

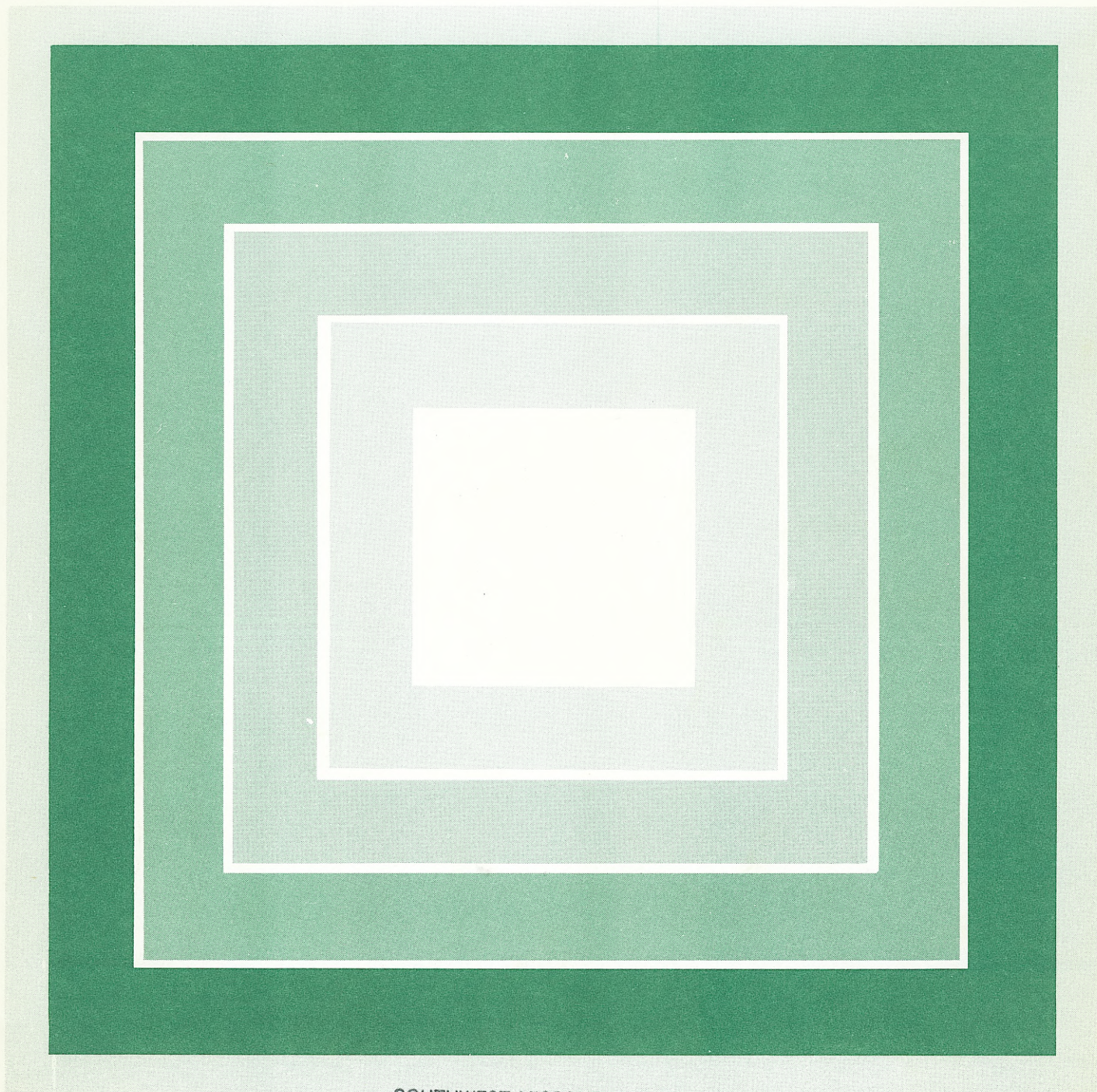
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Productivity Measures for Selected Industries, 1954-80



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
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Preface

This bulletin updates through 1980 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: Machine tools; transformers; and non-wool yarn mills. Indexes for hardwood veneer and plywood and softwood veneer and plywood are presented separately for the first time. Articles on the machine tool and transformer industries appeared in the November 1981 issue of the *Monthly Labor Review*. An article on nonwool yarn mills will appear in a forthcoming issue.

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 inter-related 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.)

This bulletin was prepared in the Bureau's Office of Productivity and Technology by Richard Carnes, John Duke, Mary Farris, John Ferris, Brian Friedman, Deborah Green, Ed Henneberger, Clyde Huffstutler, Phyllis Otto, Elmer Persigehl, Jack Veigle, Vernetta Washington, Patricia Wilder, and James York, under the direction of Horst Brand, John Carey, Arthur Herman, and Charles Ardolini, Chief, Division of Industry Productivity Studies.

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Contents

	<i>Page</i>
Highlights of trends in output per employee hour	1
Current developments	1
Long-term trends	2
New measures	2
Chart 1. Growth in output per employee hour in selected industries, 1975-80	3
Table 1. Selected industries: Employment, 1980, and average annual rates of change in output per employee hour, 1975-80	4
Methods and data sources	6
Charts and tables	8
Other BLS publications on productivity and technology	216

Highlights of Trends in Output per Employee Hour

Current developments

From 1979 to 1980, output per employee hour decreased in slightly more than one-half of the industries for which data are presented in this report. In contrast, from 1978 to 1979, productivity increased in more than one-half of the industries. This slowdown in productivity in 1980 was consistent with the performance of the nonfarm business sector as a whole, where productivity fell 0.3 percent.

Construction machinery, a large manufacturing industry, experienced the most severe dropoff in productivity of any industry in this report. Output per hour in this industry fell 13.2 percent as output dropped 19.7 percent as a consequence of diminished activity in the construction industry.

Among other large manufacturing industries, the motor vehicles industry sustained a 4.4-percent decline in output per employee hour as output plummeted 28.2 percent while employee hours were reduced 24.9 percent. The declines in motor vehicle output and employee hours were the largest on record since the beginning of the series in 1957. All of the major sectors of the industry - passenger cars, trucks, truck trailers, and buses - showed sharp output declines, influenced by the recession in the first half of 1980 and continued increases in imports.

Steel, another large manufacturing industry, also experienced a decline in productivity—3.7 percent—based on a drop of 17.0 percent in output and a reduction in employee hours of 13.8 percent. The large drop in this industry's output was due to a decrease in demand from such key markets as motor vehicles, construction, and appliances.

Other large manufacturing industries which recorded declines in productivity in 1980 included: Gray iron foundries (-6.0 percent), synthetic fibers (-5.6 percent), motors and generators (-4.1 percent), sawmills and planing mills (-1.9 percent), and fabricated structural metal (-1.8 percent).

However, several large manufacturing industries posted productivity gains. Productivity in the fluid milk industry scored one of the highest gains in 1980—5.7 percent—as smaller plants continued to be closed while new and larger plants incorporated more automatic

equipment. Another large industry, petroleum refining, recorded an increase in productivity of 4.4 percent as older, less efficient capacity was shut down.

Other large manufacturing industries which recorded increases in productivity in 1980 were: Bakery products (3.7 percent), bottled and canned soft drinks (3.0 percent), footwear (1.8 percent), paper, paperboard, and pulp mills (1.1 percent), corrugated and solid fiber boxes (0.4 percent), and pharmaceutical preparations (0.2 percent).

Among the mining industries, productivity in coal mining increased 12.6 percent in 1980. Coal output grew 6.4 percent due to increased demand for coal as a petroleum substitute, growing exports, and stockpiling in anticipation of a strike in 1981, while hours fell 5.5 percent. However, productivity declines occurred in the other mining industries covered; copper mining (recoverable metal) dropped 7.4 percent, nonmetallic minerals fell 5.8 percent, and iron mining (usable ore) declined 0.2 percent.

Productivity changes were mixed in the transportation and utility industries. In petroleum pipelines, productivity fell 10.6 percent as the industry's output dropped due to reduced demand for petroleum products. Productivity dropped 6.1 percent in air transportation as output fell, the first productivity decline in this industry since the measure was begun in 1947. Productivity in intercity trucking fell 4.5 percent, the fourth consecutive decline, as output dropped 9.7 percent due to decreased shipments of consumer products, construction materials, and petroleum. However, two transportation industries, railroads and bus carriers, showed productivity increases—2.5 and 3.3 percent, respectively. Electric and gas utilities both experienced declines in productivity. In the electric utilities industry, productivity fell 1.4 percent; in gas utilities, 5.2 percent. Telephone communications, on the other hand, had a productivity gain of 6.6 percent, associated with a large gain in output.

Productivity changes also varied among the trade and service industries. Productivity declined as output fell in hotels and motels (-7.7 percent), laundries and dry cleaning (-6.8 percent), gasoline service stations (-3.5 percent), and eating and drinking places (-2.0 per-

cent). Conversely, productivity in drugstores rose 6.9 percent as output rose. New car dealers had a productivity gain of 4.4 percent, based on a sharp drop in output but an even steeper drop in hours. Retail food stores had a small productivity gain of 0.2 percent as output rose 2.6 percent.

Long-term trends

Although none of the industries in this report recorded average annual declines in productivity over the long term (1947-80 for many of the industries), the rates of change were quite diverse. Over this long-term period, the air transportation industry recorded the highest rate of growth in productivity, 6.8 percent per year, along with the highest rate of growth in output (11.9 percent per year). The petroleum pipelines industry posted the second highest rate of gain in productivity, 6.6 percent annually, over a somewhat shorter time period (1958-80). A large gain in the volume of petroleum products moved, coupled with the continuing utilization of highly automatic equipment, contributed to this substantial growth in productivity. On the other hand, the metal forming portion of the machine tools industry recorded no overall annual growth in productivity over the long term.

Although the rates of productivity change varied widely among the industries during the 1975-80 period (see chart 1), three-fourths of the industries recorded lower average annual gains in this more recent period than during the 1947-75 period. This experience matches the productivity record of the economy as a whole. From 1947 to 1975, productivity in the nonfarm business sector grew 2.4 percent per year while from 1975 to 1980 the annual growth rate was only 0.6 percent. The slower growth in productivity among the industries included in this report was associated with less rapid output growth in the later 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 10.6-percent average annual gain, posted the highest growth in productivity during the later period; earlier, productivity in this industry had advanced at a rate of 5.1 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, during this period a number of new plants, utilizing the latest computerized controls, came on line. Other industries with high rates of growth in productivity during the 1975-80 period were ceramic wall and floor tile, at a rate of 7.5 percent, and telephone communications, at 6.5 percent. In the ceramic tile industry, a new technique for firing tile became widespread. This manufacturing change, coupled with changes in materials handling procedures, resulted in significant labor savings. Productivity in the telephone communications industry was aided by sustained

high output growth and the expanded use of electronic switching equipment.

Among the industries that experienced productivity declines during the 1975-80 period, blended and prepared flour dropped the most (-5.0 percent). Other industries in which productivity declined substantially (more than 1 percent per year) during the period were: Brick and structural clay tile (-3.7 percent), steel foundries (-2.1 percent), metal forming machine tools (-1.8 percent), laundry and cleaning services (-1.7 percent), eating and drinking places (-1.4 percent), and retail food stores (-1.2 percent). (See table 1.)

New measures

Nonwool yarn mills (SIC 2281). Productivity in the nonwool yarn mill industry increased at an average annual rate of 2.3 percent during 1958-80, somewhat below the 2.8-percent rate for all manufacturing. The rate of increase in output was 4.5 percent while employee hours increased at a rate of 2.1 percent.

The introduction of improved preparatory and spinning equipment has been an important factor in productivity gains. As mills have introduced this equipment, they have benefited from such production techniques as automatic chute feed and open-end spinning. Open-end spinning eliminates the need for a separate roving and winding operation. Equipment used in other stages of the production process, such as automatic bale opening and blending equipment, has also boosted industry productivity.

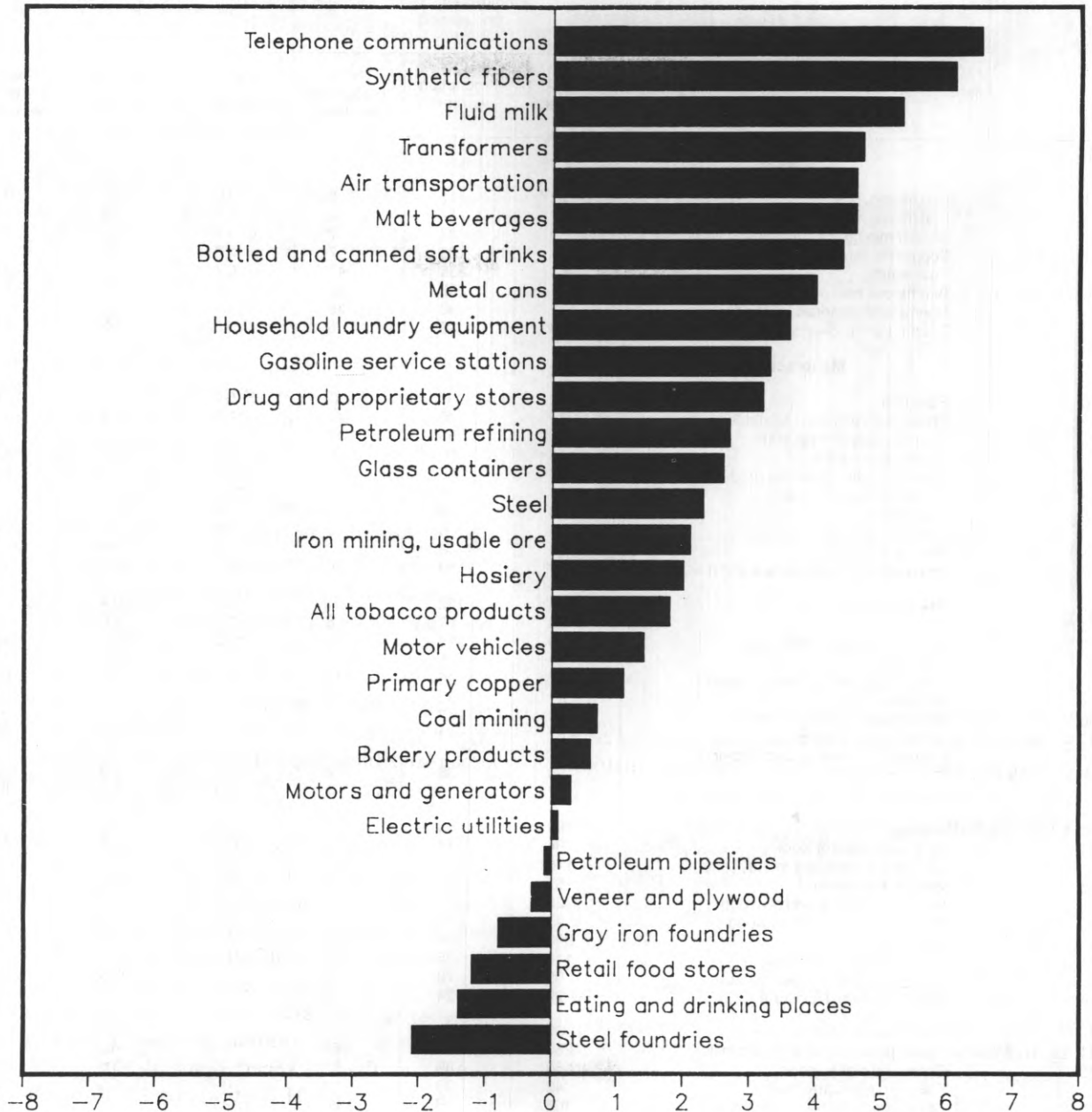
Machine tools (SIC 3541, 3542). Output per employee hour in the machine tool industry rose at an average annual rate of 1.0 percent over the 1958-80 period - significantly below the 2.8-percent rate for manufacturing as a whole. A combination of factors slowed productivity in the industry, including the tendency of machine tool firms to keep highly skilled workers on the payroll, even when output fell during cyclical slowdowns, and the slackened demand for capital goods after the mid-1960's. However, the slowdown was moderated by technological advances in the manufacture of machine tools, as well as by high rates of productivity improvement in periods of cyclical recovery.

Productivity improvements in the metal cutting tools (SIC 3541) segment of the industry averaged 1.3 percent annually. In metal forming tools (SIC 3542), productivity showed no advance.

A number of important innovations have been adopted in the manufacture of metal cutting and metal forming machine tools. By far the most important development in machine tool technology has been the evolution of numerical control. Numerical control has reshaped machine tool technology, and continues to transform it. Additionally, cutting tool materials have

Chart 1. Growth in output per employee hour in selected industries, 1975-80

(Average annual percent change)



become harder, permitting increased cutting speeds, although at the cost of requiring heavier, more powerful machines. However, technological diffusion among machine tool producers has been slow - slower than among the industries which use machine tools in mass production.

Transformers (SIC 3612). Productivity in the transformers industry increased at an average annual rate of 2.4 percent from 1963 to 1980, about the same as the average rate of advance for all manufacturing establishments. The growth in productivity in the transformers industry was the result of output gains averaging 3.5

percent and advances in employee hours averaging 1.0 percent.

This growth occurred because of many factors, most importantly the change to standardized products using assembly line manufacturing techniques. Additionally, during this time period, the use of computers became more pervasive, for jobs such as design, cost estimation, preparation of drawings, work scheduling, and inventory control. Another reason for the rise in productivity was a rapid increase in capital expenditures per employee in the mid-1960's. These purchases of new plant and equipment, coupled with output growth, produced operating efficiencies.

Table 1. Selected industries: Employment 1980, and average annual rates of change in output per employee hour, 1975-80

SIC code	Industry	Employment, 1980 (thousands)			Output per employee hour: Average annual rate of change, 1975-80 (percent) ¹		
		All employees	Production workers	Non-production workers	All employees	Production workers	Non-production workers ²
Mining							
1011	Iron mining, crude	22	17	5	3.0	3.8	0.1
1011	Iron mining, usable ore	22	17	5	2.1	2.9	-0.8
1021	Copper mining, crude ore	30	23	7	2.4	2.3	2.6
1021	Copper mining, recoverable metal	30	23	7	2.8	2.7	3.0
111, 121	Coal mining	248	205	43	0.7	1.4	-3.0
121	Bituminous coal and lignite mining	244	202	42	0.8	1.5	-3.1
14	Nonmetallic minerals, except fuels	122	96	26	1.6	1.6	1.8
142	Crushed and broken stone	39	33	6	3.5	2.9	6.4
Manufacturing							
2026	Fluid milk	102	(³)	(³)	5.3	(³)	(³)
203	Preserved fruits and vegetables	256	210	46	*1.6	*1.9	*-0.5
2033	Canned fruits and vegetables	105	88	17	*2.1	*2.8	*-3.1
204	Grain mill products	145	99	46	*4.2	*4.4	*3.7
2041	Flour and other grain mill products	27	16	11	2.4	2.4	2.6
2043	Cereal breakfast foods	16	14	2	*2.7	*2.1	*6.4
2044	Rice milling	6	4	2	*1.0	*3.6	*-7.6
2045	Blended and prepared flour	9	6	3	*-5.0	*-4.7	*-5.8
2046	Wet corn milling	11	8	3	*10.6	*11.9	*7.2
2047, 48	Prepared feeds for animals and fowls	76	51	25	*4.7	*5.3	*3.5
205	Bakery products	226	132	94	0.6	0.4	0.7
2061, 62, 63	Sugar	29	21	8	3.8	4.0	3.1
2061, 62	Raw and refined cane sugar	19	13	6	*4.0	*3.2	*6.4
2063	Beet sugar	11	8	3	*2.4	*3.7	*-3.7
2065	Candy and confectionery products	57	45	12	(³)	(³)	(³)
2082	Malt beverages	51	33	18	4.6	4.4	5.1
2086	Bottled and canned soft drinks	140	47	93	4.4	5.8	3.6
2111, 21, 31	All tobacco products	57	44	13	1.8	2.6	-2.3
2111, 31	Cigarettes, chewing and smoking tobacco	50	38	12	1.9	2.8	-2.3
2121	Cigars	7	6	1	2.7	2.5	5.2
2251, 52	Hosiery	63	58	5	2.0	2.0	2.1
2281	Yarn mills, except wool	84	78	6	1.7	1.7	1.9
2421	Sawmills and planing mills, general	178	158	20	0.7	1.2	-2.5
2435,36	Veneer and plywood	67	58	9	-0.3	(³)	-2.5
2436	Hardwood veneer and plywood	25	22	3	2.0	2.1	0.7
2436	Softwood veneer and plywood	41	36	5	-1.3	-0.9	-4.0
251	Household furniture	305	256	49	0.5	0.7	-0.6
2511, 17	Wood household furniture	144	125	19	*1.1	*1.1	*1.1
2512	Upholstered household furniture	95	78	17	*2.6	*2.5	*3.1
2514	Metal household furniture	29	24	5	*-0.8	*-1.4	*-1.7
2515	Mattresses and bedsprings	30	23	7	*1.4	*1.9	*-0.5
2611, 21, 31, 61	Paper, paperboard, and pulp mills	269	204	65	4.0	4.1	3.5
2643	Paper and plastic bags	50	39	11	*-0.5	*-0.6	(* ³)
2651	Folding paperboard boxes	42	33	9	0.7	0.3	2.0
2653	Corrugated and solid fiber boxes	106	78	28	2.2	1.9	2.9
2823, 24	Synthetic fibers	111	80	31	6.1	5.4	8.0
2834	Pharmaceutical preparations	155	74	81	2.7	1.9	(³)
2841	Soaps and detergents	42	27	15	*1.9	*1.7	*2.3
2851	Paints and allied products	66	33	33	2.6	1.9	3.4
2911	Petroleum refining	154	93	61	2.7	3.1	1.7
3011	Tires and inner tubes	121	85	36	*4.5	*2.8	*10.3
314	Footwear	143	123	20	(³)	0.2	-1.1
3221	Glass containers	70	61	9	2.6	2.7	2.3
3241	Hydraulic cement	30	24	6	1.6	1.2	3.0
325	Structural clay products	46	35	11	0.4	0.6	-0.5
3251, 53, 59	Clay construction products	33	26	7	0.1	0.4	-1.5
3251	Brick and structural clay tile	19	16	3	-3.7	-2.9	-7.4
3253	Ceramic wall and floor tile	8	6	2	*7.5	*6.0	*14.2
3255	Clay refractories	13	9	4	1.3	1.2	2.0
3271,72	Concrete products	87	65	22	*0.9	*1.0	*1.0
3273	Ready-mix concrete	95	(³)	(³)	*0.9	(³)	(³)
331	Steel	512	396	116	2.3	2.3	2.3

See footnotes at end of table.

Table 1. Selected industries: Employment 1980, and average annual rates of change in output per employee hour, 1975-80—Continued

SIC code	Industry	Employment, 1980 (thousands)			Output per employee hour: Average annual rate of change, 1975-80 (percent) ¹		
		All employees	Production workers	Non-production workers	All employees	Production workers	Non-production workers ²
Manufacturing—Continued							
3321	Gray iron foundries	126	102	24	-0.8	-0.2	-4.0
3324,25	Steel foundries	68	54	14	-2.1	-2.2	-1.8
3331,32,33	Primary copper, lead, and zinc	21	16	5	1.0	1.1	0.5
3331	Primary copper	13	10	3	1.1	0.8	3.0
3334	Primary aluminum	38	30	8	(³)	-0.5	1.9
3351	Copper rolling and drawing	31	23	8	4.0	4.0	4.2
3353, 54, 55	Aluminum rolling and drawing	64	50	14	2.7	2.3	4.0
3411	Metal cans	62	53	9	4.0	3.9	4.5
3441	Fabricated structural metal	101	73	28	0.7	0.3	1.8
3531	Construction machinery and equipment	148	99	49	-0.6	0.2	-2.3
3541, 42	Machine tools	108	71	37	0.2	-0.5	1.7
3541	Metal cutting machine tools	81	54	27	0.8	-0.2	3.1
3542	Metal forming machine tools	27	17	10	-1.8	-1.7	-2.2
3562	Ball and roller bearings	58	45	13	0.2	-0.4	2.2
3612	Transformers	53	37	16	4.7	3.9	6.5
3621	Motors and generators	121	91	30	0.3	0.1	0.9
3631, 32, 33, 39	Major household appliances	87	69	18	3.9	3.6	5.0
3631	Household cooking equipment	28	21	7	3.6	4.2	2.2
3632	Household refrigerators and freezers	24	21	3	4.5	3.2	11.0
3633	Household laundry equipment	18	15	3	3.6	3.0	6.2
3639	Household appliances, n.e.c	16	13	3	3.0	2.6	4.6
3641	Electric lamps	36	32	4	1.4	1.1	3.5
3645, 46, 47, 48	Lighting fixtures	64	48	16	1.2	1.7	-0.1
3651	Radio and television receiving sets	86	60	26	4.9	5.7	2.4
371	Motor vehicles and equipment	763	557	206	1.4	2.3	-0.9
Other							
401 Class I	Railroad transportation, revenue traffic	480	421	59	3.6	3.5	4.4
401 Class I	Railroad transportation, car miles	480	421	59	1.5	1.3	2.3
4111, 31, 414 pts	Bus carriers, class I	36	(³)	(³)	1.8	(³)	(³)
4213	Intercity trucking	737	(³)	(³)	*0.6	(³)	(³)
4213 pt	Intercity trucking (general freight)	457	(³)	(³)	*-0.1	(³)	(³)
4511, 4521 pt	Air transportation	367	(³)	(³)	*4.6	(³)	(³)
4612, 13	Petroleum pipelines	21	15	6	-0.1	1.2	(³)
4811	Telephone communications	1,071	778	*293	6.5	(³)	(³)
491, 92, 93	Gas and electric utilities	758	*617	*141	-0.1	*0.5	(³)
491, 493 pt	Electric utilities	543	(³)	(³)	0.1	(³)	(³)
492, 493 pt	Gas utilities	215	(³)	(³)	-0.2	(³)	(³)
54	Retail food stores ⁴	2,680	(³)	(³)	-1.2	(³)	(³)
5511	Franchised new car dealers	750	(³)	(³)	0.2	(³)	(³)
5541	Gasoline service stations ⁴	737	(³)	(³)	3.3	(³)	(³)
58	Eating and drinking places ⁴	5,022	(³)	(³)	-1.4	(³)	(³)
5912	Drug and proprietary stores ⁴	511	(³)	(³)	3.2	(³)	(³)
7011	Hotels, motels, and tourist courts ⁴	1,142	(³)	(³)	0.8	(³)	(³)
721	Laundry and cleaning services ⁴	432	(³)	(³)	-1.7	(³)	(³)

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

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

³ Not available.

⁴ 1975-79.

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.

Methods and Data Sources

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

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

For many industries, however, unit labor weights are not available at the detailed product level so substitute weights must be used. The most common substitute weights are unit values, which are assumed to be proportional to unit employee hours. For many manufacturing industries, however, employee hour weights at the product-class level can be developed from the available data. In such cases, a dual level weighting system is used—unit value weights at the product level and 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 which are now conducted every 5 years. The most current weights used were derived from the 1977 economic censuses. For three industries—railroads, iron mining, and copper mining—two alternative productivity measures, using different concepts of industry output, are presented.

The output indexes for coal mining and for bituminous coal and lignite mining have been revised. These two output indexes are now based on data from the Energy Information Administration, U.S. Department of Energy; and the Bureau of Labor Statistics.

The indexes of employment and hours for all of the mining industries have also been revised. The indexes of hours have been expanded to include measures of nonproduction worker hours and all employee hours. All of the indexes of employment and hours are now based on data from the Bureau of Labor Statistics. The hours data are supplemented with data from the Mine Safety and Health Administration of the U.S. Department of Labor. Because of these revisions, the productivity measures for the mining industries have also been revised.

The measures for air transportation have also been modified. Prior to 1980, the measures for the air trans-

portation industry included only those carriers that were classified in SIC 4511 (air transportation, certificated carriers). Beginning in 1980, the air transportation industry measures include some carriers that are technically classified in SIC 4521 (air transportation, noncertificated carriers). The inclusion of these noncertificated carriers became necessary due to the passage of the Airline Deregulation Act of 1978 which resulted in noncertificated carriers performing the same services as certificated carriers.

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 1977 economic censuses.

Employment and employee hour indexes are developed primarily from basic data compiled by the Bureau of Labor Statistics (BLS) and the Bureau of the Census. In concept, indexes based on employee hour data from the Bureau of the Census relate to plant hours only. Employee hour data from BLS include not only hours at work but also payroll hours such as vacations, holidays, and sick leave paid by the establishment directly to the employee.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.

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 the BLS and Bureau of the Census provide data on production worker hours, neither source provides annual data by industry on nonproduction worker or all-employee

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 "non-production workers."

hours. Therefore, the nonproduction worker hours are estimated.

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

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

The output indexes and employee hour components of the industry productivity indexes are based on data from a number of different sources which are identified in the accompanying tables. For most of the industries, the 1980 output indexes are based on the data sources that are regularly used. However, for some industries, the normal data sources are not yet available, and other information, such as the Federal Reserve Board output indexes, the *Current Industrial Reports* of the Bureau of the Census, and trade association data, were used. For those industries for which the Bureau of the Census is the primary source of employment and employee hours, the 1980 indexes were developed by linking employment and employee hour data from BLS, since 1980 census data are not yet available. Therefore, all 1980 output per employee hour measures are considered preliminary and are subject to revision. The indexes refer to the standard reference base 1977=100 and, beginning in 1972, conform to the 1972 Standard Industrial Classification (SIC) definitions.

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

More detailed information on the methods, limitations, and data sources is contained in the *BLS Handbook of Methods*, BLS Bulletin 1910 (1976), chapter 31, and in a number of individual industry reports. Industry reports as well as additional information are available on request from the Bureau of Labor Statistics.

Charts and Tables

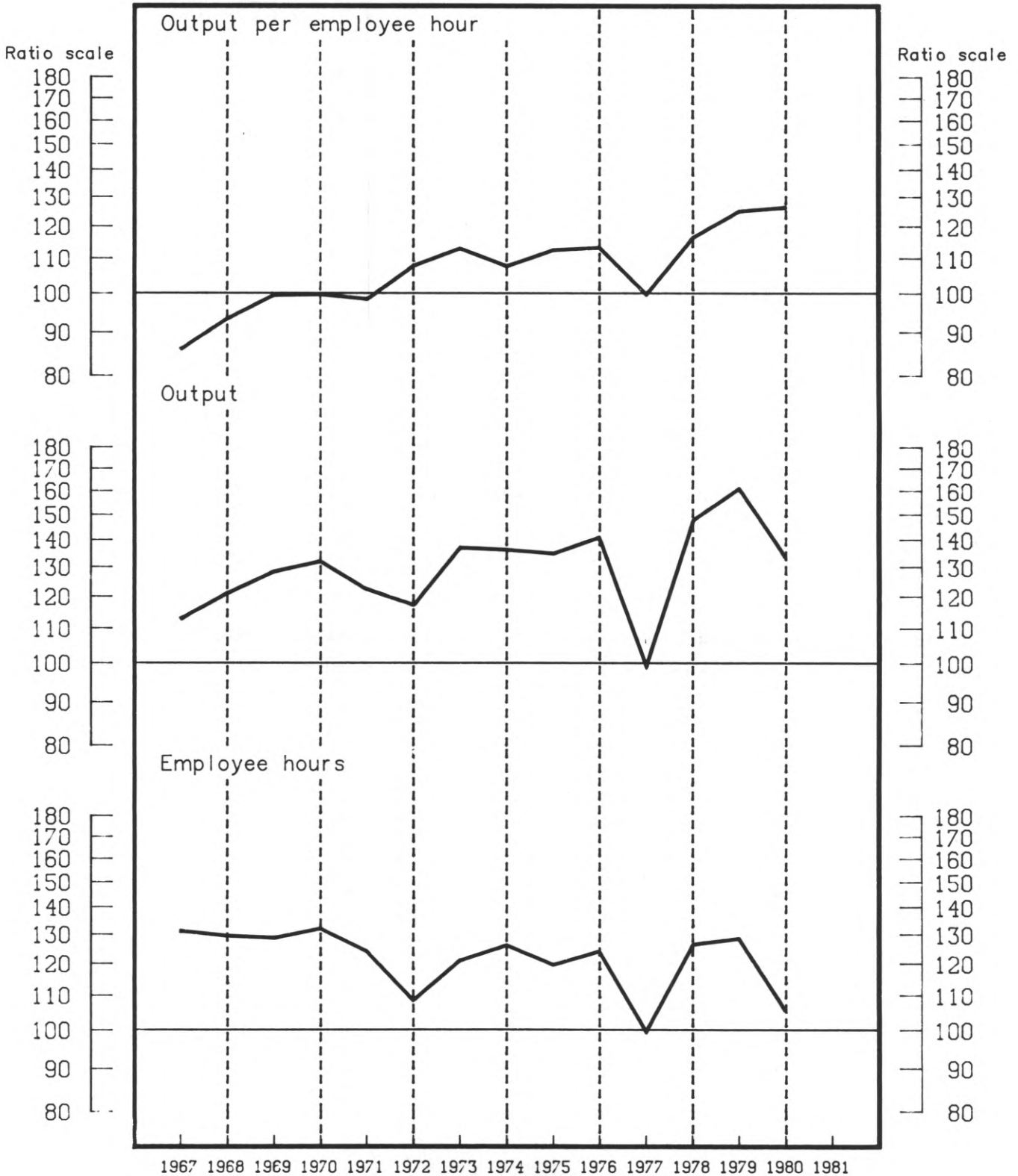
Indexes of output per employee hour and related data

SIC code	Industry	Chart	Page	Table	Page
Mining					
1011	Iron mining, crude ore	2	10	2, 3	11
1011	Iron mining, usable ore	3	12	4, 5	13
1021	Copper mining, crude ore	4	14	6, 7	15
1021	Copper mining, recoverable metal	5	16	8, 9	17
111, 121	Coal mining	6	18	10, 11	19
121	Bituminous coal and lignite mining	7	20	12, 13	21
14	Nonmetallic minerals, except fuels	8	22	14, 15	23
142	Crushed and broken stone	9	24	16, 17	25
Manufacturing					
2026	Fluid milk	10	26	18	27
203	Preserved fruits and vegetables	11	28	19, 20	29
2033	Canned fruits and vegetables	12	30	21, 22	31
204	Grain mill products	13	32	23, 24	33
2041	Flour and other grain mill products	14	34	25, 26	35
2043	Cereal breakfast foods	15	36	27, 28	37
2044	Rice milling	16	38	29, 30	39
2045	Blended and prepared flour	17	40	31, 32	41
2046	Wet corn milling	18	42	33, 34	43
2047, 48	Prepared feeds for animals and fowls	19	44	35, 36	45
205	Bakery products	20	46	37, 38	47
2061, 62, 63	Sugar	21	48	39, 40	49
2061, 62	Raw and refined cane sugar	22	50	41, 42	51
2063	Beet sugar	23	52	43, 44	53
2065	Candy and other confectionery products	24	54	45, 46	55
2082	Malt beverages	25	56	47, 48	57
2086	Bottled and canned soft drinks	26	58	49, 50	59
2111, 21, 31	All tobacco products	27	60	51, 52	61
2111, 2131	Cigarettes, chewing and smoking tobacco	28	62	53, 54	63
2121	Cigars	29	64	55, 56	65
2251, 52	Hosiery	30	66	57, 58	67
2281	Yarn mills, except wool	31	68	59, 60	69
2421	Sawmills and planing mills, general	32	70	61, 62	71
2435, 2436	Veneer and plywood	33	72	63, 64	73
2435	Hardwood veneer and plywood	34	74	65, 66	75
2436	Softwood veneer and plywood	35	76	67, 68	77
251	Household furniture	36	78	69, 70	79
2511, 2517	Wood household furniture	37	80	71, 72	81
2512	Upholstered household furniture	38	82	73, 74	83
2514	Metal household furniture	39	84	75, 76	85
2515	Mattresses and bedsprings	40	86	77, 78	87
2611, 21, 31, 61	Paper, paperboard, and pulp mills	41	88	79, 80	89
2643	Paper and plastic bags	42	90	81, 82	91
2651	Folding paperboard boxes	43	92	83, 84	93
2653	Corrugated and solid fiber boxes	44	94	85, 86	95
2823, 24	Synthetic fibers	45	96	87, 88	97
2834	Pharmaceutical preparations	46	98	89, 90	99
2841	Soaps and detergents	47	100	91, 92	101
2851	Paints and allied products	48	102	93, 94	103
2911	Petroleum refining	49	104	95, 96	105
3011	Tires and inner tubes	50	106	97, 98	107
314	Footwear	51	108	99, 100	109
3221	Glass containers	52	110	101, 102	111
3241	Hydraulic cement	53	112	103, 104	113
325	Structural clay products	54	114	105, 106	115
3251, 53, 59	Clay construction products	55	116	107, 108	117
3251	Brick and structural clay tile	56	118	109, 110	119

Indexes of output per employee hour and related data—Continued

SIC code	Industry	Chart	Page	Table	Page
Manufacturing—Continued					
3253	Ceramic wall and floor tile	57	120	111, 112	121
3255	Clay refractories	58	122	113, 114	123
3271, 72	Concrete products	59	124	115, 116	125
3273	Ready-mix concrete	60	126	117	127
331	Steel	61	128	118, 119	129
3321	Gray iron foundries	62	130	120, 121	131
3324, 25	Steel foundries	63	132	122, 123	133
3331, 32, 33	Primary copper, lead, and zinc	64	134	124, 125	135
3331	Primary copper	65	136	126, 127	137
3334	Primary aluminum	66	138	128, 129	139
3351	Copper rolling and drawing	67	140	130, 131	141
3353, 54, 55	Aluminum rolling and drawing	68	142	132, 133	143
3411	Metal cans	69	144	134, 135	145
3441	Fabricated structural metal	70	146	136, 137	147
3531	Construction machinery and equipment	71	148	138, 139	149
3541, 42	Machine tools	72	150	140, 141	151
3541	Metal cutting machine tools	73	152	142, 143	153
3542	Metal forming machine tools	74	154	144, 145	155
3562	Ball and roller bearings	75	156	146, 147	157
3612	Transformers	76	158	148, 149	159
3621	Motors and generators	77	160	150, 151	161
3631, 32, 33, 39	Major household appliances	78	162	152, 153	163
3631	Household cooking equipment	79	164	154, 155	165
3632	Household refrigerators and freezers	80	166	156, 157	167
3633	Household laundry equipment	81	168	158, 159	169
3639	Household appliances, not elsewhere classified	82	170	160, 161	171
3641	Electric lamps	83	172	162, 163	173
3645, 46, 47, 48	Lighting fixtures	84	174	164, 165	175
3651	Radio and television receiving sets	85	176	166, 167	177
371	Motor vehicles and equipment	86	178	168, 169	179
Other					
401	Railroad transportation, revenue traffic	87	180	170, 171	181
401	Railroad transportation, car miles	88	182	172, 173	183
4111, 4131, 414 pts	Bus carriers, class I	89	184	174	185
4213 part	Intercity trucking	90	186	175	187
4213 part	Intercity trucking, general freight	91	188	176	189
4511, 4521 part	Air transportation	92	190	177	191
4612, 13	Petroleum pipelines	93	192	178, 179	193
4811	Telephone communications	94	194	180	195
491, 492, 493	Gas and electric utilities	95	196	181, 182	197
491, 493 part	Electric utilities	96	198	183	199
492, 493 part	Gas utilities	97	200	184	201
54	Retail food stores	98	202	185	203
5511	Franchised new car dealers	99	204	186	205
5541	Gasoline service stations	100	206	187	207
58	Eating and drinking places	101	208	188	209
5912	Drug and proprietary stores	102	210	189	211
7011	Hotels, motels, and tourist courts	103	212	190	213
721	Laundry and cleaning services	104	214	191	215

Chart 2. Iron mining, crude ore (SIC 1011): Output per hour and related data, 1967-80
(1977 = 100)



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

Table 2. Iron mining, crude ore (SIC 1011): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	(²)	36.2	(²)	37.2	32.8	63.8
1955	52.5	45.5	95.6	49.9	43.9	86.7
1956	53.0	46.1	93.8	50.1	44.1	85.5
1957	52.7	45.4	98.2	49.0	43.0	87.1
1958	48.3	43.0	75.6	41.5	37.3	64.3
1959	49.4	44.8	70.3	44.6	40.6	64.0
1960	59.4	51.5	108.4	56.3	49.4	99.0
1961	67.1	60.2	100.8	61.5	56.1	87.5
1962	73.1	65.2	113.3	69.2	62.8	101.0
1963	83.3	72.9	141.9	77.3	69.0	122.6
1964	89.6	77.8	160.3	85.5	75.7	142.3
1965	85.3	74.4	147.9	82.8	73.7	133.9
1966	84.4	74.3	139.1	84.0	75.8	126.5
1967	86.1	76.2	137.9	85.3	77.5	123.6
1968	93.5	84.3	137.5	92.6	85.1	126.6
1969	99.7	90.5	141.2	97.4	90.6	126.0
1970	99.9	90.2	146.4	98.1	91.4	126.7
1971	98.6	89.4	139.6	93.9	87.6	120.1
1972	108.0	98.2	153.4	103.2	96.9	128.4
1973	113.2	103.1	159.2	112.2	104.3	146.6
1974	107.9	98.1	152.2	110.6	102.1	149.1
1975	112.7	102.4	158.5	110.8	103.7	140.9
1976	113.5	103.5	157.2	111.3	104.0	141.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	116.7	107.2	158.5	118.1	110.2	151.2
1979	125.3	115.4	168.1	125.6	118.3	154.7
1980 ³	126.6	122.9	139.4	118.9	116.1	128.3
Average annual percent change:						
1947-80	(²)	4.2	(²)	4.0	4.4	1.7
1975-80	3.0	3.8	.1	2.6	3.0	.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.

² Data not available.

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

Table 3. Iron mining, crude ore (SIC 1011): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	67.9	(¹)	187.8	(¹)	182.4	207.0	106.4
1955	88.5	168.5	194.5	92.6	177.2	201.5	102.1
1956	91.0	171.6	197.2	97.0	181.8	206.3	106.4
1957	100.1	190.1	220.5	101.9	204.1	233.0	114.9
1958	68.4	141.7	159.1	90.5	164.7	183.6	106.4
1959	64.0	129.6	142.7	91.1	143.5	157.7	100.0
1960	96.9	163.1	188.3	89.4	172.0	196.1	97.9
1961	85.7	127.7	142.4	85.0	139.4	152.8	97.9
1962	90.3	123.5	138.6	79.7	130.5	143.9	89.4
1963	96.5	115.9	132.3	68.0	124.8	139.9	78.7
1964	109.0	121.6	140.1	68.0	127.5	143.9	76.6
1965	111.1	130.2	149.3	75.1	134.2	150.8	83.0
1966	113.1	134.0	152.2	81.3	134.7	149.3	89.4
1967	113.1	131.4	148.4	82.0	132.6	146.0	91.5
1968	121.3	129.7	143.9	88.2	131.0	142.6	95.8
1969	128.6	129.0	142.1	91.1	132.1	141.9	102.1
1970	132.2	132.3	146.6	90.3	134.7	144.7	104.3
1971	122.6	124.4	137.1	87.8	130.5	139.9	102.1
1972	117.5	108.8	119.7	76.6	113.9	121.3	91.5
1973	137.2	121.2	133.1	86.2	122.3	131.5	93.6
1974	136.4	126.4	139.0	89.6	123.3	133.6	91.5
1975	135.0	119.8	131.8	85.2	121.8	130.2	95.8
1976	141.2	124.4	136.4	89.8	126.9	135.8	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	148.0	126.8	138.1	93.4	125.3	134.3	97.9
1979	161.4	128.8	139.9	96.0	128.5	136.4	104.3
1980 ²	133.8	105.7	108.9	96.0	112.5	115.2	104.3
Average annual percent change:							
1947-80	2.2	(¹)	-2.0	(¹)	-1.7	-2.1	.5
1975-80	2.2	-.8	-1.6	2.1	-.4	-.9	1.5

¹ Data not available.

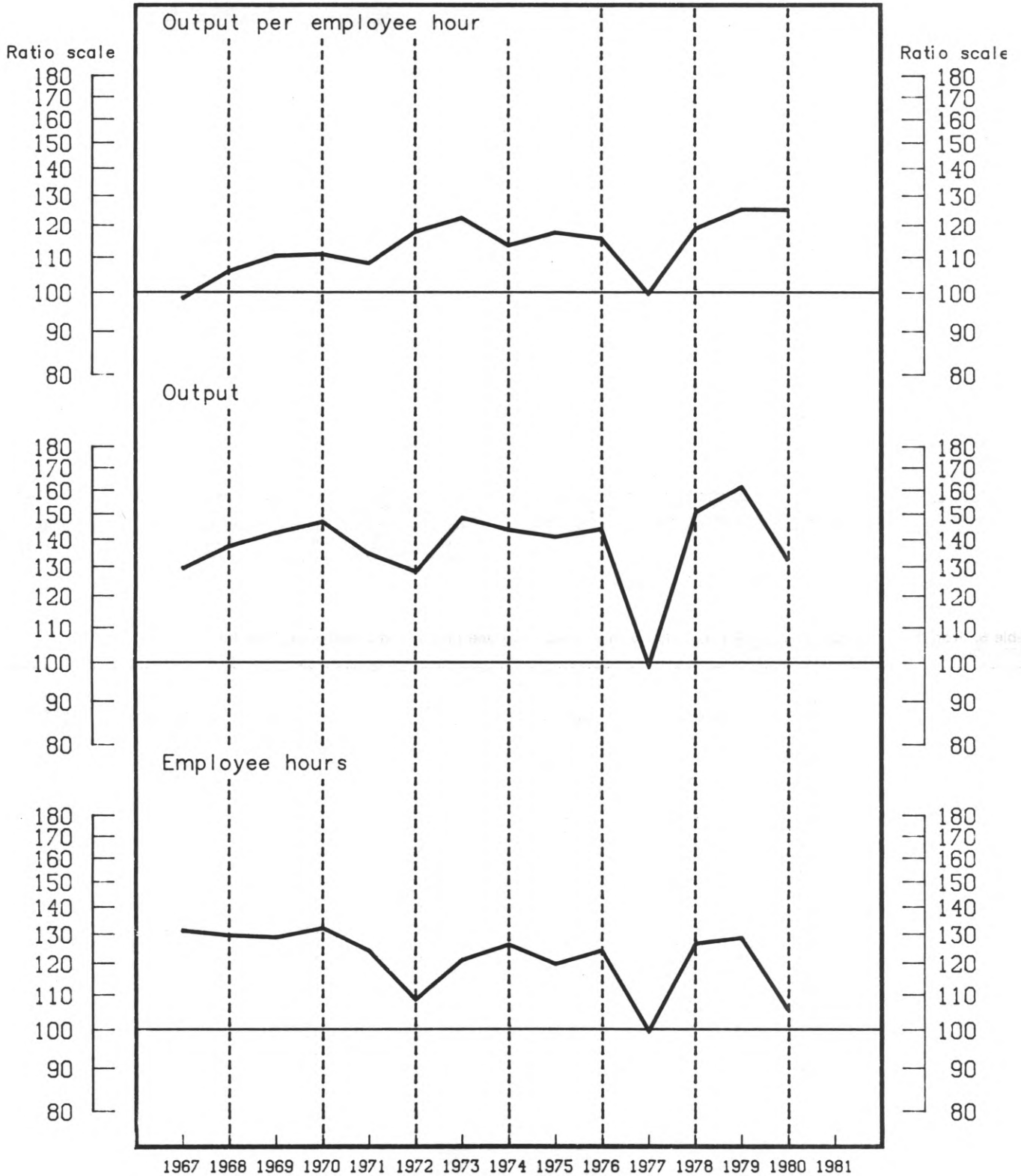
² Preliminary.

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 Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Chart 3. Iron mining, usable ore (SIC 1011): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 4. Iron mining, usable ore (SIC 1011): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	(²)	48.8	(²)	50.2	44.3	86.1
1955	72.0	62.4	131.1	68.5	60.2	118.9
1956	69.3	60.3	122.6	65.4	57.6	111.7
1957	68.7	59.2	128.2	64.0	56.1	113.7
1958	60.3	53.7	94.5	51.9	46.6	80.4
1959	59.3	53.9	84.4	53.6	48.8	76.9
1960	70.1	60.8	128.0	66.5	58.3	116.9
1961	73.2	65.7	110.0	67.1	61.2	95.5
1962	78.1	69.6	121.0	73.9	67.0	107.8
1963	87.8	76.9	149.7	81.6	72.8	129.4
1964	96.6	83.9	172.8	92.2	81.7	153.4
1965	95.3	83.1	165.2	92.5	82.3	149.5
1966	98.4	86.7	162.2	97.9	88.3	147.5
1967	98.6	87.3	157.9	97.7	88.7	141.5
1968	106.1	95.6	156.0	105.0	96.5	143.6
1969	110.6	100.4	156.6	108.0	100.6	139.8
1970	111.1	100.3	162.8	109.1	101.6	140.9
1971	108.4	98.3	153.5	103.3	96.4	132.0
1972	118.1	107.4	167.8	112.8	105.9	140.4
1973	122.6	111.6	172.4	121.5	113.0	158.8
1974	113.8	103.5	160.5	116.6	107.6	157.2
1975	117.8	107.1	165.6	115.8	108.4	147.3
1976	115.9	105.7	160.6	113.6	106.2	144.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	119.1	109.3	161.7	120.5	112.4	154.2
1979	125.5	115.6	168.4	125.8	118.5	155.0
1980 ³	125.3	121.6	137.9	117.7	114.9	126.9
Average annual percent change:						
1947-80	(²)	3.0	(²)	2.7	3.2	.5
1975-80	2.1	2.9	- .8	1.7	2.1	- .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 Data not available.

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

Table 5. Iron mining, usable ore (SIC 1011): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	91.6	(¹)	187.8	(¹)	182.4	207.0	106.4
1955	121.4	168.5	194.5	92.6	177.2	201.5	102.1
1956	118.9	171.6	197.2	97.0	181.8	206.3	106.4
1957	130.6	190.1	220.5	101.9	204.1	233.0	114.9
1958	85.5	141.7	159.1	90.5	164.7	183.6	106.4
1959	76.9	129.6	142.7	91.1	143.5	157.7	100.0
1960	114.4	163.1	188.3	89.4	172.0	196.1	97.9
1961	93.5	127.7	142.4	85.0	139.4	152.8	97.9
1962	96.4	123.5	138.6	79.7	130.5	143.9	89.4
1963	101.8	115.9	132.3	68.0	124.8	139.9	78.7
1964	117.5	121.6	140.1	68.0	127.5	143.9	76.6
1965	124.1	130.2	149.3	75.1	134.2	150.8	83.0
1966	131.9	134.0	152.2	81.3	134.7	149.3	89.4
1967	129.5	131.4	148.4	82.0	132.6	146.0	91.5
1968	137.6	129.7	143.9	88.2	131.0	142.6	95.8
1969	142.7	129.0	142.1	91.1	132.1	141.9	102.1
1970	147.0	132.3	146.6	90.3	134.7	144.7	104.3
1971	134.8	124.4	137.1	87.8	130.5	139.9	102.1
1972	128.5	108.8	119.7	76.6	113.9	121.3	91.5
1973	148.6	121.2	133.1	86.2	122.3	131.5	93.6
1974	143.8	126.4	139.0	89.6	123.3	133.6	91.5
1975	141.1	119.8	131.8	85.2	121.8	130.2	95.8
1976	144.2	124.4	136.4	89.8	126.9	135.8	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	151.0	126.8	138.1	93.4	125.3	134.3	97.9
1979	161.7	128.8	139.9	96.0	128.5	136.4	104.3
1980 ²	132.4	105.7	108.9	96.0	112.5	115.2	104.3
Average annual percent change:							
1947-80	1.0	(¹)	-2.0	(¹)	-1.7	-2.1	.5
1975-80	1.3	- .8	-1.6	2.1	- .4	- .9	1.5

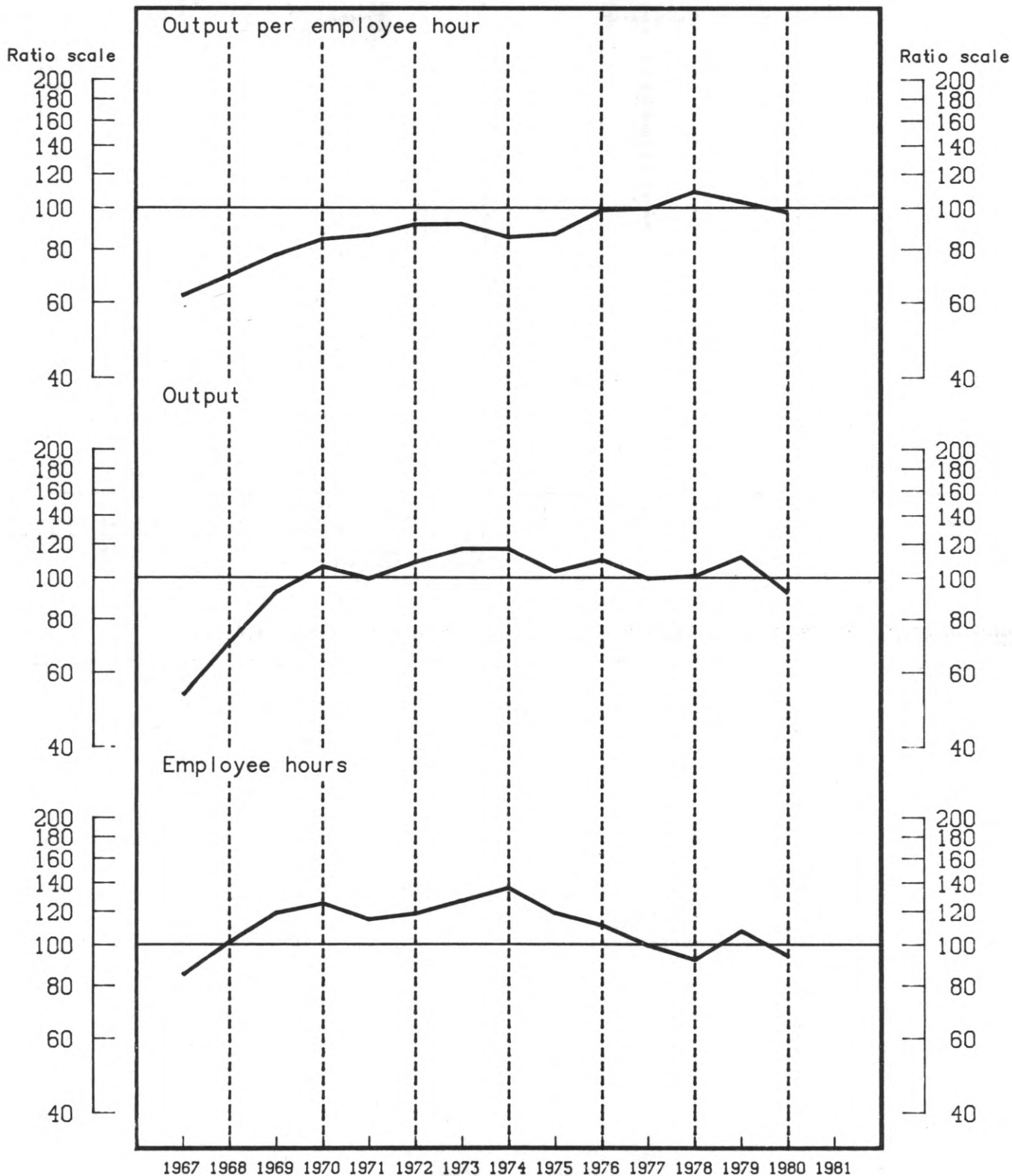
¹ Data not available.

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 Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Chart 4. Copper mining, crude ore (SIC 1021): Output per hour and related data, 1967-80
 (1977 = 100)



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

Table 6. Copper mining, crude ore (SIC 1021): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	(²)	36.6	(²)	45.9	40.8	76.2
1955	46.1	41.4	72.0	53.3	47.9	83.3
1956	47.6	42.4	78.9	54.2	48.4	87.6
1957	51.4	46.6	76.2	55.0	50.0	81.4
1958	55.6	51.7	73.1	56.7	52.8	74.9
1959	55.3	53.1	63.3	61.3	58.8	70.8
1960	57.2	54.6	67.1	65.9	62.9	77.8
1961	60.4	56.0	80.1	68.1	63.2	90.5
1962	66.1	61.3	88.0	73.2	67.9	97.3
1963	66.2	61.4	88.1	73.7	68.5	97.3
1964	72.3	67.4	93.9	80.0	74.9	103.4
1965	72.3	66.6	99.0	81.0	74.9	109.2
1966	73.7	67.8	101.8	82.4	76.4	109.7
1967	62.5	64.1	57.7	70.5	71.4	67.7
1968	69.6	70.1	68.0	84.9	85.3	83.5
1969	77.9	73.8	94.4	93.0	88.5	111.1
1970	84.8	80.0	104.1	97.6	93.1	115.2
1971	86.6	85.4	90.5	97.8	96.8	101.1
1972	91.8	86.4	114.2	98.1	93.8	114.9
1973	92.0	85.6	120.4	97.7	92.9	117.3
1974	85.7	82.0	99.9	90.2	86.7	103.1
1975	87.2	86.4	89.6	89.5	88.6	92.3
1976	99.2	98.0	103.1	101.3	100.7	102.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.6	109.1	111.1	113.5	113.3	114.3
1979	103.8	102.0	109.8	113.3	113.3	116.7
1980 ³	98.1	97.2	101.2	104.2	103.1	107.5
Average annual percent change:						
1947-80	(²)	4.0	(²)	3.2	3.7	.7
1975-80	2.4	2.3	2.6	3.6	3.5	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 Data not available.

³ Preliminary.

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

differ from those previously published.

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

Table 7. Copper mining, crude ore (SIC 1021): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output ¹	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	38.1	(²)	104.2	(²)	83.0	93.4	50.0
1955	45.8	99.3	110.6	63.6	86.0	95.7	55.0
1956	53.7	112.7	126.8	68.1	99.1	111.0	61.3
1957	52.9	103.0	113.5	69.4	96.1	105.9	65.0
1958	46.8	84.1	90.5	64.0	82.5	88.7	62.5
1959	42.5	76.8	80.0	67.1	69.3	72.3	60.0
1960	55.5	97.0	101.6	82.7	84.2	88.3	71.3
1961	58.8	97.4	105.0	73.4	86.3	93.0	65.0
1962	62.1	93.9	101.3	70.6	84.8	91.4	63.8
1963	60.8	91.8	99.0	69.0	82.5	88.7	62.5
1964	64.6	89.4	95.9	68.8	80.7	86.3	62.5
1965	72.3	100.0	108.5	73.0	89.3	96.5	66.2
1966	78.2	106.1	115.4	76.8	94.9	102.4	71.3
1967	53.3	85.3	83.1	92.3	75.6	74.6	78.7
1968	71.0	102.0	101.3	104.4	83.6	83.2	85.0
1969	93.0	119.4	126.0	98.5	100.0	105.1	83.7
1970	106.6	125.7	133.2	102.4	109.2	114.5	92.5
1971	99.8	115.2	116.8	110.3	102.0	103.1	98.7
1972	109.2	118.9	126.4	95.6	111.3	116.4	95.0
1973	117.3	127.5	137.0	97.4	120.0	126.2	100.0
1974	117.2	136.7	142.9	117.3	130.0	135.2	113.7
1975	103.8	119.1	120.2	115.8	116.0	117.2	112.5
1976	110.6	111.5	112.9	107.3	109.2	109.8	107.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	92.5	92.9	91.3	89.3	89.5	88.7
1979	112.3	108.2	110.1	102.3	99.1	100.0	96.2
1980 ³	92.7	94.5	95.4	91.6	89.0	89.9	86.2
Average annual percent change:							
1947-80	4.2	(²)	.2	(²)	1.0	.5	3.5
1975-80	-1.4	-3.7	-3.7	-3.9	-4.8	-4.8	-5.0

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

² Data not available.

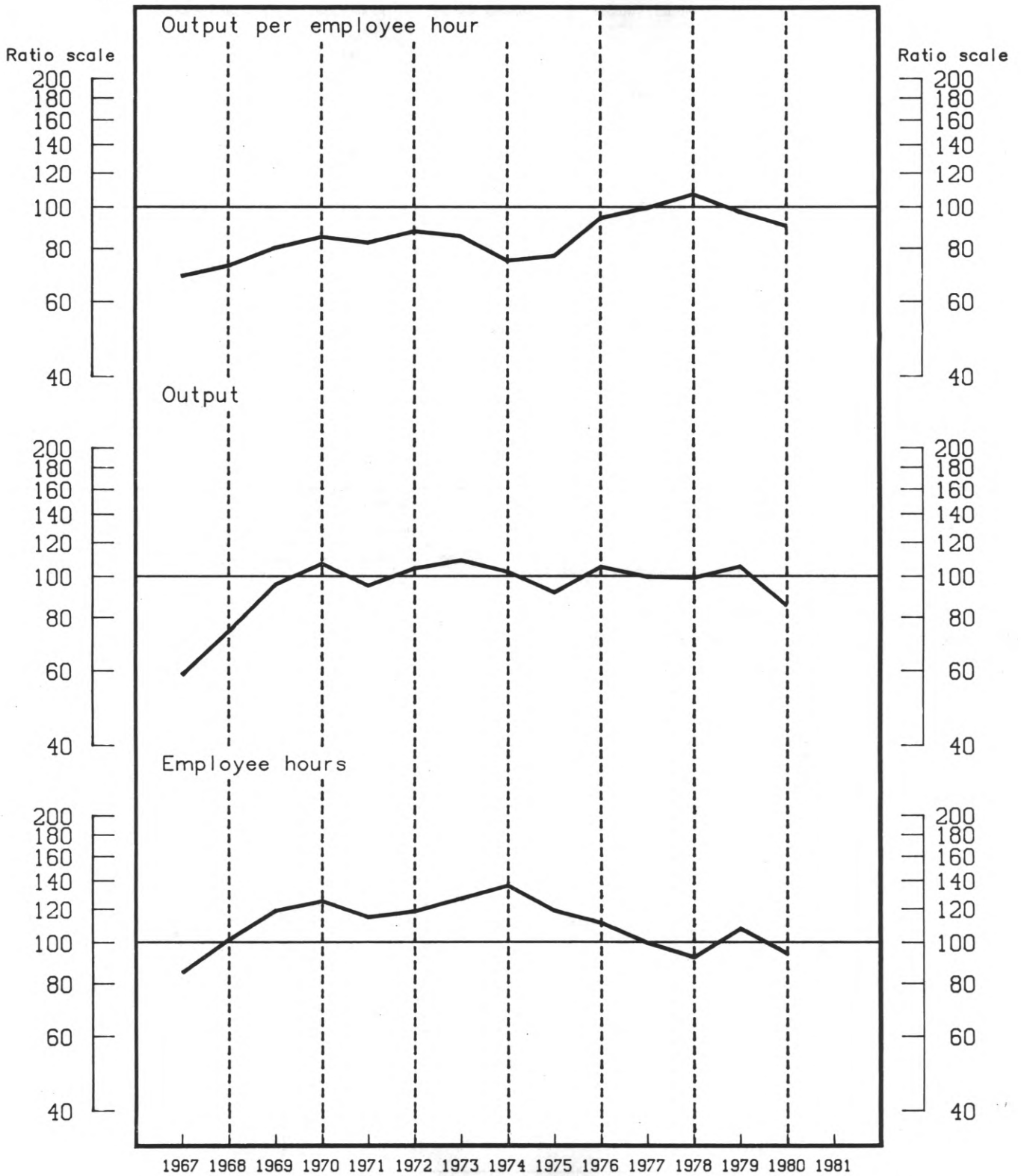
³ Preliminary.

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

Chart 5. Copper mining, recoverable metal (SIC 1021): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 8. Copper mining, recoverable metal (SIC 1021): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	(²)	48.9	(²)	61.4	54.6	102.0
1955	61.6	55.3	96.2	71.2	63.9	111.3
1956	60.1	53.4	99.4	68.3	61.0	110.4
1957	64.6	58.6	95.8	69.2	62.8	102.3
1958	71.5	66.4	93.9	72.8	67.8	96.2
1959	65.8	63.1	75.3	72.9	69.8	84.2
1960	68.4	65.3	80.2	78.7	75.1	93.0
1961	73.5	68.2	97.5	83.0	77.0	110.2
1962	80.3	74.4	106.8	88.9	82.5	118.2
1963	81.2	75.3	108.0	90.3	84.0	119.2
1964	85.7	79.9	111.3	94.9	88.8	122.6
1965	83.3	76.8	114.1	93.3	86.3	125.8
1966	83.0	76.3	114.7	92.8	86.0	123.6
1967	69.2	71.0	63.9	78.0	79.1	75.0
1968	73.2	73.7	71.6	89.4	89.8	87.9
1969	80.6	76.3	97.7	96.2	91.5	114.9
1970	85.5	80.7	105.0	98.4	93.9	116.2
1971	82.9	81.8	86.6	93.6	92.6	96.8
1972	88.1	82.9	109.6	94.2	90.0	110.3
1973	85.8	79.9	112.3	91.2	86.7	109.4
1974	75.2	71.9	87.6	79.1	76.0	90.4
1975	77.2	76.5	79.4	79.3	78.5	81.8
1976	94.7	93.5	98.4	96.7	96.2	98.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.6	107.1	109.0	111.4	111.2	112.2
1979	97.8	96.1	103.4	106.8	105.8	110.0
1980 ³	90.6	89.7	93.4	96.2	95.2	99.3
Average annual percent change:						
1947-80	(²)	2.3	(²)	1.5	2.0	-9
1975-80	2.8	2.7	3.0	4.0	4.0	4.2

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

² Data not available.

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

Table 9. Copper mining, recoverable metal (SIC 1021): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output ¹	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	51.0	(²)	104.2	(²)	83.0	93.4	50.0
1955	61.2	99.3	110.6	63.6	86.0	95.7	55.0
1956	67.7	112.7	126.8	68.1	99.1	111.0	61.3
1957	66.5	103.0	113.5	69.4	96.1	105.9	65.0
1958	60.1	84.1	90.5	64.0	82.5	88.7	62.5
1959	50.5	76.8	80.0	67.1	69.3	72.3	60.0
1960	66.3	97.0	101.6	82.7	84.2	88.3	71.3
1961	71.6	97.4	105.0	73.4	86.3	93.0	65.0
1962	75.4	93.9	101.3	70.6	84.8	91.4	63.8
1963	74.5	91.8	99.0	69.0	82.5	88.7	62.5
1964	76.6	89.4	95.9	68.8	80.7	86.3	62.5
1965	83.3	100.0	108.5	73.0	89.3	96.5	66.2
1966	88.1	106.1	115.4	76.8	94.9	102.4	71.3
1967	59.0	85.3	83.1	92.3	75.6	74.6	78.7
1968	74.7	102.0	101.3	104.4	83.6	83.2	85.0
1969	96.2	119.4	126.0	98.5	100.0	105.1	83.7
1970	107.5	125.7	133.2	102.4	109.2	114.5	92.5
1971	95.5	115.2	116.8	110.3	102.0	103.1	98.7
1972	104.8	118.9	126.4	95.6	111.3	116.4	95.0
1973	109.4	127.5	137.0	97.4	120.0	126.2	100.0
1974	102.8	136.7	142.9	117.3	130.0	135.2	113.7
1975	92.0	119.1	120.2	115.8	116.0	117.2	112.5
1976	105.6	111.5	112.9	107.3	109.2	109.8	107.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.5	92.5	92.9	91.3	89.3	89.5	88.7
1979	105.8	108.2	110.1	102.3	99.1	100.0	96.2
1980 ³	85.6	94.5	95.4	91.6	89.0	89.9	86.2
Average annual percent change:							
1947-80	2.5	(²)	.2	(²)	1.0	.5	3.5
1975-80	-1.0	-3.7	-3.7	-3.9	-4.8	-4.8	-5.0

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

² Data not available.

³ Preliminary.

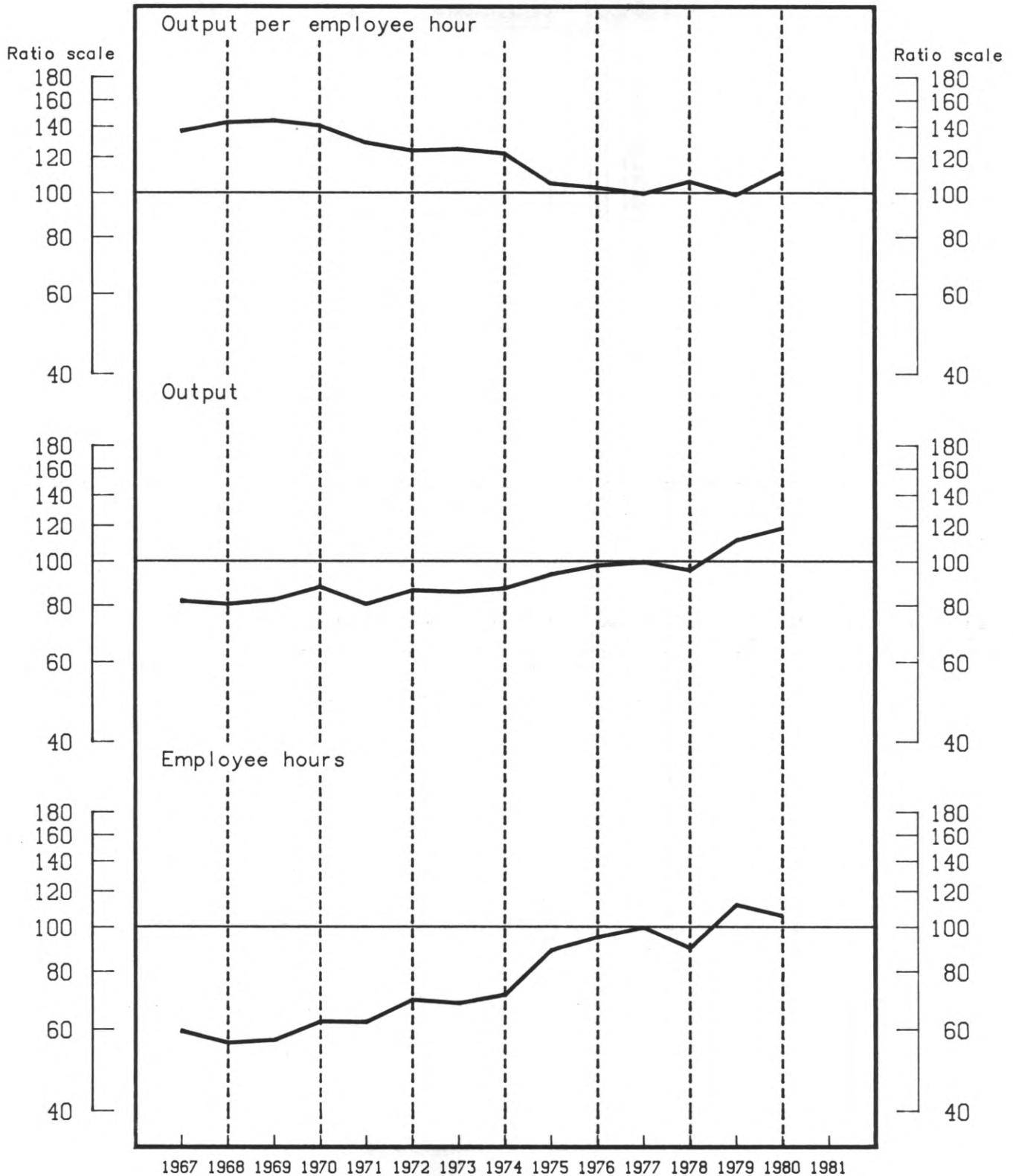
NOTE: Because of periodic revisions in source data, the measures in this table may

differ from those previously published.

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

Chart 6. Coal mining (SIC 111, 121): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 10. Coal mining (SIC 111, 121): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	(²)	64.2	(²)	53.8	49.3	111.1
1955	74.9	68.3	164.7	66.0	60.3	145.1
1956	78.6	71.7	169.7	69.5	63.6	149.6
1957	79.0	72.4	160.7	67.5	62.0	136.1
1958	85.3	80.1	133.3	67.4	63.4	106.6
1959	86.3	82.4	118.6	73.3	70.0	101.3
1960	91.7	88.4	117.5	78.1	75.3	99.8
1961	101.5	98.3	124.1	87.0	84.3	106.3
1962	108.9	105.4	133.5	96.3	93.2	118.0
1963	115.0	110.7	147.5	106.7	103.1	133.3
1964	121.6	117.4	151.7	113.5	109.8	140.3
1965	128.3	125.0	152.8	122.6	119.6	144.7
1966	134.7	132.0	153.4	130.7	128.2	147.1
1967	137.4	134.4	155.9	133.1	130.6	149.1
1968	143.5	141.8	155.1	137.6	136.0	147.7
1969	144.7	142.4	157.9	137.4	135.6	149.4
1970	141.1	137.5	165.4	137.1	133.8	159.7
1971	129.5	130.1	126.2	125.1	125.9	120.6
1972	124.4	121.4	143.5	121.4	119.1	136.1
1973	125.5	123.7	137.2	119.8	118.3	128.4
1974	122.5	121.3	130.0	109.9	109.1	115.3
1975	105.3	104.7	109.2	99.6	99.2	102.3
1976	103.1	102.8	104.7	98.4	98.4	98.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.4	109.6	91.6	103.2	106.7	86.9
1979	99.4	101.3	90.2	97.3	99.6	86.2
1980 ³	111.9	114.7	98.3	108.2	111.3	92.7
Average annual percent change:						
1947-80	(²)	3.3	(²)	3.5	3.9	-1.0
1975-80	.7	1.4	-3.0	1.2	2.0	-2.9

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

² Data not available.

³ Preliminary.

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

differ from those previously published.

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

Table 11. Coal mining (SIC 111, 121): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	64.1	(¹)	99.9	(¹)	119.2	129.9	57.7
1955	73.3	97.8	107.3	44.5	111.0	121.5	50.5
1956	79.6	101.3	111.0	46.9	114.5	125.1	53.2
1957	77.3	97.9	106.8	48.1	114.6	124.6	56.8
1958	64.4	75.5	80.4	48.3	95.5	101.6	60.4
1959	64.5	74.7	78.3	54.4	88.0	92.2	63.7
1960	64.5	70.3	73.0	54.9	82.6	85.7	64.6
1961	62.3	61.4	63.4	50.2	71.6	73.9	58.6
1962	64.9	59.6	61.6	48.6	67.4	69.6	55.0
1963	70.5	61.3	63.7	47.8	66.1	68.4	52.9
1964	74.2	61.0	63.2	48.9	65.4	67.6	52.9
1965	77.0	60.0	61.6	50.4	62.8	64.4	53.2
1966	79.6	59.1	60.3	51.9	60.9	62.1	54.1
1967	82.0	59.7	61.0	52.6	61.6	62.8	55.0
1968	80.8	56.3	57.0	52.1	58.7	59.4	54.7
1969	82.6	57.1	58.0	52.3	60.1	60.9	55.3
1970	88.3	62.6	64.2	53.4	64.4	66.0	55.3
1971	80.8	62.4	62.1	64.0	64.6	64.2	67.0
1972	86.7	69.7	71.4	60.4	71.4	72.8	63.7
1973	86.0	68.5	69.5	62.7	71.8	72.7	67.0
1974	87.6	71.5	72.2	67.4	79.7	80.3	76.0
1975	94.0	89.3	89.8	86.1	94.4	94.8	91.9
1976	98.3	95.3	95.6	93.9	99.9	99.9	99.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	96.0	90.2	87.6	104.8	93.0	90.0	110.5
1979	111.8	112.5	110.4	124.0	114.9	112.3	129.7
1980 ²	118.9	106.3	103.7	121.0	109.9	106.8	128.2
Average annual percent change:							
1947-80	.7	(¹)	-2.5	(¹)	-2.7	-3.1	1.7
1975-80	4.4	3.7	3.0	7.7	3.2	2.4	7.6

¹ Data not available.

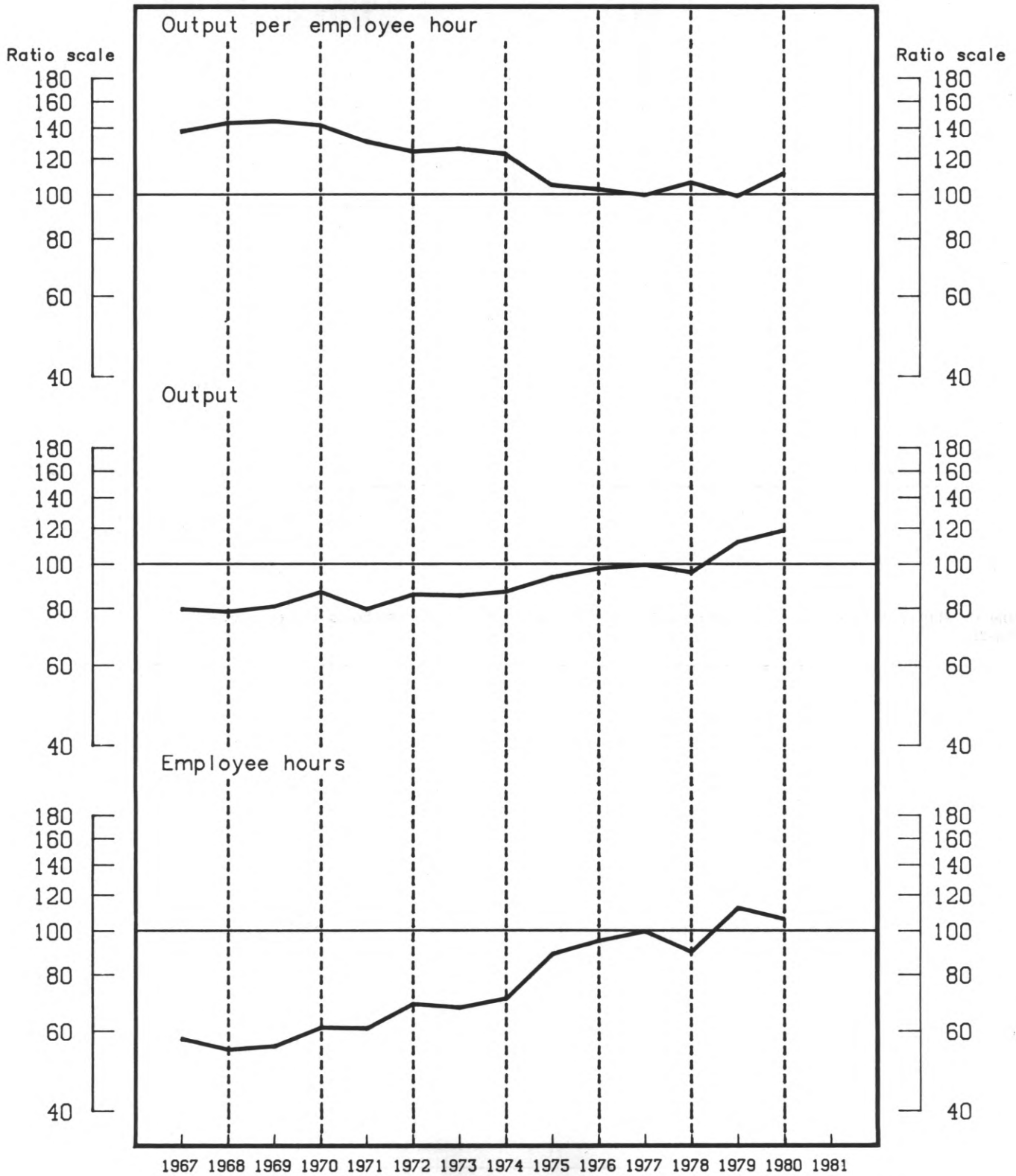
² Preliminary.

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

Chart 7. Bituminous coal and lignite mining (SIC 121): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 12. Bituminous coal and lignite mining (SIC 121): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	(²)	64.8	(²)	55.0	50.2	125.2
1955	76.5	69.3	181.6	68.2	62.0	160.4
1956	78.4	71.3	177.0	70.3	64.1	156.7
1957	79.3	72.7	162.0	68.8	63.3	138.7
1958	85.6	80.3	135.6	68.3	64.1	109.2
1959	86.4	82.3	119.4	74.1	70.7	102.6
1960	92.3	88.6	119.5	79.2	76.2	102.4
1961	102.3	99.0	125.4	87.9	85.2	107.8
1962	109.3	105.7	134.0	96.8	93.9	118.9
1963	114.9	110.7	147.3	106.8	103.3	133.9
1964	122.0	118.1	148.8	114.8	111.0	142.2
1965	129.3	126.0	151.5	124.7	121.5	146.7
1966	135.2	132.6	151.1	132.2	129.7	147.6
1967	138.0	135.0	157.0	134.3	131.8	151.0
1968	144.0	142.2	155.6	138.4	137.0	148.3
1969	145.3	143.0	159.0	138.9	137.0	150.7
1970	142.3	138.4	167.7	138.6	135.2	162.1
1971	131.0	131.4	128.3	126.2	127.0	122.4
1972	124.6	121.6	144.2	121.6	119.3	136.9
1973	126.3	124.4	137.6	120.2	118.7	129.1
1974	123.0	121.8	130.7	110.1	109.3	115.3
1975	105.2	104.5	109.7	99.5	98.9	102.5
1976	103.0	102.7	104.7	98.4	98.3	99.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.7	109.8	92.1	103.3	106.9	87.0
1979	99.6	101.4	90.1	97.5	99.8	86.1
1980 ³	111.8	114.7	97.9	108.2	111.5	92.4
Average annual percent change:						
1947-80	(²)	3.3	(²)	3.4	3.9	-1.3
1975-80	.8	1.5	-3.1	1.2	2.1	-3.0

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 Data not available.

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

Table 13. Bituminous coal and lignite mining (SIC 121): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	56.7	(¹)	87.5	(¹)	103.0	113.0	45.3
1955	67.2	87.9	97.0	37.0	98.6	108.4	41.9
1956	72.4	92.4	101.5	40.9	103.0	112.9	46.2
1957	71.3	89.9	98.1	44.0	103.6	112.6	51.4
1958	59.4	69.4	74.0	43.8	87.0	92.6	54.4
1959	59.6	69.0	72.4	49.9	80.4	84.3	58.1
1960	60.1	65.1	67.8	50.3	75.9	78.9	58.7
1961	58.3	57.0	58.9	46.5	66.3	68.4	54.1
1962	61.1	55.9	57.8	45.6	63.1	65.1	51.4
1963	66.3	57.7	59.9	45.0	62.1	64.2	49.5
1964	70.4	57.7	59.6	47.3	61.3	63.4	49.5
1965	74.1	57.3	58.8	48.9	59.4	61.0	50.5
1966	77.2	57.1	58.2	51.1	58.4	59.5	52.3
1967	79.9	57.9	59.2	50.9	59.5	60.6	52.9
1968	78.9	54.8	55.5	50.7	57.0	57.6	53.2
1969	81.1	55.8	56.7	51.0	58.4	59.2	53.8
1970	87.2	61.3	63.0	52.0	62.9	64.5	53.8
1971	79.9	61.0	60.8	62.3	63.3	62.9	65.3
1972	86.1	69.1	70.8	59.7	70.8	72.2	62.9
1973	85.6	67.8	68.8	62.2	71.2	72.1	66.3
1974	87.3	71.0	71.7	66.8	79.3	79.9	75.7
1975	93.8	89.2	89.8	85.5	94.3	94.8	91.5
1976	98.2	95.3	95.6	93.8	99.8	99.9	99.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	96.2	90.2	87.6	104.4	93.1	90.0	110.6
1979	112.3	112.8	110.7	124.6	115.2	112.5	130.4
1980 ²	119.1	106.5	103.8	121.6	110.1	106.8	128.9
Average annual percent change:							
1947-80	1.3	(¹)	-2.0	(¹)	-2.1	-2.5	2.6
1975-80	4.6	3.8	3.0	7.9	3.3	2.4	7.8

¹ Data not available.

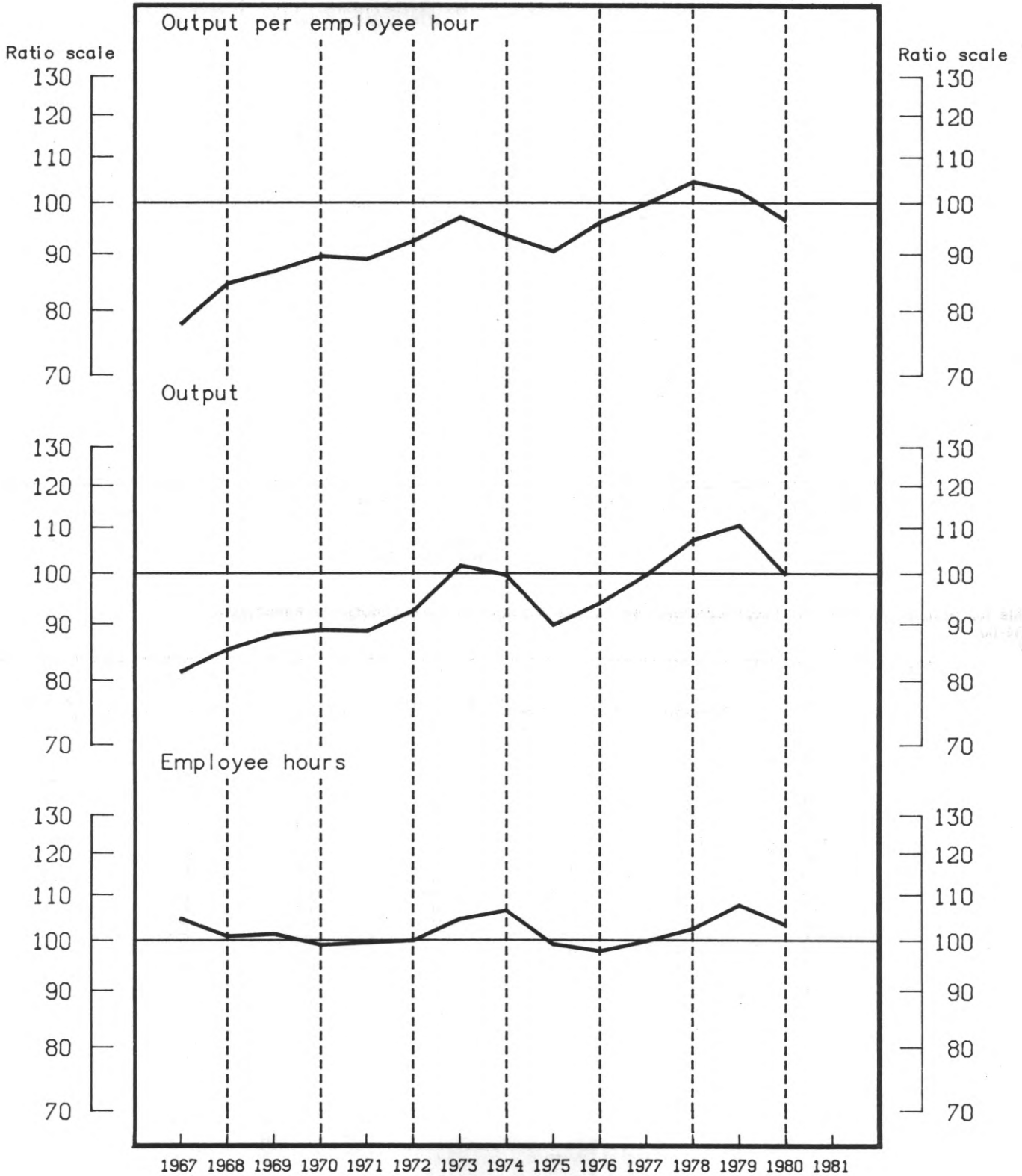
² Preliminary.

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

Chart 8. Nonmetallic minerals, except fuels (SIC 14): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 14. Nonmetallic minerals, except fuels (SIC 14): Indexes of output per employee hour and output per employee, 1954-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	(²)	51.1	(²)	54.0	50.3	75.6
1955	(²)	53.4	(²)	57.0	53.0	80.2
1956	(²)	54.3	(²)	58.1	54.0	81.9
1957	(²)	56.5	(²)	59.2	55.5	79.9
1958	60.4	57.0	77.6	58.7	55.4	76.2
1959	61.5	58.1	79.9	61.4	57.8	80.5
1960	61.6	58.5	77.1	60.5	57.4	76.2
1961	64.2	61.3	78.1	63.3	60.4	78.2
1962	67.5	64.3	83.2	67.1	63.9	82.8
1963	70.3	67.5	83.3	70.5	67.5	84.3
1964	73.6	70.9	86.5	74.7	71.7	88.8
1965	75.2	72.0	90.6	77.2	73.8	94.2
1966	78.9	75.4	94.9	80.9	77.4	97.4
1967	77.9	75.2	89.5	79.1	76.3	91.9
1968	84.7	81.7	97.2	85.2	82.4	98.5
1969	86.9	83.8	100.9	88.9	85.8	103.6
1970	89.7	86.8	102.2	89.9	87.2	102.5
1971	89.1	87.1	96.8	89.6	87.7	97.7
1972	92.6	90.7	100.0	92.4	91.1	98.5
1973	97.2	96.0	101.6	99.4	98.2	105.4
1974	93.6	92.9	96.1	95.0	93.8	99.8
1975	90.6	91.6	86.5	89.4	89.6	88.9
1976	96.2	96.4	95.1	95.2	95.5	94.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.7	104.2	106.0	105.0	104.7	106.5
1979	102.6	102.3	103.5	103.7	103.3	105.1
1980 ³	96.6	97.9	91.8	94.6	95.8	90.3
Average annual percent change:						
1954-80	(²)	2.9	(²)	2.7	3.0	1.2
1975-80	1.6	1.6	1.8	1.7	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 Data not available.

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

Table 15. Nonmetallic minerals, except fuels (SIC 14): Indexes of output, employee hours, and employees, 1954-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	49.0	(¹)	95.8	(¹)	90.7	97.4	64.8
1955	53.3	(¹)	99.9	(¹)	93.5	100.5	66.5
1956	57.8	(¹)	106.5	(¹)	99.4	107.0	70.6
1957	58.4	(¹)	103.3	(¹)	98.7	105.3	73.1
1958	58.2	96.4	102.1	75.0	99.2	105.1	76.4
1959	63.8	103.7	109.9	79.8	103.9	110.4	79.3
1960	64.2	104.2	109.7	83.3	106.1	111.9	84.3
1961	65.5	102.0	106.8	83.9	103.4	108.4	83.8
1962	68.4	101.3	106.3	82.2	101.9	107.0	82.6
1963	71.1	101.2	105.4	85.4	100.9	105.3	84.3
1964	74.9	101.7	105.6	86.6	100.3	104.5	84.3
1965	79.7	106.0	110.7	88.0	103.2	108.0	84.6
1966	84.5	107.1	112.0	89.0	104.5	109.2	86.8
1967	81.6	104.8	108.5	91.2	103.2	107.0	88.8
1968	85.5	101.0	104.6	88.0	100.3	103.7	86.8
1969	88.2	101.5	105.2	87.4	99.2	102.8	85.1
1970	89.0	99.2	102.5	87.1	99.0	102.1	86.8
1971	88.8	99.7	102.0	91.7	99.1	101.2	90.9
1972	92.7	100.1	102.2	92.7	100.3	101.8	94.1
1973	101.8	104.7	106.0	100.2	102.4	103.7	96.6
1974	99.8	106.6	107.4	103.8	105.1	106.4	100.0
1975	90.0	99.3	98.2	104.0	100.7	100.5	101.2
1976	94.2	97.9	97.7	99.1	98.9	98.6	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.4	102.6	103.1	101.3	102.3	102.6	100.8
1979	110.7	107.9	108.2	107.0	106.8	107.2	105.3
1980 ²	100.0	103.5	102.1	108.9	105.7	104.4	110.7
Average annual percent change:							
1954-80	2.9	(¹)	-1	(¹)	.2	-1	1.7
1975-80	3.1	1.5	1.5	1.4	1.4	1.3	1.8

¹ Data not available.

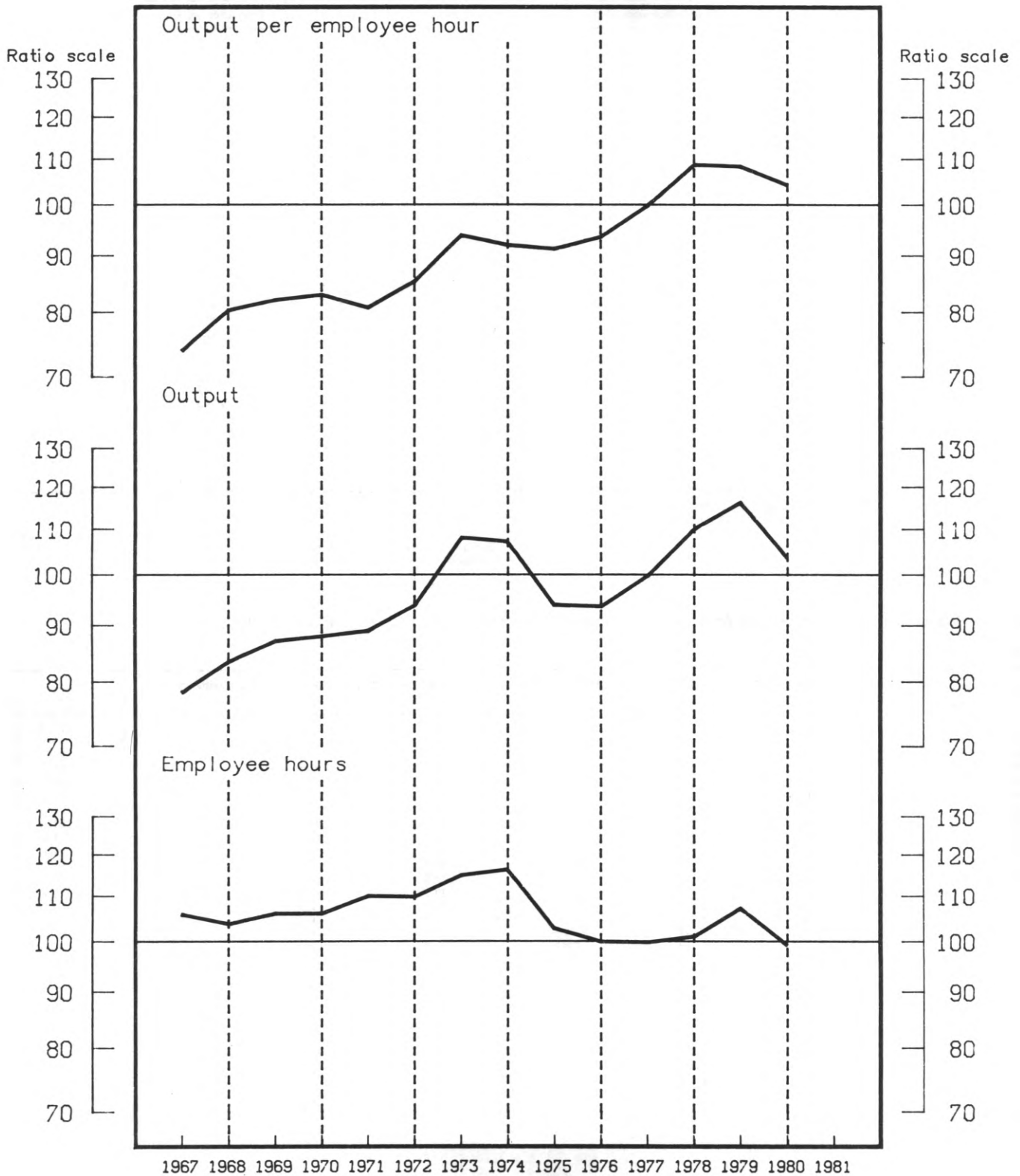
² Preliminary.

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 Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Chart 9. Crushed and broken stone (SIC 142): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 16. Crushed and broken stone (SIC 142): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	53.6	52.1	62.1	53.1	51.7	60.9
1959	55.1	53.6	64.0	56.2	54.7	64.4
1960	55.5	54.3	62.5	55.2	54.0	61.8
1961	56.6	55.3	64.5	57.0	55.6	64.5
1962	59.6	57.8	70.6	60.4	58.7	70.3
1963	61.7	60.3	69.7	63.2	61.8	70.6
1964	66.6	65.3	74.1	68.4	67.0	76.1
1965	69.9	68.0	81.2	73.6	71.7	84.4
1966	74.2	72.4	84.9	78.0	76.4	87.0
1967	74.0	72.9	79.9	77.0	76.0	82.1
1968	80.5	79.1	87.7	83.2	82.0	88.9
1969	82.2	80.6	91.8	86.2	84.7	94.3
1970	83.1	82.6	85.3	84.9	84.8	85.6
1971	80.9	81.3	78.9	83.3	84.0	79.7
1972	85.5	84.8	88.8	86.2	86.0	87.5
1973	94.0	93.9	94.6	97.7	97.7	98.0
1974	92.1	92.7	88.8	95.2	95.8	92.2
1975	91.4	93.7	81.8	90.1	91.5	84.1
1976	93.7	94.3	90.6	93.3	94.1	89.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.9	107.8	114.8	110.4	109.5	115.4
1979	108.5	107.1	116.4	111.4	110.0	118.3
1980 ²	104.4	104.2	105.5	103.5	103.5	103.8
Average annual percent change:						
1958-80	3.4	3.6	2.5	3.4	3.5	2.5
1975-80	3.5	2.9	6.4	3.9	3.4	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 based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Table 17. Crushed and broken stone (SIC 142): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	54.6	101.9	104.7	87.9	102.9	105.6	89.6
1959	59.6	108.1	111.1	93.1	106.1	109.0	92.6
1960	61.8	111.3	113.9	98.9	112.0	114.4	100.0
1961	60.6	107.0	109.6	94.0	106.4	109.0	94.0
1962	64.0	107.4	110.8	90.7	105.9	109.0	91.0
1963	66.4	107.7	110.2	95.3	105.1	107.4	94.0
1964	70.5	105.8	108.0	95.1	103.1	105.3	92.6
1965	76.8	109.9	113.0	94.6	104.4	107.1	91.0
1966	81.8	110.2	113.0	96.4	104.9	107.1	94.0
1967	78.4	106.0	107.6	98.1	101.8	103.1	95.5
1968	83.6	103.9	105.7	95.3	100.5	101.9	94.0
1969	87.3	106.2	108.3	95.1	101.3	103.1	92.6
1970	88.2	106.2	106.8	103.4	103.9	104.0	103.0
1971	89.2	110.2	109.7	113.0	107.1	106.2	111.9
1972	94.0	110.0	110.9	105.8	109.0	109.3	107.4
1973	108.2	115.1	115.2	114.4	110.7	110.7	110.4
1974	107.3	116.5	115.7	120.9	112.7	112.0	116.4
1975	94.1	102.9	100.4	115.0	104.4	102.8	111.9
1976	93.8	100.1	99.5	103.5	100.5	99.7	104.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	110.2	101.2	102.2	96.0	99.8	100.6	95.5
1979	116.5	107.4	108.8	100.1	104.6	105.9	98.5
1980 ¹	103.8	99.4	99.6	98.4	100.3	100.3	100.0
Average annual percent change:							
1958-80	3.2	-.2	-.3	.7	-.1	-.3	.7
1975-80	3.6	.1	.7	-2.6	-.2	.2	-2.2

¹ Preliminary.

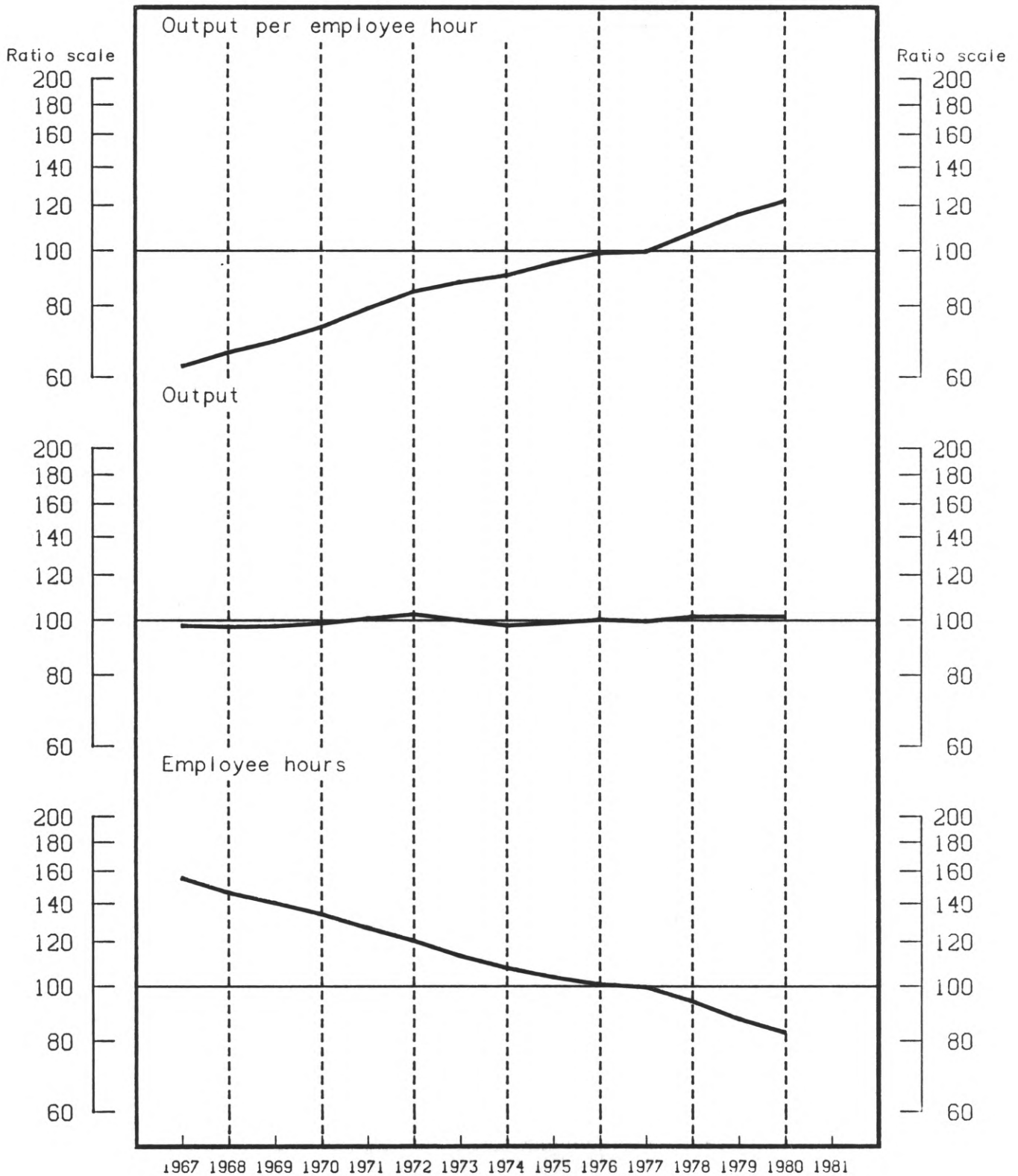
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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

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

Chart 10. Fluid milk (SIC 2026): Output per hour and related data, 1967-80

(1977 = 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, 1958-80
(1977 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	48.5	48.4	89.8	185.0	185.6
1959	49.8	49.7	92.0	184.9	185.0
1960	50.9	50.8	93.3	183.2	183.8
1961	51.9	51.8	93.7	180.7	180.8
1962	54.2	53.8	95.3	175.8	177.3
1963	57.4	56.8	98.6	171.8	173.7
1964	58.6	57.9	100.0	170.7	172.6
1965	59.3	58.7	99.8	168.2	170.0
1966	61.0	60.3	98.5	161.5	163.4
1967	62.9	62.2	98.1	156.0	157.7
1968	66.5	64.4	97.7	147.0	151.7
1969	69.6	67.3	98.0	140.9	145.6
1970	73.7	71.3	99.2	134.6	139.1
1971	79.4	77.3	101.1	127.3	130.8
1972	85.1	83.7	102.9	120.9	122.9
1973	88.4	87.2	100.4	113.6	115.1
1974	90.9	89.7	98.3	108.1	109.6
1975	95.5	94.3	99.4	104.1	105.4
1976	98.5	98.1	100.6	101.1	102.5
1977	100.0	100.0	100.0	100.0	100.0
1978	107.9	106.6	101.9	94.4	95.6
1979	116.2	114.1	102.0	87.8	89.4
1980 ¹	122.8	121.0	101.9	83.0	84.2
Average annual percent change:					
1958-80	4.4	4.3	.4	-3.8	-3.7
1975-80	5.3	5.2	.5	-4.5	-4.4

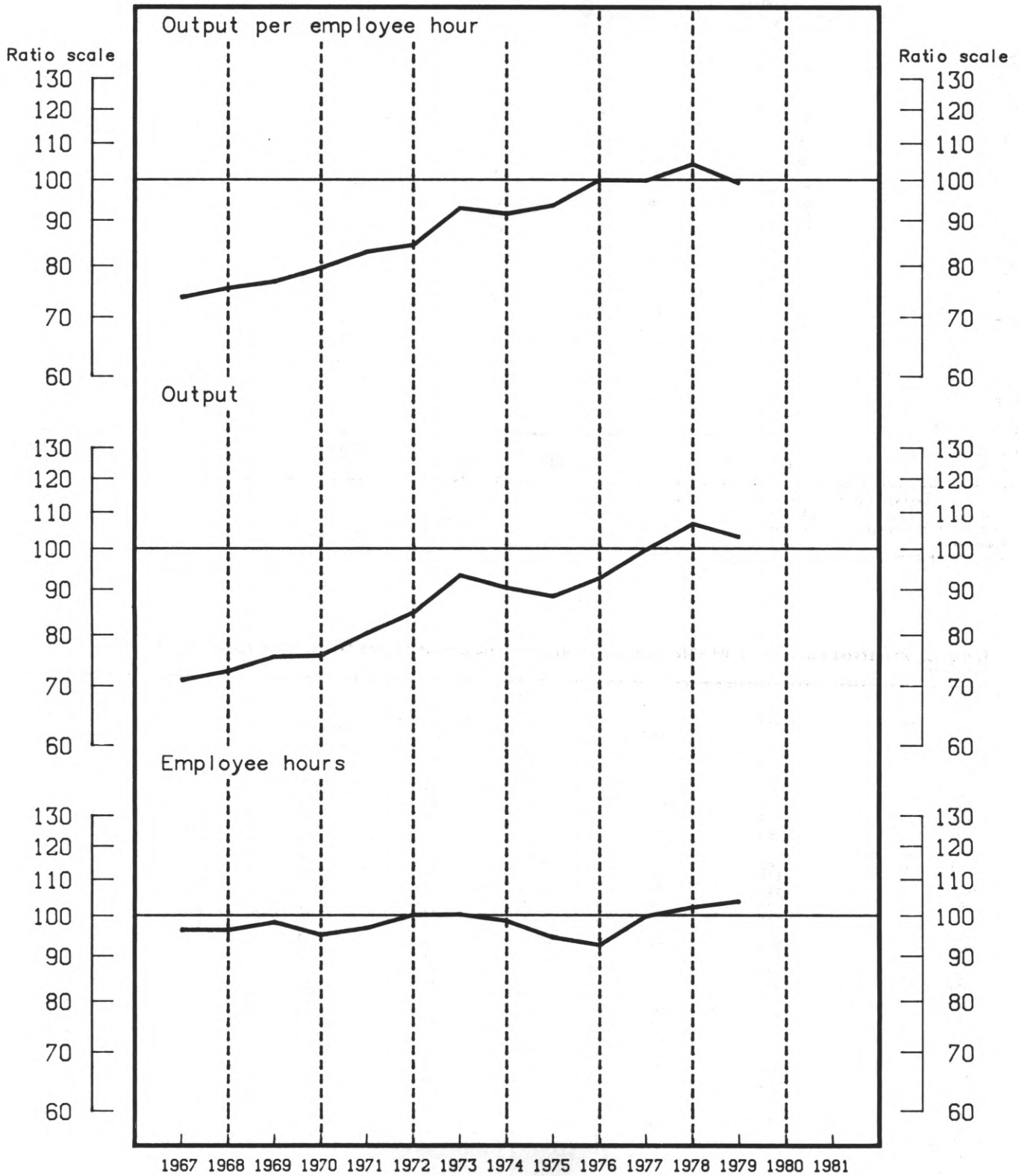
¹ Preliminary.

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 Economics and Statistics 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, 1967-79

(1977 = 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, 1954-79
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	53.0	51.1	66.6	53.5	51.3	69.0
1955	54.2	52.4	67.2	53.4	51.3	69.3
1956	58.5	56.6	71.1	58.6	56.5	73.5
1957	55.2	56.3	49.5	55.8	56.8	51.1
1958	54.7	53.7	60.4	55.3	54.2	62.2
1959	54.8	53.6	62.2	56.3	55.1	64.0
1960	58.6	57.3	68.4	60.8	59.4	69.7
1961	60.3	58.8	71.8	61.6	60.1	72.1
1962	63.2	61.5	75.6	65.4	63.8	75.5
1963	65.8	64.5	75.3	66.0	64.6	75.1
1964	67.9	66.7	75.8	68.8	67.8	75.9
1965	70.3	69.0	79.0	71.5	70.4	78.8
1966	70.0	68.7	79.0	70.9	69.7	78.6
1967	73.8	71.6	89.6	75.5	73.6	89.1
1968	75.6	73.4	91.0	75.1	73.4	86.3
1969	76.9	74.9	91.2	77.1	75.5	87.6
1970	79.7	78.6	87.3	79.6	78.7	85.0
1971	83.1	82.3	88.2	83.9	83.2	87.3
1972	84.6	83.8	89.9	85.4	84.6	90.4
1973	93.1	93.0	93.7	93.8	93.6	94.8
1974	91.7	90.4	99.9	92.6	91.2	101.2
1975	93.7	92.5	101.4	93.7	92.3	102.4
1976	100.1	99.4	105.2	98.4	97.2	106.4
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.4	103.9	107.4	103.7	103.0	107.5
1979 ²	99.3	99.6	97.9	99.4	99.6	98.4
Average annual percent change:						
1947-79	2.9	3.0	2.2	2.9	3.0	2.0
1975-79	1.6	1.9	-5	1.7	2.1	-7

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

² Preliminary.

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

SOURCE: Output based on data from the 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, 1954-79
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	42.5	80.2	83.2	63.8	79.5	82.8	61.6
1955	44.4	81.9	84.8	66.1	83.1	86.5	64.1
1956	49.7	85.0	87.8	69.9	84.8	87.9	67.6
1957	47.5	86.1	84.3	95.9	85.2	83.6	93.0
1958	46.9	85.8	87.3	77.7	84.8	86.5	75.4
1959	47.8	87.3	89.1	76.9	84.9	86.7	74.7
1960	52.7	89.9	92.0	77.0	86.7	88.7	75.6
1961	54.0	89.5	91.9	75.2	87.6	89.8	74.9
1962	56.4	89.2	91.7	74.6	86.2	88.4	74.7
1963	58.6	89.0	90.9	77.8	88.8	90.7	78.0
1964	61.4	90.4	92.0	81.0	89.2	90.6	80.9
1965	65.1	92.6	94.3	82.4	91.0	92.5	82.6
1966	66.6	95.2	97.0	84.3	94.0	95.6	84.7
1967	71.2	96.5	99.5	79.5	94.3	96.8	79.9
1968	72.9	96.4	99.3	80.1	97.1	99.3	84.5
1969	75.7	98.4	101.1	83.0	98.2	100.3	86.4
1970	75.9	95.2	96.6	86.9	95.4	96.4	89.3
1971	80.5	96.9	97.8	91.3	95.9	96.7	92.2
1972	84.9	100.3	101.3	94.4	99.4	100.4	93.9
1973	93.5	100.4	100.5	99.8	99.7	99.9	98.6
1974	90.5	98.7	100.1	90.6	97.7	99.2	89.4
1975	88.5	94.5	95.7	87.3	94.5	95.9	86.4
1976	92.8	92.7	93.4	88.2	94.3	95.5	87.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.9	102.4	102.9	99.5	103.1	103.8	99.4
1979 ¹	103.3	104.0	103.7	105.5	103.9	103.7	105.0
Average annual percent change:							
1947-79	3.7	.8	.7	1.5	.8	.7	1.7
1975-79	4.6	3.0	2.6	5.1	2.8	2.4	5.3

¹ Preliminary.

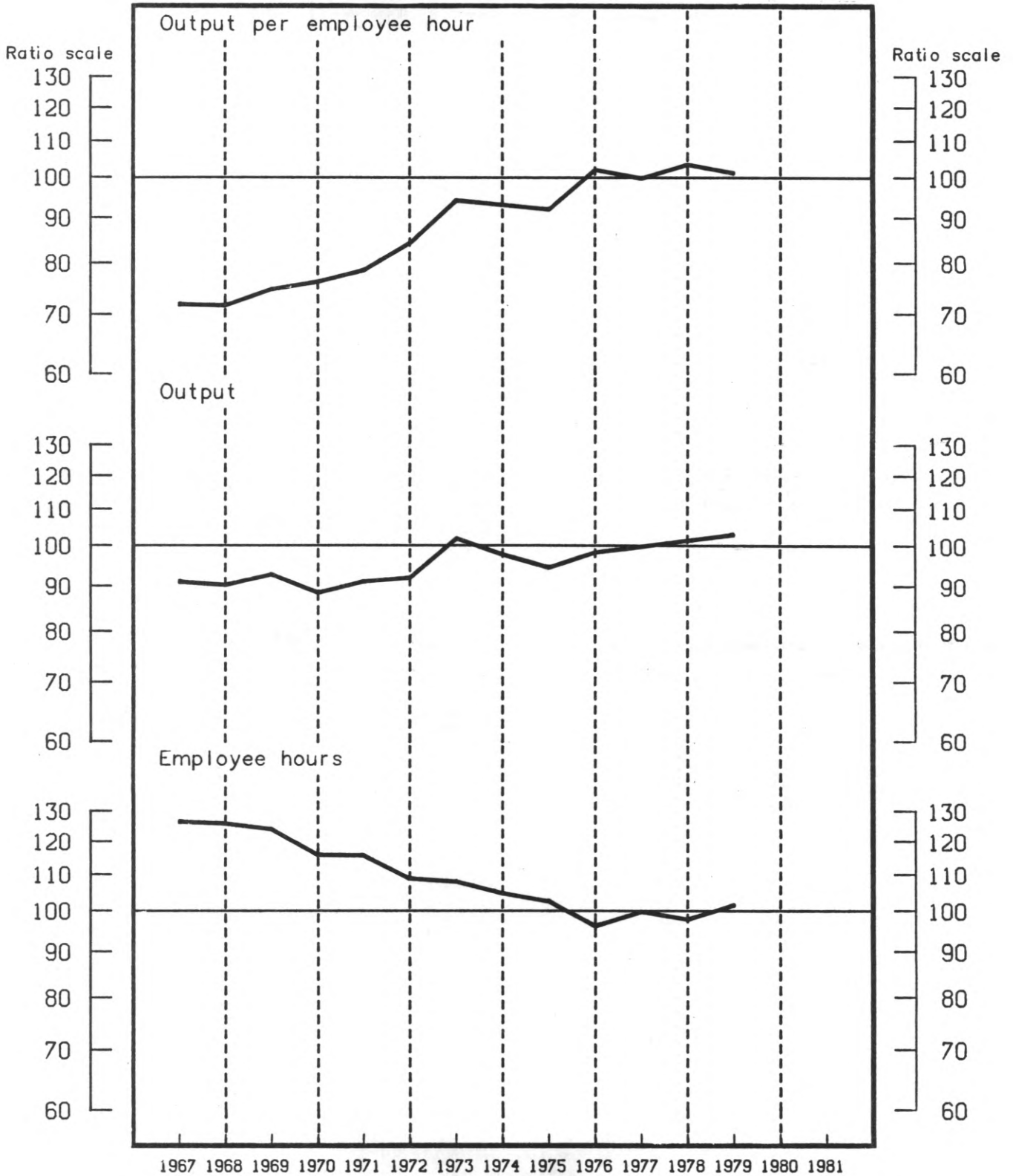
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the 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, 1967-79

(1977 = 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, 1958-79
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	53.6	53.4	54.9	54.3	54.1	56.6
1959	52.7	51.8	60.1	54.4	53.6	61.8
1960	57.7	56.5	68.2	60.4	59.3	69.5
1961	57.9	56.5	70.0	59.4	58.2	70.4
1962	59.8	58.2	74.2	62.9	61.7	74.2
1963	66.4	65.9	70.3	66.2	65.8	70.2
1964	68.0	68.0	67.9	68.7	68.9	68.1
1965	68.6	68.6	67.7	69.4	69.7	67.6
1966	70.0	70.0	69.4	71.1	71.4	69.0
1967	72.0	70.8	81.9	75.2	74.5	81.4
1968	71.8	70.4	83.0	71.9	71.1	78.7
1969	74.9	73.4	87.3	75.7	74.7	83.8
1970	76.4	75.9	80.0	76.1	75.9	77.8
1971	78.7	78.3	81.5	80.0	79.9	80.8
1972	84.5	84.7	83.3	84.8	85.1	83.8
1973	94.4	94.2	95.2	95.2	95.2	96.4
1974	93.3	91.1	113.7	94.7	92.4	115.2
1975	92.2	90.4	107.7	93.6	91.8	108.9
1976	102.3	101.2	109.4	99.0	97.5	110.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.7	103.4	105.8	101.5	101.0	105.8
1979 ²	101.4	102.6	93.4	103.4	105.0	93.8
Average annual percent change:						
1958-79	3.4	3.4	2.9	3.2	3.2	2.8
1975-79	2.1	2.8	-3.1	2.3	3.1	-3.4

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

² Preliminary.

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

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

Table 22. Canned fruits and vegetables (SIC 2033): Indexes of output, employee hours, and employees, 1958-79
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	71.3	133.1	133.6	129.8	131.3	131.9	126.0
1959	70.5	133.7	136.0	117.4	129.6	131.6	114.0
1960	75.8	131.3	134.1	111.1	125.6	127.8	109.0
1961	76.7	132.4	135.7	109.6	129.1	131.7	109.0
1962	79.3	132.7	136.2	106.9	126.1	128.6	106.9
1963	82.1	123.6	124.6	116.8	124.0	124.8	117.0
1964	85.1	125.1	125.1	125.4	123.9	123.6	125.0
1965	84.5	123.2	123.1	124.8	121.8	121.3	125.0
1966	86.9	124.2	124.1	125.3	122.3	121.7	126.0
1967	91.2	126.7	128.9	111.4	121.2	122.4	112.0
1968	90.5	126.1	128.5	109.1	125.9	127.3	115.0
1969	93.0	124.2	126.7	106.5	122.9	124.5	111.0
1970	88.7	116.1	116.8	110.9	116.6	116.9	114.0
1971	91.3	116.0	116.6	112.0	114.1	114.2	113.0
1972	92.2	109.1	108.9	110.7	108.7	108.4	110.0
1973	102.1	108.2	108.4	107.2	107.3	107.3	105.9
1974	97.9	104.9	107.5	86.1	103.4	105.9	85.0
1975	94.7	102.7	104.8	87.9	101.2	103.2	87.0
1976	98.5	96.3	97.3	90.0	99.5	101.0	89.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.6	98.0	98.3	96.0	100.1	100.6	96.0
1979 ¹	103.2	101.8	100.6	110.5	99.8	98.3	110.0
Average annual percent change:							
1958-79	1.7	-1.6	-1.7	-1.2	-1.5	-1.5	-1.1
1975-79	2.0	(²)	-7	5.4	-2	-1.0	5.6

¹ Preliminary.

² Less than .05 percent.

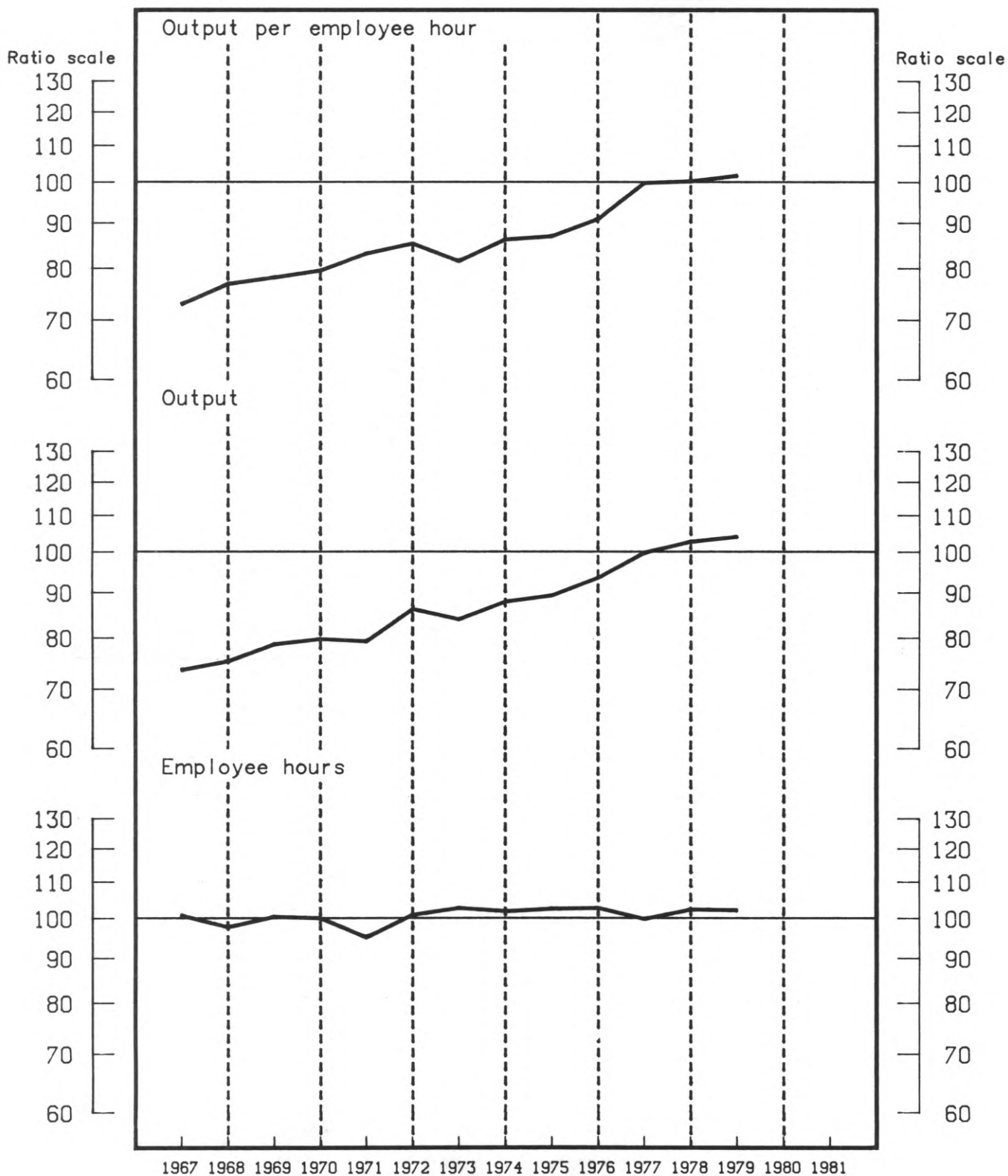
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

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

Chart 13. Grain mill products (SIC 204): Output per hour and related data, 1967-79

(1977 = 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, 1963-79
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	61.0	60.8	61.5	63.0	63.8	61.3
1964	64.3	64.3	64.2	66.7	67.6	64.4
1965	66.0	66.0	65.8	68.4	69.7	65.7
1966	68.8	69.2	67.7	71.0	72.6	67.4
1967	73.0	72.8	73.6	74.4	75.0	73.3
1968	77.0	75.9	80.0	77.4	78.1	75.9
1969	78.3	77.6	80.4	79.3	80.2	77.2
1970	79.7	78.9	81.9	79.8	79.9	79.7
1971	83.3	82.5	85.4	83.1	82.5	84.6
1972	85.5	84.5	87.8	87.6	87.4	88.3
1973	81.7	80.0	86.3	86.1	85.6	87.2
1974	86.4	86.0	87.2	87.3	86.9	88.4
1975	87.1	86.2	89.5	88.6	87.9	90.3
1976	91.1	91.1	91.1	92.4	92.6	92.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.4	101.0	98.8	100.1	100.6	98.8
1979 ²	101.9	101.4	103.2	102.4	101.9	103.6
Average annual percent change:						
1963-79	3.1	3.1	3.1	2.9	2.8	3.2
1975-79	4.2	4.4	3.7	3.8	3.9	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; 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, 1963-79
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	63.1	103.4	103.8	102.6	100.2	98.9	103.0
1964	65.2	101.4	101.4	101.5	97.8	96.5	101.2
1965	65.5	99.2	99.2	99.6	95.7	94.0	99.7
1966	68.2	99.1	98.6	100.7	96.0	93.9	101.2
1967	73.7	100.9	101.2	100.2	99.0	98.3	100.6
1968	75.4	97.9	99.3	94.3	97.4	96.6	99.4
1969	78.8	100.6	101.6	98.0	99.4	98.3	102.1
1970	79.9	100.2	101.3	97.5	100.1	100.0	100.3
1971	79.4	95.3	96.2	93.0	95.5	96.3	93.8
1972	86.4	101.1	102.2	98.4	98.6	98.8	97.9
1973	84.1	102.9	105.1	97.5	97.7	98.3	96.5
1974	88.1	102.0	102.5	101.0	100.9	101.4	99.7
1975	89.5	102.7	103.8	100.0	101.0	101.8	99.1
1976	93.7	102.9	102.9	102.9	101.4	101.2	101.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.9	102.5	101.9	104.2	102.8	102.3	104.2
1979 ¹	104.2	102.3	102.8	101.0	101.8	102.3	100.6
Average annual percent change:							
1963-79	3.2	.1	.1	.1	.3	.4	(²)
1975-79	4.1	-.1	-.3	.3	.3	.2	.5

¹ Preliminary.

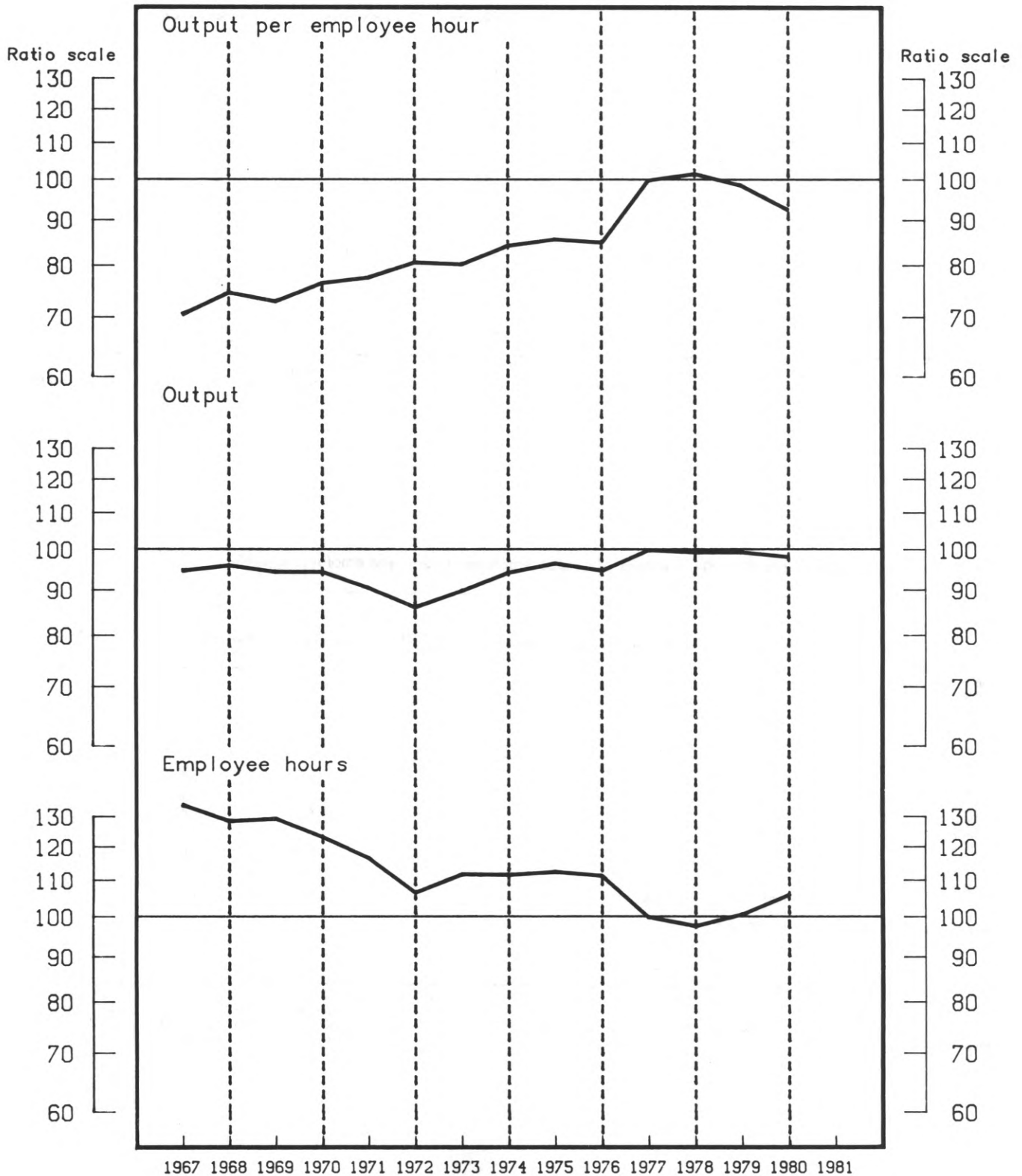
² Less than .05 percent.

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

SOURCE: Output 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, 1967-80

(1977 = 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, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	40.2	39.5	42.5	41.5	40.6	44.0
1955	41.9	41.5	43.2	42.8	42.3	44.4
1956	44.0	43.6	45.7	44.9	44.1	47.2
1957	47.8	47.4	49.3	48.6	48.0	50.8
1958	48.7	49.2	47.7	48.7	48.6	49.2
1959	47.0	46.8	47.9	48.4	48.1	49.4
1960	49.4	49.5	49.5	51.6	52.1	50.4
1961	51.4	50.7	54.3	53.7	53.4	54.5
1962	52.9	51.5	58.0	55.7	54.9	57.9
1963	59.4	57.9	65.2	63.0	62.2	65.1
1964	62.6	61.4	66.8	65.7	65.2	66.9
1965	64.5	63.7	67.4	66.5	66.3	67.2
1966	68.4	67.2	73.2	70.7	70.1	72.6
1967	70.6	70.2	71.9	72.1	72.4	71.5
1968	74.7	73.0	80.7	75.7	75.4	76.5
1969	73.0	71.8	77.0	73.7	73.7	73.8
1970	76.6	76.0	78.8	77.6	78.0	76.6
1971	77.7	76.3	82.1	78.6	77.7	81.2
1972	80.8	78.9	87.7	83.5	81.9	88.2
1973	80.4	78.0	88.9	82.6	80.1	90.0
1974	84.4	82.6	90.9	84.5	82.1	92.1
1975	85.8	85.8	85.8	85.2	84.7	86.5
1976	85.1	86.7	80.7	84.5	85.7	81.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.7	100.2	106.9	102.7	101.2	106.9
1979	98.6	97.1	103.8	101.3	100.3	104.3
1980 ²	92.6	94.3	87.3	95.2	98.2	88.0
Average annual percent change:						
1947-80	3.7	3.8	3.3	3.6	3.7	3.1
1975-80	2.4	2.4	2.6	3.3	3.6	2.6

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

² Preliminary.

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

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

Table 26. Flour and other grain mill products (SIC 2041): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	77.0	191.5	194.7	181.2	185.7	189.5	174.9
1955	79.1	188.9	190.6	183.1	184.8	187.2	178.0
1956	80.5	182.8	184.6	176.2	179.4	182.7	170.6
1957	84.5	176.8	178.1	171.5	173.7	176.2	166.4
1958	88.1	180.8	179.2	184.6	180.8	181.4	179.2
1959	88.5	188.1	189.1	184.6	182.7	184.0	179.3
1960	90.1	182.4	182.2	182.2	174.5	172.8	178.8
1961	91.4	177.7	180.4	168.4	170.3	171.2	167.6
1962	91.7	173.3	177.9	158.1	164.7	167.0	158.5
1963	90.4	152.1	156.1	138.6	143.6	145.3	138.9
1964	92.1	147.1	149.9	137.9	140.2	141.2	137.7
1965	88.5	137.3	139.0	131.4	133.0	133.4	131.7
1966	91.0	133.0	135.5	124.4	128.8	129.8	125.3
1967	94.8	134.2	135.0	131.8	131.4	130.9	132.6
1968	96.1	128.7	131.7	119.1	126.9	127.4	125.6
1969	94.5	129.5	131.7	122.8	128.3	128.3	128.0
1970	94.5	123.4	124.4	119.9	121.8	121.2	123.3
1971	90.7	116.8	118.8	110.5	115.4	116.8	111.7
1972	86.2	106.7	109.3	98.3	103.2	105.2	97.7
1973	90.0	111.9	115.4	101.2	108.9	112.3	100.0
1974	94.3	111.7	114.2	103.7	111.6	114.9	102.4
1975	96.6	112.6	112.6	112.6	113.4	114.1	111.7
1976	94.8	111.4	109.3	117.5	112.2	110.6	116.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.4	97.7	99.2	93.0	96.8	98.2	93.0
1979	99.4	100.8	102.4	95.8	98.1	99.1	95.3
1980 ¹	98.2	106.1	104.1	112.5	103.2	100.0	111.6
Average annual percent change:							
1947-80 .....	.5	-3.0	-3.1	-2.6	-2.9	-3.0	-2.4
1975-80 .....	.6	-1.8	-1.7	-2.0	-2.6	-2.8	-1.9

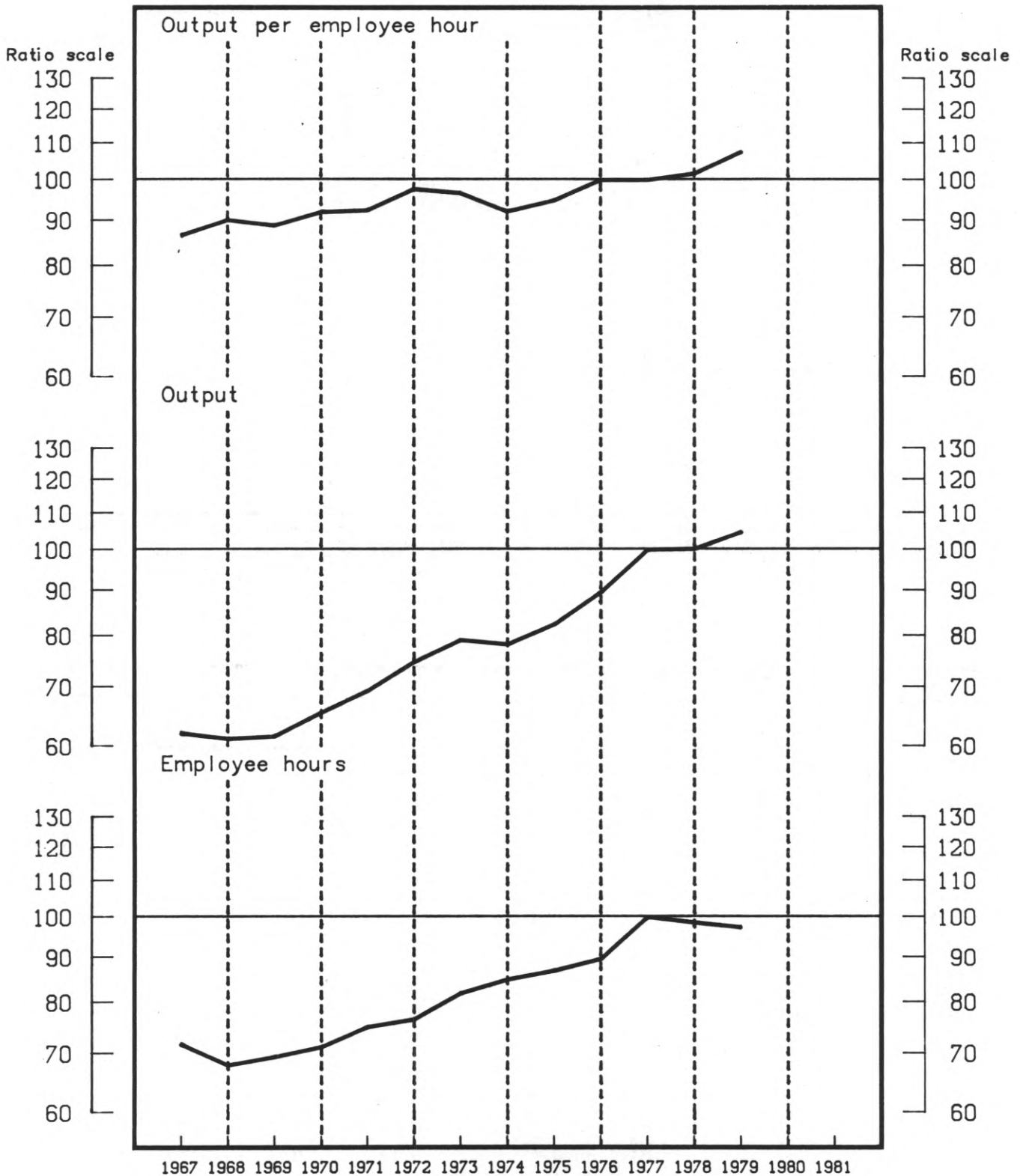
¹ Preliminary.

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 15. Cereal breakfast foods (SIC 2043): Output per hour and related data, 1967-79

(1977 = 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, 1963-79
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	79.3	81.3	68.9	76.4	77.9	69.1
1964	81.0	82.3	73.9	78.9	79.7	75.8
1965	83.0	84.4	75.2	80.0	80.9	75.4
1966	84.1	85.4	76.9	82.5	83.5	77.1
1967	86.6	88.6	76.5	83.5	84.8	76.9
1968	90.1	92.3	79.4	88.1	90.8	75.7
1969	88.8	91.0	77.9	87.7	90.3	76.2
1970	92.0	93.8	82.8	89.5	91.4	81.1
1971	92.4	94.5	81.1	90.8	92.8	81.8
1972	97.6	99.6	87.5	95.0	96.4	88.2
1973	96.6	96.9	95.0	99.0	99.2	97.9
1974	92.1	93.1	87.3	92.3	93.0	88.5
1975	94.8	95.3	92.0	97.3	98.0	93.2
1976	100.0	100.9	95.6	97.9	98.0	97.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.7	102.0	100.2	98.9	98.7	100.2
1979 ²	107.6	105.4	122.6	105.3	102.4	123.6
Average annual percent change:						
1963-79	1.6	1.5	2.7	1.8	1.6	2.8
1975-79	2.7	2.1	6.4	1.7	1.0	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 28. Cereal breakfast foods (SIC 2043): Indexes of output, employee hours, and employees, 1963-79
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	53.1	67.0	65.3	77.1	69.5	68.2	76.9
1964	55.4	68.4	67.3	75.0	70.2	69.5	73.1
1965	58.0	69.9	68.7	77.1	72.5	71.7	76.9
1966	59.3	70.5	69.4	77.1	71.9	71.0	76.9
1967	62.1	71.7	70.1	81.2	74.4	73.2	80.8
1968	61.2	67.9	66.3	77.1	69.5	67.4	80.8
1969	61.6	69.4	67.7	79.1	70.2	68.2	80.8
1970	65.5	71.2	69.8	79.1	73.2	71.7	80.8
1971	69.3	75.0	73.3	85.4	76.3	74.7	84.7
1972	74.7	76.5	75.0	85.4	78.6	77.5	84.7
1973	79.1	81.9	81.6	83.3	79.9	79.7	80.8
1974	78.2	84.9	84.0	89.6	84.7	84.1	88.4
1975	82.4	86.9	86.5	89.6	84.7	84.1	88.4
1976	89.6	89.6	88.8	93.7	91.5	91.4	92.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.2	98.5	98.2	100.0	101.3	101.5	100.0
1979 ¹	104.7	97.3	99.3	85.4	99.4	102.2	84.7
Average annual percent change:							
1963-79	4.4	2.7	2.9	1.6	2.5	2.7	1.5
1975-79	6.1	3.3	3.8	-3	4.3	5.1	-1

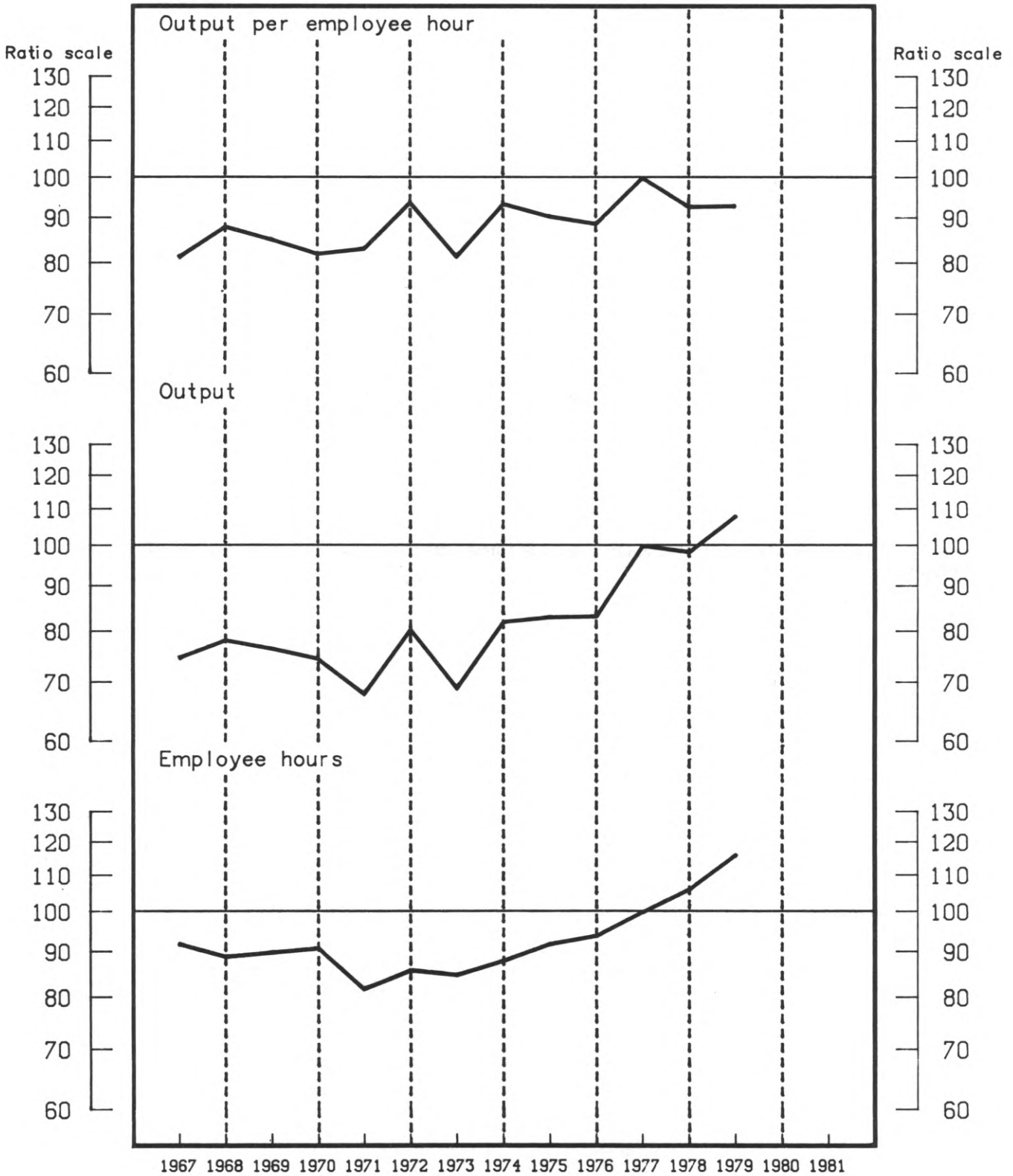
¹ Preliminary.

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 16. Rice milling (SIC 2044): Output per hour and related data, 1967-79

(1977 = 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, 1963-79
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	61.2	66.2	43.1	64.2	71.9	41.8
1964	69.9	74.7	51.2	74.2	81.1	51.9
1965	73.4	78.1	55.0	79.7	87.1	55.8
1966	79.1	85.6	55.5	84.4	93.7	56.2
1967	81.3	87.2	59.0	85.4	93.4	59.8
1968	88.0	93.9	65.2	89.4	97.7	62.6
1969	85.1	90.5	63.7	87.4	95.6	61.2
1970	82.0	92.1	50.7	85.1	99.3	49.7
1971	83.1	90.7	56.7	85.9	97.1	54.4
1972	93.8	102.4	63.5	96.6	107.3	64.4
1973	81.5	89.3	54.5	85.0	95.3	55.3
1974	93.4	98.6	72.4	89.5	93.8	73.0
1975	90.4	94.3	73.3	90.6	95.0	73.9
1976	88.7	92.0	73.5	85.1	87.7	74.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	92.7	102.1	61.5	92.7	103.6	60.6
1979 ²	92.9	106.7	54.0	91.0	105.4	54.0
Average annual percent change:						
1963-79	2.1	2.1	2.3	1.5	1.3	2.3
1975-79	1.0	3.6	-7.6	.9	3.8	-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.

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, 1963-79
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	57.5	93.9	86.9	133.5	89.6	80.0	137.5
1964	64.9	92.9	86.9	126.7	87.5	80.0	125.0
1965	69.7	94.9	89.3	126.7	87.5	80.0	125.0
1966	70.3	88.9	82.1	126.7	83.3	75.0	125.0
1967	74.7	91.9	85.7	126.7	87.5	80.0	125.0
1968	78.2	88.9	83.3	120.0	87.5	80.0	125.0
1969	76.5	89.9	84.5	120.0	87.5	80.0	125.0
1970	74.5	90.9	80.9	146.8	87.5	75.0	150.0
1971	68.0	81.8	75.0	120.0	79.2	70.0	125.0
1972	80.5	85.8	78.6	126.7	83.3	75.0	125.0
1973	69.1	84.8	77.4	126.7	81.3	72.5	125.0
1974	82.1	87.9	83.3	113.4	91.7	87.5	112.5
1975	83.1	91.9	88.1	113.4	91.7	87.5	112.5
1976	83.3	93.9	90.5	113.4	97.9	95.0	112.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.4	106.1	96.4	160.1	106.2	95.0	162.5
1979 ¹	108.0	116.2	101.2	200.1	118.7	102.5	200.0
Average annual percent change:							
1963-79	2.8	.7	.7	.6	1.3	1.5	.5
1975-79	7.2	6.1	3.5	16.0	6.2	3.2	16.4

¹ Preliminary.

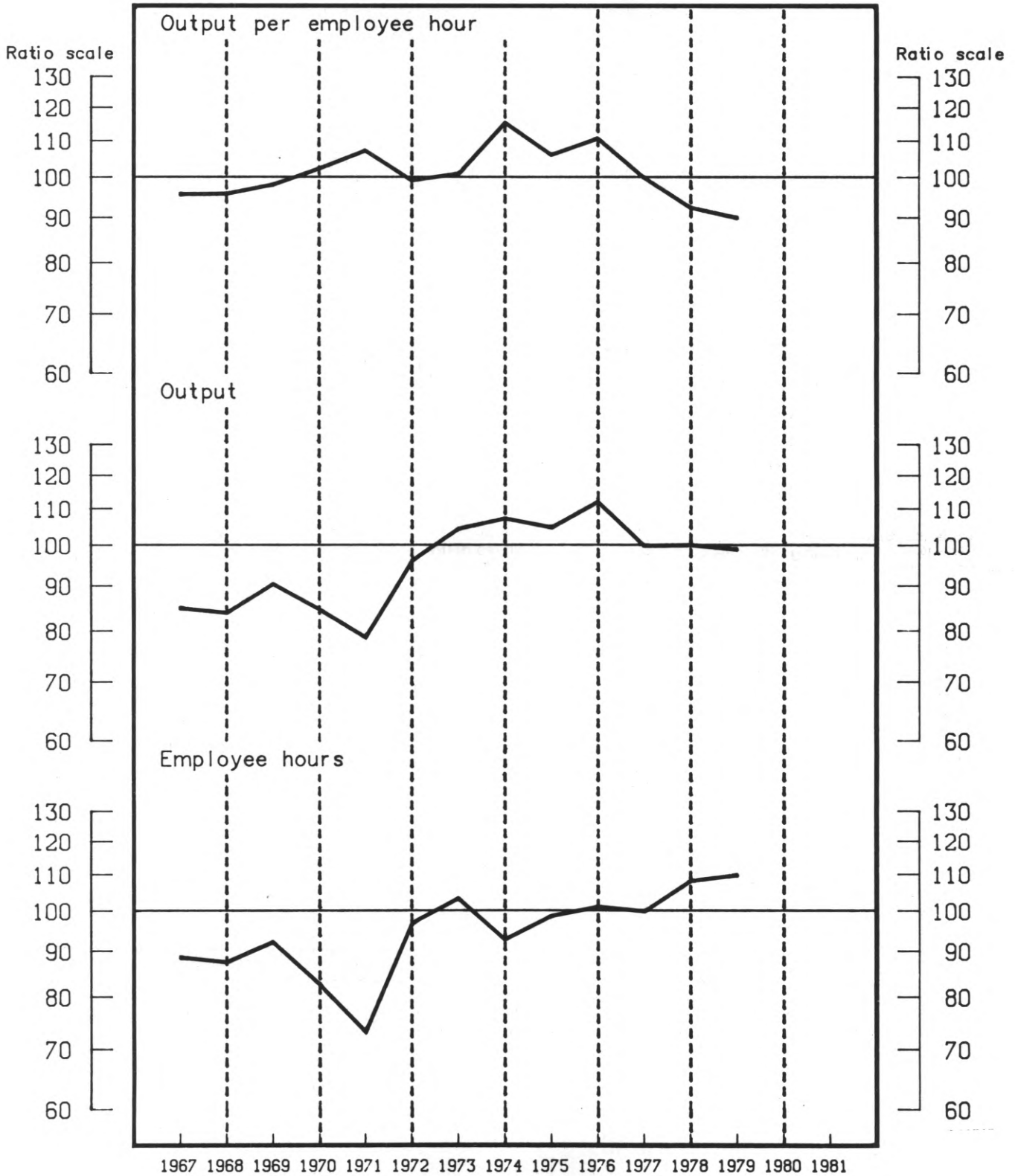
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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, 1967-79

(1977 = 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, 1963-79
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	78.0	76.1	82.8	78.5	76.6	83.3
1964	85.5	90.8	74.3	85.6	91.6	74.6
1965	87.5	87.4	87.9	87.6	87.1	88.8
1966	90.0	89.9	90.4	88.8	87.8	91.3
1967	95.8	91.0	110.2	95.2	89.7	110.5
1968	95.9	89.9	115.2	95.3	90.2	109.2
1969	98.2	92.9	114.4	98.8	93.9	112.1
1970	102.4	98.7	113.1	98.9	94.6	110.3
1971	107.4	101.4	126.1	105.1	97.3	128.1
1972	99.3	94.8	112.8	102.4	98.1	113.8
1973	101.1	93.7	125.6	108.5	101.2	129.5
1974	115.6	109.3	135.6	115.6	107.4	139.7
1975	106.2	100.8	122.8	107.5	101.5	124.0
1976	110.9	111.3	109.9	115.0	116.3	112.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	92.5	91.2	96.2	93.6	92.4	96.5
1979 ²	90.1	87.5	97.1	92.5	89.8	99.1
Average annual percent change:						
1963-79	1.1	1.0	1.5	1.3	1.2	1.6
1975-79	-5.0	-4.7	-5.8	-4.9	-4.6	-5.8

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 32. Blended and prepared flour (SIC 2045): Indexes of output, employee hours, and employees, 1963-79
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	67.3	86.3	88.4	81.3	85.7	87.9	80.8
1964	77.4	90.5	85.2	104.2	90.4	84.5	103.8
1965	75.1	85.8	85.9	85.4	85.7	86.2	84.6
1966	77.2	85.8	85.9	85.4	86.9	87.9	84.6
1967	85.0	88.7	93.4	77.1	89.3	94.8	76.9
1968	84.0	87.6	93.4	72.9	88.1	93.1	76.9
1969	90.6	92.3	97.5	79.2	91.7	96.5	80.8
1970	84.8	82.8	85.9	75.0	85.7	89.6	76.9
1971	78.8	73.4	77.7	62.5	75.0	81.0	61.5
1972	96.3	97.0	101.6	85.4	94.0	98.2	84.6
1973	104.6	103.5	111.6	83.3	96.4	103.4	80.8
1974	107.4	92.9	98.3	79.2	92.9	100.0	76.9
1975	104.9	98.8	104.1	85.4	97.6	103.4	84.6
1976	112.2	101.2	100.8	102.1	97.6	96.5	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.2	108.3	109.9	104.2	107.1	108.5	103.8
1979 ¹	99.1	110.0	113.2	102.1	107.1	110.3	100.0
Average annual percent change:							
1963-79	2.6	1.5	1.6	1.1	1.3	1.4	1.0
1975-79	-2.2	2.9	2.6	3.8	2.8	2.5	3.8

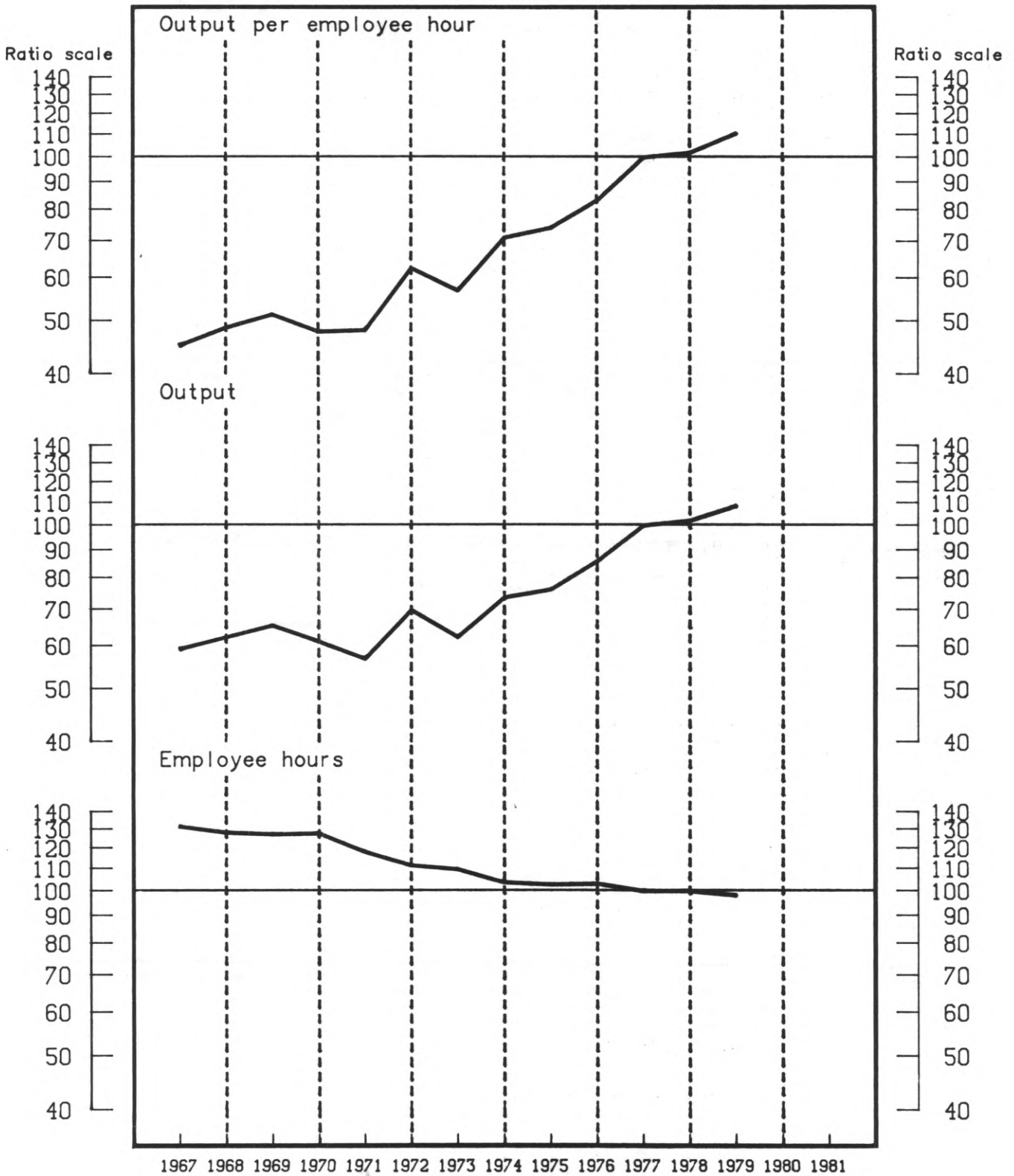
¹ Preliminary.

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 18. Wet corn milling (SIC 2046): Output per hour and related data, 1967-79

(1977 = 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, 1963-79
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	39.2	37.2	45.6	41.0	39.5	45.2
1964	41.9	40.2	47.2	44.0	42.8	47.5
1965	41.5	40.2	45.2	44.2	43.9	45.0
1966	42.2	41.6	43.7	43.7	43.9	43.2
1967	45.1	45.8	43.0	45.8	47.2	42.8
1968	48.6	48.4	48.8	48.1	49.1	46.0
1969	51.4	51.1	52.1	52.9	54.4	49.5
1970	47.8	48.3	46.7	49.4	51.3	45.2
1971	48.1	49.6	44.6	47.7	49.3	44.1
1972	62.6	64.2	58.8	63.0	64.9	58.6
1973	56.9	57.6	54.8	58.1	59.3	55.3
1974	71.1	72.8	66.8	72.4	74.7	67.2
1975	74.1	72.4	78.9	76.2	75.2	78.7
1976	83.2	81.8	87.5	85.1	83.8	88.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.0	100.7	105.6	100.2	98.2	105.4
1979 ²	110.7	114.4	101.7	109.7	113.1	102.2
Average annual percent change:						
1963-79	6.8	7.1	6.1	6.5	6.6	6.2
1975-79	10.6	11.9	7.2	9.3	10.2	7.2

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

² Preliminary.

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

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

Table 34. Wet corn milling (SIC 2046): Indexes of output, employee hours, and employees, 1963-79
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	49.6	126.4	133.2	108.7	121.1	125.6	109.7
1964	50.5	120.4	125.5	106.9	114.7	118.0	106.4
1965	52.3	126.1	130.0	115.6	118.4	119.2	116.1
1966	55.7	132.1	133.8	127.6	127.6	126.9	129.0
1967	59.3	131.6	129.4	137.9	129.4	125.6	138.7
1968	62.3	128.3	128.7	127.6	129.4	126.9	135.5
1969	65.5	127.4	128.1	125.8	123.8	120.5	132.2
1970	61.2	127.9	126.8	131.0	123.8	119.2	135.5
1971	56.9	118.2	114.7	127.6	119.3	115.3	129.0
1972	69.9	111.6	108.9	118.9	111.0	107.7	119.3
1973	62.4	109.7	108.3	113.8	107.4	105.2	112.9
1974	73.7	103.7	101.3	110.3	101.8	98.7	109.7
1975	76.2	102.8	105.2	96.6	100.0	101.3	96.8
1976	85.9	103.2	105.0	98.2	100.9	102.5	96.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.0	100.0	101.3	96.6	101.8	103.9	96.8
1979 ¹	108.7	98.2	95.0	106.9	99.1	96.1	106.4
Average annual percent change:							
1963-79	4.7	-1.9	-2.2	-1.3	-1.6	-1.7	-1.4
1975-79	9.2	-1.2	-2.4	1.9	-1	-9	1.9

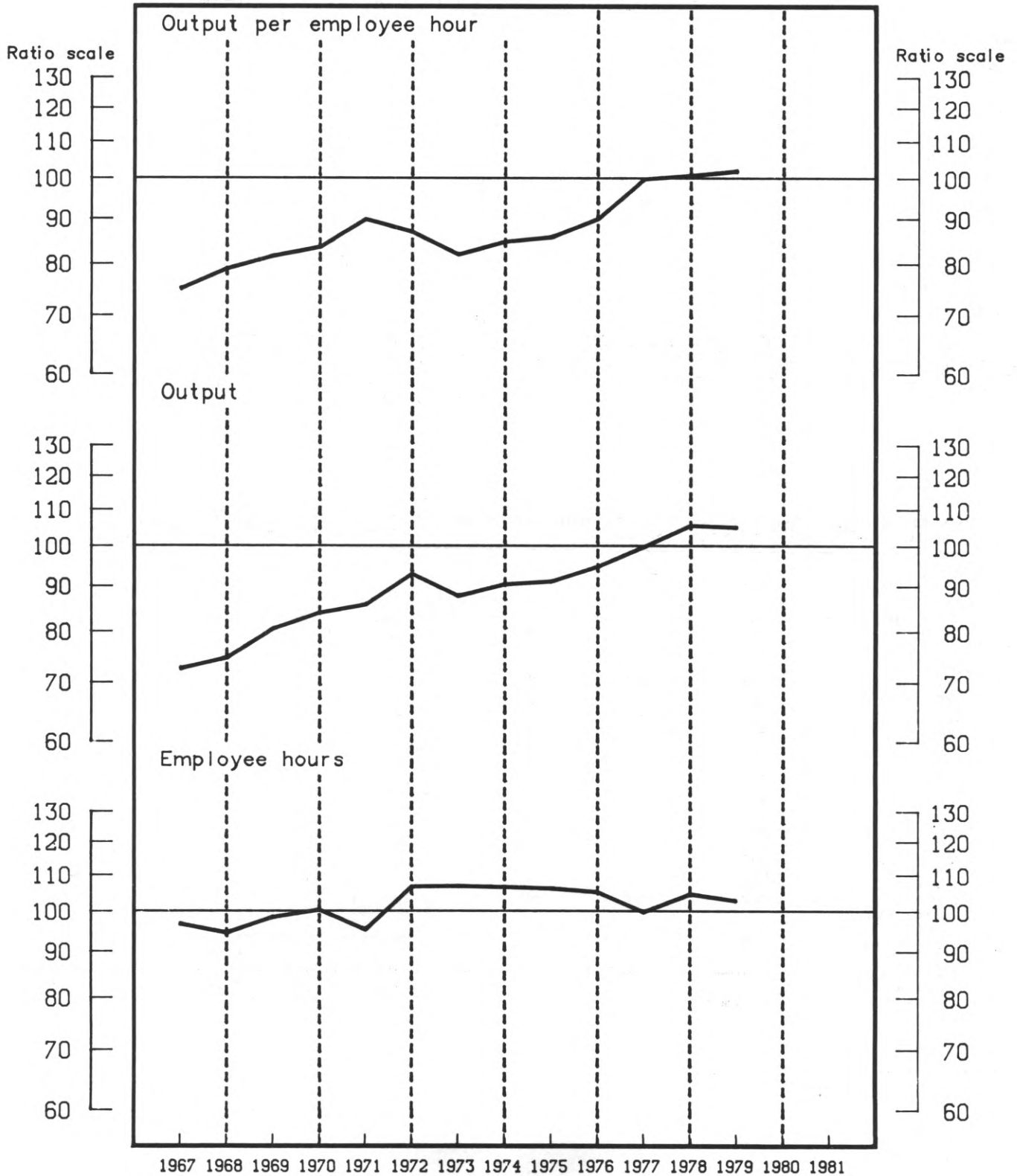
¹ Preliminary.

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

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

Chart 19. Prepared feed for animals and fowls (SIC 2047, 2048): Output per hour and related data, 1967-79

(1977 = 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, 1963-79
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	61.3	61.1	61.7	63.4	64.4	61.5
1964	64.1	63.5	65.3	66.9	67.8	65.4
1965	66.2	66.2	66.2	69.4	71.4	66.2
1966	69.5	69.7	68.8	72.7	75.2	68.4
1967	75.1	73.3	78.9	77.5	76.9	78.5
1968	79.1	76.3	85.2	80.1	79.6	80.8
1969	81.8	79.4	87.1	82.8	82.3	83.5
1970	83.7	79.9	92.4	83.7	80.6	89.9
1971	90.0	86.7	97.8	89.9	86.4	97.0
1972	87.1	83.5	95.3	90.7	88.1	96.0
1973	82.1	78.6	90.5	88.3	86.5	91.6
1974	84.9	83.3	88.2	86.8	85.5	89.3
1975	85.9	83.7	90.6	88.0	86.4	91.3
1976	90.1	88.3	93.9	92.9	92.0	94.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.9	101.8	98.9	101.2	102.6	98.9
1979 ²	102.1	100.8	104.9	103.2	102.1	105.2
Average annual percent change:						
1963-79	2.9	2.9	3.0	2.8	2.6	3.1
1975-79	4.7	5.3	3.5	4.1	4.5	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.

NOTE: Because of periodic revisions in source data, the measures in this table may differ 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, 1963-79
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	60.9	99.3	99.7	98.7	96.1	94.5	99.1
1964	62.2	97.0	97.9	95.3	93.0	91.8	95.1
1965	62.6	94.5	94.6	94.5	90.2	87.7	94.5
1966	65.7	94.6	94.2	95.5	90.4	87.4	96.0
1967	72.7	96.8	99.2	92.1	93.8	94.5	92.6
1968	74.8	94.6	98.0	87.8	93.4	94.0	92.6
1969	80.7	98.6	101.7	92.6	97.5	98.1	96.6
1970	84.1	100.5	105.3	91.0	100.5	104.3	93.6
1971	85.9	95.4	99.1	87.8	95.6	99.4	88.6
1972	93.1	106.9	111.5	97.7	102.6	105.7	97.0
1973	87.9	107.0	111.8	97.1	99.6	101.6	96.0
1974	90.6	106.7	108.7	102.7	104.4	106.0	101.5
1975	91.3	106.3	109.1	100.8	103.7	105.7	100.0
1976	94.9	105.3	107.5	101.1	102.1	103.2	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.7	104.8	103.8	106.9	104.4	103.0	106.9
1979 ¹	105.2	103.0	104.4	100.3	101.9	103.0	100.0
Average annual percent change:							
1963-79	3.6	.7	.7	.6	.8	1.0	.5
1975-79	4.0	-.7	-1.2	.5	-.1	-.5	.7

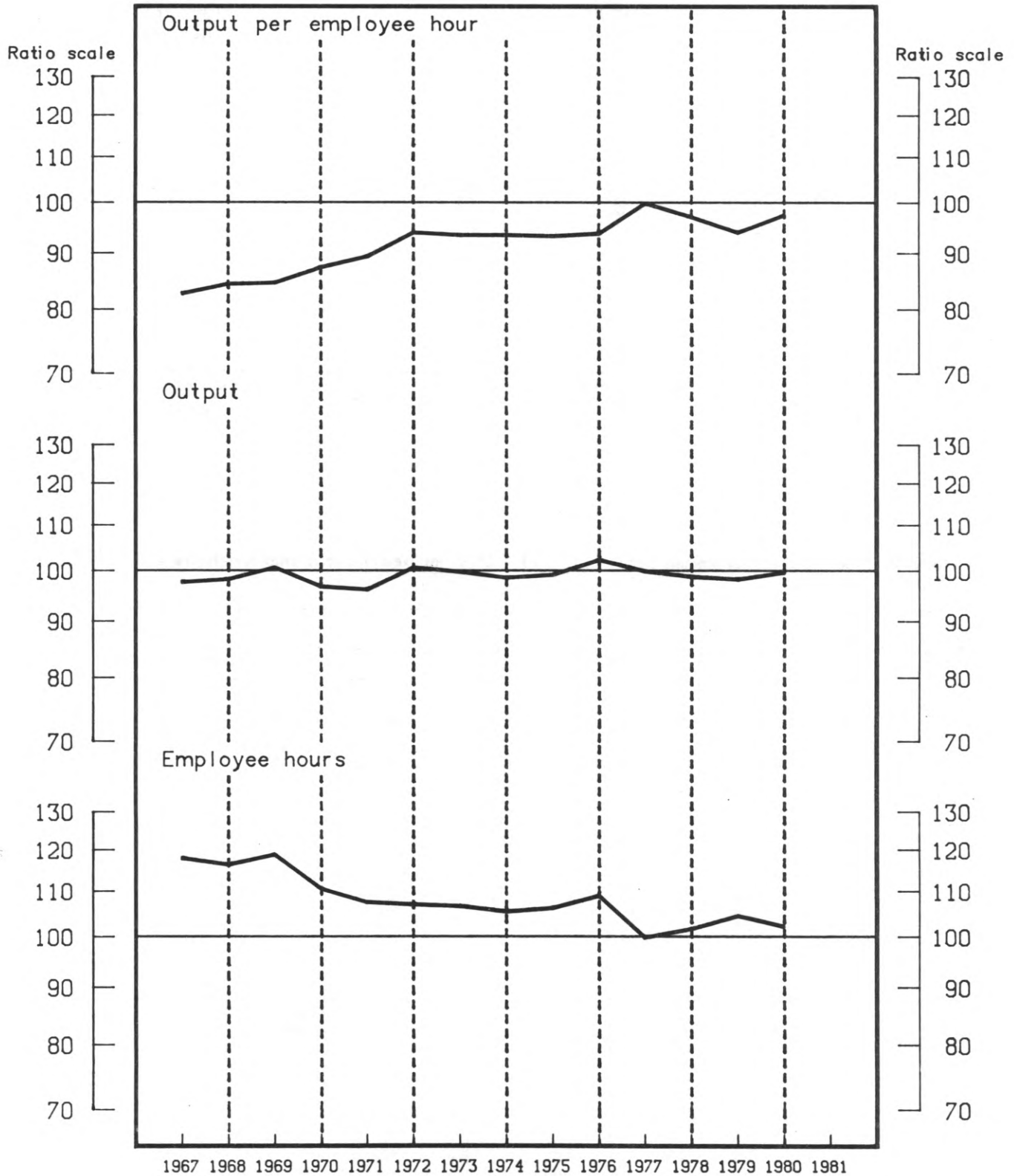
¹ Preliminary.

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 20. Bakery products (SIC 205): Output per hour and related data, 1967-80

(1977 = 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, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	58.4	55.2	63.6	59.1	56.9	62.5
1955	58.9	56.1	63.9	59.6	57.8	62.4
1956	60.0	57.7	63.9	60.2	58.6	62.7
1957	61.9	61.1	63.3	61.9	61.6	62.0
1958	64.0	62.4	66.8	64.8	64.4	65.4
1959	64.0	62.8	66.1	64.7	64.7	64.6
1960	64.3	63.0	66.5	65.5	66.2	64.3
1961	65.4	64.0	67.8	66.2	67.2	64.6
1962	67.2	66.4	68.6	67.9	70.0	65.0
1963	72.3	70.6	75.3	72.6	73.4	71.3
1964	74.6	72.5	78.2	76.5	77.8	74.4
1965	77.5	75.1	81.3	77.5	77.6	76.9
1966	78.4	75.5	83.0	78.8	79.1	78.4
1967	82.8	79.0	89.6	82.2	80.6	84.4
1968	84.5	79.9	92.7	84.8	82.6	87.7
1969	84.7	80.5	92.2	84.5	81.8	88.5
1970	87.5	83.0	95.6	87.7	84.3	92.8
1971	89.5	86.8	94.0	90.2	88.2	93.1
1972	94.1	91.6	98.4	95.4	92.9	98.9
1973	93.6	90.9	98.2	95.1	92.2	99.4
1974	93.6	94.4	92.3	93.0	92.8	93.5
1975	93.4	94.5	92.0	93.1	93.2	92.8
1976	93.9	93.7	94.2	94.0	93.1	95.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	97.2	98.6	95.2	96.9	98.0	95.2
1979	94.1	93.4	94.9	94.3	93.7	95.3
1980 ²	97.6	97.8	97.3	97.9	97.7	98.0
Average annual percent change:						
1947-80	2.2	2.5	1.6	2.1	2.3	1.7
1975-80	.6	.4	.7	.7	.7	.6

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

² Preliminary.

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

SOURCE: Output, 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, 1954-80
(1977 = 100)

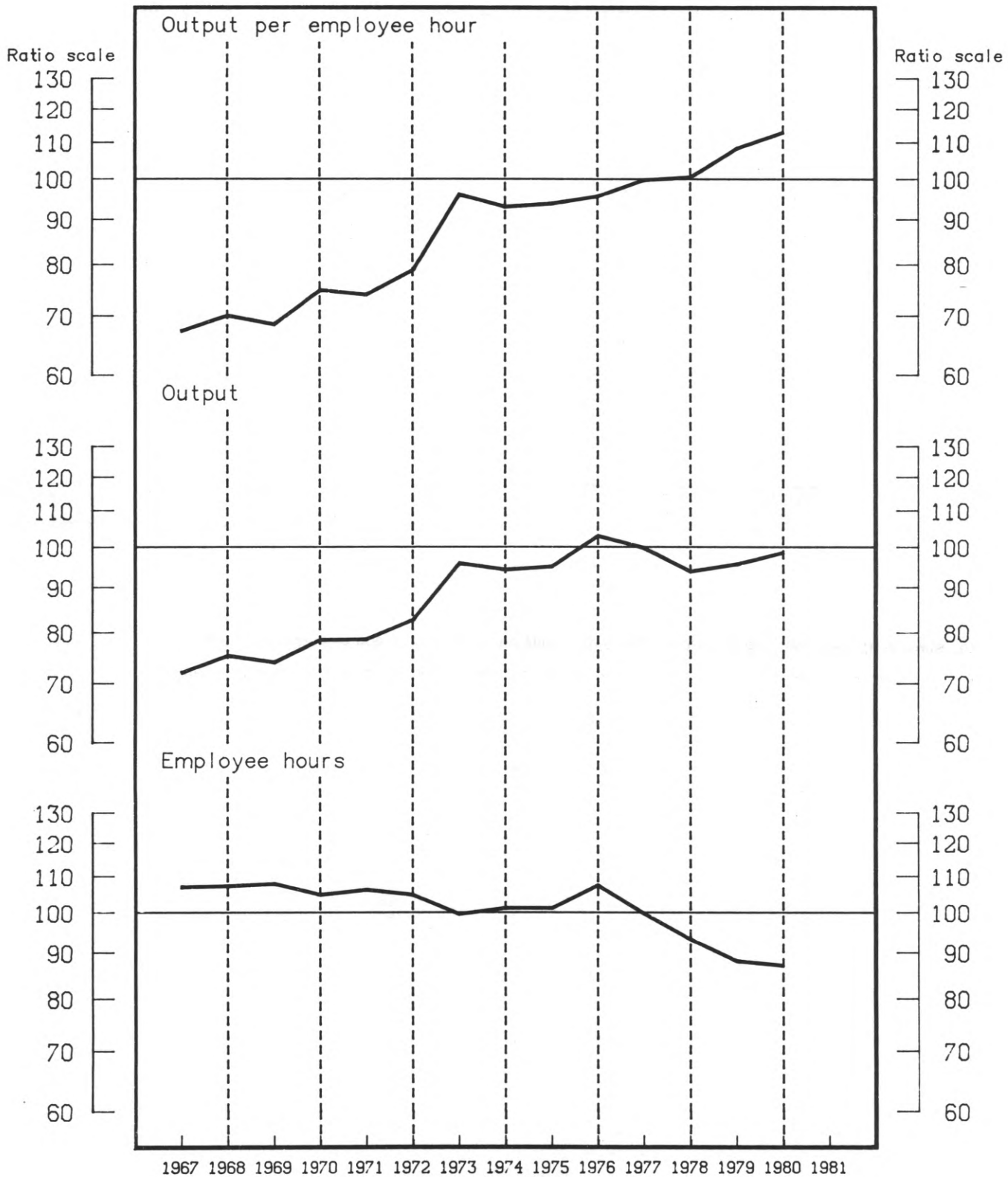
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	77.9	133.5	141.0	122.4	131.8	136.9	124.6
1955	79.7	135.3	142.1	124.8	133.7	138.0	127.8
1956	82.8	137.9	143.4	129.6	137.5	141.3	132.1
1957	85.0	137.4	139.2	134.3	137.4	137.9	137.2
1958	88.3	137.9	141.5	132.2	136.2	137.1	135.1
1959	88.9	139.0	141.6	134.4	137.3	137.3	137.7
1960	89.7	139.4	142.3	134.8	136.9	135.4	139.4
1961	89.0	136.0	139.0	131.2	134.4	132.4	137.7
1962	90.8	135.2	136.8	132.3	133.7	129.7	139.6
1963	91.6	126.7	129.8	121.7	126.2	124.8	128.4
1964	95.2	127.6	131.3	121.7	124.5	122.3	128.0
1965	96.9	125.1	129.0	119.2	125.1	124.8	126.0
1966	97.5	124.4	129.1	117.4	123.7	123.3	124.3
1967	97.8	118.1	123.8	109.2	119.0	121.4	115.9
1968	98.4	116.5	123.1	106.2	116.1	119.1	112.2
1969	100.8	119.0	125.2	109.3	119.3	123.2	113.9
1970	96.9	110.7	116.7	101.4	110.5	114.9	104.4
1971	96.3	107.6	110.9	102.4	106.8	109.2	103.4
1972	100.8	107.1	110.0	102.4	105.7	108.5	101.9
1973	99.9	106.7	109.9	101.7	105.1	108.4	100.5
1974	98.7	105.5	104.6	106.9	106.1	106.4	105.6
1975	99.3	106.3	105.1	107.9	106.7	106.6	107.0
1976	102.4	109.1	109.3	108.7	108.9	110.0	107.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.9	101.8	100.3	103.9	102.1	100.9	103.9
1979	98.4	104.6	105.3	103.7	104.3	105.0	103.3
1980 ¹	99.8	102.3	102.0	102.6	101.9	102.1	101.8
Average annual percent change:							
1947-80	1.0	-1.2	-1.5	-0.6	-1.0	-1.3	-0.7
1975-80	-0.3	-0.9	-0.7	-1.0	-1.0	-1.0	-0.9

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 21. Sugar (SIC 2061, 2062, 2063): Output per hour and related data, 1967-80
 (1977 = 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 employee, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	40.6	38.2	52.2	39.9	37.7	50.4
1955	42.3	39.7	55.5	41.4	39.0	53.2
1956	44.6	41.6	60.6	45.2	42.5	58.3
1957	43.9	40.8	60.7	44.0	41.2	58.3
1958	45.2	42.7	57.1	46.2	44.2	54.8
1959	47.7	44.8	62.2	47.6	45.0	59.6
1960	50.3	47.2	65.4	50.8	48.3	62.0
1961	53.6	50.5	69.3	53.8	51.3	64.9
1962	59.0	55.1	78.8	59.1	56.0	73.3
1963	59.4	55.8	77.2	59.3	56.5	71.6
1964	62.4	58.6	80.7	62.7	60.0	75.3
1965	64.9	60.6	87.1	63.1	59.3	81.0
1966	67.3	63.8	83.5	65.0	63.0	77.2
1967	67.4	63.4	86.3	66.1	63.0	79.8
1968	70.2	65.7	93.3	69.3	65.6	86.4
1969	68.6	64.5	89.6	66.4	63.0	82.0
1970	75.0	69.9	101.3	72.4	68.4	91.6
1971	74.1	69.5	96.6	75.5	71.9	91.7
1972	79.0	75.6	95.6	79.4	76.0	94.9
1973	96.3	93.8	107.0	98.8	96.1	110.3
1974	93.2	89.2	112.8	98.2	94.1	117.2
1975	94.0	93.8	94.4	91.8	90.7	96.8
1976	95.8	95.2	98.5	97.3	96.6	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	101.3	98.9	98.4	98.3	98.9
1979	108.6	109.0	106.8	107.3	107.5	106.9
1980 ²	113.2	113.7	111.4	115.6	116.8	111.4
Average annual percent change:						
1947-80	4.1	4.4	2.7	4.1	4.4	2.8
1975-80	3.8	4.0	3.1	4.2	4.6	2.6

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

² Preliminary.

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

differ from those previously published.

SOURCE: Output 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 employees, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	49.0	120.8	128.3	93.8	122.9	130.0	97.2
1955	48.9	115.6	123.3	88.1	118.2	125.5	91.9
1956	51.3	115.1	123.4	84.7	113.5	120.7	88.0
1957	50.7	115.5	124.4	83.5	115.2	123.1	86.9
1958	53.7	118.7	125.7	94.1	116.3	121.4	98.0
1959	56.4	118.3	126.0	90.7	118.4	125.2	94.7
1960	58.0	115.4	122.9	88.7	114.2	120.0	93.5
1961	61.3	114.3	121.4	88.5	113.9	119.4	94.5
1962	64.1	108.7	116.3	81.3	108.4	114.4	87.4
1963	67.2	113.2	120.5	87.1	113.3	118.9	93.8
1964	72.5	116.2	123.7	89.8	115.6	120.9	96.3
1965	70.3	108.3	116.0	80.7	111.4	118.5	86.8
1966	70.9	105.3	111.2	84.9	109.0	112.5	91.8
1967	72.2	107.2	113.8	83.7	109.3	114.6	90.5
1968	75.5	107.5	115.0	80.9	109.0	115.1	87.4
1969	74.2	108.1	115.0	82.8	111.8	117.8	90.5
1970	78.7	105.0	112.6	77.7	108.7	115.1	85.9
1971	78.8	106.4	113.3	81.6	104.4	109.6	85.9
1972	82.9	105.0	109.7	86.7	104.4	109.1	87.4
1973	96.1	99.8	102.4	89.8	97.3	100.0	87.1
1974	94.5	101.4	106.0	83.8	96.2	100.4	80.6
1975	95.3	101.4	101.6	100.9	103.8	105.1	98.4
1976	103.2	107.7	108.4	104.8	106.1	106.8	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	94.1	93.4	92.9	95.1	95.6	95.7	95.1
1979	95.9	88.3	88.0	89.8	89.4	89.2	89.7
1980 ¹	98.8	87.3	86.9	88.7	85.5	84.6	88.7
Average annual percent change:							
1947-80	2.9	-1.2	-1.4	.2	-1.2	-1.4	.1
1975-80	-3	-4.0	-4.1	-3.3	-4.3	-4.7	-2.8

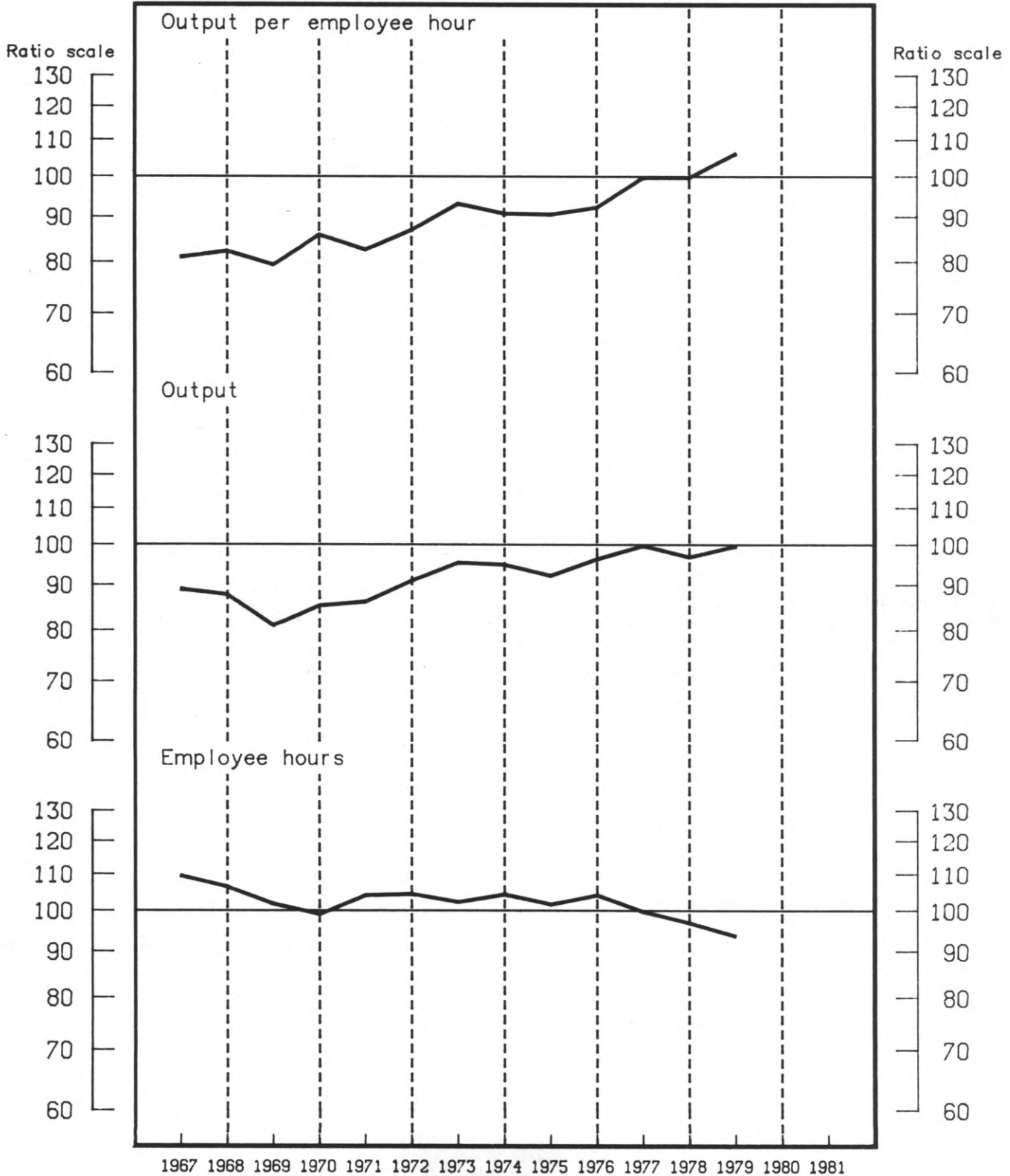
¹ Preliminary.
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the 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, 1967-79

(1977 = 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, 1958-79
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	51.9	48.6	64.7	51.9	49.7	59.5
1959	55.5	51.5	72.3	54.5	51.2	66.5
1960	57.2	53.2	73.1	56.6	53.8	66.5
1961	64.3	60.2	81.2	64.1	61.5	72.9
1962	71.1	65.9	91.9	71.3	68.1	82.0
1963	69.8	65.4	86.7	70.4	68.2	77.2
1964	69.6	65.8	83.6	69.9	68.2	74.8
1965	76.9	71.7	97.7	76.3	73.0	87.0
1966	81.2	75.9	102.0	80.9	78.0	90.5
1967	81.2	77.1	96.5	83.2	80.2	93.1
1968	82.5	77.9	99.5	84.7	81.3	96.1
1969	79.6	77.3	86.9	79.0	77.6	82.9
1970	86.1	83.4	94.6	86.5	85.5	89.2
1971	82.8	80.1	91.0	86.4	85.0	90.2
1972	87.2	86.1	90.1	91.8	91.3	93.3
1973	93.4	90.9	101.4	98.0	95.7	104.5
1974	91.0	90.4	92.7	96.3	96.6	95.2
1975	90.8	91.6	88.9	91.5	91.8	90.5
1976	92.5	92.4	93.2	95.5	95.1	96.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.0	99.5	101.5	100.4	100.1	101.4
1979 ²	106.4	103.4	116.4	107.9	105.2	116.6
Average annual percent change:						
1958-79	2.9	3.3	1.5	3.1	3.4	2.3
1975-79	4.0	3.2	6.4	3.9	3.3	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 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, 1958-79
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	64.6	124.5	132.9	99.9	124.5	130.1	108.6
1959	69.0	124.3	134.1	95.4	126.7	134.8	103.7
1960	68.9	120.5	129.5	94.3	121.7	128.0	103.6
1961	74.9	116.4	124.5	92.2	116.8	121.8	102.8
1962	77.6	109.1	117.8	84.4	108.9	113.9	94.6
1963	80.5	115.4	123.1	92.9	114.4	118.0	104.3
1964	79.4	114.1	120.7	95.0	113.6	116.4	106.1
1965	81.0	105.3	113.0	82.9	106.1	110.9	93.1
1966	84.9	104.6	111.9	83.2	104.9	108.9	93.8
1967	89.2	109.8	115.7	92.4	107.2	111.2	95.8
1968	88.0	106.7	113.0	88.4	103.9	108.2	91.6
1969	81.2	102.0	105.0	93.4	102.8	104.6	97.9
1970	85.5	99.3	102.5	90.4	98.9	100.0	95.8
1971	86.4	104.4	107.8	94.9	100.0	101.6	95.8
1972	91.3	104.7	106.0	101.3	99.5	100.0	97.9
1973	95.7	102.5	105.3	94.4	97.7	100.0	91.6
1974	95.2	104.6	105.3	102.7	98.9	98.6	100.0
1975	92.5	101.9	101.0	104.1	101.1	100.8	102.2
1976	96.6	104.4	104.6	103.7	101.1	101.6	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	97.1	97.1	97.6	95.7	96.7	97.0	95.8
1979 ¹	99.9	93.9	96.6	85.8	92.6	95.0	85.7
Average annual percent change:							
1958-79	1.8	-1.1	-1.4	.3	-1.2	-1.5	-4
1975-79	1.6	-2.3	-1.6	-4.6	-2.2	-1.6	-3.9

¹ Preliminary.

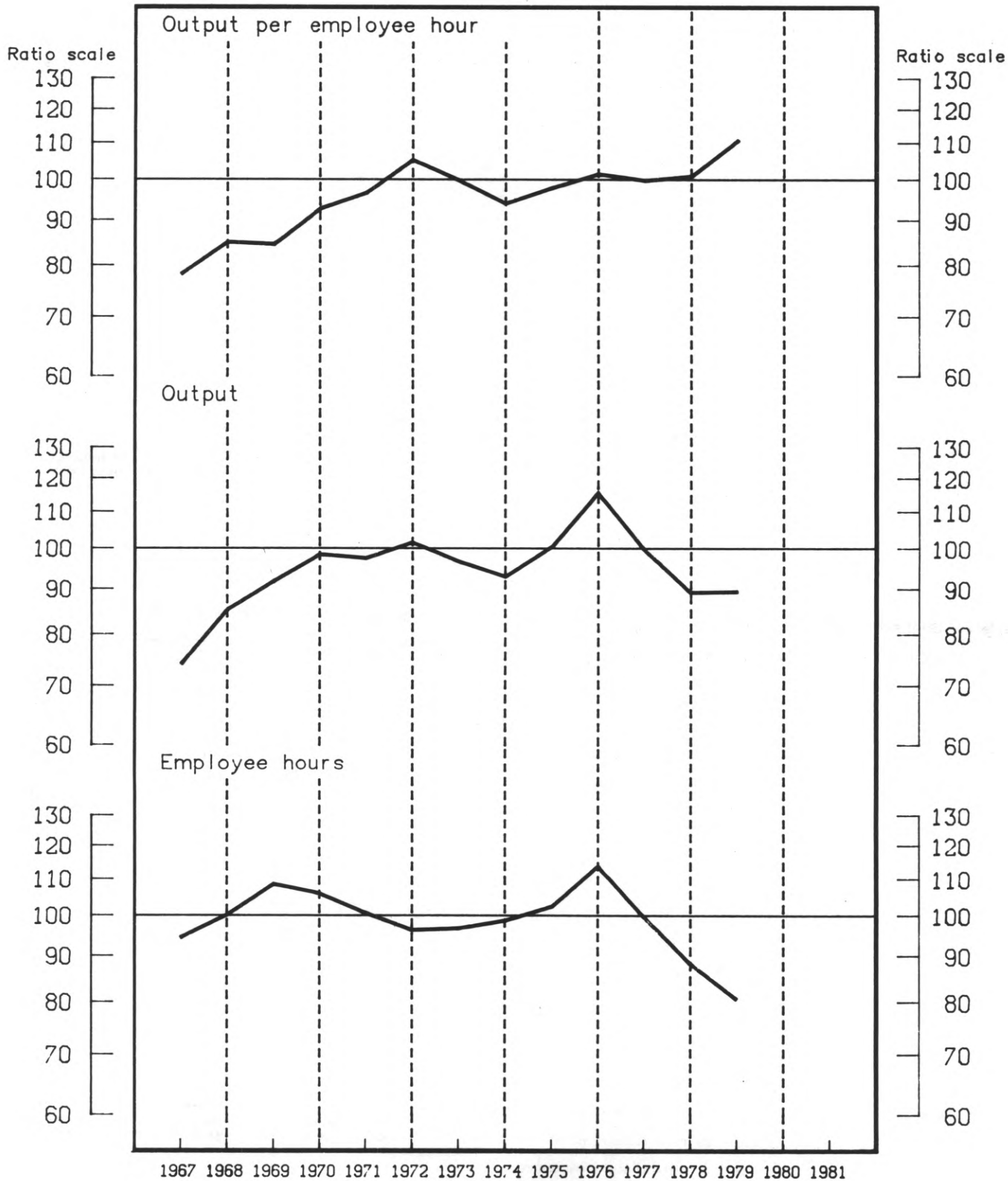
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the 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, 1967-79

(1977 = 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, 1958-79
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	60.8	59.1	73.7	64.2	63.7	67.8
1959	62.1	60.7	74.3	63.9	63.3	68.3
1960	68.7	66.6	87.0	71.7	70.8	79.1
1961	65.9	64.1	80.8	66.1	65.3	72.5
1962	72.2	69.9	92.1	71.4	70.0	81.9
1963	76.0	73.1	102.2	74.1	72.0	91.0
1964	86.6	83.3	117.2	87.0	84.8	104.8
1965	82.1	79.6	105.1	76.5	74.5	93.6
1966	82.0	81.7	83.0	74.8	74.9	73.6
1967	78.4	77.9	82.4	73.5	72.7	79.4
1968	85.2	83.9	94.9	81.3	79.8	91.5
1969	84.7	81.7	111.4	80.8	77.9	106.2
1970	92.9	89.8	120.7	87.2	84.2	113.8
1971	96.8	93.0	134.4	97.7	93.9	133.1
1972	105.5	102.3	134.1	100.9	96.9	138.7
1973	100.0	96.9	128.0	99.5	95.9	132.0
1974	94.2	91.9	113.5	90.8	87.8	116.5
1975	98.1	97.0	105.9	92.6	90.6	107.8
1976	101.7	100.8	107.1	101.8	100.7	108.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.1	101.9	95.9	94.4	94.2	95.8
1979 ²	111.0	115.6	92.5	105.5	109.0	87.7
Average annual percent change:						
1958-79	2.6	2.8	1.4	2.3	2.4	2.1
1975-79	2.4	3.7	-3.7	1.9	3.1	-5.2

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

² Preliminary.

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

differ from those previously published.

SOURCE: Output based on data from the 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, 1958-79
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	58.2	95.8	98.4	79.0	90.6	91.3	85.9
1959	59.1	95.1	97.4	79.5	92.5	93.4	86.5
1960	64.5	93.9	96.8	74.1	89.9	91.1	81.5
1961	64.2	97.4	100.2	79.5	97.1	98.3	88.6
1962	68.5	94.9	98.0	74.4	96.0	97.9	83.6
1963	73.4	96.6	100.4	71.8	99.1	101.9	80.7
1964	92.1	106.4	110.6	78.6	105.9	108.6	87.9
1965	82.5	100.5	103.7	78.5	107.9	110.8	88.1
1966	77.4	94.4	94.7	93.3	103.5	103.3	105.2
1967	74.2	94.6	95.3	90.1	100.9	102.0	93.4
1968	85.5	100.4	101.9	90.1	105.2	107.1	93.4
1969	92.1	108.8	112.7	82.7	114.0	118.2	86.7
1970	98.7	106.2	109.9	81.8	113.2	117.2	86.7
1971	97.7	100.9	105.1	72.7	100.0	104.1	73.4
1972	101.8	96.5	99.5	75.9	100.9	105.1	73.4
1973	96.9	96.9	100.0	75.7	97.4	101.0	73.4
1974	93.2	98.9	101.4	82.1	102.6	106.1	80.0
1975	100.7	102.6	103.8	95.1	108.8	111.1	93.4
1976	116.0	114.1	115.1	108.3	114.0	115.2	106.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	89.5	88.5	87.8	93.3	94.8	95.0	93.4
1979 ¹	89.7	80.8	77.6	97.0	85.0	82.3	102.3
Average annual percent change:							
1958-79	2.6	(²)	-2	1.1	.2	.2	.4
1975-79	-4.8	-7.1	-8.2	-1.1	-6.6	-7.6	.5

¹ Preliminary.

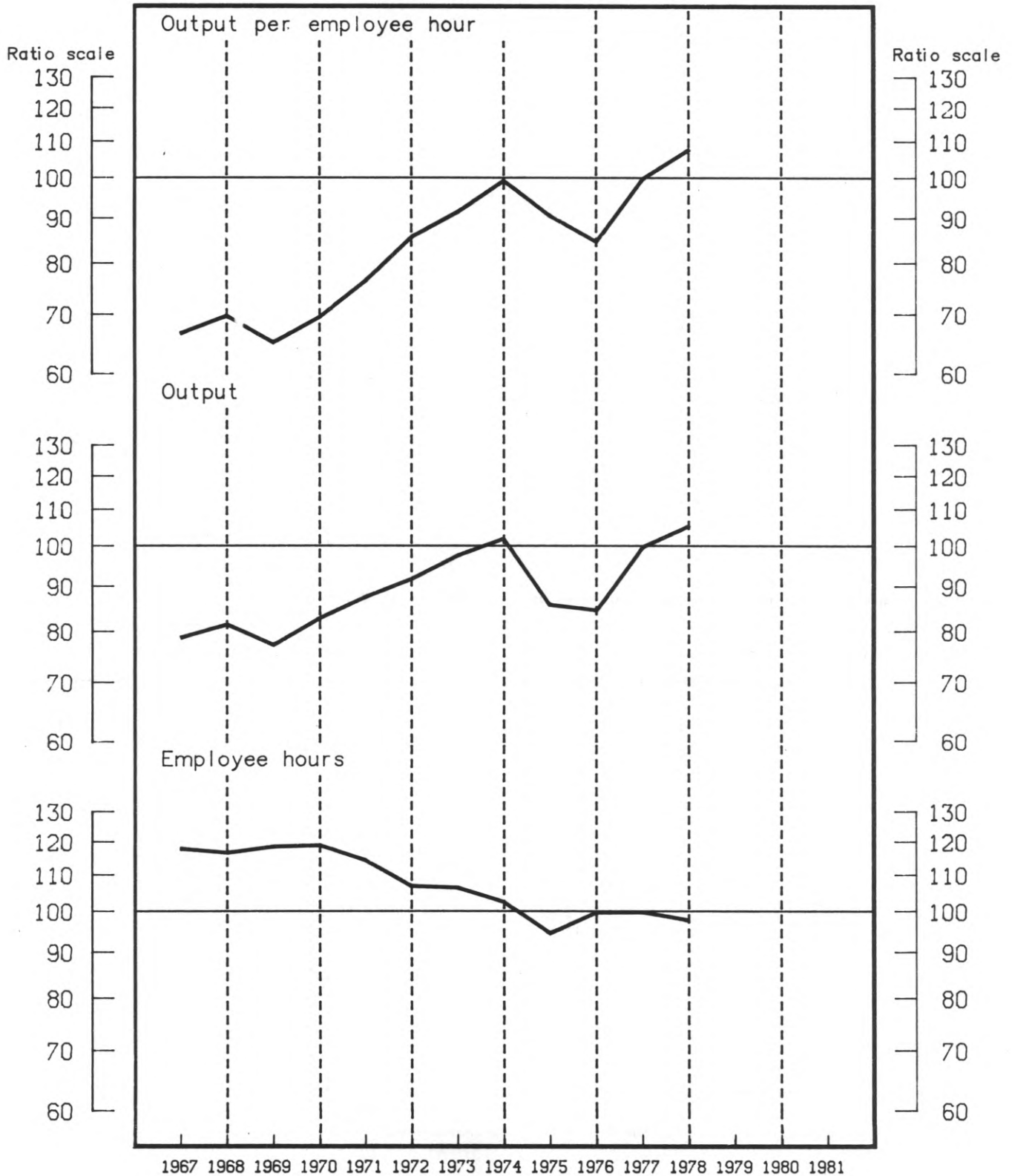
² Less than .05 percent.

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 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

(1977 = 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
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	41.3	40.5	44.8	42.7	41.9	46.8
1955	42.6	42.9	41.2	43.8	44.1	42.9
1956	43.0	44.0	39.0	44.7	45.8	40.7
1957	46.8	47.8	42.9	48.1	48.9	44.7
1958	48.9	48.6	49.7	49.9	49.6	51.8
1959	50.0	50.0	49.8	52.2	52.2	51.8
1960	52.3	52.4	51.6	54.5	54.8	53.1
1961	52.2	52.0	53.0	54.4	54.6	53.8
1962	53.2	53.1	53.8	55.5	55.9	54.2
1963	58.8	57.3	66.0	60.0	58.7	66.4
1964	59.9	58.3	67.6	60.9	59.4	68.4
1965	62.4	60.3	73.9	63.8	61.7	74.4
1966	64.9	62.9	75.1	65.4	63.5	75.3
1967	66.8	64.3	80.3	67.4	64.9	80.4
1968	69.9	67.5	82.4	70.4	68.8	78.2
1969	65.2	63.2	75.1	66.2	64.9	72.1
1970	69.7	68.7	73.9	70.1	69.7	72.0
1971	76.6	76.5	76.7	79.5	80.5	76.1
1972	85.9	85.5	87.5	87.9	87.9	88.0
1973	91.7	95.4	78.2	93.4	97.6	79.1
1974	99.5	102.1	89.4	97.3	99.0	90.7
1975	90.8	94.6	77.3	87.0	89.4	78.3
1976	84.9	86.7	77.5	83.3	84.6	78.4
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	105.7	118.4	108.8	106.8	118.7
Average annual percent change:						
1947-78	3.7	3.8	3.4	3.5	3.6	3.2

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

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

SOURCE: Output based on data from the Bureau of Competitive Assessment and Business Policy, 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
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	49.5	119.8	122.1	110.5	115.9	118.2	105.8
1955	51.8	121.6	120.7	125.6	118.3	117.5	120.7
1956	53.5	124.3	121.5	137.2	119.6	116.9	131.4
1957	55.8	119.2	116.8	130.1	116.0	114.0	124.8
1958	57.3	117.2	117.8	115.2	114.8	115.6	110.7
1959	58.2	116.3	116.3	116.8	111.6	111.4	112.3
1960	60.6	115.8	115.6	117.5	111.2	110.6	114.1
1961	61.4	117.6	118.0	115.9	112.9	112.5	114.2
1962	62.9	118.2	118.5	116.9	113.3	112.6	116.0
1963	65.9	112.0	115.0	99.8	109.8	112.2	99.2
1964	68.9	115.0	118.2	101.9	113.1	115.9	100.8
1965	71.8	115.0	119.1	97.1	112.5	116.3	96.5
1966	75.2	115.8	119.5	100.1	114.9	118.5	99.9
1967	78.9	118.1	122.7	98.3	117.1	121.5	98.1
1968	81.7	116.9	121.0	99.2	116.0	118.7	104.5
1969	77.4	118.8	122.5	103.0	117.0	119.2	107.3
1970	83.1	119.2	120.9	112.4	118.5	119.2	115.4
1971	87.8	114.6	114.7	114.5	110.4	109.1	115.4
1972	92.0	107.1	107.6	105.2	104.7	104.7	104.5
1973	97.8	106.6	102.5	125.0	104.7	100.2	123.6
1974	102.2	102.7	100.1	114.3	105.0	103.2	112.7
1975	86.0	94.7	90.9	111.2	98.8	96.2	109.9
1976	84.8	99.9	97.8	109.4	101.8	100.2	108.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.6	97.9	99.9	89.2	97.1	98.9	89.0
Average annual percent change:							
1947-78	2.7	-1.0	-1.0	-7	-7	-8	-4

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

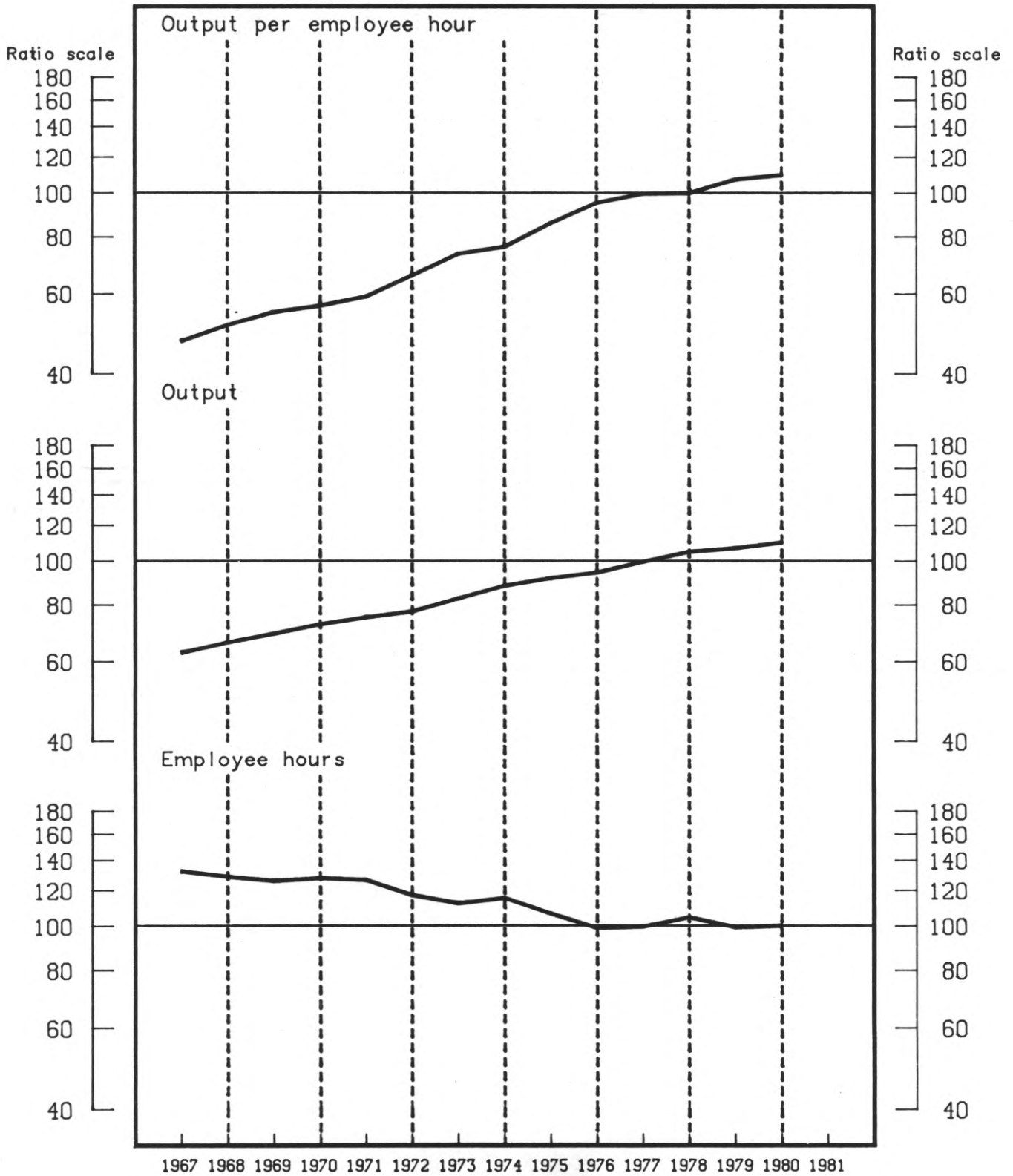
SOURCE: Output based on data from the Bureau of Competitive Assessment and

Business Policy, 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, 1967-80

(1977 = 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, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	23.5	25.3	19.7	23.7	25.4	20.4
1955	24.4	26.1	21.0	24.5	26.0	21.6
1956	24.9	26.8	21.1	25.1	26.7	21.8
1957	25.7	27.8	21.4	25.6	27.4	22.1
1958	28.4	30.5	24.1	28.0	29.6	24.8
1959	29.7	31.5	25.8	29.4	30.7	26.6
1960	30.9	32.6	27.4	30.2	31.3	27.9
1961	32.5	34.2	28.6	31.6	33.0	28.7
1962	34.1	35.7	30.5	33.5	34.9	30.5
1963	37.4	39.1	33.8	36.8	38.1	33.7
1964	40.2	42.1	35.9	39.4	41.1	36.0
1965	42.3	44.5	37.3	41.7	43.9	37.2
1966	44.5	47.1	38.7	44.0	46.8	38.5
1967	47.4	50.2	41.7	46.5	49.0	41.4
1968	51.4	53.1	47.5	49.7	52.1	45.1
1969	54.9	57.2	49.9	53.3	56.0	47.9
1970	56.7	59.9	50.0	55.9	59.6	48.6
1971	59.4	64.4	49.6	58.2	63.1	49.1
1972	66.1	71.0	56.3	66.4	71.5	56.6
1973	73.7	75.6	69.1	74.3	76.4	69.9
1974	76.4	77.9	72.7	77.6	79.6	73.6
1975	86.1	88.0	82.2	86.0	87.3	83.0
1976	95.5	97.5	90.8	97.5	100.1	91.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.3	100.2	100.5	101.4	102.0	100.5
1979	107.6	106.8	109.7	107.3	106.3	110.1
1980 ²	109.9	112.4	103.8	112.0	115.6	104.5
Average annual percent change:						
1947-80	5.8	5.7	6.1	5.7	5.6	5.9
1975-80	4.6	4.4	5.1	4.7	4.7	5.0

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

² Preliminary.

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

differ from those previously published.

SOURCE: Output 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, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	44.0	187.6	173.7	223.1	185.4	173.0	215.7
1955	45.0	184.3	172.7	214.5	183.3	173.0	208.2
1956	45.4	182.5	169.6	215.6	181.0	169.8	208.7
1957	45.2	176.2	162.7	211.0	176.4	165.0	204.4
1958	45.7	161.1	150.0	189.6	163.0	154.4	184.0
1959	47.4	159.5	150.4	183.4	161.2	154.2	178.0
1960	48.0	155.1	147.2	175.4	158.7	153.3	172.0
1961	49.0	151.0	143.2	171.5	154.9	148.6	170.5
1962	50.2	147.1	140.6	164.5	150.0	144.0	164.6
1963	52.3	139.7	133.9	154.7	142.3	137.3	155.0
1964	55.5	138.2	131.9	154.7	140.7	135.2	154.3
1965	57.3	135.6	128.8	153.8	137.4	130.5	154.1
1966	60.5	136.1	128.4	156.2	137.5	129.4	157.1
1967	63.0	132.8	125.6	151.1	135.5	128.5	152.0
1968	66.4	129.2	125.1	139.7	133.5	127.5	147.3
1969	69.4	126.4	121.4	139.1	130.2	124.0	145.0
1970	72.8	128.3	121.5	145.5	130.2	122.1	149.7
1971	75.4	127.0	117.1	152.1	129.5	119.5	153.5
1972	77.7	117.5	109.4	138.1	117.1	108.6	137.2
1973	83.0	112.6	109.8	120.1	111.7	108.6	118.7
1974	88.5	115.8	113.6	121.8	114.0	111.2	120.2
1975	92.0	106.8	104.6	111.9	107.0	105.4	110.9
1976	94.6	99.1	97.0	104.2	97.0	94.5	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.2	104.9	105.0	104.7	103.7	103.1	104.7
1979	107.2	99.6	100.4	97.7	99.9	100.8	97.4
1980 ¹	110.3	100.4	98.1	106.3	98.5	95.4	105.5
Average annual percent change:							
1947-80	3.3	-2.4	-2.3	-2.6	-2.2	-2.2	-2.4
1975-80	3.9	-7	-5	-1.1	-8	-8	-1.1

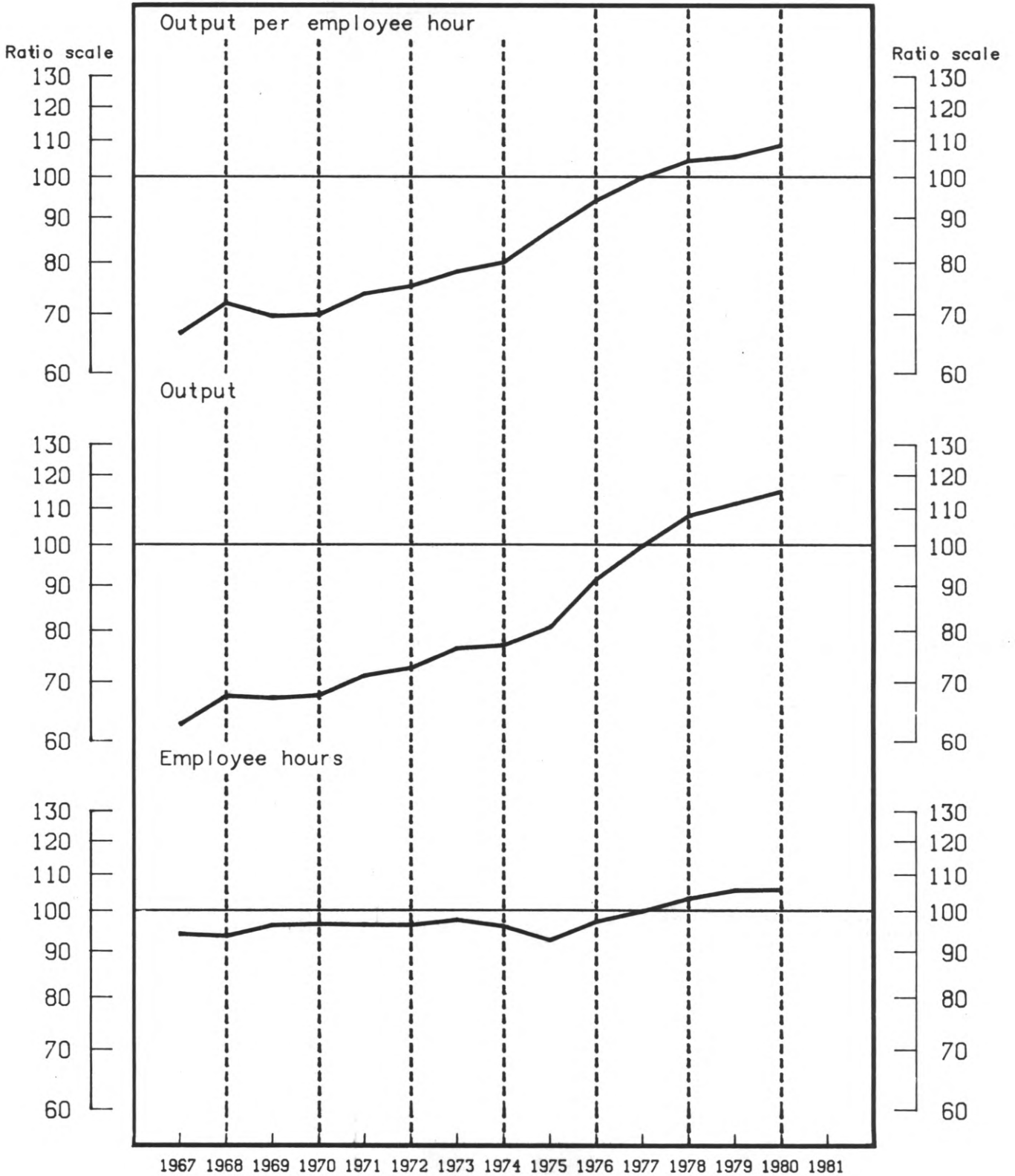
¹ Preliminary.

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 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, 1967-80

(1977 = 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 employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	57.7	50.4	62.9	57.5	52.7	60.6
1959	60.4	53.1	65.5	60.9	57.2	63.1
1960	58.4	51.7	63.0	58.2	55.1	60.1
1961	60.7	54.2	65.2	59.8	57.0	61.5
1962	65.1	58.5	69.6	63.4	61.1	64.8
1963	67.1	59.2	72.6	65.9	63.2	67.5
1964	67.3	60.1	72.2	65.8	63.7	67.1
1965	67.8	60.9	72.5	66.3	64.5	67.4
1966	68.2	59.4	74.5	66.9	63.1	69.3
1967	66.6	58.5	72.2	64.8	61.1	67.1
1968	72.1	64.3	77.5	69.6	65.6	72.1
1969	69.7	64.0	73.5	67.7	64.6	69.5
1970	70.0	65.5	72.9	68.6	66.2	70.0
1971	73.9	69.7	76.4	73.2	70.6	74.8
1972	75.4	72.9	76.9	75.7	73.7	76.8
1973	78.3	76.7	79.3	78.7	77.1	79.6
1974	80.2	78.5	81.2	80.3	77.9	81.8
1975	87.2	86.1	87.7	87.1	85.2	88.1
1976	94.2	93.5	94.6	94.3	93.5	94.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	105.3	104.1	105.0	106.3	104.1
1979	105.6	109.1	103.6	105.9	110.2	103.6
1980 ²	108.8	115.3	105.4	109.4	117.4	105.4
Average annual percent change:						
1958-80	2.8	3.7	2.3	2.9	3.3	2.6
1975-80	4.4	5.8	3.6	4.5	6.4	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 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 employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	43.0	74.5	85.3	68.4	74.8	81.6	71.0
1959	46.6	77.1	87.8	71.1	76.5	81.4	73.8
1960	46.0	78.8	89.0	73.0	79.1	83.5	76.6
1961	47.5	78.2	87.7	72.8	79.4	83.3	77.2
1962	51.3	78.8	87.7	73.7	80.9	83.9	79.2
1963	54.6	81.4	92.3	75.2	82.9	86.4	80.9
1964	57.0	84.7	94.8	79.0	86.6	89.5	84.9
1965	59.2	87.3	97.2	81.7	89.3	91.8	87.8
1966	63.1	92.5	106.3	84.7	94.3	100.0	91.0
1967	62.7	94.2	107.2	86.9	96.8	102.7	93.4
1968	67.6	93.7	105.2	87.2	97.1	103.1	93.7
1969	67.2	96.4	105.0	91.4	99.3	104.0	96.7
1970	67.7	96.7	103.3	92.9	98.7	102.3	96.7
1971	71.3	96.5	102.3	93.3	97.4	101.0	95.3
1972	72.7	96.4	99.7	94.5	96.1	98.7	94.6
1973	76.5	97.7	99.7	96.5	97.2	99.2	96.1
1974	77.1	96.1	98.2	94.9	96.0	99.0	94.3
1975	80.8	92.7	93.8	92.1	92.8	94.8	91.7
1976	91.7	97.3	98.1	96.9	97.2	98.1	96.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.1	103.4	102.7	103.8	103.0	101.7	103.8
1979	111.6	105.7	102.3	107.7	105.4	101.3	107.7
1980 ¹	115.2	105.9	99.9	109.3	105.3	98.1	109.3
Average annual percent change:							
1958-80	4.3	1.5	.6	2.0	1.4	1.0	1.6
1975-80	7.2	2.7	1.3	3.5	2.6	.8	3.6

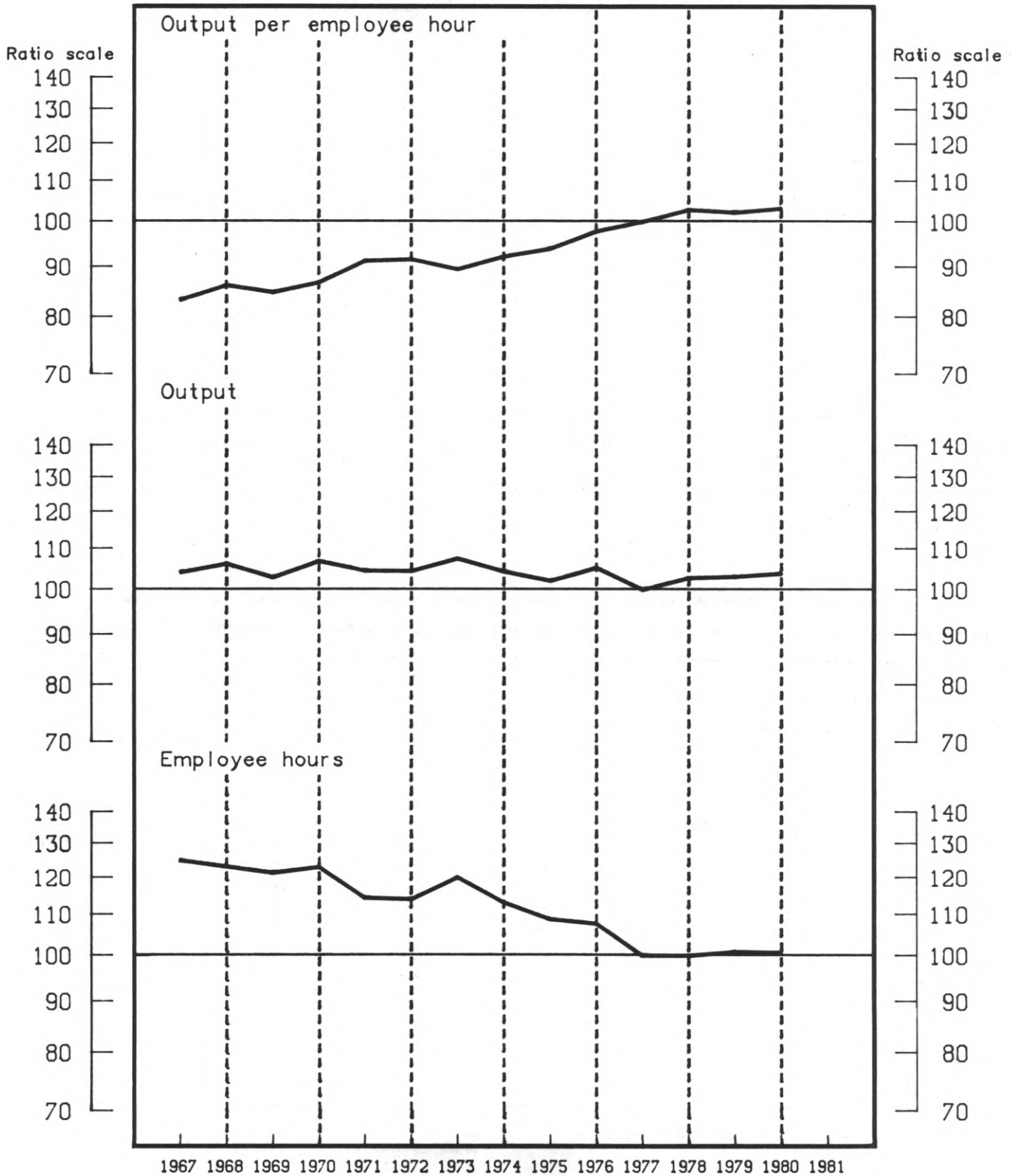
¹ Preliminary.

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 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, 1967-80

(1977 = 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, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	52.1	48.0	100.1	54.4	49.6	112.8
1955	52.0	47.9	100.2	54.6	49.8	112.5
1956	55.2	51.0	105.6	57.8	52.8	118.7
1957	57.8	53.4	108.4	60.6	55.5	121.7
1958	62.1	57.9	105.5	65.9	60.9	118.4
1959	65.3	61.3	102.3	69.5	64.8	114.6
1960	69.7	65.6	108.0	73.9	69.0	121.4
1961	72.1	68.4	104.4	77.1	72.5	117.4
1962	74.3	70.9	101.7	79.6	75.3	115.2
1963	78.4	74.4	112.3	84.0	78.9	126.8
1964	80.2	75.5	125.1	87.5	81.6	142.0
1965	83.4	79.2	119.5	87.2	81.9	135.1
1966	83.2	79.0	119.0	88.0	82.6	134.1
1967	83.3	79.6	112.3	87.8	82.9	126.5
1968	86.2	82.3	116.8	88.3	83.4	129.0
1969	84.8	81.6	108.8	87.6	83.5	119.5
1970	86.8	83.1	116.4	91.8	87.2	128.0
1971	91.3	88.0	117.3	95.5	91.0	128.9
1972	91.6	88.9	110.7	94.9	91.1	121.3
1973	89.5	87.2	104.4	93.4	90.3	114.7
1974	92.2	90.4	103.7	93.6	90.9	111.3
1975	93.9	93.2	97.2	95.8	94.6	102.1
1976	97.8	96.7	103.3	100.5	99.3	106.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.8	102.5	104.2	105.8	106.1	104.2
1979	102.2	103.6	94.3	105.2	107.4	94.7
1980 ²	103.2	106.8	86.7	106.5	111.0	87.3
Average annual percent change:						
1947-80	2.8	3.1	.2	2.7	3.1	-.1
1975-80	1.8	2.6	-2.3	2.1	3.2	-3.1

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

² Preliminary.

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

differ from those previously published.

SOURCE: Output based on data from the 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, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	82.9	159.1	172.7	82.8	152.4	167.1	73.5
1955	83.7	161.1	174.8	83.5	153.3	168.0	74.4
1956	84.3	152.6	165.2	79.8	145.8	159.8	71.0
1957	86.9	150.4	162.7	80.2	143.4	156.7	71.4
1958	91.9	147.9	158.6	87.1	139.4	150.9	77.6
1959	97.3	149.1	158.7	95.1	139.9	150.2	84.9
1960	99.7	143.0	152.0	92.3	134.9	144.5	82.1
1961	99.2	137.5	145.0	95.0	128.6	136.9	84.5
1962	99.4	133.7	140.1	97.7	124.8	132.0	86.3
1963	101.6	129.6	136.5	90.5	121.0	128.7	80.1
1964	110.3	137.5	146.1	88.2	126.1	135.1	77.7
1965	107.4	128.7	135.6	89.9	123.1	131.2	79.5
1966	104.6	125.7	132.4	87.9	118.9	126.6	78.0
1967	104.1	125.0	130.7	92.7	118.6	125.5	82.3
1968	106.2	123.2	129.0	90.9	120.3	127.4	82.3
1969	102.9	121.4	126.1	94.6	117.4	123.3	86.1
1970	106.9	123.1	128.6	91.8	116.4	122.6	83.5
1971	104.5	114.4	118.8	89.1	109.4	114.8	81.1
1972	104.4	114.0	117.5	94.3	110.0	114.6	86.1
1973	107.5	120.1	123.3	103.0	115.1	119.1	93.7
1974	104.3	113.1	115.4	100.6	111.4	114.8	93.7
1975	102.1	108.7	109.5	105.0	106.6	107.9	100.0
1976	105.2	107.6	108.8	101.8	104.7	105.9	98.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.8	100.0	100.3	98.7	97.2	96.9	98.7
1979	103.1	100.9	99.5	109.3	98.0	96.0	108.9
1980 ¹	103.9	100.7	97.3	119.9	97.6	93.6	119.0
Average annual percent change:							
1947-80	1.0	-1.7	-2.0	.7	-1.7	-2.0	1.1
1975-80 .....	.2	-1.6	-2.4	2.5	-1.9	-2.9	3.3

¹ Preliminary.

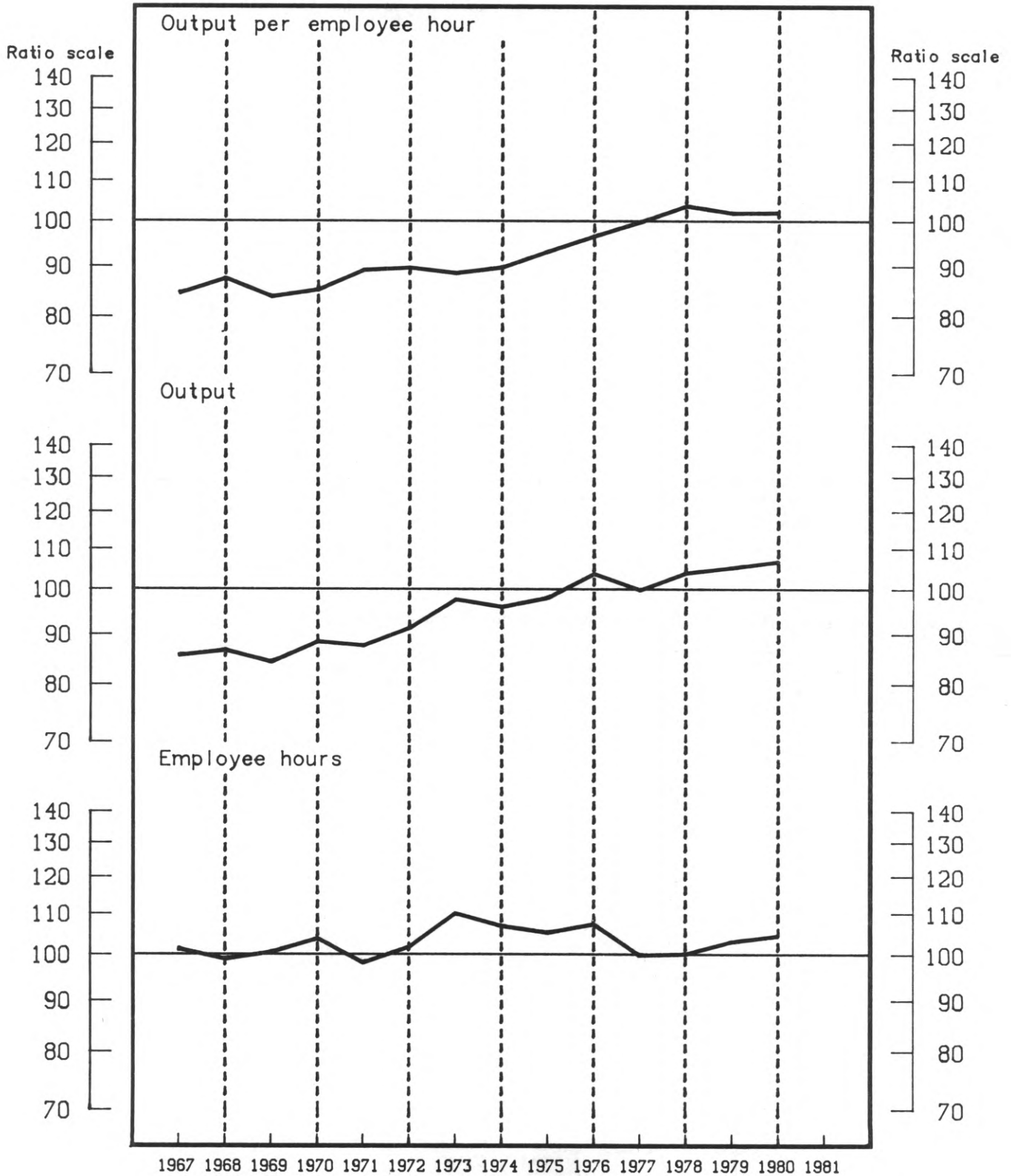
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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

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

Chart 28. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Output per hour and related data, 1967-80

(1977 = 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, 1954-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	66.6	61.3	119.2	71.3	65.0	134.9
1955	65.9	60.6	122.4	71.9	65.4	137.6
1956	67.8	62.2	128.0	73.7	66.9	144.9
1957	69.7	64.0	129.1	75.6	68.7	145.8
1958	70.7	65.4	121.7	76.7	70.2	137.3
1959	72.3	67.7	112.9	78.6	72.8	127.5
1960	75.5	70.8	115.5	81.4	75.6	130.1
1961	77.1	72.6	113.5	83.5	78.1	127.5
1962	77.4	73.5	106.3	84.6	79.8	120.0
1963	80.9	76.3	116.1	88.3	82.6	130.8
1964	79.7	75.1	115.0	86.9	81.3	129.9
1965	83.3	78.8	117.1	87.3	81.6	131.9
1966	83.3	79.2	114.3	89.3	84.0	128.2
1967	84.6	80.3	117.2	90.1	84.6	131.4
1968	87.6	83.2	120.4	89.4	83.6	132.9
1969	83.9	80.4	108.6	86.6	82.0	119.4
1970	85.3	81.1	116.1	90.8	85.7	127.5
1971	89.3	85.9	112.9	93.6	89.0	124.0
1972	89.8	86.5	111.4	93.3	89.0	122.0
1973	88.7	86.2	103.4	93.1	89.6	113.6
1974	89.9	88.2	99.3	92.4	89.9	106.4
1975	93.3	92.5	97.6	95.4	94.2	102.5
1976	96.7	95.4	103.8	99.9	98.6	106.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.8	103.8	104.1	107.4	108.1	104.1
1979	102.1	103.7	94.4	105.6	108.2	94.9
1980 ²	102.2	105.7	86.8	105.9	110.7	87.5
Average annual percent change:						
1947-80	1.5	1.8	-.6	1.3	1.7	-.9
1975-80	1.9	2.8	-2.3	2.2	3.4	-3.1

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

² Preliminary.

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

differ from those previously published.

SOURCE: Output based on data from the 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 54. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Indexes of output, employee hours, and employees, 1954-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	63.4	95.2	103.4	53.2	88.9	97.5	47.0
1955	65.1	98.8	107.5	53.2	90.6	99.6	47.3
1956	66.2	97.7	106.5	51.7	89.8	99.0	45.7
1957	68.8	98.7	107.5	53.3	91.0	100.2	47.2
1958	72.9	103.1	111.5	59.9	95.1	103.9	53.1
1959	77.0	106.5	113.8	68.2	98.0	105.8	60.4
1960	79.0	104.6	111.6	68.4	97.0	104.5	60.7
1961	80.7	104.7	111.1	71.1	96.6	103.3	63.3
1962	80.4	103.9	109.4	75.6	95.0	100.7	67.0
1963	82.8	102.4	108.5	71.3	93.8	100.2	63.3
1964	82.1	103.0	109.3	71.4	94.5	101.0	63.2
1965	83.5	100.3	106.0	71.3	95.6	102.3	63.3
1966	84.5	101.4	106.7	73.9	94.6	100.6	65.9
1967	85.8	101.4	106.8	73.2	95.2	101.4	65.3
1968	86.8	99.1	104.3	72.1	97.1	103.8	65.3
1969	84.5	100.7	105.1	77.8	97.6	103.1	70.8
1970	88.6	103.9	109.2	76.3	97.6	103.4	69.5
1971	87.8	98.3	102.2	77.8	93.8	98.6	70.8
1972	91.5	101.9	105.8	82.1	98.1	102.8	75.0
1973	97.8	110.2	113.4	94.6	105.1	109.1	86.1
1974	96.1	106.9	108.9	96.8	104.0	106.9	90.3
1975	98.2	105.3	106.2	100.6	102.9	104.3	95.8
1976	103.9	107.4	108.9	100.1	104.0	105.4	97.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	100.3	100.3	100.0	96.9	96.3	100.0
1979	105.4	103.2	101.6	111.6	99.8	97.4	111.1
1980 ¹	106.9	104.6	101.1	123.2	100.9	96.6	122.2
Average annual percent change:							
1947-80	1.8	.3	(?)	2.4	.5	.1	2.7
1975-80	1.5	-.4	-1.3	3.9	-.7	-1.9	4.7

¹ Preliminary.

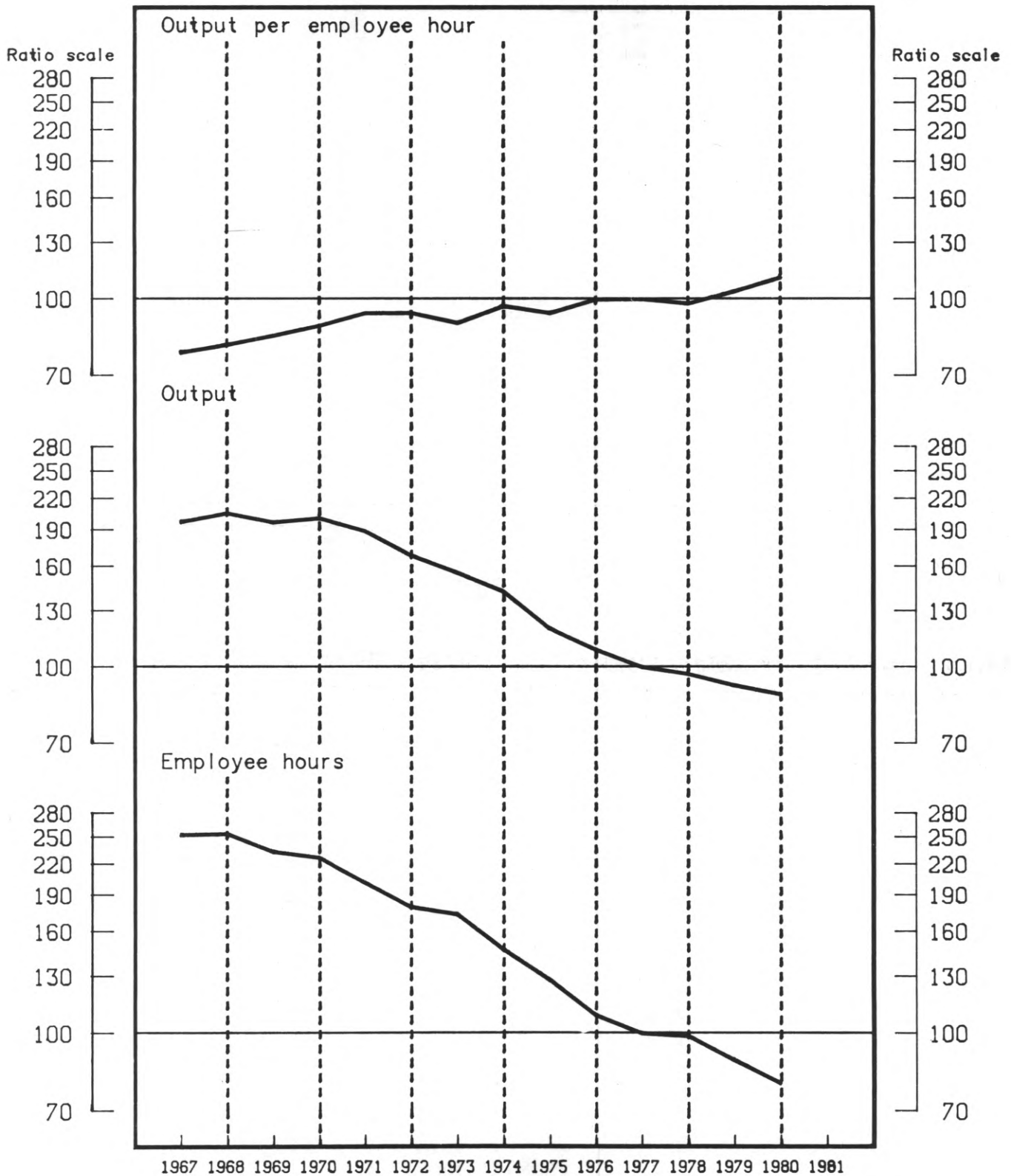
² Less than .05 percent.

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 29. Cigars (SIC 2121): Output per hour and related data, 1967-80

(1977 = 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, 1954-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	35.5	34.7	46.8	35.9	34.8	52.0
1955	35.8	35.0	45.7	35.9	34.9	50.4
1956	39.4	38.7	48.4	39.3	38.3	53.7
1957	42.1	41.4	51.3	42.2	41.2	56.9
1958	48.8	48.5	52.3	49.9	49.3	57.9
1959	53.0	52.9	54.6	54.8	54.3	60.4
1960	58.6	58.4	61.0	60.3	59.6	68.2
1961	62.1	62.6	57.5	64.3	64.3	64.8
1962	66.5	67.1	60.5	68.4	68.3	69.4
1963	71.6	71.7	68.8	73.5	73.1	78.8
1964	79.1	77.6	98.3	85.6	83.7	113.1
1965	81.5	81.5	81.6	84.2	83.3	93.5
1966	80.6	79.8	89.9	82.5	80.9	102.6
1967	78.0	79.2	67.4	80.0	80.4	76.9
1968	80.9	81.8	72.5	83.3	83.7	80.0
1969	84.4	85.6	74.0	87.2	87.9	81.3
1970	88.4	89.4	80.2	91.6	91.9	88.0
1971	93.7	93.8	92.8	97.1	96.6	101.9
1972	93.8	95.6	77.1	96.0	97.6	84.3
1973	89.5	90.2	82.7	92.1	92.2	90.7
1974	96.9	96.3	103.4	93.7	92.4	110.9
1975	93.7	95.2	79.9	94.0	95.2	83.8
1976	99.9	100.7	92.3	99.5	99.9	95.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.0	96.8	113.0	98.1	96.8	113.0
1979	103.8	103.6	106.7	104.0	103.6	107.1
1980 ²	110.8	111.7	102.0	111.2	112.1	102.8
Average annual percent change:						
1947-80	4.7	4.8	3.2	4.7	4.8	2.9
1975-80	2.7	2.5	5.2	2.8	2.6	4.4

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

² Preliminary.

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

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, 1954-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	179.4	505.8	517.5	383.6	500.0	515.5	345.2
1955	178.3	498.7	509.0	390.3	497.0	511.1	353.5
1956	177.5	450.1	458.4	366.9	452.1	463.9	330.8
1957	181.4	430.6	437.7	353.4	429.4	440.3	319.0
1958	190.5	390.1	392.8	363.9	381.5	386.2	328.8
1959	202.0	381.0	382.0	370.1	368.9	372.0	334.7
1960	206.1	351.6	352.9	337.8	342.0	345.9	302.1
1961	195.7	315.2	312.7	340.5	304.2	304.4	302.1
1962	196.8	295.9	293.5	325.2	287.9	288.0	283.5
1963	198.0	276.7	276.1	287.7	269.4	270.8	251.4
1964	255.9	323.5	329.9	260.4	298.8	305.7	226.2
1965	230.2	282.5	282.5	282.1	273.3	276.2	246.3
1966	207.5	257.5	259.9	230.8	251.6	256.5	202.3
1967	197.6	253.2	249.4	293.3	246.9	245.7	257.1
1968	205.7	254.4	251.6	283.6	246.9	245.7	257.1
1969	197.2	233.7	230.4	266.6	226.2	224.3	242.7
1970	201.0	227.3	224.9	250.7	219.5	218.7	228.5
1971	189.1	201.8	201.5	203.8	194.8	195.8	185.6
1972	168.6	179.7	176.3	218.8	175.6	172.7	200.0
1973	155.5	173.7	172.3	188.0	168.9	168.6	171.5
1974	142.5	147.1	147.9	137.8	152.1	154.3	128.5
1975	119.8	127.8	125.9	149.9	127.4	125.8	142.9
1976	108.5	108.6	107.7	117.6	109.1	108.6	114.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	96.8	98.8	100.0	85.7	98.7	100.0	85.7
1979	91.8	88.4	88.6	86.0	88.3	88.6	85.7
1980 ¹	88.1	79.5	78.9	86.4	79.2	78.6	85.7
Average annual percent change:							
1947-80	-1.4	-5.8	-5.9	-4.5	-5.8	-6.0	-4.2
1975-80	-5.7	-8.2	-8.0	-10.4	-8.3	-8.1	-9.7

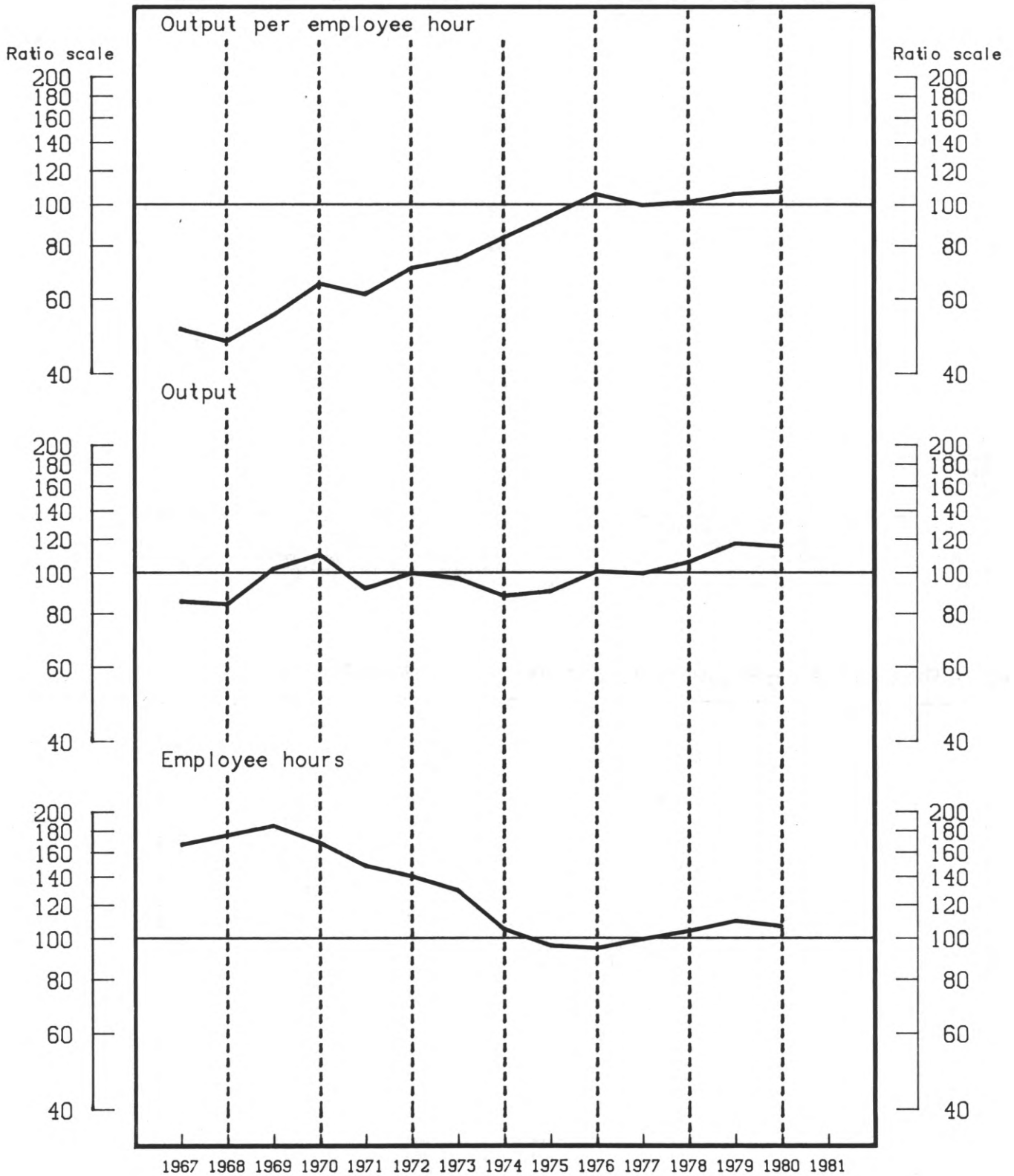
¹ Preliminary.

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

SOURCE: Output 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, 1967-80

(1977 = 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, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	23.9	23.3	32.0	23.8	23.0	34.0
1955	23.5	23.0	30.3	23.6	22.9	32.1
1956	24.0	23.5	30.4	24.0	23.3	32.2
1957	25.2	24.7	30.3	25.1	24.4	32.2
1958	29.7	29.3	33.7	29.2	28.7	35.7
1959	29.5	29.0	35.6	29.9	29.3	37.7
1960	30.3	29.7	37.0	30.6	29.8	39.3
1961	33.1	32.7	37.8	33.6	33.0	39.9
1962	34.3	33.9	38.8	34.8	34.2	41.1
1963	38.8	38.1	46.3	38.9	38.0	49.1
1964	41.4	40.6	50.4	42.6	41.6	53.6
1965	41.4	40.6	50.4	42.3	41.3	53.3
1966	45.5	44.8	53.2	47.0	46.1	56.0
1967	51.1	50.7	56.0	52.1	51.4	59.2
1968	47.9	47.7	49.9	49.0	48.5	54.6
1969	55.2	55.0	57.1	56.5	56.0	61.0
1970	65.5	65.8	63.6	63.5	63.2	66.6
1971	61.8	63.2	52.6	60.3	60.9	55.4
1972	71.2	72.6	61.5	71.9	72.8	64.8
1973	74.6	76.4	63.1	72.1	73.0	64.9
1974	84.0	85.9	71.0	80.5	81.7	70.9
1975	94.3	96.4	79.8	89.2	90.3	80.1
1976	106.4	107.9	96.7	105.1	106.1	97.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.8	102.3	98.2	102.7	103.3	98.2
1979	106.5	108.4	92.2	110.6	113.1	92.8
1980 ²	108.0	109.7	95.5	110.8	112.7	96.4
Average annual percent change:						
1947-80	6.1	6.3	4.6	6.0	6.2	4.4
1975-80	2.0	2.0	2.1	3.7	3.9	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 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, 1954-80
(1977 = 100)

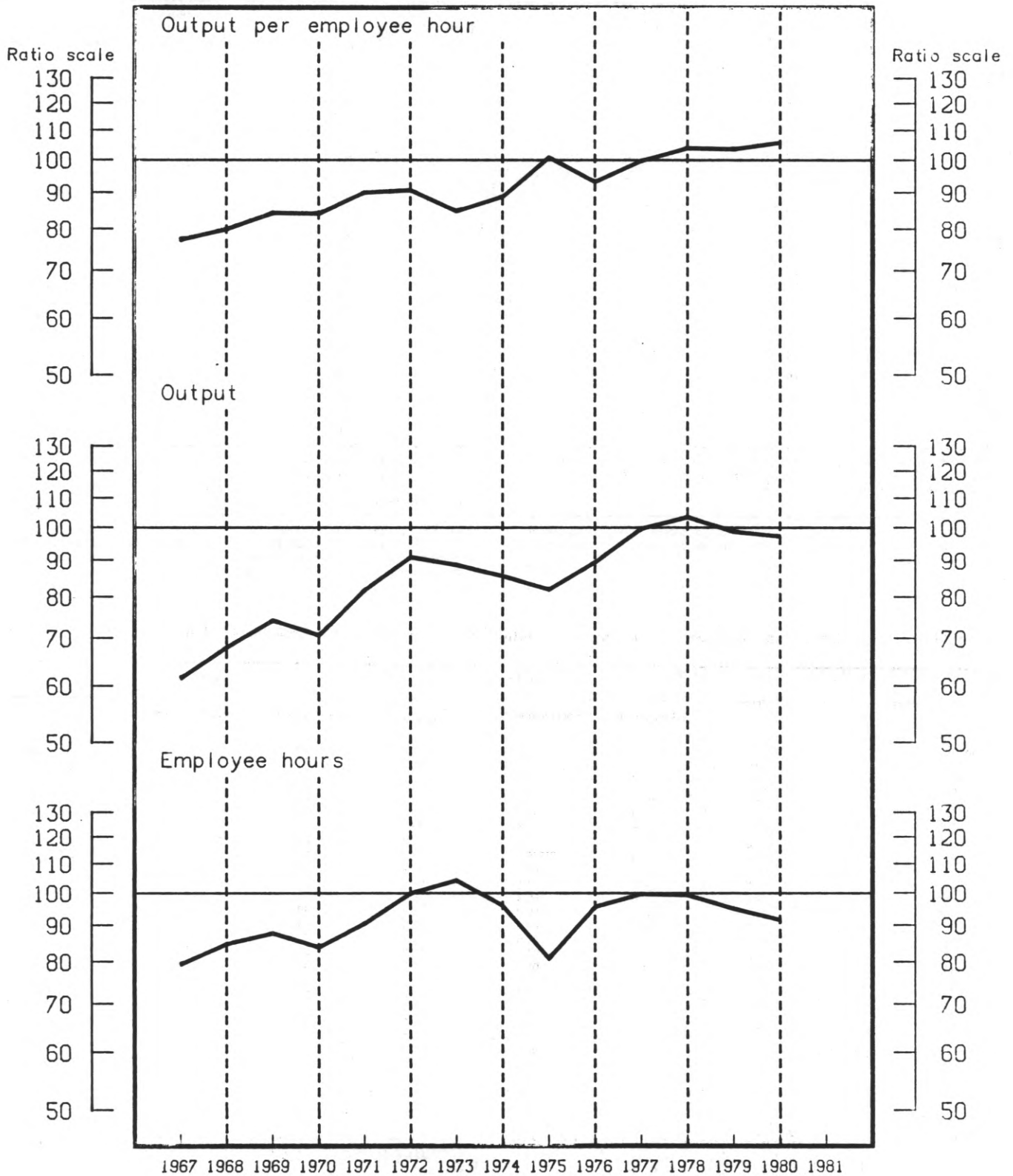
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	50.0	209.2	214.9	156.2	209.9	217.2	147.0
1955	50.7	215.3	220.5	167.5	215.2	221.7	158.1
1956	49.5	206.0	210.8	162.9	206.4	212.7	153.5
1957	49.5	196.8	200.5	163.2	197.5	202.7	153.9
1958	51.3	172.8	174.8	152.2	175.5	179.0	143.5
1959	54.0	182.9	186.3	151.8	180.4	184.6	143.2
1960	53.9	177.7	181.2	145.8	176.1	180.8	137.1
1961	59.0	178.0	180.4	156.0	175.6	179.0	147.7
1962	60.5	176.5	178.5	155.9	174.0	177.1	147.2
1963	62.7	161.7	164.5	135.4	161.3	165.1	127.8
1964	66.6	160.7	164.0	132.2	156.5	160.1	124.2
1965	70.2	169.6	172.8	139.4	165.9	169.8	131.7
1966	77.4	170.1	172.8	145.6	164.6	167.8	138.1
1967	85.8	167.8	169.2	153.1	164.7	166.9	144.9
1968	84.6	176.8	177.3	169.7	172.8	174.6	154.9
1969	102.7	186.1	186.6	179.8	181.7	183.3	168.3
1970	110.9	169.3	168.5	174.3	174.6	175.5	166.5
1971	92.2	149.2	146.0	175.2	152.9	151.3	166.5
1972	100.3	140.9	138.2	163.2	139.5	137.7	154.9
1973	97.3	130.4	127.4	154.1	134.9	133.2	149.9
1974	88.5	105.4	103.0	124.7	110.0	108.3	124.9
1975	90.8	96.3	94.2	113.8	101.8	100.5	113.3
1976	101.1	95.0	93.7	104.6	96.2	95.3	103.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.4	104.5	104.0	108.3	103.6	103.0	108.3
1979	117.6	110.4	108.5	127.5	106.3	104.0	126.7
1980 ¹	115.7	107.1	105.5	121.1	104.4	102.7	120.0
Average annual percent change:							
1947-80	3.2	-2.7	-2.8	-1.3	-2.6	-2.8	-1.1
1975-80	5.1	3.0	3.0	2.9	1.3	1.1	2.8

¹ Preliminary.

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

SOURCE: Output based on data from the 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. Yarn mills, except wool (SIC 2281): Output per hour and related data, 1967-80
 (1977 = 100)



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

Table 59. Yarn mills, except wool (SIC 2281): Indexes of output per employee hour and output per employee, 1958-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	59.5	58.7	71.9	54.0	52.7	74.8
1959	62.3	61.3	79.6	61.5	60.1	83.0
1960	65.3	64.2	82.0	62.0	60.5	85.0
1961	71.4	70.4	87.1	68.8	67.4	90.2
1962	74.7	73.6	94.0	73.5	71.9	97.4
1963	76.3	74.7	106.1	75.9	74.0	109.3
1964	80.6	79.9	91.3	83.1	82.4	94.4
1965	84.6	83.2	108.1	90.1	88.5	112.0
1966	81.8	79.9	120.2	85.5	83.3	123.5
1967	77.5	76.1	102.8	77.0	75.2	106.2
1968	80.2	78.9	102.4	81.9	80.0	112.2
1969	84.5	83.3	105.7	83.3	81.4	112.4
1970	84.3	83.6	96.7	82.2	80.9	101.0
1971	90.3	89.5	101.6	91.9	90.9	106.5
1972	91.0	90.2	105.3	94.6	93.5	110.5
1973	85.0	84.1	99.2	86.6	85.5	101.1
1974	89.1	89.4	87.1	84.8	84.6	86.9
1975	101.2	102.0	92.6	93.7	93.9	92.2
1976	93.5	93.1	100.1	91.8	91.2	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.2	104.1	105.4	103.5	103.3	105.3
1979	103.9	103.8	106.1	103.3	103.1	106.2
1980 ²	106.1	106.4	101.2	104.4	104.6	101.7
Average annual percent change:						
1958-80	2.3	2.4	.8	2.3	2.5	.6
1975-80	1.7	1.7	1.9	2.7	2.7	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 60. Yarn mills, except wool (SIC 2281): Indexes of output, employee hours, and employees, 1958-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	39.4	66.2	67.1	54.8	72.9	74.7	52.7
1959	44.8	71.9	73.1	56.3	72.9	74.6	54.0
1960	42.5	65.1	66.2	51.8	68.6	70.2	50.0
1961	45.1	63.2	64.1	51.8	65.6	66.9	50.0
1962	48.7	65.2	66.2	51.8	66.3	67.7	50.0
1963	50.3	65.9	67.3	47.4	66.3	68.0	46.0
1964	57.4	71.2	71.8	62.9	69.1	69.7	60.8
1965	66.5	78.6	79.9	61.5	73.8	75.1	59.4
1966	66.7	81.5	83.5	55.5	78.0	80.1	54.0
1967	61.7	79.6	81.1	60.0	80.1	82.0	58.1
1968	68.2	85.0	86.4	66.6	83.3	85.2	60.8
1969	74.4	88.0	89.3	70.4	89.3	91.4	66.2
1970	70.9	84.1	84.8	73.3	86.3	87.6	70.2
1971	82.0	90.8	91.6	80.7	89.2	90.2	77.0
1972	91.2	100.2	101.1	86.6	96.4	97.5	82.5
1973	88.9	104.6	105.7	89.6	102.7	104.0	87.9
1974	85.8	96.3	96.0	98.5	101.2	101.4	98.7
1975	82.2	81.2	80.6	88.8	87.7	87.5	89.2
1976	89.7	95.9	96.3	89.6	97.7	98.4	89.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.8	99.6	99.7	98.5	100.3	100.5	98.6
1979	99.0	95.3	95.4	93.3	95.8	96.0	93.2
1980 ¹	97.5	91.9	91.6	96.3	93.4	93.2	95.9
Average annual percent change:							
1958-80	4.5	2.1	2.0	3.6	2.1	1.9	3.8
1975-80	3.4	1.7	1.8	1.5	.7	.7	1.4

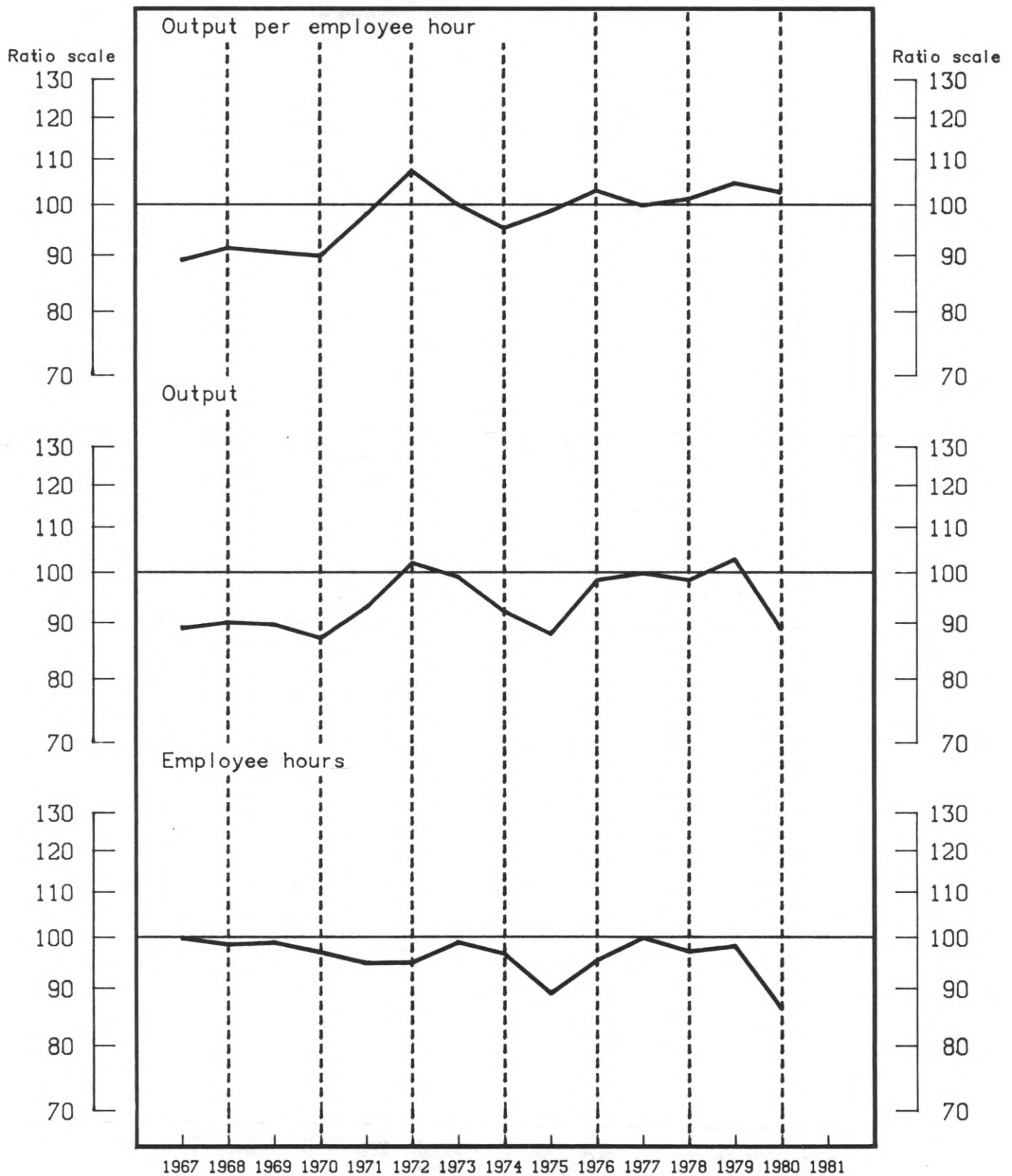
¹ Preliminary.

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

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

Chart 32. Sawmills and planing mills, general (SIC 2421): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 61. Sawmills and planing mills, general (SIC 2421): Indexes of output per employee hour and output per employee, 1958-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	65.2	66.7	55.3	61.3	62.0	55.6
1959	67.5	65.7	87.6	64.0	61.9	88.0
1960	67.1	65.4	86.1	65.3	63.4	86.1
1961	73.1	71.1	94.9	70.2	68.0	94.1
1962	76.4	74.0	104.4	74.1	71.6	103.0
1963	79.7	79.0	86.1	77.1	76.1	85.1
1964	84.7	84.3	87.4	83.4	82.9	86.6
1965	81.8	80.9	89.8	80.0	79.0	88.8
1966	82.7	81.6	93.0	80.6	79.3	91.4
1967	89.2	87.2	111.1	86.5	84.3	109.5
1968	91.5	90.0	106.1	89.9	88.2	106.7
1969	90.7	89.5	101.8	88.6	87.0	102.5
1970	90.0	90.1	89.2	88.0	87.7	90.6
1971	98.1	97.3	105.2	96.2	94.9	106.9
1972	107.6	106.8	114.1	107.5	106.5	116.0
1973	100.2	99.6	106.0	100.1	99.3	106.9
1974	95.4	95.9	91.5	93.2	93.5	91.3
1975	98.8	98.9	98.1	96.7	96.5	98.2
1976	103.2	103.1	103.2	102.2	102.0	103.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	102.1	96.0	99.7	100.2	96.1
1979	104.8	105.7	97.5	102.0	102.6	97.9
1980 ²	102.8	105.3	85.5	96.8	98.3	86.2
Average annual percent change:						
1958-80	2.1	2.3	.9	2.2	2.4	1.0
1975-80 .....	.7	1.2	-2.5	(³)	.3	-2.5

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

² Preliminary.

³ Less than .05 percent.

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

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

Table 62. Sawmills and planing mills, general (SIC 2421): Indexes of output, employee hours, and employees, 1958-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	86.0	131.9	129.0	155.6	140.3	138.6	154.6
1959	92.1	136.4	140.1	105.1	143.9	148.8	104.6
1960	89.6	133.6	137.0	104.1	137.3	141.4	104.1
1961	85.8	117.4	120.7	90.4	122.2	126.2	91.2
1962	88.7	116.1	119.8	85.0	119.7	123.9	86.1
1963	91.2	114.4	115.4	105.9	118.3	119.8	107.2
1964	94.7	111.8	112.3	108.3	113.5	114.2	109.3
1965	92.0	112.5	113.7	102.5	115.0	116.5	103.6
1966	89.6	108.4	109.8	96.3	111.2	113.0	98.0
1967	89.1	99.9	102.2	80.2	103.0	105.7	81.4
1968	90.2	98.6	100.2	85.0	100.3	102.3	84.5
1969	89.8	99.0	100.3	88.2	101.3	103.2	87.6
1970	87.3	97.0	96.9	97.9	99.2	99.6	96.4
1971	93.1	94.9	95.7	88.5	96.8	98.1	87.1
1972	102.2	95.0	95.7	89.6	95.1	96.0	88.1
1973	99.2	99.0	99.6	93.6	99.1	99.9	92.8
1974	92.3	96.7	96.2	100.9	99.0	98.7	101.1
1975	88.1	89.2	89.1	89.8	91.1	91.3	89.7
1976	98.6	95.5	95.6	95.5	96.5	96.7	94.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.6	97.2	96.6	102.7	98.9	98.4	102.6
1979	103.0	98.3	97.4	105.6	101.0	100.4	105.2
1980 ¹	88.9	86.5	84.4	104.0	91.8	90.4	103.1
Average annual percent change:							
1958-80 .....	.5	-1.6	-1.8	-.4	-1.7	-1.9	-.5
1975-80 .....	.5	-.3	-.7	3.1	.5	.1	3.0

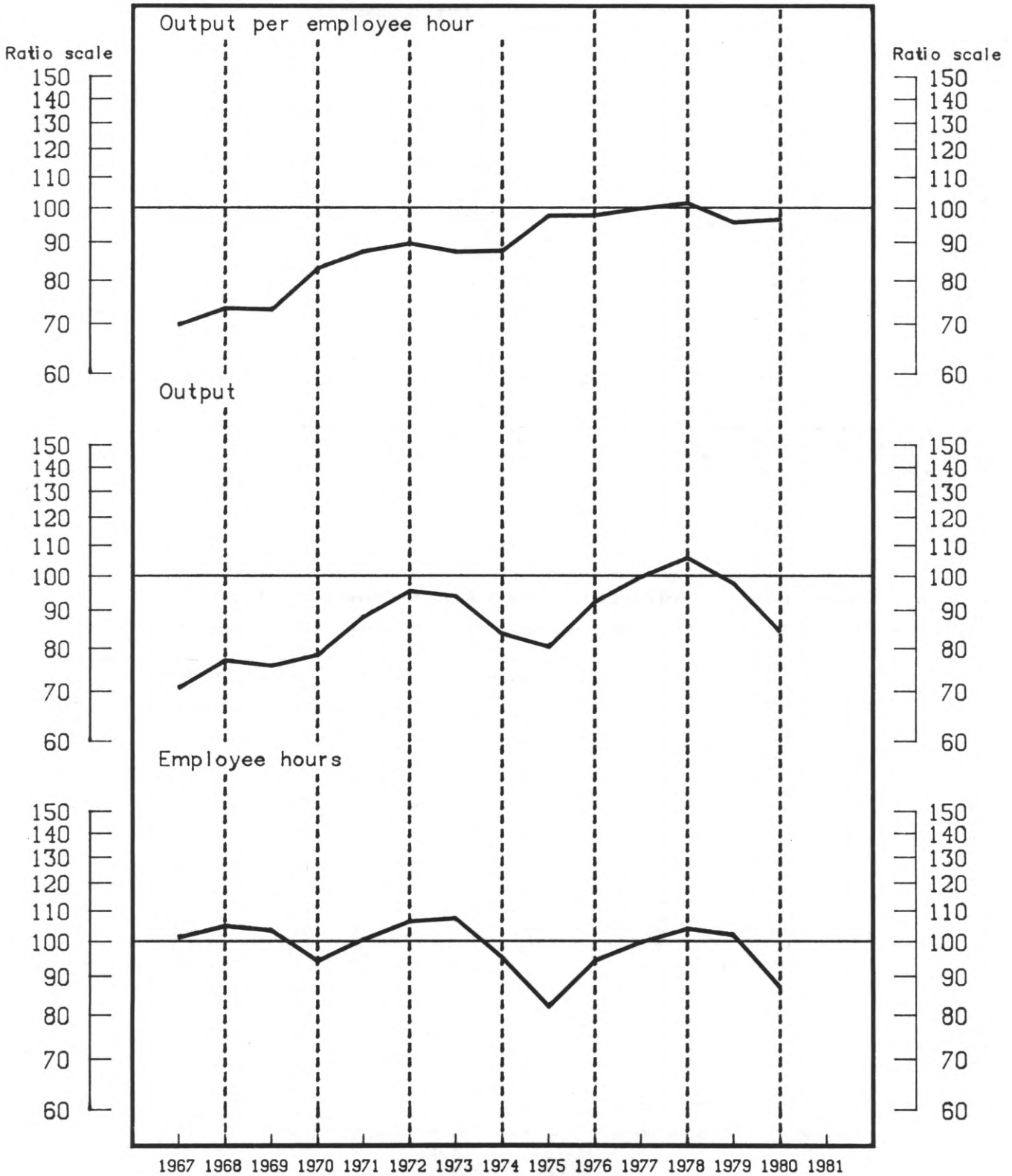
¹ Preliminary.

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 33. Veneer and plywood (SIC 2435, 2436): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 63. Veneer and plywood (SIC 2435, 2436): Indexes of output per employee hour and output per employee, 1958-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	41.7	40.4	55.2	41.4	40.0	56.7
1959	46.9	45.2	69.1	48.0	46.1	70.9
1960	49.3	47.7	67.7	48.3	46.6	69.1
1961	53.9	52.2	74.2	53.7	51.8	75.2
1962	58.3	56.1	86.1	59.0	56.7	86.8
1963	60.7	58.3	90.5	61.7	59.2	91.1
1964	62.6	60.4	89.1	64.1	61.9	89.6
1965	64.0	62.1	85.6	66.1	64.3	86.3
1966	64.3	62.5	83.3	65.8	64.0	83.9
1967	69.9	68.5	82.6	70.3	68.9	83.2
1968	73.5	71.7	91.1	75.2	73.7	89.4
1969	73.2	71.9	86.2	73.8	72.5	85.5
1970	83.2	83.0	83.7	82.2	82.0	83.7
1971	87.6	87.3	90.8	88.2	87.9	90.6
1972	89.8	88.7	98.6	93.1	92.5	98.2
1973	87.5	87.5	86.3	88.2	88.5	85.6
1974	87.8	88.7	80.7	85.9	86.7	79.9
1975	97.8	99.9	83.2	94.5	96.3	82.6
1976	97.9	98.0	96.3	97.6	97.9	96.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.7	102.2	97.5	101.3	101.8	97.6
1979	95.8	97.5	82.6	93.6	95.1	82.6
1980 ²	96.7	99.6	76.8	92.5	94.9	76.8
Average annual percent change:						
1958-80	3.9	4.2	1.1	3.8	4.1	1.0
1975-80	-3	(³)	-2.5	-6	-4	-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.

³ Less than .05 percent.

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

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

Table 64. Veneer and plywood (SIC 2435, 2436): Indexes of output, employee hours, and employees, 1958-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	34.3	82.2	84.8	62.1	82.8	85.7	60.5
1959	43.8	93.3	97.0	63.4	91.3	95.1	61.8
1960	42.7	86.6	89.5	63.1	88.4	91.7	61.8
1961	46.5	86.2	89.1	62.7	86.6	89.7	61.8
1962	54.6	93.6	97.3	63.4	92.5	96.3	62.9
1963	56.3	92.8	96.6	62.2	91.3	95.1	61.8
1964	62.0	99.0	102.7	69.6	96.7	100.1	69.2
1965	68.2	106.5	109.8	79.7	103.1	106.1	79.0
1966	72.5	112.8	116.0	87.0	110.2	113.2	86.4
1967	70.9	101.5	103.5	85.8	100.9	102.9	85.2
1968	77.2	105.1	107.7	84.7	102.7	104.7	86.4
1969	75.9	103.7	105.6	88.0	102.9	104.7	88.8
1970	78.5	94.4	94.6	93.8	95.5	95.7	93.8
1971	88.3	100.8	101.2	97.3	100.1	100.4	97.5
1972	95.7	106.6	107.9	97.1	102.8	103.5	97.5
1973	94.1	107.6	107.6	109.0	106.7	106.3	109.9
1974	83.8	95.4	94.5	103.9	97.5	96.6	104.9
1975	80.5	82.3	80.6	96.0	85.2	83.6	97.5
1976	92.5	94.5	94.4	96.1	94.8	94.5	96.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.0	104.2	103.7	108.7	104.6	104.1	108.6
1979	97.9	102.2	100.4	118.5	104.6	102.9	118.5
1980 ¹	84.4	87.3	84.7	109.9	91.2	88.9	109.9
Average annual percent change:							
1958-80	4.3	.3	(²)	3.1	.5	.2	3.2
1975-80	1.3	1.6	1.3	3.9	2.0	1.7	3.8

¹ Preliminary.

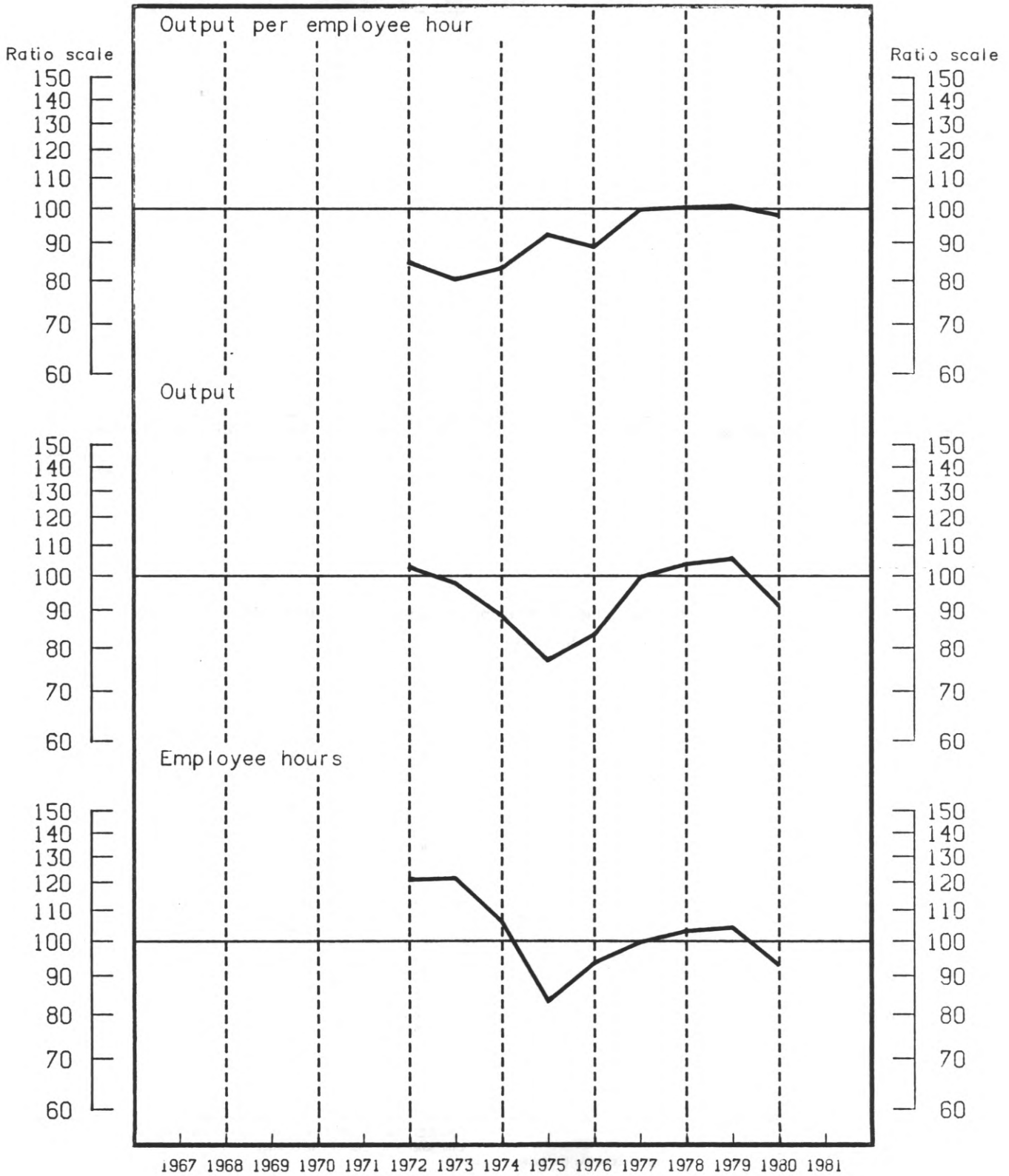
² Less than .05 percent.

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

SOURCE: Output 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 34. Hardwood veneer and plywood (SIC 2435): Output per hour and related data, 1972-80

(1977 = 100)



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

Table 65. Hardwood veneer and plywood (SIC 2435): Indexes of output per employee hour and output per employee, 1972-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	84.9	83.5	97.0	87.7	86.6	96.5
1973	80.5	78.8	95.5	81.8	80.4	94.9
1974	83.4	81.7	99.6	82.7	81.1	98.6
1975	92.5	92.4	93.5	89.6	89.2	92.8
1976	89.1	88.7	93.2	89.1	88.7	93.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	99.8	107.7	99.5	98.6	107.7
1979	101.2	101.1	102.4	99.7	99.4	102.4
1980 ²	98.2	99.0	91.5	94.7	95.2	91.5
Average annual percent change:						
1972-80	2.9	3.2	.3	2.3	2.6	.4
1975-80	2.0	2.1	.7	1.8	1.9	.8

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

² Preliminary.

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

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

Table 66. Hardwood veneer and plywood (SIC 2435): Indexes of output, employee hours, and employees, 1972-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	103.0	121.3	123.3	106.2	117.5	118.9	106.7
1973	98.0	121.8	124.3	102.6	119.8	121.9	103.3
1974	88.7	106.4	108.6	89.1	107.2	109.4	90.0
1975	77.3	83.6	83.7	82.7	86.3	86.7	83.3
1976	83.7	93.9	94.4	89.8	93.9	94.4	90.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	103.4	104.3	96.7	104.6	105.6	96.7
1979	105.8	104.5	104.6	103.3	106.1	106.4	103.3
1980 ¹	91.5	93.2	92.4	100.0	96.6	96.1	100.0
Average annual percent change:							
1972-80 .....	.6	-2.3	-2.6	.2	-1.7	-2.0	.1
1975-80	4.6	2.6	2.4	3.9	2.8	2.7	3.8

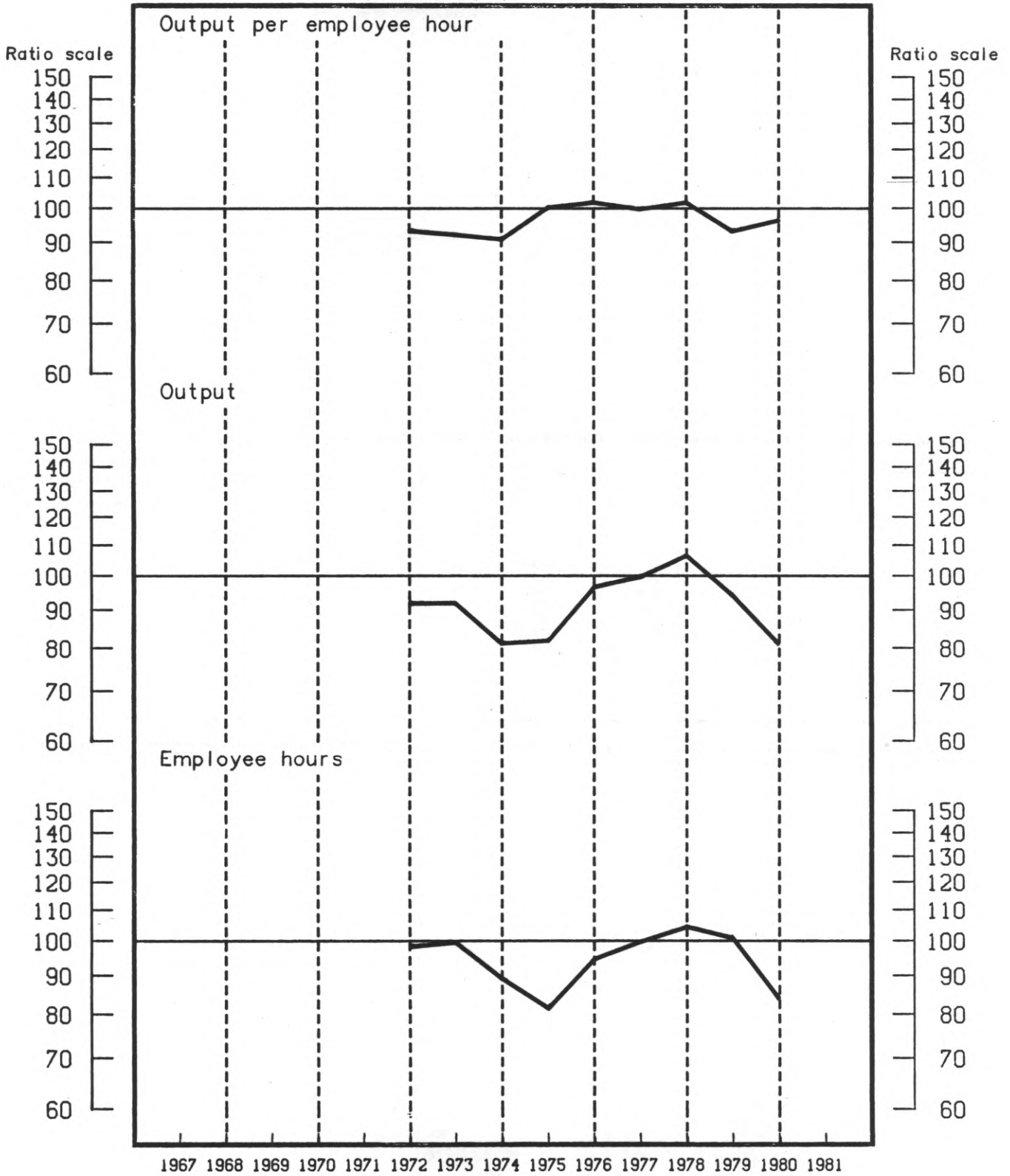
¹ Preliminary.

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

Chart 35. Softwood veneer and plywood (SIC 2436): Output per hour and related data, 1972-80

(1977 = 100)



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

Table 67. Softwood veneer and plywood (SIC 2436): Indexes of output per employee hour and output per employee, 1972-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	93.5	92.7	100.4	97.3	96.9	99.9
1973	92.4	93.8	81.7	92.8	94.5	81.1
1974	91.1	93.9	72.3	88.4	90.9	71.6
1975	100.5	104.1	78.1	97.0	100.0	77.5
1976	102.1	102.8	97.1	101.7	102.3	96.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.1	103.4	92.3	102.0	103.4	92.3
1979	93.4	96.3	74.1	90.9	93.5	74.0
1980 ²	96.6	101.0	70.2	92.0	95.6	70.2
Average annual percent change:						
1972-80 .....	.6	1.0	-1.6	.1	.3	-1.5
1975-80	-1.3	-9	-4.0	-1.6	-1.3	-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 the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Table 68. Softwood veneer and plywood (SIC 2436): Indexes of output, employee hours, and employees, 1972-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	92.1	98.5	99.3	91.7	94.7	95.0	92.2
1973	92.2	99.8	98.3	112.9	99.4	97.6	113.7
1974	81.4	89.4	86.7	112.6	92.1	89.5	113.7
1975	82.1	81.7	78.9	105.1	84.6	82.1	105.9
1976	96.9	94.9	94.3	99.8	95.3	94.7	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.8	104.6	103.3	115.7	104.7	103.3	115.7
1979	94.4	101.1	98.0	127.4	103.8	101.0	127.5
1980 ¹	81.2	84.1	80.4	115.7	88.3	84.9	115.7
Average annual percent change:							
1972-80 .....	.5	-.1	-.4	2.2	.5	.2	2.1
1975-80	-2	1.1	.7	4.0	1.5	1.1	3.8

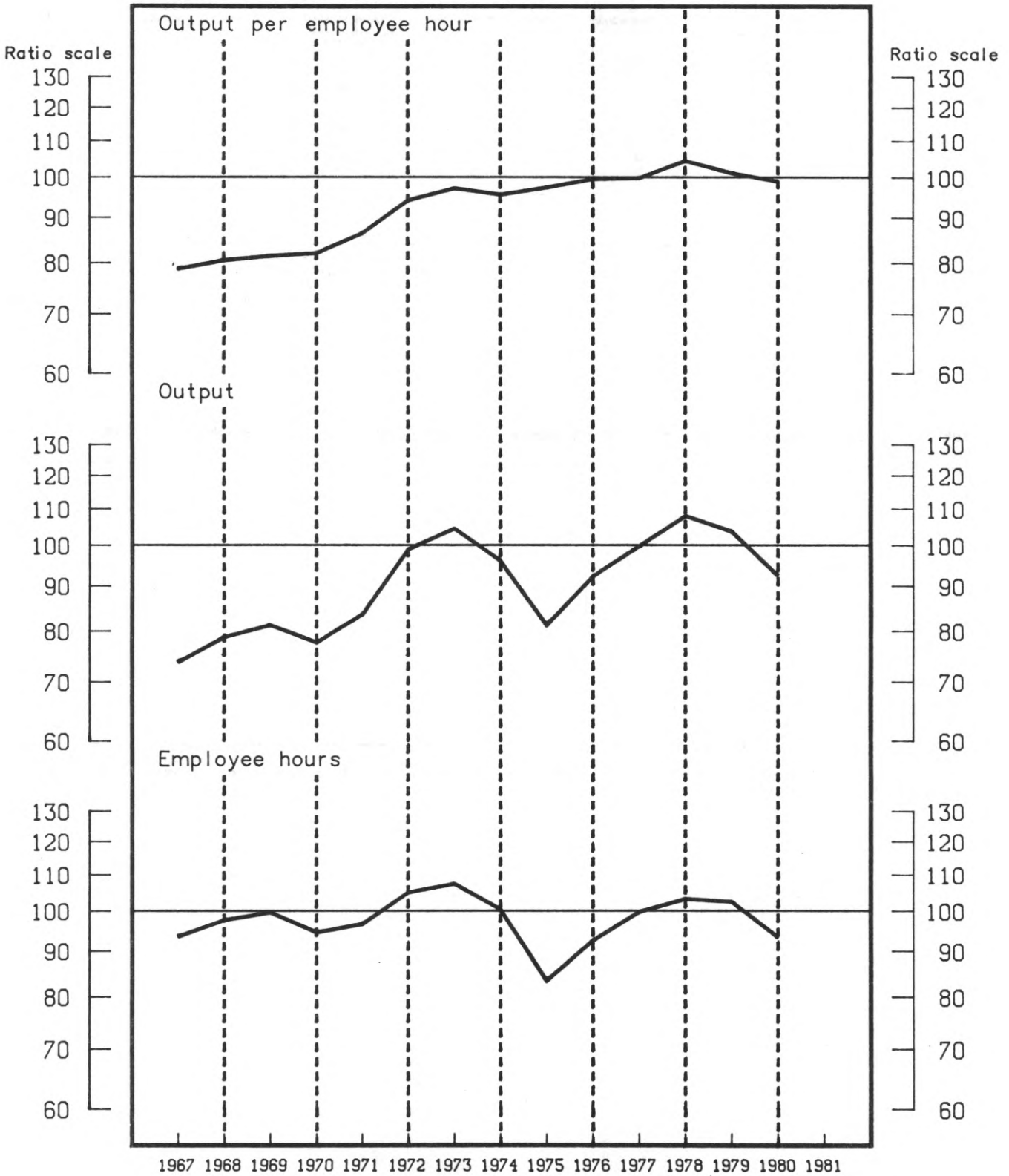
¹ Preliminary.

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

Chart 36. Household furniture (SIC 251): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 69. Household furniture (SIC 251): Indexes of output per employee hour and output per employee, 1958-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	65.8	66.2	64.6	67.9	68.3	65.3
1959	67.8	66.8	75.3	72.1	71.4	76.0
1960	67.1	66.4	72.0	70.6	70.2	72.6
1961	67.7	66.9	72.8	70.8	70.4	73.1
1962	69.8	68.6	77.7	74.3	73.7	78.1
1963	73.1	72.0	80.5	77.3	76.8	80.7
1964	74.6	73.6	81.1	79.5	79.0	81.9
1965	77.2	75.6	88.3	82.0	80.8	88.8
1966	78.7	77.0	90.4	83.5	82.4	90.4
1967	78.9	77.2	90.3	82.3	80.9	90.3
1968	80.7	79.8	87.3	85.4	84.0	93.9
1969	81.6	80.6	87.8	85.8	84.5	93.3
1970	82.2	82.2	82.9	85.5	85.1	87.2
1971	86.5	86.3	88.3	89.9	89.8	90.8
1972	94.3	93.7	98.1	96.9	96.6	97.8
1973	97.3	94.7	117.8	99.2	96.8	116.5
1974	95.7	95.9	95.2	95.6	96.0	93.0
1975	97.5	98.4	92.6	94.9	95.5	91.1
1976	99.7	100.2	97.3	99.0	99.2	96.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	104.7	104.3	105.9	106.2	104.2
1979	101.3	102.1	96.6	102.0	102.9	96.9
1980 ²	99.1	101.1	88.6	98.2	99.9	89.3
Average annual percent change:						
1958-80	2.3	2.4	1.6	1.9	2.0	1.6
1975-80 .....	.5	.7	-.6	.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 70. Household furniture (SIC 251): Indexes of output, employee hours, and employees, 1958-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	51.4	78.1	77.7	79.6	75.7	75.3	78.7
1959	58.8	86.7	88.0	78.1	81.5	82.3	77.4
1960	56.0	83.5	84.4	77.8	79.3	79.8	77.1
1961	54.0	79.8	80.7	74.2	76.3	76.7	73.9
1962	59.3	85.0	86.5	76.3	79.8	80.5	75.9
1963	63.1	86.3	87.6	78.4	81.6	82.2	78.2
1964	67.4	90.3	91.6	83.1	84.8	85.3	82.3
1965	72.7	94.2	96.2	82.3	88.7	90.0	81.9
1966	77.2	98.1	100.2	85.4	92.5	93.7	85.4
1967	73.9	93.7	95.7	81.8	89.8	91.3	81.8
1968	78.9	97.8	98.9	90.4	92.4	93.9	84.0
1969	81.4	99.8	101.0	92.7	94.9	96.3	87.2
1970	77.8	94.7	94.6	93.9	91.0	91.4	89.2
1971	83.7	96.8	97.0	94.8	93.1	93.2	92.2
1972	99.2	105.2	105.9	101.1	102.4	102.7	101.4
1973	104.7	107.6	110.6	88.9	105.5	108.2	89.9
1974	96.3	100.6	100.4	101.2	100.7	100.3	103.6
1975	81.5	83.6	82.8	88.0	85.9	85.3	89.5
1976	92.5	92.8	92.3	95.1	93.4	93.2	95.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.2	103.4	103.3	103.7	102.2	101.9	103.8
1979	103.9	102.6	101.8	107.6	101.9	101.0	107.2
1980 ¹	92.7	93.5	91.7	104.6	94.4	92.8	103.8
Average annual percent change:							
1958-80	3.2	.9	.8	1.5	1.2	1.2	1.6
1975-80	3.1	2.6	2.4	3.7	2.2	2.0	3.3

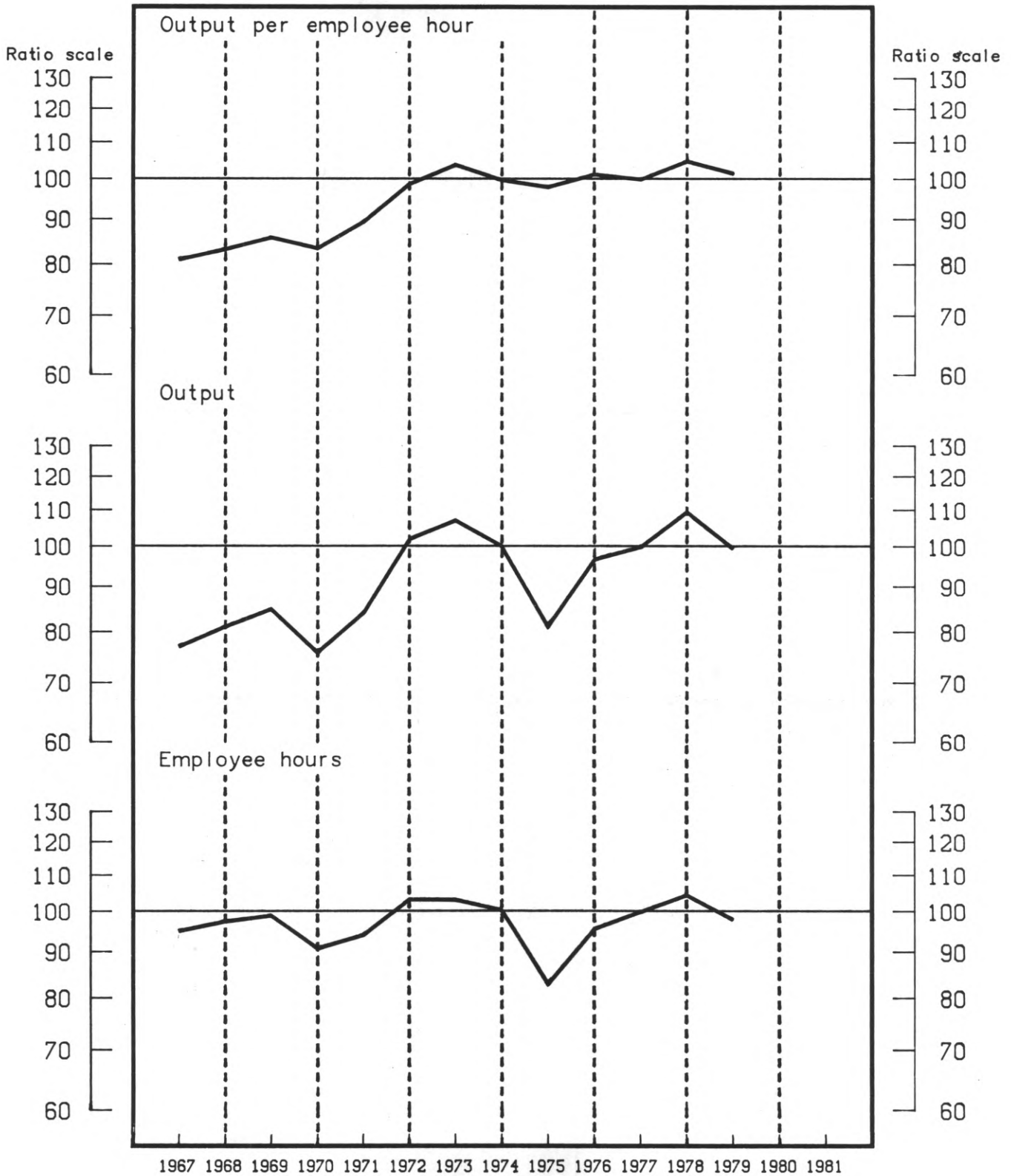
¹ Preliminary.

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

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

Chart 37. Wood household furniture (SIC 2511, 2517): Output per hour and related data, 1967-79

(1977 = 100)



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

Table 71. Wood household furniture (SIC 2511, 2517): Indexes of output per employee hour and output per employee, 1958-79
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	66.4	65.9	69.2	68.1	67.9	70.1
1959	68.4	66.8	82.3	72.5	71.1	83.3
1960	67.9	66.4	80.5	71.3	70.0	81.2
1961	68.3	66.9	78.9	70.9	69.9	79.0
1962	70.5	68.7	86.0	75.5	74.2	86.2
1963	74.8	73.0	91.7	79.7	78.2	92.2
1964	76.4	74.7	90.8	82.7	81.7	91.7
1965	78.9	76.5	101.2	84.7	82.7	101.8
1966	81.0	78.6	102.4	86.9	84.9	102.4
1967	81.1	78.8	100.5	84.5	82.6	100.5
1968	83.3	81.6	96.8	88.6	86.7	104.1
1969	85.9	84.5	97.4	90.5	89.0	103.3
1970	83.5	83.0	86.6	86.6	86.1	91.2
1971	89.5	89.0	92.7	92.2	91.8	95.2
1972	98.8	98.1	104.5	101.5	101.2	104.3
1973	103.9	98.4	179.9	105.8	100.6	178.1
1974	99.8	100.3	95.6	99.2	100.0	93.3
1975	98.0	99.5	87.2	93.1	94.2	85.8
1976	101.3	102.1	94.4	99.1	99.8	94.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.9	105.8	98.0	105.8	106.9	97.9
1979 ²	101.6	103.1	90.5	101.7	103.3	90.8
Average annual percent change:						
1958-79	2.4	2.6	1.2	2.0	2.1	1.1
1975-79	1.1	1.1	1.1	2.5	2.6	1.5

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

² Preliminary.

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

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

Table 72. Wood household furniture (SIC 2511, 2517): Indexes of output, employee hours, and employees, 1958-79
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	49.5	74.6	75.1	71.5	72.7	72.9	70.6
1959	57.7	84.3	86.4	70.1	79.6	81.1	69.3
1960	54.9	80.9	82.7	68.2	77.0	78.4	67.6
1961	52.7	77.2	78.8	66.8	74.3	75.4	66.7
1962	59.4	84.2	86.4	69.1	78.7	80.0	68.9
1963	65.1	87.0	89.2	71.0	81.7	83.3	70.6
1964	69.5	91.0	93.1	76.5	84.0	85.1	75.8
1965	74.9	94.9	97.9	74.0	88.4	90.6	73.6
1966	80.7	99.6	102.7	78.8	92.9	95.0	78.8
1967	77.1	95.1	97.8	76.7	91.2	93.3	76.7
1968	81.2	97.5	99.5	83.9	91.6	93.7	78.0
1969	85.0	99.0	100.6	87.3	93.9	95.5	82.3
1970	75.9	90.9	91.4	87.6	87.6	88.2	83.2
1971	84.2	94.1	94.6	90.8	91.3	91.7	88.4
1972	102.1	103.3	104.1	97.7	100.6	100.9	97.9
1973	107.2	103.2	108.9	59.6	101.3	106.6	60.2
1974	100.2	100.4	99.9	104.8	101.0	100.2	107.4
1975	81.4	83.1	81.8	93.4	87.4	86.4	94.9
1976	96.8	95.6	94.8	102.5	97.7	97.0	102.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.6	104.5	103.6	111.8	103.6	102.5	111.9
1979 ¹	99.6	98.0	96.6	110.0	97.9	96.4	109.7
Average annual percent change:							
1958-79	3.5	1.1	.9	2.3	1.5	1.3	2.3
1975-79	5.4	4.3	4.3	4.2	2.9	2.8	3.8

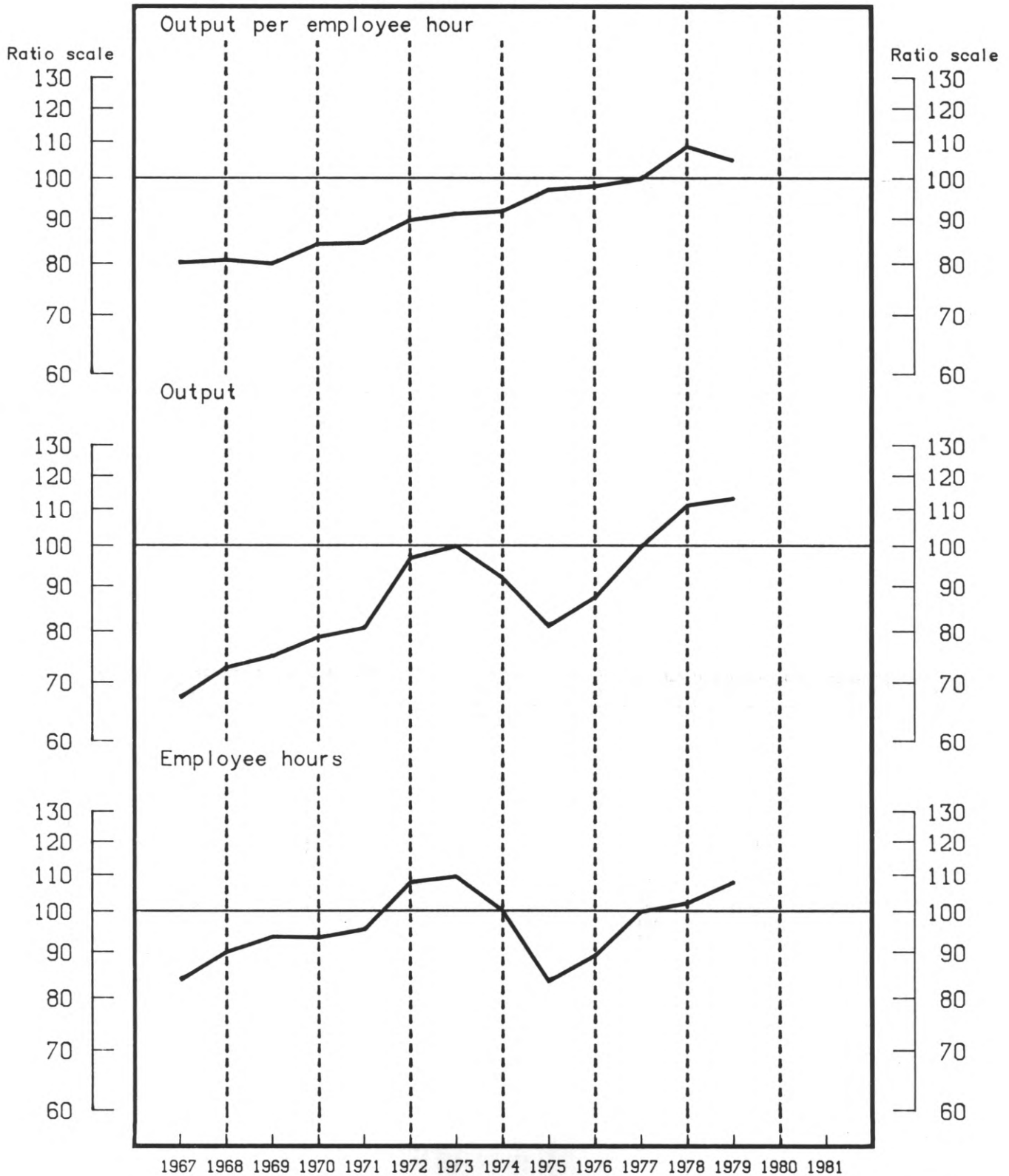
¹ Preliminary.

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

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

Chart 38. Upholstered household furniture (SIC 2512): Output per hour and related data, 1967-79

(1977 = 100)



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

Table 73. Upholstered household furniture (SIC 2512): Indexes of output per employee hour and output per employee, 1958-79
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	71.7	72.2	69.7	75.4	76.4	70.4
1959	73.9	72.9	80.2	80.5	80.5	81.0
1960	72.6	72.3	74.6	78.0	78.6	75.2
1961	74.1	72.5	84.1	79.2	78.3	84.5
1962	74.9	73.2	85.3	81.6	80.9	86.2
1963	76.3	75.6	81.1	81.3	81.3	81.8
1964	78.2	77.3	83.2	82.1	81.9	84.0
1965	80.2	78.8	88.9	85.2	84.7	89.3
1966	81.9	80.5	91.1	86.2	85.6	91.4
1967	80.3	78.8	90.3	85.1	84.4	90.3
1968	80.9	79.4	90.7	86.2	84.5	97.7
1969	80.1	79.1	86.8	85.3	84.4	92.6
1970	84.4	83.5	90.1	89.5	88.7	94.8
1971	84.6	83.4	92.7	91.0	90.4	95.4
1972	89.8	88.8	95.3	94.0	93.8	95.2
1973	91.3	90.8	94.1	94.0	94.1	93.1
1974	91.9	91.1	96.0	92.8	92.7	93.6
1975	97.2	96.6	100.9	97.4	97.0	99.0
1976	98.1	97.6	101.7	98.5	98.1	101.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.8	108.0	113.1	111.0	110.5	113.0
1979 ²	104.9	103.8	111.5	106.2	105.4	111.6
Average annual percent change:						
1958-79	1.9	1.9	1.7	1.5	1.5	1.6
1975-79	2.6	2.5	3.1	3.0	2.9	3.6

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 74. Upholstered household furniture (SIC 2512): Indexes of output, employee hours, and employees, 1958-79
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	48.5	67.6	67.2	69.6	64.3	63.5	68.9
1959	55.8	75.5	75.5	69.6	69.3	69.3	68.9
1960	54.5	75.1	75.4	73.1	69.9	69.3	72.5
1961	52.8	71.3	72.8	62.8	66.7	67.4	62.5
1962	57.5	76.8	78.5	67.4	70.5	71.1	66.7
1963	58.1	76.1	76.9	71.6	71.5	71.5	71.0
1964	62.7	80.2	81.1	75.4	76.4	76.6	74.6
1965	67.3	83.9	85.4	75.7	79.0	79.5	75.4
1966	70.8	86.4	87.9	77.7	82.1	82.7	77.5
1967	67.4	83.9	85.5	74.6	79.2	79.9	74.6
1968	72.9	90.1	91.8	80.4	84.6	86.3	74.6
1969	75.1	93.7	95.0	86.5	88.0	89.0	81.1
1970	78.9	93.5	94.5	87.6	88.2	89.0	83.2
1971	80.8	95.5	96.9	87.2	88.8	89.4	84.7
1972	97.0	108.0	109.2	101.8	103.2	103.4	101.9
1973	100.1	109.6	110.2	106.4	106.5	106.4	107.5
1974	92.2	100.3	101.2	96.0	99.4	99.5	98.5
1975	81.3	83.6	84.2	80.6	83.5	83.8	82.1
1976	87.6	89.3	89.8	86.1	88.9	89.3	86.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	111.3	102.3	103.1	98.4	100.3	100.7	98.5
1979 ¹	113.3	108.0	109.2	101.6	106.7	107.5	101.5
Average annual percent change:							
1958-79	3.8	1.9	1.9	2.1	2.3	2.3	2.2
1975-79	9.5	6.7	6.8	6.1	6.3	6.4	5.7

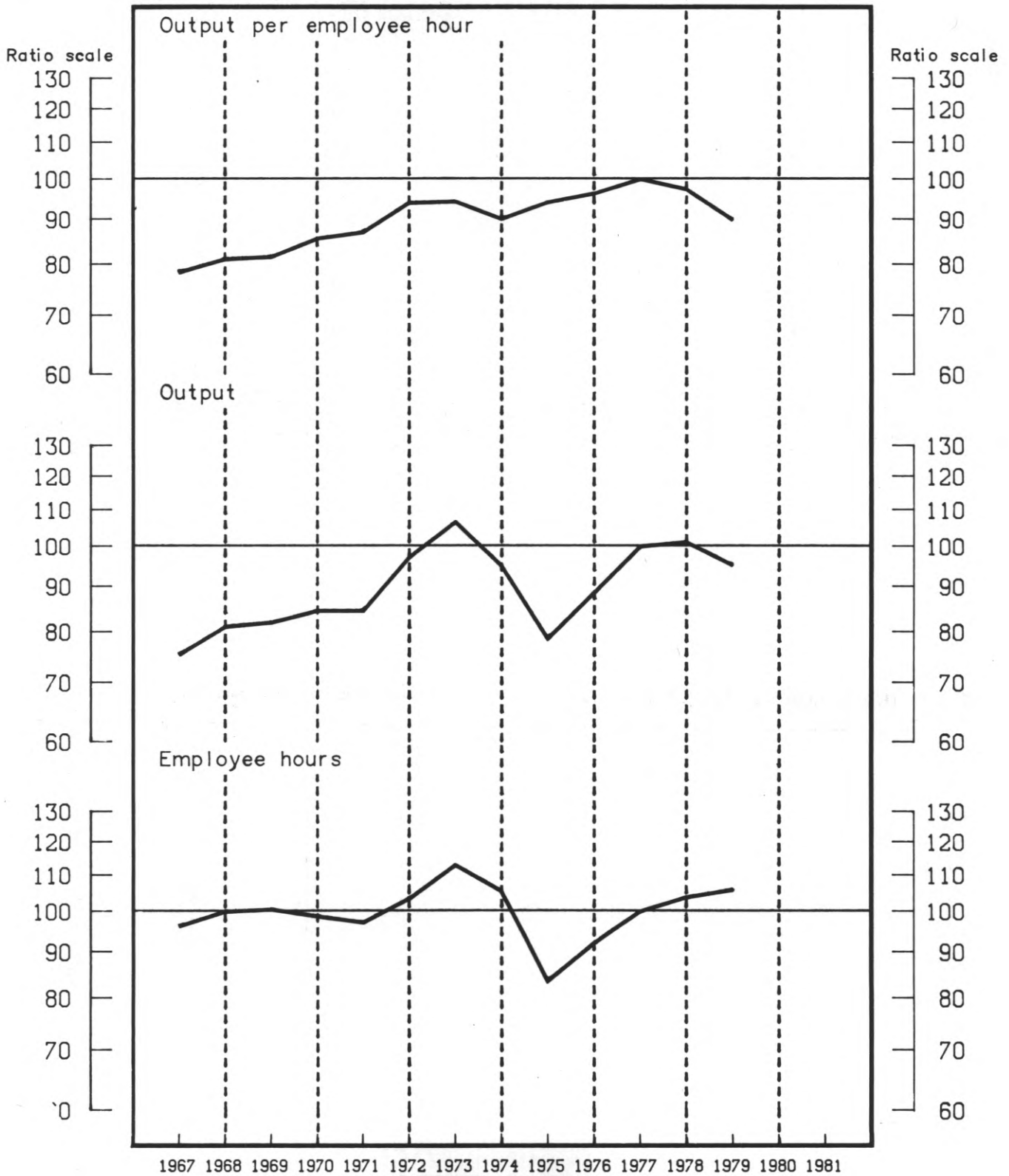
¹ Preliminary.

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 39. Metal household furniture (SIC 2514): Output per hour and related data, 1967-79

(1977 = 100)



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

Table 75. Metal household furniture (SIC 2514): Indexes of output per employee hour and output per employee, 1958-79
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	66.7	67.5	63.6	69.1	70.2	64.1
1959	67.0	65.1	77.4	70.4	68.9	78.3
1960	64.6	63.4	71.3	67.7	66.9	72.1
1961	65.6	64.4	72.3	68.2	67.4	72.2
1962	68.9	67.2	78.1	71.7	70.3	78.6
1963	73.8	72.8	78.4	76.6	76.2	78.3
1964	74.2	73.1	80.2	77.7	77.0	81.2
1965	77.5	76.5	82.4	80.5	80.0	82.7
1966	75.8	75.3	78.2	79.9	80.3	78.0
1967	78.4	77.3	83.9	80.7	80.0	84.1
1968	81.1	81.8	78.2	84.0	83.9	84.0
1969	81.6	80.7	86.0	83.0	81.3	91.4
1970	85.6	86.5	81.5	86.6	86.7	86.0
1971	87.0	87.7	83.7	89.0	89.7	86.0
1972	94.0	93.4	97.2	93.8	93.1	97.2
1973	94.3	93.4	99.3	95.9	95.4	98.1
1974	90.1	91.2	85.6	89.2	90.5	83.6
1975	94.1	96.9	83.3	92.4	94.9	81.5
1976	96.3	97.7	90.3	96.5	98.0	90.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	97.4	96.6	101.1	98.4	97.9	101.1
1979 ²	89.9	90.8	85.7	91.9	93.2	86.2
Average annual percent change:						
1958-79	2.1	2.3	1.5	1.9	2.0	1.4
1975-79	-8	-1.4	1.7	.1	-4	2.3

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

² Preliminary.

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

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

Table 76. Metal household furniture (SIC 2514): Indexes of output, employee hours, and employees, 1958-79
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	63.0	94.4	93.4	99.1	91.2	89.7	98.3
1959	68.9	102.9	105.8	89.0	97.9	100.0	88.0
1960	64.7	100.2	102.1	90.8	95.5	96.7	89.7
1961	61.0	93.0	94.7	84.4	89.4	90.5	84.5
1962	62.4	90.6	92.8	79.9	87.0	88.7	79.4
1963	67.6	91.6	92.8	86.2	88.2	88.7	86.3
1964	72.8	98.1	99.6	90.8	93.7	94.5	89.7
1965	75.6	97.6	98.8	91.7	93.9	94.5	91.4
1966	75.3	99.3	100.0	96.3	94.3	93.8	96.6
1967	75.4	96.2	97.5	89.9	93.4	94.2	89.7
1968	81.1	100.0	99.2	103.7	96.6	96.7	96.6
1969	82.0	100.5	101.6	95.4	98.8	100.8	89.7
1970	84.5	98.7	97.7	103.7	97.6	97.5	98.3
1971	84.5	97.1	96.3	100.9	94.9	94.2	98.3
1972	97.2	103.4	104.1	100.0	103.6	104.4	100.0
1973	106.6	113.0	114.1	107.4	111.1	111.7	108.7
1974	95.1	105.5	104.3	111.1	106.6	105.1	113.8
1975	78.7	83.6	81.2	94.5	85.2	82.9	96.6
1976	88.7	92.1	90.8	98.2	91.9	90.5	98.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.1	103.8	104.7	100.0	102.7	103.3	100.0
1979 ¹	95.2	105.9	104.9	111.1	103.6	102.2	110.4
Average annual percent change:							
1958-79	2.4	.3	.1	.9	.5	.4	1.0
1975-79	5.2	6.1	6.8	3.5	5.2	5.7	2.9

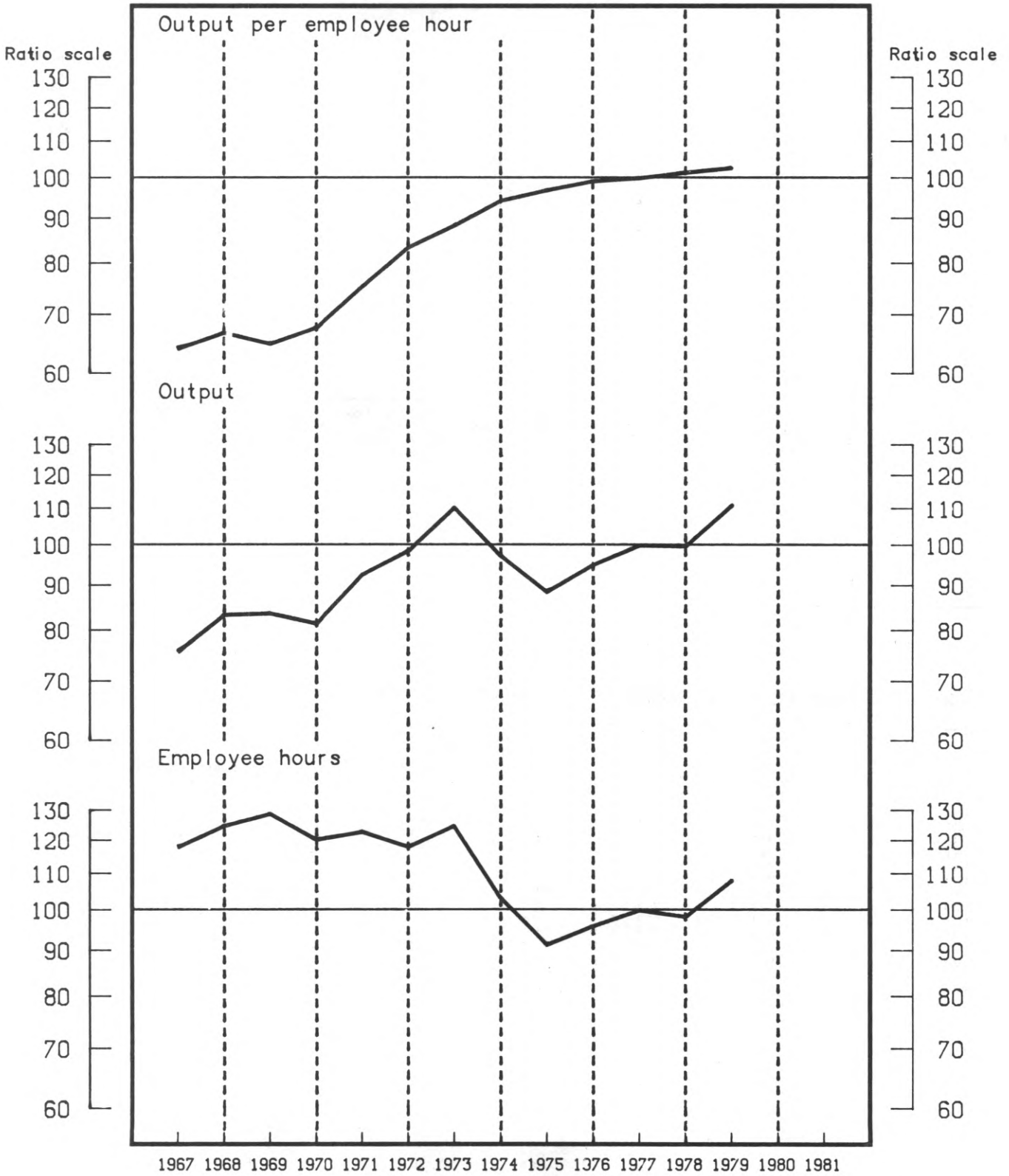
¹ Preliminary.

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

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

Chart 40. Mattresses and bedsprings (SIC 2515): Output per hour and related data, 1967-79

(1977 = 100)



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

Table 77. Mattresses and bedsprings (SIC 2515): Indexes of output per employee hour and output per employee, 1958-79
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	51.2	50.0	55.1	51.9	50.9	55.8
1959	51.9	50.5	56.7	53.9	53.0	57.1
1960	53.2	52.7	54.8	54.6	54.3	55.6
1961	53.1	53.2	52.3	55.0	55.8	52.5
1962	55.5	55.4	55.6	57.1	57.5	56.1
1963	57.5	56.9	59.4	59.4	59.4	59.8
1964	59.1	58.8	59.8	61.0	61.2	60.2
1965	61.3	60.2	65.2	63.4	62.7	65.6
1966	62.4	60.6	69.1	64.2	62.8	69.1
1967	64.1	62.2	71.0	65.5	63.9	71.2
1968	66.8	65.9	69.6	70.1	68.7	75.2
1969	64.9	63.7	68.8	68.2	66.9	73.4
1970	67.7	67.2	69.0	70.5	69.9	72.4
1971	75.4	74.3	78.9	77.2	76.0	81.2
1972	83.5	82.3	87.6	84.8	83.9	87.6
1973	88.4	86.1	96.8	88.7	86.7	95.5
1974	94.3	92.4	100.8	93.2	91.5	99.0
1975	96.9	94.9	104.2	95.7	93.6	103.0
1976	99.2	98.3	101.9	99.5	99.0	101.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.5	100.0	106.1	100.8	99.3	106.5
1979 ²	102.7	103.5	99.5	104.0	105.4	100.1
Average annual percent change:						
1958-79	3.9	3.9	3.8	3.7	3.7	3.7
1975-79	1.4	1.9	-5	1.8	2.4	-1

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

² Preliminary.

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

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

Table 78. Mattresses and bedsprings (SIC 2515): Indexes of output, employee hours, and employees, 1958-79
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	61.0	119.2	121.9	110.8	117.5	119.9	
1959	65.1	125.5	128.8	114.9	120.8	122.9	
1960	61.7	115.9	117.0	112.5	113.1	113.6	
1961	61.5	115.9	115.6	117.5	111.9	110.2	
1962	66.7	120.2	120.4	119.9	116.8	116.1	
1963	66.3	115.3	116.5	111.6	111.6	111.7	
1964	68.7	116.3	116.8	114.9	112.6	112.2	
1965	74.9	122.2	124.5	114.9	118.2	119.4	
1966	76.6	122.8	126.5	110.8	119.3	121.9	
1967	75.7	118.1	121.7	106.6	115.6	118.5	
1968	83.4	124.9	126.5	119.9	119.0	121.4	
1969	83.7	128.9	131.3	121.6	122.7	125.2	
1970	81.5	120.4	121.2	118.2	115.6	116.6	
1971	92.7	122.9	124.7	117.5	120.0	121.9	
1972	98.6	118.1	119.8	112.5	116.3	117.5	
1973	110.4	124.9	128.2	114.1	124.5	127.3	
1974	97.4	103.3	105.4	96.6	104.5	106.4	
1975	88.6	91.4	93.4	85.0	92.6	94.7	
1976	95.1	95.9	96.7	93.3	95.6	96.1	
1977	100.0	100.0	100.0	100.0	100.0	100.0	
1978	99.8	98.3	99.8	94.1	99.0	100.5	
1979 ¹	111.0	108.1	107.2	111.6	106.7	105.3	
Average annual percent change:							
1958-79	2.9	-9	-9	-8	-7	-7	
1975-79	5.1	3.7	3.1	5.7	3.2	2.6	

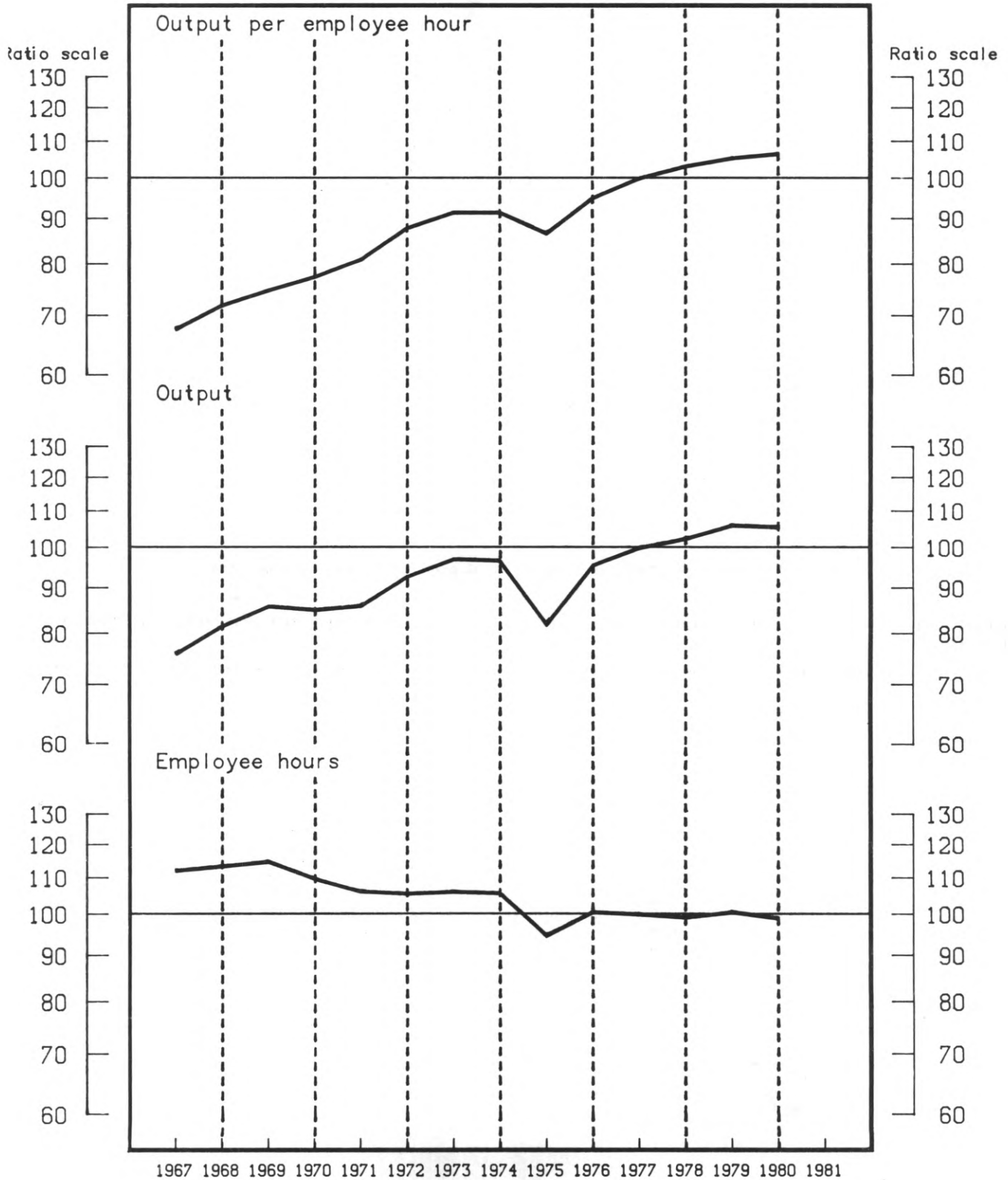
¹ Preliminary.

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

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

Chart 41. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 79. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Indexes of output per employee hour and output per employee, 1954-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	40.4	37.9	56.3	42.5	39.6	58.3
1955	43.2	40.4	62.4	46.4	43.2	64.2
1956	45.1	42.5	61.2	48.2	45.2	63.2
1957	45.1	42.9	57.8	47.0	44.4	59.6
1958	46.2	44.1	58.2	47.9	45.2	60.0
1959	49.0	46.9	60.8	51.8	49.5	62.6
1960	50.6	48.8	59.8	52.9	50.9	61.6
1961	53.9	52.2	62.3	56.2	54.3	63.9
1962	56.0	54.2	65.4	58.5	56.5	67.3
1963	59.3	57.4	68.7	62.0	60.0	70.6
1964	62.3	60.3	73.1	65.8	63.6	75.5
1965	65.4	63.7	74.6	68.8	66.9	76.7
1966	68.7	66.9	78.1	72.8	70.9	79.9
1967	67.6	66.1	75.0	70.7	69.3	76.7
1968	71.9	69.9	82.3	75.8	73.7	84.0
1969	74.8	72.5	86.0	78.7	76.6	86.5
1970	77.5	75.8	85.7	79.5	78.0	85.1
1971	81.0	80.1	85.1	83.6	82.8	86.3
1972	87.9	86.7	93.1	91.6	90.5	96.0
1973	91.5	90.2	98.3	94.9	93.2	101.6
1974	91.5	90.5	95.2	93.6	92.4	98.2
1975	86.7	87.7	82.3	85.9	86.1	84.3
1976	95.0	95.0	95.1	95.9	95.6	96.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.2	103.7	101.2	103.5	104.3	101.1
1979	105.4	106.2	102.1	105.6	106.5	102.4
1980 ²	106.6	108.1	100.2	106.0	107.5	100.9
Average annual percent change:						
1947-80	3.9	4.2	2.1	3.6	4.0	2.0
1975-80	4.0	4.1	3.5	4.0	4.3	3.1

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

² Preliminary.

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

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

Table 80. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Indexes of output, employee hours, and employees, 1954-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	41.4	102.5	109.1	73.5	97.4	104.6	71.0
1955	46.4	107.3	114.9	74.4	100.0	107.5	72.3
1956	49.2	109.1	115.7	80.4	102.1	108.8	77.9
1957	47.9	106.3	111.7	82.9	102.0	107.9	80.4
1958	48.1	104.2	109.1	82.6	100.5	106.3	80.1
1959	53.6	109.4	114.4	88.1	103.4	108.3	85.6
1960	54.8	108.3	112.2	91.6	103.6	107.7	89.0
1961	56.5	104.9	108.3	90.7	100.6	104.1	88.4
1962	59.5	106.3	109.8	91.0	101.7	105.4	88.4
1963	62.7	105.8	109.2	91.3	101.1	104.5	88.8
1964	66.7	107.0	110.6	91.3	101.3	104.8	88.4
1965	70.6	107.9	110.9	94.7	102.6	105.6	92.1
1966	76.1	110.8	113.8	97.5	104.6	107.3	95.3
1967	75.9	112.2	114.8	101.2	107.3	109.6	98.9
1968	81.6	113.5	116.8	99.2	107.7	110.7	97.1
1969	85.9	114.9	118.5	99.9	109.2	112.1	99.3
1970	85.1	109.8	112.2	99.3	107.1	109.1	100.0
1971	86.0	106.2	107.3	101.0	102.9	103.9	99.6
1972	92.8	105.6	107.0	99.7	101.3	102.5	96.7
1973	97.1	106.1	107.7	98.8	102.3	104.2	95.6
1974	96.7	105.7	106.8	101.6	103.3	104.7	98.5
1975	82.1	94.7	93.6	99.7	95.6	95.3	97.4
1976	95.6	100.6	100.6	100.5	99.7	100.0	98.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.4	99.2	98.7	101.2	98.9	98.2	101.3
1979	106.0	100.6	99.8	103.8	100.4	99.5	103.5
1980 ¹	105.5	99.0	97.6	105.3	99.5	98.1	104.6
Average annual percent change:							
1947-80	4.0	.1	-.2	1.8	.3	(²)	1.9
1975-80	4.6	.6	.5	1.1	.6	.3	1.5

¹ Preliminary.

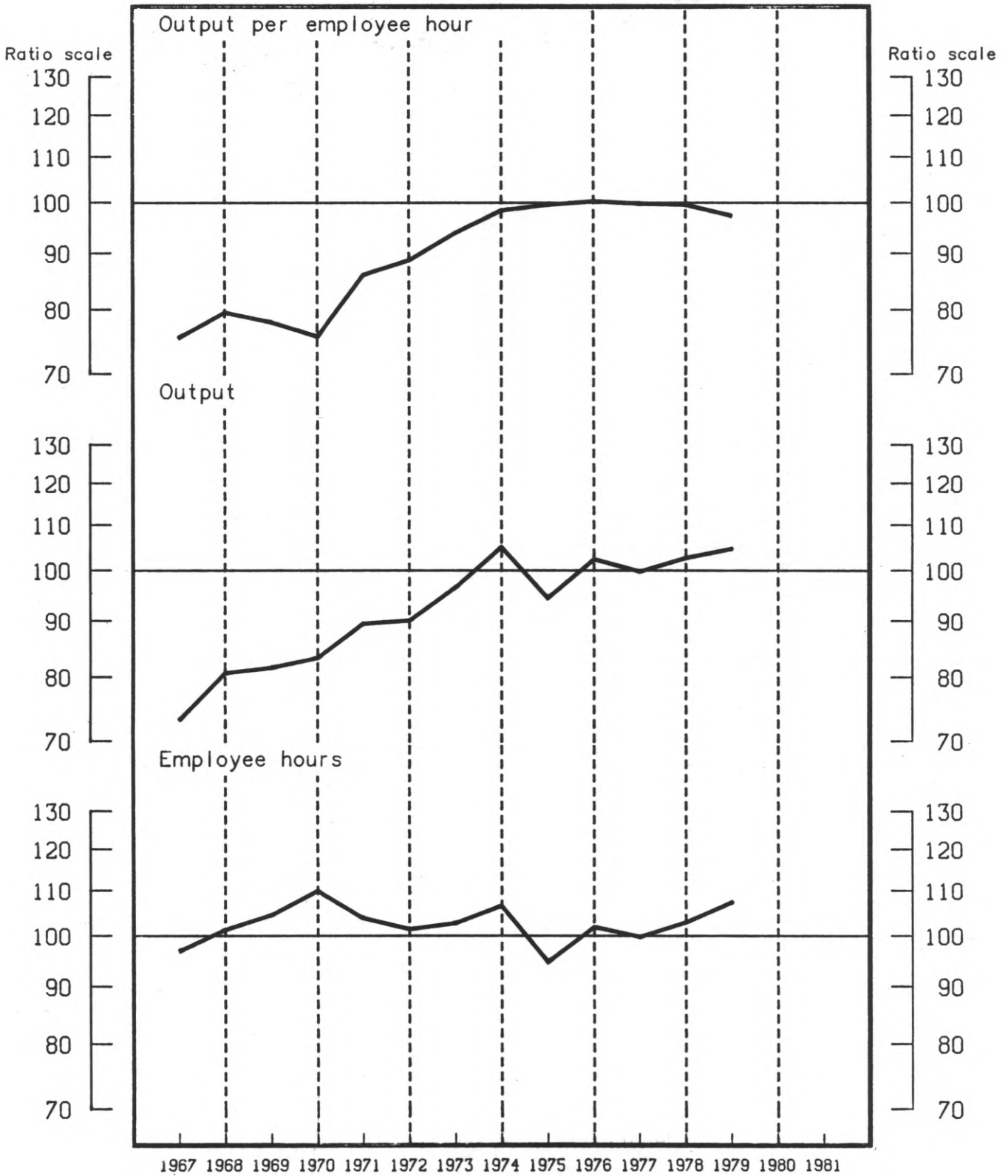
² Less than .05 percent.

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

Chart 42. Paper and plastic bags (SIC 2643): Output per hour and related data, 1967-79
 (1977 = 100)



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

Table 81. Paper and plastic bags (SIC 2643): Indexes of output per employee hour and output per employee, 1954-79
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	55.2	53.0	66.6	56.2	53.6	69.1
1955	57.9	55.7	69.4	59.7	57.2	71.7
1956	55.5	54.2	61.8	56.2	54.5	64.0
1957	56.5	55.2	62.7	57.8	56.2	64.9
1958	57.6	56.9	61.0	58.0	56.9	63.0
1959	60.4	60.0	62.3	61.1	60.3	64.1
1960	61.1	60.3	64.9	58.7	56.9	67.0
1961	65.0	63.8	70.4	64.1	62.3	72.5
1962	66.7	65.5	72.2	65.9	64.0	74.3
1963	69.7	68.8	73.6	70.5	69.3	75.8
1964	69.3	68.7	71.7	71.2	70.5	74.2
1965	72.7	72.6	73.1	74.4	74.1	75.4
1966	72.4	71.9	74.6	75.0	74.7	76.3
1967	75.6	75.2	77.2	77.1	76.7	78.9
1968	79.7	78.9	83.2	83.1	82.6	85.2
1969	78.1	78.2	78.0	80.4	80.8	78.6
1970	75.8	74.4	82.2	76.5	75.2	81.9
1971	86.2	85.1	91.3	86.9	85.5	92.6
1972	88.9	88.7	89.4	90.5	90.0	92.1
1973	94.1	94.3	92.7	95.3	95.1	95.8
1974	98.6	96.5	108.3	99.4	96.6	112.0
1975	99.8	100.4	97.4	94.5	93.3	99.7
1976	100.5	100.1	102.1	98.6	97.3	103.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.8	99.4	101.9	101.3	101.1	101.9
1979 ²	97.5	97.6	97.3	97.0	96.7	97.9
Average annual percent change:						
1954-79	2.8	2.9	2.2	2.7	2.8	2.1
1975-79	-5	-6	(³)	.8	1.1	-5

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

² Preliminary.

³ Less than .05 percent.

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

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

Table 82. Paper and plastic bags (SIC 2643): Indexes of output, employee hours, and employees, 1954-79
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	38.4	69.6	72.4	57.7	68.3	71.6	55.6
1955	42.0	72.6	75.4	60.5	70.4	73.4	58.6
1956	42.6	76.7	78.6	68.9	75.8	78.1	66.6
1957	44.6	79.0	80.8	71.1	77.2	79.3	68.7
1958	46.4	80.5	81.5	76.1	80.0	81.6	73.7
1959	50.5	83.6	84.2	81.1	82.7	83.7	78.8
1960	49.4	80.8	81.9	76.1	84.2	86.8	73.7
1961	52.0	80.0	81.5	73.9	81.1	83.5	71.7
1962	54.1	81.1	82.6	74.9	82.1	84.5	72.8
1963	61.3	88.0	89.1	83.3	86.9	88.4	80.9
1964	63.7	91.9	92.7	88.9	89.5	90.4	85.9
1965	67.0	92.1	92.3	91.6	90.1	90.4	88.9
1966	72.5	100.1	100.8	97.2	96.7	97.1	95.0
1967	73.3	97.0	97.5	95.0	95.1	95.6	92.9
1968	80.9	101.5	102.5	97.2	97.3	97.9	95.0
1969	81.8	104.7	104.6	104.9	101.8	101.2	104.1
1970	83.5	110.2	112.2	101.6	109.2	111.1	102.0
1971	89.7	104.0	105.4	98.3	103.2	104.9	96.9
1972	90.3	101.6	101.8	101.0	99.8	100.3	98.0
1973	96.8	102.9	102.6	104.4	101.6	101.8	101.0
1974	105.3	106.8	109.1	97.2	105.9	109.0	94.0
1975	94.7	94.9	94.3	97.2	100.2	101.5	95.0
1976	102.6	102.1	102.5	100.5	104.1	105.4	99.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.9	103.1	103.5	101.0	101.6	101.8	101.0
1979 ¹	104.9	107.6	107.5	107.8	108.2	108.5	107.1
Average annual percent change:							
1954-79	4.4	1.6	1.5	2.1	1.7	1.5	2.2
1975-79	2.1	2.6	2.8	2.1	1.3	1.0	2.6

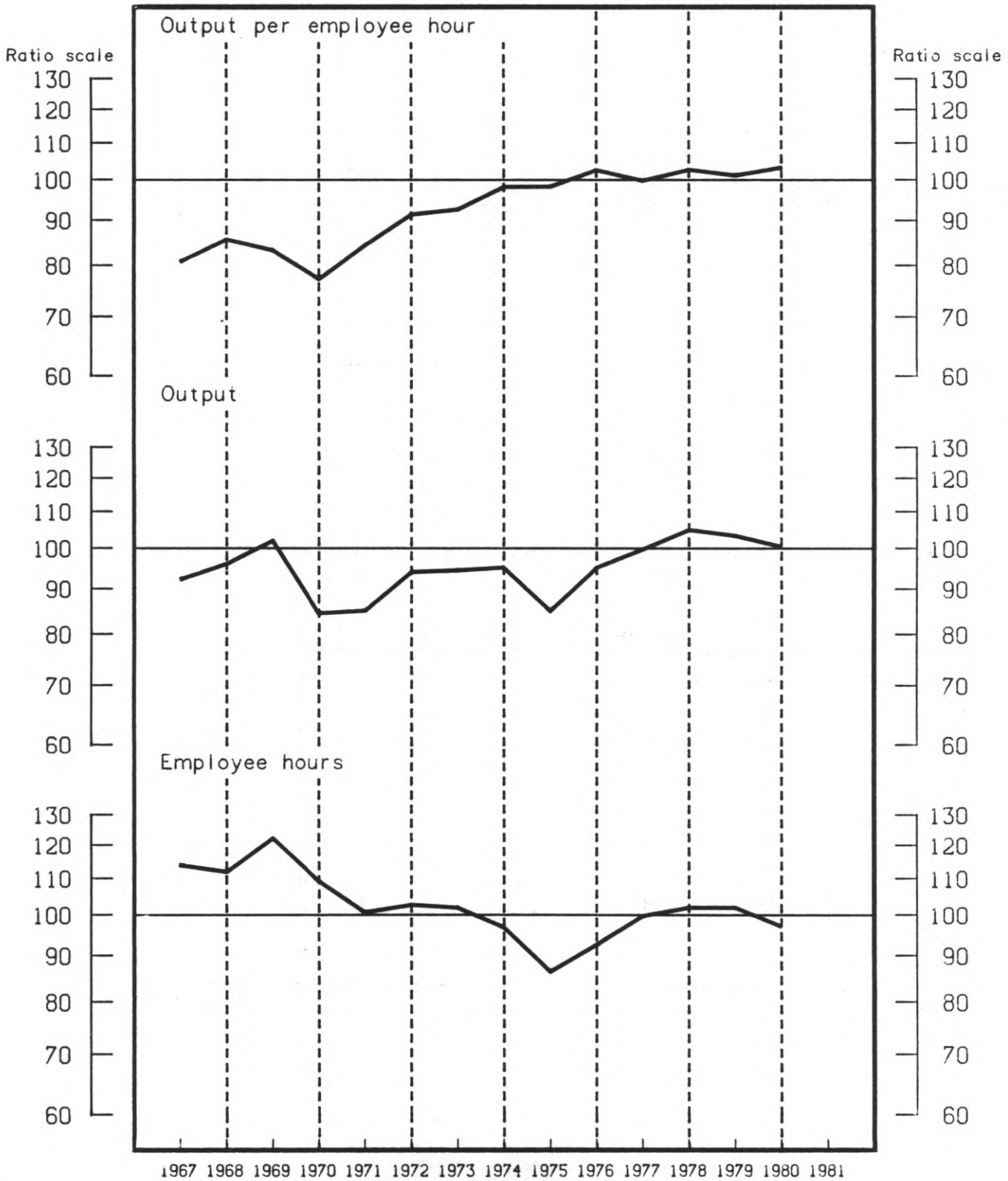
¹ Preliminary.

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

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

Chart 43. Folding paperboard boxes (SIC 2651): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 83. Folding paperboard boxes (SIC 2651): Indexes of output per employee hour and output per employee, 1963-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	75.8	75.2	79.2	78.0	77.2	81.3
1964	77.5	76.8	81.3	80.6	79.8	84.2
1965	73.5	72.9	76.5	76.5	76.0	78.6
1966	74.0	73.4	77.1	76.9	76.2	79.1
1967	81.0	80.9	81.9	83.9	83.8	84.0
1968	85.8	84.8	91.3	88.6	87.5	93.1
1969	83.4	82.3	89.6	85.5	84.3	90.1
1970	77.4	77.1	78.8	77.8	77.5	78.5
1971	84.5	84.9	83.2	85.0	85.0	84.4
1972	91.6	91.6	92.5	92.5	91.6	95.3
1973	92.8	92.6	94.0	93.5	92.6	96.8
1974	98.4	99.4	94.7	98.8	99.0	97.5
1975	98.5	100.6	90.3	99.5	101.4	92.5
1976	102.8	103.7	99.7	105.1	106.0	101.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.9	103.2	102.0	103.1	103.4	101.7
1979	101.4	101.1	103.0	102.9	102.8	103.6
1980 ²	103.5	104.0	101.3	105.4	106.3	101.8
Average annual percent change:						
1963-80	2.3	2.4	1.8	2.1	2.2	1.6
1975-80	.7	.3	2.0	.7	.5	1.6

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

² Preliminary.

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

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

Table 84. Folding paperboard boxes (SIC 2651): Indexes of output, employee hours, and employees, 1963-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	89.5	118.0	119.0	113.0	114.8	116.0	110.1
1964	89.8	115.9	116.9	110.5	111.4	112.6	106.7
1965	88.3	120.2	121.1	115.5	115.4	116.2	112.3
1966	93.3	126.1	127.1	121.0	121.4	122.4	118.0
1967	92.5	114.2	114.3	113.0	110.3	110.4	110.1
1968	96.3	112.2	113.6	105.5	108.7	110.0	103.4
1969	102.3	122.6	124.3	114.2	119.6	121.3	113.5
1970	84.7	109.5	109.8	107.5	108.9	109.3	107.9
1971	85.3	100.9	100.5	102.5	100.4	100.3	101.1
1972	94.3	102.9	103.0	101.9	102.0	102.9	98.9
1973	94.7	102.1	102.3	100.7	101.3	102.3	97.8
1974	95.4	97.0	96.0	100.7	96.6	96.4	97.8
1975	85.3	86.6	84.8	94.5	85.7	84.1	92.2
1976	95.4	92.8	92.0	95.7	90.8	90.0	94.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.2	102.2	101.9	103.1	102.0	101.7	103.4
1979	103.6	102.2	102.5	100.6	100.7	100.8	100.0
1980 ¹	100.7	97.3	96.8	99.4	95.5	94.7	98.9
Average annual percent change:							
1963-80	.7	-1.5	-1.6	-1.1	-1.3	-1.4	-.9
1975-80	3.3	2.6	2.9	1.2	2.5	2.8	1.6

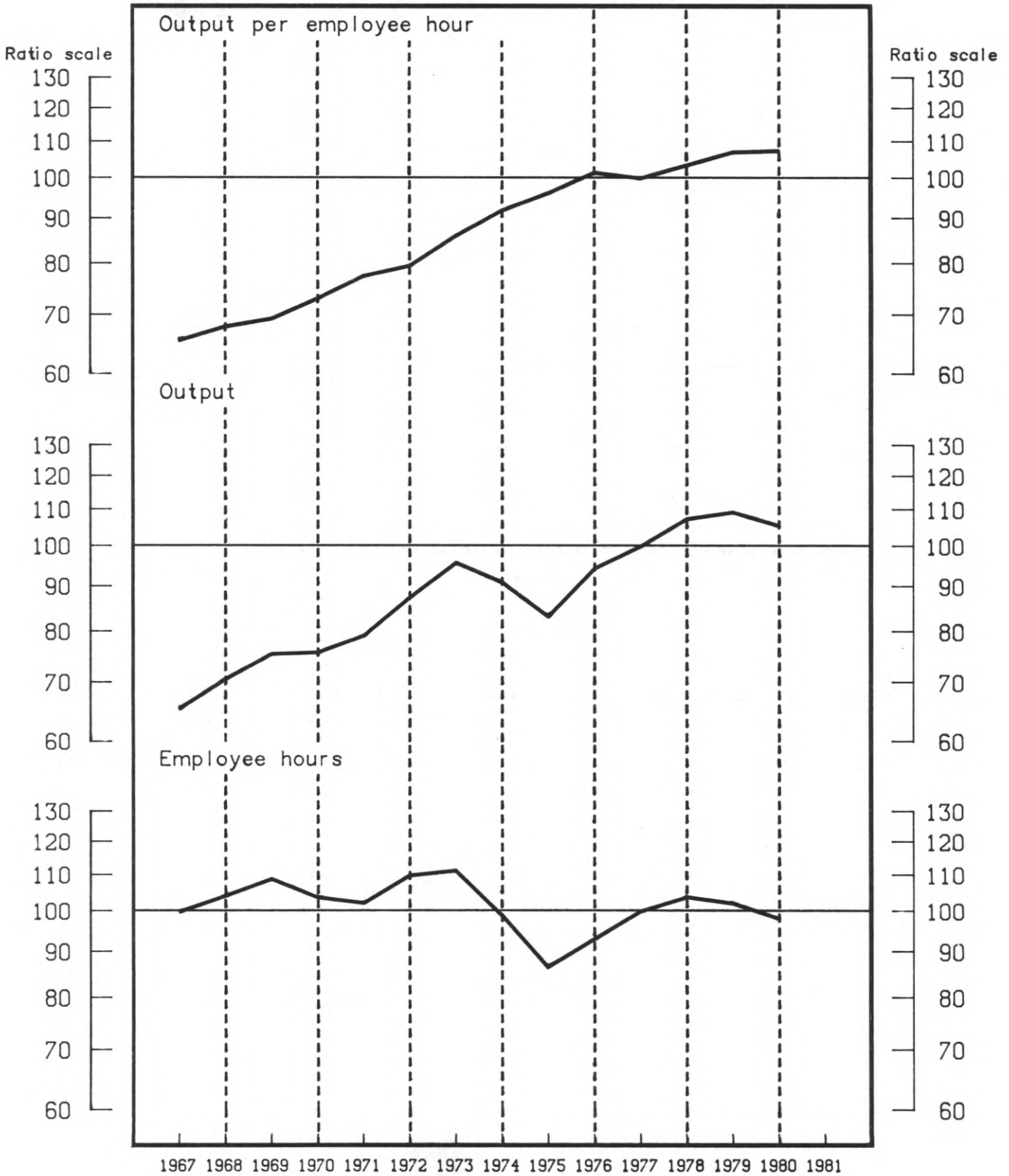
¹ Preliminary.

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

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

Chart 44. Corrugated and solid fiber boxes (SIC 2653): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 83. Metal household furniture (SIC 2514): Indexes of output per employee hour and output per employee, 1958-81 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	66.7	67.5	63.6	69.1	70.2	64.1
1959	67.0	65.1	77.4	70.4	68.9	78.3
1960	64.6	63.4	71.3	67.7	66.9	72.1
1961	65.6	64.4	72.3	68.2	67.4	72.2
1962	68.9	67.2	78.1	71.7	70.3	78.6
1963	73.8	72.8	78.4	76.6	76.2	78.3
1964	74.2	73.1	80.2	77.7	77.0	81.2
1965	77.5	76.5	82.4	80.5	80.0	82.7
1966	75.8	75.3	78.2	79.9	80.3	78.0
1967	78.4	77.3	83.9	80.7	80.0	84.1
1968	81.1	81.8	78.2	84.0	83.9	84.0
1969	81.6	80.7	86.0	83.0	81.3	91.4
1970	85.6	86.5	81.5	86.6	86.7	86.0
1971	87.0	87.7	83.7	89.0	89.7	86.0
1972	94.0	93.4	97.2	93.8	93.1	97.2
1973	94.3	93.4	99.3	95.9	95.4	98.1
1974	90.1	91.2	85.6	89.2	90.5	83.6
1975	94.1	96.9	83.3	92.4	94.9	81.5
1976	96.3	97.7	90.3	96.5	98.0	90.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	97.4	96.6	101.1	98.4	97.9	101.1
1979	89.9	90.8	85.8	91.9	93.2	86.3
1980	93.1	92.9	93.9	92.3	91.9	94.4
1981 ²	97.9	98.6	95.1	99.1	99.9	95.6
Average annual percent change:						
1958-81	2.0	2.1	1.4	1.7	1.8	1.3
1977-81	-9	-7	-1.7	-8	-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, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 84. Metal household furniture (SIC 2514): Indexes of output, employee hours, and employees, 1958-81 (1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	63.0	94.4	93.4	99.1	91.2	89.7	98.3
1959	68.9	102.9	105.8	89.0	97.9	100.0	88.0
1960	64.7	100.2	102.1	90.8	95.5	96.7	89.7
1961	61.0	93.0	94.7	84.4	89.4	90.5	84.5
1962	62.4	90.6	92.8	79.9	87.0	88.7	79.4
1963	67.6	91.6	92.8	86.2	88.2	88.7	86.3
1964	72.8	98.1	99.6	90.8	93.7	94.5	89.7
1965	75.6	97.6	98.8	91.7	93.9	94.5	91.4
1966	75.3	99.3	100.0	96.3	94.3	93.8	96.6
1967	75.4	96.2	97.5	89.9	93.4	94.2	89.7
1968	81.1	100.0	99.2	103.7	96.6	96.7	96.6
1969	82.0	100.5	101.6	95.4	98.8	100.8	89.7
1970	84.5	98.7	97.7	103.7	97.6	97.5	98.3
1971	84.5	97.1	96.3	100.9	94.9	94.2	98.3
1972	97.2	103.4	104.1	100.0	103.6	104.4	100.0
1973	106.6	113.0	114.1	107.4	111.1	111.7	108.7
1974	95.1	105.5	104.3	111.1	106.6	105.1	113.8
1975	78.7	83.6	81.2	94.5	85.2	82.9	96.6
1976	88.7	92.1	90.8	98.2	91.9	90.5	98.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.1	103.8	104.7	100.0	102.7	103.3	100.0
1979	95.2	105.9	104.8	111.0	103.6	102.2	110.3
1980	87.9	94.4	94.6	93.6	95.2	95.6	93.1
1981 ¹	89.0	90.9	90.3	93.6	89.8	89.1	93.1
Average annual percent change:							
1958-81	2.0	.1	(²)	.7	.3	.2	.7
1977-81	-3.7	-2.8	-3.0	-2.0	-2.9	-3.0	-2.1

¹ Preliminary.

² Less than .05 percent.

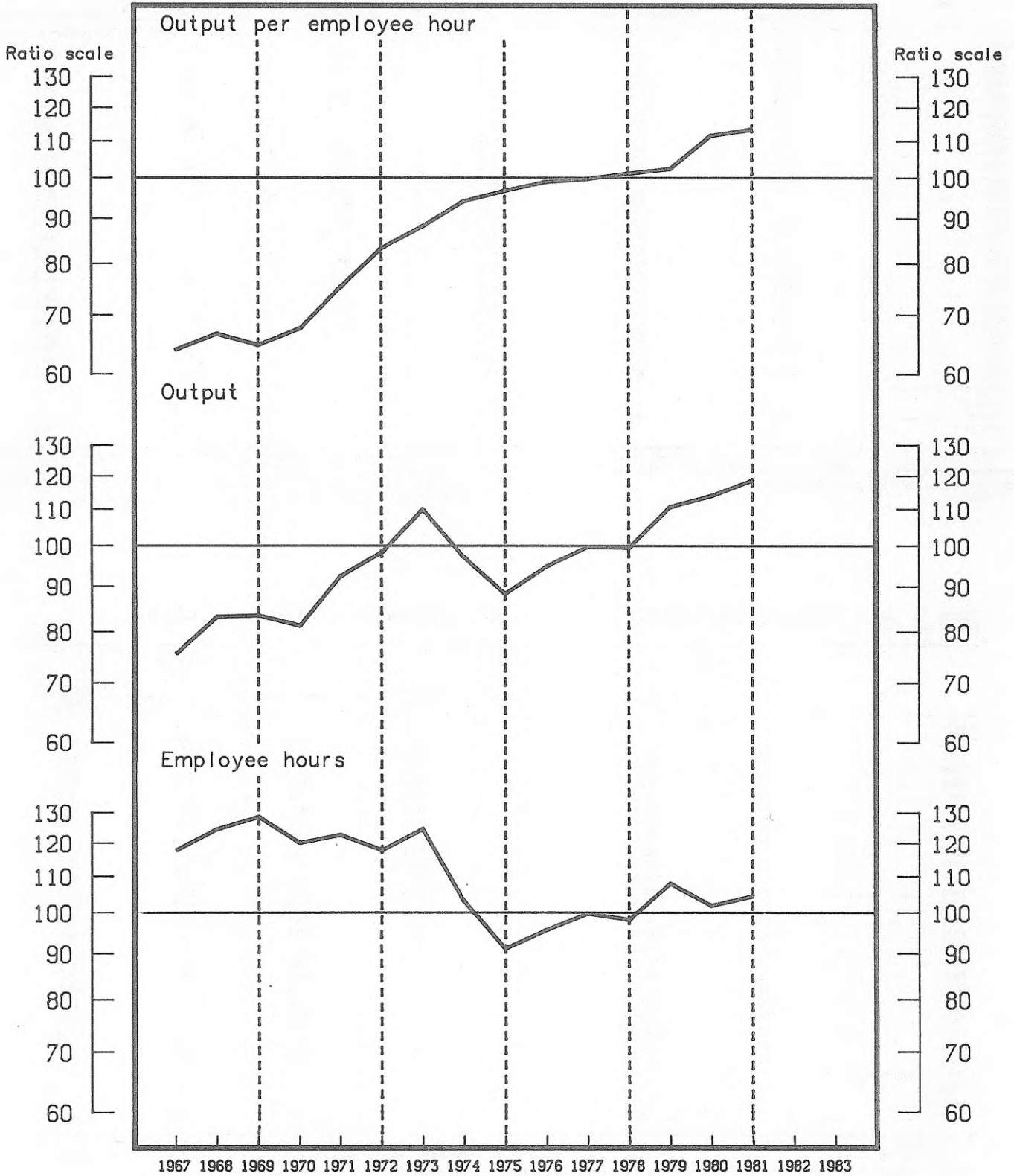
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

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

Chart 44. Mattresses and bedsprings (SIC 2515): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 85. Mattresses and bedsprings (SIC 2515): Indexes of output per employee hour and output per employee, 1958-81 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	51.2	50.0	55.1	51.9	50.9	55.8
1959	51.9	50.5	56.7	53.9	53.0	57.1
1960	53.2	52.7	54.8	54.6	54.3	55.6
1961	53.1	53.2	52.3	55.0	55.8	52.5
1962	55.5	55.4	55.6	57.1	57.5	56.1
1963	57.5	56.9	59.4	59.4	59.4	59.8
1964	59.1	58.8	59.8	61.0	61.2	60.2
1965	61.3	60.2	65.2	63.4	62.7	65.6
1966	62.4	60.6	69.1	64.2	62.8	69.1
1967	64.1	62.2	71.0	65.5	63.9	71.2
1968	66.8	65.9	69.6	70.1	68.7	75.2
1969	64.9	63.7	68.8	68.2	66.9	73.4
1970	67.7	67.2	69.0	70.5	69.9	72.4
1971	75.4	74.3	78.9	77.2	76.0	81.2
1972	83.5	82.3	87.6	84.8	83.9	87.6
1973	88.4	86.1	96.8	88.7	86.7	95.5
1974	94.3	92.4	100.8	93.2	91.5	99.0
1975	96.9	94.9	104.2	95.7	93.6	103.0
1976	99.2	98.3	101.9	99.5	99.0	101.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	100.1	105.9	100.9	99.3	106.5
1979	102.6	103.6	99.4	104.0	105.4	100.1
1980	111.9	114.5	103.8	110.9	113.1	104.4
1981 ²	113.7	116.7	105.0	113.5	116.2	105.8
Average annual percent change:						
1958-81	3.9	4.0	3.6	3.7	3.7	3.5
1977-81	3.6	4.5	.8	3.5	4.4	.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 86. Mattresses and bedsprings (SIC 2515): Indexes of output, employee hours, and employees, 1958-81 (1977=100)

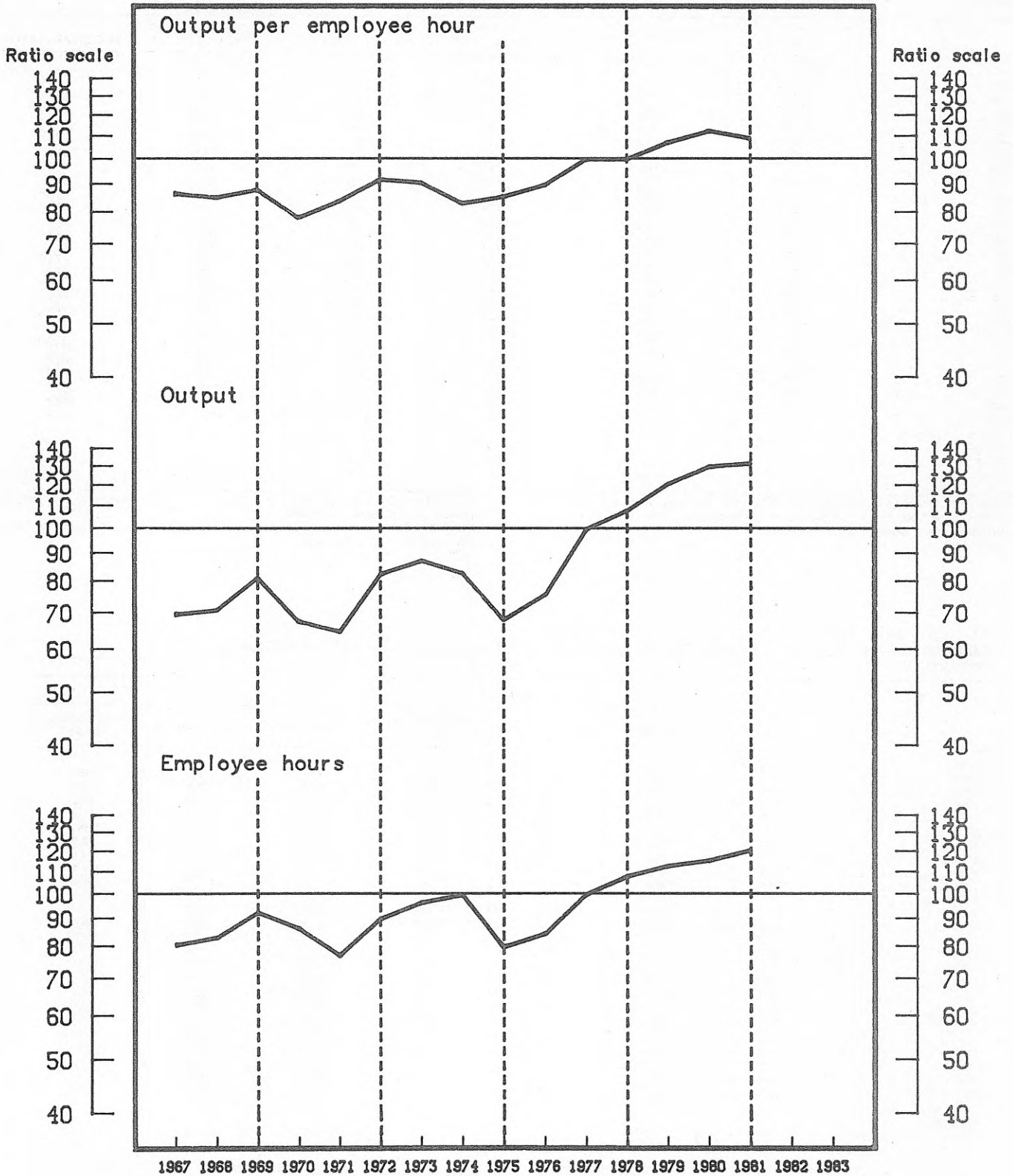
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	61.0	119.2	121.9	110.8	117.5	119.9	109.4
1959	65.1	125.5	128.8	114.9	120.8	122.9	114.1
1960	61.7	115.9	117.0	112.5	113.1	113.6	110.9
1961	61.5	115.9	115.6	117.5	111.9	110.2	117.2
1962	66.7	120.2	120.4	119.9	116.8	116.1	118.8
1963	66.3	115.3	116.5	111.6	111.6	111.7	110.9
1964	68.7	116.3	116.8	114.9	112.6	112.2	114.1
1965	74.9	122.2	124.5	114.9	118.2	119.4	114.1
1966	76.6	122.8	126.5	110.8	119.3	121.9	110.9
1967	75.7	118.1	121.7	106.6	115.6	118.5	106.3
1968	83.4	124.9	126.5	119.9	119.0	121.4	110.9
1969	83.7	128.9	131.3	121.6	122.7	125.2	114.1
1970	81.5	120.4	121.2	118.2	115.6	116.6	112.5
1971	92.7	122.9	124.7	117.5	120.0	121.9	114.1
1972	98.6	118.1	119.8	112.5	116.3	117.5	112.5
1973	110.4	124.9	128.2	114.1	124.5	127.3	115.6
1974	97.4	103.3	105.4	96.6	104.5	106.4	98.4
1975	88.6	91.4	93.4	85.0	92.6	94.7	86.0
1976	95.1	95.9	96.7	93.3	95.6	96.1	93.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.8	98.4	99.7	94.2	98.9	100.5	93.7
1979	111.0	108.2	107.1	111.7	106.7	105.3	110.9
1980	114.2	102.1	99.7	110.0	103.0	101.0	109.4
1981 ¹	119.0	104.7	102.0	113.3	104.8	102.4	112.5
Average annual percent change:							
1958-81	2.9	-9	-1.0	-6	-7	-8	-5
1977-81	4.9	1.3	.4	4.1	1.4	.5	4.0

¹ Preliminary.

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

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

Chart 45. Office furniture (SIC 252): Output per hour and related data, 1967-81
 (1977 = 100)



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

Table 89. Pharmaceutical preparations (SIC 2834): Indexes of output per employee hour and output per employee, 1963-80
(1977=100)

Year	Output per hour ¹		Output per employee ¹		
	All employees	Production workers	All employees	Production workers	Nonproduction workers
Index:					
1963	52.9	49.0	54.2	50.1	59.0
1964	54.0	49.3	55.7	50.7	61.6
1965	58.5	53.8	59.6	54.7	65.4
1966	60.6	55.5	62.6	57.3	69.0
1967	64.4	59.4	64.1	59.1	70.0
1968	68.4	63.6	69.6	64.8	75.3
1969	73.0	66.6	74.1	67.7	81.9
1970	74.8	70.0	77.1	72.0	82.8
1971	81.0	80.1	82.8	81.8	83.8
1972	86.8	85.1	88.4	86.6	90.2
1973	84.8	84.5	85.5	85.2	85.6
1974	90.3	89.7	90.4	89.8	90.9
1975	92.5	94.1	90.8	92.5	89.3
1976	98.4	98.1	98.0	97.7	98.3
1977	100.0	100.0	100.0	100.0	100.0
1978	98.9	100.2	100.6	101.7	99.5
1979	106.4	103.5	102.9	100.1	105.8
1980 ²	106.6	103.8	102.8	100.1	105.6
Average annual percent change:					
1963-80	4.4	5.1	4.1	4.8	3.4
1975-80	2.7	1.9	2.2	1.4	3.1

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

² Preliminary.

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

may differ from those previously published.

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

Table 90. Pharmaceutical preparations (SIC 2834): Indexes of output, employee hours, and employees, 1963-80
(1977=100)

Year	Output	Employee hours		Employees		
		All employees	Production workers	All employees	Production workers	Nonproduction workers
Index:						
1963	36.5	69.0	74.5	67.3	72.8	61.9
1964	39.7	73.5	80.6	71.3	78.3	64.4
1965	44.6	76.2	82.9	74.8	81.5	68.2
1966	48.7	80.3	87.7	77.8	85.0	70.6
1967	51.7	80.3	87.1	80.7	87.5	73.9
1968	56.4	82.4	88.7	81.0	87.1	74.9
1969	63.2	86.6	94.9	85.3	93.4	77.2
1970	68.2	91.2	97.4	88.5	94.7	82.4
1971	74.4	91.9	92.9	89.9	91.0	88.8
1972	78.3	90.2	92.0	88.6	90.4	86.8
1973	81.7	96.4	96.7	95.6	95.9	95.4
1974	86.3	95.6	96.2	95.5	96.1	94.9
1975	88.3	95.5	93.8	97.2	95.5	98.9
1976	96.1	97.7	98.0	98.1	98.4	97.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.1	104.2	102.9	102.5	101.4	103.6
1979	105.8	99.4	102.2	102.8	105.7	100.0
1980 ¹	107.1	100.5	103.2	104.2	107.0	101.4
Average annual percent change:						
1963-80	6.7	2.2	1.5	2.5	1.8	3.2
1975-80	3.7	1.0	1.8	1.5	2.3	.7

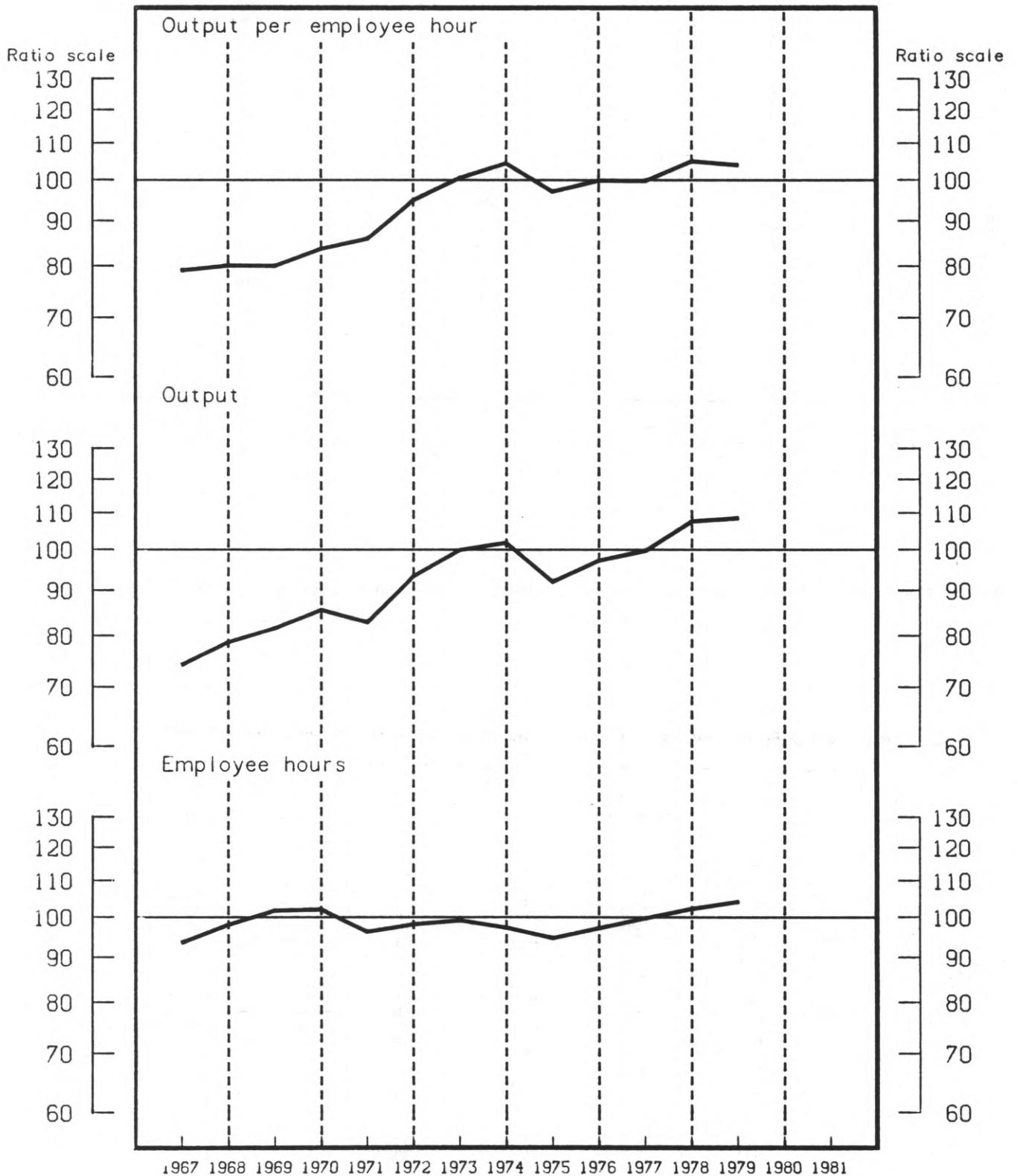
¹ Preliminary.

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

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

Chart 47. Soaps and detergents (SIC 2841): Output per hour and related data, 1967-79

(1977 = 100)



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

Table 91. Soaps and detergents (SIC 2841): Indexes of output per employee hour and output per employee, 1958-79
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	61.6	58.1	69.2	60.1	55.6	69.6
1959	66.9	63.3	74.7	65.5	61.0	75.0
1960	64.8	60.5	74.5	63.7	58.7	74.5
1961	65.5	60.6	76.5	64.7	59.4	76.3
1962	66.5	60.5	81.5	65.5	58.8	80.8
1963	72.0	64.9	89.8	70.4	62.6	89.0
1964	72.0	65.5	87.6	70.4	63.2	87.0
1965	69.9	64.5	82.4	68.5	62.5	81.6
1966	74.7	69.7	86.0	73.8	68.4	85.2
1967	79.3	74.2	90.8	77.9	72.1	90.1
1968	80.3	76.0	89.3	78.7	73.9	88.4
1969	80.2	77.2	86.3	79.0	75.8	85.2
1970	83.9	81.9	87.6	82.3	80.0	86.4
1971	86.1	85.1	87.7	83.5	81.7	86.6
1972	95.2	92.9	100.1	94.2	91.5	99.0
1973	100.8	99.4	103.4	100.2	98.2	103.6
1974	104.7	103.0	107.8	103.9	100.9	109.4
1975	97.3	95.0	101.7	96.6	93.3	102.7
1976	100.1	99.2	101.9	100.0	98.6	102.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.3	102.7	110.1	105.8	103.4	110.1
1979 ²	104.2	101.6	109.6	104.3	101.5	109.6
Average annual percent change:						
1958-79	2.8	3.2	1.9	2.9	3.4	2.0
1975-79	1.9	1.7	2.3	2.1	2.2	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 and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Table 92. Soaps and detergents (SIC 2841): Indexes of output, employee hours, and employees, 1958-79
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	48.1	78.1	82.8	69.5	80.0	86.5	69.1
1959	53.4	79.8	84.4	71.5	81.5	87.6	71.2
1960	53.5	82.6	88.5	71.8	84.0	91.2	71.8
1961	56.3	86.0	92.9	73.6	87.0	94.8	73.8
1962	58.6	88.1	96.8	71.9	89.5	99.6	72.5
1963	63.4	88.1	97.7	70.6	90.0	101.2	71.2
1964	66.0	91.7	100.7	75.3	93.8	104.4	75.9
1965	65.8	94.2	102.0	79.9	96.0	105.2	80.6
1966	69.8	93.4	100.1	81.2	94.6	102.0	81.9
1967	74.4	93.8	100.3	81.9	95.5	103.2	82.6
1968	78.9	98.3	103.8	88.4	100.3	106.8	89.3
1969	81.8	102.0	105.9	94.8	103.5	107.9	96.0
1970	85.8	102.3	104.7	98.0	104.3	107.2	99.3
1971	83.1	96.5	97.6	94.8	99.5	101.7	96.0
1972	93.7	98.4	100.9	93.6	99.5	102.4	94.6
1973	100.2	99.4	100.8	96.9	100.0	102.0	96.7
1974	102.1	97.5	99.1	94.7	98.3	101.2	93.3
1975	92.3	94.9	97.2	90.8	95.5	98.9	89.9
1976	97.5	97.4	98.3	95.7	97.5	98.9	95.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	102.5	105.1	98.0	102.0	104.4	98.0
1979 ¹	108.8	104.4	107.1	99.3	104.3	107.2	99.3
Average annual percent change:							
1958-79	3.9	1.1	.7	1.9	1.0	.5	1.9
1975-79	4.4	2.4	2.6	2.0	2.2	2.2	2.3

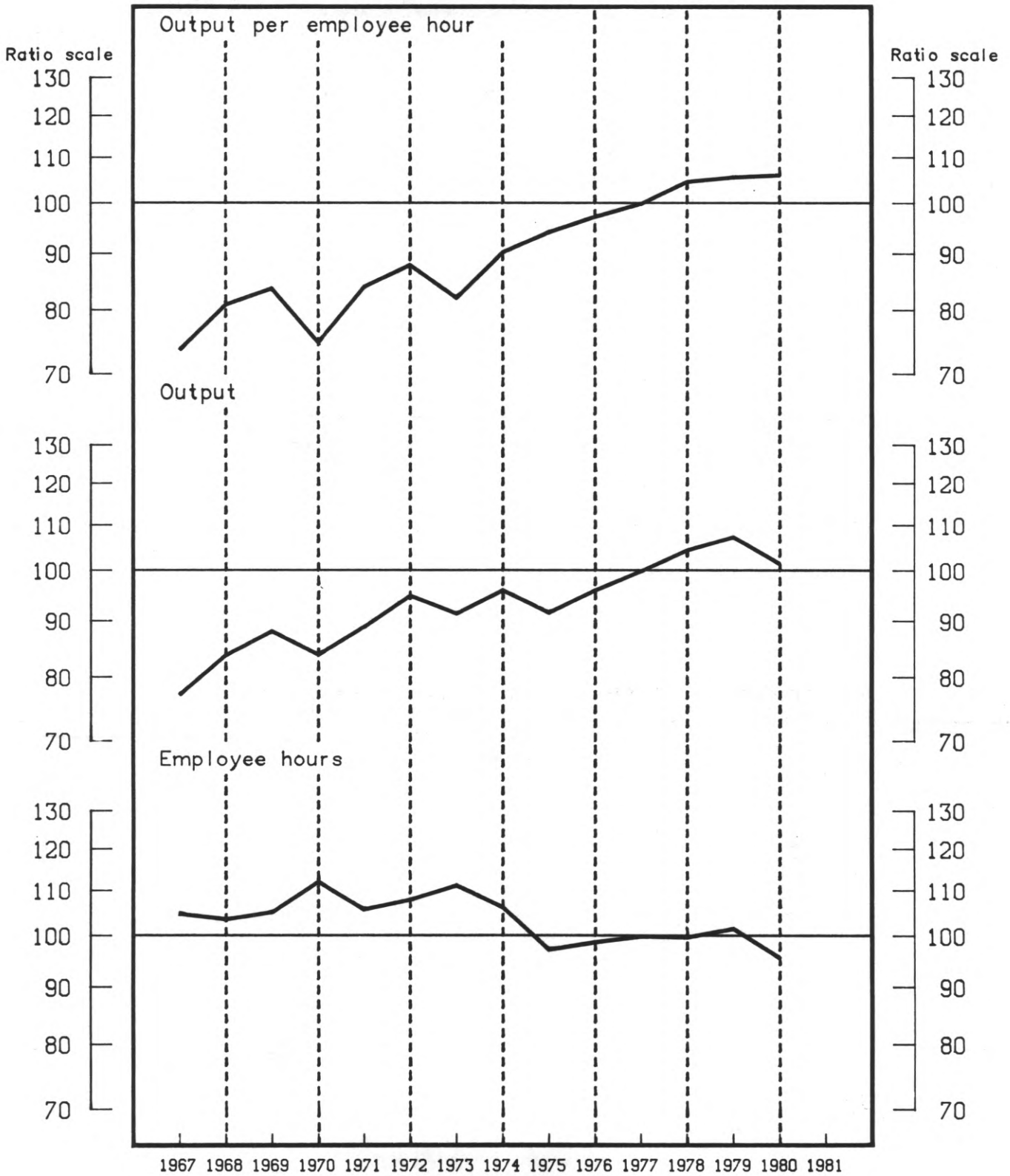
¹ Preliminary.

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

Chart 48. Paints and allied products (SIC 2851): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 93. Paints and allied products (SIC 2851): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	55.3	53.6	57.5	56.1	53.9	59.0
1959	60.4	58.8	62.4	61.0	58.6	63.9
1960	64.9	63.0	67.6	65.4	62.5	69.0
1961	63.3	61.7	65.5	63.8	61.7	66.4
1962	66.1	64.3	68.4	67.5	66.0	69.5
1963	68.2	66.9	69.9	69.4	68.2	70.9
1964	72.5	70.4	75.4	74.6	72.8	76.8
1965	73.3	72.0	75.1	74.6	73.2	76.1
1966	76.9	75.1	79.2	78.0	76.4	79.9
1967	73.7	72.9	74.6	74.2	73.2	75.2
1968	81.0	80.1	82.1	81.9	80.5	83.5
1969	83.8	81.8	86.3	84.0	81.4	87.2
1970	74.9	73.5	76.8	74.8	72.9	77.3
1971	84.1	84.4	83.8	83.1	82.2	84.3
1972	88.0	85.9	90.7	88.5	86.6	90.8
1973	82.2	80.3	84.7	81.0	77.2	86.0
1974	90.4	91.5	89.0	90.9	90.6	91.3
1975	94.2	99.0	88.8	94.0	97.2	90.4
1976	97.3	99.6	94.2	97.7	99.4	95.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.7	105.4	103.7	104.3	104.8	103.8
1979	105.7	104.4	107.4	104.5	101.8	107.8
1980 ²	106.2	108.7	103.0	103.7	103.5	103.8
Average annual percent change:						
1958-80	2.8	3.0	2.5	2.6	2.8	2.4
1975-80	2.6	1.9	3.4	2.1	1.2	3.2

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

² Preliminary.

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

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

Table 94. Paints and allied products (SIC 2851): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	51.9	93.9	96.9	90.2	92.5	96.3	88.0
1959	58.3	96.5	99.2	93.4	95.6	99.5	91.3
1960	60.9	93.8	96.7	90.1	93.1	97.4	88.3
1961	58.6	92.6	95.0	89.4	91.9	95.0	88.2
1962	61.9	93.7	96.3	90.5	91.7	93.8	89.1
1963	67.0	98.2	100.1	95.8	96.5	98.2	94.5
1964	71.6	98.7	101.7	94.9	96.0	98.4	93.2
1965	76.5	104.3	106.3	101.9	102.6	104.5	100.5
1966	82.5	107.3	109.9	104.2	105.8	108.0	103.3
1967	77.2	104.8	105.9	103.5	104.1	105.4	102.6
1968	83.9	103.6	104.7	102.2	102.5	104.2	100.5
1969	88.2	105.2	107.8	102.2	105.0	108.3	101.2
1970	84.0	112.2	114.3	109.4	112.3	115.3	108.7
1971	89.0	105.8	105.5	106.2	107.1	108.3	105.6
1972	95.0	108.0	110.6	104.7	107.4	109.7	104.6
1973	91.5	111.3	113.9	108.0	112.9	118.5	106.4
1974	96.1	106.3	105.0	108.0	105.7	106.1	105.3
1975	91.7	97.3	92.6	103.3	97.6	94.3	101.4
1976	96.1	98.8	96.5	102.0	98.4	96.7	100.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	99.8	99.1	100.8	100.2	99.7	100.7
1979	107.4	101.6	102.9	100.0	102.8	105.5	99.6
1980 ¹	101.6	95.7	93.5	98.6	98.0	98.2	97.9
Average annual percent change:							
1958-80	3.1	.3	.1	.6	.4	.2	.6
1975-80	2.6	(?)	.7	-.8	.4	1.3	-.5

¹ Preliminary.

² Less than .05 percent.

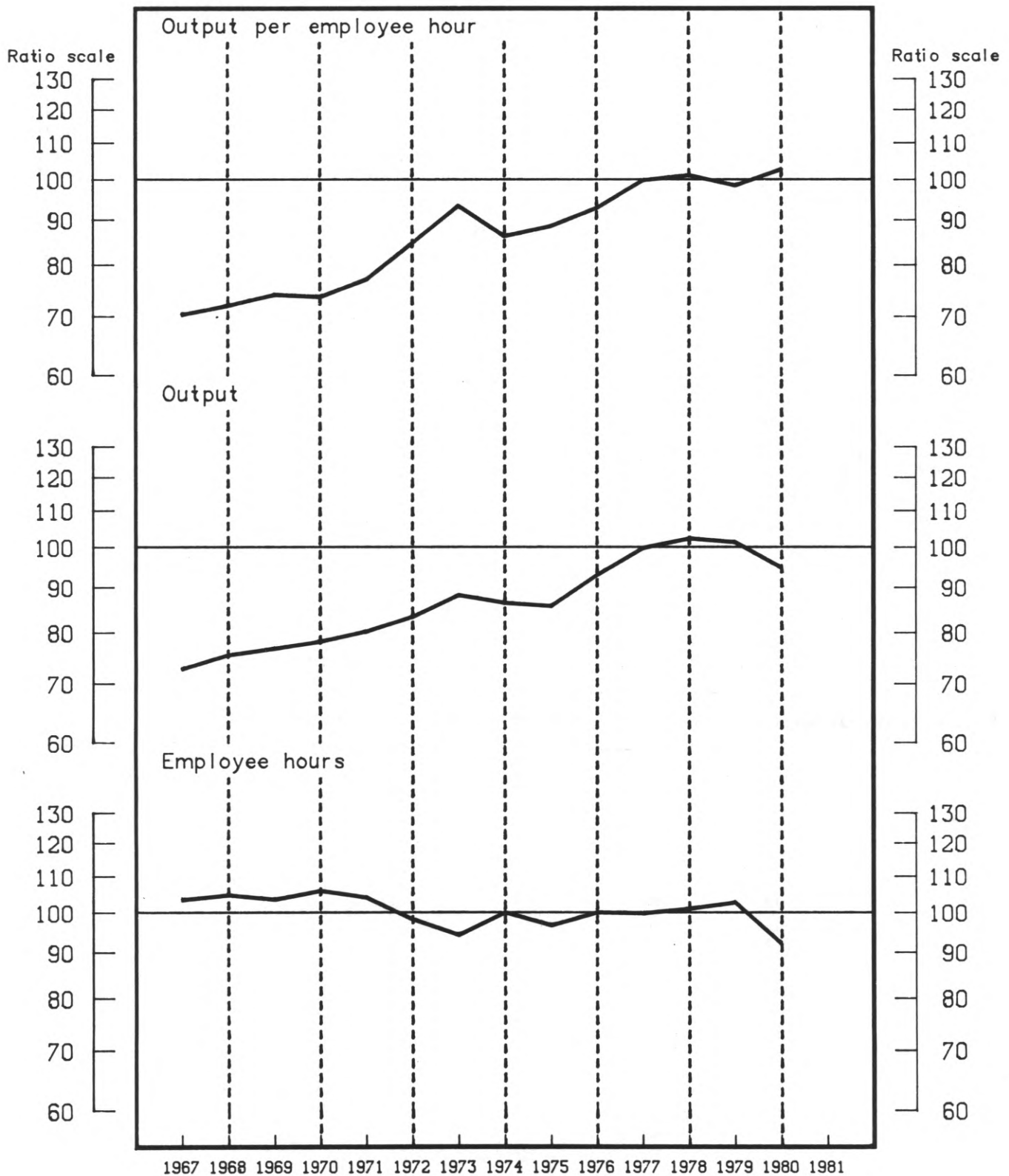
NOTE: Because of periodic revisions in source data, the measures in this table may

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 49. Petroleum refining (SIC 2911): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 95. Petroleum refining (SIC 2911): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	31.4	30.0	36.2	30.9	28.7	37.3
1955	34.4	32.7	39.9	34.0	31.6	40.9
1956	35.8	34.1	41.5	35.4	33.0	42.7
1957	35.9	34.7	39.8	35.6	33.6	40.9
1958	37.7	36.5	41.4	36.8	34.7	42.5
1959	42.4	41.1	46.5	41.6	39.4	47.6
1960	44.1	43.1	47.2	43.6	41.8	48.4
1961	47.5	46.7	50.3	46.9	45.1	51.3
1962	51.8	51.1	53.9	51.1	49.5	55.3
1963	55.7	54.6	58.7	54.5	52.3	60.2
1964	58.7	57.7	61.9	58.3	56.2	63.7
1965	63.6	62.5	67.2	62.7	60.4	68.8
1966	68.7	67.4	72.5	67.9	65.6	73.8
1967	70.4	69.5	72.9	70.0	68.3	74.3
1968	72.1	71.7	73.4	72.3	71.1	75.6
1969	74.2	75.8	70.4	76.6	76.4	77.1
1970	73.8	74.1	73.4	74.6	73.6	76.8
1971	77.2	78.1	75.0	77.2	76.6	78.6
1972	84.9	84.8	85.3	84.9	83.1	89.4
1973	93.6	94.7	91.1	92.6	91.3	95.4
1974	86.4	85.6	88.8	86.3	83.8	92.4
1975	88.7	89.7	86.7	87.7	86.9	89.2
1976	93.0	92.6	94.2	94.0	93.1	95.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.3	100.6	103.2	103.3	103.3	103.1
1979	98.6	97.7	101.1	101.6	101.6	101.5
1980 ²	102.9	107.6	92.9	102.3	106.7	93.5
Average annual percent change:						
1947-80	5.0	5.4	4.1	5.1	5.4	4.0
1975-80	2.7	3.1	1.7	3.0	3.8	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 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 96. Petroleum refining (SIC 2911): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

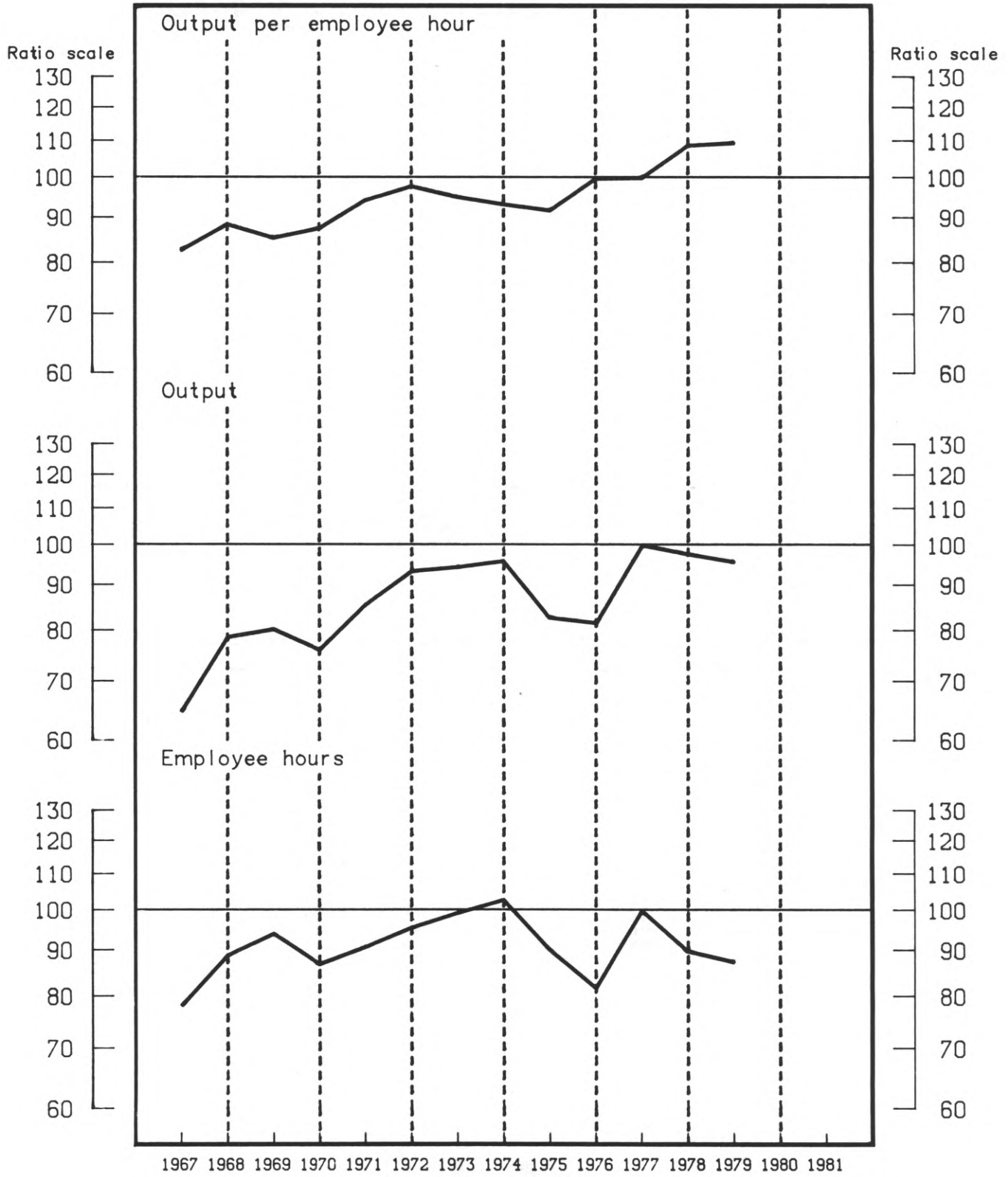
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	46.2	147.0	154.2	127.7	149.4	160.7	123.7
1955	50.0	145.5	153.0	125.3	147.1	158.2	122.3
1956	53.2	148.6	156.1	128.3	150.2	161.3	124.7
1957	53.4	148.6	153.8	134.1	150.2	158.9	130.5
1958	52.4	139.1	143.7	126.6	142.5	150.9	123.4
1959	55.7	131.4	135.6	119.9	133.8	141.3	116.9
1960	57.4	130.1	133.1	121.6	131.6	137.2	118.5
1961	58.8	123.7	126.0	117.0	125.5	130.3	114.6
1962	61.3	118.4	119.9	113.7	120.0	123.9	110.9
1963	62.9	113.0	115.2	107.1	115.4	120.3	104.4
1964	64.7	110.2	112.2	104.6	111.0	115.2	101.6
1965	66.5	104.5	106.4	99.0	106.0	110.1	96.6
1966	69.9	101.8	103.7	96.4	102.9	106.6	94.7
1967	72.9	103.6	104.9	100.0	104.1	106.7	98.1
1968	75.6	104.9	105.5	103.0	104.5	106.4	100.0
1969	76.9	103.7	101.4	109.3	100.4	100.7	99.7
1970	78.3	106.1	105.7	106.7	105.0	106.4	102.0
1971	80.4	104.2	102.9	107.2	104.1	104.9	102.3
1972	83.5	98.4	98.5	97.9	98.3	100.5	93.4
1973	88.4	94.4	93.3	97.0	95.5	96.8	92.7
1974	86.6	100.2	101.2	97.5	100.3	103.3	93.7
1975	85.9	96.8	95.8	99.1	98.0	98.8	96.3
1976	93.2	100.2	100.6	98.9	99.2	100.1	97.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.5	101.2	101.9	99.3	99.2	99.2	99.4
1979	101.5	102.9	103.9	100.4	99.9	99.9	100.0
1980 ¹	95.0	92.3	88.3	102.3	92.9	89.0	101.6
Average annual percent change:							
1947-80	3.3	-1.6	-2.0	-7	-1.7	-2.0	-7
1975-80	2.3	-4	-8	6	-7	-1.5	1.0

¹ Preliminary.

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

SOURCE: Output based on data from the 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 50. Tires and inner tubes (SIC 3011): Output per hour and related data, 1967-79
(1977 = 100)



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

Table 97. Tires and inner tubes (SIC 3011): Indexes of output per employee hour and output per employee, 1954-79
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	45.1	44.5	47.3	42.9	41.6	47.8
1955	48.0	45.8	57.9	50.2	48.3	58.1
1956	47.9	47.0	51.0	46.5	45.3	51.4
1957	50.5	49.8	53.1	49.5	48.5	53.5
1958	52.6	52.6	52.3	50.8	50.3	52.6
1959	58.3	57.0	63.0	57.3	55.8	63.3
1960	59.7	59.2	61.2	58.4	57.7	61.1
1961	61.6	62.1	59.8	60.3	60.7	59.0
1962	67.9	66.7	72.3	68.7	67.9	71.3
1963	72.9	72.4	74.3	72.3	72.1	73.3
1964	79.6	78.8	81.7	81.1	81.3	80.8
1965	81.3	80.8	82.6	83.5	84.1	81.4
1966	83.0	82.1	85.7	85.3	85.7	84.0
1967	82.7	83.6	79.7	79.6	80.1	78.0
1968	88.5	88.4	88.7	91.4	91.6	90.3
1969	85.4	85.1	86.6	89.0	89.2	88.6
1970	87.6	90.1	79.6	86.3	87.7	81.8
1971	94.3	95.7	89.2	93.0	94.0	90.6
1972	97.8	97.6	98.3	99.0	99.3	98.4
1973	95.1	96.3	90.7	93.9	94.4	92.3
1974	93.3	95.0	87.0	93.3	94.3	89.6
1975	91.8	95.5	79.9	88.8	91.4	81.5
1976	99.8	105.8	82.3	89.6	91.5	83.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.8	107.0	115.2	108.3	106.5	115.2
1979 ²	109.5	109.1	110.4	105.7	104.4	110.9
Average annual percent change:						
1947-79	3.6	3.8	2.7	3.5	3.8	2.7
1975-79	4.5	2.8	10.3	5.5	4.3	9.8

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

² Preliminary.

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

differ from those previously published.

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

Table 98. Tires and inner tubes (SIC 3011): Indexes of output, employee hours, and employees, 1954-79
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	35.7	79.2	80.3	75.5	83.3	85.9	74.7
1955	44.5	92.8	97.2	76.9	88.7	92.2	76.6
1956	41.1	85.8	87.4	80.6	88.3	90.7	80.0
1957	43.1	85.3	86.5	81.2	87.0	88.9	80.6
1958	39.8	75.7	75.6	76.1	78.4	79.2	75.6
1959	47.5	81.5	83.4	75.4	82.9	85.2	75.0
1960	47.1	78.9	79.5	77.0	80.7	81.6	77.1
1961	45.6	74.0	73.4	76.3	75.6	75.1	77.3
1962	52.0	76.6	78.0	71.9	75.7	76.6	72.9
1963	54.1	74.2	74.7	72.8	74.8	75.0	73.8
1964	61.1	76.8	77.5	74.8	75.3	75.2	75.6
1965	64.9	79.8	80.3	78.6	77.7	77.2	79.7
1966	69.6	83.9	84.8	81.2	81.6	81.2	82.9
1967	64.7	78.2	77.4	81.2	81.3	80.8	82.9
1968	78.7	88.9	89.0	88.7	86.1	85.9	87.2
1969	80.3	94.0	94.4	92.7	90.2	90.0	90.6
1970	76.1	86.9	84.5	95.6	88.2	86.8	93.0
1971	85.6	90.8	89.4	96.0	92.0	91.1	94.5
1972	93.4	95.5	95.7	95.0	94.3	94.1	94.9
1973	94.4	99.3	98.0	104.1	100.5	100.0	102.3
1974	95.9	102.8	100.9	110.2	102.8	101.7	107.0
1975	82.7	90.1	86.6	103.5	93.1	90.5	101.5
1976	81.6	81.8	77.1	99.2	91.1	89.2	97.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	97.7	89.8	91.3	84.8	90.2	91.7	84.8
1979 ¹	95.7	87.4	87.7	86.7	90.5	91.7	86.3
Average annual percent change:							
1947-79	3.9	.4	.1	1.2	.4	.1	1.2
1975-79	4.8	.3	2.0	-5.0	-7	.5	-4.5

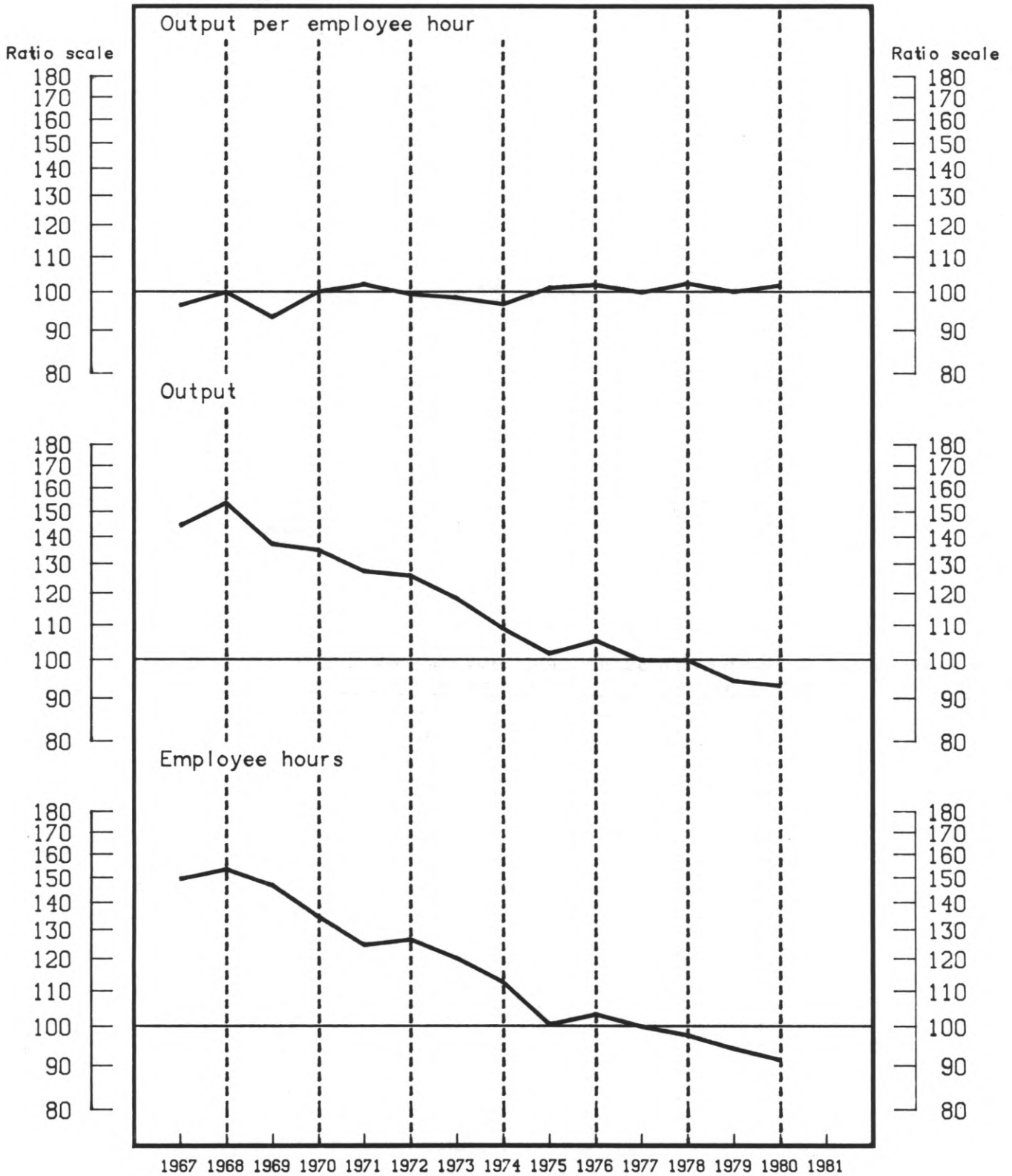
¹ Preliminary.

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

SOURCE: Output based on data from the 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 51. Footwear (SIC 314): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 99. Footwear (SIC 314): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	81.3	79.5	98.0	81.2	79.2	100.5
1955	85.1	83.2	103.0	88.0	86.0	105.1
1956	86.7	84.9	101.9	88.3	86.6	104.3
1957	88.3	86.9	99.9	89.1	87.5	102.2
1958	90.3	89.1	100.0	90.6	89.3	102.3
1959	94.9	93.0	110.5	97.2	95.5	113.0
1960	93.8	92.5	104.2	94.6	93.3	106.0
1961	94.2	92.8	105.5	94.6	93.2	106.1
1962	95.3	93.3	112.1	96.8	95.0	112.7
1963	98.7	96.5	118.7	100.6	98.6	119.3
1964	98.4	95.9	121.3	102.2	100.1	122.3
1965	97.9	95.5	119.5	101.1	99.0	120.2
1966	99.0	96.8	118.9	102.8	101.1	119.0
1967	96.5	94.4	116.9	99.7	97.8	117.0
1968	100.1	97.8	122.0	104.1	102.2	122.2
1969	93.4	92.0	105.7	95.2	93.9	106.9
1970	100.3	99.3	107.9	102.6	101.5	110.6
1971	102.2	101.9	105.0	104.6	104.1	108.1
1972	99.5	99.0	103.7	104.1	103.6	106.9
1973	98.5	98.3	99.7	101.5	101.2	103.1
1974	96.8	97.6	90.8	98.0	98.5	94.1
1975	101.3	101.6	98.3	101.8	101.9	100.7
1976	102.1	102.0	102.4	102.7	102.5	104.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.5	101.9	106.7	101.3	100.6	106.7
1979	100.2	101.0	94.7	99.4	99.9	95.1
1980 ²	102.0	103.1	93.8	101.9	102.9	94.4
Average annual percent change:						
1947-80	1.0	1.1	.2	1.0	1.1	.2
1975-80	(³)	.2	-1.1	-2	-1	-1.5

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

² Preliminary.

³ Less than .05 percent.

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

SOURCE: Output 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 100. Footwear (SIC 314): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	128.3	157.8	161.4	130.9	158.1	162.0	127.7
1955	141.2	165.9	169.8	137.1	160.4	164.1	134.4
1956	143.1	165.1	168.5	140.5	162.0	165.3	137.2
1957	143.8	162.9	165.5	144.0	161.4	164.3	140.7
1958	141.2	156.4	158.5	141.2	155.9	158.2	138.0
1959	155.2	163.5	166.8	140.5	159.6	162.5	137.3
1960	148.0	157.8	160.0	142.0	156.4	158.6	139.6
1961	148.6	157.8	160.2	140.9	157.0	159.4	140.0
1962	151.4	158.8	162.2	135.0	156.4	159.4	134.3
1963	147.1	149.0	152.4	123.9	146.2	149.2	123.3
1964	150.0	152.4	156.4	123.7	146.7	149.8	122.6
1965	151.3	154.6	158.5	126.6	149.7	152.9	125.9
1966	155.2	156.7	160.3	130.5	151.0	153.5	130.4
1967	144.5	149.7	153.1	123.6	144.9	147.7	123.5
1968	153.8	153.7	157.3	126.1	147.7	150.5	125.9
1969	137.3	147.0	149.3	129.9	144.2	146.2	128.4
1970	135.1	134.7	136.0	125.2	131.7	133.1	122.2
1971	127.5	124.7	125.1	121.4	121.9	122.5	117.9
1972	126.0	126.6	127.3	121.5	121.0	121.6	117.9
1973	118.4	120.2	120.4	118.8	116.7	117.0	114.8
1974	109.1	112.7	111.8	120.1	111.3	110.8	116.0
1975	101.9	100.6	100.3	103.7	100.1	100.0	101.2
1976	105.6	103.4	103.5	103.1	102.8	103.0	101.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.1	97.7	98.2	93.8	98.8	99.5	93.8
1979	94.5	94.3	93.6	99.8	95.1	94.6	99.4
1980 ¹	93.3	91.5	90.5	99.5	91.6	90.7	98.8
Average annual percent change:							
1947-80	-7	-1.8	-1.9	-1.0	-1.8	-1.9	-9
1975-80	-2.2	-2.2	-2.4	-1.0	-2.0	-2.1	-7

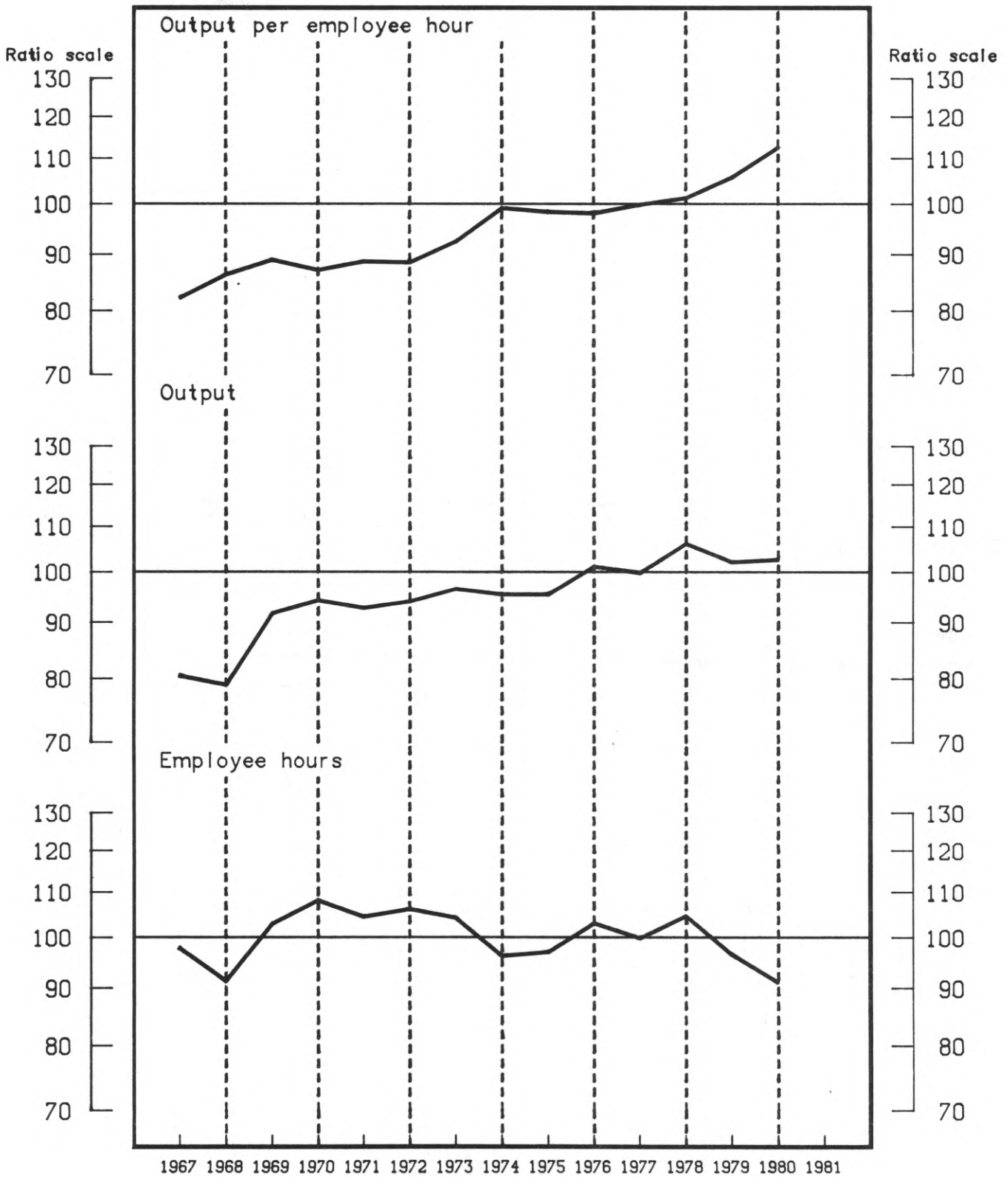
¹ Preliminary.

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

SOURCE: Output 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 52. Glass containers (SIC 3221): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 101. Glass containers (SIC 3221): Indexes of output per employee hour and output per employee, 1954-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	64.4	63.6	71.8	66.6	65.8	72.3
1955	67.2	65.8	78.1	69.9	69.0	78.2
1956	67.3	66.1	77.9	70.9	70.0	78.2
1957	67.0	66.0	76.3	69.8	69.0	76.5
1958	64.8	64.2	68.6	67.3	67.1	68.8
1959	68.8	67.9	75.6	70.3	69.8	75.7
1960	67.1	66.3	73.5	69.6	69.2	73.5
1961	68.4	67.3	76.7	70.4	69.7	76.4
1962	70.9	70.0	77.6	73.6	73.1	77.4
1963	73.5	72.3	82.5	76.2	75.4	82.2
1964	75.5	74.4	84.0	78.9	78.4	84.2
1965	80.3	79.2	88.8	82.7	82.1	88.5
1966	80.2	79.0	90.0	83.2	82.4	89.4
1967	82.3	81.1	93.0	85.6	84.8	91.6
1968	86.4	86.4	87.4	87.6	87.7	87.5
1969	89.1	88.7	92.5	91.0	90.5	95.3
1970	87.2	86.4	92.6	90.0	89.0	97.9
1971	88.8	88.7	89.0	91.1	90.9	92.9
1972	88.6	88.3	90.8	91.5	91.3	93.1
1973	92.6	92.5	93.2	93.7	93.7	93.3
1974	99.3	98.8	102.8	100.1	100.1	100.4
1975	98.5	98.5	98.1	96.7	96.7	96.8
1976	98.2	97.7	102.6	100.6	100.3	102.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	101.0	104.9	103.4	103.2	105.0
1979	105.9	105.7	107.0	107.0	106.9	107.5
1980 ²	112.7	112.8	111.3	114.5	114.7	112.2
Average annual percent change:						
1947-80	1.9	2.0	1.3	1.8	1.8	1.3
1975-80	2.6	2.7	2.3	3.1	3.1	2.7

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

² Preliminary.

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

SOURCE: Output 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 102. Glass containers (SIC 3221): Indexes of output, employee hours, and employees, 1954-80
(1977=100)

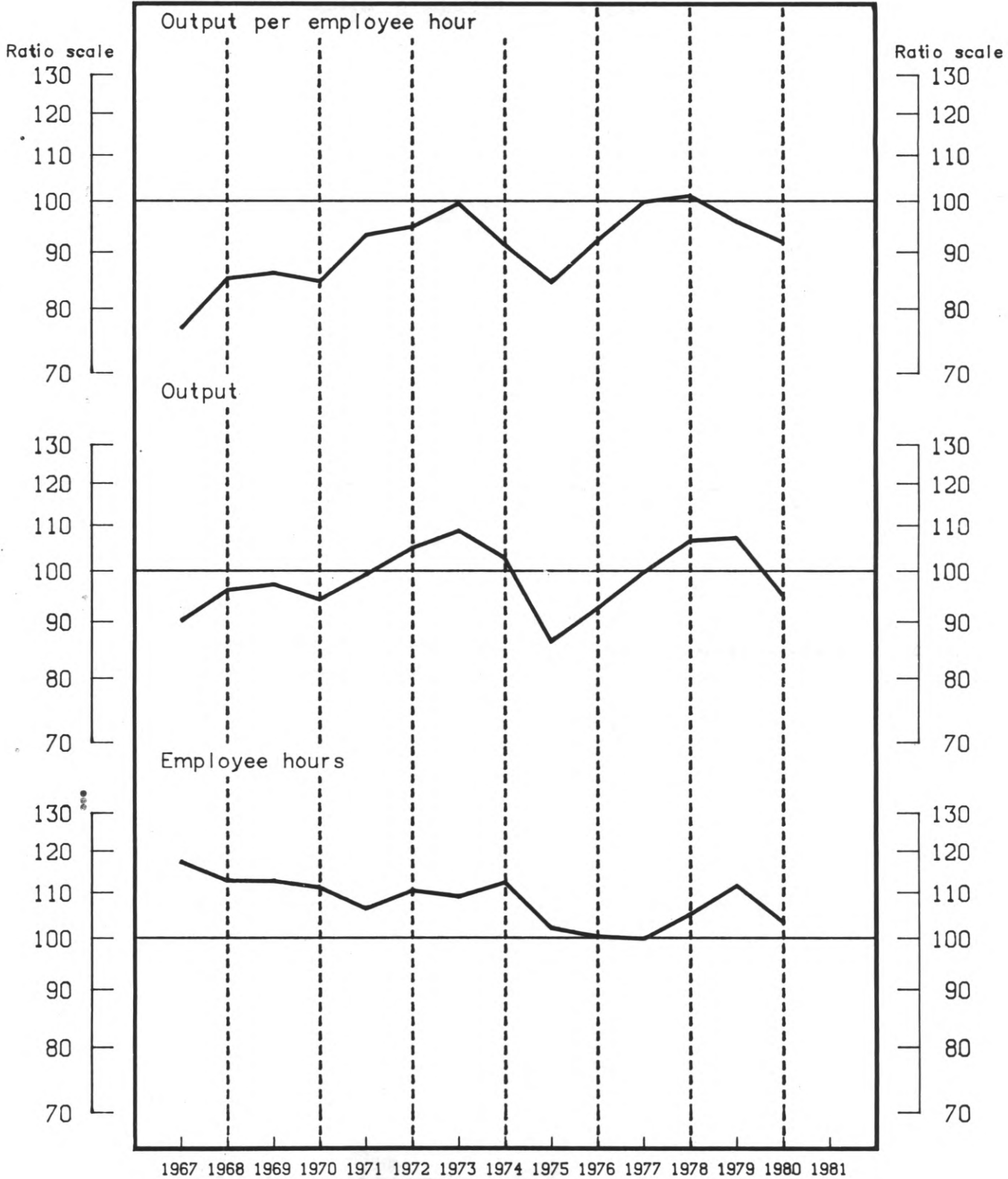
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	46.4	72.0	73.0	64.6	69.7	70.5	64.2
1955	50.5	75.2	76.7	64.7	72.2	73.2	64.6
1956	51.8	77.0	78.4	66.5	73.1	74.0	66.2
1957	53.5	79.8	81.1	70.1	76.6	77.5	69.9
1958	52.2	80.6	81.3	76.1	77.6	77.8	75.9
1959	55.9	81.3	82.3	73.9	79.5	80.1	73.8
1960	57.6	85.8	86.9	78.4	82.7	83.2	78.4
1961	59.8	87.4	88.8	78.0	85.0	85.8	78.3
1962	62.4	88.0	89.1	80.4	84.8	85.4	80.6
1963	64.5	87.8	89.2	78.2	84.7	85.6	78.5
1964	67.4	89.3	90.6	80.2	85.4	86.0	80.0
1965	71.9	89.5	90.8	81.0	86.9	87.6	81.2
1966	75.7	94.4	95.8	84.1	91.0	91.9	84.7
1967	80.6	97.9	99.4	86.7	94.2	95.0	88.0
1968	79.1	91.5	91.6	90.5	90.3	90.2	90.4
1969	91.9	103.1	103.6	99.4	101.0	101.6	96.4
1970	94.4	108.3	109.2	101.9	104.9	106.1	96.4
1971	92.9	104.6	104.7	104.4	102.0	102.2	100.0
1972	94.2	106.3	106.7	103.8	103.0	103.2	101.2
1973	96.7	104.4	104.5	103.8	103.2	103.2	103.6
1974	95.6	96.3	96.8	93.0	95.5	95.5	95.2
1975	95.6	97.1	97.1	97.5	98.9	98.9	98.8
1976	101.3	103.2	103.7	98.7	100.7	101.0	98.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.3	104.8	105.2	101.3	102.8	103.0	101.2
1979	102.3	96.6	96.8	95.6	95.6	95.7	95.2
1980 ¹	102.8	91.2	91.1	92.4	89.8	89.6	91.6
Average annual percent change:							
1947-80	3.4	1.5	1.4	2.1	1.6	1.6	2.1
1975-80	1.3	-1.3	-1.3	-1.0	-1.7	-1.8	-1.4

¹ Preliminary.

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

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

Chart 53. Hydraulic cement (SIC 3241): Output per hour and related data, 1967-80
(1977 = 100)



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

Table 103. Hydraulic cement (SIC 3241): Indexes of output per employee hour and output per employee, 1954-80
(1977=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	43.6	67.7	48.9	45.6	68.3
1955	49.4	45.8	75.2	51.8	48.0	75.3
1956	51.9	48.1	79.4	53.8	49.7	79.9
1957	50.4	47.1	73.1	50.0	46.3	73.5
1958	52.1	49.4	68.3	52.6	49.6	68.5
1959	55.9	52.5	77.6	57.2	53.6	77.8
1960	55.3	52.5	72.5	55.9	52.9	72.7
1961	61.2	58.4	76.7	61.2	58.2	76.5
1962	64.9	62.2	79.9	65.0	62.1	80.0
1963	68.7	66.7	79.3	69.3	67.2	79.3
1964	71.0	70.1	75.7	72.6	71.8	76.0
1965	73.2	72.3	77.3	73.7	72.8	77.3
1966	76.7	76.1	80.1	78.2	77.7	79.6
1967	76.9	76.4	79.1	77.0	76.5	79.0
1968	85.3	84.2	90.3	86.9	85.8	91.4
1969	86.3	85.5	90.6	89.0	87.8	94.1
1970	84.8	85.0	84.1	86.9	86.3	89.6
1971	93.4	93.3	95.0	96.1	95.2	99.5
1972	95.0	93.9	100.4	97.4	96.1	103.2
1973	99.7	98.7	104.9	102.0	101.1	105.2
1974	91.5	90.5	96.5	92.3	91.7	94.5
1975	84.7	85.3	82.7	83.9	84.3	82.2
1976	92.4	93.3	89.4	91.8	92.3	89.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.3	101.0	102.8	103.4	103.4	103.0
1979	96.0	94.9	100.7	98.1	97.2	101.8
1980 ²	92.0	91.4	94.4	93.2	92.8	95.3
Average annual percent change:						
1947-80	3.6	4.0	1.8	3.5	3.8	1.8
1975-80	1.6	1.2	3.0	2.2	1.9	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.

NOTE: Because 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 104. Hydraulic cement (SIC 3241): Indexes of output, employee hours, and employees, 1954-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	69.9	149.5	160.4	103.2	143.0	153.2	102.3
1955	76.0	153.8	166.1	101.1	146.7	158.2	100.9
1956	80.1	154.2	166.7	100.9	149.0	161.3	100.3
1957	74.7	148.2	158.7	102.2	149.5	161.5	101.7
1958	77.7	149.0	157.2	113.7	147.8	156.7	113.4
1959	84.6	151.4	161.1	109.0	147.9	157.9	108.8
1960	79.2	143.2	150.9	109.2	141.6	149.8	109.0
1961	80.0	130.8	137.0	104.3	130.8	137.5	104.6
1962	83.1	128.1	133.7	104.0	127.8	133.8	103.9
1963	86.9	126.4	130.3	109.6	125.4	129.3	109.6
1964	90.5	127.4	129.1	119.5	124.6	126.0	119.1
1965	91.5	125.0	126.5	118.4	124.2	125.7	118.4
1966	94.3	122.9	123.9	117.8	120.6	121.3	118.4
1967	90.3	117.5	118.2	114.2	117.2	118.1	114.3
1968	96.3	112.9	114.4	106.6	110.8	112.2	105.4
1969	97.4	112.8	113.9	107.5	109.4	110.9	103.5
1970	94.4	111.3	111.0	112.2	108.6	109.4	105.4
1971	99.5	106.5	106.7	104.7	103.5	104.5	100.0
1972	105.1	110.6	111.9	104.7	107.9	109.4	101.8
1973	108.9	109.2	110.3	103.8	106.8	107.7	103.5
1974	102.9	112.5	113.7	106.6	111.5	112.2	108.9
1975	86.6	102.2	101.5	104.7	103.2	102.7	105.4
1976	92.8	100.4	99.5	103.8	101.1	100.5	103.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.7	105.3	105.6	103.8	103.2	103.2	103.6
1979	107.3	111.8	113.1	106.6	109.4	110.4	105.4
1980 ¹	95.3	103.6	104.3	100.9	102.2	102.7	100.0
Average annual percent change:							
1947-80	1.9	-1.7	-2.0	.1	-1.5	-1.8	.1
1975-80	2.8	1.3	1.7	-2	.6	.9	-5

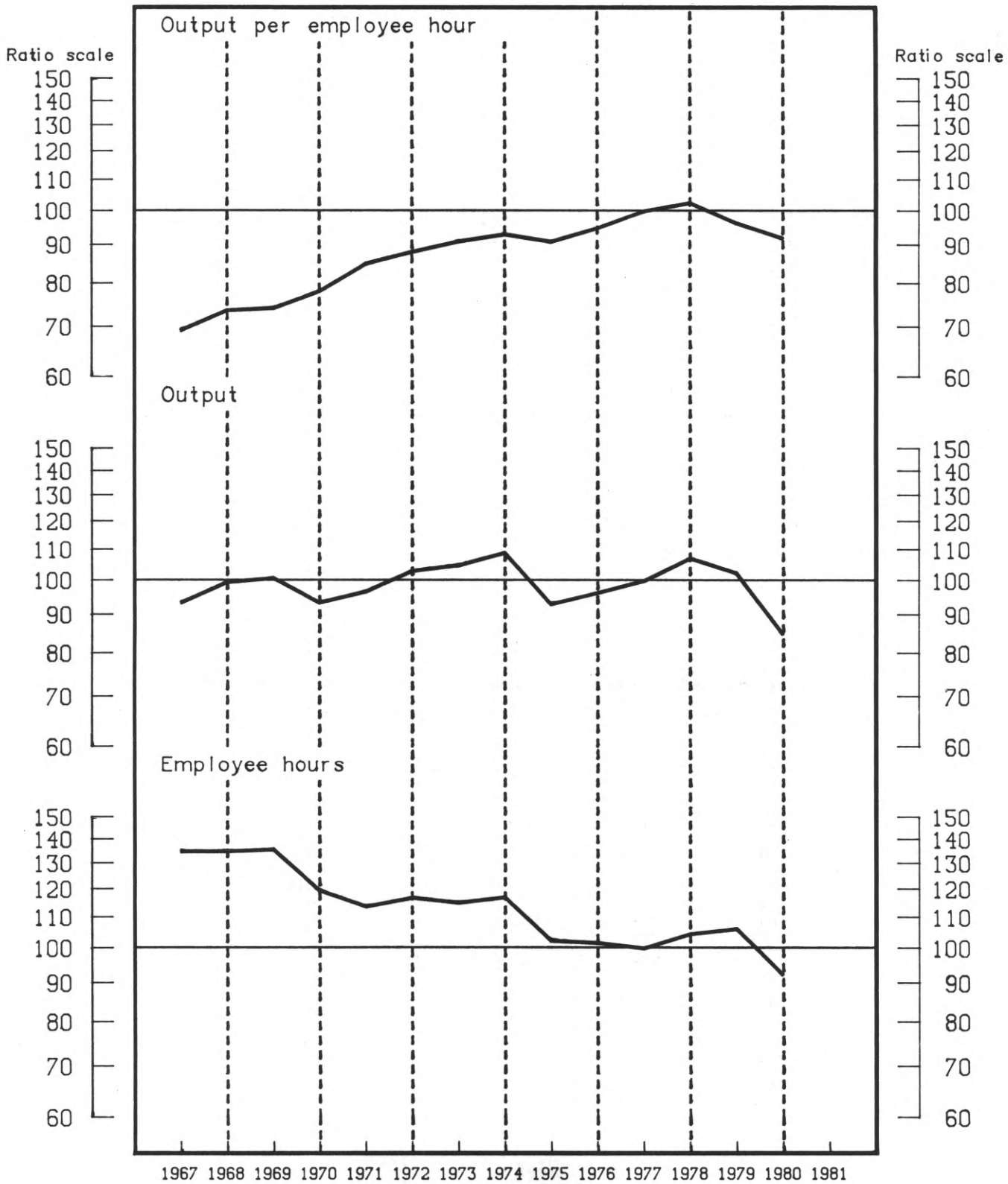
¹ Preliminary.

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

SOURCE: Output 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 54. Structural clay products (SIC 325): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 105. Structural clay products (SIC 325): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	52.4	50.2	65.1	51.8	49.4	64.8
1959	56.4	53.5	73.6	56.4	53.4	73.3
1960	57.9	55.2	73.9	57.0	54.2	73.5
1961	59.9	57.0	77.7	59.0	55.9	76.8
1962	64.6	61.3	84.3	64.3	60.9	83.6
1963	62.1	59.5	76.8	62.8	60.3	76.2
1964	66.3	64.2	78.0	69.0	67.1	77.6
1965	67.5	64.9	82.6	68.7	66.3	81.7
1966	68.8	66.1	84.1	70.3	67.8	83.1
1967	69.3	67.7	77.3	69.8	68.4	76.4
1968	73.7	72.4	80.3	74.9	73.7	80.6
1969	74.2	73.2	79.3	75.9	74.7	81.6
1970	78.2	79.7	71.8	79.9	80.9	75.6
1971	85.1	87.0	77.6	87.1	88.6	80.6
1972	88.2	87.3	92.4	89.7	88.8	94.2
1973	91.1	88.5	104.9	91.9	89.3	104.9
1974	93.1	91.2	102.1	94.0	92.8	99.6
1975	91.0	92.0	86.7	90.0	91.1	85.1
1976	94.9	96.1	89.3	93.0	93.9	89.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.6	100.8	111.3	104.0	102.5	111.1
1979	96.4	96.5	96.0	94.6	94.4	95.6
1980 ²	92.0	95.6	78.6	88.3	90.9	78.5
Average annual percent change:						
1958-80	3.0	3.3	1.4	2.9	3.3	1.4
1975-80 .....	.4	.6	-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.

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 106. Structural clay products (SIC 325): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	80.8	154.1	160.9	124.1	156.1	163.4	124.7
1959	94.9	168.4	177.3	128.9	168.4	177.6	129.5
1960	95.2	164.5	172.4	128.9	166.9	175.7	129.5
1961	94.9	158.4	166.6	122.1	160.9	169.7	123.6
1962	100.4	155.5	163.7	119.1	156.2	164.8	120.1
1963	90.5	145.7	152.1	117.8	144.0	150.0	118.8
1964	99.6	150.2	155.2	127.7	144.4	148.4	128.3
1965	101.9	150.9	156.9	123.3	148.3	153.8	124.7
1966	101.7	147.8	153.9	120.9	144.7	150.0	122.4
1967	93.5	135.0	138.1	120.9	133.9	136.6	122.4
1968	99.6	135.1	137.6	124.1	132.9	135.2	123.6
1969	100.8	135.8	137.7	127.1	132.8	135.0	123.6
1970	93.5	119.6	117.3	130.2	117.0	115.6	123.6
1971	96.8	113.8	111.3	124.7	111.2	109.3	120.1
1972	103.1	116.9	118.1	111.6	114.9	116.1	109.4
1973	104.9	115.1	118.5	100.0	114.2	117.5	100.0
1974	109.0	117.1	119.5	106.8	115.9	117.5	109.4
1975	93.1	102.3	101.2	107.4	103.5	102.2	109.4
1976	96.4	101.6	100.3	108.0	103.7	102.7	108.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.2	104.5	106.3	96.3	103.1	104.6	96.5
1979	102.4	106.2	106.1	106.7	108.2	108.5	107.1
1980 ¹	84.9	92.3	88.8	108.0	96.2	93.4	108.2
Average annual percent change:							
1958-80 .....	.3	-2.6	-2.9	-1.1	-2.5	-2.8	-1.1
1975-80	-6	-1.0	-1.2	-1	-6	-7	-4

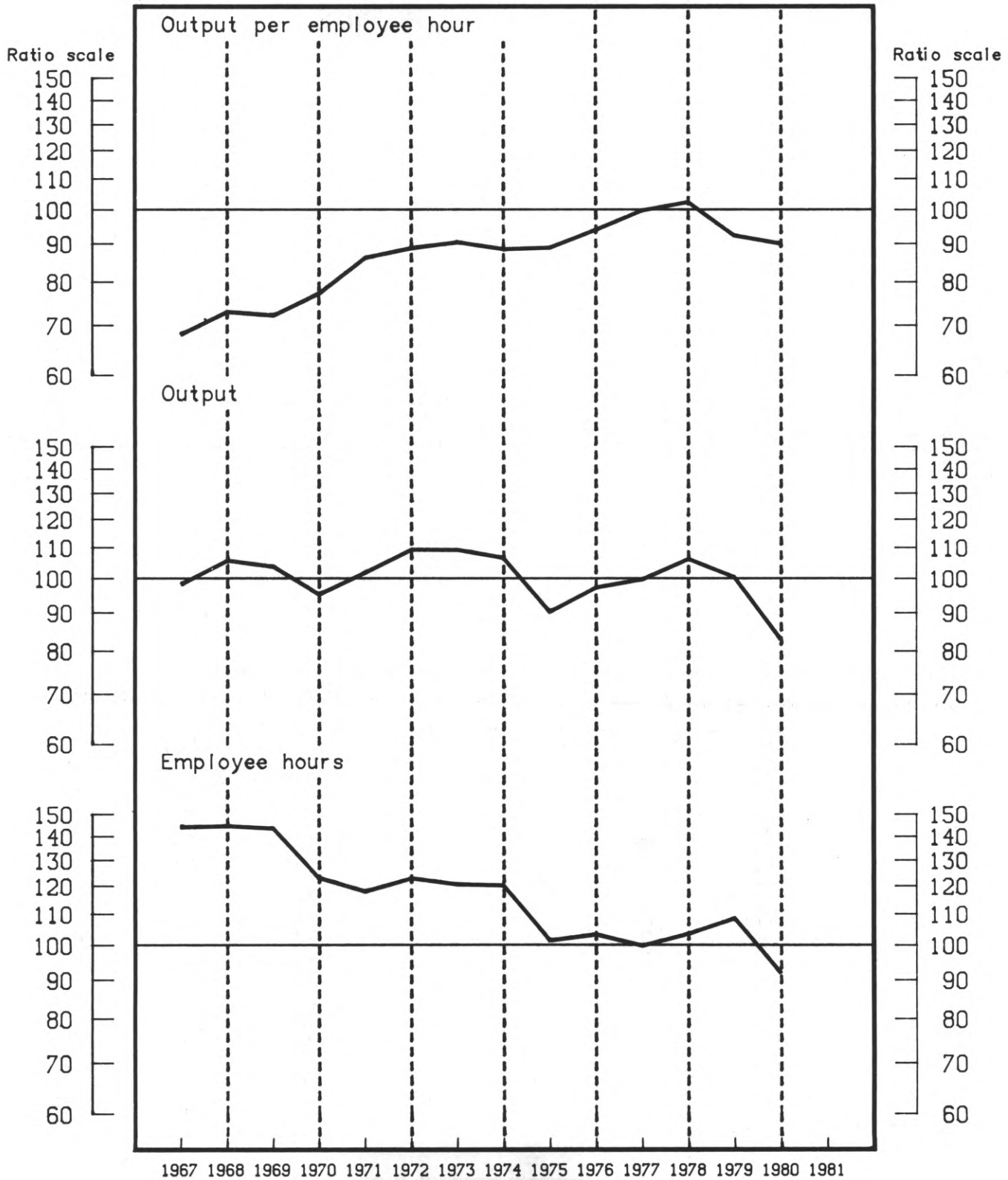
¹ Preliminary.

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 55. Clay construction products (SIC 3251, 3253, 3259): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 107. Clay construction products (SIC 3251, 3253, 3259): Indexes of output per employee hour and output per employee, 1958-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	52.0	50.1	64.4	52.0	49.9	64.5
1959	55.5	53.5	68.1	56.6	54.7	68.1
1960	57.5	55.7	68.8	57.8	56.0	68.5
1961	59.0	56.9	72.8	59.3	57.1	72.2
1962	63.7	61.3	79.3	64.8	62.3	79.1
1963	60.9	58.8	73.5	62.2	60.3	73.0
1964	65.1	63.6	74.0	68.3	67.3	73.8
1965	66.6	64.6	78.5	68.1	66.4	78.2
1966	67.3	65.2	80.7	69.5	67.7	80.0
1967	68.2	66.9	75.4	69.7	68.6	74.7
1968	73.1	71.6	81.0	75.0	73.8	81.5
1969	72.3	71.2	78.5	74.9	73.7	80.9
1970	77.4	78.3	73.0	79.6	80.1	77.2
1971	86.4	87.2	82.5	89.3	90.2	86.2
1972	89.0	87.5	96.7	91.2	89.6	99.5
1973	90.6	88.3	104.0	91.5	89.2	104.2
1974	88.7	87.4	96.6	90.2	89.4	94.2
1975	89.1	89.9	86.0	89.5	90.5	84.8
1976	94.2	95.1	90.3	93.0	93.8	89.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.6	100.8	112.2	103.6	102.0	112.0
1979	92.5	92.9	90.4	92.6	92.2	90.1
1980 ²	90.2	93.9	75.8	87.8	90.9	75.5
Average annual percent change:						
1958-80	3.0	3.2	1.6	2.9	3.1	1.7
1975-80 .....	.1	.4	-1.5	-2	.1	-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 108. Clay construction products (SIC 3251, 3253, 3259): Indexes of output, employee hours, and employees, 1958-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	89.3	171.7	178.4	138.6	171.6	178.8	138.5
1959	104.5	188.2	195.3	153.5	184.6	191.2	153.5
1960	105.1	182.7	188.8	152.7	181.8	187.7	153.5
1961	104.8	177.5	184.2	143.9	176.7	183.4	145.1
1962	112.1	175.9	182.8	141.3	173.1	179.8	141.8
1963	98.6	162.0	167.6	134.2	158.6	163.6	135.0
1964	108.4	166.5	170.4	146.5	158.6	161.1	146.8
1965	109.5	164.3	169.4	139.5	160.7	165.0	140.1
1966	106.8	158.7	163.9	132.4	153.6	157.8	133.5
1967	98.5	144.5	147.3	130.7	141.4	143.5	131.8
1968	105.9	144.9	147.9	130.7	141.2	143.5	130.0
1969	103.9	143.8	145.9	132.4	138.8	140.9	128.5
1970	95.4	123.3	121.8	130.7	119.8	119.1	123.5
1971	102.1	118.2	117.1	123.7	114.3	113.2	118.4
1972	109.5	123.1	125.2	113.2	120.1	122.2	110.0
1973	109.4	120.8	123.9	105.2	119.5	122.7	105.0
1974	106.8	120.4	122.2	110.6	118.4	119.4	113.4
1975	90.5	101.6	100.7	105.2	101.1	100.0	106.7
1976	97.5	103.5	102.5	108.0	104.8	103.9	108.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.4	103.7	105.6	94.8	102.7	104.3	95.0
1979	100.6	108.8	108.3	111.3	108.6	107.9	111.7
1980 ¹	83.1	92.1	88.5	109.6	94.7	91.4	110.0
Average annual percent change:							
1958-80	-3	-3.2	-3.4	-1.9	-3.1	-3.3	-1.9
1975-80	-8	-9	-1.2	.7	-6	-8	.5

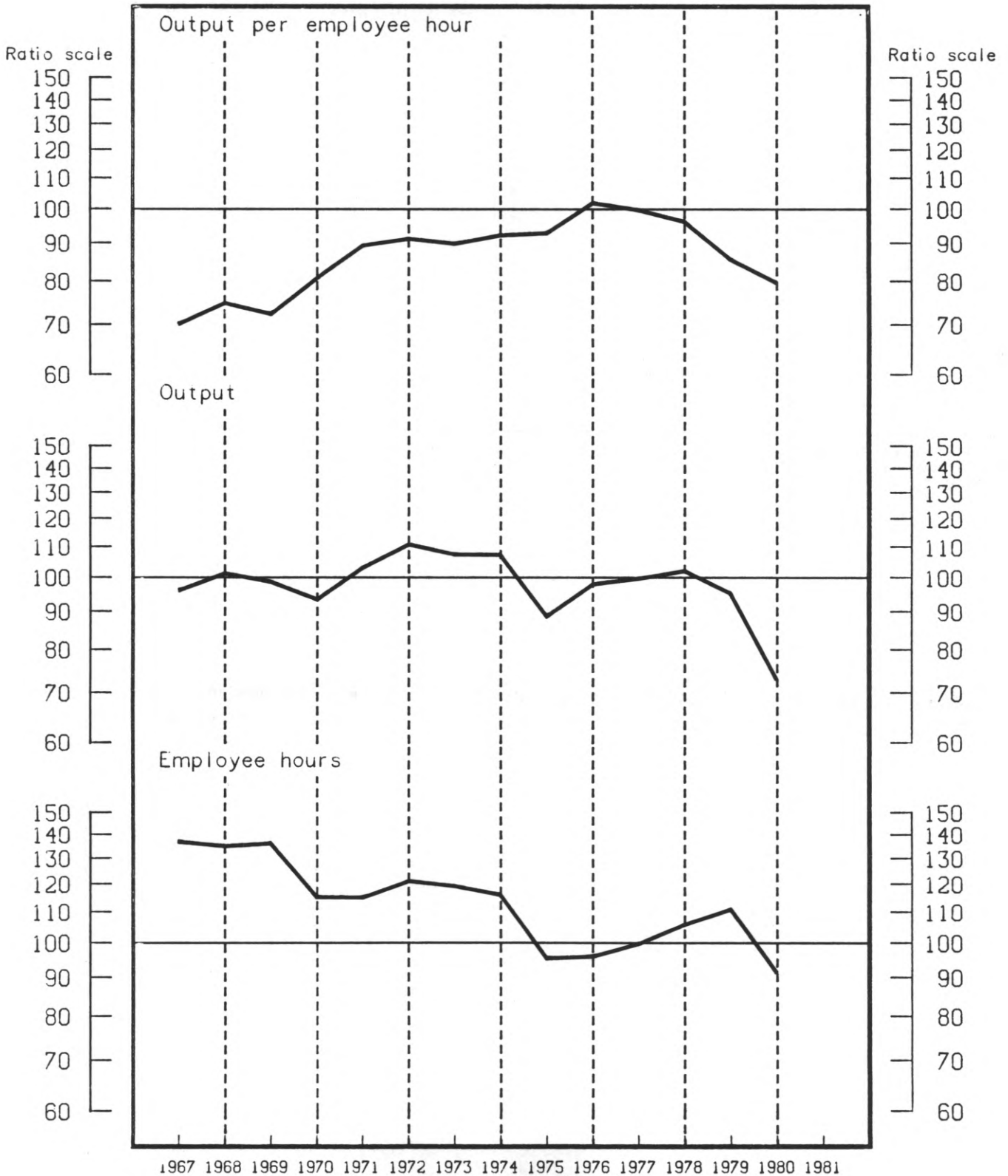
¹ Preliminary.

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 56. Brick and structural clay tile (SIC 3251): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 109. Brick and structural clay tile (SIC 3251): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	55.4	52.9	73.8	56.6	54.1	73.3
1959	59.3	56.2	82.8	60.9	57.9	82.5
1960	62.9	60.5	79.1	62.9	60.6	78.3
1961	64.6	61.3	88.8	64.7	61.4	87.3
1962	69.2	65.8	94.2	70.5	67.3	92.7
1963	63.3	60.6	82.5	65.3	62.8	81.8
1964	68.7	66.2	85.9	72.0	69.9	85.6
1965	70.5	67.7	89.8	72.6	70.1	88.2
1966	71.4	68.3	92.8	74.4	71.7	91.0
1967	70.3	68.5	81.8	71.8	70.4	80.3
1968	75.0	73.1	87.3	76.5	74.8	86.7
1969	72.5	71.0	80.9	75.4	74.2	82.5
1970	81.1	81.1	81.5	82.4	81.7	86.3
1971	89.6	90.2	87.7	92.5	93.1	90.5
1972	91.5	89.5	103.4	94.5	92.6	105.0
1973	90.1	88.1	103.1	91.9	90.3	101.8
1974	92.5	90.6	104.6	94.2	92.9	101.7
1975	93.1	93.2	93.2	93.5	94.0	91.6
1976	102.2	103.6	96.8	99.6	100.8	95.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	96.5	94.9	105.6	97.2	95.6	105.5
1979	85.8	88.0	76.2	85.5	87.8	76.0
1980 ²	79.9	84.6	62.1	77.0	80.8	62.5
Average annual percent change:						
1958-80	2.4	2.8	.4	2.2	2.6	.4
1975-80	-3.7	-2.9	-7.4	-4.1	-3.4	-7.0

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

² Preliminary.

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

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

Table 110. Brick and structural clay tile (SIC 3251): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	85.9	155.1	162.5	116.4	151.8	158.8	117.2
1959	101.4	170.9	180.3	122.4	166.4	175.2	122.9
1960	105.1	167.2	173.8	132.9	167.0	173.4	134.3
1961	107.3	166.1	174.9	120.9	165.9	174.7	122.9
1962	113.9	164.7	173.2	120.9	161.6	169.3	122.9
1963	91.2	144.0	150.6	110.5	139.6	145.2	111.5
1964	102.7	149.5	155.2	119.5	142.6	147.0	120.0
1965	105.9	150.2	156.5	117.9	145.9	151.1	120.0
1966	106.7	149.5	156.2	115.0	143.5	148.8	117.2
1967	96.4	137.2	140.8	117.9	134.2	137.0	120.0
1968	101.6	135.4	139.0	116.4	132.8	135.8	117.2
1969	99.0	136.6	139.4	122.4	131.3	133.4	120.0
1970	93.7	115.5	115.5	115.0	113.7	114.7	108.6
1971	103.4	115.4	114.6	117.9	111.8	111.1	114.3
1972	111.1	121.4	124.1	107.4	117.6	120.0	105.8
1973	107.7	119.5	122.3	104.5	117.2	119.3	105.8
1974	107.6	116.3	118.7	102.9	114.2	115.8	105.8
1975	89.0	95.6	95.5	95.5	95.2	94.7	97.2
1976	98.3	96.2	94.9	101.5	98.7	97.5	102.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.4	106.1	107.9	97.0	105.4	107.1	97.1
1979	95.5	111.3	108.5	125.4	111.7	108.8	125.7
1980 ¹	73.2	91.6	86.5	117.9	95.1	90.6	117.1
Average annual percent change:							
1958-80	-.4	-2.7	-3.0	-.7	-2.6	-2.9	-.8
1975-80	-2.9	.8	(²)	4.8	1.2	.5	4.4

¹ Preliminary.

² Less than .05 percent.

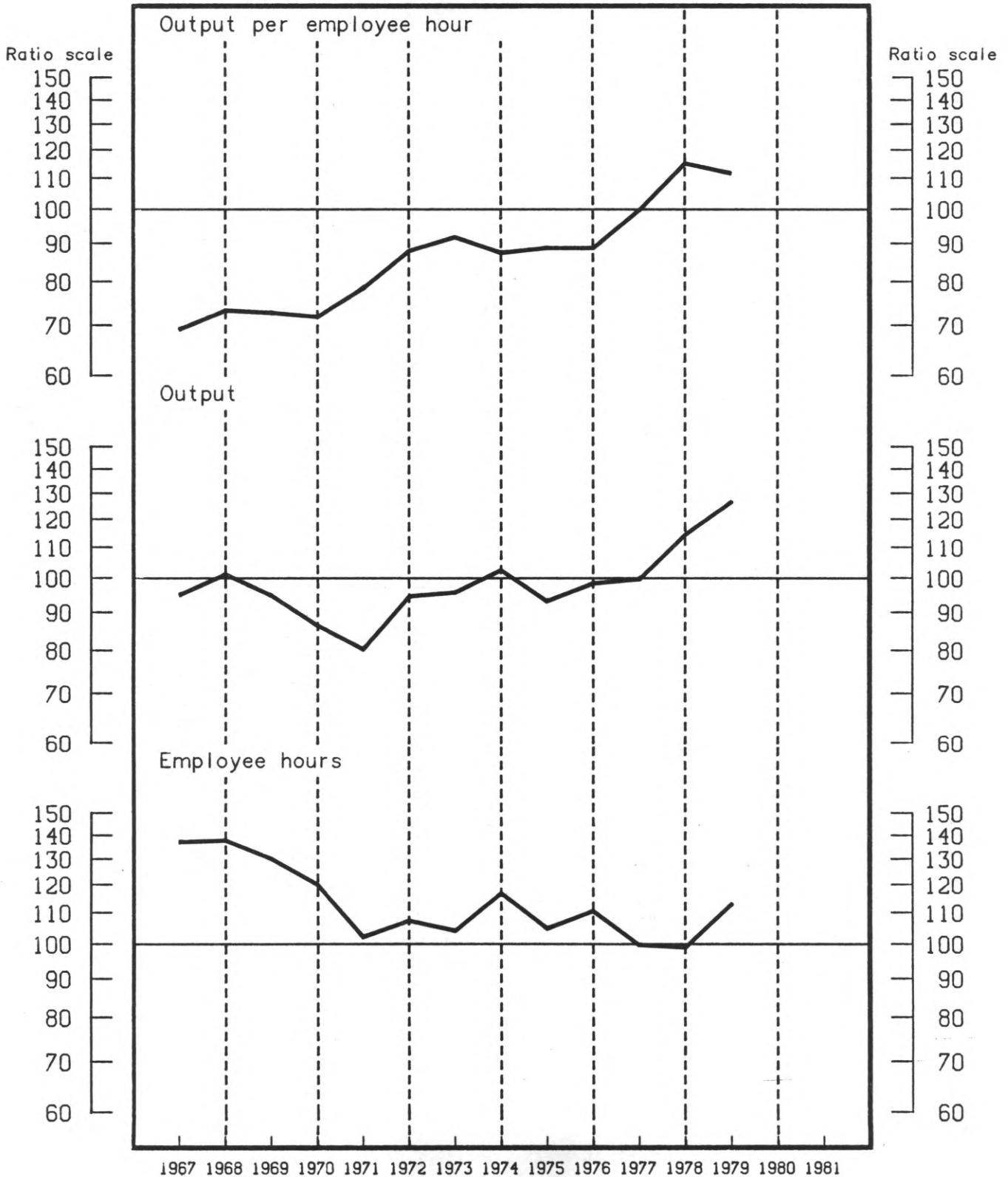
NOTE: Because of periodic revisions in source data, the measures in this table

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. Ceramic wall and floor tile (SIC 3253): Output per hour and related data, 1967-79

(1977 = 100)



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

Table 111. Ceramic wall and floor tile (SIC 3253): Indexes of output per employee hour and output per employee, 1958-79
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	49.6	48.2	56.8	49.0	47.5	56.0
1959	53.9	53.3	56.8	54.1	53.8	55.5
1960	52.4	52.2	53.3	53.0	53.2	52.1
1961	55.8	56.4	52.7	55.2	56.1	51.4
1962	61.4	60.7	64.3	61.6	61.4	62.6
1963	60.2	59.5	63.0	59.5	59.1	61.0
1964	62.8	63.2	60.7	63.5	64.6	59.2
1965	64.1	63.5	66.8	64.2	64.1	64.8
1966	64.9	63.9	69.2	65.9	65.6	66.7
1967	69.3	69.3	69.1	70.1	70.6	68.0
1968	73.4	74.3	70.1	74.7	76.1	69.1
1969	72.9	73.3	70.7	73.4	74.0	71.3
1970	72.0	74.4	62.9	74.4	76.9	65.0
1971	78.6	78.8	77.9	79.6	79.3	80.6
1972	88.2	86.7	94.9	89.2	87.9	94.9
1973	92.0	89.7	103.1	91.3	88.9	102.8
1974	87.7	87.1	90.3	87.2	87.5	85.7
1975	89.0	91.4	79.8	87.9	90.6	77.9
1976	89.0	88.9	89.5	88.5	88.8	87.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	115.5	112.1	133.1	117.8	114.7	132.3
1979 ²	112.0	108.9	126.9	113.8	111.0	126.9
Average annual percent change:						
1958-79	3.8	3.8	3.8	3.8	3.8	3.9
1975-79	7.5	6.0	14.2	8.4	6.8	15.0

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

² Preliminary.

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

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

Table 112. Ceramic wall and floor tile (SIC 3253): Indexes of output, employee hours, and employees, 1958-79
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	82.2	165.6	170.4	144.8	167.9	173.0	146.8
1959	99.9	185.3	187.6	175.9	184.5	185.7	180.1
1960	93.8	179.0	179.8	175.9	176.9	176.2	180.1
1961	89.1	159.8	157.9	169.0	161.5	158.7	173.4
1962	104.3	170.0	171.9	162.1	169.2	169.9	166.7
1963	97.7	162.4	164.1	155.2	164.1	165.2	160.1
1964	106.7	170.0	168.8	175.9	167.9	165.2	180.1
1965	103.7	161.8	163.4	155.2	161.5	161.9	160.1
1966	97.9	150.9	153.2	141.4	148.6	149.3	146.8
1967	95.3	137.6	137.6	137.9	135.9	135.0	140.1
1968	101.5	138.2	136.7	144.8	135.9	133.3	146.8
1969	95.1	130.5	129.7	134.5	129.5	128.6	133.3
1970	86.7	120.4	116.5	137.9	116.6	112.7	133.3
1971	80.6	102.5	102.3	103.4	101.2	101.6	100.0
1972	94.9	107.6	109.4	100.0	106.4	108.0	100.0
1973	96.0	104.4	107.0	93.1	105.2	108.0	93.4
1974	102.8	117.2	118.0	113.8	117.9	117.5	120.0
1975	93.5	105.1	102.3	117.2	106.4	103.2	120.0
1976	98.7	110.9	111.0	110.3	111.5	111.2	113.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	114.7	99.3	102.3	86.2	97.4	100.0	86.7
1979 ¹	126.9	113.3	116.5	100.0	111.5	114.3	100.0
Average annual percent change:							
1958-79 .....	.6	-3.0	-3.0	-3.1	-3.1	-3.0	-3.2
1975-79	7.9	.4	1.8	-5.5	-.4	1.0	-6.1

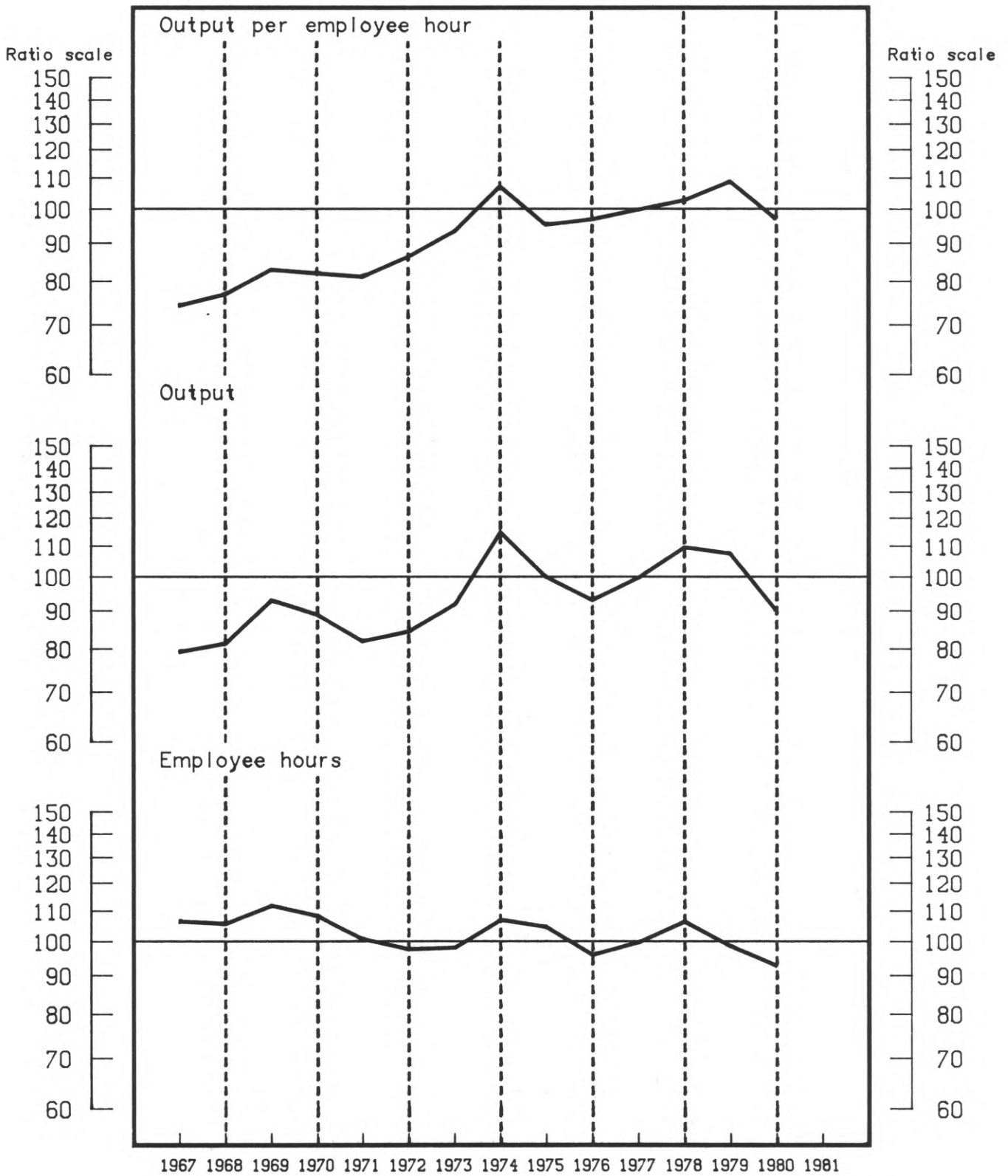
¹ Preliminary.

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

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

Chart 58. Clay refractories (SIC 3255): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 113. Clay refractories (SIC 3255): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	53.7	52.2	60.2	50.3	48.1	60.0
1959	59.6	54.3	92.4	54.4	48.8	90.8
1960	59.3	54.1	91.9	52.9	47.3	90.4
1961	63.6	58.8	91.4	56.7	51.3	89.9
1962	67.7	62.6	96.6	60.7	55.0	94.7
1963	67.2	63.9	83.0	65.1	61.5	82.1
1964	72.0	68.6	88.0	71.4	67.9	87.3
1965	71.6	67.7	90.9	71.4	67.3	90.5
1966	75.6	72.0	93.4	73.8	70.0	91.1
1967	74.4	72.8	81.1	71.2	69.2	79.4
1968	77.0	77.5	75.3	74.9	74.7	75.5
1969	83.1	83.7	81.3	81.0	80.3	83.2
1970	82.1	86.7	69.0	81.9	85.2	71.9
1971	81.3	88.2	63.5	79.9	84.9	66.2
1972	86.5	89.7	76.6	85.4	87.5	78.3
1973	93.6	91.0	105.0	93.7	91.0	104.5
1974	107.5	104.6	120.1	105.9	103.4	115.2
1975	95.5	97.5	89.1	90.6	91.8	86.4
1976	97.1	100.2	87.8	92.5	94.3	86.4
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.9	101.2	109.8	105.2	103.9	109.8
1979	109.1	108.4	112.4	100.6	97.7	112.2
1980 ²	97.2	100.6	86.7	89.5	90.3	86.8
Average annual percent change:						
1958-80	3.0	3.4	.9	3.2	3.7	.9
1975-80	1.3	1.2	2.0	.7	.2	2.6

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

² Preliminary.

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

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

Table 114. Clay refractories (SIC 3255): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	55.2	102.7	105.7	91.7	109.7	114.8	92.0
1959	65.4	109.8	120.4	70.8	120.3	134.1	72.0
1960	65.1	109.8	120.4	70.8	123.0	137.5	72.0
1961	64.7	101.8	110.1	70.8	114.2	126.2	72.0
1962	64.4	95.1	102.8	66.7	106.1	117.1	68.0
1963	65.7	97.8	102.8	79.2	100.9	106.9	80.0
1964	73.3	101.8	106.8	83.3	102.7	108.0	84.0
1965	79.6	111.2	117.6	87.6	111.5	118.3	88.0
1966	87.5	115.7	121.6	93.7	118.5	125.0	96.0
1967	79.4	106.7	109.1	97.9	111.5	114.8	100.0
1968	81.5	105.9	105.1	108.3	108.8	109.1	108.0
1969	93.2	112.1	111.3	114.6	115.1	116.0	112.0
1970	89.1	108.5	102.8	129.2	108.8	104.6	124.0
1971	82.1	101.0	93.1	129.2	102.7	96.7	124.0
1972	84.6	97.8	94.3	110.5	99.1	96.7	108.0
1973	92.0	98.3	101.1	87.6	98.2	101.1	88.0
1974	115.2	107.2	110.1	95.9	108.8	111.4	100.0
1975	100.2	104.9	102.8	112.5	110.6	109.1	116.0
1976	93.3	96.1	93.1	106.3	100.9	98.9	108.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.8	106.7	108.5	100.0	104.4	105.7	100.0
1979	107.7	98.7	99.4	95.8	107.1	110.2	96.0
1980 ¹	90.3	92.9	89.8	104.2	100.9	100.0	104.0
Average annual percent change:							
1958-80	2.7	-.3	-.8	1.8	-.5	-1.0	1.7
1975-80	(²)	-1.3	-1.1	-2.0	-.7	-2	-2.5

¹ Preliminary.

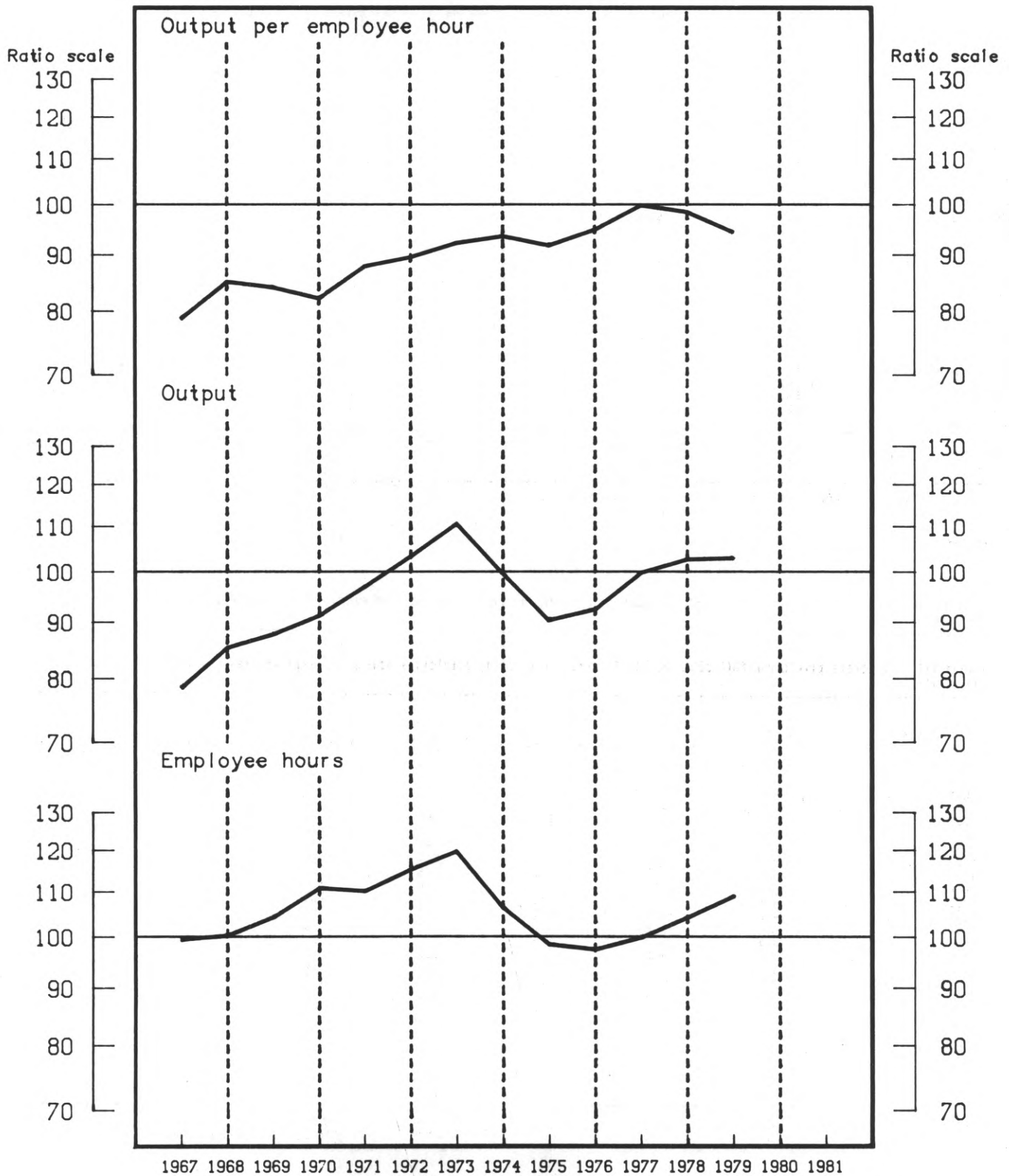
² Less than .05 percent.

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 59. Concrete products (SIC 3271, 3272): Output per hour and related data, 1967-79
 (1977 = 100)



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

Table 115. Concrete products (SIC 3271, 3272): Indexes of output per employee hour and output per employee, 1954-79
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	53.1	51.2	61.4	54.9	53.0	61.5
1955	56.2	53.9	67.2	57.8	55.2	66.9
1956	61.4	58.9	72.8	64.2	61.7	72.7
1957	60.1	58.3	68.3	62.1	60.3	68.4
1958	59.1	58.0	64.5	60.0	58.5	64.5
1959	60.2	57.1	74.6	63.1	59.9	74.4
1960	57.6	54.5	72.4	62.2	59.4	72.1
1961	58.7	55.8	72.1	63.5	61.2	71.5
1962	59.8	56.7	74.6	65.2	62.6	74.2
1963	64.8	63.1	73.1	68.4	67.2	72.7
1964	68.7	67.2	75.6	72.9	72.0	75.5
1965	71.3	69.6	80.0	74.4	72.8	79.4
1966	75.7	75.2	80.1	77.5	76.9	79.2
1967	78.9	75.6	91.0	81.1	78.4	90.0
1968	85.2	81.9	96.9	88.3	85.6	97.3
1969	84.2	81.5	93.9	88.8	86.3	96.9
1970	82.3	79.6	92.1	86.9	83.7	97.5
1971	88.0	86.1	94.4	90.2	87.7	98.6
1972	89.7	87.9	95.4	91.9	90.1	97.7
1973	92.4	90.4	98.6	95.0	93.9	98.8
1974	93.7	91.1	102.9	94.9	93.1	100.2
1975	91.9	92.4	90.0	91.5	92.4	88.7
1976	95.0	94.6	96.0	96.5	96.6	95.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.6	98.4	98.9	98.4	98.2	98.9
1979 ²	94.5	95.0	93.1	94.9	95.5	93.5
Average annual percent change:						
1947-79	3.0	3.3	1.6	2.8	3.1	1.6
1975-79	.9	1.0	1.0	.9	.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, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 116. Concrete products (SIC 3271, 3272): Indexes of output, employee hours, and employees, 1954-79
(1977 = 100)

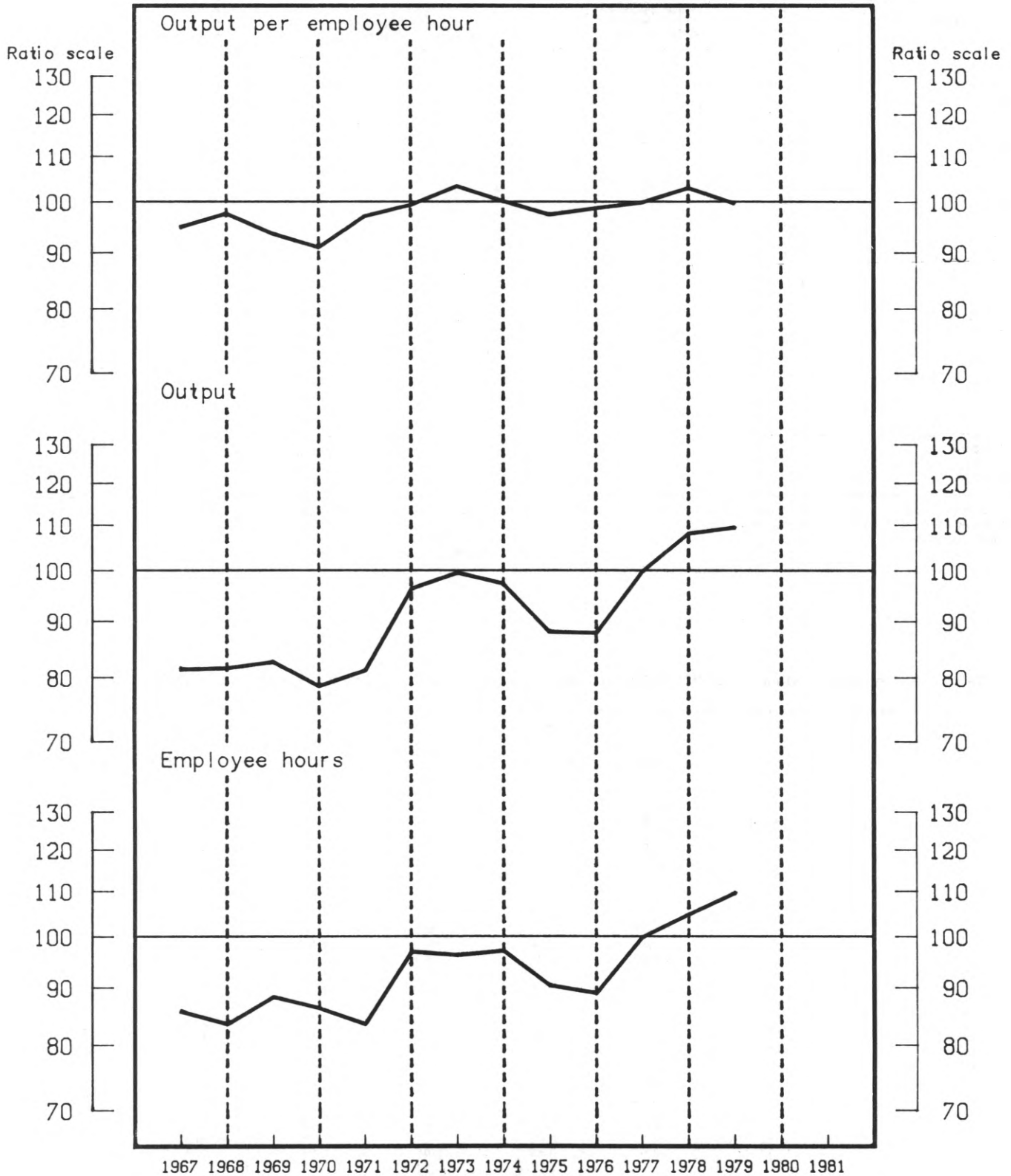
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	41.3	77.8	80.6	67.3	75.2	77.9	67.1
1955	47.7	84.8	88.5	71.0	82.5	86.4	71.3
1956	55.9	91.1	94.9	76.8	87.1	90.6	76.9
1957	54.0	89.9	92.6	79.1	86.9	89.6	79.0
1958	51.5	87.2	88.8	79.9	85.9	88.0	79.9
1959	55.5	92.2	97.2	74.4	88.0	92.6	74.6
1960	56.1	97.4	103.0	77.5	90.2	94.5	77.8
1961	56.2	95.7	100.7	78.0	88.5	91.9	78.6
1962	58.1	97.1	102.5	77.9	89.1	92.8	78.3
1963	64.8	100.0	102.7	88.6	94.7	96.5	89.1
1964	70.6	102.8	105.0	93.4	96.9	98.0	93.5
1965	76.9	107.8	110.5	96.1	103.3	105.7	96.8
1966	81.9	108.2	108.9	102.2	105.7	106.5	103.4
1967	78.6	99.6	104.0	86.4	96.9	100.2	87.3
1968	85.5	100.4	104.4	88.2	96.8	99.9	87.9
1969	87.9	104.4	107.9	93.6	99.0	101.9	90.7
1970	91.4	111.0	114.8	99.2	105.2	109.2	93.7
1971	97.1	110.3	112.8	102.9	107.6	110.7	98.5
1972	103.5	115.4	117.8	108.5	112.6	114.9	105.9
1973	110.8	119.9	122.5	112.4	116.6	118.0	112.2
1974	99.8	106.5	109.6	97.0	105.2	107.2	99.6
1975	90.5	98.5	97.9	100.5	98.9	97.9	102.0
1976	92.6	97.5	97.9	96.5	96.0	95.9	96.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.8	104.3	104.5	103.9	104.5	104.7	103.9
1979 ¹	103.1	109.1	108.5	110.8	108.6	108.0	110.3
Average annual percent change:							
1947-79	4.3	1.3	1.0	2.7	1.5	1.2	2.7
1975-79	3.7	2.8	2.7	2.7	2.8	2.9	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, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 60. Ready-mixed concrete (SIC 3273): Output per hour and related data, 1967-79
(1977 = 100)



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

Table 117. Ready-mixed concrete (SIC 3273): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-79
(1977 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	77.4	76.5	54.1	69.9	70.7
1959	79.2	78.5	60.4	76.3	76.9
1960	77.9	79.8	58.8	75.5	73.7
1961	76.7	79.8	59.3	77.3	74.3
1962	78.7	80.6	61.1	77.6	75.8
1963	85.8	88.5	72.0	83.9	81.4
1964	86.2	88.8	73.0	84.7	82.2
1965	90.3	91.1	79.0	87.5	86.7
1966	90.7	91.3	78.3	86.3	85.8
1967	95.0	96.2	81.5	85.8	84.7
1968	97.7	98.3	81.7	83.6	83.1
1969	93.7	97.2	82.8	88.4	85.2
1970	91.1	90.6	78.7	86.4	86.9
1971	97.2	93.1	81.3	83.6	87.3
1972	99.5	99.0	96.5	97.0	97.5
1973	103.5	101.4	99.7	96.3	98.3
1974	100.3	98.3	97.5	97.2	99.2
1975	97.5	93.1	88.2	90.5	94.7
1976	98.8	94.5	88.0	89.1	93.1
1977	100.0	100.0	100.0	100.0	100.0
1978	103.1	102.8	108.2	104.9	105.3
1979 ¹	99.8	98.4	109.6	109.8	111.4
Average annual percent change:					
1958-79	1.4	1.2	3.1	1.6	1.8
1975-79	9	2.0	6.6	5.7	4.6

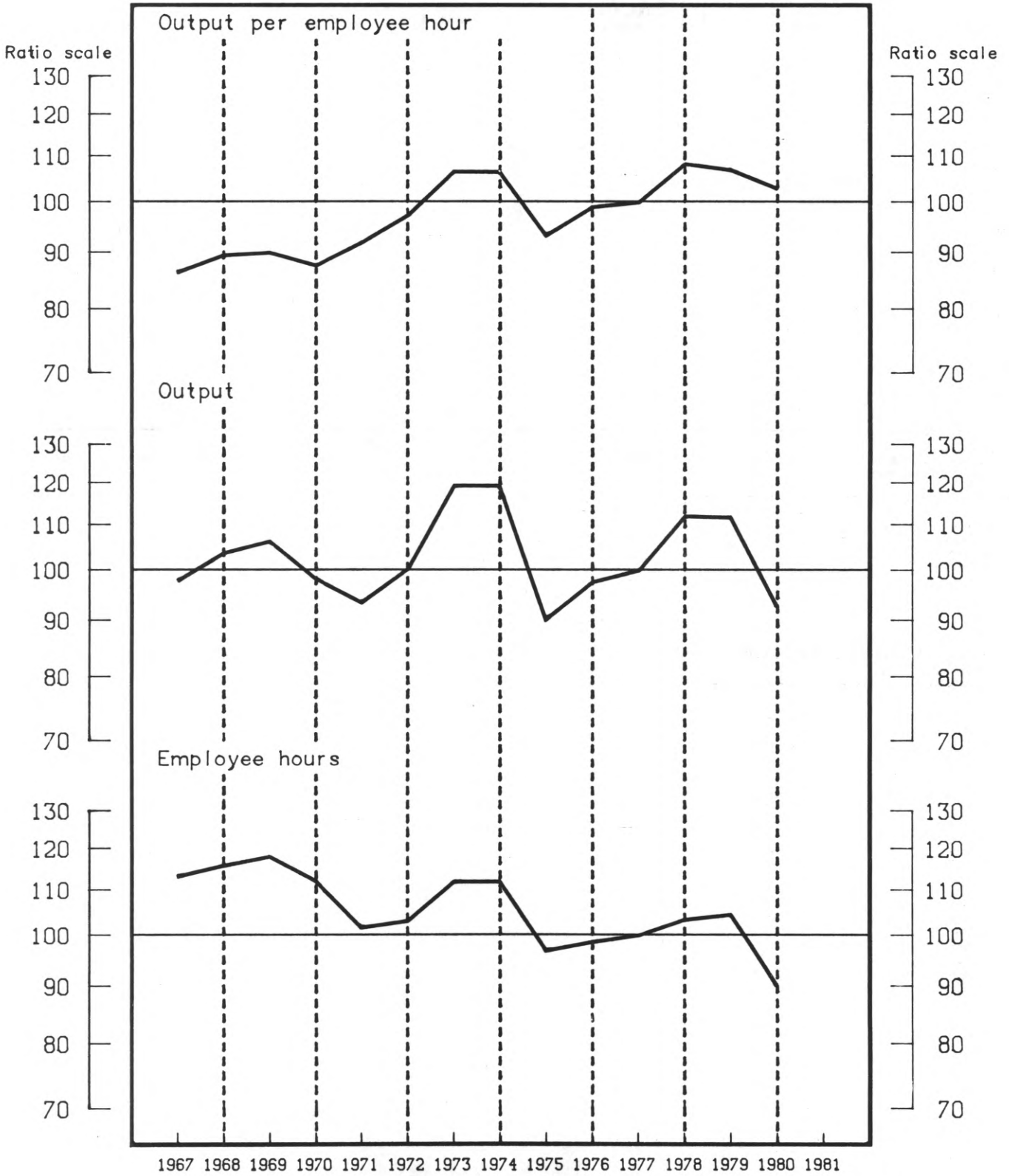
¹ Preliminary.

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

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

Chart 61. Steel (SIC 331): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 118. Steel (SIC 331): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	66.8	62.0	91.9	62.8	57.9	89.5
1955	75.9	69.0	117.7	75.7	69.0	114.5
1956	74.8	68.8	106.6	74.4	68.8	103.7
1957	72.9	68.2	95.4	70.5	65.9	92.9
1958	67.4	65.6	74.6	63.1	60.8	72.6
1959	75.7	73.4	85.0	74.8	72.6	82.7
1960	71.2	68.8	80.8	67.5	64.8	78.4
1961	73.4	71.4	81.4	70.7	68.6	78.8
1962	77.1	74.9	86.2	74.6	72.5	83.3
1963	80.6	77.0	96.1	79.7	76.4	93.0
1964	84.1	79.3	106.5	84.8	80.7	103.0
1965	87.5	82.6	110.7	88.3	84.0	107.1
1966	89.2	84.8	109.5	89.6	85.7	105.8
1967	86.4	83.6	98.0	85.5	83.1	94.8
1968	89.5	87.6	96.8	90.4	88.6	97.3
1969	90.0	87.7	98.9	91.5	89.6	99.3
1970	87.6	86.0	93.4	86.9	85.1	94.0
1971	91.9	91.0	95.4	90.4	89.0	95.4
1972	97.3	95.5	104.4	97.9	95.9	105.4
1973	106.6	103.3	119.9	109.5	106.6	121.2
1974	106.5	103.7	117.7	108.5	106.0	118.8
1975	93.3	93.5	92.4	91.3	91.3	91.5
1976	99.0	98.5	100.4	98.5	98.1	99.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.3	106.9	113.7	110.9	109.7	114.8
1979	106.9	105.1	113.2	108.6	107.0	114.0
1980 ²	102.9	104.2	98.4	100.3	101.3	97.0
Average annual percent change:						
1947-80	1.7	2.1	.1	1.9	2.2	.2
1975-80	2.3	2.3	2.3	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 based on data from the American Iron and Steel Institute; the Energy Information Administration, U.S. Department of Energy; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

Table 119. Steel (SIC 331): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

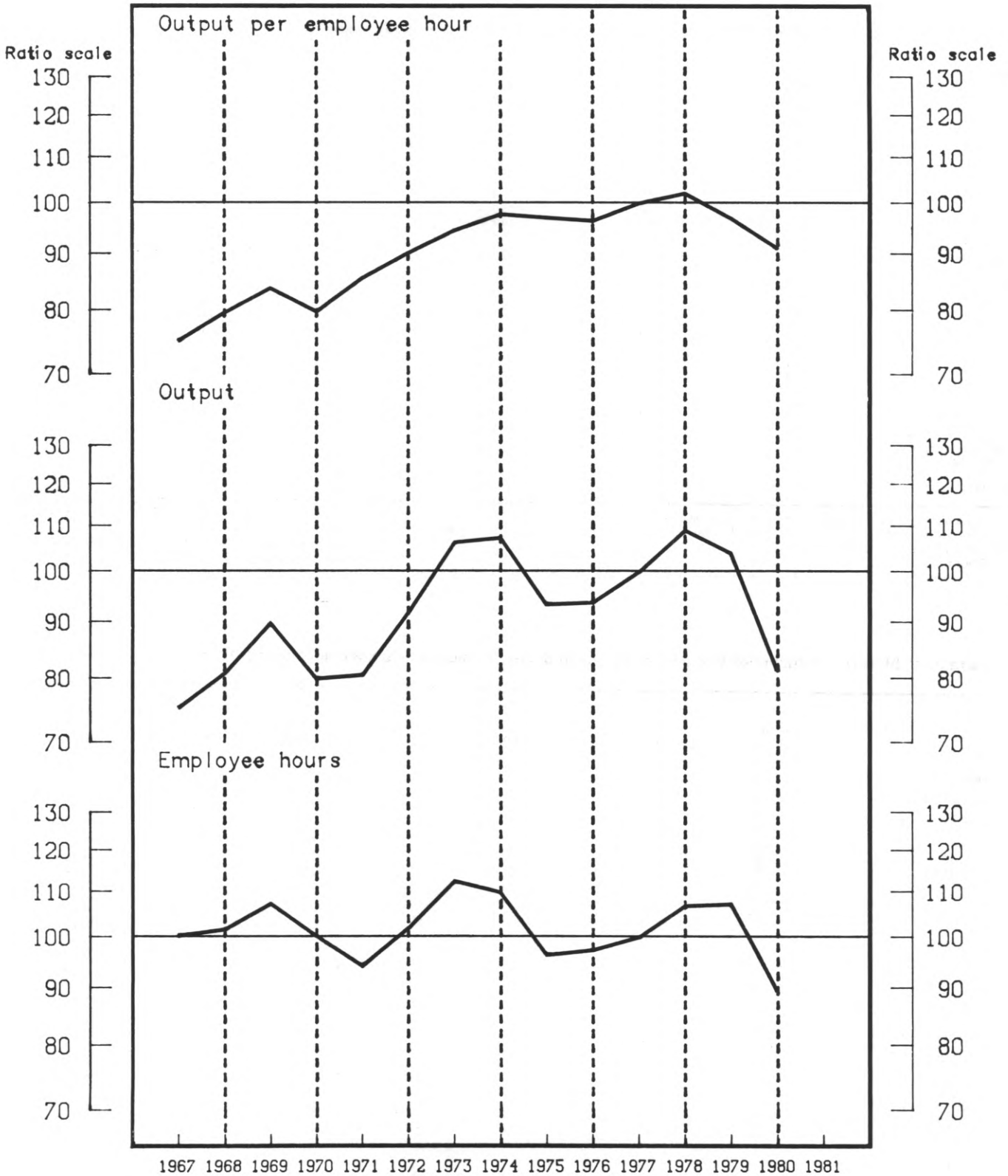
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	73.1	109.4	117.9	79.5	116.4	126.3	81.7
1955	96.4	127.0	139.8	81.9	127.4	139.8	84.2
1956	94.8	126.8	137.7	88.9	127.4	137.7	91.4
1957	91.5	125.5	134.1	95.9	129.8	138.8	98.5
1958	68.4	101.5	104.2	91.7	108.4	112.5	94.2
1959	79.1	104.5	107.8	93.1	105.8	109.0	95.7
1960	79.3	111.4	115.2	98.2	117.4	122.3	101.1
1961	75.9	103.4	106.3	93.3	107.3	110.6	96.3
1962	79.8	103.5	106.6	92.6	106.9	110.1	95.8
1963	84.7	105.1	110.0	88.1	106.3	110.8	91.1
1964	96.2	114.4	121.3	90.3	113.4	119.2	93.4
1965	104.6	119.6	126.7	94.5	118.4	124.5	97.7
1966	105.3	118.0	124.2	96.2	117.5	122.9	99.5
1967	97.9	113.3	117.1	99.9	114.5	117.8	103.3
1968	103.7	115.9	118.4	107.1	114.7	117.1	106.6
1969	106.3	118.1	121.2	107.5	116.2	118.7	107.0
1970	98.3	112.2	114.3	105.2	113.1	115.5	104.6
1971	93.5	101.7	102.8	98.0	103.4	105.1	98.0
1972	100.3	103.1	105.0	96.1	102.5	104.6	95.2
1973	119.4	112.0	115.6	99.6	109.0	112.0	98.5
1974	119.3	112.0	115.0	101.4	110.0	112.6	100.4
1975	90.3	96.8	96.6	97.7	98.9	98.9	98.7
1976	97.6	98.6	99.1	97.2	99.1	99.5	97.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	112.0	103.4	104.8	98.5	101.0	102.1	97.6
1979	111.7	104.5	106.3	98.7	102.9	104.4	98.0
1980 ¹	92.7	90.1	89.0	94.2	92.4	91.5	95.6
Average annual percent change:							
1947-80	1.2	-5	-9	1.1	-6	-1.0	1.0
1975-80	1.9	-4	-4	-4	-6	-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 based on data from the American Iron and Steel Institute; the Energy Information Administration, U.S. Department of Energy; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 62. Gray iron foundries (SIC 3321): Output per hour and related data, 1967-80
 (1977 = 100)



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

Table 120. Gray iron foundries (SIC 3321): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	58.7	56.6	75.9	57.2	54.5	77.6
1955	63.3	60.4	88.5	65.1	62.0	90.2
1956	62.9	60.6	80.3	63.0	60.3	81.9
1957	61.1	59.7	71.2	58.7	56.6	72.5
1958	63.3	63.3	63.5	58.9	57.9	64.7
1959	65.3	63.9	76.0	64.8	62.9	77.3
1960	65.0	64.4	68.4	62.2	61.0	69.8
1961	66.7	66.4	68.9	63.1	61.9	70.1
1962	69.2	68.1	77.1	68.5	66.8	78.7
1963	70.7	69.1	82.8	72.2	70.2	84.6
1964	75.1	72.6	94.2	79.6	77.1	96.7
1965	78.8	76.2	98.8	84.1	81.5	101.0
1966	79.3	76.7	98.3	83.3	80.8	100.1
1967	75.1	73.3	87.2	75.8	73.8	88.6
1968	79.6	77.9	91.5	82.6	80.4	96.2
1969	83.8	81.6	99.1	86.7	84.3	101.9
1970	79.8	78.8	86.6	78.7	77.3	87.1
1971	85.6	84.7	91.2	84.4	83.4	90.1
1972	90.2	88.3	103.4	92.2	90.9	99.6
1973	94.5	92.1	110.8	96.9	94.9	107.8
1974	97.7	95.7	111.2	98.2	96.4	108.3
1975	97.0	96.9	97.3	94.0	93.6	95.5
1976	96.4	96.4	96.4	95.7	95.6	95.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.1	102.0	102.4	101.4	101.2	102.4
1979	96.9	98.2	90.3	94.8	95.7	90.7
1980 ²	91.1	94.3	75.9	87.4	89.8	76.5
Average annual percent change:						
1954-80	2.2	2.3	1.2	2.2	2.4	1.1
1975-80	-8	-2	-4.0	-1.1	-5	-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, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 121. Gray iron foundries (SIC 3321): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	55.2	94.0	97.5	72.7	96.5	101.3	71.1
1955	67.9	107.3	112.5	76.7	104.3	109.6	75.3
1956	64.8	103.1	107.0	80.7	102.8	107.4	79.1
1957	57.5	94.1	96.3	80.8	98.0	101.6	79.3
1958	47.8	75.5	75.5	75.3	81.1	82.5	73.9
1959	58.8	90.0	92.0	77.4	90.7	93.5	76.1
1960	54.5	83.9	84.6	79.7	87.6	89.4	78.1
1961	51.7	77.5	77.9	75.0	81.9	83.5	73.7
1962	58.8	85.0	86.4	76.3	85.9	88.0	74.7
1963	62.7	88.7	90.8	75.7	86.8	89.3	74.1
1964	72.5	96.5	99.9	77.0	91.1	94.0	75.0
1965	81.7	103.7	107.2	82.7	97.1	100.3	80.9
1966	84.5	106.6	110.1	86.0	101.4	104.6	84.4
1967	75.3	100.3	102.7	86.4	99.4	102.1	85.0
1968	80.9	101.6	103.9	88.4	98.0	100.6	84.1
1969	89.9	107.3	110.2	90.7	103.7	106.6	88.2
1970	80.0	100.2	101.5	92.4	101.6	103.5	91.8
1971	80.6	94.2	95.2	88.4	95.5	96.6	89.5
1972	91.9	101.9	104.1	88.9	99.7	101.1	92.3
1973	106.3	112.5	115.4	95.9	109.7	112.0	98.6
1974	107.3	109.8	112.1	96.5	109.3	111.3	99.1
1975	93.4	96.3	96.4	96.0	99.4	99.8	97.8
1976	93.8	97.3	97.3	97.3	98.0	98.1	97.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.0	106.8	106.9	106.4	107.5	107.7	106.4
1979	103.9	107.2	105.8	115.1	109.6	108.6	114.5
1980 ¹	81.4	89.4	86.3	107.2	93.1	90.6	106.4
Average annual percent change:							
1954-80	2.7	.5	.4	1.5	.5	.3	1.6
1975-80	-8	(²)	-7	3.2	2	-3	2.8

¹ Preliminary.

² Less than .05 percent.

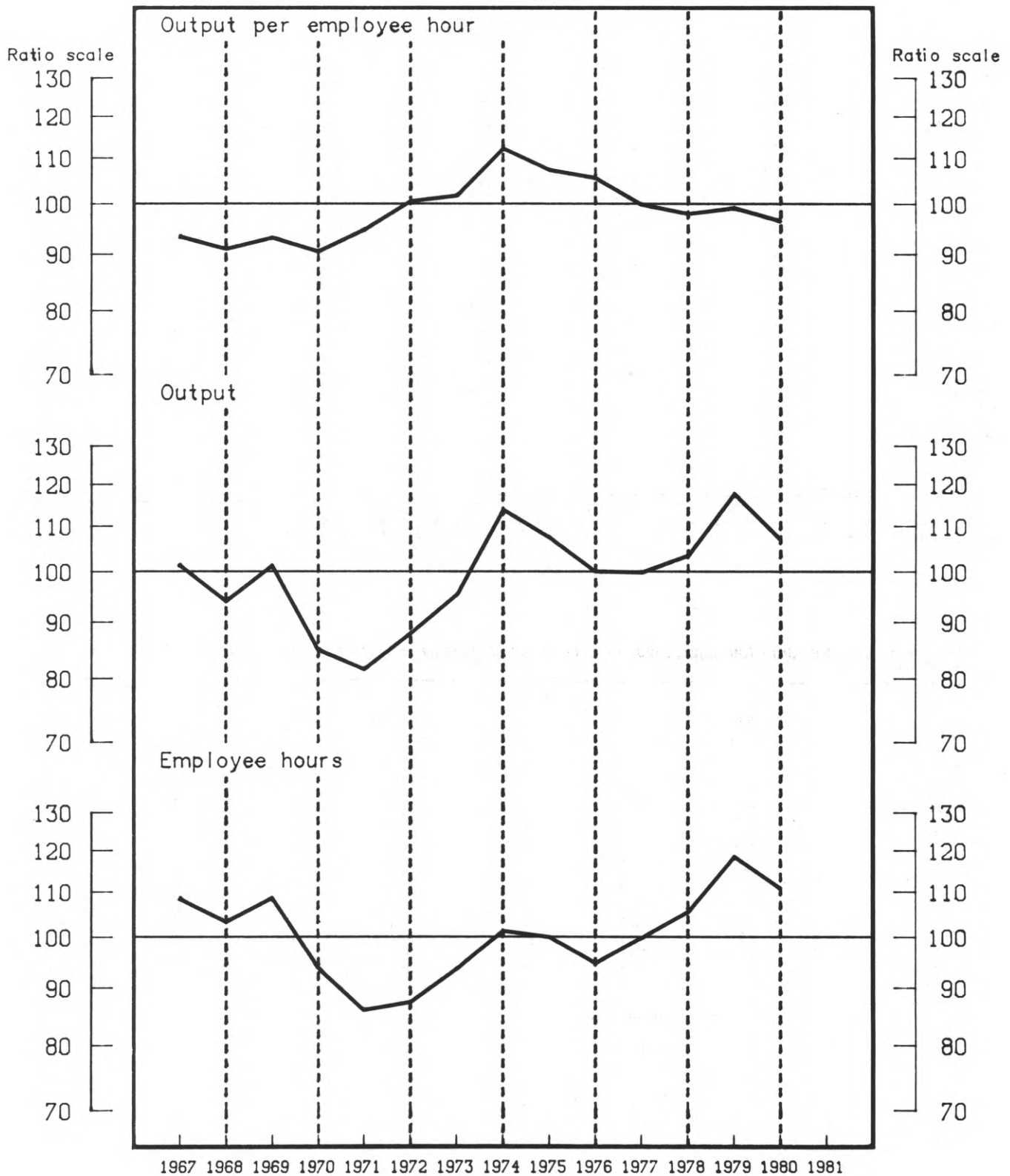
NOTE: Because of periodic revisions in source data, the measures in this table

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 63. Steel foundries (SIC 3324, 3325): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 122. Steel foundries (SIC 3324, 3325): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 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	71.7	79.9	70.3	67.8	81.8
1955	80.3	76.6	102.0	82.2	78.1	104.0
1956	84.9	79.6	120.4	88.8	82.9	123.0
1957	83.1	79.2	106.0	83.8	79.4	108.3
1958	75.8	75.5	76.6	71.9	70.4	78.2
1959	81.5	78.2	100.9	81.0	76.9	102.6
1960	80.7	78.7	92.0	79.6	76.7	93.8
1961	81.8	80.1	89.8	80.2	77.7	91.5
1962	85.8	82.8	102.3	86.4	82.8	104.5
1963	91.3	87.7	111.2	92.3	88.1	113.6
1964	91.7	86.6	122.5	95.9	90.5	125.9
1965	94.1	88.8	126.4	99.4	93.9	129.1
1966	95.6	90.4	127.9	102.0	96.8	130.3
1967	93.5	90.2	111.8	95.8	92.2	113.8
1968	91.1	89.5	98.6	92.4	90.0	103.9
1969	93.3	90.5	107.7	95.8	92.4	110.9
1970	90.6	88.4	101.7	91.0	88.6	102.4
1971	94.9	94.5	96.6	94.1	93.7	95.7
1972	100.7	98.7	110.3	99.3	97.8	106.0
1973	101.9	99.1	116.9	102.8	100.2	113.8
1974	112.4	108.4	134.1	112.1	108.2	131.2
1975	107.5	105.0	120.1	107.9	105.6	118.6
1976	105.7	105.3	107.3	104.4	103.7	106.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.1	97.1	102.8	97.6	96.4	102.8
1979	99.3	96.7	112.3	100.3	97.6	112.7
1980 ²	96.6	95.3	102.5	95.4	93.6	103.3
Average annual percent change:						
1954-80	1.2	1.3	.6	1.2	1.3	.4
1975-80	-2.1	-2.2	-1.8	-2.1	-2.3	-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 123. Steel foundries (SIC 3324, 3325): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	59.2	80.9	82.6	74.1	84.2	87.3	72.4
1955	75.8	94.4	99.0	74.3	92.2	97.1	72.9
1956	95.6	112.6	120.1	79.4	107.7	115.3	77.7
1957	86.6	104.2	109.3	81.7	103.3	109.1	80.0
1958	54.1	71.4	71.7	70.6	75.2	76.8	69.2
1959	67.0	82.2	85.7	66.4	82.7	87.1	65.3
1960	61.9	76.7	78.7	67.3	77.8	80.7	66.0
1961	57.4	70.2	71.7	63.9	71.6	73.9	62.7
1962	66.8	77.9	80.7	65.3	77.3	80.7	63.9
1963	80.3	88.0	91.6	72.2	87.0	91.1	70.7
1964	91.0	99.2	105.1	74.3	94.9	100.6	72.3
1965	99.7	106.0	112.3	78.9	100.3	106.2	77.2
1966	110.6	115.7	122.4	86.5	108.4	114.3	84.9
1967	101.5	108.5	112.5	90.8	105.9	110.1	89.2
1968	94.2	103.4	105.2	95.5	101.9	104.7	90.7
1969	101.5	108.8	112.1	94.2	106.0	109.8	91.5
1970	85.1	93.9	96.3	83.7	93.5	96.1	83.1
1971	81.7	86.1	86.5	84.6	86.8	87.2	85.4
1972	88.1	87.5	89.3	79.9	88.7	90.1	83.1
1973	95.5	93.7	96.4	81.7	92.9	95.3	83.9
1974	114.0	101.4	105.2	85.0	101.7	105.4	86.9
1975	107.6	100.1	102.5	89.6	99.7	101.9	90.7
1976	100.2	94.8	95.2	93.4	96.0	96.6	93.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.6	105.6	106.7	100.8	106.1	107.5	100.8
1979	117.9	118.7	121.9	105.0	117.6	120.8	104.6
1980 ¹	107.2	111.0	112.5	104.6	112.4	114.5	103.8
Average annual percent change:							
1954-80	2.0	.8	.7	1.5	.9	.7	1.6
1975-80	1.5	3.6	3.7	3.3	3.7	3.9	2.9

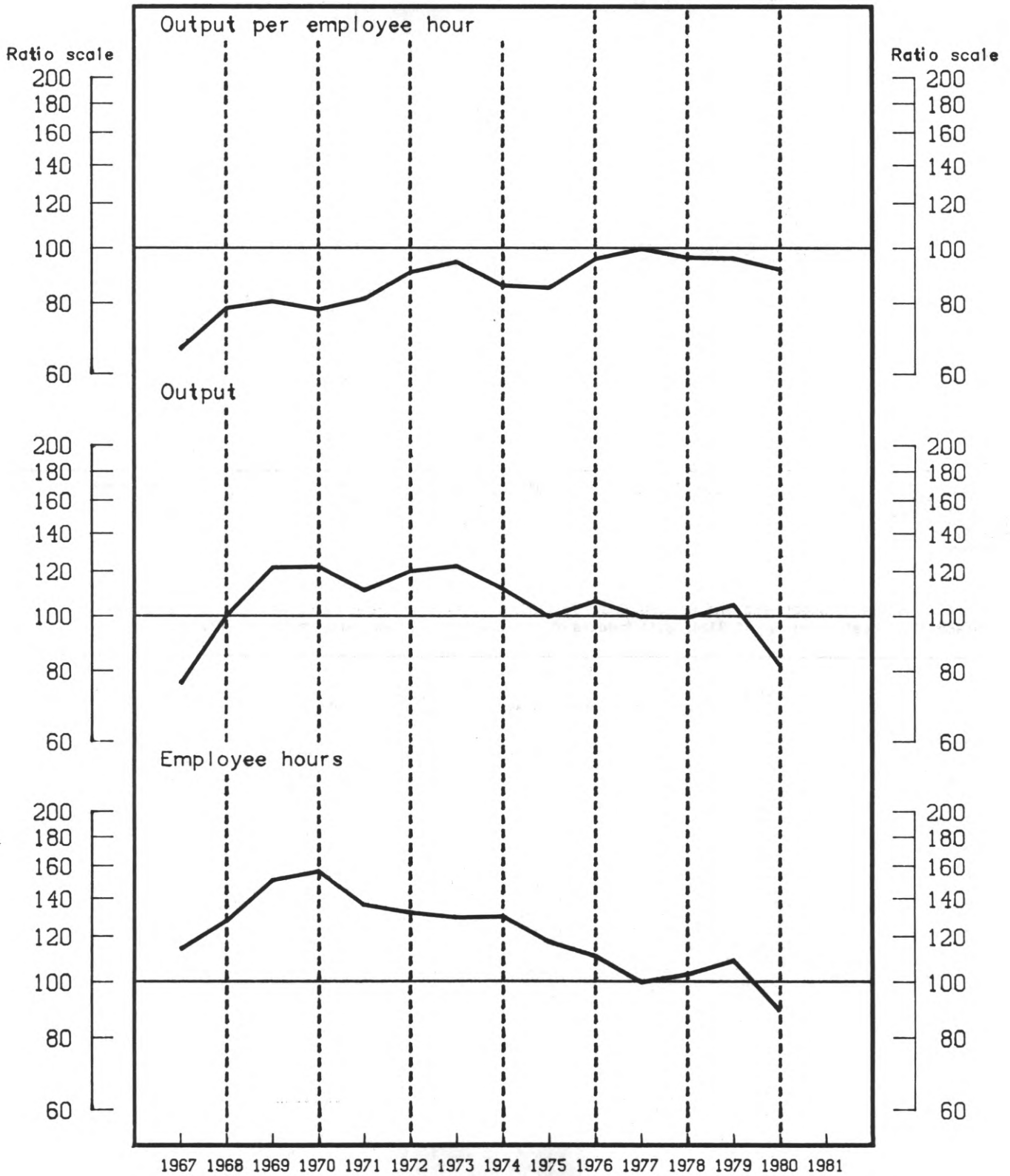
¹ Preliminary.

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

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

Chart 64. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 124. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	56.2	54.0	67.4	56.9	54.4	69.5
1955	62.7	59.3	81.5	65.3	61.8	83.4
1956	63.6	59.7	87.4	67.0	63.0	89.8
1957	63.9	60.7	81.4	66.0	62.5	83.5
1958	62.6	61.2	69.3	63.7	62.1	71.0
1959	58.9	58.1	63.0	59.0	57.8	64.5
1960	65.7	63.2	78.6	68.0	65.3	80.6
1961	68.7	66.3	81.2	71.7	69.2	83.2
1962	73.0	70.2	87.7	75.9	73.0	90.2
1963	74.7	71.3	92.9	77.0	73.3	95.5
1964	77.6	73.8	99.0	79.2	74.9	102.3
1965	80.0	75.8	104.6	83.2	78.4	107.8
1966	79.0	74.8	103.6	82.9	78.5	106.1
1967	66.6	67.0	64.8	68.6	69.2	66.3
1968	78.5	75.6	93.1	80.9	77.4	98.0
1969	80.7	76.3	106.5	83.3	78.7	108.7
1970	78.1	74.6	96.5	80.8	77.3	98.4
1971	81.5	79.9	88.8	83.0	81.5	89.5
1972	90.9	86.7	114.0	92.3	88.4	112.0
1973	94.8	91.5	110.9	95.0	92.0	109.3
1974	86.0	84.8	91.3	87.4	86.8	90.0
1975	85.3	86.4	80.7	85.6	87.2	80.5
1976	96.0	96.2	95.1	96.6	97.0	94.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	96.5	95.8	99.7	97.7	97.3	99.7
1979	96.2	95.5	99.8	97.9	97.2	100.2
1980 ²	91.9	94.4	81.0	90.6	93.1	82.1
Average annual percent change:						
1947-80	2.1	2.4	.8	1.9	2.2	.7
1975-80	1.0	1.1	.5	.9	.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 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 125. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	82.3	146.5	152.4	122.1	144.6	151.2	118.5
1955	93.7	149.5	158.0	114.9	143.6	151.6	112.3
1956	101.7	159.9	170.3	116.3	151.7	161.5	113.3
1957	99.2	155.3	163.4	121.9	150.3	158.6	118.8
1958	85.8	137.0	140.2	123.8	134.7	138.1	120.8
1959	71.2	120.8	122.6	113.1	120.6	129.2	110.4
1960	92.4	140.6	146.1	117.5	135.9	141.4	114.6
1961	93.8	136.5	141.5	115.5	130.8	135.5	112.8
1962	98.5	135.0	140.3	112.3	129.7	134.9	109.2
1963	97.5	130.5	136.8	104.9	126.7	133.0	102.1
1964	102.4	131.9	138.7	103.4	129.3	136.8	100.1
1965	108.1	135.1	142.7	103.3	130.0	137.8	100.3
1966	111.2	140.7	148.7	107.3	134.1	141.6	104.8
1967	76.1	114.3	113.6	117.4	110.9	109.9	114.7
1968	100.5	128.1	133.0	108.0	124.3	129.8	102.5
1969	122.1	151.3	160.1	114.7	146.5	155.2	112.3
1970	122.4	156.7	164.0	126.4	151.4	158.4	124.4
1971	111.3	136.6	139.3	125.4	134.1	136.6	124.4
1972	120.2	132.2	138.6	105.4	130.2	135.9	107.3
1973	122.8	129.6	134.2	110.7	129.2	133.5	112.3
1974	112.0	130.2	132.0	122.7	128.2	129.1	124.4
1975	100.1	117.4	115.8	124.1	116.9	114.8	124.4
1976	106.6	111.0	110.8	112.1	110.4	109.9	112.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.7	103.3	104.1	100.0	102.0	102.5	100.0
1979	105.1	109.2	110.1	105.3	107.4	108.1	104.9
1980 ¹	82.1	89.3	87.0	101.3	90.6	88.2	100.0
Average annual percent change:							
1947-80	.8	-1.3	-1.5	(²)	-1.1	-1.3	.1
1975-80	-2.9	-3.9	-3.9	-3.4	-3.7	-3.8	-3.6

¹ Preliminary.

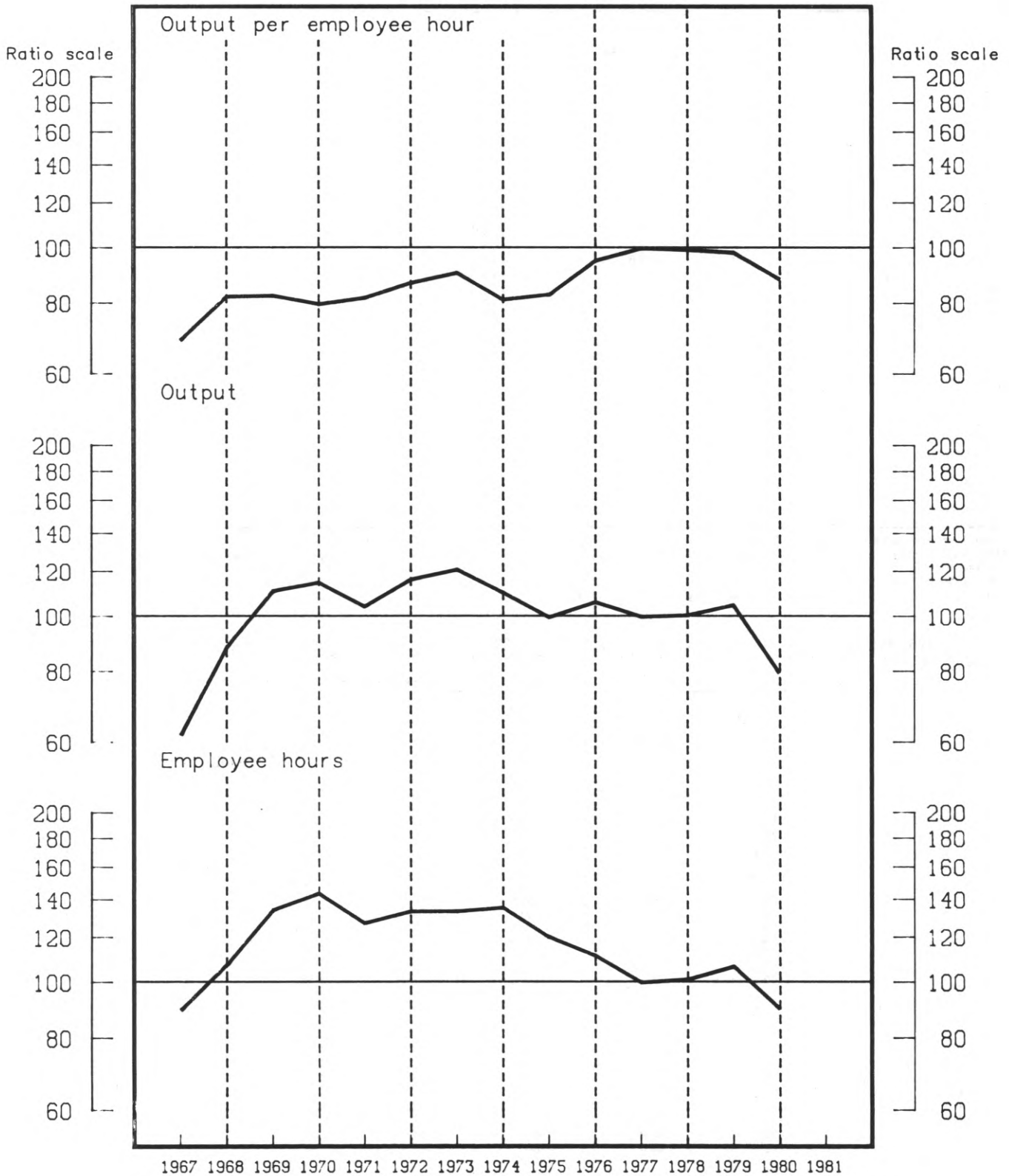
² Less than .05 percent.

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

SOURCE: Output 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 65. Primary copper (SIC 3331): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 126. Primary copper (SIC 3331): Indexes of output per employee hour and output per employee, 1954-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	58.1	55.6	72.4	60.1	57.6	74.2
1955	68.6	64.9	92.6	72.9	69.3	94.3
1956	69.9	65.2	103.7	75.6	70.8	106.1
1957	69.2	64.9	99.3	73.0	68.5	101.5
1958	65.1	62.6	79.5	67.1	64.4	81.1
1959	61.4	60.1	68.0	59.2	57.2	69.4
1960	68.4	64.6	92.5	70.1	66.1	94.3
1961	69.7	67.4	82.7	72.3	69.9	84.2
1962	75.7	73.0	91.2	79.0	76.2	93.4
1963	75.4	71.7	98.3	78.8	75.0	100.7
1964	80.2	76.4	103.0	81.9	77.7	105.8
1965	81.9	76.9	116.3	86.2	80.9	119.0
1966	79.9	75.9	104.7	84.9	80.9	106.7
1967	69.0	70.4	63.3	69.9	71.3	64.5
1968	82.3	79.9	94.7	84.0	80.8	100.6
1969	82.6	78.4	108.7	85.1	80.6	111.1
1970	79.8	76.6	97.9	83.6	80.7	99.1
1971	81.9	80.7	87.2	82.8	81.9	86.9
1972	87.0	83.4	107.0	88.5	85.6	103.8
1973	90.6	87.5	107.1	93.3	91.0	104.5
1974	81.3	81.5	80.5	82.5	83.5	78.8
1975	83.0	85.3	74.0	84.4	87.5	73.4
1976	95.2	96.6	88.7	97.2	99.5	88.4
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.4	98.2	105.1	101.4	100.6	104.8
1979	98.3	96.9	104.9	101.7	101.1	104.9
1980 ²	88.3	90.1	81.4	89.1	90.8	82.9
Average annual percent change:						
1947-80	1.7	1.9	.2	1.4	1.6	.1
1975-80	1.1	.8	3.0	1.2	.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.

² Preliminary.

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

differ from those previously published.

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

Table 127. Primary copper (SIC 3331): Indexes of output, employee hours, and employees, 1954-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	67.4	116.1	121.2	93.1	112.1	117.1	90.8
1955	79.2	115.4	122.1	85.5	108.6	114.3	84.0
1956	87.2	124.7	133.7	84.1	115.3	123.1	82.2
1957	83.9	121.2	129.3	84.5	114.9	122.5	82.7
1958	75.4	115.8	120.4	94.9	112.4	117.0	93.0
1959	59.4	96.8	98.9	87.3	100.4	103.8	85.6
1960	86.3	126.1	133.5	93.3	123.1	130.6	91.5
1961	85.0	121.9	126.1	102.8	117.6	121.6	100.9
1962	92.0	121.5	126.1	100.9	116.5	120.7	98.5
1963	90.0	119.3	125.5	91.6	114.2	120.0	89.4
1964	93.1	116.1	121.9	90.4	113.7	119.8	88.0
1965	100.0	122.1	130.1	86.0	116.0	123.6	84.0
1966	102.4	128.2	135.0	97.8	120.6	126.5	96.0
1967	61.9	89.7	87.9	97.8	88.6	86.8	96.0
1968	88.5	107.5	110.7	93.5	105.4	109.5	88.0
1969	111.1	134.5	141.7	102.2	130.6	137.8	100.0
1970	114.9	144.0	150.0	117.4	137.5	142.4	115.9
1971	104.3	127.4	129.2	119.6	126.0	127.3	120.0
1972	116.3	133.7	139.4	108.7	131.4	135.9	112.0
1973	121.1	133.7	138.4	113.1	129.8	133.1	115.9
1974	110.3	135.7	135.4	137.0	133.7	132.1	139.9
1975	99.8	120.3	117.0	134.8	118.3	114.1	136.0
1976	106.1	111.5	109.8	119.6	109.2	106.6	120.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.6	101.2	102.4	95.7	99.2	100.0	96.0
1979	104.9	106.7	108.3	100.0	103.1	103.8	100.0
1980 ¹	79.6	90.1	88.3	97.8	89.3	87.7	96.0
Average annual percent change:							
1947-80	1.5	-.1	-.4	1.3	.1	-.1	1.5
1975-80	-3.3	-4.4	-4.0	-6.1	-4.4	-3.9	-6.4

¹ Preliminary.

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

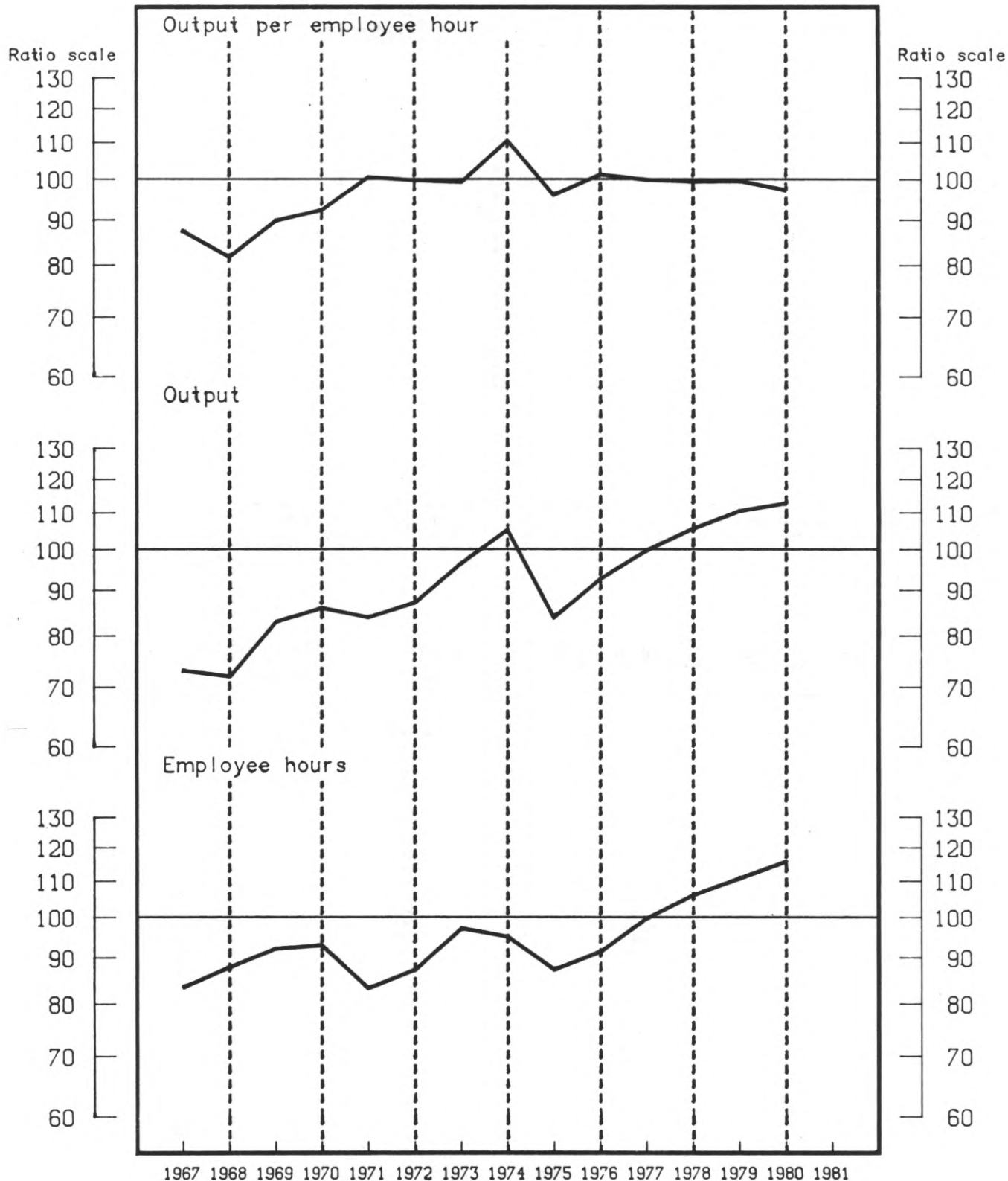
SOURCE: Output based on data from the Bureau of Mines, U.S. Department of

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 66. Primary aluminum (SIC 3334): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 128. Primary aluminum (SIC 3334): Indexes of output per employee hour and output per employee, 1954-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	45.3	43.8	53.0	47.2	45.7	54.1
1955	50.3	48.9	57.1	52.0	50.7	58.1
1956	51.6	50.9	54.3	52.7	52.1	55.3
1957	51.9	51.8	52.0	53.1	53.3	52.9
1958	57.8	59.2	52.1	59.5	61.4	53.0
1959	68.6	68.2	70.6	71.5	71.4	71.9
1960	71.7	71.9	70.5	73.9	74.5	71.7
1961	74.7	75.9	70.0	76.7	78.5	71.1
1962	78.4	78.5	77.2	80.1	80.5	78.9
1963	81.0	80.9	81.1	82.6	82.6	82.6
1964	83.4	81.8	90.0	81.3	78.8	92.2
1965	85.4	84.1	90.7	86.0	84.4	92.4
1966	88.3	87.3	93.0	90.1	89.2	94.5
1967	87.6	86.7	91.0	88.0	86.9	92.3
1968	81.9	82.0	81.2	82.5	81.8	85.3
1969	90.0	89.0	94.5	91.5	90.2	96.4
1970	92.5	92.2	94.0	92.3	91.7	94.2
1971	100.7	101.7	96.7	99.3	100.2	95.6
1972	99.9	101.3	94.4	97.5	99.5	90.5
1973	99.4	97.8	106.6	99.2	98.0	103.9
1974	110.8	109.1	118.8	109.0	107.4	115.4
1975	96.2	100.1	82.6	95.1	99.4	81.3
1976	101.4	102.1	98.4	101.1	101.9	98.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.6	98.6	103.8	101.9	101.3	104.0
1979	99.7	99.2	102.1	100.5	100.2	101.9
1980 ²	97.4	98.9	91.6	99.5	101.4	92.3
Average annual percent change:						
1947-80	3.5	3.6	2.8	3.2	3.4	2.6
1975-80	(³)	-5	1.9	.7	.2	2.3

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

² Preliminary.

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 129. Primary aluminum (SIC 3334): Indexes of output, employee hours, and employees, 1954-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	34.0	75.1	77.7	64.1	72.0	74.4	62.9
1955	36.4	72.4	74.5	63.7	70.0	71.8	62.7
1956	38.9	75.4	76.4	71.6	73.8	74.7	70.3
1957	38.1	73.4	73.5	73.3	71.7	71.5	72.0
1958	36.1	62.5	61.0	69.3	60.7	58.8	68.1
1959	45.0	65.6	66.0	63.7	62.9	63.0	62.6
1960	46.1	64.3	64.1	65.4	62.4	61.9	64.3
1961	43.5	58.2	57.3	62.1	56.7	55.4	61.2
1962	48.2	61.5	61.4	62.4	60.2	59.9	61.1
1963	52.4	64.7	64.8	64.6	63.4	63.4	63.4
1964	57.7	69.2	70.5	64.1	71.0	73.2	62.6
1965	62.1	72.7	73.8	68.5	72.2	73.6	67.2
1966	66.6	75.4	76.3	71.6	73.9	74.7	70.5
1967	73.2	83.6	84.4	80.4	83.2	84.2	79.3
1968	72.1	88.0	87.9	88.8	87.4	88.1	84.5
1969	83.1	92.3	93.4	87.9	90.8	92.1	86.2
1970	86.1	93.1	93.4	91.6	93.3	93.9	91.4
1971	84.0	83.4	82.6	86.9	84.6	83.8	87.9
1972	87.3	87.4	86.2	92.5	89.5	87.7	96.5
1973	96.7	97.3	98.9	90.7	97.5	98.7	93.1
1974	105.5	95.2	96.7	88.8	96.8	98.2	91.4
1975	84.1	87.4	84.0	101.8	88.4	84.6	103.4
1976	92.9	91.6	91.0	94.4	91.9	91.2	94.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.8	106.2	107.3	101.9	103.8	104.4	101.7
1979	110.7	111.0	111.6	108.4	110.1	110.5	108.6
1980 ¹	113.0	116.0	114.3	123.4	113.6	111.4	122.4
Average annual percent change:							
1947-80	6.6	2.8	2.7	3.6	3.1	3.0	3.7
1975-80	6.1	6.0	6.6	4.1	5.4	5.9	3.7

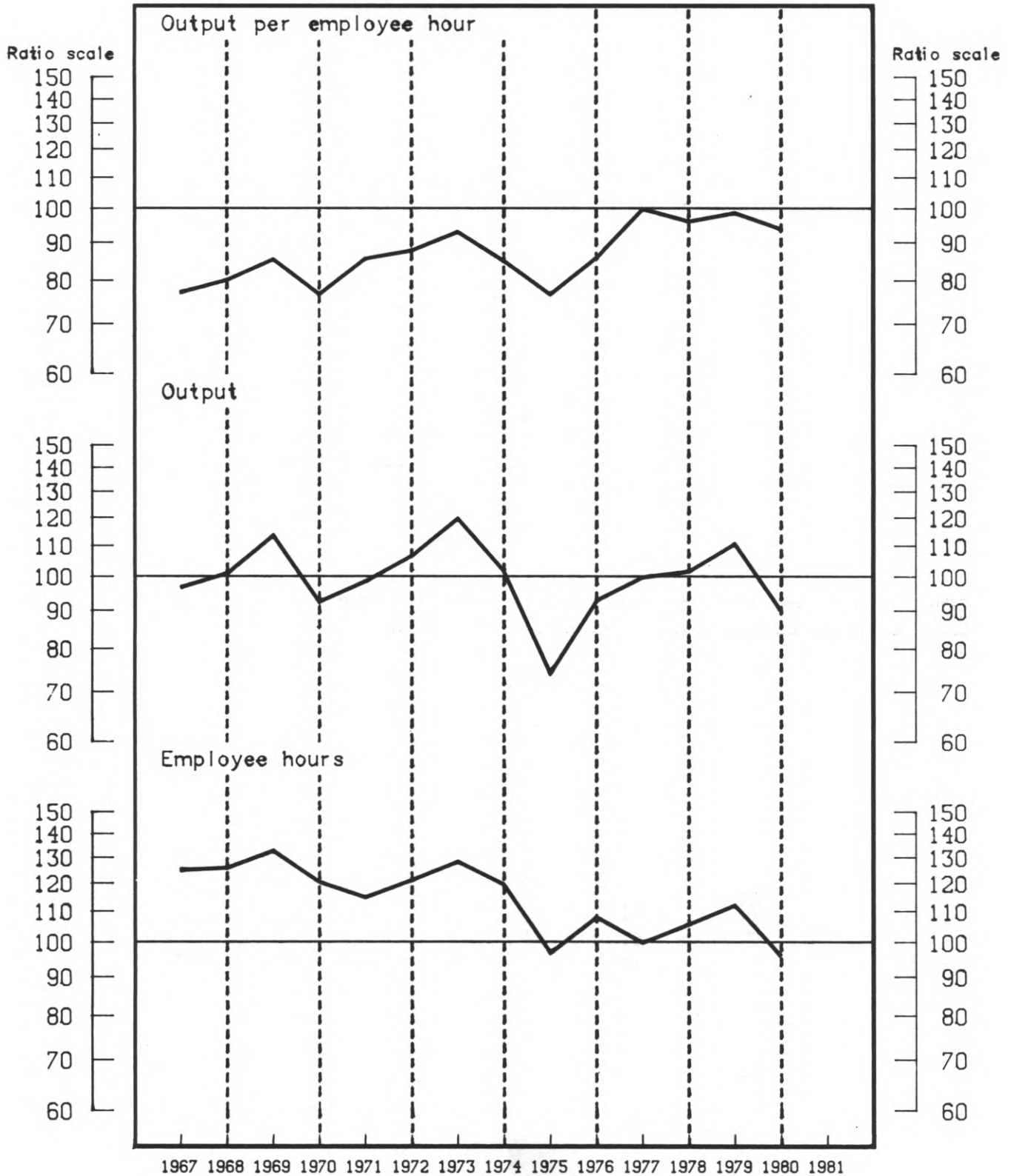
¹ Preliminary.

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

SOURCE: Output based on data from the Bureau of 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 67. Copper rolling and drawing (SIC 3351): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 130. Copper rolling and drawing (SIC 3351): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	54.9	54.7	56.0	53.2	52.2	57.0
1959	60.4	58.5	68.9	61.0	58.8	70.0
1960	58.2	57.0	63.7	56.3	54.2	64.8
1961	63.1	62.9	64.1	62.3	61.5	65.1
1962	67.6	66.9	70.3	67.7	66.6	71.7
1963	74.0	71.3	86.5	74.7	71.3	88.3
1964	81.5	78.6	95.3	83.0	79.4	97.9
1965	86.1	82.6	103.0	87.9	83.9	105.0
1966	91.0	86.6	113.8	94.5	89.7	115.3
1967	77.3	75.9	83.5	75.3	72.9	85.0
1968	80.3	79.5	83.4	79.4	77.3	87.7
1969	85.6	83.9	92.6	86.5	84.2	95.2
1970	76.8	76.9	76.3	74.3	73.8	76.5
1971	85.8	84.9	89.2	83.7	82.7	87.6
1972	88.0	85.3	100.0	88.5	86.5	96.0
1973	93.2	90.0	108.3	94.1	91.2	105.2
1974	85.2	84.2	89.7	84.5	83.7	87.3
1975	76.8	80.4	65.5	72.5	75.2	64.6
1976	86.1	85.6	87.8	85.5	85.1	87.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	96.2	95.8	98.1	95.7	95.1	97.7
1979	98.8	97.9	102.3	96.9	95.5	102.2
1980 ²	94.0	98.5	79.9	88.6	91.4	80.1
Average annual percent change:						
1958-80	2.2	2.3	1.5	2.1	2.3	1.3
1975-80	4.0	4.0	4.2	3.9	3.7	4.5

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

² Preliminary.

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

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

Table 131. Copper rolling and drawing (SIC 3351): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	68.5	124.7	125.3	122.3	128.8	131.2	120.2
1959	84.0	139.1	143.6	121.9	137.7	142.8	120.0
1960	71.1	122.1	124.8	111.7	126.4	131.2	109.8
1961	78.4	124.2	124.6	122.4	125.9	127.4	120.5
1962	89.1	131.8	133.1	126.7	131.7	133.8	124.2
1963	92.8	125.4	130.1	107.3	124.3	130.1	105.1
1964	104.7	128.4	133.2	109.9	126.1	131.8	107.0
1965	110.9	128.8	134.2	107.7	126.1	132.2	105.6
1966	123.4	135.6	142.5	108.4	130.6	137.5	107.0
1967	96.9	125.3	127.7	116.0	128.7	133.0	114.0
1968	101.2	126.1	127.3	121.3	127.4	130.9	115.4
1969	113.8	133.0	135.6	122.9	131.5	135.1	119.6
1970	92.6	120.6	120.4	121.3	124.6	125.5	121.1
1971	98.7	115.0	116.2	110.7	117.9	119.4	112.7
1972	106.8	121.4	125.2	106.8	120.7	123.5	111.2
1973	119.9	128.6	133.2	110.7	127.4	131.4	114.0
1974	102.0	119.7	121.2	113.7	120.7	121.8	116.9
1975	74.5	97.0	92.7	113.7	102.8	99.1	115.4
1976	93.1	108.1	108.7	106.0	108.9	109.4	107.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.8	105.8	106.3	103.8	106.4	107.0	104.2
1979	110.9	112.3	113.3	108.4	114.4	116.1	108.5
1980 ¹	90.3	96.1	91.7	113.0	101.9	98.8	112.7
Average annual percent change:							
1958-80	1.0	-1.2	-1.3	-5	-1.1	-1.3	-3
1975-80	4.4	.4	.4	.2	.5	.7	-.1

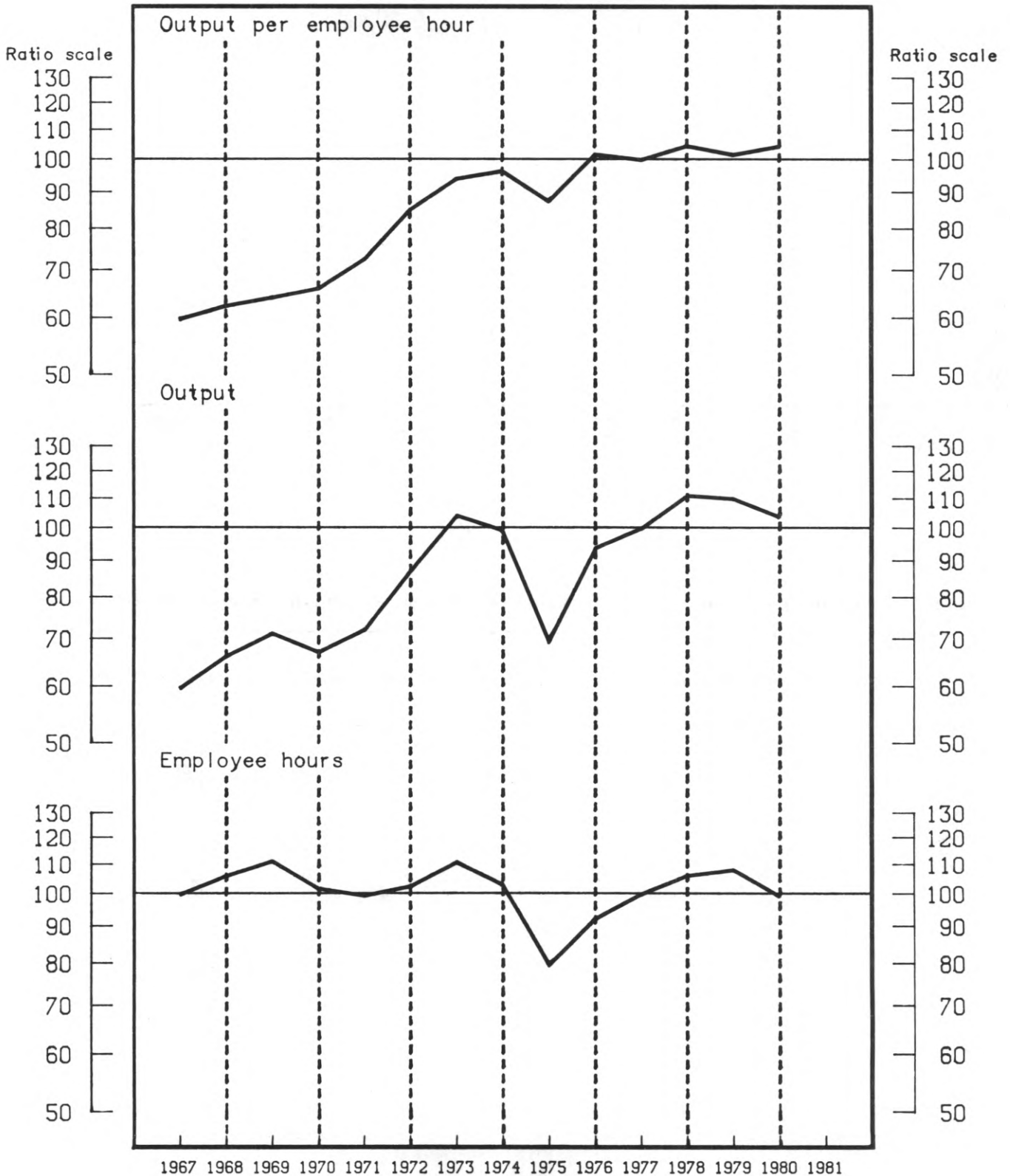
¹ Preliminary.

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 68. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 132. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Indexes of output per employee hour and output per employee, 1958-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	38.1	38.9	34.8	38.6	39.5	35.5
1959	41.1	40.6	42.9	42.5	42.2	43.7
1960	39.0	39.7	36.1	40.1	41.0	36.7
1961	42.8	43.3	40.8	44.2	45.0	41.4
1962	46.5	47.0	44.7	47.8	48.3	45.7
1963	51.5	51.8	49.9	52.9	53.5	51.1
1964	54.8	55.2	53.4	56.7	57.1	54.8
1965	60.0	60.0	60.5	63.1	63.5	61.7
1966	60.4	59.6	64.1	63.4	63.0	65.2
1967	59.8	60.0	58.7	60.8	61.0	59.7
1968	62.4	63.5	58.1	62.8	63.3	61.0
1969	64.1	64.8	60.9	65.5	66.3	62.5
1970	66.0	68.6	56.5	64.6	67.0	56.9
1971	72.5	74.9	63.7	70.0	72.1	62.8
1972	85.1	84.7	86.4	85.8	86.5	83.3
1973	94.0	92.8	99.5	95.5	95.2	96.7
1974	96.4	96.1	97.3	94.9	94.9	94.8
1975	87.5	92.5	70.9	82.6	86.8	69.8
1976	101.7	102.7	97.6	100.3	101.2	96.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	104.9	103.3	103.2	103.3	103.1
1979	101.7	102.5	98.3	101.6	102.4	98.5
1980 ²	104.5	107.8	92.4	101.7	104.2	92.9
Average annual percent change:						
1958-80	5.1	5.2	5.0	4.8	4.8	4.8
1975-80	2.7	2.3	4.0	3.2	2.8	4.4

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

² Preliminary.

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

SOURCE: Output 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 133. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Indexes of output, employee hours, and employees, 1958-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	28.9	75.8	74.2	83.0	74.9	73.2	81.5
1959	37.6	91.5	92.5	87.6	88.4	89.1	86.1
1960	33.7	86.5	84.8	93.4	84.1	82.1	91.8
1961	36.8	85.9	85.0	90.2	83.2	81.8	88.8
1962	41.5	89.2	88.3	92.9	86.9	85.9	90.9
1963	45.9	89.1	88.6	91.9	86.7	85.8	89.9
1964	50.8	92.7	92.1	95.1	89.6	88.9	92.7
1965	58.0	96.6	96.7	95.9	91.9	91.4	94.0
1966	64.2	106.3	107.8	100.2	101.2	101.9	98.5
1967	59.7	99.9	99.5	101.7	98.2	97.8	100.0
1968	66.2	106.1	104.3	114.0	105.4	104.6	108.6
1969	71.3	111.3	110.0	117.0	108.9	107.6	114.1
1970	67.1	101.7	97.8	118.7	103.8	100.2	118.0
1971	72.1	99.5	96.3	113.1	103.0	100.0	114.8
1972	87.2	102.5	102.9	100.9	101.6	100.8	104.7
1973	104.2	110.9	112.3	104.7	109.1	109.4	107.8
1974	99.3	103.0	103.3	102.1	104.6	104.6	104.7
1975	69.8	79.8	75.5	98.4	84.5	80.4	100.0
1976	93.9	92.3	91.4	96.2	93.6	92.8	96.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	111.1	106.2	105.9	107.6	107.7	107.6	107.8
1979	110.0	108.2	107.3	111.9	108.3	107.4	111.7
1980 ¹	103.8	99.3	96.3	112.3	102.1	99.6	111.7
Average annual percent change:							
1958-80	6.0	.8	.8	.9	1.1	1.1	1.1
1975-80	7.6	4.8	5.1	3.5	4.3	4.6	3.1

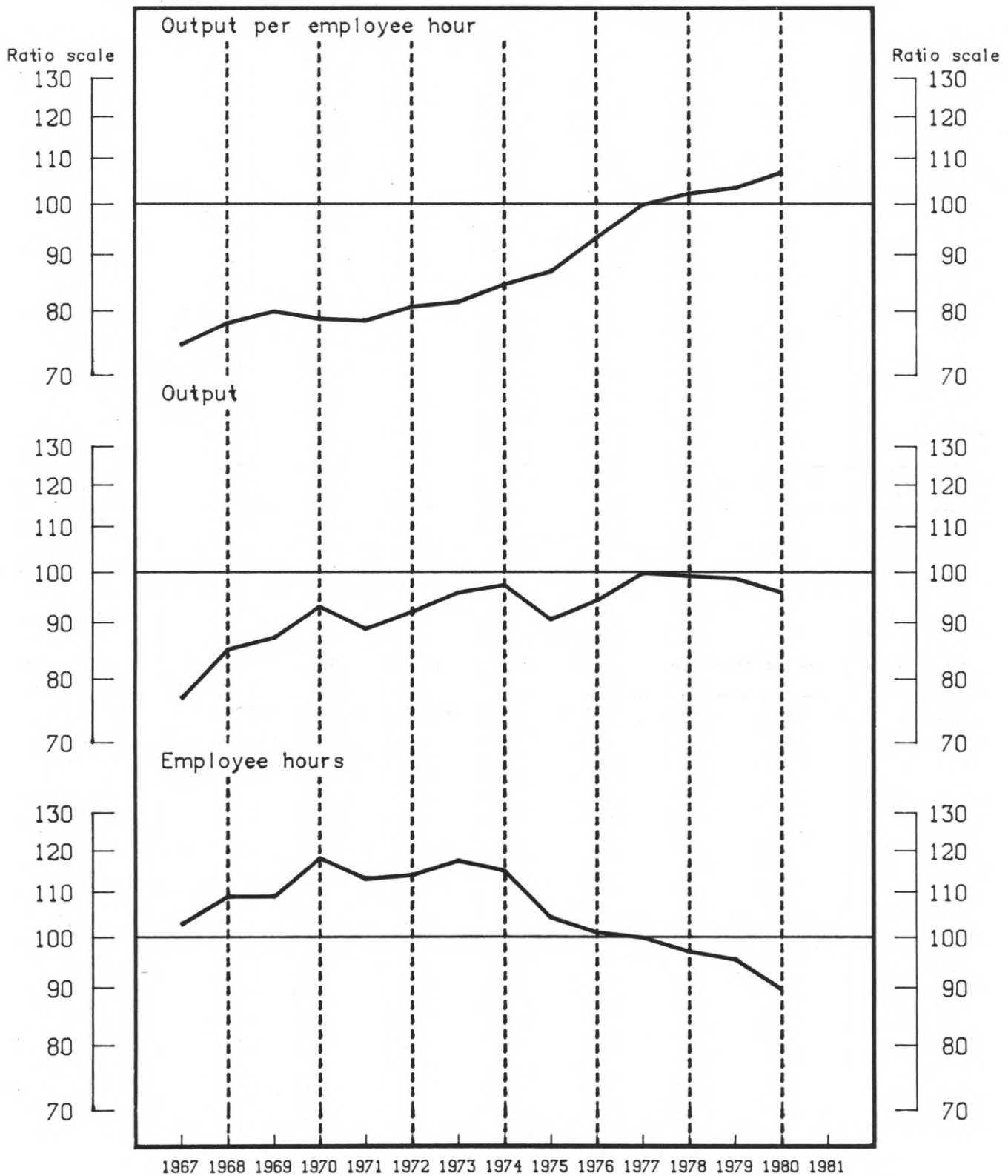
¹ Preliminary.

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

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

Chart 69. Metal cans (SIC 3411): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 134. Metal cans (SIC 3411): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	54.7	53.5	63.5	53.2	51.4	65.3
1955	58.0	56.6	67.7	56.5	54.6	69.2
1956	60.5	58.8	72.4	59.6	57.4	74.3
1957	59.4	58.1	68.3	57.9	56.0	70.0
1958	62.3	61.2	69.5	59.9	58.1	71.3
1959	64.5	63.0	75.6	64.1	62.0	77.3
1960	66.1	64.6	76.2	65.0	63.0	77.8
1961	69.7	68.1	81.1	68.9	66.8	82.7
1962	67.4	65.6	80.9	68.4	66.2	82.7
1963	67.0	65.4	78.9	67.2	65.1	80.6
1964	68.5	66.9	79.1	69.7	67.9	81.1
1965	70.3	69.5	75.6	73.4	72.7	77.2
1966	72.2	70.1	87.6	72.5	70.0	89.1
1967	74.7	72.6	90.8	76.3	73.8	92.3
1968	78.1	75.9	94.9	80.0	77.6	95.1
1969	80.0	78.2	93.4	80.2	77.7	96.3
1970	78.8	77.5	87.6	79.5	77.3	93.2
1971	78.5	77.7	83.8	77.4	75.9	86.1
1972	80.8	79.3	91.3	80.5	78.9	90.3
1973	81.6	79.8	95.0	82.3	80.1	96.0
1974	84.7	84.2	87.6	84.4	83.4	90.0
1975	87.0	87.9	81.5	86.5	87.2	83.0
1976	93.4	93.9	90.3	92.5	92.5	91.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.3	102.6	100.4	100.8	100.9	100.3
1979	103.5	104.0	100.5	103.1	103.6	100.9
1980 ²	106.9	107.4	104.2	107.1	107.6	104.7
Average annual percent change:						
1947-80	2.4	2.5	1.9	2.5	2.6	1.8
1975-80	4.0	3.9	4.5	4.1	4.1	4.3

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

² Preliminary.

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

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

Table 135. Metal cans (SIC 3411): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	49.1	89.7	91.7	77.3	92.3	95.6	75.2
1955	51.5	88.8	91.0	76.1	91.2	94.4	74.4
1956	54.9	90.8	93.3	75.8	92.1	95.6	73.9
1957	53.0	89.2	91.2	77.6	91.6	94.6	75.7
1958	54.3	87.1	88.7	78.1	90.7	93.4	76.2
1959	57.6	89.3	91.5	76.2	89.9	92.9	74.5
1960	58.2	88.1	90.1	76.4	89.5	92.4	74.8
1961	61.5	88.2	90.3	75.8	89.2	92.1	74.4
1962	60.7	90.0	92.6	75.0	88.7	91.7	73.4
1963	59.8	89.2	91.5	75.8	89.0	91.9	74.2
1964	64.2	93.7	95.9	81.2	92.1	94.6	79.2
1965	67.3	95.7	96.9	89.0	91.7	92.6	87.2
1966	71.2	98.6	101.5	81.3	98.2	101.7	79.9
1967	76.9	102.9	105.9	84.7	100.8	104.2	83.3
1968	85.2	109.1	112.2	89.8	106.5	109.8	89.6
1969	87.3	109.1	111.7	93.5	108.9	112.3	90.7
1970	93.2	118.3	120.3	106.4	117.2	120.5	100.0
1971	88.9	113.2	114.4	106.1	114.8	117.1	103.2
1972	92.2	114.1	116.3	101.0	114.5	116.9	102.1
1973	96.0	117.6	120.3	101.1	116.7	119.9	100.0
1974	97.5	115.1	115.8	111.3	115.5	116.9	108.3
1975	90.7	104.3	103.2	111.3	104.8	104.0	109.3
1976	94.4	101.1	100.5	104.5	102.1	102.0	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.3	97.1	96.8	98.9	98.5	98.4	99.0
1979	98.8	95.5	95.0	98.3	95.8	95.4	97.9
1980 ¹	96.0	89.8	89.4	92.1	89.6	89.2	91.7
Average annual percent change:							
1947-80	3.3	.8	.8	1.4	.8	.6	1.5
1975-80	1.2	-2.7	-2.6	-3.2	-2.8	-2.8	-2.9

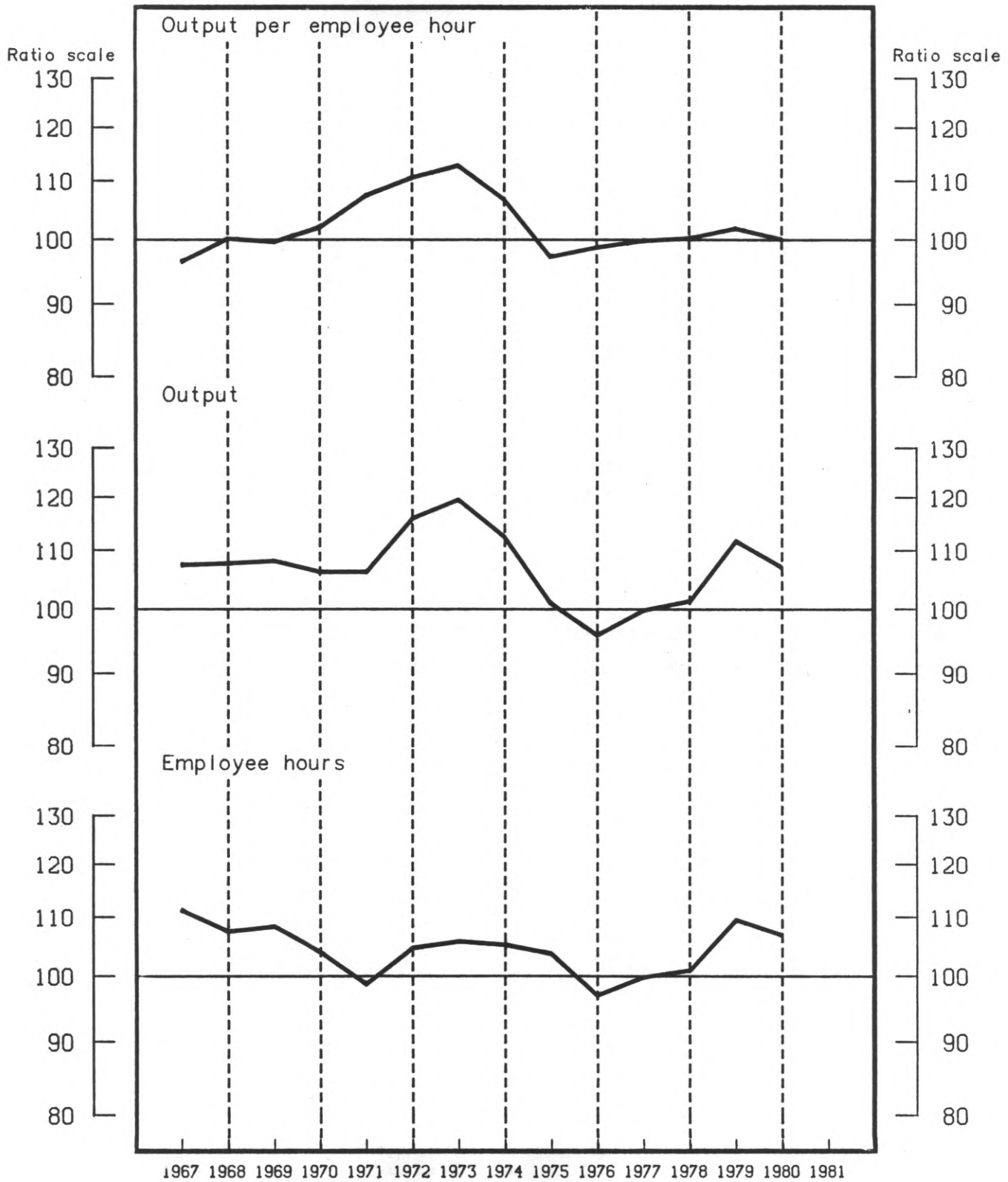
¹ Preliminary.

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

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

Chart 70. Fabricated structural metal (SIC 3441): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 136. Fabricated structural metal (SIC 3441): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	80.2	79.3	83.2	81.3	80.0	85.2
1959	78.6	79.7	75.2	79.7	80.7	76.8
1960	81.1	81.0	81.1	84.7	85.3	82.9
1961	85.2	84.4	87.8	87.3	86.3	89.4
1962	88.5	86.7	94.0	91.6	90.1	95.9
1963	91.9	90.4	95.8	93.4	91.8	97.8
1964	92.9	91.5	97.7	96.5	95.1	100.2
1965	97.1	94.9	103.9	99.5	97.3	106.2
1966	95.0	92.3	103.4	97.0	94.4	105.1
1967	96.6	94.8	102.3	99.4	97.8	104.1
1968	100.3	98.5	105.9	102.7	101.3	106.2
1969	99.8	99.0	102.2	102.9	102.0	105.5
1970	102.2	102.2	102.0	105.8	104.6	108.5
1971	107.6	106.9	109.5	109.7	108.7	112.8
1972	110.8	109.8	113.3	110.6	109.9	112.3
1973	113.0	112.7	113.8	112.8	111.9	115.3
1974	106.9	106.0	109.4	108.0	106.3	112.6
1975	97.4	96.9	98.6	97.1	95.8	100.7
1976	98.9	98.7	99.0	98.7	98.1	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.4	99.3	103.9	100.2	98.9	103.9
1979	102.0	100.2	107.5	101.9	99.9	107.8
1980 ²	100.2	98.4	105.7	100.7	98.6	106.3
Average annual percent change:						
1958-80	1.1	1.1	1.1	1.0	1.0	1.0
1975-80 .....	.7	.3	1.8	.8	.5	1.5

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

² Preliminary.

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

differ from those previously published.

SOURCE: Output, based on data from the 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 137. Fabricated structural metal (SIC 3441): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	74.7	93.1	94.2	89.8	91.9	93.4	87.7
1959	66.3	84.4	83.2	88.2	83.2	82.2	86.3
1960	74.9	92.4	92.5	92.3	88.4	87.8	90.4
1961	74.0	86.9	87.7	84.3	84.8	85.7	82.8
1962	73.1	82.6	84.3	77.8	79.8	81.1	76.2
1963	80.3	87.4	88.8	83.8	86.0	87.5	82.1
1964	85.6	92.1	93.6	87.6	88.7	90.0	85.4
1965	93.2	96.0	98.2	89.7	93.7	95.8	87.8
1966	95.2	100.2	103.1	92.1	98.1	100.9	90.6
1967	107.6	111.4	113.5	105.2	108.2	110.0	103.4
1968	107.9	107.6	109.5	101.9	105.1	106.5	101.6
1969	108.3	108.5	109.4	106.0	105.2	106.2	102.7
1970	106.4	104.1	104.1	104.3	100.6	101.7	98.1
1971	106.4	98.9	99.5	97.2	97.0	97.9	94.3
1972	116.1	104.8	105.7	102.5	105.0	105.6	103.4
1973	119.7	105.9	106.2	105.2	106.1	107.0	103.8
1974	112.6	105.3	106.2	102.9	104.3	105.9	100.0
1975	101.1	103.8	104.3	102.5	104.1	105.5	100.4
1976	96.0	97.1	97.3	97.0	97.3	97.9	95.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.5	101.1	102.2	97.7	101.3	102.6	97.7
1979	111.9	109.7	111.7	104.1	109.8	112.0	103.8
1980 ¹	107.2	107.0	108.9	101.4	106.5	108.7	100.8
Average annual percent change:							
1958-80	2.1	.9	.9	.9	1.1	1.1	1.0
1975-80	2.2	1.5	1.9	.4	1.4	1.7	.7

¹ Preliminary.

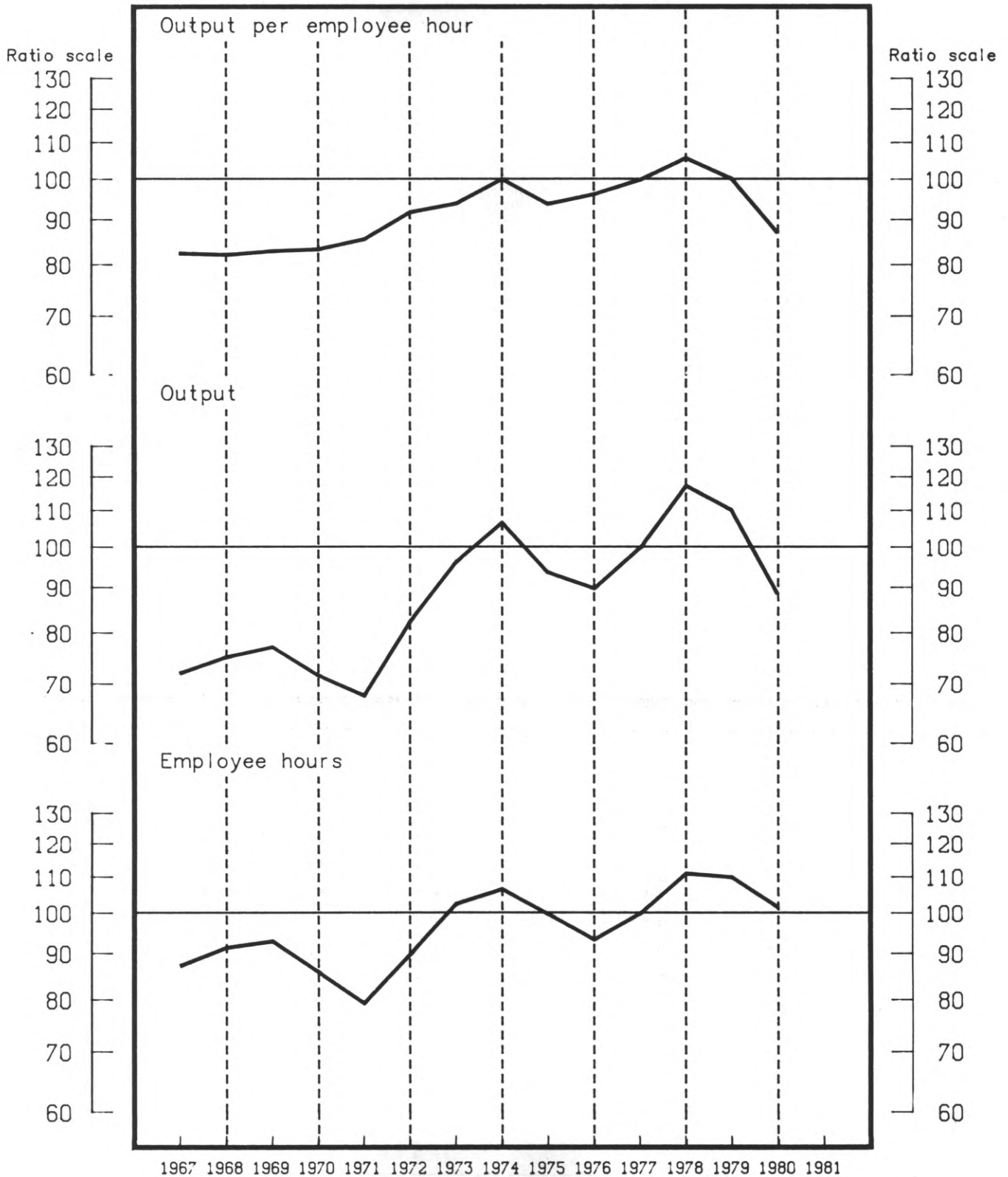
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, based on data from the Bureau of the Census, 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 71. Construction machinery and equipment (SIC 3531): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 138. Construction machinery and equipment (SIC 3531): Indexes of output per employee hour and output per employee, 1958-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	74.2	77.0	67.8	73.5	75.4	69.1
1959	69.6	68.4	73.5	73.6	73.2	74.5
1960	62.3	63.7	59.3	63.4	65.0	59.8
1961	68.2	68.5	67.5	69.4	70.2	67.4
1962	74.1	72.8	77.8	76.3	76.0	77.5
1963	75.0	72.2	83.4	78.3	76.6	83.0
1964	77.9	73.8	91.4	82.2	79.2	91.4
1965	80.0	75.4	95.1	84.3	80.8	94.7
1966	81.2	75.1	104.1	87.1	82.1	103.0
1967	82.5	79.1	93.0	84.1	81.3	92.2
1968	82.2	80.3	87.5	84.9	82.6	91.0
1969	83.0	79.9	92.6	86.8	84.0	94.7
1970	83.4	82.0	87.3	85.9	84.8	88.5
1971	85.6	85.3	86.6	87.1	86.6	88.1
1972	91.9	89.0	100.5	95.9	93.5	102.2
1973	94.0	90.0	106.2	99.1	95.9	108.2
1974	100.2	96.0	112.9	105.3	102.0	114.6
1975	93.9	92.3	98.2	96.9	95.9	99.3
1976	96.3	97.8	92.3	96.5	97.7	93.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.8	104.3	109.8	108.0	107.3	109.8
1979	100.3	101.3	98.0	97.8	97.6	98.2
1980 ²	87.1	90.8	79.0	82.6	83.8	79.6
Average annual percent change:						
1958-80	1.9	1.9	1.7	1.7	1.7	1.7
1975-80	-6	.2	-2.3	-1.9	-1.7	-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 139. Construction machinery and equipment (SIC 3531): Indexes of output, employee hours, and employees, 1958-80
(1977=100)

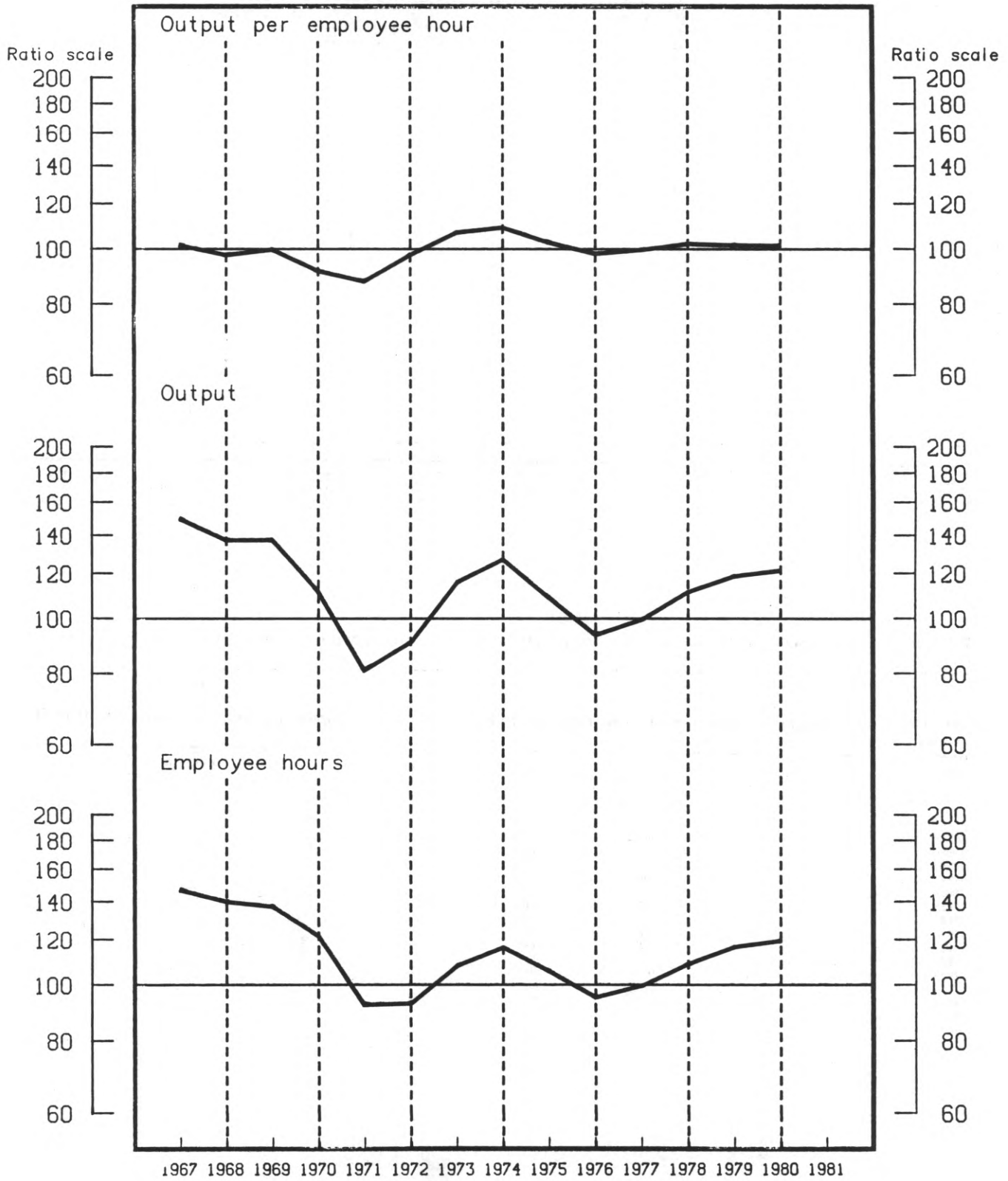
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	45.1	60.8	58.6	66.5	61.4	59.8	65.3
1959	53.4	76.7	78.1	72.7	72.6	73.0	71.7
1960	45.6	73.2	71.6	76.9	71.9	70.2	76.2
1961	42.5	62.3	62.0	63.0	61.2	60.5	63.1
1962	48.7	65.7	66.9	62.6	63.8	64.1	62.8
1963	52.7	70.3	73.0	63.2	67.3	68.8	63.5
1964	61.6	79.1	83.5	67.4	74.9	77.8	67.4
1965	65.9	82.4	87.4	69.3	78.2	81.6	69.6
1966	68.0	83.7	90.6	65.3	78.1	82.8	66.0
1967	72.1	87.4	91.2	77.5	85.7	88.7	78.2
1968	75.2	91.5	93.7	85.9	88.6	91.0	82.6
1969	77.2	93.0	96.6	83.4	88.9	91.9	81.5
1970	71.7	86.0	87.4	82.1	83.5	84.6	81.0
1971	68.0	79.4	79.7	78.5	78.1	78.5	77.2
1972	82.6	89.9	92.8	82.2	86.1	88.3	80.8
1973	96.4	102.6	107.1	90.8	97.3	100.5	89.1
1974	106.8	106.6	111.2	94.6	101.4	104.7	93.2
1975	93.7	99.8	101.5	95.4	96.7	97.7	94.4
1976	89.9	93.4	91.9	97.4	93.2	92.0	96.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	117.5	111.1	112.7	107.0	108.8	109.5	107.0
1979	110.3	110.0	108.9	112.6	112.8	113.0	112.3
1980 ¹	88.6	101.7	97.6	112.1	107.3	105.7	111.3
Average annual percent change:							
1958-80	4.3	2.4	2.3	2.6	2.5	2.6	2.6
1975-80	1.4	2.0	1.2	3.8	3.4	3.2	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 72. Machine tools (SIC 3541, 3542): Output per hour and related data, 1967-80
 (1977 = 100)



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

Table 140. Machine tools (SIC 3541, 3542): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	71.5	68.6	78.1	69.5	64.9	79.5
1959	88.0	80.9	106.6	87.8	79.4	108.2
1960	84.7	77.6	103.1	84.8	77.0	104.0
1961	84.5	78.8	98.6	82.5	75.6	98.5
1962	88.5	81.5	106.8	89.0	81.4	106.5
1963	90.1	84.0	105.3	93.0	87.4	105.0
1964	99.9	90.9	124.4	106.0	98.0	124.2
1965	101.4	91.7	128.6	108.3	99.5	128.4
1966	111.7	99.8	146.3	120.0	109.4	145.3
1967	101.8	92.2	128.4	107.1	98.4	127.6
1968	97.9	92.4	111.4	102.1	95.5	116.0
1969	100.1	95.2	111.5	103.7	98.5	114.3
1970	91.7	89.8	96.0	93.0	90.7	97.2
1971	87.9	91.6	81.6	86.3	88.4	83.1
1972	98.0	97.0	100.2	99.1	97.4	102.1
1973	107.3	101.7	120.5	111.3	105.8	122.8
1974	109.4	102.7	125.4	112.7	105.9	127.4
1975	103.0	101.7	106.0	102.2	99.5	107.2
1976	98.4	97.4	100.4	96.5	93.7	101.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.5	99.2	109.8	103.9	100.8	109.9
1979	101.9	97.7	111.4	103.1	98.8	111.9
1980 ²	101.7	97.9	110.0	101.8	97.2	111.0
Average annual percent change:						
1958-80	1.0	1.3	.2	1.0	1.3	.2
1975-80 .....	.2	-.5	1.7	.6	.1	1.6

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

² Preliminary.

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

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

Table 141. Machine tools (SIC 3541, 3542): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	63.0	88.1	91.9	80.7	90.6	97.0	79.2
1959	79.2	90.0	97.9	74.3	90.2	99.8	73.2
1960	82.8	97.8	106.7	80.3	97.6	107.6	79.6
1961	77.4	91.6	98.2	78.5	93.8	102.4	78.6
1962	88.0	99.4	108.0	82.4	98.9	108.1	82.6
1963	93.0	103.2	110.7	88.3	100.0	106.4	88.6
1964	112.3	112.4	123.6	90.3	105.9	114.6	90.4
1965	125.3	123.6	136.6	97.4	115.7	125.9	97.6
1966	156.1	139.8	156.4	106.7	130.1	142.7	107.4
1967	149.9	147.3	162.6	116.7	139.9	152.4	117.5
1968	137.6	140.5	148.9	123.5	134.8	144.1	118.6
1969	137.8	137.7	144.7	123.6	132.9	139.9	120.6
1970	112.0	122.1	124.7	116.7	120.4	123.5	115.2
1971	81.4	92.6	88.9	99.8	94.3	92.1	98.0
1972	91.2	93.1	94.0	91.0	92.0	93.6	89.3
1973	116.3	108.4	114.3	96.5	104.5	109.9	94.7
1974	127.4	116.5	124.1	101.6	113.0	120.3	100.0
1975	109.1	105.9	107.3	102.9	106.7	109.6	101.8
1976	93.9	95.4	96.4	93.5	97.3	100.2	92.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	111.8	109.1	112.7	101.8	107.6	110.9	101.7
1979	119.1	116.9	121.9	106.9	115.5	120.6	106.4
1980 ¹	121.8	119.8	124.4	110.7	119.7	125.3	109.7
Average annual percent change:							
1958-80	1.5	.5	.2	1.3	.5	.2	1.2
1975-80	4.0	3.8	4.6	2.3	3.4	3.9	2.4

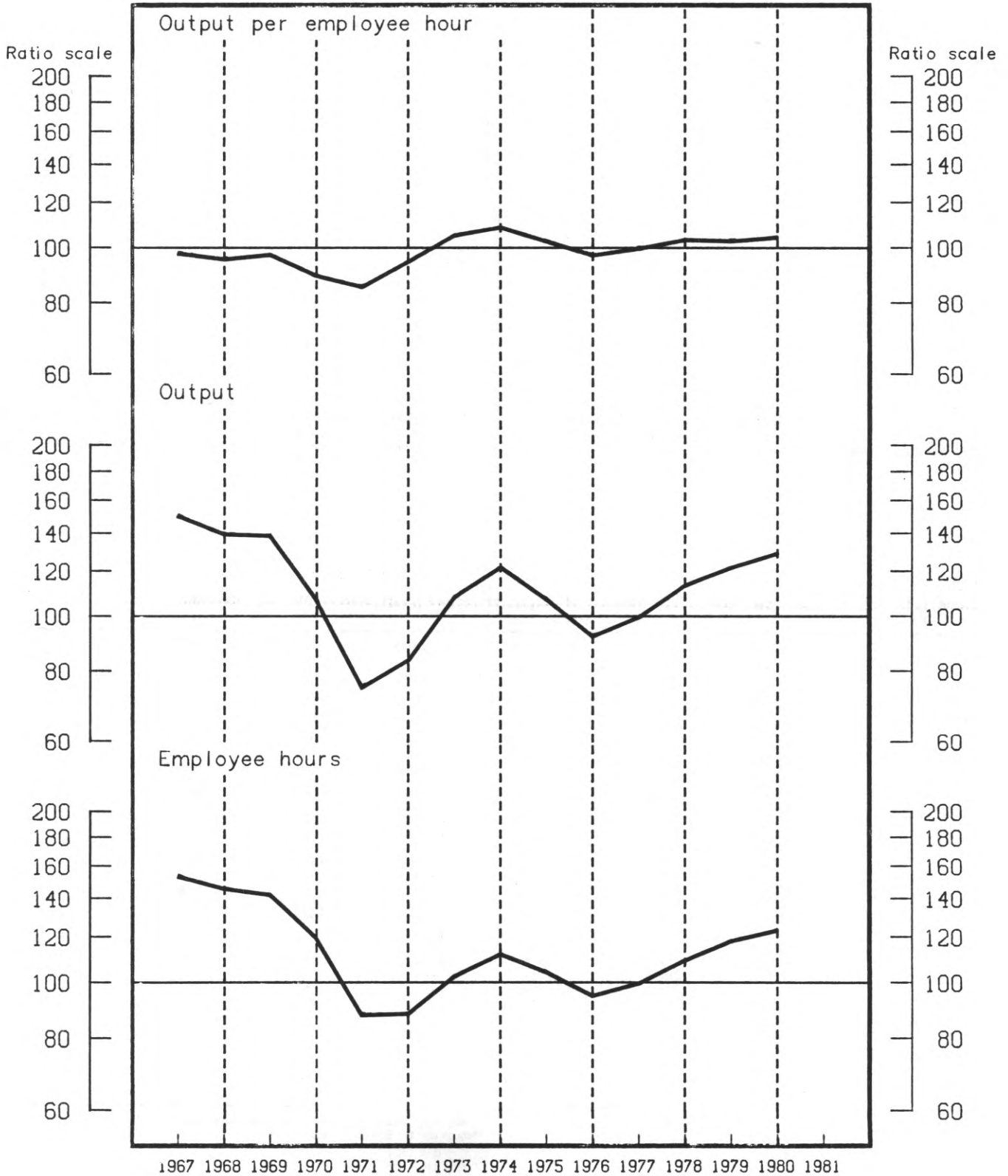
¹ Preliminary.

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 73. Metal cutting machine tools (SIC 3541): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 142. Metal cutting machine tools (SIC 3541): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	67.6	63.9	75.8	65.3	60.0	77.3
1959	83.2	78.7	93.0	83.5	78.3	94.5
1960	81.5	76.6	92.3	82.0	76.6	93.1
1961	80.0	76.5	87.2	78.7	74.5	87.2
1962	83.2	78.3	94.2	83.8	78.8	94.0
1963	84.3	78.3	97.9	86.0	80.4	97.6
1964	94.9	86.0	117.4	99.7	91.5	117.5
1965	98.7	88.4	125.7	104.8	95.6	125.3
1966	107.8	95.7	141.3	115.3	104.5	140.0
1967	98.0	87.5	126.2	102.7	92.9	125.2
1968	95.7	89.0	111.0	98.6	90.8	115.7
1969	97.5	91.7	110.2	100.1	93.9	113.0
1970	89.5	88.1	91.9	89.4	87.4	93.3
1971	85.5	89.3	78.7	82.8	84.5	80.3
1972	94.8	94.3	95.8	95.0	93.7	97.6
1973	105.5	99.8	117.8	107.8	101.9	119.9
1974	108.9	101.2	126.5	112.0	103.9	128.6
1975	102.9	100.7	107.3	101.8	98.4	108.4
1976	97.3	96.4	99.0	94.7	91.9	100.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.6	98.8	114.3	105.2	100.5	114.3
1979	103.1	97.6	115.4	105.3	99.8	115.9
1980 ²	104.7	98.6	118.2	105.9	99.3	119.2
Average annual percent change:						
1958-80	1.3	1.6	.9	1.3	1.5	.9
1975-80 .....	.8	-2	3.1	1.6	.9	3.0

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

² Preliminary.

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

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

Table 143. Metal cutting machine tools (SIC 3541): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	58.1	85.9	90.9	76.6	89.0	96.9	75.2
1959	74.2	89.2	94.3	79.8	88.9	94.8	78.5
1960	81.0	99.4	105.7	87.8	98.8	105.8	87.0
1961	72.7	90.9	95.0	83.4	92.4	97.6	83.4
1962	83.0	99.7	106.0	88.1	99.0	105.3	88.3
1963	88.4	104.9	112.9	90.3	102.8	109.9	90.6
1964	109.2	115.1	127.0	93.0	109.5	119.3	92.9
1965	124.8	126.4	141.1	99.3	119.1	130.5	99.6
1966	154.7	143.5	161.6	109.5	134.2	148.1	110.5
1967	150.6	153.6	172.1	119.3	146.6	162.1	120.3
1968	139.8	146.1	157.0	125.9	141.8	154.0	120.8
1969	139.0	142.5	151.5	126.1	138.9	148.1	123.0
1970	107.2	119.8	121.7	116.7	119.9	122.7	114.9
1971	75.2	88.0	84.2	95.5	90.8	89.0	93.7
1972	83.9	88.5	89.0	87.6	88.3	89.5	86.0
1973	108.6	102.9	108.8	92.2	100.7	106.6	90.6
1974	122.3	112.3	120.8	96.7	109.2	117.7	95.1
1975	107.5	104.5	106.7	100.2	105.6	109.2	99.2
1976	92.5	95.1	96.0	93.4	97.7	100.6	92.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	113.7	109.7	115.1	99.5	108.1	113.1	99.5
1979	122.2	118.5	125.2	105.9	116.1	122.5	105.4
1980 ¹	129.4	123.6	131.2	109.5	122.2	130.3	108.6
Average annual percent change:							
1958-80	1.8	.4	.2	.9	.5	.2	.9
1975-80	5.6	4.7	5.8	2.4	3.9	4.7	2.4

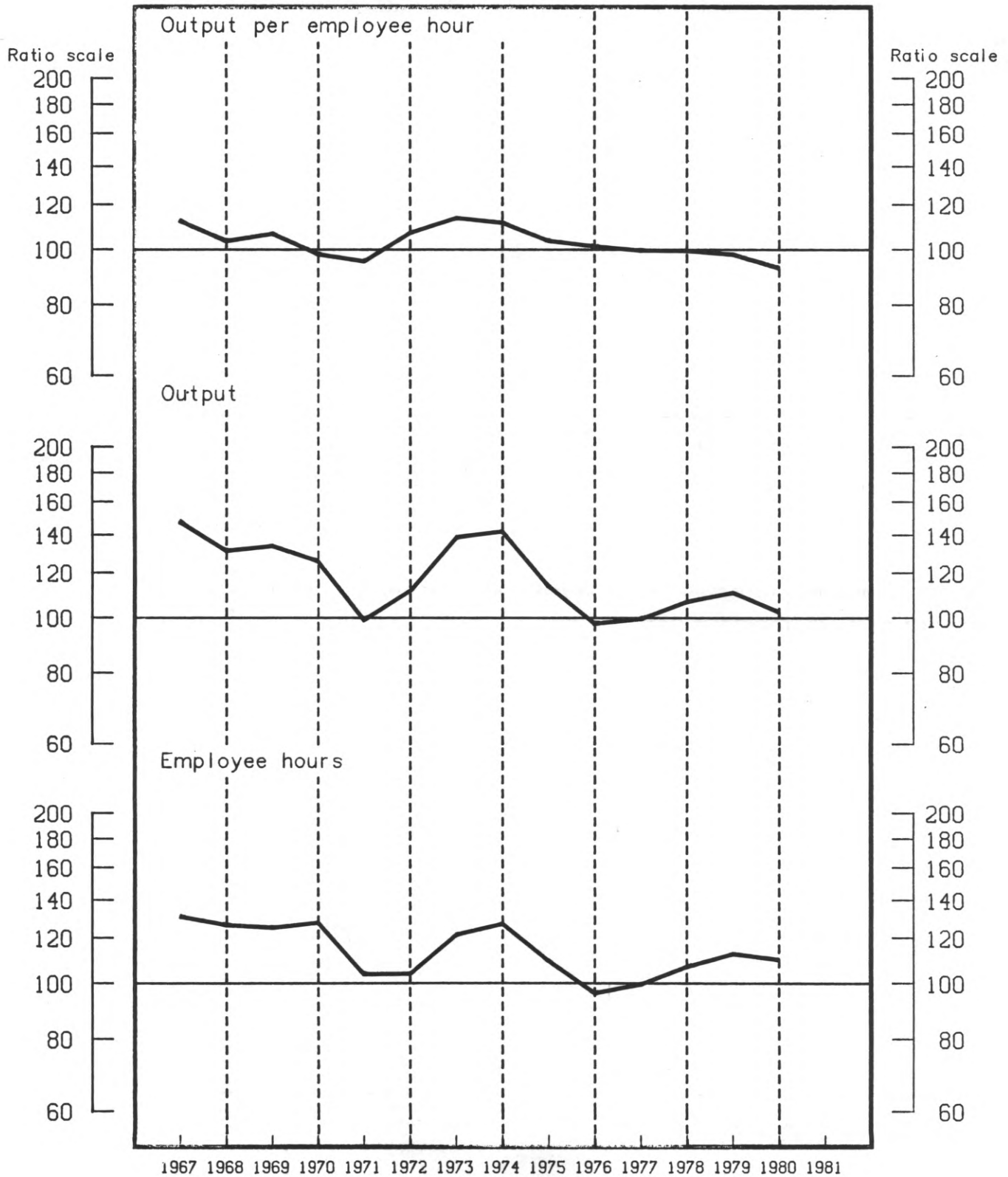
¹ Preliminary.

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 74. Metal forming machine tools (SIC 3642): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 144. Metal forming machine tools (SIC 3542): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	83.6	83.2	84.5	82.5	80.9	86.4
1959	102.8	89.0	160.4	101.1	85.5	164.2
1960	94.5	81.4	152.0	94.1	79.5	153.5
1961	98.0	86.6	141.4	93.9	80.8	142.7
1962	105.7	92.5	158.8	105.8	91.3	158.8
1963	108.4	101.3	129.8	115.3	109.5	129.7
1964	115.5	105.8	147.6	126.0	117.7	147.4
1965	109.3	100.5	137.9	118.2	110.6	138.2
1966	123.1	111.3	164.4	134.2	123.8	162.9
1967	112.7	105.0	136.2	120.0	113.9	135.4
1968	103.9	100.7	112.4	112.0	109.3	117.8
1969	107.0	103.9	115.4	113.7	111.5	118.7
1970	98.5	95.4	107.0	103.5	101.0	109.1
1971	95.7	99.3	88.3	96.7	100.1	90.1
1972	107.5	106.0	111.2	110.3	108.7	113.6
1973	114.1	109.2	127.4	122.2	118.6	130.6
1974	111.9	108.0	122.4	116.5	113.0	124.6
1975	104.0	104.5	102.8	104.1	103.7	104.5
1976	101.7	100.5	104.8	101.6	99.3	106.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.9	100.2	99.4	100.8	101.5	99.4
1979	98.4	97.3	101.1	97.6	95.8	101.8
1980 ²	93.2	94.7	89.9	90.6	90.4	90.8
Average annual percent change:						
1958-80	(³)	.6	-1.8	(³)	.6	-1.8
1975-80	-1.8	-1.7	-2.2	-2.3	-2.2	-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.

³ Less than .05 percent.

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

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

Table 145. Metal forming machine tools (SIC 3542): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	78.4	93.8	94.2	92.8	95.0	96.9	90.7
1959	95.1	92.5	106.8	59.3	94.1	111.2	57.9
1960	88.9	94.1	109.2	58.5	94.5	111.8	57.9
1961	91.9	93.8	106.1	65.0	97.9	113.8	64.4
1962	104.3	98.7	112.8	65.7	98.6	114.3	65.7
1963	107.5	99.2	106.1	82.8	93.2	98.2	82.9
1964	122.2	105.8	115.5	82.8	97.0	103.8	82.9
1965	127.1	116.3	126.5	92.2	107.5	114.9	92.0
1966	160.8	130.6	144.5	97.8	119.8	129.9	98.7
1967	147.9	131.2	140.8	108.6	123.2	129.9	109.2
1968	131.7	126.8	130.8	117.2	117.6	120.5	111.8
1969	134.3	125.5	129.3	116.4	118.1	120.5	113.1
1970	126.2	128.1	132.3	117.9	121.9	124.9	115.7
1971	99.6	104.1	100.3	112.8	103.0	99.5	110.5
1972	112.1	104.3	105.8	100.8	101.6	103.1	98.7
1973	139.2	122.0	127.5	109.3	113.9	117.4	106.6
1974	142.5	127.4	132.0	116.4	122.3	126.1	114.4
1975	114.1	109.7	109.2	111.0	109.6	110.0	109.2
1976	98.1	96.5	97.6	93.6	96.6	98.8	92.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.2	107.3	107.0	107.9	106.3	105.6	107.9
1979	111.2	113.0	114.3	110.0	113.9	116.1	109.2
1980 ¹	102.8	110.3	108.5	114.3	113.5	113.7	113.2
Average annual percent change:							
1958-80 .....	.6	.6	(²)	2.4	.6	(²)	2.4
1975-80	-2	1.6	1.5	2.0	2.1	2.0	2.2

¹ Preliminary.

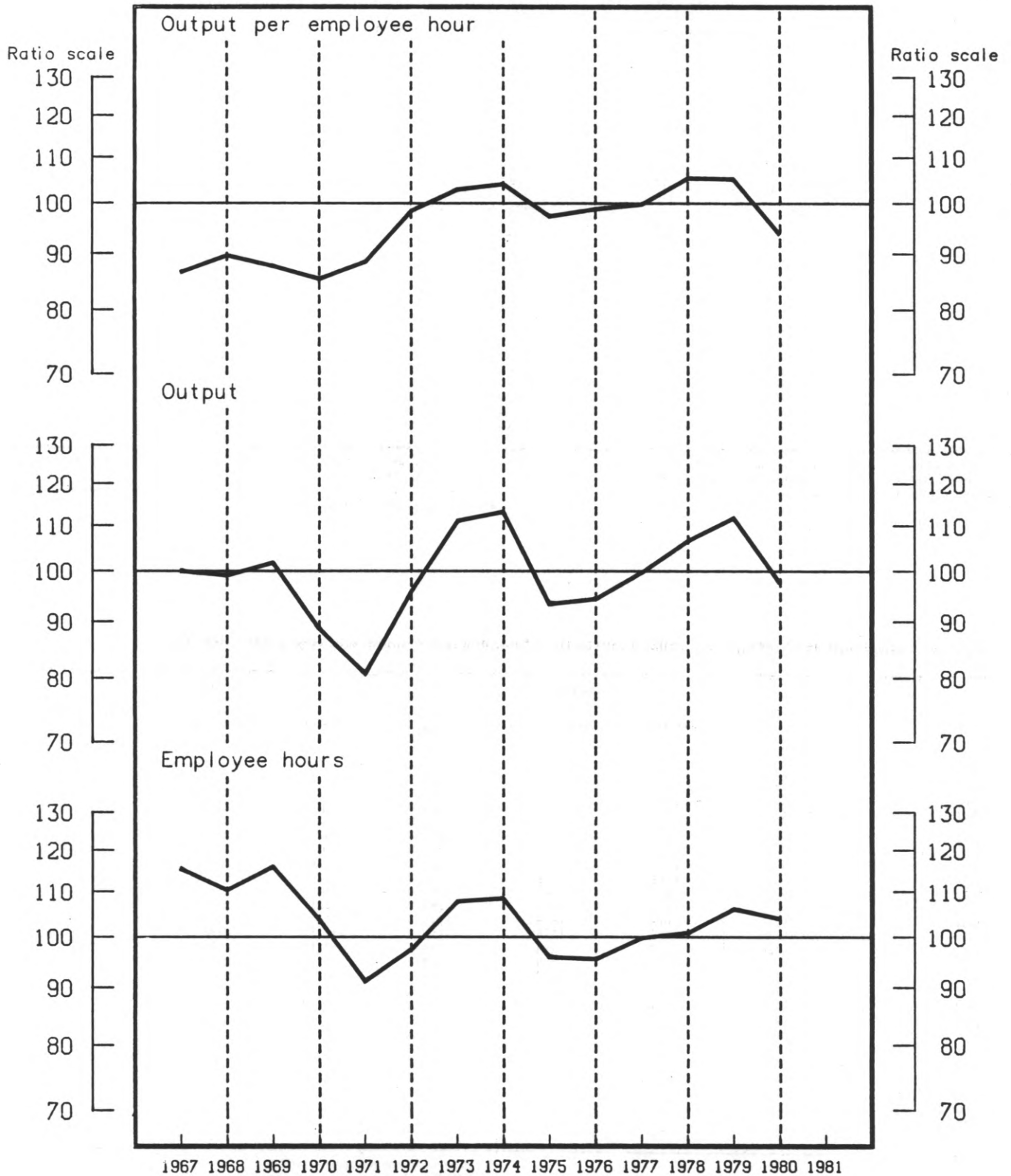
² Less than .05 percent.

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 75. Ball and roller bearings (SIC 3562): Output per hour and related data, 1967-80
 (1977 = 100)



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

Table 146. Ball and roller bearings (SIC 3562): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	52.7	51.9	55.6	50.3	48.7	56.2
1959	66.0	62.1	84.2	65.7	61.3	85.3
1960	64.7	62.4	73.9	60.9	57.7	74.3
1961	66.5	64.8	72.8	63.9	61.6	72.6
1962	72.4	69.6	83.9	71.6	68.6	83.0
1963	73.5	72.4	77.5	71.7	70.3	76.7
1964	79.3	76.9	88.5	78.6	76.1	87.6
1965	90.0	86.3	105.0	91.9	88.6	103.9
1966	90.1	86.3	106.3	93.4	90.4	105.1
1967	86.7	84.1	96.8	87.9	85.6	95.8
1968	89.8	89.2	91.5	90.7	89.9	93.5
1969	87.8	86.5	92.2	88.9	87.6	93.4
1970	85.5	86.3	82.4	81.2	80.7	82.6
1971	88.6	90.6	82.3	85.4	86.4	82.9
1972	98.6	97.4	102.8	100.2	99.0	104.1
1973	103.1	100.5	112.8	106.8	104.8	113.9
1974	104.3	102.0	113.4	104.4	101.7	114.2
1975	97.5	97.9	96.1	95.3	94.9	96.5
1976	99.0	98.7	99.7	98.5	98.0	99.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.6	105.1	107.7	104.2	103.1	107.7
1979	105.4	103.1	113.7	105.9	103.6	113.7
1980 ²	93.9	91.9	101.7	93.7	91.5	101.7
Average annual percent change:						
1958-80	2.5	2.6	1.9	2.6	2.8	1.9
1975-80 .....	.2	-.4	2.2	.5	(³)	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.

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 147. Ball and roller bearings (SIC 3562): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	39.9	75.7	76.9	71.8	79.4	82.0	71.0
1959	62.5	94.7	100.7	74.2	95.1	102.0	73.3
1960	57.3	88.6	91.8	77.5	94.1	99.3	77.1
1961	55.5	83.4	85.6	76.2	86.8	90.1	76.4
1962	66.5	91.9	95.6	79.3	92.9	97.0	80.1
1963	68.5	93.2	94.6	88.4	95.6	97.4	89.3
1964	78.2	98.6	101.7	88.4	99.5	102.7	89.3
1965	95.2	105.8	110.3	90.7	103.6	107.5	91.6
1966	106.8	118.5	123.8	100.5	114.3	118.1	101.6
1967	100.2	115.6	119.2	103.5	114.0	117.0	104.6
1968	99.3	110.6	111.3	108.5	109.5	110.5	106.2
1969	102.0	116.2	117.9	110.6	114.7	116.5	109.2
1970	88.9	104.0	103.0	107.9	109.5	110.1	107.6
1971	81.0	91.4	89.4	98.4	94.8	93.8	97.7
1972	96.2	97.6	98.8	93.6	96.0	97.2	92.4
1973	111.3	108.0	110.8	98.7	104.2	106.2	97.7
1974	113.4	108.7	111.2	100.0	108.6	111.5	99.3
1975	93.6	96.0	95.6	97.4	98.2	98.6	97.0
1976	94.6	95.6	95.8	94.9	96.0	96.5	94.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.8	101.1	101.6	99.2	102.5	103.6	99.2
1979	112.0	106.3	108.6	98.5	105.8	108.1	98.5
1980 ¹	97.8	104.1	106.4	96.2	104.4	106.9	96.2
Average annual percent change:							
1958-80	3.2	.7	.6	1.3	.6	.4	1.3
1975-80	2.3	2.1	2.7	.1	1.8	2.3	.2

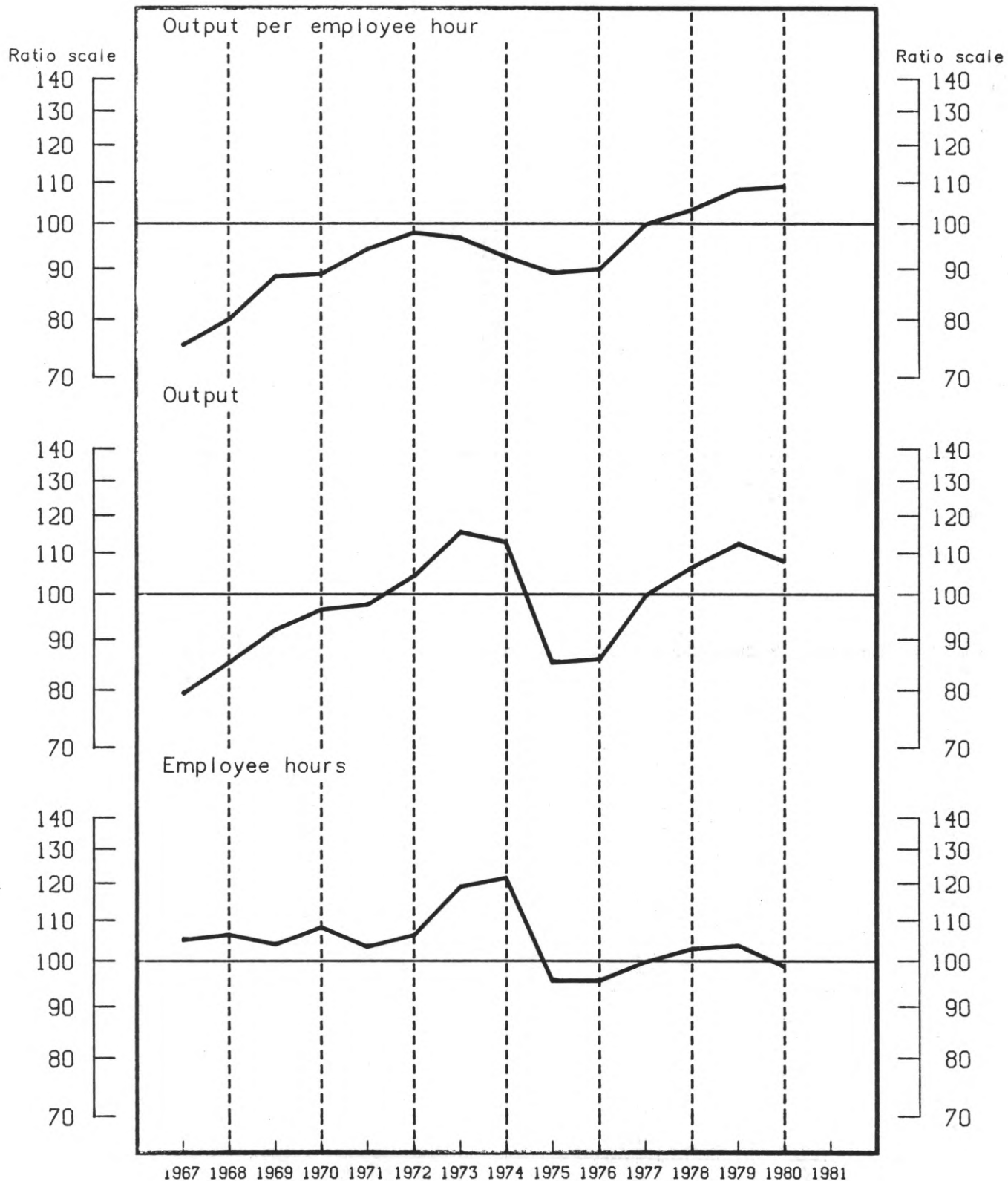
¹ Preliminary.

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 76. Transformers (SIC 3612): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 148. Transformers (SIC 3612): Indexes of output per employee hour and output per employee, 1963-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	67.5	67.6	67.1	67.1	68.5	64.2
1964	73.3	71.9	77.0	73.7	73.7	73.7
1965	79.9	77.0	87.4	81.1	80.0	83.7
1966	75.8	72.9	83.7	77.9	76.9	80.1
1967	75.5	73.0	82.1	76.7	75.9	78.6
1968	80.2	77.5	87.1	80.6	79.1	84.0
1969	88.6	85.1	97.7	89.6	87.3	95.3
1970	89.1	84.9	100.6	89.6	86.1	99.2
1971	94.4	90.1	105.8	92.8	88.6	104.4
1972	98.1	94.1	109.1	97.2	93.6	107.2
1973	96.9	91.5	112.4	96.9	92.1	110.2
1974	92.7	88.5	104.2	91.9	88.3	101.7
1975	89.3	92.0	83.9	86.6	88.6	82.4
1976	90.1	92.0	85.9	89.1	91.0	85.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.5	102.1	106.7	103.8	102.6	106.7
1979	108.5	105.9	114.9	108.7	106.2	114.9
1980 ²	109.3	109.7	108.1	108.8	109.0	108.1
Average annual percent change:						
1963-80	2.4	2.6	2.0	2.3	2.3	2.3
1975-80	4.7	3.9	6.5	5.2	4.5	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 the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Table 149. Transformers (SIC 3612): Indexes of output, employee hours, and employees, 1963-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	51.9	76.9	76.8	77.3	77.3	75.8	80.8
1964	59.0	80.5	82.1	76.6	80.1	80.0	80.1
1965	69.6	87.1	90.4	79.6	85.8	87.0	83.2
1966	74.1	97.7	101.7	88.5	95.1	96.3	92.5
1967	79.5	105.3	108.9	96.8	103.7	104.8	101.2
1968	85.5	106.6	110.3	98.2	106.1	108.1	101.8
1969	92.3	104.2	108.5	94.5	103.0	105.7	96.9
1970	96.7	108.5	113.9	96.1	107.9	112.3	97.5
1971	97.8	103.6	108.5	92.4	105.4	110.4	93.7
1972	104.5	106.5	111.1	95.8	107.5	111.7	97.5
1973	115.7	119.4	126.5	102.9	119.4	125.6	105.0
1974	113.0	121.9	127.7	108.4	122.9	128.0	111.1
1975	85.5	95.7	92.9	101.9	98.7	96.5	103.7
1976	86.2	95.7	93.7	100.3	96.7	94.7	101.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.7	103.1	104.5	100.0	102.8	104.0	100.0
1979	112.7	103.9	106.4	98.1	103.7	106.1	98.1
1980 ¹	108.1	98.9	98.5	100.0	99.4	99.2	100.0
Average annual percent change:							
1963-80	3.5	1.0	.9	1.4	1.2	1.2	1.1
1975-80	6.0	1.3	2.1	-5	.8	1.5	-8

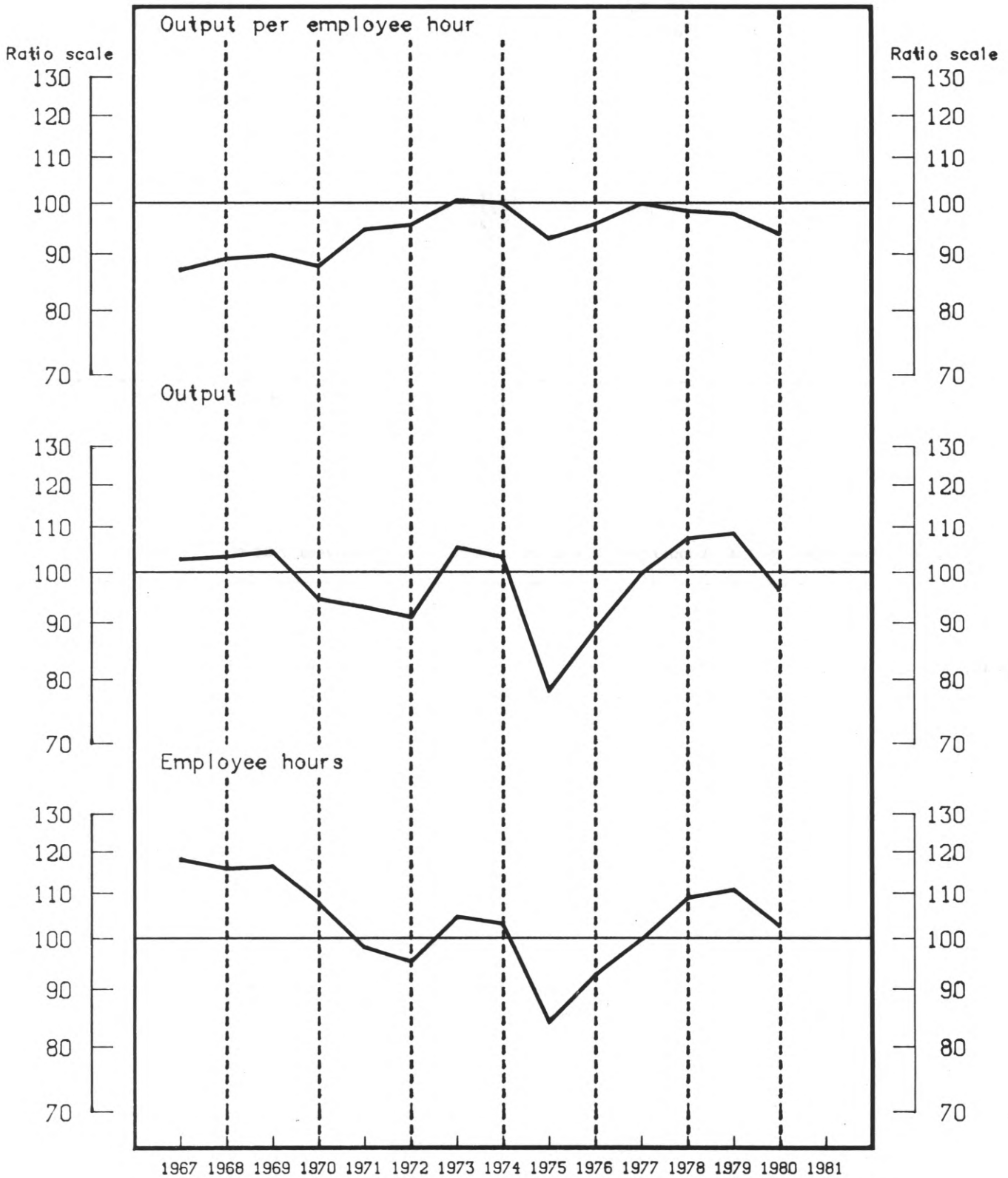
¹ Preliminary.

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 Labor Statistics.

Chart 77. Motors and generators (SIC 3621): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 150. Motors and generators (SIC 3621): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	49.9	51.9	43.9	49.7	51.7	44.0
1955	51.1	52.8	46.0	51.7	53.7	45.8
1956	54.1	55.6	49.7	54.3	55.9	49.6
1957	52.5	56.5	42.2	52.2	56.3	42.2
1958	52.1	57.2	39.9	52.0	57.4	39.7
1959	60.5	64.1	50.6	61.1	65.3	50.4
1960	62.0	66.5	50.3	61.4	66.2	49.8
1961	66.3	71.3	53.3	65.9	71.4	52.5
1962	73.7	77.4	63.4	74.3	79.0	62.2
1963	74.7	77.1	67.3	76.3	80.2	66.0
1964	82.5	85.2	74.3	84.8	89.1	73.3
1965	88.3	88.6	87.1	90.6	92.3	85.5
1966	90.3	88.3	97.6	91.1	89.9	95.4
1967	87.1	87.1	86.8	88.4	89.6	84.9
1968	89.2	89.8	87.3	91.7	93.0	87.6
1969	89.8	90.2	88.1	92.6	93.8	88.9
1970	87.8	89.5	82.2	88.3	89.8	84.0
1971	94.8	96.9	87.8	96.3	98.5	89.5
1972	95.7	95.5	96.7	97.9	97.9	98.1
1973	100.7	98.0	110.2	101.6	99.2	110.8
1974	100.1	98.8	104.6	99.9	98.7	104.1
1975	93.0	96.3	83.3	92.7	96.1	83.1
1976	95.9	94.6	100.6	95.1	93.4	101.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.5	97.8	101.1	98.2	97.3	101.2
1979	97.9	98.3	96.6	98.3	98.6	97.1
1980 ²	93.9	95.0	90.4	94.4	95.5	91.2
Average annual percent change:						
1954-80	2.9	2.6	3.7	2.9	2.6	3.8
1975-80	.3	.1	.9	.5	.3	1.0

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

² Preliminary.

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

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

Table 151. Motors and generators (SIC 3621): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	57.4	115.1	110.6	130.7	115.6	111.0	130.4
1955	60.4	118.1	114.3	131.2	116.9	112.4	131.8
1956	68.9	127.3	124.0	138.6	126.9	123.2	138.8
1957	63.2	120.3	111.9	149.6	121.1	112.3	149.8
1958	50.2	96.3	87.7	125.9	96.5	87.4	126.5
1959	62.8	103.8	98.0	124.1	102.8	96.1	124.7
1960	64.5	104.0	97.0	128.3	105.0	97.5	129.6
1961	65.2	98.3	91.5	122.3	99.0	91.3	124.2
1962	72.1	97.8	93.1	113.7	97.0	91.3	115.9
1963	74.2	99.3	96.2	110.3	97.2	92.5	112.4
1964	83.0	100.6	97.4	111.7	97.9	93.2	113.3
1965	95.3	107.9	107.6	109.4	105.2	103.3	111.5
1966	105.6	116.9	119.6	108.2	115.9	117.5	110.7
1967	102.9	118.2	118.2	118.5	116.4	114.9	121.2
1968	103.5	116.0	115.2	118.5	112.9	111.3	118.2
1969	104.6	116.5	116.0	118.7	112.9	111.5	117.7
1970	94.7	107.9	105.8	115.2	107.2	105.5	112.8
1971	93.1	98.2	96.1	106.0	96.7	94.5	104.0
1972	91.2	95.3	95.5	94.3	93.2	93.2	93.0
1973	105.5	104.8	107.7	95.7	103.8	106.4	95.2
1974	103.3	103.2	104.6	98.8	103.4	104.7	99.2
1975	78.4	84.3	81.4	94.1	84.6	81.6	94.3
1976	89.0	92.8	94.1	88.5	93.6	95.3	88.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.5	109.1	109.9	106.3	109.5	110.5	106.2
1979	108.6	110.9	110.5	112.4	110.5	110.1	111.9
1980 ¹	96.4	102.7	101.5	106.6	102.1	100.9	105.7
Average annual percent change:							
1954-80	2.4	-.4	-.2	-1.3	-.4	-.1	-1.3
1975-80	5.0	4.7	4.9	4.1	4.5	4.7	3.9

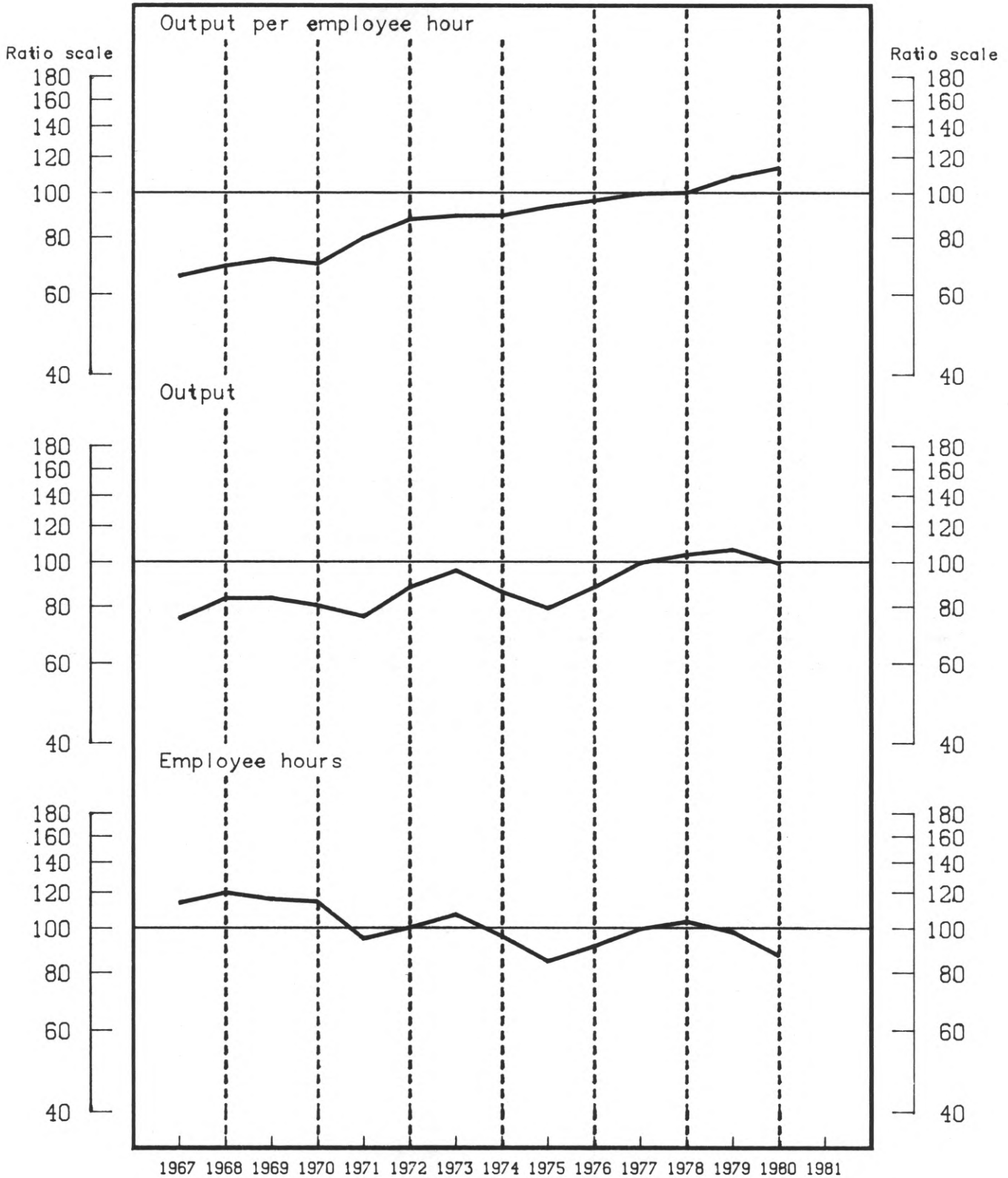
¹ Preliminary.

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

Chart 78. Major household appliances (SIC 3631, 3632, 3633, 3639): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 152. Major household appliances (SIC 3631, 3632, 3633, 3639): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	38.5	40.2	32.5	39.5	41.8	32.4
1959	42.0	42.8	38.9	42.9	44.2	38.7
1960	43.8	45.2	38.5	43.9	45.5	38.1
1961	46.6	48.4	40.3	47.6	50.1	39.6
1962	50.8	51.5	48.0	52.9	54.5	47.1
1963	57.9	57.7	59.1	59.6	60.0	58.0
1964	60.4	59.9	62.5	62.6	62.8	61.5
1965	62.2	61.9	63.4	65.0	65.7	62.2
1966	62.4	61.2	67.8	64.0	63.4	66.2
1967	66.0	65.7	67.7	66.5	66.7	66.2
1968	69.5	68.6	73.7	71.3	70.7	74.0
1969	71.9	71.9	71.8	72.6	72.8	72.4
1970	70.2	70.5	69.1	71.6	71.9	70.4
1971	80.1	80.7	77.5	81.7	82.4	79.2
1972	87.9	87.2	91.0	89.5	89.0	92.4
1973	89.5	88.5	94.1	90.7	89.8	94.7
1974	89.6	90.3	87.0	88.4	89.0	86.7
1975	93.6	96.0	84.6	91.7	93.6	84.5
1976	96.6	99.1	88.0	95.9	98.0	88.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.5	100.4	101.1	98.2	97.6	101.0
1979	108.7	109.1	107.5	107.9	107.9	108.1
1980 ²	114.0	116.2	105.6	110.8	111.9	106.4
Average annual percent change:						
1958-80	4.8	4.7	5.0	4.5	4.4	5.2
1975-80	3.9	3.6	5.0	3.7	3.4	5.2

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

² Preliminary.

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

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

Table 153. Major household appliances (SIC 3631, 3632, 3633, 3639): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	40.6	105.5	100.9	124.9	102.7	97.2	125.4
1959	47.4	112.8	110.7	121.8	110.4	107.3	122.4
1960	47.1	107.6	104.1	122.4	107.4	103.5	123.6
1961	46.6	99.9	96.2	115.7	98.0	93.1	117.8
1962	52.3	103.0	101.6	109.0	98.8	95.9	111.0
1963	58.0	100.1	100.6	98.1	97.3	96.7	100.0
1964	64.4	106.6	107.6	103.0	102.9	102.5	104.7
1965	69.8	112.2	112.7	110.1	107.4	106.2	112.2
1966	73.5	117.8	120.1	108.4	114.9	115.9	111.0
1967	75.4	114.2	114.8	111.4	113.3	113.0	113.9
1968	83.6	120.3	121.9	113.4	117.3	118.3	112.9
1969	83.6	116.3	116.2	116.5	115.2	114.9	115.5
1970	80.6	114.8	114.4	116.7	112.6	112.1	114.5
1971	76.2	95.1	94.4	98.3	93.3	92.5	96.2
1972	88.4	100.6	101.4	97.1	98.8	99.3	95.7
1973	96.2	107.5	108.7	102.2	106.1	107.1	101.6
1974	86.2	96.2	95.5	99.1	97.5	96.8	99.4
1975	79.5	84.9	82.8	94.0	86.7	84.9	94.1
1976	88.5	91.6	89.3	100.6	92.3	90.3	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.2	103.7	103.8	103.1	106.1	106.8	103.2
1979	106.9	98.3	98.0	99.4	99.1	99.1	98.9
1980 ¹	99.6	87.4	85.7	94.3	89.9	89.0	93.6
Average annual percent change:							
1958-80	4.0	-7	-6	-1.0	-5	-3	-1.1
1975-80	5.1	1.1	1.4	(²)	1.3	1.7	-1

¹ Preliminary.

² Less than .05 percent.

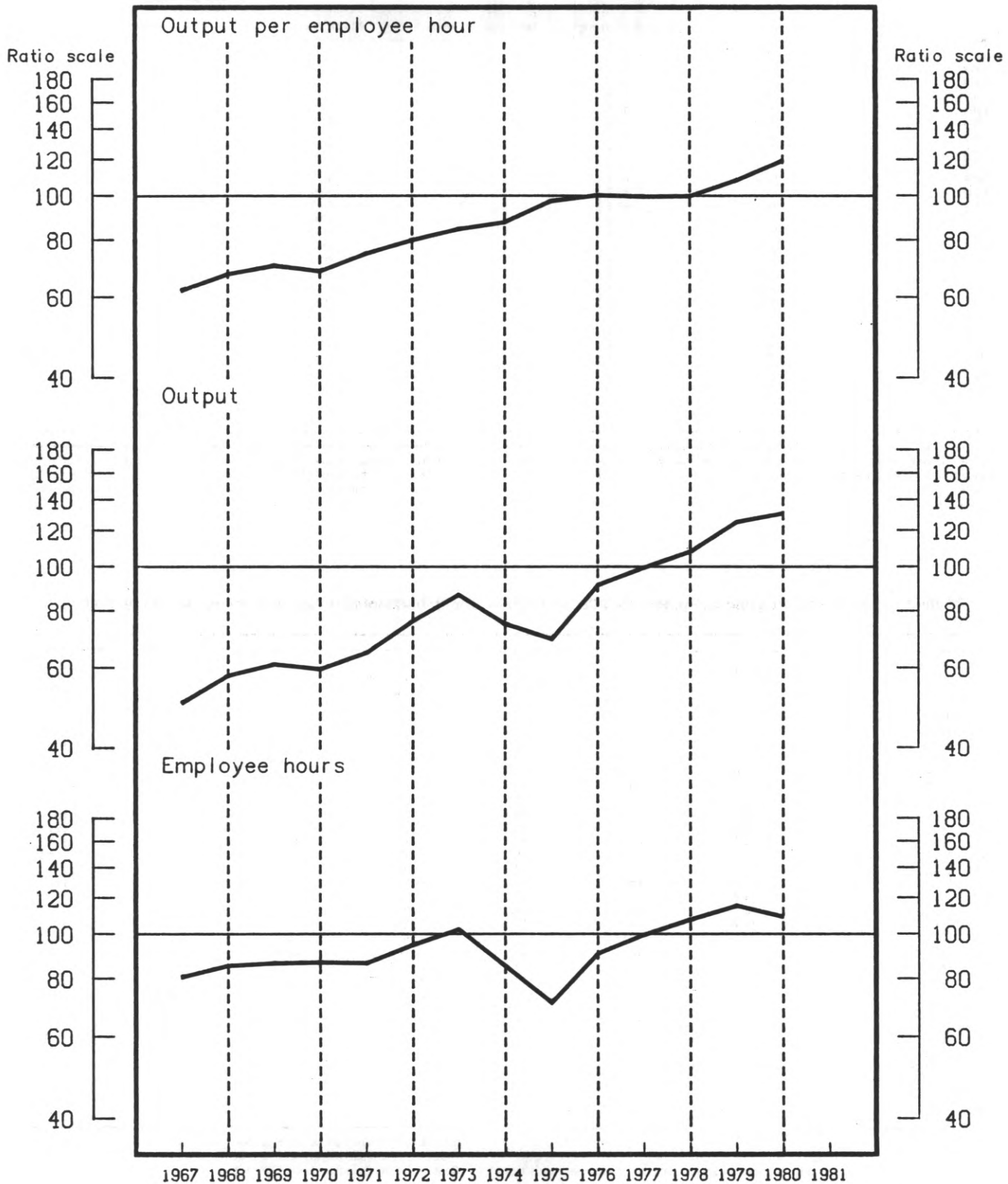
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

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

Chart 79. Household cooking equipment (SIC 3631): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 154. Household cooking equipment (SIC 3631): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	49.5	47.7	55.9	51.0	49.5	56.1
1959	52.0	49.2	63.1	53.6	51.0	63.1
1960	50.8	50.9	50.2	51.1	51.4	49.9
1961	52.6	52.2	53.7	53.2	53.2	53.1
1962	54.5	54.1	55.6	54.0	53.8	54.8
1963	59.5	56.3	72.2	61.5	58.8	71.4
1964	60.1	57.9	68.3	60.9	58.9	68.1
1965	63.1	59.4	78.1	65.4	62.5	76.8
1966	62.4	58.6	78.3	64.3	61.1	76.8
1967	62.3	59.4	73.6	62.9	60.3	72.3
1968	67.7	63.9	82.4	69.8	66.4	83.1
1969	70.7	68.2	79.6	72.2	69.9	80.6
1970	68.7	66.4	76.8	70.1	67.8	78.6
1971	75.0	72.7	83.5	77.2	74.9	85.4
1972	80.3	76.4	96.0	83.3	79.3	98.2
1973	84.9	80.3	102.9	88.0	83.8	103.8
1974	87.9	87.2	89.7	86.2	85.2	89.5
1975	97.8	98.4	95.7	95.2	95.2	95.6
1976	100.7	101.3	98.4	100.9	101.3	99.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.3	98.4	106.5	98.3	95.8	106.6
1979	108.5	109.9	104.5	109.7	111.1	105.6
1980 ²	119.8	125.1	106.1	116.9	120.5	107.4
Average annual percent change:						
1958-80	4.0	4.2	3.3	3.9	4.0	3.4
1975-80	3.6	4.2	2.2	3.7	4.1	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 155. Household cooking equipment (SIC 3631): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	36.5	73.8	76.6	65.3	71.6	73.8	65.1
1959	40.1	77.1	81.5	63.6	74.8	78.6	63.5
1960	40.4	79.6	79.3	80.5	79.1	78.6	80.9
1961	39.6	75.3	75.8	73.7	74.4	74.4	74.6
1962	40.0	73.4	73.9	72.0	74.1	74.4	73.0
1963	46.5	78.1	82.6	64.4	75.6	79.1	65.1
1964	47.5	79.0	82.1	69.5	78.0	80.6	69.8
1965	53.6	84.9	90.2	68.6	81.9	85.8	69.8
1966	52.4	84.0	89.4	66.9	81.5	85.8	68.2
1967	50.5	81.0	85.0	68.6	80.3	83.8	69.8
1968	58.0	85.7	90.7	70.4	83.1	87.4	69.8
1969	61.4	86.8	90.0	77.1	85.1	87.9	76.2
1970	59.9	87.2	90.2	78.0	85.5	88.4	76.2
1971	65.1	86.8	89.6	78.0	84.3	86.9	76.2
1972	76.4	95.1	100.0	79.6	91.7	96.3	77.8
1973	87.3	102.8	108.7	84.8	99.2	104.2	84.1
1974	75.3	85.7	86.4	83.9	87.4	88.4	84.1
1975	69.8	71.4	70.9	72.9	73.3	73.3	73.0
1976	91.7	91.1	90.5	93.2	90.9	90.5	92.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.3	108.0	110.1	101.7	110.2	113.1	101.6
1979	125.7	115.8	114.4	120.3	114.6	113.1	119.0
1980 ¹	131.2	109.5	104.9	123.7	112.2	108.9	122.2
Average annual percent change:							
1958-80	5.7	1.6	1.4	2.3	1.8	1.6	2.2
1975-80	12.7	8.7	8.2	10.3	8.7	8.2	10.1

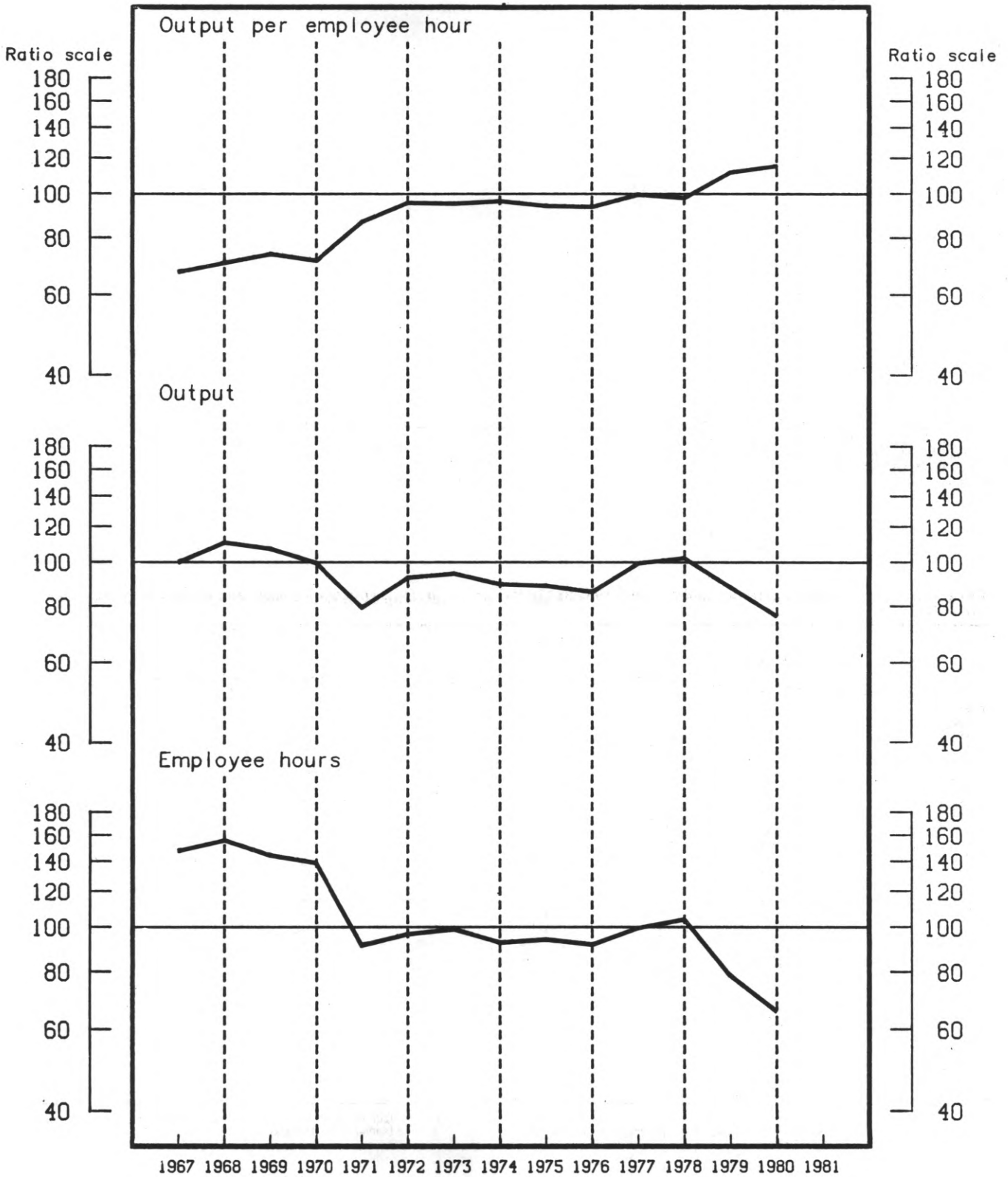
¹ Preliminary.

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 80. Household refrigerators and freezers (SIC 3632): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 156. Household refrigerators and freezers (SIC 3632): Indexes of output per employee hour and output per employee, 1958-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	33.9	35.0	29.3	34.8	36.3	29.2
1959	37.3	37.1	38.1	38.4	38.6	37.9
1960	41.0	41.3	39.2	40.8	41.2	38.8
1961	43.8	44.3	40.9	44.7	45.8	40.1
1962	47.2	46.7	50.2	50.9	51.3	49.2
1963	55.5	55.9	53.3	57.1	58.3	52.2
1964	59.5	59.2	60.7	62.0	62.6	59.5
1965	61.4	61.3	61.7	64.6	65.6	60.5
1966	62.1	61.1	67.5	63.4	63.0	65.8
1967	67.7	67.6	68.0	67.9	68.2	66.2
1968	70.9	70.6	72.2	72.5	72.6	72.4
1969	74.1	74.8	71.1	75.3	76.1	71.6
1970	71.7	72.4	68.6	73.4	74.2	69.8
1971	87.2	87.7	85.3	88.1	88.3	87.2
1972	96.0	95.1	100.1	97.6	97.0	101.4
1973	95.6	95.9	94.1	97.0	97.5	94.9
1974	96.8	97.9	90.7	98.4	100.4	89.9
1975	94.5	97.9	80.1	93.0	96.3	79.9
1976	94.0	97.6	79.4	92.4	95.5	79.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.4	97.9	100.9	96.3	95.4	101.0
1979	112.2	110.2	123.4	109.7	107.1	123.4
1980 ²	115.9	114.0	127.1	111.8	109.1	127.5
Average annual percent change:						
1958-80	5.4	5.4	5.5	5.1	5.0	5.6
1975-80	4.5	3.2	11.0	4.1	2.7	11.0

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

² Preliminary.

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

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

Table 157. Household refrigerators and freezers (SIC 3632): Indexes of output, employee hours, and employees, 1958-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	40.4	119.0	115.3	138.0	116.0	111.3	138.4
1959	50.5	135.5	136.1	132.6	131.4	130.8	133.4
1960	53.7	131.0	130.0	137.1	131.7	130.2	138.4
1961	52.1	119.0	117.5	127.3	116.6	113.7	130.0
1962	59.9	126.9	128.4	119.4	117.6	116.8	121.7
1963	68.8	124.0	123.0	129.1	120.4	118.1	131.7
1964	79.4	133.5	134.2	130.9	128.0	126.8	133.4
1965	87.8	143.0	143.2	142.4	135.9	133.9	145.1
1966	95.5	153.7	156.2	141.5	150.7	151.7	145.1
1967	100.5	148.4	148.6	147.7	148.1	147.3	151.7
1968	111.1	156.7	157.4	153.9	153.2	153.0	153.4
1969	107.5	145.0	143.8	151.3	142.8	141.2	150.1
1970	100.1	139.6	138.3	145.9	136.4	134.9	143.4
1971	80.0	91.7	91.2	93.8	90.8	90.6	91.7
1972	93.0	96.9	97.8	92.9	95.3	95.9	91.7
1973	94.9	99.3	99.0	100.9	97.8	97.3	100.0
1974	89.9	92.9	91.8	99.1	91.4	89.5	100.0
1975	89.2	94.4	91.1	111.4	95.9	92.6	111.7
1976	86.5	92.0	88.6	108.9	93.6	90.6	108.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.7	104.4	104.9	101.8	106.7	107.7	101.7
1979	88.5	78.9	80.3	71.7	80.7	82.6	71.7
1980 ¹	76.5	66.0	67.1	60.2	68.4	70.1	60.0
Average annual percent change:							
1958-80	2.8	-2.4	-2.4	-2.6	-2.2	-2.1	-2.7
1975-80	-1.9	-6.1	-4.9	-11.6	-5.7	-4.5	-11.6

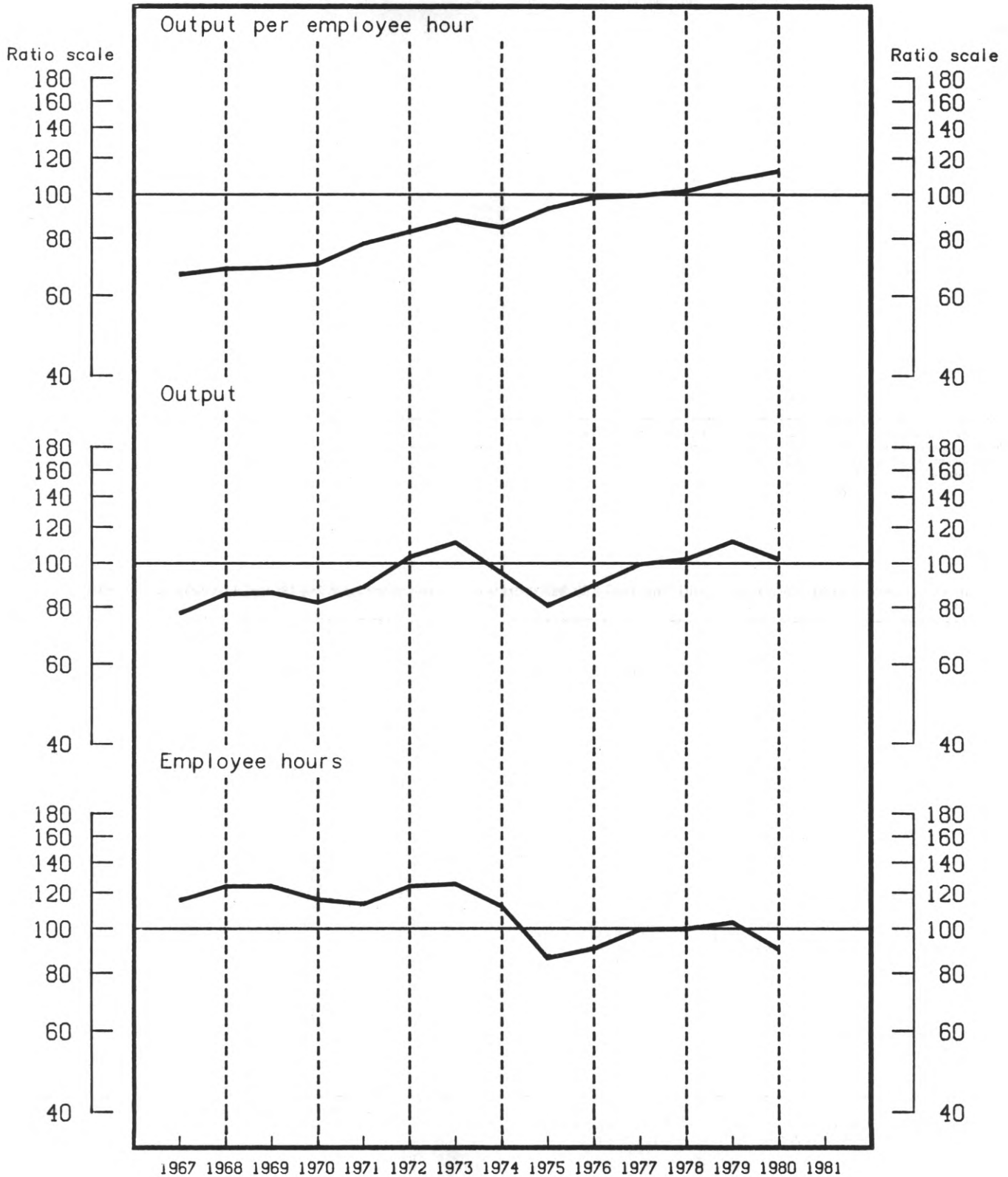
¹ Preliminary.

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

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

Chart 81. Household laundry equipment (SIC 3633): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 158. Household laundry equipment (SIC 3633): Indexes of output per employee hour and output per employee, 1958-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	39.8	43.8	28.4	42.0	47.1	28.2
1959	43.3	46.9	32.4	44.8	49.0	32.2
1960	42.5	46.7	30.3	43.4	48.1	30.0
1961	46.4	51.5	32.3	48.1	54.3	31.6
1962	51.6	56.2	37.9	53.8	59.6	37.2
1963	61.3	61.5	60.3	63.9	65.2	58.6
1964	60.8	60.5	61.9	64.2	65.0	60.6
1965	61.5	64.4	51.1	65.1	69.6	50.2
1966	63.5	64.2	60.4	66.1	68.0	58.6
1967	67.1	67.9	63.5	68.1	69.6	61.9
1968	69.0	68.7	70.1	71.0	71.2	70.0
1969	69.4	69.6	68.0	69.4	69.5	68.8
1970	70.7	72.0	65.4	72.3	73.5	67.0
1971	78.3	79.2	74.6	82.1	83.4	76.1
1972	83.2	82.6	85.6	85.3	84.9	86.3
1973	88.5	87.7	92.1	90.6	90.0	92.9
1974	85.0	86.2	79.9	82.1	82.6	79.6
1975	93.6	95.3	86.4	91.0	92.1	86.0
1976	99.0	100.6	92.8	98.6	100.0	92.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.3	102.3	102.6	101.6	101.3	102.6
1979	108.2	106.7	115.6	108.2	106.8	115.4
1980 ²	113.1	112.9	114.7	111.7	110.8	115.7
Average annual percent change:						
1958-80	4.7	4.2	6.3	4.4	3.8	6.4
1975-80	3.6	3.0	6.2	3.8	3.3	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 159. Household laundry equipment (SIC 3633): Indexes of output, employee hours, and employees, 1958-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	53.3	133.9	121.8	187.9	126.8	113.2	188.7
1959	59.8	138.1	127.6	184.8	133.5	122.1	185.8
1960	52.3	123.1	111.9	172.6	120.6	108.8	174.3
1961	53.3	114.8	103.4	165.2	110.8	98.1	168.7
1962	58.5	113.4	104.1	154.5	108.7	98.1	157.2
1963	60.3	98.4	98.1	100.0	94.3	92.5	102.9
1964	67.5	111.1	111.6	109.1	105.1	103.8	111.4
1965	70.4	114.5	109.3	137.8	108.2	101.2	140.1
1966	78.7	123.9	122.5	130.3	119.1	115.8	134.3
1967	77.9	116.1	114.7	122.7	114.4	112.0	125.8
1968	86.0	124.7	125.2	122.7	121.2	120.8	122.9
1969	86.5	124.7	124.2	127.2	124.7	124.5	125.8
1970	82.3	116.4	114.3	125.8	113.8	112.0	122.9
1971	89.2	113.9	112.6	119.6	108.7	106.9	117.2
1972	103.7	124.7	125.6	121.2	121.6	122.1	120.1
1973	111.6	126.1	127.3	121.2	123.2	124.0	120.1
1974	95.6	112.5	110.9	119.6	116.5	115.8	120.1
1975	81.1	86.6	85.1	93.9	89.1	88.1	94.3
1976	89.9	90.8	89.4	96.9	91.2	89.9	97.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.6	100.3	100.3	100.0	101.0	101.3	100.0
1979	112.1	103.6	105.1	97.0	103.6	105.0	97.1
1980 ¹	102.5	90.6	90.8	89.4	91.8	92.5	88.6
Average annual percent change:							
1958-80	3.4	-1.2	-0.8	-2.7	-0.9	-0.4	-2.8
1975-80	5.5	1.8	2.3	-0.7	1.6	2.1	-0.9

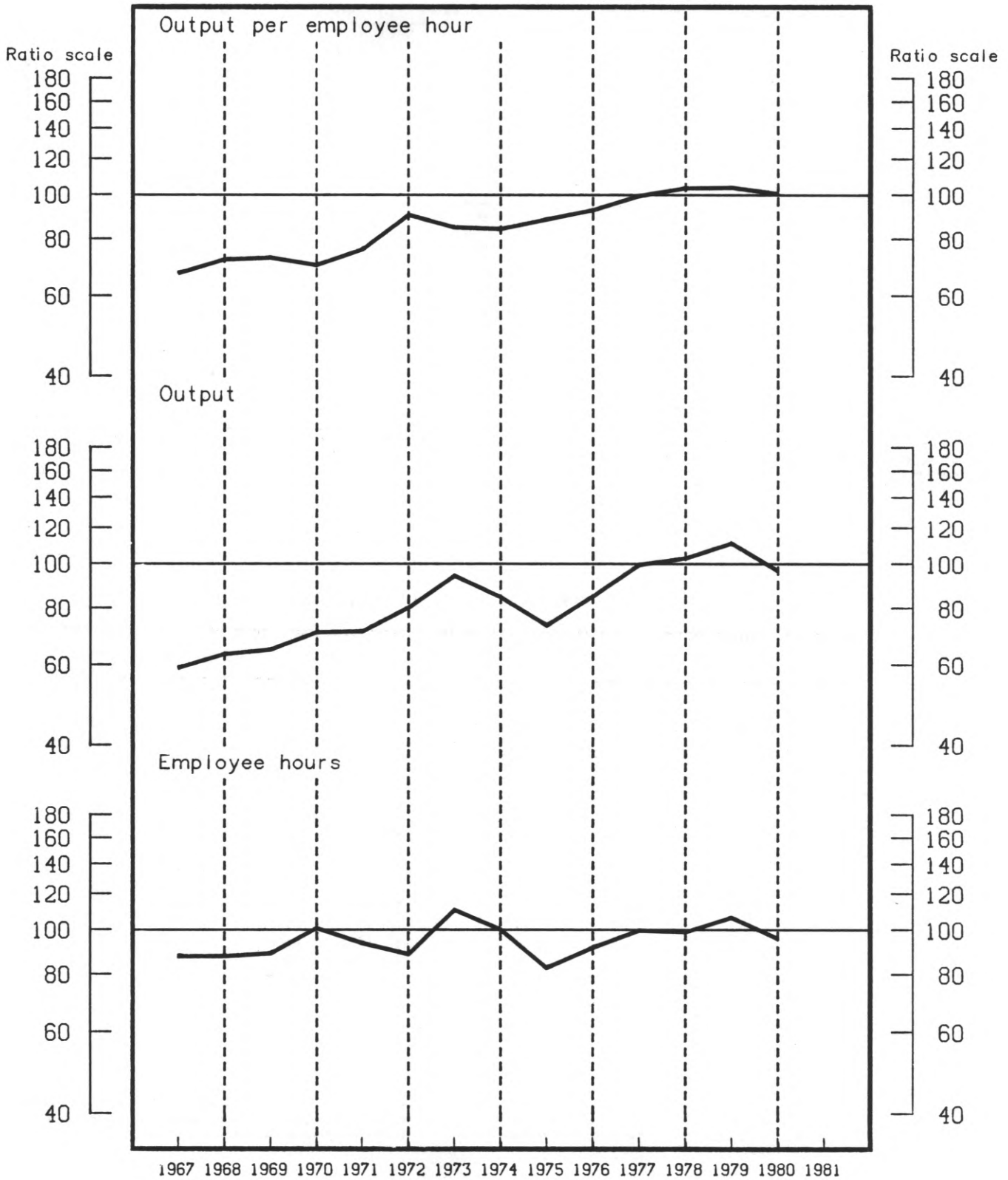
¹ Preliminary.

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

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

Chart 82. Household appliances, not elsewhere classified (SIC 3639): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 160. Household appliances, not elsewhere classified (SIC 3639): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	43.4	50.6	26.4	43.3	51.1	26.0
1959	49.1	57.6	29.2	47.5	55.8	28.7
1960	51.6	57.8	34.6	51.7	58.6	33.9
1961	54.6	62.0	35.3	55.4	64.0	34.6
1962	60.9	65.9	45.0	61.3	67.2	43.9
1963	63.8	67.8	50.1	64.5	69.6	48.8
1964	69.0	73.4	54.2	69.8	75.3	52.8
1965	70.4	73.1	60.2	71.4	74.9	59.1
1966	65.6	68.4	55.3	67.3	71.5	53.5
1967	67.6	72.4	51.9	69.6	76.1	50.7
1968	72.5	76.5	58.4	74.2	79.1	57.8
1969	73.1	78.6	55.2	73.7	79.5	55.6
1970	70.4	74.8	55.2	70.8	75.3	55.8
1971	76.2	82.3	57.0	75.9	81.7	57.6
1972	90.8	96.8	70.4	90.4	96.4	70.8
1973	85.2	86.7	78.9	82.6	83.6	78.5
1974	84.5	85.3	80.6	81.9	82.4	79.5
1975	88.8	93.4	72.4	87.0	91.6	71.3
1976	93.0	95.7	82.4	92.5	95.1	82.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.0	107.2	91.7	98.9	101.0	90.8
1979	104.3	105.6	98.9	101.2	101.9	98.0
1980 ²	101.0	103.7	90.5	96.5	97.9	90.8
Average annual percent change:						
1958-80	3.6	3.1	5.4	3.4	2.8	5.5
1975-80	3.0	2.6	4.6	2.2	1.6	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 161. Household appliances, not elsewhere classified (SIC 3639): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	40.3	92.8	79.7	152.7	93.0	78.9	155.2
1959	43.6	88.8	75.7	149.1	91.7	78.1	151.7
1960	42.1	81.6	72.9	121.8	81.5	71.9	124.2
1961	43.0	78.7	69.4	121.8	77.6	67.2	124.2
1962	51.5	84.6	78.1	114.5	84.0	76.6	117.2
1963	53.8	84.3	79.3	107.3	83.4	77.3	110.3
1964	58.2	84.3	79.3	107.3	83.4	77.3	110.3
1965	59.1	83.9	80.9	98.2	82.8	78.9	100.0
1966	55.3	84.3	80.9	100.0	82.2	77.3	103.4
1967	59.4	87.9	82.1	114.5	85.3	78.1	117.2
1968	63.7	87.9	83.3	109.0	85.9	80.5	110.3
1969	65.2	89.2	82.9	118.2	88.5	82.0	117.2
1970	71.2	101.2	95.2	129.1	100.6	94.5	127.5
1971	71.5	93.8	86.9	125.4	94.2	87.5	124.2
1972	80.6	88.8	83.3	114.5	89.2	83.6	113.8
1973	94.7	111.1	109.2	120.0	114.6	113.3	120.6
1974	85.0	100.6	99.7	105.5	103.8	103.1	106.9
1975	73.7	83.0	78.9	101.8	84.7	80.5	103.4
1976	85.4	91.8	89.2	103.7	92.3	89.8	103.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.3	99.3	96.4	112.7	104.5	102.3	113.8
1979	111.5	106.9	105.6	112.7	110.2	109.4	113.8
1980 ¹	97.1	96.1	93.6	107.3	100.6	99.2	106.9
Average annual percent change:							
1958-80	4.5	.9	1.4	-.8	1.1	1.7	-.9
1975-80	6.5	3.4	3.9	1.8	4.2	4.9	1.7

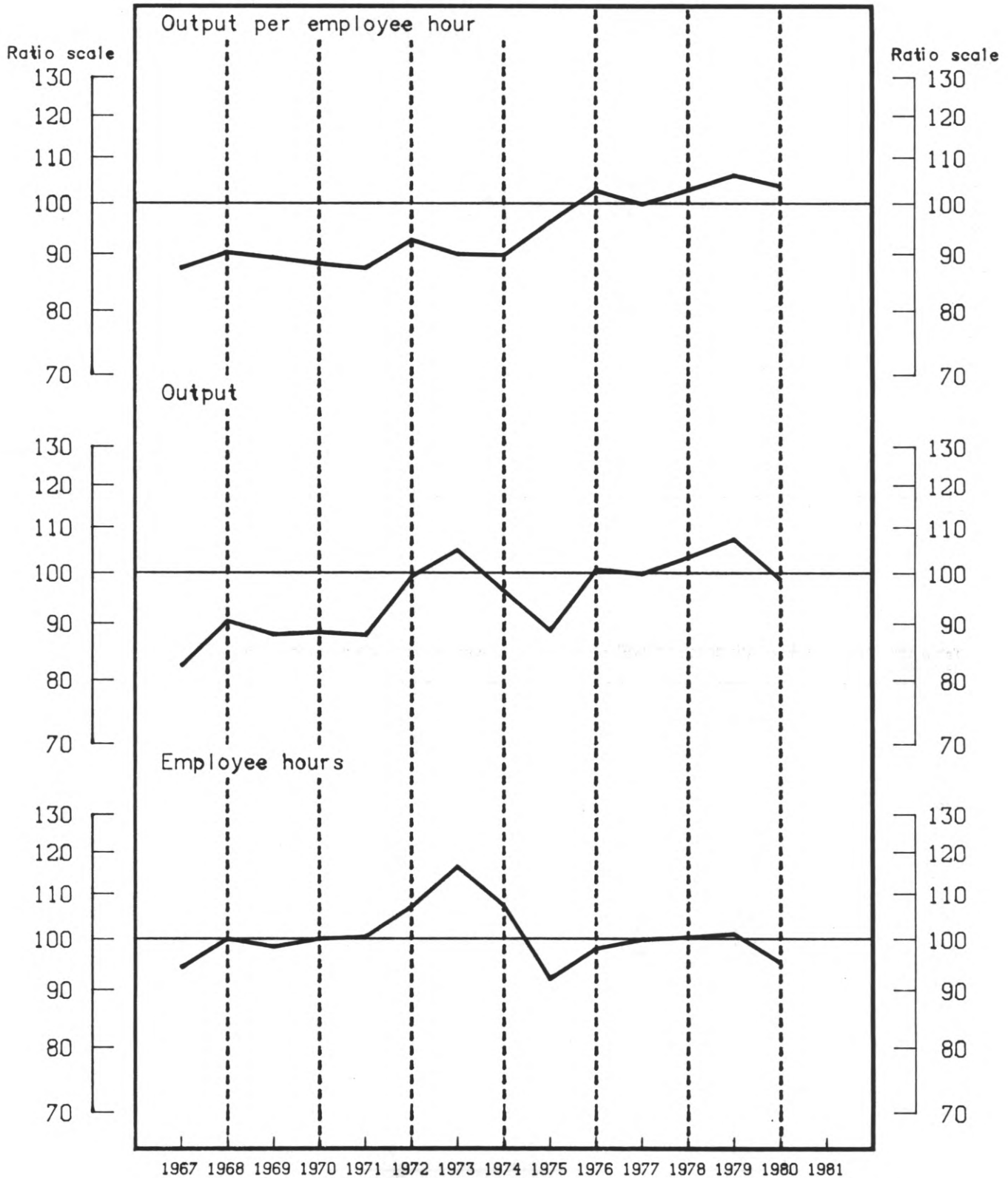
¹ Preliminary.

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 83. Electric lamps (SIC 3641): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 162. Electric lamps (SIC 3641): Indexes of output per employee hour and output per employee, 1954-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	62.5	62.9	60.1	60.2	60.3	59.1
1955	66.6	66.5	67.0	65.6	65.6	66.0
1956	69.4	68.7	75.8	69.3	68.6	74.6
1957	66.8	67.4	62.3	65.3	66.0	61.3
1958	68.9	70.9	57.8	66.9	68.6	56.9
1959	73.7	74.4	68.8	73.9	74.8	67.7
1960	75.5	76.1	71.8	73.1	73.5	70.2
1961	74.5	75.3	68.9	72.9	73.8	67.1
1962	79.2	79.6	76.1	78.3	79.0	73.7
1963	80.8	80.8	82.0	80.1	80.2	79.5
1964	83.4	83.4	84.0	82.4	82.6	81.3
1965	88.7	88.0	94.4	88.7	88.4	91.3
1966	89.3	88.0	100.1	89.4	88.3	96.9
1967	87.5	86.8	93.1	85.2	84.5	90.2
1968	90.4	89.6	97.0	89.0	88.2	94.6
1969	89.4	89.2	91.2	87.1	86.8	90.0
1970	88.3	87.3	96.9	87.5	86.4	96.7
1971	87.5	86.9	92.1	85.8	84.9	91.9
1972	92.8	91.6	101.9	92.5	91.2	101.6
1973	90.1	88.5	103.5	89.9	88.3	102.9
1974	89.9	89.5	91.7	87.7	87.3	90.8
1975	96.4	96.9	93.5	94.7	94.9	92.8
1976	102.9	102.7	103.5	103.7	103.7	103.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.0	102.6	105.7	104.3	104.1	105.7
1979	106.2	105.1	114.9	106.6	105.6	114.9
1980 ²	103.8	102.9	110.6	102.4	101.3	110.6
Average annual percent change:						
1954-80	1.8	1.8	2.3	1.9	1.9	2.4
1975-80	1.4	1.1	3.5	1.5	1.2	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 163. Electric lamps (SIC 3641): Indexes of output, employee hours, and employees, 1954-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	41.5	66.4	66.0	69.1	68.9	68.8	70.2
1955	46.3	69.5	69.6	69.1	70.6	70.6	70.2
1956	52.4	75.5	76.3	69.1	75.6	76.4	70.2
1957	52.2	78.1	77.4	83.8	79.9	79.1	85.1
1958	47.2	68.5	66.6	81.7	70.6	68.8	83.0
1959	56.2	76.3	75.5	81.7	76.1	75.1	83.0
1960	56.8	75.2	74.6	79.1	77.7	77.3	80.9
1961	52.8	70.9	70.1	76.6	72.4	71.5	78.7
1962	59.6	75.3	74.9	78.3	76.1	75.4	80.9
1963	62.6	77.5	77.5	76.3	78.2	78.1	78.7
1964	65.8	78.9	78.9	78.3	79.9	79.7	80.9
1965	73.9	83.3	84.0	78.3	83.3	83.6	80.9
1966	82.5	92.4	93.8	82.4	92.3	93.4	85.1
1967	82.5	94.3	95.1	88.6	96.8	97.6	91.5
1968	90.6	100.2	101.1	93.4	101.8	102.7	95.8
1969	88.1	98.5	98.8	96.6	101.1	101.5	97.9
1970	88.5	100.2	101.4	91.3	101.1	102.4	91.5
1971	88.0	100.6	101.3	95.6	102.6	103.6	95.8
1972	99.5	107.2	108.6	97.6	107.6	109.1	97.9
1973	105.1	116.6	118.7	101.5	116.9	119.0	102.1
1974	96.6	107.5	107.9	105.3	110.1	110.6	106.4
1975	88.9	92.2	91.7	95.1	93.9	93.7	95.8
1976	100.9	98.1	98.2	97.5	97.3	97.3	97.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.5	100.5	100.9	97.9	99.2	99.4	97.9
1979	107.5	101.2	102.3	93.6	100.8	101.8	93.6
1980 ¹	98.9	95.3	96.1	89.4	96.6	97.6	89.4
Average annual percent change:							
1954-80	3.7	1.8	1.8	1.4	1.7	1.8	1.3
1975-80	2.2	.8	1.1	-1.3	.7	1.0	-1.4

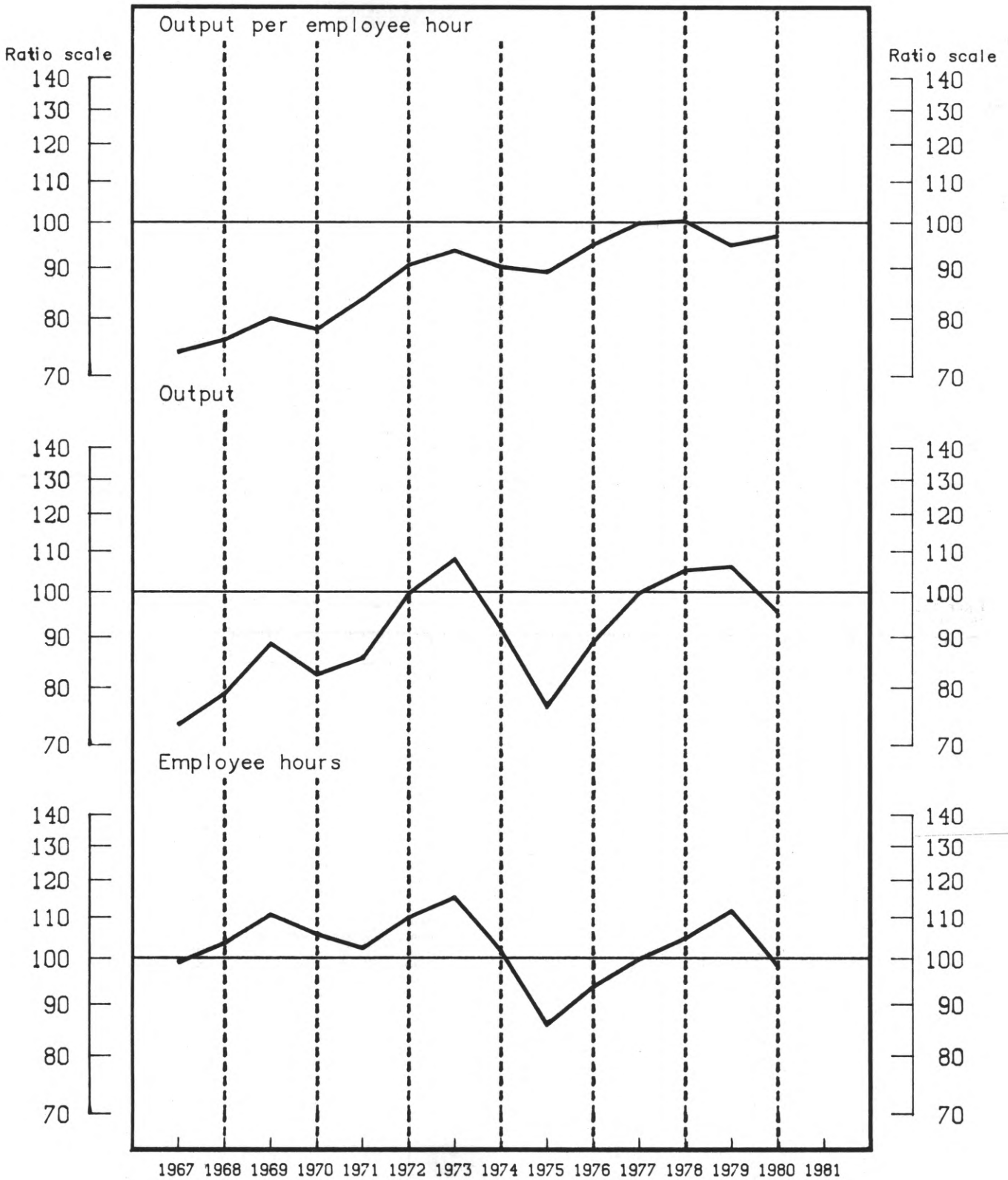
¹ Preliminary.

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 84. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 164. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Indexes of output per employee hour and output per employee, 1961-80
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1961	61.9	58.4	75.7	62.2	58.9	74.4
1962	67.5	63.3	84.4	68.5	64.7	83.0
1963	67.5	63.9	81.2	69.2	66.3	79.8
1964	69.0	66.0	80.0	70.2	67.7	78.7
1965	72.3	67.5	91.2	74.9	71.0	89.7
1966	74.4	70.1	91.7	75.8	72.1	89.8
1967	74.1	70.7	86.7	75.8	73.2	84.6
1968	76.2	73.5	85.8	79.0	76.8	86.2
1969	80.1	77.8	88.5	82.2	80.1	89.3
1970	78.1	77.3	80.8	80.0	79.1	82.6
1971	83.7	82.1	88.9	84.3	82.3	90.7
1972	90.7	88.3	99.0	92.9	90.7	100.5
1973	93.8	89.9	107.4	95.3	91.6	108.2
1974	90.3	89.0	94.8	90.6	89.4	94.4
1975	89.2	90.1	86.7	88.8	89.6	86.6
1976	95.1	93.5	100.7	94.7	92.7	101.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.5	99.5	104.0	100.5	99.2	104.3
1979	95.0	94.8	95.4	95.4	95.3	96.0
1980 ²	97.1	100.4	88.1	95.9	98.5	88.9
Average annual percent change:						
1961-80	2.5	2.9	1.1	2.3	2.7	1.2
1975-80	1.2	1.7	-1	1.2	1.6	(³)

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

² Preliminary.

³ Less than .05 percent.

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

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

Table 165. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Indexes of output, employee hours, and employees, 1961-80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1961	46.5	75.1	79.6	61.4	74.8	78.9	62.5
1962	53.4	79.1	84.3	63.3	77.9	82.5	64.3
1963	56.0	83.0	87.6	69.0	80.9	84.5	70.2
1964	60.0	87.0	90.9	75.0	85.5	88.6	76.2
1965	69.3	95.9	102.6	76.0	92.5	97.6	77.3
1966	73.7	99.0	105.2	80.4	97.2	102.2	82.1
1967	73.5	99.2	104.0	84.8	97.0	100.4	86.9
1968	79.0	103.7	107.5	92.1	100.0	102.8	91.7
1969	88.8	110.8	114.2	100.3	108.0	110.8	99.4
1970	82.6	105.8	106.9	102.2	103.3	104.4	100.0
1971	85.8	102.5	104.5	96.5	101.8	104.2	94.6
1972	99.9	110.1	113.1	100.9	107.5	110.2	99.4
1973	108.2	115.4	120.3	100.7	113.5	118.1	100.0
1974	92.1	102.0	103.5	97.2	101.6	103.0	97.6
1975	76.8	86.1	85.2	88.6	86.5	85.7	88.7
1976	89.2	93.8	95.4	88.6	94.2	96.2	88.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.4	104.9	105.9	101.3	104.9	106.2	101.1
1979	106.3	111.9	112.1	111.4	111.4	111.6	110.7
1980 ¹	95.7	98.6	95.3	108.6	99.8	97.2	107.7
Average annual percent change:							
1961-80	3.7	1.2	.8	2.6	1.3	1.0	2.4
1975-80	4.9	3.7	3.2	5.0	3.7	3.3	4.9

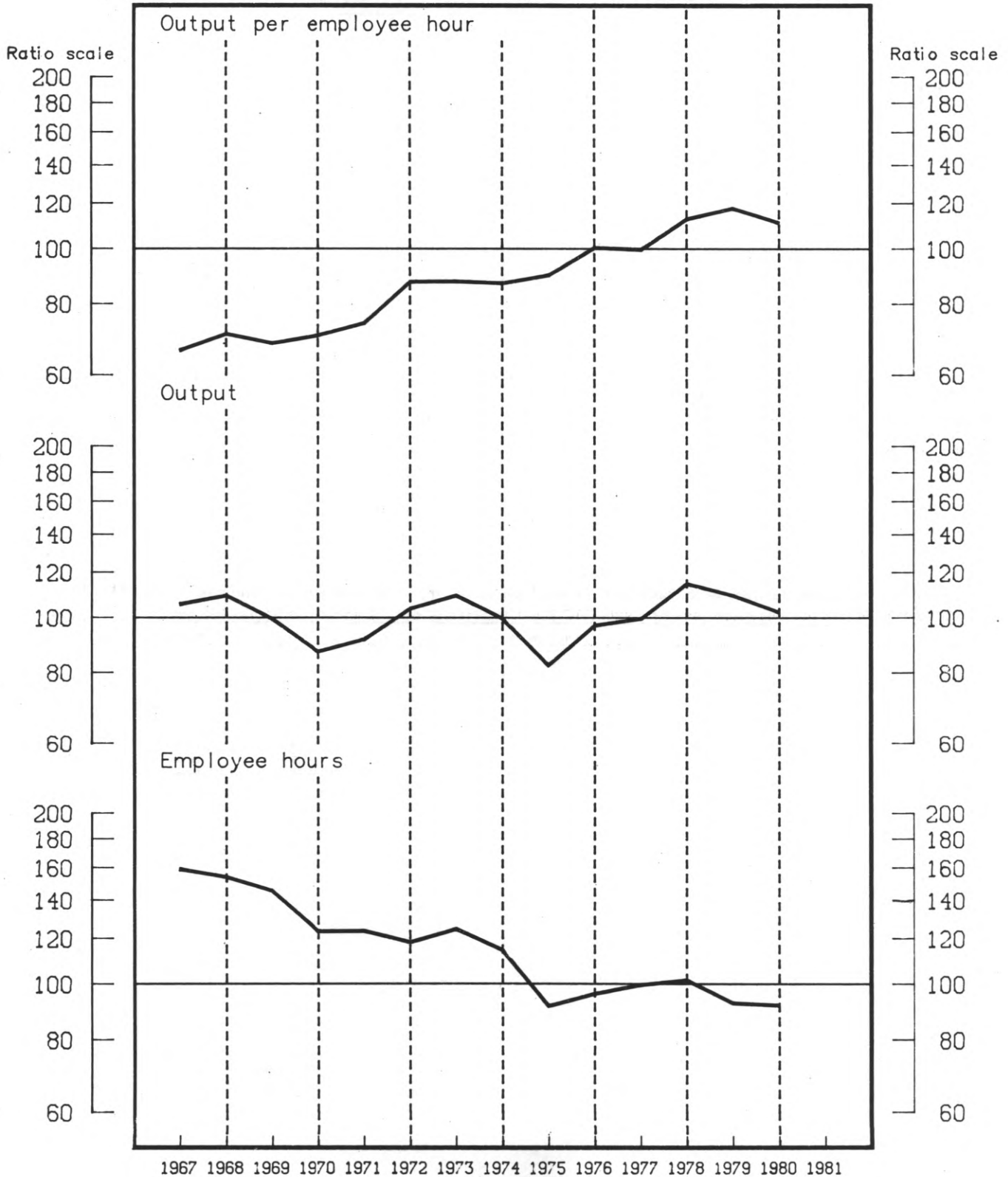
¹ Preliminary.

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

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

Chart 85. Radio and television receiving sets (SIC 3651): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 166. Radio and television receiving sets (SIC 3651): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	41.8	40.8	45.5	43.2	42.6	45.3
1959	44.6	42.5	53.8	46.1	44.3	53.5
1960	45.8	44.5	50.3	47.1	46.4	49.7
1961	46.9	46.3	48.7	47.3	47.1	47.9
1962	52.2	50.0	61.2	53.6	52.0	60.1
1963	58.1	54.1	76.7	59.9	56.5	75.2
1964	57.9	53.7	77.8	60.8	57.3	76.7
1965	63.5	58.1	92.1	67.5	62.8	90.4
1966	65.5	59.1	101.3	68.0	62.3	99.0
1967	66.5	61.6	90.0	67.7	63.5	87.9
1968	71.0	66.7	90.2	72.7	68.8	90.5
1969	68.4	65.2	81.3	70.5	67.8	81.9
1970	70.6	71.2	68.4	72.7	73.6	69.8
1971	74.2	73.2	77.4	76.3	75.5	78.9
1972	87.8	83.7	104.5	89.7	85.9	105.9
1973	87.9	83.2	108.5	88.9	84.3	109.1
1974	87.2	85.9	91.0	85.2	83.8	90.5
1975	90.1	91.6	85.5	89.7	91.2	85.3
1976	100.8	103.4	92.9	101.5	104.3	93.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	113.1	116.6	102.1	112.1	115.4	101.9
1979	118.1	121.5	107.5	119.7	123.9	107.9
1980 ²	111.4	118.9	92.1	114.1	122.6	92.9
Average annual percent change:						
1958-80	4.7	5.1	3.1	4.5	4.9	3.3
1975-80	4.9	5.7	2.4	5.3	6.3	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 167. Radio and television receiving sets (SIC 3651): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	38.5	92.0	94.3	84.7	89.2	90.3	85.0
1959	46.3	103.7	109.0	86.1	100.5	104.5	86.5
1960	45.3	99.0	101.7	90.1	96.2	97.7	91.1
1961	48.7	103.8	105.2	99.9	103.0	103.3	101.7
1962	59.7	114.4	119.4	97.6	111.3	114.7	99.4
1963	65.2	112.3	120.5	85.0	108.9	115.5	86.7
1964	70.5	121.7	131.2	90.6	116.0	123.0	91.9
1965	90.6	142.6	155.9	98.4	134.3	144.2	100.2
1966	118.7	181.3	200.9	117.2	174.5	190.5	119.9
1967	106.0	159.5	172.1	117.8	156.5	166.9	120.6
1968	109.7	154.5	164.5	121.6	150.9	159.4	121.2
1969	99.8	145.9	153.0	122.7	141.5	147.1	121.8
1970	87.4	123.8	122.7	127.8	120.3	118.7	125.3
1971	91.9	123.9	125.6	118.7	120.5	121.7	116.5
1972	104.1	118.5	124.3	99.6	116.0	121.2	98.3
1973	109.8	124.9	132.0	101.2	123.5	130.2	100.6
1974	100.1	114.8	116.5	110.0	117.5	119.5	110.6
1975	82.8	91.9	90.4	96.8	92.3	90.8	97.1
1976	97.3	96.5	94.1	104.7	95.9	93.3	104.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	115.2	101.9	98.8	112.8	102.8	99.8	113.0
1979	109.8	93.0	90.4	102.1	91.7	88.6	101.8
1980 ¹	102.7	92.2	86.4	111.5	90.0	83.8	110.6
Average annual percent change:							
1958-80	4.0	-.6	-1.0	.9	-.5	-.8	.8
1975-80	4.6	-.2	-1.0	2.2	-.7	-1.6	2.0

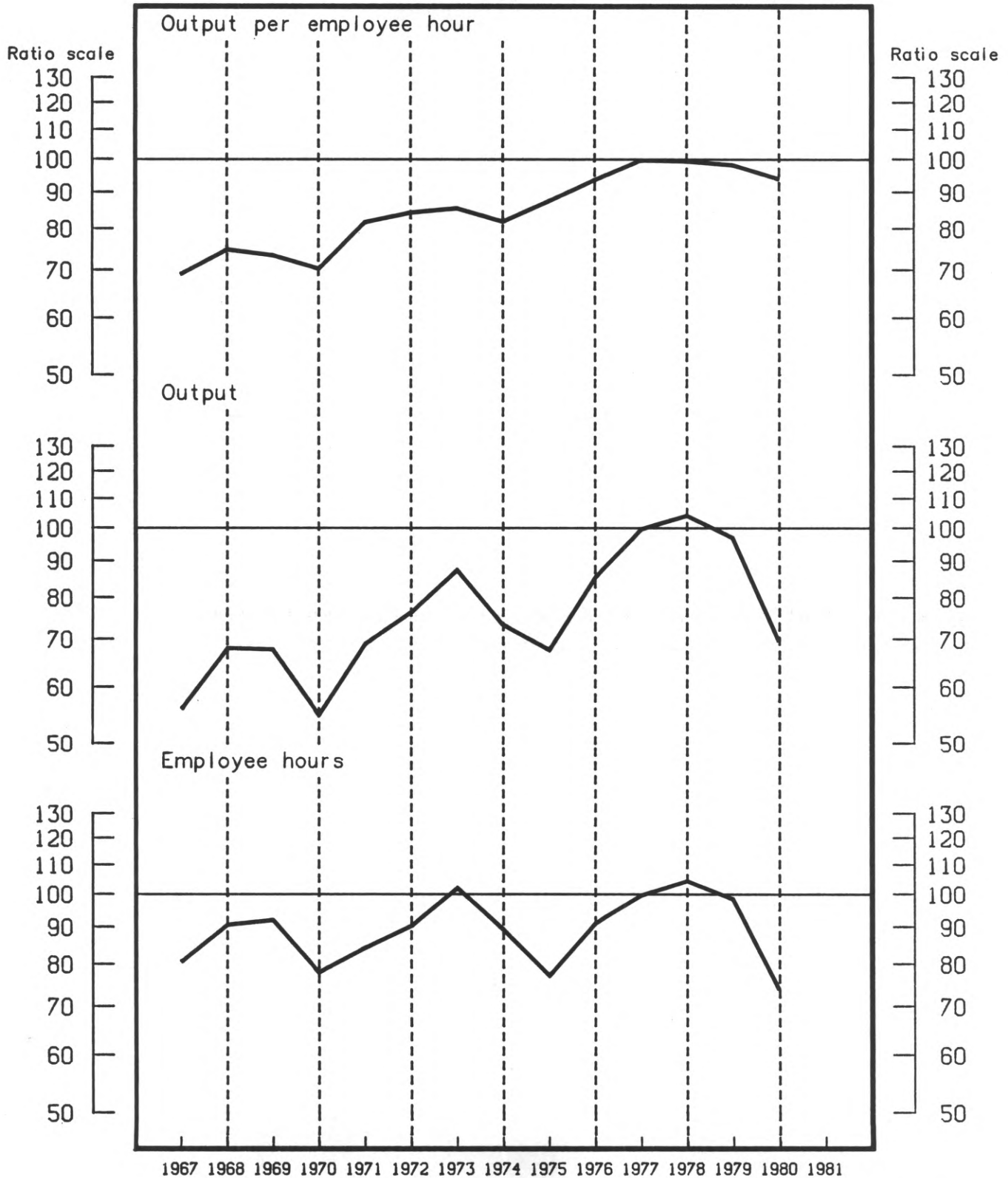
¹ Preliminary.

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 86. Motor vehicles and equipment (SIC 371): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 168. Motor vehicles and equipment (SIC 371): Indexes of output per employee hour and output per employee, 1957-80
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1957	47.6	47.5	48.0	44.6	44.2	46.0
1958	46.3	48.7	39.7	42.2	43.9	37.4
1959	50.8	51.0	49.8	47.8	47.7	48.0
1960	55.1	55.2	54.5	51.6	51.4	52.2
1961	55.9	57.7	50.4	51.4	52.5	47.7
1962	61.3	61.5	60.8	59.4	59.6	58.5
1963	63.7	63.7	63.4	61.9	62.0	61.5
1964	64.4	64.8	63.1	62.8	63.2	61.1
1965	68.6	67.7	72.2	68.6	67.9	70.6
1966	68.9	68.9	69.5	67.2	67.0	68.0
1967	69.3	70.5	65.6	64.8	65.4	62.8
1968	75.0	74.7	76.2	73.6	73.2	74.8
1969	73.6	73.9	72.4	70.2	70.1	70.6
1970	70.5	72.5	64.1	65.0	66.5	60.2
1971	81.9	82.4	80.3	76.9	77.1	75.9
1972	84.5	84.7	84.0	82.5	82.8	81.6
1973	85.7	85.9	85.1	84.7	85.0	83.9
1974	82.1	84.7	74.0	76.3	78.1	70.7
1975	87.7	89.8	80.9	80.7	82.3	75.6
1976	93.9	94.2	92.7	91.8	91.8	91.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.7	99.7	99.8	98.4	98.1	99.4
1979	98.5	100.0	93.6	92.9	93.5	91.4
1980 ²	94.2	101.5	75.4	86.7	92.1	72.2
Average annual percent change:						
1957-80	3.3	3.4	3.1	3.4	3.4	3.2
1975-80	1.4	2.3	-9	1.1	1.7	-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 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 169. Motor vehicles and equipment (SIC 371): Indexes of output, employee hours, and employees, 1957-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1957	36.4	76.4	76.6	75.8	81.6	82.4	79.2
1958	27.2	58.7	55.9	68.6	64.4	62.0	72.8
1959	35.1	69.1	68.8	70.5	73.5	73.6	73.1
1960	39.7	72.1	71.9	72.9	76.9	77.2	76.0
1961	34.5	61.7	59.8	68.5	67.1	65.7	72.4
1962	43.6	71.1	70.9	71.7	73.4	73.1	74.5
1963	48.7	76.5	76.4	76.8	78.7	78.5	79.2
1964	50.2	78.0	77.5	79.6	79.9	79.4	82.1
1965	61.3	89.3	90.6	84.9	89.4	90.3	86.8
1966	61.5	89.2	89.3	88.5	91.5	91.8	90.4
1967	56.1	80.9	79.6	85.5	86.6	85.8	89.3
1968	68.2	90.9	91.3	89.5	92.7	93.2	91.2
1969	67.9	92.3	91.9	93.8	96.7	96.9	96.2
1970	55.1	78.2	76.0	86.0	84.8	82.9	91.5
1971	69.2	84.5	84.0	86.2	90.0	89.7	91.2
1972	76.6	90.6	90.4	91.2	92.8	92.5	93.9
1973	87.8	102.4	102.2	103.2	103.6	103.3	104.7
1974	73.6	89.6	86.9	99.5	96.4	94.2	104.1
1975	67.9	77.4	75.6	83.9	84.1	82.5	89.8
1976	85.8	91.4	91.1	92.6	93.5	93.5	93.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.4	104.7	104.7	104.6	106.1	106.4	105.0
1979	97.2	98.7	97.2	103.9	104.6	104.0	106.3
1980 ¹	69.8	74.1	68.8	92.6	80.5	75.8	96.7
Average annual percent change:							
1957-80	4.9	1.5	1.5	1.7	1.4	1.4	1.6
1975-80	1.6	.2	-.7	2.6	.5	-.1	2.3

¹ Preliminary.

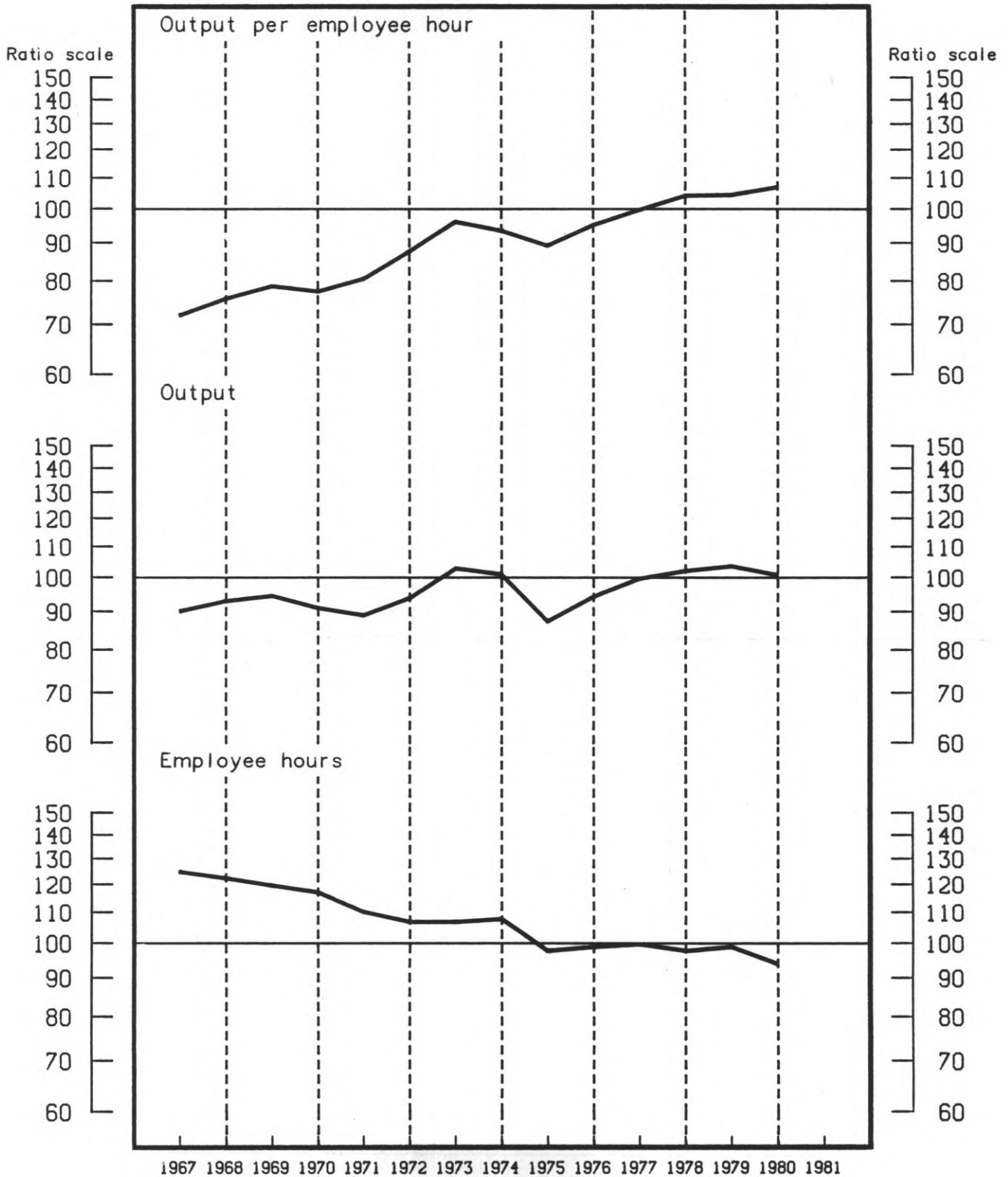
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from 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 87. Railroad transportation, revenue traffic (SIC 401): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 170. Railroad transportation, revenue traffic (SIC 401): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ²			Output per employee ²		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	35.3	33.8	50.6	36.7	35.0	55.5
1955	37.4	35.9	53.6	39.6	37.7	60.8
1956	38.2	36.7	53.8	40.2	38.4	61.1
1957	38.2	36.9	51.6	39.8	38.0	58.5
1958	41.1	40.0	49.9	42.5	41.0	56.5
1959	43.9	42.8	53.3	45.6	44.1	60.5
1960	45.1	44.1	53.3	46.6	45.1	60.3
1961	48.7	47.9	55.2	50.1	48.7	62.2
1962	52.2	51.3	59.7	54.1	52.7	67.4
1963	54.9	53.9	62.7	57.3	55.8	70.7
1964	58.4	57.4	66.5	61.7	60.2	75.6
1965	65.1	64.3	71.4	68.1	66.6	81.0
1966	70.2	69.2	77.3	73.1	71.6	85.5
1967	72.2	71.2	79.8	73.6	72.4	83.5
1968	76.0	75.2	82.9	78.4	77.3	87.2
1969	79.0	78.1	85.7	81.3	80.3	89.4
1970	77.7	76.9	83.1	79.8	79.0	86.5
1971	80.8	80.5	83.5	79.6	78.9	86.3
1972	88.0	87.7	89.5	89.0	88.5	92.0
1973	96.4	95.9	99.0	96.4	95.8	101.0
1974	93.7	93.3	96.8	94.6	94.1	98.4
1975	89.5	89.9	86.1	88.5	88.7	87.2
1976	95.4	95.5	94.0	95.3	95.3	95.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	104.7	103.5	104.5	104.6	103.5
1979	104.7	104.8	104.1	105.4	105.5	104.4
1980 ³	107.3	107.1	108.9	105.5	105.1	108.6
Average annual percent change:						
1947-80	4.6	4.8	2.7	4.1	4.4	2.1
1975-80	3.6	3.5	4.4	3.6	3.5	4.1

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 171. Railroad transportation, revenue traffic (SIC 401): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	79.0	223.7	233.5	156.2	215.2	225.6	142.3
1955	84.7	226.2	236.2	158.0	214.0	224.6	139.4
1956	85.2	223.0	232.4	158.3	211.8	222.1	139.4
1957	79.9	208.9	216.8	154.7	200.9	210.0	136.5
1958	72.7	177.0	181.6	145.6	171.1	177.2	128.6
1959	75.7	172.5	176.9	142.0	166.1	171.8	125.1
1960	74.1	164.2	167.9	139.0	159.1	164.3	122.8
1961	73.2	150.3	152.9	132.6	146.2	150.3	117.6
1962	77.2	147.8	150.5	129.3	142.6	146.4	114.5
1963	79.3	144.4	147.1	126.5	138.5	142.2	112.1
1964	83.5	142.9	145.4	125.6	135.3	138.8	110.4
1965	88.1	135.3	137.1	123.4	129.4	132.3	108.8
1966	92.9	132.4	134.3	120.2	127.1	129.7	108.7
1967	90.4	125.2	126.9	113.3	122.9	124.8	108.2
1968	93.3	122.7	124.1	112.6	119.0	120.7	107.0
1969	94.8	120.0	121.4	110.6	116.6	118.1	106.0
1970	91.3	117.5	118.7	109.9	114.4	115.6	105.5
1971	89.3	110.5	111.0	107.0	112.2	113.2	103.5
1972	94.2	107.1	107.4	105.2	105.9	106.4	102.4
1973	103.2	107.1	107.6	104.2	107.0	107.7	102.2
1974	101.3	108.1	108.6	104.6	107.1	107.6	102.9
1975	87.7	98.0	97.5	101.9	99.1	98.9	100.6
1976	94.6	99.2	99.1	100.6	99.3	99.3	99.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.4	98.0	97.8	98.9	98.0	97.9	98.9
1979	103.9	99.2	99.1	99.8	98.6	98.5	99.5
1980 ²	101.1	94.2	94.4	92.8	95.8	96.2	93.1
Average annual percent change:							
1947-80	.6	-3.9	-4.1	-2.1	-3.4	-3.6	-1.5
1975-80	2.9	-6	-5	-1.4	-6	-5	-1.1

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

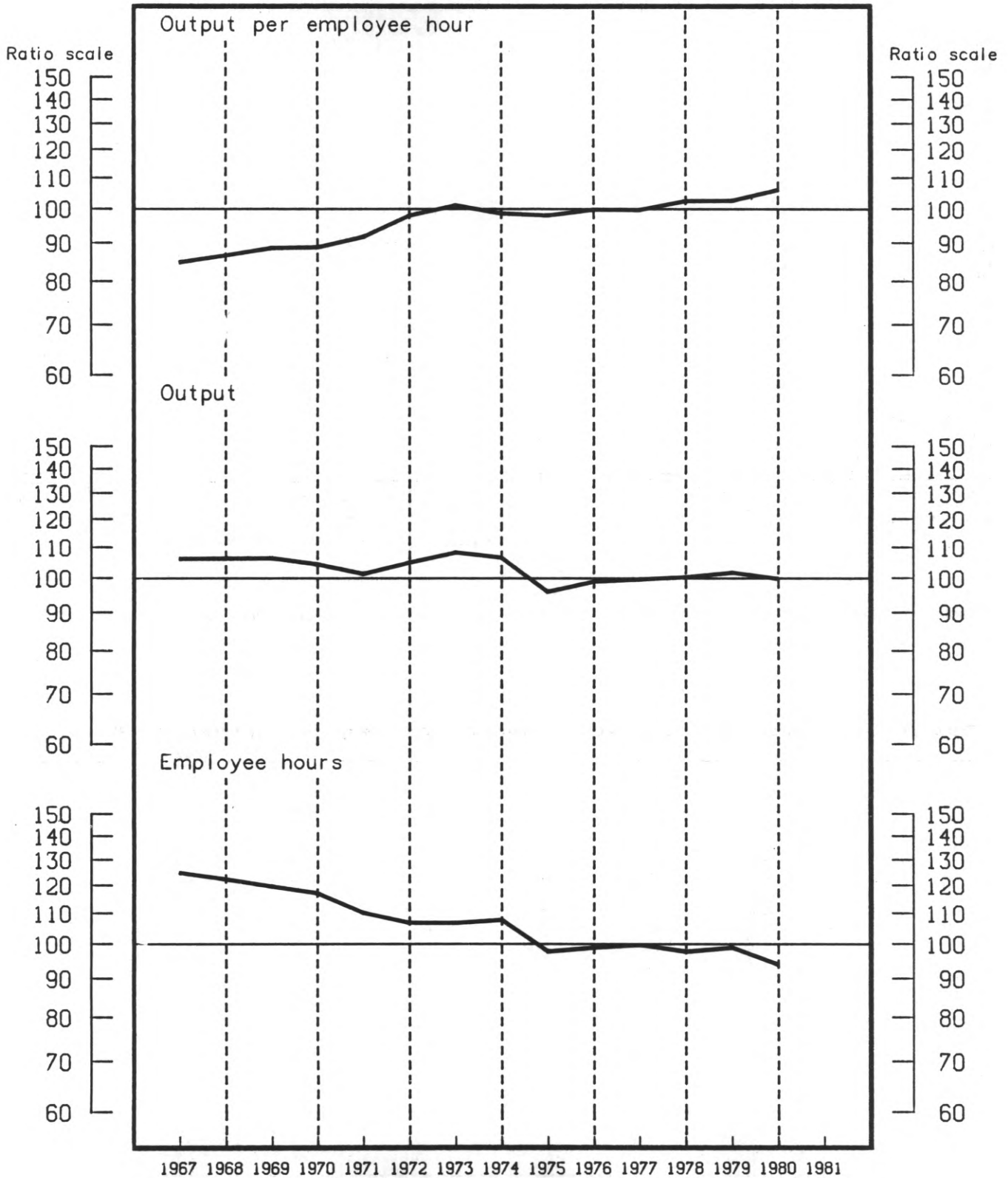
² Preliminary.

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 88. Railroad transportation, car-miles (SIC 401): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 172. Railroad transportation, car miles (SIC 401)¹: Indexes of output per employee hour and output per employee, 1954-80
(1977 = 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	46.8	70.0	50.8	48.4	76.8
1955	51.8	49.6	74.1	54.7	52.1	84.0
1956	53.0	50.9	74.7	55.8	53.2	84.8
1957	54.7	52.7	73.9	56.9	54.4	83.7
1958	59.0	57.5	71.8	61.1	59.0	81.3
1959	61.4	59.9	74.6	63.8	61.6	84.7
1960	63.3	61.9	74.7	65.3	63.2	84.6
1961	66.7	65.5	75.6	68.5	66.7	85.2
1962	68.9	67.7	78.8	71.5	69.6	89.0
1963	71.3	70.0	81.4	74.4	72.4	91.9
1964	73.8	72.5	83.9	77.9	75.9	95.5
1965	78.7	77.7	86.3	82.3	80.5	97.9
1966	82.8	81.6	91.2	86.2	84.5	100.8
1967	85.1	83.9	94.0	86.7	85.3	98.4
1968	86.9	85.9	94.7	89.6	88.3	99.6
1969	88.9	87.9	96.5	91.5	90.3	100.7
1970	89.1	88.2	95.3	91.5	90.6	99.2
1971	92.0	91.6	95.0	90.6	89.8	98.3
1972	98.3	98.0	100.1	99.4	99.0	102.8
1973	101.4	100.9	104.2	101.5	100.8	106.3
1974	98.9	98.4	102.2	99.8	99.3	103.9
1975	98.3	98.8	94.5	97.2	97.4	95.7
1976	100.1	100.2	98.7	100.0	100.0	100.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.8	103.0	101.8	102.8	102.9	101.8
1979	102.9	103.0	102.3	103.5	103.7	102.6
1980 ³	106.4	106.1	108.0	104.6	104.2	107.6
Average annual percent change:						
1947-80	3.5	3.7	1.6	3.0	3.3	1.0
1975-80	1.5	1.3	2.3	1.4	1.4	1.9

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. Employment and hours based on data from the Interstate Commerce Commission.

Table 173. Railroad transportation, car miles (SIC 401)¹: Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	109.3	223.7	233.5	156.2	215.2	225.6	142.3
1955	117.1	226.2	236.2	158.0	214.0	224.6	139.4
1956	118.2	223.0	232.4	158.3	211.8	222.1	139.4
1957	114.3	208.9	216.8	154.7	200.9	210.0	136.5
1958	104.5	177.0	181.6	145.6	171.1	177.2	128.6
1959	105.9	172.5	176.9	142.0	166.1	171.8	125.1
1960	103.9	164.2	167.9	139.0	159.1	164.3	122.8
1961	100.2	150.3	152.9	132.6	146.2	150.3	117.6
1962	101.9	147.8	150.5	129.3	142.6	146.4	114.5
1963	103.0	144.4	147.1	126.5	138.5	142.2	112.1
1964	105.4	142.9	145.4	125.6	135.3	138.8	110.4
1965	106.5	135.3	137.1	123.4	129.4	132.3	108.8
1966	109.6	132.4	134.3	120.2	127.1	129.7	108.7
1967	106.5	125.2	126.9	113.3	122.9	124.8	108.2
1968	106.6	122.7	124.1	112.6	119.0	120.7	107.0
1969	106.7	120.0	121.4	110.6	116.6	118.1	106.0
1970	104.7	117.5	118.7	109.9	114.4	115.6	105.5
1971	101.7	110.5	111.0	107.0	112.2	113.2	103.5
1972	105.3	107.1	107.4	105.2	105.9	106.4	102.4
1973	108.6	107.1	107.6	104.2	107.0	107.7	102.2
1974	106.9	108.1	108.6	104.6	107.1	107.6	102.9
1975	96.3	98.0	97.5	101.9	99.1	98.9	100.6
1976	99.3	99.2	99.1	100.6	99.3	99.3	99.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	98.0	97.8	98.9	98.0	97.9	98.9
1979	102.1	99.2	99.1	99.8	98.6	98.5	99.5
1980 ²	100.2	94.2	94.4	92.8	95.8	96.2	93.1
Average annual percent change:							
1947-80	-5	-3.9	-4.1	-2.1	-3.4	-3.6	-1.5
1975-80 .....	.8	-6	-5	-1.4	-6	-5	-1.1

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

may differ from those previously published.

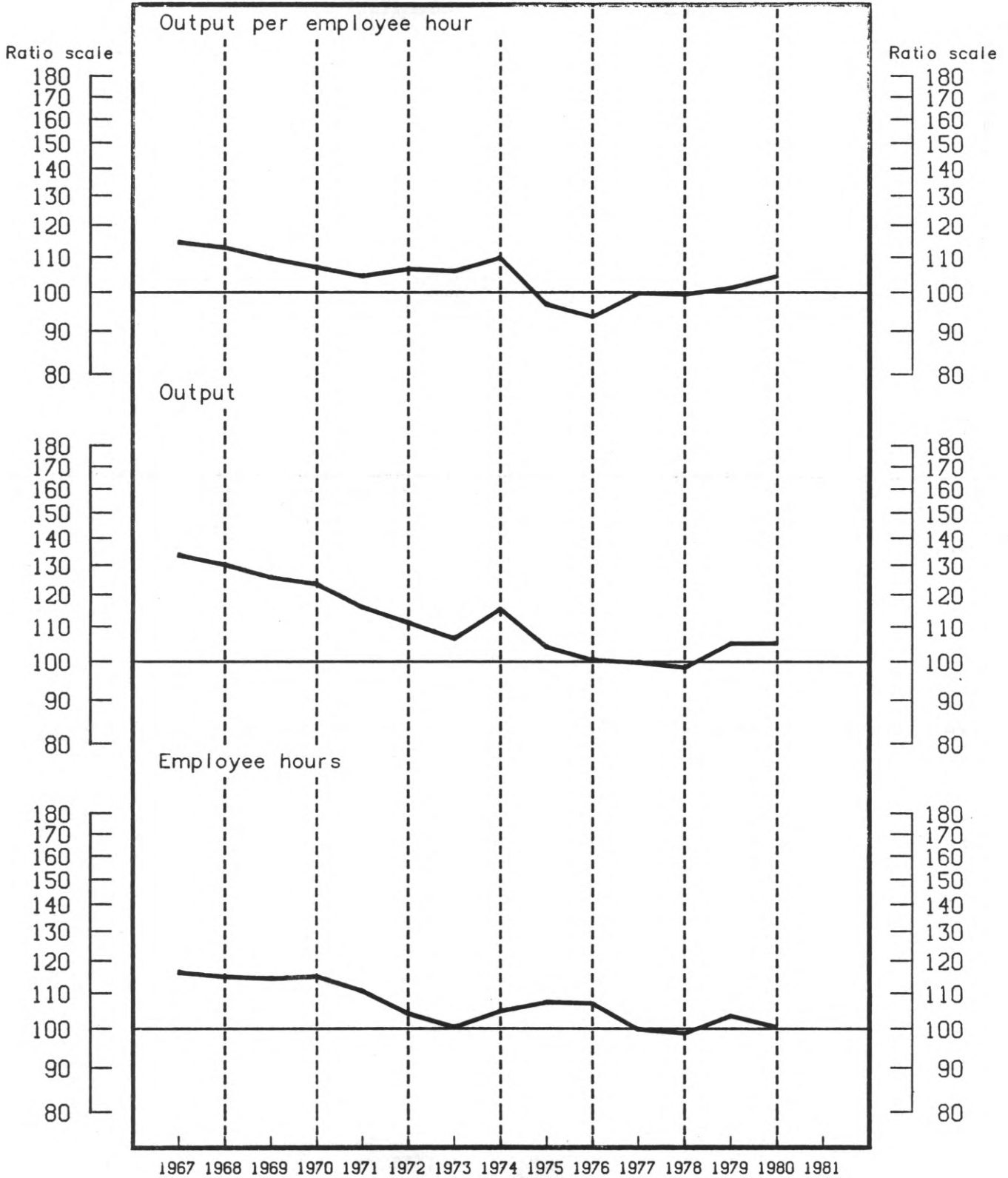
http://fraser.stlouisfed.org/

SOURCE: Output based on data from the Association of American Railroads. Employment and hours based on data from the Interstate Commerce Commission.

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

Chart 89. Bus carriers, class I (parts of SIC 4111, 4131, 414): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 174. Bus carriers, Class 1 (Parts of SIC 4111, 4131, 414): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1954-80
(1977=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1954	88.9	96.3	107.8	121.2	111.9
1955	92.3	99.3	105.8	114.6	106.5
1956	93.2	100.0	104.4	112.0	104.4
1957	93.7	100.3	104.3	111.9	104.5
1958	94.2	99.5	99.1	105.2	99.6
1959	97.2	102.6	99.1	102.0	96.6
1960	96.1	102.3	100.9	105.0	98.6
1961	97.9	103.5	103.2	105.4	99.7
1962	107.1	114.3	115.4	107.7	101.0
1963	108.7	114.6	115.9	106.6	101.1
1964	109.8	116.1	120.7	109.9	104.0
1965	116.3	122.0	127.2	109.4	104.3
1966	118.8	124.5	132.8	111.8	106.7
1967	114.8	121.2	133.9	116.6	110.5
1968	113.2	119.6	130.5	115.3	109.1
1969	109.9	115.6	126.1	114.7	109.1
1970	107.3	112.8	123.8	115.4	109.8
1971	104.8	108.1	116.3	111.0	107.6
1972	106.8	105.7	111.5	104.4	105.5
1973	106.2	107.7	106.8	100.6	99.2
1974	110.2	112.0	115.8	105.1	103.4
1975	97.0	97.9	104.4	107.6	106.6
1976	93.8	95.1	100.7	107.3	105.9
1977	100.0	100.0	100.0	100.0	100.0
1978	99.7	100.8	98.7	99.0	97.9
1979 ¹	101.5	104.8	105.4	103.8	100.6
1980 ¹	104.8	100.8	105.4	100.6	104.6
Average annual percent change:					
1954-80 .....	.3	(²)	(²)	-.3	(²)
1975-80	1.8	1.3	.5	-1.3	-.8

¹ Preliminary.

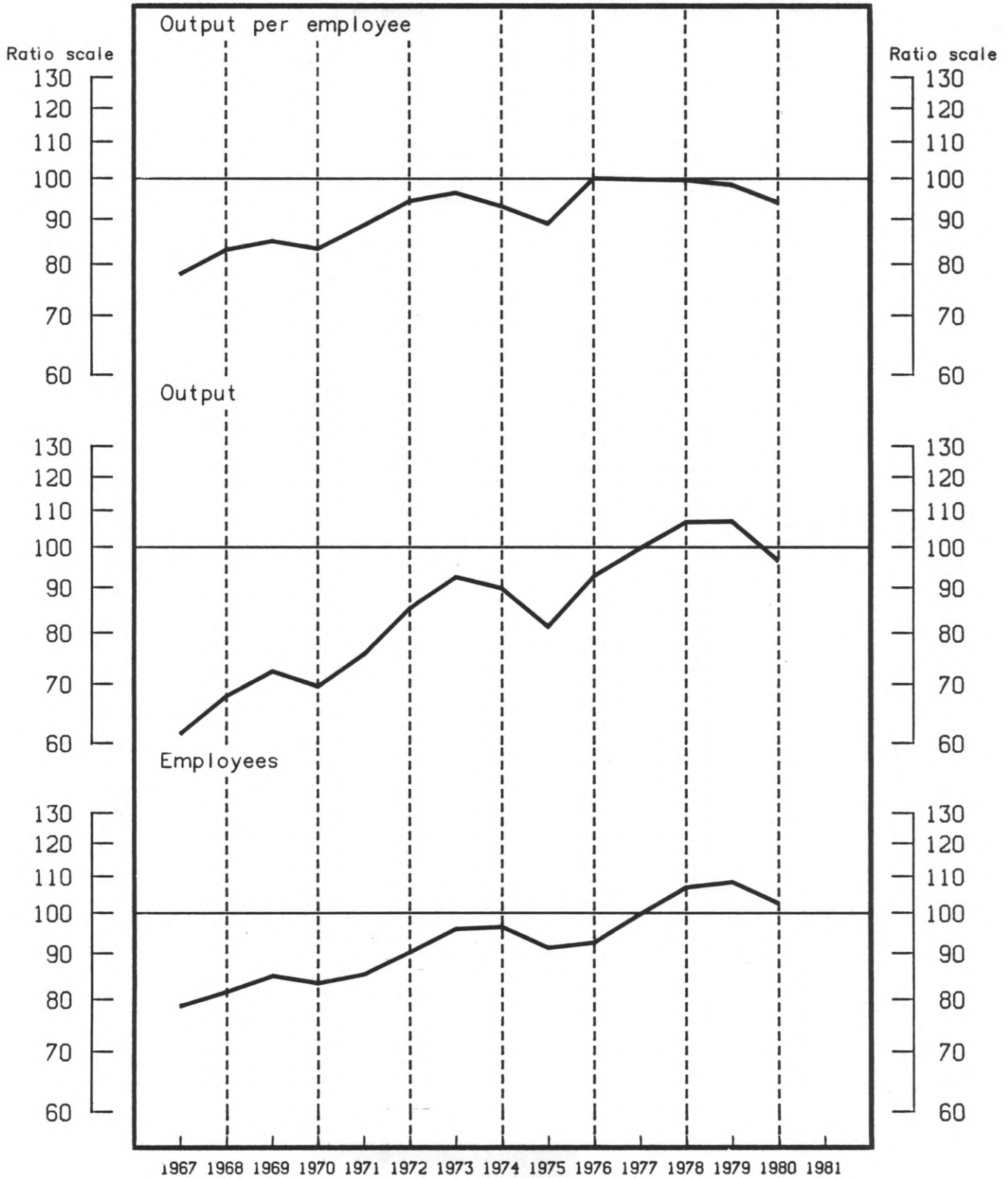
² Less than .05 percent.

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

Chart 90. Intercity trucking (SIC 4213 part): Output per employee and related data, 1967-80

(1977 = 100)



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

Table 175. Intercity trucking (SIC 4213 part)¹: Indexes of output per employee, output, and employees, 1954-80
(1977 = 100)

Year	Output per employee	Output	Employees
Index:			
1954	56.8	27.5	48.4
1955	59.9	31.7	52.9
1956	60.3	33.1	54.9
1957	61.1	34.9	57.1
1958	62.9	34.9	55.5
1959	66.5	40.9	61.5
1960	66.5	41.6	62.6
1961	67.2	41.4	61.6
1962	69.3	44.8	64.6
1963	72.5	48.1	66.3
1964	74.5	51.2	68.7
1965	77.2	57.5	74.5
1966	81.3	63.8	78.5
1967	78.2	61.7	78.9
1968	83.3	68.1	81.8
1969	85.2	72.6	85.2
1970	83.5	69.8	83.6
1971	88.8	75.9	85.5
1972	94.6	85.6	90.5
1973	96.6	92.8	96.1
1974	93.3	90.1	96.6
1975	89.2	81.6	91.5
1976	100.3	93.1	92.8
1977	100.0	100.0	100.0
1978	99.8	107.0	107.2
1979 ²	98.6	107.2	108.7
1980 ²	94.2	96.8	102.8
Average annual percent change:			
1954-80	2.3	5.4	3.0
1975-80 .....	.6	3.9	3.3

¹ Class I and II common and contract carriers.

² Preliminary.

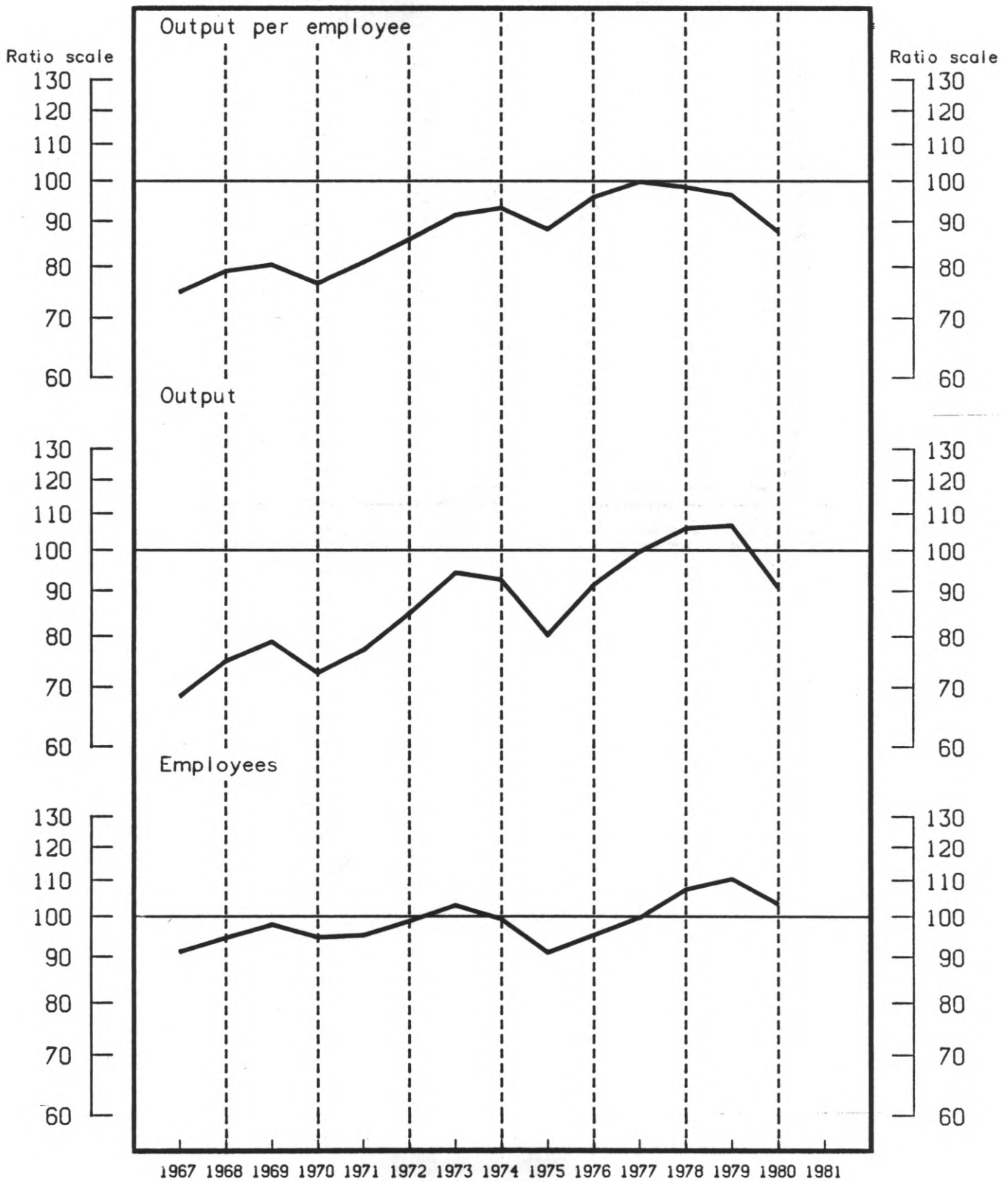
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those

previously published.

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

Chart 91. Intercity trucking, general freight (SIC 4213 part): Output per employee and related data, 1967-80

(1977 = 100)



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

Table 176. Intercity trucking, general freight (SIC 4213 part)¹: Indexes of output per employee, output, and employees, 1954-80
(1977 = 100)

Year	Output per employee	Output	Employees
Index:			
1954	58.3	34.9	59.9
1955	60.2	39.0	64.8
1956	60.9	41.2	67.7
1957	60.6	42.8	70.6
1958	61.5	42.1	68.4
1959	66.0	48.9	74.1
1960	65.0	48.5	74.6
1961	65.0	47.7	73.4
1962	66.9	51.3	76.7
1963	69.6	54.2	77.9
1964	72.7	58.5	80.5
1965	78.7	64.2	81.6
1966	77.4	70.9	91.6
1967	75.1	68.6	91.4
1968	79.3	75.2	94.8
1969	80.6	79.1	98.1
1970	76.8	72.9	94.9
1971	81.1	77.4	95.4
1972	86.1	85.2	99.0
1973	91.7	94.6	103.2
1974	93.4	92.9	99.5
1975	88.4	80.6	91.2
1976	96.1	91.8	95.5
1977	100.0	100.0	100.0
1978	98.6	106.2	107.7
1979 ²	96.6	106.9	110.7
1980 ²	87.9	91.1	103.6
Average annual percent change:			
1954-80	2.1	4.3	2.1
1975-80	-1	3.3	3.4

¹ Class I and II common carriers of general freight.

² Preliminary.

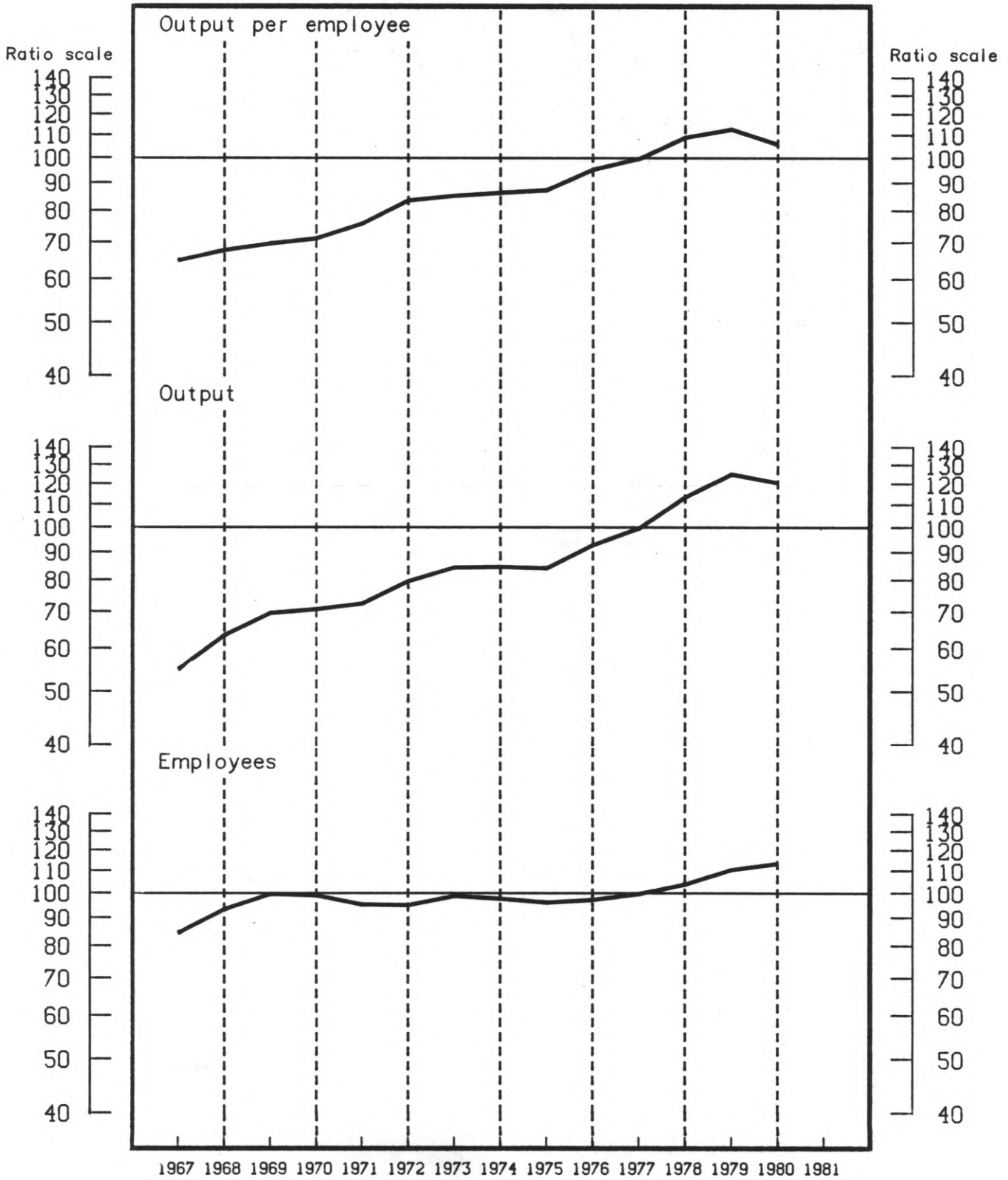
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those

previously published.

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

Chart 92. Air transportation (SIC 4511, 4521 part): Output per employee and related data, 1967-80

(1977 = 100)



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

Table 177. Air transportation (SIC 4511, 4521 part)¹: Indexes of output per employee, output, and employees, 1954-80
(1977 = 100)

Year	Output per employee	Output	Employees
Index:			
1954	25.5	9.6	37.6
1955	28.7	11.4	39.7
1956	29.6	13.2	44.6
1957	30.7	15.0	48.9
1958	31.6	15.2	48.1
1959	34.0	17.5	51.4
1960	34.3	18.6	54.3
1961	36.2	19.7	54.4
1962	40.4	22.3	55.2
1963	44.4	25.2	56.7
1964	48.8	29.4	60.2
1965	54.4	35.5	65.3
1966	61.1	43.6	71.4
1967	65.1	55.2	84.8
1968	68.0	63.7	93.7
1969	69.9	69.9	100.0
1970	71.4	71.0	99.4
1971	76.0	72.7	95.6
1972	83.8	79.9	95.3
1973	85.5	84.7	99.1
1974	86.6	84.9	98.0
1975	87.6	84.4	96.4
1976	95.5	93.1	97.5
1977	100.0	100.0	100.0
1978	109.3	113.9	104.2
1979	113.1	125.4	110.9
1980 ²	106.2	121.0	113.9
Average annual percent change:			
1947-80	6.8	11.9	4.8
1975-80	4.6	8.4	3.7

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

² Preliminary.

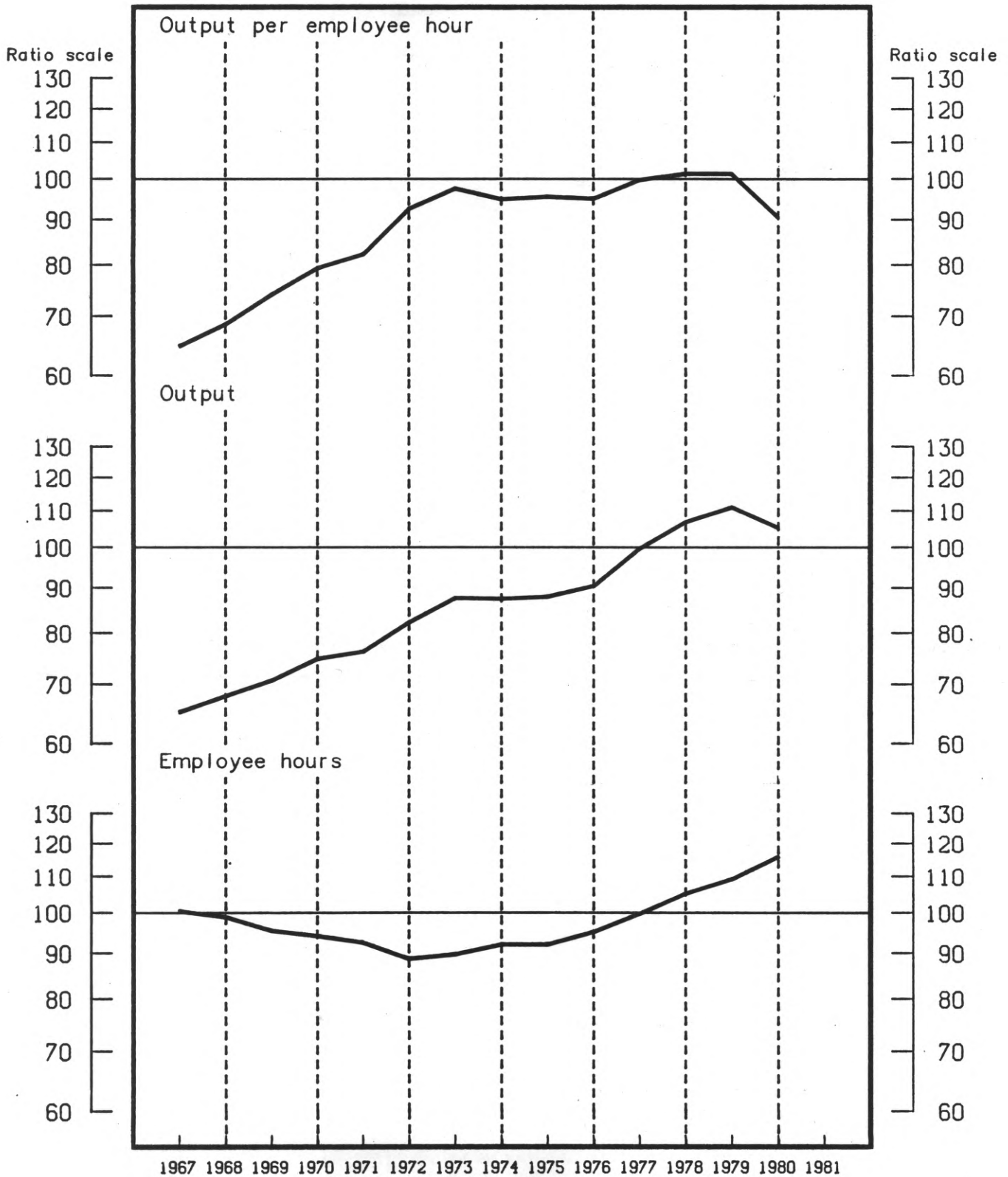
NOTE: Because of periodic revisions in source data,

the measures in this table may differ from those previously published.

SOURCE: Based on Civil Aeronautics Board data.

Chart 93. Petroleum pipelines (SIC 4612, 4613): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 178. Petroleum pipelines (SIC 4612, 4613): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour ¹		Output per employee ¹	
	All employees	Production workers ²	All employees	Production workers ²
Index:				
1958	26.3	22.4	25.7	21.9
1959	30.3	25.7	29.5	25.1
1960	32.6	28.0	31.5	27.0
1961	34.8	30.4	33.5	29.2
1962	36.3	31.2	35.3	30.3
1963	40.0	34.2	39.0	33.3
1964	43.4	37.7	42.7	37.2
1965	51.6	45.3	50.8	44.7
1966	58.1	51.1	56.9	50.1
1967	64.9	57.2	64.6	56.9
1968	68.7	61.1	68.1	60.5
1969	74.2	67.3	73.2	66.6
1970	79.5	73.6	78.9	72.9
1971	82.4	77.7	81.7	77.0
1972	92.8	86.8	91.4	85.7
1973	97.8	92.1	96.8	91.3
1974	95.1	89.7	93.8	88.4
1975	95.7	92.6	93.2	90.2
1976	95.2	93.9	94.7	93.5
1977	100.0	100.0	100.0	100.0
1978	101.6	103.1	101.0	102.6
1979	101.6	105.1	102.4	105.8
1980 ³	90.8	93.4	91.2	93.8
Average annual percent change:				
1958-80	6.6	7.6	6.8	7.8
1975-80	-1	1.2	.4	1.7

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

² 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 179. Petroleum pipelines (SIC 4612, 4613): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output	Employee hours		Employees	
		All employees	Production workers ¹	All employees	Production workers ¹
Index:					
1958	35.7	135.9	159.7	138.9	163.2
1959	38.7	127.9	150.3	131.3	154.4
1960	39.3	120.4	140.4	124.9	145.5
1961	40.2	115.4	132.2	120.0	137.5
1962	41.2	113.4	132.1	116.8	136.0
1963	43.6	109.0	127.4	111.9	130.8
1964	46.2	106.5	122.5	108.2	124.2
1965	53.6	103.9	118.2	105.5	119.8
1966	58.2	100.2	113.9	102.2	116.2
1967	65.3	100.6	114.2	101.1	114.7
1968	68.1	99.1	111.4	100.0	112.5
1969	70.9	95.6	105.4	96.8	106.5
1970	75.0	94.3	101.9	95.1	102.9
1971	76.4	92.7	98.3	93.5	99.2
1972	82.5	88.9	95.0	90.3	96.3
1973	87.9	89.9	95.4	90.8	96.3
1974	87.7	92.2	97.8	93.5	99.2
1975	88.2	92.2	95.2	94.6	97.8
1976	90.7	95.3	96.6	95.8	97.0
1977	100.0	100.0	100.0	100.0	100.0
1978	107.1	105.4	103.9	106.0	104.4
1979	111.3	109.5	105.9	108.7	105.2
1980 ²	105.5	116.2	113.0	115.7	112.5
Average annual percent change:					
1958-80	5.6	-1.0	-1.9	-1.1	-2.0
1975-80	4.6	4.8	3.4	4.2	2.9

¹ Represents nonsupervisory workers.

² Preliminary.

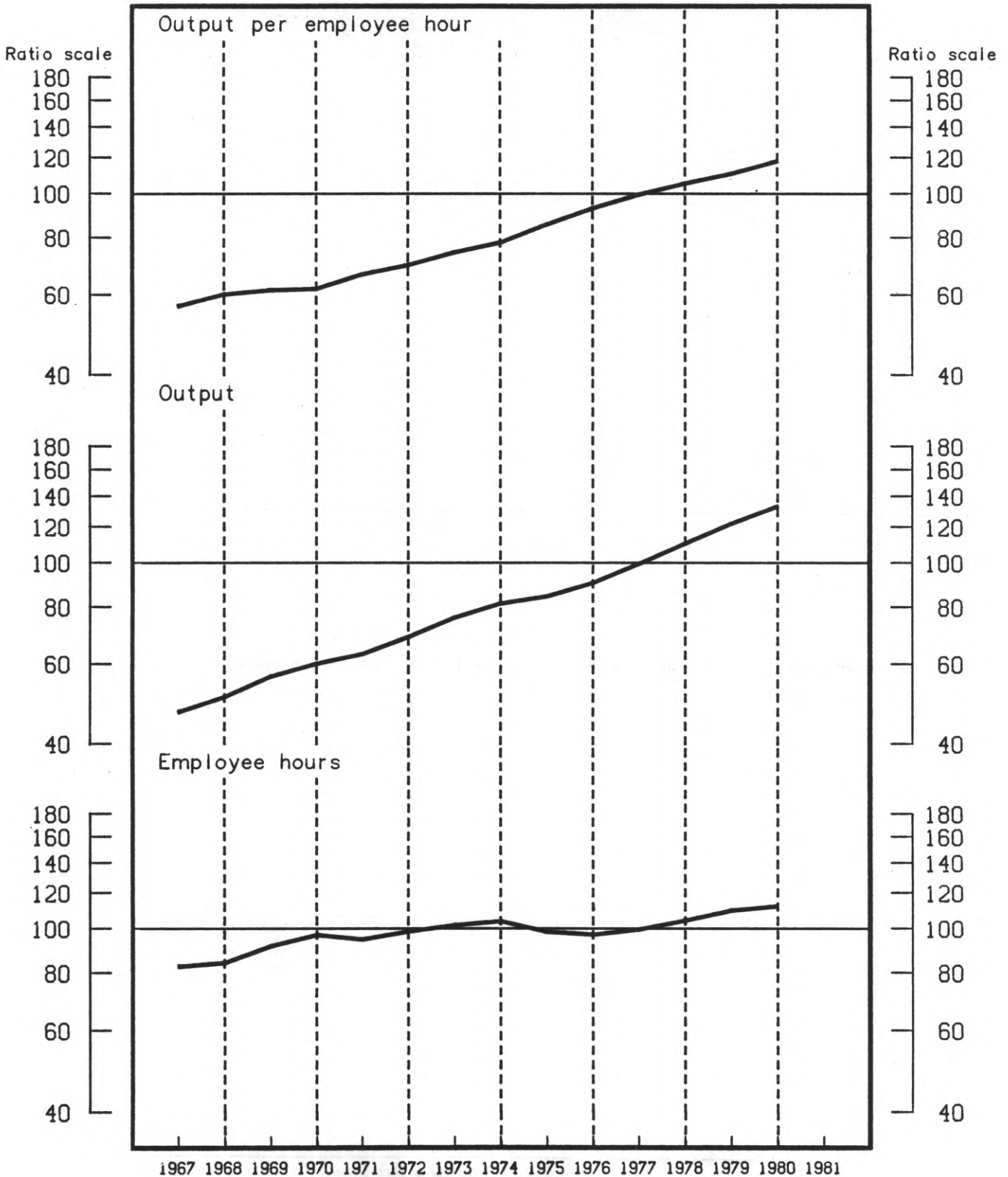
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Interstate Commerce Commission.

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

Chart 94. Telephone communications (SIC 4811): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 180. Telephone communications (SIC 4811): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1954	23.2	22.6	16.5	71.2	73.0
1955	25.0	24.8	18.3	73.3	73.8
1956	25.6	25.4	19.9	77.7	78.4
1957	28.1	27.4	22.0	78.4	80.3
1958	31.8	30.6	23.4	73.6	76.5
1959	35.3	34.6	25.6	72.6	73.9
1960	37.4	37.2	27.4	73.2	73.7
1961	40.7	40.1	29.1	71.5	72.5
1962	43.5	43.5	31.2	71.8	71.8
1963	46.7	46.8	33.5	71.8	71.6
1964	48.5	48.9	36.1	74.4	73.8
1965	50.6	51.3	39.4	77.8	76.8
1966	52.9	53.8	43.5	82.2	80.8
1967	56.9	56.1	47.2	83.0	84.2
1968	60.4	60.1	51.0	84.5	84.8
1969	61.7	62.3	56.6	91.8	90.9
1970	62.1	61.4	60.4	97.2	98.4
1971	66.8	63.8	63.4	94.9	99.4
1972	70.0	69.3	69.2	98.9	99.8
1973	74.6	74.3	76.2	102.2	102.5
1974	78.4	78.3	81.8	104.3	104.5
1975	85.9	84.0	84.8	98.7	101.0
1976	93.3	91.2	90.8	97.3	99.6
1977	100.0	100.0	100.0	100.0	100.0
1978	105.8	106.6	110.8	104.7	103.9
1979	111.2	112.0	122.6	110.3	109.5
1980 ¹	118.5	119.4	133.6	112.7	111.9
Average annual percent change:					
1951-80	6.2	6.3	6.2	1.9	1.8
1975-80	6.5	7.2	9.8	3.1	2.4

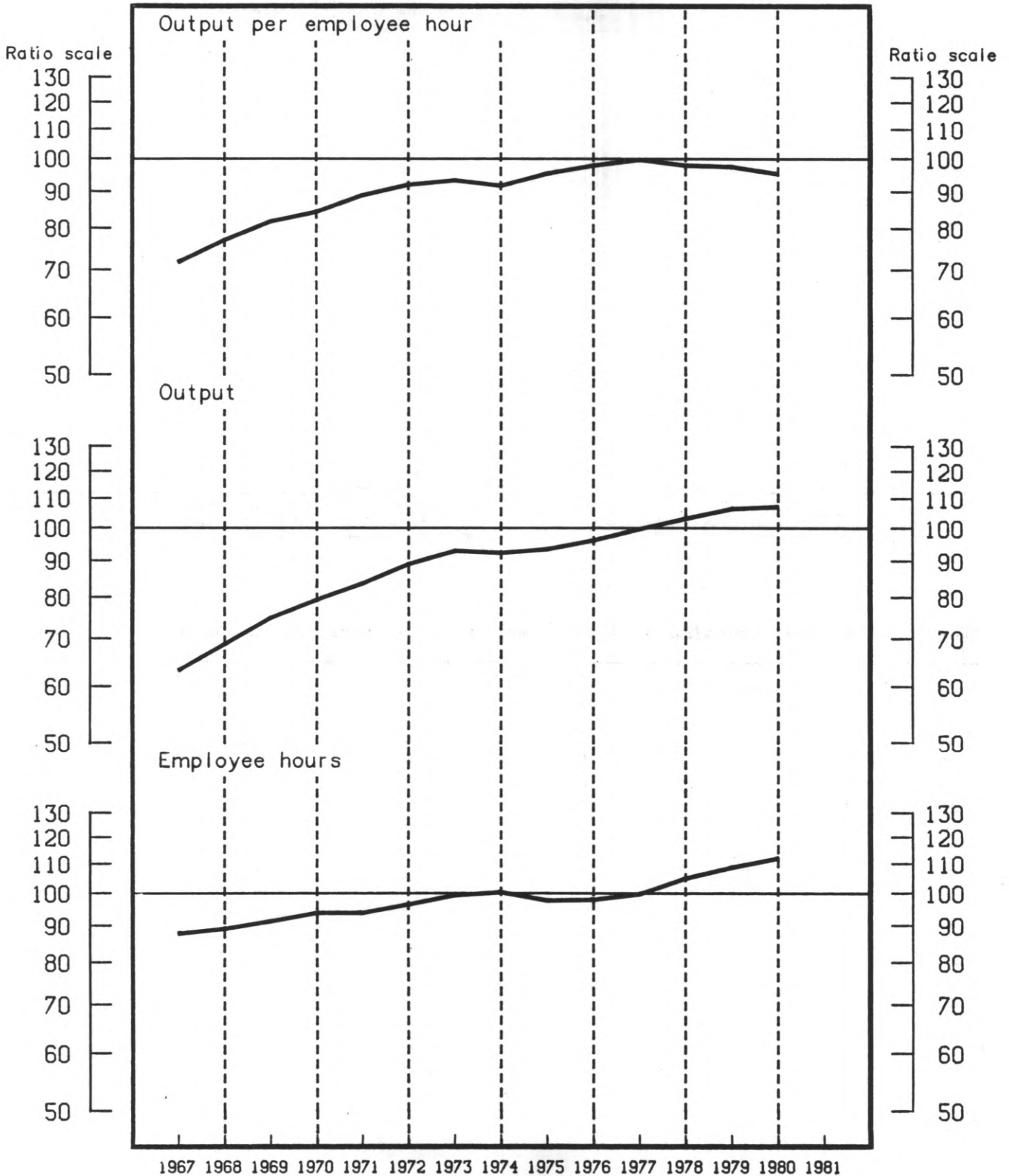
¹ Preliminary.

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

SOURCE: Output 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 95. Gas and electric utilities (SIC 491,492,493): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 181. Gas and electric utilities (SIC 491, 492, 493): Indexes of output per employee hour and output per employee, 1954-80
(1977 = 100)

Year	Output per hour ¹		Output per employee ¹	
	All employees	Production workers ²	All employees	Production workers ²
Index:				
1954	30.6	27.5	30.7	27.6
1955	34.0	30.8	34.2	30.9
1956	36.9	33.6	37.0	33.7
1957	38.7	35.4	38.5	35.3
1958	40.6	37.4	40.2	36.9
1959	44.3	41.0	44.1	40.7
1960	47.2	43.9	46.9	43.6
1961	50.0	46.6	49.5	46.2
1962	54.0	50.5	53.8	50.3
1963	57.4	54.1	57.3	53.9
1964	61.6	58.3	61.6	58.1
1965	64.3	60.8	64.5	61.0
1966	69.0	65.5	69.5	65.9
1967	72.0	68.7	72.5	69.1
1968	77.2	73.6	77.6	74.0
1969	82.0	78.6	82.7	79.2
1970	84.6	81.1	85.2	81.7
1971	89.2	85.9	89.4	86.1
1972	92.3	89.2	92.9	89.8
1973	93.6	91.0	94.8	92.2
1974	92.0	91.1	92.5	90.5
1975	95.7	94.3	95.3	93.9
1976	98.2	97.4	98.1	97.2
1977	100.0	100.0	100.0	100.0
1978	98.2	99.2	99.4	100.6
1979	97.8	99.0	99.1	100.3
1980 ³	95.6	96.7	96.8	97.9
Average annual percent change:				
1947-80	5.6	6.1	5.6	6.1
1975-80	-1	.5	.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 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; Federal Energy Regulatory Commission, U.S. Department of Energy; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Table 182. Gas and electric utilities (SIC 491, 492, 493): Indexes of output, employee hours, and employees, 1954-80
(1977 = 100)

Year	Output	Employee hours		Employees	
		All employees	Production workers ¹	All employees	Production workers ¹
Index:					
1954	25.0	81.8	90.8	81.5	90.6
1955	28.1	82.6	91.1	82.2	90.8
1956	30.9	83.8	92.1	83.6	91.7
1957	32.8	84.8	92.7	85.1	93.0
1958	34.2	84.2	91.5	85.1	92.6
1959	37.5	84.6	91.5	85.1	92.1
1960	40.0	84.7	91.2	85.2	91.8
1961	42.0	84.0	90.1	84.8	91.0
1962	45.2	83.7	89.5	84.0	89.8
1963	48.1	83.8	88.9	83.9	89.2
1964	51.9	84.2	89.0	84.3	89.3
1965	55.0	85.6	90.5	85.3	90.2
1966	59.7	86.5	91.1	85.9	90.6
1967	63.4	88.0	92.3	87.5	91.7
1968	69.0	89.4	93.8	88.9	93.3
1969	75.1	91.6	95.5	90.8	94.8
1970	79.6	94.1	98.2	93.4	97.4
1971	83.9	94.1	97.7	93.8	97.4
1972	89.3	96.7	100.1	96.1	99.4
1973	93.2	99.6	102.4	98.3	101.1
1974	92.6	100.6	101.7	100.1	102.3
1975	93.7	97.9	99.4	98.3	99.8
1976	96.4	98.2	99.0	98.3	99.2
1977	100.0	100.0	100.0	100.0	100.0
1978	103.4	105.3	104.2	104.0	102.8
1979	106.7	109.1	107.8	107.7	106.4
1980 ²	107.4	112.4	111.1	110.9	109.7
Average annual percent change:					
1947-80	6.7	1.1	.6	1.1	.6
1975-80	3.0	3.1	2.5	2.7	2.1

¹ Represents nonsupervisory workers.

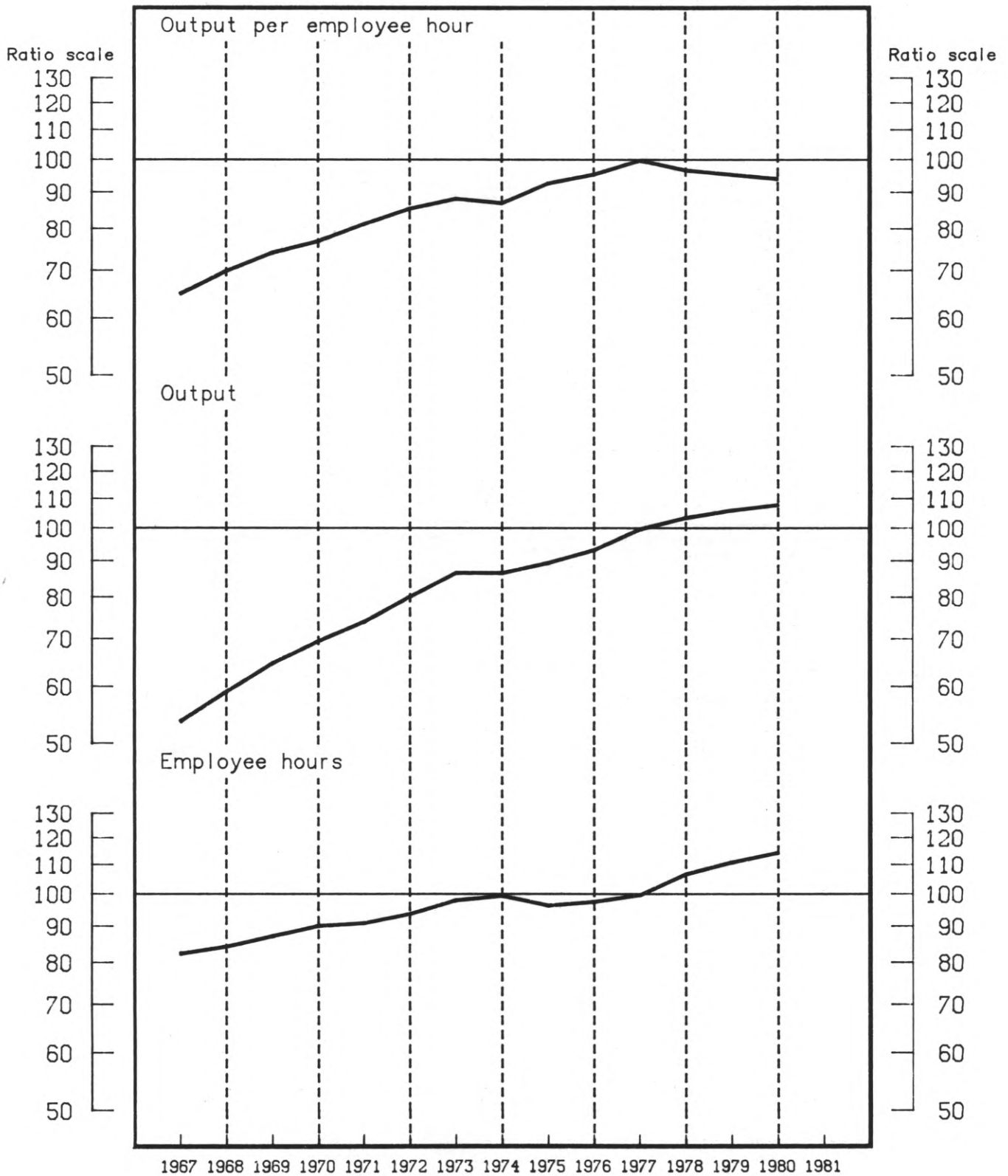
² Preliminary.

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; Federal Energy Regulatory Commission, U.S. Department of Energy; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 96. Electric utilities (SIC 491, 493 part): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 183. Electric utilities (SIC 491, 493 part): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	34.7	34.4	27.4	78.9	79.7
1959	38.7	38.4	30.3	78.3	78.9
1960	41.3	41.0	32.4	78.5	79.0
1961	44.1	43.6	34.2	77.6	78.4
1962	47.6	47.3	36.8	77.3	77.8
1963	51.0	50.8	39.5	77.4	77.7
1964	54.9	54.7	42.8	77.9	78.3
1965	57.9	58.1	46.1	79.6	79.4
1966	62.5	62.8	50.4	80.7	80.2
1967	65.1	65.4	53.8	82.6	82.3
1968	70.1	70.4	59.2	84.5	84.1
1969	74.3	75.0	64.9	87.4	86.5
1970	77.1	77.6	69.7	90.4	89.8
1971	81.4	81.7	74.2	91.2	90.8
1972	85.6	86.3	80.5	94.0	93.3
1973	88.4	90.1	86.9	98.3	96.5
1974	87.1	87.9	86.8	99.7	98.8
1975	92.9	92.1	89.7	96.6	97.4
1976	95.6	95.4	93.5	97.8	98.0
1977	100.0	100.0	100.0	100.0	100.0
1978	96.9	98.7	103.7	107.0	105.1
1979	95.5	97.1	106.2	111.2	109.4
1980 ¹	94.2	95.8	108.1	114.7	112.8
Average annual percent change:					
1958-80	4.9	5.0	6.8	1.8	1.7
1975-80 .....	.1	.7	3.9	3.8	3.2

¹ Preliminary.

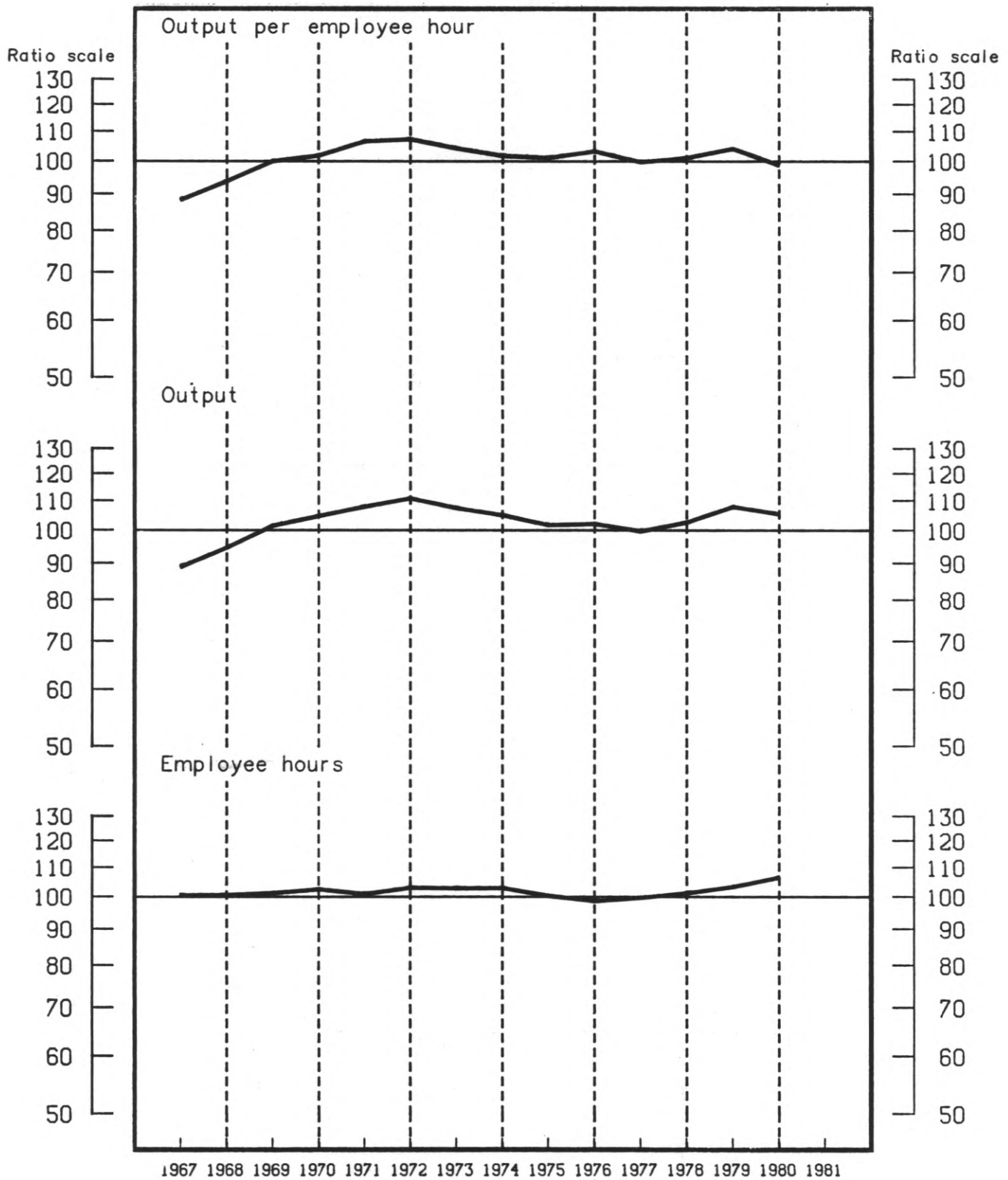
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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

Department of Agriculture and the Federal Energy Regulatory Commission, U.S. Department of Energy. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 97. Gas utilities (SIC 492, 493 part): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 184. Gas utilities (SIC 492, 493 part): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-80

(1977 = 100)

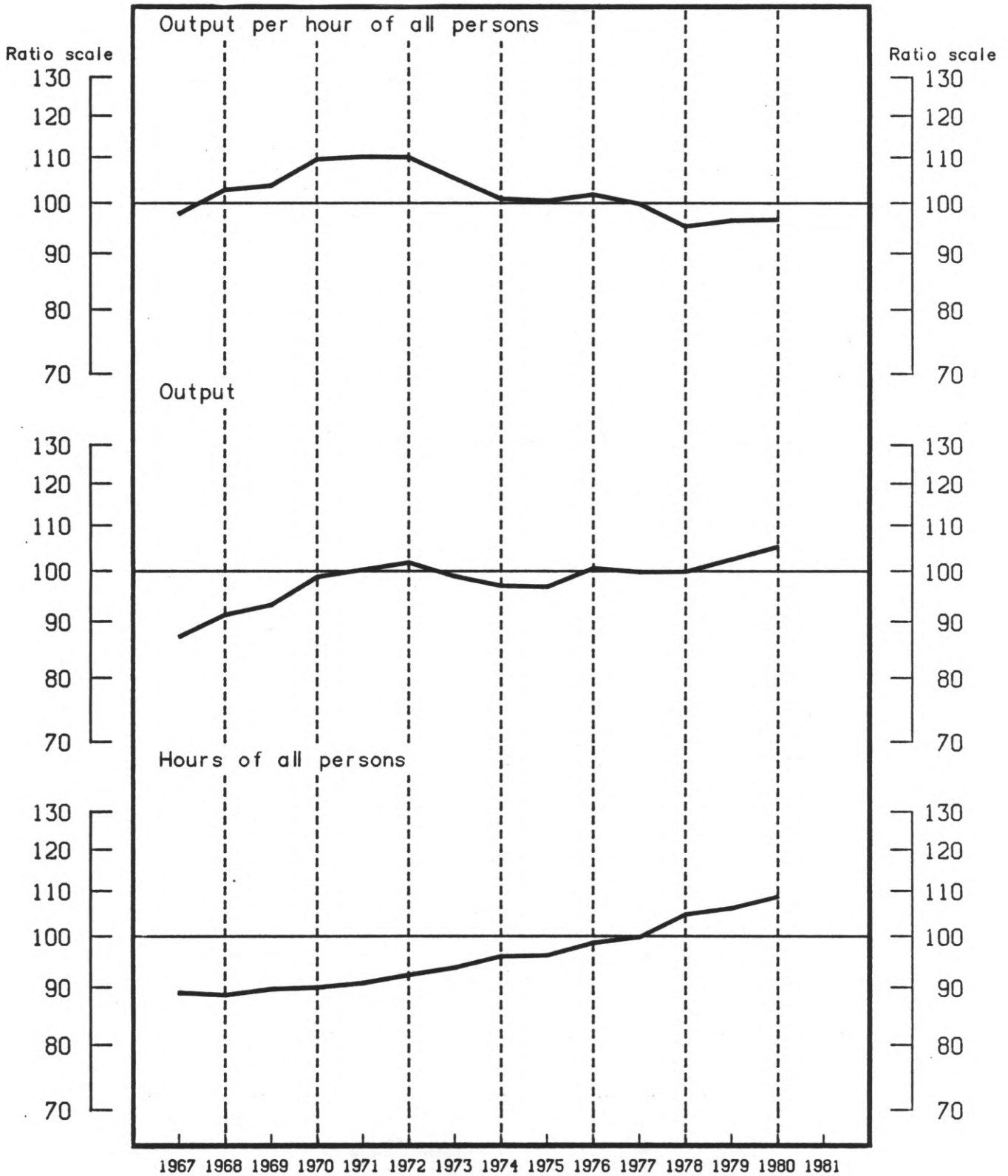
Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	55.7	55.1	54.1	97.2	98.1
1959	58.4	58.3	58.3	99.9	100.0
1960	62.3	62.0	62.2	99.8	100.3
1961	64.6	64.4	64.5	99.9	100.2
1962	69.6	69.6	69.0	99.2	99.2
1963	72.6	72.9	72.2	99.5	99.1
1964	77.7	78.0	77.3	99.5	99.1
1965	79.6	80.3	80.1	100.6	99.7
1966	84.5	85.3	85.2	100.8	99.9
1967	88.6	89.2	89.2	100.7	100.0
1968	94.1	94.6	94.9	100.9	100.3
1969	100.3	100.6	101.8	101.5	101.2
1970	102.1	102.9	105.0	102.8	102.0
1971	106.9	106.9	108.2	101.2	101.2
1972	107.6	108.2	111.1	103.3	102.7
1973	104.5	105.0	107.7	103.1	102.6
1974	102.0	102.1	105.3	103.2	103.1
1975	101.4	101.4	102.0	100.6	100.6
1976	103.5	103.1	102.4	98.9	99.3
1977	100.0	100.0	100.0	100.0	100.0
1978	101.4	101.5	102.9	101.5	101.4
1979	104.4	104.3	108.2	103.6	103.7
1980 ¹	99.0	99.0	105.7	106.8	106.8
Average annual percent change:					
1958-80	2.8	2.9	3.1	.2	.2
1975-80	-2	-2	1.1	1.3	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 based on data from the American Gas Association and the Federal Energy Regulatory Commission, U.S. Department of Energy. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 98. Retail food stores (SIC 54): Output per hour and related data, 1967-80
 (1977 = 100)



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

Table 185. Retail food stores (SIC 54): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1958-80
(1977 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	73.8	88.7	68.5	92.8	77.2
1959	76.9	92.3	71.6	93.1	77.6
1960	79.3	93.8	73.5	92.7	78.4
1961	82.4	96.4	75.3	91.4	78.1
1962	83.5	97.6	76.9	92.1	78.8
1963	87.6	100.5	77.5	88.5	77.1
1964	89.5	102.8	81.3	90.8	79.1
1965	91.9	103.7	84.3	91.7	81.3
1966	94.4	104.0	85.7	90.8	82.4
1967	98.0	106.1	87.4	89.2	82.4
1968	103.0	109.3	91.5	88.8	83.7
1969	103.9	108.5	93.4	89.9	86.1
1970	109.8	113.7	99.0	90.2	87.1
1971	110.4	113.9	100.5	91.0	88.2
1972	110.3	113.5	102.0	92.5	89.9
1973	105.5	108.5	99.1	93.9	91.3
1974	101.1	102.5	97.2	96.1	94.8
1975	100.7	100.4	97.0	96.3	96.6
1976	102.0	103.0	100.8	98.8	97.9
1977	100.0	100.0	100.0	100.0	100.0
1978	95.4	94.9	100.1	104.9	105.5
1979 ²	96.6	94.7	102.7	106.3	108.4
1980 ²	96.8	93.3	105.4	108.9	113.0
Average annual percent change:					
1958-80	1.3	.2	1.9	.6	1.7
1975-80	-1.2	-1.9	1.4	2.6	3.3

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

² Preliminary.

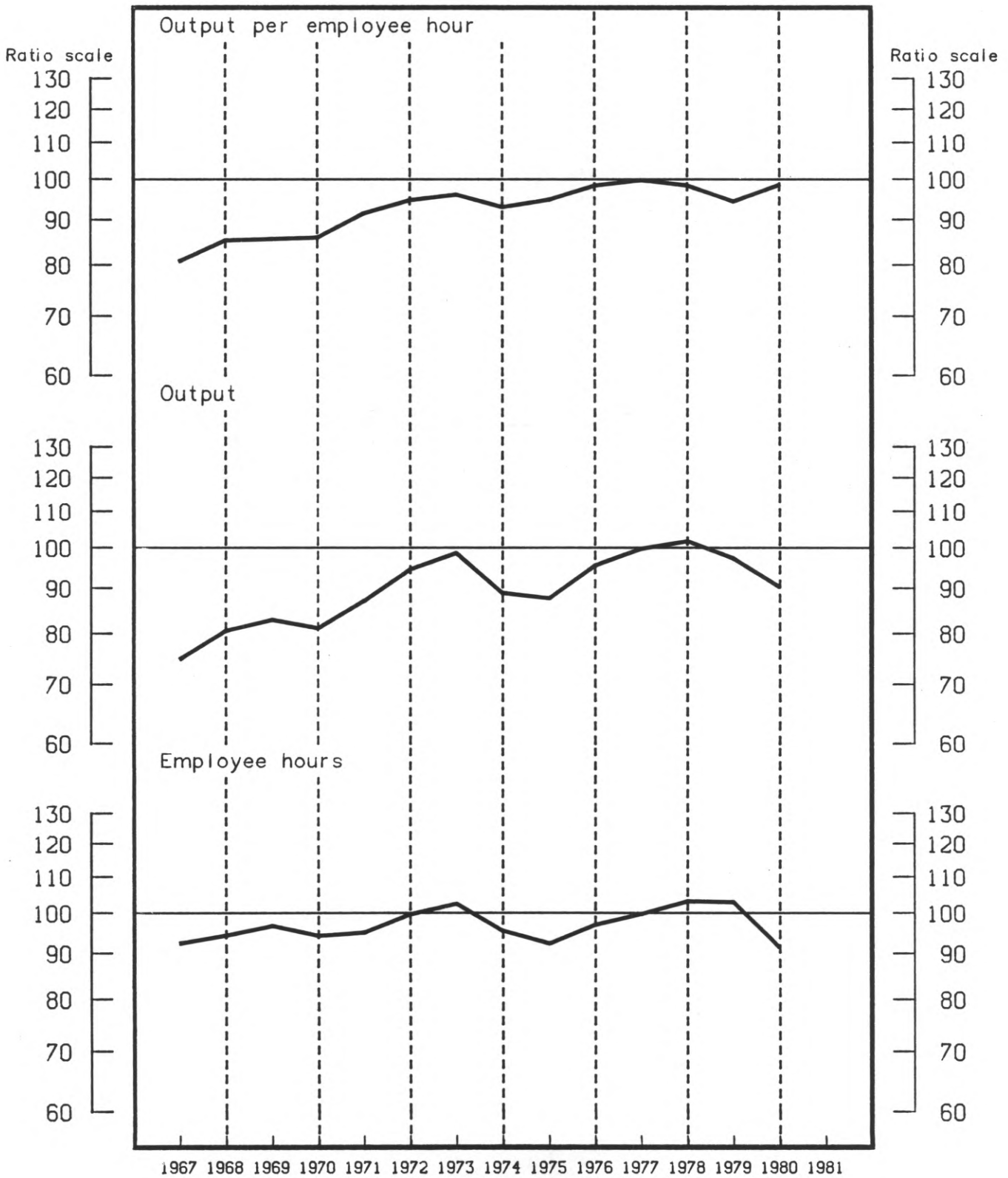
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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 99. Franchised new car dealers (SIC 5511): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 186. Franchised new car dealers (SIC 5511): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-80
(1977 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	62.3	70.6	52.4	84.1	74.2
1959	70.6	80.7	61.2	86.7	75.8
1960	71.5	81.4	62.9	88.0	77.3
1961	68.1	76.8	56.1	82.4	73.0
1962	73.0	81.8	61.2	83.8	74.8
1963	74.4	83.5	65.2	87.6	78.1
1964	73.8	83.3	67.4	91.3	80.9
1965	79.2	88.8	75.2	95.0	84.7
1966	79.9	88.0	76.1	95.2	86.5
1967	81.0	87.4	75.0	92.6	85.8
1968	85.5	91.0	80.8	94.5	88.8
1969	85.8	90.2	83.1	96.9	92.1
1970	86.1	89.7	81.3	94.4	90.6
1971	91.7	95.2	87.3	95.2	91.7
1972	94.9	98.0	94.8	99.9	96.7
1973	96.3	98.8	98.9	102.7	100.1
1974	93.2	94.9	89.1	95.6	93.9
1975	95.0	96.5	87.9	92.5	91.1
1976	98.6	99.8	95.8	97.2	96.0
1977	100.0	100.0	100.0	100.0	100.0
1978	98.6	97.4	102.0	103.4	104.7
1979	94.6	93.6	97.5	103.1	104.2
1980 ¹	98.8	96.8	90.5	91.6	93.5
Average annual percent change:					
1958-80	2.0	1.2	2.8	.8	1.5
1975-80 .....	.2	-.6	.6	.5	1.2

¹ Preliminary.

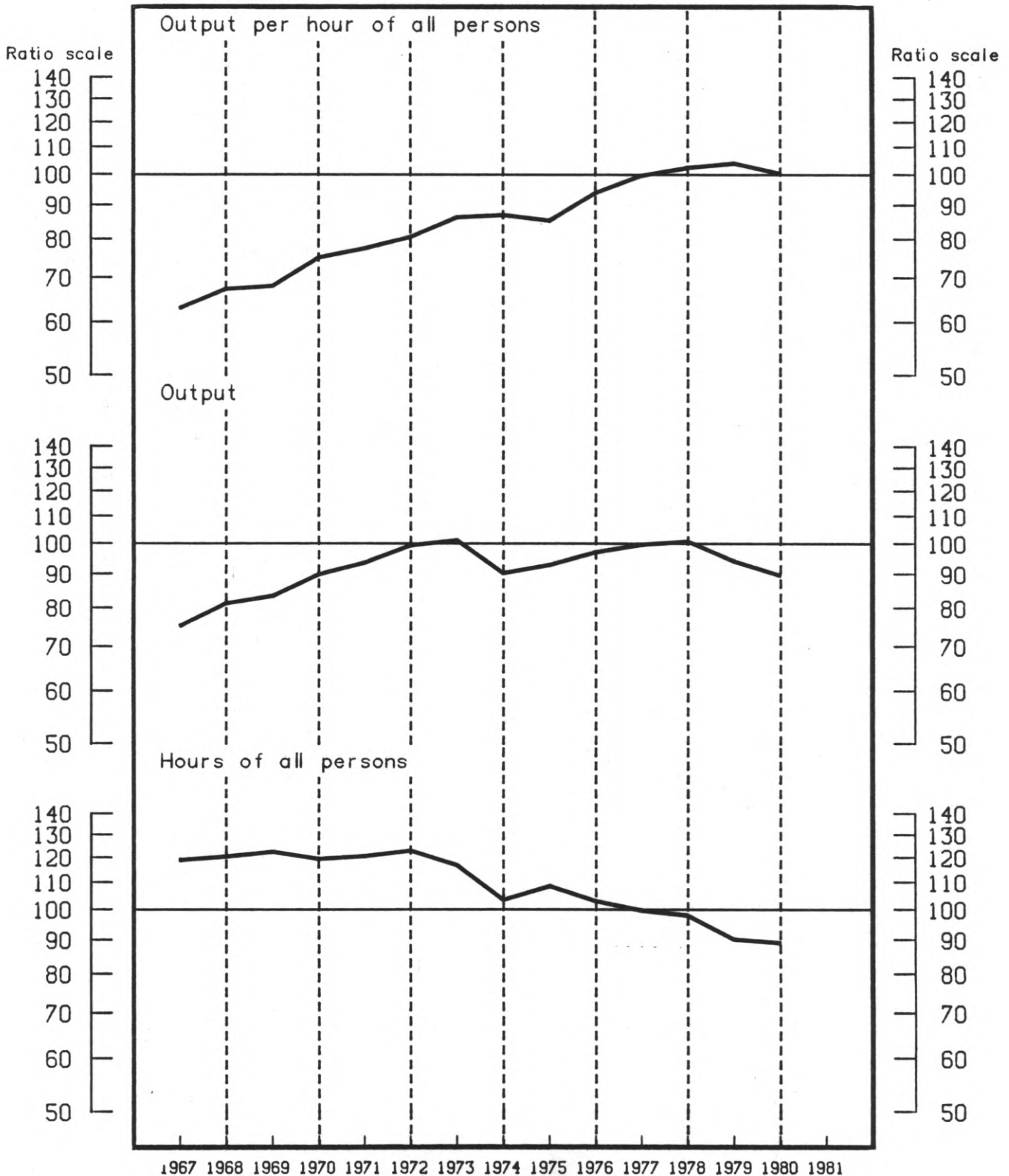
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of 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 100. Gasoline service stations (SIC 5541): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 187. Gasoline service stations (SIC 5541): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1958-80
(1977 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	48.9	59.9	53.7	109.8	89.6
1959	50.7	61.9	55.8	110.0	90.2
1960	51.9	63.2	58.0	111.7	91.7
1961	53.5	65.1	60.5	113.1	92.9
1962	53.7	64.9	60.2	112.2	92.8
1963	56.3	67.8	64.4	114.3	95.0
1964	57.2	69.2	66.8	116.8	96.6
1965	59.2	70.8	70.4	119.0	99.5
1966	62.0	73.0	74.2	119.7	101.6
1967	63.2	73.3	75.4	119.3	102.8
1968	67.5	77.1	81.6	120.8	105.9
1969	68.2	76.7	83.7	122.8	109.1
1970	75.3	82.9	90.2	119.8	108.8
1971	77.7	85.8	93.9	120.9	109.4
1972	80.9	88.9	99.7	123.3	112.1
1973	86.6	91.9	101.5	117.2	110.5
1974	87.3	91.2	90.6	103.8	99.3
1975	85.6 ²	90.0	93.2	108.9	103.5
1976	94.3	95.7	97.4	103.3	101.8
1977	100.0	100.0	100.0	100.0	100.0
1978	102.8	102.2	101.1	98.3	98.9
1979 ²	104.4	102.2	94.4	90.4	92.4
1980 ²	100.7	99.2	89.9	89.3	90.6
Average annual percent change:					
1958-80	3.8	2.6	3.0	-.8	.4
1975-80	3.3	2.0	-.7	-3.9	-2.7

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

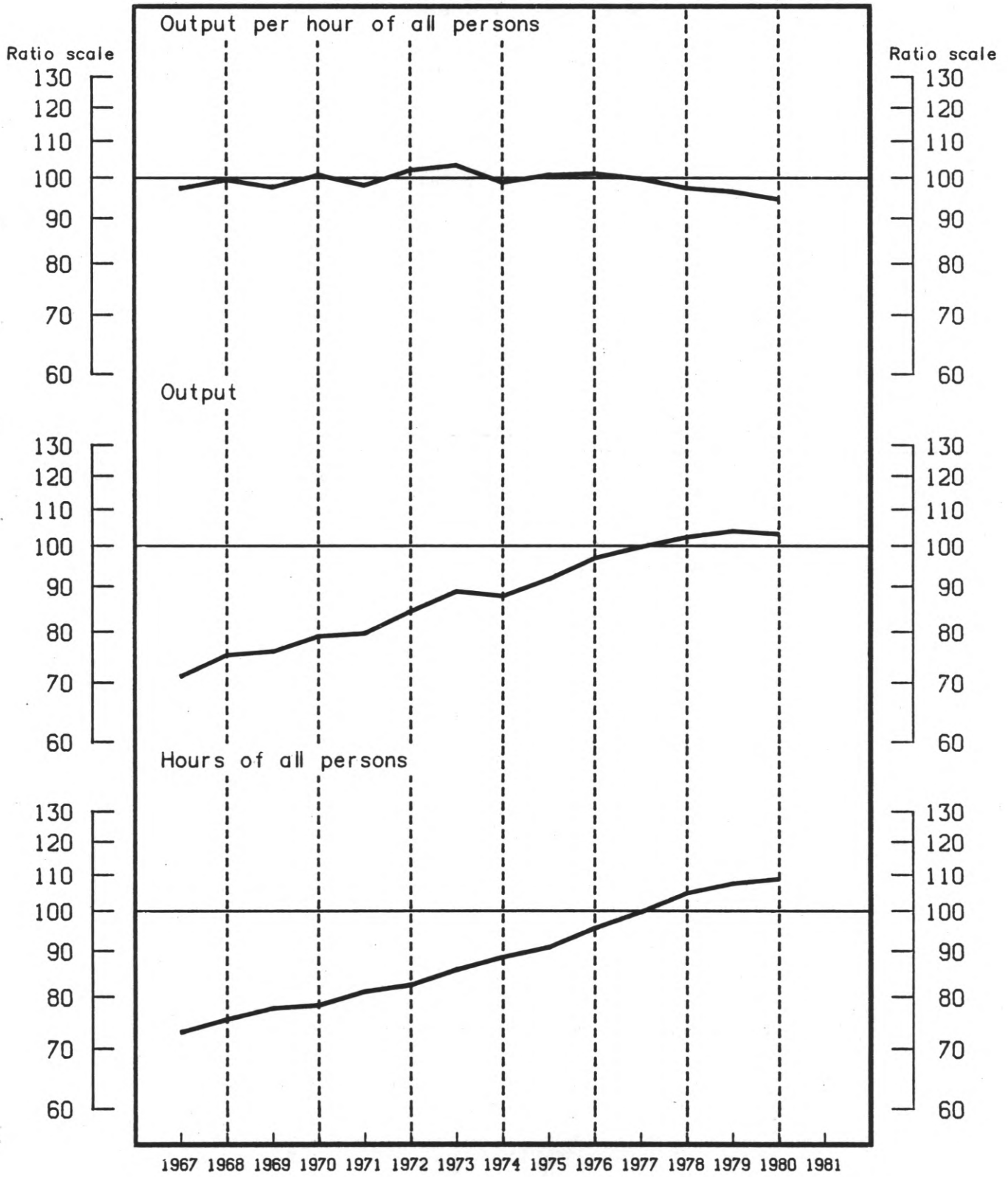
² Preliminary.

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

may differ from those previously published.

SOURCE: Output, 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 101. Eating and drinking places (SIC 58): Output per hour and related data, 1967-80
 (1977 = 100)



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

Table 188. Eating and drinking places (SIC 58): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1958-80
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	89.5	120.6	56.3	62.9	46.7
1959	88.4	119.6	57.9	65.5	48.4
1960	88.1	118.3	58.3	66.2	49.3
1961	88.7	118.1	58.2	65.6	49.3
1962	89.3	118.1	60.0	67.2	50.8
1963	91.8	120.1	61.5	67.0	51.2
1964	90.9	119.8	64.2	70.6	53.6
1965	93.7	121.0	68.0	72.6	56.2
1966	94.6	118.4	70.2	74.2	59.3
1967	97.5	118.6	71.4	73.2	60.2
1968	99.7	119.5	75.5	75.7	63.2
1969	97.8	114.1	76.2	77.9	66.8
1970	101.0	114.6	79.3	78.5	69.2
1971	98.3	110.7	79.9	81.3	72.2
1972	102.3	112.2	84.6	82.7	75.4
1973	103.6	111.7	89.1	86.0	79.8
1974	99.1	104.9	88.0	88.8	83.9
1975	101.0	105.5	92.0	91.1	87.2
1976	101.4	104.0	97.1	95.8	93.4
1977	100.0	100.0	100.0	100.0	100.0
1978	97.6	95.8	102.6	105.1	107.1
1979 ²	96.7	92.5	104.2	107.8	112.6
1980 ²	94.8	89.2	103.4	109.1	115.9
Average annual percent change:					
1958-80 .....	.6	-1.2	3.1	2.5	4.4
1975-80	-1.4	-3.5	2.4	3.8	6.0

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

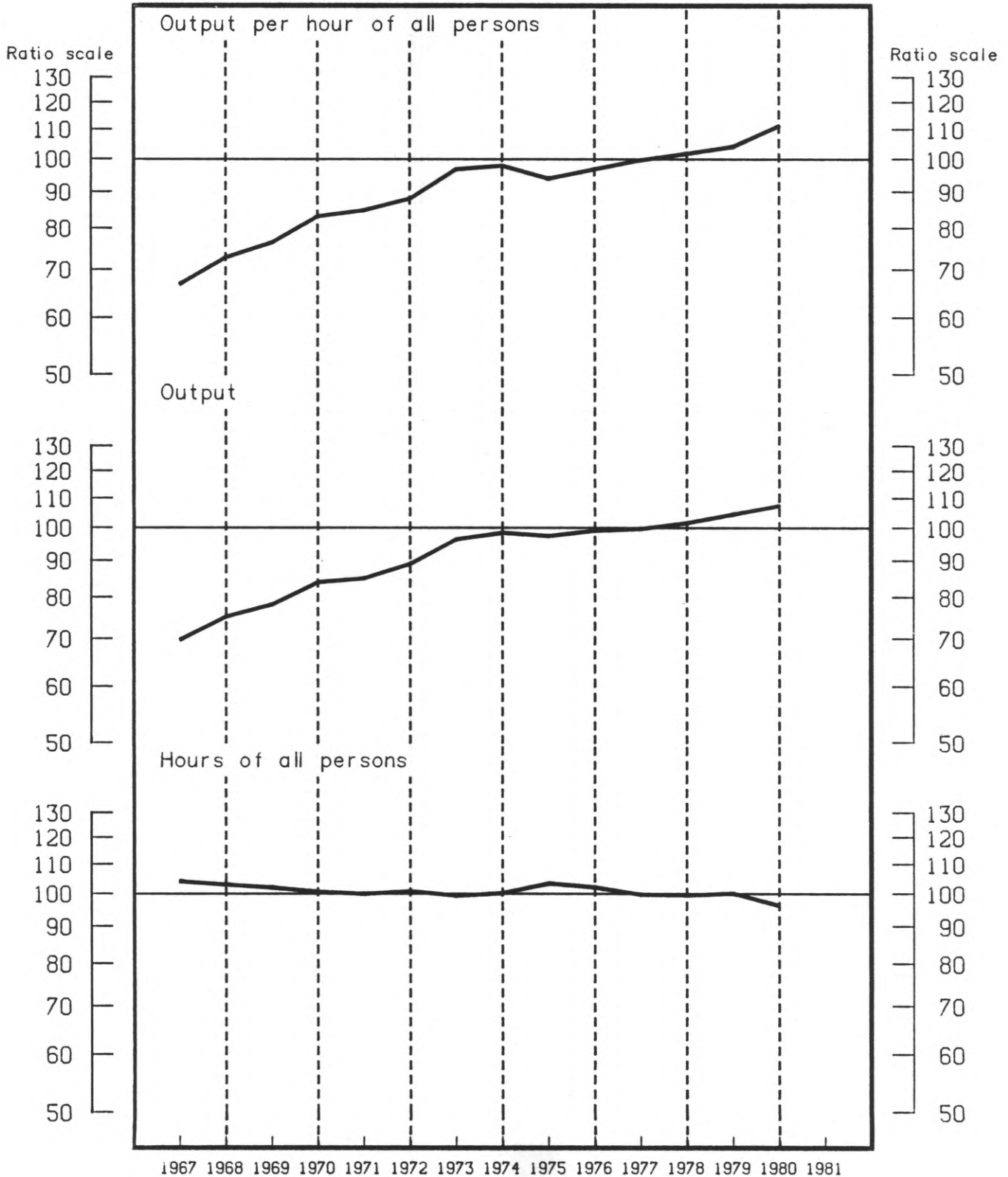
² Preliminary.

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

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Economic Analysis, U.S. Department of Commerce; and the Bureau of Labor Statistics. Persons and hours based on data from the Bureau of Labor Statistics, Bureau of the Census, and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 102. Drug and proprietary stores (SIC 5912): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 189. Drug and proprietary stores (SIC 5912): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1958-80
(1977 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	45.6	55.7	44.2	96.9	79.3
1959	47.4	58.1	47.2	99.6	81.3
1960	49.1	59.6	49.8	101.5	83.6
1961	50.8	61.4	51.3	101.0	83.5
1962	51.8	64.0	54.2	104.6	84.7
1963	54.3	66.0	55.9	103.0	84.7
1964	56.4	67.2	58.1	103.1	86.4
1965	59.9	70.2	62.0	103.5	88.3
1966	62.3	72.0	65.9	105.7	91.5
1967	67.0	75.6	70.0	104.4	92.6
1968	73.0	80.4	75.4	103.3	93.8
1969	76.6	82.2	78.4	102.3	95.4
1970	83.4	88.1	84.2	100.9	95.6
1971	85.0	90.0	85.2	100.2	94.7
1972	88.3	92.6	89.3	101.1	96.4
1973	97.1	99.8	96.7	99.6	96.9
1974	98.2	101.2	98.7	100.5	97.5
1975	94.2	100.0	97.7	103.7	97.7
1976	97.1	100.6	99.4	102.4	98.8
1977	100.0	100.0	100.0	100.0	100.0
1978	102.1	102.3	101.9	99.8	99.6
1979	104.4	104.8	104.8	100.4	100.0
1980 ²	111.6	107.7	107.7	96.5	100.0
Average annual percent change:					
1958-80	4.4	3.2	4.3	-.1	1.1
1975-80	3.2	1.5	1.9	-1.2	.4

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

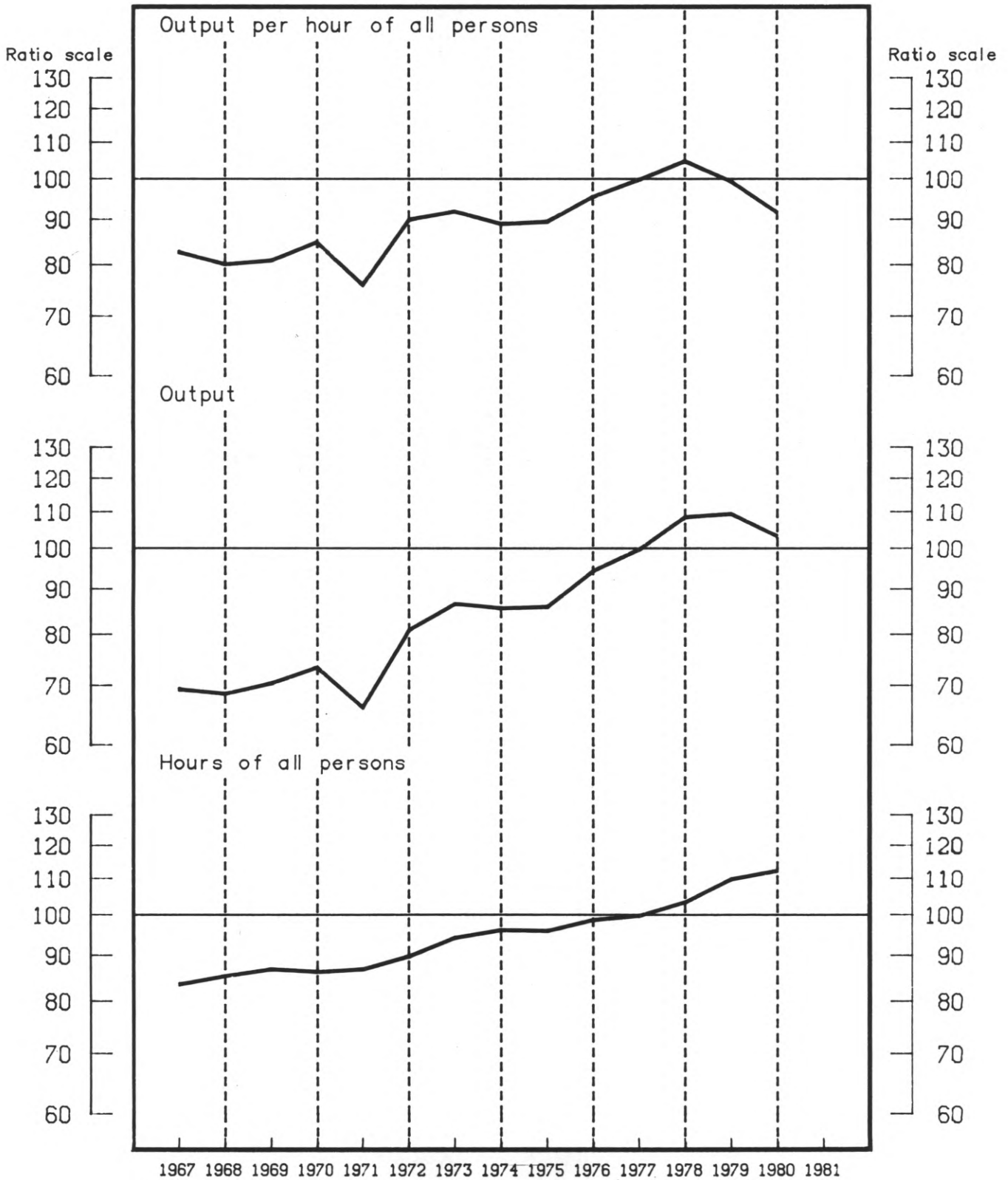
² Preliminary.

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

SOURCE: Output based on data from the Bureau of 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 103. Hotels, motels, and tourist courts (SIC 7011): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 190. Hotels, motels, and tourist courts (SIC 7011): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1958-80
(1977 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	63.7	80.1	47.8	75.0	59.7
1959	64.5	81.0	49.5	76.8	61.1
1960	66.0	82.6	51.7	78.3	62.6
1961	63.9	79.1	50.0	78.2	63.2
1962	68.3	83.5	53.6	78.5	64.2
1963	71.5	87.0	56.2	78.6	64.6
1964	71.7	86.3	57.9	80.7	67.1
1965	77.1	91.8	63.4	82.2	69.1
1966	77.3	90.3	64.6	83.6	71.5
1967	82.9	95.3	69.5	83.8	72.9
1968	80.3	90.9	68.7	85.6	75.6
1969	81.1	90.7	70.6	87.1	77.8
1970	85.1	93.3	73.6	86.5	78.9
1971	76.2	81.7	66.4	87.1	81.3
1972	90.2	95.4	81.2	90.0	85.1
1973	92.1	97.9	86.9	94.4	88.8
1974	89.2	93.5	85.9	96.3	91.9
1975	89.7	91.7	86.2	96.1	94.0
1976	95.7	97.6	94.6	98.9	96.9
1977	100.0	100.0	100.0	100.0	100.0
1978	105.0	105.2	108.8	103.6	103.4
1979 ²	99.6	99.4	109.7	110.1	110.4
1980 ²	91.9	90.9	103.5	112.6	113.8
Average annual percent change:					
1958-80	2.2	.9	3.9	1.7	3.0
1975-80 .....	.8	.2	4.2	3.3	4.0

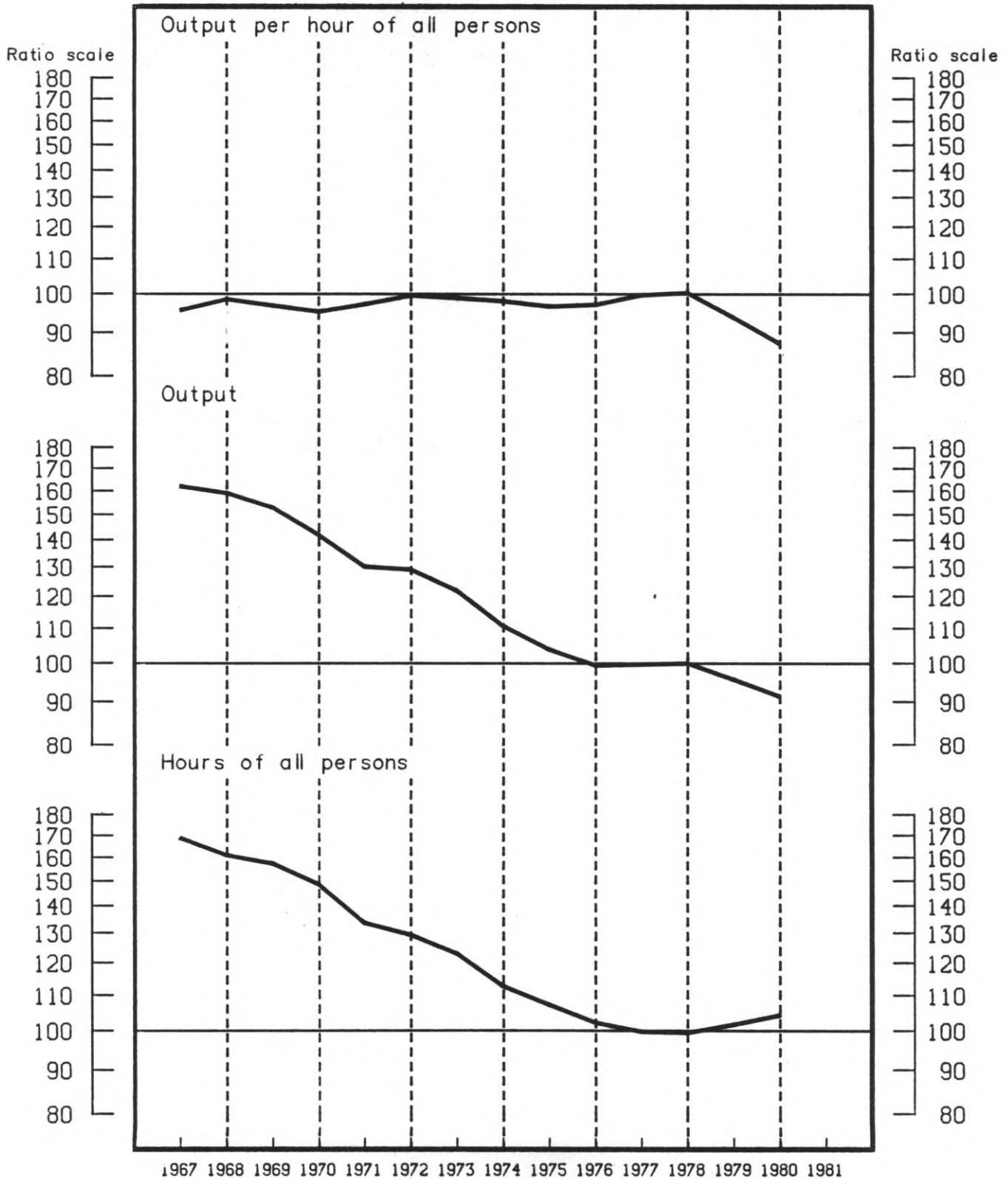
¹ All persons include paid employees, and the self-employed.
² Preliminary.

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.

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

Chart 104. Laundry and cleaning services (SIC 721): Output per hour and related data, 1967-80

(1977 = 100)



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

Table 191. Laundry and cleaning services (SIC 721): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1958-80
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	80.5	91.3	139.8	173.6	153.1
1959	83.5	95.5	145.6	174.3	152.5
1960	79.3	90.6	138.1	174.1	152.5
1961	83.4	94.8	143.8	172.4	151.7
1962	83.4	94.5	144.3	173.1	152.7
1963	83.1	95.9	150.0	180.5	156.4
1964	89.0	101.2	157.5	177.0	155.7
1965	83.7	95.5	151.9	181.4	159.0
1966	89.0	99.1	160.1	179.9	161.6
1967	95.9	103.2	162.3	169.2	157.2
1968	98.8	103.2	159.4	161.4	154.4
1969	97.1	101.7	153.2	157.7	150.6
1970	95.5	98.4	142.2	148.9	144.5
1971	97.5	98.1	130.4	133.8	132.9
1972	99.8	102.2	129.4	129.6	126.6
1973	99.1	103.1	122.1	123.2	118.4
1974	98.3	100.5	111.0	112.9	110.5
1975	96.9	98.1	104.1	107.4	106.1
1976	97.4	98.0	99.7	102.4	101.7
1977	100.0	100.0	100.0	100.0	100.0
1978	100.6	100.8	100.3	99.7	99.5
1979 ²	94.0	94.0	95.9	102.0	102.0
1980 ²	87.6	87.6	91.6	104.6	104.6
Average annual percent change:					
1958-80 .....	.9	.1	-2.3	-3.2	-2.4
1975-80	-1.7	-1.9	-2.1	-4	-2

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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