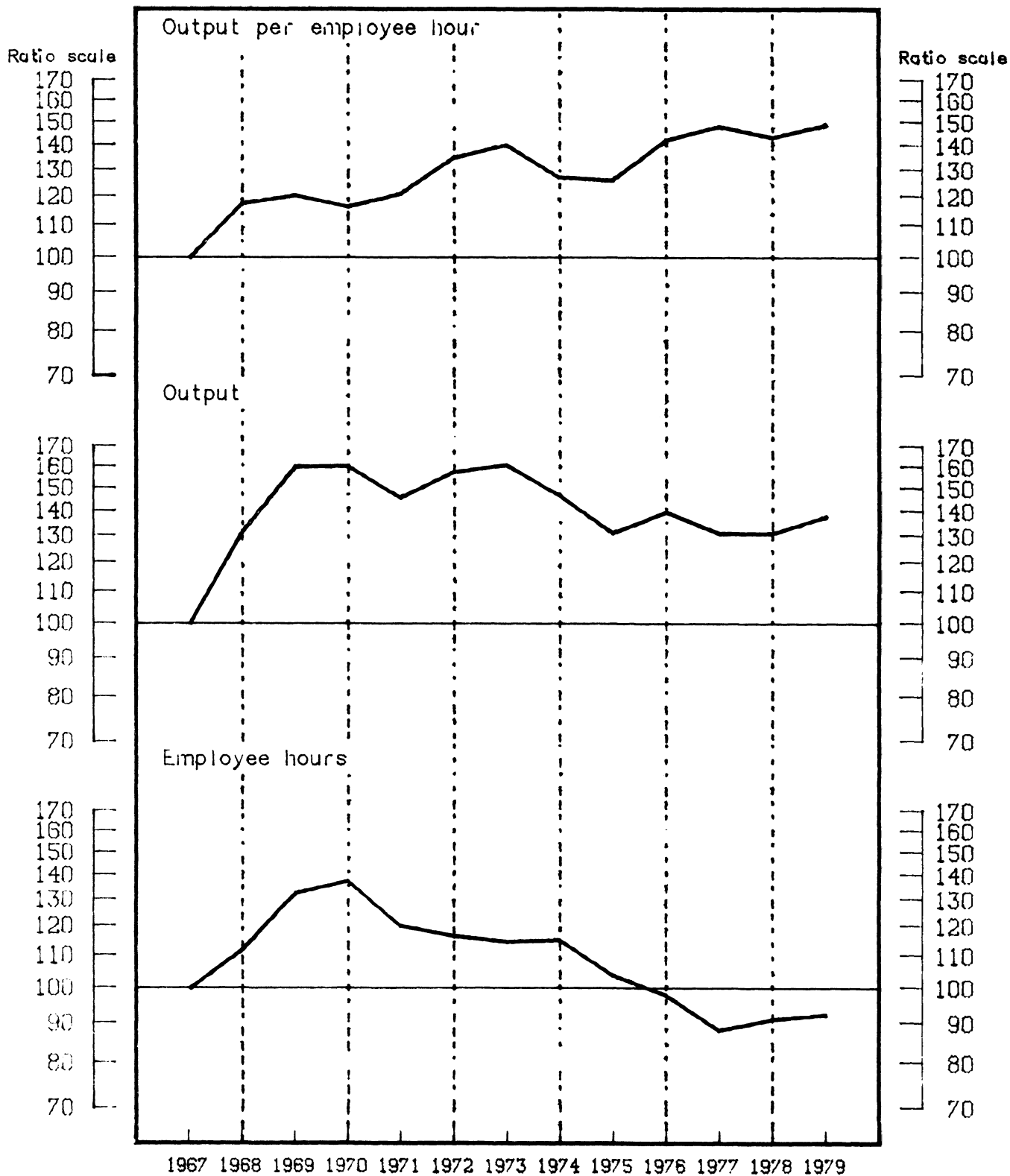
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	58.3	74.6	73.4	81.6	79.5	79.3	81.2
1955	74.7	87.0	88.0	81.8	87.0	88.2	81.7
1956	94.2	103.8	106.8	87.4	101.7	104.7	87.1
1957	85.3	96.1	97.2	90.0	97.5	99.1	89.7
1958	53.3	65.8	63.7	77.7	71.0	69.7	77.6
1959	66.0	75.8	76.2	73.1	78.1	79.1	73.2
1960	61.0	70.7	70.0	74.1	73.4	73.3	74.0
1961	56.5	64.7	63.7	70.3	67.6	67.1	70.3
1962	65.8	71.8	71.7	71.9	73.0	73.3	71.6
1963	79.1	81.1	81.4	79.5	82.1	82.7	79.2
1964	89.6	91.5	93.4	81.8	89.6	91.3	81.1
1965	98.2	97.7	99.8	86.9	94.7	96.4	86.5
1966	108.9	106.7	108.8	95.2	102.3	103.8	95.2
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	92.9	95.3	93.5	105.1	96.2	95.1	101.7
1969	100.0	100.5	99.7	105.2	100.1	99.7	102.6
1970	83.8	87.1	85.6	95.3	88.3	87.3	93.1
1971	80.5	80.2	76.9	98.0	81.9	79.2	95.7
1972	86.8	81.9	79.4	95.2	83.7	81.8	93.1
1973	94.0	87.4	85.7	96.6	87.7	86.5	94.0
1974	112.1	94.6	93.5	100.3	96.0	95.7	97.4
1975	106.0	93.3	91.1	105.3	94.1	92.5	101.7
1976	98.6	88.4	84.6	109.0	90.6	87.7	105.2
1977	98.5	93.0	88.9	115.0	94.4	90.8	112.1
1978	101.5	98.2	94.9	115.9	100.1	97.6	112.9
1979 ¹	111.1	109.4	106.5	124.7	111.1	109.2	120.7
Average annual percent change:							
1954-79	2.1	.9	.7	1.7	.8	.6	1.6
1974-79	-5	2.7	2.4	4.2	2.8	2.5	4.2

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.

Table 61. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 118. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	84.4	80.7	104.0	83.0	78.6	104.7
1955	94.1	88.6	125.7	95.1	89.2	125.7
1956	95.5	89.1	134.8	97.7	90.9	135.2
1957	96.0	90.7	125.5	96.2	90.4	125.9
1958	94.1	91.4	106.9	92.8	89.7	107.1
1959	88.5	86.7	97.0	85.9	83.4	97.1
1960	98.7	94.4	121.3	99.0	94.3	121.5
1961	103.2	99.0	125.2	104.4	99.9	125.2
1962	109.6	104.8	135.2	110.6	105.4	135.9
1963	112.2	106.4	143.3	112.1	105.9	143.9
1964	116.6	110.2	152.7	115.4	108.0	154.1
1965	120.2	113.1	161.5	121.1	113.3	162.4
1966	118.7	111.6	159.8	120.7	113.3	159.8
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	117.8	112.8	143.5	117.8	111.8	147.7
1969	120.7	113.8	160.4	121.4	113.6	163.8
1970	116.7	111.4	144.3	117.7	111.6	148.2
1971	121.4	119.2	131.2	120.8	117.6	134.7
1972	135.2	129.4	165.3	134.5	127.6	168.7
1973	140.6	136.7	159.6	138.5	132.8	164.9
1974	127.6	126.7	130.8	127.3	125.3	135.7
1975	126.4	129.0	116.9	124.8	125.8	121.2
1976	142.7	143.7	138.6	140.7	140.1	143.1
1977	148.6	149.3	146.3	145.7	144.4	150.7
1978	143.9	143.4	146.3	142.8	141.0	150.7
1979 ²	149.2	148.9	150.2	148.1	146.4	154.6
Average annual percent change:						
1947-79	2.2	2.4	.7	2.0	2.2	.8
1974-79	3.5	3.4	4.1	3.5	3.3	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 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 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 119. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	108.2	128.2	134.1	104.0	130.4	137.6	103.3
1955	123.1	130.8	139.0	97.9	129.5	138.0	97.9
1956	133.6	139.9	149.9	99.1	136.8	147.0	98.8
1957	130.4	135.9	143.8	103.9	135.6	144.3	103.6
1958	112.8	119.9	123.4	105.5	121.5	125.7	105.3
1959	93.5	105.7	107.9	96.4	108.8	112.1	96.3
1960	121.4	123.0	128.6	100.1	122.6	128.7	99.9
1961	123.2	119.4	124.5	98.4	118.0	123.3	98.4
1962	129.4	118.1	123.5	95.7	117.0	122.8	95.2
1963	128.1	114.2	120.4	89.4	114.3	121.0	89.0
1964	134.5	115.4	122.1	88.1	116.6	124.5	87.3
1965	142.1	118.2	125.6	88.0	117.3	125.4	87.5
1966	146.1	123.1	130.9	91.4	121.0	128.9	91.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	132.0	112.1	117.0	92.0	112.1	118.1	89.4
1969	160.4	132.0	140.9	100.0	132.1	141.2	97.9
1970	160.8	137.8	144.3	111.4	136.6	144.1	108.5
1971	146.2	120.4	122.6	111.4	121.0	124.3	108.5
1972	157.9	116.8	122.0	95.5	117.4	123.7	93.6
1973	161.4	114.8	118.1	101.1	116.5	121.5	97.9
1974	147.2	115.4	116.2	112.5	115.6	117.5	108.5
1975	131.5	104.0	101.9	112.5	105.4	104.5	108.5
1976	140.1	98.2	97.5	101.1	99.6	100.0	97.9
1977	131.4	88.4	88.0	89.8	90.2	91.0	87.2
1978	131.4	91.3	91.6	89.8	92.0	93.2	87.2
1979 ¹	138.2	92.6	92.8	92.0	93.3	94.4	89.4
Average annual percent change:							
1947-79	1.0	-1.1	-1.4	.3	-1.0	-1.2	.2
1974-79	-1.1	-4.5	-4.3	-5.0	-4.4	-4.3	-4.8

¹ Preliminary.

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

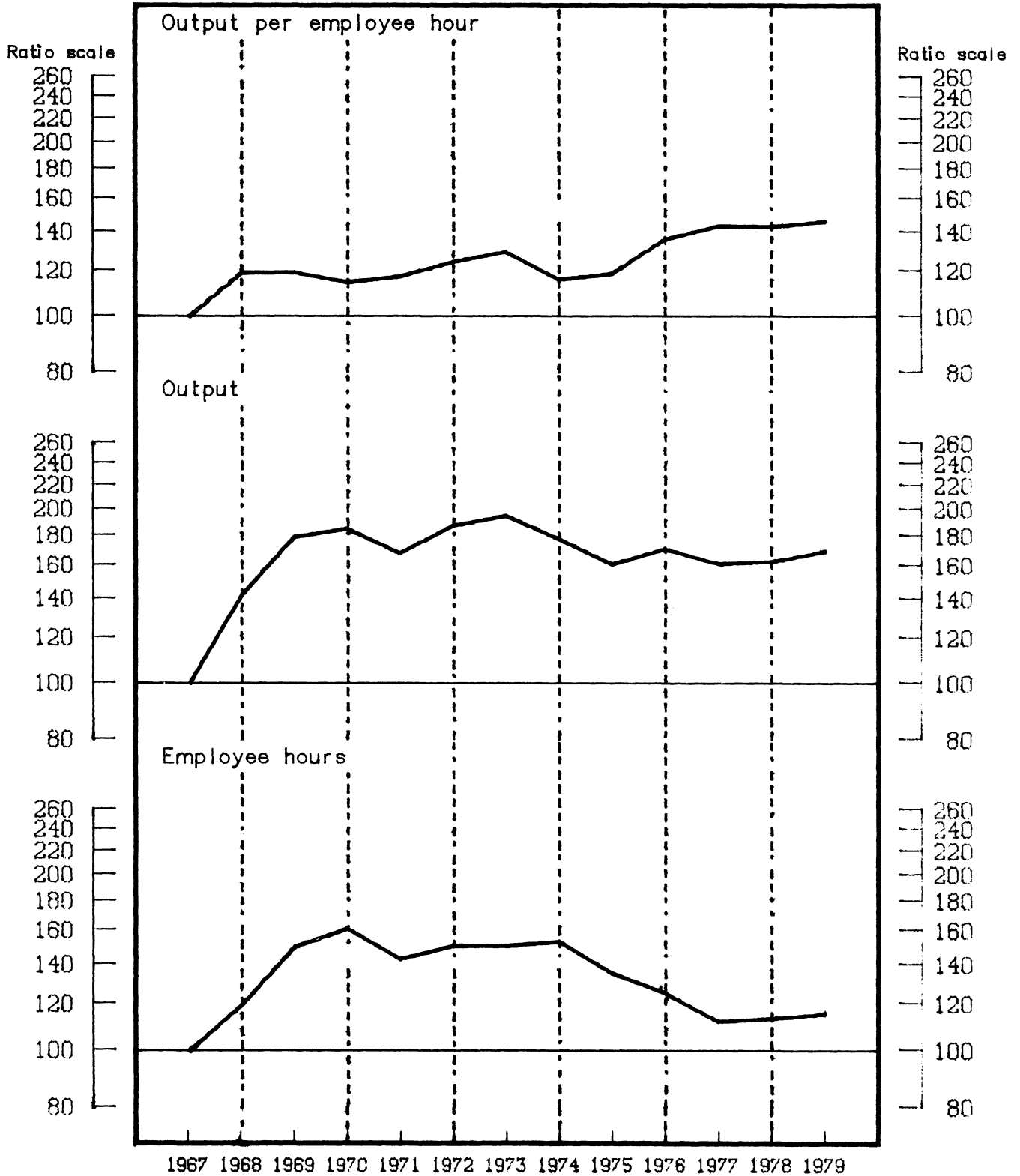
SOURCE: Output based on data from the Bureau of Mines, U.S. Department of

the Interior; the Bureau of the Census; and the Bureau of Labor Statistics.

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

Chart 62. Primary copper (SIC 3331): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 120. Primary copper (SIC 3331): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	84.1	78.9	114.4	85.9	80.7	115.0
1955	99.4	92.0	146.3	104.3	97.1	146.2
1956	101.4	92.6	164.0	108.2	99.4	164.4
1957	100.3	92.1	156.8	104.5	96.0	157.2
1958	94.3	88.9	125.6	96.0	90.4	125.7
1959	88.9	85.2	107.5	84.6	80.2	107.5
1960	99.1	91.7	146.0	100.2	92.6	146.2
1961	101.0	95.7	130.6	103.4	98.0	130.6
1962	109.6	103.5	144.0	112.9	106.8	144.7
1963	109.2	101.8	155.2	112.7	105.1	155.9
1964	116.1	108.4	162.7	117.1	108.9	163.9
1965	118.7	109.0	183.7	123.3	113.4	184.6
1966	115.7	107.6	165.3	121.4	113.5	165.3
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	119.2	113.4	149.5	120.1	113.3	155.8
1969	119.3	111.3	168.2	121.8	113.1	172.3
1970	114.9	108.7	149.1	119.5	113.0	153.6
1971	117.4	114.6	130.6	118.4	114.8	134.7
1972	124.5	118.5	156.6	126.7	120.1	161.0
1973	129.6	124.1	157.2	133.4	127.5	161.8
1974	116.1	115.6	117.9	118.1	117.1	122.2
1975	118.7	121.1	109.9	120.7	122.6	113.8
1976	136.3	137.1	132.9	138.9	139.5	137.0
1977	143.7	141.9	151.4	143.0	140.2	155.0
1978	143.4	139.8	159.5	145.4	141.5	163.0
1979 ²	146.4	144.9	152.7	150.3	148.7	156.7
Average annual percent change:						
1947-79	1.7	2.0	(³)	1.5	1.7	.1
1974-79	5.2	4.7	7.5	5.3	4.8	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.

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 the Census and the Bureau of Labor Statistics.

Table 121. Primary copper (SIC 3331): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	108.8	129.4	137.9	95.1	126.6	134.9	94.6
1955	127.9	128.7	139.0	87.4	122.6	131.7	87.5
1956	140.9	139.0	152.2	85.9	130.2	141.8	85.7
1957	135.5	135.1	147.2	86.4	129.7	141.1	86.2
1958	121.8	129.1	137.0	97.0	126.9	134.8	96.9
1959	95.9	107.9	112.5	89.2	113.3	119.6	89.2
1960	139.3	140.6	151.9	95.4	139.0	150.4	95.3
1961	137.3	135.9	143.5	105.1	132.8	140.1	105.1
1962	148.5	135.5	143.5	103.1	131.5	139.1	102.6
1963	145.3	133.0	142.8	93.6	128.9	138.2	93.2
1964	150.3	129.5	138.7	92.4	128.4	138.0	91.7
1965	161.5	136.1	148.1	87.9	131.0	142.4	87.5
1966	165.3	142.9	153.6	100.0	136.2	145.7	100.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	142.9	119.9	126.0	95.6	119.0	126.1	91.7
1969	179.5	179.5	161.3	106.7	147.4	158.7	104.2
1970	185.5	161.5	170.7	124.4	155.2	164.1	120.8
1971	168.4	143.4	147.0	128.9	142.2	146.7	125.0
1972	187.9	150.9	158.6	120.0	148.3	156.5	116.7
1973	195.5	150.9	157.5	124.4	146.6	153.3	120.8
1974	178.2	153.5	154.1	151.1	150.9	152.2	145.8
1975	161.2	135.8	133.1	146.7	133.6	131.5	141.7
1976	171.3	125.7	124.9	128.9	123.3	122.8	125.0
1977	161.5	112.4	113.8	106.7	112.9	115.2	104.2
1978	163.0	113.7	116.6	102.2	112.1	115.2	100.0
1979 ¹	169.7	115.9	117.1	111.1	112.9	114.1	108.3
Average annual percent change:							
1947-79	1.7	(²)	-3	1.7	.3	(²)	1.6
1974-79	-8	-5.7	-5.2	-7.7	-5.7	-5.3	-7.5

¹ Preliminary.

² Less than .05 percent.

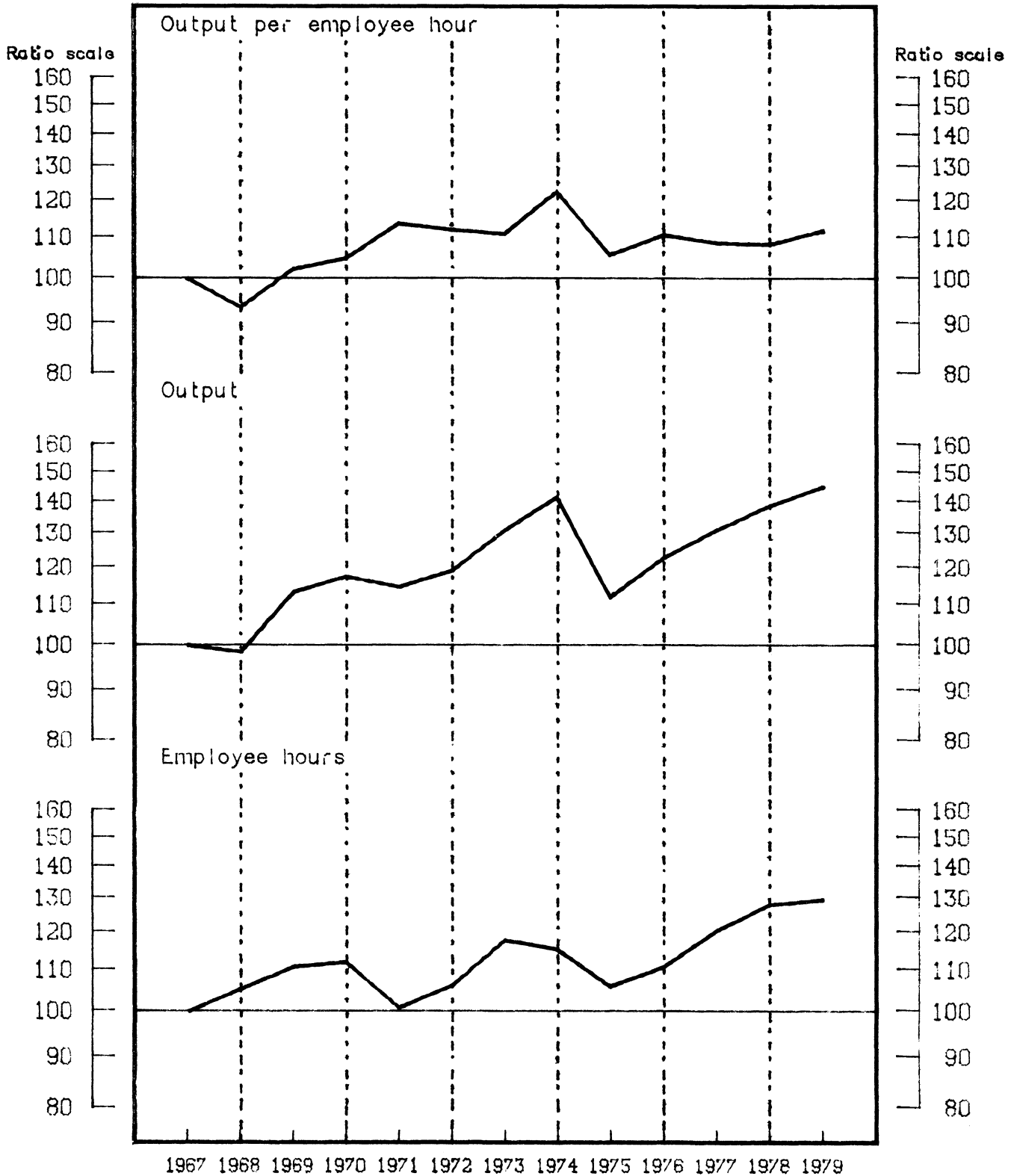
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output 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 the Census and the Bureau of Labor Statistics.

Chart 63. Primary aluminum (SIC 3334): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 122. Primary aluminum (SIC 3334): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	51.8	50.5	58.3	53.7	52.6	58.6
1955	57.4	56.3	62.8	59.1	58.3	62.8
1956	59.0	58.8	59.7	60.0	60.0	60.0
1957	59.2	59.7	57.0	60.3	61.2	57.3
1958	65.9	68.2	57.2	67.5	70.5	57.4
1959	78.4	78.6	77.7	81.3	82.2	77.8
1960	81.9	83.0	77.4	84.0	85.7	77.7
1961	85.3	87.5	76.8	87.2	90.3	76.9
1962	89.4	90.4	84.8	90.9	92.4	85.3
1963	92.5	93.2	89.1	94.0	95.1	89.6
1964	95.2	94.4	98.7	92.3	90.6	99.9
1965	97.5	97.0	99.5	97.7	97.0	100.1
1966	100.9	100.7	102.1	102.5	102.6	102.4
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	93.5	94.5	89.1	93.8	94.1	92.5
1969	102.3	102.5	101.7	103.9	103.7	104.4
1970	104.9	106.2	99.2	104.8	105.5	102.1
1971	113.8	117.3	100.7	112.9	115.4	103.5
1972	112.2	116.7	95.8	110.8	114.4	97.9
1973	111.1	111.8	108.4	111.8	111.8	111.6
1974	122.8	123.7	118.4	121.8	121.5	123.1
1975	105.8	112.8	83.2	105.6	111.6	86.0
1976	110.8	114.0	98.8	111.2	113.5	102.8
1977	108.8	110.7	100.8	109.2	110.4	104.0
1978	108.4	109.3	104.8	111.3	112.0	108.3
1979 ²	112.0	114.1	104.1	113.3	114.7	107.7
Average annual percent change:						
1947-79	3.5	3.7	2.6	3.3	3.4	2.7
1974-79	-1.1	-1.5	.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 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 123. Primary aluminum (SIC 3334): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	46.5	89.8	92.1	79.8	86.6	88.4	79.3
1955	49.7	86.6	88.3	79.2	84.1	85.3	79.1
1956	53.2	90.2	90.5	89.1	88.7	88.7	88.6
1957	52.0	87.8	87.1	91.2	86.2	85.0	90.8
1958	49.3	74.8	72.3	86.2	73.0	69.9	85.9
1959	61.5	78.4	78.2	79.2	75.6	74.8	79.0
1960	63.0	76.9	75.9	81.4	75.0	73.5	81.1
1961	59.4	69.6	67.9	77.3	68.1	65.8	77.2
1962	65.8	73.6	72.8	77.6	72.4	71.2	77.1
1963	71.6	77.4	76.8	80.4	76.2	75.3	79.9
1964	78.8	82.8	83.5	79.8	85.4	87.0	78.9
1965	84.8	87.0	87.4	85.2	86.8	87.4	84.7
1966	91.0	90.2	90.4	89.1	88.8	88.7	88.9
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	98.5	105.3	104.2	110.5	105.0	104.7	106.5
1969	113.5	110.9	110.7	111.6	109.2	109.4	108.7
1970	117.6	112.1	110.7	118.6	112.2	111.5	115.2
1971	114.8	100.9	97.9	114.0	101.7	99.5	110.9
1972	119.2	106.2	102.1	124.4	107.6	104.2	121.7
1973	131.0	117.9	117.2	120.9	117.2	117.2	117.4
1974	141.8	115.5	114.6	119.8	116.4	116.7	115.2
1975	112.2	106.0	99.5	134.9	106.3	100.5	130.4
1976	122.9	110.9	107.8	124.4	110.5	108.3	119.6
1977	131.2	120.6	118.5	130.2	120.2	118.8	126.1
1978	138.9	128.1	127.1	132.6	124.8	124.0	128.3
1979 ¹	145.2	129.6	127.3	139.5	128.2	126.6	134.8
Average annual percent change:							
1947-79	6.6	2.9	2.7	3.8	3.1	2.9	3.7
1974-79	2.4	3.6	3.9	2.2	3.0	3.3	2.3

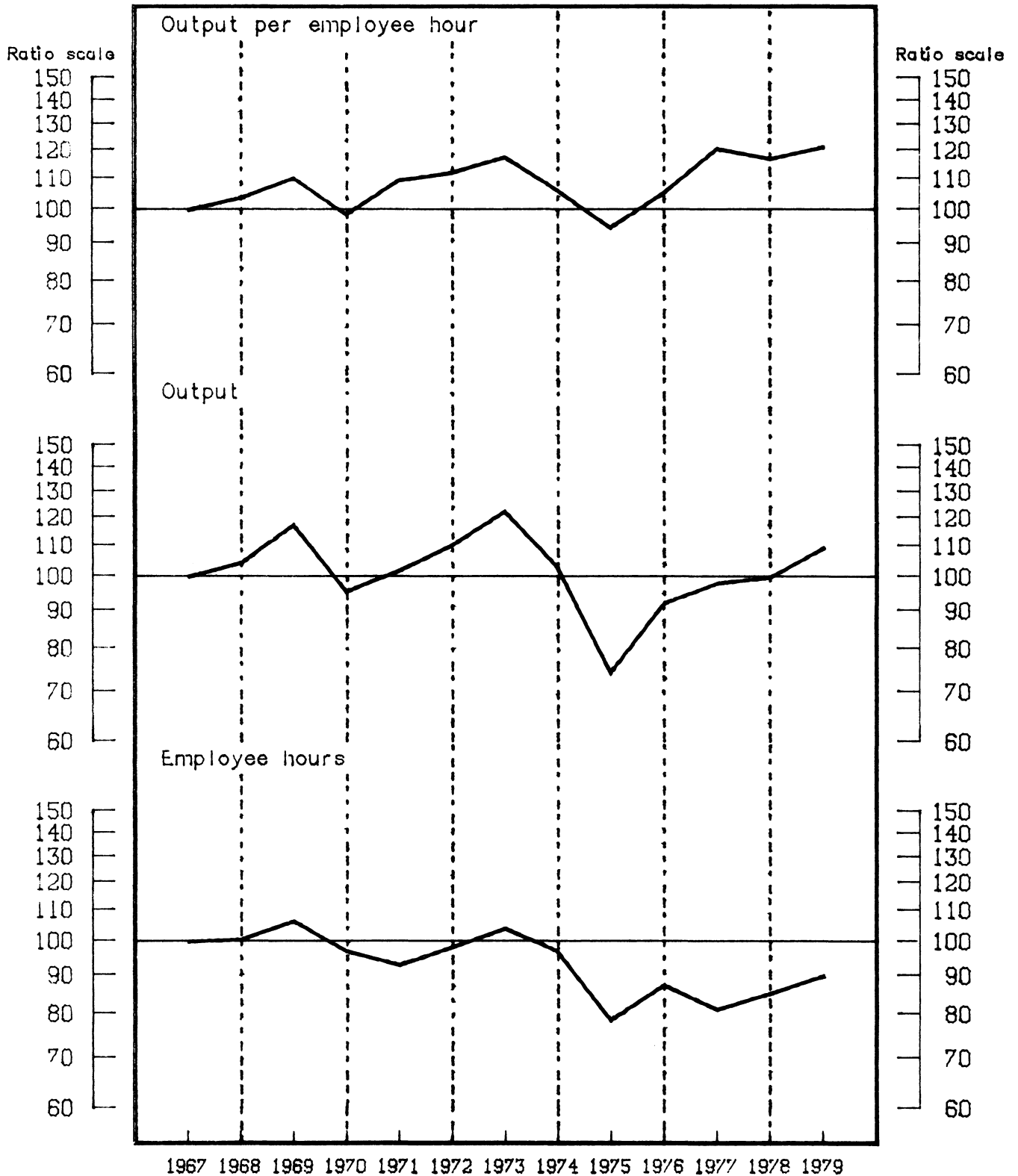
¹ Preliminary.

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 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 64. Copper rolling and drawing (SIC 3351): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 124. Copper rolling and drawing (SIC 3351): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	71.1	72.1	67.1	70.6	71.6	67.1
1959	78.1	77.1	82.5	81.0	80.7	82.4
1960	75.4	75.1	76.2	74.7	74.4	76.2
1961	81.6	82.9	76.7	82.7	84.4	76.5
1962	87.5	88.3	84.2	89.9	91.5	84.5
1963	95.7	94.0	103.6	99.2	98.0	103.9
1964	105.4	103.5	114.0	110.2	109.0	115.1
1965	111.4	108.9	123.4	116.8	115.2	123.7
1966	117.7	114.1	136.3	125.4	123.1	135.7
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.8	104.7	99.8	105.5	106.1	103.2
1969	110.3	110.5	109.5	114.9	115.6	111.9
1970	98.6	101.4	88.0	98.8	101.3	90.0
1971	109.6	112.0	100.6	111.2	113.5	103.1
1972	112.2	112.4	111.0	117.5	118.6	113.0
1973	117.7	117.4	119.3	123.6	123.9	122.4
1974	106.3	108.6	97.4	109.9	112.6	100.6
1975	94.7	102.6	71.2	93.2	100.0	73.6
1976	105.4	108.3	94.7	109.0	112.0	98.3
1977	120.7	123.4	110.4	125.3	128.8	113.4
1978	117.1	119.9	106.2	120.9	124.3	109.3
1979 ²	121.4	123.6	113.0	124.1	126.2	116.5
Average annual percent change:						
1958-79	1.9	2.1	1.1	2.0	2.1	1.3
1974-79	4.2	3.6	6.2	4.5	4.0	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.

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 125. Copper rolling and drawing (SIC 3351): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	70.7	99.5	98.1	105.4	100.1	98.7	105.4
1959	86.7	111.0	112.4	105.1	107.0	107.4	105.2
1960	73.4	97.4	97.7	96.3	98.2	98.7	96.3
1961	80.9	99.1	97.6	105.5	97.8	95.8	105.7
1962	92.0	105.2	104.2	109.2	102.3	100.6	108.9
1963	95.8	100.1	101.9	92.5	96.6	97.8	92.2
1964	108.0	102.5	104.3	94.7	98.0	99.1	93.8
1965	114.5	102.8	105.1	92.8	98.0	99.4	92.6
1966	127.3	108.2	111.6	93.4	101.5	103.4	93.8
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.4	100.6	99.7	104.6	99.0	98.4	101.2
1969	117.4	106.4	106.2	107.2	102.2	101.6	104.9
1970	95.6	97.0	94.3	108.6	96.8	94.4	106.2
1971	101.9	93.0	91.0	101.3	91.6	89.8	98.8
1972	110.2	98.2	98.0	99.3	93.8	92.9	97.5
1973	122.4	104.0	104.3	102.6	99.0	98.8	100.0
1974	103.1	97.0	94.9	105.9	93.8	91.6	102.5
1975	74.5	78.7	72.6	104.6	79.9	74.5	101.2
1976	92.2	87.5	85.1	97.4	84.6	82.3	93.8
1977	98.0	81.2	79.4	88.8	78.2	76.1	86.4
1978	99.9	85.3	83.3	94.1	82.6	80.4	91.4
1979 ¹	109.3	90.0	88.4	96.7	88.1	86.6	93.8
Average annual percent change:							
1958-79 .....	.9	-1.0	-1.2	-2	-1.0	-1.2	-4
1974-79	3.6	-6	(²)	-2.4	-8	-4	-2.3

¹ Preliminary.

² Less than .05 percent.

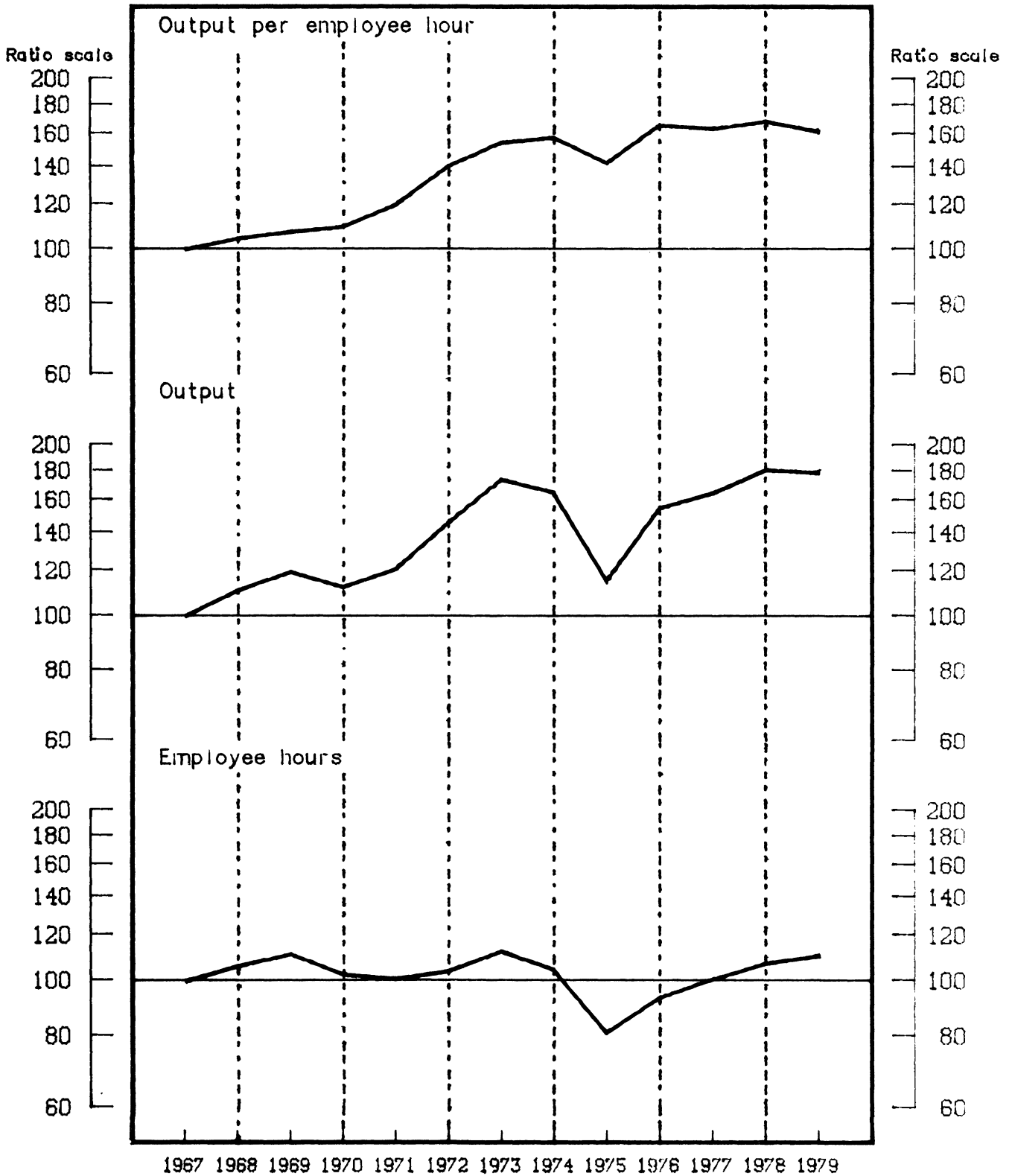
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

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

Chart 65. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 126. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Indexes of output per employee hour and output per employee, 1958-79
(1967=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	63.8	64.9	59.3	63.5	64.6	59.4
1959	68.9	67.8	73.3	70.1	69.3	73.3
1960	65.2	66.3	61.5	66.0	67.3	61.5
1961	71.7	72.2	69.6	72.8	73.7	69.5
1962	77.8	78.4	76.1	78.5	79.1	76.5
1963	86.3	86.5	85.3	87.2	87.7	85.7
1964	91.7	91.9	91.0	93.3	93.6	91.8
1965	100.5	100.0	103.1	103.8	104.0	103.4
1966	101.1	99.4	109.2	104.5	103.3	109.2
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.5	105.9	99.0	103.4	103.7	102.2
1969	107.4	108.1	102.0	107.8	108.5	104.7
1970	109.6	114.4	93.1	106.4	109.8	95.3
1971	119.9	124.9	102.9	115.3	118.2	105.3
1972	140.5	141.3	136.9	141.3	141.7	139.5
1973	154.7	154.1	157.0	156.6	155.5	161.4
1974	157.9	159.2	153.1	155.1	154.4	157.8
1975	142.5	152.4	112.0	134.5	140.6	115.7
1976	166.0	168.9	154.6	162.9	163.5	160.2
1977	163.7	164.5	160.2	162.4	161.9	164.8
1978	168.7	170.1	163.4	165.1	164.4	167.9
1979 ²	161.7	159.2	173.1	157.3	152.6	178.8
Average annual percent change:						
1958-79	5.1	5.1	4.8	4.8	4.8	5.0
1974-79	1.8	.9	5.2	2.0	1.1	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 the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 127. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Indexes of output, employee hours, and employees, 1958-79
(1967=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	48.4	75.9	74.6	81.6	76.2	74.9	81.5
1959	63.1	91.6	93.0	86.1	90.0	91.1	86.1
1960	56.5	86.6	85.2	91.8	85.6	84.0	91.8
1961	61.7	86.0	85.4	88.7	84.7	83.7	88.8
1962	69.5	89.3	88.7	91.3	88.5	87.9	90.9
1963	77.0	89.2	89.0	90.3	88.3	87.8	89.9
1964	85.1	92.8	92.6	93.5	91.2	90.9	92.7
1965	97.2	96.7	97.2	94.3	93.6	93.5	94.0
1966	107.6	106.4	108.3	98.5	103.0	104.2	98.5
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	111.0	106.2	104.8	112.1	107.3	107.0	108.6
1969	119.5	111.3	110.5	117.1	110.9	110.1	114.1
1970	112.5	102.6	98.3	120.8	105.7	102.5	118.0
1971	120.9	100.8	96.8	117.5	104.9	102.3	114.8
1972	146.1	104.0	103.4	106.7	103.4	103.1	104.7
1973	174.0	112.5	112.9	110.8	111.1	111.9	107.8
1974	165.2	104.6	103.8	107.9	106.5	107.0	104.7
1975	115.7	81.2	75.9	103.3	86.0	82.3	100.0
1976	155.2	93.5	91.9	100.4	95.3	94.9	96.9
1977	164.8	100.7	100.2	102.9	101.5	101.8	100.0
1978	181.0	107.3	106.4	110.8	109.6	110.1	107.8
1979 ¹	178.8	110.6	112.3	103.3	113.7	117.2	100.0
Average annual percent change:							
1958-79	6.1	1.0	.9	1.2	1.2	1.3	1.0
1974-79	5.3	3.5	4.4	(²)	3.2	4.1	.1

¹ Preliminary.

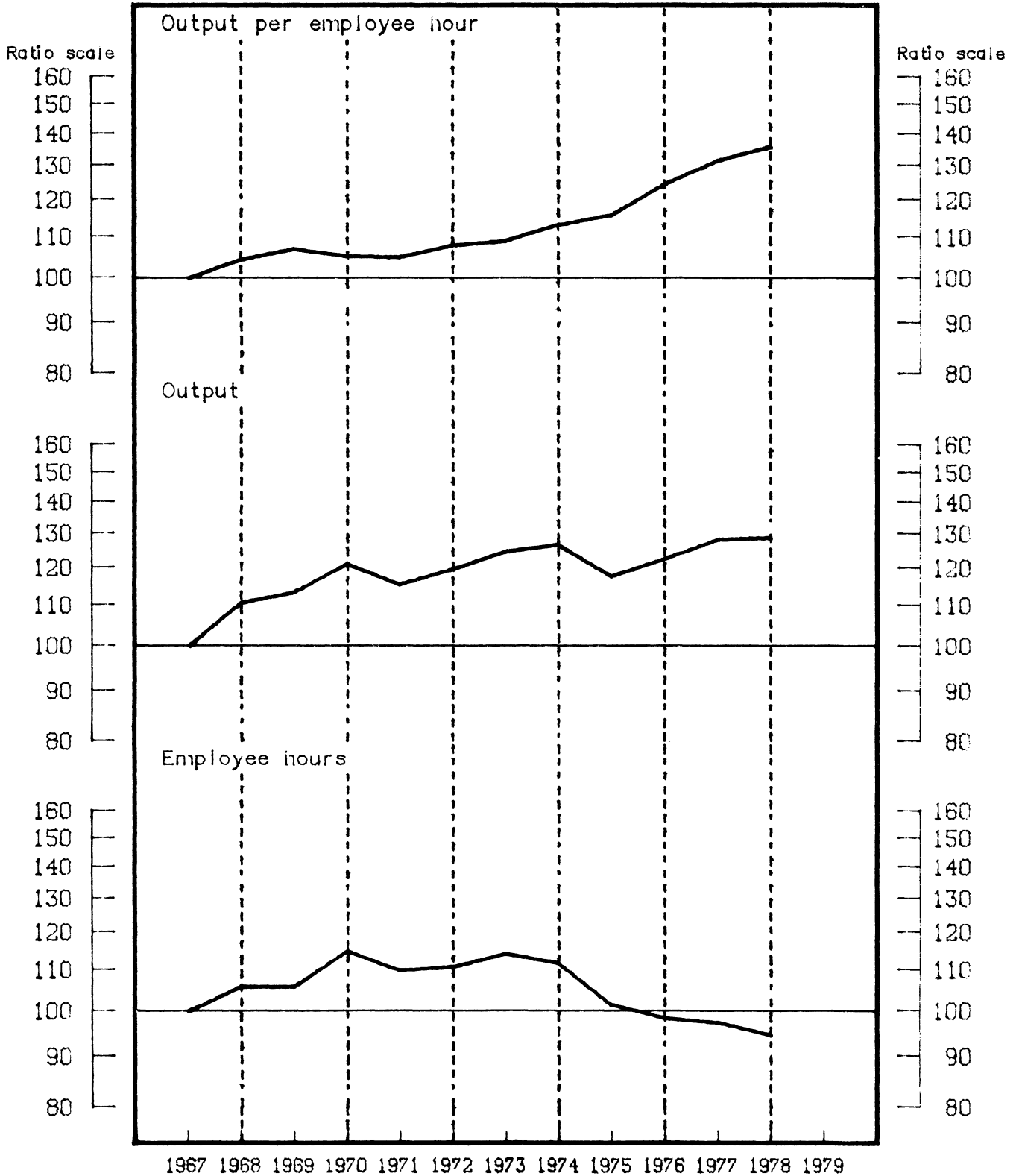
² Less than .05 percent.

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

Chart 66. Metal cans (SIC 3411): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 128. Metal cans (SIC 3411): Indexes of output per employee hour and output per employee, 1954-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	73.2	73.7	70.0	69.7	69.5	70.7
1955	77.5	77.9	74.5	73.9	73.8	74.9
1956	80.9	81.0	79.9	78.1	77.8	80.5
1957	79.5	80.0	75.2	75.8	75.9	75.8
1958	83.4	84.3	76.7	78.4	78.7	77.2
1959	86.3	86.7	83.3	84.0	84.0	83.8
1960	88.3	88.8	83.8	85.1	85.2	84.2
1961	93.2	93.8	89.3	90.3	90.4	89.5
1962	90.2	90.3	89.2	89.7	89.7	89.6
1963	89.6	89.9	86.8	88.0	88.1	87.2
1964	91.5	92.2	87.1	91.2	91.9	87.8
1965	94.1	95.6	83.3	96.2	98.4	83.7
1966	96.7	96.7	96.6	95.1	94.9	96.6
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.5	104.6	104.5	104.9	105.1	103.1
1969	107.1	107.7	102.9	105.1	105.3	104.3
1970	105.4	106.7	96.6	104.2	104.8	101.0
1971	105.1	107.0	92.3	101.5	102.8	93.4
1972	108.0	109.1	100.5	105.5	106.8	97.8
1973	109.2	109.9	104.6	107.8	108.4	104.0
1974	113.3	116.0	96.6	110.6	113.0	97.5
1975	116.0	121.0	88.8	113.4	118.1	89.9
1976	124.6	129.3	97.9	121.1	125.3	99.1
1977	131.7	136.0	106.4	129.4	133.7	107.0
1978 ²	136.1	141.0	108.0	131.9	136.4	108.5
Average annual percent change:						
1947-78	2.3	2.4	1.8	2.4	2.5	1.8
1974-78	5.1	5.2	4.1	5.0	5.1	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.

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 129. Metal cans (SIC 3411): Indexes of output, employee hours, and employees, 1954-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	63.8	87.2	86.6	91.2	91.6	91.8	90.3
1955	66.9	86.3	85.9	89.8	90.5	90.6	89.3
1956	71.4	88.3	88.1	89.4	91.4	91.8	88.7
1957	68.9	86.7	86.1	91.6	90.9	90.8	90.9
1958	70.6	84.7	83.7	92.1	90.0	89.7	91.5
1959	74.9	86.8	86.4	89.9	89.2	89.2	89.4
1960	75.6	85.6	85.1	90.2	88.8	88.7	89.8
1961	79.9	85.7	85.2	89.5	88.5	88.4	89.3
1962	78.9	87.5	87.4	88.5	88.0	88.0	88.1
1963	77.7	86.7	86.4	89.5	88.3	88.2	89.1
1964	83.4	91.1	90.5	95.8	91.4	90.8	95.0
1965	87.5	93.0	91.5	105.0	91.0	88.9	104.6
1966	92.6	95.8	95.8	95.9	97.4	97.6	95.9
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	110.8	106.0	105.9	106.0	105.6	105.4	107.5
1969	113.5	106.0	105.4	110.3	108.0	107.8	108.8
1970	121.2	115.0	113.6	125.5	116.3	115.7	120.0
1971	115.6	110.0	108.0	125.2	113.9	112.4	123.8
1972	119.8	110.9	109.8	119.2	113.6	112.2	122.5
1973	124.8	114.3	113.6	119.3	115.8	115.1	120.0
1974	126.8	111.9	109.3	131.3	114.6	112.2	130.0
1975	117.9	101.6	97.4	132.7	104.0	99.8	131.2
1976	122.7	98.5	94.9	125.3	101.3	97.9	123.8
1977	128.4	97.5	94.4	120.7	99.2	96.0	120.0
1978 ¹	128.9	94.7	91.4	119.3	97.7	94.5	118.8
Average annual percent change:							
1947-78	3.4	1.1	1.0	1.6	1.0	.9	1.6
1974-78	1.2	-3.7	-3.8	-2.8	-3.6	-3.7	-2.7

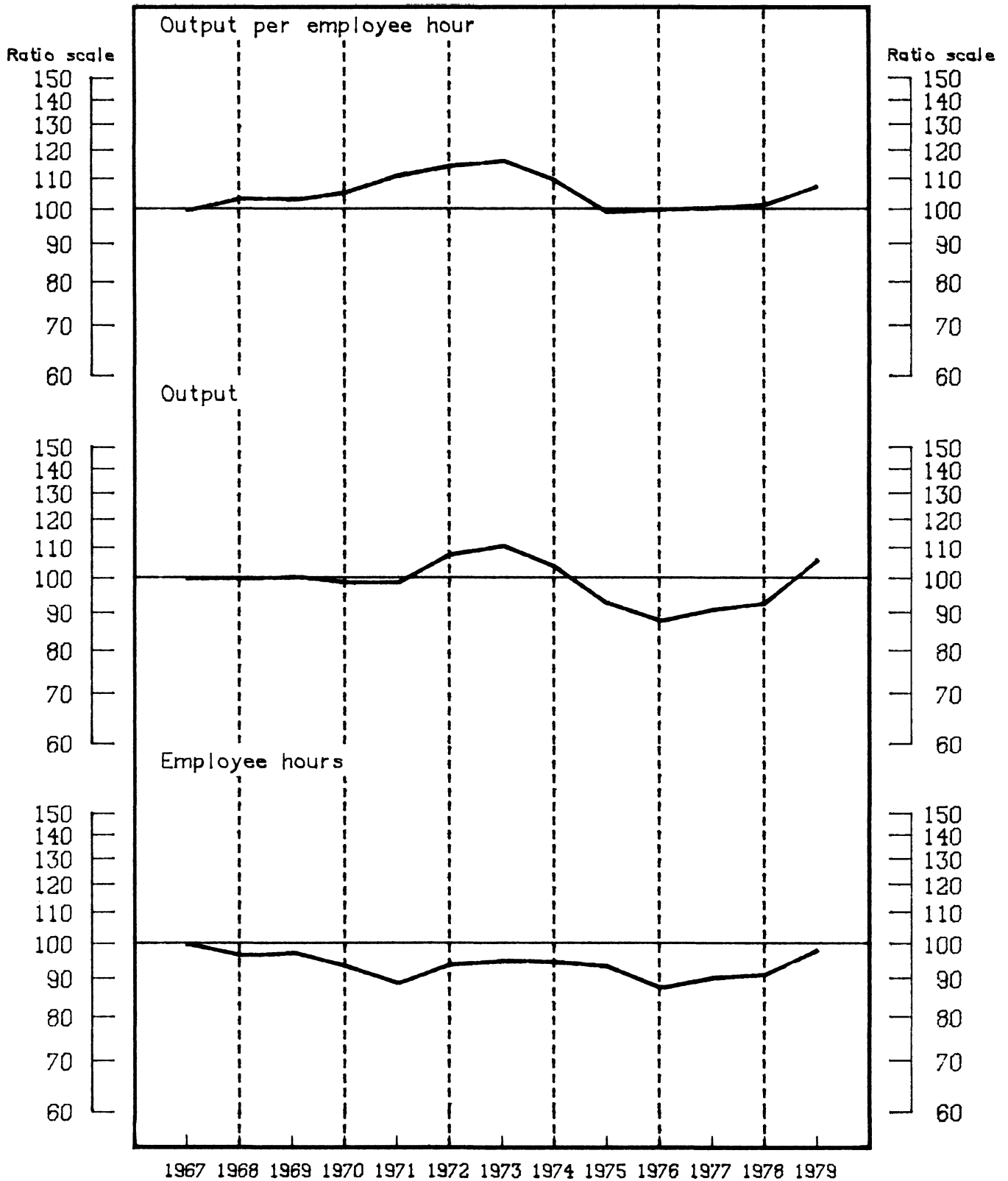
¹ Preliminary.

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 67. Fabricated structural metal (SIC 3441): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 130. Fabricated structural metal (SIC 3441): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	83.0	83.6	81.3	81.7	81.7	81.8
1959	81.3	84.0	73.4	80.1	82.5	73.8
1960	83.9	85.4	79.3	85.2	87.2	79.6
1961	88.1	88.9	85.7	87.6	88.2	85.8
1962	91.5	91.4	91.8	92.1	92.1	92.1
1963	95.0	95.4	93.6	93.8	93.8	94.0
1964	96.1	96.4	95.4	97.0	97.2	96.2
1965	100.5	100.1	101.5	100.0	99.4	102.0
1966	98.2	97.4	100.9	97.6	96.4	100.9
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.7	103.8	103.4	103.2	103.5	102.0
1969	103.3	104.4	99.8	103.5	104.2	101.3
1970	105.7	107.7	99.6	106.2	106.9	104.1
1971	111.3	112.7	106.9	110.3	111.0	108.3
1972	114.7	115.9	110.7	111.2	112.4	107.9
1973	116.5	118.4	110.8	113.1	113.9	110.4
1974	109.7	110.9	106.0	107.7	107.8	107.3
1975	99.4	101.0	94.5	96.5	96.8	95.6
1976	100.3	102.6	93.7	97.8	98.8	95.2
1977	100.8	103.4	93.4	98.6	100.2	94.2
1978	101.8	103.1	97.5	99.3	99.6	98.3
1979 ²	107.8	108.3	106.6	106.2	105.6	107.9
Average annual percent change:						
1958-79	1.2	1.2	1.1	1.1	1.0	1.1
1974-79	(³)	-1	.3	.1	(³)	.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, based on data from the Bureau of the Census, the Bureau of Labor Statistics, and the American Institute of Steel Construction. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 131. Fabricated structural metal (SIC 3441): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	69.4	83.6	83.0	85.4	84.9	84.9	84.8
1959	61.6	75.8	73.3	83.9	76.9	74.7	83.5
1960	69.6	83.0	81.5	87.8	81.7	79.8	87.4
1961	68.7	78.0	77.3	80.2	78.4	77.9	80.1
1962	67.9	74.2	74.3	74.0	73.7	73.7	73.7
1963	74.6	78.5	78.2	79.7	79.5	79.5	79.4
1964	79.5	82.7	82.5	83.3	82.0	81.8	82.6
1965	86.6	86.2	86.5	85.3	86.6	87.1	84.9
1966	88.4	90.0	90.8	87.6	90.6	91.7	87.6
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	100.2	96.6	96.5	96.9	97.1	96.8	98.2
1969	100.6	97.4	96.4	100.8	97.2	96.5	99.3
1970	98.8	93.5	91.7	99.2	93.0	92.4	94.9
1971	98.8	88.8	87.7	92.4	89.6	89.0	91.2
1972	107.9	94.1	93.1	97.5	97.0	96.0	100.0
1973	110.8	95.1	93.6	100.0	98.0	97.3	100.4
1974	103.8	94.6	93.6	97.9	96.4	96.3	96.7
1975	92.8	93.4	91.9	98.2	96.2	95.9	97.1
1976	87.9	87.6	85.7	93.8	89.9	89.0	92.3
1977	91.1	90.4	88.1	97.5	92.4	90.9	96.7
1978	92.9	91.3	90.1	95.3	93.6	93.3	94.5
1979 ¹	106.0	98.3	97.9	99.4	99.8	100.4	98.2
Average annual percent change:							
1958-79	2.2	1.0	.9	1.1	1.1	1.1	1.0
1974-79 .....	.4	.4	.6	.1	.3	.4	.1

¹ Preliminary.

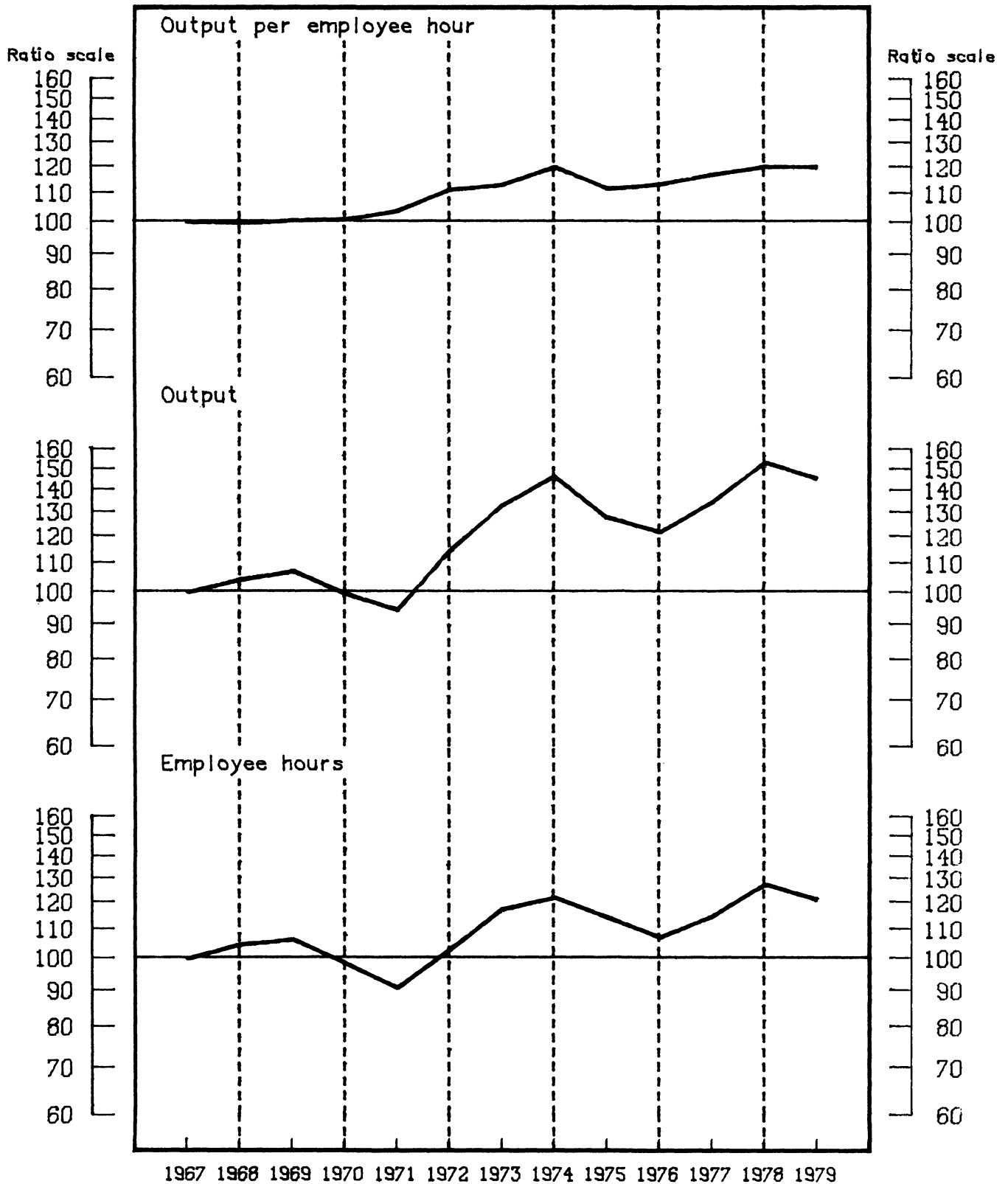
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, based on data from the Bureau of the Census, the Bureau of

Labor Statistics, and the American Institute of Steel Construction. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 68. Construction machinery and equipment (SIC 3531): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 132. Construction machinery and equipment (SIC 3531): Indexes of output per employee hour and output per employee, 1958-79

(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	90.1	97.4	73.0	87.4	92.9	75.0
1959	84.4	86.3	78.9	87.4	89.8	80.8
1960	75.5	80.4	63.7	75.3	79.8	64.9
1961	82.7	86.8	72.6	82.6	86.5	73.2
1962	89.8	92.0	83.6	90.7	93.4	84.1
1963	90.9	91.3	89.7	93.1	94.2	90.0
1964	94.4	93.2	98.3	97.7	97.3	99.2
1965	96.9	95.3	102.2	100.1	99.2	102.7
1966	98.5	94.9	111.9	103.5	101.0	111.9
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	99.6	101.5	94.1	100.9	101.7	98.9
1969	100.7	101.0	99.5	103.2	103.3	102.9
1970	101.0	103.6	93.9	101.9	104.2	96.0
1971	103.9	107.9	93.1	103.4	106.4	95.6
1972	111.4	112.5	108.0	113.9	115.0	110.9
1973	113.2	113.1	113.5	117.1	117.2	116.7
1974	119.9	119.9	119.9	123.7	123.9	122.8
1975	111.6	114.6	103.2	113.0	115.8	105.8
1976	113.4	120.6	96.0	111.8	117.1	98.7
1977	117.1	122.5	103.0	115.2	119.1	105.2
1978	120.1	123.9	109.6	120.6	124.0	111.9
1979 ²	119.7	125.6	104.8	118.5	122.9	107.3
Average annual percent change:						
1958-79	1.9	1.9	1.9	1.9	1.8	1.9
1974-79	.7	1.4	-1.2	(³)	.5	-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.

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 133. Construction machinery and equipment (SIC 3531): Indexes of output, employee hours, and employees, 1958-79

(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	62.6	69.5	64.3	85.8	71.6	67.4	83.5
1959	74.0	87.7	85.7	93.8	84.7	82.4	91.6
1960	63.2	83.7	78.6	78.6	83.9	79.2	97.4
1961	59.0	71.3	68.0	81.3	71.4	68.2	80.6
1962	67.5	75.2	73.4	80.7	74.4	72.3	80.3
1963	73.1	80.4	80.1	81.5	78.5	77.6	81.2
1964	85.4	90.5	91.6	86.9	87.4	87.8	86.1
1965	91.4	94.3	95.9	89.4	91.3	92.1	89.0
1966	94.3	95.7	99.4	84.3	91.1	93.4	84.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.3	104.7	102.8	110.8	103.4	102.6	105.5
1969	107.1	106.4	106.0	107.6	103.8	103.7	104.1
1970	99.4	98.4	95.9	105.9	97.5	95.4	103.5
1971	94.3	90.8	87.4	101.3	91.2	88.6	98.6
1972	114.5	102.8	101.8	106.0	100.5	99.6	103.2
1973	132.9	117.4	117.5	117.1	113.5	113.4	113.9
1974	146.3	122.0	122.0	122.0	118.3	118.1	119.1
1975	127.6	114.3	111.3	123.6	112.9	110.2	120.6
1976	121.6	107.2	100.8	126.7	108.8	103.8	123.2
1977	134.4	114.8	109.7	130.5	116.7	112.8	127.8
1978	153.1	127.5	123.6	139.7	127.0	123.5	136.8
1979 ¹	145.0	121.1	115.4	138.4	122.4	118.0	135.1
Average annual percent change:							
1958-79	4.4	2.5	2.4	2.5	2.5	2.5	2.4
1974-79	1.7	1.0	.3	3.0	1.7	1.2	3.0

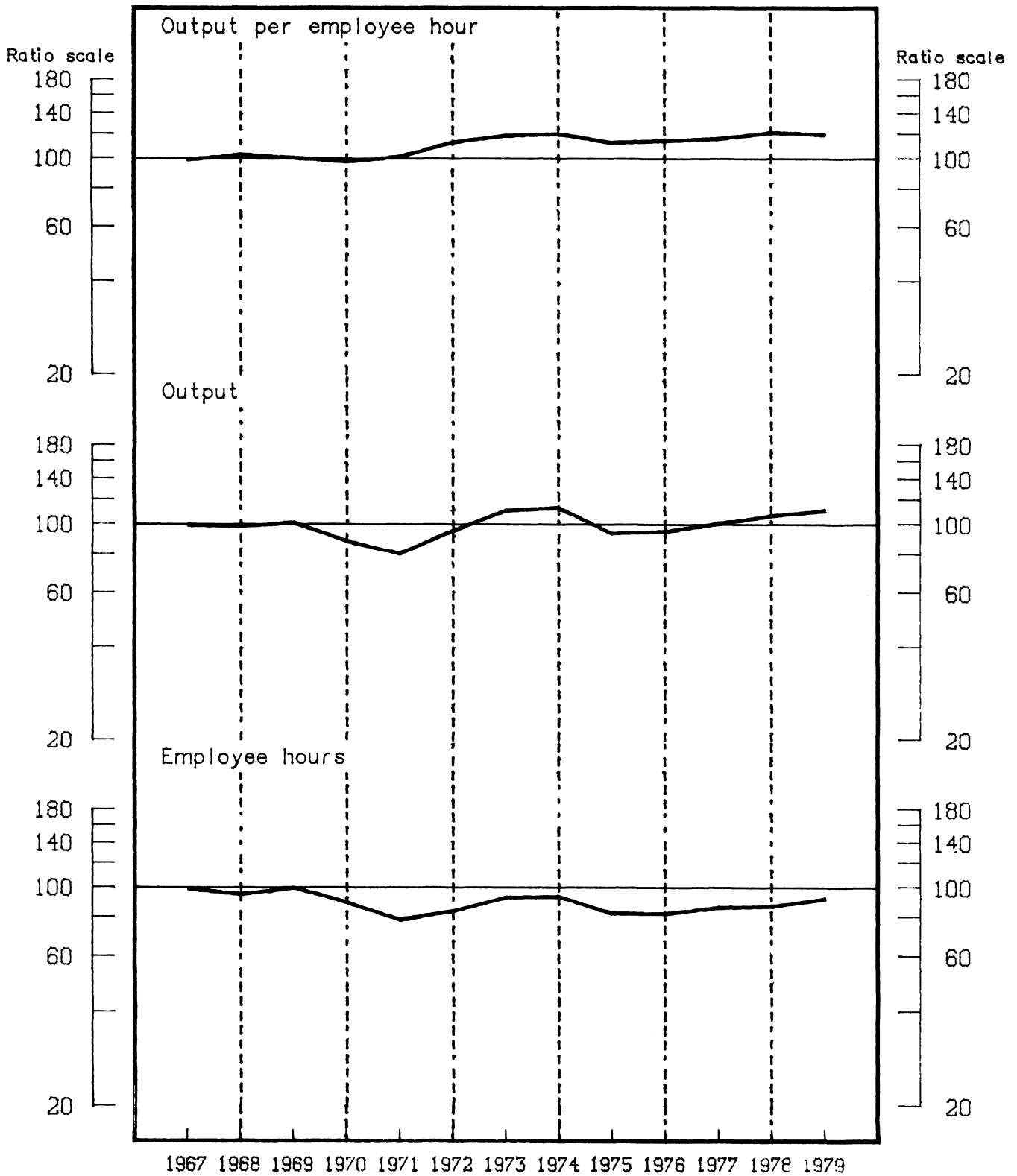
¹ Preliminary.

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 69. Ball and roller bearings (SIC 3562): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 134. Ball and roller bearings (SIC 3562): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	80.8	61.7	57.3	57.2	56.8	58.6
1959	76.2	73.8	87.0	74.8	71.6	89.0
1960	74.7	74.3	76.4	69.3	67.4	77.6
1961	76.8	77.2	75.3	72.8	71.9	75.9
1962	83.5	82.8	86.7	81.5	80.1	86.7
1963	84.9	86.1	80.1	81.6	82.1	80.1
1964	91.4	91.4	91.3	89.3	88.8	91.3
1965	103.8	102.7	108.4	104.5	103.4	108.4
1966	104.0	102.6	109.8	106.4	105.5	109.8
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.6	106.1	94.6	103.2	104.9	97.6
1969	101.3	102.9	95.3	101.2	102.2	97.5
1970	98.6	102.7	85.1	92.4	94.3	86.2
1971	102.1	107.7	85.0	97.2	100.7	86.5
1972	113.7	115.8	106.3	114.0	115.5	108.7
1973	119.4	119.9	117.0	122.0	122.8	119.4
1974	121.1	122.0	117.8	119.5	119.4	119.9
1975	113.4	117.5	99.8	109.4	111.7	101.6
1976	115.3	118.8	103.7	113.4	115.8	105.5
1977	116.8	120.7	104.1	115.5	118.5	106.0
1978	122.6	125.9	111.2	119.3	121.2	113.2
1979 ²	120.6	121.9	115.6	119.7	120.2	117.7
Average annual percent change:						
1958-79	2.7	2.9	2.0	2.9	3.1	2.1
1974-79	.7	.6	.7	.8	.9	.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 135. Ball and roller bearings (SIC 3562): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	39.8	65.5	64.5	69.4	69.6	70.1	67.9
1959	62.4	81.9	84.5	71.7	83.4	87.2	70.1
1960	57.2	76.6	77.0	74.9	82.5	84.9	73.7
1961	55.4	72.1	71.8	73.6	76.1	77.0	73.0
1962	66.4	79.5	80.2	76.6	81.5	82.9	76.6
1963	68.4	80.6	79.4	85.4	83.8	83.3	85.4
1964	78.0	85.3	85.3	85.4	87.3	87.8	85.4
1965	95.0	91.5	92.5	87.6	90.9	91.9	87.6
1966	106.6	102.5	103.9	97.1	100.2	101.0	97.1
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	99.1	95.7	93.4	104.8	96.0	94.5	101.5
1969	101.8	100.5	98.9	106.8	100.6	99.6	104.4
1970	88.7	90.0	86.4	104.2	96.0	94.1	102.9
1971	80.8	79.1	75.0	95.1	83.1	80.2	93.4
1972	96.0	84.4	82.9	90.3	84.2	83.1	88.3
1973	111.5	93.4	93.0	95.3	91.4	90.8	93.4
1974	113.8	94.0	93.3	96.6	95.2	95.3	94.9
1975	94.2	83.1	80.2	94.4	86.1	84.3	92.7
1976	95.5	82.8	80.4	92.1	84.2	82.5	90.5
1977	101.3	86.7	83.9	97.3	87.7	85.5	95.6
1978	107.4	87.6	85.3	96.6	90.0	88.6	94.9
1979 ¹	111.7	92.6	91.6	96.6	93.3	92.9	94.9
Average annual percent change:							
1958-79	3.5	.8	.6	1.5	.6	.4	1.4
1974-79	1.0	.4	.4	.4	.2	.2	.4

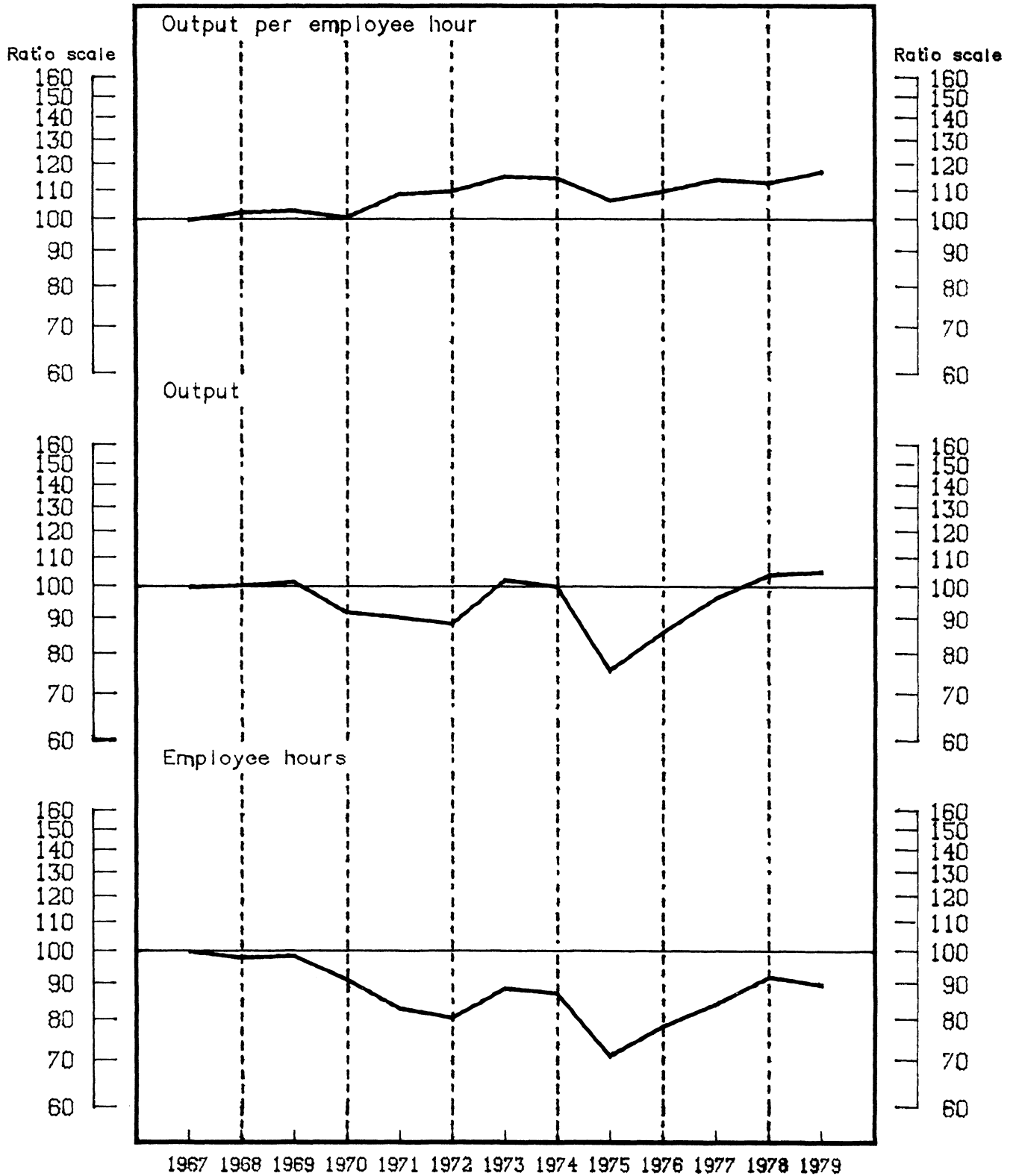
¹ Preliminary.

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 70. Motors and generators (SIC 3621): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 136. Motors and generators (SIC 3621): Indexes of output per employee hour and output per employee, 1954-79
(1967=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	57.3	59.6	50.6	56.2	57.8	51.9
1955	58.8	60.7	53.0	58.5	60.0	54.0
1956	62.2	63.9	57.3	61.5	62.5	58.5
1957	60.3	64.8	48.6	59.0	62.8	49.7
1958	59.9	65.8	45.9	58.9	64.2	46.7
1959	69.5	73.6	58.3	69.1	73.0	59.3
1960	71.2	76.4	57.9	69.5	73.9	58.7
1961	76.2	81.9	61.4	74.6	79.8	61.9
1962	84.8	89.0	73.0	84.2	88.3	73.3
1963	85.8	88.6	77.4	86.3	89.6	77.8
1964	94.8	97.9	85.6	96.0	99.5	86.3
1965	101.4	101.8	100.3	102.4	103.0	100.7
1966	103.7	101.4	112.4	103.0	100.4	112.4
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.5	103.2	100.6	103.7	103.9	103.2
1969	103.1	103.7	101.5	104.8	104.8	104.7
1970	100.8	102.8	94.7	99.9	100.2	98.8
1971	108.9	111.3	101.1	108.9	110.1	105.5
1972	109.9	109.7	111.3	100.0	109.2	115.5
1973	115.4	112.4	126.7	114.8	110.6	130.4
1974	114.8	113.2	120.1	112.8	110.0	122.5
1975	106.7	110.3	96.0	104.5	107.0	97.7
1976	109.9	108.3	116.0	107.2	104.0	118.6
1977	114.3	114.2	114.7	112.5	111.2	116.5
1978	113.1	112.0	117.2	110.7	108.4	118.9
1979 ²	117.3	115.7	123.0	114.7	111.5	125.4
Average annual percent change:						
1954-79	3.1	2.8	4.1	3.0	2.7	4.1
1974-79	.9	.6	2.0	.9	.5	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 Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 137. Motors and generators (SIC 3621): Indexes of output, employee hours, and employees, 1954-79
(1967=100)

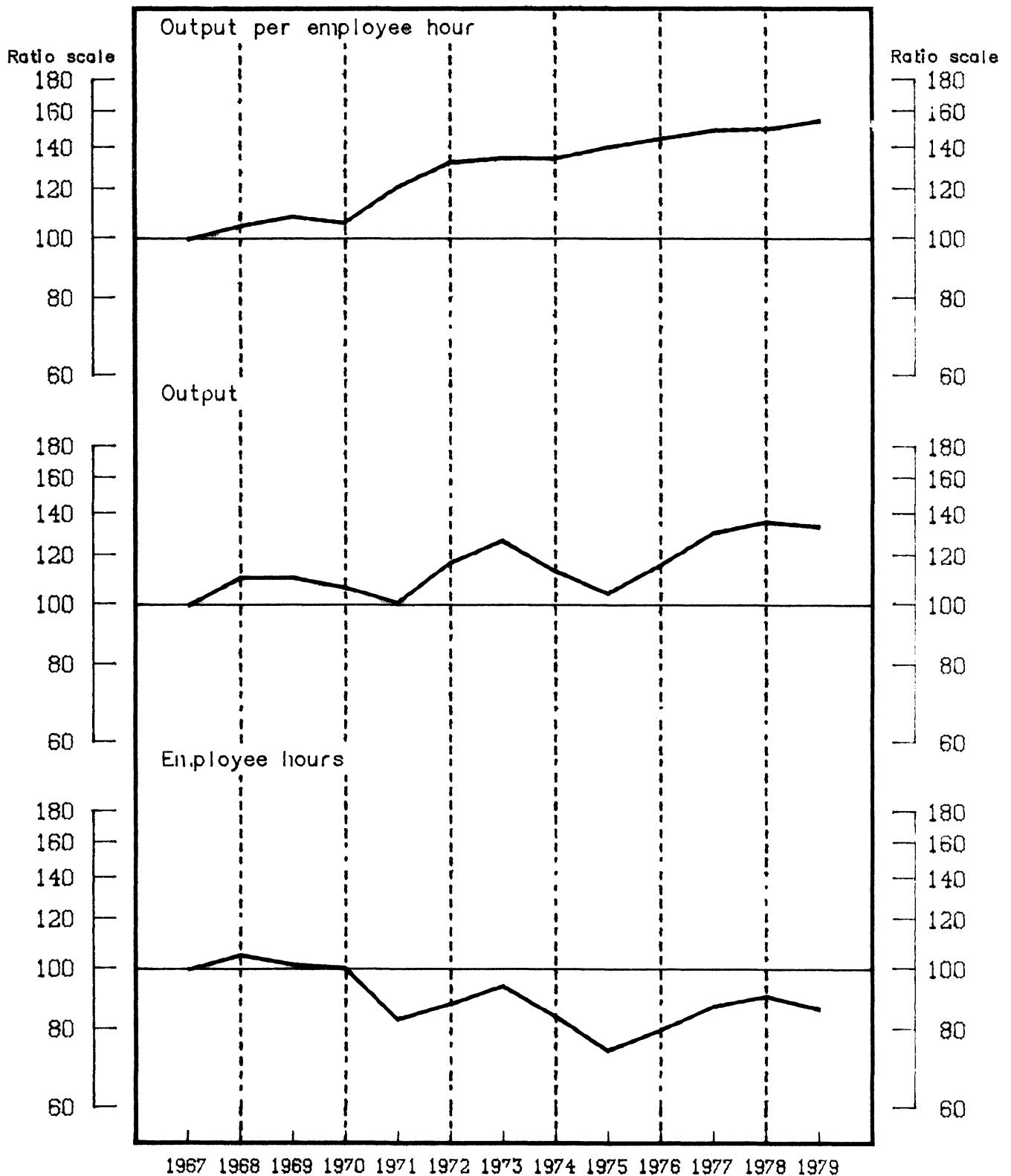
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	55.8	97.4	93.6	110.3	99.3	96.6	107.6
1955	58.7	99.9	96.7	110.7	100.4	97.8	108.7
1956	67.0	107.7	104.9	117.0	109.0	107.2	114.5
1957	61.4	101.8	94.7	126.3	104.0	97.7	123.6
1958	48.8	81.5	74.2	106.3	82.9	76.0	104.4
1959	61.0	87.8	82.9	104.7	88.3	83.6	102.9
1960	62.7	88.0	82.1	108.3	90.2	84.8	106.9
1961	63.4	83.2	77.4	103.2	85.0	79.4	102.5
1962	70.1	82.7	78.8	96.0	83.3	79.4	95.6
1963	72.1	84.0	81.4	93.1	83.5	80.5	92.7
1964	80.7	85.1	82.4	94.3	84.1	81.1	93.5
1965	92.6	91.3	91.0	92.3	90.4	89.9	92.0
1966	102.6	98.9	101.2	91.3	99.6	102.2	91.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	100.6	98.1	97.5	100.0	97.0	96.8	97.5
1969	101.7	98.6	98.1	100.2	97.0	97.0	97.1
1970	92.0	91.3	89.5	97.2	92.1	91.8	93.1
1971	90.5	83.1	81.3	89.5	83.1	82.2	85.8
1972	88.6	80.6	80.8	79.6	88.6	81.1	76.7
1973	102.4	88.7	91.1	80.8	89.2	92.6	78.5
1974	100.2	87.3	88.5	83.4	88.8	91.1	81.8
1975	76.0	71.2	68.9	79.2	72.7	71.0	77.8
1976	86.2	78.4	79.6	74.3	80.4	82.9	72.7
1977	96.6	84.5	84.6	84.2	85.9	86.9	82.9
1978	104.2	92.1	93.0	88.9	94.1	96.1	87.6
1979 ¹	105.3	89.8	91.0	85.6	91.8	94.4	84.0
Average annual percent change:							
1954-79	2.5	-.5	-.2	-1.5	-.5	-.2	-1.5
1974-79	3.8	2.9	3.2	1.7	2.9	3.3	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 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 71. Major household appliances (SIC 3631, 3632, 3633, 3639): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 138. Major household appliances (SIC 3631, 3632, 3633, 3639): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour			Output per employee		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	58.3	61.3	48.0	59.4	62.7	49.0
1959	63.6	65.1	57.4	64.4	66.1	58.4
1960	66.3	68.9	56.9	65.9	68.2	57.6
1961	70.6	73.7	59.5	71.4	75.0	59.8
1962	76.8	78.3	70.8	79.5	81.6	71.1
1963	87.7	87.8	87.3	89.5	89.8	87.6
1964	91.4	91.1	92.3	93.9	94.2	92.9
1965	94.2	94.3	93.6	97.7	98.5	94.0
1966	94.5	93.2	100.2	96.1	95.0	100.0
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.2	104.4	108.9	107.0	105.9	111.9
1969	108.8	109.6	106.0	109.0	109.0	109.4
1970	106.3	107.3	102.0	107.5	107.8	106.4
1971	121.4	123.0	114.5	122.7	123.4	119.6
1972	133.0	132.7	134.4	134.4	133.3	139.5
1973	135.1	134.4	138.7	135.9	134.3	142.7
1974	134.9	136.7	127.8	132.1	132.7	130.2
1975	140.7	145.2	124.3	136.7	139.4	126.8
1976	145.2	149.5	129.5	142.7	145.6	132.5
1977	149.8	150.7	147.3	148.5	148.1	149.3
1978	150.5	150.8	148.7	145.5	144.4	150.7
1979 ¹	155.0	154.8	156.0	150.1	148.3	158.8
Average annual percent change:						
1958-79	4.7	4.6	5.2	4.5	4.3	5.2
1974-79	2.7	2.1	4.9	2.5	2.0	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 139. Major household appliances (SIC 3631, 3632, 3633, 3639): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	53.9	92.4	87.9	112.2	90.7	86.0	110.1
1959	62.8	98.8	96.4	109.4	97.5	95.0	107.5
1960	62.5	94.3	90.7	109.9	94.8	91.6	108.5
1961	61.8	87.5	83.8	103.9	86.5	82.4	103.4
1962	69.3	90.2	88.5	97.9	87.2	84.9	97.5
1963	76.9	87.7	87.6	88.1	85.9	85.6	87.8
1964	85.4	93.4	93.7	92.5	90.9	90.7	91.9
1965	92.6	98.3	98.2	98.9	94.8	94.0	98.5
1966	97.5	103.2	104.6	97.3	101.5	102.6	97.5
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	110.9	105.4	106.2	101.8	103.6	104.7	99.1
1969	110.9	101.9	101.2	104.6	101.7	101.7	101.4
1970	106.9	100.6	99.6	104.8	99.4	99.2	100.5
1971	101.1	83.3	82.2	88.3	82.4	81.9	84.5
1972	117.2	88.1	88.3	87.2	87.2	87.9	84.0
1973	127.3	94.2	94.7	91.8	93.7	94.8	89.2
1974	113.7	84.3	83.2	89.0	86.1	85.7	87.3
1975	104.7	74.4	72.1	84.2	76.6	75.1	82.6
1976	116.3	80.1	77.8	89.8	81.5	79.9	87.8
1977	131.1	87.5	87.1	89.0	88.3	88.5	87.8
1978	136.5	90.7	90.5	91.8	93.8	94.5	90.6
1979 ¹	134.2	86.6	86.7	86.0	89.4	90.5	84.5
Average annual percent change:							
1958-79	4.1	-6	-5	-1.0	-3	-2	-1.1
1974-79	5.1	2.4	2.9	.2	2.5	3.1	.3

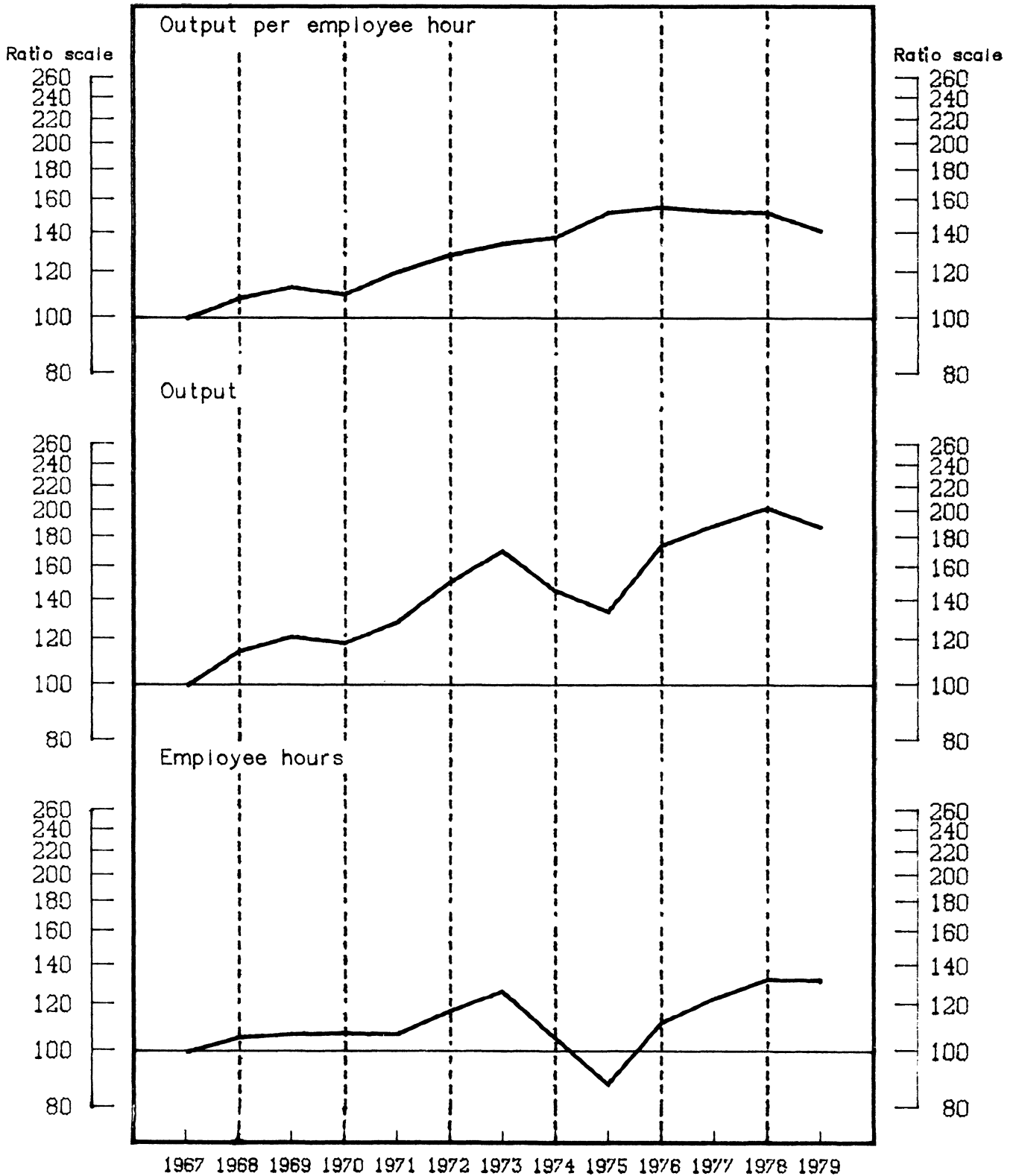
¹ Preliminary.

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 72. Household cooking equipment (SIC 3631): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 140. Household cooking equipment (SIC 3631): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	79.4	80.2	76.0	81.1	82.1	77.6
1959	83.4	82.9	85.7	85.3	84.6	87.3
1960	81.5	85.7	68.2	81.2	85.3	69.0
1961	84.4	88.0	73.0	84.7	88.3	73.4
1962	87.4	91.1	75.5	85.9	89.2	75.8
1963	95.5	94.9	98.2	97.9	97.6	98.8
1964	96.4	97.4	92.9	96.8	97.7	94.0
1965	101.2	100.0	106.1	104.0	103.5	106.1
1966	100.1	98.7	106.4	102.2	101.2	106.1
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	108.4	107.5	111.9	110.9	109.9	114.7
1969	113.4	114.8	108.2	114.7	115.7	111.4
1970	110.2	111.8	104.4	111.5	112.3	108.7
1971	120.4	122.3	113.5	122.9	124.2	118.1
1972	128.9	128.6	130.3	132.4	131.5	135.7
1973	134.9	134.0	138.6	138.6	137.6	142.1
1974	138.4	144.1	119.8	134.6	138.6	121.5
1975	152.8	161.4	126.7	147.6	153.8	128.8
1976	156.1	164.6	130.1	154.7	162.0	132.9
1977	153.6	161.2	130.1	152.3	158.8	132.4
1978	152.8	157.0	138.3	148.0	150.5	139.7
1979 ²	142.0	145.6	129.3	138.2	140.2	131.6
Average annual percent change:						
1958-79	3.5	3.6	3.1	3.3	3.4	3.2
1974-79 .....	.3	-.1	1.9	.4	-.1	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.

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 141. Household cooking equipment (SIC 3631): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	72.3	91.1	90.1	95.1	89.2	88.1	93.2
1959	79.4	95.2	95.8	92.6	93.1	93.8	90.9
1960	80.0	98.2	93.3	117.3	98.5	93.8	115.9
1961	78.4	92.9	89.1	107.4	92.6	88.8	106.8
1962	79.2	90.6	86.9	104.9	92.2	88.8	104.5
1963	92.1	96.4	97.1	93.8	94.1	94.4	93.2
1964	94.0	97.5	96.5	101.2	97.1	96.2	100.0
1965	106.1	104.8	106.1	100.0	102.0	102.5	100.0
1966	103.7	103.6	105.1	97.5	101.5	102.5	97.7
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	114.7	105.8	106.7	102.5	103.4	104.4	100.0
1969	121.5	107.1	105.8	112.3	105.9	105.0	109.1
1970	118.6	107.6	106.1	113.6	106.4	105.6	109.1
1971	128.9	107.1	105.4	113.6	104.9	103.8	109.1
1972	151.2	117.3	117.6	116.0	114.2	115.0	111.4
1973	171.2	126.9	127.8	123.5	123.5	124.4	120.5
1974	146.4	105.8	101.6	122.2	108.8	105.6	120.5
1975	134.6	88.1	83.4	106.2	91.2	87.5	104.5
1976	175.1	112.2	106.4	134.6	113.2	108.1	131.8
1977	189.6	123.4	117.6	145.7	124.5	119.4	143.2
1978	203.2	133.0	129.4	146.9	137.3	135.0	145.5
1979 ¹	188.4	132.7	129.4	145.7	136.3	134.4	143.2
Average annual percent change:							
1958-79	5.0	1.4	1.3	1.8	1.6	1.5	1.8
1974-79	7.6	7.3	7.8	5.7	7.2	7.7	5.7

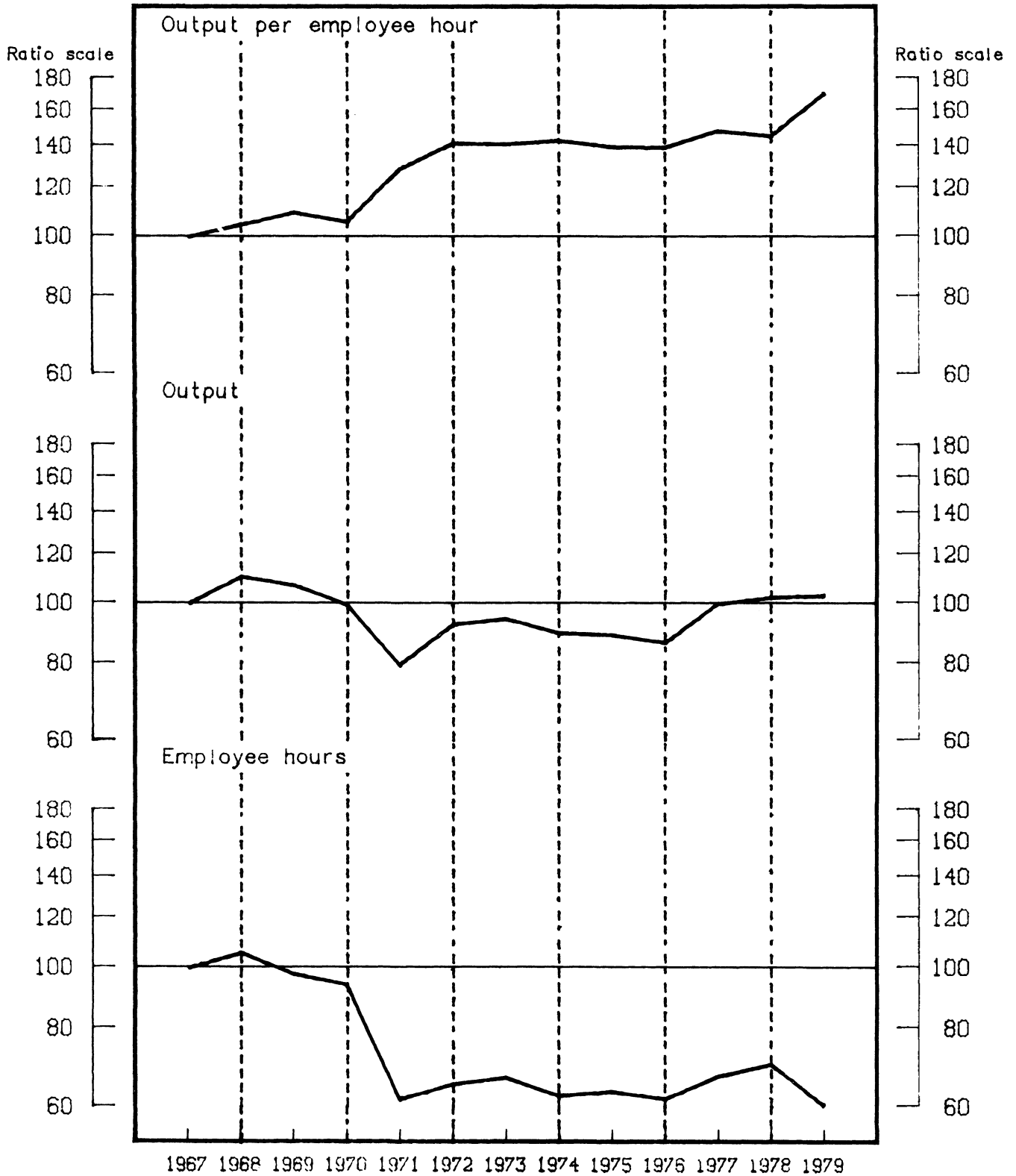
¹ Preliminary.

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

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

Chart 73. Household refrigerators and freezers (SIC 3632): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 142. Household refrigerators and freezers (SIC 3632): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	50.1	51.8	43.0	51.3	53.2	44.1
1959	55.0	54.8	55.9	56.6	56.5	57.1
1960	60.5	61.0	57.5	60.1	60.4	58.6
1961	64.6	65.5	60.1	65.8	67.1	60.4
1962	69.7	69.0	73.8	75.1	75.2	74.3
1963	81.9	82.7	78.4	84.3	85.4	78.9
1964	87.8	87.5	89.2	91.4	91.8	89.9
1965	90.7	90.7	90.7	95.3	96.1	91.4
1966	91.7	90.4	99.2	93.4	92.2	99.4
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.6	104.3	106.0	106.9	106.4	109.3
1969	109.5	110.5	104.5	111.0	111.6	108.2
1970	105.8	107.0	100.8	108.1	108.7	105.4
1971	128.8	129.6	125.4	129.9	129.4	131.8
1972	141.7	140.6	147.1	143.9	142.1	153.1
1973	141.3	141.9	138.4	143.2	143.0	143.4
1974	143.1	145.0	133.5	145.2	147.4	136.0
1975	139.9	145.2	118.0	137.6	141.5	120.9
1976	139.6	145.0	118.2	136.7	140.5	121.0
1977	148.4	148.4	148.9	148.0	147.1	151.6
1978	145.5	144.7	149.8	141.9	139.9	152.7
1979 ²	170.2	167.5	186.9	163.5	158.7	191.4
Average annual percent change:						
1958-79	5.5	5.5	5.6	5.3	5.2	5.7
1974-79	3.0	2.1	7.8	2.2	1.1	7.8

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 143. Household refrigerators and freezers (SIC 3632): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	40.2	80.2	77.6	93.4	78.3	75.6	91.2
1959	50.2	91.3	91.6	89.8	88.7	88.8	87.9
1960	53.4	88.3	87.5	92.8	88.9	88.4	91.2
1961	51.8	80.2	79.1	86.2	78.7	77.2	85.7
1962	59.6	85.5	86.4	80.8	79.4	79.3	80.2
1963	68.5	83.6	82.8	87.4	81.3	80.2	86.8
1964	79.0	90.0	90.3	88.6	86.4	86.1	87.9
1965	87.4	96.4	96.4	96.4	91.7	90.9	95.6
1966	95.0	103.6	105.1	95.8	101.7	103.0	95.6
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	110.5	105.6	105.9	104.2	103.4	103.9	101.1
1969	107.0	97.7	96.8	102.4	96.4	95.9	98.9
1970	99.6	94.1	93.1	98.8	92.1	91.6	94.5
1971	79.6	61.8	61.4	63.5	61.3	61.5	60.4
1972	92.5	65.3	65.8	62.9	64.3	65.1	60.4
1973	94.5	66.9	66.6	68.3	66.0	66.1	65.9
1974	89.6	62.6	61.8	67.1	61.7	60.8	65.9
1975	89.0	63.6	61.3	75.4	64.7	62.9	73.6
1976	86.4	61.9	59.6	73.1	63.2	61.5	71.4
1977	99.9	67.3	67.3	67.1	67.5	67.9	65.9
1978	102.3	70.3	70.7	68.3	72.1	73.1	67.0
1979 ¹	103.0	60.5	61.5	55.1	63.0	64.9	53.8
Average annual percent change:							
1958-79	3.5	-1.9	-1.9	-2.0	-1.7	-1.6	-2.1
1974-79	3.7	6	1.5	-3.8	1.4	2.5	-3.9

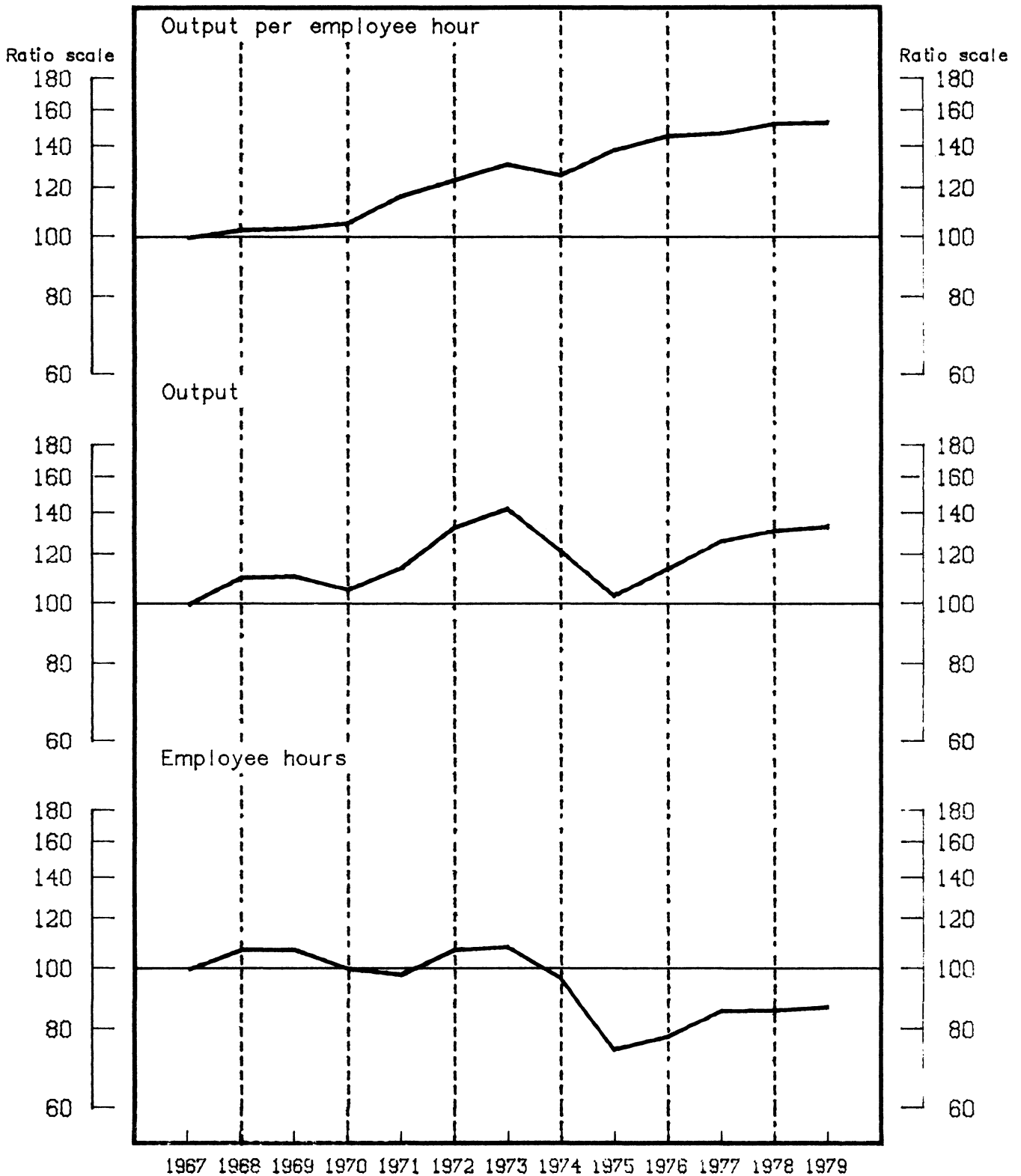
¹ Preliminary.

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 74. Household laundry equipment (SIC 3633): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 144. Household laundry equipment (SIC 3633): Indexes of output per employee hour and output per employee, 1958-79
(1967=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	59.3	64.4	44.7	61.7	67.7	45.6
1959	64.5	68.9	50.9	65.7	70.4	51.9
1960	63.3	68.8	47.7	63.7	69.0	48.4
1961	69.2	75.8	50.8	70.7	78.1	51.0
1962	76.8	82.6	59.6	78.9	85.6	60.0
1963	91.4	90.5	95.0	93.9	93.7	94.6
1964	90.5	89.0	97.4	94.2	93.4	97.7
1965	91.6	94.8	80.4	95.5	99.9	81.1
1966	94.7	94.6	95.1	97.0	97.7	94.6
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.8	101.1	110.4	104.2	102.3	113.0
1969	103.4	102.5	107.0	101.8	99.8	111.0
1970	105.4	105.9	103.0	106.1	105.6	108.1
1971	116.6	116.5	117.3	120.4	119.8	122.7
1972	123.9	121.6	134.7	125.2	122.1	139.4
1973	131.5	128.6	144.5	132.6	129.0	149.5
1974	126.0	126.3	125.2	119.9	118.1	127.9
1975	138.5	139.2	135.0	132.6	131.3	137.7
1976	145.9	146.3	144.4	143.2	142.1	147.6
1977	147.4	145.2	157.9	144.9	141.8	166.8
1978	152.8	150.4	164.1	149.0	145.6	165.5
1979 ²	153.3	150.0	169.0	151.2	146.7	172.7
Average annual percent change:						
1958-79	4.6	4.1	6.3	4.3	3.7	6.4
1974-79	3.7	3.1	6.4	4.4	4.1	6.4

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 145. Household laundry equipment (SIC 3633): Indexes of output, employee hours, and employees, 1958-79
(1967=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	68.4	115.3	106.2	153.1	110.8	101.1	150.0
1959	76.7	118.9	111.3	150.6	116.7	109.0	147.7
1960	67.1	106.0	97.6	140.7	105.4	97.2	138.6
1961	68.4	98.8	90.2	134.6	96.8	87.6	134.1
1962	75.0	97.6	90.8	125.9	95.0	87.6	125.0
1963	77.4	84.7	85.5	81.5	82.4	82.6	81.8
1964	86.6	95.7	97.3	88.9	91.9	92.7	88.6
1965	90.3	98.6	95.3	112.3	94.6	90.4	111.4
1966	101.0	106.7	106.8	106.2	104.1	103.4	106.8
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	110.4	107.4	109.2	100.0	105.9	107.9	97.7
1969	111.0	107.4	108.3	103.7	109.0	111.2	100.0
1970	105.6	100.2	99.7	102.5	99.5	100.0	97.7
1971	114.4	98.1	98.2	97.5	95.0	95.5	93.2
1972	133.1	107.4	109.5	98.8	106.3	109.0	95.5
1973	142.8	108.6	111.0	98.8	107.7	110.7	95.5
1974	122.1	96.9	96.7	97.5	101.8	103.4	95.5
1975	103.3	74.6	74.2	76.5	77.9	78.7	75.0
1976	114.1	78.2	78.0	79.0	79.7	80.3	77.3
1977	126.6	85.9	87.2	80.2	87.4	89.3	75.9
1978	131.6	86.1	87.5	80.2	88.3	90.4	79.5
1979 ¹	133.5	87.1	89.0	79.0	88.3	91.0	77.3
Average annual percent change:							
1958-79	3.4	-1.1	-7	-2.7	-8	-3	-2.8
1974-79	3.7	(²)	.5	-2.5	-7	-3	-2.5

¹ Preliminary.

² Less than .05 percent.

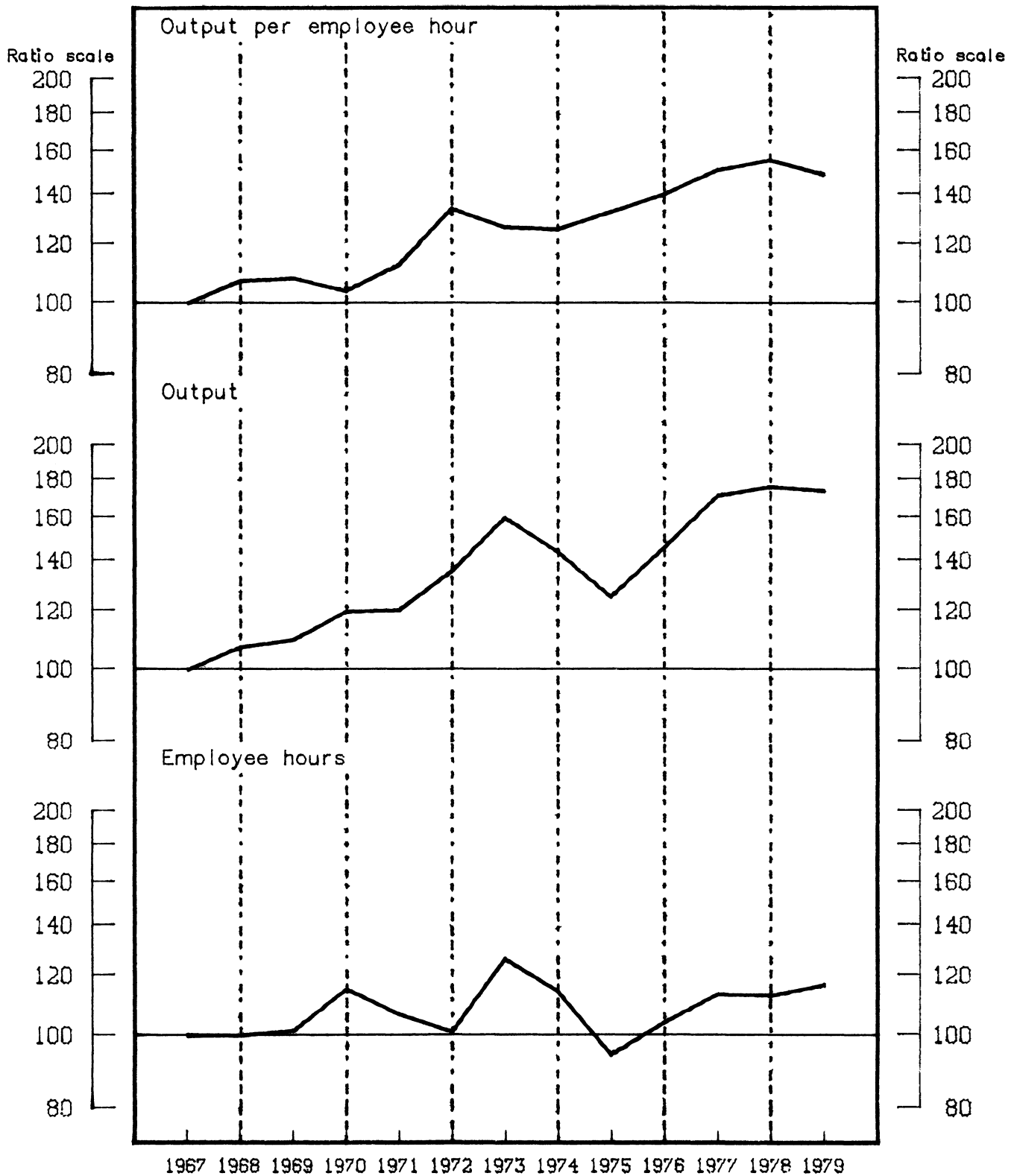
NOTE: Because of periodic revisions in source data, the measures in this table

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 75. Household appliances, not elsewhere classified (SIC 3639): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 146. Household appliances, not elsewhere classified (SIC 3636): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour			Output per employee		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	64.2	69.8	50.9	62.2	67.1	51.2
1959	72.6	79.6	56.4	68.3	73.4	56.7
1960	76.2	79.7	66.6	74.1	77.0	66.9
1961	80.7	85.6	68.0	79.5	84.1	68.3
1962	89.9	91.1	86.6	87.9	88.4	86.6
1963	94.4	93.7	96.6	92.5	91.4	96.2
1964	102.2	101.4	104.6	100.2	99.0	104.1
1965	104.2	101.0	116.1	102.6	98.5	116.6
1966	97.0	94.4	106.5	96.6	93.9	105.4
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	107.2	105.6	112.6	106.5	104.1	113.9
1969	108.1	108.6	106.3	105.8	104.5	109.7
1970	104.0	103.3	106.3	101.6	99.0	110.1
1971	112.7	113.7	109.9	109.0	107.4	113.6
1972	134.2	133.7	135.7	129.9	126.8	139.8
1973	126.7	120.4	152.8	119.2	110.4	155.6
1974	125.9	118.7	156.5	118.5	109.2	158.0
1975	132.9	130.6	141.2	126.4	121.8	142.3
1976	140.3	134.4	164.3	135.0	127.0	165.6
1977	151.2	140.8	200.1	146.3	134.0	201.1
1978	156.0	150.0	179.2	144.0	134.6	181.6
1979	149.2	143.4	171.4	140.5	131.9	174.1
Average annual percent change:						
1958-79	3.7	3.2	5.6	3.6	2.9	5.6
1974-79	4.1	4.1	4.0	3.9	3.8	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.

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.

Table 147. Household appliances, not elsewhere classified (SIC 3636): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	67.8	105.6	97.1	133.3	109.0	101.0	132.4
1959	73.4	101.1	92.2	130.2	107.5	100.0	129.4
1960	70.8	92.9	88.8	106.3	95.5	92.0	105.9
1961	72.3	89.6	84.5	106.3	91.0	86.0	105.9
1962	86.6	96.3	95.1	100.0	98.5	98.0	100.0
1963	90.5	95.9	96.6	93.7	97.8	99.0	94.1
1964	98.0	95.9	96.6	93.7	97.8	99.0	94.1
1965	99.5	95.5	98.5	85.7	97.0	101.0	85.3
1966	93.0	95.9	98.5	87.3	96.3	99.0	88.2
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	107.2	100.0	101.5	95.2	100.7	103.0	94.1
1969	109.7	101.5	101.0	103.2	103.7	105.0	100.0
1970	119.8	115.2	116.0	112.7	117.9	121.0	108.8
1971	120.3	106.7	105.8	109.5	110.4	112.0	105.9
1972	135.7	101.1	101.5	100.0	104.5	107.0	97.1
1973	160.1	126.4	133.0	104.8	134.3	145.0	102.9
1974	144.1	114.5	121.4	92.1	121.6	132.0	91.2
1975	125.5	94.4	96.1	88.9	99.3	103.0	88.2
1976	146.1	104.1	108.7	88.9	108.2	115.0	88.2
1977	171.5	113.4	121.8	85.7	117.2	128.0	85.3
1978	176.3	113.0	117.5	98.4	122.4	131.0	97.1
1979	174.1	116.7	121.4	101.6	123.9	132.0	100.0
Average annual percent change:							
1958-79	4.6	.9	1.4	-.9	1.0	1.7	-.9
1974-79	6.3	2.1	2.1	2.2	2.3	2.4	2.1

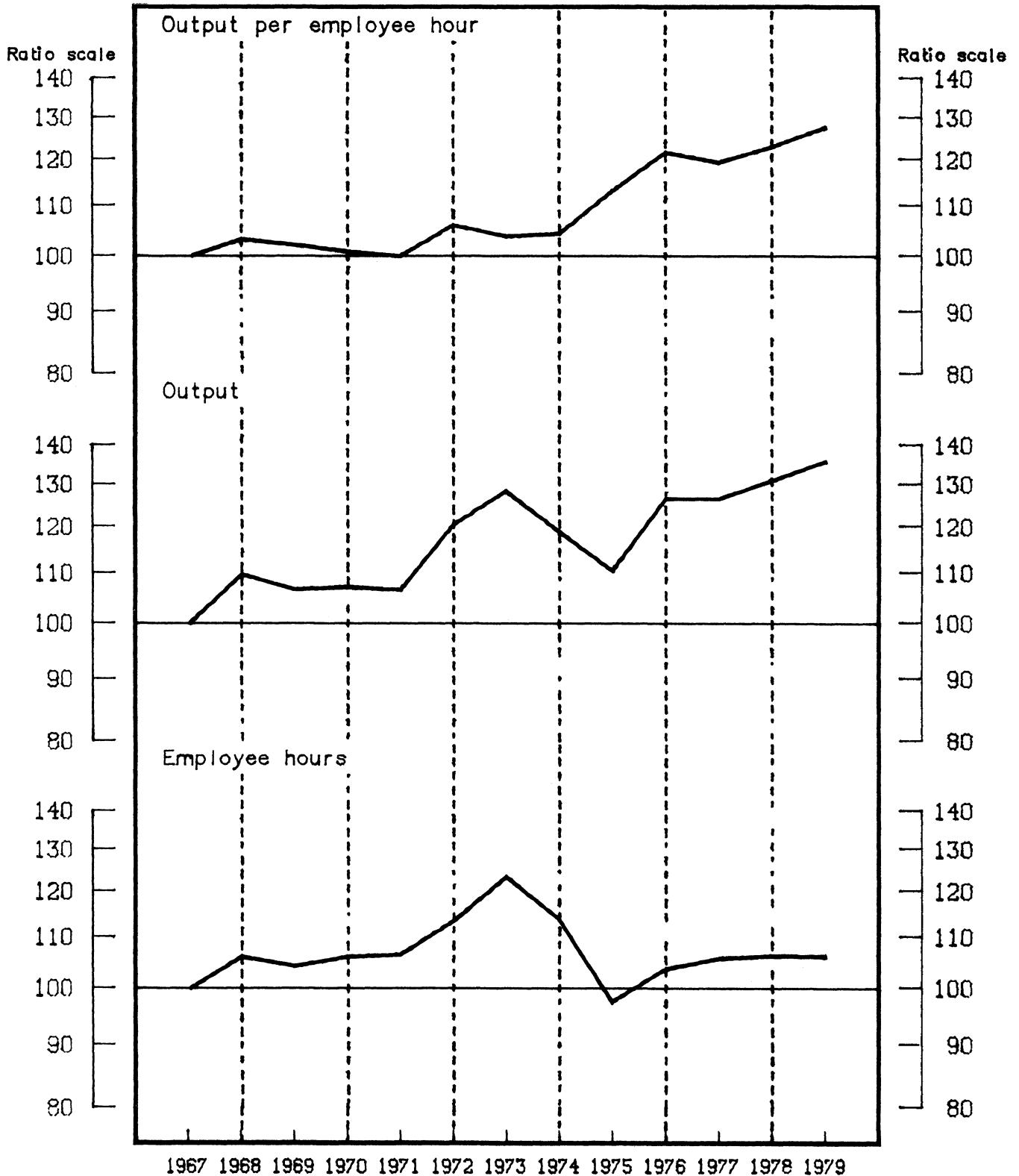
¹ Preliminary.

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

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

Chart 76. Electric lamps (SIC 3641): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 148. Electric lamps (SIC 3641): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	71.4	72.5	64.5	70.6	71.3	65.6
1955	76.1	76.7	71.9	77.0	77.5	73.1
1956	79.4	79.2	81.4	81.3	81.1	82.8
1957	76.4	77.9	66.9	76.7	78.1	68.1
1958	78.8	81.7	62.0	78.5	81.1	63.1
1959	84.2	85.8	73.9	86.6	88.4	75.1
1960	86.4	87.9	77.1	85.8	87.0	77.9
1961	85.1	86.8	74.0	85.6	87.3	74.3
1962	90.5	91.7	81.7	91.9	93.4	81.7
1963	92.4	93.1	88.2	93.9	94.8	88.3
1964	95.5	96.3	90.3	96.7	97.7	90.3
1965	101.5	101.5	101.4	104.2	104.6	101.4
1966	102.1	101.4	107.5	104.9	104.5	107.5
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.4	103.3	104.1	104.4	104.3	104.9
1969	102.3	102.9	97.9	102.3	102.7	99.8
1970	101.0	100.7	104.1	102.8	102.2	107.3
1971	100.1	100.2	98.9	100.7	100.5	101.9
1972	106.2	105.7	109.4	108.5	107.9	112.7
1973	104.0	103.0	112.1	106.4	105.3	115.1
1974	104.5	105.0	100.2	104.7	105.0	102.4
1975	113.3	114.8	103.5	114.1	115.3	105.7
1976	121.9	122.8	115.8	126.1	127.1	118.4
1977	119.6	120.6	113.4	122.7	123.6	115.9
1978	123.2	123.7	119.8	127.9	128.7	122.5
1979 ²	127.9	127.6	130.0	131.7	131.5	132.9
Average annual percent change:						
1954-79	2.0	2.0	2.5	2.1	2.1	2.6
1974-79	3.6	3.4	5.0	4.3	4.2	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 149. Electric lamps (SIC 3641): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	50.3	70.4	69.4	78.0	71.2	70.5	76.7
1955	56.1	73.7	73.1	78.0	72.9	72.4	76.7
1956	63.5	80.0	80.2	78.0	78.1	78.3	76.7
1957	63.3	82.8	81.3	94.6	82.5	81.1	93.0
1958	57.2	72.6	70.0	92.2	72.9	70.5	90.7
1959	68.1	80.9	79.4	92.2	78.6	77.0	90.7
1960	68.9	79.7	78.4	89.4	80.3	79.2	88.4
1961	64.0	75.2	73.7	86.5	74.8	73.3	86.1
1962	72.2	79.8	78.7	88.4	78.6	77.3	88.4
1963	75.9	82.1	81.5	86.1	80.8	80.1	86.0
1964	79.8	83.6	82.9	88.4	82.5	81.7	88.4
1965	89.6	88.3	88.3	88.4	86.0	85.7	88.4
1966	100.0	97.9	98.6	93.0	95.3	95.7	93.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	109.8	106.2	106.3	105.5	105.2	105.3	104.7
1969	106.8	104.4	103.8	109.1	104.4	104.0	107.0
1970	107.3	106.2	106.6	103.1	104.4	105.0	100.0
1971	106.7	106.6	106.5	107.9	106.0	106.2	104.7
1972	120.6	113.6	114.1	110.2	111.2	111.8	107.0
1973	128.5	123.6	124.8	114.6	120.8	122.0	111.6
1974	119.1	114.0	113.4	118.9	113.7	113.4	116.3
1975	110.7	97.7	96.4	107.0	97.0	96.0	104.7
1976	126.7	103.9	103.2	109.4	100.5	99.7	107.0
1977	126.7	105.9	105.1	111.7	103.3	102.5	109.3
1978	131.1	106.4	106.0	109.4	102.5	101.9	107.0
1979 ¹	136.0	106.3	106.6	104.6	103.3	103.4	102.3
Average annual percent change:							
1954-79	4.0	1.9	2.0	1.5	1.8	1.9	1.4
1974-79	3.4	-2	(²)	-1.6	-8	-7	-1.6

¹ Preliminary.

² Less than .05 percent.

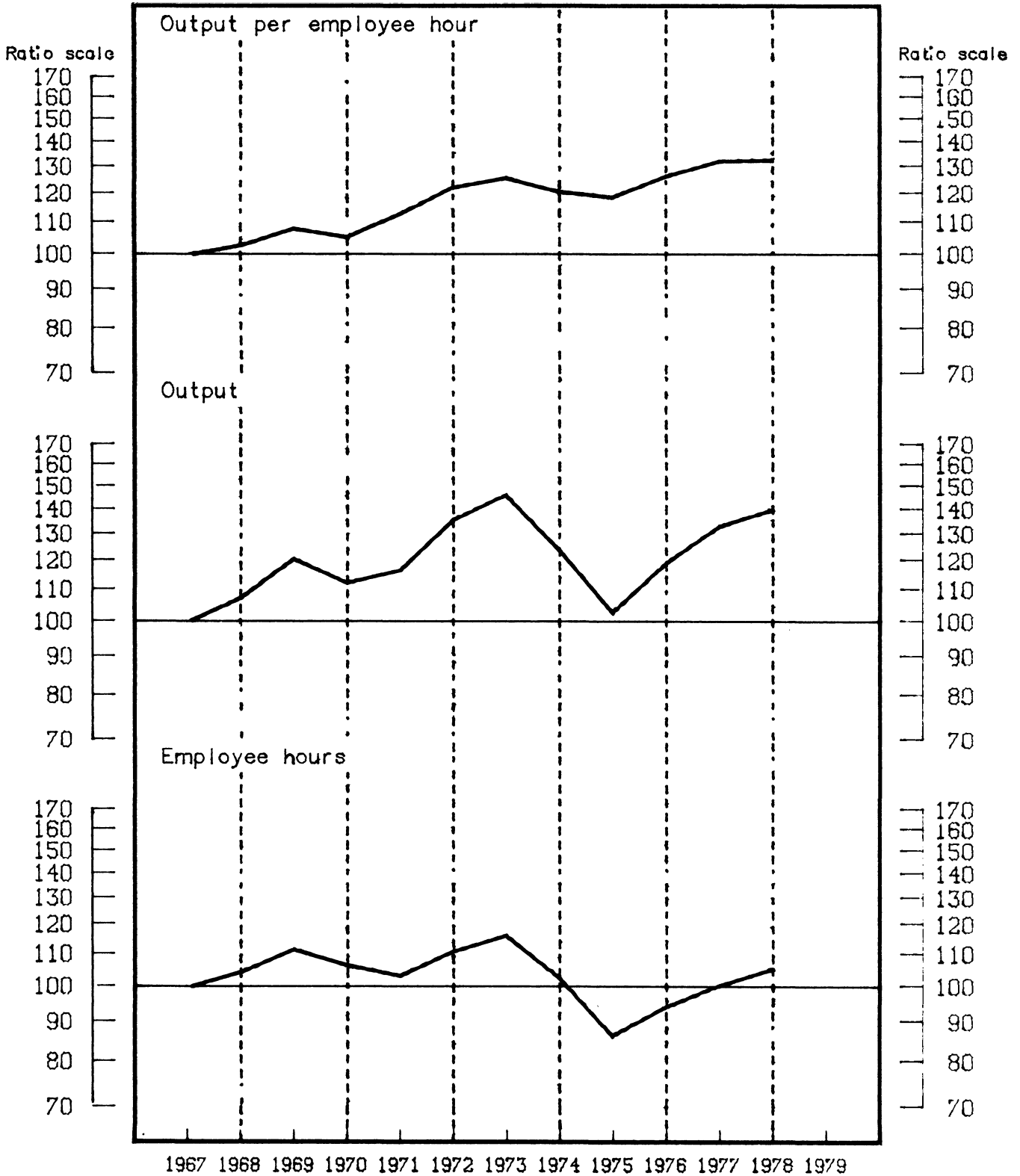
NOTE: Because of periodic revisions in source data, the measures in this table

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 77. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Output per hour and related data, 1967-78

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 150. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Indexes of output per employee hour and output per employee, 1961-78
(1967 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1961	83.6	82.6	87.4	82.1	80.5	88.0
1962	91.1	89.5	97.3	90.4	88.3	98.1
1963	91.0	90.4	93.7	91.4	90.5	94.3
1964	93.0	93.4	92.3	92.6	92.5	93.0
1965	97.4	95.4	105.1	98.7	96.9	105.8
1966	100.5	99.1	105.8	100.1	98.5	106.1
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.9	104.0	99.0	104.3	105.0	101.9
1969	108.1	109.9	102.1	108.5	109.4	105.6
1970	105.4	109.3	93.3	105.5	108.1	97.7
1971	113.0	116.1	102.5	111.1	112.4	107.2
1972	122.4	124.9	114.2	122.7	123.8	118.8
1973	126.0	126.6	123.4	125.2	124.6	127.3
1974	120.8	124.7	108.4	118.5	121.1	110.6
1975	118.9	125.6	99.3	115.5	120.6	100.9
1976	126.6	130.1	115.1	123.0	124.6	117.8
1977	132.5	138.6	113.7	129.3	133.8	115.8
1978 ²	132.9	137.6	118.1	129.6	132.5	120.4
Average annual percent change:						
1961-78	2.6	3.0	1.3	2.5	2.8	1.5
1974-78	3.0	3.0	3.1	3.0	2.9	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, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 151. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Indexes of output, employee hours, and employees, 1961-78
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1961	63.3	75.7	76.6	72.4	77.1	78.6	71.9
1962	72.6	79.7	81.1	74.6	80.3	82.2	74.0
1963	76.2	83.7	84.3	81.3	83.4	84.2	80.8
1964	81.6	87.7	87.4	88.4	88.1	88.2	87.7
1965	94.2	96.7	98.7	89.6	95.4	97.2	89.0
1966	100.3	99.8	101.2	94.8	100.2	101.8	94.5
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	107.5	104.5	103.4	108.6	103.1	102.4	105.5
1969	120.8	111.7	109.9	118.3	111.3	110.4	114.4
1970	112.4	106.6	102.8	120.5	106.5	104.0	115.1
1971	116.7	103.3	100.5	113.8	105.0	103.8	108.9
1972	135.9	111.0	108.8	119.0	110.8	109.8	114.4
1973	146.5	116.3	115.7	118.7	117.0	117.6	115.1
1974	124.2	102.8	99.6	114.6	104.8	102.6	112.3
1975	103.0	36.6	82.0	103.7	89.2	85.4	102.1
1976	119.4	94.3	91.8	103.7	97.1	95.8	101.4
1977	133.3	100.6	96.2	117.2	103.1	99.6	115.1
1978 ¹	140.2	105.5	101.9	118.7	108.2	105.8	116.4
Average annual percent change:							
1961-78	4.0	1.3	.9	2.6	1.5	1.2	2.5
1974-78	5.1	2.0	2.1	1.9	2.1	2.2	1.9

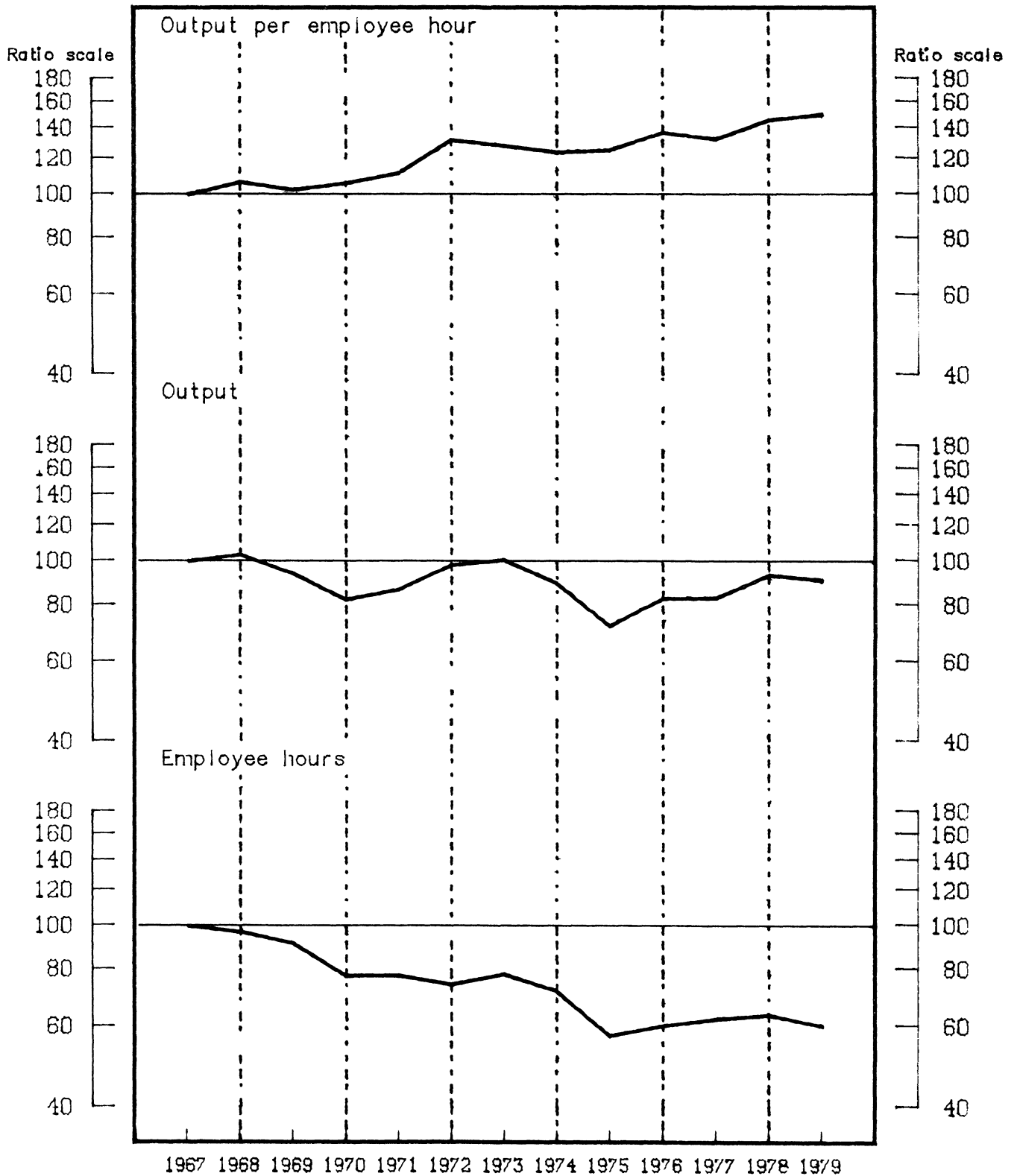
¹ Preliminary.

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 78. Radio and television receiving sets (SIC 3651): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 152. Radio and television receiving sets (SIC 3651): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour			Output per employee		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	62.9	66.2	50.5	63.7	67.1	51.5
1959	67.2	69.0	59.8	68.1	69.8	60.9
1960	68.8	72.3	55.8	69.4	73.0	56.6
1961	70.5	75.1	54.1	69.8	74.2	54.4
1962	78.5	81.1	67.9	79.2	82.0	68.3
1963	87.4	87.9	85.2	88.4	88.9	85.5
1964	87.2	87.3	86.5	89.7	90.2	87.3
1965	95.5	94.3	102.3	99.5	98.8	102.8
1966	98.4	95.9	112.5	100.4	98.1	112.6
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.7	108.2	100.2	107.3	108.3	102.9
1969	102.8	105.8	90.3	104.1	106.8	93.2
1970	106.2	115.6	75.9	107.2	115.9	79.3
1971	111.6	118.8	86.0	112.6	118.9	89.8
1972	132.2	136.0	116.1	132.5	135.3	120.5
1973	128.7	131.4	117.3	127.8	129.2	120.9
1974	124.4	132.3	95.9	119.3	125.1	97.7
1975	125.7	137.7	88.2	122.5	132.9	89.8
1976	137.3	151.6	93.9	135.2	148.3	96.1
1977	132.9	143.2	98.9	130.2	138.9	100.4
1978	146.4	162.7	98.3	142.2	156.2	99.7
1979 ¹	150.7	169.1	98.1	144.7	159.9	99.8
Average annual percent change:						
1958-79	4.1	4.5	2.7	3.8	4.1	2.8
1974-79	4.0	4.9	1.4	4.0	4.8	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 153. Radio and television receiving sets (SIC 3651): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	36.3	57.7	54.8	71.9	57.0	54.1	70.5
1959	43.7	65.0	63.3	73.1	64.2	62.6	71.7
1960	42.7	62.1	59.1	76.5	61.5	58.5	75.5
1961	45.9	65.1	61.1	84.8	65.8	61.9	84.3
1962	56.3	71.7	69.4	82.9	71.1	68.7	82.4
1963	61.5	70.4	70.0	72.2	69.6	69.2	71.9
1964	66.5	76.3	76.2	76.9	74.1	73.7	76.2
1965	85.4	89.4	90.6	83.5	85.8	86.4	83.1
1966	111.9	113.7	116.7	99.5	111.5	114.1	99.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.4	96.9	95.6	103.2	96.4	95.5	100.5
1969	94.1	91.5	88.9	104.2	90.4	88.1	101.0
1970	82.4	77.6	71.3	108.5	76.9	71.1	103.9
1971	86.7	77.7	73.0	100.8	77.0	72.9	96.6
1972	98.2	74.3	72.2	84.6	74.1	72.6	81.5
1973	100.8	78.3	76.7	85.9	78.9	78.0	83.4
1974	89.6	72.0	67.7	93.4	75.1	71.6	91.7
1975	72.3	57.5	52.5	82.0	59.0	54.4	80.5
1976	82.9	60.4	54.7	88.3	61.3	55.9	86.3
1977	83.2	62.6	58.1	84.1	63.9	59.9	82.9
1978	93.4	63.8	57.4	95.0	65.7	59.8	93.7
1979 ¹	91.0	60.4	53.8	92.8	62.9	56.9	91.2
Average annual percent change:							
1958-79	3.7	-4	-7	.9	-1	-4	.9
1974-79	2.5	-1.5	-2.3	1.0	-1.5	-2.2	1.1

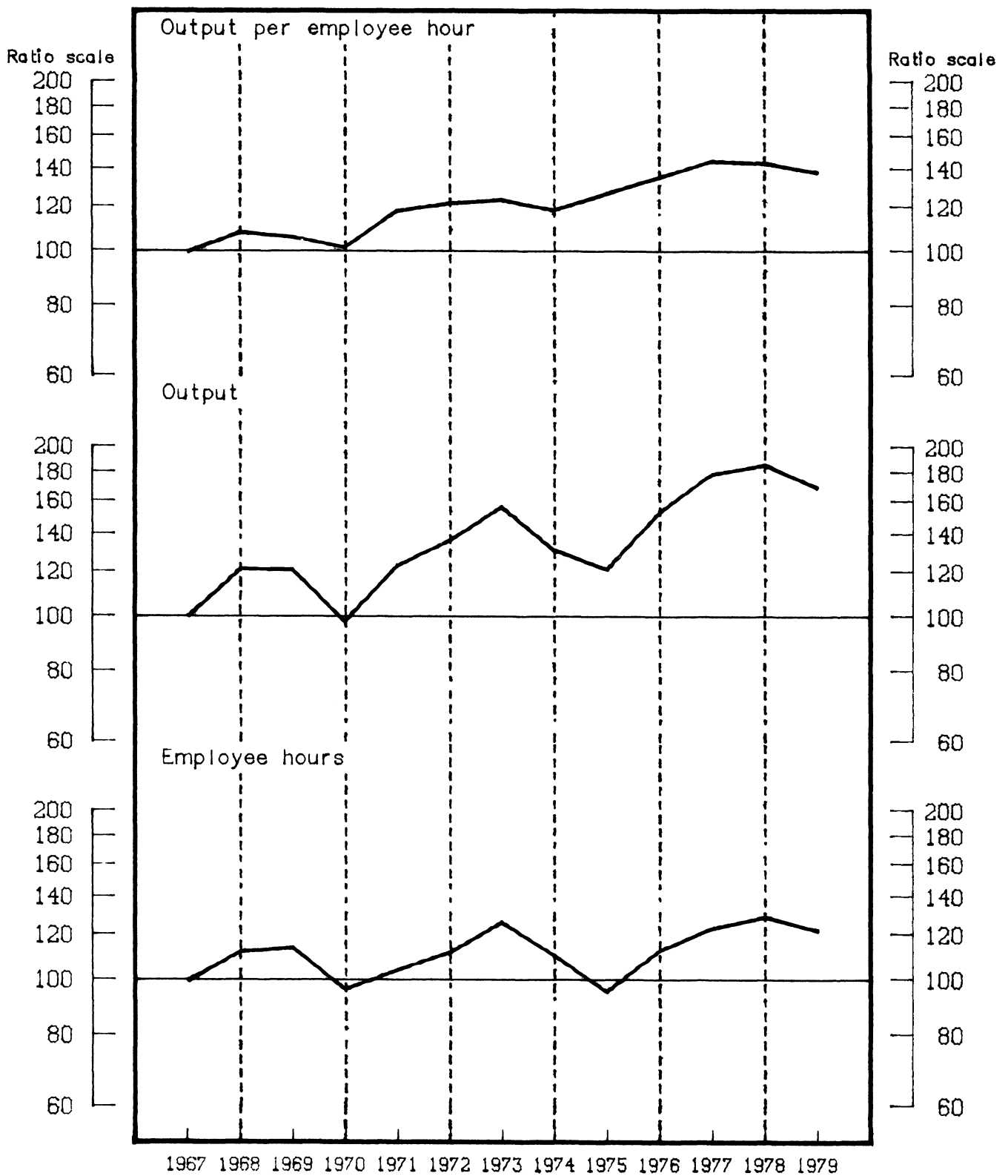
¹ Preliminary.

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 79. Motor vehicles and equipment (SIC 371): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 154. Motor vehicles and equipment (SIC 371): Indexes of output per employee hour and output per employee, 1957-79
(1967 = 100)

Year	Output per hour			Output per employee		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1957	68.9	67.6	73.3	68.9	67.7	73.3
1958	66.9	69.2	60.5	65.3	67.3	59.6
1959	73.3	72.5	75.9	73.7	73.0	76.4
1960	79.6	78.5	83.1	79.8	78.9	83.3
1961	80.6	81.9	76.7	79.4	80.4	75.8
1962	88.4	87.2	92.6	91.6	91.2	93.2
1963	91.9	90.4	96.7	95.5	94.9	97.9
1964	92.8	91.9	96.1	97.0	96.8	97.4
1965	99.0	96.0	110.1	105.8	103.9	112.4
1966	99.5	97.9	105.9	103.8	102.6	108.3
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	108.3	106.0	116.1	113.5	112.0	119.1
1969	106.2	105.0	110.4	108.5	107.4	112.5
1970	101.8	103.0	97.7	100.4	101.8	95.9
1971	118.2	117.0	122.3	118.7	118.7	120.7
1972	122.1	120.3	128.1	127.5	126.8	129.9
1973	123.9	122.1	129.8	131.0	130.2	133.7
1974	118.8	120.6	113.1	118.2	120.0	112.9
1975	127.1	128.1	123.8	125.2	126.5	120.9
1976	136.0	134.4	141.9	142.3	141.1	146.2
1977	145.1	142.8	153.3	155.3	154.0	160.2
1978	144.0	141.6	152.3	152.1	150.2	158.6
1979	138.7	138.5	139.4	140.1	139.5	142.3
Average annual percent change:						
1957-79	3.4	3.4	3.5	3.6	3.5	3.6
1974-79	3.5	3.0	5.1	4.4	4.0	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.

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.

Table 155. Motor vehicles and equipment (SIC 371): Indexes of output, employee hours, and employees, 1957-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1957	65.0	94.4	96.2	88.7	94.3	96.0	88.7
1958	48.6	72.6	70.2	80.3	74.4	72.2	81.5
1959	62.6	85.4	86.4	82.5	84.9	85.8	81.9
1960	70.9	89.1	90.3	85.3	88.8	89.9	85.1
1961	61.5	76.3	75.1	80.2	77.5	76.5	81.1
1962	77.7	87.9	89.1	83.9	84.8	85.2	83.4
1963	86.8	94.5	96.0	89.8	90.9	91.5	88.7
1964	89.5	96.4	97.4	93.1	92.3	92.5	91.9
1965	109.3	110.4	113.8	99.3	103.3	105.2	97.2
1966	109.7	110.2	112.1	103.6	105.7	106.9	101.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	121.6	112.3	114.7	104.7	107.1	108.6	102.1
1969	121.2	114.1	115.4	109.8	111.7	112.9	107.7
1970	98.3	96.6	95.4	100.6	97.9	96.6	102.5
1971	123.4	104.4	105.5	100.9	104.0	104.5	102.2
1972	136.7	112.0	113.6	106.7	107.2	107.8	105.2
1973	156.8	126.6	128.4	120.8	119.7	120.4	117.3
1974	131.6	110.8	109.1	116.4	111.3	109.7	116.6
1975	121.6	95.7	94.9	98.2	97.1	96.1	100.6
1976	153.7	113.0	114.4	108.3	108.0	108.9	105.1
1977	179.4	123.6	125.6	117.0	115.5	116.5	112.0
1978	186.3	129.4	131.6	122.3	122.5	124.0	117.5
1979	169.9	122.5	122.7	121.9	121.3	121.8	119.4
Average annual percent change:							
1957-79	5.3	1.9	1.9	1.8	1.7	1.7	1.7
1974-79	8.1	4.4	4.9	2.8	3.5	3.9	1.9

¹ Preliminary.

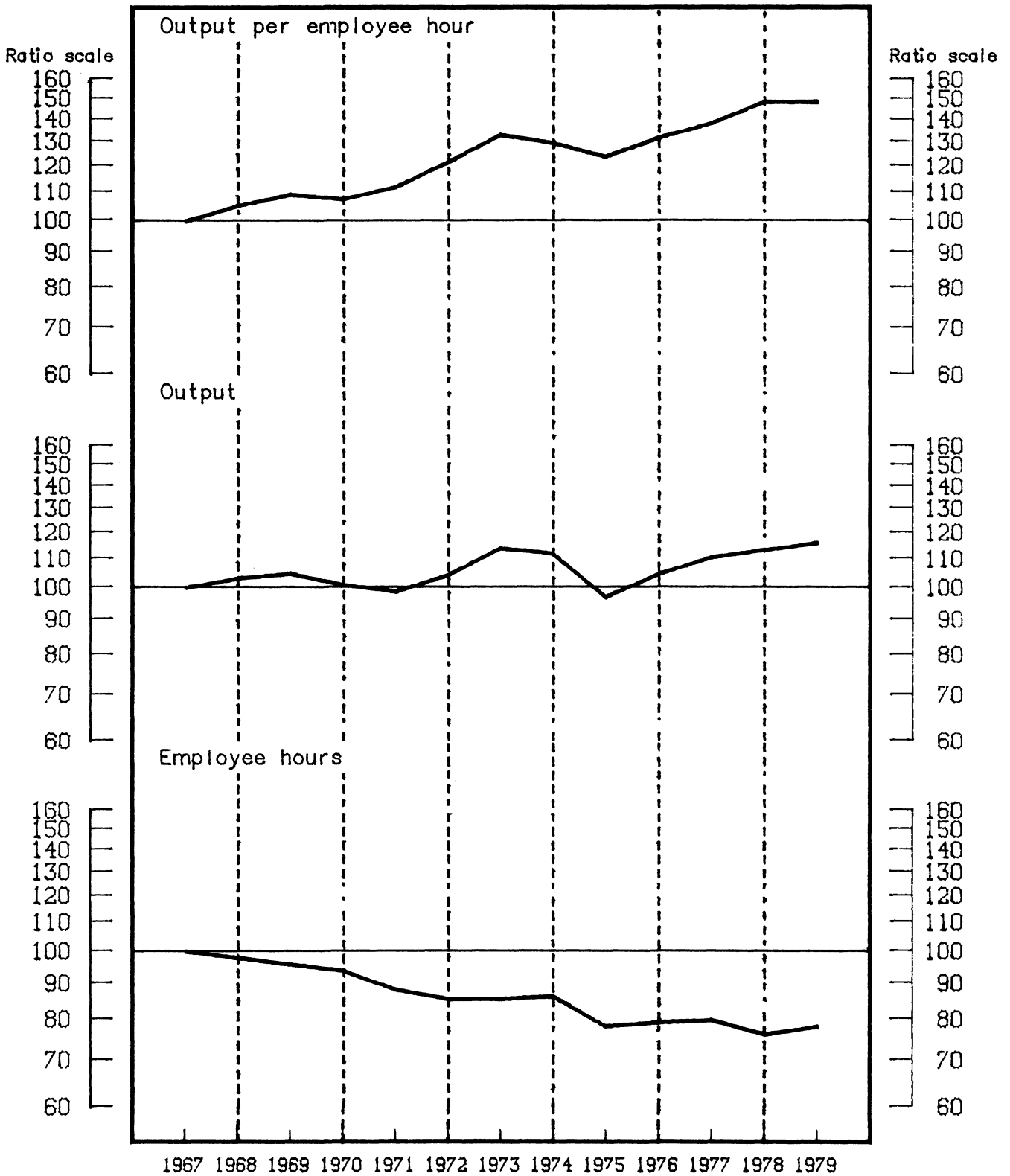
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from 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 80. Railroad transportation, revenue traffic (SIC 401): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 156. Railroad transportation, revenue traffic (SIC 401)¹: Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ²			Output per employee ²		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	48.9	47.5	63.4	49.9	48.4	66.5
1955	51.9	50.3	67.2	53.8	52.1	72.7
1956	52.9	51.4	67.4	54.6	53.0	73.1
1957	53.0	51.8	64.7	54.1	52.6	70.1
1958	56.9	56.2	62.5	57.7	56.7	67.7
1959	60.7	60.0	66.7	61.9	60.8	72.4
1960	62.4	61.9	66.7	63.2	62.2	72.2
1961	67.4	67.2	69.2	68.1	67.3	74.5
1962	72.3	72.0	74.8	73.6	72.8	80.7
1963	76.0	75.7	78.5	77.8	77.0	84.7
1964	80.9	80.6	83.3	83.9	83.1	90.6
1965	90.1	90.2	89.4	92.5	91.9	96.9
1966	97.2	97.2	96.9	99.3	98.9	102.4
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.3	105.5	103.8	106.5	106.7	104.3
1969	109.3	109.5	107.3	110.4	110.8	107.0
1970	107.6	108.0	104.1	108.5	109.1	103.6
1971	111.9	112.9	104.6	108.2	108.9	103.3
1972	121.7	123.2	112.2	120.9	122.3	110.1
1973	133.2	134.4	123.9	130.9	132.1	120.8
1974	129.6	130.8	121.2	128.4	129.9	117.8
1975	123.9	126.3	107.8	120.2	122.5	104.3
1976	131.9	133.9	117.8	129.5	131.6	114.3
1977	138.4	140.4	125.3	135.9	138.1	119.7
1978	148.6	151.4	129.9	145.8	148.8	123.9
1979 ³	148.5	151.4	129.7	146.2	149.6	124.2
Average annual percent change:						
1947-79	4.7	4.9	2.7	4.2	4.5	2.1
1974-79	3.7	3.8	2.8	3.7	3.9	2.4

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 Association of American Railroads and the Federal Railroad Administration, U.S. Department of Transportation. Employment and hours based on data from the Interstate Commerce Commission.

Table 157. Railroad transportation, revenue traffic (SIC 401)¹: Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	87.4	178.7	184.0	137.9	175.2	180.7	131.5
1955	93.7	180.7	186.1	139.5	174.2	179.9	128.8
1956	94.2	178.2	183.1	139.8	172.4	177.9	128.8
1957	88.4	166.9	170.8	136.6	163.5	168.2	126.1
1958	80.4	141.4	143.1	128.6	139.3	141.9	118.8
1959	83.7	137.8	139.4	125.4	135.2	137.6	115.6
1960	81.9	131.2	132.3	122.7	129.5	131.6	113.5
1961	81.0	120.1	120.5	117.1	119.0	120.4	108.7
1962	85.4	118.1	118.6	114.2	116.1	117.3	105.8
1963	87.7	115.4	115.9	111.7	112.7	113.9	103.6
1964	92.4	114.2	114.6	110.9	110.1	111.2	102.0
1965	97.4	108.1	108.0	109.0	105.3	106.0	100.5
1966	102.8	105.8	105.8	106.1	103.5	103.9	100.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.2	98.0	97.8	99.4	96.9	96.7	98.9
1969	104.8	95.9	95.7	97.7	94.9	94.6	97.9
1970	101.0	93.9	93.5	97.0	93.1	92.6	97.5
1971	98.8	88.3	87.5	94.5	91.3	90.7	95.6
1972	104.2	85.6	84.6	92.9	86.2	85.2	94.6
1973	114.0	85.6	84.8	92.0	87.1	86.3	94.4
1974	112.0	86.4	85.6	92.4	87.2	86.2	95.1
1975	97.0	78.3	76.8	90.0	80.7	79.2	93.0
1976	104.6	79.3	78.1	88.8	80.8	79.5	91.5
1977	110.6	79.9	78.8	88.3	81.4	80.1	92.4
1978	113.4	76.3	74.9	87.3	77.8	76.2	91.5
1979 ²	116.1	78.2	76.7	89.5	79.4	77.6	93.5
Average annual percent change:							
1947-79	.5	-4.0	-4.2	-2.1	-3.5	-3.8	-1.5
1974-79	2.0	-1.6	-1.7	-7	-1.6	-1.8	-4

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

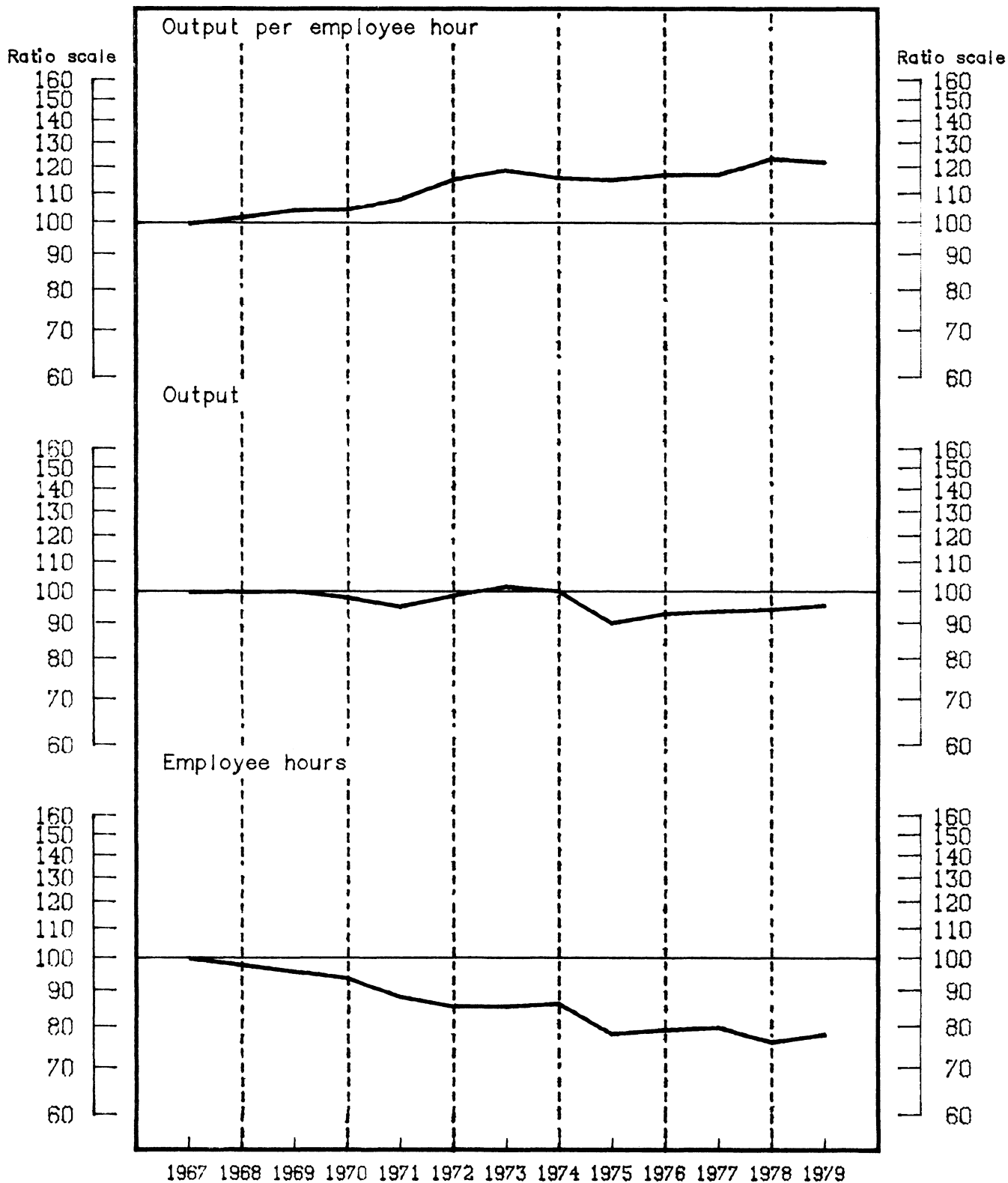
² Preliminary.

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 Association of American Railroads and the Federal Railroad Administration, U.S. Department of Transportation. Employment and hours based on data from the Interstate Commerce Commission.

Chart 81. Railroad transportation, car miles (SIC 401): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 158. Railroad transportation, car miles (SIC 401)¹: Indexes of output per employee hour and output per employee, 1954-79
(1967=100)

Year	Output per hour ²			Output per employee ²		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	57.4	55.8	74.4	58.6	56.8	78.0
1955	60.9	59.1	78.9	63.1	61.1	85.4
1956	62.3	60.6	79.4	64.4	62.4	86.2
1957	64.3	62.8	78.6	65.6	63.8	85.1
1958	69.4	68.6	76.3	70.4	69.1	82.6
1959	72.1	71.3	79.3	73.5	72.2	86.0
1960	74.4	73.8	79.5	75.4	74.2	86.0
1961	78.4	78.1	80.4	79.1	78.2	86.6
1962	81.0	80.7	83.8	82.4	81.6	90.5
1963	83.8	83.4	86.6	85.8	84.9	93.3
1964	86.7	86.4	89.3	89.9	89.0	97.1
1965	92.5	92.6	91.7	95.0	94.3	99.5
1966	97.3	97.3	97.0	99.4	99.0	102.5
1967	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.1	102.4	100.7	103.3	103.5	101.2
1969	104.5	104.7	102.6	105.6	105.9	102.3
1970	104.7	105.1	101.3	105.6	106.2	100.8
1971	108.2	109.1	101.1	104.6	105.3	99.9
1972	115.5	116.9	106.5	114.7	116.1	104.5
1973	119.2	120.3	110.9	117.1	118.2	108.1
1974	116.2	117.3	108.7	115.1	116.5	105.6
1975	115.5	117.7	100.4	112.0	114.1	97.2
1976	117.5	119.3	105.0	115.3	117.2	101.9
1977	117.5	119.2	106.3	115.4	117.2	101.6
1978	124.0	126.3	108.4	121.6	124.1	103.4
1979 ³	122.6	125.0	107.2	120.8	123.6	102.6
Average annual percent change:						
1947-79	3.6	3.8	1.6	3.1	3.4	1.0
1974-79	1.4	1.5	.5	1.4	1.6	.1

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 Association of American Railroads and the Federal Railroad Administration, U.S. Department of Transportation. Employment and hours based on data from the Interstate Commerce Commission.

Table 159. Railroad transportation, car miles (SIC 401)¹: Indexes of output, employee hours, and employees, 1954-79
(1967=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	102.6	178.7	184.0	137.9	175.2	180.7	131.5
1955	110.0	180.7	186.1	139.5	174.2	179.9	128.8
1956	111.0	178.2	183.1	139.8	172.4	177.9	128.8
1957	107.3	166.9	170.8	136.6	163.5	168.2	126.1
1958	98.1	141.4	143.1	128.6	139.3	141.9	118.8
1959	99.4	137.8	139.4	125.4	135.2	137.6	115.6
1960	97.6	131.2	132.3	122.7	129.5	131.6	113.5
1961	94.1	120.1	120.5	117.1	119.0	120.4	108.7
1962	95.7	118.1	118.6	114.2	116.1	117.3	105.8
1963	96.7	115.4	115.9	111.7	112.7	113.9	103.6
1964	99.0	114.2	114.6	110.9	110.1	111.2	102.0
1965	100.0	108.1	108.0	109.0	105.3	106.0	100.5
1966	102.9	105.8	105.8	106.1	103.5	103.9	100.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	100.1	98.0	97.8	99.4	96.9	96.7	98.9
1969	100.2	95.9	95.7	97.7	94.9	94.6	97.9
1970	98.3	93.9	93.5	97.0	93.1	92.6	97.5
1971	95.5	88.3	87.5	94.5	91.3	90.7	95.6
1972	98.9	85.6	84.6	92.9	86.2	85.2	94.6
1973	102.0	85.6	84.8	92.0	87.1	86.3	94.4
1974	100.4	86.4	85.6	92.4	87.2	86.2	95.1
1975	90.4	78.3	76.8	90.0	80.7	79.2	93.0
1976	93.2	79.3	78.1	88.8	80.8	79.5	91.5
1977	93.9	79.9	78.8	88.3	81.4	80.1	92.4
1978	94.6	76.3	74.9	87.3	77.8	76.2	91.5
1979 ²	95.9	78.2	76.7	89.5	79.4	77.6	93.5
Average annual percent change:							
1947-79	-5	-4.0	-4.2	-2.1	-3.5	-3.8	-1.5
1974-79	-2	-1.6	-1.7	-7	-1.6	-1.8	-4

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

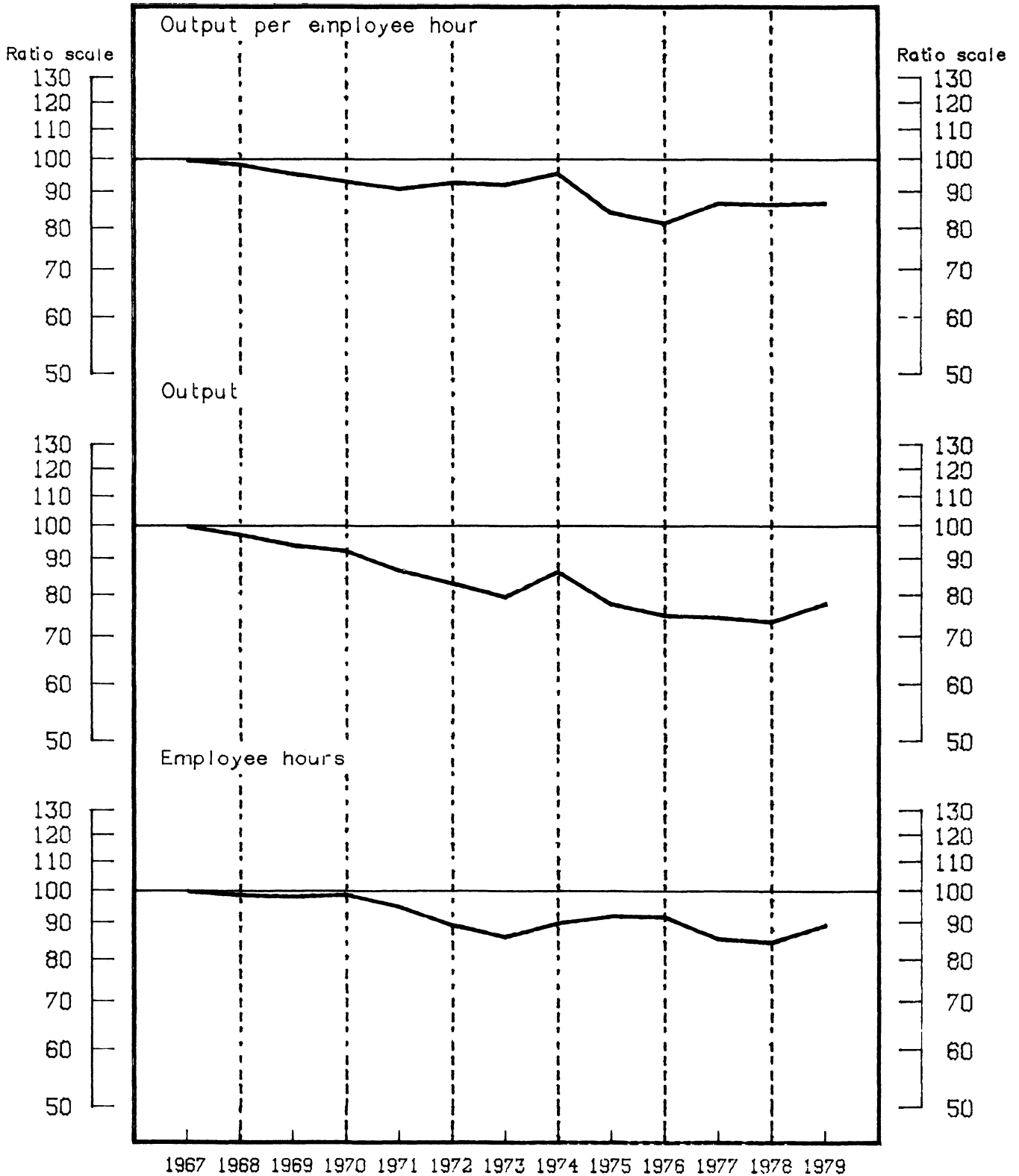
² Preliminary.

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 Association of American Railroads and the Federal Railroad Administration, U.S. Department of Transportation. Employment and hours based on data from the Interstate Commerce Commission.

Chart 82. Bus carriers, Class I (parts of SIC 4111, 4131, 414): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 160. Bus carriers, Class I (Parts of SIC 4111, 4131, 414): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1954	77.4	79.5	80.5	104.0	101.3
1955	80.4	82.0	79.0	98.3	96.4
1956	81.2	82.5	78.0	96.1	94.5
1957	81.6	82.8	78.3	96.0	94.6
1958	81.9	82.1	74.0	90.3	90.1
1959	84.6	84.7	74.0	87.5	87.4
1960	83.7	84.5	75.4	90.1	89.2
1961	85.3	85.5	77.1	90.4	90.2
1962	93.3	94.3	86.2	92.4	91.4
1963	94.6	94.6	86.6	91.5	91.5
1964	95.7	95.9	90.2	94.3	94.1
1965	101.2	100.6	95.0	93.9	94.4
1966	103.4	102.7	99.2	95.9	96.6
1967	100.0	100.0	100.0	100.0	100.0
1968	98.6	98.8	97.5	98.9	98.7
1969	95.7	95.4	94.2	98.4	98.7
1970	93.4	93.1	92.5	99.0	99.4
1971	91.3	89.2	86.9	95.2	97.4
1972	93.0	87.2	83.3	89.6	95.5
1973	92.5	88.9	79.8	86.3	89.8
1974	95.9	92.4	86.5	90.2	93.6
1975	84.5	80.8	78.0	92.3	96.5
1976	81.7	78.5	75.2	92.1	95.8
1977	87.1	82.5	74.7	85.8	90.5
1978 ¹	86.8	83.2	73.7	84.9	88.6
1979 ¹	87.2	85.4	78.2	89.7	91.6
Average annual percent change:					
1954-79	.4	.1	.1	-.3	(²)
1974-79	-.9	-.7	-1.9	-1.0	-1.2

¹ Preliminary.

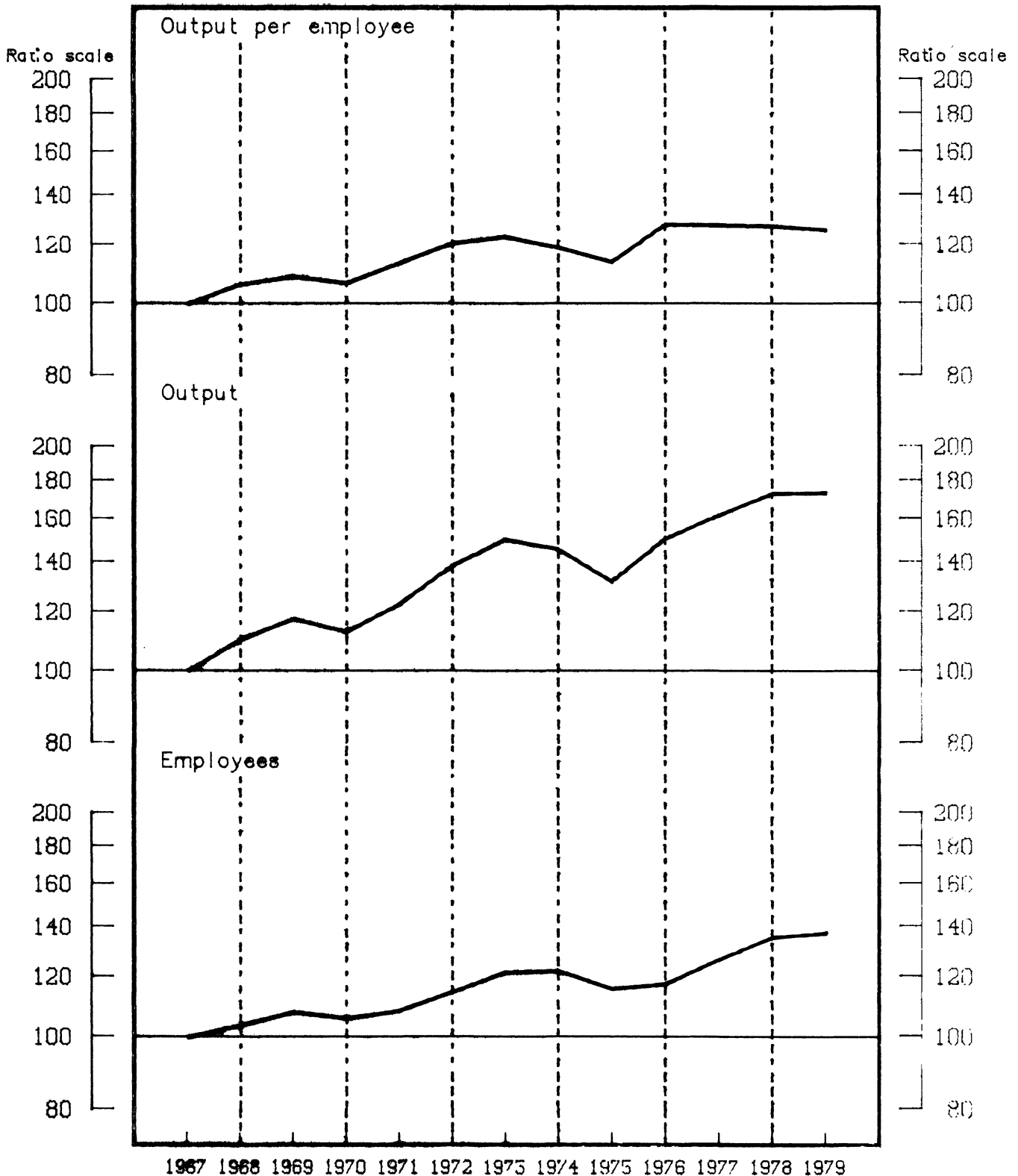
² Less than .05 percent.

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 Interstate Commerce Commission, the American Bus Association, and the Bureau of Labor Statistics.

Chart 83. Intereity trucking (SIC 4213 part): Output per employee and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 161. Intercity trucking (SIC 4213 part)¹: Indexes of output per employee, output, and employees, 1954-79
(1967 = 100)

Year	Output per employee	Output	Employees
Index:			
1954	72.8	44.6	61.3
1955	76.7	51.4	67.0
1956	77.0	53.6	69.6
1957	78.2	56.6	72.4
1958	80.4	56.5	70.3
1959	85.1	66.3	77.9
1960	85.0	67.4	79.3
1961	85.9	67.0	78.0
1962	88.6	72.6	81.9
1963	92.9	78.0	84.0
1964	95.3	82.9	87.0
1965	98.6	93.1	94.4
1966	104.0	103.4	99.4
1967	100.0	100.0	100.0
1968	106.4	110.3	103.7
1969	109.0	117.6	107.9
1970	106.8	113.1	105.9
1971	113.6	123.0	108.3
1972	120.9	138.7	114.7
1973	123.4	150.3	121.8
1974	119.3	146.0	122.4
1975	114.1	132.2	115.9
1976	128.2	150.8	117.6
1977	127.9	162.0	126.7
1978 ²	127.6	173.3	135.8
1979 ²	126.1	173.7	137.7
Average annual percent change:			
1954-79	2.4	5.6	3.1
1974-79	1.8	5.1	3.3

¹ Class I and II common and contract carriers.

² Preliminary.

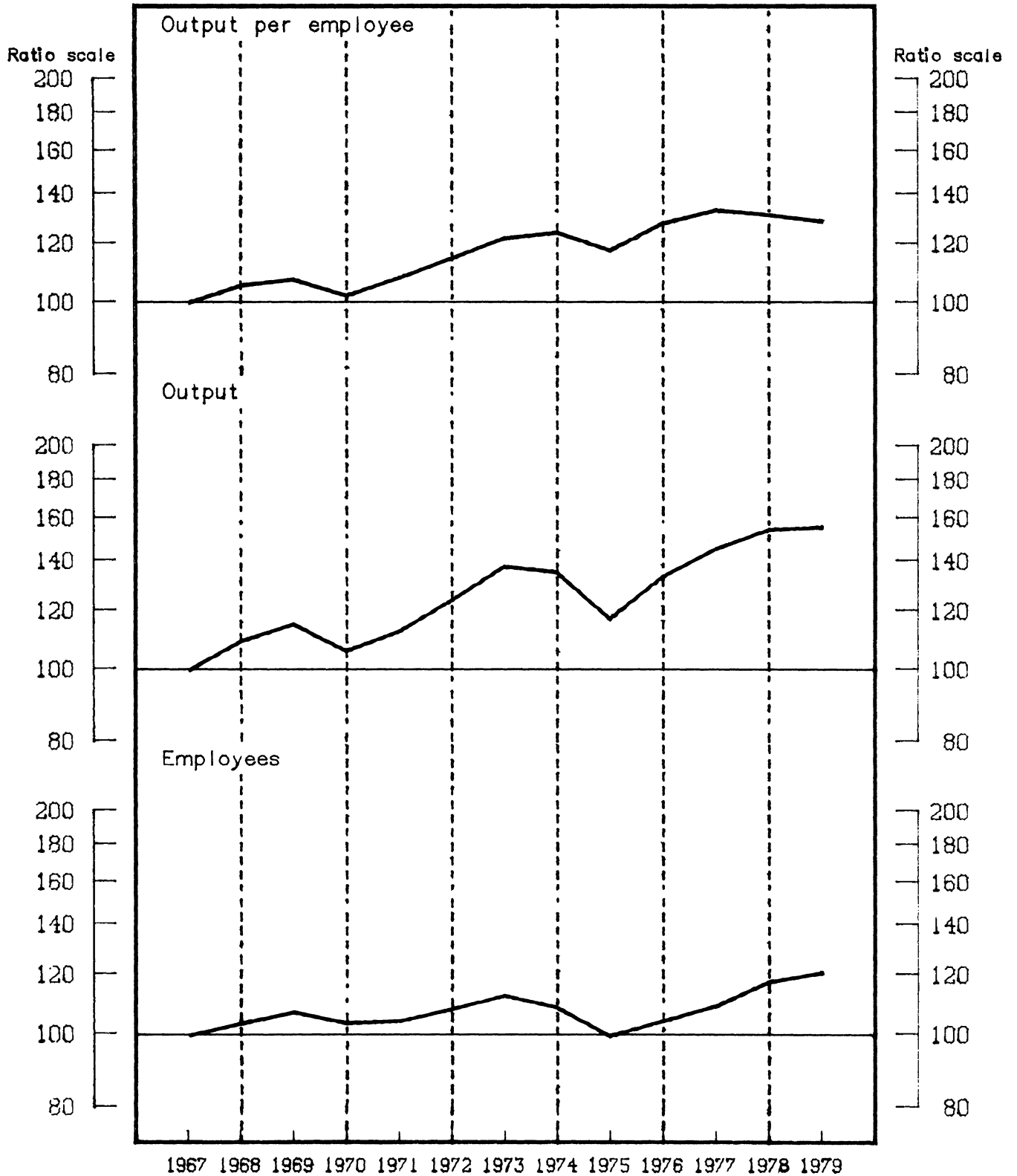
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those

previously published.

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

Chart 84. Intercity trucking, general freight (SIC 4213 part): Output per employee and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 162. Intercity trucking, general freight (SIC 4213 part)¹: Indexes of output per employee, output, and employees, 1954-79
(1967 = 100)

Year	Output per employee	Output	Employees
Index:			
1954	77.6	50.8	65.5
1955	80.1	56.8	70.9
1956	81.0	60.0	74.1
1957	80.7	62.3	77.2
1958	82.1	61.4	74.8
1959	87.8	71.2	81.1
1960	86.6	70.7	81.6
1961	86.6	69.5	80.3
1962	89.0	74.7	83.9
1963	92.7	79.0	85.2
1964	96.8	85.3	88.1
1965	104.8	93.6	89.3
1966	103.1	103.3	100.2
1967	100.0	100.0	100.0
1968	105.6	109.5	103.7
1969	107.5	115.3	107.3
1970	102.3	106.2	103.8
1971	108.0	112.8	104.4
1972	114.7	124.2	108.3
1973	122.1	137.8	112.9
1974	124.3	135.4	108.9
1975	117.6	117.4	99.8
1976	127.9	133.7	104.5
1977	133.2	145.7	109.4
1978 ²	131.3	154.7	117.8
1979 ²	128.7	155.8	121.1
Average annual percent change:			
1954-79	2.2	4.5	2.2
1974-79	1.6	4.7	3.1

¹ Class I and II common carriers of general freight.

² Preliminary.

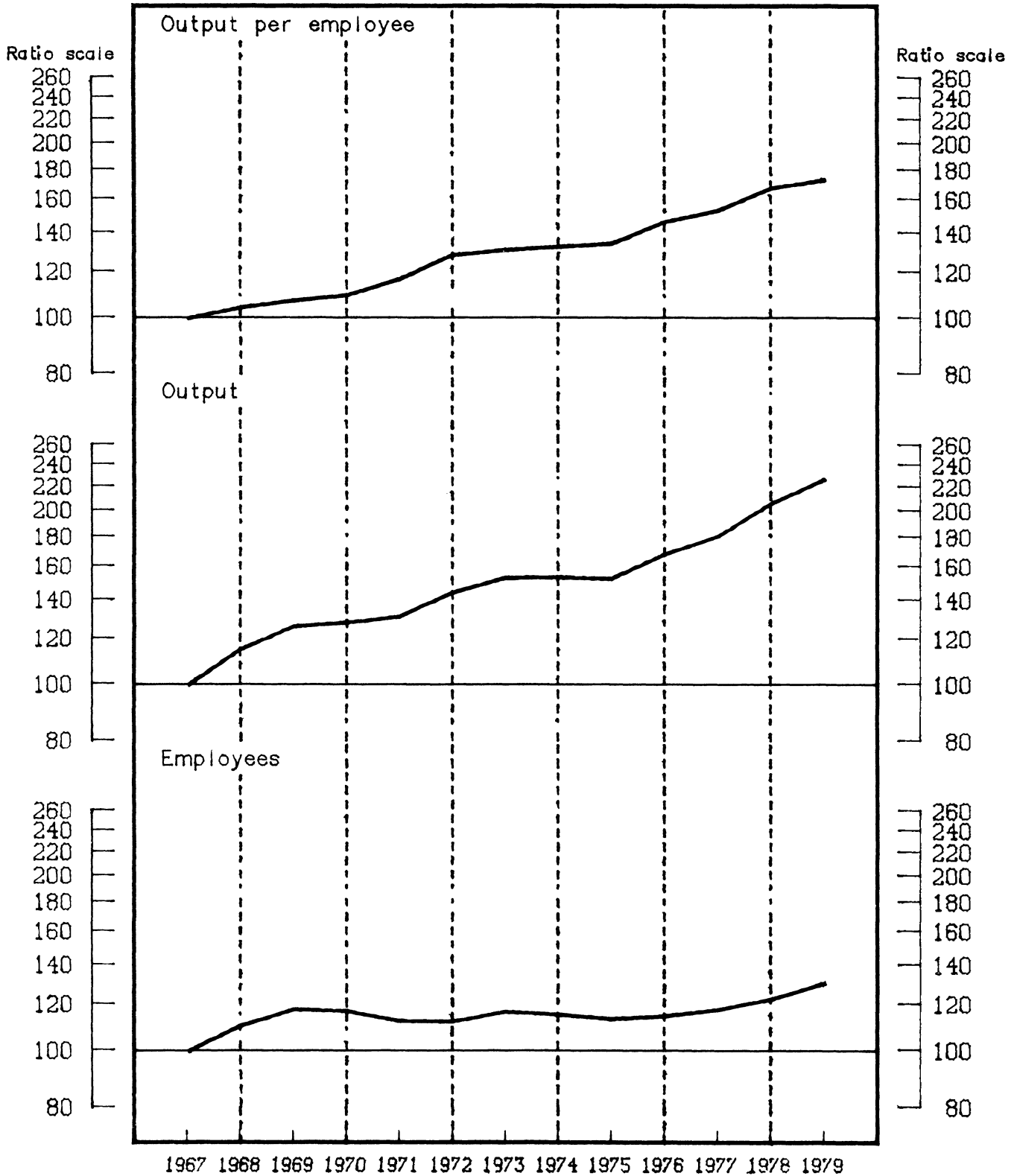
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those

previously published.

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

Chart 85. Air transportation(SIC 4511): Output per employee and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 163. Air transportation (SIC 4511): Indexes of output per employee, output, and employees, 1954-79
(1967 = 100)

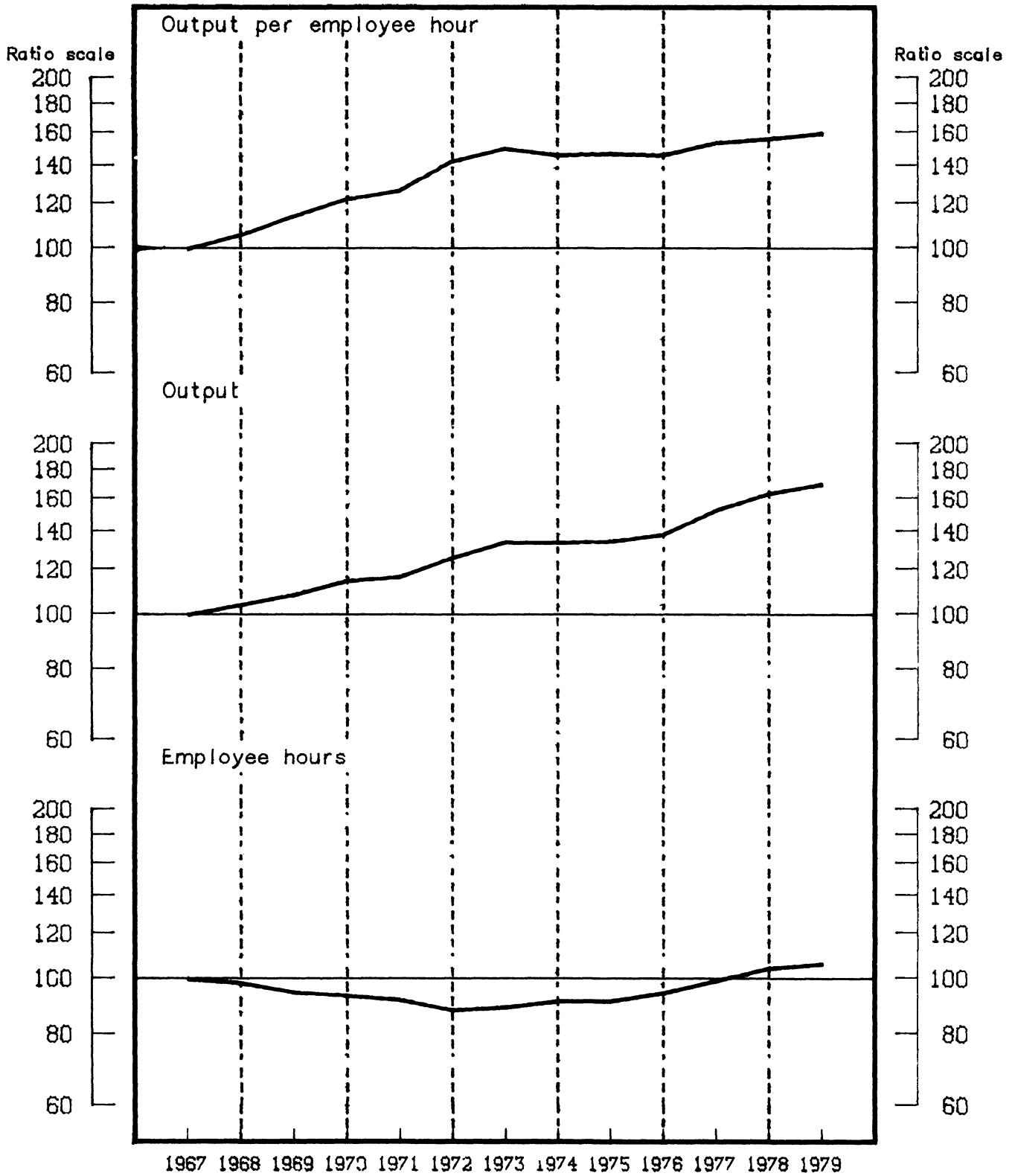
Year	Output per employee	Output	Employees
Index:			
1954	39.3	17.4	44.3
1955	44.2	20.7	46.8
1956	45.4	23.9	52.6
1957	47.0	27.1	57.7
1958	48.5	27.5	56.7
1959	52.3	31.7	60.6
1960	52.7	33.7	64.0
1961	55.7	35.7	64.1
1962	61.9	40.3	65.1
1963	68.4	45.7	66.8
1964	74.9	53.2	71.0
1965	83.5	64.3	77.0
1966	93.7	78.9	84.2
1967	100.0	100.0	100.0
1968	104.4	115.4	110.5
1969	107.3	126.5	117.9
1970	109.6	128.5	117.2
1971	116.8	131.6	112.7
1972	128.7	144.7	112.4
1973	131.3	153.4	116.8
1974	133.0	153.8	115.6
1975	134.6	152.9	113.6
1976	146.7	168.6	114.9
1977	153.6	181.1	117.9
1978	167.9	206.3	122.9
1979 ¹	173.6	227.1	130.8
Average annual percent change:			
1947-79	6.9	12.1	4.9
1974-79	6.0	8.7	2.5

¹ Preliminary.
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those

previously published.
SOURCE: Based on Civil Aeronautics Board data.

Chart 86. Petroleum pipelines (SIC 4612, 4613): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 164. Petroleum pipelines (SIC 4612, 4613): Indexes of output per employee hour and output per employee, 1958-79
(1967 = 100)

Year	Output per hour ¹		Output per employee ¹	
	All employees	Production workers ²	All employees	Production workers ²
Index:				
1958	40.4	39.0	39.7	38.4
1959	46.7	45.0	45.7	44.1
1960	50.2	48.9	48.7	47.4
1961	53.7	53.2	51.9	51.4
1962	56.0	54.5	54.6	53.2
1963	61.6	59.8	60.3	58.5
1964	66.9	66.0	66.2	65.4
1965	79.4	79.2	78.6	78.5
1966	89.5	89.3	88.1	88.0
1967	100.0	100.0	100.0	100.0
1968	105.8	106.8	105.4	106.2
1969	114.3	117.7	113.5	116.9
1970	122.6	128.7	122.1	128.1
1971	126.9	135.8	126.4	135.1
1972	142.9	151.8	141.4	150.4
1973	150.4	160.9	149.8	160.1
1974	146.6	156.7	145.2	155.3
1975	147.4	161.9	144.2	158.3
1976	146.6	164.1	146.6	164.1
1977	154.0	174.8	154.8	175.6
1978	156.7	180.5	156.4	180.1
1979 ³	160.2	188.1	161.8	190.0
Average annual percent change:				
1958-79	7.1	8.1	7.3	8.3
1974-79	1.9	3.8	2.4	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 Represents nonsupervisory workers.

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. Employment and hours based on data from the Bureau of Labor Statistics and the Interstate Commerce Commission.

Table 165. Petroleum pipelines (SIC 4612, 4613): Indexes of output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output	Employee hours		Employees	
		All employees	Production workers ¹	All employees	Production workers ¹
Index:					
1958	54.6	135.1	139.9	137.4	142.3
1959	59.3	127.1	131.7	129.9	134.6
1960	60.1	119.7	123.0	123.5	126.9
1961	61.6	114.7	115.8	118.7	119.9
1962	63.1	112.7	115.7	115.5	118.6
1963	66.7	108.3	111.6	110.7	114.1
1964	70.8	105.9	107.3	107.0	108.3
1965	82.0	103.3	103.5	104.3	104.5
1966	89.1	99.6	99.8	101.1	101.3
1967	100.0	100.0	100.0	100.0	100.0
1968	104.2	98.5	97.6	98.9	98.1
1969	108.6	95.0	92.3	95.7	92.9
1970	114.9	93.7	89.3	94.1	89.7
1971	116.9	92.1	86.1	92.5	86.5
1972	126.3	88.4	83.2	89.3	84.0
1973	134.5	89.4	83.6	89.8	84.0
1974	134.3	91.6	85.7	92.5	86.5
1975	135.0	91.6	83.4	93.6	85.3
1976	138.8	94.7	84.6	94.7	84.6
1977	153.1	99.4	87.6	98.9	87.2
1978	163.9	104.6	90.8	104.8	91.0
1979 ²	170.4	106.4	90.6	105.3	89.7
Average annual percent change:					
1958-79	5.8	-1.3	-2.2	-1.4	-2.3
1974-79	5.5	3.5	1.6	3.0	1.2

¹ Represents nonsupervisory workers.

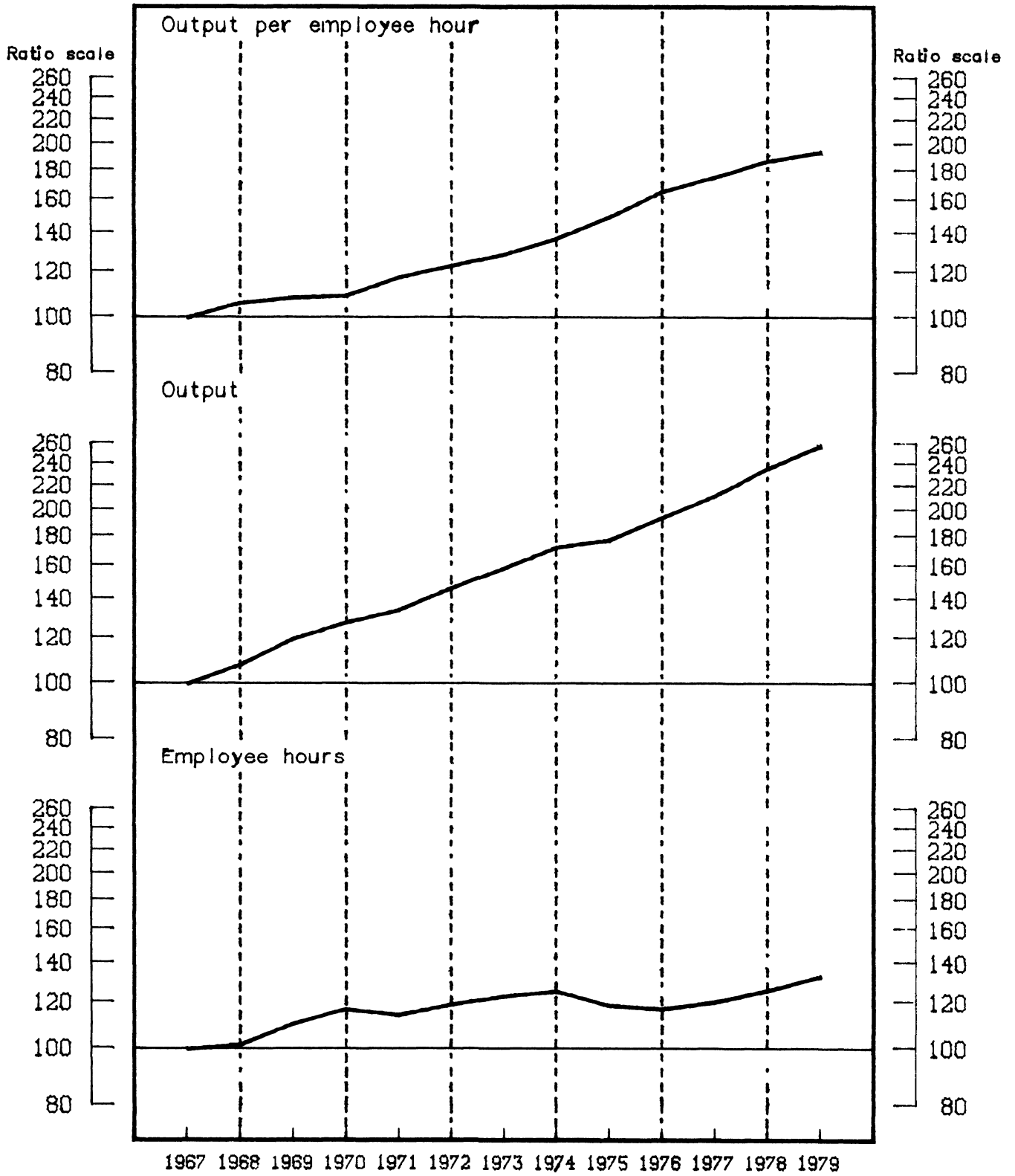
² Preliminary.

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. Employment and hours based on data from the Bureau of Labor Statistics and the Interstate Commerce Commission.

Chart 87. Telephone communications (SIC 4811): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 166. Telephone communications (SIC 4811): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1954	40.8	40.4	35.0	85.8	86.6
1955	43.9	44.3	38.8	88.3	87.6
1956	45.1	45.3	42.2	93.6	93.1
1957	49.4	49.0	46.7	94.5	95.3
1958	55.8	54.5	49.5	88.7	90.8
1959	61.9	61.8	54.2	87.5	87.7
1960	65.8	66.3	58.0	88.2	87.5
1961	71.6	71.7	61.7	86.2	86.0
1962	76.4	77.6	66.1	86.5	85.2
1963	82.0	83.4	70.9	86.5	85.0
1964	85.4	87.3	76.5	89.6	87.6
1965	89.1	91.6	83.5	93.7	91.2
1966	93.0	96.1	92.2	99.1	95.9
1967	100.0	100.0	100.0	100.0	100.0
1968	106.2	107.3	108.1	101.8	100.7
1969	108.4	111.1	119.9	110.6	107.9
1970	109.2	109.5	127.9	117.1	116.8
1971	117.5	113.9	134.4	114.4	118.0
1972	123.1	123.8	146.7	119.2	118.5
1973	128.8	130.4	158.7	123.2	121.7
1974	137.3	139.1	172.6	125.7	124.1
1975	149.6	148.4	177.9	118.9	119.9
1976	165.8	164.6	194.5	117.3	118.2
1977	175.9	178.6	212.0	120.5	118.7
1978	187.6	192.0	236.7	126.2	123.3
1979 ¹	194.3	198.6	258.8	133.2	130.3
Average annual percent change:					
1951-79	6.2	6.3	8.1	1.7	1.7
1974-79	7.3	7.8	8.9	1.4	1.0

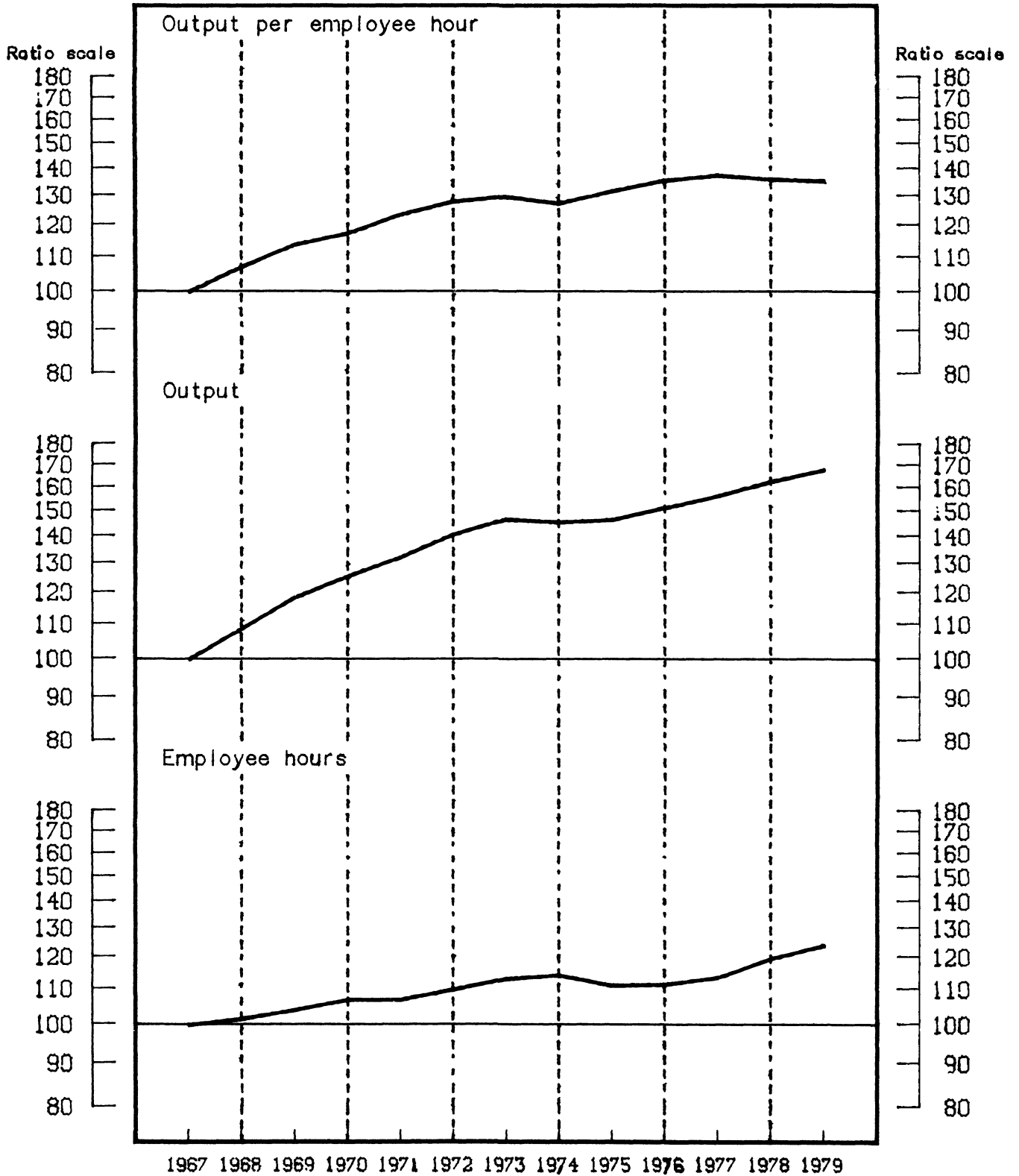
¹ Preliminary.

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 Federal Communications Commission and the American Telephone and Telegraph Company. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 88. Gas and electric utilities (SIC 491, 492, 493): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 167. Gas and electric utilities (SIC 491, 492, 493): Indexes of output per employee hour and output per employee, 1954-79
(1967 = 100)

Year	Output per hour ¹		Output per employee ¹	
	All employees	Production workers ²	All employees	Production workers ²
Index:				
1954	42.4	40.0	42.3	39.9
1955	47.2	44.9	47.1	44.7
1956	51.1	48.8	51.0	48.7
1957	53.7	51.5	53.2	51.1
1958	56.4	54.4	55.5	53.5
1959	61.5	59.7	60.8	59.0
1960	65.5	63.8	64.8	63.0
1961	69.4	67.9	68.4	66.8
1962	74.9	73.5	74.3	72.8
1963	79.5	78.6	79.0	78.0
1964	85.5	84.8	84.9	84.1
1965	89.2	88.5	89.0	88.3
1966	95.7	95.3	95.8	95.3
1967	100.0	100.0	100.0	100.0
1968	107.1	107.0	107.1	107.0
1969	113.8	114.5	114.2	114.7
1970	117.4	118.0	117.7	118.3
1971	123.6	124.9	123.4	124.6
1972	128.1	129.9	128.3	130.1
1973	129.9	132.4	130.8	133.4
1974	127.5	132.4	127.5	130.9
1975	131.9	136.2	130.7	134.9
1976	135.8	141.3	134.9	140.2
1977	137.8	144.6	137.1	143.8
1978	136.2	144.4	137.1	145.4
1979 ³	135.5	143.8	136.5	144.9
Average annual percent change:				
1947-79	5.8	6.3	5.8	6.3
1974-79	1.2	1.8	1.4	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 Represents nonsupervisory workers.

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 American Gas Association; Rural Electrification Administration, U.S. Department of Agriculture; 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 168. Gas and electric utilities (SIC 491, 492, 493): Indexes of output, employee hours, and employees, 1954-79
(1967 = 100)

Year	Output	Employee hours		Employees	
		All employees	Production workers ¹	All employees	Production workers ¹
Index:					
1954	39.4	93.0	98.4	93.2	98.7
1955	44.3	93.9	98.7	94.0	99.0
1956	48.7	95.3	99.8	95.5	100.0
1957	51.8	96.4	100.5	97.3	101.4
1958	54.0	95.7	99.2	97.3	100.9
1959	59.2	96.2	99.2	97.3	100.4
1960	63.1	96.3	98.9	97.4	100.1
1961	66.3	95.5	97.7	96.9	99.2
1962	71.3	95.2	97.0	96.0	97.9
1963	75.8	95.3	96.4	95.9	97.2
1964	81.8	95.7	96.5	96.4	97.3
1965	86.8	97.3	98.1	97.5	98.3
1966	94.1	98.3	98.7	98.2	98.7
1967	100.0	100.0	100.0	100.0	100.0
1968	108.8	101.6	101.7	101.6	101.7
1969	118.5	104.1	103.5	103.8	103.3
1970	125.6	107.0	106.4	106.7	106.2
1971	132.3	107.0	105.9	107.2	106.2
1972	140.9	110.0	108.5	109.8	108.3
1973	147.0	113.2	111.0	112.4	110.2
1974	145.9	114.4	110.2	114.4	111.5
1975	146.8	111.3	107.8	112.3	108.8
1976	151.6	111.6	107.3	112.4	108.1
1977	156.7	113.7	108.4	114.3	109.0
1978	163.0	119.7	112.9	118.9	112.1
1979 ²	168.2	124.1	117.0	123.2	116.1
Average annual percent change:					
1947-79	6.9	1.0	.6	1.0	.6
1974-79	3.1	1.9	1.3	1.6	.9

¹ Represents nonsupervisory workers.

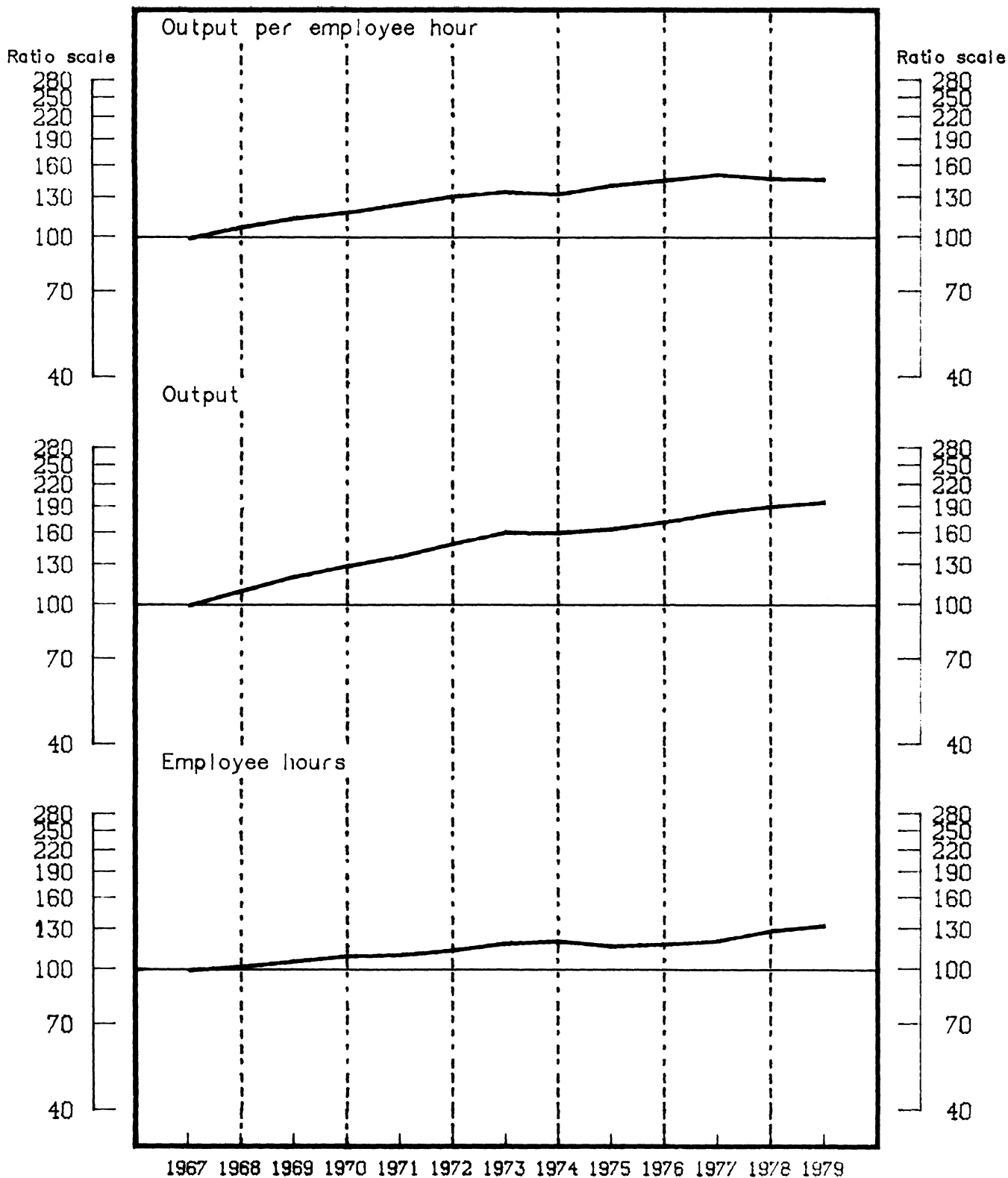
² Preliminary.

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; Rural Electrification Administration, U.S. Department of Agriculture; 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 89. Electric utilities (SIC 491, 493 part): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 169. Electric utilities (SIC 491, 493 part): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	53.3	52.6	50.9	95.5	96.8
1959	59.5	58.7	56.3	94.7	95.9
1960	63.4	62.7	60.2	95.0	96.0
1961	67.7	66.8	63.6	93.9	95.2
1962	73.3	72.5	68.5	93.5	94.5
1963	78.4	77.9	73.5	93.7	94.4
1964	84.4	83.7	79.6	94.3	95.1
1965	89.0	88.8	85.7	96.3	96.5
1966	96.0	96.1	93.7	97.6	97.5
1967	100.0	100.0	100.0	100.0	100.0
1968	107.6	107.7	110.1	102.3	102.2
1969	114.0	114.7	120.6	105.8	105.1
1970	118.4	118.7	129.5	109.4	109.1
1971	125.1	125.1	138.0	110.3	110.3
1972	131.5	132.1	149.7	113.8	113.3
1973	135.8	137.7	161.5	118.9	117.3
1974	133.7	134.3	161.3	120.6	120.1
1975	141.4	139.7	165.3	116.9	118.3
1976	146.2	145.2	172.9	118.3	119.1
1977	152.2	151.6	184.2	121.0	121.5
1978	148.0	150.0	191.6	129.5	127.7
1979 ¹	147.3	149.2	197.4	134.0	132.3
Average annual percent change:					
1958-79	5.1	5.2	6.9	1.7	1.6
1974-79	1.9	2.3	4.4	2.5	2.1

¹ Preliminary.

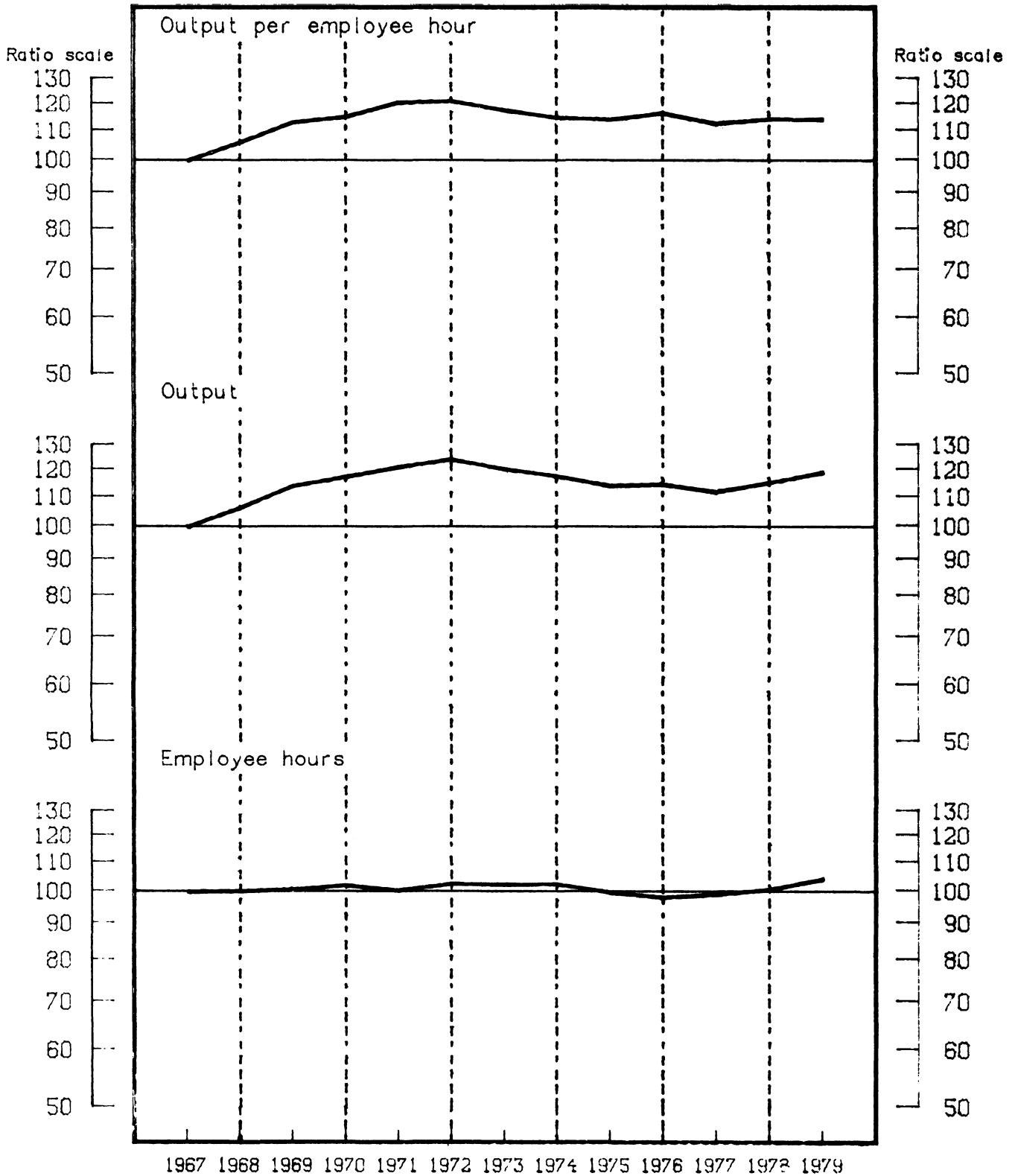
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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 supplemented with data from the American Gas Association; Edison Electric Institute; and the Rural Electrification Administration, U.S. Department of Agriculture.

Chart 90. Gas utilities (SIC 492, 493 part): Output per hour and related data, 1967-79

(1967 = 100)



Source -- Bureau of Labor Statistics, U.S. Department of Labor

Table 170. Gas utilities (SIC 492, 493 part): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-79
(1967=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	62.9	61.9	60.7	96.5	98.1
1959	65.9	65.4	65.4	99.2	100.0
1960	70.3	69.5	69.7	99.1	100.3
1961	72.9	72.2	72.3	99.2	100.2
1962	78.5	77.9	77.3	98.5	99.2
1963	81.9	81.6	80.9	98.8	99.1
1964	87.8	87.5	86.7	98.8	99.1
1965	89.9	90.1	89.8	99.9	99.7
1966	95.4	95.6	95.5	100.1	99.9
1967	100.0	100.0	100.0	100.0	100.0
1968	106.2	106.1	106.4	100.2	100.3
1969	113.2	112.7	114.1	100.8	101.2
1970	115.3	115.4	117.7	102.1	102.0
1971	120.7	119.9	121.3	100.5	101.2
1972	121.3	121.2	124.5	102.6	102.7
1973	117.9	117.6	120.7	102.4	102.6
1974	115.1	114.5	118.0	102.5	103.1
1975	114.4	113.6	114.3	99.9	100.6
1976	116.9	115.6	114.8	98.2	99.3
1977	112.9	112.1	112.1	99.3	100.0
1978	114.6	113.9	115.5	100.8	101.4
1979 ¹	114.5	113.6	119.4	104.3	105.1
Average annual percent change:					
1958-79	3.1	3.1	3.2	.2	.2
1974-79	-2	-2	.2	.4	.4

¹ Preliminary.

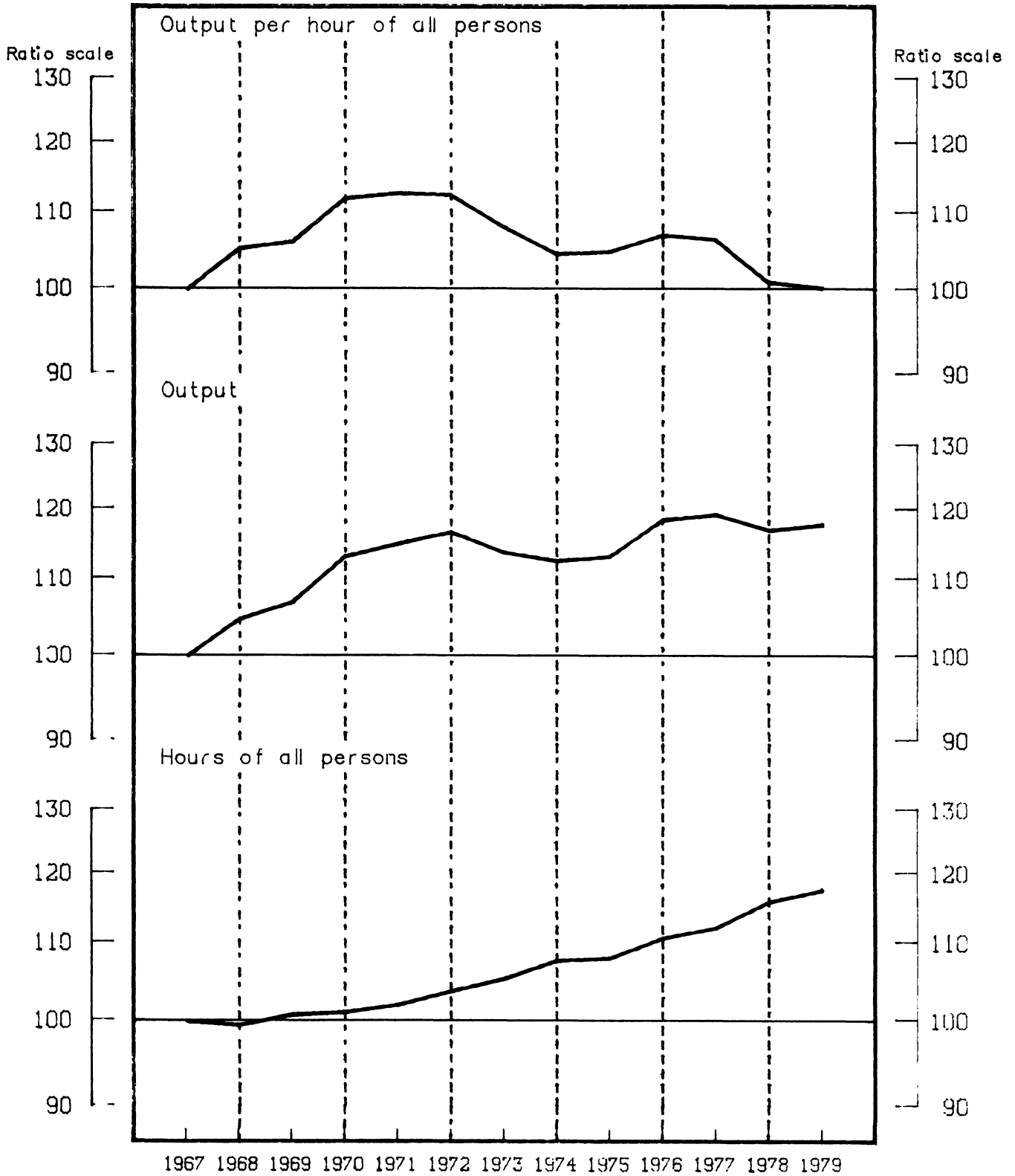
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the American Gas Association. Employment

and hours based on data from the Bureau of Labor Statistics supplemented with data from the American Gas Association; Edison Electric Institute; and the Rural Electrification Administration, U.S. Department of Agriculture.

Chart 91. Retail food stores (SIC 54): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 171. Retail food stores (SIC 54): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons', 1958-79
(1967 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	75.4	83.8	78.4	104.0	93.6
1959	78.4	87.0	81.9	104.4	94.1
1960	80.9	88.4	84.1	103.9	95.1
1961	84.0	90.9	86.1	102.5	94.7
1962	85.3	92.1	88.0	103.2	95.6
1963	89.4	94.9	88.7	99.2	93.5
1964	91.4	96.9	93.0	101.8	96.0
1965	93.8	97.8	96.4	102.8	98.6
1966	96.3	98.1	98.0	101.8	99.9
1967	100.0	100.0	100.0	100.0	100.0
1968	105.2	103.2	104.7	99.5	101.5
1969	106.1	102.4	106.9	100.8	104.4
1970	112.0	107.1	113.2	101.1	105.7
1971	112.7	107.5	115.0	102.0	107.0
1972	112.5	107.1	116.7	103.7	109.0
1973	108.1	102.8	113.8	105.3	110.7
1974	104.5	97.9	112.6	107.7	115.0
1975	104.8	96.6	113.2	108.0	117.2
1976	107.0	99.7	118.5	110.7	118.8
1977	106.4	98.4	119.3	112.1	121.3
1978 ²	100.9	92.3	117.0	115.9	126.8
1979 ²	100.2	90.4	117.8	117.6	130.3
Average annual percent change:					
1958-79	1.6	.5	2.1	.5	1.6
1974-79	-9	-1.6	1.0	1.9	2.6

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

² Preliminary.

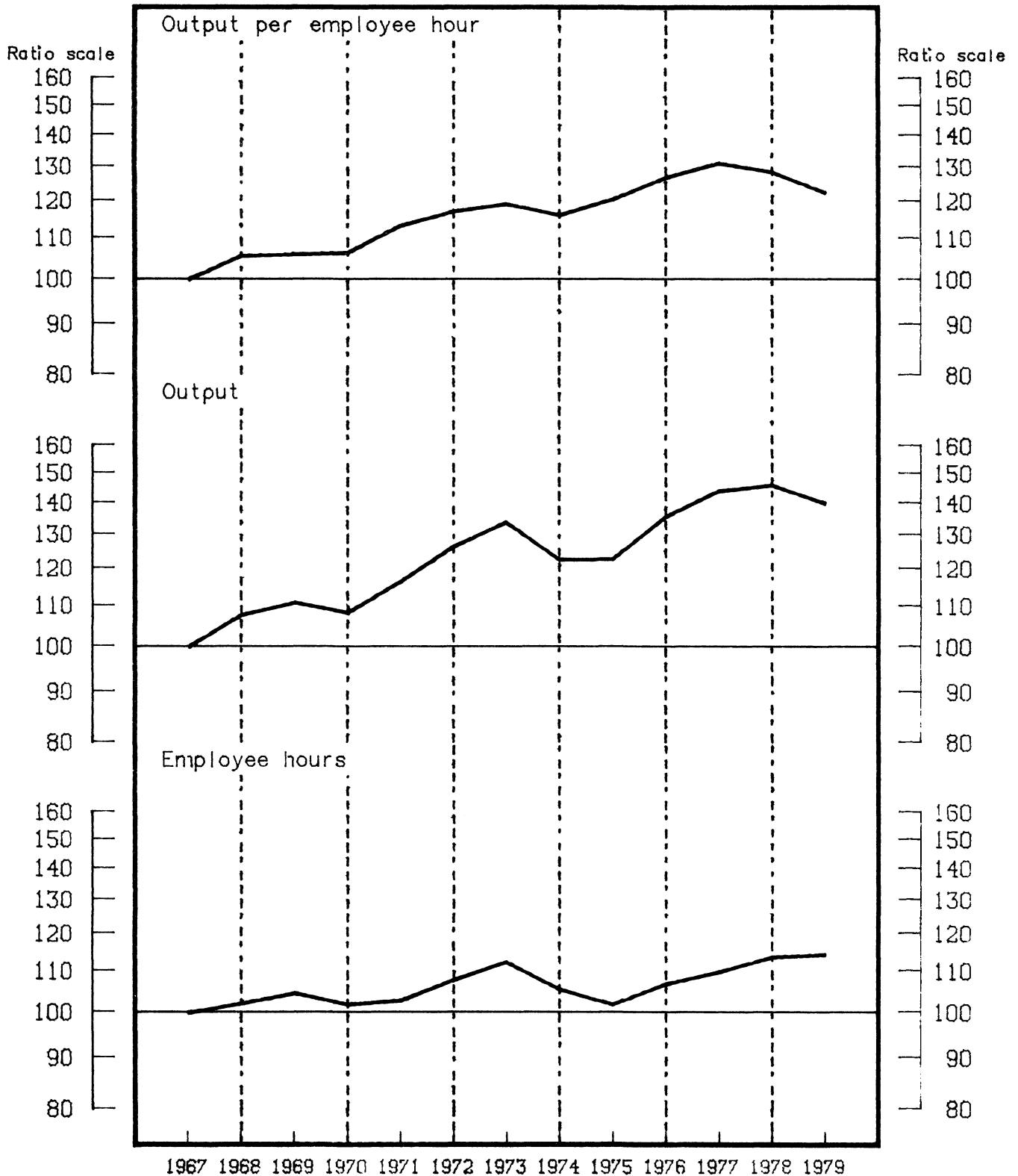
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of 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 92. Franchised new car dealers (SIC 5511): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 172. Franchised new car dealers (SIC 5511): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-79
(1967 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	77.0	80.8	69.9	90.8	86.5
1959	87.2	92.3	81.6	93.6	88.4
1960	88.3	93.1	83.9	95.0	90.1
1961	84.2	88.0	74.9	89.0	85.1
1962	90.3	93.7	81.7	90.5	87.2
1963	92.0	95.5	87.0	94.6	91.1
1964	91.2	95.3	89.9	98.6	94.3
1965	97.8	101.5	100.3	102.6	98.8
1966	98.7	100.6	101.5	102.8	100.9
1967	100.0	100.0	100.0	100.0	100.0
1968	105.6	104.2	107.8	102.1	103.5
1969	106.0	103.3	110.9	104.6	107.4
1970	106.4	102.7	108.4	101.9	105.6
1971	113.3	109.0	116.5	102.8	106.9
1972	117.2	112.2	126.5	107.9	112.7
1973	119.2	113.6	134.0	112.4	118.0
1974	116.2	109.7	122.7	105.6	111.9
1975	120.5	113.7	122.8	101.9	108.0
1976	126.9	119.1	135.7	106.9	113.9
1977	131.2	121.5	144.2	109.9	118.7
1978	128.5	117.5	146.1	113.7	124.3
1979 ¹	122.5	112.6	140.1	114.4	124.4
Average annual percent change:					
1958-79	2.3	1.6	3.4	1.0	1.8
1974-79	1.4	.7	3.6	2.2	2.9

¹ Preliminary.

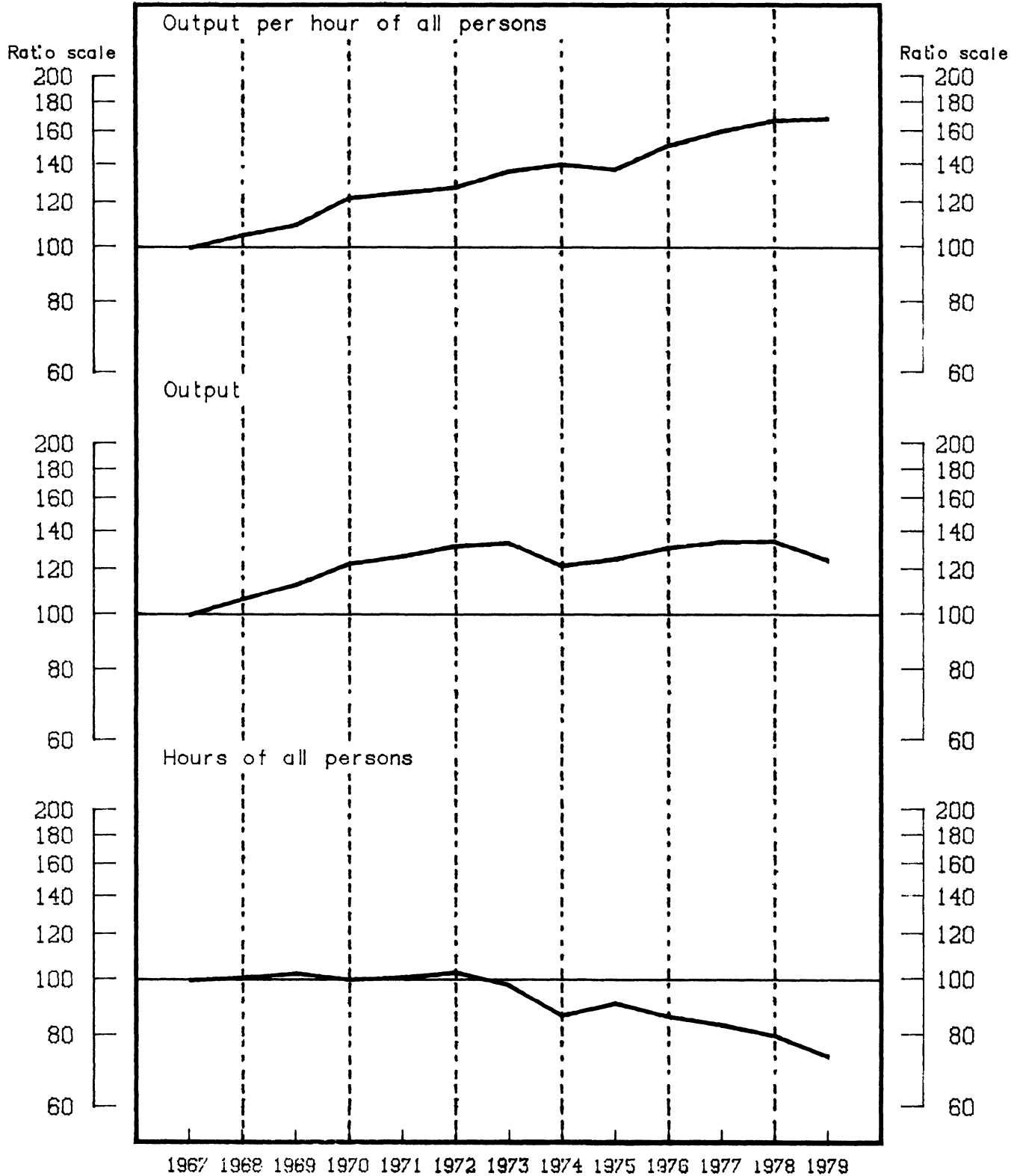
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output 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 93. Gasoline service stations (SIC 5541): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 173. Gasoline service stations (SIC 5541): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons¹, 1958-79
(1967 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	77.5	81.8	71.3	92.0	87.2
1959	80.3	84.3	74.0	92.2	87.8
1960	82.2	86.2	76.9	93.6	89.2
1961	84.7	88.8	80.3	94.8	90.4
1962	85.0	88.5	79.9	94.0	90.3
1963	89.1	92.4	85.4	95.8	92.4
1964	90.6	94.4	88.7	97.9	94.0
1965	93.7	96.5	93.4	99.7	96.8
1966	98.2	99.6	98.5	100.3	98.9
1967	100.0	100.0	100.0	100.0	100.0
1968	105.5	103.7	106.8	101.2	103.0
1969	109.9	106.5	113.1	102.9	106.2
1970	122.7	116.3	123.2	100.4	105.9
1971	125.4	119.4	127.0	101.3	106.4
1972	128.1	121.3	132.3	103.3	109.1
1973	136.6	124.7	134.1	98.2	107.5
1974	140.5	126.5	122.2	87.0	96.6
1975	137.8	124.9	125.8	91.3	100.7
1976	151.8	132.7	131.5	86.6	99.1
1977	160.9	138.5	134.8	83.8	97.3
1978 ²	168.3	143.0	135.0	80.2	94.4
1979 ²	169.4	141.5	125.2	73.9	88.5
Average annual percent change:					
1958-79	4.0	2.8	3.3	-.7	.5
1974-79	4.7	2.9	1.0	-3.5	-1.8

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

² Preliminary.

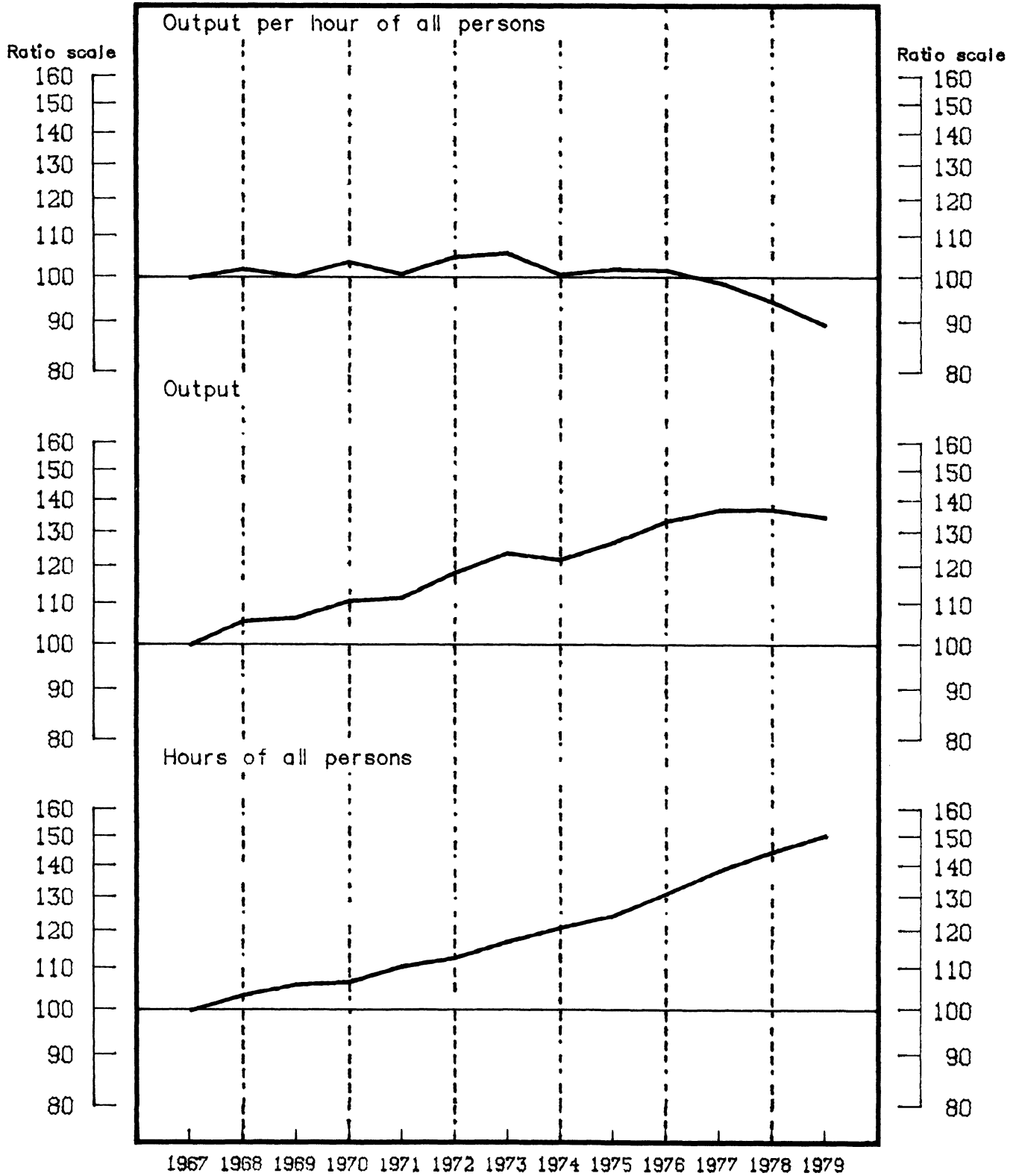
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output, 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 94. Eating and drinking places (SIC 58): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 174. Eating and drinking places (SIC 58): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons¹, 1958-79
(1967 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	91.3	102.2	78.8	86.3	77.1
1959	90.3	101.4	81.0	89.7	79.9
1960	90.0	100.1	81.6	90.7	81.5
1961	90.8	100.0	81.5	89.8	81.5
1962	91.8	100.6	84.0	91.5	83.5
1963	93.8	101.8	86.0	91.7	84.5
1964	92.8	101.4	89.6	96.5	88.4
1965	95.6	102.3	95.1	99.5	93.0
1966	97.4	101.0	98.8	101.4	97.8
1967	100.0	100.0	100.0	100.0	100.0
1968	102.0	100.7	105.7	103.6	105.0
1969	100.4	96.1	106.6	106.2	110.9
1970	103.8	96.6	110.9	106.8	114.8
1971	100.9	93.3	111.7	110.7	119.7
1972	105.0	94.6	118.5	112.9	125.2
1973	105.9	93.7	124.1	117.2	132.5
1974	100.8	87.6	122.2	121.2	139.5
1975	102.0	87.7	127.2	124.7	145.1
1976	101.8	85.9	133.7	131.4	155.7
1977	98.9	81.7	137.3	138.8	168.1
1978 ²	94.6	76.6	137.4	145.2	179.4
1979 ²	89.5	70.7	135.0	150.9	191.0
Average annual percent change:					
1958-79 .....	.5	-1.3	3.0	2.5	4.4
1974-79	-2.4	-4.3	2.2	4.7	6.7

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

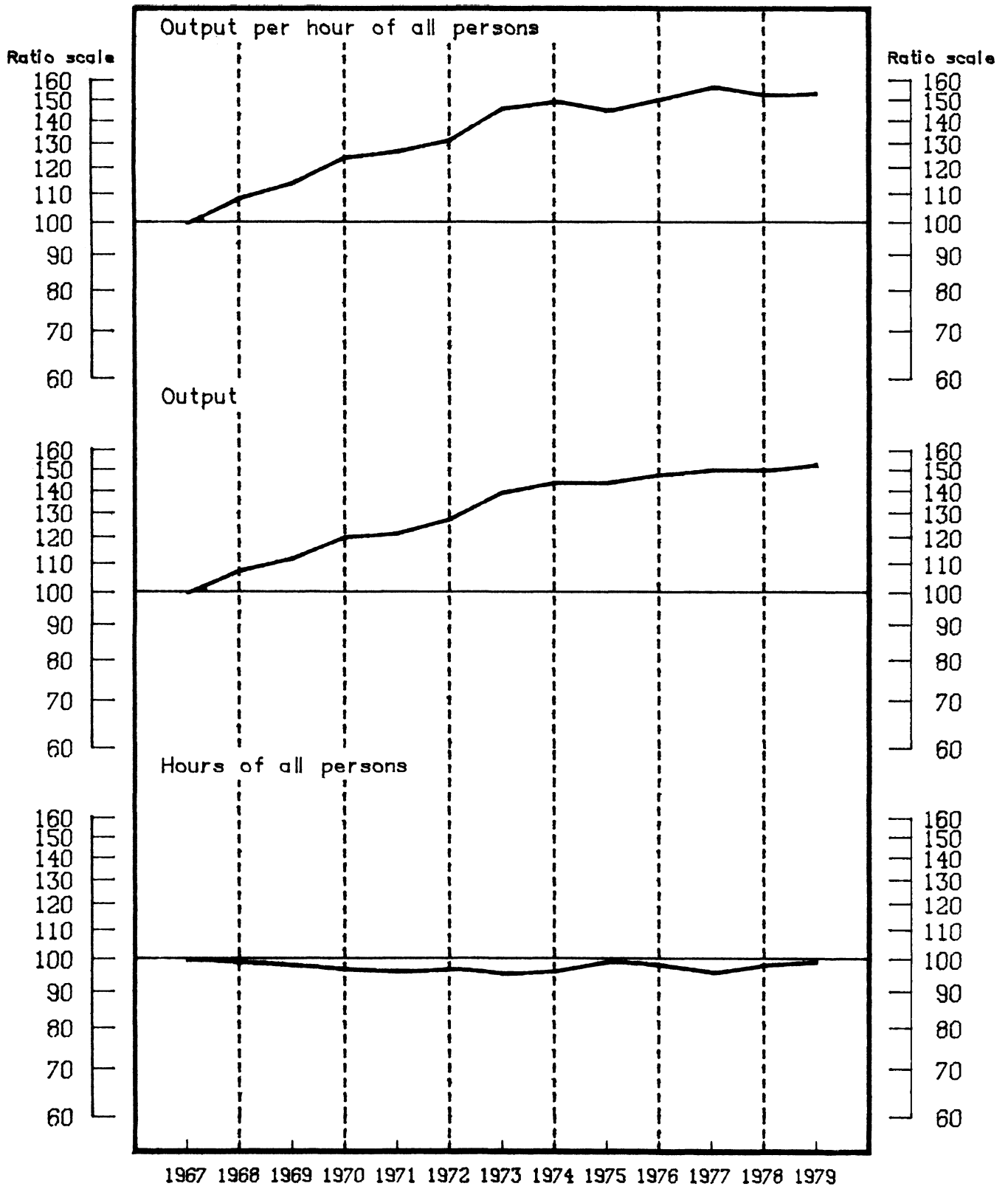
² Preliminary.

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; 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 95. Drug and proprietary stores (SIC 5912): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 175. Drug and proprietary stores (SIC 5912): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons¹, 1958-79
(1967 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	68.0	73.7	63.1	92.8	85.6
1959	70.8	76.9	67.5	95.4	87.8
1960	73.1	78.7	71.1	97.2	90.3
1961	75.7	81.3	73.3	96.8	90.2
1962	77.3	84.7	77.5	100.2	91.5
1963	81.0	87.3	79.9	98.7	91.5
1964	84.0	89.0	83.0	98.8	93.3
1965	89.3	92.9	88.6	99.2	95.4
1966	93.0	95.3	94.2	101.3	98.8
1967	100.0	100.0	100.0	100.0	100.0
1968	108.8	106.3	107.7	99.0	101.3
1969	114.4	108.8	112.1	98.0	103.0
1970	124.4	116.5	120.3	96.7	103.3
1971	126.9	119.1	121.8	96.0	102.3
1972	131.7	122.6	127.6	96.9	104.1
1973	146.2	133.2	139.5	95.4	104.7
1974	149.4	136.7	143.9	96.3	105.3
1975	144.8	136.3	143.8	99.3	105.5
1976	150.6	138.4	147.7	98.1	106.7
1977	156.7	139.0	150.1	95.8	108.0
1978	152.4	136.8	149.8	98.3	109.5
1979 ²	153.6	137.9	152.7	99.4	110.7
Average annual percent change:					
1958-79	4.6	3.4	4.7	(³)	1.2
1974-79	1.0	.2	1.3	.3	1.1

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

² Preliminary.

³ Less than .05 percent.

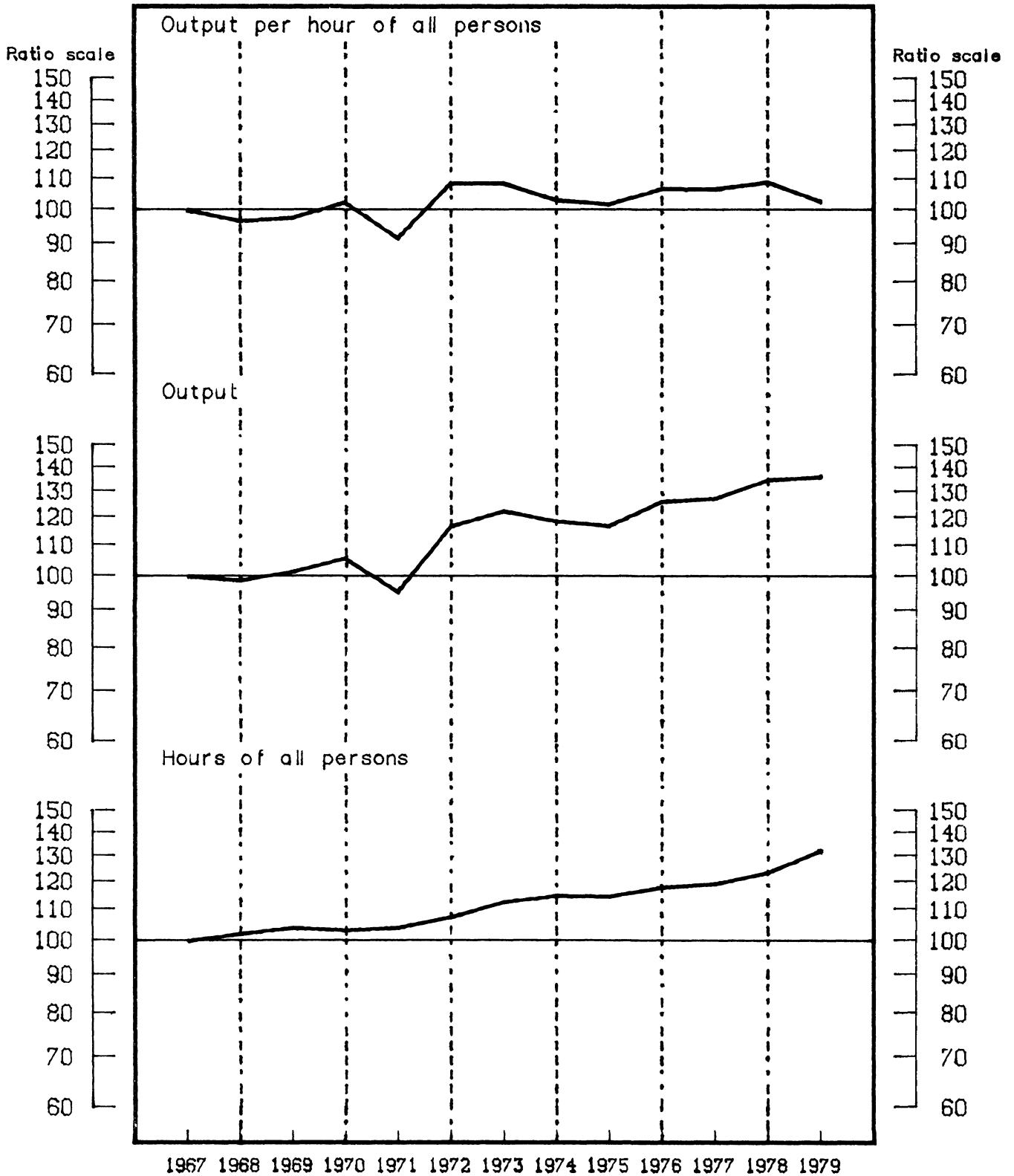
NOTE: Because of periodic revisions in source data, the measures in this table

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 96. Hotels, motels, and tourist courts (SIC 7011): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 176. 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 persons¹, 1958-79
(1967=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	76.8	84.0	68.8	89.6	81.9
1959	77.8	85.1	71.3	91.7	83.8
1960	79.6	86.6	74.4	93.5	85.9
1961	77.0	82.9	71.9	93.4	86.7
1962	82.4	87.6	77.2	93.7	88.1
1963	86.0	91.2	80.8	93.9	88.6
1964	86.5	90.4	83.3	96.3	92.1
1965	93.0	96.2	91.2	98.1	94.8
1966	93.2	94.8	93.0	99.8	98.1
1967	100.0	100.0	100.0	100.0	100.0
1968	96.7	95.3	98.8	102.2	103.7
1969	97.7	95.1	101.6	104.0	106.8
1970	102.5	97.9	105.9	103.3	108.2
1971	91.8	85.6	95.5	104.0	111.6
1972	108.7	100.0	116.8	107.5	116.8
1973	108.7	100.5	122.5	112.7	121.9
1974	103.2	94.1	118.7	115.0	126.1
1975	101.9	90.7	117.0	114.8	129.0
1976	106.9	95.0	126.3	118.1	133.0
1977	106.8	92.9	127.5	119.4	137.2
1978 ²	109.1	95.1	135.1	123.8	142.1
1979 ²	102.8	89.7	136.3	132.6	152.0
Average annual percent change:					
1958-79	1.7	.5	3.4	1.6	2.9
1974-79 .....	.5	-.4	3.3	2.7	3.7

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

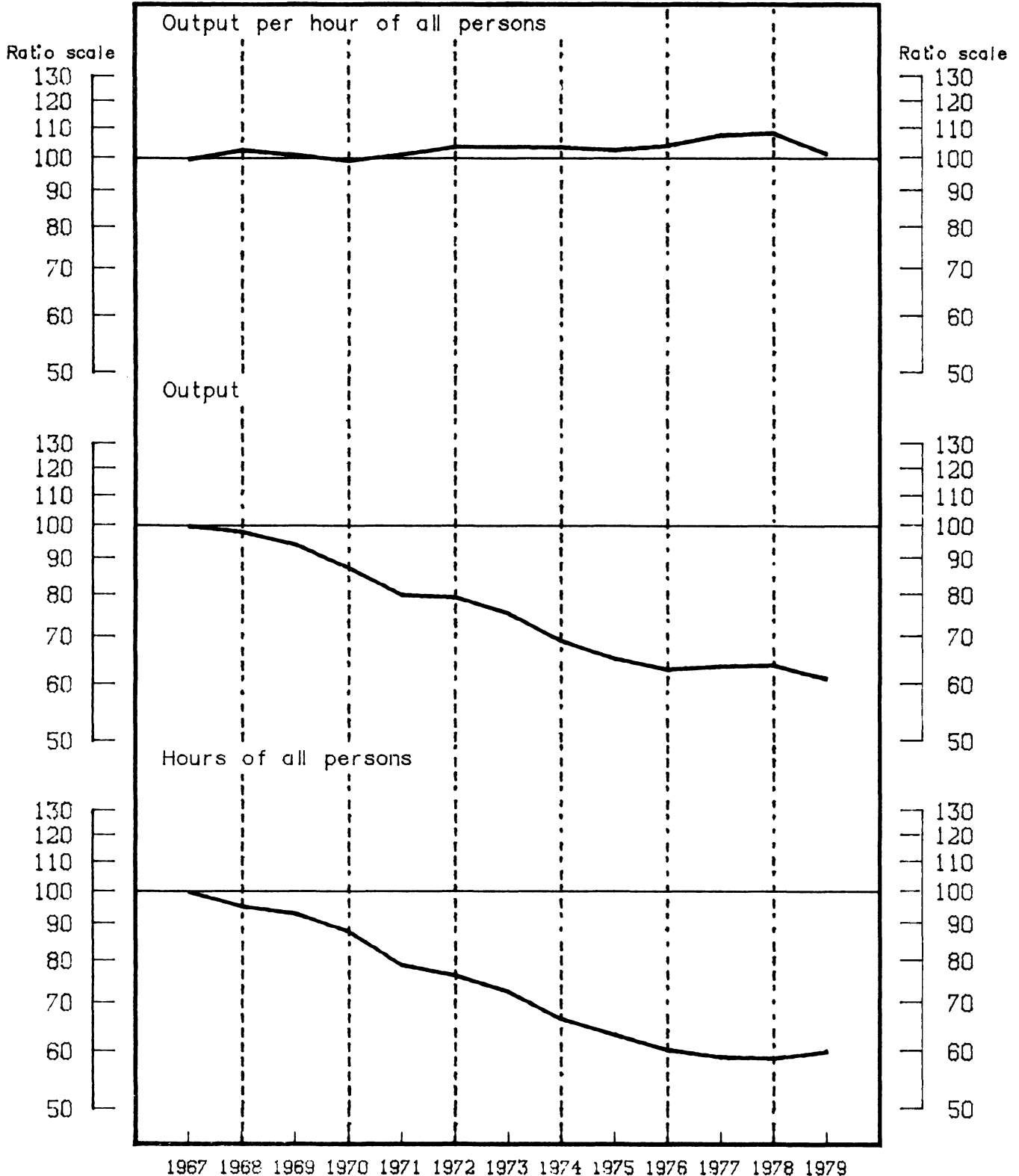
² Preliminary.

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

SOURCE: Output, 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 97. Laundry and cleaning services (SIC 721): Output per hour and related data, 1967-79

(1967 = 100)



Source - Bureau of Labor Statistics, U.S. Department of Labor

Table 177. Laundry and cleaning services (SIC 721): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons¹, 1958-79
(1967 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	83.9	88.4	86.1	102.6	97.4
1959	87.1	92.5	89.7	103.0	97.0
1960	82.7	87.7	85.1	102.9	97.0
1961	86.9	91.8	88.6	101.9	96.5
1962	86.9	91.6	88.9	102.3	97.1
1963	86.6	92.9	92.4	106.7	99.5
1964	92.7	98.0	97.0	104.6	99.0
1965	87.3	92.6	93.6	107.2	101.1
1966	92.8	95.9	98.6	106.3	102.8
1967	100.0	100.0	100.0	100.0	100.0
1968	102.9	100.0	98.2	95.4	98.2
1969	101.3	98.5	94.4	93.2	95.8
1970	99.5	95.3	87.6	88.0	91.9
1971	101.5	95.0	80.3	79.1	84.5
1972	104.0	99.0	79.7	76.6	80.5
1973	104.0	100.5	75.7	72.8	75.3
1974	103.9	98.6	69.3	66.7	70.3
1975	103.0	96.9	65.4	63.5	67.5
1976	104.5	97.7	63.2	60.5	64.7
1977	108.0	100.3	63.8	59.1	63.6
1978 ²	108.7	101.1	64.0	58.9	63.3
1979 ²	101.8	94.6	61.3	60.2	64.8
Average annual percent change:					
1958-79	1.3	.5	-2.0	-3.2	-2.4
1974-79 .....	.3	-.1	-1.9	-2.2	-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, 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.

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- "Productivity Trends for Class I Bus Carriers," by Richard B. Carnes, to be published in the *Monthly Labor Review*.
- "Productivity Trends in the Ball and Roller Bearing Industry," by James D. York and Elmer S. Persigehl, *Monthly Labor Review*, January 1981, pp. 40-43.
- "Productivity Gains in the Drugstore Industry, 1958-79," by Brian L. Friedman, *Monthly Labor Review*, November 1980, pp. 18-22.
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- "Productivity Growth Below Average in Fabricated Structural Metals," by Phyllis Flohr Otto, *Monthly Labor Review*, June 1980, pp. 27-31.
- "The Paper and Plastic Bag Industry: Two Distinct Productivity Phases," by Horst Brand and Clyde Huffstutler, *Monthly Labor Review*, May 1980, pp. 26-30.
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- “Productivity in the Nonmetallic Minerals Industry, 1954-75,” by Clyde Huffstutler and Michael Broad, *Monthly Labor Review*, June 1976, pp. 25-30.
- “Productivity in the Copper Rolling and Drawing Industry,” by Phyllis Flohr Otto, *Monthly Labor Review*, December 1975, pp. 27-30.
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- “Productivity in Gasoline Stations, 1958-73,” by Brian L. Friedman and John L. Carey, *Monthly Labor Review*, February 1975, pp. 32-37.

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- Productivity and Costs: Private Business Sector* (quarterly news release).
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- Dynamic Models of Energy Substitution in U.S. Manufacturing*, BLS Working Paper 102 (forthcoming). Processed.
- “Inflation and the Growth of Productivity and Factor Costs,” by David H. Malmquist, to be published in the *Monthly Labor Review*.
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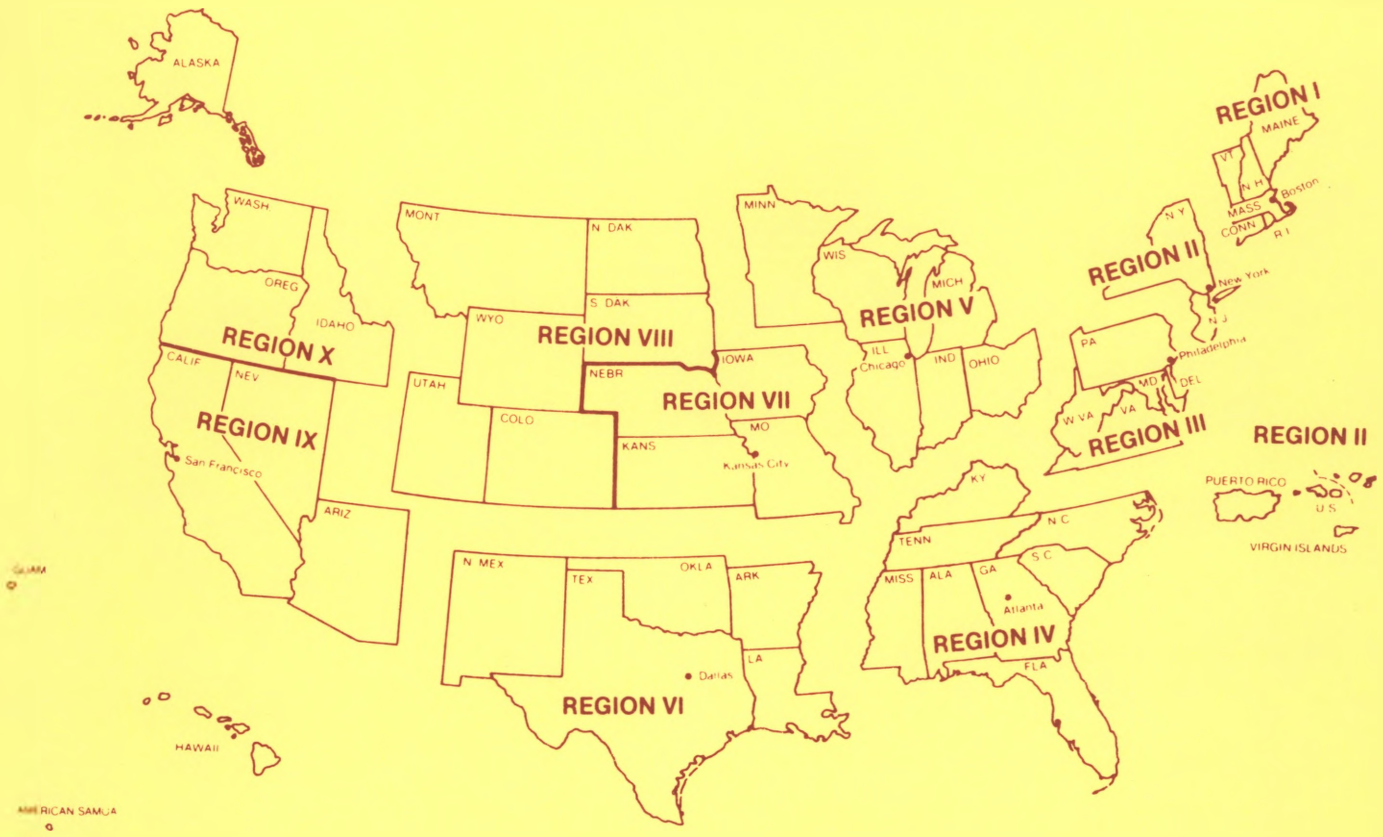
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