

Productivity Measures for Selected Industries, 1954-82

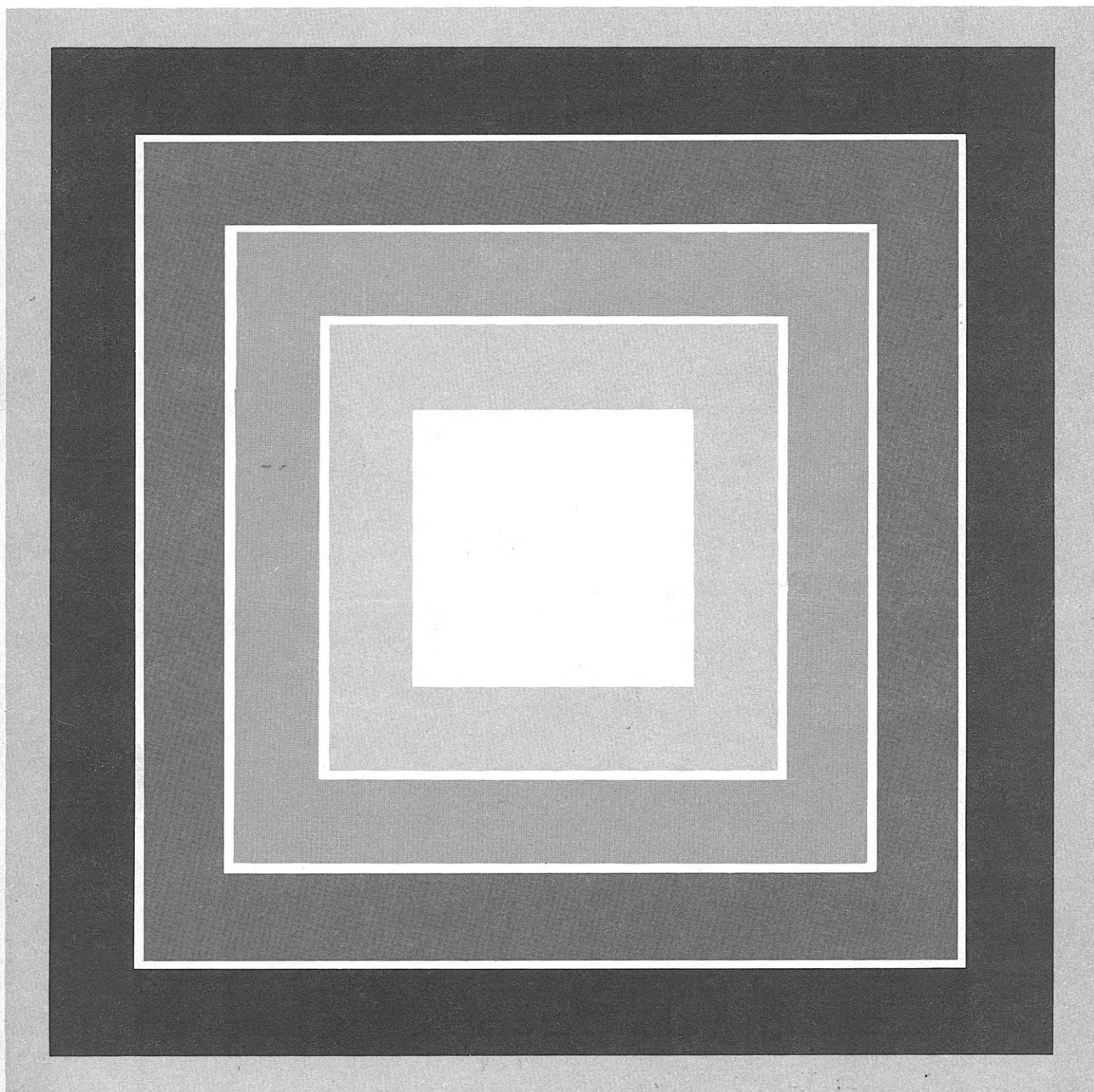


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U.S. Department of Labor
Raymond J. Donovan, Secretary

Bureau of Labor Statistics
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Preface

This bulletin updates through 1982 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: Red meat products; miscellaneous plastics products; valves and pipe fittings; fabricated pipe and fittings; instruments to measure electricity; switchgear; and retail apparel stores. An article on the miscellaneous plastics products industry appeared in the September 1983 issue of the *Monthly Labor Review*. The October issue of the *Review* contained articles on the industries producing valves and pipefittings, fabricated pipe and fittings, and instruments to measure electricity. Articles on the other new industries will appear in forthcoming issues of the *Review*.

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 news releases *Productivity and Costs* (quarterly), in the *Monthly Labor Review*, and in *Employment and Earnings*.)

The productivity measures in this bulletin describe the relationship between output in real terms and the labor time involved in its production. They show the changes from year to year in the amount of labor time required to produce a unit of output. Although these measures relate output to employment and employee hours, they do not measure the specific contributions of labor, capital, or any other factor of production. Rather, they reflect the joint effect of a number of 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 and Technology Studies, Bureau of Labor Statistics, Washington, D.C. 20212. (Telephone: 202-523-9244.)

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Highlights of Trends in Output Per Employee Hour

Current developments

From 1981 to 1982, output per employee hour declined in more than half of the industries for which data are presented in this report. In contrast, from 1980 to 1981, productivity increased in nearly two-thirds of the industries. These declines in industry productivity in 1982 were consistent with the performance of the non-farm business sector as a whole, where productivity fell by 0.1 percent.

Among the large manufacturing industries, the steel industry had a productivity decline of 19.5 percent as output dropped sharply—down 40.1 percent. These declines in productivity and output were the largest since measurement was begun in 1947. The productivity falloff in this industry was in contrast to an 8.8 percent increase in 1981. Severely affected by the economic slowdown during most of 1982, demand fell in almost all steel markets. Even a large drop in employee hours of 25.6 percent could not compensate for the falloff in output.

Another large manufacturing industry, motor vehicles, was unusual in that it had a productivity gain of 5.7 percent in 1982. This industry experienced its second annual productivity increase after 3 years of decline. A decline in output of 6.5 percent was more than offset by a decline in employee hours of 11.5 percent, as the industry compensated for the lower levels of demand.

Among the other large manufacturing industries, construction machinery and equipment experienced a large falloff in productivity—16.0 percent. The 37.9 percent drop in this industry's output was one of the largest among the manufacturing industries as the decline in new construction put in place caused many construction contractors to refrain from purchasing new equipment. Additionally, a strong U.S. dollar and worldwide economic difficulties restricted exports of construction machinery, further aggravating the output decline. Other large manufacturing industries which recorded productivity declines in 1982 were: Footwear (-6.1 percent), bakery products (-2.8 percent), petroleum refining (-1.4 percent), and tires and inner tubes (-1.0 percent).

However, four relatively large manufacturing industries did post productivity increases in 1982. These in-

dustries were: Sawmills and planing mills (4.4 percent); motors and generators (3.7 percent); bottled and canned soft drinks (3.1 percent); and paper, paperboard, and pulpmills (1.3 percent). With the exception of bottled and canned soft drinks, these productivity gains were based on declines in output and even larger declines in employee hours.

Productivity declined in 1982 in almost all of the mining industries covered. Iron mining (usable ore), had the biggest drop, with productivity falling by nearly 15 percent. Output in this industry was down by over 50 percent; many mines were shut down for weeks and some for the whole year. In coal mining, productivity declined 5.2 percent based on a 0.8 percent increase in output and a 6.2 percent jump in employee hours. Likewise, output per employee hour in nonmetallic minerals dropped 7.5 percent; poor demand from the construction industry resulted in this industry's 13.7 percent drop in output. Employee hours in nonmetallic minerals were down 6.8 percent. On the other hand, productivity in copper mining (recoverable metal) increased 14.5 percent. Unfortunately, this increase was based on a severe 25.9 percent drop in output and an even greater decline in employee hours of 35.3 percent. Only the more efficient mines remained in operation by year-end.

Productivity changes were mixed among transportation and utility industries. Productivity was up 9.1 percent in air transportation, as output grew 3.7 percent and employee hours declined 5.0 percent. Railroad productivity grew 3.8 percent, though output dropped 12.1 percent because of declines in freight and passenger service due in part to the economic downturn. This was the third straight year that railroad output declined. Efficiencies resulting from rail reorganization, however, caused employee hour declines and resulting productivity increases in each of these 3 years. The bus carriers industry posted a productivity increase of 2.0 percent while petroleum pipelines registered a 0.1 percent decline. Productivity was up 4.6 percent in telephone communications as output grew 2.9 percent and employee hours declined 1.6 percent. Productivity continued to decline in gas utilities (-8.0 percent) and electric utilities (-3.5 percent). Output of gas utilities fell 7.1 percent due to lack of demand from the industrial sector because of

the economic slowdown; employee hours, however, were up slightly (0.8 percent) because of the growth in the number of customers.

In trade and services, most industries studied recorded productivity gains. Gasoline service stations posted a productivity increase of 7.2 percent as output grew by 0.9 percent and employee hours fell by 5.9 percent. Apparel and accessory stores experienced an increase in productivity of 4.7 percent based upon a 2.4 percent growth in output and a 2.2 percent drop in hours. Productivity increases were also reported for laundries and cleaning services (2.5 percent), eating and drinking places (1.7 percent), retail food stores (0.9 percent), and franchised new car dealers (0.4 percent). On the other hand, productivity fell in drug and proprietary stores (-1.3 percent) and in hotels, motels, and tourist courts (-6.8 percent).

Long-term trends

With one exception, all of the industries in this report recorded average annual increases in productivity over the long term (1947–82 for many of the industries). These average annual increases ranged from a high of 7.5 percent for wet corn milling to a low of 0.1 percent for bus carriers. In the wet corn milling industry, growth in output and productivity was modest until 1972 when an explosion in output resulted from the rapid market penetration of high fructose and glucose corn syrups. The industry, previously highly capital intensive, became even more so with large infusions of capital. A number of new, highly automated plants were built. In bus carriers, on the other hand, modest advances in technology, and more “package” and charter service, were offset by declining passenger demand and reduced bus speeds, resulting in the relatively slow advance in productivity.

Metal forming machine tools, the one exception to the roster of industries posting long-term productivity growth, experienced an average annual decline in output per hour of 0.4 percent. A combination of factors worked against productivity growth in the industry, including the tendency of machine tool firms to keep highly skilled workers on the payroll even when output falls during cyclical slowdowns. Additionally, machine tools are not mass-produced, although they may make mass-production processes possible in user industries. The parts and components of finished machine tools are usually made in relatively small batches and require comparatively large amounts of labor.

Although the rates of productivity change varied widely among the industries during the 1977–82 period (see chart 1), three-fourths of the industries recorded lower average annual gains in this more recent period than during the 1947–77 period. This experience matches the productivity record of the nonfarm business economy as a whole. From 1947 to 1977, produc-

tivity in this sector grew 2.3 percent per year while from 1977 to 1982 there was no growth. The slower growth in productivity among the industries included in this report was associated with less rapid output growth in the later period.

However, there were a few notable exceptions to the falloff in productivity growth during the 1977–82 period. In addition to wet corn milling, the glass containers industry recorded a substantial improvement in the rate of productivity growth in the last few years—5.1 percent a year from 1977 to 1982 as opposed to 2.0 percent annually from 1947 to 1977. Ever since the loss of the large family-size soft drink container market to plastic bottles, the glass containers industry has concentrated on smaller 10- and 16-ounce standardized bottles. This has resulted in a reduction of costly mold changes, elimination of excess capacity, and an improved rate of productivity growth. The sharp advance in productivity in the rice milling industry was associated with substantial output growth. Along with a growth in exports in the later period, output in the industry was also stimulated by the Rice Production Act of 1975, which removed production acreage restrictions. Among the industries that experienced productivity declines in the post-1977 period, cosmetics and toiletries dropped the most—from a gain of 4.7 percent annually during the earlier period to a decline of 7.3 percent per year for the 1977–81 period. Output in this industry was adversely affected by the impact of economic downturns during this period as consumers purchased fewer impulse and luxury items. Also experiencing large falloffs in productivity from 1977–82 were the petroleum refining and pipelines industries as output growth faded during the later period.

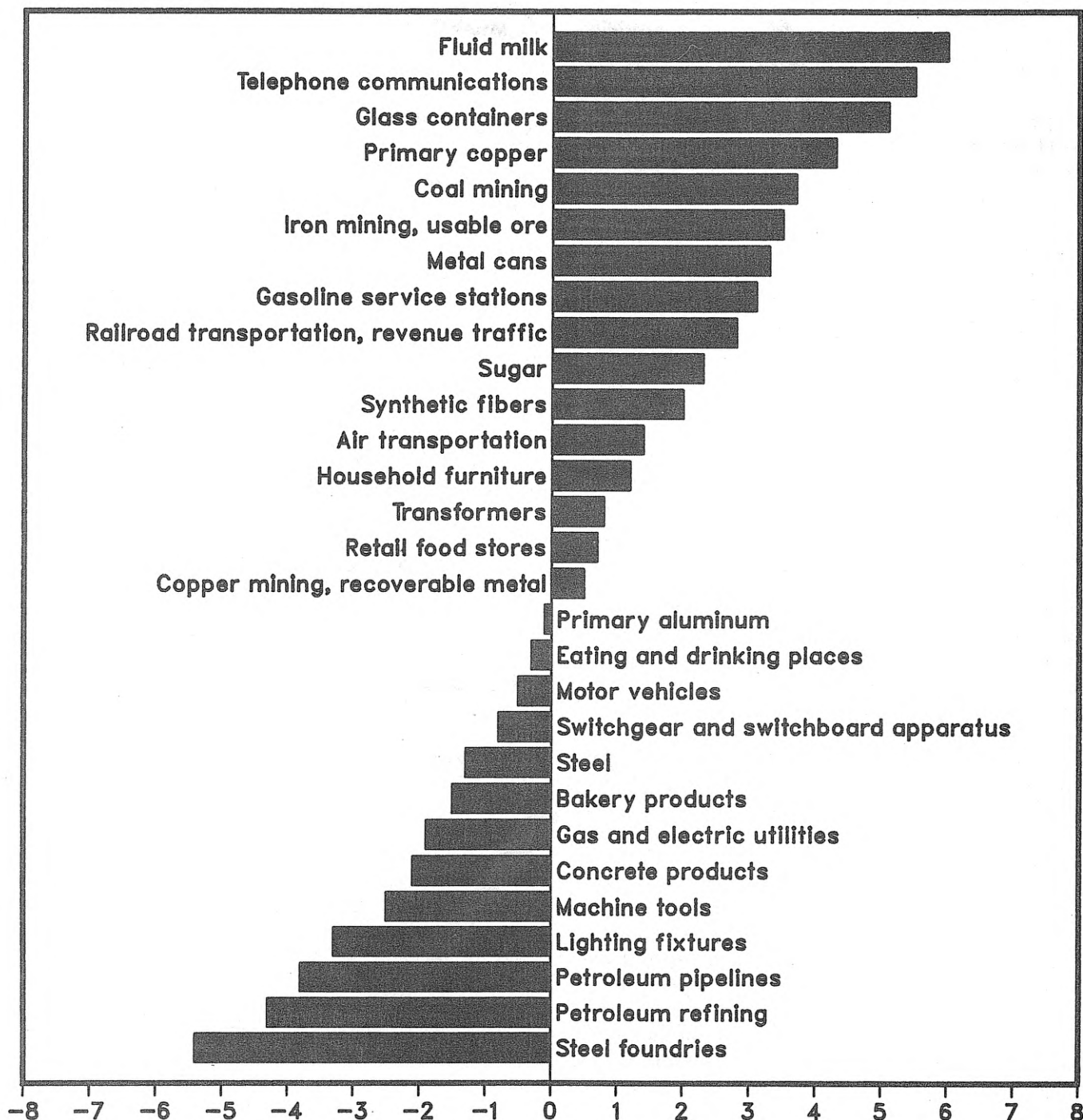
New measures

Red meat products (SIC 2011, 2013). New products and packaging have encouraged industry restructuring and new technology in the red meat products industry and helped boost productivity. Between 1967 and 1981, productivity (as measured by output per hour) increased at an average annual rate of 3.0 percent and accelerated to 4.5 percent during the past 6 years. In contrast, productivity for all manufacturing industries grew at lower rates of 2.5 and 1.6 percent, respectively, during these two periods. The productivity growth for the meat packing and prepared meats industry resulted from an annual increase in output of 2.4 percent and a decline in employee hours of 0.4 percent.

The two subindustries examined in this study that make up the red meat products group have different underlying rates of change in productivity. The meat packing industry (SIC 2011), which accounted for 69 percent of the 226,000-person work force and 80 percent of the value of shipments in 1981, had a productivity growth rate of 3.3 percent between 1967 and 1981.

Chart 1. Growth in output per employee hour in selected industries, 1977-82

(Average annual percent change)



This growth accelerated to 4.8 percent after 1975. Productivity in the prepared meats industry (sausages and other prepared meats, SIC 2013) grew at a slower 2.1 percent annual rate from 1967 to 1981 and advanced to 3.7 percent after 1975. Productivity in meat packing plants has benefited from increased mechanization resulting from the marketing of boxed beef (vacuum-packaged subprimal cuts of beef). For the makers of sausages and other prepared meats, productivity trends re-

flect both strong demand and more gradual technological changes in the batch processing equipment typical of this industry.

Miscellaneous plastics products (SIC 3079). Despite rapid output growth during 1972-81, productivity in the miscellaneous plastics products industry increased at a somewhat slower rate than that for all manufacturing. Productivity rose at an average annual rate of 1.4 per-

cent over the period, while the rate for all manufacturing was 1.9 percent. The rapid rise in output, at an average annual rate of 5.5 percent, was accompanied by an increase in employee hours of 4 percent annually. Industry productivity benefited from improvements in resins and faster processing equipment, and from the growing use of microprocessor controls for production machinery.

Productivity trends fluctuated during 1972–81, as output and hours responded to cyclical forces in the economy. The output of the plastics industry encompasses a wide range of products consumed in many sectors of the economy. Consequently, industry output tends to be strongly influenced by trends in the overall level of economic activity.

Productivity should continue to benefit from the further adoption of microprocessor controls for production equipment. A move toward almost total computer control of many plants appears to be a very real possibility. Increased adoption of robots also appears likely as part of the push for greater efficiency; not only will there be more robots but the capabilities of those robots almost certainly will expand. Laser systems will probably also continue to be adopted for such operations as cutting, drilling, and quality control tasks.

Valves and pipe fittings and fabricated pipe and fittings (SIC 3494, 3498). Labor productivity rose at widely differing rates in two fabricated metals industries, both manufacturing fluid control equipment. In the valves and pipe fittings industry, productivity averaged 1.3 percent a year between 1954 and 1981; in the fabricated pipe and fittings industry, 0.3 percent between 1958 and 1981. In both industries, the productivity advance slowed markedly after 1965; in fabricated pipe, productivity declined after 1973.

Key factors underlying the long-term rise in productivity in both industries were improvements in small-batch manufacturing, the reduction in setup time occasioned by broadened use of numerically controlled machine tools, and the use of computer-assisted design, particularly in engineering valves. Significant technological advances were also recorded in the fabrication of pipe fittings, such as the introduction of flaring machines to ensure tightness of seal. Patterning controls in the manufacture of fabricated pipe were among the technological gains in this industry that helped boost labor productivity. The adoption of new technologies was sustained by comparatively high rates of capital spending. Notwithstanding these new technologies, employment and hours in both industries rose more rapidly than the manufacturing average for the periods reviewed.

Instruments to measure electricity (SIC 3825). Output per employee hour in the manufacture of instruments for measuring electricity—such as oscilloscopes and

voltage and watt-hour meters—rose at an average annual rate of 2.4 percent between 1972 and 1981, compared with a 1.9 percent annual rate for all manufacturing. Both output and hours increased substantially over the period—output at 8.6 percent a year, employee hours at 6.0 percent.

The advance in productivity was partially associated with the diffusion of automated production machinery, particularly in wiring and for installing integrated circuitry in measuring instruments. The growing use of small- and large-scale integrated circuits in electronic instruments was also a factor that spurred productivity improvement. Year-to-year movements in output per hour deviated considerably from the long-term rate. In general, the year-to-year fluctuations were linked to large increases in output that in turn were accompanied by large increases in employment and hours.

Changes in electronics technology have not only indirectly fueled demand through the explosive growth in semiconductor components (which in turn generated the need for more measuring instruments), but, by influencing the form and function of products, have brought new instruments into the market. Rapidly changing electronics technology will remain both a pushing and pulling force as it continues to stimulate demand and improve both the products and productivity in this industry.

Switchgear and switchboard apparatus (SIC 3613). Productivity in the switchgear industry grew at a rate of 2.0 percent per year between 1963 and 1982, compared to a rate of 2.4 percent for the average of all manufacturing industries over the same period. Because the industry's markets are closely related to electric power production, the industry was particularly affected by the slowdown in demand for electricity beginning in 1973. Therefore, output and productivity growth can be divided into two distinct periods. From 1963 to 1973, fueled by growth in electric utility systems, output grew at a rate of 6.1 percent and productivity grew 3.5 percent per year. Both of these rates were well above the manufacturing average over the same period. Conversely, from 1973 to 1982, a sharp increase in electricity costs, in conjunction with the impact of a number of economic slowdowns, affected industry demand drastically. This resulted in an output trend registering no growth and a productivity gain of only 0.3 percent per year from 1973 to 1982.

Technological change in the industry is affected by the diversity of products made. Small, simple items such as panelboards and low-voltage circuit breakers are made in long runs, using assembly line techniques. The larger units, such as transmission line circuit breakers and power and industrial switchgear, tend to require semi-custom production techniques. A key technological advance is computer assisted design, which reduces design and engineering effort substantially. An innova-

tion in widespread use is numerical control of machine tools, which is particularly important in this industry because of the large number of complicated parts that must be machined in order to assemble switchgear units. A change in one of the industry's major products has aided manufacturing techniques by allowing a shift toward assembly line manufacturing for power transmission circuit breakers. Over the period measured, the industry has shifted from oil type, air blast transmission circuit breakers to units that are smaller, safer, and easier to manufacture using sulphur hexafluoride as the extinguishing medium. An innovation that is becoming more important is computerized testing of complicated units. This promises to increase productivity by reducing the need for manual testing.

The outlook for productivity in the near future is unclear. Although the introduction of new technology and products that are easier to manufacture provides a basis for the industry to increase productivity, output currently is at a low level¹. Changes in productivity are expected to be greatly affected by changes in demand, which are uncertain.

Retail apparel stores (SIC 56). Output per hour of all persons in the retail apparel store industry increased at an average annual rate of 3.1 percent from 1967 to 1982, compared to an average annual rate of 1.2 percent for the nonfarm business sector of the economy during the same period. This gain in productivity over the 15-year period reflected an average annual increase of 4.6 percent in output and a 1.5 percent increase in all person hours.

The retail apparel store industry consists of several component industries. Separate productivity measures are presented for the total industry and for men's and boys' clothing stores, women's ready-to-wear stores, family clothing stores, and shoe stores. Women's ready-to-wear apparel stores is the major industry within the apparel group, accounting for 33 percent of sales and 35 percent of all persons in 1982. Family clothing stores is the second largest group ranked by sales size, accounting for 21 percent of sales and 18 percent of all persons, followed by shoe stores which accounted for 19 percent of sales and 21 percent of persons. Men's and boys' clothing stores accounted for 16 percent of sales and 13 percent of persons. Rates of productivity gain among the component industries varied from 4.1 percent in women's apparel stores to 1.1 percent in shoe stores from 1967 to 1982.

Growth in apparel store productivity has been influenced by broad trends in general retailing. Chainstores grew strongly during the 1967-82 period, capturing over 50 percent of industry sales by 1977, while accounting for less than 27 percent of the industry's stores. The vast majority of the chains that expanded were already large, consisting of 11 or more stores. These chains had the financial resources to locate stores in shopping malls with large concentrations of shoppers. The chains also were able to introduce technological innovations such as point-of-sale computerized information gathering systems and were able to acquire larger, more efficiently designed stores leading to gains in output per hour.

Table 1. Selected industries: Employment, 1982, and average annual rates of change in output per employee hour, 1977-82

SIC code	Industry	Employment, 1982 (thousands)			Output per employee hour: Average annual rate of change, 1977-82 (percent) ¹		
		All employees	Production workers	Non- production workers	All employees	Production workers	Non- production workers ²
Mining							
1011	Iron mining, crude ore	12	8	4	3.8	4.7	0.8
1011	Iron mining, usable ore	12	8	4	3.5	4.4	0.5
1021	Copper mining, crude ore	24	18	6	-0.5	0.4	-2.9
1021	Copper mining, recoverable metal	24	18	6	0.5	1.3	-2.0
111, 121	Coal mining	241	197	44	3.7	4.3	0.7
121	Bituminous coal and lignite mining	237	194	43	3.9	4.5	0.7
14	Nonmetallic minerals, except fuels	111	84	27	-2.6	-1.5	-6.2
142	Crushed and broken stone	36	28	8	-1.3	-0.3	-5.6
Manufacturing							
2011, 13	Red meat products	218	173	45	³ 2.8	³ 2.4	³ 4.4
2011	Meat packing plants	147	121	26	³ 4.1	³ 3.6	³ 6.4
2013	Sausages and other prepared meats	71	53	18	³ 0.3	³ 0.7	³ 0.8
2026	Fluid milk	94	(⁴)	(⁴)	6.0	(⁴)	(⁴)
203	Preserved fruits and vegetables	241	199	42	³ 0.4	³ 0.1	³ 2.0
2033	Canned fruits and vegetables	92	76	16	³ 0.4	³ 0.1	³ 3.3
204	Grain mill products	134	91	43	³ 3.2	³ 3.2	³ 3.2
2041	Flour and other grain mill products	26	15	11	0.2	0.5	-0.6
2043	Cereal breakfast foods	17	13	4	³ 2.4	³ 1.8	³ 5.8
2044	Rice milling	5	4	1	³ 5.3	³ 5.7	³ 2.9
2045	Blended and prepared flour	8	6	2	³ 2.2	³ 1.4	³ 4.2
2046	Wet corn milling	11	8	3	³ 10.1	³ 10.6	³ 8.9
2047, 48	Prepared feeds for animals and fowls	67	45	22	³ 2.9	³ 3.4	³ 2.2
205	Bakery products	218	128	90	-1.5	-2.1	-0.7
2061, 62, 63	Sugar	29	22	7	2.3	1.6	5.3
2061, 62	Raw and refined cane sugar	17	12	5	2.1	1.2	5.3
2063	Beet sugar	11	9	2	2.6	2.4	4.8
2065	Candy and confectionery products	53	43	10	(⁴)	(⁴)	(⁴)
2082	Malt beverages	50	32	18	2.9	3.6	1.2
2086	Bottled and canned soft drinks	134	44	90	3.3	5.6	2.0
2111, 21, 31	All tobacco products	58	45	13	-0.1	0.7	-4.3
2111, 31	Cigarettes, chewing and smoking tobacco	51	39	12	-0.7	0.1	-4.2
2121	Cigars	7	6	1	3.1	3.6	-1.4
2251, 52	Hosiery	63	57	6	3.4	4.1	-2.4
2281	Yarn mills, except wool	75	68	7	0.2	0.7	-5.3
2421	Sawmills and planing mills, general	150	132	18	1.4	2.3	-4.5
2431	Millwork	66	51	15	³ 0.4	³ 0.7	³ 4.8
2435, 36	Veneer and plywood	57	50	7	³ 1.6	³ 2.1	³ 2.0
2435	Hardwood veneer and plywood	22	19	3	³ 0.8	³ 1.2	³ 2.4
2436	Softwood veneer and plywood	35	31	4	³ 2.4	³ 2.9	³ 1.4
251	Household furniture	270	222	48	1.2	1.9	-2.7
2511, 17	Wood household furniture	126	108	18	³ 1.4	³ 0.8	³ 5.4
2512	Upholstered household furniture	83	67	16	³ 1.3	³ 1.5	³ 0.1
2514	Metal household furniture	26	21	5	³ 0.9	³ 0.7	³ 1.7
2515	Mattresses and bedsprings	28	21	7	³ 3.6	³ 4.5	³ 0.8
252	Office furniture	54	42	12	³ 3.0	³ 4.2	³ 1.2
2521	Wood office furniture	19	15	4	³ 0.7	³ 1.9	³ 3.6
2522	Metal office furniture	35	27	8	³ 4.2	³ 5.4	³ 0.1
2611, 21, 31, 61	Paper, paperboard, and pulp mills	258	195	63	1.1	1.4	-0.2
2643	Paper and plastic bags	49	38	11	³ 2.3	³ 2.1	³ 3.1
2651	Folding paperboard boxes	41	32	9	-0.1	(⁴)	-0.5
2653	Corrugated and solid fiber boxes	98	72	26	2.6	3.1	1.3
2823, 24	Synthetic fibers	96	68	28	2.0	3.0	-1.0
2834	Pharmaceutical preparations	157	76	81	³ 2.0	³ 1.8	(⁴)
2841	Soaps and detergents	44	29	15	³ 1.5	³ 0.8	³ 2.6
2844	Cosmetics and other toiletries	63	42	21	³ 7.3	³ 8.9	³ 4.7
2851	Paints and allied products	61	29	32	-0.5	0.9	-2.0
2911	Petroleum refining	164	94	70	-4.3	-3.1	-7.2
3011	Tires and inner tubes	105	74	31	3.9	3.9	3.9
3079	Miscellaneous plastics products	457	355	102	³ 0.8	³ 0.4	³ 2.3
314	Footwear	137	116	21	-1.8	-1.5	-4.5
3221	Glass containers	62	54	8	5.1	5.4	3.3
3241	Hydraulic cement	27	21	6	-2.4	-2.0	-4.0
325	Structural clay products	34	25	9	-1.0	0.2	-6.0
3251, 53, 59	Clay construction products	25	19	6	-1.4	-0.1	-6.9
3251	Brick and structural clay tile	14	11	3	-5.0	-3.2	-12.3
3253	Ceramic wall and floor tile	8	6	2	³ 5.3	³ 5.0	³ 6.4
3255	Clay refractories	9	6	3	0.2	1.3	-3.6

Table 1. Selected industries: Employment, 1982, and average annual rates of change in output per employee hour, 1977-82—Continued

SIC code	Industry	Employment, 1982 (thousands)			Output per employee hour: Average annual rate of change, 1977-82 (percent) ¹		
		All employees	Production workers	Non- production workers	All employees	Production workers	Non- production workers ²
Manufacturing—Continued							
3251, 53, 59	Clay construction products	25	19	6	-1.4	-0.1	-6.9
3251	Brick and structural clay tile	14	11	3	-5.0	-3.2	-12.3
3253	Ceramic wall and floor tile	8	6	2	³ 5.3	³ 5.0	³ 6.4
3255	Clay refractories	9	6	3	0.2	1.3	-3.6
3271, 72	Concrete products	77	55	22	³ 2.3	³ 1.1	³ 4.8
3273	Ready-mixed concrete	86	67	19	³ 1.9	(⁴)	(⁴)
331	Steel	394	292	102	-1.3	-0.1	-4.9
3321	Gray iron foundries	97	76	21	-2.7	-1.3	-9.0
3324, 25	Steel foundries	50	37	13	-5.4	-4.0	-10.3
3331, 32, 33	Primary copper, lead, and zinc	17	12	5	4.0	5.2	-0.7
3331	Primary copper	11	8	3	4.3	5.6	-0.6
3334	Primary aluminum	29	21	8	-0.1	1.6	-6.0
3351	Copper rolling and drawing	26	20	6	-1.7	-0.7	-5.0
3353, 54, 55	Aluminum rolling and drawing	57	43	14	-0.4	0.6	-4.5
3411	Metal cans	52	45	7	3.3	3.9	0.1
3423	Hand and edge tools	40	30	10	³ 1.0	(⁴)	³ 4.7
3441	Fabricated structural metal	89	62	27	³ 0.2	³ 0.9	³ 1.9
3494	Valves and pipe fittings	93	62	31	³ 0.7	³ 1.5	³ 1.2
3498	Fabricated pipe and fittings	28	20	8	³ 2.5	³ 2.6	³ 2.2
352	Farm and garden machinery	136	87	49	³ 0.8	³ 0.7	³ 4.4
3523	Farm machinery and equipment	119	75	44	³ 0.9	³ 0.5	³ 4.4
3524	Lawn and garden equipment	17	12	5	³ 0.1	³ 1.7	³ 4.3
3531	Construction machinery and equipment	107	63	44	-3.9	-0.9	-9.8
3541, 42	Machine tools	85	51	34	-2.5	-1.1	-5.0
3541	Metal cutting machine tools	64	39	25	-1.7	-0.5	-3.9
3542	Metal forming machine tools	21	12	9	-5.0	-3.3	-8.4
3561, 63	Pumps and compressors	86	49	37	³ 0.2	³ 1.1	³ 1.3
3561	Pumps and pumping equipment	57	33	24	³ 0.3	³ 0.7	³ 2.1
3563	Air and gas compressors	29	16	13	³ 1.3	³ 2.0	³ 0.3
3562	Ball and roller bearings	49	36	13	-3.4	-2.9	-5.0
3612	Transformers	50	36	14	0.8	0.8	0.7
3613	Switchgear and switchboard apparatus	63	44	19	-0.8	0.6	-3.9
3621	Motors and generators	101	76	25	(⁴)	1.0	-3.0
3631, 32, 33, 39	Major household appliances	83	63	20	1.4	2.0	-0.9
3631	Household cooking equipment	24	18	6	-1.1	-0.8	-1.9
3632	Household refrigerators and freezers	26	20	6	4.8	5.6	1.4
3633	Household laundry equipment	19	14	5	0.5	1.2	-2.3
3639	Household appliances, n.e.c.	14	11	3	1.7	1.5	2.2
3641	Electric lamps	30	26	4	2.0	2.1	1.5
3645, 46, 47, 48	Lighting fixtures	61	45	16	-3.3	-2.6	-5.4
3651	Radio and television receiving sets	71	48	23	³ 5.2	³ 6.3	³ 1.8
371	Motor vehicles and equipment	705	516	189	-0.5	1.0	-5.2
3825	Instruments to measure electricity	102	63	39	³ 2.4	³ 6.1	³ 2.6
Other							
401 class I	Railroad transportation, revenue traffic	397	339	58	2.8	3.4	-0.7
401 class I	Railroad transportation, car-miles	397	339	58	1.9	2.5	-1.5
4111, 413, 414 parts	Bus carriers, class I	31	(⁴)	(⁴)	-1.5	(⁴)	(⁴)
4213 part	Intercity trucking	670	(⁴)	(⁴)	³ 0.8	(⁴)	(⁴)
4213 part	Intercity trucking (general freight)	413	(⁴)	(⁴)	³ 1.7	(⁴)	(⁴)
4511, 4521 part	Air transportation	343	(⁴)	(⁴)	³ 1.4	(⁴)	(⁴)
4612, 13	Petroleum pipelines	22	15	7	-3.8	-2.6	(⁴)
4811	Telephone communications	1068	⁷ 787	⁸ 281	5.5	(⁴)	(⁴)
491, 92, 93	Gas and electric utilities	798	⁷ 643	⁸ 155	-1.9	⁷ 1.6	(⁴)
491, 493 part	Electric utilities	580	(⁴)	(⁴)	-1.9	(⁴)	(⁴)
492, 493 part	Gas utilities	218	(⁴)	(⁴)	-1.8	(⁴)	(⁴)
54	Retail food stores ⁹	2695	(⁴)	(⁴)	0.7	(⁴)	(⁴)
5511	Franchised new car dealers	693	(⁴)	(⁴)	-0.5	(⁴)	(⁴)
5541	Gasoline service stations ⁹	659	(⁴)	(⁴)	3.1	(⁴)	(⁴)
56	Apparel and accessory stores ⁹	1046	(⁴)	(⁴)	4.9	(⁴)	(⁴)
5611	Men's and boys' clothing stores ⁹	131	(⁴)	(⁴)	3.4	(⁴)	(⁴)
5621	Women's ready-to-wear stores ⁹	367	(⁴)	(⁴)	4.8	(⁴)	(⁴)
5651	Family clothing stores ⁹	190	(⁴)	(⁴)	3.9	(⁴)	(⁴)
5661	Shoe stores ⁹	218	(⁴)	(⁴)	2.0	(⁴)	(⁴)
58	Eating and drinking places ⁹	5175	(⁴)	(⁴)	-0.3	(⁴)	(⁴)
5912	Drug and proprietary stores ⁹	524	(⁴)	(⁴)	0.7	(⁴)	(⁴)
602	Commercial banking	1506	⁷ 1122	⁸ 384	³ 2.8	(⁴)	(⁴)
7011	Hotels, motels, and tourist courts ⁹	1198	(⁴)	(⁴)	-2.1	(⁴)	(⁴)
721	Laundry and cleaning services ⁹	399	(⁴)	(⁴)	-3.6	(⁴)	(⁴)

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 1977-81.

⁴ Not available.

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, including proprietors, partners, and unpaid family workers.

Methods and Data Sources

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

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

For many industries, however, unit labor weights are not available at the detailed product level, so substitute weights must be used. The most common substitute weights are unit values, which are assumed to be proportional to unit employee hours. For many manufacturing industries, however, employee hour weights at the product-class level can be developed from the available data. In such cases, a dual-level weighting system is used—unit value weights at the product level and employee hour weights at the product-class level.¹

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.

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 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 eleven trade and service industries—retail food stores; gasoline service stations; eating and drinking places; drug stores and proprietary stores; total retail

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."

apparel stores and four component industries; 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 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 1982 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 1982 indexes were developed by linking employment and employee hour data from BLS, since 1982 census data are not yet available. Therefore, all 1982 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 2134 (1982), chapter 14, and in a number of individual industry reports. Industry reports as well as additional information are available on request from the Bureau of Labor Statistics.

Charts and Tables

Indexes of output per employee hour and related data

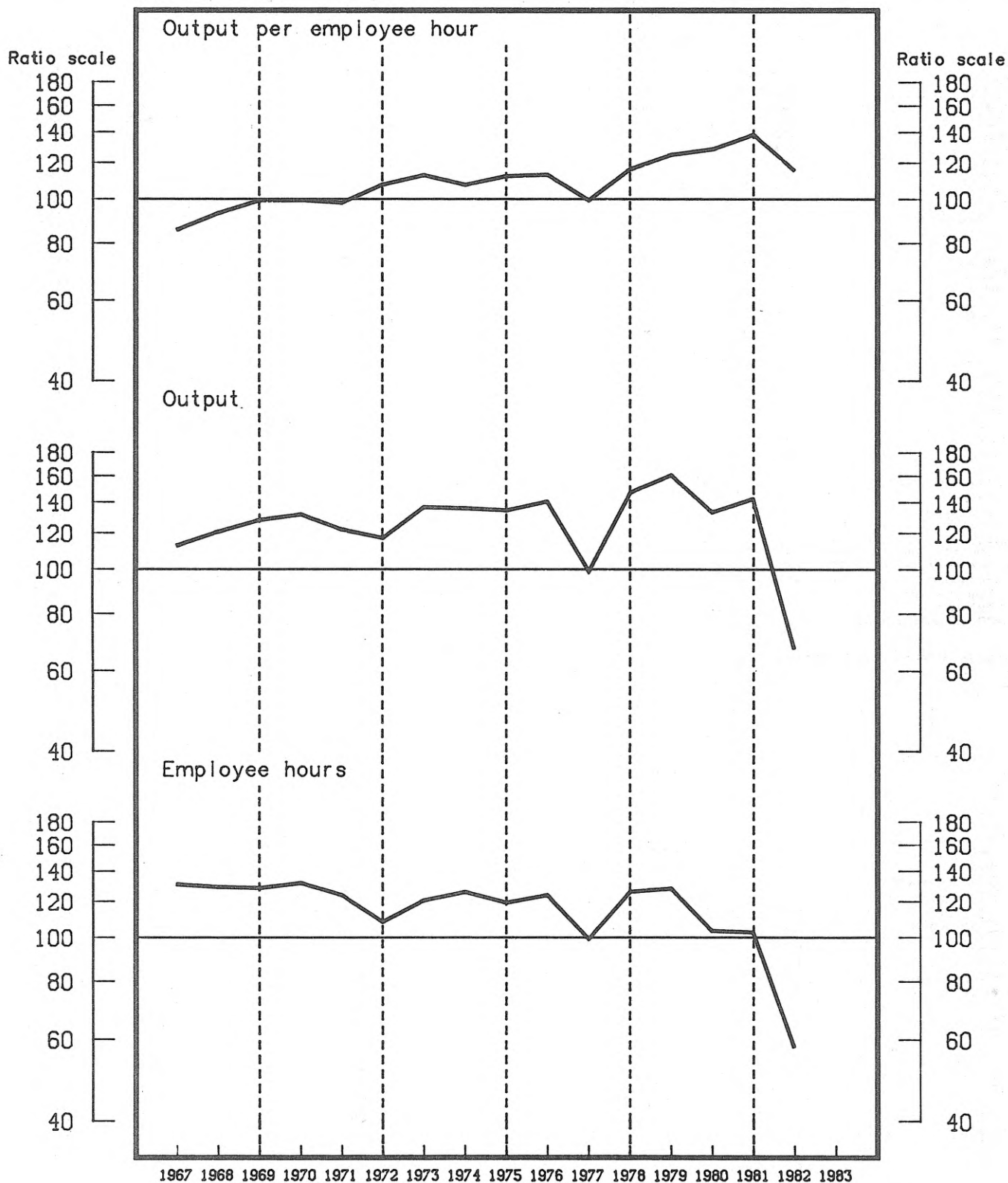
SIC code	Industry	Chart	Page	Table	Page
Mining					
1011	Iron mining, crude ore	2	12	2, 3	13
1011	Iron mining, usable ore	3	14	4, 5	15
1021	Copper mining, crude ore	4	16	6, 7	17
1021	Copper mining, recoverable metal	5	18	8, 9	19
111, 121	Coal mining	6	20	10, 11	21
121	Bituminous coal and lignite mining	7	22	12, 13	23
14	Nonmetallic minerals, except fuels	8	24	14, 15	25
142	Crushed and broken stone	9	26	16, 17	27
Manufacturing					
2011, 2013	Red meat products	10	28	18, 19	29
2011	Meat packing plants	11	30	20, 21	31
2013	Sausages and other prepared meats	12	32	22, 23	33
2026	Fluid milk	13	34	24	35
203	Preserved fruits and vegetables	14	36	25, 26	37
2033	Canned fruits and vegetables	15	38	27, 28	39
204	Grain mill products	16	40	29, 30	41
2041	Flour and other grain mill products	17	42	31, 32	43
2043	Cereal breakfast foods	18	44	33, 34	45
2044	Rice milling	19	46	35, 36	47
2045	Blended and prepared flour	20	48	37, 38	49
2046	Wet corn milling	21	50	39, 40	51
2047, 48	Prepared feeds for animals and fowls	22	52	41, 42	53
205	Bakery products	23	54	43, 44	55
2061, 62, 63	Sugar	24	56	45, 46	57
2061, 62	Raw and refined cane sugar	25	58	47, 48	59
2063	Beet sugar	26	60	49, 50	61
2065	Candy and other confectionery products	27	62	51, 52	63
2082	Malt beverages	28	64	53, 54	65
2086	Bottled and canned soft drinks	29	66	55, 56	67
2111, 21, 31	All tobacco products	30	68	57, 58	69
2111, 2131	Cigarettes, chewing and smoking tobacco	31	70	59, 60	71
2121	Cigars	32	72	61, 62	73
2251, 52	Hosiery	33	74	63, 64	75
2281	Yarn mills, except wool	34	76	65, 66	77
2421	Sawmills and planing mills, general	35	78	67, 68	79
2431	Millwork	36	80	69, 70	81
2435, 2436	Veneer and plywood	37	82	71, 72	83
2435	Hardwood veneer and plywood	38	84	73, 74	85
2436	Softwood veneer and plywood	39	86	75, 76	87
251	Household furniture	40	88	77, 78	89
2511, 2517	Wood household furniture	41	90	79, 80	91
2512	Upholstered household furniture	42	92	81, 82	93
2514	Metal household furniture	43	94	83, 84	95
2515	Mattresses and bedsprings	44	96	85, 86	97
252	Office furniture	45	98	87, 88	99
2521	Wood office furniture	46	100	89, 90	101
2522	Metal office furniture	47	102	91, 92	103
2611, 21, 31, 61	Paper, paperboard, and pulp mills	48	104	93, 94	105
2643	Paper and plastic bags	49	106	95, 96	107
2651	Folding paperboard boxes	50	108	97, 98	109
2653	Corrugated and solid fiber boxes	51	110	99, 100	111
2823, 24	Synthetic fibers	52	112	101, 102	113
2834	Pharmaceutical preparations	53	114	103, 104	115
2841	Soaps and detergents	54	116	105, 106	117
2844	Cosmetics and other toiletries	55	118	107, 108	119
2851	Paints and allied products	56	120	109, 110	121
2911	Petroleum refining	57	122	111, 112	123
3011	Tires and inner tubes	58	124	113, 114	125
3079	Miscellaneous plastics products	59	126	115, 116	127
314	Footwear	60	128	117, 118	129
3221	Glass containers	61	130	119, 120	131
3241	Hydraulic cement	62	132	121, 122	133
325	Structural clay products	63	134	123, 124	135
3251, 53, 59	Clay construction products	64	136	125, 126	137

Indexes of output per employee hour and related data—Continued

SIC code	Industry	Chart	Page	Table	Page
Manufacturing—Continued					
3251	Brick and structural clay tile	65	138	127, 128	139
3253	Ceramic wall and floor tile	66	140	129, 130	141
3255	Clay refractories	67	142	131, 132	143
3271, 72	Concrete products	68	144	133, 134	145
3273	Ready-mixed concrete	69	146	135	147
331	Steel	70	148	136, 137	149
3321	Gray iron foundries	71	150	138, 139	151
3324, 25	Steel foundries	72	152	140, 141	153
3331, 32, 33	Primary copper, lead, and zinc	73	154	142, 143	155
3331	Primary copper	74	156	144, 145	157
3334	Primary aluminum	75	158	146, 147	159
3351	Copper rolling and drawing	76	160	148, 149	161
3353, 54, 55	Aluminum rolling and drawing	77	162	150, 151	163
3411	Metal cans	78	164	152, 153	165
3423	Hand and edge tools	79	166	154, 155	167
3441	Fabricated structural metal	80	168	156, 157	169
3494	Valves and pipe fittings	81	170	158, 159	171
3498	Fabricated pipe and fittings	82	172	160, 161	173
352	Farm and garden machinery	83	174	162, 163	175
3523	Farm machinery and equipment	84	176	164, 165	177
3524	Lawn and garden equipment	85	178	166, 167	179
3531	Construction machinery and equipment	86	180	168, 169	181
3541, 42	Machine tools	87	182	170, 171	183
3541	Metal cutting machine tools	88	184	172, 173	185
3542	Metal forming machine tools	89	186	174, 175	187
3561, 63	Pumps and compressors	90	188	176, 177	189
3561	Pumps and pumping equipment	91	190	178, 179	191
3563	Air and gas compressors	92	192	180, 181	193
3562	Ball and roller bearings	93	194	182, 183	195
3612	Transformers	94	196	184, 185	197
3613	Switchgear and switchboard apparatus	95	198	186, 187	199
3621	Motors and generators	96	200	188, 189	201
3631, 32, 33, 39	Major household appliances	97	202	190, 191	203
3631	Household cooking equipment	98	204	192, 193	205
3632	Household refrigerators and freezers	99	206	194, 195	207
3633	Household laundry equipment	100	208	196, 197	209
3639	Household appliances, not elsewhere classified	101	210	198, 199	211
3641	Electric lamps	102	212	200, 201	213
3645, 46, 47, 48	Lighting fixtures	103	214	202, 203	215
3651	Radio and television receiving sets	104	216	204, 205	217
371	Motor vehicles and equipment	105	218	206, 207	219
3825	Instruments to measure electricity	106	220	208, 209	221
Other					
401	Railroad transportation, revenue traffic	107	222	210, 211	223
401	Railroad transportation, car-miles	108	224	212, 213	225
4111, 4131, 414 parts	Bus carriers, class I	109	226	214	227
4213 part	Intercity trucking	110	228	215	229
4213 part	Intercity trucking, general freight	111	230	216	231
4511, 4521 part	Air transportation	112	232	217	233
4612, 13	Petroleum pipelines	113	234	218, 219	235
4811	Telephone communications	114	236	220	237
491, 492, 493	Gas and electric utilities	115	238	221, 222	239
491, 493 part	Electric utilities	116	240	223	241
492, 493 part	Gas utilities	117	242	224	243
54	Retail food stores	118	244	225	245
5511	Franchised new car dealers	119	246	226	247
5541	Gasoline service stations	120	248	227	249
56	Apparel and accessory stores	121	250	228	251
5611	Men's and boys' clothing stores	122	252	229	253
5621	Women's ready-to-wear stores	123	254	230	255
5651	Family clothing stores	124	256	231	257
5661	Shoe stores	125	258	232	259
58	Eating and drinking places	126	260	233	261
5912	Drug and proprietary stores	127	262	234	263
602	Commercial banking	128	264	235	265
7011	Hotels, motels, and tourist courts	129	266	236	267
721	Laundry and cleaning services	130	268	237	269

Chart 2. Iron mining, crude ore (SIC 1011): Output per hour and related data, 1967-82

(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, 1954-82
(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	116.8	107.2	158.3	118.0	110.3	151.2
1979	125.5	115.4	168.2	125.7	118.5	154.8
1980	129.0	123.6	147.5	119.7	117.0	128.4
1981	139.0	132.1	164.0	131.1	127.6	143.3
1982 ³	116.0	119.8	106.5	109.1	115.6	93.1
Average annual percent change:						
1947-82	(²)	4.2	(²)	3.8	4.3	1.5
1977-82	3.8	4.7	.8	2.0	3.3	-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 Data not available.

³ Preliminary.

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

differs 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, 1954-82
(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	126.7	138.1	93.5	125.4	134.2	97.9
1979	161.5	128.7	139.9	96.0	128.5	136.3	104.3
1980	133.9	103.8	108.3	90.8	111.9	114.4	104.3
1981	143.3	103.1	108.5	87.4	109.3	112.3	100.0
1982 ²	67.3	58.0	56.2	63.2	61.7	58.2	72.3
Average annual percent change:							
1947-82	1.8	(¹)	-2.3	(¹)	-2.0	-2.4	.3
1977-82	-6.3	-9.7	-10.4	-7.0	-8.1	-9.3	-4.4

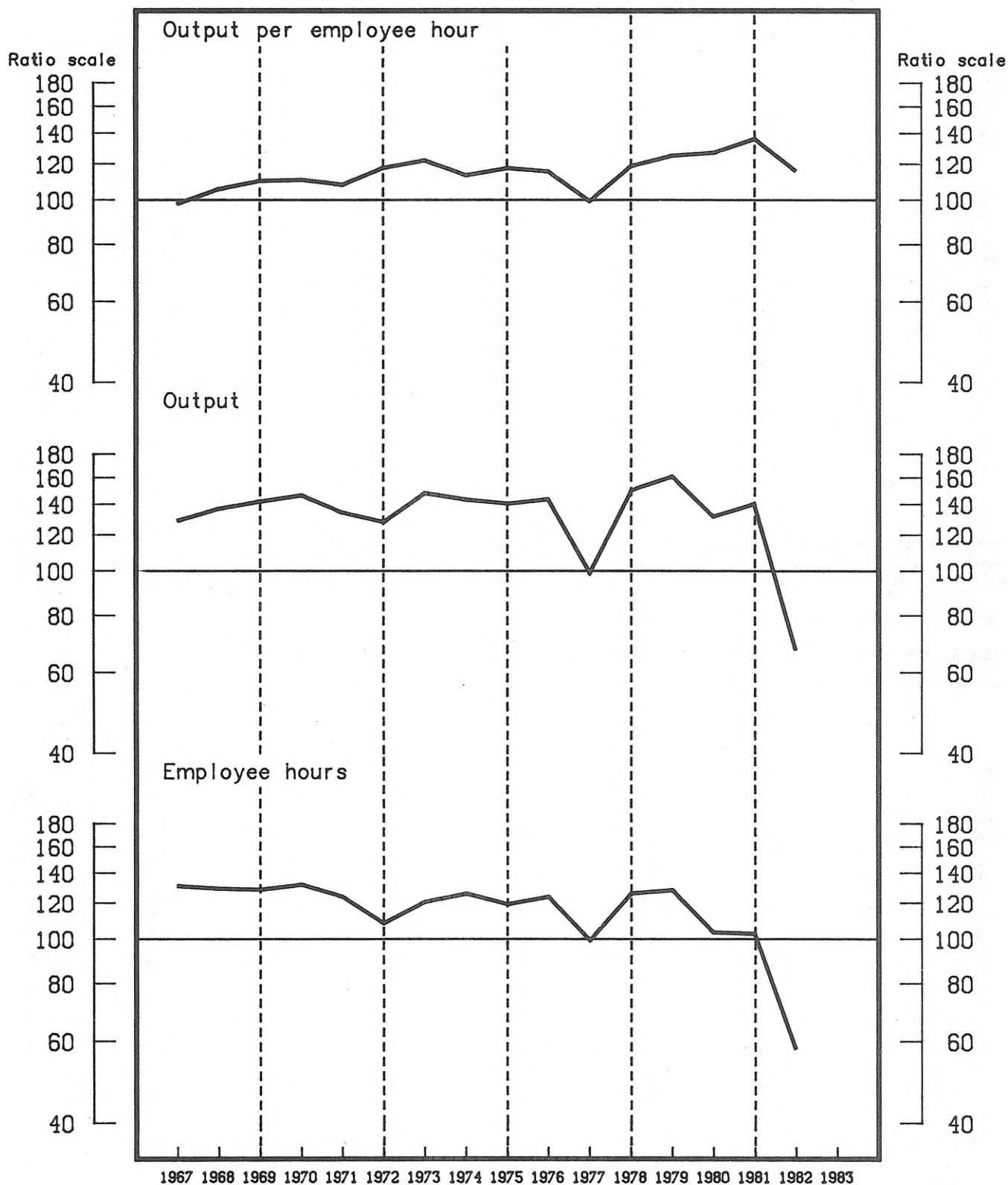
¹ Data not available.

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, 1967-82
(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, 1954-82
(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	158.6	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	119.2	109.3	161.5	120.4	112.5	154.2
1979	125.6	115.6	168.4	125.8	118.6	155.0
1980	127.5	122.2	145.7	118.2	115.6	126.8
1981	136.8	130.0	161.3	129.0	125.6	141.0
1982 ³	116.4	120.1	106.8	109.4	116.0	93.4
Average annual percent change:						
1947-82	(²)	3.0	(²)	2.6	3.1	.3
1977-82	3.5	4.4	.5	1.7	3.0	-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 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, 1954-82
(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	126.7	138.1	93.5	125.4	134.2	97.9
1979	161.7	128.7	139.9	96.0	128.5	136.3	104.3
1980	132.3	103.8	108.3	90.8	111.9	114.4	104.3
1981	141.0	103.1	108.5	87.4	109.3	112.3	100.0
1982 ²	67.5	58.0	56.2	63.2	61.7	58.2	72.3
Average annual percent change:							
1947-82 .....	.6	(¹)	-2.3	(¹)	-2.0	-2.4	.3
1977-82	-6.6	-9.7	-10.4	-7.0	-8.1	-9.3	-4.4

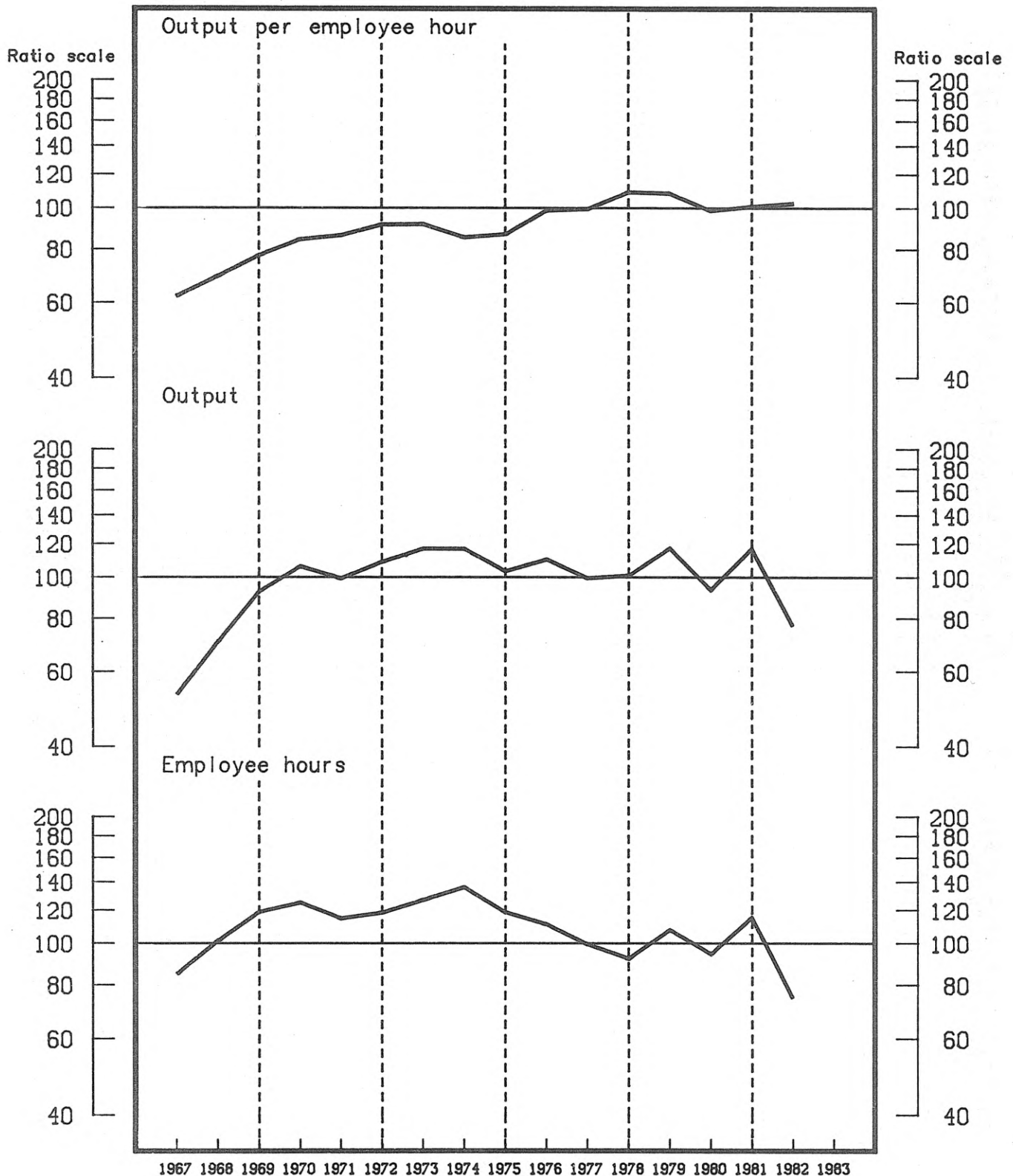
¹ Data not available.

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, 1967-82
(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, 1954-82
(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	114.2
1979	108.8	106.9	115.2	118.8	117.7	122.3
1980	99.1	98.5	100.6	105.3	104.7	107.4
1981	101.4	100.5	104.4	109.8	108.3	114.7
1982 ³	103.1	109.6	86.7	106.0	110.0	95.1
Average annual percent change:						
1947-82	(²)	3.9	(²)	3.1	3.6	.7
1977-82	-5	.4	-2.9	.2	.6	-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 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 7. Copper mining, crude ore (SIC 1021): Indexes of output, employee hours, and employees, 1954-82
(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	88.8
1979	117.7	108.2	110.1	102.2	99.1	100.0	96.2
1980	94.0	94.9	95.4	93.4	89.3	89.8	87.5
1981	117.6	116.0	117.0	112.6	107.1	108.6	102.5
1982 ³	77.3	75.0	70.5	89.2	72.9	70.3	81.3
Average annual percent change:							
1947-82	3.9	(²)	(⁴)	(²)	.8	.3	3.2
1977-82	-3.0	-2.5	-3.4	-1	-3.2	-3.6	-2.0

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

² Data not available.

³ Preliminary.

⁴ Less than .05 percent.

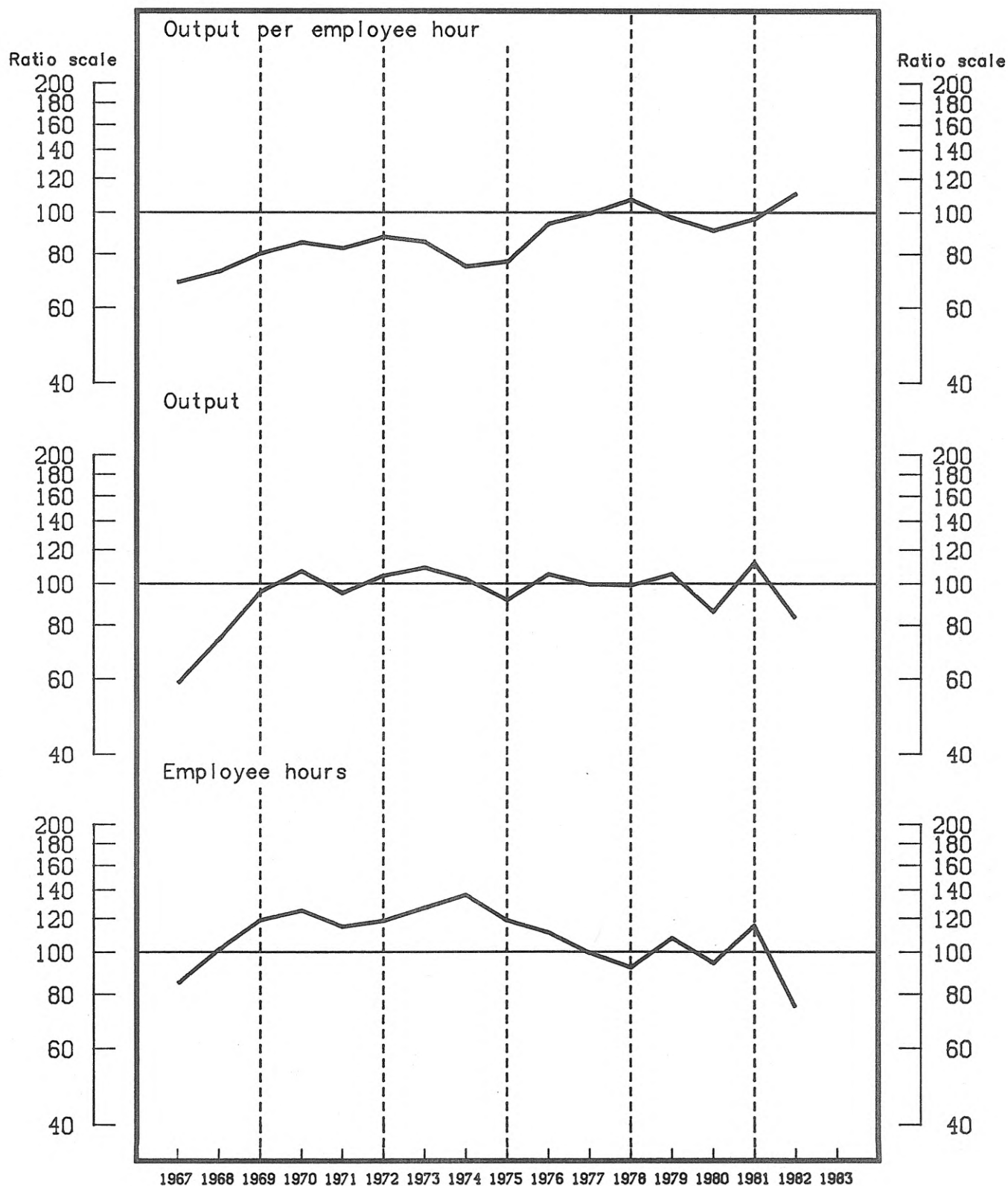
NOTE: Because of periodic revisions in source data, the measures in this table may

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 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, 1967-82

(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, 1954-82
(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	112.0
1979	97.8	96.1	103.5	106.8	105.8	110.0
1980	91.3	90.8	92.7	97.0	96.4	99.0
1981	97.2	96.3	100.1	105.2	103.8	110.0
1982 ³	111.3	118.4	93.6	114.5	118.8	102.7
Average annual percent change:						
1947-82	(²)	2.4	(²)	1.5	2.0	-.8
1977-82 .....	.5	1.3	-2.0	1.2	1.6	-.1

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

² 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, 1954-82
(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	88.8
1979	105.8	106.2	110.1	102.2	99.1	100.0	96.2
1980	86.6	94.9	95.4	93.4	89.3	89.8	87.5
1981	112.7	116.0	117.0	112.6	107.1	108.6	102.5
1982 ³	83.5	75.0	70.5	89.2	72.9	70.3	81.3
Average annual percent change:							
1947-82	2.4	(²)	(⁴)	(²)	.8	.3	3.2
1977-82	-2.1	-2.5	-3.4	-.1	-3.2	-3.6	-2.0

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

² Data not available.

³ Preliminary.

⁴ Less than .05 percent.

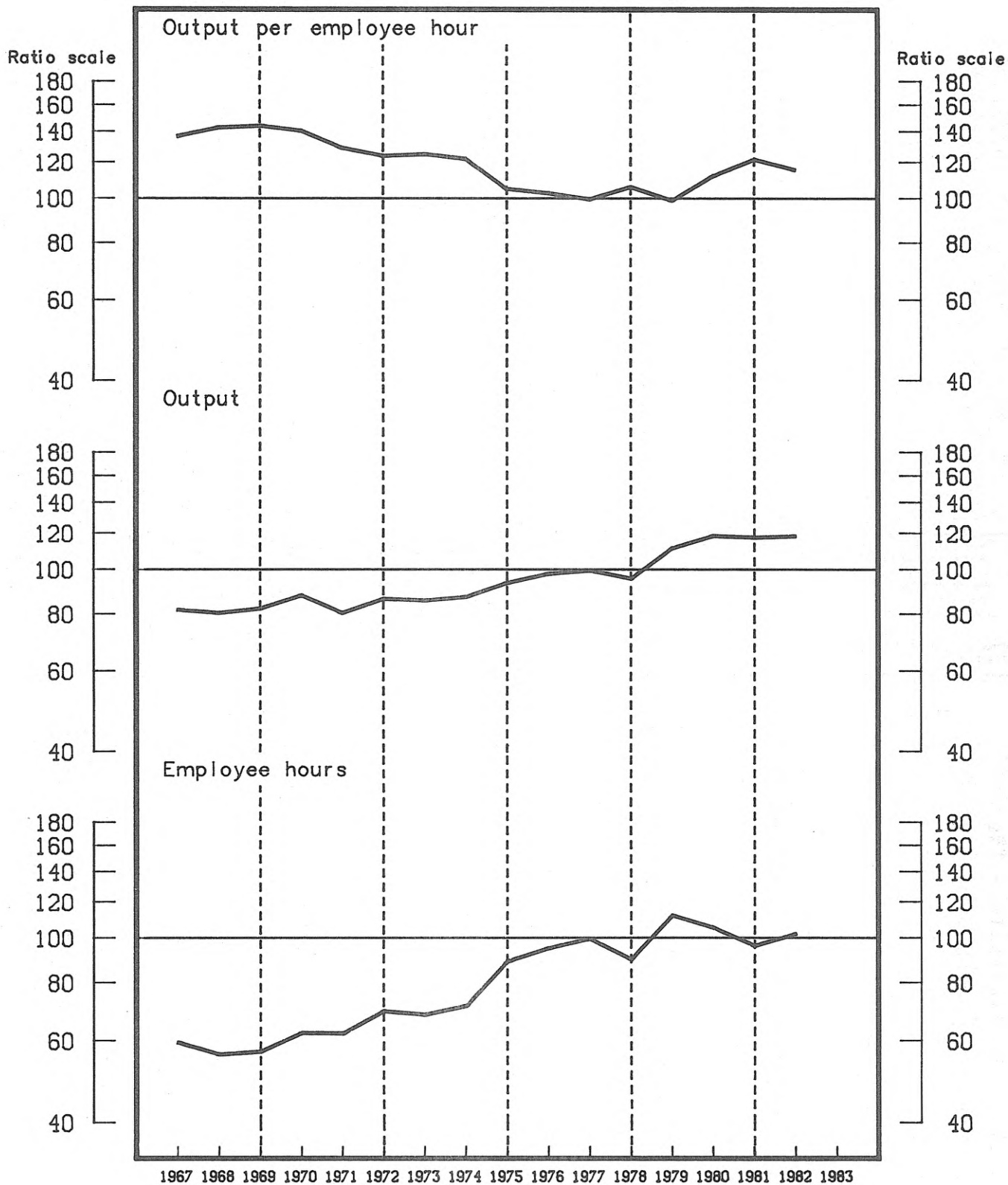
NOTE: Because of periodic revisions in source data, the measures in this table may

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 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, 1967-82

(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, 1954-82
(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	112.5	115.3	98.9	108.8	112.1	93.2
1981	122.2	125.6	105.9	118.4	121.9	100.9
1982 ³	115.9	120.7	94.5	111.1	115.8	90.1
Average annual percent change:						
1947-82	(²)	3.1	(²)	3.2	3.7	-1.1
1977-82	3.7	4.3	.7	3.0	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 Data not available.

³ Preliminary.

⁴ 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 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, 1954-82
(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	118.9	105.7	103.1	120.2	109.3	106.1	127.6
1981	117.9	96.5	93.9	111.3	99.6	96.7	116.8
1982 ²	118.8	102.5	98.4	125.7	106.9	102.6	131.8
Average annual percent change:							
1947-82 .....	.9	(¹)	-2.1	(¹)	-2.2	-2.6	2.0
1977-82	4.5	.8	.2	3.8	1.4	.8	4.5

¹ Data not available.

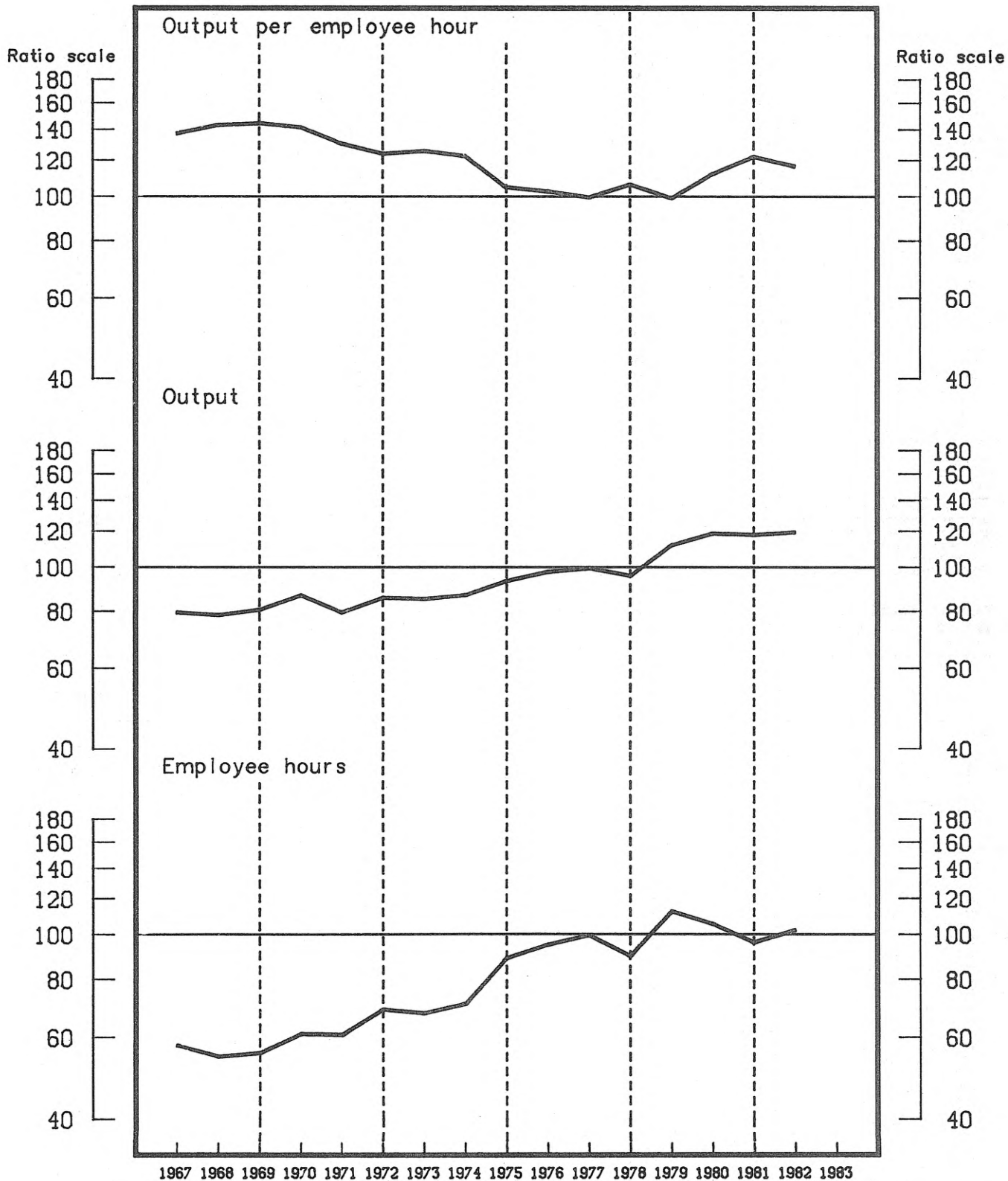
² Preliminary.

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 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, 1967-82

(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, 1954-82
(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	112.6	115.5	98.8	108.9	112.1	93.0
1981	122.7	126.2	106.2	118.9	122.6	101.2
1982 ³	116.9	121.8	94.9	112.1	117.0	90.5
Average annual percent change:						
1947-82	(²)	3.1	(²)	3.1	3.6	-1.3
1977-82	3.9	4.5	.7	3.2	3.8	.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 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, 1954-82
(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	69.2	69.8	85.5	94.3	94.8	91.5
1976	98.2	95.3	95.6	93.8	99.8	99.9	99.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	96.2	90.2	87.6	104.4	93.1	90.0	110.6
1979	112.3	112.8	110.7	124.6	115.2	112.5	130.4
1980	119.1	105.8	103.1	120.5	109.4	106.2	128.0
1981	118.4	96.5	93.8	111.5	99.6	96.6	117.0
1982 ²	119.9	102.6	98.4	126.3	107.0	102.5	132.5
Average annual percent change:							
1947-82	1.5	(¹)	-1.6	(¹)	-1.6	-2.1	2.8
1977-82	4.6	.8	.2	3.9	1.4	.8	4.5

¹ Data not available.

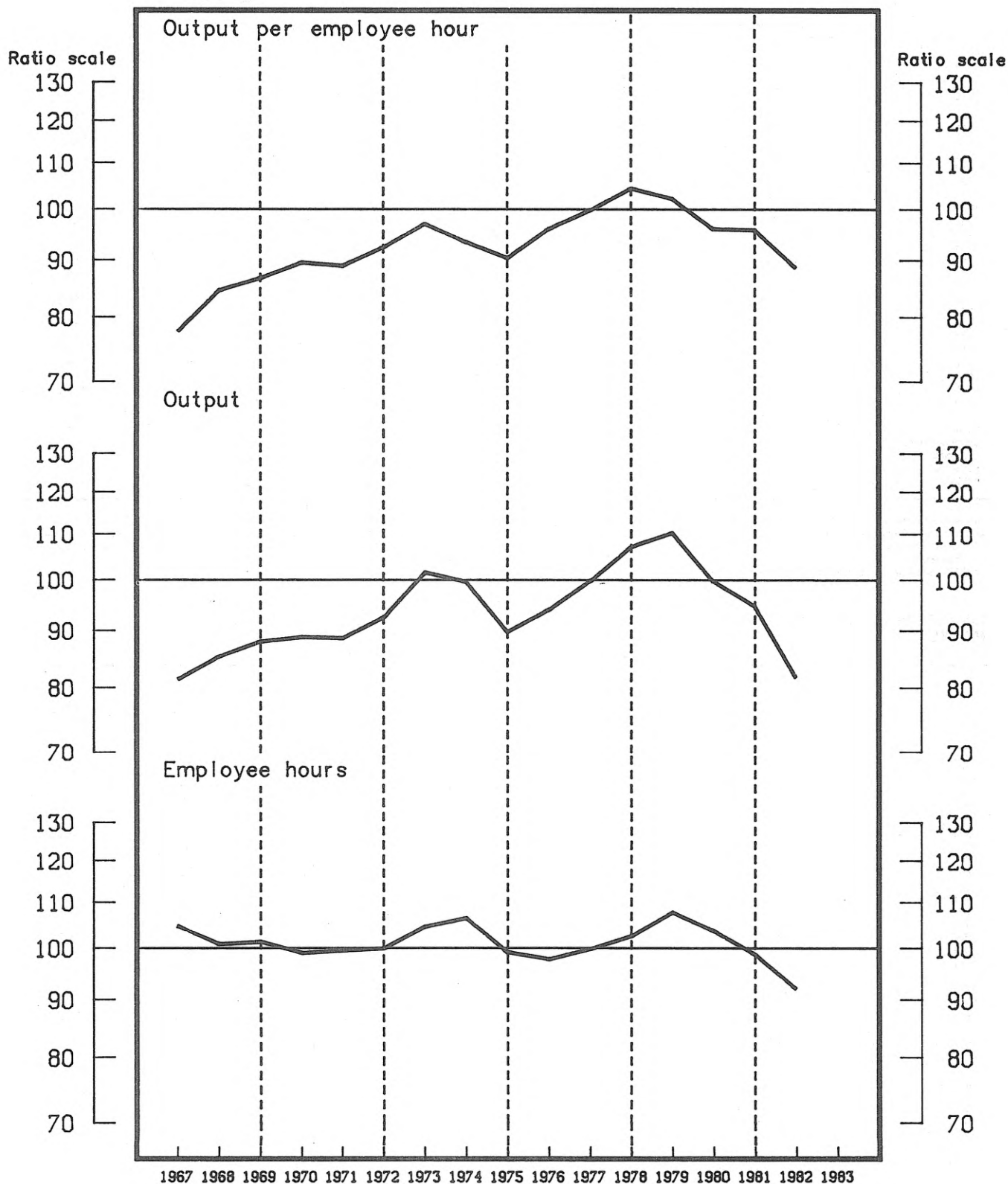
² Preliminary.

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 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, 1967-82

(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, 1954-82
(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	104.6	104.2	106.0	105.1	104.7	106.5
1979	102.4	102.1	103.3	103.5	103.1	104.8
1980	96.2	97.7	91.1	94.3	95.5	90.2
1981	96.0	99.4	84.5	92.8	95.9	82.6
1982 ³	88.8	93.3	75.1	85.4	89.3	73.4
Average annual percent change:						
1954-82	(²)	2.7	(²)	2.3	2.7	.7
1977-82	-2.6	-1.5	-6.2	-3.5	-2.6	-6.8

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

² 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, 1954-82
(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	102.7	103.1	101.3	102.2	102.6	100.8
1979	110.5	107.9	108.2	107.0	106.8	107.2	105.4
1980	99.9	103.8	102.2	109.7	105.9	104.6	110.7
1981	94.9	98.9	95.5	112.3	102.3	99.0	114.9
1982 ²	81.9	92.2	87.8	109.0	95.9	91.7	111.6
Average annual percent change:							
1954-82	2.5	(¹)	-.2	(¹)	.1	-.2	1.7
1977-82	-4.1	-1.6	-2.6	2.2	-6	-1.6	2.9

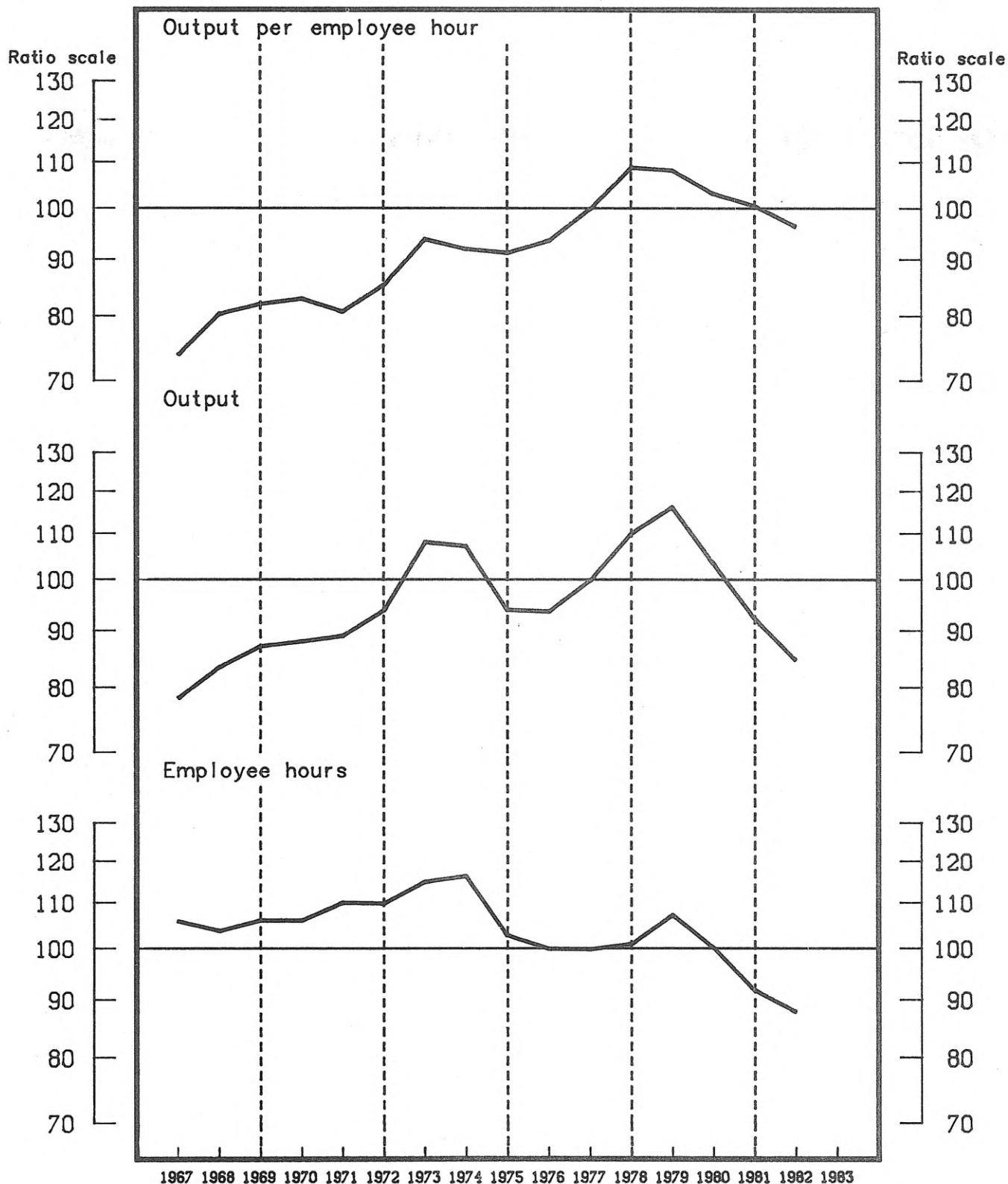
¹ Data not available.

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, 1967-82
(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, 1958-82
(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	109.0	107.8	114.8	110.5	109.5	115.4
1979	108.4	106.9	116.3	111.3	110.0	118.2
1980	103.3	103.1	104.5	102.6	102.4	103.6
1981	100.7	103.0	90.6	97.5	99.6	88.5
1982 ²	96.5	101.2	78.6	93.6	98.0	76.8
Average annual percent change:						
1958-82	3.0	3.3	2.0	2.9	3.1	1.9
1977-82	-1.3	-3	-5.6	-2.2	-1.3	-6.2

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

² Preliminary.

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

differ from those previously published.

SOURCE: Output based on data from the Bureau of 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, 1958-82
(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	101.1	102.2	96.0	99.7	100.6	95.5
1979	116.4	107.4	108.9	100.1	104.6	105.8	98.5
1980	103.6	100.3	100.5	99.1	101.0	101.2	100.0
1981	92.5	91.9	89.8	102.1	94.9	92.9	104.5
1982 ¹	84.8	87.9	83.8	107.9	90.6	86.5	110.4
Average annual percent change:							
1958-82	2.6	-4	-6	.6	-3	-5	.7
1977-82	-4.1	-2.8	-3.8	1.6	-1.9	-2.8	2.3

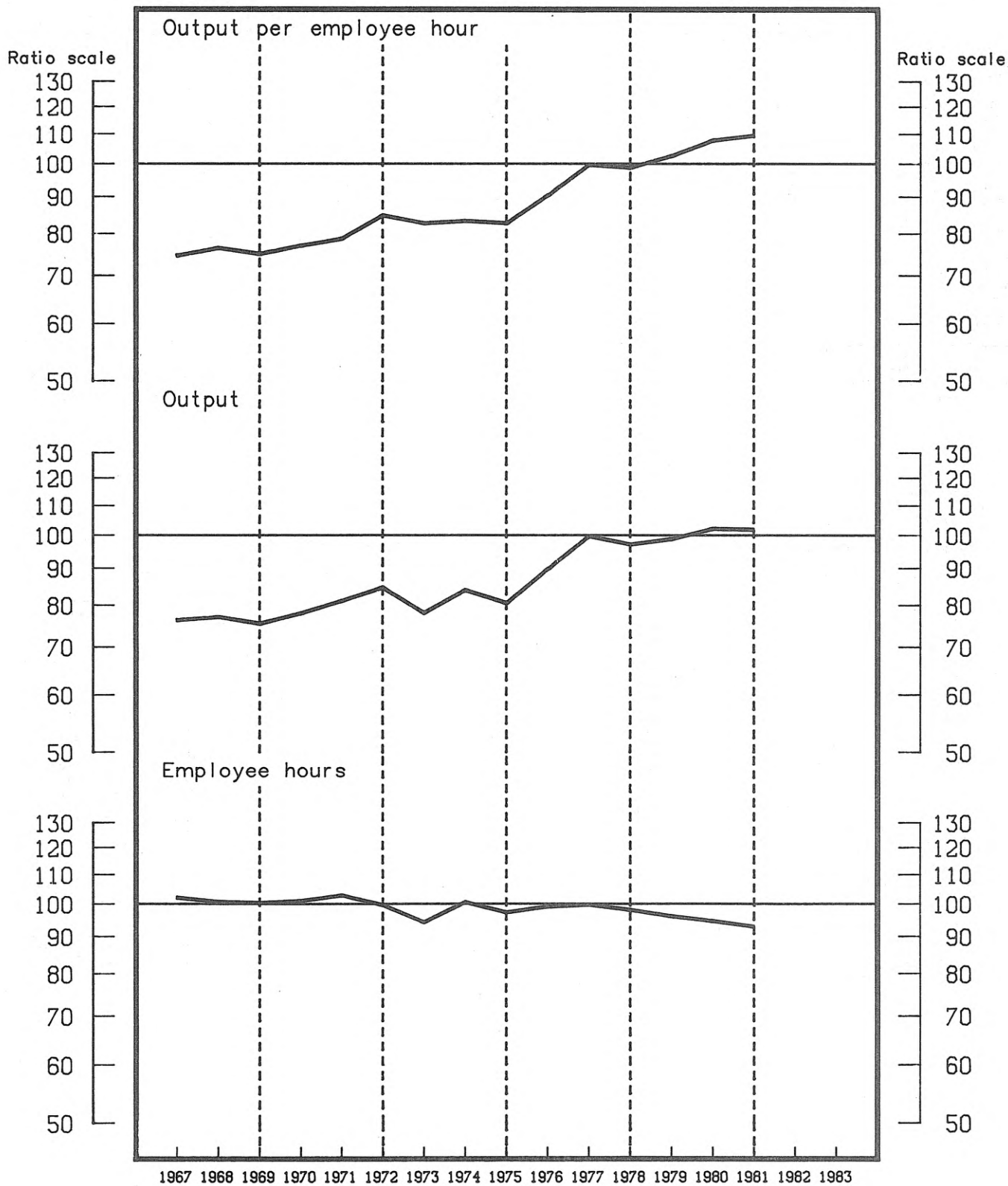
¹ Preliminary.

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

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

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

Chart 10. Red meat products (SIC 2011, 2013): Output per hour and related data, 1967-81
(1977 = 100)



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

Table 18. Red meat products (SIC 2011, 2013): Indexes of output per employee hour and output per employee, 1967-81 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1967	74.8	76.5	69.0	76.3	78.4	69.7
1968	76.6	76.6	76.5	76.8	78.5	71.2
1969	75.2	75.6	73.8	75.5	77.2	69.8
1970	77.2	76.9	78.4	78.0	78.8	75.3
1971	78.9	77.6	84.1	80.1	79.5	82.4
1972	85.0	84.1	88.7	85.3	84.5	88.6
1973	82.9	83.1	81.8	82.6	82.7	82.1
1974	83.5	83.6	83.4	84.6	84.8	83.9
1975	82.9	83.5	80.7	83.0	83.5	81.1
1976	90.6	90.9	89.6	91.6	92.0	89.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.1	99.0	99.7	98.6	98.2	99.7
1979	102.9	102.1	106.2	103.1	102.4	106.2
1980	108.1	107.1	112.5	107.4	106.0	112.5
1981 ²	109.8	108.1	116.8	109.3	107.4	116.8
Average annual percent change:						
1967-81	3.0	2.8	3.4	2.8	2.6	3.7
1977-81	2.8	2.4	4.4	2.7	2.2	4.4

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

² Preliminary.

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

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

Table 19. Red meat products (SIC 2011, 2013): Indexes of output, employee hours, and employees, 1967-81 (1977=100)

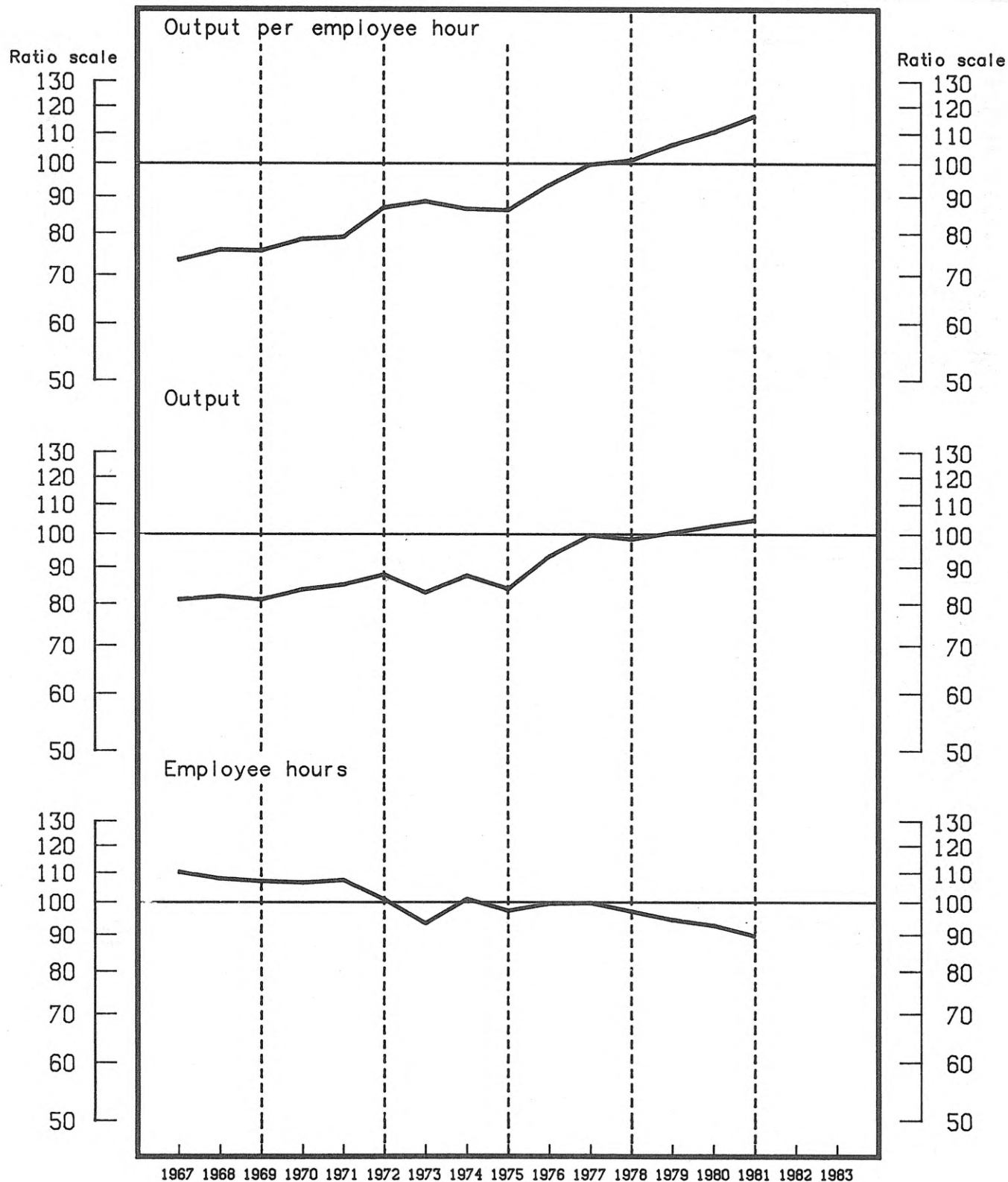
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1967	76.5	102.3	100.0	110.8	100.2	97.6	109.7
1968	77.3	100.9	100.9	101.1	100.7	98.5	108.6
1969	75.7	100.6	100.1	102.6	100.2	98.0	108.4
1970	78.2	101.3	101.7	99.8	100.2	99.3	103.8
1971	81.3	103.1	104.8	96.7	101.5	102.3	98.7
1972	84.9	99.9	101.0	95.7	99.5	100.5	95.8
1973	78.3	94.5	94.2	95.7	94.8	94.7	95.4
1974	84.2	100.8	100.7	101.0	99.5	99.3	100.4
1975	80.8	97.5	96.8	100.1	97.4	96.8	99.6
1976	90.1	99.4	99.1	100.6	98.4	97.9	100.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	97.4	98.3	98.4	97.7	98.8	99.2	97.7
1979	99.1	96.3	97.1	93.3	96.1	96.8	93.3
1980	102.5	94.8	95.7	91.1	95.4	96.7	91.1
1981 ¹	102.2	93.1	94.5	87.5	93.5	95.2	87.5
Average annual percent change:							
1967-81	2.4	-5	-4	-9	-4	-2	-1.2
1977-81	1.0	-1.8	-1.4	-3.3	-1.7	-1.2	-3.3

¹ Preliminary.

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

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

Chart 11. Meat packing plants (SIC 2011): Output per hour and related data, 1967-81
(1977 = 100)



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

Table 20. Meat packing plants (SIC 2111): Indexes of output per employee hour and output per employee, 1967-81
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1967	73.6	76.1	64.4	74.6	77.4	65.0
1968	76.0	77.0	71.7	76.0	78.7	66.8
1969	75.8	77.1	70.7	75.8	78.3	66.9
1970	78.7	78.9	77.4	79.5	80.8	74.5
1971	79.2	78.0	84.5	80.8	80.3	82.8
1972	87.1	86.0	91.8	87.2	86.2	91.7
1973	88.8	88.8	88.5	88.3	88.1	88.8
1974	86.7	86.2	88.3	87.6	87.3	88.9
1975	86.4	86.4	86.4	85.9	85.7	86.8
1976	93.6	93.5	93.8	94.0	94.0	94.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	101.4	101.4	100.9	100.7	101.4
1979	106.5	105.8	110.2	106.5	105.8	110.2
1980	110.9	109.3	117.8	110.3	108.5	117.8
1981 ²	116.8	114.8	126.5	116.2	113.9	126.5
Average annual percent change:						
1967-81	3.3	3.1	4.2	3.2	2.8	4.5
1977-81	4.1	3.6	6.4	4.0	3.4	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, the Bureau of Labor Statistics, and the U.S. Department of Agriculture.

Table 21. Meat packing plants (SIC 2111): Indexes of output, employee hours, and employees, 1967-81
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1967	81.3	110.5	106.8	126.3	109.0	105.1	125.1
1968	82.2	108.2	106.7	114.6	108.1	104.5	123.0
1969	81.3	107.3	105.5	115.0	107.2	103.8	121.5
1970	84.0	106.8	106.5	108.5	105.7	104.0	112.8
1971	85.3	107.7	109.3	101.0	105.6	106.2	103.0
1972	88.1	101.2	102.4	96.0	101.0	102.2	96.1
1973	83.2	93.7	93.7	94.0	94.2	94.4	93.7
1974	87.8	101.3	101.8	99.4	100.2	100.6	98.8
1975	84.2	97.5	97.5	97.4	98.0	98.2	97.0
1976	93.4	99.8	99.9	99.6	99.4	99.4	99.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.7	97.3	97.3	97.3	97.8	98.0	97.3
1979	100.9	94.7	95.4	91.6	94.7	95.4	91.6
1980	103.1	93.0	94.3	87.5	93.5	95.0	87.5
1981 ¹	105.0	89.9	91.5	83.0	90.4	92.2	83.0
Average annual percent change:							
1967-81	2.0	-1.3	-1.1	-2.1	-1.2	-0.8	-2.4
1977-81	1.4	-2.5	-2.1	-4.7	-2.4	-1.9	-4.7

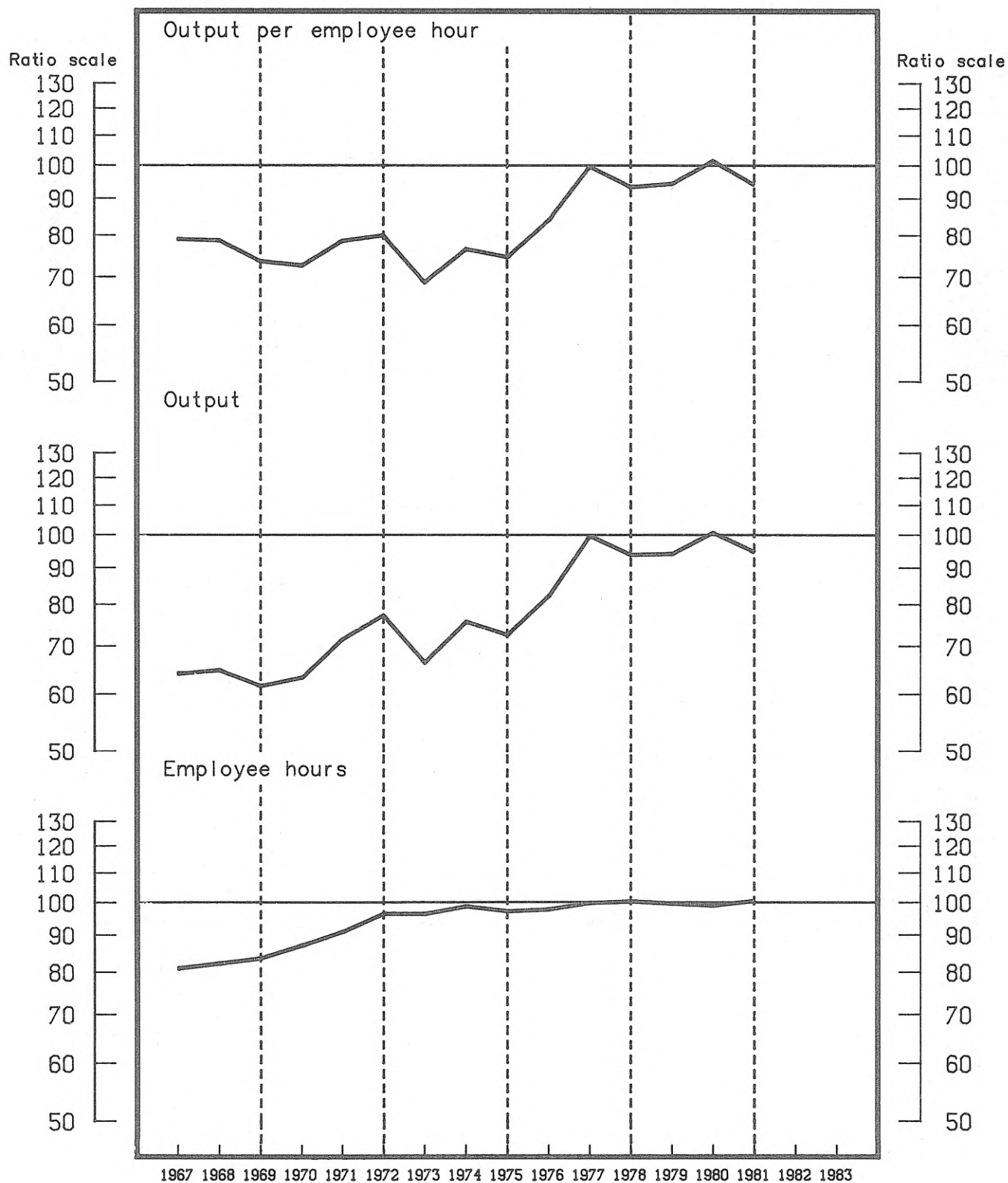
¹ Preliminary.

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

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

Chart 12. Sausages and other prepared meats (SIC 2013): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 22. Sausages and other prepared meats (SIC 2013): Indexes of output per employee hour and output per employee, 1967-81 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1967	79.2	80.1	76.9	81.5	83.1	77.8
1968	78.9	77.2	83.8	78.9	79.2	78.1
1969	73.8	72.9	76.5	74.4	75.1	72.5
1970	72.8	72.0	75.1	73.1	73.5	72.2
1971	78.8	78.2	80.4	78.6	78.4	78.8
1972	80.2	79.8	81.4	81.0	80.8	81.3
1973	69.1	69.7	67.6	69.3	69.8	67.8
1974	76.7	78.2	73.1	77.7	79.3	73.6
1975	74.8	77.0	69.6	75.8	78.4	69.9
1976	84.2	85.6	80.5	85.8	87.9	80.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	93.6	92.9	95.6	92.9	91.9	95.6
1979	94.6	93.4	98.0	95.0	93.8	98.0
1980	101.8	101.1	103.7	100.9	99.8	103.7
1981 ²	94.3	92.4	99.7	93.8	91.8	99.7
Average annual percent change:						
1967-81	2.1	2.1	2.2	2.0	1.8	2.5
1977-81	-.3	-.7	.8	-.5	-.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, employment, and hours based on data from the Bureau of the Census, the Bureau of Labor Statistics, and the U.S. Department of Agriculture.

Table 23. Sausages and other prepared meats (SIC 2013): Indexes of output, employee hours, and employees, 1967-81 (1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1967	64.3	81.2	80.3	83.6	78.9	77.4	82.7
1968	65.0	82.4	84.2	77.6	82.4	82.1	83.2
1969	61.8	83.7	84.8	80.8	83.1	82.3	85.3
1970	63.5	87.2	88.2	84.6	86.9	86.4	88.0
1971	71.8	91.1	91.8	89.3	91.4	91.6	91.1
1972	77.5	96.6	97.1	95.2	95.7	95.9	95.3
1973	66.7	96.5	95.7	98.7	96.3	95.5	98.4
1974	75.9	98.9	97.1	103.8	97.7	95.7	103.1
1975	72.8	97.3	94.6	104.6	96.0	92.9	104.2
1976	82.4	97.9	96.3	102.3	96.0	93.7	102.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	94.1	100.5	101.3	98.4	101.3	102.4	98.4
1979	94.4	99.8	101.1	96.3	99.4	100.6	96.3
1980	101.0	99.2	99.9	97.4	100.1	101.2	97.4
1981 ¹	95.0	100.7	102.8	95.3	101.3	103.5	95.3
Average annual percent change:							
1967-81	3.7	1.6	1.6	1.5	1.7	1.9	1.2
1977-81	-.3	(²)	.4	-1.1	.1	.6	-1.1

¹ Preliminary.

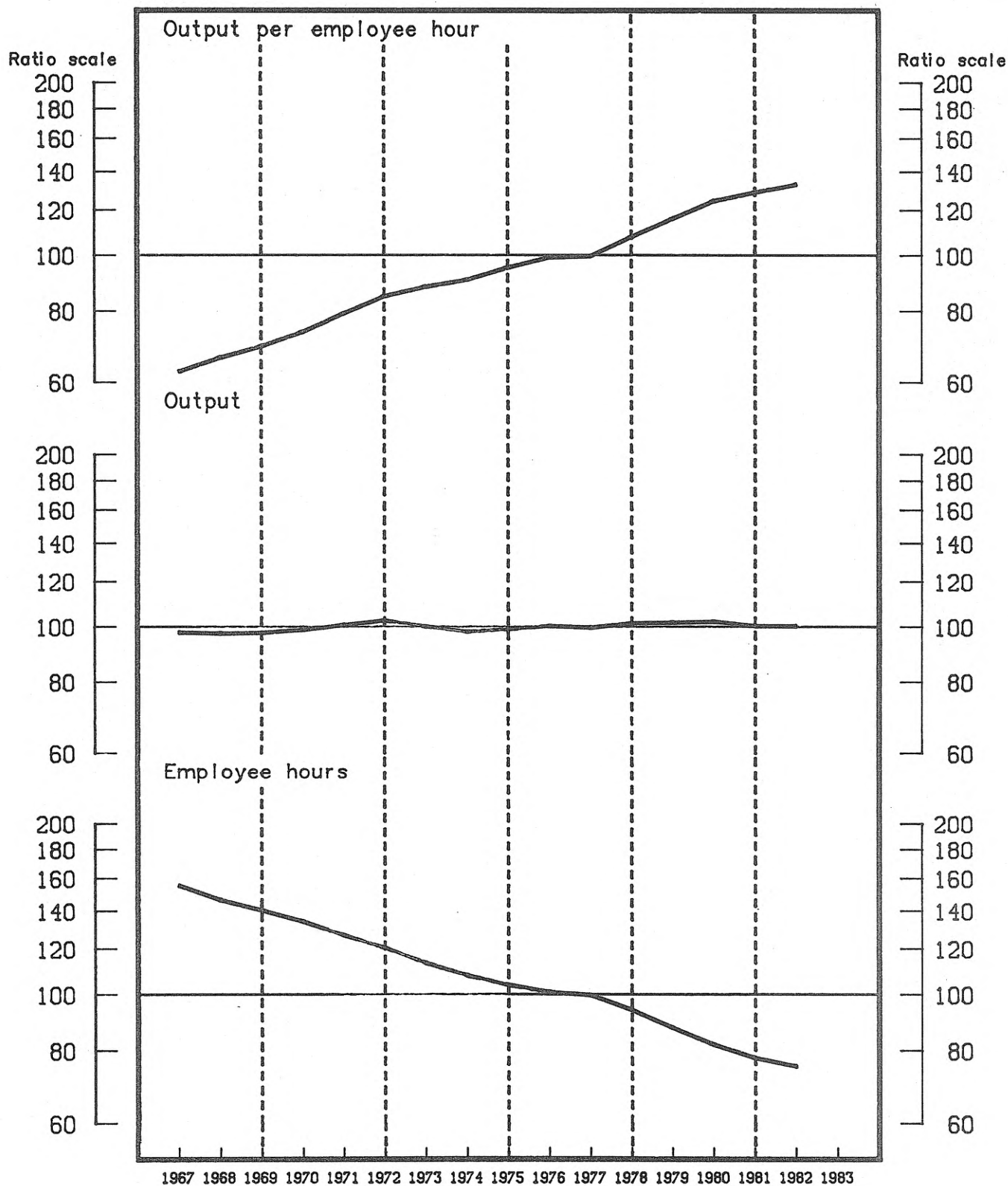
² Less than .05 percent.

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

may differ from those previously published.

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

Chart 13. Fluid milk (SIC 2026): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 24. Fluid milk (SIC 2026): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-82
(1977=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	48.5	48.4	89.8	185.0	185.6
1959	49.8	49.7	92.0	184.9	185.0
1960	50.9	50.8	93.3	183.2	183.8
1961	51.9	51.8	93.7	180.7	180.8
1962	54.2	53.8	95.3	175.8	177.3
1963	57.4	56.8	98.6	171.8	173.7
1964	58.6	57.9	100.0	170.7	172.6
1965	59.3	58.7	99.8	168.2	170.0
1966	61.0	60.3	98.5	161.5	163.4
1967	62.9	62.2	98.1	156.0	157.7
1968	66.5	64.4	97.7	147.0	151.7
1969	69.6	67.3	98.0	140.9	145.6
1970	73.7	71.3	99.2	134.6	139.1
1971	79.4	77.3	101.1	127.3	130.8
1972	85.1	83.7	102.9	120.9	122.9
1973	88.4	87.2	100.4	113.6	115.1
1974	90.9	89.7	98.3	108.1	109.6
1975	95.5	94.3	99.4	104.1	105.4
1976	99.5	98.1	100.6	101.1	102.5
1977	100.0	100.0	100.0	100.0	100.0
1978	108.0	106.6	101.8	94.3	95.5
1979	116.3	114.2	102.1	87.8	89.4
1980	124.8	123.0	102.5	82.1	83.3
1981	129.3	126.5	100.7	77.9	79.6
1982 ¹	133.4	130.5	100.6	75.4	77.1
Average annual percent change:					
1958-82	4.5	4.4	.4	-3.9	-3.9
1977-82	6.0	5.6	(²)	-5.7	-5.3

¹ Preliminary.

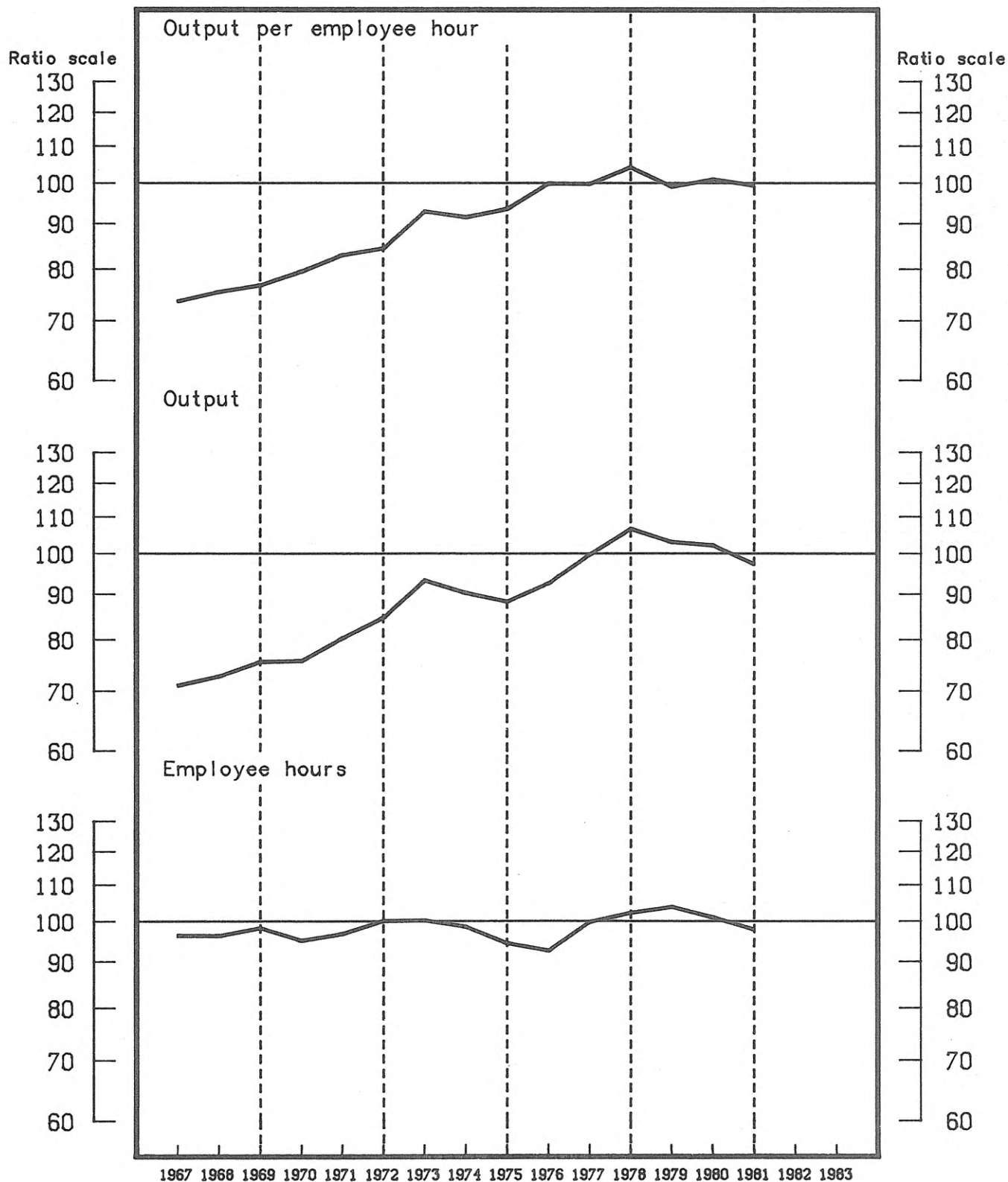
² Less than .05 percent.

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

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

Chart 14. Preserved fruits and vegetables (SIC 203): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 25. Preserved fruits and vegetables (SIC 203): Indexes of output per employee hour and output per employee, 1954-81
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
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	107.3	103.7	103.0	107.5
1979	99.3	99.6	97.9	99.4	99.6	98.4
1980	101.2	102.4	95.1	102.7	104.2	95.8
1981 ²	99.6	100.2	95.9	100.7	101.6	96.3
Average annual percent change:						
1947-81	2.8	2.9	2.1	2.8	3.0	1.9
1977-81	-4	-1	-2.0	(³)	.4	-1.9

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

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.

² Preliminary.
³ Less than .05 percent.

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

Table 26. Preserved fruits and vegetables (SIC 203): Indexes of output, employee hours, and employees, 1954-81
(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	99.6	103.1	103.8	99.4
1979	103.3	104.0	103.7	105.5	103.9	103.7	105.0
1980	102.4	101.2	100.0	107.7	99.7	98.3	106.9
1981 ¹	97.6	98.0	97.4	101.8	96.9	96.1	101.4
Average annual percent change:							
1947-81	3.6	.8	.6	1.5	.7	.6	1.7
1977-81	-9	-5	-8	1.1	-1.0	-1.3	1.0

¹ Preliminary.

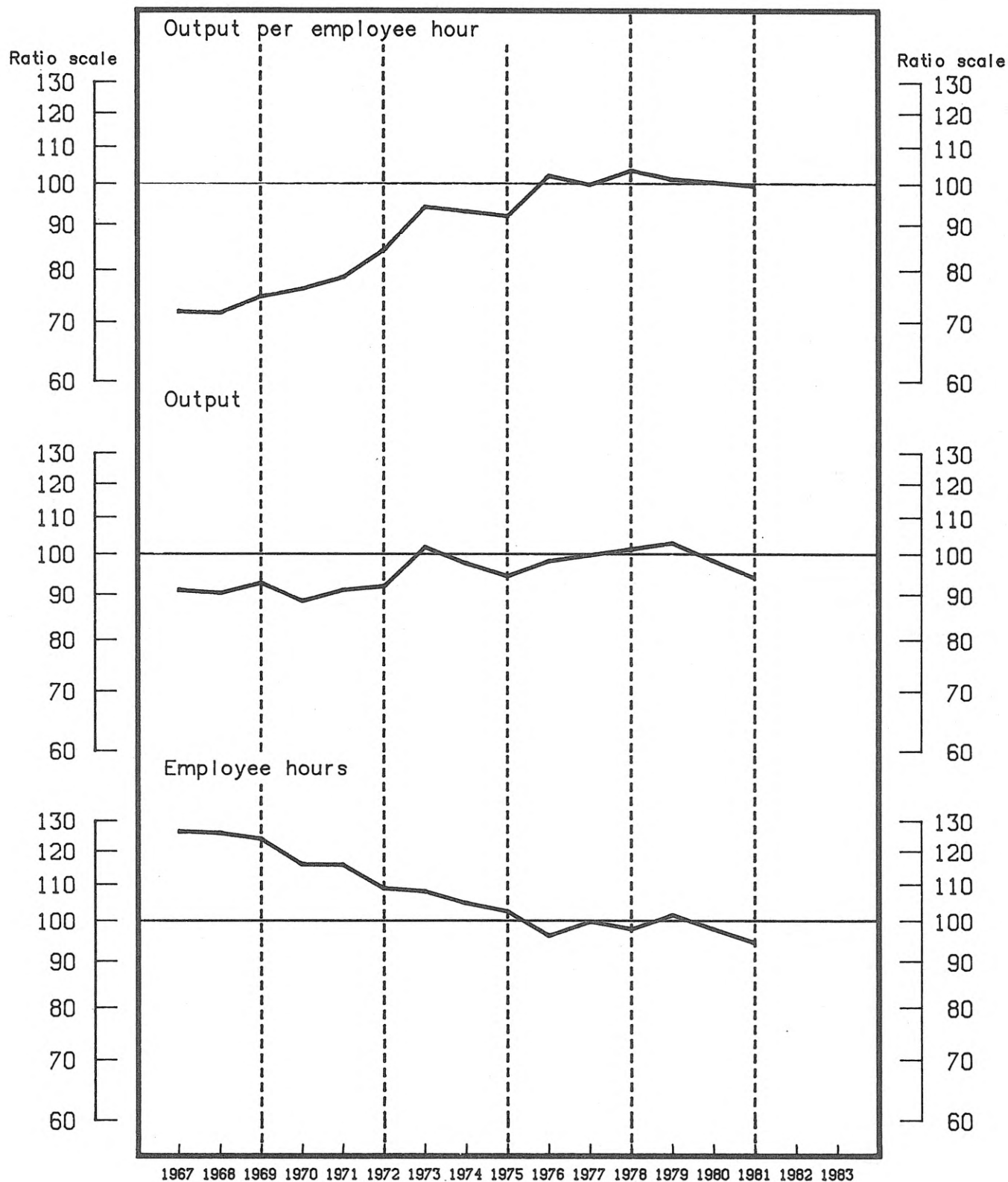
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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

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

Chart 15. Canned fruits and vegetables (SIC 2033): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 27. Canned fruits and vegetables (SIC 2033): Indexes of output per employee hour and output per employee, 1958-81
(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	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	106.2	101.5	100.9	105.8
1979	101.4	102.5	93.6	103.4	105.0	93.8
1980	100.6	103.1	85.4	102.1	104.8	85.7
1981 ²	99.7	100.4	94.3	99.6	100.4	94.3
Average annual percent change:						
1958-81	3.1	3.2	2.4	3.0	3.1	2.4
1977-81	-4	.1	-3.3	(³)	.5	-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.

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 28. Canned fruits and vegetables (SIC 2033): 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	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	95.7	100.1	100.7	96.0
1979	103.2	101.8	100.7	110.2	99.8	98.3	110.0
1980	98.6	98.0	95.6	115.5	96.6	94.1	115.0
1981 ¹	94.3	94.6	93.9	100.0	94.7	93.9	100.0
Average annual percent change:							
1958-81	1.5	-1.6	-1.7	-9	-1.5	-1.6	-9
1977-81	-1.5	-1.1	-1.5	1.9	-1.4	-1.9	1.8

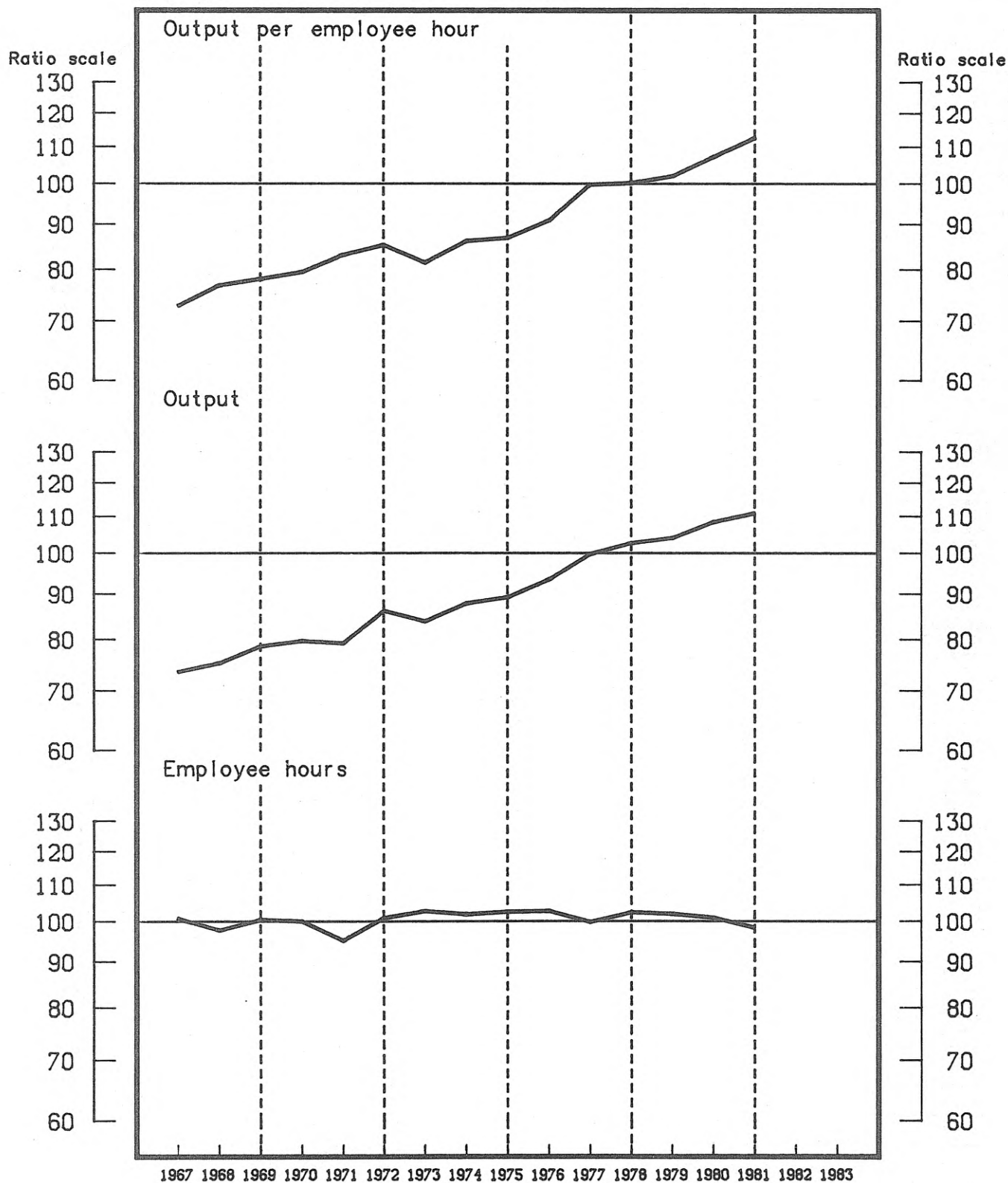
¹ Preliminary.

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

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

Chart 16. Grain mill products (SIC 204): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 29. Grain mill products (SIC 204): Indexes of output per employee hour and output per employee, 1963-81 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
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	102.2	101.5	104.3	103.1	102.4	104.6
1980	107.5	107.6	107.3	107.7	107.6	108.1
1981 ²	112.9	113.2	112.1	114.9	115.8	112.6
Average annual percent change:						
1963-81	3.2	3.2	3.1	3.0	2.9	3.2
1977-81	3.2	3.2	3.2	3.6	3.7	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.

differ from those previously published.

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

² Preliminary.

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

Table 30. Grain mill products (SIC 204): Indexes of output, employee hours, and employees, 1963-81 (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	104.1	102.8	102.3	104.2
1979	104.3	102.1	102.8	100.0	101.2	101.9	99.7
1980	108.7	101.1	101.0	101.3	100.9	101.0	100.6
1981 ¹	111.2	98.5	98.2	99.2	96.8	96.0	98.8
Average annual percent change:							
1963-81	3.2	(²)	(²)	.1	.2	.3	(²)
1977-81	2.7	-.4	-.5	-.4	-.8	-.9	-.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 the Census; Agricultural Marketing Service, U.S. Department of Agriculture; the Rice Millers' Association; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 17. Flour and other grain mill products (SIC 2041): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 31. Flour and other grain mill products (SIC 2041): Indexes of output per employee hour and output per employee, 1954-82
(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	101.5	100.2	106.0	102.7	101.2	106.9
1979	98.5	97.1	103.3	101.3	100.3	104.3
1980	99.8	98.6	104.0	103.2	102.6	105.0
1981	98.8	97.1	104.4	101.7	100.3	105.4
1982 ²	102.8	105.0	96.5	103.7	106.6	96.9
Average annual percent change:						
1947-82	3.6	3.8	3.3	3.5	3.7	3.1
1977-82 .....	.2	.5	-.6	.5	.9	-.6

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

² Preliminary.

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

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

Table 32. Flour and other grain mill products (SIC 2041): Indexes of output, employee hours, and employees, 1954-82
(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	97.9	99.2	93.8	96.8	98.2	93.0
1979	99.4	100.9	102.4	96.2	98.1	99.1	95.3
1980	102.6	102.8	104.1	98.7	99.4	100.0	97.7
1981	103.0	104.3	106.1	98.7	101.3	102.7	97.7
1982 ¹	103.7	100.9	98.8	107.5	100.0	97.3	107.0
Average annual percent change:							
1947-82 .....	.6	-2.9	-3.0	-2.5	-2.8	-2.9	-2.4
1977-82 .....	.9	.7	.5	1.6	.4	(²)	1.5

¹ Preliminary.

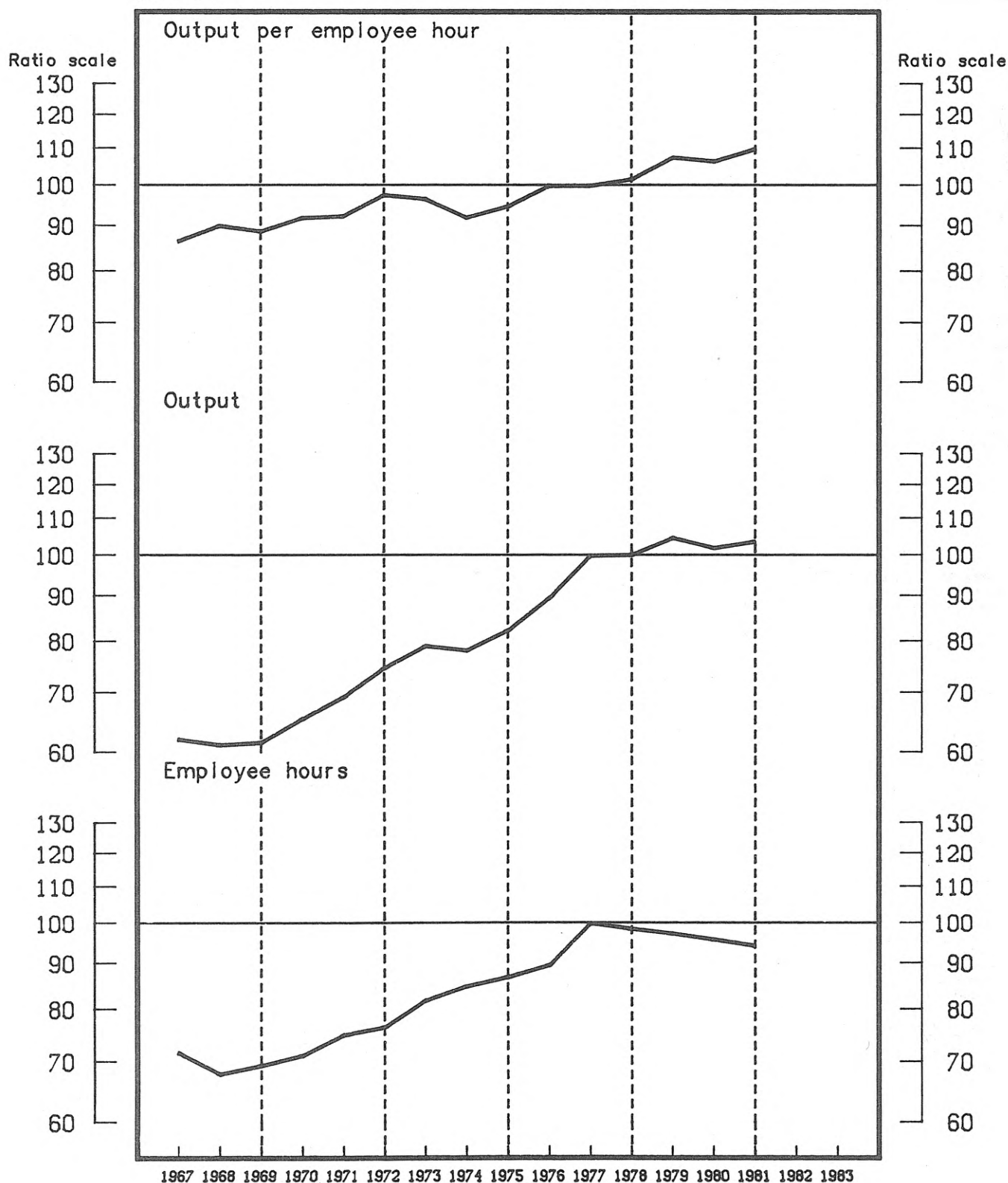
² Less than .05 percent.

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

may differ from those previously published.

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

Chart 18. Cereal breakfast foods (SIC 2043): Output per hour and related data, 1967-81
(1977 = 100)



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

Table 33. Cereal breakfast foods (SIC 2043): Indexes of output per employee hour and output per employee, 1963-81
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
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	101.9	100.2	99.0	98.8	100.2
1979	107.6	105.4	122.6	105.3	102.4	123.8
1980	106.5	104.5	119.4	105.2	102.7	120.6
1981 ²	110.0	108.2	121.4	109.0	106.8	122.6
Average annual percent change:						
1963-81	1.7	1.5	3.0	1.8	1.6	3.1
1977-81	2.4	1.8	5.8	2.4	1.7	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 34. Cereal breakfast foods (SIC 2043): Indexes of output, employee hours, and employees, 1963-81
(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	98.3	100.0	101.2	101.4	100.0
1979	104.7	97.3	99.3	85.4	99.4	102.2	84.6
1980	102.0	95.8	97.6	85.4	97.0	99.3	84.6
1981 ¹	103.7	94.3	95.8	85.4	95.1	97.1	84.6
Average annual percent change:							
1963-81	4.2	2.5	2.7	1.2	2.3	2.6	1.1
1977-81 .....	.9	-1.4	-9	-4.6	-1.4	-8	-4.9

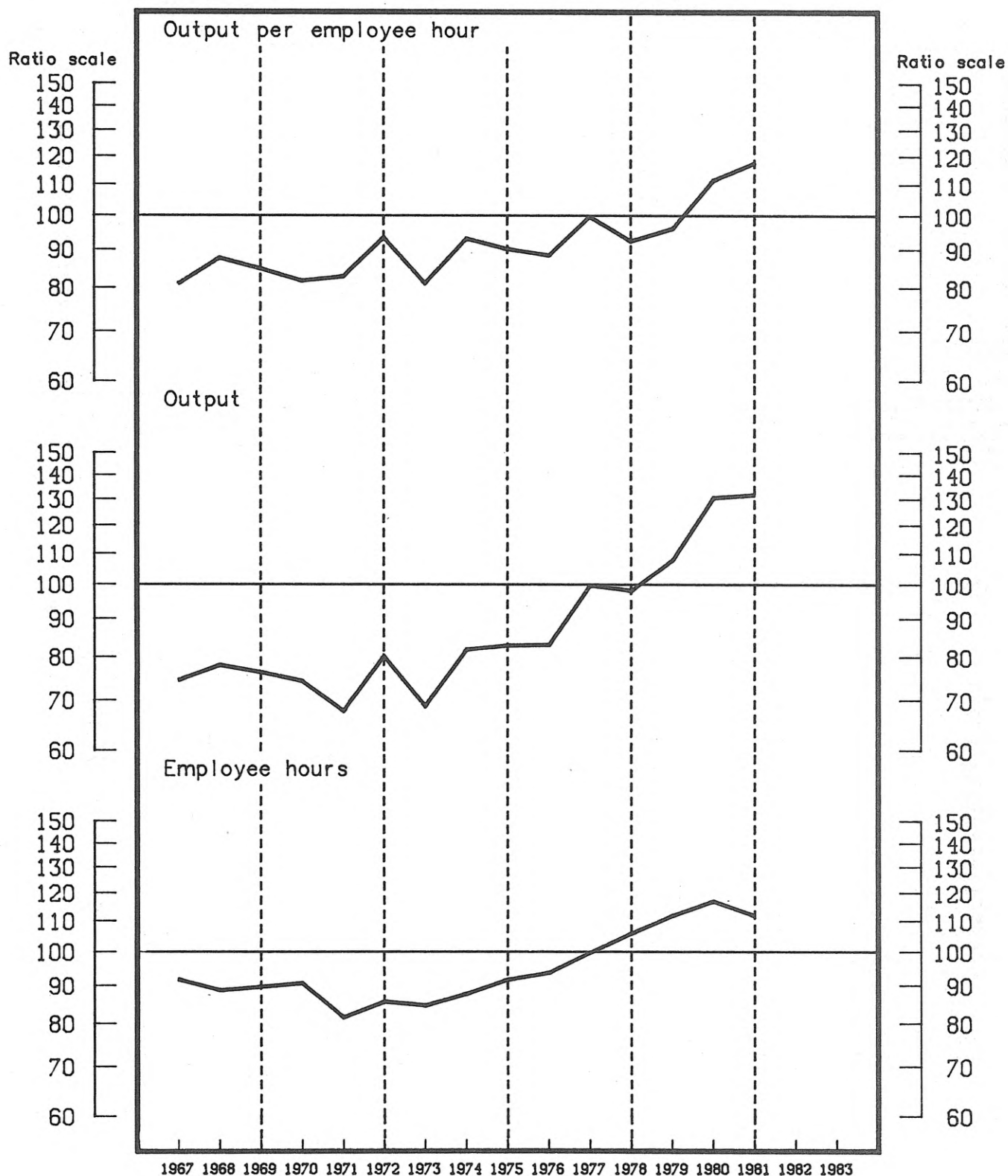
¹ Preliminary.

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 19. Rice milling (SIC 2044): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 35. Rice milling (SIC 2044): Indexes of output per employee hour and output per employee, 1963-81
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	61.2	66.2	43.1	64.2	71.9	41.8
1964	69.9	74.7	51.2	74.2	81.1	51.9
1965	73.4	78.1	55.0	79.7	87.1	55.8
1966	79.1	85.6	55.5	84.4	93.7	56.2
1967	81.3	87.2	59.0	85.4	93.4	59.8
1968	88.0	93.9	65.2	89.4	97.7	62.6
1969	85.1	90.5	63.7	87.4	95.6	61.2
1970	82.0	92.1	50.7	85.1	99.3	49.7
1971	83.1	90.7	56.7	85.9	97.1	54.4
1972	93.8	102.4	63.5	96.6	107.3	64.4
1973	81.5	89.3	54.5	85.0	95.3	55.3
1974	93.4	98.6	72.4	89.5	93.8	73.0
1975	90.4	94.3	73.3	90.6	95.0	73.9
1976	88.7	92.0	73.5	85.1	87.7	74.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	92.7	102.1	61.5	92.7	103.6	60.6
1979	96.3	106.7	62.3	94.2	105.4	61.7
1980	111.8	122.3	75.6	112.3	124.8	74.9
1981 ²	117.9	120.7	104.3	124.5	129.0	105.8
Average annual percent change:						
1963-81	2.5	2.4	3.0	2.1	1.8	3.0
1977-81	5.3	5.7	2.9	6.5	7.2	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 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 36. Rice milling (SIC 2044): Indexes of output, employee hours, and employees, 1963-81
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	57.5	93.9	86.9	133.5	89.6	80.0	137.5
1964	64.9	92.9	86.9	126.7	87.5	80.0	125.0
1965	69.7	94.9	89.3	126.7	87.5	80.0	125.0
1966	70.3	88.9	82.1	126.7	83.3	75.0	125.0
1967	74.7	91.9	85.7	126.7	87.5	80.0	125.0
1968	78.2	88.9	83.3	120.0	87.5	80.0	125.0
1969	76.5	89.9	84.5	120.0	87.5	80.0	125.0
1970	74.5	90.9	80.9	146.8	87.5	75.0	150.0
1971	68.0	81.8	75.0	120.0	79.2	70.0	125.0
1972	80.5	85.8	78.6	126.7	83.3	75.0	125.0
1973	69.1	84.8	77.4	126.7	81.3	72.5	125.0
1974	82.1	87.9	83.3	113.4	91.7	87.5	112.5
1975	83.1	91.9	88.1	113.4	91.7	87.5	112.5
1976	83.3	93.9	90.5	113.4	97.9	95.0	112.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.4	106.1	96.4	160.0	106.2	95.0	162.5
1979	108.0	112.1	101.2	173.3	114.6	102.5	175.0
1980	131.0	117.2	107.1	173.3	116.7	105.0	175.0
1981 ¹	132.2	112.1	109.5	126.7	106.2	102.5	125.0
Average annual percent change:							
1963-81	3.6	1.1	1.2	.6	1.5	1.8	.6
1977-81	8.8	3.3	2.9	5.7	2.2	1.5	5.3

¹ Preliminary.

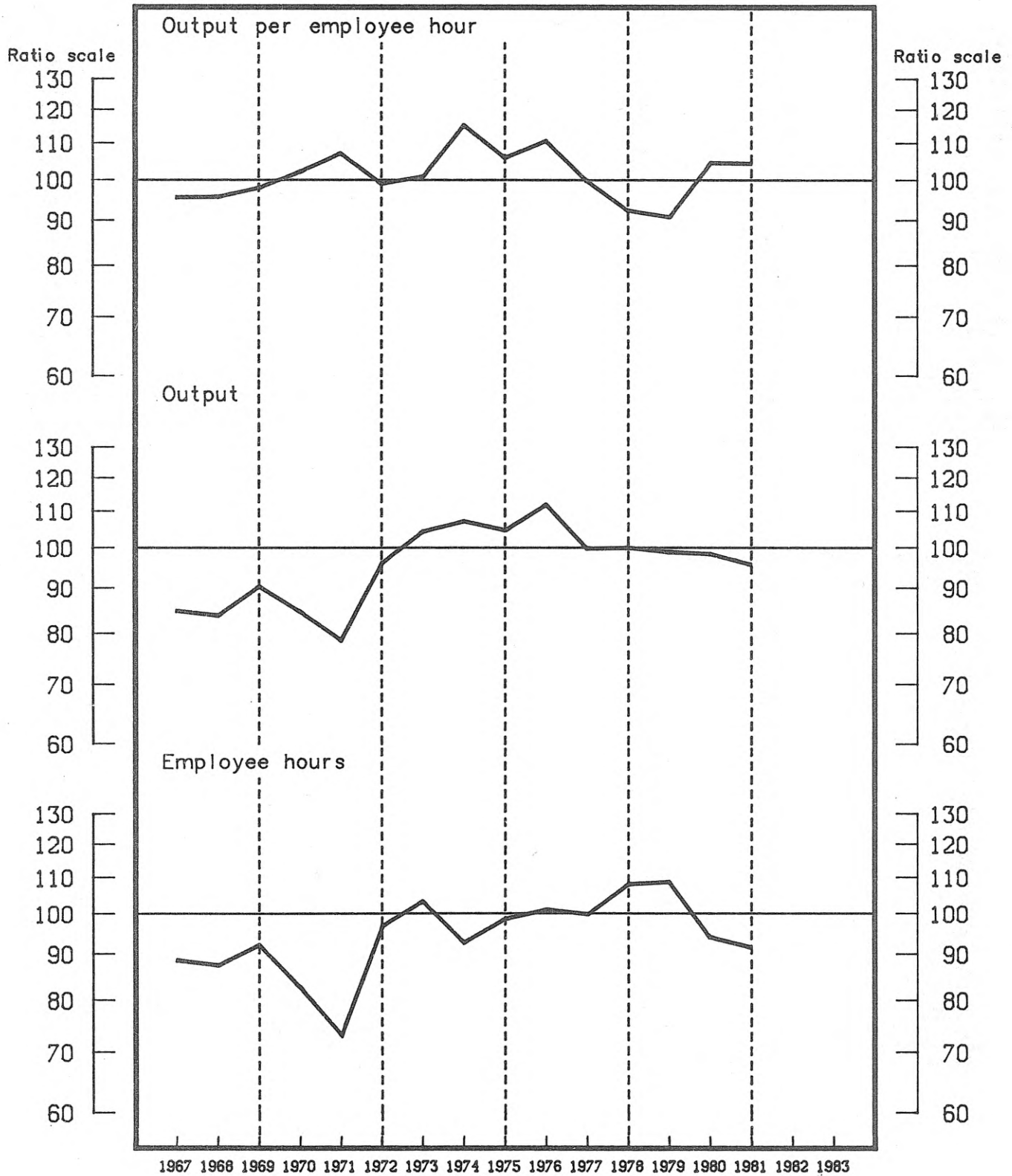
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the 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 20. Blended and prepared flour (SIC 2045): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 37. Blended and prepared flour (SIC 2045): Indexes of output per employee hour and output per employee, 1963-81
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
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	92.3	96.5
1979	91.0	87.5	101.2	96.8	94.2	103.0
1980	104.8	101.1	115.5	102.3	97.0	116.5
1981 ²	104.6	101.8	112.3	106.0	103.0	113.4
Average annual percent change:						
1963-81	1.0	.9	1.3	1.2	1.1	1.4
1977-81	2.2	1.4	4.2	2.1	1.1	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 38. Blended and prepared flour (SIC 2045): Indexes of output, employee hours, and employees, 1963-81
(1977 = 100)

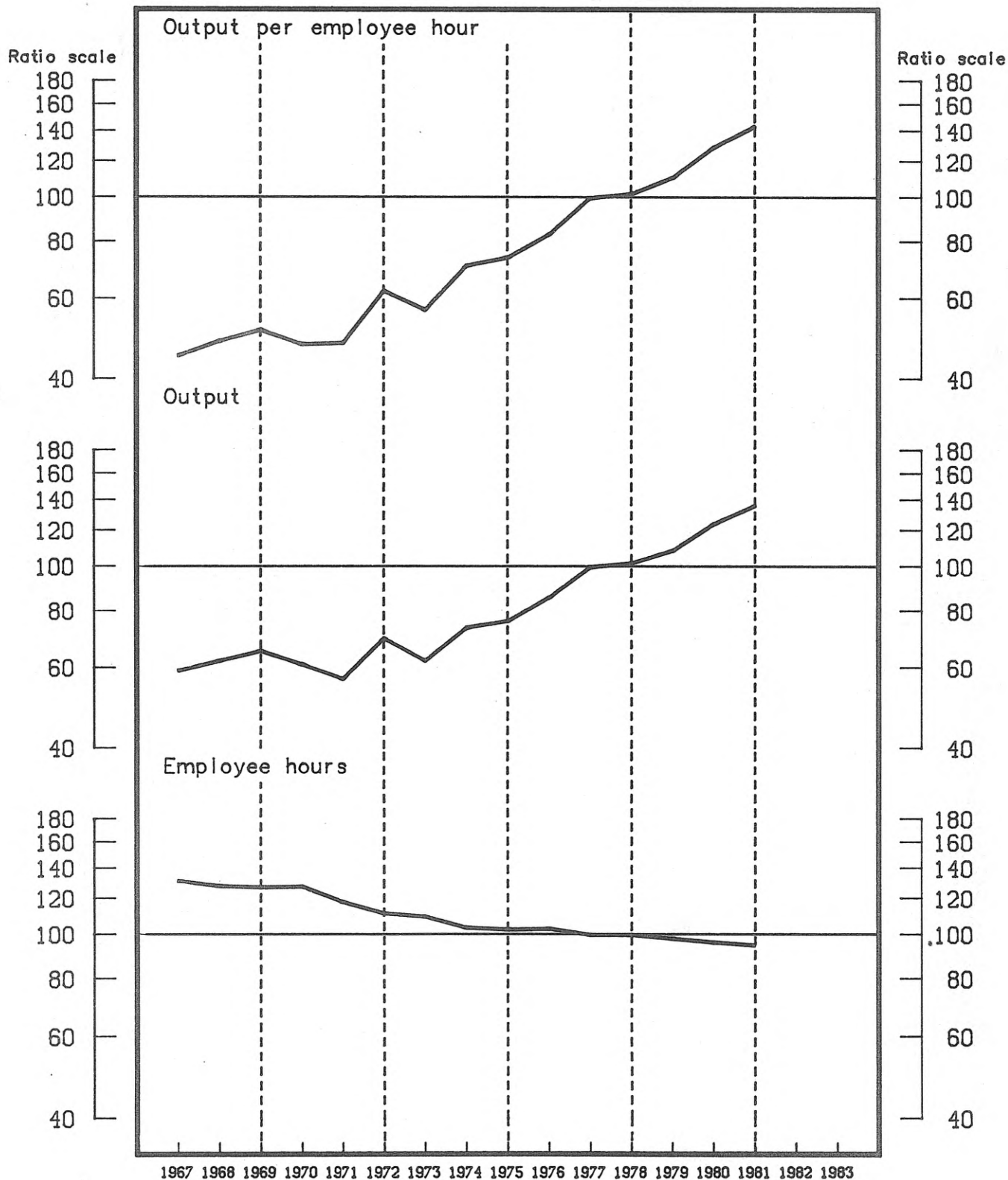
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	67.3	86.3	88.4	81.3	85.7	87.9	80.8
1964	77.4	90.5	85.2	104.2	90.4	84.5	103.8
1965	75.1	85.8	85.9	85.4	85.7	86.2	84.6
1966	77.2	85.8	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	108.6	103.8
1979	99.1	108.9	113.2	97.9	102.4	105.2	96.2
1980	98.6	94.1	97.5	85.4	96.4	101.7	84.6
1981 ¹	95.9	91.7	94.2	85.4	90.5	93.1	84.6
Average annual percent change:							
1963-81	2.1	1.0	1.2	.8	.9	1.0	.6
1977-81	-1.0	-3.1	-2.4	-5.0	-3.0	-2.1	-5.2

¹ Preliminary.

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

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

Chart 21. Wet corn milling (SIC 2046): Output per hour and related data, 1967-81
(1977 = 100)



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

Table 39. Wet corn milling (SIC 2046): Indexes of output per employee hour and output per employee, 1963-81
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
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	98.3	105.4
1979	110.8	114.5	101.7	109.7	113.0	102.1
1980	129.2	131.1	124.4	126.7	127.7	124.4
1981 ²	143.8	144.8	141.3	143.1	143.8	141.0
Average annual percent change:						
1963-81	7.5	7.7	6.8	7.1	7.2	7.0
1977-81	10.1	10.6	8.9	10.0	10.4	8.9

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 40. Wet corn milling (SIC 2046): Indexes of output, employee hours, and employees, 1963-81
(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	103.8	96.8
1979	108.7	98.1	94.9	106.9	99.1	96.2	106.5
1980	124.4	96.3	94.9	100.0	98.2	97.4	100.0
1981 ¹	136.5	94.9	94.3	96.6	95.4	94.9	96.8
Average annual percent change:							
1963-81	5.4	-1.9	-2.2	-1.3	-1.6	-1.7	-1.5
1977-81	8.6	-1.4	-1.8	-3	-1.3	-1.7	-3

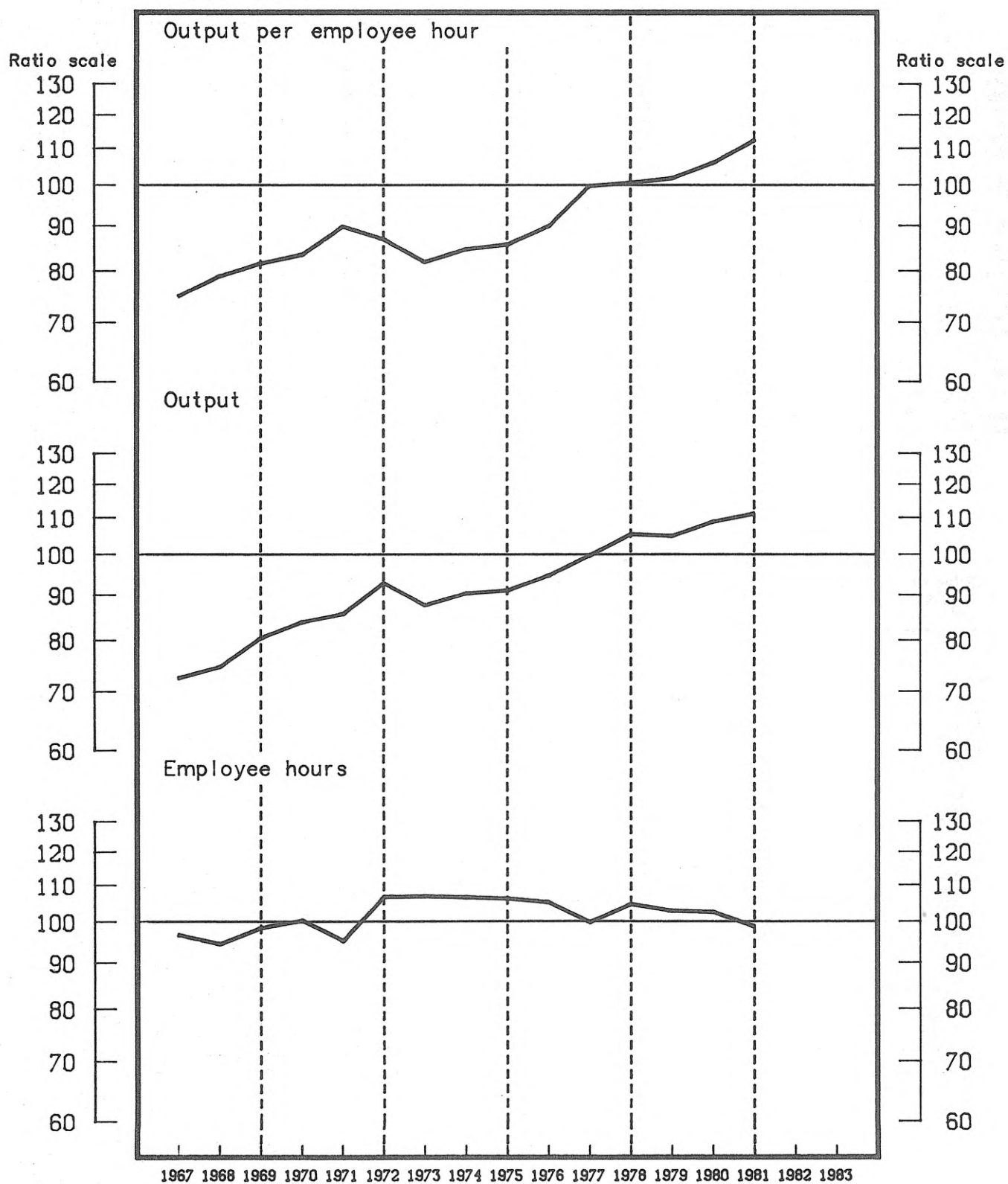
¹ Preliminary.

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 22. Prepared feeds for animals and fowls (SIC 2047, 2048): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 41. Prepared feeds for animals and fowls (SIC 2047, 2048): Indexes of output per employee hour and output per employee, 1963-81 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
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	100.8	101.7	98.8	101.1	102.5	98.8
1979	102.0	100.8	104.8	103.1	102.0	105.1
1980	106.2	106.8	105.2	106.6	107.1	105.9
1981 ²	112.6	115.1	108.3	115.2	119.3	108.7
Average annual percent change:						
1963-81	3.0	3.1	2.8	2.8	2.8	2.9
1977-81	2.9	3.4	2.2	3.4	4.0	2.4

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

² Preliminary.

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

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

Table 42. Prepared feeds for animals and fowls (SIC 2047, 2048): Indexes of output, employee hours, and employees, 1963-81 (1977=100)

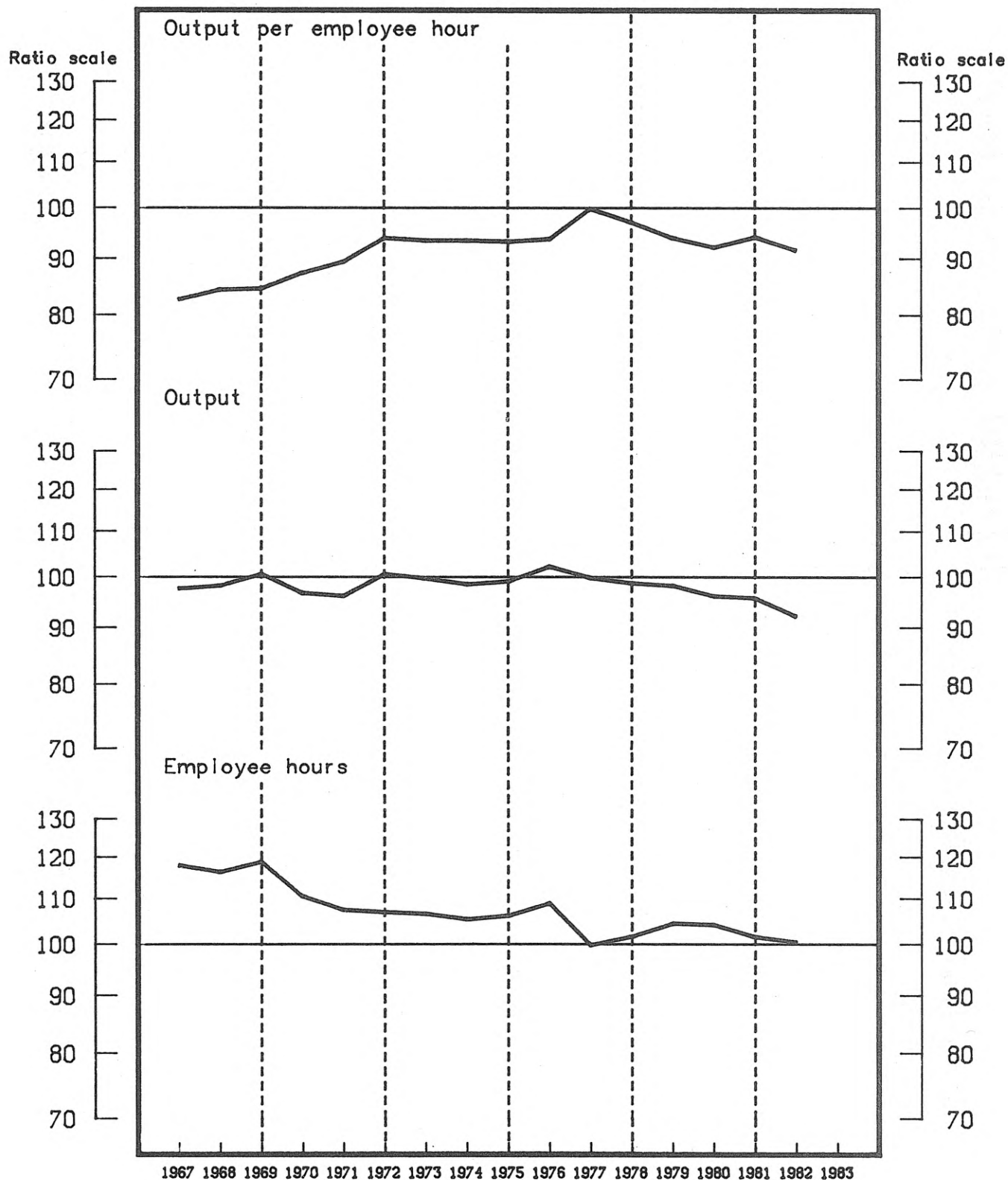
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	60.9	99.3	99.7	98.7	96.1	94.5	99.1
1964	62.2	97.0	97.9	95.3	93.0	91.8	95.1
1965	62.6	94.5	94.6	94.5	90.2	87.7	94.5
1966	65.7	94.6	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	105.6	104.8	103.8	106.9	104.4	103.0	106.9
1979	105.1	103.0	104.3	100.3	101.9	103.0	100.0
1980	109.1	102.7	102.2	103.7	102.3	101.9	103.0
1981 ¹	111.4	98.9	96.8	102.9	96.7	93.4	102.5
Average annual percent change:							
1963-81	3.5	.5	.4	.7	.6	.7	.5
1977-81	2.5	-.4	-.8	.3	-.9	-1.5	.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 23. Bakery products (SIC 205): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 43. Bakery products (SIC 205): Indexes of output per employee hour and output per employee, 1954-82
(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	92.3	90.7	94.9	93.0	91.3	95.6
1981	94.3	92.7	96.9	95.5	94.5	97.2
1982 ²	91.7	90.1	94.4	92.3	90.7	94.7
Average annual percent change:						
1947-82	2.0	2.3	1.5	1.9	2.1	1.6
1977-82	-1.5	-2.1	-7	-1.3	-1.8	-6

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

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

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

² Preliminary.

Table 44. Bakery products (SIC 205): Indexes of output, employee hours, and employees, 1954-82
(1977=100)

Year	Output	Employee hours			Employees ¹		
		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	96.3	104.3	106.2	101.5	103.5	105.5	100.7
1981	95.9	101.7	103.5	99.0	100.4	101.5	98.7
1982 ¹	92.3	100.6	102.4	97.8	100.0	101.8	97.5
Average annual percent change:							
1947-82 .....	.9	-1.1	-1.4	-7	-1.0	-1.2	-7
1977-82	-1.5	.1	.6	-8	-2	.3	-9

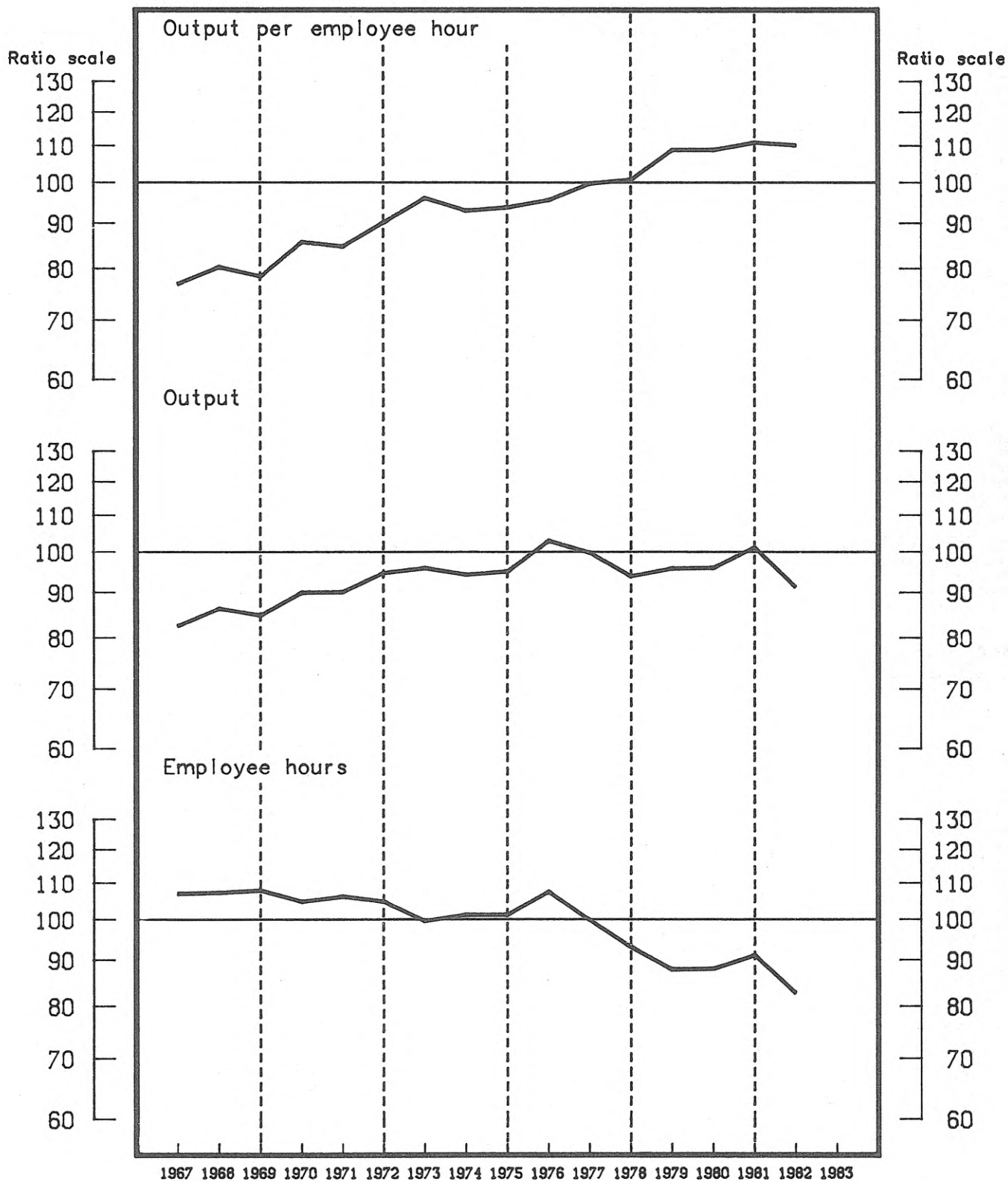
¹ Preliminary.

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 24. Sugar (SIC 2061, 2062, 2063): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 45. Sugar (SIC 2061, 2062, 2063): Indexes of output per employee hour and output per employee, 1954-82
(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	46.5	43.8	59.9	45.7	43.2	57.8
1955	48.4	45.4	63.6	47.4	44.6	60.9
1956	51.0	47.6	69.3	51.7	48.6	66.7
1957	50.3	46.7	69.6	50.4	47.2	66.9
1958	51.8	48.9	65.4	52.9	50.7	62.8
1959	54.6	51.3	71.2	54.6	51.6	68.2
1960	57.5	54.0	74.9	58.1	55.3	71.0
1961	61.4	57.8	79.3	61.6	58.8	74.3
1962	67.5	63.1	90.3	67.7	64.2	84.0
1963	68.0	63.9	88.4	68.0	64.8	82.1
1964	71.5	67.2	92.5	71.9	68.7	86.3
1965	74.4	69.5	99.9	72.4	68.0	92.9
1966	77.1	73.0	95.6	74.5	72.2	88.5
1967	77.1	72.7	98.8	75.7	72.2	91.4
1968	80.5	75.2	106.9	79.4	75.2	99.0
1969	78.6	73.9	102.7	76.0	72.2	93.9
1970	85.9	80.1	116.1	83.0	78.4	105.0
1971	84.9	79.7	110.7	86.5	82.4	105.1
1972	90.4	86.5	109.5	90.9	87.0	108.6
1973	96.3	93.8	107.0	98.8	96.1	110.3
1974	93.2	89.2	112.8	98.2	94.1	117.2
1975	94.0	93.8	94.4	91.8	90.7	96.8
1976	95.8	95.2	98.5	97.3	96.6	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.0	101.4	99.3	98.4	98.3	98.8
1979	109.1	109.2	108.1	107.6	107.5	108.2
1980	109.1	108.5	111.6	107.0	105.7	112.5
1981	111.2	110.1	116.5	109.3	107.5	116.5
1982 ²	110.4	106.8	129.4	106.3	101.4	128.9
Average annual percent change:						
1947-82	3.5	3.8	2.2	3.5	3.7	2.4
1977-82	2.3	1.6	5.3	1.8	.9	5.3

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

² Preliminary.

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

differ from those previously published.

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

Table 46. Sugar (SIC 2061, 2062, 2063): Indexes of output, employee hours, and employees, 1954-82
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	56.2	120.8	128.3	93.8	122.9	130.0	97.2
1955	56.0	115.6	123.3	88.1	118.2	125.5	91.9
1956	58.7	115.1	123.4	84.7	113.5	120.7	88.0
1957	58.1	115.5	124.4	83.5	115.2	123.1	86.9
1958	61.5	118.7	125.7	94.1	116.3	121.4	98.0
1959	64.6	118.3	126.0	90.7	118.4	125.2	94.7
1960	66.4	115.4	122.9	88.7	114.2	120.0	93.5
1961	70.2	114.3	121.4	88.5	113.9	119.4	94.5
1962	73.4	108.7	116.3	81.3	108.4	114.4	87.4
1963	77.0	113.2	120.5	87.1	113.3	118.9	93.8
1964	83.1	116.2	123.7	89.8	115.6	120.9	96.3
1965	80.6	108.3	116.0	80.7	111.4	118.5	86.8
1966	81.2	105.3	111.2	84.9	109.0	112.5	91.8
1967	82.7	107.2	113.8	83.7	109.3	114.6	90.5
1968	86.5	107.5	115.0	80.9	109.0	115.1	87.4
1969	85.0	108.1	115.0	82.8	111.8	117.8	90.5
1970	90.2	105.0	112.6	77.7	108.7	115.1	85.9
1971	90.3	106.4	113.3	81.6	104.4	109.6	85.9
1972	94.9	105.0	109.7	86.7	104.4	109.1	87.4
1973	96.1	99.8	102.4	89.8	97.3	100.0	87.1
1974	94.5	101.4	106.0	83.8	96.2	100.4	80.6
1975	95.3	101.4	101.6	100.9	103.8	105.1	98.4
1976	103.2	107.7	108.4	104.8	106.1	106.8	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	94.1	93.2	92.8	94.8	95.6	95.7	95.2
1979	96.0	88.0	87.9	88.8	89.2	89.3	88.7
1980	96.2	88.2	88.7	86.2	89.9	91.0	85.5
1981	101.5	91.3	92.2	87.1	92.9	94.4	87.1
1982 ¹	91.5	82.9	85.7	70.7	86.1	90.2	71.0
Average annual percent change:							
1947-82	2.3	-1.2	-1.5	(²)	-1.2	-1.4	-1
1977-82	-6	-2.8	-2.2	-5.6	-2.3	-1.5	-5.6

¹ Preliminary.

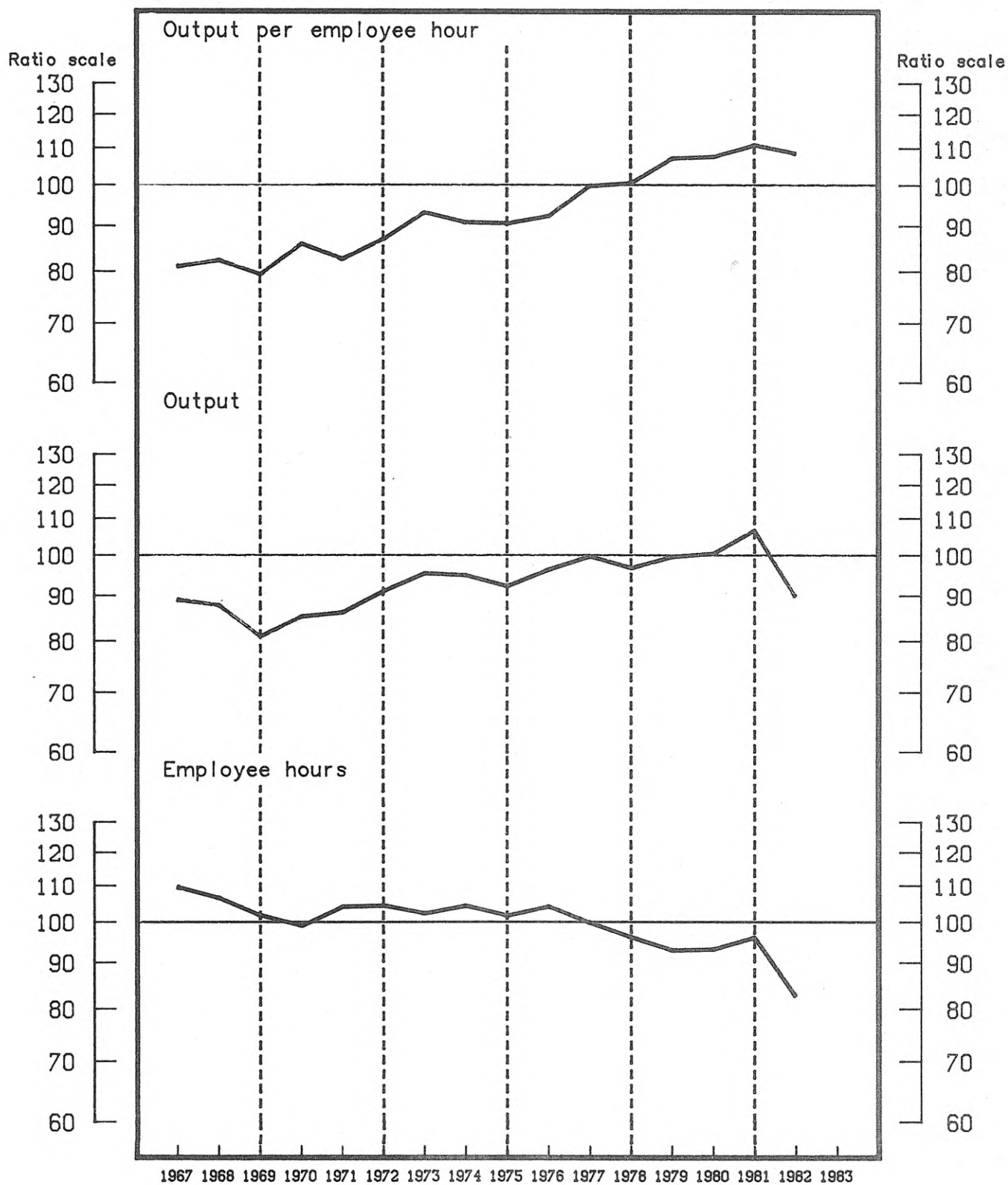
² Less than .05 percent.

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

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

Chart 25. Raw and refined cane sugar (SIC 2061, 2062): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 47. Raw and refined cane sugar (SIC 2061, 2062): Indexes of output per employee hour and output per employee, 1958-82 (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	100.7	100.4	101.6	100.8	100.7	101.4
1979	107.3	104.6	117.3	108.2	105.4	117.4
1980	107.8	104.2	121.3	109.7	106.2	121.3
1981	111.1	106.7	128.9	113.2	108.6	128.9
1982 ²	108.7	104.8	123.8	106.4	101.2	124.5
Average annual percent change:						
1958-82	2.8	3.1	1.9	2.9	3.1	2.5
1977-82	2.1	1.2	5.3	1.9	.8	5.4

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

² Preliminary.

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

differ from those previously published.

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

Table 48. Raw and refined cane sugar (SIC 2061, 2062): Indexes of output, employee hours, and employees, 1958-82 (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	97.0	96.3	96.6	95.5	96.2	96.3	95.7
1979	99.9	93.1	95.5	85.2	92.3	94.8	85.1
1980	100.7	93.4	96.6	83.0	91.8	94.8	83.0
1981	107.0	96.3	100.3	83.0	94.5	98.5	83.0
1982 ¹	90.0	82.8	85.9	72.7	84.6	88.9	72.3
Average annual percent change:							
1958-82	1.6	-1.2	-1.4	-2	-1.2	-1.4	-9
1977-82	-6	-2.7	-1.8	-5.7	-2.5	-1.5	-5.8

¹ Preliminary.

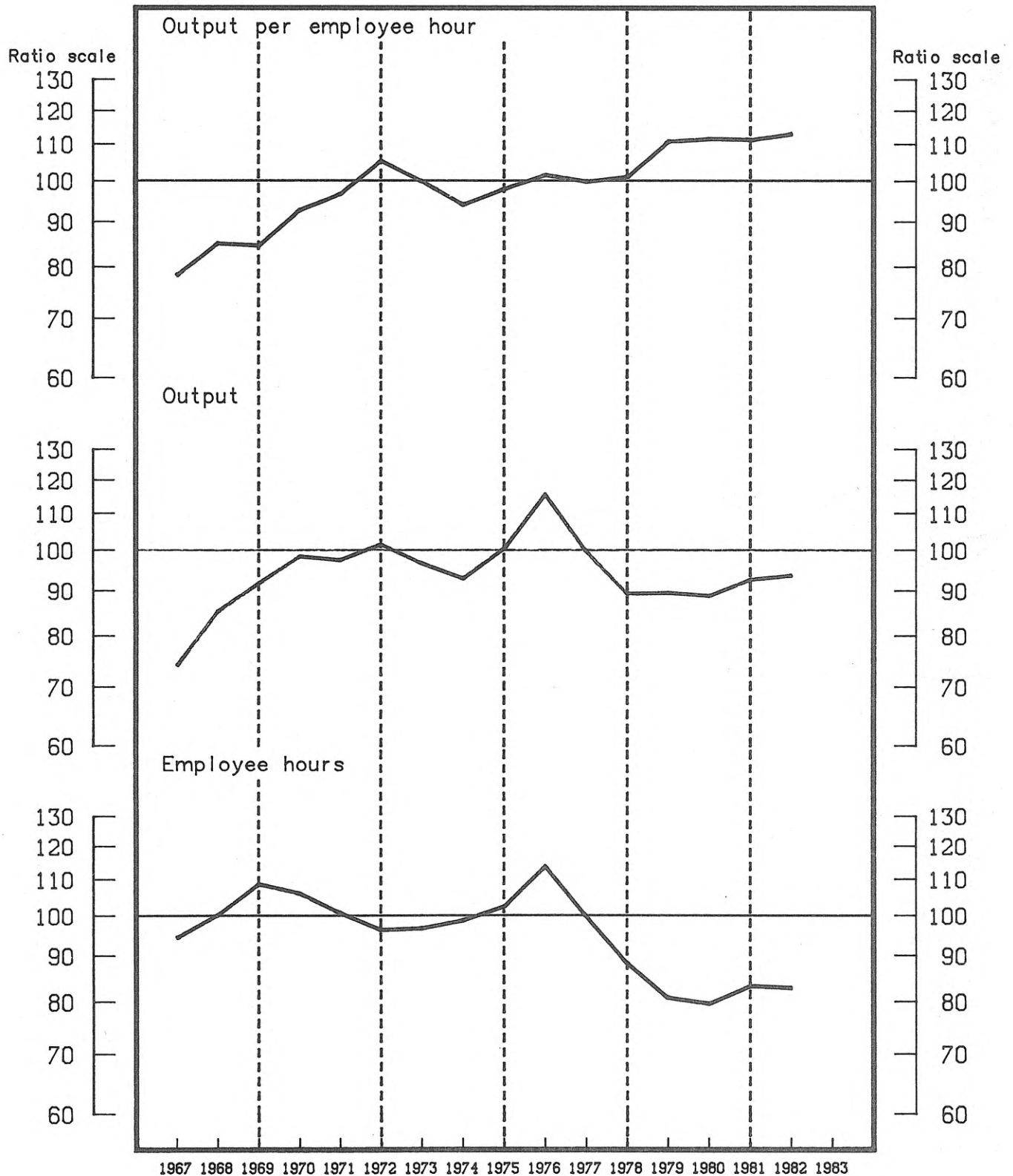
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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

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

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

Chart 26. Beet sugar (SIC 2063): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 49. Beet sugar (SIC 2063): Indexes of output per employee hour and output per employee, 1958-82
(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	101.2	101.9	96.3	94.5	94.3	95.9
1979	110.9	115.7	83.8	105.4	109.7	84.1
1980	111.7	114.2	95.8	102.5	103.6	95.4
1981	111.4	114.4	92.9	102.8	104.5	92.9
1982 ²	113.1	110.5	(³)	106.0	102.2	(³)
Average annual percent change:						
1958-82	2.5	2.7	(³)	2.1	2.2	(³)
1977-82	2.6	2.4	(³)	1.5	1.0	(³)

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

² Preliminary.

³ Data not available.

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

SOURCE: Output based on data from the Agricultural Marketing Service, U.S.

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

Table 50. Beet sugar (SIC 2063): Indexes of output, employee hours, and employees, 1958-82
(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	88.4	87.8	92.9	94.7	94.9	93.3
1979	89.7	80.9	77.5	107.1	85.1	81.8	106.7
1980	89.0	79.7	77.9	92.9	86.8	85.9	93.3
1981	92.9	83.4	81.2	100.0	90.4	88.9	100.0
1982 ¹	93.9	83.0	85.0	(²)	88.6	91.9	(²)
Average annual percent change:							
1958-82	2.0	-5	-7	(²)	-2	-2	(²)
1977-82	-6	-3.2	-2.9	(²)	-2.0	-1.6	(²)

¹ Preliminary.

² Data not available.

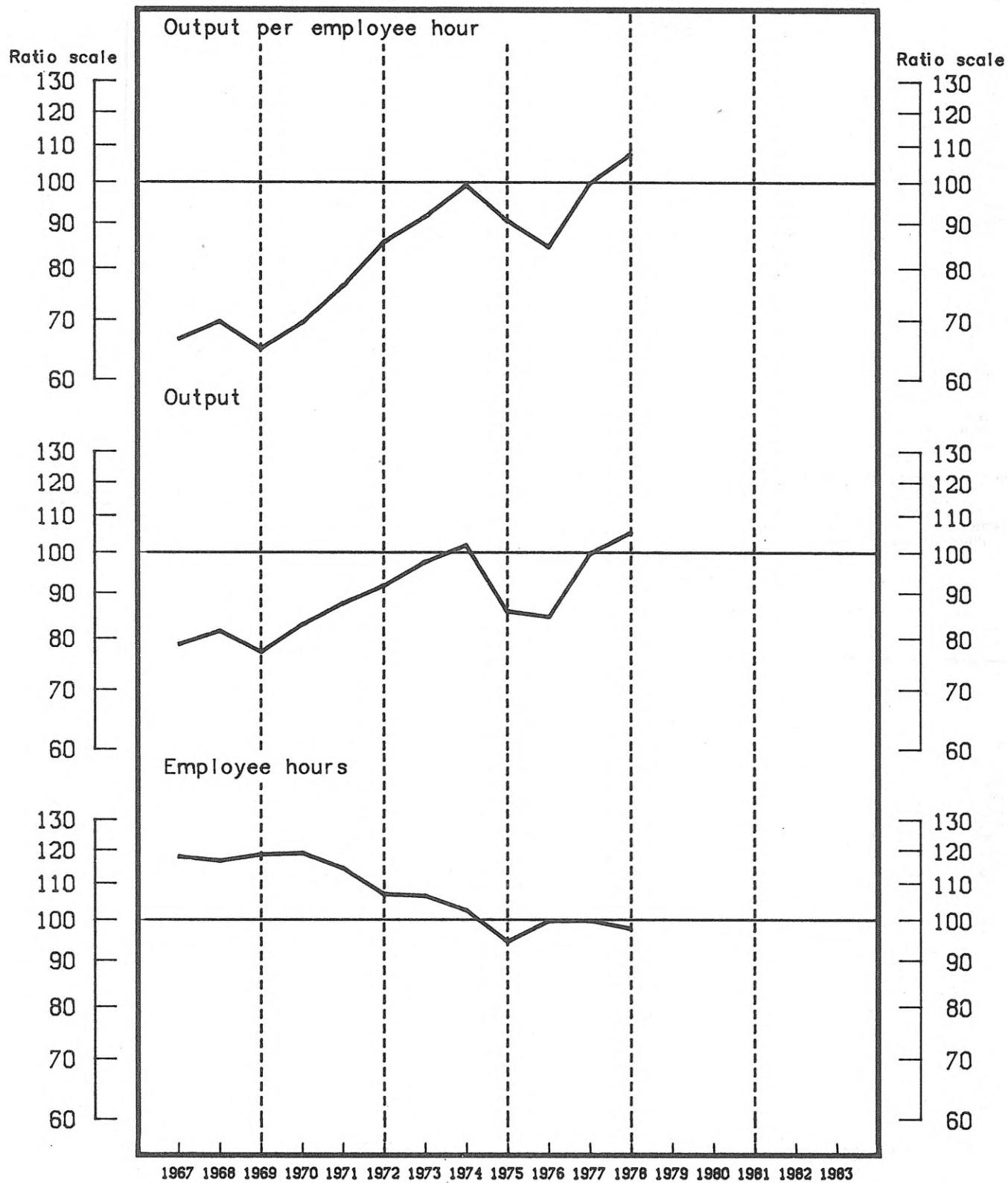
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Agricultural Marketing Service, U.S.

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

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

(1977 = 100)



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

Table 51. Candy and other confectionery products (SIC 2065): Indexes of output per employee hour and output per employee, 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 52. Candy and other confectionery products (SIC 2065): Indexes of output, employee hours, and employees, 1954-78
(1977 = 100)

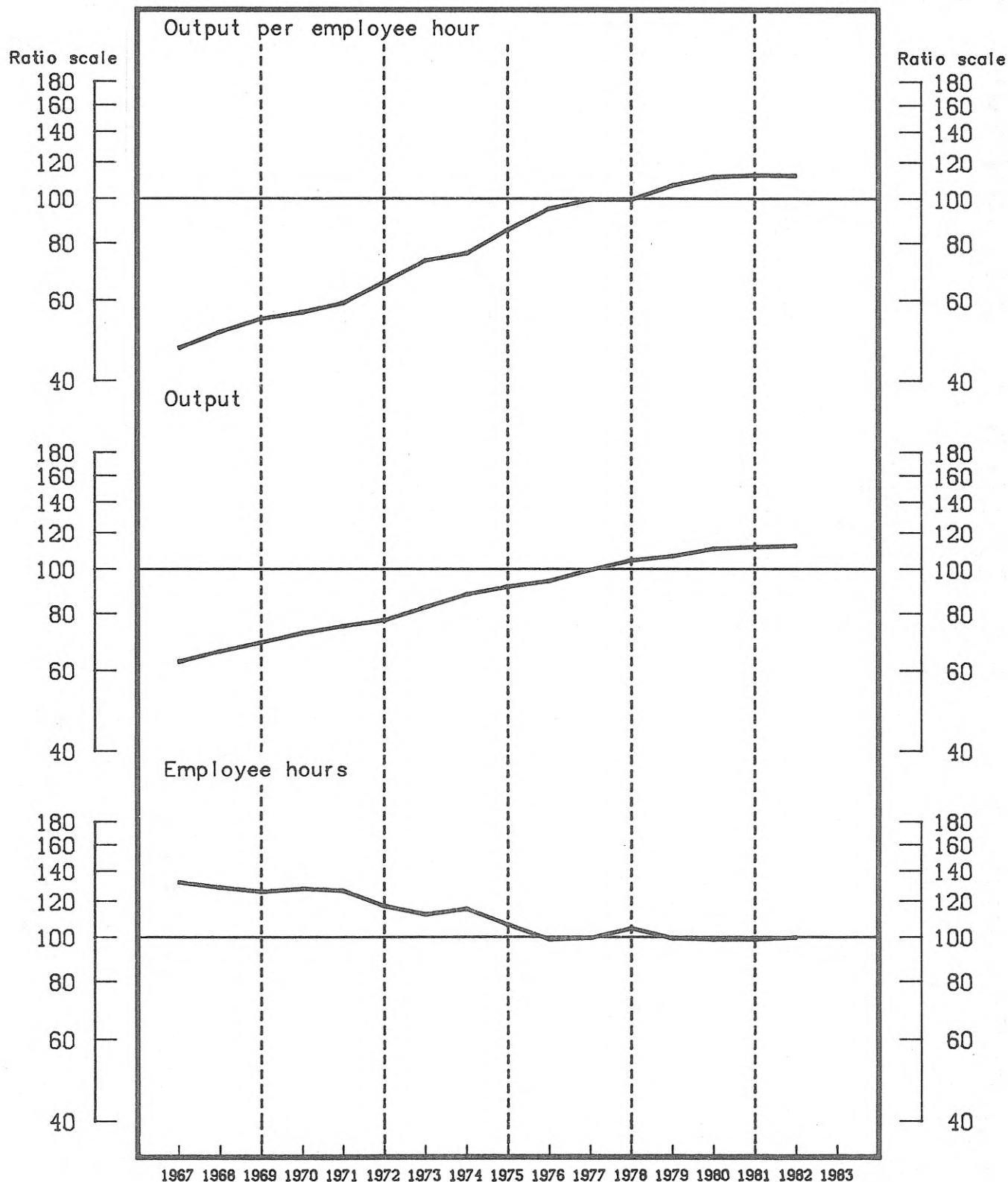
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	49.5	119.8	122.1	110.5	115.9	118.2	105.8
1955	51.8	121.6	120.7	125.6	118.3	117.5	120.7
1956	53.5	124.3	121.5	137.2	119.6	116.9	131.4
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 28. Malt beverages (SIC 2082): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 53. Malt beverages (SIC 2082): Indexes of output per employee hour and output per employee, 1954-82
(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	100.0	99.8	100.3	101.3	101.6	100.2
1979	107.4	106.7	109.5	107.4	106.6	109.7
1980	112.1	112.1	112.1	113.2	113.4	113.0
1981	113.0	116.0	106.0	113.0	115.9	106.5
1982 ²	112.7	116.2	104.6	113.7	117.8	104.7
Average annual percent change:						
1947-82	5.8	5.7	6.1	5.7	5.6	5.9
1977-82	2.9	3.6	1.2	3.0	3.7	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.

differ from those previously published.

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

² Preliminary.

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

Table 54. Malt beverages (SIC 2082): Indexes of output, employee hours, and employees, 1954-82
(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	104.9	104.9	105.1	104.6	103.6	103.2	104.7
1979	107.2	99.8	100.5	97.9	99.8	100.6	97.7
1980	111.2	99.2	99.2	99.2	98.2	98.1	98.4
1981	112.2	99.3	96.7	105.8	99.3	96.8	105.4
1982 ¹	112.9	100.2	97.2	107.9	99.3	95.8	107.8
Average annual percent change:							
1947-82	3.3	-2.3	-2.2	-2.6	-2.2	-2.1	-2.4
1977-82	2.4	-5	-1.2	1.2	-5	-1.2	1.2

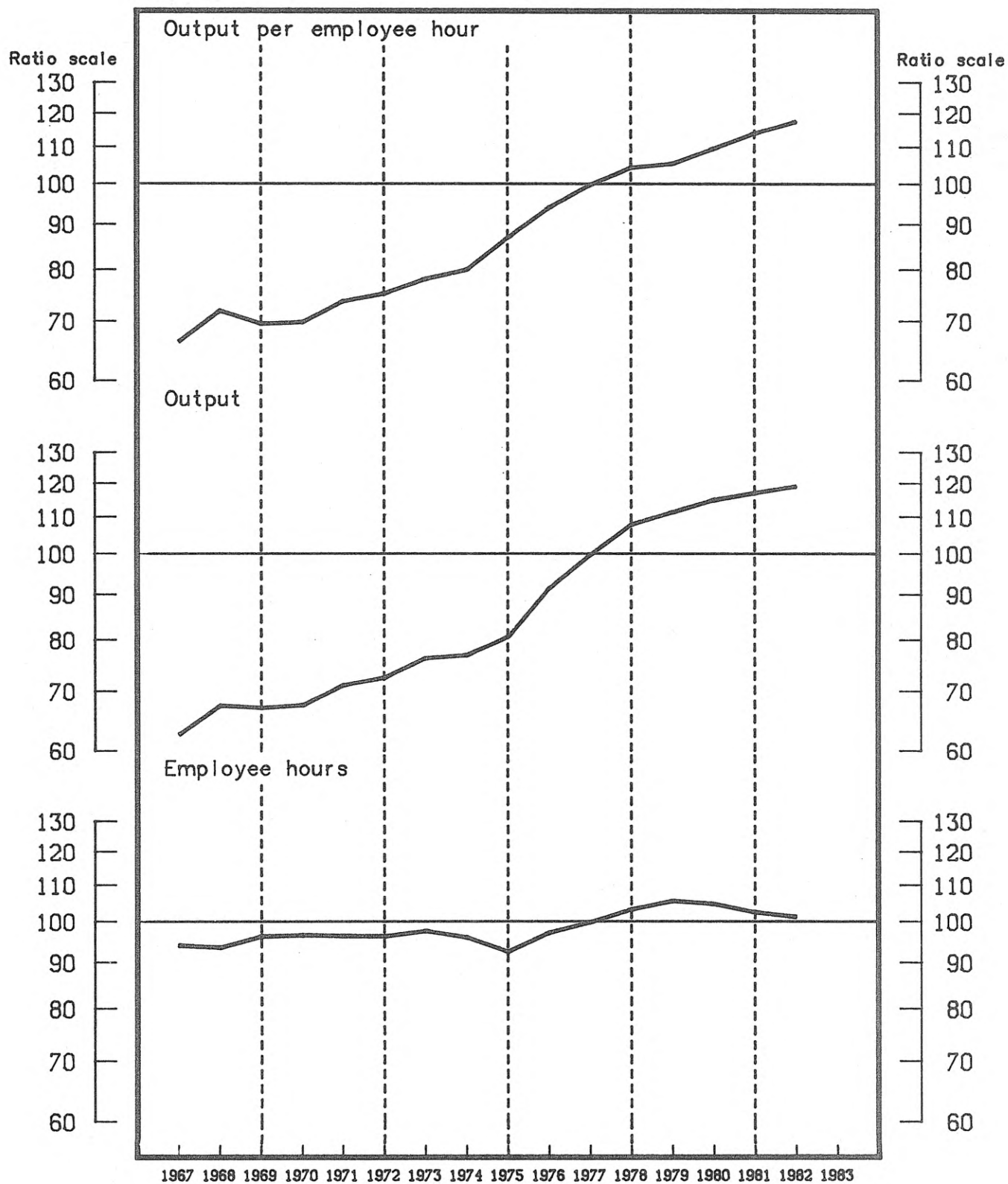
¹ Preliminary.

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

Chart 29. Bottled and canned soft drinks (SIC 2086): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 55. Bottled and canned soft drinks (SIC 2086): Indexes of output per employee hour and output per employee, 1958-82
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	57.7	50.4	62.9	57.5	52.7	60.6
1959	60.4	53.1	65.5	60.9	57.2	63.1
1960	58.4	51.7	63.0	58.2	55.1	60.1
1961	60.7	54.2	65.2	59.8	57.0	61.5
1962	65.1	58.5	69.6	63.4	61.1	64.8
1963	67.1	59.2	72.6	65.9	63.2	67.5
1964	67.3	60.1	72.2	65.8	63.7	67.1
1965	67.8	60.9	72.5	66.3	64.5	67.4
1966	68.2	59.4	74.5	66.9	63.1	69.3
1967	66.6	58.5	72.2	64.8	61.1	67.1
1968	72.1	64.3	77.5	69.6	65.6	72.1
1969	69.7	64.0	73.5	67.7	64.6	69.5
1970	70.0	65.5	72.9	68.6	66.2	70.0
1971	73.9	69.7	76.4	73.2	70.6	74.8
1972	75.4	72.9	76.9	75.7	73.7	76.8
1973	78.3	76.7	79.3	78.7	77.1	79.6
1974	80.2	78.5	81.2	80.3	77.9	81.8
1975	87.2	86.1	87.7	87.1	85.2	88.1
1976	94.2	93.5	94.6	94.3	93.5	94.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	105.3	104.1	105.0	106.3	104.1
1979	105.6	109.1	103.6	105.9	110.2	103.6
1980	109.8	116.4	106.4	110.5	118.4	106.4
1981	114.3	125.1	109.0	114.7	126.0	109.0
1982 ²	117.8	130.6	111.5	117.8	130.9	111.5
Average annual percent change:						
1958-82	3.0	3.9	2.4	3.1	3.6	2.7
1977-82	3.3	5.6	2.0	3.3	5.7	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 Sales Survey and Statistical Profile of the Soft Drink Industry, National Soft Drink Association; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

Table 56. Bottled and canned soft drinks (SIC 2086): Indexes of output, employee hours, and employees, 1958-82
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	43.0	74.5	85.3	68.4	74.8	81.6	71.0
1959	46.6	77.1	87.8	71.1	76.5	81.4	73.8
1960	46.0	78.8	89.0	73.0	79.1	83.5	76.6
1961	47.5	78.2	87.7	72.8	79.4	83.3	77.2
1962	51.3	78.8	87.7	73.7	80.9	83.9	79.2
1963	54.6	81.4	92.3	75.2	82.9	86.4	80.9
1964	57.0	84.7	94.8	79.0	86.6	89.5	84.9
1965	59.2	87.3	97.2	81.7	89.3	91.8	87.8
1966	63.1	92.5	106.3	84.7	94.3	100.0	91.0
1967	62.7	94.2	107.2	86.9	96.8	102.7	93.4
1968	67.6	93.7	105.2	87.2	97.1	103.1	93.7
1969	67.2	96.4	105.0	91.4	99.3	104.0	96.7
1970	67.7	96.7	103.3	92.9	98.7	102.3	96.7
1971	71.3	96.5	102.3	93.3	97.4	101.0	95.3
1972	72.7	96.4	99.7	94.5	96.1	98.7	94.6
1973	76.5	97.7	99.7	96.5	97.2	99.2	96.1
1974	77.1	96.1	98.2	94.9	96.0	99.0	94.3
1975	80.8	92.7	93.8	92.1	92.8	94.8	91.7
1976	91.7	97.3	98.1	96.9	97.2	98.1	96.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.1	103.4	102.7	103.8	103.0	101.7	103.8
1979	111.6	105.7	102.3	107.7	105.4	101.3	107.7
1980	115.2	104.9	99.0	108.3	104.3	97.3	108.3
1981	117.3	102.6	93.8	107.6	102.3	93.1	107.6
1982 ¹	119.4	101.4	91.4	107.1	101.4	91.2	107.1
Average annual percent change:							
1958-82	4.4	1.4	.4	1.9	1.3	.7	1.6
1977-82	3.4	.1	-2.1	1.3	.1	-2.2	1.3

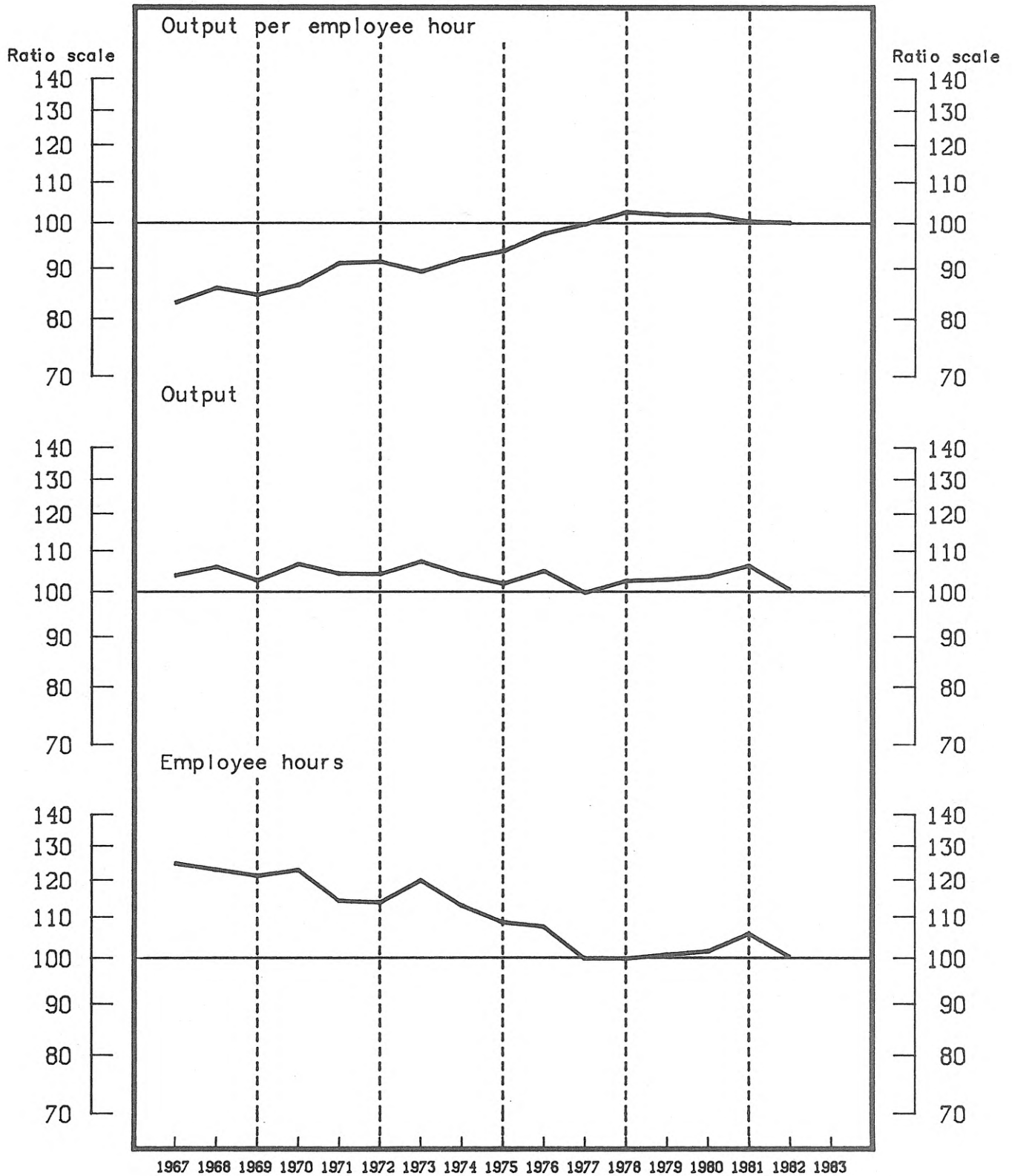
¹ Preliminary.

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

Chart 30. All tobacco products (SIC 2111, 2121, 2131): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 57. All tobacco products (SIC 2111, 2121, 2131): Indexes of output per employee hour and output per employee, 1954-82
(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	60.3	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	104.4	105.8	106.1	104.2
1979	102.2	103.6	94.5	105.2	107.4	94.7
1980	102.2	105.2	87.9	105.8	109.9	88.3
1981	100.6	103.9	84.7	103.0	107.3	85.0
1982 ²	100.3	103.6	84.7	99.5	102.9	84.6
Average annual percent change:						
1947-82	2.6	3.0	(³)	2.5	2.9	-.3
1977-82	-.1	.7	-4.3	-.3	.6	-4.2

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

² Preliminary.

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

Table 58. All tobacco products (SIC 2111, 2121, 2131): Indexes of output, employee hours, and employees, 1954-82
(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	98.5	97.2	96.9	98.7
1979	103.1	100.9	99.5	109.1	98.0	96.0	108.9
1980	103.9	101.7	98.8	118.2	98.2	94.5	117.7
1981	106.5	105.9	102.5	125.8	103.4	99.3	125.3
1982 ¹	100.7	100.4	97.2	118.9	101.2	97.9	119.0
Average annual percent change:							
1947-82	.9	-1.7	-2.0	.9	-1.6	-2.0	1.2
1977-82	.4	.6	-2	4.9	.7	-.1	4.9

¹ Preliminary.

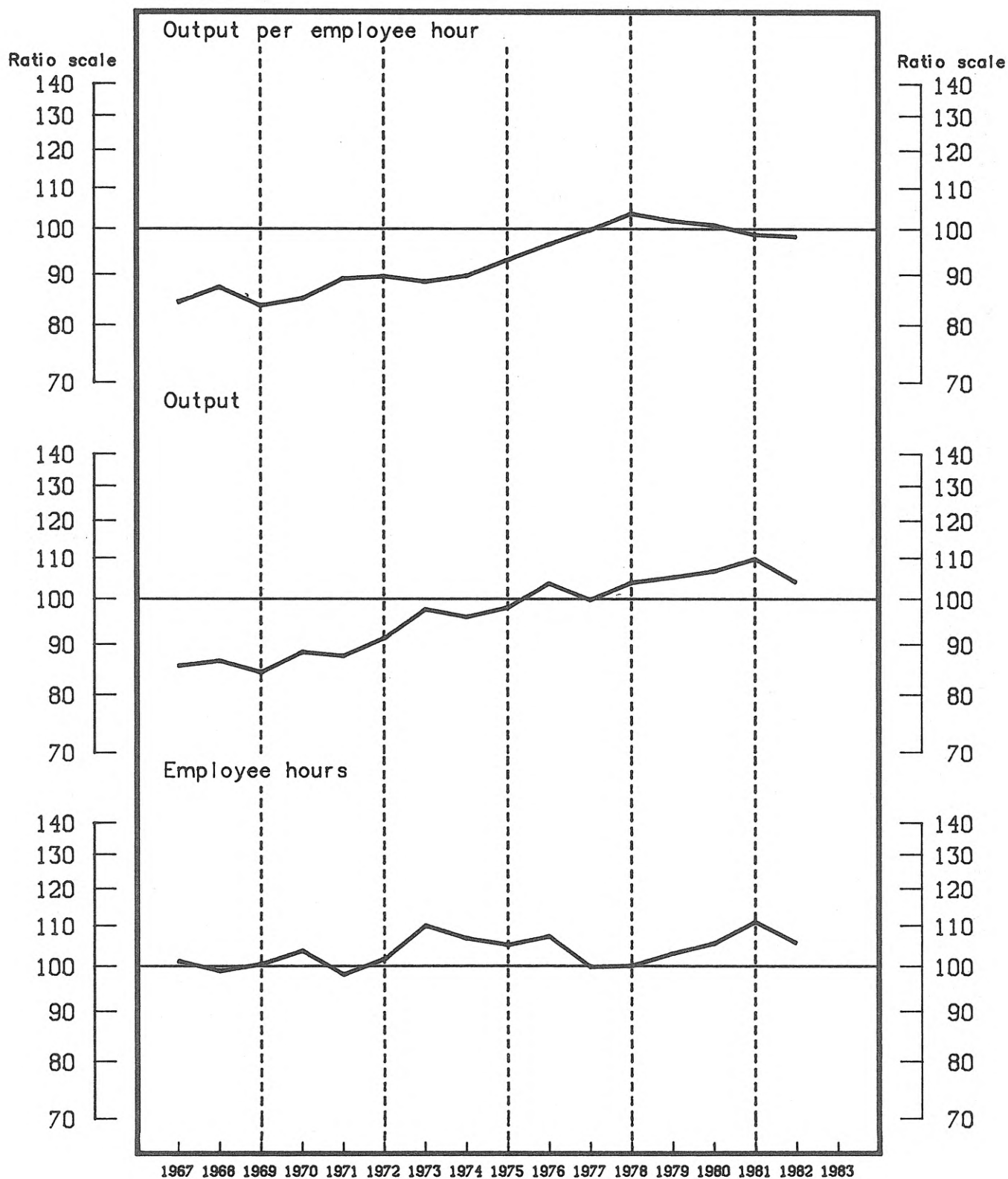
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

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

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

Chart 31. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 59. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Indexes of output per employee hour and output per employee, 1954-82
(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	101.1	104.1	87.8	105.1	109.4	88.5
1981	98.9	102.2	84.6	101.1	105.2	85.1
1982 ²	98.5	101.6	85.1	97.3	100.2	85.3
Average annual percent change:						
1947-82	1.4	1.8	-7	1.3	1.6	-1.1
1977-82	-7	.1	-4.2	-9	-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 based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury; the Bureau of the Census; and Agricultural Marketing Service, U.S. Department of Agriculture. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 60. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Indexes of output, employee hours, and employees, 1954-82
(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	111.7	99.8	97.4	111.1
1980	106.9	105.7	102.7	121.7	101.7	97.7	120.8
1981	110.0	111.2	107.6	130.0	108.8	104.6	129.2
1982 ¹	104.2	105.8	102.6	122.5	107.1	104.0	122.2
Average annual percent change:							
1947-82	1.8	.3	(²)	2.5	.5	.1	2.9
1977-82	1.1	1.8	1.0	5.5	2.0	1.3	5.4

¹ Preliminary.

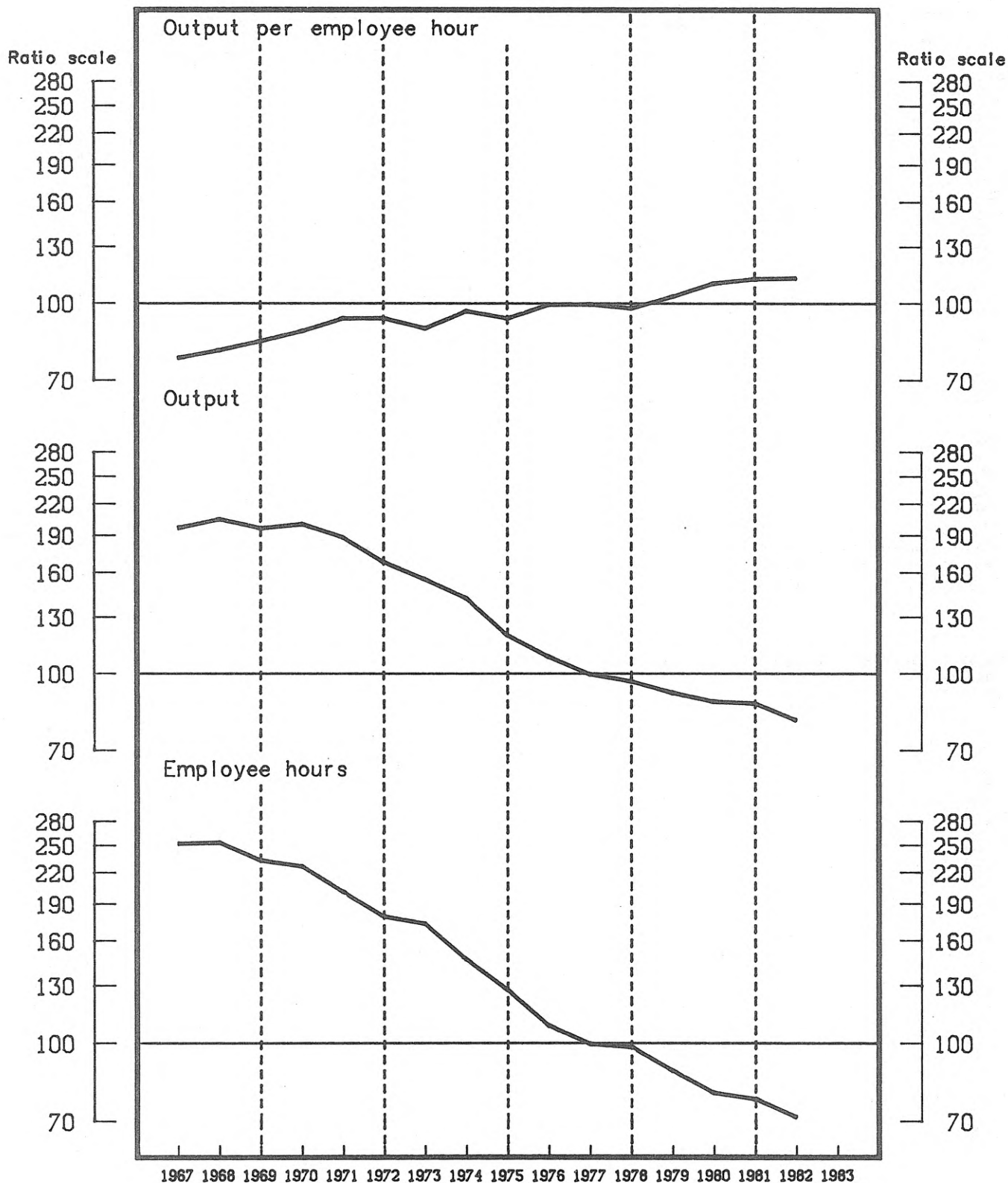
² Less than .05 percent.

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

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

Chart 32. Cigars (SIC 2121): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 61. Cigars (SIC 2121): Indexes of output per employee hour and output per employee, 1954-82
(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	98.2	96.8	116.2	98.1	96.8	113.0
1979	103.7	103.1	110.2	104.0	103.6	107.1
1980	110.3	110.8	105.8	111.2	112.1	102.8
1981	112.5	113.2	104.9	118.1	119.9	102.0
1982 ²	113.0	114.8	97.0	117.4	120.4	94.3
Average annual percent change:						
1947-82	4.5	4.6	3.1	4.5	4.7	2.7
1977-82	3.1	3.6	-1.4	4.2	4.8	-1.8

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

differ from those previously published.

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

² Preliminary.

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

Table 62. Cigars (SIC 2121): Indexes of output, employee hours, and employees, 1954-82
(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	98.6	100.0	83.3	98.7	100.0	85.7
1979	91.8	88.5	89.0	83.3	88.3	88.6	85.7
1980	88.1	79.9	79.5	83.3	79.2	78.6	85.7
1981	87.4	77.7	77.2	83.3	74.0	72.9	85.7
1982 ¹	80.8	71.5	70.4	83.3	68.8	67.1	85.7
Average annual percent change:							
1947-82	-1.8	-6.0	-6.1	-4.8	-6.0	-6.2	-4.4
1977-82	-4.0	-6.9	-7.3	-2.6	-7.8	-8.4	-2.2

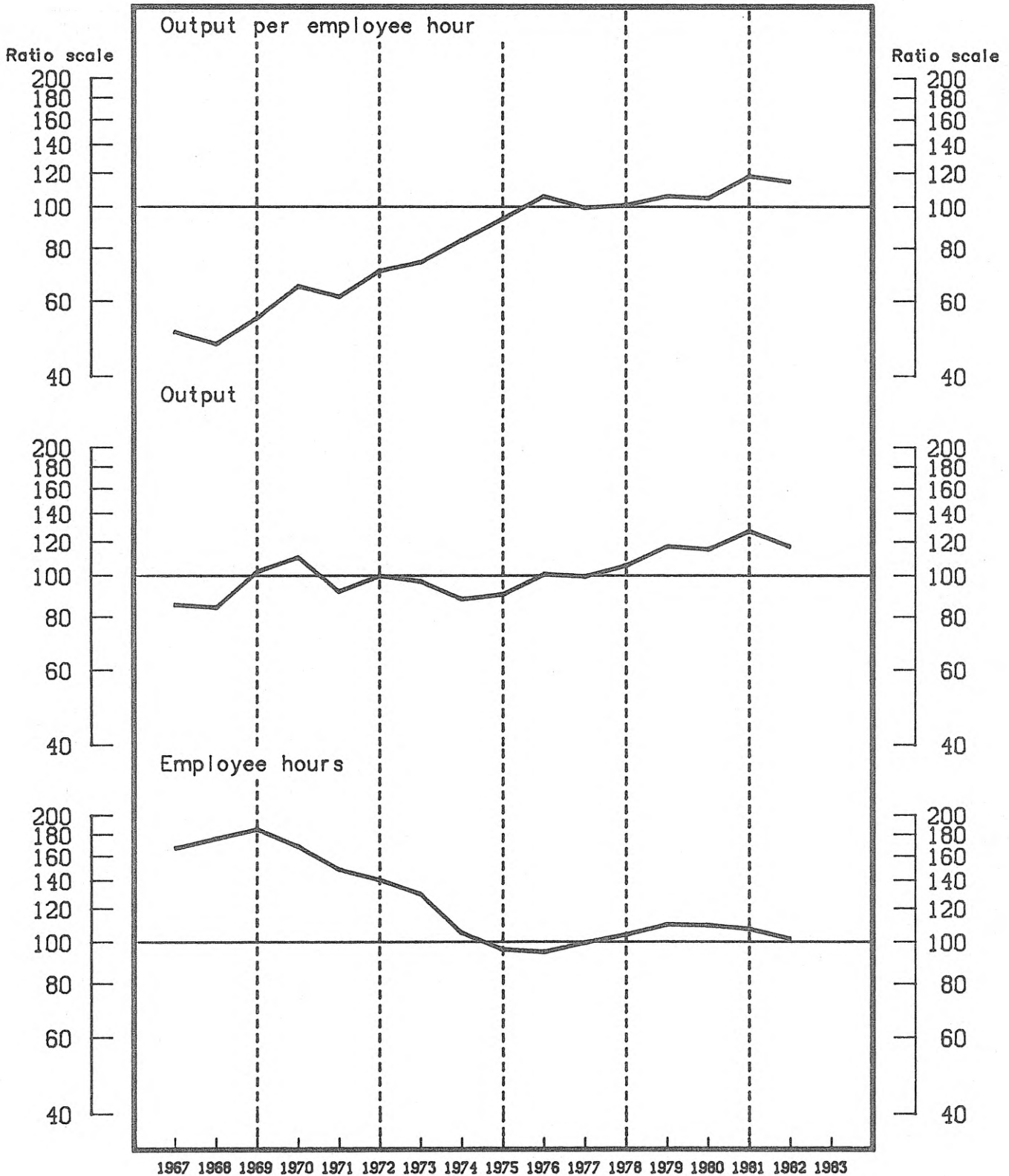
¹ Preliminary.

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

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

Chart 33. Hosiery (SIC 2251, 2252): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 63. Hosiery (SIC 2251, 2252): Indexes of output per employee hour and output per employee, 1954-82
(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	101.4	101.9	97.9	102.3	102.9	97.9
1979	106.5	108.4	92.2	110.6	113.1	92.8
1980	105.3	108.1	85.8	109.0	112.3	86.8
1981	118.6	122.1	94.0	124.1	128.7	94.6
1982 ²	115.0	119.2	87.6	116.9	121.4	88.0
Average annual percent change:						
1947-82	6.1	6.2	4.4	6.0	6.2	4.2
1977-82	3.4	4.1	-2.4	3.9	4.8	-2.3

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

differ from those previously published.

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

² Preliminary.

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

Table 64. Hosiery (SIC 2251, 2252): Indexes of output, employee hours, and employees, 1954-82
(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	106.0	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	115.7	109.9	107.0	134.9	106.1	103.0	133.3
1981	127.7	107.7	104.6	135.8	102.9	99.2	135.0
1982 ¹	117.3	102.0	98.4	133.9	100.3	96.6	133.3
Average annual percent change:							
1947-82	3.2	-2.7	-2.8	-1.1	-2.6	-2.8	-9
1977-82	3.9	.5	-2	6.5	(²)	-8	6.3

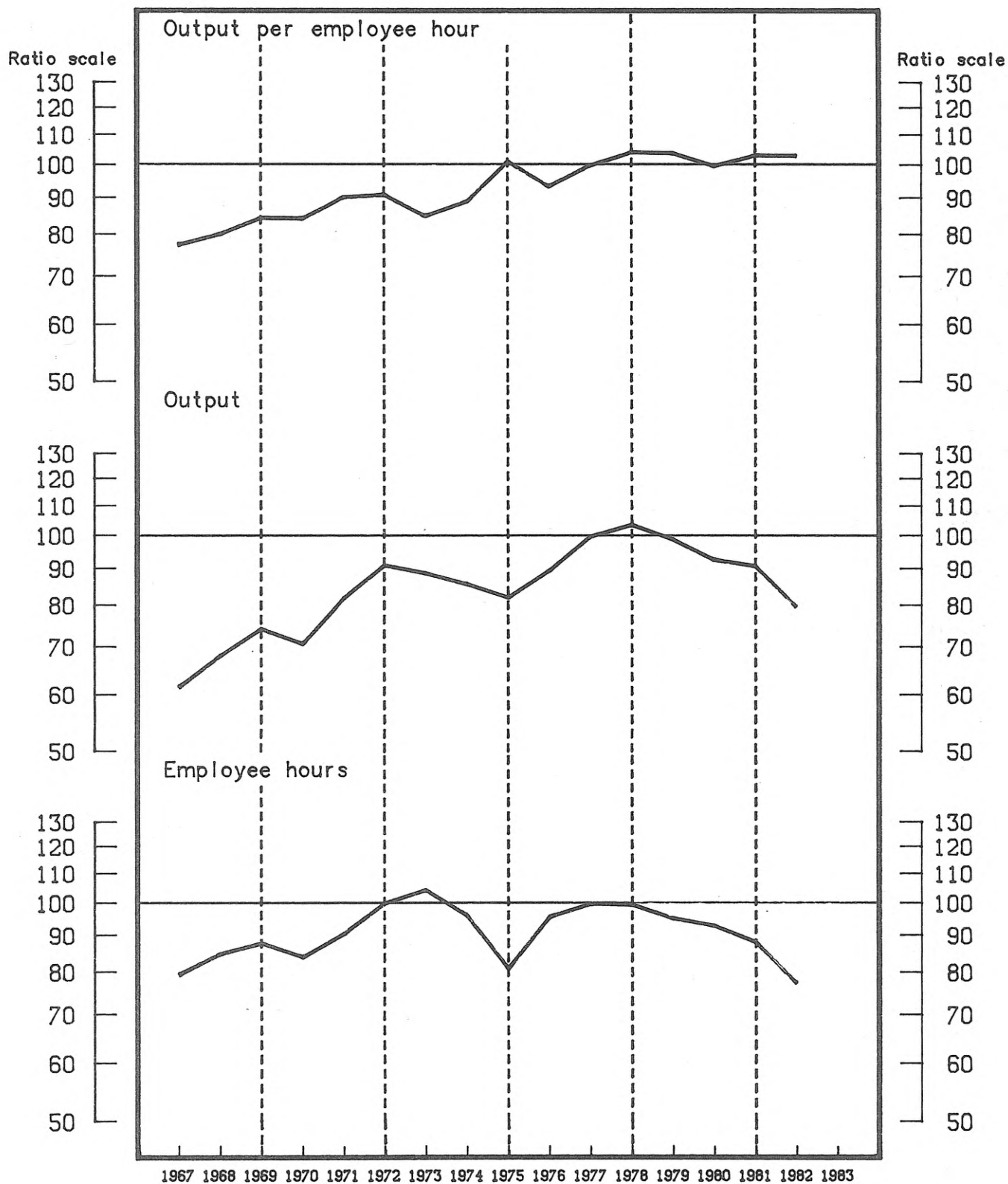
¹ Preliminary.

² Less than .05 percent.

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

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

Chart 34. Yarn mills, except wool (SIC 2281): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 65. Yarn mills, except wool (SIC 2281): Indexes of output per employee hour and output per employee, 1958-82
(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	99.8	100.5	91.4	97.0	97.5	91.5
1981	103.2	104.1	92.4	98.9	99.5	92.3
1982 ²	103.1	106.0	76.4	94.2	96.0	76.7
Average annual percent change:						
1958-82	2.1	2.2	.3	2.0	2.2	.1
1977-82 .....	.2	.7	-5.3	-1.4	-1.1	-5.2

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

² Preliminary.

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

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

Table 66. Yarn mills, except wool (SIC 2281): Indexes of output, employee hours, and employees, 1958-82
(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	92.8	93.0	92.3	101.5	95.7	95.2	101.4
1981	91.0	88.2	87.4	98.5	92.0	91.5	98.6
1982 ¹	79.8	77.4	75.3	104.4	84.7	83.1	104.1
Average annual percent change:							
1958-82	3.8	1.7	1.5	3.5	1.7	1.6	3.7
1977-82	-4.4	-4.7	-5.1	.9	-3.1	-3.4	.8

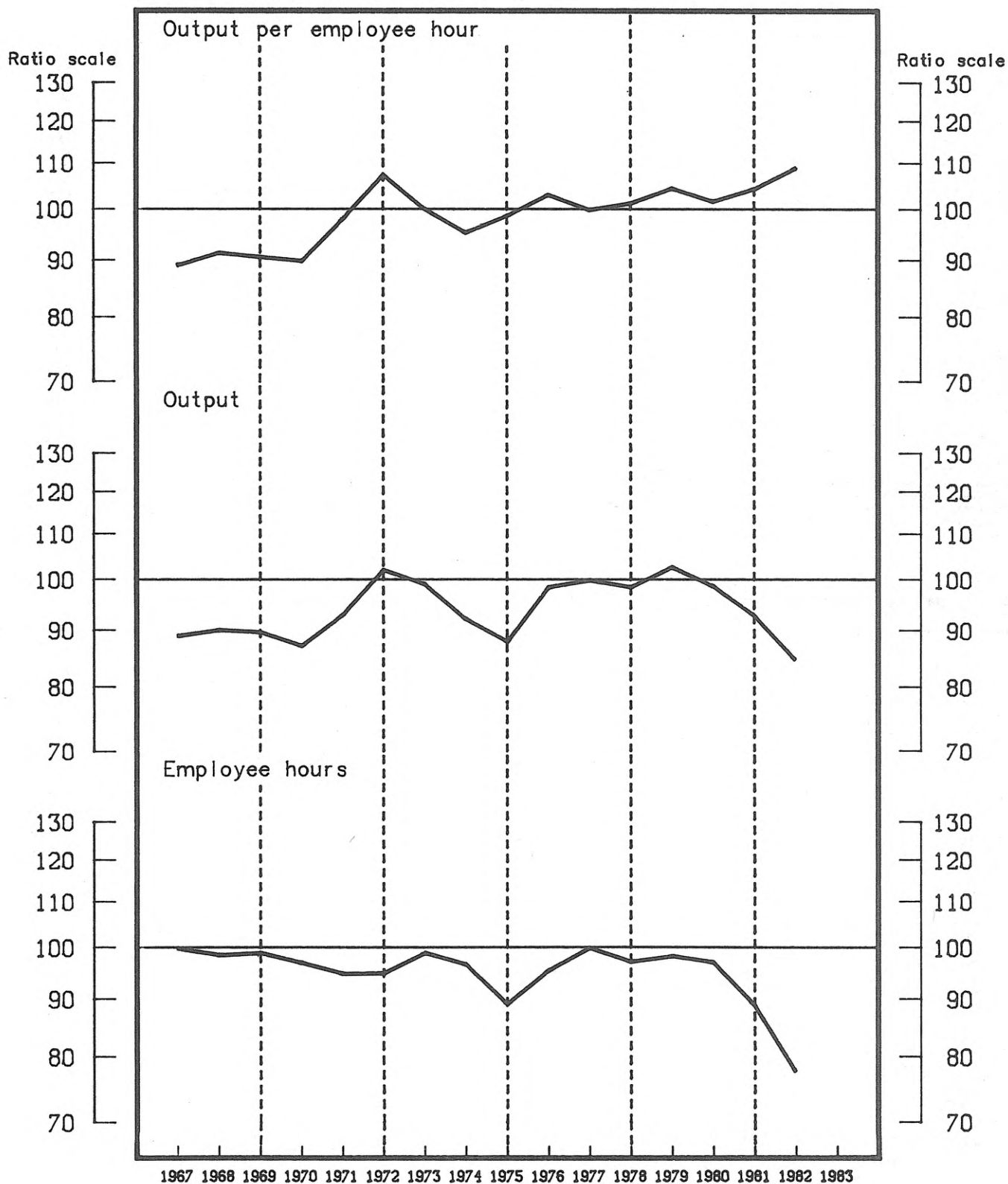
¹ Preliminary.

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

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

Chart 35. Sawmills and planing mills, general (SIC 2421): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 67. Sawmills and planing mills, general (SIC 2421): Indexes of output per employee hour and output per employee, 1958-82
(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	104.6	105.5	97.3	101.8	102.4	97.7
1980	101.8	105.1	80.5	98.7	101.4	81.3
1981	104.5	107.6	83.6	101.1	103.8	83.9
1982 ²	109.1	113.7	81.5	103.5	107.1	81.9
Average annual percent change:						
1958-82	2.0	2.2	.4	2.1	2.3	.5
1977-82	1.4	2.3	-4.5	.5	1.3	-4.4

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

² Preliminary.

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

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

Table 68. Sawmills and planing mills, general (SIC 2421): Indexes of output, employee hours, and employees, 1958-82
(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	102.8	98.3	97.4	105.6	101.0	100.4	105.2
1980	98.8	97.1	94.0	122.8	100.1	97.4	121.6
1981	93.0	89.0	86.4	111.3	92.0	89.6	110.8
1982 ¹	84.8	77.7	74.6	104.0	81.9	79.2	103.6
Average annual percent change:							
1958-82 .....	.4	-1.6	-1.8	-.1	-1.7	-1.9	-.1
1977-82	-2.9	-4.3	-5.1	1.7	-3.4	-4.1	1.6

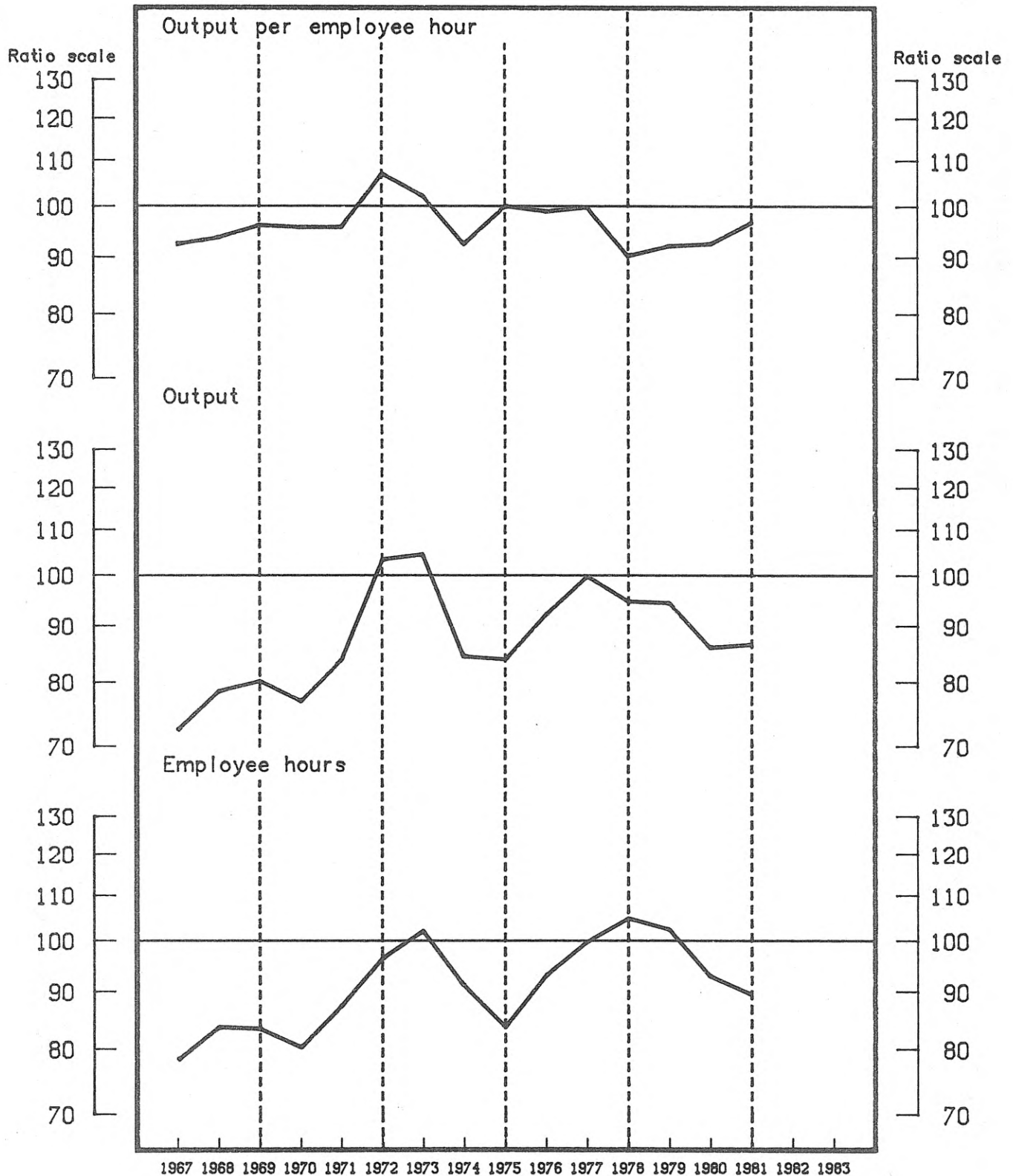
¹ Preliminary.

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 Bureau of the Census and the Bureau of Labor Statistics.

Chart 36. Millwork (SIC 2431): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 69. Millwork (SIC 2431): Indexes of output per employee hour and output per employee, 1958-81
(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	75.6	77.0	70.7	77.2	78.3	72.8
1959	71.7	72.4	69.7	74.2	74.8	71.8
1960	73.2	74.8	67.7	73.8	75.0	69.3
1961	76.9	78.1	72.6	78.3	79.4	73.7
1962	78.1	78.8	76.3	79.8	80.6	77.1
1963	86.0	86.0	86.5	88.6	88.9	87.3
1964	86.0	85.9	87.2	88.3	88.3	88.0
1965	85.8	86.1	85.2	88.2	88.7	86.0
1966	82.7	84.0	78.4	84.4	85.7	79.3
1967	92.6	93.3	90.1	94.9	96.0	91.0
1968	93.9	93.7	96.0	95.5	95.9	94.4
1969	96.3	96.6	95.7	96.2	96.6	94.9
1970	95.9	97.6	89.7	95.7	97.2	89.8
1971	95.9	95.3	99.3	96.3	96.8	95.1
1972	107.2	104.5	121.6	107.0	106.1	111.3
1973	102.3	101.6	106.7	101.6	101.6	101.7
1974	92.7	94.4	85.5	91.3	92.8	84.6
1975	100.2	102.6	90.9	100.4	102.8	90.3
1976	99.1	99.6	97.3	98.8	99.2	97.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	90.4	90.3	90.7	90.0	89.8	90.7
1979	92.3	93.6	86.6	91.0	91.9	86.6
1980	92.7	96.2	79.5	91.1	94.0	79.5
1981 ²	96.9	100.2	83.6	95.0	97.7	83.6
Average annual percent change:						
1958-81	1.2	1.3	1.1	1.0	1.1	.9
1977-81	-4	.7	-4.8	-9	(³)	-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.

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 70. Millwork (SIC 2431): Indexes of output, employee hours, and employees, 1958-81
(1977=100)

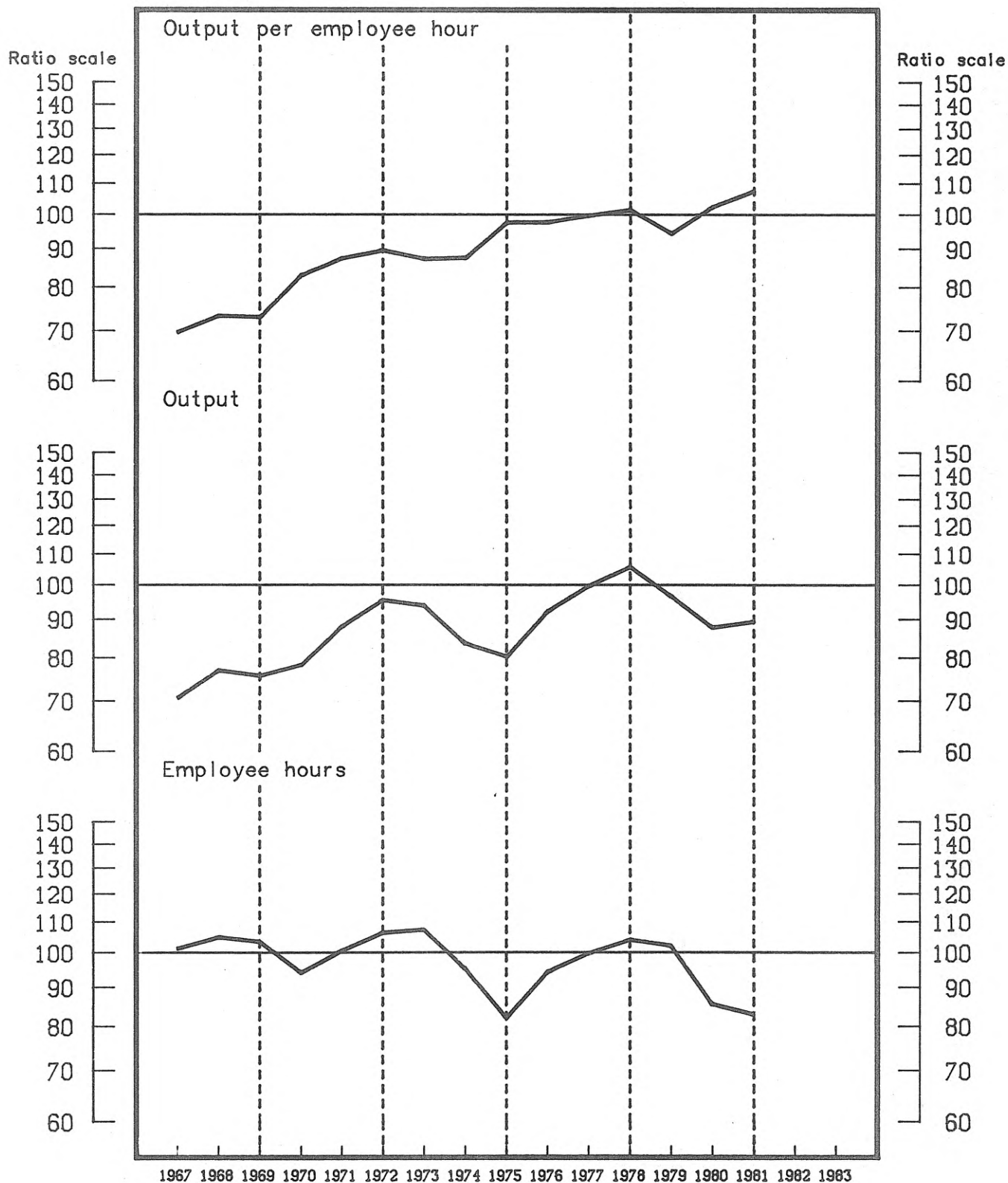
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	58.5	77.4	76.0	82.8	75.8	74.7	80.4
1959	61.2	85.3	84.5	87.8	82.5	81.8	85.2
1960	55.7	76.1	74.5	82.3	75.5	74.3	80.4
1961	56.6	73.6	72.5	78.0	72.3	71.3	76.8
1962	59.7	76.4	75.8	78.2	74.8	74.1	77.4
1963	68.1	79.2	79.2	78.7	76.9	76.6	78.0
1964	69.2	80.5	80.6	79.4	78.4	78.4	78.6
1965	70.2	81.8	81.5	82.4	79.6	79.1	81.6
1966	66.6	80.5	79.3	84.9	78.9	77.7	84.0
1967	72.6	78.4	77.8	80.6	76.5	75.6	79.8
1968	78.7	83.8	84.0	82.0	82.4	82.1	83.4
1969	80.4	83.5	83.2	84.0	83.6	83.2	84.7
1970	77.1	80.4	79.0	86.0	80.6	79.3	85.9
1971	84.0	87.6	88.1	84.6	87.2	86.8	88.3
1972	103.6	96.6	99.1	85.2	96.8	97.6	93.1
1973	104.7	102.3	103.1	98.1	103.1	103.1	103.0
1974	84.6	91.3	89.6	99.0	92.7	91.2	100.0
1975	84.1	83.9	82.0	92.5	83.8	81.8	93.1
1976	92.5	93.3	92.9	95.1	93.6	93.2	95.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	94.9	105.0	105.1	104.6	105.5	105.7	104.6
1979	94.6	102.5	101.1	109.2	104.0	102.9	109.2
1980	86.2	93.0	89.6	108.4	94.6	91.7	108.4
1981 ¹	86.8	89.6	86.6	103.8	91.4	88.8	103.8
Average annual percent change:							
1958-81	2.5	1.2	1.2	1.4	1.4	1.4	1.5
1977-81	-3.7	-3.4	-4.4	1.1	-2.8	-3.7	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 the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 37. Veneer and plywood (SIC 2435, 2436): Output per hour and related data, 1967-81
(1977 = 100)



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

Table 71. Veneer and plywood (SIC 2435, 2436): 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	41.7	40.4	55.2	41.4	40.0	56.7
1959	46.9	45.2	69.1	48.0	46.1	70.9
1960	49.3	47.7	67.7	48.3	46.6	69.1
1961	53.9	52.2	74.2	53.7	51.8	75.2
1962	58.3	56.1	86.1	59.0	56.7	86.8
1963	60.7	58.3	90.5	61.7	59.2	91.1
1964	62.6	60.4	89.1	64.1	61.9	89.6
1965	64.0	62.1	85.6	66.1	64.3	86.3
1966	64.3	62.5	83.3	65.8	64.0	83.9
1967	69.9	68.5	82.6	70.3	68.9	83.2
1968	73.5	71.7	91.1	75.2	73.7	89.4
1969	73.2	71.9	86.2	73.8	72.5	85.5
1970	83.2	83.0	83.7	82.2	82.0	83.7
1971	87.6	87.3	90.8	88.2	87.9	90.6
1972	89.8	88.8	98.7	93.0	92.5	98.2
1973	87.5	87.5	86.3	88.2	88.5	85.6
1974	87.8	88.8	80.7	85.9	86.7	79.9
1975	97.8	99.9	83.2	94.5	96.2	82.6
1976	97.9	98.1	96.3	97.6	97.8	96.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.7	102.2	97.5	101.3	101.8	97.6
1979	94.6	96.4	81.7	92.5	94.1	81.7
1980	102.7	105.8	82.9	98.3	100.7	82.9
1981 ²	107.8	109.1	98.1	102.8	103.5	98.0
Average annual percent change:						
1958-81	3.9	4.2	1.2	3.7	4.0	1.1
1977-81	1.6	2.1	-2.0	.3	.6	-2.0

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

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 72. Veneer and plywood (SIC 2435, 2436): 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	34.3	82.2	84.8	62.1	82.8	85.7	60.5
1959	43.8	93.3	97.0	63.4	91.3	95.1	61.8
1960	42.7	86.6	89.5	63.1	88.4	91.7	61.8
1961	46.5	86.2	89.1	62.7	86.6	89.7	61.8
1962	54.6	93.6	97.3	63.4	92.5	96.3	62.9
1963	56.3	92.8	96.6	62.2	91.3	95.1	61.8
1964	62.0	99.0	102.7	69.6	96.7	100.1	69.2
1965	68.2	106.5	109.8	79.7	103.1	106.1	79.0
1966	72.5	112.8	116.0	87.0	110.2	113.2	86.4
1967	70.9	101.5	103.5	85.8	100.9	102.9	85.2
1968	77.2	105.1	107.7	84.7	102.7	104.7	86.4
1969	75.9	103.7	105.6	88.0	102.9	104.7	88.8
1970	78.5	94.4	94.6	93.8	95.5	95.7	93.8
1971	88.3	100.8	101.2	97.3	100.1	100.4	97.5
1972	95.7	106.6	107.8	97.0	102.9	103.5	97.5
1973	94.1	107.6	107.5	109.1	106.7	106.3	109.9
1974	83.8	95.4	94.4	103.9	97.5	96.6	104.9
1975	80.5	82.3	80.6	96.8	85.2	83.7	97.5
1976	92.5	94.5	94.3	96.1	94.8	94.6	96.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.0	104.2	103.7	108.7	104.6	104.1	108.6
1979	96.8	102.3	100.4	118.5	104.6	102.9	118.5
1980	88.0	85.7	83.2	106.2	89.5	87.4	106.2
1981 ¹	89.6	83.1	82.1	91.3	87.2	86.6	91.4
Average annual percent change:							
1958-81	4.0	.1	-2	2.7	.3	(²)	2.8
1977-81	-4.0	-5.5	-6.0	-2.0	-4.2	-4.5	-2.0

¹ Preliminary.

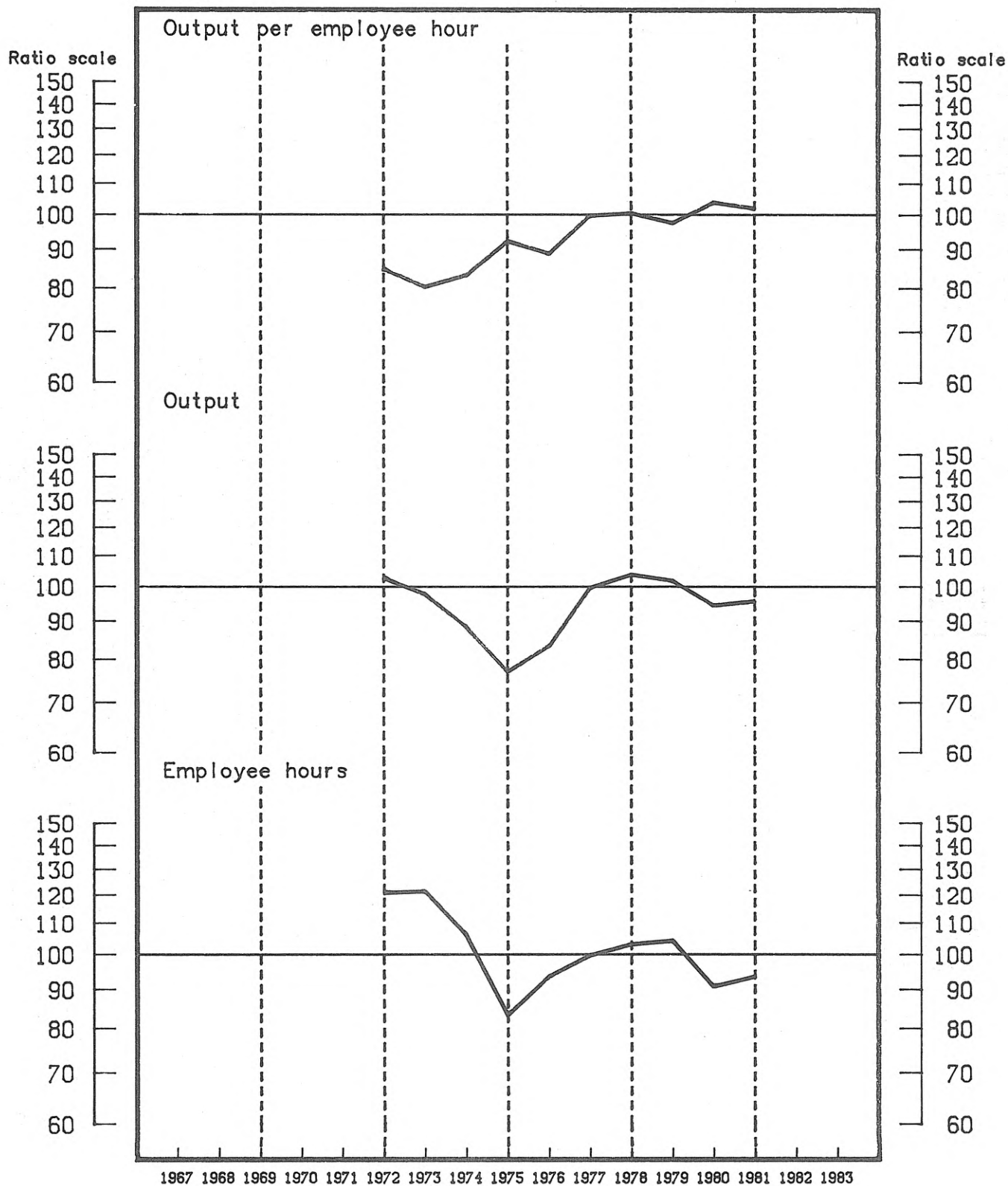
² Less than .05 percent.

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

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

Chart 38. Hardwood veneer and plywood (SIC 2435): Output per hour and related data, 1972-81

(1977 = 100)



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

Table 73. Hardwood veneer and plywood (SIC 2435): Indexes of output per employee hour and output per employee, 1972-81
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	84.9	83.5	97.0	87.7	86.6	96.5
1973	80.5	78.8	95.5	81.8	80.4	94.9
1974	83.4	81.7	99.6	82.7	81.1	98.6
1975	92.5	92.4	93.5	89.6	89.2	92.8
1976	89.1	88.7	93.2	89.1	88.7	93.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	99.8	107.7	99.5	98.6	107.7
1979	97.8	97.7	98.9	96.3	96.1	98.9
1980	104.1	104.9	97.9	100.4	100.7	97.9
1981 ²	102.2	103.6	92.8	101.3	102.5	92.8
Average annual percent change:						
1972-81	2.8	3.2	.1	2.4	2.7	.2
1977-81 .....	.8	1.2	-2.4	.3	.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 based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Table 74. Hardwood veneer and plywood (SIC 2435): Indexes of output, employee hours, and employees, 1972-81
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	103.0	121.3	123.3	106.2	117.5	118.9	106.7
1973	98.0	121.8	124.3	102.6	119.8	121.9	103.3
1974	88.7	106.4	108.6	89.1	107.2	109.4	90.0
1975	77.3	83.6	83.7	82.7	86.3	86.7	83.3
1976	83.7	93.9	94.4	89.8	93.9	94.4	90.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	103.4	104.3	96.7	104.6	105.6	96.7
1979	102.2	104.5	104.6	103.3	106.1	106.4	103.3
1980	94.7	91.0	90.3	96.7	94.3	94.0	96.7
1981 ¹	95.9	93.8	92.6	103.3	94.7	93.6	103.3
Average annual percent change:							
1972-81 .....	.5	-2.2	-2.6	.4	-1.8	-2.1	.3
1977-81	-1.8	-2.5	-2.9	.7	-2.1	-2.5	.7

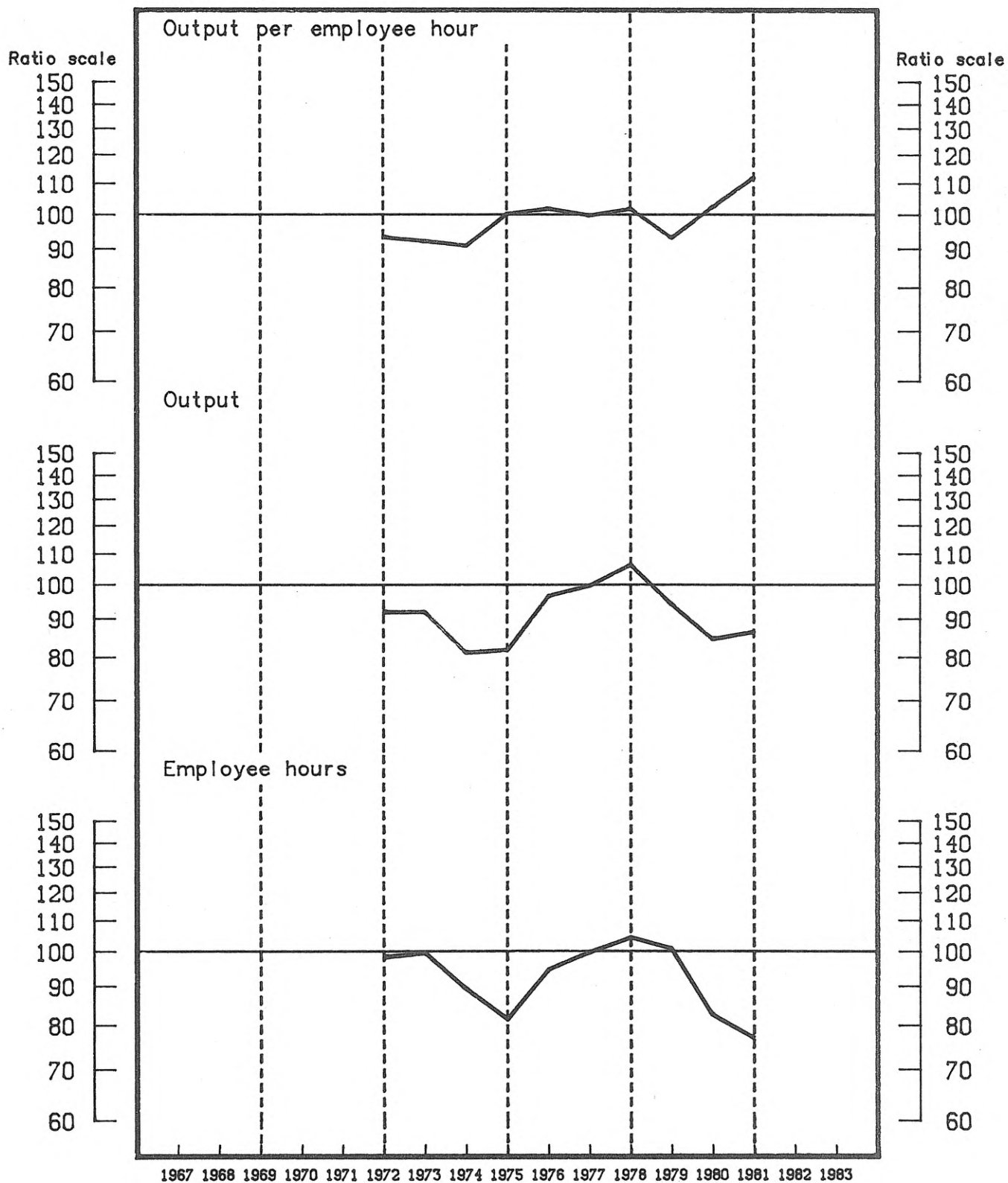
¹ Preliminary.

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

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

Chart 39. Softwood veneer and plywood (SIC 2436): Output per hour and related data, 1972-81

(1977 = 100)



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

Table 75. Softwood veneer and plywood (SIC 2436): Indexes of output per employee hour and output per employee, 1972-81
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
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	102.7	107.1	75.9	97.8	101.4	75.9
1981 ²	112.4	113.6	103.0	104.7	104.8	103.0
Average annual percent change:						
1972-81	1.6	1.7	.2	.8	.9	.3
1977-81	2.4	2.9	-1.4	.5	.7	-1.4

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

² Preliminary.

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

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

Table 76. Softwood veneer and plywood (SIC 2436): Indexes of output, employee hours, and employees, 1972-81
(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	84.9	82.7	79.3	111.8	86.8	83.7	111.8
1981 ¹	86.8	77.2	76.4	84.3	82.9	82.8	84.3
Average annual percent change:							
1972-81 .....	.3	-1.3	-1.4	(²)	-.5	-.6	-.1
1977-81	-5.0	-7.2	-7.7	-3.7	-5.5	-5.7	-3.7

¹ Preliminary.

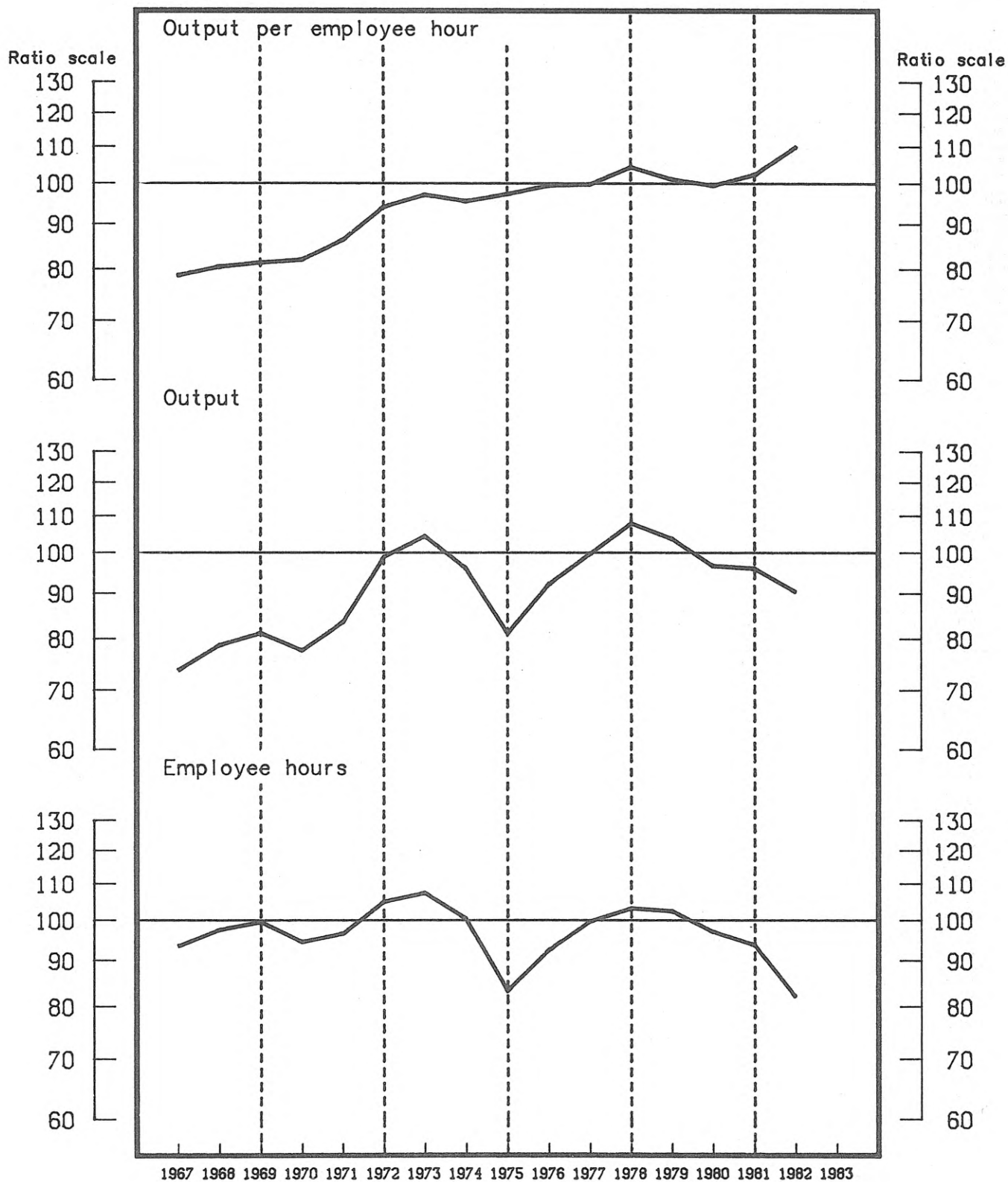
² Less than .05 percent.

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

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

Chart 40. Household furniture (SIC 251): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 77. Household furniture (SIC 251): Indexes of output per employee hour and output per employee, 1958-82
(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	104.2	105.9	106.2	104.2
1979	101.3	102.1	96.6	102.0	102.9	96.9
1980	99.7	101.6	89.9	99.0	100.6	90.6
1981	102.6	104.3	93.0	102.1	103.7	93.3
1982 ²	110.2	114.5	89.6	106.0	109.2	90.0
Average annual percent change:						
1958-82	2.2	2.4	1.4	1.9	2.0	1.3
1977-82	1.2	1.9	-2.7	.4	1.0	-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 78. Household furniture (SIC 251): Indexes of output, employee hours, and employees, 1958-82
(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	103.8	102.2	101.9	103.8
1979	103.9	102.6	101.8	107.6	101.9	101.0	107.2
1980	96.9	97.2	95.4	107.8	97.9	96.3	107.0
1981	96.3	93.9	92.3	103.5	94.3	92.9	103.2
1982 ¹	90.6	82.2	79.1	101.1	85.5	83.0	100.7
Average annual percent change:							
1958-82	2.8	.6	.5	1.5	1.0	.9	1.5
1977-82	-2.6	-3.7	-4.4	.1	-3.0	-3.5	(²)

¹ Preliminary.

² Less than .05 percent.

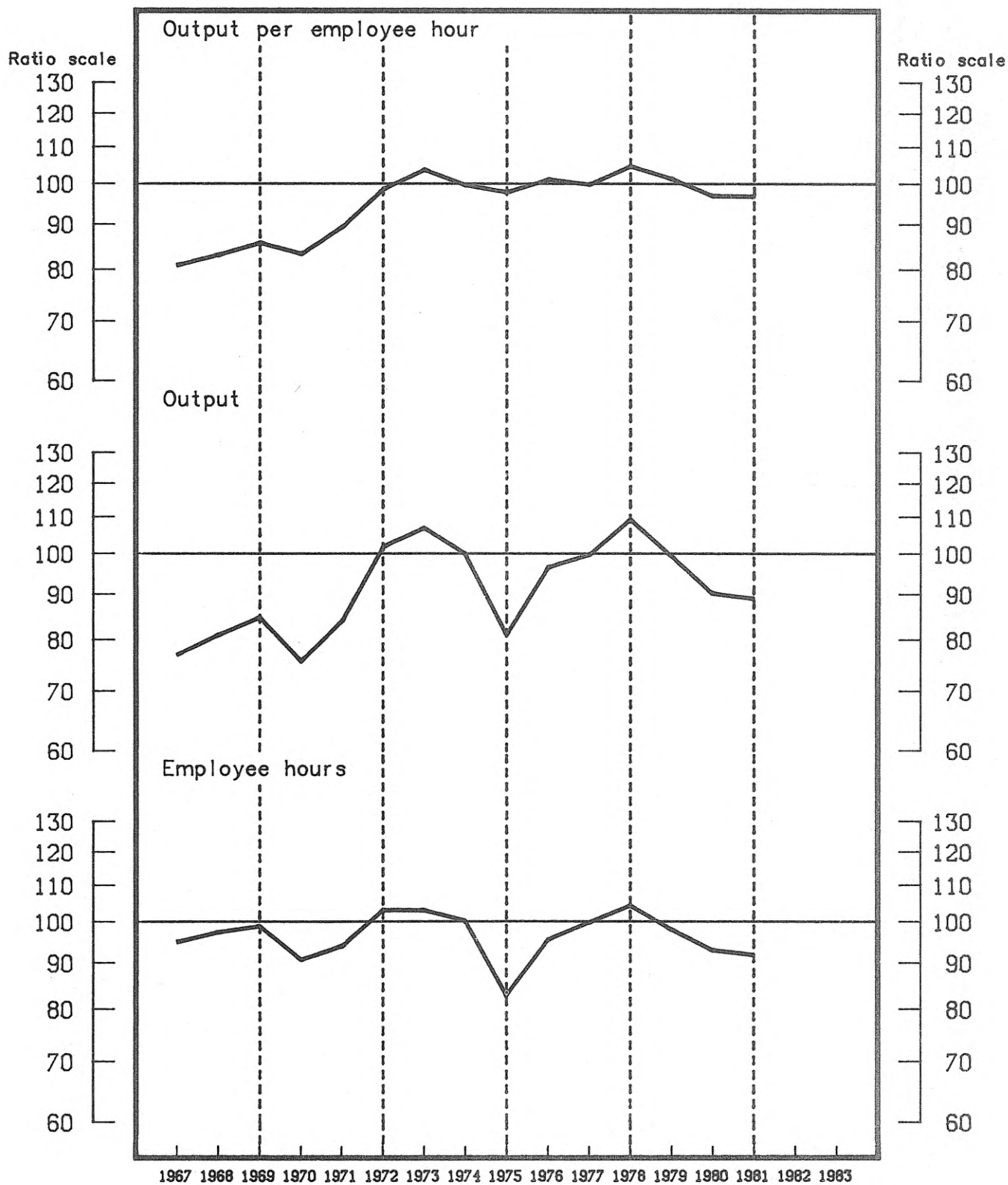
NOTE: Because of periodic revisions in source data, the measures in this table

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 41. Wood household furniture (SIC 2511, 2517): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 79. Wood household furniture (SIC 2511, 2517): 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	66.4	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	101.5	103.1	90.5	101.7	103.4	90.8
1980	97.1	99.7	80.6	94.2	96.2	81.1
1981 ²	97.0	99.0	83.4	95.5	97.4	83.5
Average annual percent change:						
1958-81	2.1	2.3	.7	1.7	1.9	.6
1977-81	-1.4	-8	-5.4	-2.1	-1.6	-5.3

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

² Preliminary.

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

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

Table 80. Wood household furniture (SIC 2511, 2517): 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	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	99.6	98.1	96.6	110.0	97.9	96.3	109.7
1980	90.4	93.1	90.7	112.1	96.0	94.0	111.4
1981 ¹	89.2	92.0	90.1	106.9	93.4	91.6	106.8
Average annual percent change:							
1958-81	3.0	.9	.7	2.3	1.2	1.1	2.4
1977-81	-4.1	-2.8	-3.4	1.4	-2.1	-2.6	1.3

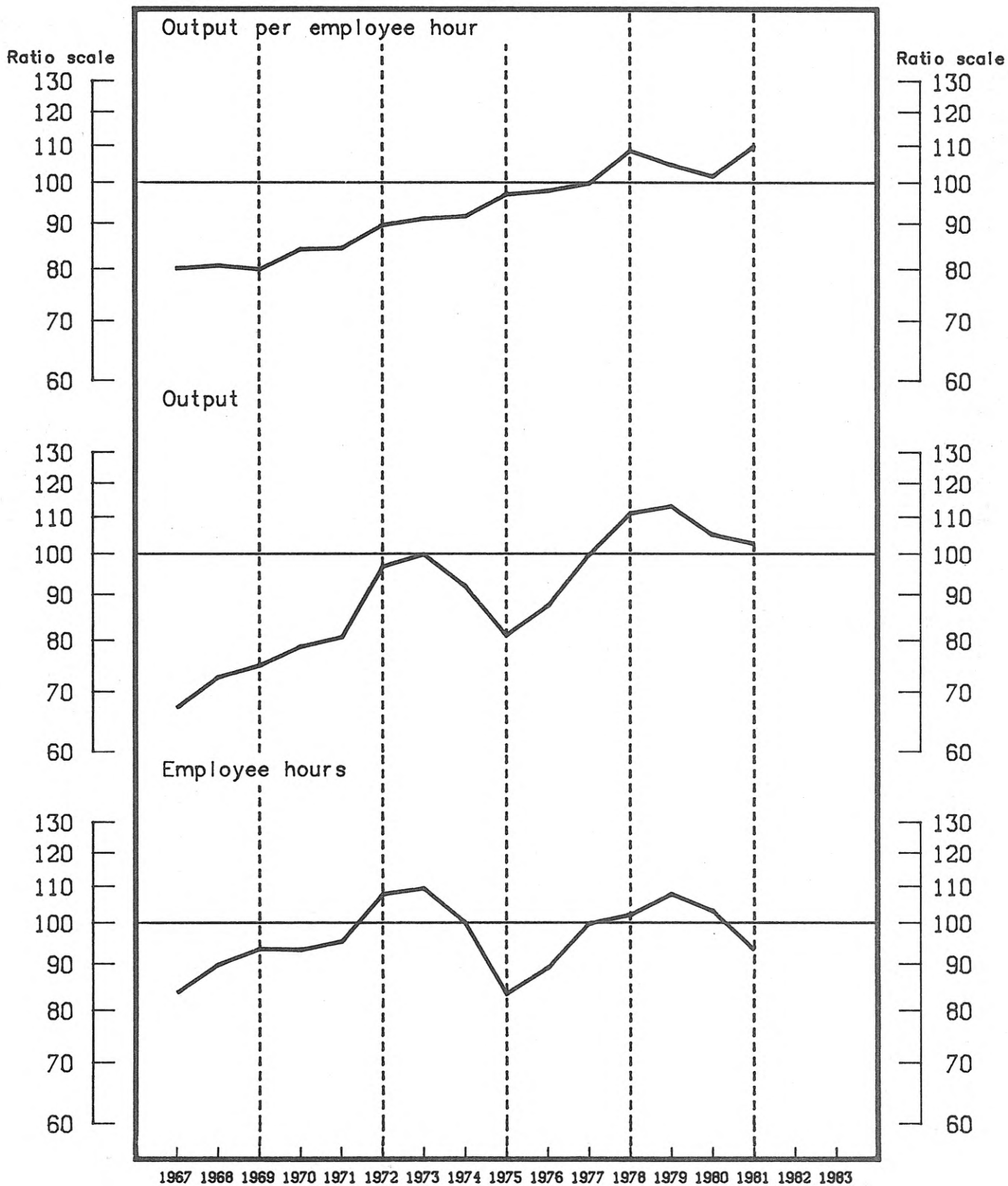
¹ Preliminary.

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

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

Chart 42. Upholstered household furniture (SIC 2512): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 81. Upholstered household furniture (SIC 2512): 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	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	104.9	103.8	111.5	106.3	105.4	111.6
1980	101.9	102.3	100.1	105.4	106.3	100.8
1981 ²	110.1	110.6	106.7	110.2	110.8	106.9
Average annual percent change:						
1958-81	1.9	1.9	1.6	1.6	1.6	1.5
1977-81	1.3	1.5	.1	1.4	1.7	.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 82. Upholstered household furniture (SIC 2512): 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	48.5	67.6	67.2	69.6	64.3	63.5	68.9
1959	55.8	75.5	76.5	69.6	69.3	69.3	68.9
1960	54.5	75.1	75.4	73.1	69.9	69.3	72.5
1961	52.8	71.3	72.8	62.8	66.7	67.4	62.5
1962	57.5	76.8	78.5	67.4	70.5	71.1	66.7
1963	58.1	76.1	76.9	71.6	71.5	71.5	71.0
1964	62.7	80.2	81.1	75.4	76.4	76.6	74.6
1965	67.3	83.9	85.4	75.7	79.0	79.5	75.4
1966	70.8	86.4	87.9	77.7	82.1	82.7	77.5
1967	67.4	83.9	85.5	74.6	79.2	79.9	74.6
1968	72.9	90.1	91.8	80.4	84.6	86.3	74.6
1969	75.1	93.7	95.0	86.5	88.0	89.0	81.1
1970	78.9	93.5	94.5	87.6	88.2	89.0	83.2
1971	80.8	95.5	96.9	87.2	88.8	89.4	84.7
1972	97.0	108.0	109.2	101.8	103.2	103.4	101.9
1973	100.1	109.6	110.2	106.4	106.5	106.4	107.5
1974	92.2	100.3	101.2	96.0	99.4	99.5	98.5
1975	81.3	83.6	84.2	80.6	83.5	83.8	82.1
1976	87.6	89.3	89.8	86.1	88.9	89.3	86.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	111.3	102.3	103.1	98.4	100.3	100.7	98.5
1979	113.3	108.0	109.2	101.6	106.6	107.5	101.5
1980	105.3	103.3	102.9	105.2	99.9	99.1	104.5
1981 ¹	102.9	93.5	93.0	96.4	93.4	92.9	96.3
Average annual percent change:							
1958-81	3.6	1.7	1.6	2.0	2.0	2.0	2.1
1977-81	(²)	-1.2	-1.5	-1	-1.4	-1.6	-2

¹ Preliminary.

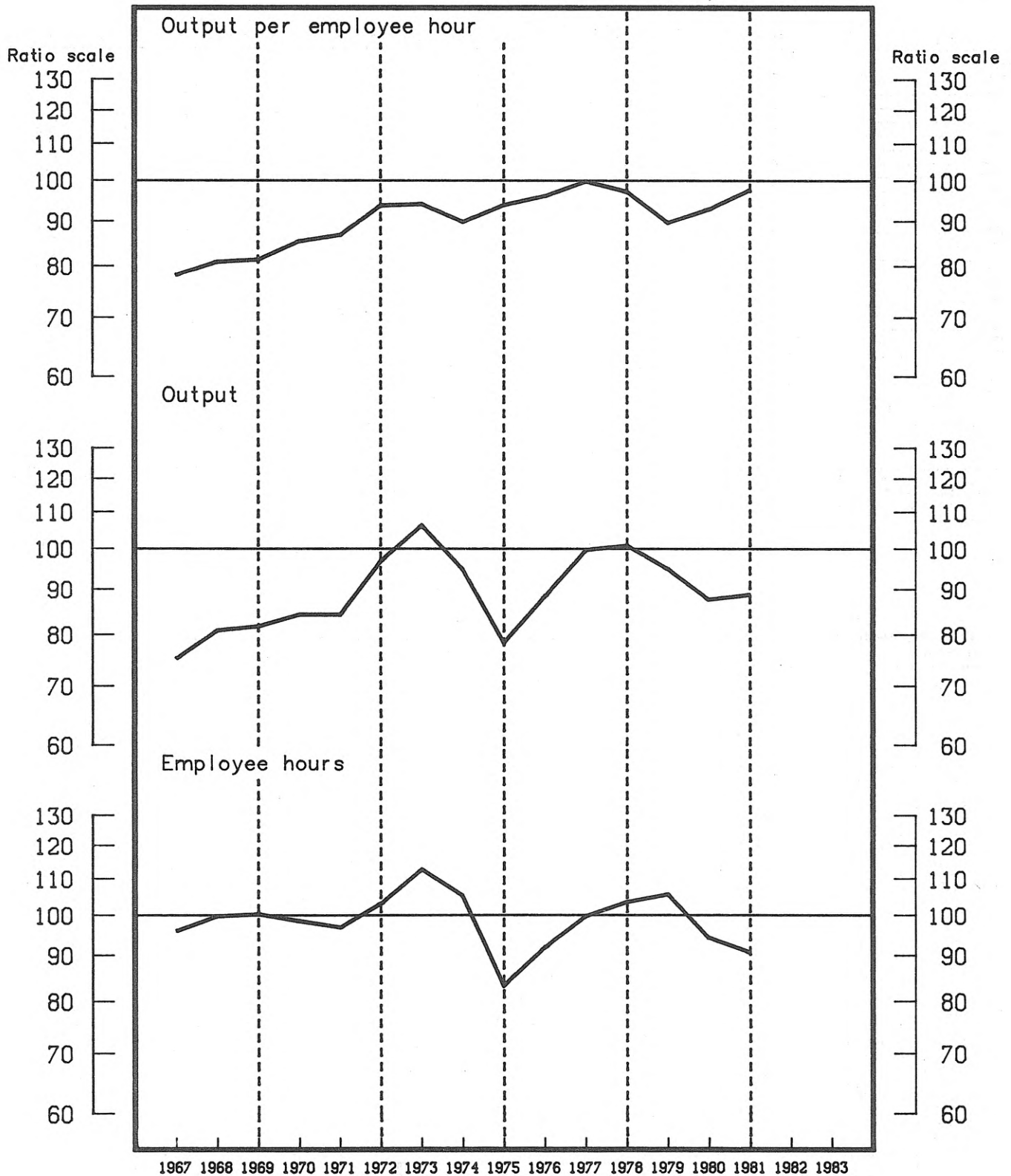
² Less than .05 percent.

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 43. Metal household furniture (SIC 2514): Output per hour and related data, 1967-81
(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.

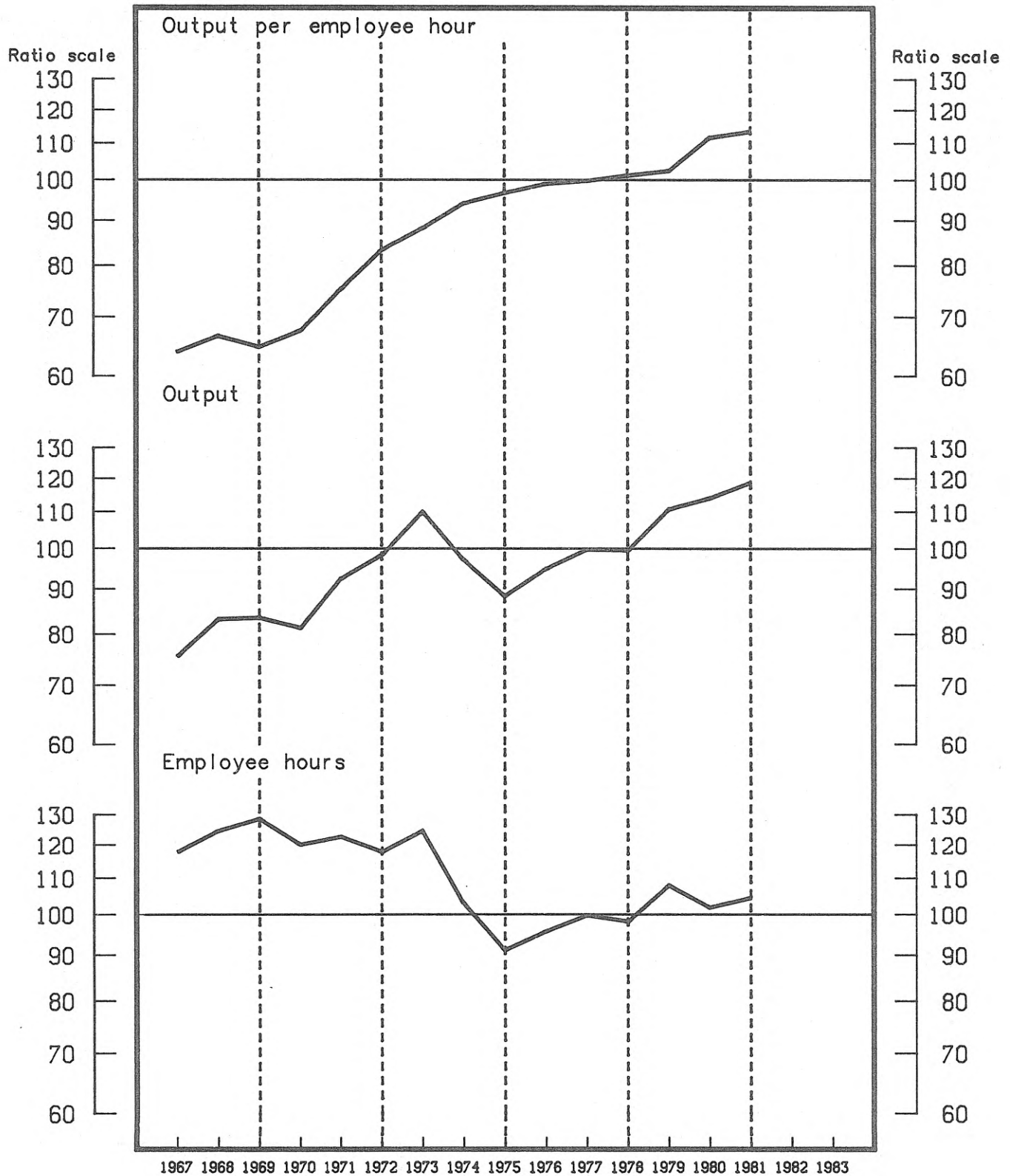
NOTE: Because of periodic revisions in source data, the measures in this table

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

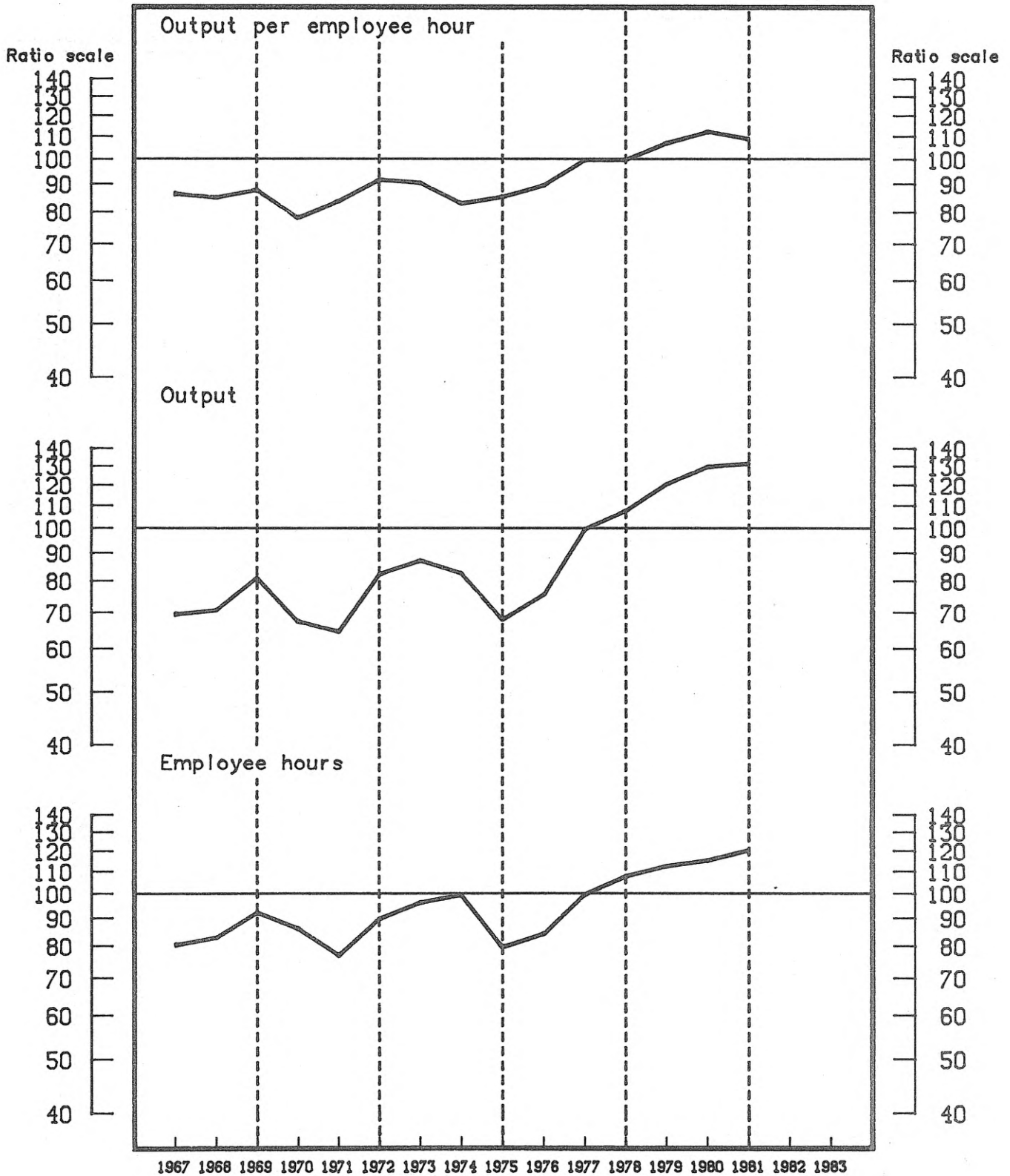
¹ Preliminary.

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 87. Office furniture (SIC 252): 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	64.0	62.0	73.2	63.9	61.5	74.5
1959	69.8	66.6	85.0	70.9	67.4	86.4
1960	70.4	67.0	86.2	72.0	68.8	86.6
1961	72.5	69.8	84.0	74.1	71.6	84.4
1962	74.4	71.5	88.1	75.4	72.5	88.6
1963	75.9	72.7	90.3	77.7	74.8	90.3
1964	82.1	80.0	90.9	84.7	82.9	91.4
1965	84.2	81.1	98.1	88.6	86.2	98.1
1966	86.7	83.0	103.5	90.9	88.0	103.3
1967	86.5	84.2	96.0	89.1	87.3	95.9
1968	85.2	84.8	86.8	90.1	89.2	93.5
1969	88.0	89.2	84.1	91.6	92.2	89.5
1970	78.2	79.4	74.0	81.7	82.9	77.8
1971	83.9	86.6	75.3	86.5	89.5	77.3
1972	91.8	91.7	92.1	94.7	95.5	92.0
1973	90.6	89.9	93.0	92.7	92.8	92.2
1974	83.1	80.7	93.5	83.8	82.0	91.2
1975	85.5	87.4	78.8	83.4	85.1	77.6
1976	89.7	91.2	84.4	88.6	89.9	84.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.1	99.6	102.1	100.3	99.8	101.9
1979	107.3	106.6	109.9	109.2	109.0	110.0
1980	112.5	118.3	95.2	109.9	114.4	96.1
1981 ²	109.1	112.7	97.7	109.8	113.6	98.1
Average annual percent change:						
1958-81	1.9	2.2	.6	1.8	2.1	.6
1977-81	3.0	4.2	-1.2	2.8	4.0	-1.0

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

² Preliminary.

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

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

Table 88. Office furniture (SIC 252): 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	33.1	51.7	53.4	45.2	51.8	53.8	44.4
1959	37.5	53.7	56.3	44.1	52.9	55.6	43.4
1960	39.4	56.0	58.8	45.7	54.7	57.3	45.5
1961	38.4	53.0	55.0	45.7	51.8	53.6	45.5
1962	42.1	56.6	58.9	47.8	55.8	58.1	47.5
1963	45.6	60.1	62.7	50.5	58.7	61.0	50.5
1964	50.8	61.9	63.5	55.9	60.0	61.3	55.6
1965	57.5	68.3	70.9	58.6	64.9	66.7	58.6
1966	67.9	78.3	81.8	65.6	74.7	77.2	65.7
1967	69.7	80.6	82.8	72.6	78.2	79.8	72.7
1968	70.9	83.2	83.6	81.7	78.7	79.5	75.8
1969	81.4	92.5	91.3	96.8	88.9	88.3	90.9
1970	67.6	86.4	85.1	91.4	82.7	81.5	86.9
1971	64.8	77.2	74.8	86.0	74.9	72.4	83.8
1972	82.7	90.1	90.2	89.8	87.3	86.6	89.9
1973	87.5	96.6	97.3	94.1	94.4	94.3	94.9
1974	82.9	99.8	102.7	88.7	98.9	101.1	90.9
1975	68.2	79.8	78.0	86.6	81.8	80.1	87.9
1976	75.8	84.5	83.1	89.8	85.6	84.3	89.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.1	108.0	108.5	105.9	107.8	108.3	106.1
1979	121.1	112.9	113.6	110.2	110.9	111.1	110.1
1980	130.1	115.6	110.0	136.6	118.4	113.7	135.4
1981 ¹	131.8	120.8	116.9	134.9	120.0	116.0	134.3
Average annual percent change:							
1958-81	5.6	3.6	3.3	4.9	3.8	3.4	5.0
1977-81	7.7	4.6	3.3	8.9	4.7	3.5	8.7

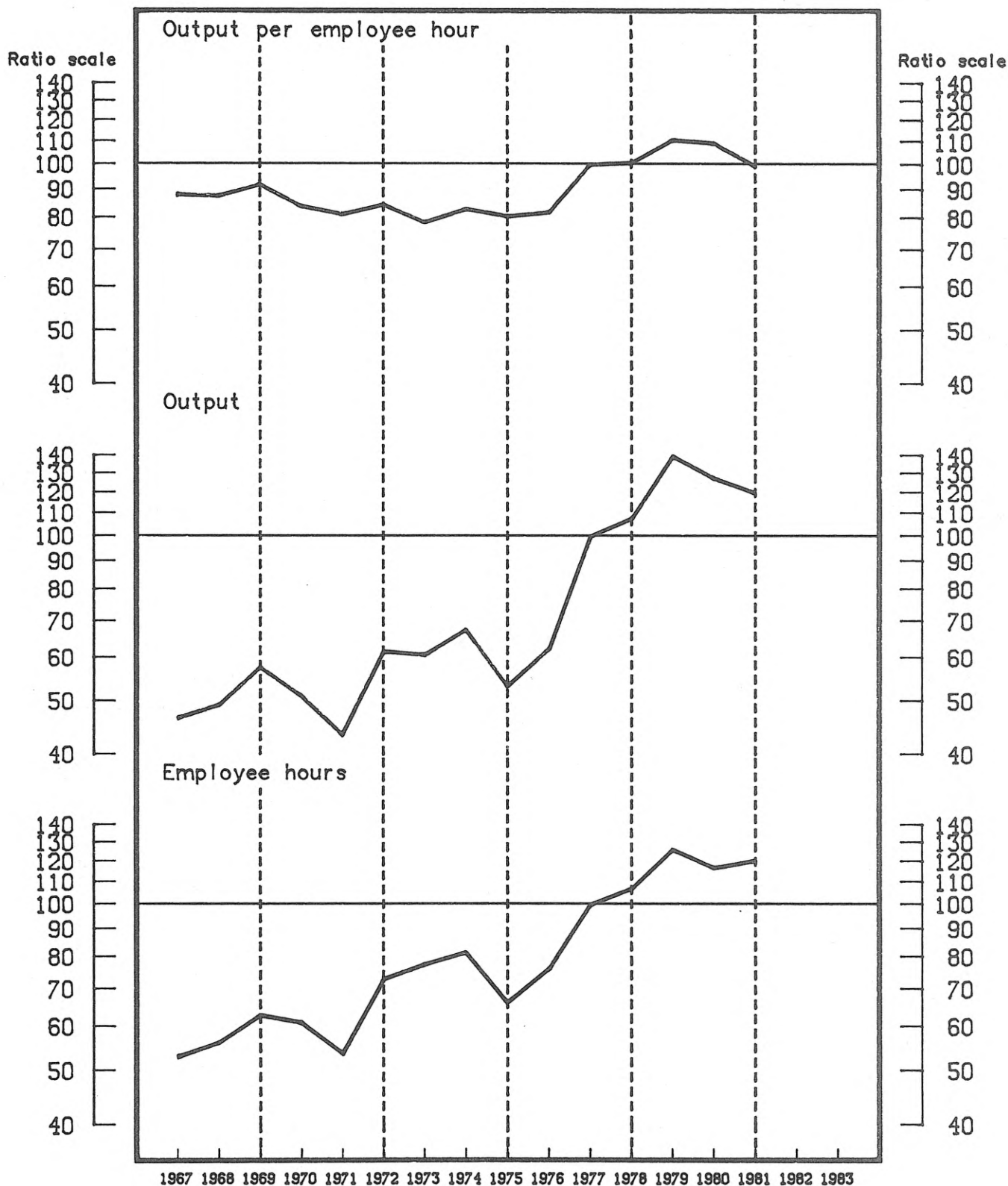
¹ Preliminary.

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

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

Chart 46. Wood office furniture (SIC 2521): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 89. Wood office furniture (SIC 2521): 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	67.1	62.5	98.0	67.7	62.7	98.0
1959	69.5	64.2	109.6	71.9	66.2	109.6
1960	68.0	63.7	96.1	71.4	67.0	96.8
1961	70.5	66.1	97.2	74.5	70.3	97.9
1962	69.9	64.8	104.2	74.9	69.9	105.0
1963	80.4	74.5	121.9	85.0	78.8	122.8
1964	84.5	79.2	116.7	88.3	83.1	118.6
1965	82.8	78.8	105.7	86.4	82.3	108.0
1966	85.9	81.5	112.5	88.3	83.5	114.9
1967	88.1	83.2	116.8	91.2	86.6	115.0
1968	87.7	83.3	113.9	95.0	90.1	121.4
1969	91.9	88.8	108.4	97.3	93.7	115.6
1970	83.9	79.6	109.6	85.3	79.9	116.9
1971	81.2	78.3	96.9	80.1	76.5	99.5
1972	84.5	81.1	102.8	85.8	82.3	103.9
1973	78.5	74.9	98.5	78.5	74.9	97.3
1974	83.0	78.4	109.7	80.8	76.0	108.3
1975	80.5	78.3	91.6	73.7	70.4	89.9
1976	81.9	79.2	96.0	78.0	74.6	95.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	103.3	91.0	98.4	100.7	90.7
1979	110.7	113.9	98.7	111.3	114.7	99.4
1980	109.2	117.4	84.0	100.5	105.3	85.0
1981 ²	99.4	102.9	86.7	99.4	103.0	87.2
Average annual percent change:						
1958-81	1.7	2.1	-7	1.2	1.7	-8
1977-81 .....	.7	1.9	-3.6	.1	1.0	-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 90. Wood office furniture (SIC 2521): Indexes of output, employee hours, and employees, 1958-81
(1977=100)

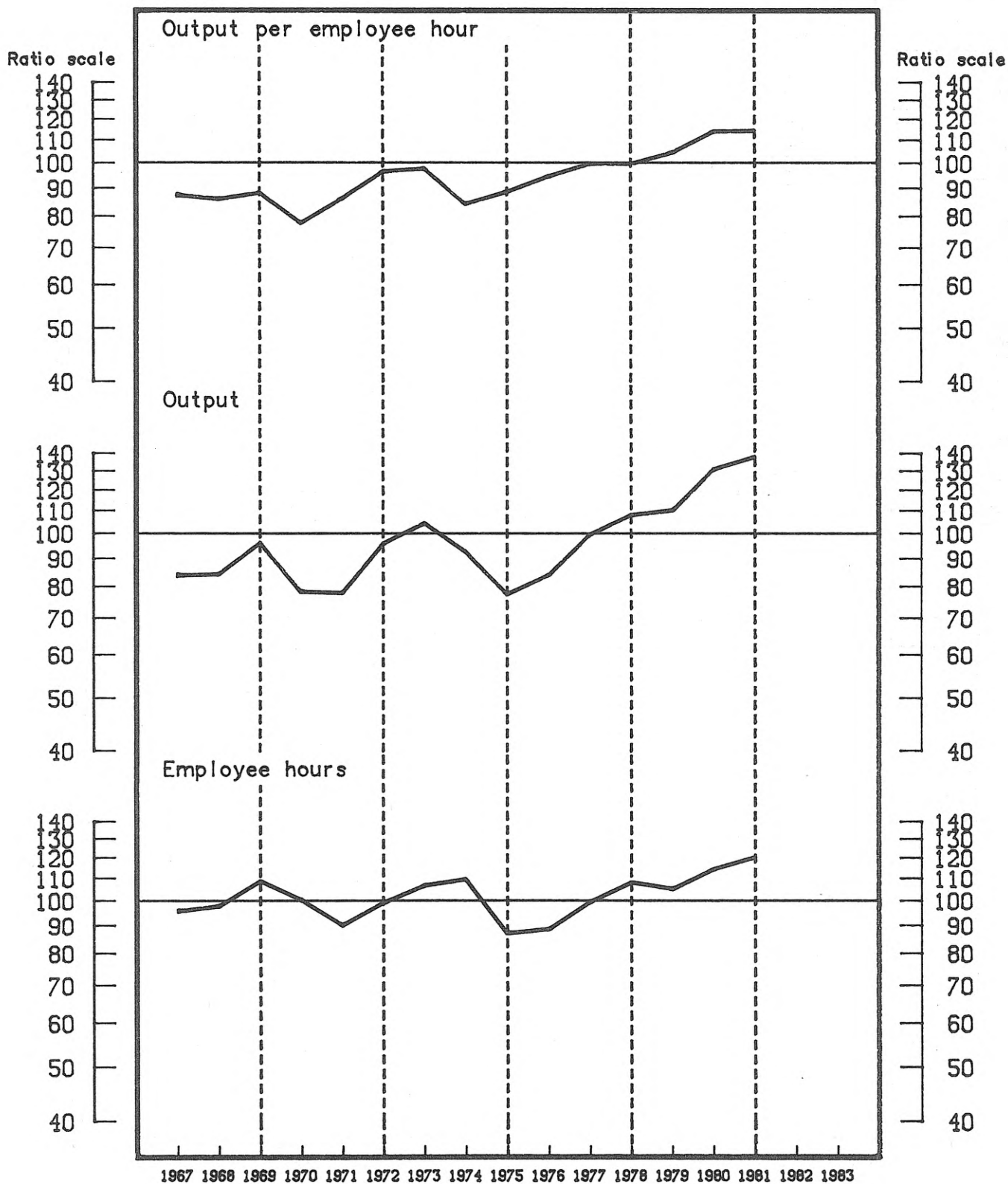
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	24.5	36.5	39.2	25.0	36.2	39.1	25.0
1959	27.4	39.4	42.7	25.0	38.1	41.4	25.0
1960	27.2	40.0	42.7	28.3	38.1	40.6	28.1
1961	27.5	39.0	41.6	28.3	36.9	39.1	28.1
1962	29.5	42.2	45.5	28.3	39.4	42.2	28.1
1963	34.5	42.9	46.3	28.3	40.6	43.8	28.1
1964	37.0	43.8	46.7	31.7	41.9	44.5	31.2
1965	40.5	48.9	51.4	38.3	46.9	49.2	37.5
1966	43.1	50.2	52.9	38.3	48.8	51.6	37.5
1967	46.7	53.0	56.1	40.0	51.2	53.9	40.6
1968	49.3	56.2	59.2	43.3	51.9	54.7	40.6
1969	57.8	62.9	65.1	53.3	59.4	61.7	50.0
1970	51.2	61.0	64.3	46.7	60.0	64.1	43.8
1971	43.6	53.7	55.7	45.0	54.4	57.0	43.8
1972	61.7	73.0	76.1	60.0	71.9	75.0	59.4
1973	60.8	77.5	81.2	61.7	77.5	81.2	62.5
1974	67.7	81.6	86.3	61.7	83.8	89.1	62.5
1975	53.4	66.3	68.2	58.3	72.5	75.8	59.4
1976	62.4	76.2	78.8	65.0	80.0	83.6	65.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.7	107.0	104.3	118.3	109.4	107.0	118.7
1979	139.8	126.3	122.7	141.7	125.6	121.9	140.6
1980	127.5	116.8	108.6	151.7	126.9	121.1	150.0
1981 ¹	119.9	120.6	116.5	138.3	120.6	116.4	137.5
Average annual percent change:							
1958-81	7.3	5.5	5.0	8.1	6.0	5.5	8.1
1977-81	5.5	4.7	3.5	9.4	5.4	4.4	9.1

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 47. Metal office furniture (SIC 2522): Output per hour and related data, 1967-81
(1977 = 100)



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

Table 91. Metal office furniture (SIC 2522): 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	64.5	62.7	71.7	64.2	62.1	72.1
1959	71.6	68.7	84.2	72.3	69.2	79.9
1960	72.7	69.3	87.4	74.0	70.7	87.9
1961	74.7	72.5	84.3	75.8	73.5	84.7
1962	77.9	75.4	88.1	77.6	74.7	88.7
1963	75.9	73.4	86.7	77.3	74.8	86.6
1964	82.9	81.5	88.6	85.4	84.3	89.0
1965	86.3	83.2	99.3	91.6	89.3	99.7
1966	88.3	84.5	104.9	93.6	90.6	105.3
1967	87.6	85.6	95.6	90.4	89.0	95.6
1968	86.2	86.4	85.3	90.6	90.3	91.5
1969	88.5	90.5	82.2	91.8	93.2	87.5
1970	78.0	80.8	69.7	82.5	85.8	73.0
1971	86.4	90.8	74.0	90.6	96.2	75.8
1972	96.7	97.9	92.6	100.4	103.2	92.2
1973	97.9	98.2	96.4	101.0	102.9	94.9
1974	84.5	82.7	91.4	86.7	85.9	88.9
1975	88.9	92.8	77.7	89.4	94.2	76.6
1976	94.8	98.6	83.7	95.3	99.5	83.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.9	97.7	108.4	101.4	99.4	108.4
1979	104.8	102.1	115.2	107.6	105.4	115.8
1980	114.4	118.6	101.5	115.5	120.1	102.3
1981 ²	114.7	118.2	103.9	115.7	119.7	104.3
Average annual percent change:						
1958-81	1.9	2.2	.9	1.9	2.2	.9
1977-81	4.2	5.4	.1	4.3	5.6	.3

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

² Preliminary.

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

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

Table 92. Metal office furniture (SIC 2522): 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	38.7	60.0	61.7	54.0	60.3	62.3	53.7
1959	44.1	61.6	64.2	52.4	61.0	63.7	55.2
1960	47.2	64.9	68.1	54.0	63.8	66.8	53.7
1961	45.5	60.9	62.8	54.0	60.0	61.9	53.7
1962	50.3	64.6	66.7	57.1	64.8	67.3	56.7
1963	53.0	69.8	72.2	61.1	68.6	70.9	61.2
1964	59.8	72.1	73.4	67.5	70.0	70.9	67.2
1965	68.5	79.4	82.3	69.0	74.8	76.7	68.7
1966	83.3	94.3	98.6	79.4	89.0	91.9	79.1
1967	84.2	96.1	98.4	88.1	93.1	94.6	88.1
1968	84.6	98.2	97.9	99.2	93.4	93.7	92.5
1969	96.6	109.1	106.7	117.5	105.2	103.6	110.4
1970	78.5	100.7	97.2	112.7	95.2	91.5	107.5
1971	78.1	90.4	86.0	105.6	86.2	81.2	103.0
1972	96.3	99.6	98.4	104.0	95.9	93.3	104.5
1973	104.8	107.1	106.7	108.7	103.8	101.8	110.4
1974	92.9	110.0	112.4	101.6	107.2	108.1	104.5
1975	77.7	87.4	83.7	100.0	86.9	82.5	101.5
1976	84.4	89.0	85.6	100.8	88.6	84.8	101.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.4	108.5	111.0	100.0	106.9	109.0	100.0
1979	110.6	105.5	108.3	96.0	102.8	104.9	95.5
1980	131.4	114.9	110.8	129.4	113.8	109.4	128.4
1981 ¹	138.5	120.8	117.2	133.3	119.7	115.7	132.8
Average annual percent change:							
1958-81	4.8	2.8	2.5	3.9	2.8	2.5	3.9
1977-81	8.8	4.4	3.2	8.7	4.3	3.0	8.5

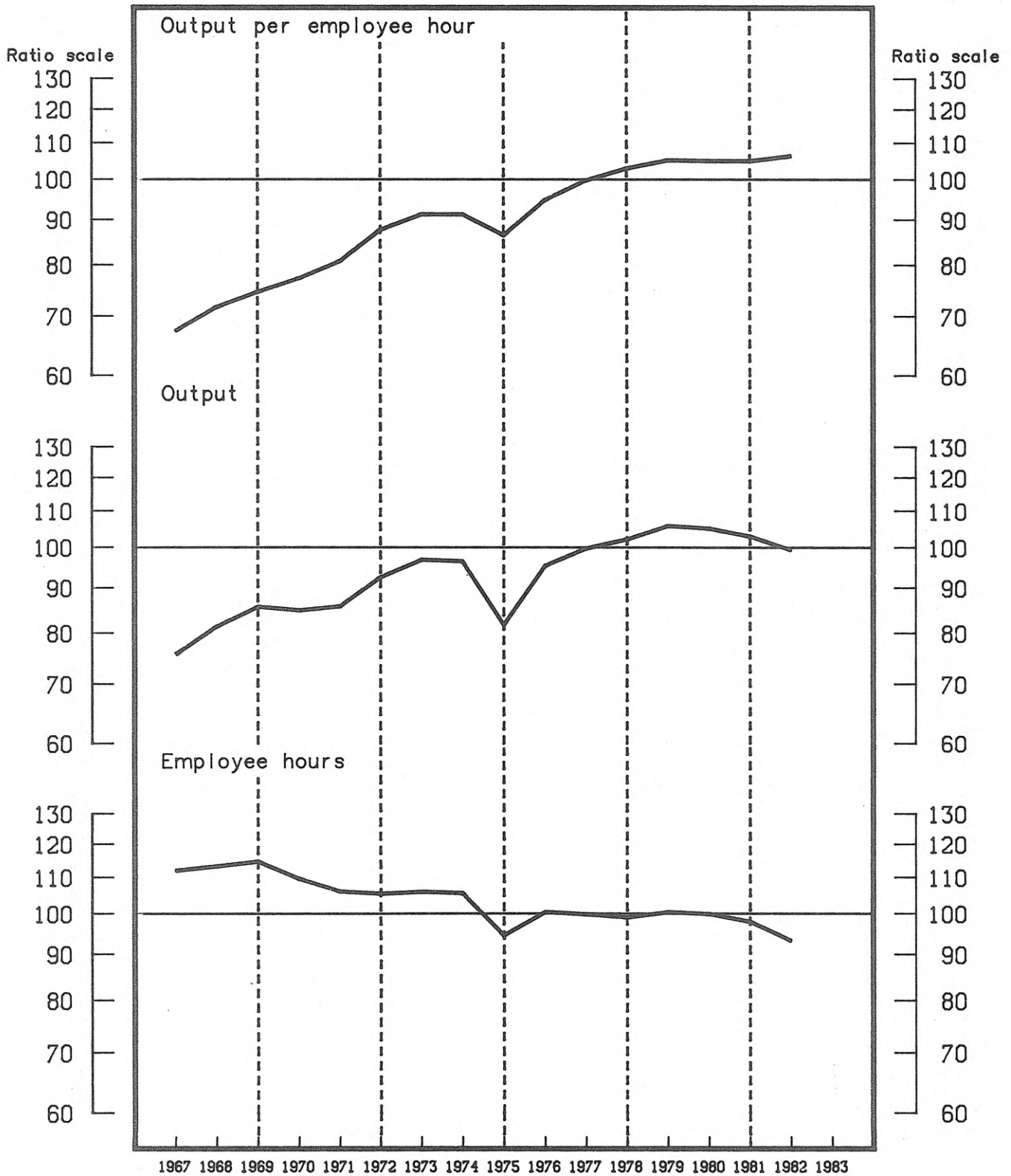
¹ Preliminary.

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 48. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 93. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Indexes of output per employee hour and output per employee, 1954-82
(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	101.1	103.5	104.3	101.1
1979	105.4	106.2	102.2	105.6	106.4	102.6
1980	105.2	106.4	100.5	105.7	106.9	101.3
1981	105.2	106.3	100.8	104.8	105.7	101.2
1982 ²	106.6	108.6	99.0	104.8	106.4	99.4
Average annual percent change:						
1947-82	3.7	4.0	2.1	3.5	3.8	2.0
1977-82	1.1	1.4	-2	.8	1.0	-.1

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

differ from those previously published.

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

² Preliminary.

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

Table 94. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Indexes of output, employee hours, and employees, 1954-82
(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	101.3	98.9	98.2	101.3
1979	106.0	100.6	99.8	103.7	100.4	99.6	103.3
1980	105.3	100.1	99.0	104.8	99.6	98.5	103.9
1981	103.2	98.1	97.1	102.4	98.5	97.6	102.0
1982 ¹	99.6	93.4	91.7	100.6	95.0	93.6	100.2
Average annual percent change:							
1947-82	3.8	(²)	-.3	1.6	.2	-.1	1.7
1977-82	(²)	-1.1	-1.4	.2	-.8	-1.0	.1

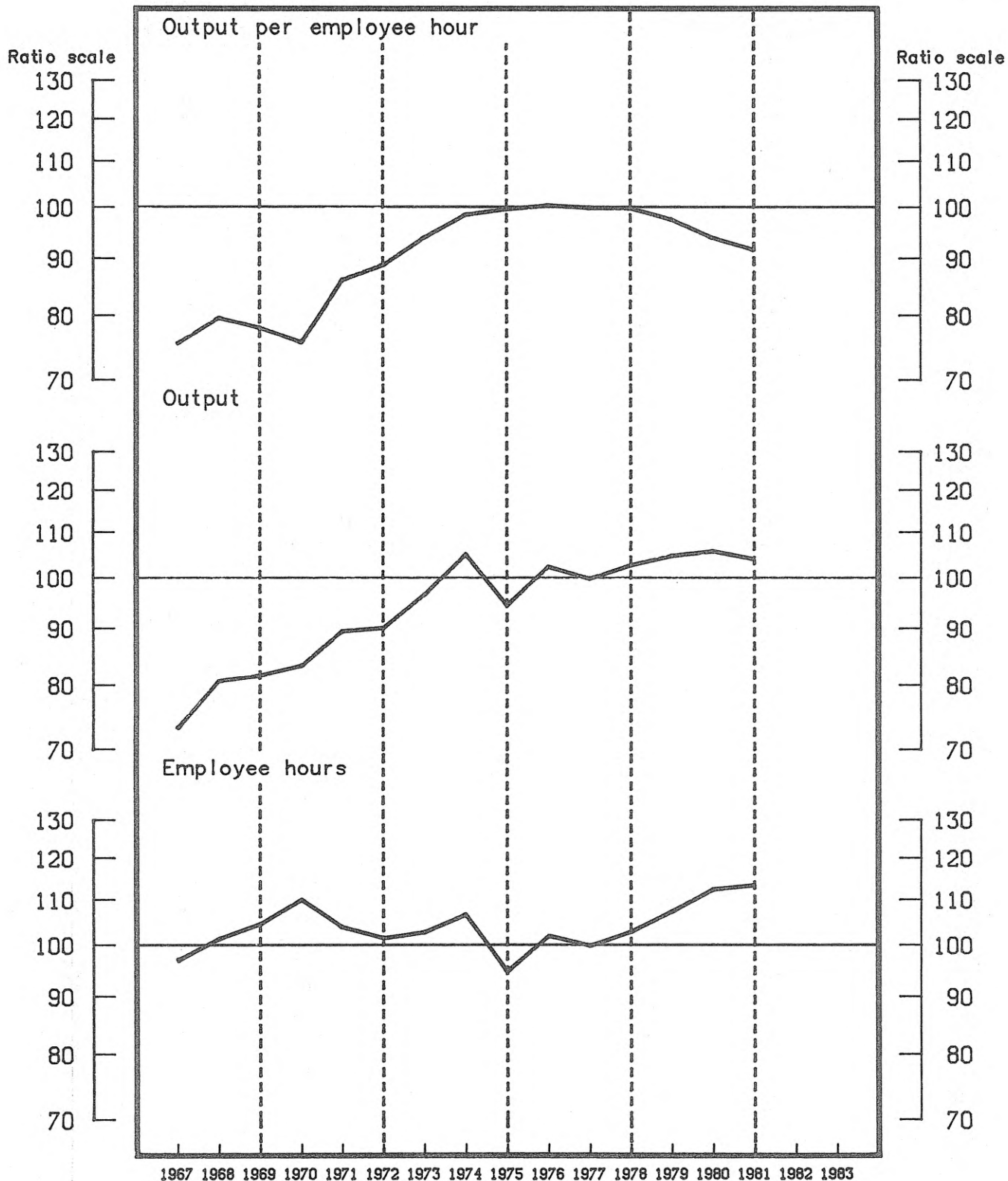
¹ Preliminary.

² Less than .05 percent.

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

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

Chart 49. Paper and plastic bags (SIC 2643): Output per hour and related data, 1967-81
(1977 = 100)



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

Table 95. Paper and plastic bags (SIC 2643): Indexes of output per employee hour and output per employee, 1954-81
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
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	99.9	99.4	101.8	101.3	101.1	101.9
1979	97.6	97.6	97.3	97.0	96.7	97.9
1980	94.0	94.5	92.6	94.0	94.0	93.6
1981 ²	91.7	92.2	89.8	92.8	93.4	90.5
Average annual percent change:						
1954-81	2.5	2.6	2.0	2.5	2.6	1.9
1977-81	-2.3	-2.1	-3.1	-2.2	-2.1	-2.8

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

² Preliminary.

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

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

Table 96. Paper and plastic bags (SIC 2643): Indexes of output, employee hours, and employees, 1954-81
(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	103.0	103.5	101.1	101.6	101.8	101.0
1979	104.9	107.5	107.5	107.8	108.2	108.5	107.1
1980	105.9	112.6	112.1	114.4	112.7	112.6	113.1
1981 ¹	104.2	113.6	113.0	116.1	112.3	111.6	115.2
Average annual percent change:							
1954-81	4.1	1.6	1.5	2.1	1.6	1.5	2.2
1977-81	1.1	3.5	3.3	4.3	3.4	3.3	4.0

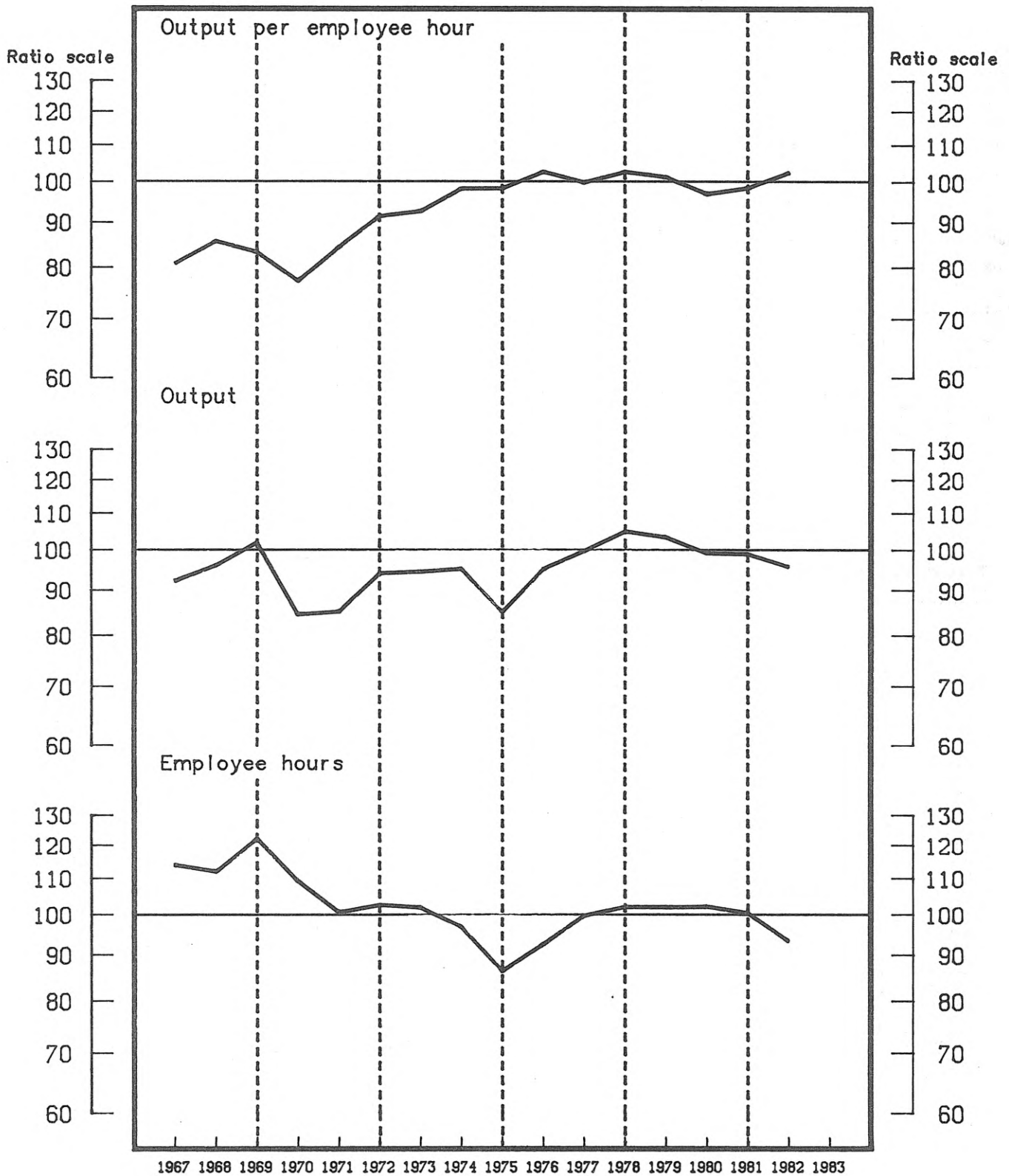
¹ Preliminary.

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

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

Chart 50. Folding paperboard boxes (SIC 2651): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 97. Folding paperboard boxes (SIC 2651): Indexes of output per employee hour and output per employee, 1963-82
(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	102.8	103.2	101.4	103.1	103.4	101.7
1979	101.4	101.1	103.0	102.9	102.8	103.6
1980	97.1	97.5	95.3	97.6	98.0	96.1
1981	98.6	98.4	99.8	100.1	100.0	100.3
1982 ²	102.6	103.3	99.0	101.1	101.6	99.3
Average annual percent change:						
1963-82	1.9	2.0	1.5	1.7	1.8	1.4
1977-82	-1	(³)	-5	-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 Paperboard Packaging Council, the Bureau of the Census, and the Bureau of Labor Statistics.

Table 98. Folding paperboard boxes (SIC 2651): Indexes of output, employee hours, and employees, 1963-82
(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	102.3	101.9	103.7	102.0	101.7	103.4
1979	103.6	102.2	102.5	100.6	100.7	100.8	100.0
1980	99.4	102.4	101.9	104.3	101.8	101.4	103.4
1981	99.2	100.6	100.8	99.4	99.1	99.2	98.9
1982 ¹	95.9	93.5	92.8	96.9	94.9	94.4	96.6
Average annual percent change:							
1963-82 .....	.6	-1.3	-1.4	-9	-1.1	-1.2	-8
1977-82	-1.2	-1.1	-1.2	-7	-1.0	-1.0	-8

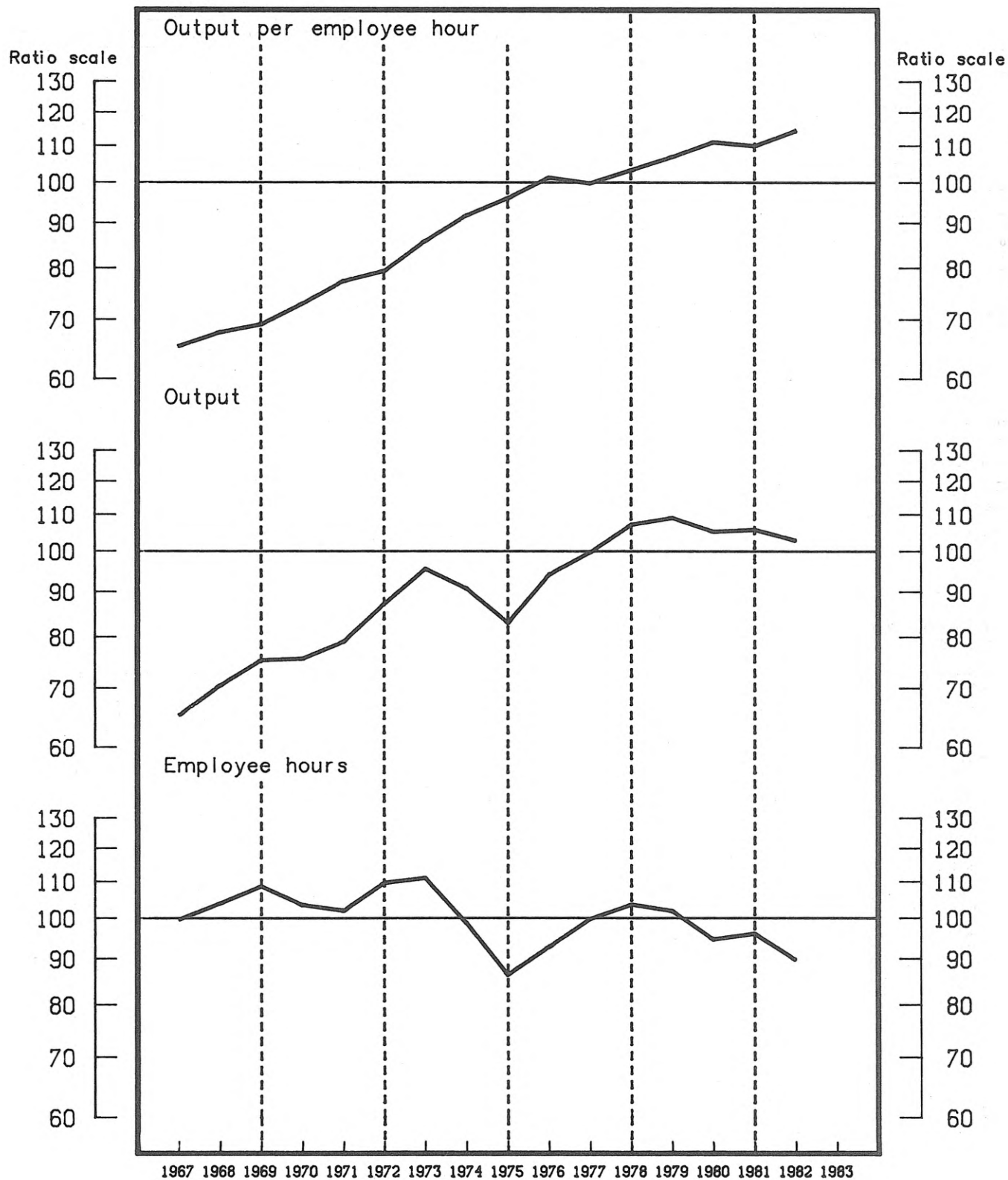
¹ Preliminary.

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

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

Chart 51. Corrugated and solid fiber boxes (SIC 2653): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 99. Corrugated and solid fiber boxes (SIC 2653): Indexes of output per employee hour and output per employee, 1958-82
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	49.9	47.9	56.9	51.7	49.6	58.6
1959	50.8	47.9	61.8	53.7	50.9	63.5
1960	50.6	48.1	59.1	52.3	49.8	60.9
1961	53.4	50.7	62.8	56.0	53.4	64.4
1962	54.1	51.1	65.4	57.2	54.3	67.1
1963	57.7	55.2	66.5	60.7	58.3	68.2
1964	58.9	56.4	67.5	63.3	61.2	69.6
1965	60.7	58.2	69.6	65.5	63.5	71.5
1966	63.2	59.6	76.8	67.4	64.0	78.6
1967	65.5	62.8	74.3	68.3	65.9	76.0
1968	67.9	64.7	78.6	71.3	68.4	80.2
1969	69.3	66.3	79.9	72.5	70.0	80.4
1970	73.1	70.8	80.4	73.4	71.3	79.8
1971	77.5	75.9	82.2	78.3	76.5	83.4
1972	79.6	77.3	87.2	82.3	79.8	89.7
1973	86.1	83.1	95.6	88.6	85.2	99.1
1974	92.0	91.8	92.3	89.7	87.8	95.1
1975	96.2	98.3	90.2	94.6	95.5	92.1
1976	101.5	101.5	101.5	101.0	100.2	103.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.5	103.1	104.8	103.1	102.4	104.8
1979	107.1	106.6	108.0	106.9	106.4	108.5
1980	111.3	113.4	105.5	110.1	111.8	106.2
1981	110.2	111.6	106.4	110.5	112.1	106.7
1982 ²	114.7	116.8	108.9	113.7	115.3	109.3
Average annual percent change:						
1958-82	3.9	4.3	2.9	3.6	3.9	2.7
1977-82	2.6	3.1	1.3	2.5	3.0	1.4

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

² Preliminary.

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

differ from those previously published.

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

Table 100. Corrugated and solid fiber boxes (SIC 2653): Indexes of output, employee hours, and employment, 1958-82
(1977=100)

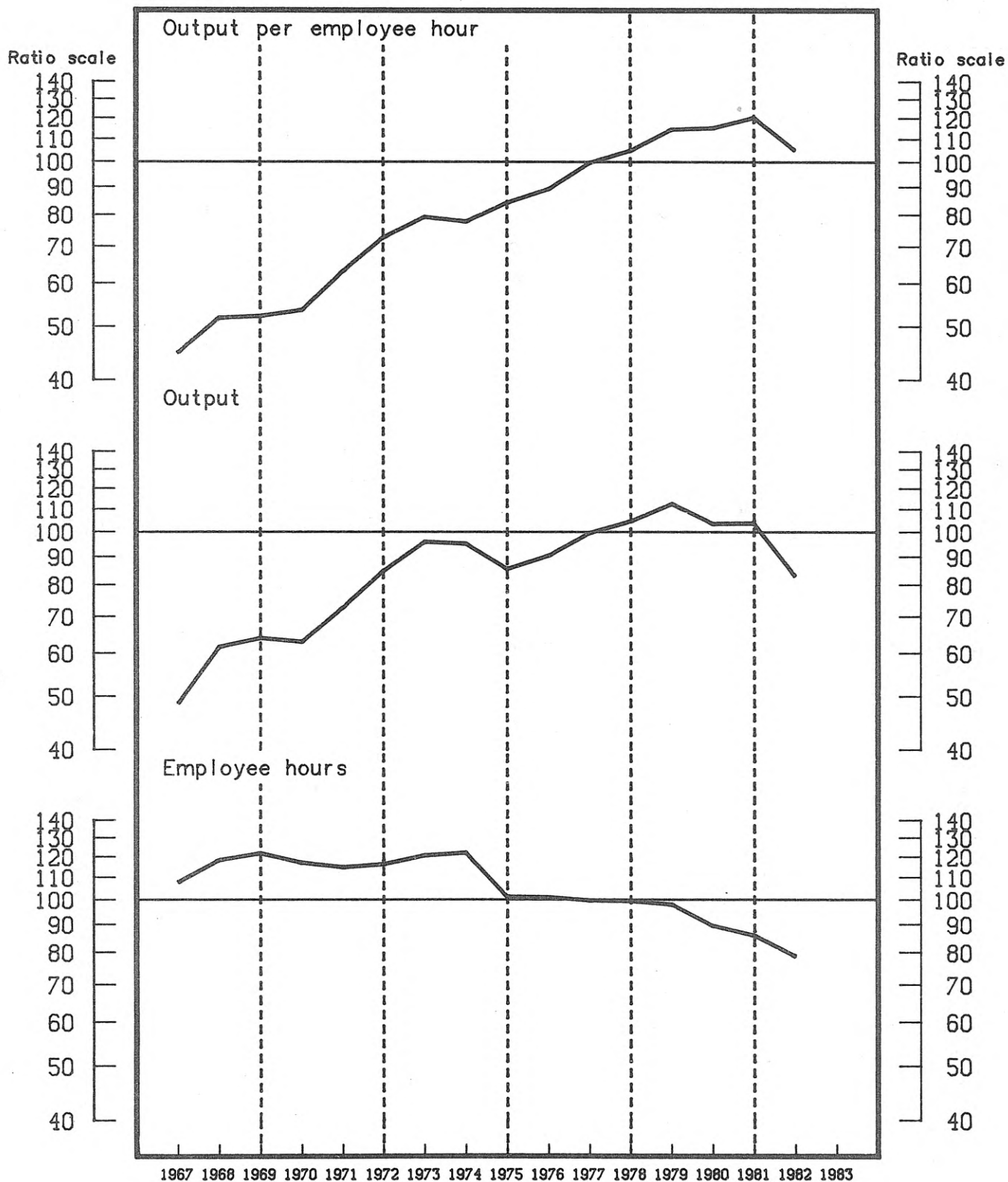
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	36.1	72.3	75.4	63.5	69.8	72.8	61.6
1959	41.2	81.1	86.1	66.7	76.7	81.0	64.9
1960	41.2	81.5	85.6	69.7	78.8	82.8	67.7
1961	44.0	82.4	86.8	70.1	78.6	82.4	68.3
1962	47.0	86.8	91.9	71.9	82.1	86.6	70.0
1963	49.8	86.3	90.2	74.9	82.1	85.4	73.0
1964	53.9	91.5	95.5	79.8	85.2	88.0	77.4
1965	58.5	96.3	100.5	84.1	89.3	92.1	81.8
1966	63.8	100.9	107.1	83.1	94.7	99.7	81.2
1967	65.4	99.9	104.1	88.0	95.7	99.3	86.1
1968	70.7	104.2	109.2	90.0	99.2	103.4	88.2
1969	75.5	108.9	113.9	94.5	104.1	107.8	93.9
1970	75.8	103.7	107.0	94.3	103.2	106.3	95.0
1971	79.2	102.2	104.4	96.3	101.2	103.5	95.0
1972	87.5	109.9	113.2	100.4	106.3	109.6	97.5
1973	95.8	111.3	115.3	100.2	108.1	112.4	96.7
1974	91.0	98.9	99.1	98.6	101.5	103.7	95.7
1975	83.3	86.6	84.7	92.3	88.1	87.2	90.4
1976	94.4	93.0	93.0	93.0	93.5	94.2	91.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.4	103.8	104.2	102.5	104.2	104.9	102.5
1979	109.3	102.1	102.5	101.2	102.2	102.7	100.7
1980	105.5	94.8	93.0	100.0	95.8	94.4	99.3
1981	106.0	96.2	95.0	99.6	95.9	94.6	99.3
1982 ¹	103.1	89.9	88.3	94.7	90.7	89.4	94.3
Average annual percent change:							
1958-82	4.7	.8	.5	1.8	1.1	.8	1.9
1977-82 .....	.2	-2.4	-2.8	-1.1	-2.3	-2.7	-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 Fiber Box Association, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 52. Synthetic fibers (SIC 2823, 2824): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 101. Synthetic fibers (SIC 2823, 2824): Indexes of output per employee hour and output per employee, 1957-82
(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	30.9	30.5	32.0	31.1	30.5	32.9
1958	29.6	30.4	27.5	30.2	30.9	28.2
1959	33.9	33.4	35.9	34.7	34.0	36.8
1960	32.4	32.5	32.2	32.5	32.4	32.8
1961	34.8	35.1	34.0	35.2	35.4	34.4
1962	38.3	37.8	39.9	39.0	38.5	40.5
1963	37.9	38.4	36.4	38.9	39.6	37.0
1964	40.4	40.6	39.7	41.9	42.4	40.5
1965	41.8	41.6	42.1	42.9	42.9	42.7
1966	42.0	42.8	39.7	42.8	43.8	40.1
1967	45.0	45.3	44.3	45.7	46.0	44.7
1968	52.1	51.1	55.4	53.7	52.9	56.3
1969	52.5	51.8	55.2	53.9	53.3	55.8
1970	53.8	53.9	53.7	54.3	54.4	54.0
1971	63.3	62.4	66.5	63.8	62.9	66.9
1972	73.0	71.1	80.2	74.7	73.0	80.3
1973	79.5	77.0	88.7	81.7	79.3	89.9
1974	78.0	77.3	80.1	78.7	77.6	82.0
1975	84.5	86.9	77.5	83.4	85.0	78.9
1976	89.5	92.1	82.5	88.2	89.8	83.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.2	104.7	106.8	105.6	105.1	106.9
1979	115.0	113.9	118.2	115.8	114.8	118.8
1980	115.7	117.4	111.0	114.9	116.0	111.8
1981	120.9	122.7	115.5	119.9	121.3	116.0
1982 ²	105.4	111.4	90.2	102.3	106.9	90.5
Average annual percent change:						
1957-82	6.3	6.4	6.1	6.2	6.2	6.0
1977-82	2.0	3.0	-1.0	1.4	2.2	-9

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

² Preliminary.

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

differ from those previously published.

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

Table 102. Synthetic fibers (SIC 2823, 2824): Indexes of output, employee hours, and employees, 1957-82
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1957	24.2	78.4	79.3	75.6	77.8	79.3	73.6
1958	22.1	74.6	72.8	80.3	73.3	71.6	78.4
1959	26.4	77.8	79.0	73.5	76.1	77.7	71.8
1960	24.8	76.5	76.3	77.0	76.2	76.6	75.5
1961	26.1	74.9	74.3	76.8	74.2	73.8	75.8
1962	31.2	81.5	82.5	78.2	80.1	81.1	77.1
1963	33.3	87.8	86.7	91.4	85.5	84.0	90.1
1964	38.2	94.5	94.0	96.2	91.2	90.2	94.3
1965	43.8	104.9	105.3	104.0	102.2	102.1	102.6
1966	47.8	113.9	111.6	120.4	111.7	109.2	119.3
1967	48.7	108.2	107.6	109.9	106.6	105.8	108.9
1968	61.9	118.8	121.1	111.8	115.2	117.0	109.9
1969	64.2	122.2	124.0	116.4	119.1	120.4	115.0
1970	63.2	117.4	117.2	117.7	116.3	116.1	117.0
1971	72.9	115.2	116.9	109.7	114.2	115.9	108.9
1972	85.2	116.7	119.9	106.3	114.1	116.7	106.1
1973	96.3	121.1	125.0	108.6	117.8	121.5	107.1
1974	95.5	122.5	123.5	119.2	121.3	123.0	116.4
1975	85.9	101.7	98.8	110.9	103.0	101.1	108.9
1976	90.8	101.4	98.6	110.1	102.9	101.1	108.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.0	99.8	100.3	98.3	99.4	99.9	98.2
1979	113.0	98.3	99.2	95.6	97.6	98.4	95.1
1980	103.9	89.8	88.5	93.6	90.4	89.6	92.9
1981	104.2	86.2	84.9	90.2	86.9	85.9	89.8
1982 ¹	83.3	79.0	74.8	92.4	81.4	77.9	92.0
Average annual percent change:							
1957-82	7.2	.8	.8	1.0	.9	.9	1.1
1977-82	-2.9	-4.8	-5.7	-1.9	-4.2	-5.0	-2.0

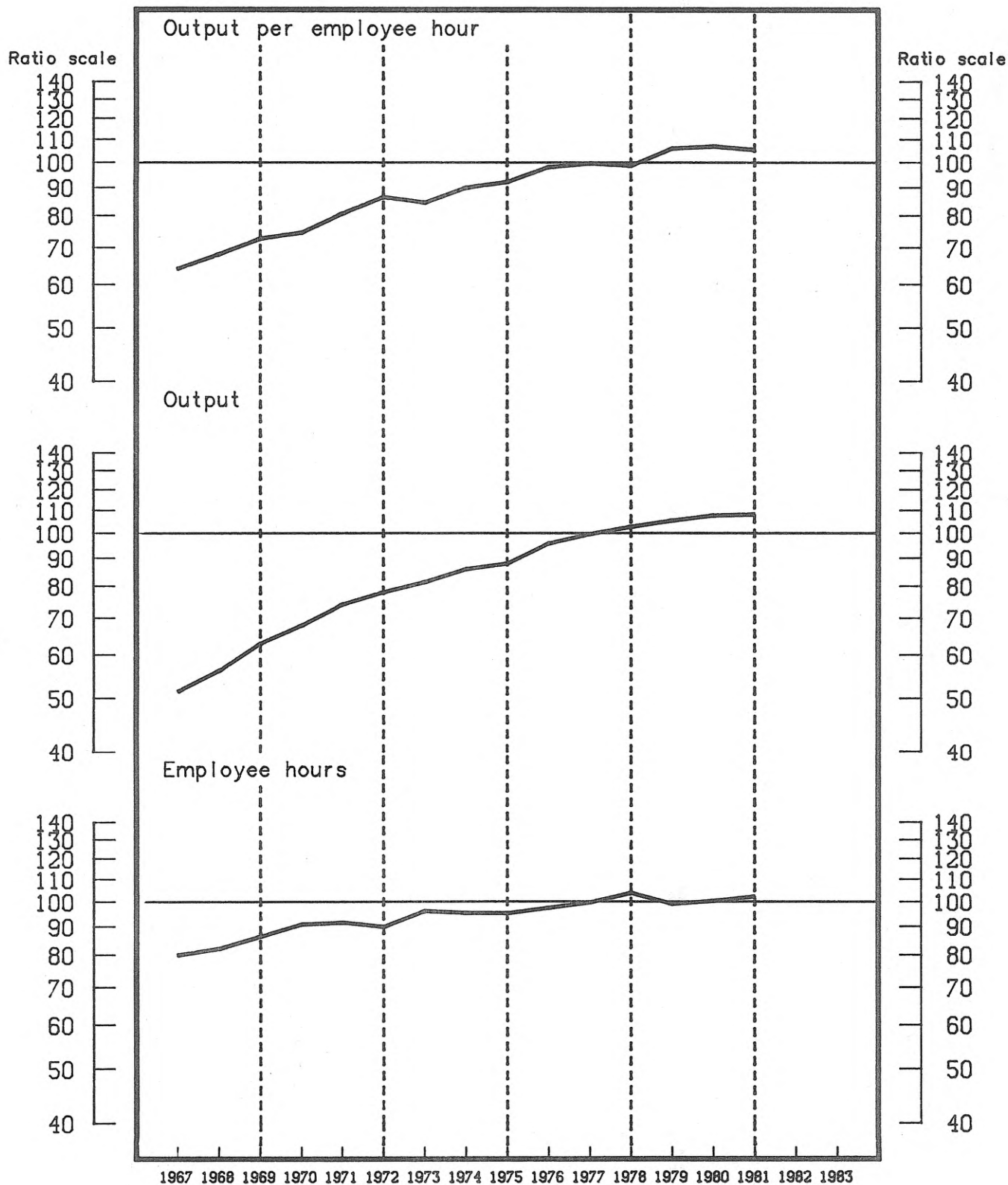
¹ Preliminary.

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

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

Chart 53. Pharmaceutical preparations (SIC 2834): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 103. Pharmaceutical preparations (SIC 2834): Indexes of output per employee hour and output per employee, 1963-81 (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	99.0	100.2	100.6	101.7	99.5
1979	106.4	103.5	102.9	100.1	105.8
1980	107.3	106.1	101.0	99.7	102.3
1981 ²	105.8	106.5	105.2	105.7	104.6
Average annual percent change:					
1963-81	4.2	4.9	3.9	4.6	3.2
1977-81	2.0	1.8	1.1	.9	1.2

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

² Preliminary.

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

may differ from those previously published.

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

Table 104. Pharmaceutical preparations (SIC 2834): Indexes of output, employee hours, and employees, 1963-81 (1977=100)

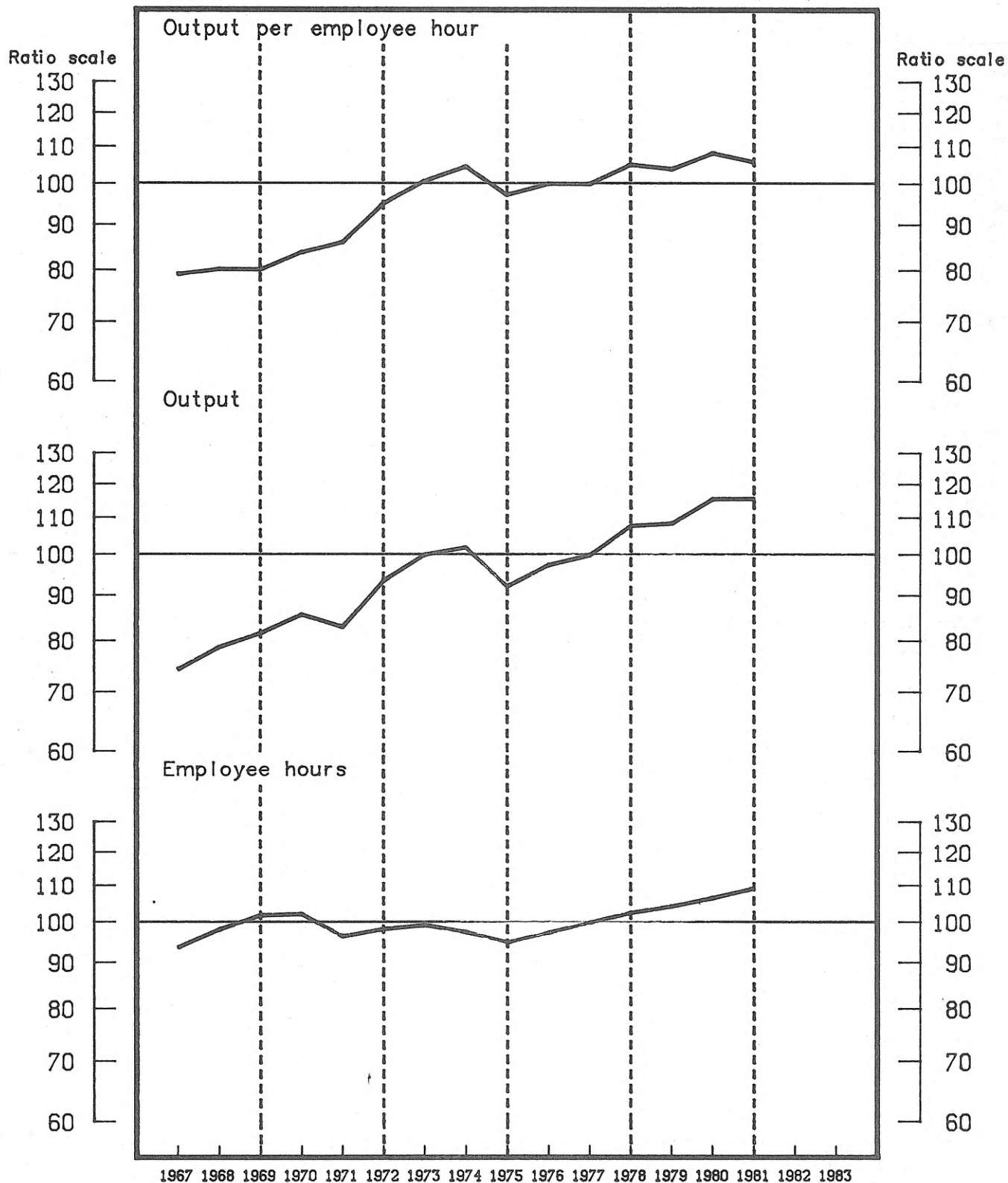
Year	Output	Employee hours		Employees		
		All employees	Production workers	All employees	Production workers	Nonproduction workers
Index:						
1963	36.5	69.0	74.5	67.3	72.8	61.9
1964	39.7	73.5	80.6	71.3	78.3	64.4
1965	44.6	76.2	82.9	74.8	81.5	68.2
1966	48.7	80.3	87.7	77.8	85.0	70.6
1967	51.7	80.3	87.1	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	104.1	102.9	102.5	101.4	103.6
1979	105.8	99.4	102.2	102.8	105.7	100.0
1980	108.1	100.7	101.9	107.0	108.4	105.7
1981 ¹	108.6	102.6	102.0	103.2	102.7	103.8
Average annual percent change:						
1963-81	6.4	2.1	1.4	2.4	1.7	3.1
1977-81	2.1	.2	.3	1.1	1.2	1.0

¹ Preliminary.

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

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

Chart 54. Soaps and detergents (SIC 2841): Output per hour and related data, 1967-81
(1977 = 100)



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

Table 105. Soaps and detergents (SIC 2841): 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	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	105.2	102.7	110.1	105.8	103.4	110.1
1979	104.0	101.3	109.4	104.2	101.3	109.4
1980	108.4	106.5	111.9	107.3	104.8	111.9
1981 ²	105.9	102.4	112.8	104.5	100.3	112.8
Average annual percent change:						
1958-81	2.7	3.0	1.9	2.7	3.1	1.9
1977-81	1.5	.8	2.6	1.0	.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 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 106. Soaps and detergents (SIC 2841): 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	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	102.6	105.1	98.0	102.0	104.4	98.0
1979	108.6	104.4	107.2	99.3	104.2	107.2	99.3
1980	115.7	106.7	108.6	103.4	107.8	110.4	103.4
1981 ¹	115.8	109.4	113.1	102.7	110.8	115.5	102.7
Average annual percent change:							
1958-81	3.8	1.1	.8	1.9	1.0	.6	1.8
1977-81	3.7	2.2	2.8	1.1	2.6	3.5	1.1

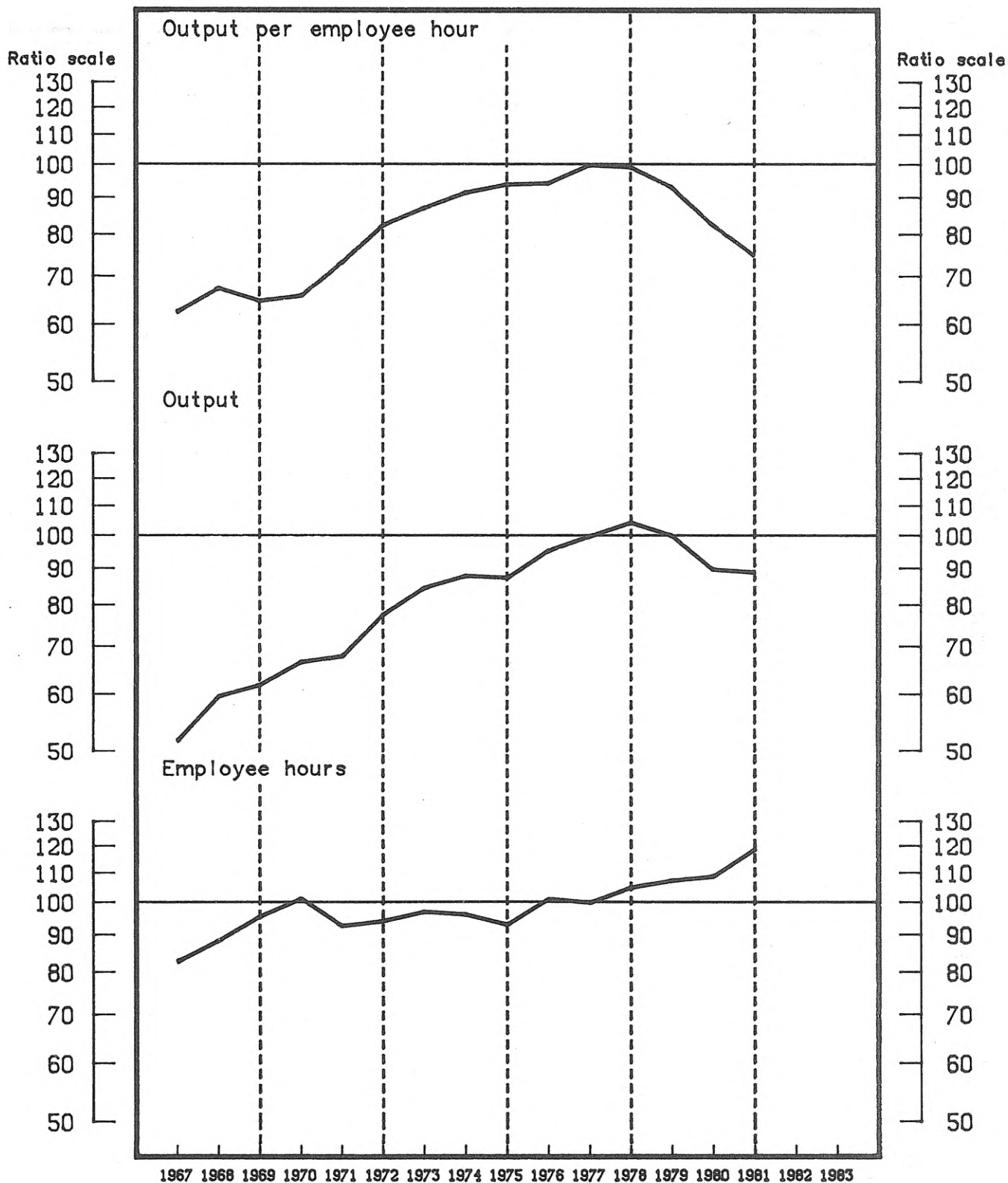
¹ Preliminary.

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

SOURCE: Output 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 55. Cosmetics and other toiletries (SIC 2844): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 107. Cosmetics and other toiletries (SIC 2844): 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	40.0	39.0	41.7	40.2	39.3	41.9
1959	43.9	41.9	47.7	44.3	42.3	48.0
1960	45.1	44.1	46.7	45.1	44.2	46.7
1961	46.9	47.0	46.6	47.3	47.8	46.5
1962	49.6	49.7	49.6	50.2	50.8	49.2
1963	57.0	58.1	55.4	57.9	59.8	55.0
1964	63.8	65.3	61.4	63.1	64.4	60.9
1965	65.7	66.6	64.5	66.0	67.4	64.0
1966	65.2	65.1	65.4	66.9	68.1	64.9
1967	62.5	63.1	61.6	62.8	64.0	61.2
1968	67.5	67.4	67.7	67.6	67.9	67.0
1969	64.8	64.7	65.1	65.2	65.8	64.2
1970	65.9	68.9	61.6	66.8	71.1	60.8
1971	73.3	80.4	64.2	73.4	81.4	63.3
1972	82.5	89.1	73.9	82.8	90.3	73.1
1973	87.2	97.4	74.9	87.7	97.9	75.1
1974	91.6	95.2	86.4	92.4	95.8	87.7
1975	94.0	95.6	91.6	94.8	96.4	92.5
1976	94.4	94.3	94.6	95.3	95.5	95.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.3	98.6	100.6	98.6	97.4	100.6
1979	93.1	93.8	92.0	92.7	93.1	92.0
1980	82.5	80.2	86.5	83.3	81.4	86.5
1981 ²	74.9	69.7	84.9	75.1	70.0	84.9
Average annual percent change:						
1958-81	3.6	3.7	3.6	3.6	3.6	3.6
1977-81	-7.3	-8.9	-4.7	-7.1	-8.5	-4.7

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

² Preliminary.

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

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

Table 108. Cosmetics and other toiletries (SIC 2844): 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	22.7	56.8	58.2	54.5	56.4	57.8	54.2
1959	26.5	60.3	63.3	55.5	59.8	62.7	55.2
1960	26.9	59.7	61.0	57.6	59.6	60.9	57.6
1961	29.1	62.1	61.9	62.4	61.5	60.9	62.6
1962	32.0	64.5	64.4	64.5	63.8	63.0	65.0
1963	38.2	67.0	65.7	68.9	66.0	63.9	69.5
1964	42.6	66.8	65.2	69.4	67.5	66.1	70.0
1965	47.6	72.4	71.5	73.8	72.1	70.6	74.4
1966	52.1	79.9	80.0	79.7	77.9	76.5	80.3
1967	51.8	82.9	82.1	84.1	82.5	81.0	84.7
1968	59.8	88.6	88.7	88.3	88.5	88.1	89.2
1969	62.0	95.7	95.9	95.3	95.1	94.2	96.6
1970	66.8	101.4	97.0	108.5	100.0	93.9	109.9
1971	68.0	92.8	84.6	106.0	92.6	83.5	107.4
1972	77.8	94.3	87.3	105.3	94.0	86.2	106.4
1973	84.7	97.1	87.0	113.1	96.6	86.5	112.8
1974	88.1	96.2	92.5	102.0	95.3	92.0	100.5
1975	87.5	93.1	91.5	95.5	92.3	90.8	94.6
1976	95.5	101.2	101.3	101.0	100.2	100.0	100.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	105.2	106.0	103.9	106.0	107.3	103.9
1979	100.2	107.6	106.8	108.9	108.1	107.6	108.9
1980	89.9	109.0	112.1	103.9	107.9	110.4	103.9
1981 ¹	89.1	119.0	127.9	104.9	118.7	127.2	104.9
Average annual percent change:							
1958-81	6.8	3.1	3.0	3.1	3.1	3.1	3.1
1977-81	-3.7	3.9	5.6	1.0	3.7	5.2	1.0

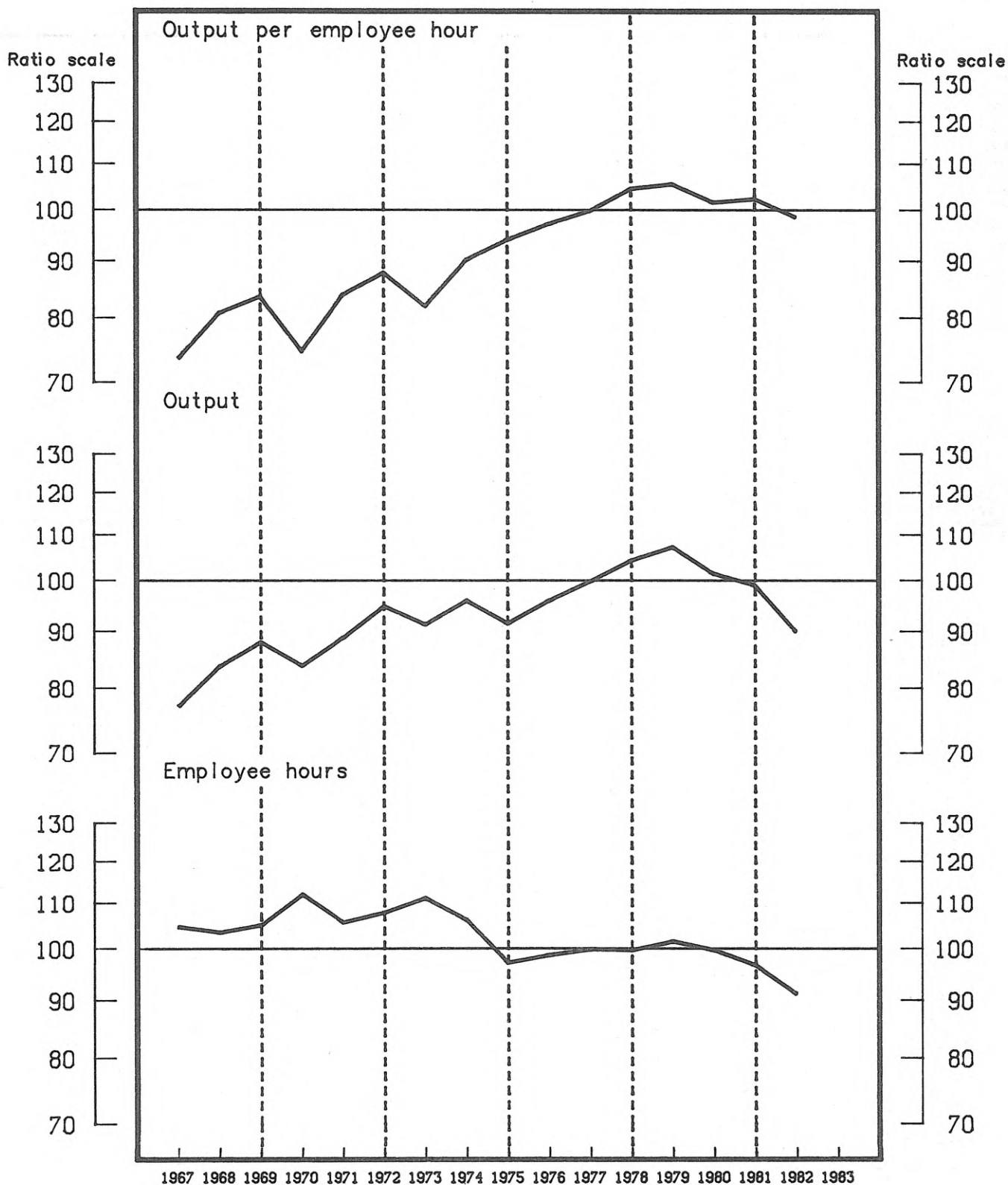
¹ Preliminary.

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

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

Chart 56. Paints and allied products (SIC 2851): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 109. Paints and allied products (SIC 2851): Indexes of output per employee hour and output per employee, 1958-82 (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	98.6	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	101.8	106.1	96.7	100.1	102.5	97.5
1981	102.5	106.2	98.0	101.3	103.9	98.5
1982 ²	98.7	105.3	91.4	96.4	100.8	91.8
Average annual percent change:						
1958-82	2.5	2.8	2.1	2.4	2.6	2.1
1977-82	-5	.9	-2.0	-9	.1	-1.9

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

² Preliminary.

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

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

Table 110. Paints and allied products (SIC 2851): Indexes of output, employee hours, and employees, 1958-82 (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	101.6	99.8	95.8	105.1	101.5	99.1	104.2
1981	99.2	96.8	93.4	101.2	97.9	95.5	100.7
1982 ¹	90.1	91.3	85.6	98.6	93.5	89.4	98.2
Average annual percent change:							
1958-82	2.7	.1	-.2	.5	.3	(²)	.6
1977-82	-2.1	-1.6	-2.9	(²)	-1.2	-2.1	-.1

¹ Preliminary.

² Less than .05 percent.

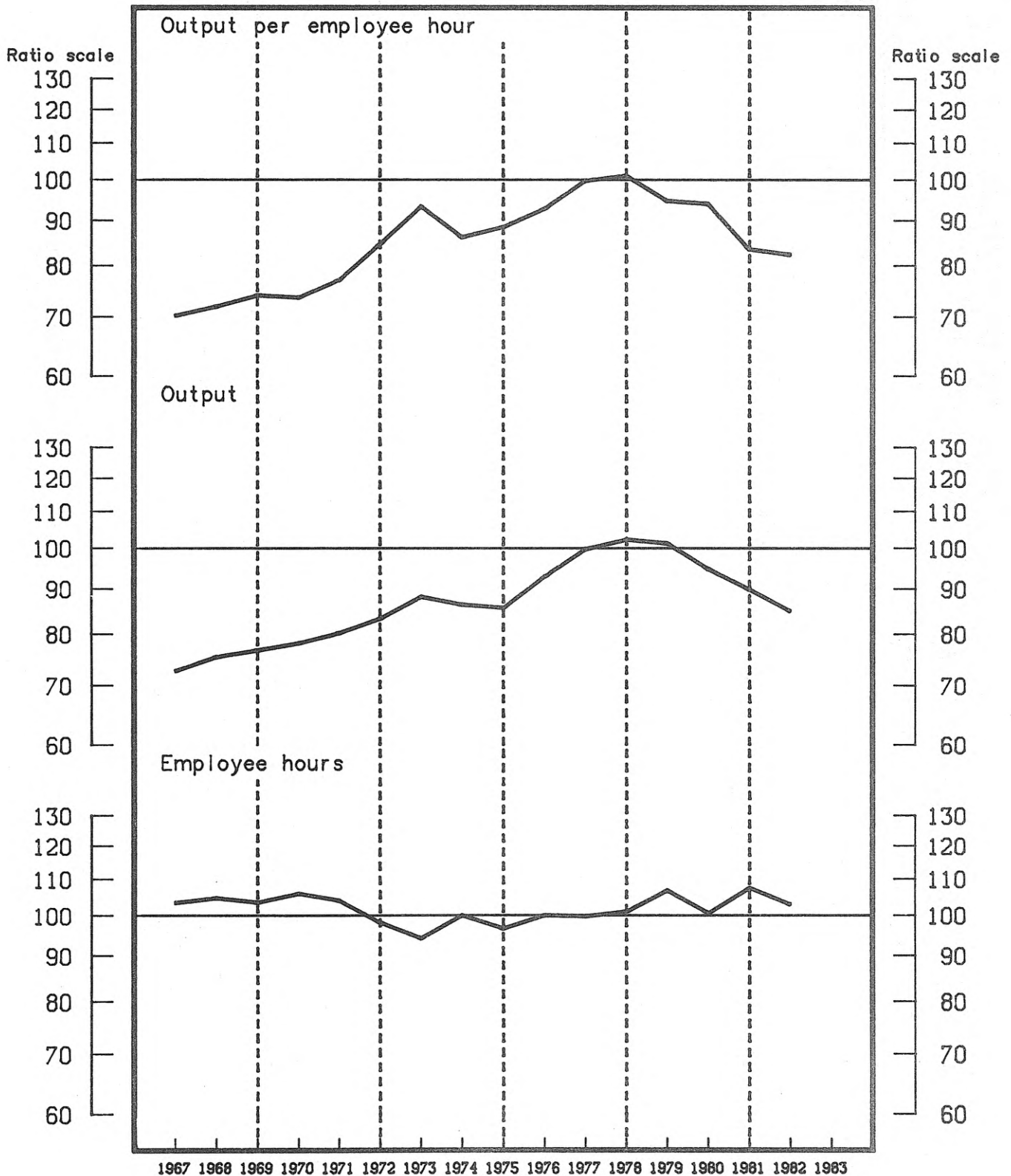
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

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

Chart 57. Petroleum refining (SIC 2911): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 111. Petroleum refining (SIC 2911): Indexes of output per employee hour and output per employee, 1954-82
(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	94.9	96.8	90.4	96.0	98.7	90.6
1980	94.2	100.3	81.8	94.8	96.7	90.7
1981	83.7	85.7	78.7	84.9	87.9	78.9
1982 ²	82.5	88.0	71.3	84.3	91.7	71.6
Average annual percent change:						
1947-82	4.6	4.9	3.5	4.6	5.0	3.5
1977-82	-4.3	-3.1	-7.2	-4.1	-2.6	-6.8

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

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.

² Preliminary.

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

Table 112. Petroleum refining (SIC 2911): Indexes of output, employee hours, and employees, 1954-82
(1977 = 100)

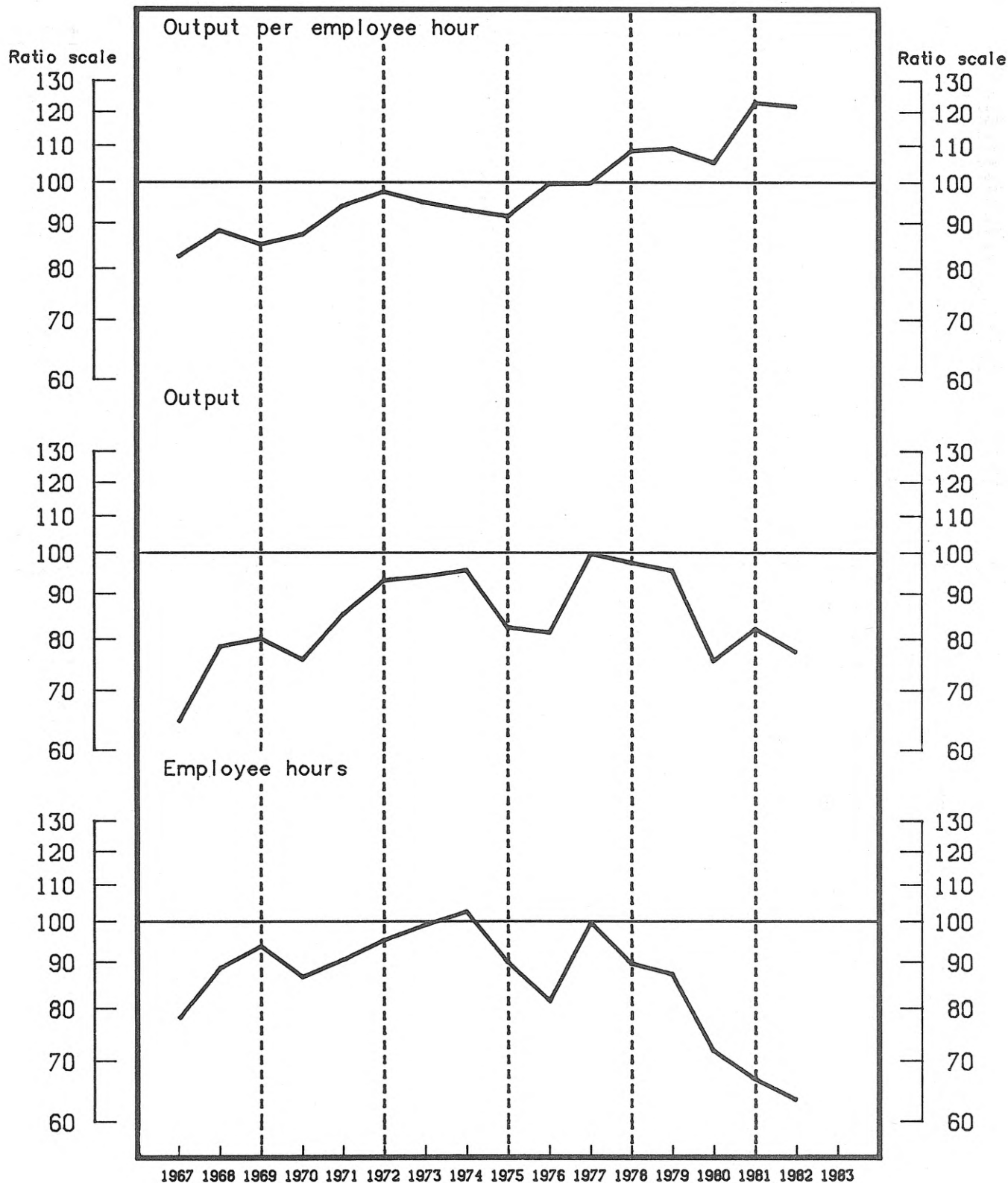
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	46.2	147.0	154.2	127.7	149.4	160.7	123.7
1955	50.0	145.5	153.0	125.3	147.1	158.2	122.3
1956	53.2	148.6	156.1	128.3	150.2	161.3	124.7
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	107.0	104.9	112.3	105.7	102.8	112.0
1980	95.0	100.8	94.7	116.2	100.2	98.2	104.7
1981	90.1	107.7	105.1	114.5	106.1	102.5	114.2
1982 ¹	85.1	103.1	96.7	119.3	100.9	92.8	118.9
Average annual percent change:							
1947-82	3.1	-1.4	-1.8	-5	-1.5	-1.9	-4
1977-82	-3.5	.8	-5	3.9	.6	-9	3.5

¹ Preliminary.

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

SOURCE: Output based on data from the 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 58. Tires and inner tubes (SIC 3011): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 113. Tires and inner tubes (SIC 3011): Indexes of output per employee hour and output per employee, 1954-82
(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	107.1	115.2	108.3	106.5	115.2
1979	109.5	109.2	110.4	105.7	104.4	110.8
1980	105.6	110.0	91.8	99.2	101.3	92.4
1981	123.2	122.8	123.9	118.4	116.7	124.7
1982 ²	122.0	120.2	129.6	115.2	111.5	130.3
Average annual percent change:						
1947-82	3.5	3.6	2.7	3.4	3.6	2.7
1977-82	3.9	3.9	3.9	2.6	2.3	4.0

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

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 114. Tires and inner tubes (SIC 3011): Indexes of output, employee hours, and employees, 1954-82
(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	91.2	84.8	90.2	91.7	84.8
1979	95.7	87.4	87.6	86.7	91.7	91.7	86.4
1980	75.9	71.9	69.0	82.7	76.5	74.9	82.1
1981	82.4	66.9	67.1	66.5	69.6	70.6	66.1
1982 ¹	77.5	63.5	64.5	59.8	67.3	69.5	59.5
Average annual percent change:							
1947-82	3.4	(²)	-2	.7	(²)	-2	.7
1977-82	-5.6	-9.1	-9.1	-9.1	-8.0	-7.7	-9.2

¹ Preliminary.

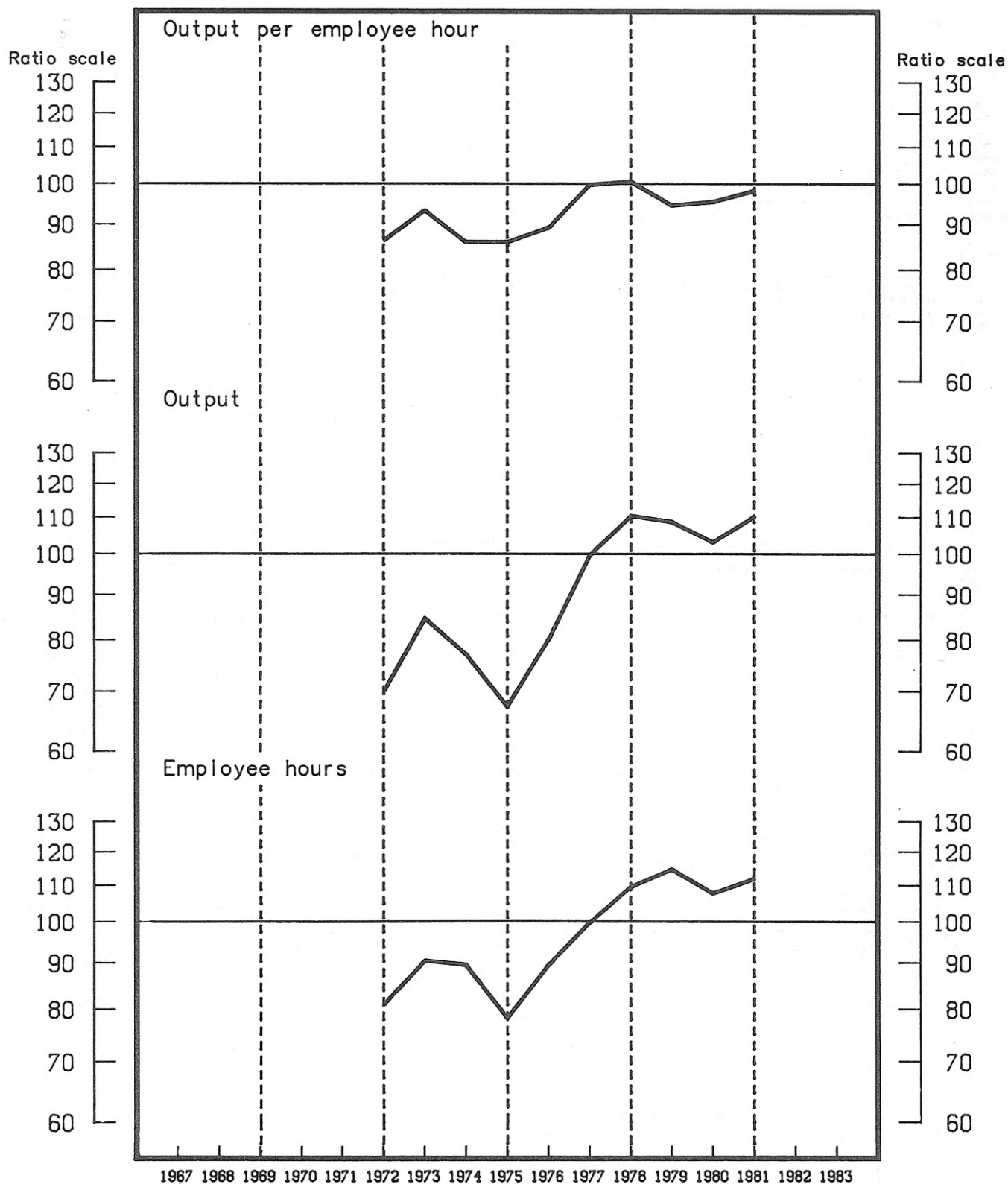
² Less than .05 percent.

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

SOURCE: Output 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 59. Miscellaneous plastics products (SIC 3079): Output per hour and related data, 1972-81

(1977 = 100)



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

Table 115. Miscellaneous plastics products (SIC 3079): Indexes of output per employee hour and output per employee, 1972-81 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	86.6	85.4	91.7	86.8	85.8	90.5
1973	93.6	92.4	98.5	93.3	92.2	98.3
1974	86.2	86.4	85.3	85.0	84.9	85.8
1975	86.2	89.1	76.6	85.1	87.6	77.0
1976	89.5	90.3	86.5	89.1	89.8	86.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.8	100.5	102.0	101.0	100.7	102.0
1979	94.8	94.7	95.0	94.4	94.2	95.0
1980	95.7	97.3	90.1	94.8	96.1	90.1
1981 ²	98.5	99.5	94.5	97.9	98.7	94.5
Average annual percent change:						
1972-81	1.4	1.6	.7	1.4	1.6	.8
1977-81	-.8	-.4	-2.3	-1.1	-.7	-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 based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

Table 116. Miscellaneous plastics products (SIC 3079): Indexes of output, employee hours, and employees, 1972-81 (1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	70.3	81.2	82.3	76.7	81.0	81.9	77.7
1973	84.9	90.7	91.9	86.2	91.0	92.1	86.4
1974	77.3	89.7	89.5	90.6	90.9	91.1	90.1
1975	67.6	78.4	75.9	88.2	79.4	77.2	87.8
1976	80.4	89.8	89.0	92.9	90.2	89.5	92.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	110.7	109.8	110.1	108.5	109.6	109.9	108.5
1979	109.0	115.0	115.1	114.7	115.5	115.7	114.7
1980	103.4	108.0	106.3	114.7	109.1	107.6	114.7
1981 ¹	110.5	112.2	111.0	116.9	112.9	111.9	116.9
Average annual percent change:							
1972-81	5.5	4.0	3.8	4.8	4.0	3.9	4.7
1977-81	1.3	2.2	1.8	3.7	2.4	2.1	3.7

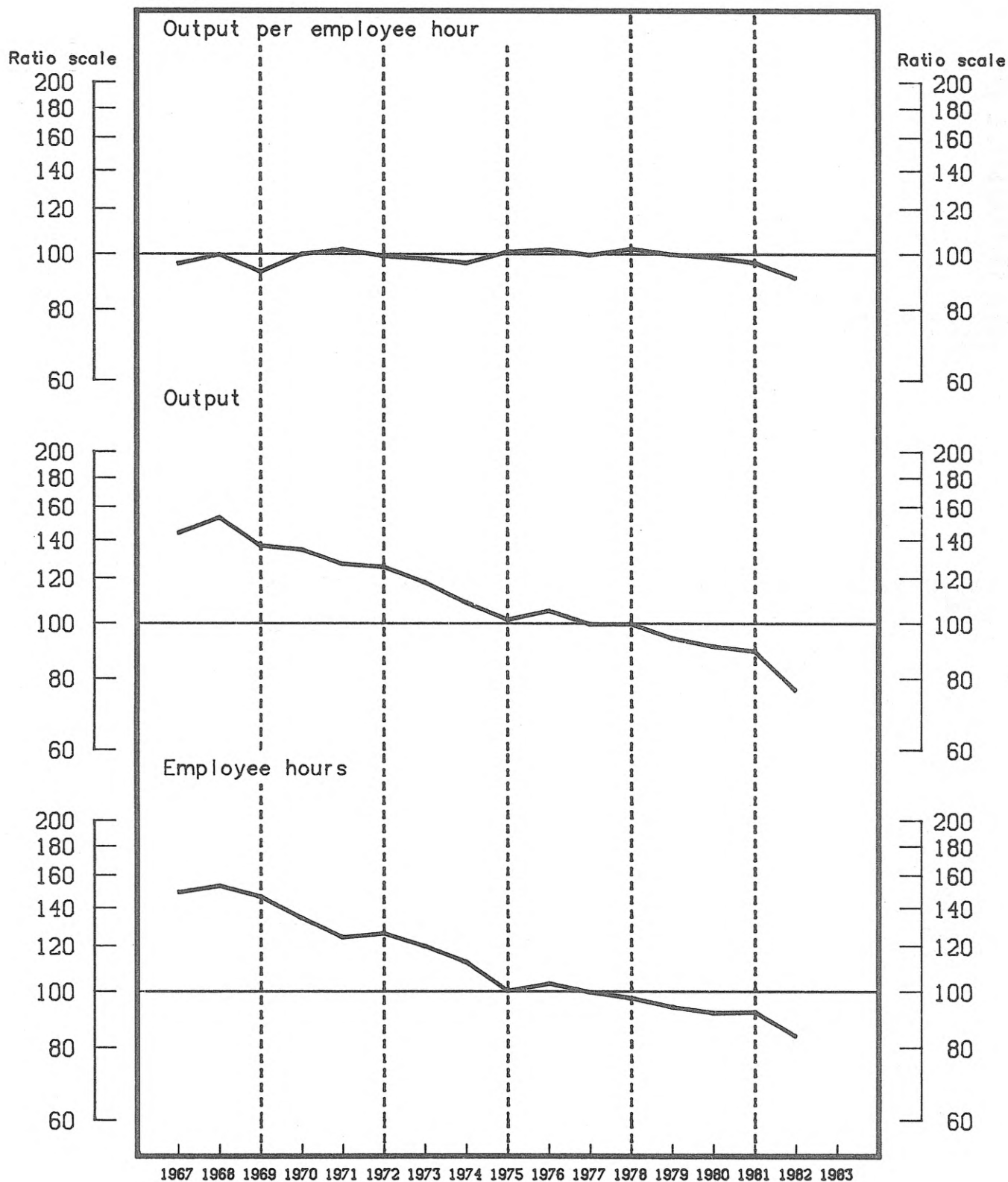
¹ Preliminary.

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

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

Chart 60. Footwear (SIC 314): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 117. Footwear (SIC 314): Indexes of output per employee hour and output per employee, 1954-82
(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	106.8	101.3	100.6	106.7
1979	100.2	101.0	94.8	99.4	99.9	95.1
1980	99.1	100.2	92.0	98.6	99.3	92.5
1981	97.0	97.5	93.4	97.8	98.4	93.7
1982 ²	91.1	92.8	79.1	89.3	90.6	79.4
Average annual percent change:						
1947-82 .....	.8	.9	(³)	.8	.9	-.1
1977-82	-1.8	-1.5	-4.5	-1.9	-1.6	-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.

NOTE: Because of periodic 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.

² Preliminary.
³ Less than .05 percent.

Table 118. Footwear (SIC 314): Indexes of output, employee hours, and employees, 1954-82
(1977=100)

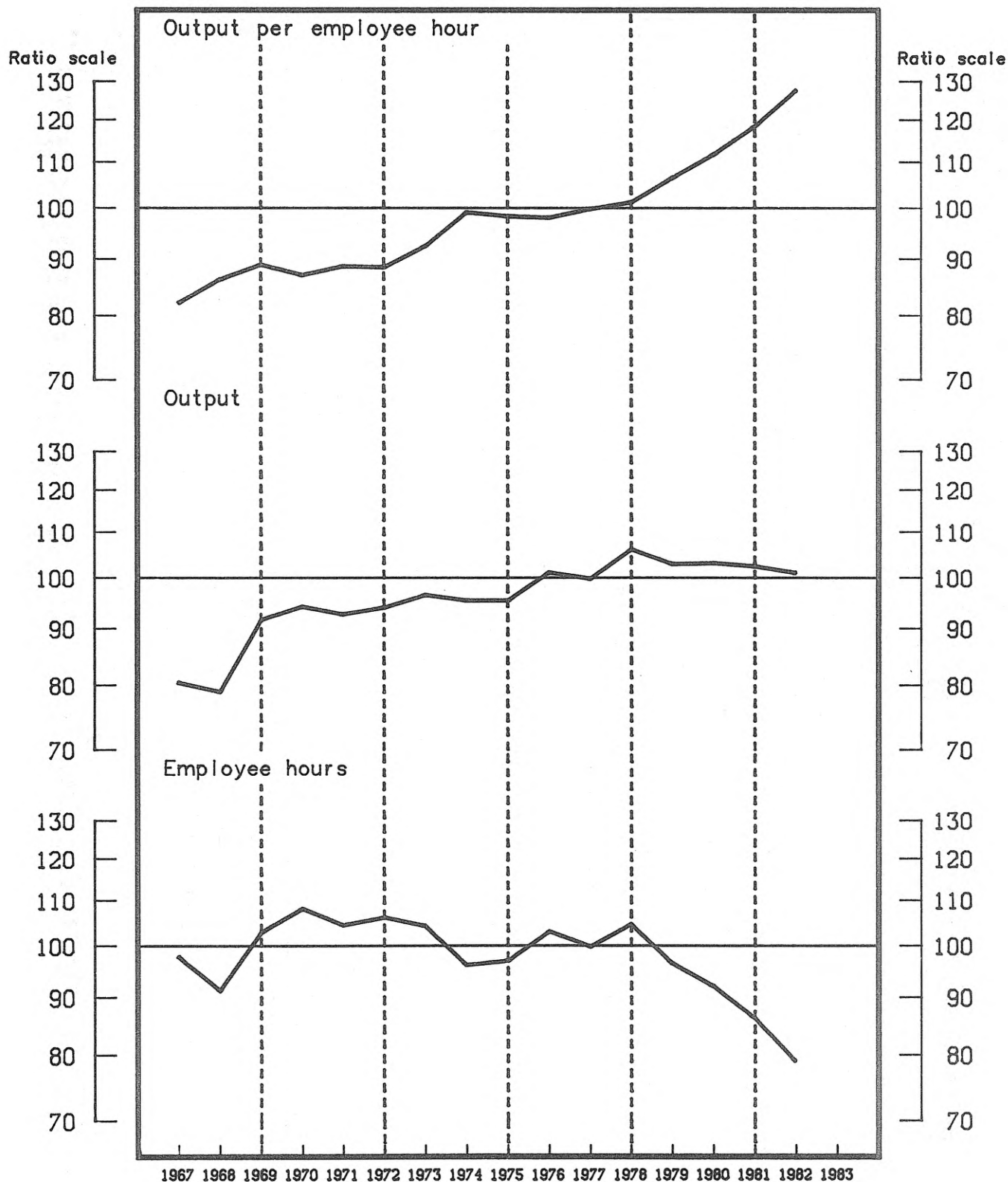
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	128.3	157.8	161.4	130.9	158.1	162.0	127.7
1955	141.2	165.9	169.8	137.1	160.4	164.1	134.4
1956	143.1	165.1	168.5	140.5	162.0	165.3	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	121.6	121.9	117.9
1973	118.4	120.2	120.4	118.8	116.7	117.0	114.8
1974	109.1	112.7	111.8	120.1	111.3	110.8	116.0
1975	101.9	100.6	100.3	103.7	100.1	100.0	101.2
1976	105.6	103.4	103.5	103.1	102.8	103.0	101.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.1	97.7	98.2	93.7	98.8	99.5	93.8
1979	94.5	94.3	93.6	99.7	95.1	94.6	99.4
1980	91.4	92.2	91.2	99.3	92.7	92.0	98.8
1981	89.7	92.5	92.0	96.0	91.7	91.2	95.7
1982 ¹	76.5	84.0	82.4	96.7	85.7	84.4	96.3
Average annual percent change:							
1947-82	-1.0	-1.9	-2.0	-1.1	-1.9	-2.0	-1.0
1977-82	-4.7	-3.0	-3.3	-3	-2.9	-3.2	-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 Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 61. Glass containers (SIC 3221): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 119. Glass containers (SIC 3221): Indexes of output per employee hour and output per employee, 1954-82
(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	106.7	106.5	107.8	107.8	107.7	108.3
1980	112.0	112.8	106.7	113.4	114.3	107.2
1981	118.7	119.7	111.8	119.0	120.1	112.0
1982 ²	127.9	128.9	121.2	127.3	128.1	121.8
Average annual percent change:						
1947-82	2.0	2.1	1.4	1.9	1.9	1.3
1977-82	5.1	5.4	3.3	4.9	5.1	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 based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 120. Glass containers (SIC 3221): Indexes of output, employee hours, and employees, 1954-82
(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	103.1	96.6	96.8	95.6	95.6	95.7	95.2
1980	103.3	92.2	91.6	96.8	91.1	90.4	96.4
1981	102.6	86.4	85.7	91.8	86.2	85.4	91.6
1982 ¹	101.2	79.1	78.5	83.5	79.5	79.0	83.1
Average annual percent change:							
1947-82	3.3	1.2	1.1	1.9	1.3	1.3	1.9
1977-82	-1	-5.0	-5.2	-3.3	-4.8	-5.0	-3.4

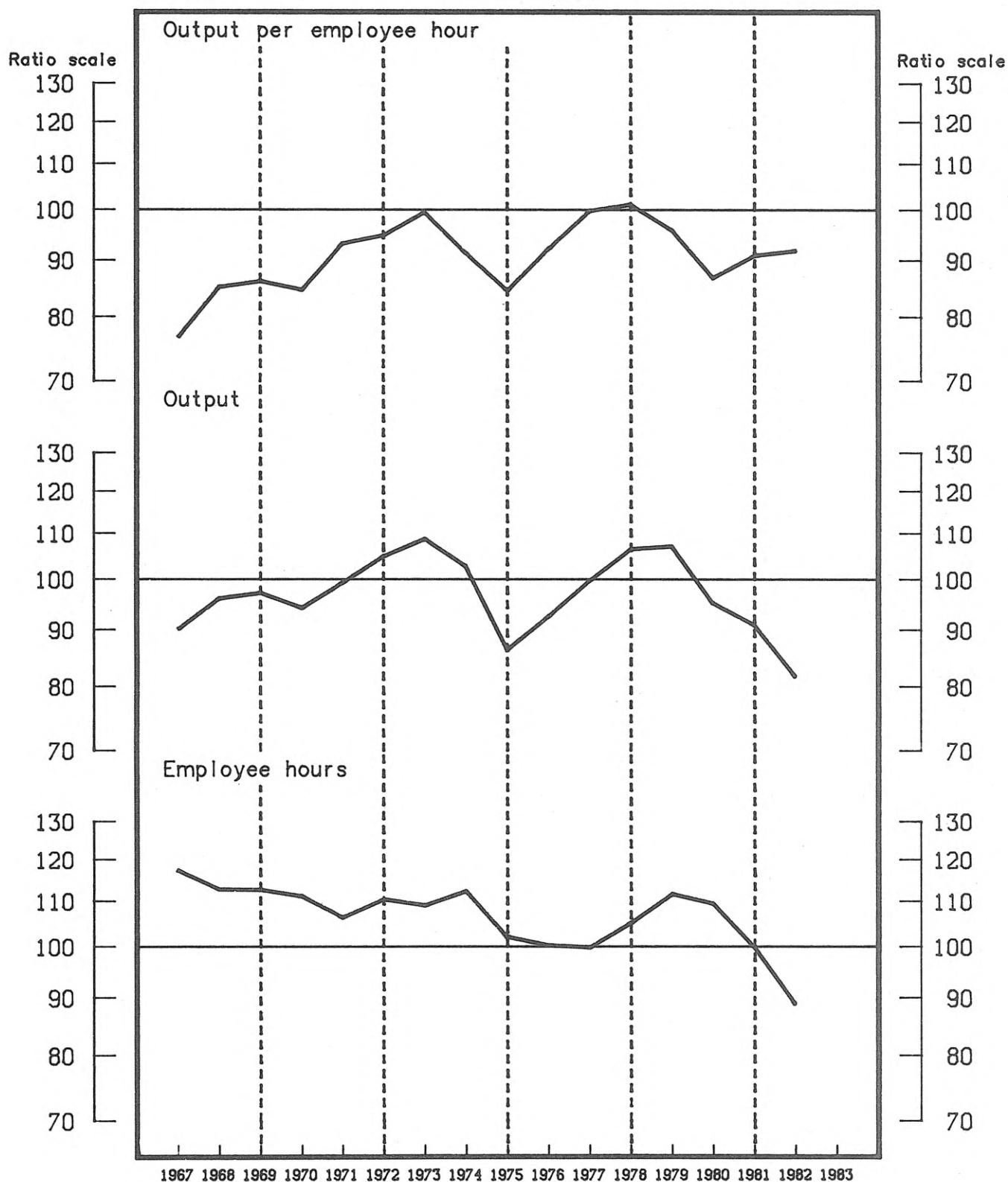
¹ Preliminary.

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 62. Hydraulic cement (SIC 3241): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 121. Hydraulic cement (SIC 3241): Indexes of output per employee hour and output per employee, 1954-82
(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	87.0	87.4	84.9	87.1	87.4	86.1
1981	91.1	92.1	87.0	90.1	90.6	87.9
1982 ²	92.0	93.6	85.8	89.5	90.4	86.5
Average annual percent change:						
1947-82	3.3	3.7	1.5	3.2	3.5	1.5
1977-82	-2.4	-2.0	-4.0	-3.1	-2.8	-3.8

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

² Preliminary.

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

differ from those previously published.

SOURCE: Output 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 122. Hydraulic cement (SIC 3241): Indexes of output, employee hours, and employees, 1954-82
(1977=100)

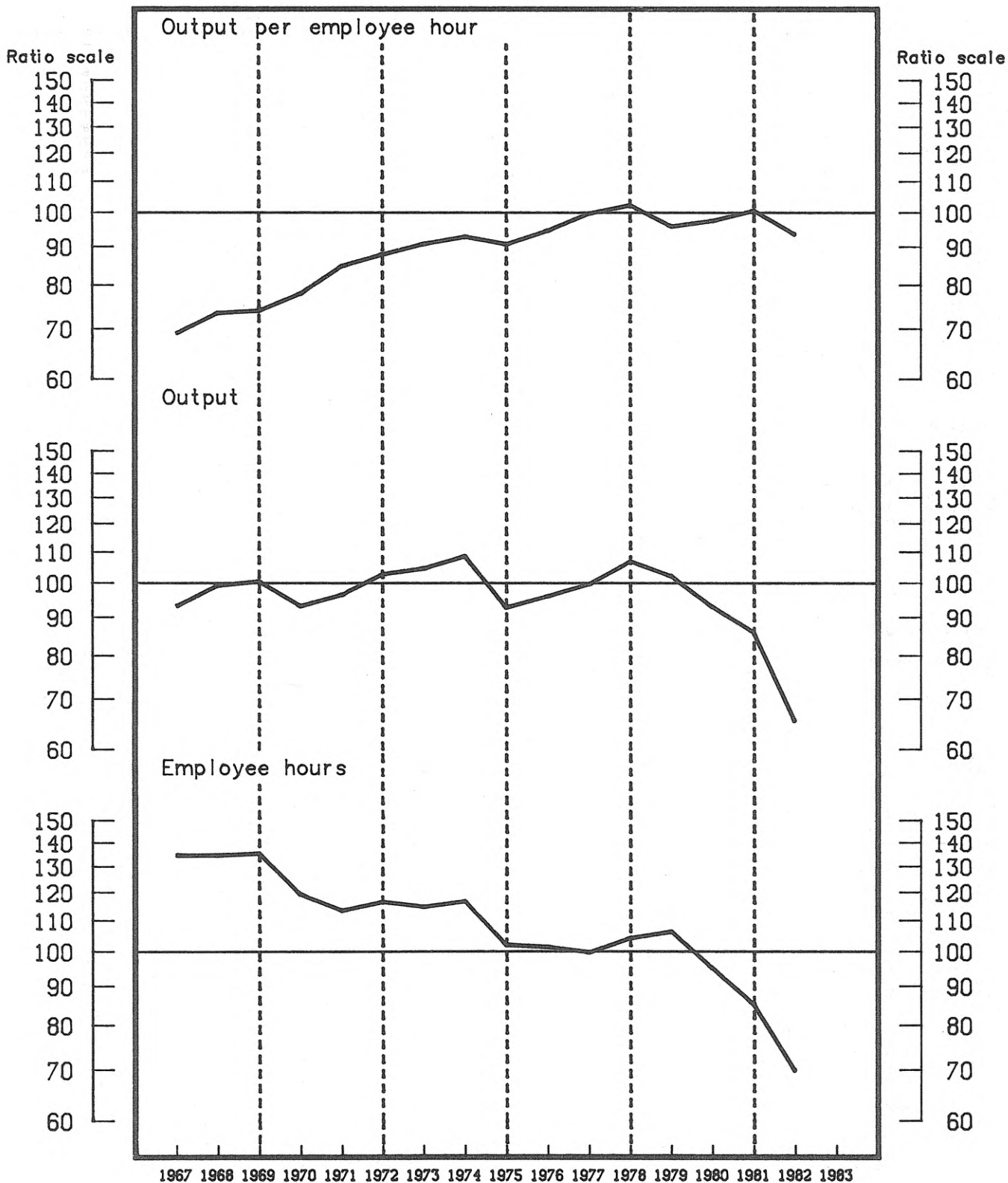
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	69.9	149.5	160.4	103.2	143.0	153.2	102.3
1955	76.0	153.8	166.1	101.1	146.7	158.2	100.9
1956	80.1	154.2	166.7	100.9	149.0	161.3	100.3
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	95.3	109.6	109.0	112.3	109.4	109.0	110.7
1981	91.1	100.0	98.9	104.7	101.1	100.5	103.6
1982 ¹	81.8	88.9	87.4	95.3	91.4	90.5	94.6
Average annual percent change:							
1947-82	1.7	-1.7	-2.0	.1	-1.5	-1.8	.1
1977-82	-4.5	-2.2	-2.6	-.5	-1.5	-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 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 63. Structural clay products (SIC 325): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 123. Structural clay products (SIC 325): Indexes of output per employee hour and output per employee, 1958-82
(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	96.1	96.5	94.3	94.5	94.4	94.6
1980	97.8	101.2	84.8	96.9	100.0	85.2
1981	100.9	103.1	92.5	99.7	101.4	92.8
1982 ²	93.7	99.4	74.2	91.5	96.6	74.3
Average annual percent change:						
1958-82	2.8	3.2	1.1	2.8	3.1	1.1
1977-82	-1.0	.2	-6.0	-1.5	-.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, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 124. Structural clay products (SIC 325): Indexes of output, employee hours, and employees, 1958-82
(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	106.6	106.1	108.6	108.4	108.5	108.2
1980	93.2	95.3	92.1	109.9	96.2	93.2	109.4
1981	86.2	85.4	83.6	93.2	86.5	85.0	92.9
1982 ¹	65.5	69.9	65.9	88.3	71.6	67.8	88.2
Average annual percent change:							
1958-82	-1	-2.9	-3.2	-1.2	-2.8	-3.2	-1.3
1977-82	-7.9	-6.9	-8.1	-2.0	-6.4	-7.5	-2.1

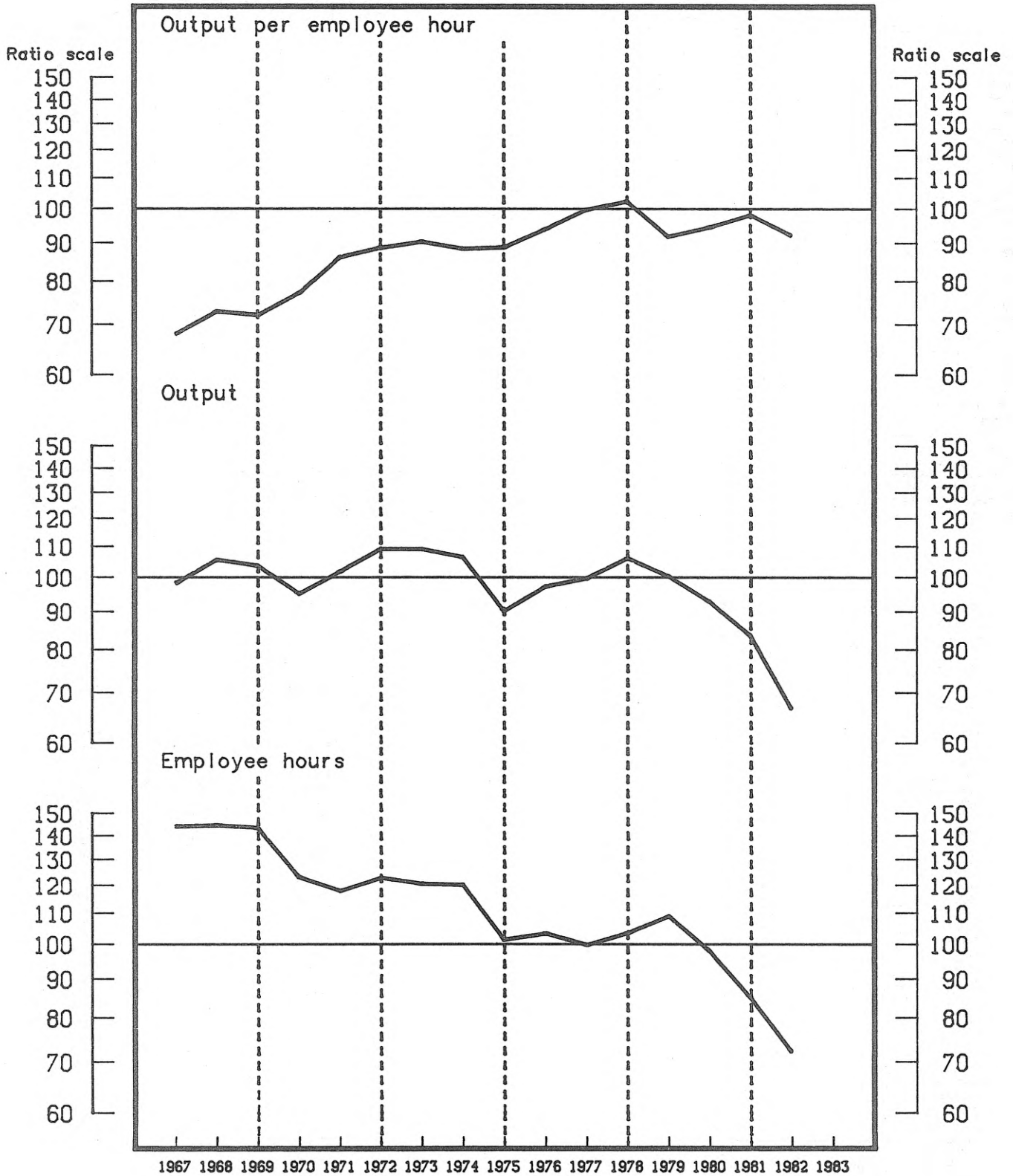
¹ Preliminary.

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

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

Chart 64. Clay construction products (SIC 3251, 3253, 3259): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 125. Clay construction products (SIC 3251, 3253, 3259): Indexes of output per employee hour and output per employee, 1958-82 (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	112.4	103.6	102.0	112.0
1979	92.1	92.9	88.2	92.4	93.2	88.8
1980	94.8	97.7	82.9	95.1	98.0	83.3
1981	98.4	100.8	87.7	97.3	99.5	88.2
1982 ²	92.4	98.4	71.1	91.8	97.8	71.6
Average annual percent change:						
1958-82	2.8	3.1	1.3	2.7	3.0	1.3
1977-82	-1.4	-.1	-6.9	-1.7	-.4	-6.8

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

² Preliminary.

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

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

Table 126. Clay construction products (SIC 3251, 3253, 3259): Indexes of output, employee hours, and employees, 1958-82 (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	94.7	102.7	104.3	95.0
1979	100.6	109.2	108.3	114.0	108.9	107.9	113.3
1980	93.1	98.2	95.3	112.3	97.9	95.0	111.7
1981	83.8	85.2	83.1	95.6	86.1	84.2	95.0
1982 ¹	66.8	72.3	67.9	93.9	72.8	68.3	93.3
Average annual percent change:							
1958-82	-7	-3.4	-3.7	-1.9	-3.3	-3.6	-2.0
1977-82	-7.7	-6.4	-7.6	-9	-6.2	-7.4	-1.0

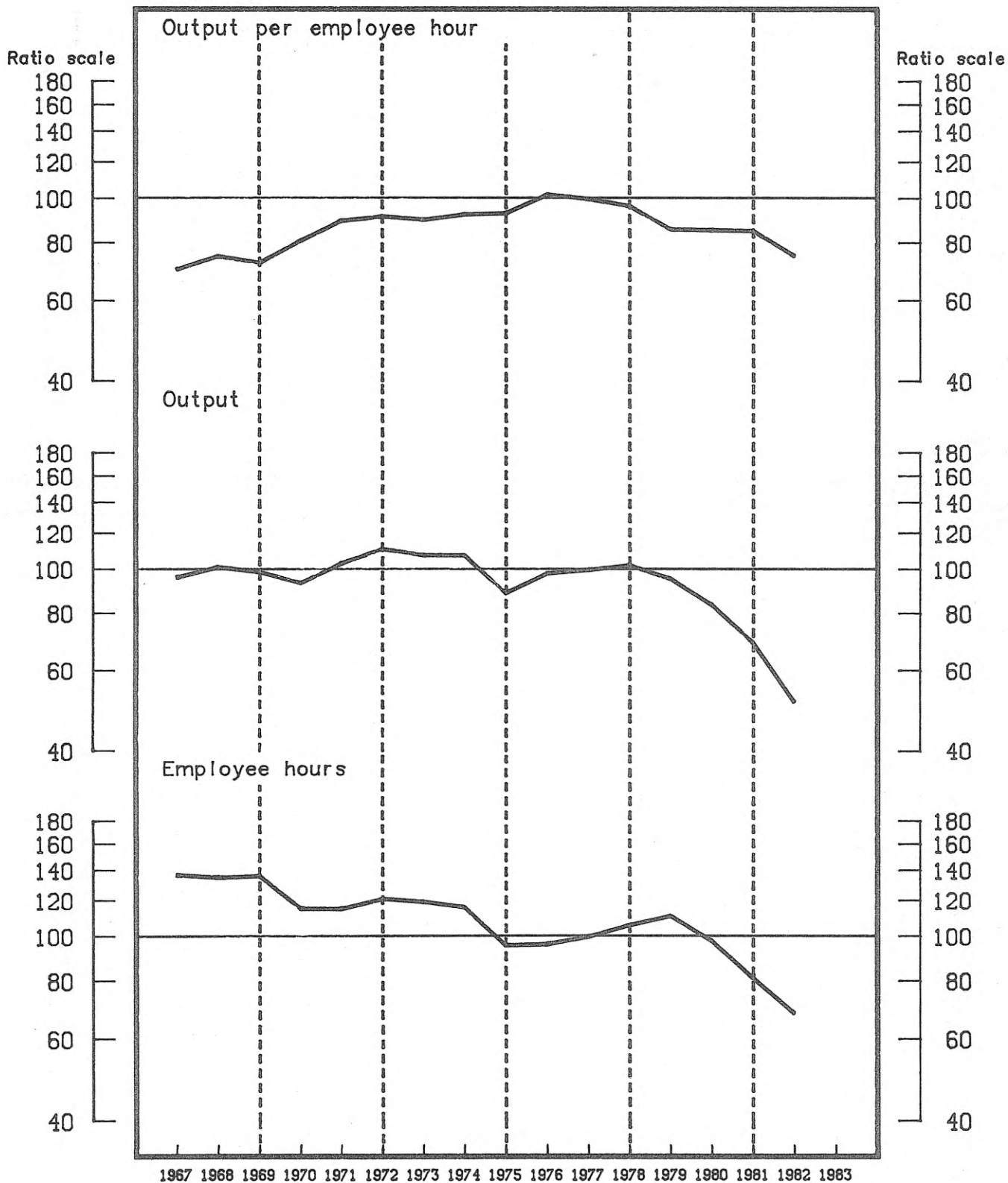
¹ Preliminary.

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

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

Chart 65. Brick and structural clay tile (SIC 3251): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 127. Brick and structural clay tile (SIC 3251): Indexes of output per employee hour and output per employee, 1958-82 (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	85.6	91.2	65.2	85.0	90.6	65.1
1981	85.2	89.3	69.3	83.6	87.3	69.3
1982 ²	75.1	81.9	52.9	74.0	80.8	52.8
Average annual percent change:						
1958-82	2.0	2.4	-3	1.8	2.2	-3
1977-82	-5.0	-3.2	-12.3	-5.5	-3.7	-12.3

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

² Preliminary.

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

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

Table 128. Brick and structural clay tile (SIC 3251): Indexes of output, employee hours, and employees, 1958-82 (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	83.7	97.8	91.8	128.4	98.5	92.4	128.6
1981	69.3	81.3	77.6	100.0	82.9	79.4	100.0
1982 ¹	51.3	68.3	62.6	97.0	69.3	63.5	97.1
Average annual percent change:							
1958-82	-1.1	-3.0	-3.4	-8	-2.9	-3.3	-8
1977-82	-12.4	-7.8	-9.5	-1	-7.4	-9.1	-1

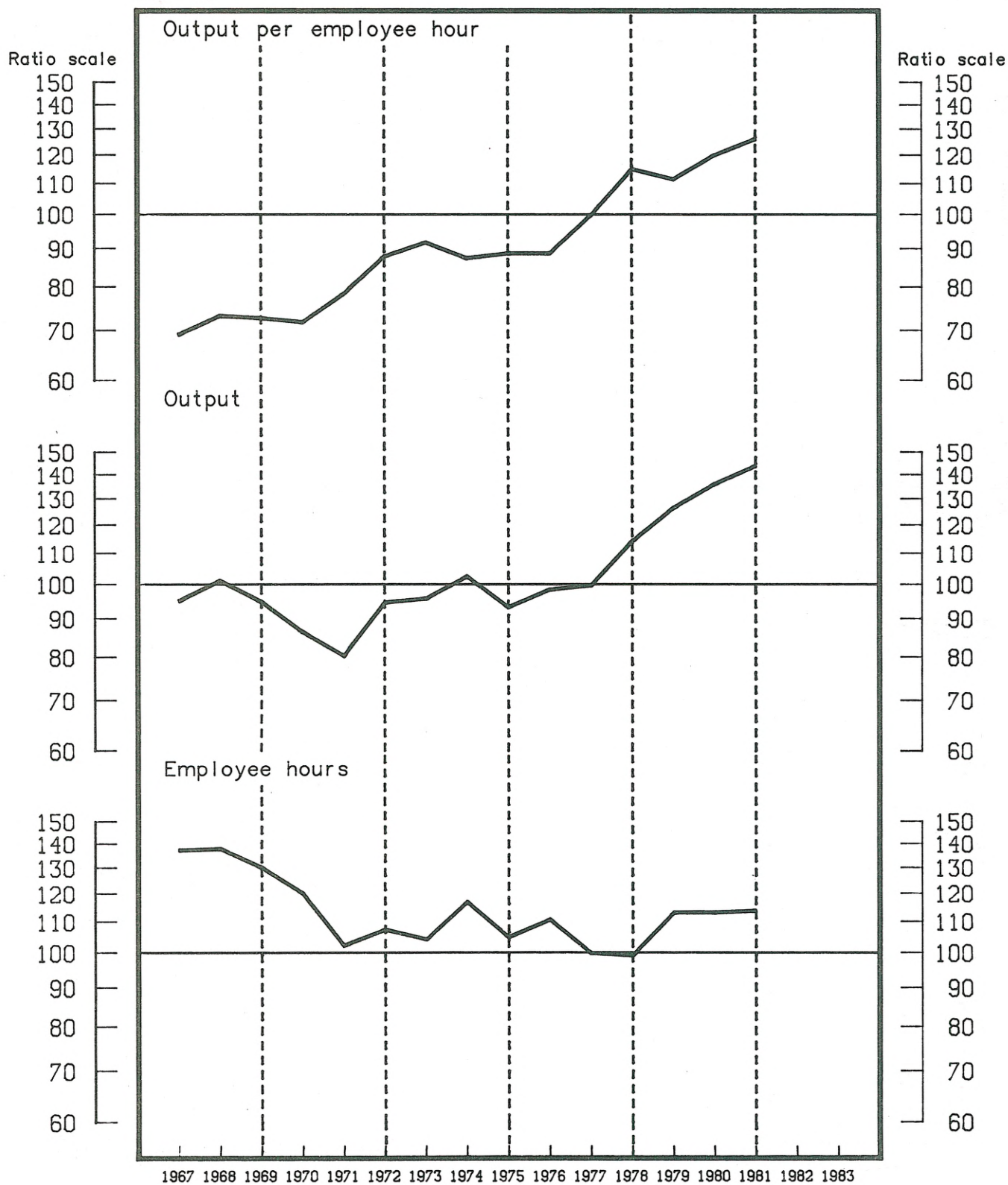
¹ Preliminary.

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

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

Chart 66. Ceramic wall and floor tile (SIC 3253): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 129. Ceramic wall and floor tile (SIC 3253): 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	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	115.3	112.0	132.9	117.7	114.6	132.2
1979	111.8	108.9	126.8	113.7	110.9	126.8
1980	120.3	117.2	136.4	122.3	119.3	136.4
1981 ²	126.5	124.7	134.9	126.4	124.4	135.1
Average annual percent change:						
1958-81	3.9	3.9	4.1	3.9	3.9	4.2
1977-81	5.3	5.0	6.4	5.2	4.9	6.5

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 130. Ceramic wall and floor tile (SIC 3253): 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	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	114.6	99.4	102.3	86.2	97.4	100.0	86.7
1979	126.8	113.4	116.4	100.0	111.5	114.3	100.0
1980	136.4	113.4	116.4	100.0	111.5	114.3	100.0
1981 ¹	144.2	114.0	115.6	106.9	114.1	115.9	106.7
Average annual percent change:							
1958-81	1.2	-2.6	-2.6	-2.8	-2.7	-2.6	-2.9
1977-81	9.5	4.0	4.3	2.9	4.1	4.4	2.8

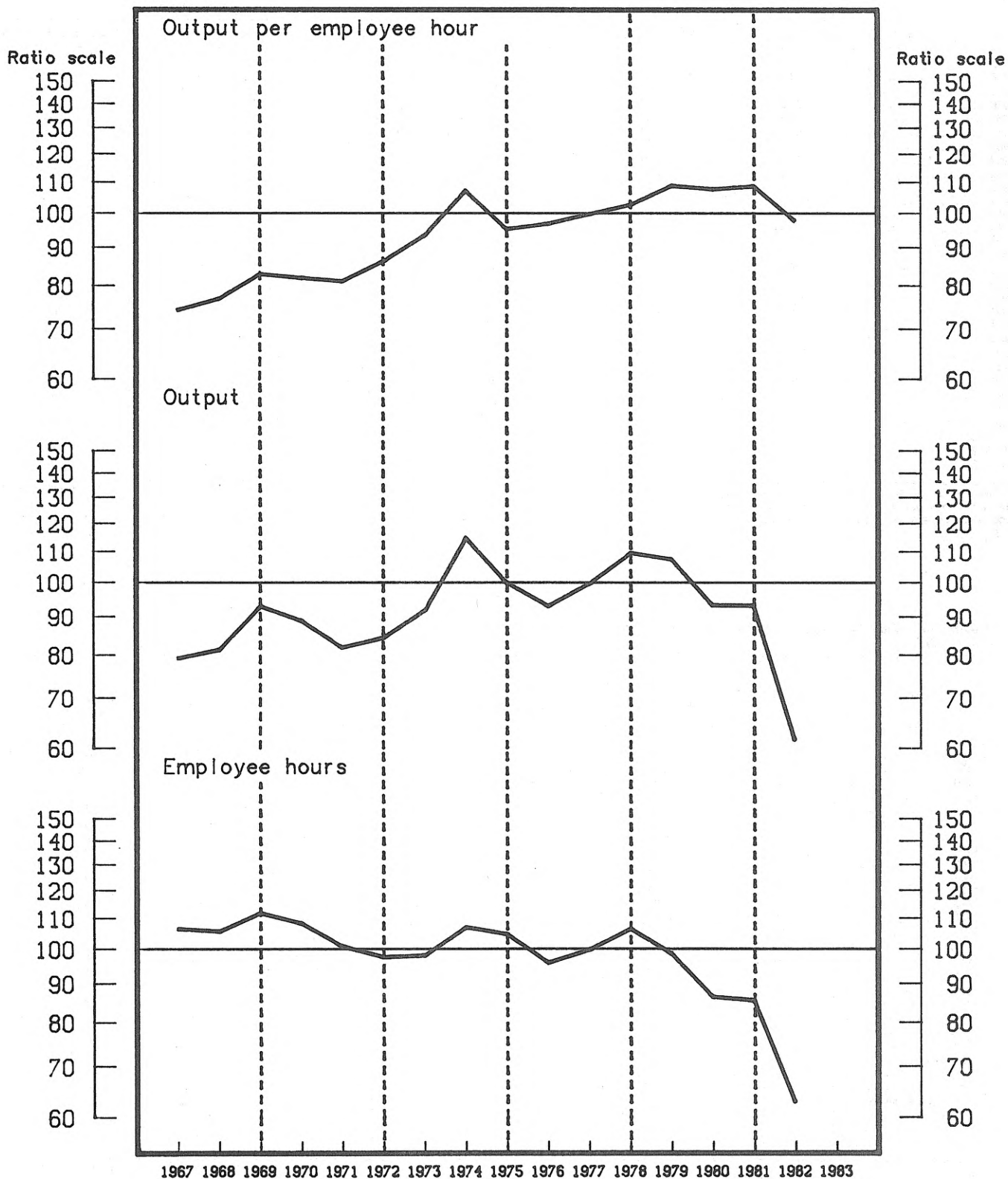
¹ Preliminary.

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

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

Chart 67. Clay refractories (SIC 3255): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 131. Clay refractories (SIC 3255): Indexes of output per employee hour and output per employee, 1958-82
(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	108.0	114.3	89.7	102.5	106.9	89.9
1981	109.0	109.6	106.7	106.6	106.7	106.1
1982 ²	97.9	103.2	82.1	90.5	93.5	81.1
Average annual percent change:						
1958-82	2.8	3.3	.8	3.0	3.5	.9
1977-82 .....	.2	1.3	-3.6	-1.3	-.5	-3.8

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

² Preliminary.

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

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

Table 132. Clay refractories (SIC 3255): Indexes of output, employee hours, and employees, 1958-82
(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	99.4	99.4	95.8	107.1	110.2	96.0
1980	93.5	86.6	81.8	104.2	91.2	87.5	104.0
1981	93.4	85.7	85.2	87.5	87.6	87.5	88.0
1982 ¹	61.6	62.9	59.7	75.0	68.1	65.9	76.0
Average annual percent change:							
1958-82	1.9	-.9	-1.4	1.1	-1.1	-1.6	1.1
1977-82	-8.3	-8.5	-9.5	-4.9	-7.2	-7.9	-4.7

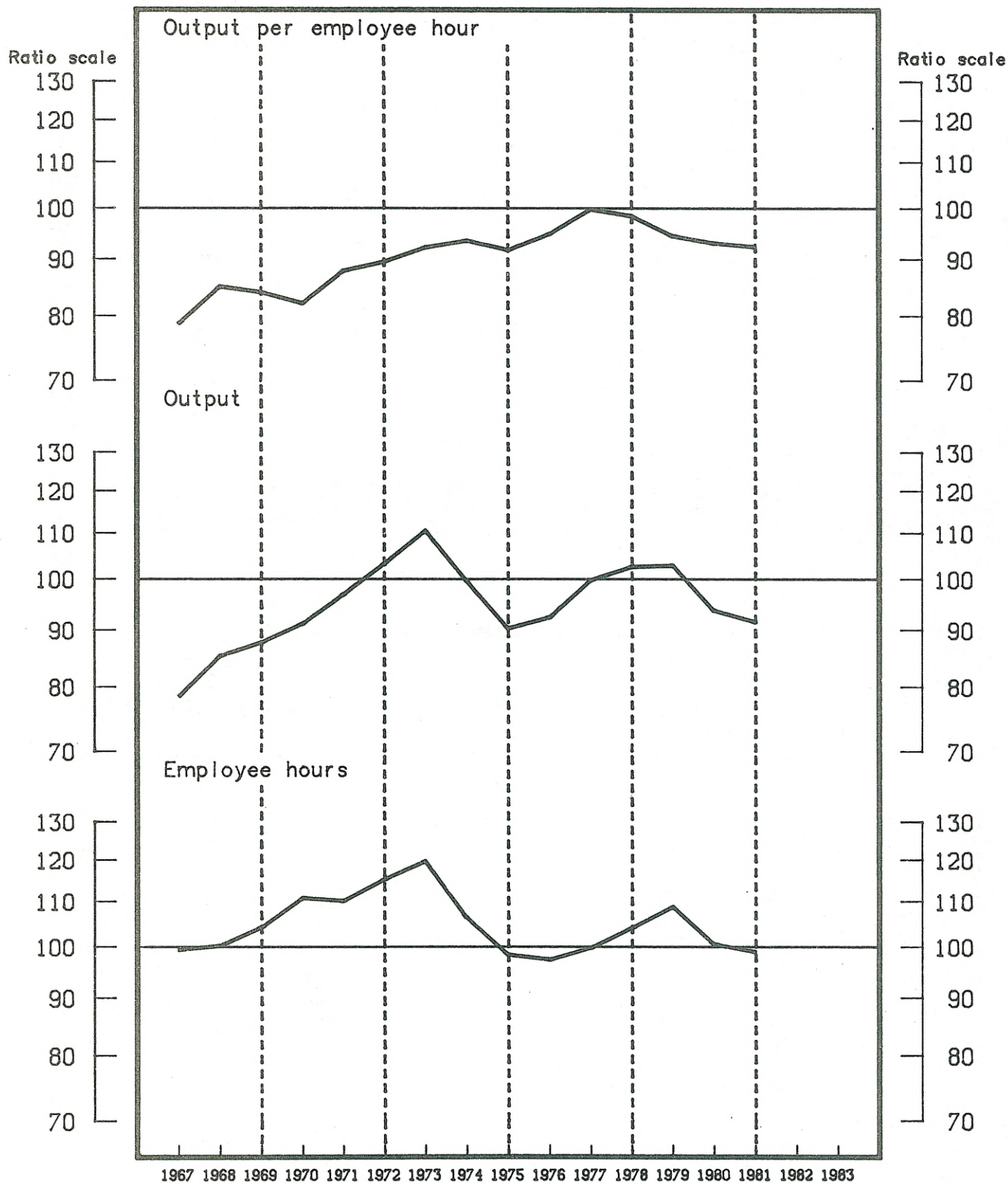
¹ Preliminary.

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

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

Chart 68. Concrete products (SIC 3271, 3272): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 133. Concrete products (SIC 3271, 3272): Indexes of output per employee hour and output per employee, 1954-81
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	53.1	51.2	61.4	54.9	53.0	61.5
1955	56.3	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	98.5	99.0	98.4	98.2	98.9
1979	94.6	95.0	93.3	94.9	95.5	93.6
1980	93.2	96.5	84.6	93.3	96.5	85.2
1981 ²	92.5	95.5	84.4	92.7	95.8	84.7
Average annual percent change:						
1947-81	2.8	3.1	1.4	2.6	2.9	1.4
1977-81	-2.1	-1.1	-4.8	-2.0	-1.0	-4.7

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

² Preliminary.

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

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

Table 134. Concrete products (SIC 3271, 3272): Indexes of output, employee hours, and employees, 1954-81
(1977=100)

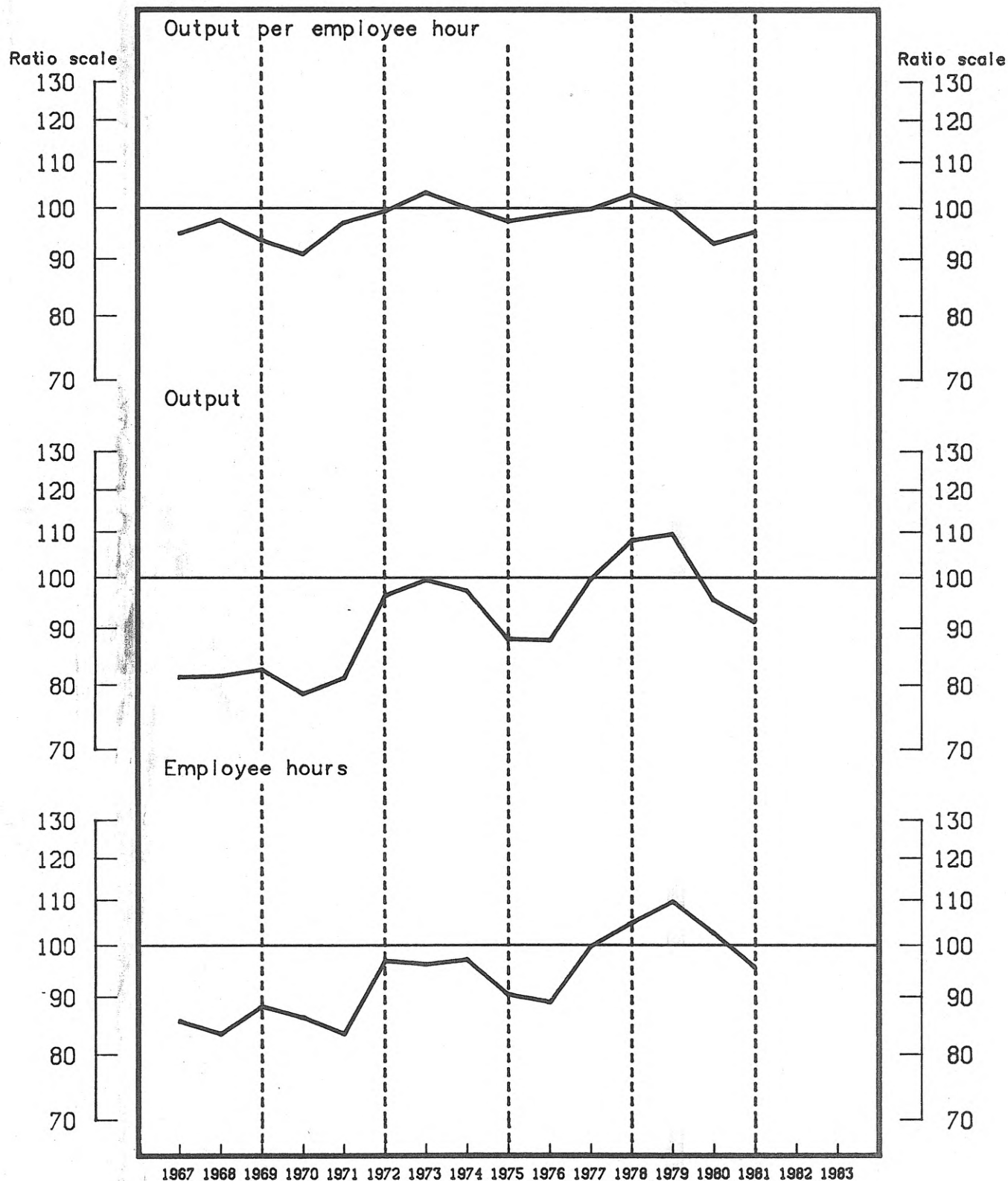
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	41.3	77.8	80.6	67.3	75.2	77.9	67.1
1955	47.7	84.8	88.5	71.0	82.5	86.4	71.3
1956	55.9	91.1	94.9	76.8	87.1	90.6	76.9
1957	54.0	89.9	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	104.4	103.8	104.5	104.7	103.9
1979	103.1	109.0	108.5	110.5	108.6	108.0	110.2
1980	93.9	100.7	97.3	111.0	100.6	97.3	110.2
1981 ¹	91.7	99.1	96.0	108.7	98.9	95.7	108.3
Average annual percent change:							
1947-81	3.9	1.1	.8	2.5	1.3	1.0	2.5
1977-81	-2.6	-.5	-1.5	2.4	-.6	-1.6	2.2

¹ Preliminary.

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

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

Chart 69. Ready-mixed concrete (SIC 3273): Output per hour and related data, 1967-81
(1977 = 100)



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

Table 135. Ready-mixed concrete (SIC 3273): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-81
(1977=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	77.4	76.5	54.1	69.9	70.7
1959	79.2	78.5	60.4	76.3	76.9
1960	77.9	79.8	58.8	75.5	73.7
1961	76.7	79.8	59.3	77.3	74.3
1962	78.7	80.6	61.1	77.6	75.8
1963	85.8	88.5	72.0	83.9	81.4
1964	86.2	88.8	73.0	84.7	82.2
1965	90.3	91.1	79.0	87.5	86.7
1966	90.7	91.3	78.3	86.3	85.8
1967	95.0	96.2	81.5	85.8	84.7
1968	97.7	98.3	81.7	83.6	83.1
1969	93.7	97.2	82.8	88.4	85.2
1970	91.1	90.6	78.7	86.4	86.9
1971	97.2	93.1	81.3	83.6	87.3
1972	99.5	99.0	96.5	97.0	97.5
1973	103.5	101.4	99.7	96.3	98.3
1974	100.3	98.3	97.5	97.2	99.2
1975	97.5	93.1	88.2	90.5	94.7
1976	98.8	94.5	88.0	89.1	93.1
1977	100.0	100.0	100.0	100.0	100.0
1978	103.1	102.9	108.3	105.0	105.2
1979	99.9	98.4	109.7	109.8	111.5
1980	93.1	91.3	95.6	102.7	104.7
1981 ¹	95.4	93.5	91.3	95.7	97.6
Average annual percent change:					
1958-81	1.2	1.0	2.7	1.5	1.7
1977-81	-1.9	-2.5	-3.0	-1.1	-5

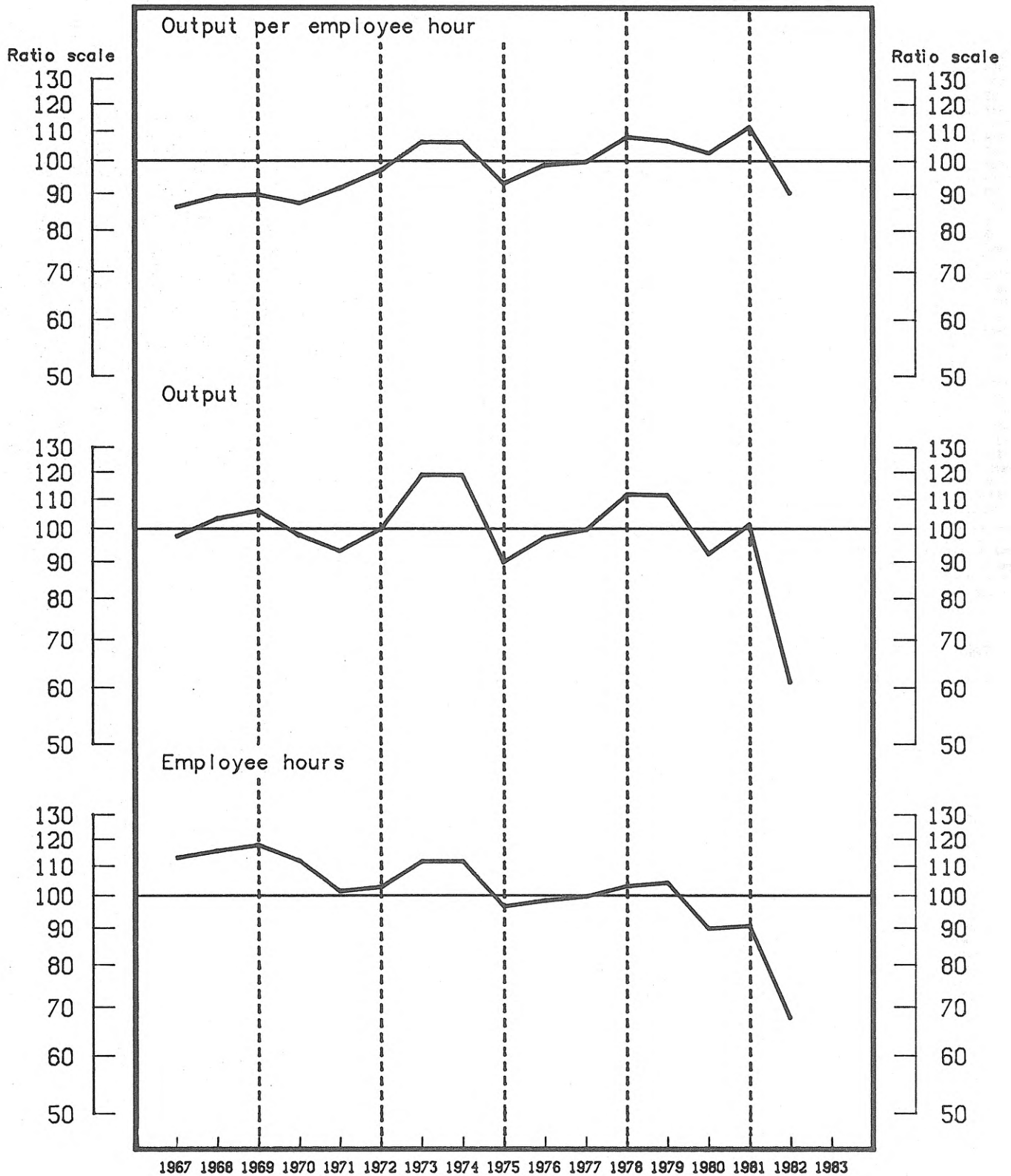
¹ Preliminary.

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

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

Chart 70. Steel (SIC 331): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 136. Steel (SIC 331): Indexes of output per employee hour and output per employee, 1954-82
(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	102.9	104.3	98.5	100.4	101.3	97.1
1981	112.0	112.9	109.0	111.5	112.5	108.3
1982 ²	90.2	96.4	74.0	85.8	90.2	72.9
Average annual percent change:						
1947-82	1.6	2.0	(³)	1.7	2.1	.1
1977-82	-1.3	-1	-4.9	-2.3	-1.4	-5.3

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

² Preliminary.

³ 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 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 137. Steel (SIC 331): Indexes of output, employee hours, and employees, 1954-82
(1977=100)

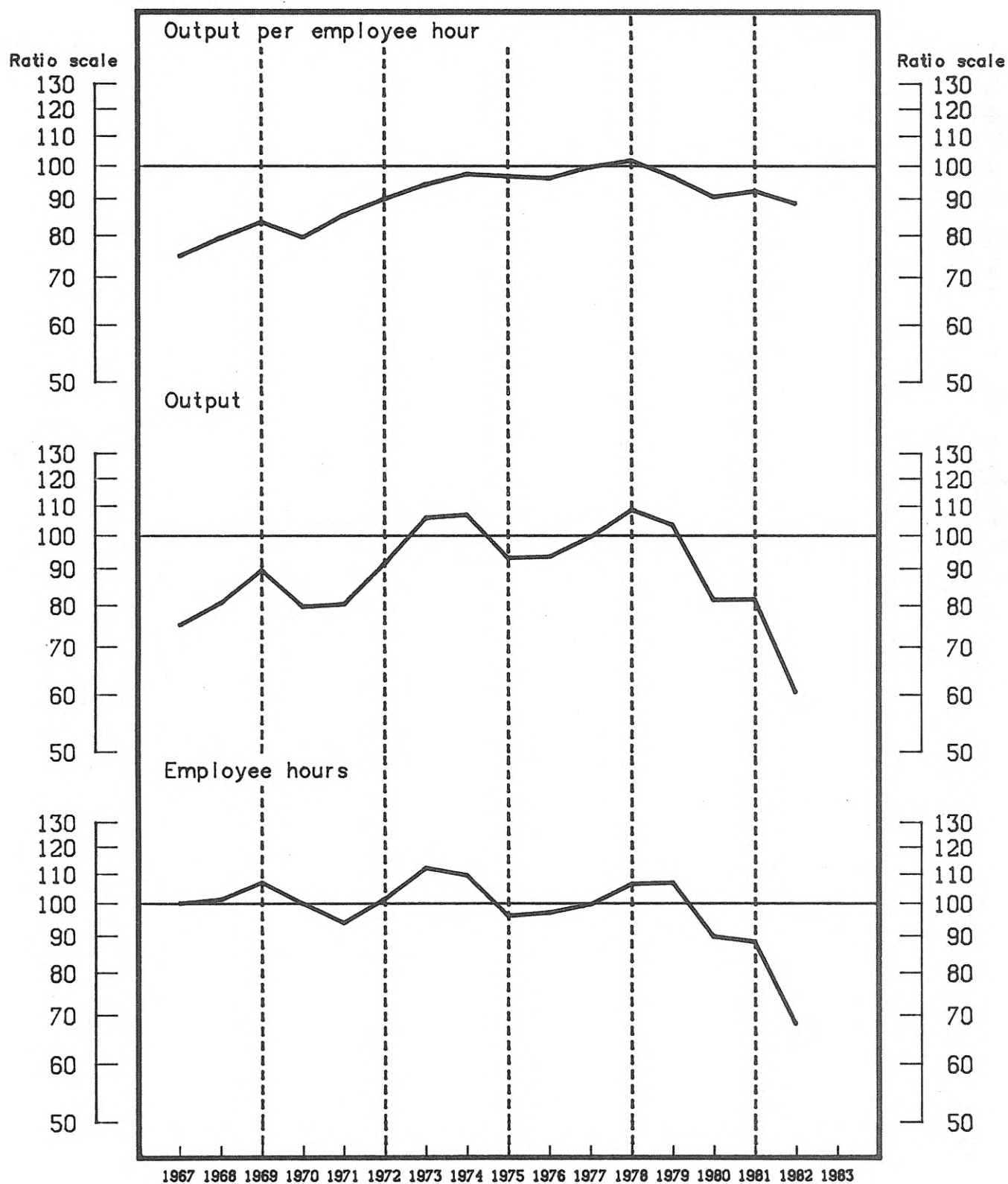
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	73.1	109.4	117.9	79.5	116.4	126.3	81.7
1955	96.4	127.0	139.8	81.9	127.4	139.8	84.2
1956	94.8	126.8	137.7	88.9	127.4	137.7	91.4
1957	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	92.7	90.1	88.9	94.1	92.3	91.5	95.5
1981	101.8	90.9	90.2	93.4	91.3	90.5	94.0
1982 ¹	61.0	67.6	63.3	82.4	71.1	67.6	83.7
Average annual percent change:							
1947-82 .....	.9	-7	-1.1	.9	-8	-1.2	.8
1977-82	-8.1	-6.9	-8.0	-3.3	-5.9	-6.8	-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 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 71. Gray iron foundries (SIC 3321): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 138. Gray iron foundries (SIC 3321): Indexes of output per employee hour and output per employee, 1954-82
(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	96.8	98.1	90.2	94.7	95.6	90.7
1980	90.8	94.8	73.0	86.5	89.5	73.7
1981	92.5	95.7	78.1	88.4	90.7	78.4
1982 ²	88.8	95.4	63.5	81.5	86.1	63.7
Average annual percent change:						
1954-82	2.0	2.2	.7	1.9	2.1	.5
1977-82	-2.7	-1.3	-9.0	-4.3	-3.2	-8.9

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 139. Gray iron foundries (SIC 3321): Indexes of output, employee hours, and employees, 1954-82
(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	103.8	107.2	105.8	115.1	109.6	108.6	114.5
1980	81.7	90.0	86.2	111.9	94.4	91.3	110.9
1981	81.9	88.5	85.6	104.9	92.6	90.3	104.5
1982 ¹	60.5	68.1	63.4	95.3	74.2	70.3	95.0
Average annual percent change:							
1954-82	2.1	.1	-.1	1.4	.2	(²)	1.5
1977-82	-9.8	-7.3	-8.6	-9	-5.8	-6.8	-1.0

¹ Preliminary.

² Less than .05 percent.

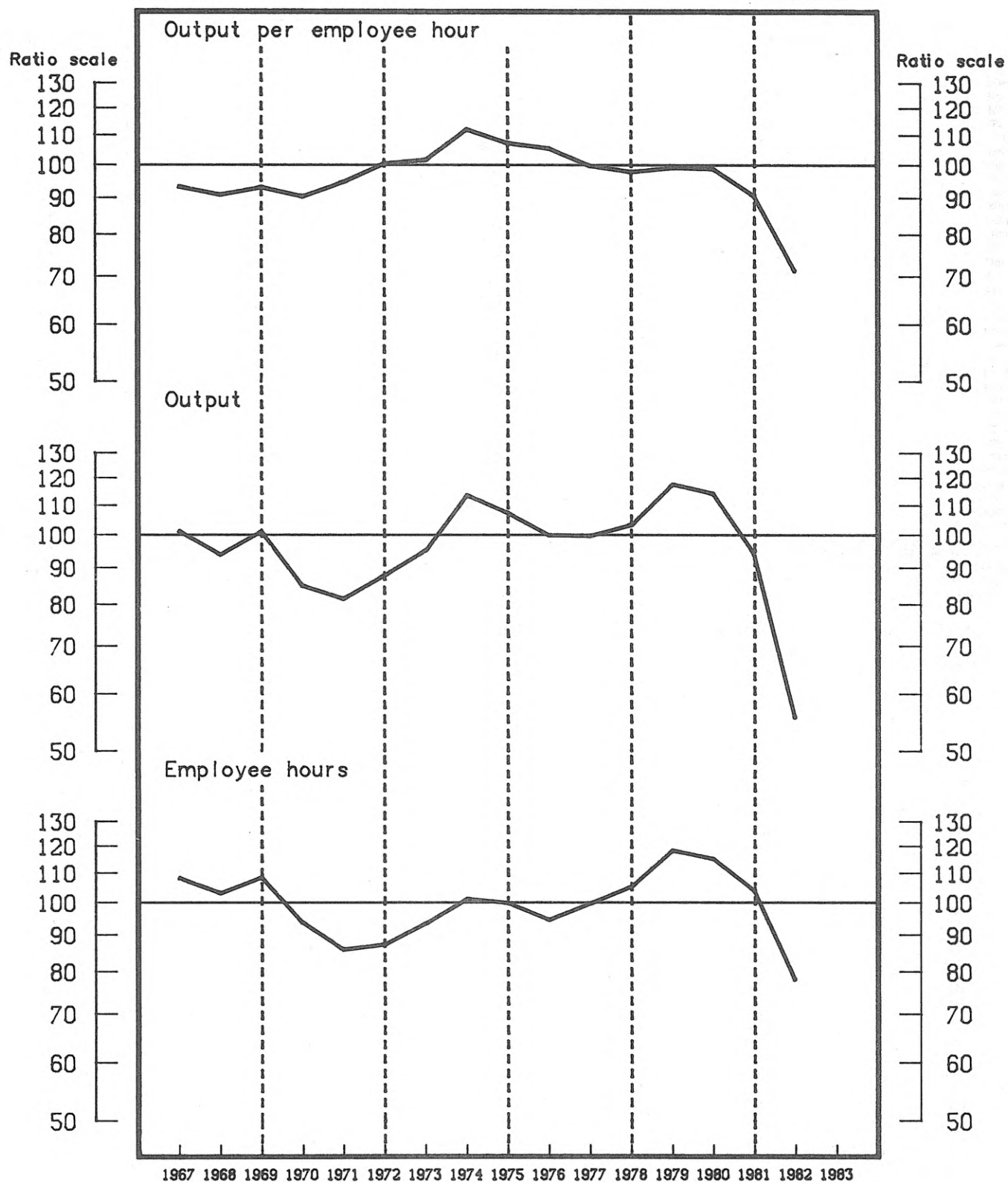
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

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

Chart 72. Steel foundries (SIC 3324, 3325): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 140. Steel foundries (SIC 3324, 3325): Indexes of output per employee hour and output per employee, 1954-82
(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	108.2
1958	75.8	75.5	76.6	71.9	70.4	78.2
1959	81.5	78.2	100.9	81.0	76.9	102.6
1960	80.7	78.7	92.0	79.6	76.7	93.8
1961	81.8	80.1	89.8	80.2	77.7	91.5
1962	85.8	82.8	102.3	86.4	82.8	104.5
1963	91.2	87.7	111.2	92.3	88.1	113.6
1964	91.7	86.6	122.5	95.9	90.5	125.9
1965	94.1	88.8	126.4	99.4	93.9	129.1
1966	95.6	90.4	127.9	102.0	96.8	130.3
1967	93.5	90.2	111.8	95.8	92.2	113.8
1968	91.1	89.5	98.6	92.4	90.0	103.9
1969	93.3	90.5	107.7	95.8	92.4	110.9
1970	90.6	88.4	101.7	91.0	88.6	102.4
1971	94.9	94.5	96.6	94.1	93.7	95.7
1972	100.7	98.7	110.3	99.3	97.8	106.0
1973	101.9	99.1	116.9	102.8	100.2	113.8
1974	112.4	108.4	134.1	112.1	108.2	131.2
1975	107.5	105.0	120.1	107.9	105.6	118.6
1976	105.7	105.3	107.3	104.4	103.7	106.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.1	97.1	102.8	97.6	96.4	102.8
1979	99.4	96.8	112.4	100.3	97.7	112.8
1980	99.1	99.0	99.5	97.1	96.3	100.6
1981	90.8	92.1	85.5	88.6	89.2	85.9
1982 ²	71.3	77.1	53.6	66.1	70.1	53.9
Average annual percent change:						
1954-82 .....	.8	1.0	-.2	.7	.9	-.3
1977-82	-5.4	-4.0	-10.3	-6.6	-5.6	-10.1

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 141. Steel foundries (SIC 3324, 3325): Indexes of output, employee hours, and employees, 1954-82
(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	118.0	118.7	121.9	105.0	117.6	120.8	104.6
1980	114.5	115.5	115.6	115.1	117.9	118.9	113.8
1981	94.5	104.1	102.6	110.5	106.7	105.9	110.0
1982 ¹	55.6	78.0	72.1	103.8	84.1	79.3	103.1
Average annual percent change:							
1954-82	1.4	.6	.4	1.6	.7	.5	1.7
1977-82	-8.8	-3.7	-5.0	1.6	-2.4	-3.4	1.4

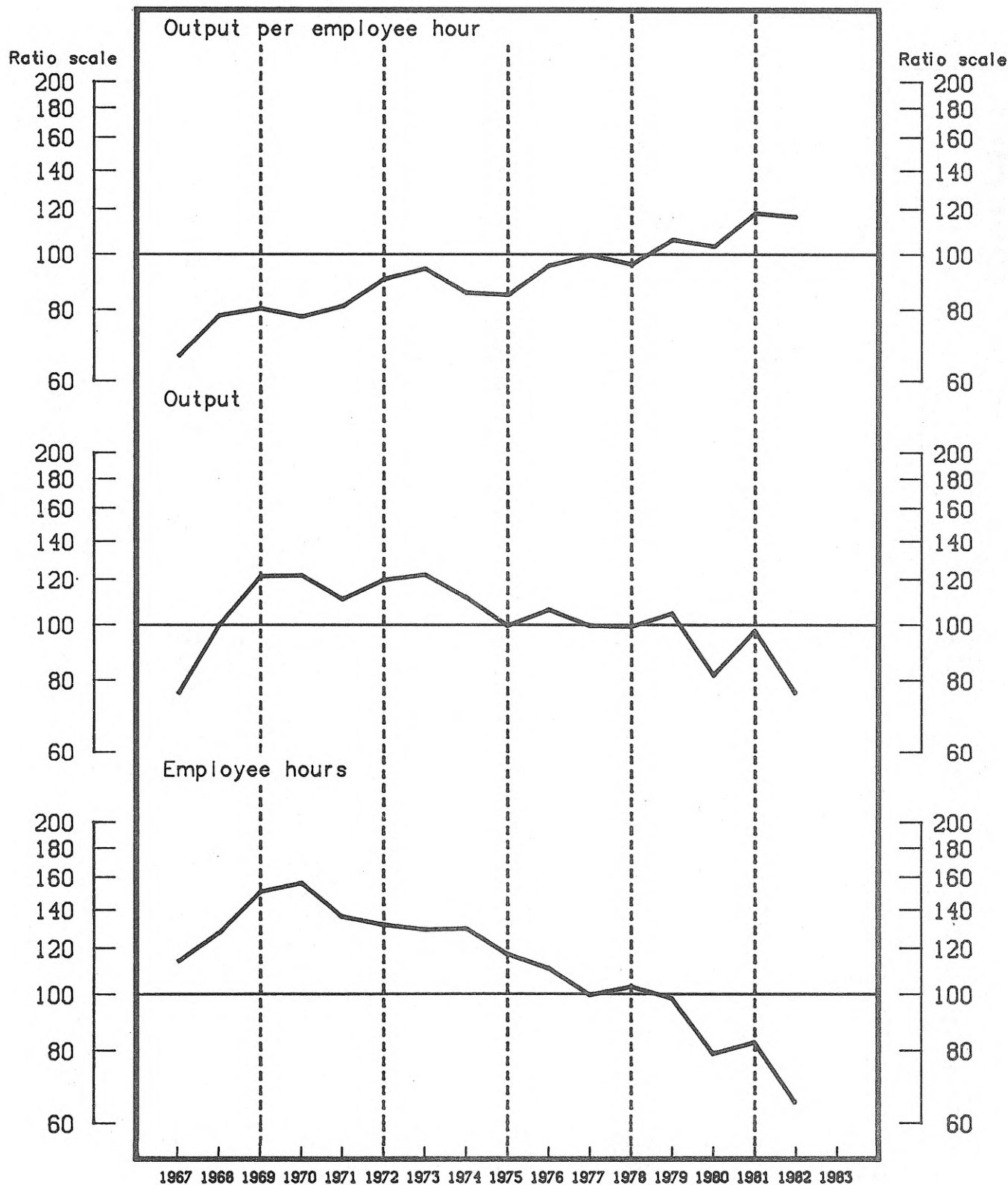
¹ Preliminary.

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

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

Chart 73. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 142. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Indexes of output per employee hour and output per employee, 1954-82 (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	106.5	105.1	112.6	106.7	105.1	113.4
1980	103.7	106.1	94.8	101.2	102.6	96.3
1981	118.5	121.2	108.3	118.0	120.6	108.9
1982 ²	116.7	123.9	93.6	113.9	120.0	94.5
Average annual percent change:						
1947-82	2.3	2.6	.9	2.1	2.4	.8
1977-82	4.0	5.2	-7	3.4	4.5	-5

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

² Preliminary.

NOTE: Because of periodic 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 143. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Indexes of output, employee hours, and employees, 1954-82 (1977 = 100)

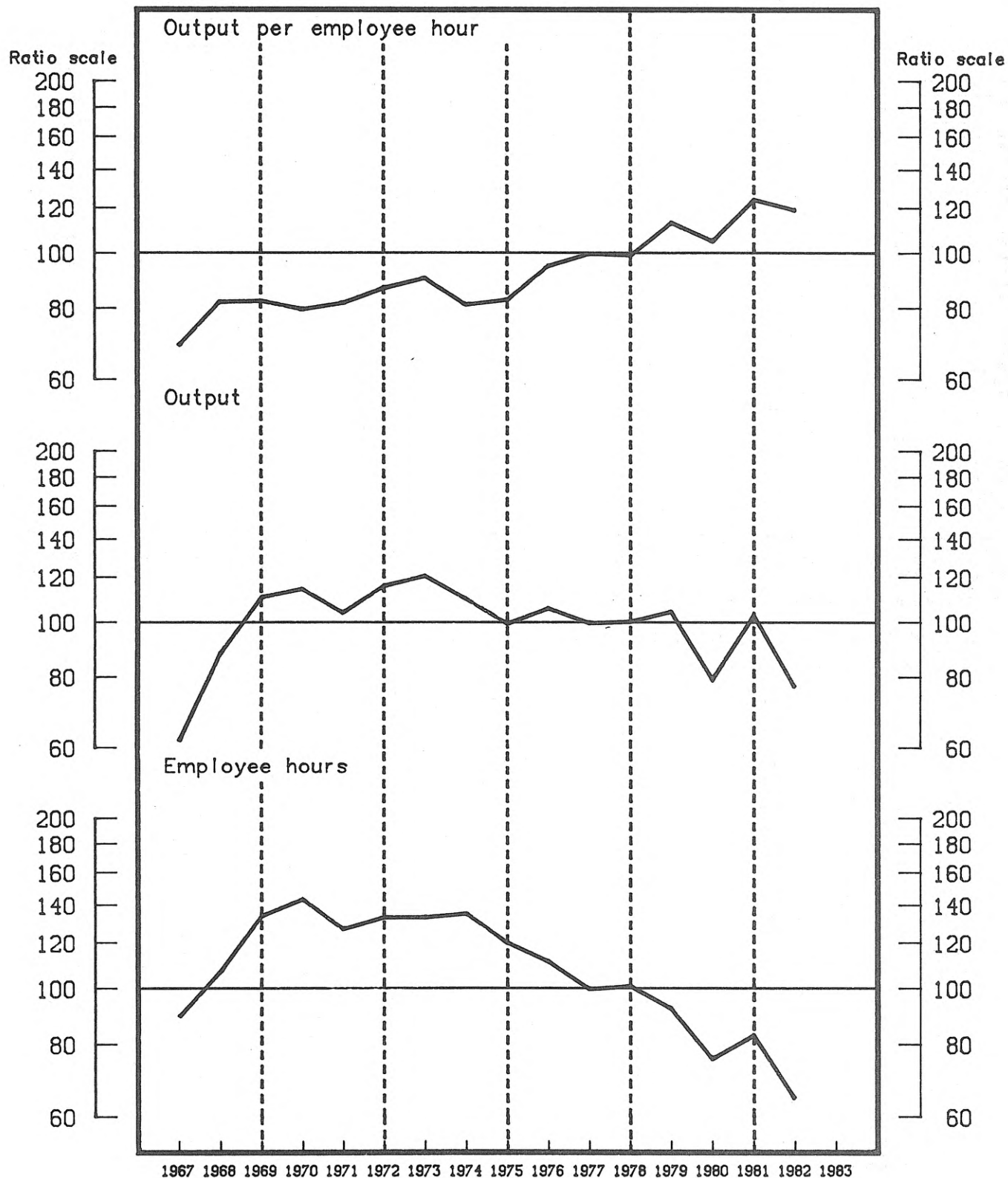
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	82.3	146.5	152.4	122.1	144.6	151.2	118.5
1955	93.7	149.5	158.0	114.9	143.6	151.6	112.3
1956	101.7	159.9	170.3	116.3	151.7	161.5	113.3
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	123.2	110.4
1960	92.4	140.6	146.1	117.5	135.9	141.4	114.6
1961	93.8	136.5	141.5	115.5	130.8	135.5	112.8
1962	98.5	135.0	140.3	112.3	129.7	134.9	109.2
1963	97.5	130.5	136.8	104.9	126.7	133.0	102.1
1964	102.4	131.9	138.7	103.4	129.3	136.8	100.1
1965	108.1	135.1	142.7	103.3	130.0	137.8	100.3
1966	111.2	140.7	148.7	107.3	134.1	141.6	104.8
1967	76.1	114.3	113.6	117.4	110.9	109.9	114.7
1968	100.5	128.1	133.0	108.0	124.3	129.8	102.5
1969	122.1	151.3	160.1	114.7	146.5	155.2	112.3
1970	122.4	156.7	164.0	126.8	151.4	158.4	124.4
1971	111.3	136.6	139.3	125.4	134.1	136.6	124.4
1972	120.2	132.2	138.6	105.4	130.2	135.9	107.3
1973	122.8	129.6	134.2	110.7	129.2	133.5	112.3
1974	112.0	130.2	132.0	122.7	128.2	129.1	124.4
1975	100.1	117.4	115.8	124.1	116.9	114.8	124.4
1976	106.6	111.0	110.8	112.1	110.4	109.9	112.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.7	103.3	104.1	100.0	102.0	102.5	100.0
1979	105.1	98.7	100.0	93.3	98.5	100.0	92.7
1980	82.2	79.3	77.5	66.7	81.2	80.1	85.4
1981	98.2	82.9	81.0	90.7	83.2	81.4	90.2
1982 ¹	76.1	65.2	61.4	81.3	66.8	63.4	80.5
Average annual percent change:							
1947-82	.6	-1.7	-2.0	-4	-1.5	-1.8	-2
1977-82	-4.6	-8.3	-9.4	-3.9	-7.7	-8.7	-4.1

¹ Preliminary.

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

SOURCE: Output based on data from the Bureau of 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 74. Primary copper (SIC 3331): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 144. Primary copper (SIC 3331): Indexes of output per employee hour and output per employee, 1954-82
(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	113.3	111.3	123.6	115.4	113.3	124.8
1980	105.3	109.6	89.6	101.5	104.5	90.7
1981	124.4	126.3	116.3	126.8	129.2	117.7
1982 ²	119.2	126.0	95.9	117.5	123.8	96.4
Average annual percent change:						
1947-82	2.0	2.3	.4	1.7	2.0	.3
1977-82	4.3	5.6	-6	3.9	5.1	-4

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

² Preliminary.

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

differ from those previously published.

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

Table 145. Primary copper (SIC 3331): Indexes of output, employee hours, and employees, 1954-82
(1977=100)

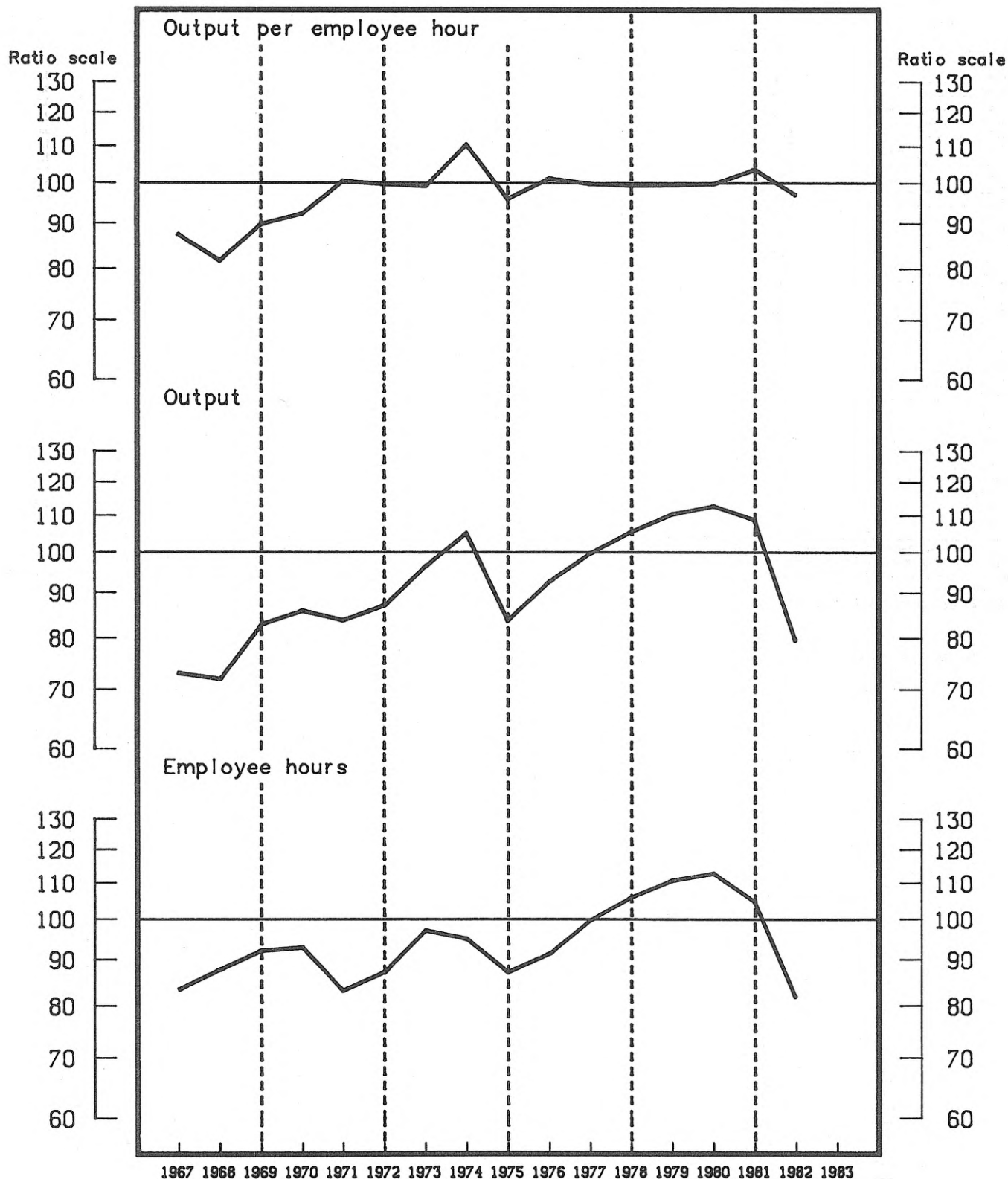
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	67.4	116.1	121.2	93.1	112.1	117.1	90.8
1955	79.2	115.4	122.1	85.5	108.6	114.3	84.0
1956	87.2	124.7	133.7	84.1	115.3	123.1	82.2
1957	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	104.8	92.5	94.2	84.8	90.8	92.5	84.0
1980	79.8	75.8	72.8	89.1	78.6	76.4	88.0
1981	103.6	83.3	82.0	89.1	81.7	80.2	88.0
1982 ¹	77.1	64.7	61.2	80.4	65.6	62.3	80.0
Average annual percent change:							
1947-82	1.3	-7	-1.0	.9	-4	-7	1.0
1977-82	-4.2	-8.1	-9.2	-3.5	-7.8	-8.8	-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. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 75. Primary aluminum (SIC 3334): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 146. Primary aluminum (SIC 3334): Indexes of output per employee hour and output per employee, 1954-82
(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	100.0	102.3	91.6	98.5	100.3	92.3
1981	103.8	107.6	90.4	102.9	106.7	90.3
1982 ²	97.1	105.7	72.1	94.3	102.4	72.1
Average annual percent change:						
1947-82	3.2	3.4	2.4	3.0	3.2	2.3
1977-82	-1	1.6	-6.0	-8	.8	-6.0

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 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 147. Primary aluminum (SIC 3334): Indexes of output, employee hours, and employees, 1954-82
(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	113.0	113.0	110.5	123.4	114.7	112.7	122.4
1981	109.0	105.0	101.3	120.6	105.9	102.2	120.7
1982 ¹	79.5	81.9	75.2	110.3	84.3	77.6	110.3
Average annual percent change:							
1947-82	6.1	2.6	2.4	3.5	2.9	2.7	3.6
1977-82	-2.9	-2.9	-4.5	3.3	-2.1	-3.7	3.3

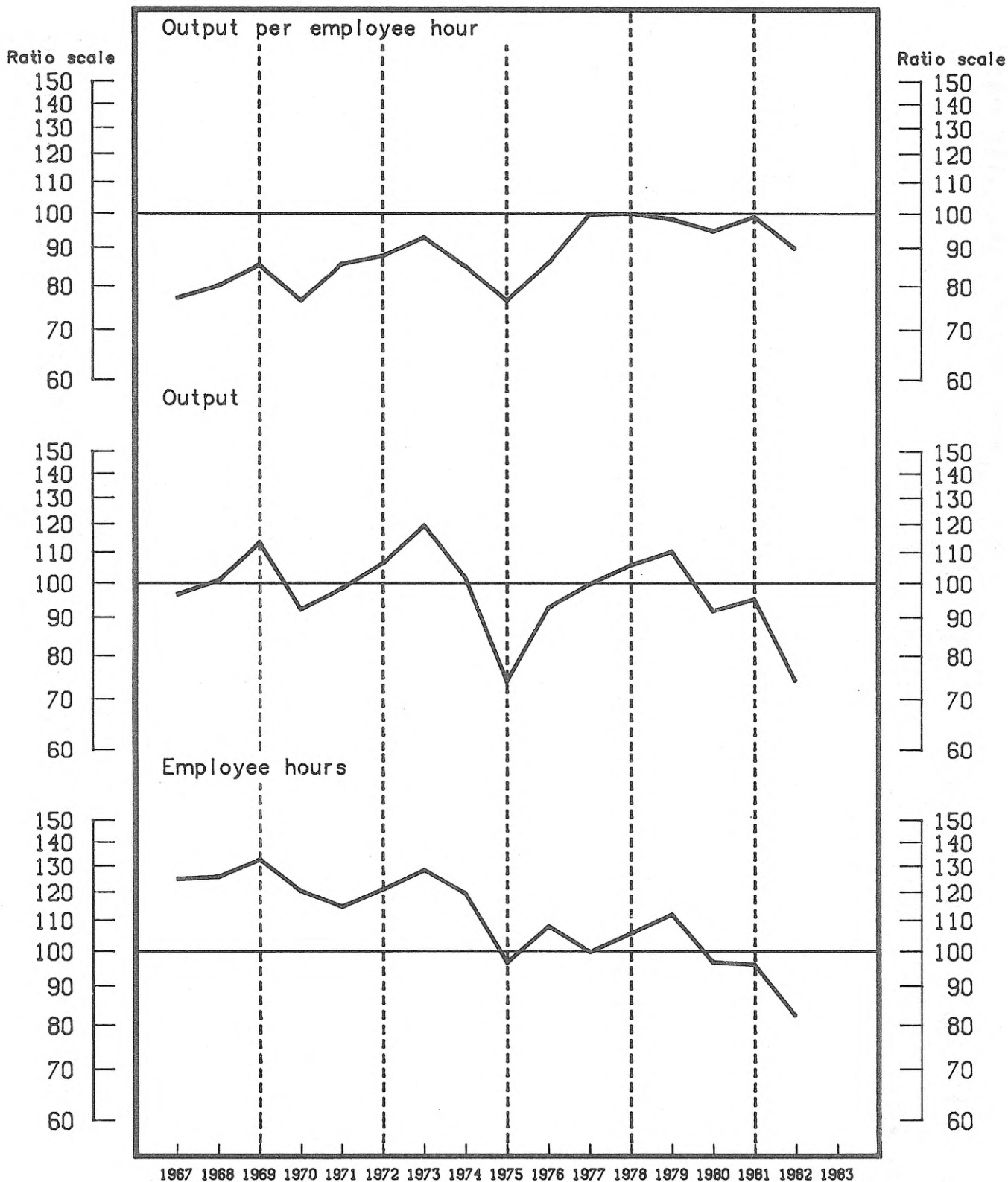
¹ Preliminary.

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 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 76. Copper rolling and drawing (SIC 3351): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 148. Copper rolling and drawing (SIC 3351): Indexes of output per employee hour and output per employee, 1958-82
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	54.9	54.7	56.0	53.2	52.2	57.0
1959	60.4	58.5	68.9	61.0	58.8	70.0
1960	58.2	57.0	63.7	56.2	54.2	64.8
1961	63.1	62.9	64.1	62.3	61.5	65.1
1962	67.6	66.9	70.3	67.7	66.6	71.7
1963	74.0	71.3	86.5	74.7	71.3	88.3
1964	81.5	78.6	95.3	83.0	79.4	97.9
1965	86.1	82.6	103.0	87.9	83.9	105.0
1966	91.0	86.6	113.8	94.5	89.7	115.3
1967	77.3	75.9	83.5	75.3	72.9	85.0
1968	80.3	79.5	83.4	79.4	77.3	87.7
1969	85.6	83.9	92.6	86.5	84.2	95.2
1970	76.8	76.9	76.3	74.3	73.8	76.5
1971	85.8	84.9	89.2	83.7	82.7	87.6
1972	88.0	85.3	100.0	88.5	86.5	96.0
1973	93.2	90.0	108.3	94.1	91.2	105.2
1974	85.2	84.2	89.7	84.5	83.7	87.3
1975	76.8	80.4	65.5	72.5	75.2	64.6
1976	86.1	85.6	87.8	85.5	85.1	87.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.3	99.8	102.2	99.7	99.2	101.8
1979	98.5	97.6	102.0	96.7	95.3	101.9
1980	95.0	97.0	88.0	93.0	94.5	88.4
1981	99.3	101.5	91.3	95.8	97.2	91.7
1982 ²	90.0	94.2	77.1	83.6	85.5	77.5
Average annual percent change:						
1958-82	2.0	2.2	1.2	1.9	2.1	1.1
1977-82	-1.7	-7	-5.0	-3.0	-2.4	-4.8

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

² Preliminary.

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

differ from those previously published.

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

Table 149. Copper rolling and drawing (SIC 3351): Indexes of output, employee hours, and employees, 1958-82
(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	106.1	105.8	106.3	103.8	106.4	107.0	104.2
1979	110.6	112.3	113.3	108.4	114.4	116.1	108.5
1980	92.1	96.9	94.9	104.6	99.0	97.5	104.2
1981	95.5	96.2	94.1	104.6	99.7	98.3	104.2
1982 ¹	74.2	82.4	78.8	96.2	88.8	86.8	95.8
Average annual percent change:							
1958-82	.5	-1.4	-1.6	-7	-1.3	-1.5	-5
1977-82	-5.5	-3.9	-4.8	-6	-2.6	-3.2	-7

¹ Preliminary.

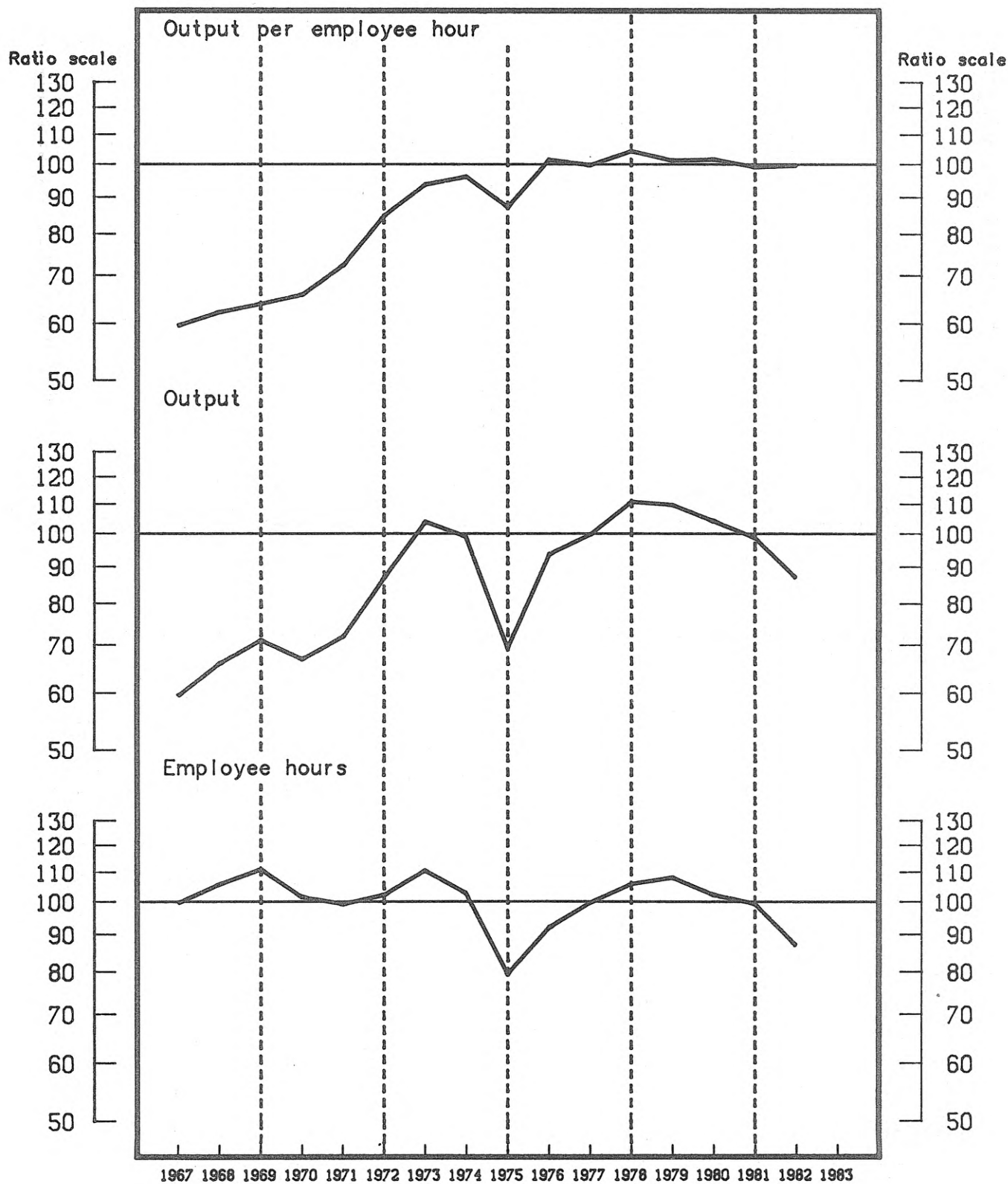
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Copper Development Association Inc.,

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

Chart 77. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 150. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Indexes of output per employee hour and output per employee, 1958-82 (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	39.6	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	101.5	102.4	97.6	101.4	102.4	97.8
1980	101.9	105.6	88.6	99.9	103.2	89.1
1981	99.4	103.3	85.3	97.7	101.4	85.6
1982 ²	99.9	104.9	82.7	95.9	100.1	82.7
Average annual percent change:						
1958-82	4.7	4.8	4.3	4.4	4.4	4.2
1977-82	-4	.6	-4.5	-1.1	-.1	-4.5

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

² Preliminary.

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

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

Table 151. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Indexes of output, employee hours, and employees, 1958-82 (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	108.4	107.4	112.7	108.5	107.4	112.5
1980	104.4	102.5	98.9	117.8	104.5	101.2	117.2
1981	99.0	99.6	95.8	116.1	101.3	97.6	115.6
1982 ¹	87.2	87.3	83.1	105.5	90.9	87.1	105.5
Average annual percent change:							
1958-82	5.3	.6	.5	.9	.9	.8	1.1
1977-82	-3.0	-2.6	-3.7	1.6	-2.0	-2.9	1.5

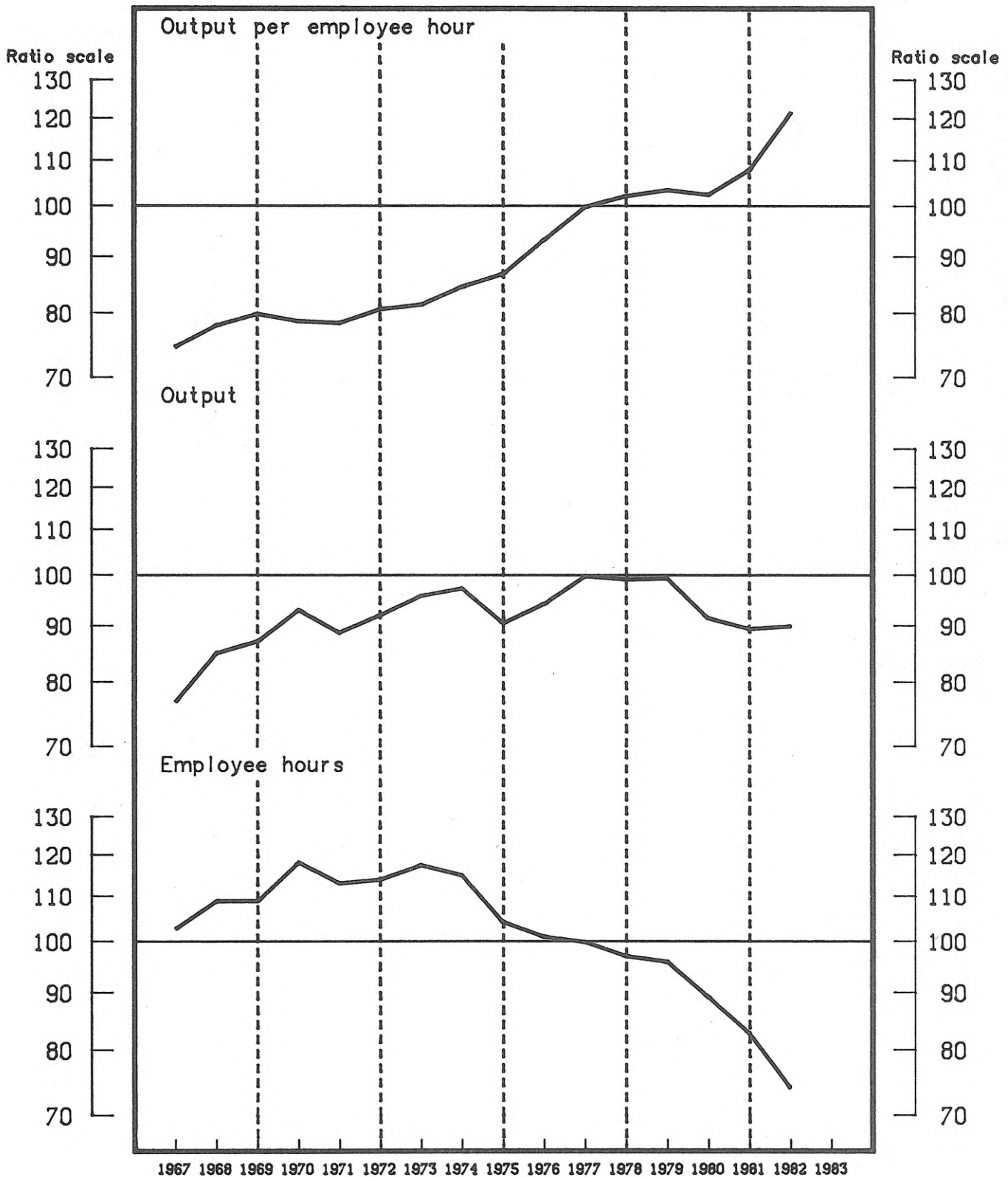
¹ Preliminary.

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

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

Chart 78. Metal cans (SIC 3411): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 152. Metal cans (SIC 3411): Indexes of output per employee hour and output per employee, 1954-82
(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	103.6	104.1	101.2	103.3	103.6	101.6
1980	102.6	104.0	94.8	102.2	103.6	95.6
1981	108.1	110.5	95.5	106.5	108.9	95.5
1982 ²	121.6	125.0	104.9	118.1	120.9	105.5
Average annual percent change:						
1947-82	2.5	2.6	1.7	2.5	2.7	1.6
1977-82	3.3	3.9	.1	2.9	3.4	.2

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

² Preliminary.

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

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

Table 153. Metal cans (SIC 3411): Indexes of output, employee hours, and employees, 1954-82
(1977 = 100)

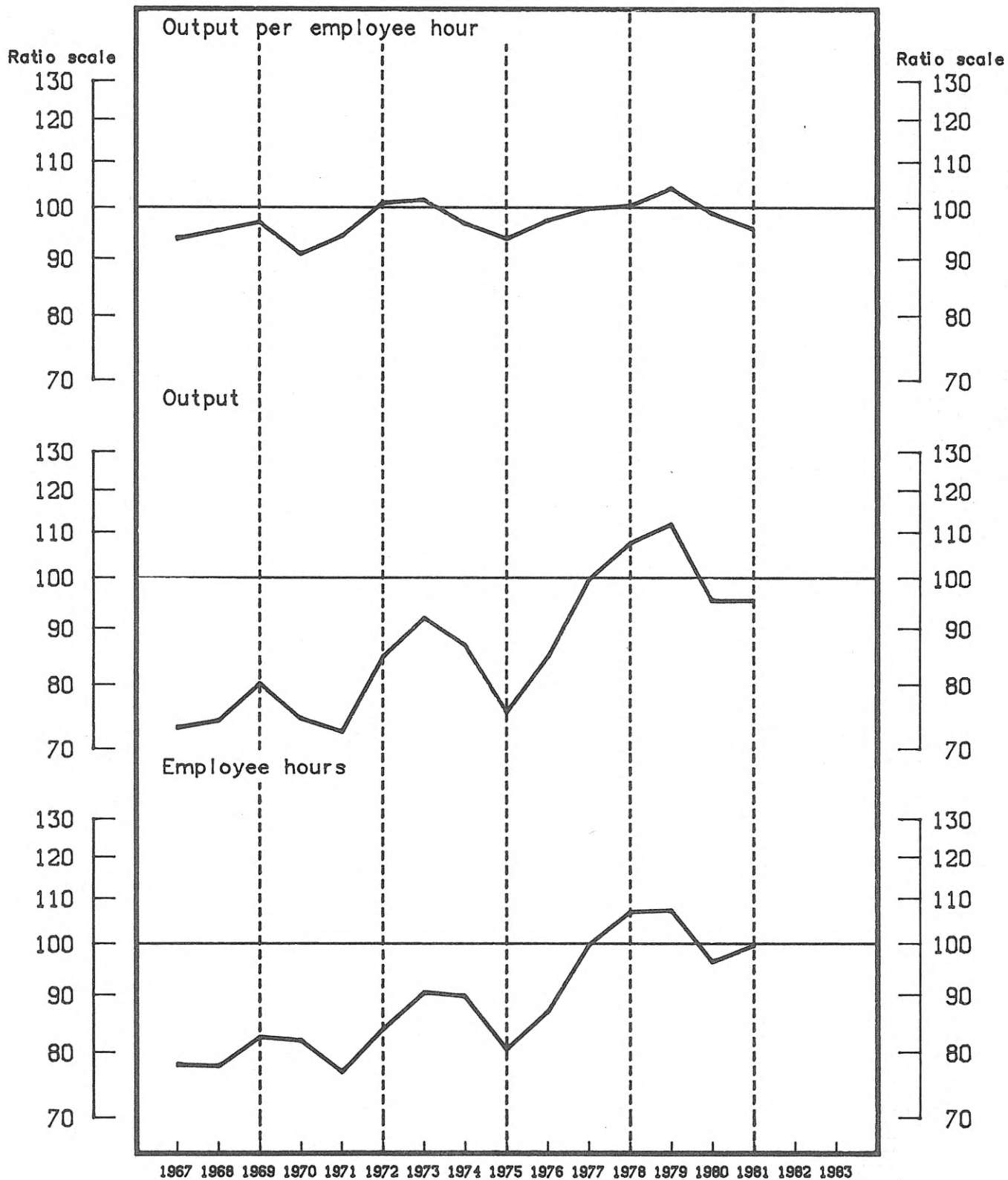
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	49.1	89.7	91.7	77.3	92.3	95.6	75.2
1955	51.5	88.8	91.0	76.1	91.2	94.4	74.4
1956	54.9	90.8	93.3	75.8	92.1	95.6	73.9
1957	53.0	89.2	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	99.5	96.0	95.6	98.3	96.3	96.0	97.9
1980	91.6	89.3	88.1	96.6	89.6	88.4	95.8
1981	89.6	82.9	81.1	93.8	84.1	82.3	93.8
1982 ¹	90.1	74.1	72.1	85.9	76.3	74.5	85.4
Average annual percent change:							
1947-82	3.0	.5	.4	1.2	.5	.3	1.3
1977-82	-2.6	-5.7	-6.2	-2.6	-5.3	-5.8	-2.7

¹ Preliminary.

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

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

Chart 79. Hand and edge tools (SIC 3423): Output per hour and related data, 1967-81
(1977 = 100)



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

Table 154. Hand and edge tools (SIC 3423): 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	74.0	75.2	69.7	73.2	73.7	71.2
1959	79.0	78.8	79.9	81.0	80.9	81.7
1960	77.0	77.5	74.5	78.7	79.4	76.3
1961	79.8	81.3	74.6	81.8	83.5	76.0
1962	81.5	82.2	79.1	84.8	86.0	80.9
1963	84.0	85.1	80.1	84.9	85.7	82.1
1964	86.1	87.0	82.9	88.4	89.4	85.1
1965	91.2	91.1	91.3	93.5	93.5	93.4
1966	88.8	87.6	93.8	93.4	93.0	95.5
1967	93.9	92.2	101.0	95.9	94.2	102.8
1968	95.5	94.2	100.9	97.1	96.0	101.5
1969	97.2	96.3	101.0	99.1	97.9	104.1
1970	91.0	90.8	92.0	93.1	91.9	98.0
1971	94.4	93.6	98.0	96.0	94.8	100.6
1972	101.2	99.9	106.2	101.8	100.9	104.8
1973	101.8	101.4	103.4	102.7	102.2	104.7
1974	96.9	96.2	99.4	97.4	96.2	102.4
1975	93.9	94.5	91.5	93.7	93.8	93.3
1976	97.6	98.4	94.8	97.0	97.3	96.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.6	98.8	107.8	100.9	99.2	107.8
1979	104.3	105.2	100.7	103.1	103.7	101.1
1980	99.0	102.8	86.2	95.1	97.6	86.9
1981 ²	95.8	98.1	88.0	95.0	97.0	88.6
Average annual percent change:						
1958-81	1.2	1.2	1.2	1.1	1.0	1.1
1977-81	-1.0	(³)	-4.7	-1.6	-8	-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.

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.

Table 155. Hand and edge tools (SIC 3423): 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	47.2	63.8	62.8	67.7	64.5	64.0	66.3
1959	55.0	69.6	69.8	68.8	67.9	68.0	67.3
1960	52.1	67.7	67.2	69.9	66.2	65.6	68.3
1961	55.7	69.8	68.5	74.7	68.1	66.7	73.3
1962	60.8	74.6	74.0	76.9	71.7	70.7	75.2
1963	56.9	67.7	66.9	71.0	67.0	66.4	69.3
1964	61.5	71.4	70.7	74.2	69.6	68.8	72.3
1965	70.2	77.0	77.1	76.9	75.1	75.1	75.2
1966	75.6	85.1	86.3	80.6	80.9	81.3	79.2
1967	73.3	78.1	79.5	72.6	76.4	77.8	71.3
1968	74.4	77.9	79.0	73.7	76.6	77.5	73.3
1969	80.4	82.7	83.5	79.6	81.1	82.1	77.2
1970	74.7	82.1	82.3	81.2	80.2	81.3	76.2
1971	72.7	77.0	77.7	74.2	75.7	76.7	72.3
1972	85.1	84.1	85.2	80.1	83.6	84.3	81.2
1973	92.2	90.6	90.9	89.2	89.8	90.2	88.1
1974	87.1	89.9	90.5	87.6	89.4	90.5	85.1
1975	75.8	80.7	80.2	82.8	80.9	80.8	81.2
1976	85.1	87.2	86.5	89.8	87.7	87.5	88.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.8	107.2	109.1	100.0	106.8	108.7	100.0
1979	112.1	107.5	106.6	111.3	108.7	108.1	110.9
1980	95.5	96.5	92.9	110.8	100.4	97.8	109.9
1981 ¹	95.6	99.8	97.5	108.6	100.6	98.6	107.9
Average annual percent change:							
1958-81	3.2	2.0	1.9	2.0	2.1	2.1	2.1
1977-81	-2.1	-1.1	-2.1	2.7	-5	-1.3	2.5

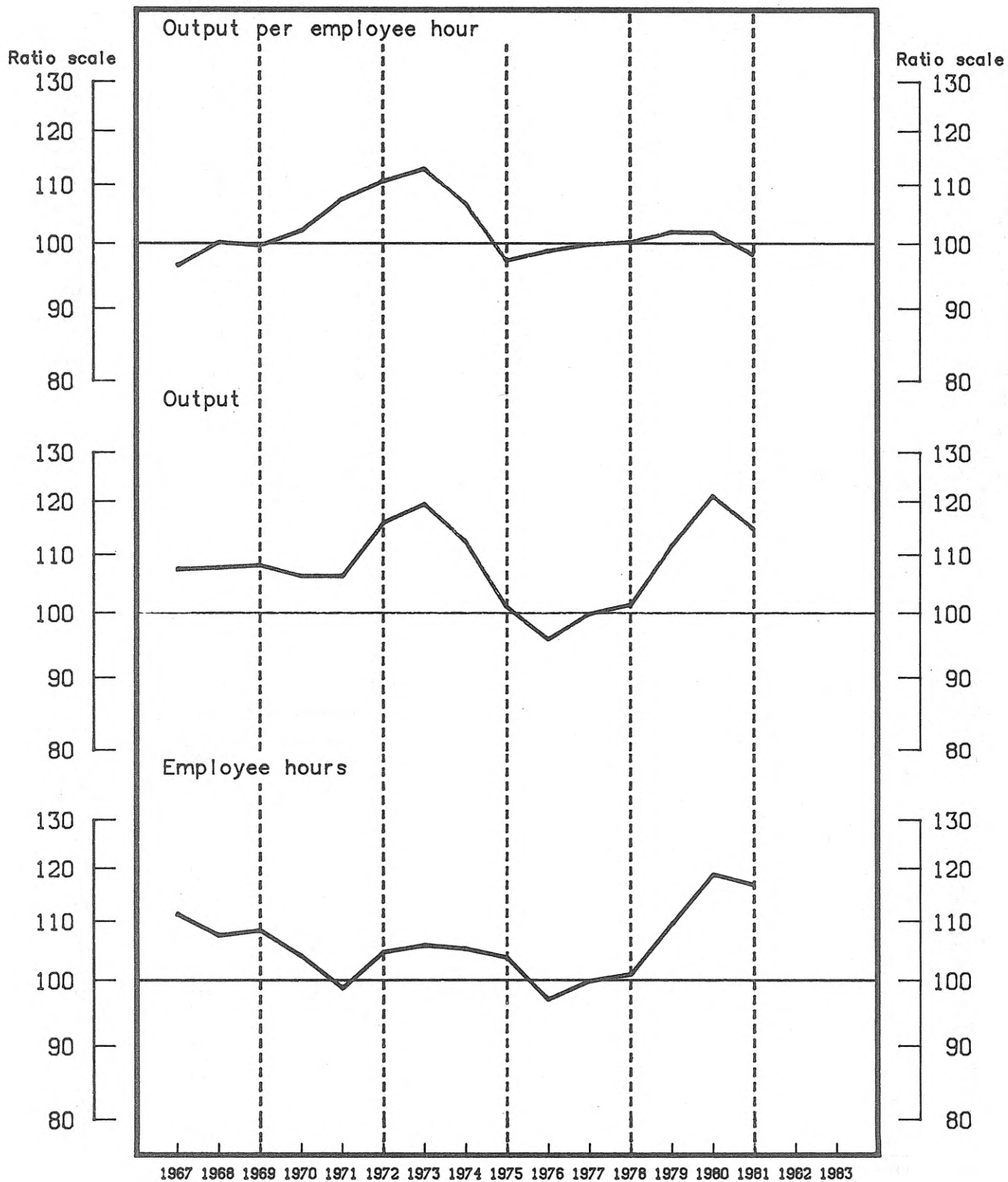
¹ Preliminary.

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

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

Chart 80. Fabricated structural metal (SIC 3441): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 156. Fabricated structural metal (SIC 3441): 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	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	101.9	99.7	109.2	102.2	99.6	110.1
1981 ²	98.3	95.6	107.2	98.7	95.8	107.6
Average annual percent change:						
1958-81	1.0	1.0	1.1	.9	.8	1.0
1977-81	-2	-9	1.9	-.1	-.8	2.1

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

² Preliminary.

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

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

Table 157. Fabricated structural metal (SIC 3441): Indexes of output, employee hours, and employees, 1958-81
(1977=100)

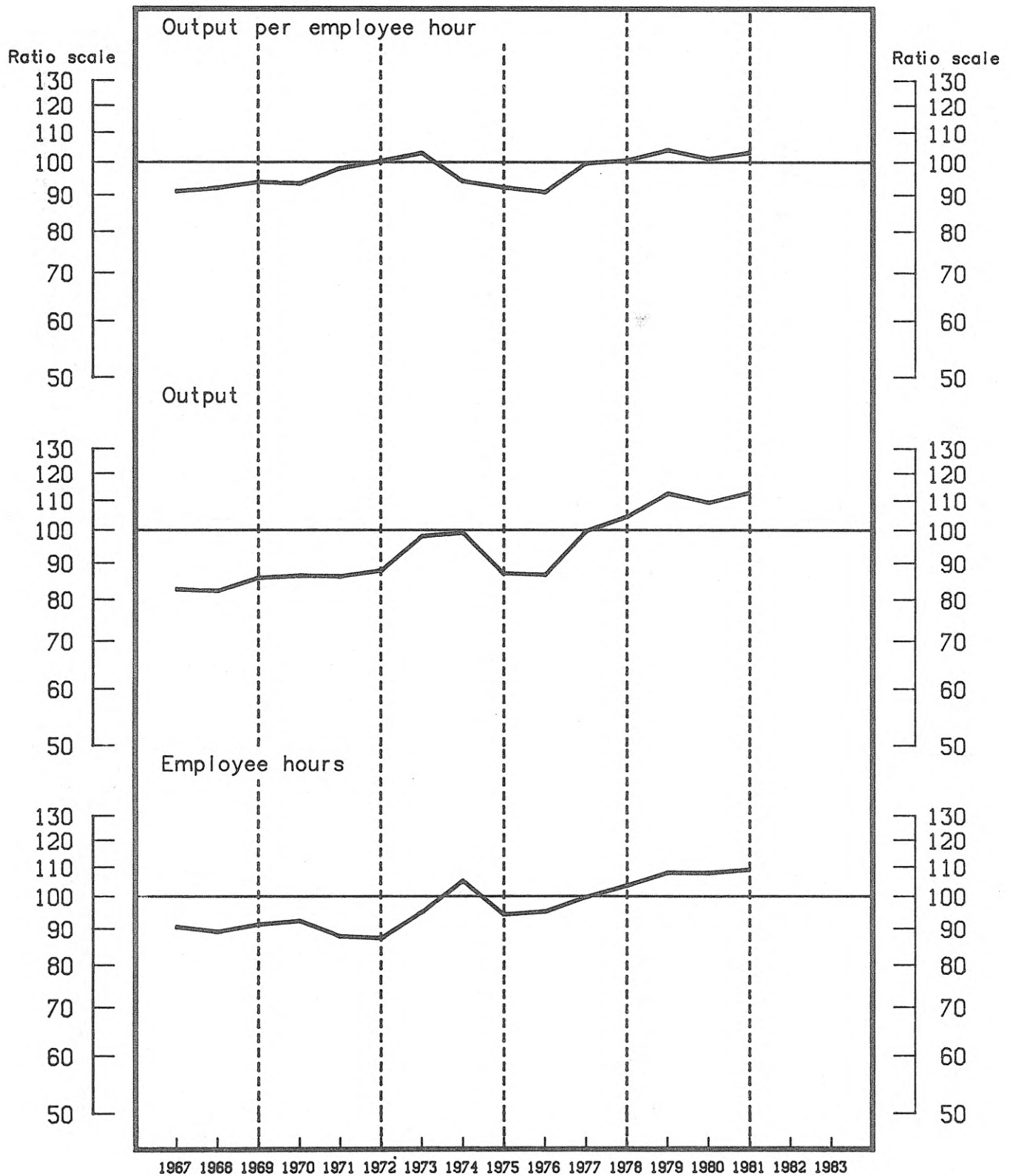
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	74.7	93.1	94.2	89.8	91.9	93.4	87.7
1959	66.3	84.4	83.2	88.2	83.2	82.2	86.3
1960	74.9	92.4	92.5	92.3	88.4	87.8	90.4
1961	74.0	86.9	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	121.3	119.0	121.7	111.1	118.7	121.8	110.2
1981 ¹	114.9	116.9	120.2	107.2	116.4	119.9	106.8
Average annual percent change:							
1958-81	2.1	1.1	1.1	1.0	1.2	1.3	1.1
1977-81	4.7	4.9	5.6	2.7	4.7	5.5	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 81. Valves and pipe fittings (SIC 3494): Output per hour and related data, 1967-81
(1977 = 100)



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

Table 158. Valves and pipe fittings (SIC 3494): Indexes of output per employee hour and output per employee, 1954-81
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	70.3	63.4	96.4	72.0	64.5	99.0
1955	78.7	70.4	111.2	83.2	74.6	113.6
1956	82.7	73.0	123.0	86.6	76.3	126.4
1957	79.3	73.3	98.9	82.2	76.0	101.1
1958	72.2	69.8	78.9	73.0	70.1	80.8
1959	76.5	73.0	86.7	77.3	73.2	88.7
1960	75.0	73.3	79.6	75.1	72.7	81.4
1961	81.3	80.4	83.5	82.1	80.9	85.0
1962	83.4	82.0	87.3	85.3	83.7	89.1
1963	84.3	81.7	91.7	86.2	83.5	93.5
1964	86.6	83.4	95.9	91.2	88.3	98.6
1965	96.4	93.5	104.7	100.1	97.6	106.9
1966	95.1	91.7	104.7	100.2	97.7	106.5
1967	91.3	89.2	97.0	94.5	92.9	98.6
1968	92.3	90.8	96.5	93.9	92.8	96.7
1969	94.1	92.7	97.8	97.3	95.8	100.9
1970	93.6	95.5	89.4	96.7	97.3	95.2
1971	98.3	99.1	96.4	99.8	100.1	99.2
1972	100.7	100.3	101.4	101.5	102.1	100.3
1973	103.3	102.8	104.2	105.6	105.6	105.5
1974	94.3	92.7	98.3	100.5	100.2	101.3
1975	92.4	95.3	85.8	92.7	95.1	87.6
1976	91.1	92.8	87.1	92.0	93.5	88.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.9	100.4	102.1	100.7	100.0	102.2
1979	104.3	104.6	103.5	104.5	104.8	103.9
1980	101.4	103.4	96.9	101.6	103.3	97.7
1981 ²	103.5	106.4	96.8	103.8	106.8	97.3
Average annual percent change:						
1954-81	1.3	1.7	.1	1.2	1.6	(³)
1977-81	.7	1.5	-1.2	.8	1.7	-1.0

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

² Preliminary.

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 159. Valves and pipe fittings (SIC 3494): Indexes of output, employee hours, and employees, 1954-81
(1977=100)

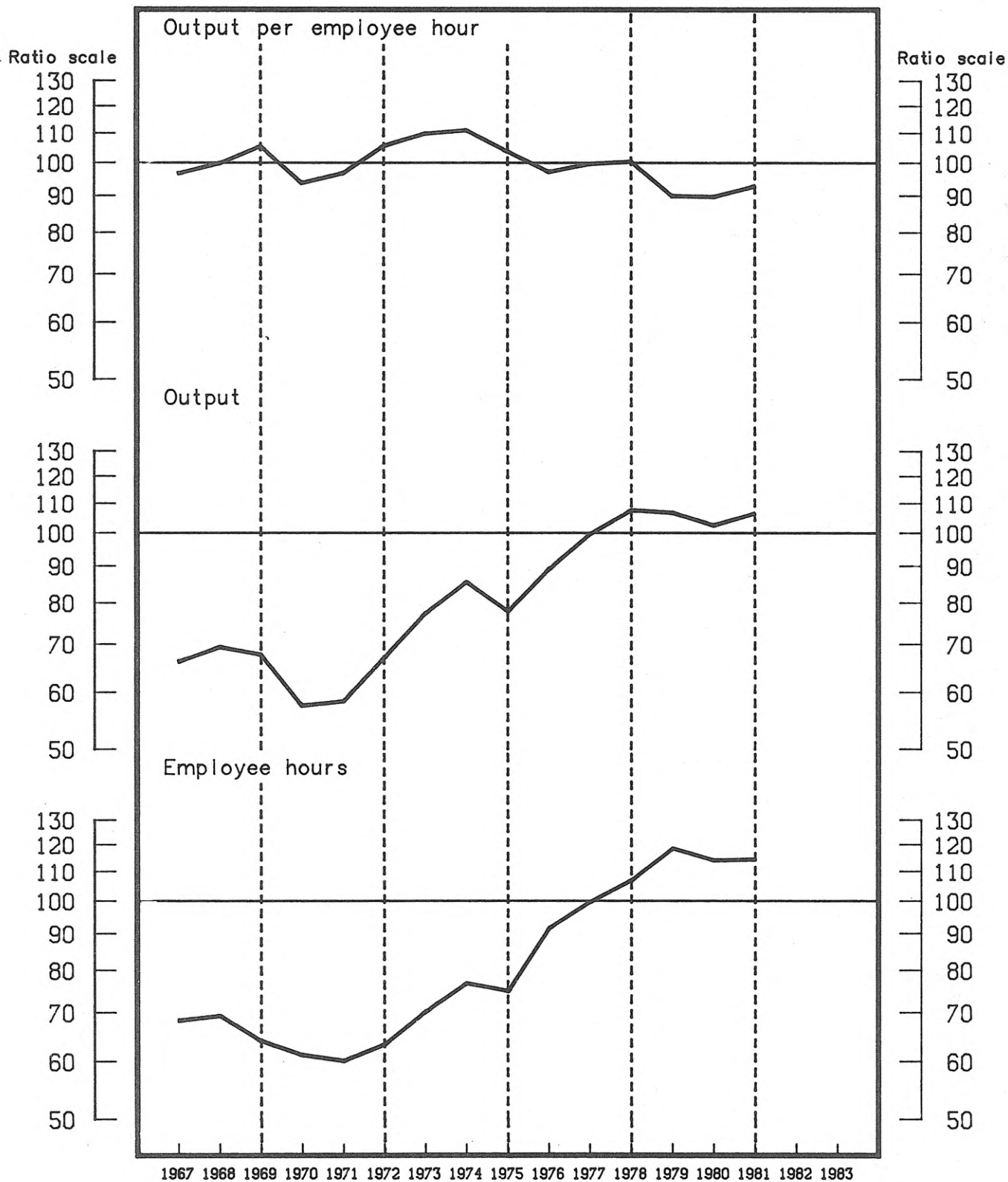
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	50.9	72.4	80.3	52.8	70.7	78.9	51.4
1955	58.4	74.2	82.9	52.5	70.2	78.3	51.4
1956	64.2	77.6	87.9	52.2	74.1	84.1	50.8
1957	61.9	78.1	84.4	62.6	75.3	81.4	61.2
1958	51.6	71.5	73.9	65.4	70.7	73.6	63.9
1959	54.0	70.6	74.0	62.3	69.9	73.8	60.9
1960	51.8	69.1	70.7	65.1	69.0	71.3	63.6
1961	57.7	71.0	71.8	69.1	70.3	71.3	67.9
1962	63.8	76.5	77.8	73.1	74.8	76.2	71.6
1963	63.8	75.7	78.1	69.6	74.0	76.4	68.2
1964	68.7	79.3	82.4	71.6	75.3	77.8	69.7
1965	81.0	84.0	86.6	77.4	80.9	83.0	75.8
1966	85.0	89.4	92.7	81.2	84.8	87.0	79.8
1967	82.9	90.8	92.9	85.5	87.7	89.2	84.1
1968	82.5	89.4	90.9	85.5	87.9	88.9	85.3
1969	86.1	91.5	92.9	88.0	88.5	89.9	85.3
1970	86.7	92.3	90.8	97.0	89.7	89.1	91.1
1971	86.5	88.0	87.3	89.7	86.7	86.4	87.2
1972	88.1	87.5	87.8	86.9	86.8	86.3	87.8
1973	98.4	95.3	95.7	94.4	93.2	93.2	93.3
1974	99.5	105.5	107.3	101.2	99.0	99.3	98.2
1975	87.3	94.5	91.6	101.8	94.2	91.8	99.7
1976	86.9	95.4	93.6	99.8	94.5	92.9	98.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.7	103.8	104.3	102.5	104.0	104.7	102.4
1979	112.8	108.2	107.8	109.0	107.9	107.6	108.6
1980	109.6	108.1	106.0	113.1	107.9	106.1	112.2
1981 ¹	113.1	109.3	106.3	116.8	109.0	105.9	116.2
Average annual percent change:							
1954-81	3.0	1.7	1.3	2.9	1.8	1.3	2.9
1977-81	3.0	2.2	1.4	4.2	2.1	1.3	4.0

¹ Preliminary.

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

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

Chart 82. Fabricated pipe fittings (SIC 3498): Output per hour and related data, 1967-81
(1977 = 100)



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

Table 160. Fabricated pipe and fittings (SIC 3498): 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	84.9	87.4	77.6	88.7	92.1	79.3
1959	94.7	97.0	87.9	101.3	105.5	90.4
1960	84.9	88.4	75.2	90.4	95.6	77.5
1961	97.5	101.7	85.9	101.9	107.3	87.8
1962	98.5	102.5	87.7	104.7	110.3	89.8
1963	93.0	97.6	80.4	97.6	103.4	82.7
1964	97.3	98.3	93.9	103.0	105.1	96.6
1965	100.9	101.8	98.3	105.1	106.9	100.0
1966	100.3	103.2	92.3	107.3	112.5	93.7
1967	96.9	98.4	92.2	102.9	106.1	94.1
1968	100.1	98.9	104.8	106.7	107.1	105.1
1969	105.8	104.8	108.8	116.1	117.3	112.6
1970	94.0	92.9	97.5	100.5	99.7	103.2
1971	97.0	96.5	98.8	100.0	99.3	101.9
1972	106.0	105.5	107.9	108.4	109.1	106.5
1973	110.2	110.5	109.0	112.8	113.8	109.9
1974	111.4	111.7	110.6	115.8	116.3	114.4
1975	104.0	104.7	101.7	106.4	107.1	104.1
1976	97.4	95.4	104.6	99.0	96.8	106.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	99.5	104.6	100.7	99.5	104.9
1979	90.1	86.6	103.7	91.7	88.4	104.0
1980	89.9	89.5	91.1	90.6	90.2	91.9
1981 ²	93.1	92.2	96.0	94.1	93.3	96.8
Average annual percent change:						
1958-81 .....	.3	(³)	1.1	(³)	-.3	1.0
1977-81	-2.5	-2.6	-2.2	-2.2	-2.3	-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.

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 161. Fabricated pipe and fittings (SIC 3498): 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	47.8	56.3	54.7	61.6	53.9	51.9	60.3
1959	47.8	50.5	49.3	54.4	47.2	45.3	52.9
1960	43.3	51.0	49.0	57.6	47.9	45.3	55.9
1961	42.6	43.7	41.9	49.6	41.8	39.7	48.5
1962	44.9	45.6	43.8	51.2	42.9	40.7	50.0
1963	45.0	48.4	46.1	56.0	46.1	43.5	54.4
1964	51.1	52.5	52.0	54.4	49.6	48.6	52.9
1965	57.4	56.9	56.4	58.4	54.6	53.7	57.4
1966	62.0	61.8	60.1	67.2	57.8	55.1	66.2
1967	66.4	68.5	67.5	72.0	64.5	62.6	70.6
1968	69.6	69.5	70.4	66.4	65.2	65.0	66.2
1969	67.9	64.2	64.8	62.4	58.5	57.9	60.3
1970	57.7	61.4	62.1	59.2	57.4	57.9	55.9
1971	58.5	60.3	60.6	59.2	58.5	58.9	57.4
1972	67.3	63.5	63.8	62.4	62.1	61.7	63.2
1973	77.6	70.4	70.2	71.2	68.8	68.2	70.6
1974	85.8	77.0	76.8	77.6	74.1	73.8	75.0
1975	78.1	75.1	74.6	76.8	73.4	72.9	75.0
1976	89.5	91.9	93.8	85.6	90.4	92.5	83.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	107.2	108.4	103.2	107.1	108.4	102.9
1979	107.0	118.8	123.6	103.2	116.7	121.0	102.9
1980	102.8	114.3	114.8	112.8	113.5	114.0	111.8
1981 ¹	106.8	114.7	115.8	111.2	113.5	114.5	110.3
Average annual percent change:							
1958-81	4.3	4.1	4.3	3.3	4.3	4.7	3.3
1977-81 .....	.8	3.4	3.6	3.1	3.2	3.3	2.8

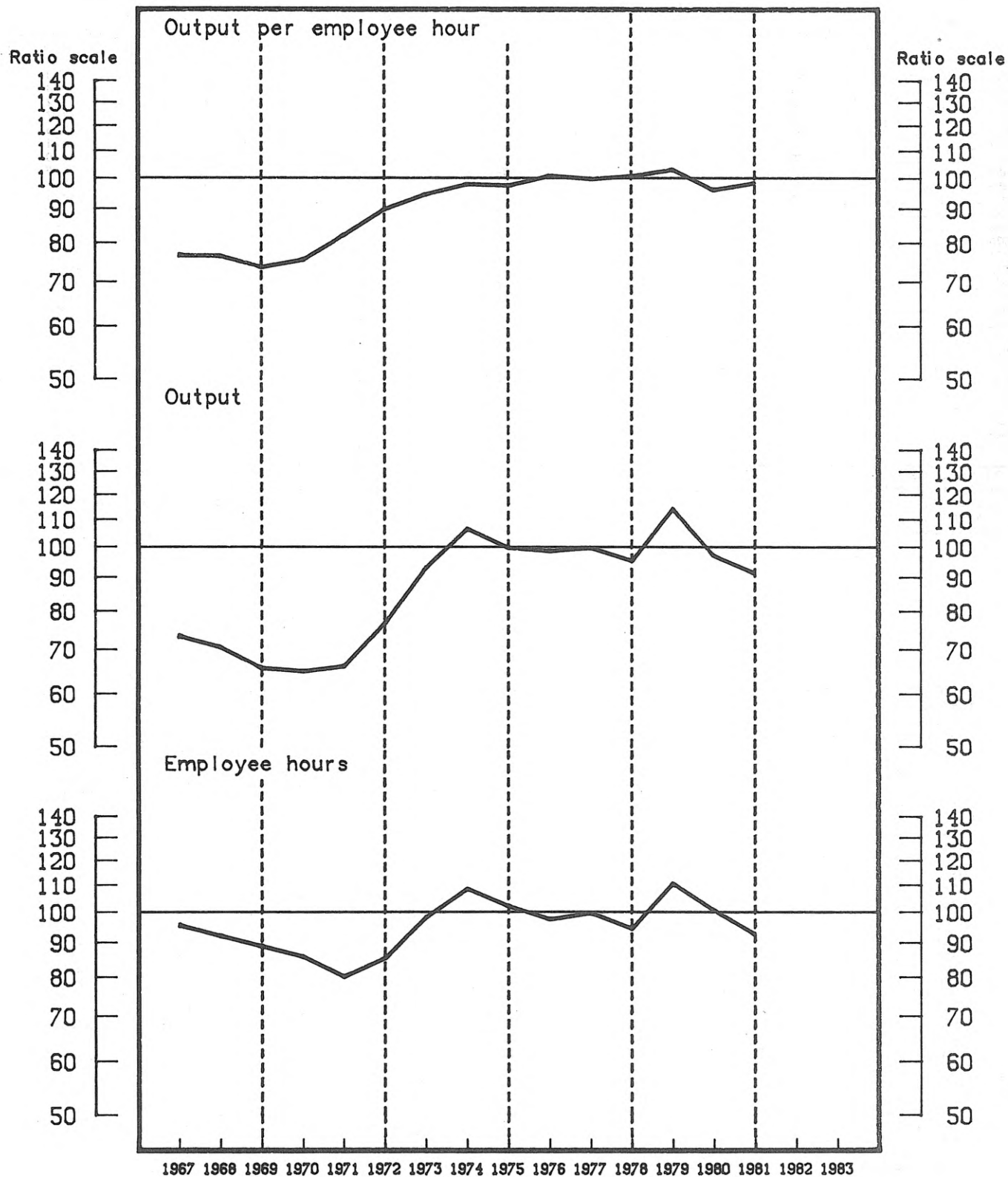
¹ Preliminary.

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

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

Chart 83. Farm and garden machinery (SIC 352): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 162. Farm and garden machinery (SIC 352): 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	65.1	64.9	65.5	66.2	66.0	66.8
1959	65.1	63.4	70.3	67.5	66.1	71.4
1960	60.5	61.3	58.6	63.0	64.5	59.2
1961	62.9	61.3	67.7	64.9	63.9	67.7
1962	65.1	65.1	64.8	66.8	67.7	64.6
1963	66.6	64.3	74.3	69.4	67.8	74.1
1964	70.2	66.9	82.0	73.7	71.1	82.0
1965	72.2	68.6	84.8	75.6	72.8	84.5
1966	76.7	72.3	92.7	80.9	77.6	92.0
1967	76.8	73.3	88.8	78.5	75.6	88.1
1968	76.7	75.0	82.1	79.1	77.0	85.6
1969	73.8	73.2	75.9	75.5	74.7	77.9
1970	75.7	75.2	77.3	76.8	76.2	78.4
1971	82.4	83.0	81.0	83.8	84.3	82.4
1972	90.1	87.0	99.9	92.9	90.0	101.8
1973	94.8	90.7	109.2	97.4	93.2	111.3
1974	98.2	92.6	118.3	102.2	96.9	120.1
1975	97.7	95.3	105.2	100.9	99.0	106.4
1976	101.1	100.5	103.1	102.2	101.4	104.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.0	100.1	103.5	101.0	100.1	103.4
1979	103.3	101.7	108.4	104.7	103.4	108.7
1980	96.3	99.5	88.2	95.5	98.1	88.9
1981 ²	98.6	103.9	86.3	96.6	100.8	86.7
Average annual percent change:						
1958-81	2.5	2.6	2.1	2.3	2.4	2.1
1977-81	-.8	.7	-4.4	-1.2	(³)	-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.

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

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

² Preliminary.

³ Less than .05 percent.

Table 163. Farm and garden machinery (SIC 352): 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	49.4	75.9	76.1	75.4	74.6	74.8	74.0
1959	52.5	80.7	82.8	74.7	77.8	79.4	73.5
1960	42.9	70.9	70.0	73.2	68.1	66.5	72.5
1961	45.7	72.7	74.5	67.5	70.4	71.5	67.5
1962	48.8	75.0	75.0	75.3	73.0	72.1	75.5
1963	53.7	80.6	83.5	72.3	77.4	79.2	72.5
1964	60.1	85.6	89.9	73.3	81.5	84.5	73.3
1965	64.0	88.6	93.3	75.5	84.7	87.9	75.7
1966	76.4	99.6	105.6	82.4	94.4	98.5	83.0
1967	73.6	95.8	100.4	82.9	93.7	97.4	83.5
1968	70.8	92.3	94.4	86.2	89.5	92.0	82.7
1969	65.8	89.1	89.9	86.7	87.1	88.1	84.5
1970	65.1	86.0	86.6	84.2	84.8	85.4	83.0
1971	66.2	80.3	79.8	81.7	79.0	78.5	80.3
1972	77.1	85.6	88.6	77.2	83.0	85.7	75.7
1973	93.5	98.6	103.1	85.6	96.0	100.3	84.0
1974	106.9	108.9	115.4	90.4	104.6	110.3	89.0
1975	100.0	102.4	104.9	95.1	99.1	101.0	94.0
1976	98.9	97.8	98.4	95.9	96.8	97.5	94.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	95.6	94.7	95.5	92.4	94.7	95.5	92.5
1979	114.7	111.0	112.8	105.8	109.5	110.9	105.5
1980	97.3	101.0	97.8	110.3	101.9	99.2	109.5
1981 ¹	91.6	92.9	88.2	106.1	94.8	90.9	105.7
Average annual percent change:							
1958-81	3.9	1.4	1.3	1.8	1.6	1.5	1.8
1977-81	-1.6	-.8	-2.2	3.0	-.3	-1.5	2.8

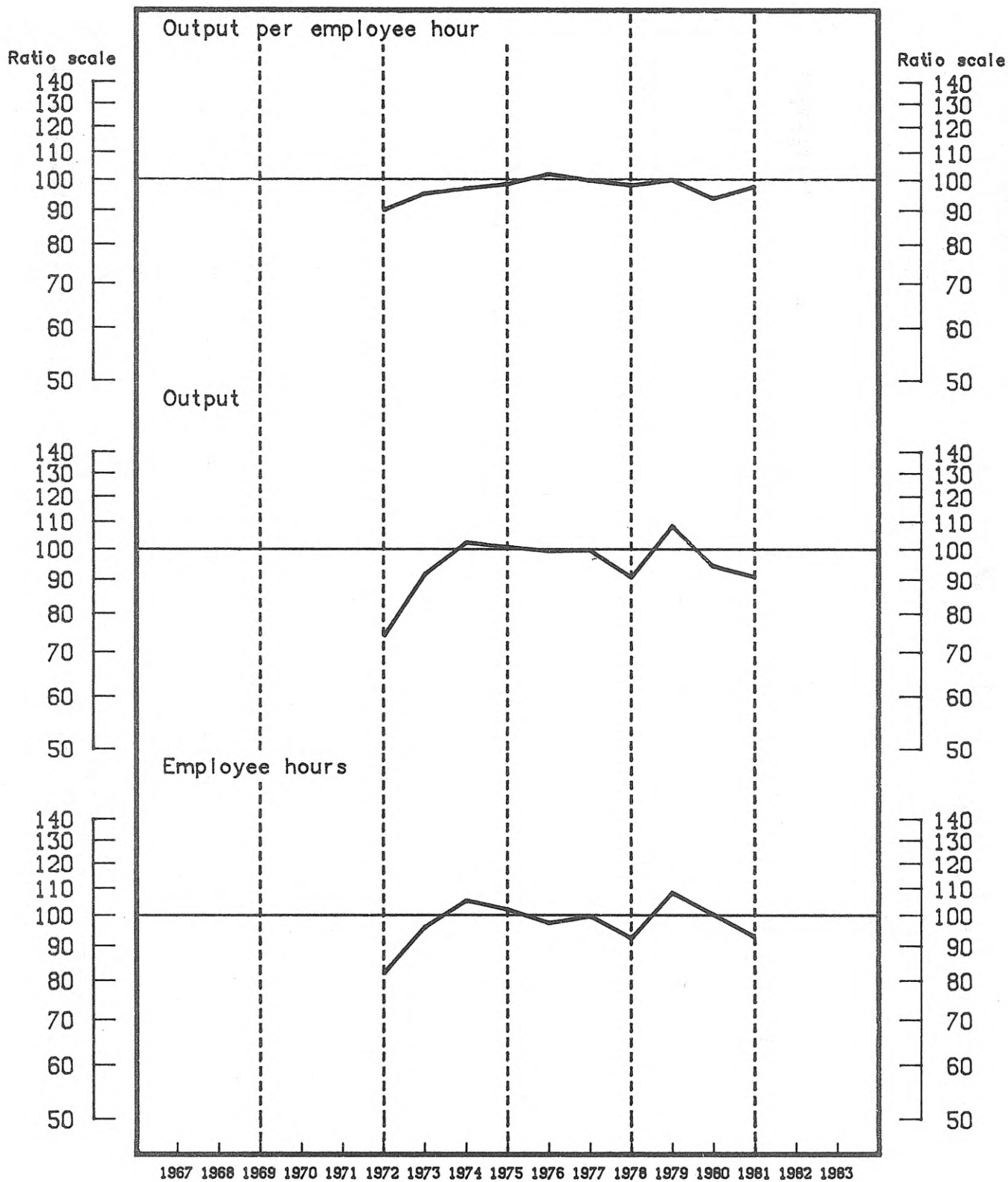
¹ Preliminary.

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

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

Chart 84. Farm machinery and equipment (SIC 3523): Output per hour and related data, 1972-81

(1977 = 100)



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

Table 164. Farm machinery and equipment (SIC 3523): Indexes of output per employee hour and output per employee, 1972-81 (1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	90.2	86.3	103.3	93.1	89.3	105.4
1973	95.6	91.1	111.5	98.2	93.6	113.8
1974	97.3	91.0	120.5	101.7	95.7	122.6
1975	98.8	95.6	109.2	102.1	99.3	110.5
1976	102.2	101.3	104.7	102.8	101.7	106.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.4	97.6	100.6	98.8	98.3	100.6
1979	100.2	98.6	105.2	101.9	100.6	105.6
1980	94.0	96.6	87.2	93.1	95.2	87.8
1981 ²	98.0	103.3	85.6	95.8	99.9	86.0
Average annual percent change:						
1972-81 .....	.5	1.5	-2.6	-.1	.8	-2.8
1977-81	-.9	.5	-4.4	-1.4	-.3	-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 165. Farm machinery and equipment (SIC 3523): Indexes of output, employee hours, and employees, 1972-81 (1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	74.2	82.3	86.0	71.8	79.7	83.1	70.4
1973	92.1	96.3	101.1	82.6	93.8	98.4	80.9
1974	102.7	105.6	112.9	85.2	101.0	107.3	83.8
1975	101.1	102.3	105.7	92.6	99.0	101.8	91.5
1976	99.7	97.6	98.4	95.2	97.0	98.0	94.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	91.1	92.6	93.3	90.6	92.2	92.7	90.6
1979	108.9	108.7	110.5	103.5	106.9	108.2	103.1
1980	94.6	100.6	97.9	108.5	101.6	99.4	107.7
1981 ¹	91.2	93.1	88.3	106.5	95.2	91.3	106.0
Average annual percent change:							
1972-81	1.2	.8	-.3	4.0	1.4	.4	4.2
1977-81	-1.5	-.6	-2.0	3.1	(²)	-1.1	2.9

¹ Preliminary.

² Less than .05 percent.

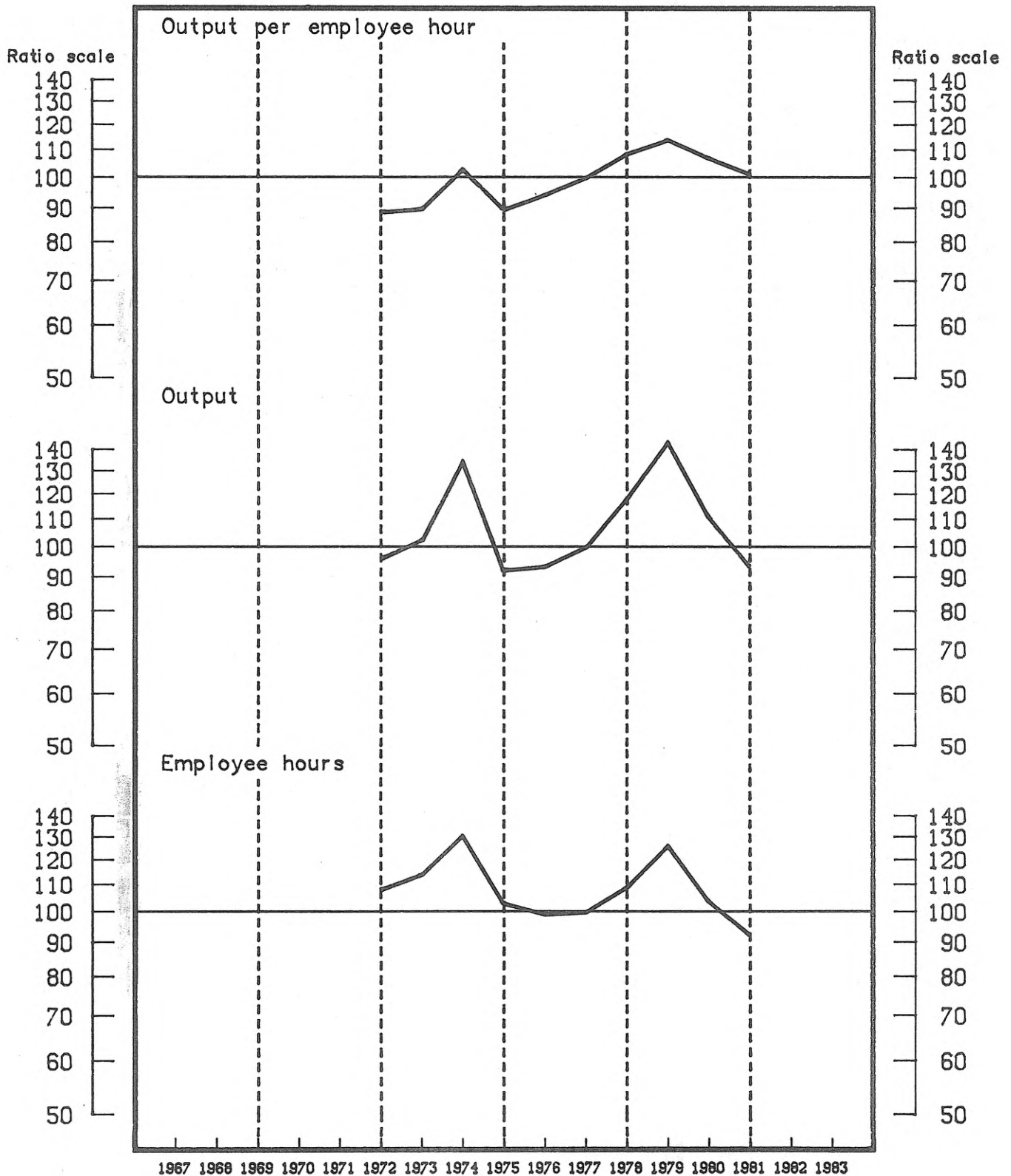
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

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

Chart 85. Lawn and garden equipment (SIC 3524): Output per hour and related data, 1972-81

(1977 = 100)



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

Table 166. Lawn and garden equipment (SIC 3524): Indexes of output per employee hour and output per employee, 1972-81
(1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	88.8	90.8	83.3	91.0	93.6	84.1
1973	89.8	88.2	95.2	92.6	91.4	96.6
1974	103.0	102.1	105.8	104.5	103.8	106.6
1975	89.6	92.7	81.5	92.3	96.2	82.3
1976	94.3	94.8	92.5	98.0	99.6	93.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.6	108.1	110.1	106.2	105.0	109.6
1979	113.9	112.7	118.0	113.8	112.6	117.6
1980	107.0	113.9	90.3	107.2	114.2	90.8
1981 ²	101.3	106.2	88.7	101.4	106.6	88.2
Average annual percent change:						
1972-81	2.2	2.6	1.0	1.8	2.1	.9
1977-81 .....	.1	1.7	-4.3	.4	2.1	-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 167. Lawn and garden equipment (SIC 3524): Indexes of output, employee hours, and employees, 1972-81
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	96.1	108.2	105.8	115.4	105.6	102.7	114.3
1973	102.5	114.1	116.2	107.7	110.7	112.2	106.1
1974	134.9	131.0	132.1	127.5	129.1	129.9	126.5
1975	92.3	103.0	99.6	113.2	100.0	95.9	112.2
1976	93.5	99.2	98.6	101.1	95.4	93.9	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	118.6	109.2	109.7	107.7	111.7	112.9	108.2
1979	144.0	126.4	127.8	122.0	126.5	127.9	122.4
1980	111.1	103.8	97.5	123.1	103.6	97.3	122.4
1981 ¹	93.6	92.4	88.1	105.5	92.3	87.8	106.1
Average annual percent change:							
1972-81 .....	.9	-1.3	-1.6	-.2	-.8	-1.2	(²)
1977-81	-2.0	-2.1	-3.6	2.4	-2.3	-4.0	2.4

¹ Preliminary.

² Less than .05 percent.

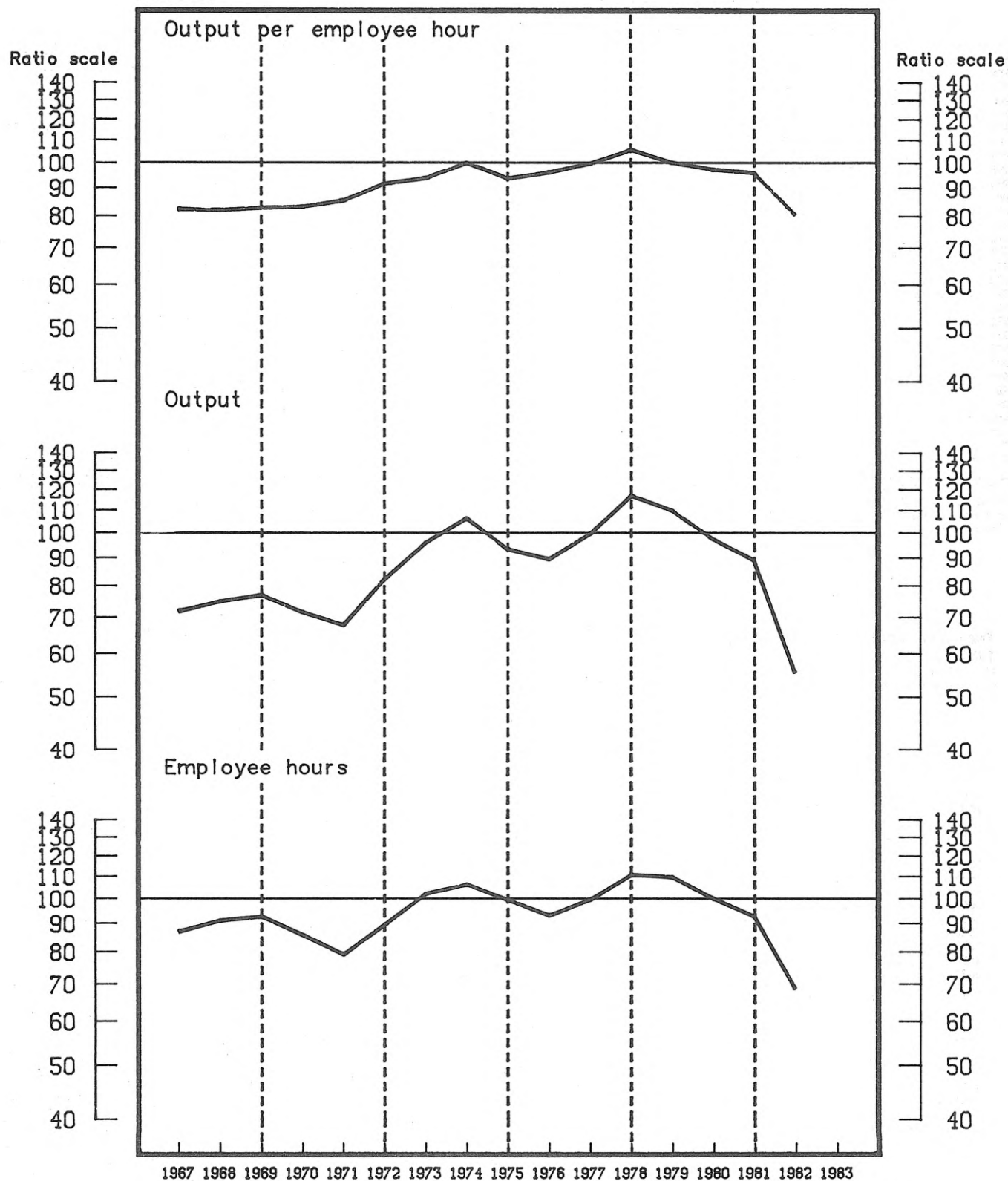
NOTE: Because of periodic revisions in source data, the measures in this table

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 86. Construction machinery and equipment (SIC 3531): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 168. Construction machinery and equipment (SIC 3531): Indexes of output per employee hour and output per employee, 1958-82
(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	104.4	109.8	108.0	107.3	109.8
1979	100.3	101.3	98.0	97.8	97.6	98.3
1980	97.4	102.1	86.8	96.1	100.0	87.4
1981	96.1	99.8	87.6	95.2	98.3	88.0
1982 ²	80.7	96.2	56.9	77.8	90.8	57.0
Average annual percent change:						
1958-82	1.6	1.9	.9	1.4	1.6	.9
1977-82	-3.9	-.9	-9.8	-4.6	-2.0	-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, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 169. Construction machinery and equipment (SIC 3531): Indexes of output, employee hours, and employees, 1958-82
(1977=100)

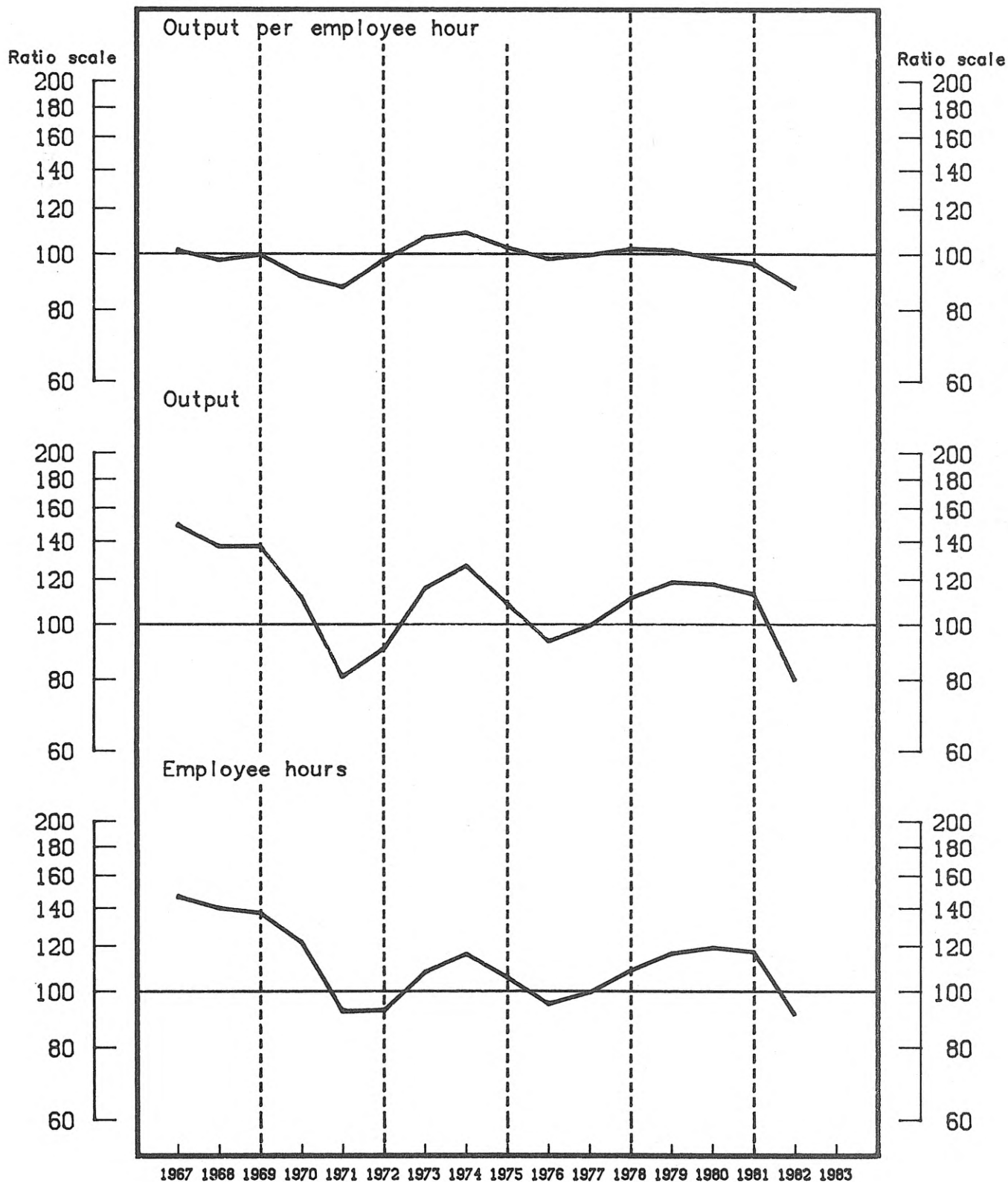
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	45.1	60.8	58.6	66.5	61.4	59.8	65.3
1959	53.4	76.7	78.1	72.7	72.6	73.0	71.7
1960	45.6	73.2	71.6	76.9	71.9	70.2	76.2
1961	42.5	62.3	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	112.6	107.0	108.8	109.5	107.0
1979	110.3	110.0	108.9	112.6	112.8	113.0	112.2
1980	97.7	100.3	95.7	112.5	101.7	97.7	111.8
1981	89.4	93.0	89.6	102.0	93.9	90.9	101.6
1982 ¹	55.5	68.8	57.7	97.5	71.3	61.1	97.3
Average annual percent change:							
1958-82	3.3	1.7	1.4	2.4	1.9	1.7	2.4
1977-82	-10.5	-6.9	-9.7	-.8	-6.2	-8.7	-.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 87. Machine tools (SIC 3541, 3542): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 170. Machine tools (SIC 3541, 3542): Indexes of output per employee hour and output per employee, 1958-82
(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	98.7	96.4	103.6	98.6	95.6	104.4
1981	96.5	95.9	97.8	96.0	94.7	98.3
1982 ²	87.5	94.9	75.8	83.1	87.5	76.2
Average annual percent change:						
1958-82 .....	.7	1.1	-.3	.6	1.0	-.3
1977-82	-2.5	-1.1	-5.0	-3.4	-2.5	-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 171. Machine tools (SIC 3541, 3542): Indexes of output, employee hours, and employees, 1958-82
(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	118.1	119.6	122.5	114.0	119.8	123.6	113.1
1981	113.4	117.5	118.2	116.0	118.1	119.7	115.4
1982 ¹	80.0	91.4	84.3	105.5	96.3	91.4	105.0
Average annual percent change:							
1958-82 .....	.9	.3	-.2	1.2	.4	(²)	1.2
1977-82	-3.0	-.6	-2.0	2.1	.4	-.6	2.0

¹ Preliminary.

² Less than .05 percent.

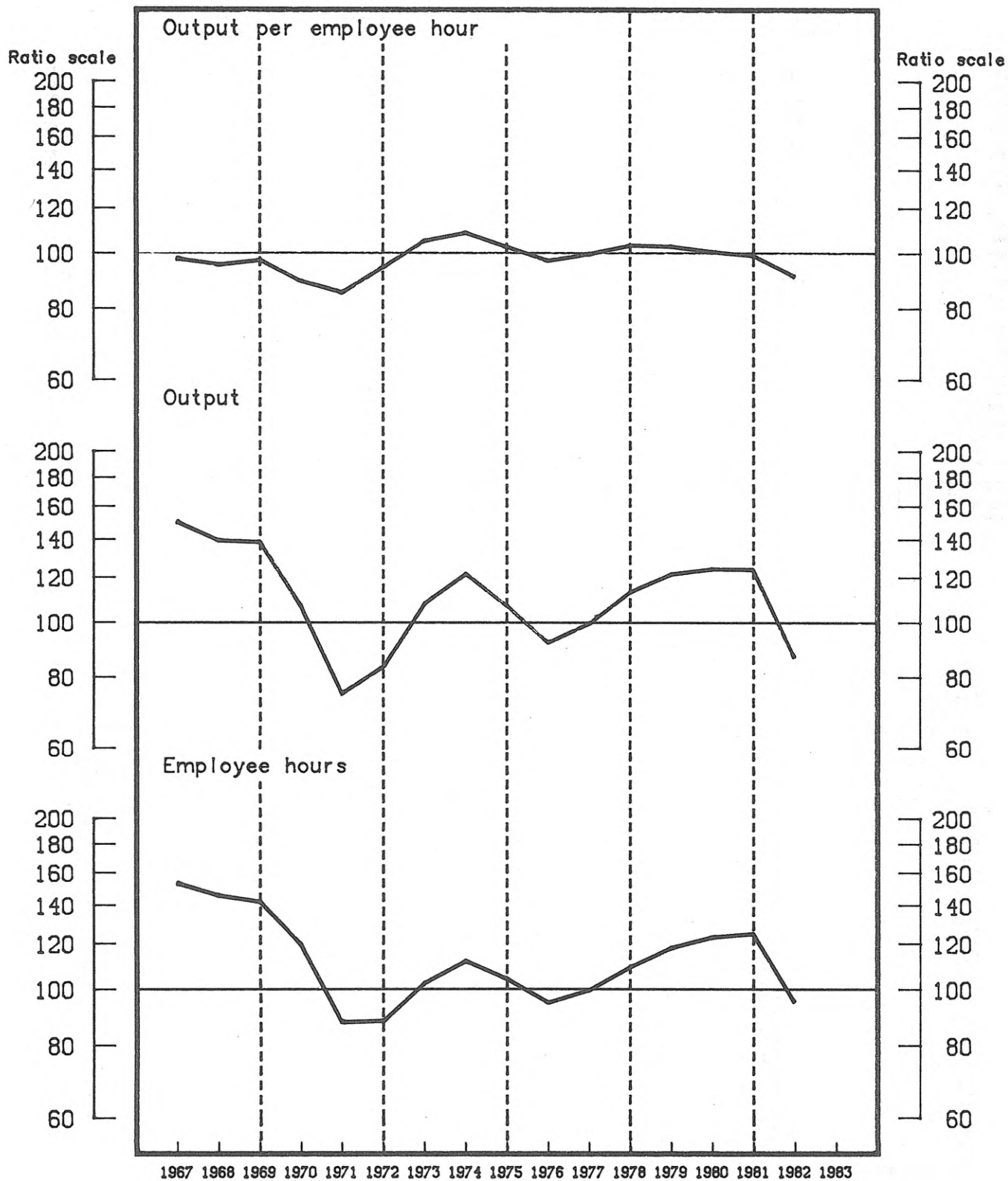
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

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

Chart 88. Metal cutting machine tools (SIC 3541): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 172. Metal cutting machine tools (SIC 3541): Indexes of output per employee hour and output per employee, 1958-82
(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	100.9	96.7	110.0	101.9	97.3	110.7
1981	99.3	96.7	104.3	99.6	96.9	104.6
1982 ²	91.3	98.1	80.8	86.9	90.8	81.1
Average annual percent change:						
1958-82	1.0	1.4	.4	1.0	1.3	.4
1977-82	-1.7	-5	-3.9	-2.5	-1.7	-3.8

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

² Preliminary.

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

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

Table 173. Metal cutting machine tools (SIC 3541): Indexes of output, employee hours, and employees, 1958-82
(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	124.7	123.6	129.0	113.4	122.4	128.2	112.6
1981	124.4	125.3	128.6	119.3	124.9	128.4	118.9
1982 ¹	86.9	95.2	88.6	107.6	100.0	95.7	107.2
Average annual percent change:							
1958-82	1.4	.3	(²)	1.0	.4	.1	1.0
1977-82	-1.2	.6	-7	2.8	1.4	.6	2.7

¹ Preliminary.

² Less than .05 percent.

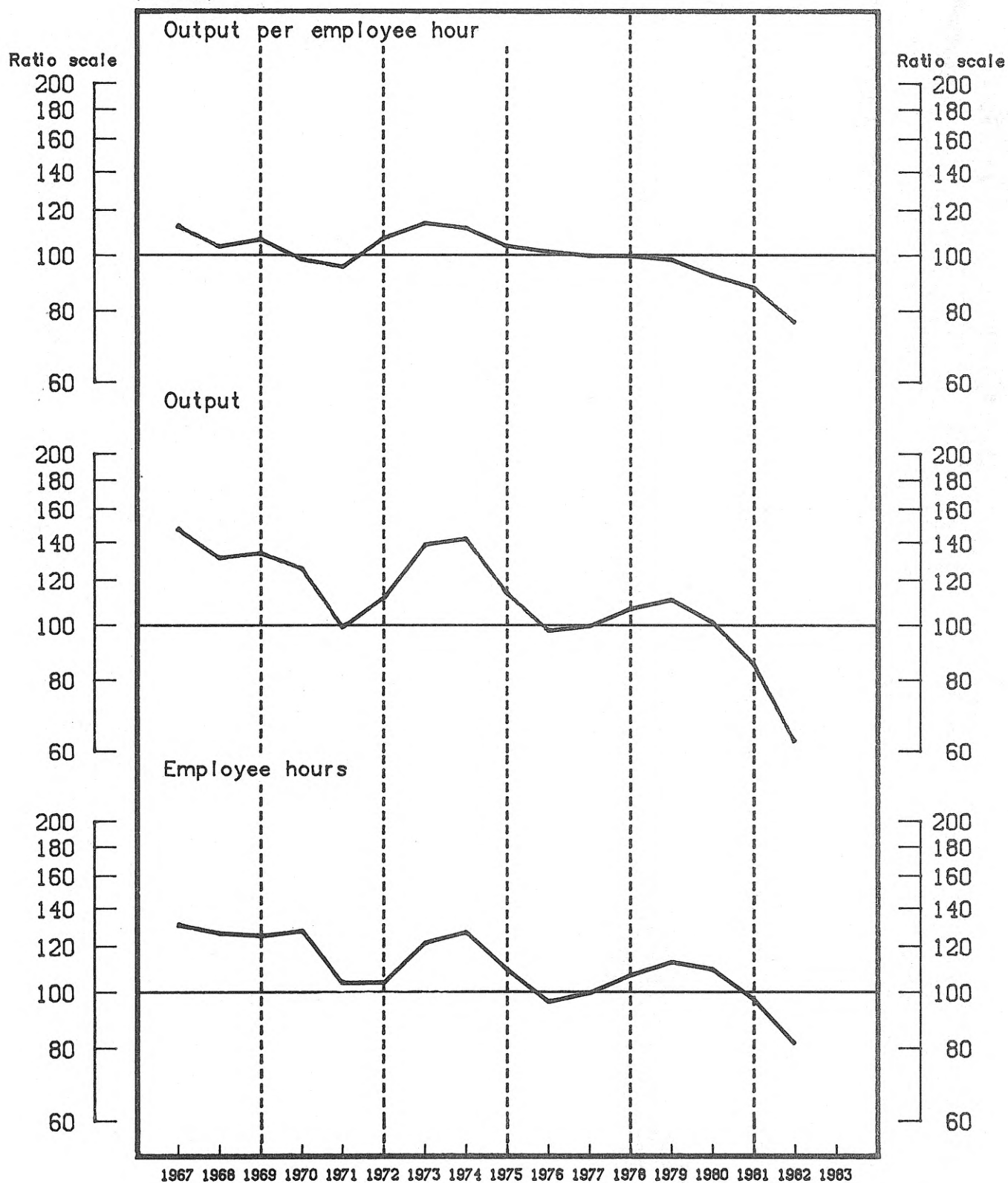
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

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

Chart 89. Metal forming machine tools (SIC 3542): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 174. Metal forming machine tools (SIC 3542): Indexes of output per employee hour and output per employee, 1958-82 (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	92.4	94.6	87.7	89.4	89.8	88.6
1981	88.0	91.3	81.1	84.6	86.2	81.4
1982 ²	76.5	84.2	62.8	71.8	76.7	63.2
Average annual percent change:						
1958-82	-.4	.3	-2.3	-.6	.1	-2.3
1977-82	-5.0	-3.3	-8.4	-6.3	-5.2	-8.3

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

² Preliminary.

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

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

Table 175. Metal forming machine tools (SIC 3542): Indexes of output, employee hours, and employees, 1958-82 (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	101.5	109.8	107.3	115.7	113.5	113.0	114.5
1981	85.7	97.4	93.9	105.7	101.3	99.4	105.3
1982 ¹	62.4	81.6	74.1	99.3	86.9	81.4	98.7
Average annual percent change:							
1958-82	-.3	.1	-.6	2.0	.3	-.4	2.0
1977-82	-8.5	-3.7	-5.4	-.1	-2.4	-3.5	-.3

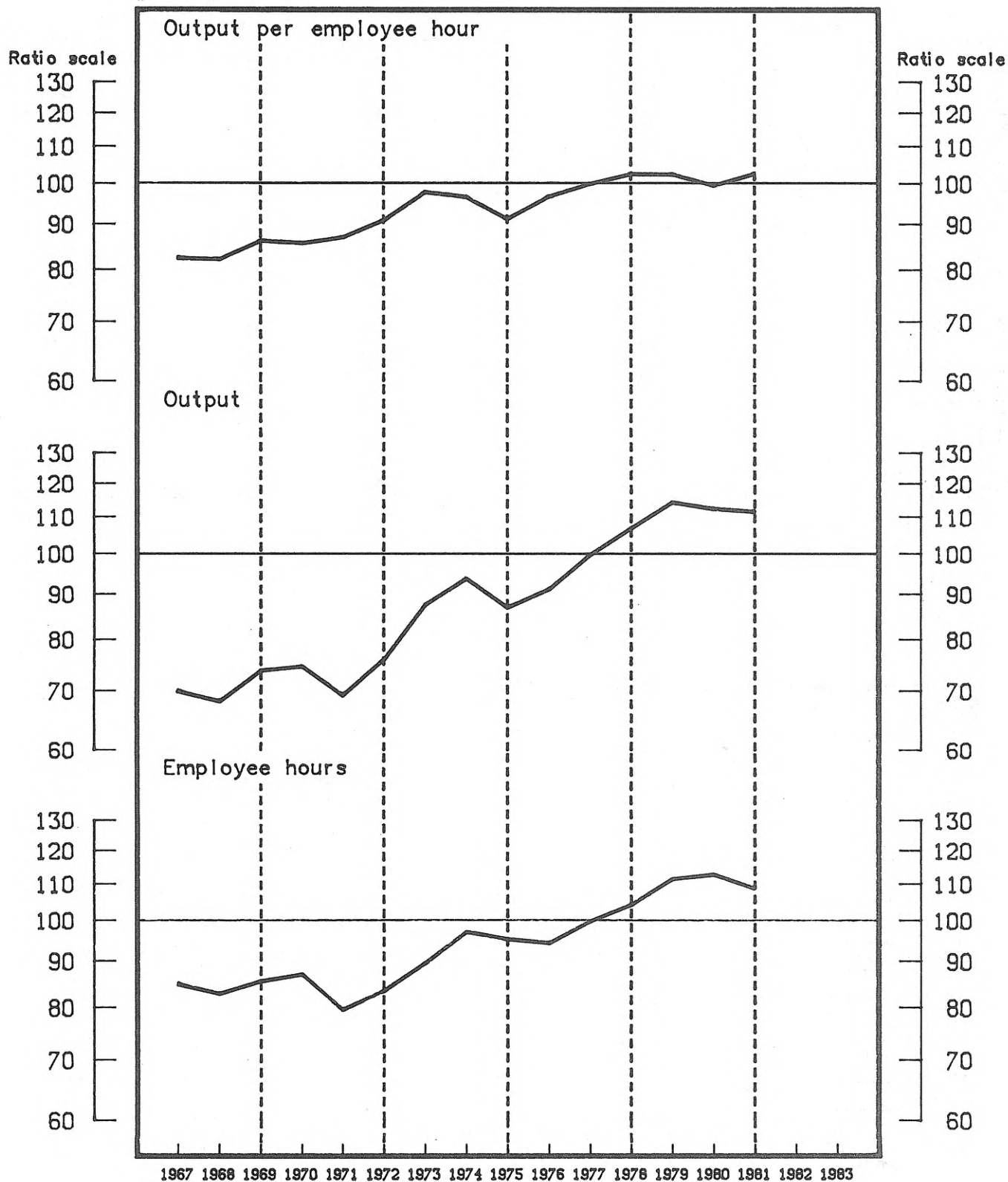
¹ Preliminary.

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

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

Chart 90. Pumps and compressors (SIC 3561, 3563): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 176. Pumps and compressors (SIC 3561, 3563): 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	64.5	64.5	64.5	65.1	64.7	65.7
1959	68.8	66.9	72.5	69.3	67.1	73.6
1960	66.6	65.2	69.0	67.5	66.2	69.7
1961	69.2	68.3	70.7	70.1	69.9	70.8
1962	73.6	72.8	75.2	74.9	75.0	75.0
1963	78.2	75.5	84.0	80.2	78.5	83.5
1964	79.4	76.2	85.6	82.5	80.8	85.5
1965	81.0	77.2	88.8	83.8	81.1	88.7
1966	81.2	76.5	91.1	85.2	82.4	90.4
1967	82.5	78.9	89.6	85.1	83.0	88.8
1968	82.3	82.0	82.8	85.1	84.3	86.2
1969	86.3	84.5	89.6	88.8	87.1	91.8
1970	85.8	85.8	85.9	87.2	87.3	87.1
1971	87.1	89.8	82.8	87.4	89.4	84.4
1972	91.1	90.7	91.9	92.4	91.6	93.5
1973	97.9	95.9	101.4	99.1	96.7	103.3
1974	96.7	93.6	102.5	96.6	92.6	104.1
1975	91.4	92.2	89.9	90.7	90.6	90.9
1976	96.8	97.8	95.1	96.9	97.4	96.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.6	102.3	103.1	101.9	101.2	103.1
1979	102.5	102.1	103.2	101.6	100.4	103.6
1980	99.6	100.9	97.6	98.9	99.3	98.2
1981 ²	102.7	106.5	96.5	101.5	104.5	96.8
Average annual percent change:						
1958-81	2.0	2.2	1.7	1.9	2.0	1.7
1977-81 .....	.2	1.1	-1.3	(³)	.7	-1.1

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

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 177. Pumps and compressors (SIC 3561, 3563): 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	41.1	63.7	63.7	63.7	63.1	63.5	62.6
1959	43.4	63.1	64.9	59.9	62.6	64.7	59.0
1960	44.6	67.0	68.4	64.6	66.1	67.4	64.0
1961	43.9	63.4	64.3	62.1	62.6	62.8	62.0
1962	48.6	66.0	66.8	64.6	64.9	64.8	64.8
1963	51.8	66.2	68.6	61.7	64.6	66.0	62.0
1964	59.0	74.3	77.4	68.9	71.5	73.0	69.0
1965	65.3	80.6	84.6	73.5	77.9	80.5	73.6
1966	70.6	86.9	92.3	77.5	82.9	85.7	78.1
1967	70.1	85.0	88.9	78.2	82.4	84.5	78.9
1968	68.3	83.0	83.3	82.5	80.3	81.0	79.2
1969	74.0	85.7	87.6	82.6	83.3	85.0	80.6
1970	74.8	87.2	87.2	87.1	85.8	85.7	85.9
1971	69.4	79.7	77.3	83.8	79.4	77.6	82.2
1972	76.2	83.6	84.0	82.9	82.5	83.2	81.5
1973	87.8	89.7	91.6	86.6	88.6	90.8	85.0
1974	94.0	97.2	100.4	91.7	97.3	101.5	90.3
1975	87.1	95.3	94.5	96.9	96.0	96.1	95.8
1976	91.4	94.4	93.5	96.1	94.3	93.8	95.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.1	104.4	104.7	103.9	105.1	105.8	103.9
1979	114.5	111.7	112.1	110.9	112.7	114.1	110.5
1980	112.6	113.0	111.6	115.4	113.9	113.4	114.7
1981 ¹	111.8	108.9	105.0	115.9	110.2	107.0	115.5
Average annual percent change:							
1958-81	4.6	2.6	2.4	2.9	2.7	2.6	2.9
1977-81	2.8	2.5	1.6	4.1	2.8	2.1	3.9

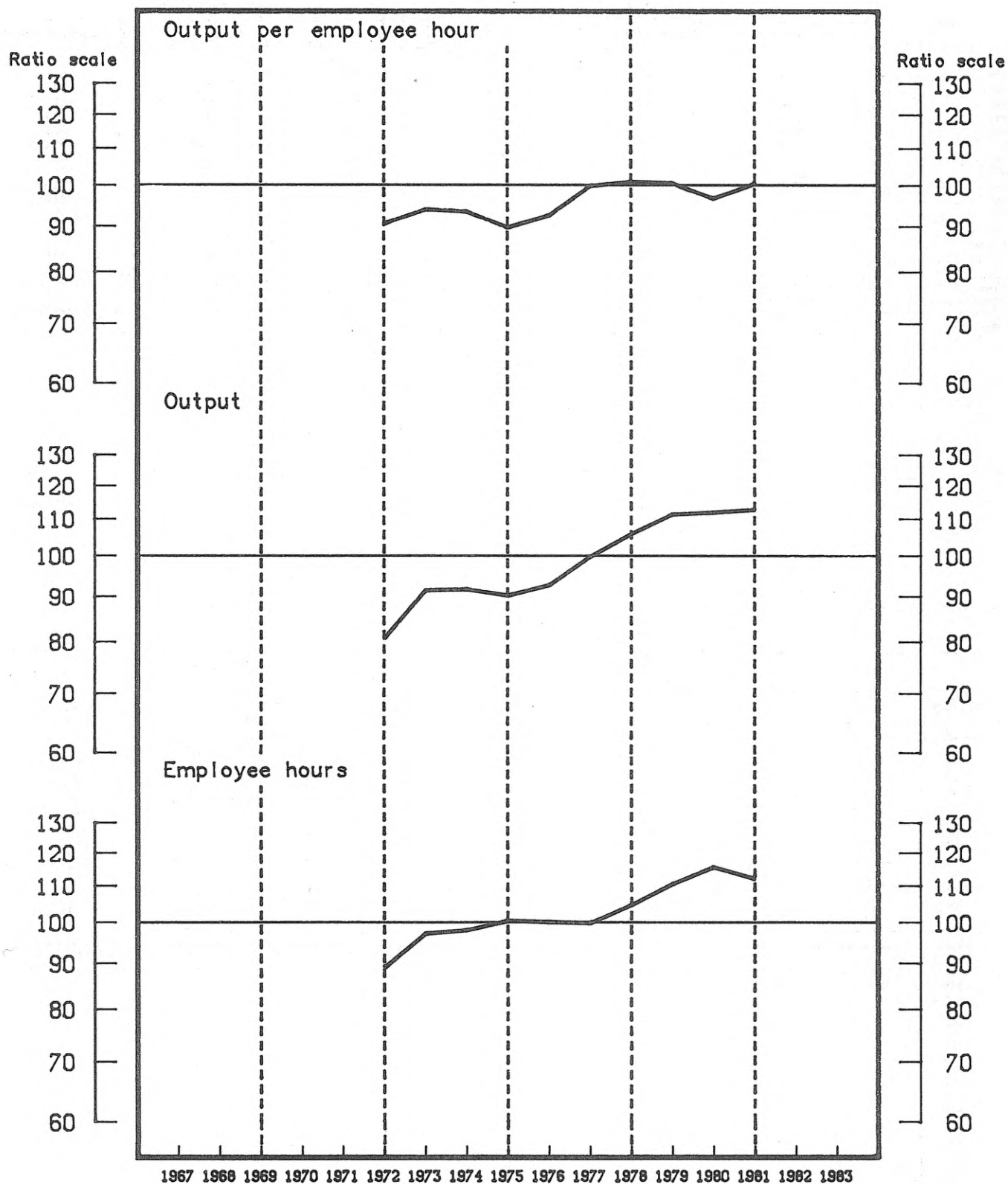
¹ Preliminary.

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 91. Pumps and pumping equipment (SIC 3561): Output per hour and related data, 1972-81

(1977 = 100)



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

Table 178. Pumps and pumping equipment (SIC 3561): Indexes of output per employee hour and output per employee, 1972-81
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	90.8	89.9	92.5	91.9	90.8	94.0
1973	94.1	92.0	98.6	96.7	94.8	100.3
1974	93.6	90.6	99.6	93.5	89.7	101.1
1975	89.9	92.2	85.8	89.2	90.7	86.7
1976	92.7	94.6	89.6	93.2	94.8	90.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.1	101.2	101.0	99.9	99.3	100.9
1979	100.7	100.7	100.8	98.8	97.4	101.2
1980	96.9	98.7	93.7	95.4	96.1	94.3
1981 ²	100.6	105.1	93.4	98.9	102.2	93.6
Average annual percent change:						
1972-81	1.2	1.7	.2	.8	1.2	.1
1977-81	-.3	.7	-2.1	-.7	.1	-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, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 179. Pumps and pumping equipment (SIC 3561): Indexes of output, employee hours, and employees, 1972-81
(1977=100)

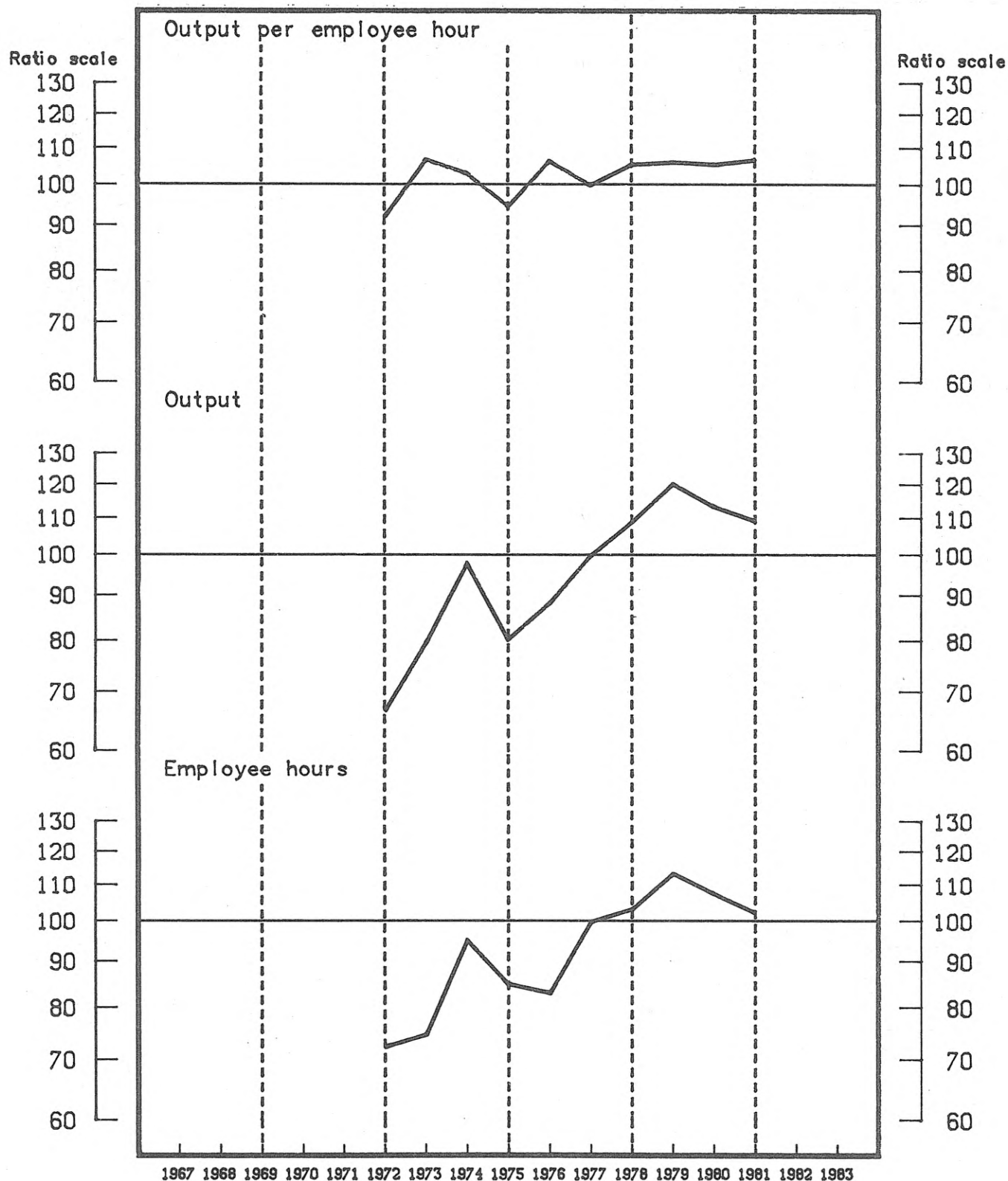
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	81.0	89.2	90.1	87.6	88.1	89.2	86.2
1973	91.7	97.4	99.7	93.0	94.8	96.7	91.4
1974	91.9	98.2	101.4	92.3	98.3	102.5	90.9
1975	90.4	100.6	98.0	105.4	101.4	99.7	104.3
1976	92.9	100.2	98.2	103.7	99.7	98.0	102.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.1	104.9	104.8	105.1	106.2	106.8	105.2
1979	111.6	110.8	110.8	110.7	113.0	114.6	110.3
1980	112.2	115.8	113.7	119.8	117.6	116.8	119.0
1981 ¹	113.0	112.3	107.5	121.0	114.3	110.6	120.7
Average annual percent change:							
1972-81	3.7	2.5	1.9	3.4	2.9	2.5	3.6
1977-81	3.0	3.4	2.3	5.3	3.8	3.0	5.1

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 92. Air and gas compressors (SIC 3563): Output per hour and related data, 1972-81
(1977 = 100)



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

Table 180. Air and gas compressors (SIC 3563): Indexes of output per employee hour and output per employee, 1972-81
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	92.1	93.7	89.7	93.2	94.3	91.5
1973	106.8	107.4	106.1	104.2	101.7	108.4
1974	103.0	100.0	108.1	103.0	98.7	110.2
1975	94.7	92.3	98.8	94.4	91.0	99.9
1976	106.4	105.9	107.3	105.5	103.6	108.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.5	104.4	107.3	106.1	105.2	107.4
1979	106.1	104.8	108.2	107.3	106.5	108.6
1980	105.5	105.8	105.1	106.5	106.8	106.1
1981 ²	106.8	109.7	102.5	107.0	109.9	103.0
Average annual percent change:						
1972-81	1.0	1.1	.8	1.2	1.5	.6
1977-81	1.3	2.0	.3	1.4	2.1	.5

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

² Preliminary.

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

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

Table 181. Air and gas compressors (SIC 3563): Indexes of output, employee hours, and employees, 1972-81
(1977=100)

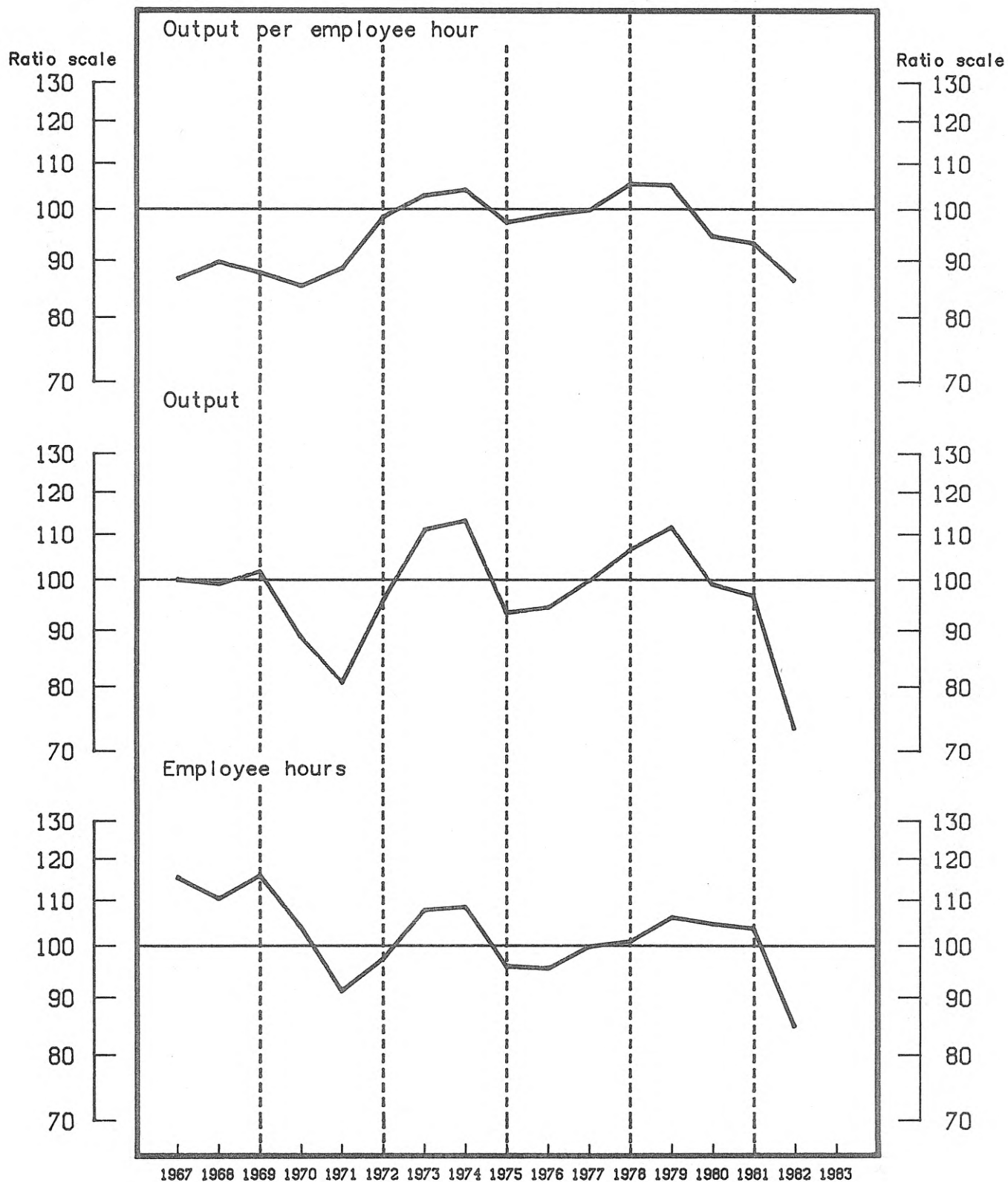
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	66.7	72.4	71.2	74.4	71.6	70.7	72.9
1973	79.8	74.7	74.3	75.2	76.6	78.5	73.6
1974	98.2	95.3	98.2	90.8	95.3	99.5	89.1
1975	80.5	85.0	87.2	81.5	85.3	88.5	80.6
1976	88.4	83.1	83.5	82.4	83.8	85.3	81.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.1	103.4	104.5	101.7	102.8	103.7	101.6
1979	120.4	113.5	114.9	111.3	112.2	113.1	110.9
1980	113.5	107.6	107.3	108.0	106.6	106.3	107.0
1981 ¹	109.4	102.4	99.7	106.7	102.2	99.5	106.2
Average annual percent change:							
1972-81	5.6	4.5	4.4	4.7	4.4	4.0	5.0
1977-81	2.2	.9	.2	1.9	.8	.1	1.7

¹ Preliminary.

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

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

Chart 93. Ball and roller bearings (SIC 3562): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 182. Ball and roller bearings (SIC 3562): Indexes of output per employee hour and output per employee, 1958-82
(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	105.3	103.0	113.6	105.8	103.5	113.6
1980	94.7	92.6	102.4	94.4	92.2	102.4
1981	93.4	92.3	96.9	93.0	91.8	96.9
1982 ²	86.4	89.9	76.2	82.9	85.2	76.2
Average annual percent change:						
1958-82	2.0	2.2	1.4	2.1	2.3	1.4
1977-82	-3.4	-2.9	-5.0	-3.9	-3.5	-5.0

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

² Preliminary.

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

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

Table 183. Ball and roller bearings (SIC 3562): Indexes of output, employee hours, and employees, 1958-82
(1977=100)

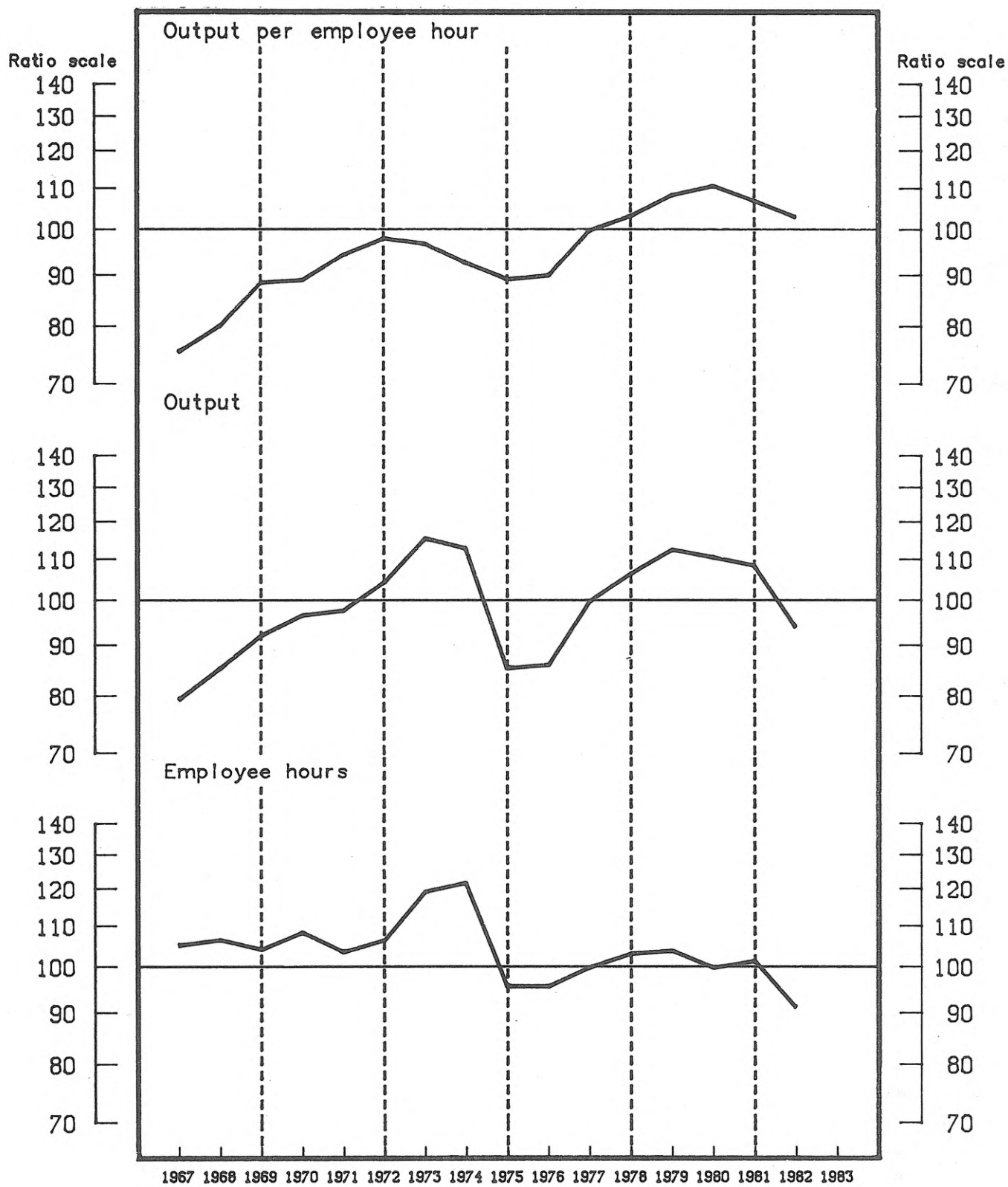
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	39.9	75.7	76.9	71.8	79.4	82.0	71.0
1959	62.5	94.7	100.7	74.2	95.1	102.0	73.3
1960	57.3	88.6	91.8	77.5	94.1	99.3	77.1
1961	55.5	83.4	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	111.9	106.3	108.6	98.5	105.8	108.1	98.5
1980	99.2	104.8	107.1	96.9	105.1	107.6	96.9
1981	96.9	103.8	105.0	100.0	104.2	105.5	100.0
1982 ¹	73.3	84.8	81.5	96.2	88.4	86.0	96.2
Average annual percent change:							
1958-82	2.5	.4	.3	1.1	.4	.2	1.1
1977-82	-5.5	-2.1	-2.6	-5	-1.6	-2.0	-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 94. Transformers (SIC 3612): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 184. Transformers (SIC 3612): Indexes of output per employee hour and output per employee, 1963-82
(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	103.4	102.1	106.7	103.8	102.6	106.7
1979	108.5	105.9	114.9	108.7	106.2	114.9
1980	110.8	111.5	109.4	110.3	110.7	109.4
1981	107.0	106.1	109.3	107.2	106.4	109.3
1982 ²	103.1	102.5	104.3	100.3	98.7	104.3
Average annual percent change:						
1963-82	2.2	2.4	1.8	2.1	2.1	2.1
1977-82 .....	.8	.8	.7	.4	.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 and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Table 185. Transformers (SIC 3612): Indexes of output, employee hours, and employees, 1963-82
(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	103.2	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	110.7	99.9	99.3	101.2	100.4	100.0	101.2
1981	108.6	101.5	102.4	99.4	101.3	102.1	99.4
1982 ¹	94.0	91.2	91.7	90.1	93.7	95.2	90.1
Average annual percent change:							
1963-82	2.9	.7	.5	1.1	.8	.8	.8
1977-82	-.8	-1.6	-1.6	-1.4	-1.1	-1.0	-1.4

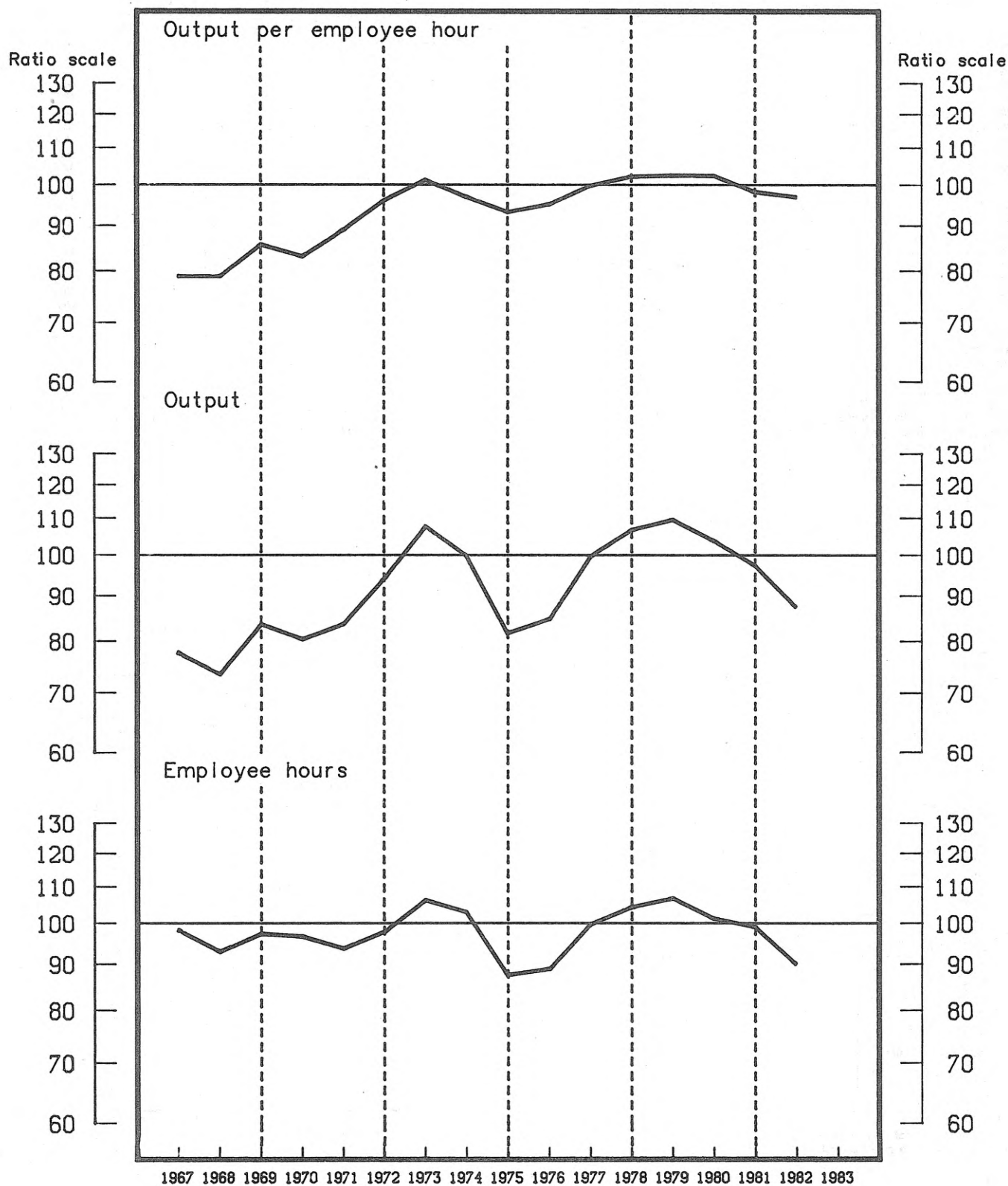
¹ Preliminary.

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

SOURCE: Output 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 95. Switchgear and switchboard apparatus (SIC 3613): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 186. Switchgear and switchboard apparatus (SIC 3613): Indexes of output per employee hour and output per employee, 1963-82
(1977=100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	70.9	71.3	69.8	73.2	75.1	68.7
1964	70.2	72.4	64.8	74.1	78.9	64.0
1965	74.4	74.3	74.5	77.6	79.5	73.1
1966	78.7	76.8	84.5	82.8	82.9	82.8
1967	79.1	77.3	84.1	81.8	81.6	82.3
1968	79.1	78.8	79.7	82.0	82.7	80.1
1969	85.9	85.2	88.3	89.3	89.4	89.1
1970	83.3	84.1	81.0	86.1	87.5	82.7
1971	89.2	90.7	85.6	92.0	93.8	87.3
1972	96.3	97.1	94.4	98.2	99.2	95.8
1973	101.5	100.7	103.5	104.5	104.5	104.3
1974	97.1	96.2	99.8	98.4	98.0	99.6
1975	93.4	99.2	80.8	91.1	95.9	80.7
1976	95.3	99.1	86.5	93.6	96.4	87.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.4	102.6	101.8	102.6	102.9	101.9
1979	102.7	104.2	98.9	103.5	105.2	99.3
1980	102.6	107.1	92.2	103.6	108.3	92.8
1981	98.4	102.2	89.5	99.1	103.2	90.0
1982 ²	97.1	103.9	82.7	96.6	103.1	83.0
Average annual percent change:						
1963-82	2.0	2.3	1.4	1.7	1.8	1.5
1977-82	-8	.6	-3.9	-8	.5	-3.8

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

² Preliminary.

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

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

Table 187. Switchgear and switchboard apparatus (SIC 3613): Indexes of output, employee hours, and employees, 1963-82
(1977=100)

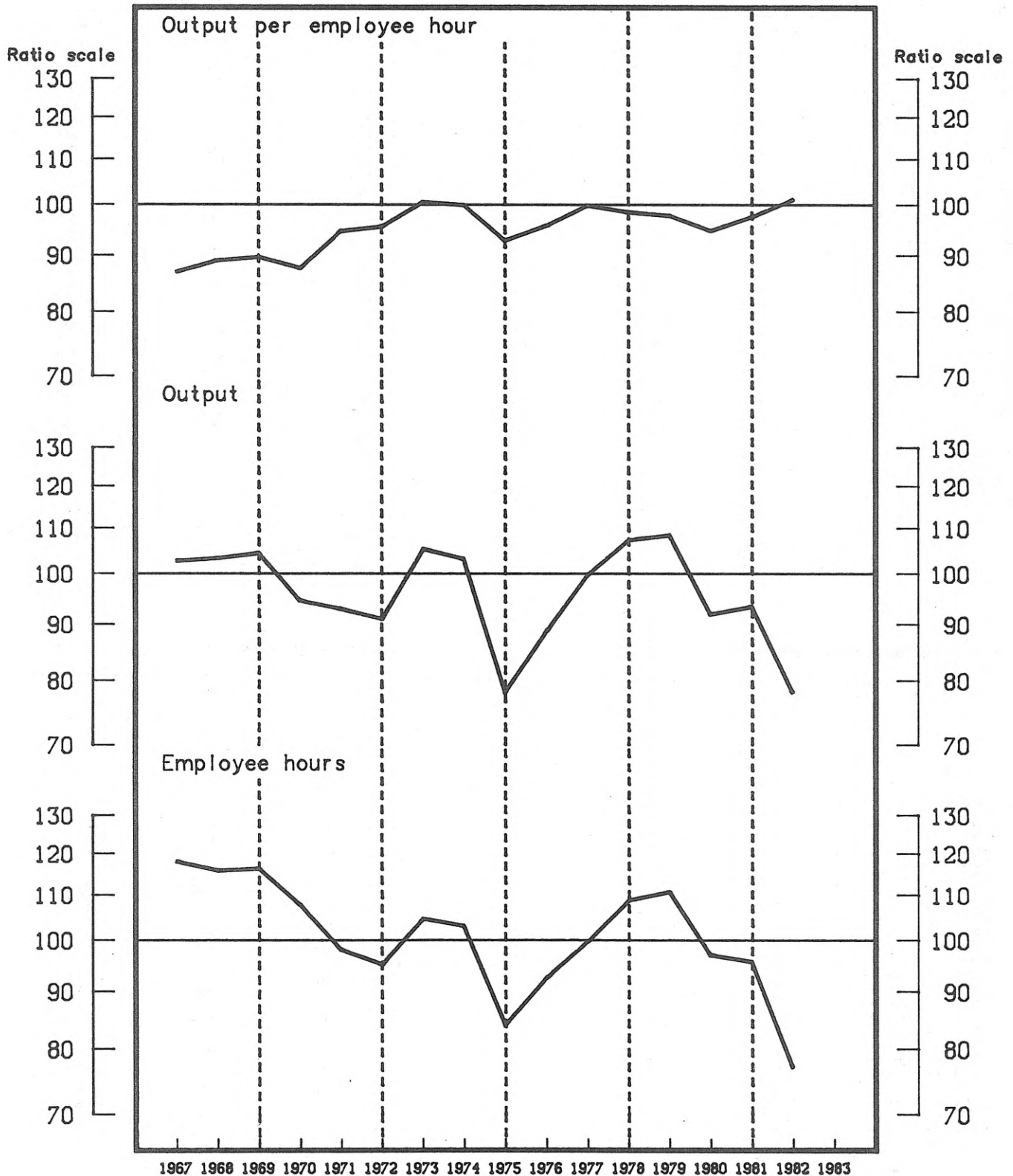
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	54.9	77.4	77.0	78.6	75.0	73.1	79.9
1964	57.5	81.9	79.4	88.8	77.6	72.9	89.9
1965	62.1	83.5	83.6	83.4	80.0	78.1	84.9
1966	74.4	94.5	96.9	88.0	89.9	89.8	89.9
1967	77.8	98.4	100.6	92.5	95.1	95.4	94.5
1968	73.7	93.2	93.5	92.5	89.9	89.1	92.0
1969	83.8	97.5	98.4	94.9	93.8	93.7	94.0
1970	80.6	96.8	95.8	99.5	93.6	92.1	97.5
1971	83.8	93.9	92.4	97.9	91.1	89.3	96.0
1972	94.4	98.0	97.2	100.0	96.1	95.2	98.5
1973	108.0	106.4	107.2	104.3	103.3	103.3	103.5
1974	100.1	103.1	104.1	100.3	101.7	102.1	100.5
1975	81.9	87.7	82.6	101.3	89.9	85.4	101.5
1976	84.9	89.1	85.7	98.1	90.7	88.1	97.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.0	104.5	104.3	105.1	104.3	104.0	105.0
1979	109.8	106.9	105.4	111.0	106.1	104.4	110.6
1980	104.0	101.4	97.1	112.8	100.4	96.0	112.1
1981	97.6	99.2	95.5	109.1	98.5	94.6	108.5
1982 ¹	87.6	90.2	84.3	105.9	90.7	85.0	105.5
Average annual percent change:							
1963-82	2.9	.8	.6	1.5	1.1	1.1	1.4
1977-82	-2.8	-2.0	-3.4	1.2	-2.0	-3.3	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 96. Motors and generators (SIC 3621): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 188. Motors and generators (SIC 3621): Indexes of output per employee hour and output per employee, 1954-82
(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	98.6	97.8	101.3	98.2	97.3	101.2
1979	97.9	98.3	96.8	98.3	98.6	97.1
1980	94.9	98.3	84.7	94.9	98.2	85.4
1981	97.7	99.6	91.7	97.1	98.8	91.9
1982 ²	101.3	106.0	88.0	98.0	101.4	88.2
Average annual percent change:						
1954-82	2.6	2.4	3.2	2.6	2.4	3.3
1977-82	(³)	1.0	-3.0	-5	.3	-2.9

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

² Preliminary.

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 189. Motors and generators (SIC 3621): Indexes of output, employee hours, and employees, 1954-82
(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	93.3	88.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.5	109.0	109.9	106.1	109.5	110.5	106.2
1979	108.6	110.9	110.5	112.2	110.5	110.1	111.9
1980	92.1	97.1	93.7	108.7	97.1	93.8	107.9
1981	93.6	95.8	94.0	102.1	96.4	94.7	101.8
1982 ¹	78.1	77.1	73.7	88.8	79.7	77.0	88.5
Average annual percent change:							
1954-82	1.9	-7	-5	-1.2	-6	-4	-1.3
1977-82	-5.1	-5.1	-6.0	-2.1	-4.6	-5.4	-2.2

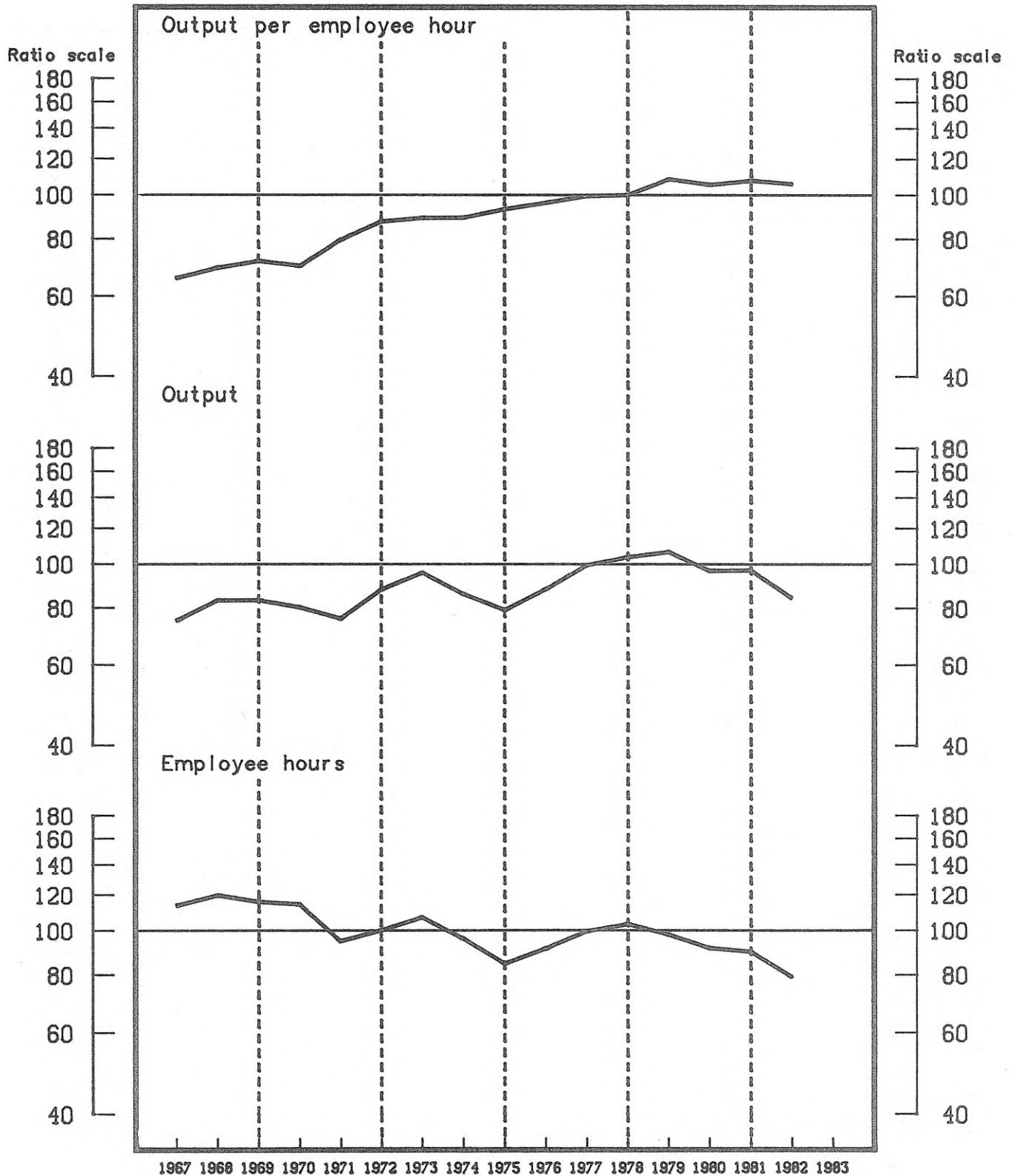
¹ Preliminary.

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

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

Chart 97. Major household appliances (SIC 3631, 3632, 3633, 3639): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 190. Major household appliances (SIC 3631, 3632, 3633, 3639): Indexes of output per employee hour and output per employee, 1958-82 (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	96.0	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	108.9	109.1	107.9	107.9	107.9	108.1
1980	105.9	107.0	101.6	103.7	104.2	102.1
1981	108.1	108.2	107.6	105.9	105.4	107.9
1982 ²	106.3	110.6	91.4	103.2	106.4	91.5
Average annual percent change:						
1958-82	4.4	4.4	4.5	4.2	4.0	4.6
1977-82	1.4	2.0	-9	1.0	1.5	-9

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

² Preliminary.

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

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

Table 191. Major household appliances (SIC 3631, 3632, 3633, 3639): Indexes of output, employee hours, and employees, 1958-82 (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	98.2	98.0	99.1	99.1	99.1	98.9
1980	97.2	91.8	90.8	95.7	93.7	93.3	95.2
1981	97.5	90.2	90.1	90.6	92.1	92.5	90.4
1982 ¹	84.6	79.6	76.5	92.6	82.0	79.5	92.5
Average annual percent change:							
1958-82	3.5	-9	-8	-1.0	-6	-5	-1.1
1977-82	-3.2	-4.5	-5.1	-2.3	-4.1	-4.6	-2.3

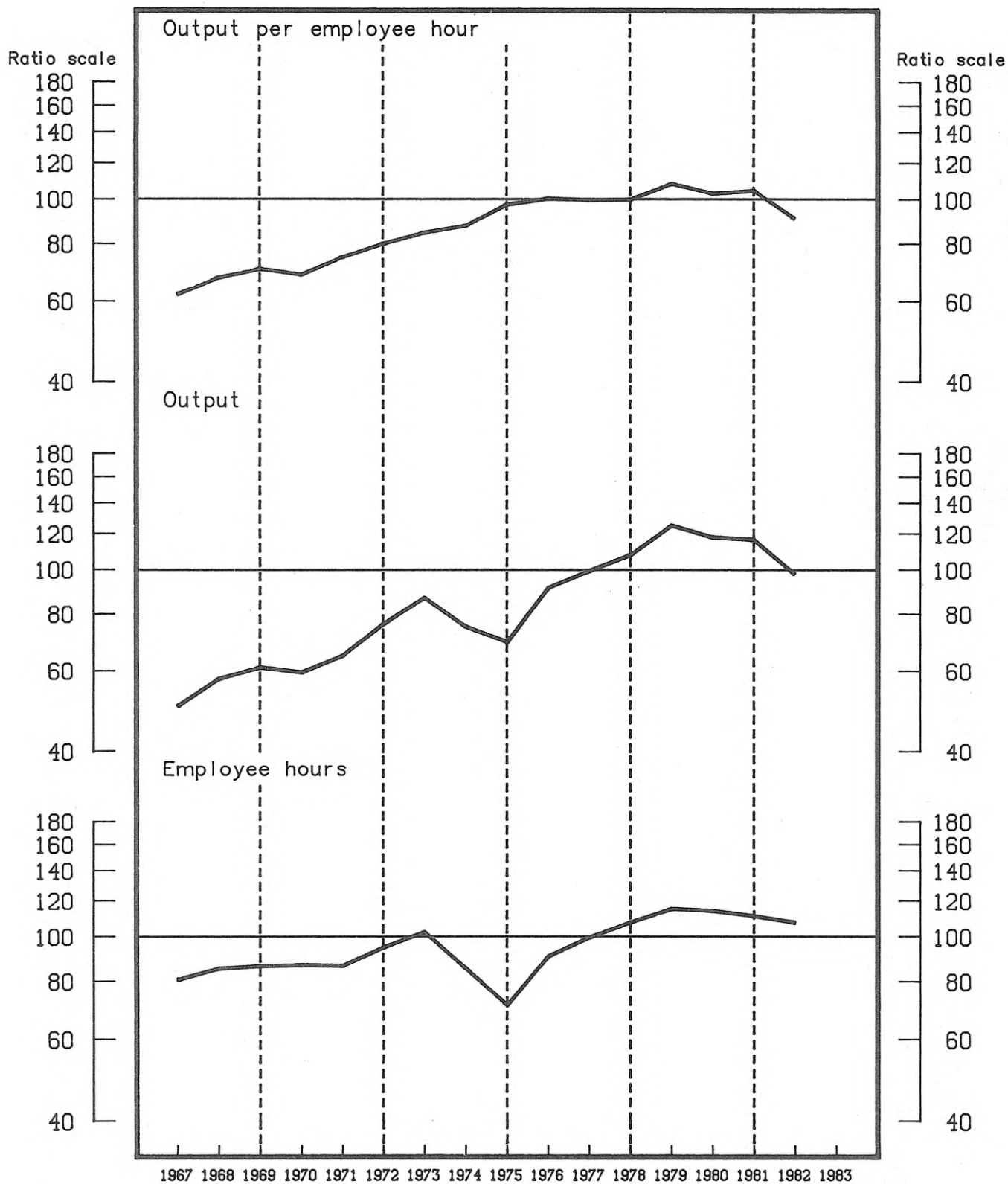
¹ Preliminary.

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 98. Household cooking equipment (SIC 3631): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 192. Household cooking equipment (SIC 3631): Indexes of output per employee hour and output per employee, 1958-82 (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	103.4	103.0	105.0	107.0	107.1	106.5
1981	104.9	102.3	114.1	108.8	106.9	115.2
1982 ²	91.2	93.7	84.1	93.5	96.8	84.8
Average annual percent change:						
1958-82	3.5	3.7	2.9	3.5	3.6	3.0
1977-82	-1.1	-.8	-1.9	-.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 Preliminary.

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

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

Table 193. Household cooking equipment (SIC 3631): Indexes of output, employee hours, and employees, 1958-82 (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	118.3	114.4	114.9	112.7	110.6	110.5	111.1
1981	117.0	111.5	114.4	102.5	107.5	109.4	101.6
1982 ¹	98.3	107.8	104.9	116.9	105.1	101.6	115.9
Average annual percent change:							
1958-82	5.3	1.7	1.5	2.3	1.7	1.6	2.2
1977-82 .....	.2	1.3	1.0	2.1	.4	-.1	1.9

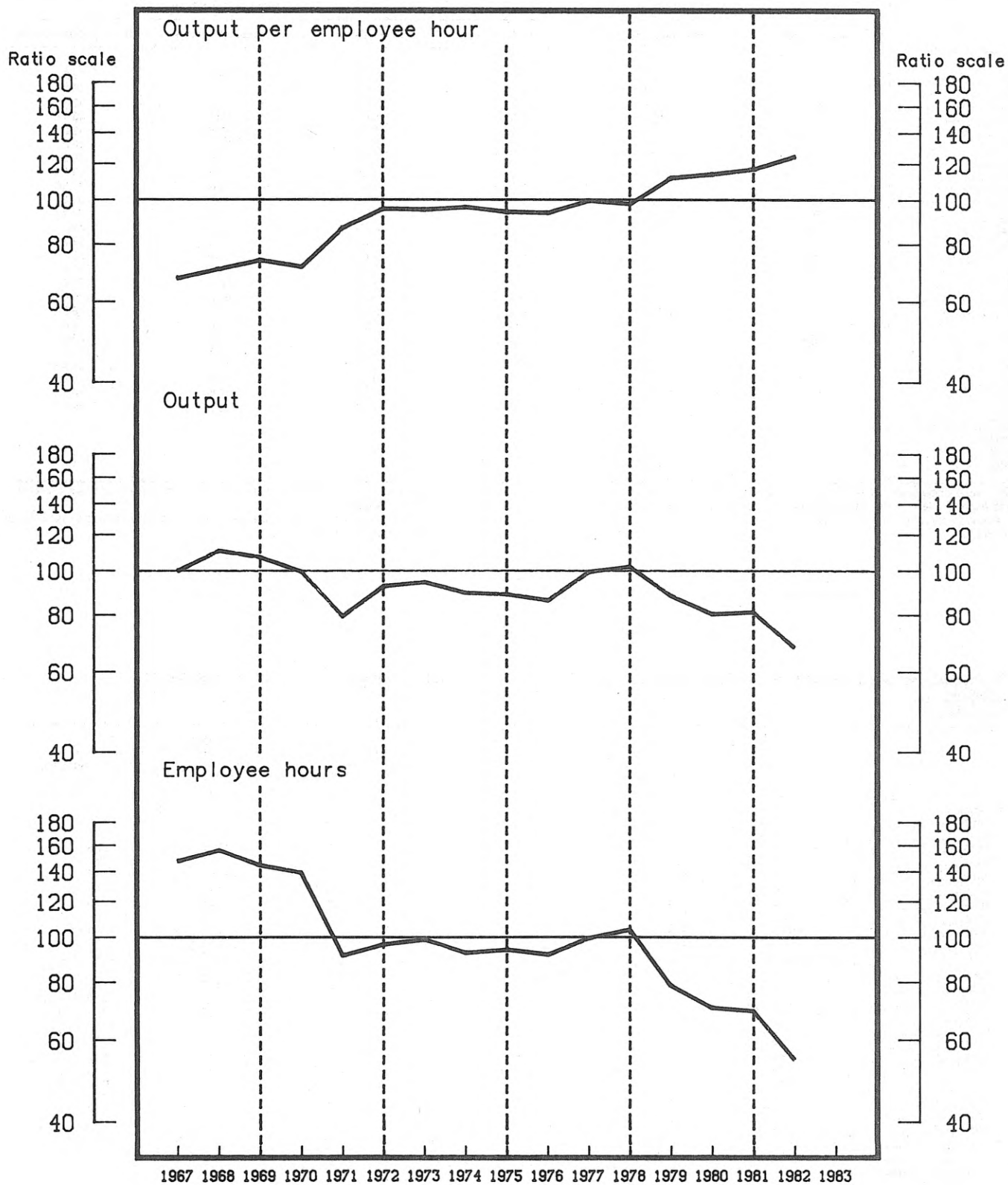
¹ Preliminary.

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

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

Chart 99. Household refrigerators and freezers (SIC 3632): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 194. Household refrigerators and freezers (SIC 3632): Indexes of output per employee hour and output per employee, 1958-82
(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	114.3	114.3	114.1	106.3	104.7	115.4
1981	117.2	117.2	116.7	107.8	106.2	116.6
1982 ²	124.9	130.3	102.9	113.3	115.6	102.4
Average annual percent change:						
1958-82	5.2	5.2	5.0	4.7	4.6	5.1
1977-82	4.8	5.6	1.4	2.7	3.0	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 195. Household refrigerators and freezers (SIC 3632): Indexes of output, employee hours, and employees, 1958-82
(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	80.8	70.7	70.7	70.8	76.0	77.2	70.0
1981	81.6	69.6	69.6	69.9	75.7	76.8	70.0
1982 ¹	68.3	54.7	52.4	66.4	60.3	59.1	66.7
Average annual percent change:							
1958-82	2.1	-2.9	-3.0	-2.8	-2.5	-2.4	-2.9
1977-82	-7.4	-11.7	-12.3	-8.7	-9.8	-10.1	-8.7

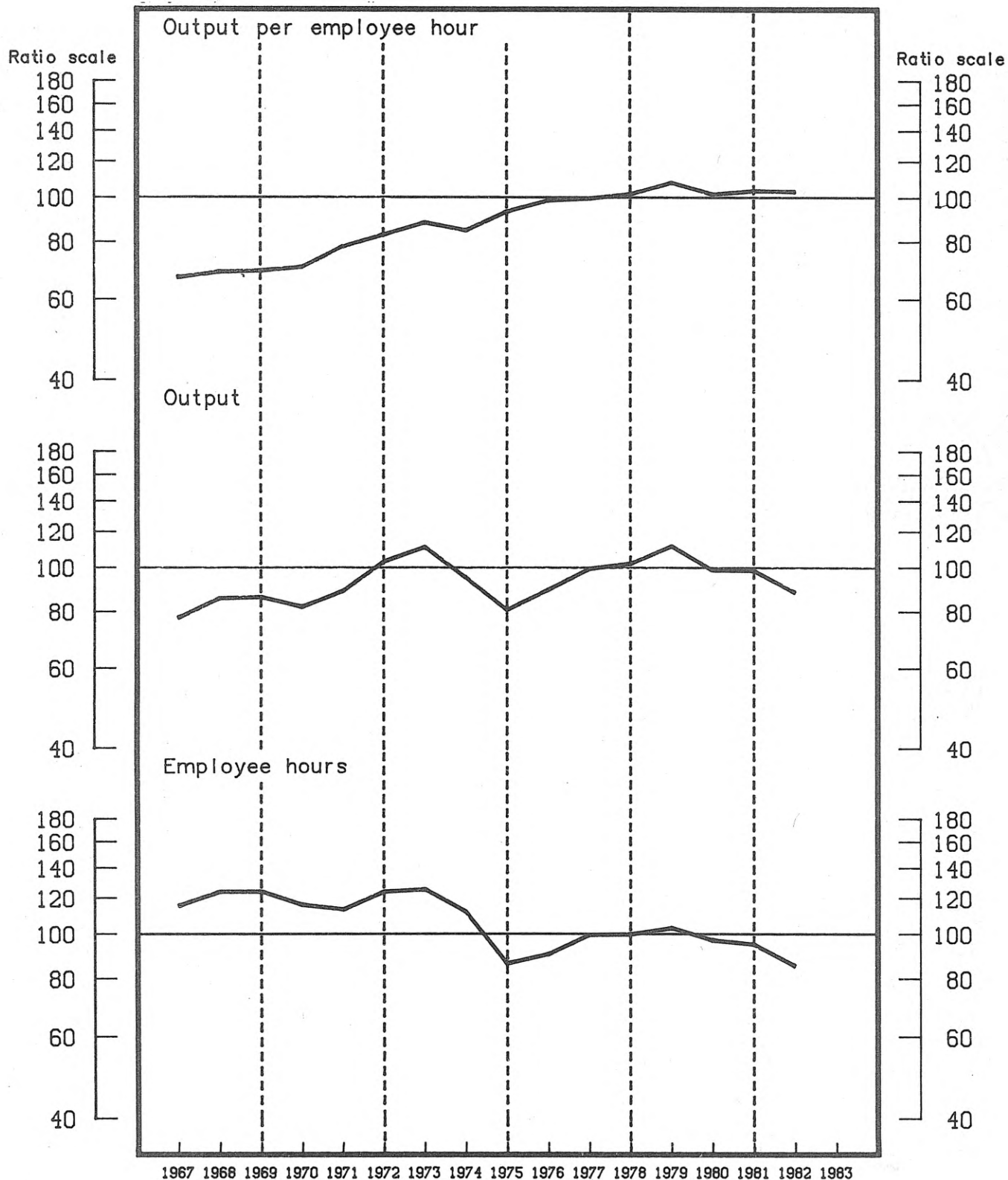
¹ Preliminary.

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

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

Chart 100. Household laundry equipment (SIC 3633): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 196. Household laundry equipment (SIC 3633): Indexes of output per employee hour and output per employee, 1958-82
(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	102.2	102.8	99.3	100.3	100.6	99.3
1981	104.0	103.7	105.5	101.7	101.0	105.1
1982 ²	103.5	108.6	86.0	100.6	104.4	86.1
Average annual percent change:						
1958-82	4.2	3.9	5.4	3.9	3.5	5.5
1977-82 .....	.5	1.2	-2.3	-.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 197. Household laundry equipment (SIC 3633): Indexes of output, employee hours, and employees, 1958-82
(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	99.3	97.2	96.6	100.0	99.0	98.7	100.0
1981	99.1	95.3	95.6	93.9	97.4	98.1	94.3
1982 ¹	88.6	85.6	81.6	103.0	88.1	84.9	102.9
Average annual percent change:							
1958-82	2.9	-1.3	-.9	-2.4	-1.0	-.5	-2.5
1977-82	-2.3	-2.8	-3.5	(²)	-2.2	-2.8	(²)

¹ Preliminary.

² Less than .05 percent.

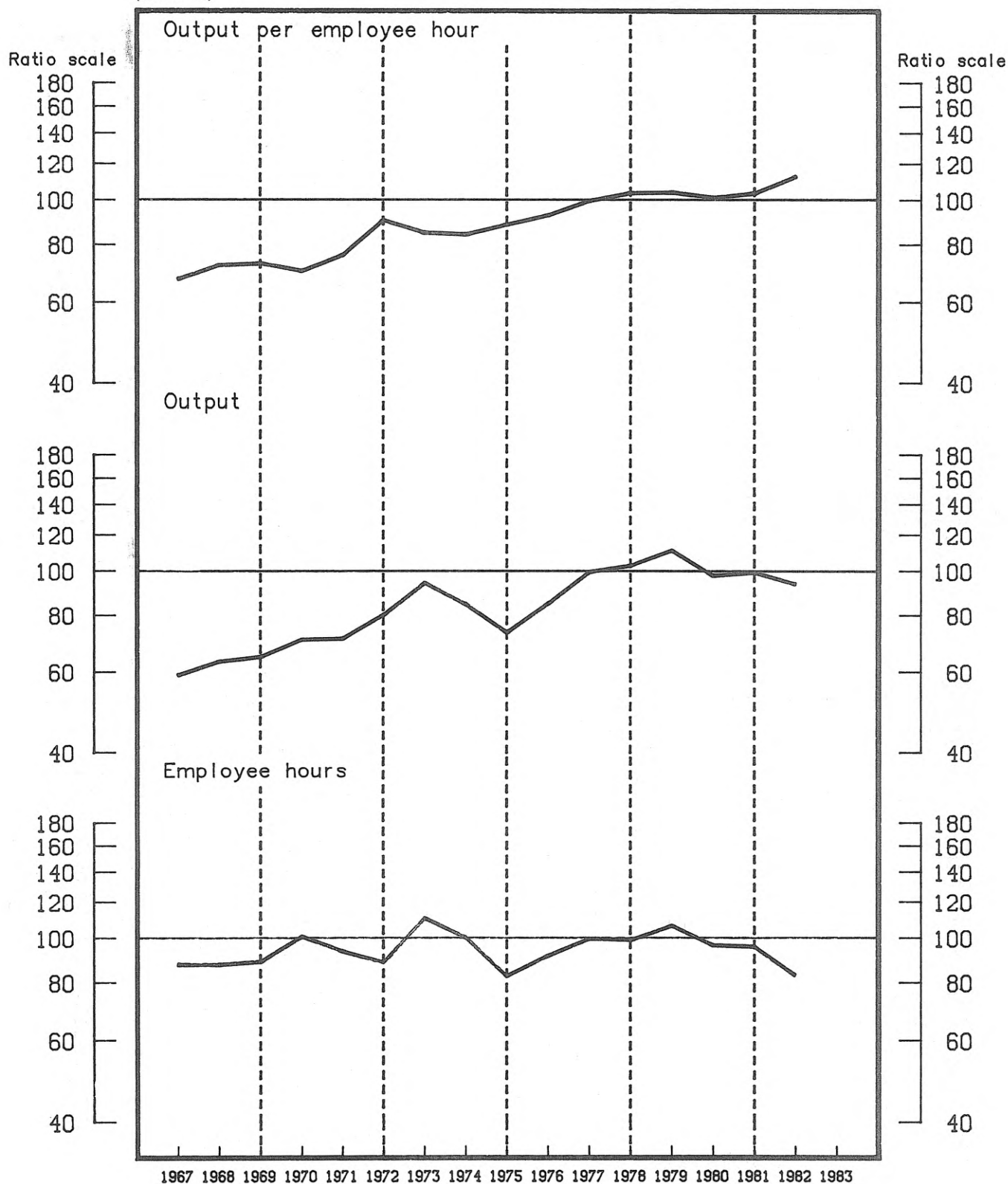
NOTE: Because of periodic revisions in source data, the measures in this table

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

(1977 = 100)



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

Table 198. Household appliances, not elsewhere classified (SIC 3639): Indexes of output per employee hour and output per employee, 1958-82
(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	101.6	104.0	91.5	98.2	99.8	91.9
1981	103.9	105.7	96.3	101.7	103.0	96.5
1982 ²	113.0	112.4	115.0	108.7	107.5	113.6
Average annual percent change:						
1958-82	3.5	3.0	5.3	3.3	2.7	5.4
1977-82	1.7	1.5	2.2	1.4	1.1	2.2

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

² Preliminary.

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

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

Table 199. Household appliances, not elsewhere classified (SIC 3639): Indexes of output, employee hours, and employees, 1958-82
(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	98.2	96.7	94.4	107.3	100.0	98.4	106.9
1981	99.8	96.1	94.4	103.6	98.1	96.9	103.4
1982 ¹	94.1	83.3	83.7	81.8	86.6	87.5	82.8
Average annual percent change:							
1958-82	4.2	.7	1.2	-1.0	.8	1.4	-1.1
1977-82	-1.5	-3.1	-3.0	-3.7	-2.8	-2.6	-3.6

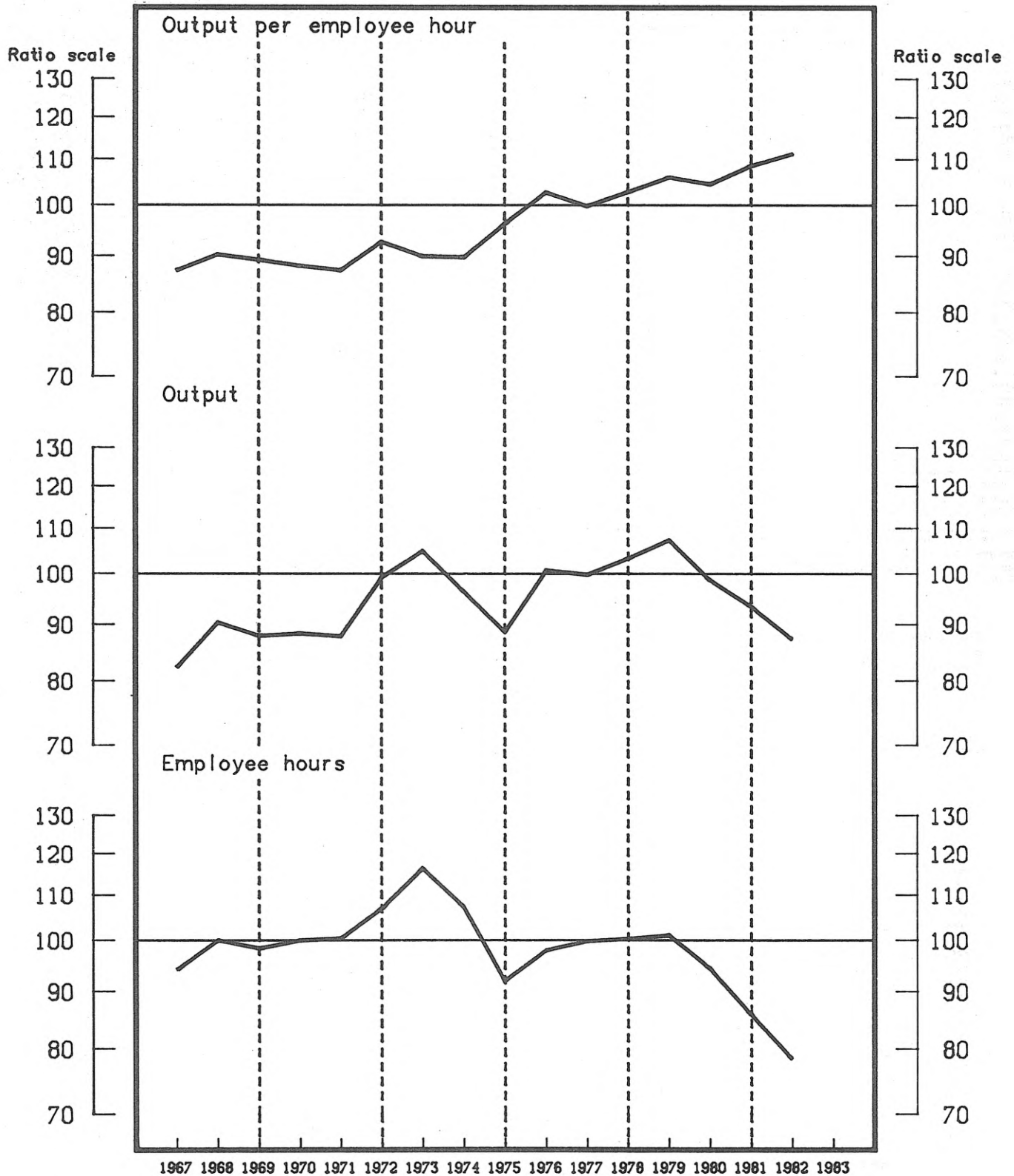
¹ Preliminary.

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

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

Chart 102. Electric lamps (SIC 3641): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 200. Electric lamps (SIC 3641): Indexes of output per employee hour and output per employee, 1954-82
(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	84.3
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	104.7	104.2	108.1	103.2	102.6	108.1
1981	108.8	109.1	107.3	108.6	108.7	107.3
1982 ²	111.5	111.5	111.2	109.9	109.8	111.2
Average annual percent change:						
1954-82	1.9	1.8	2.1	1.9	1.9	2.2
1977-82	2.0	2.1	1.5	1.6	1.6	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 201. Electric lamps (SIC 3641): Indexes of output, employee hours, and employees, 1954-82
(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	98.9	94.5	94.9	91.5	95.8	96.4	91.5
1981	93.6	86.0	85.8	87.2	86.2	86.1	87.2
1982 ¹	87.5	78.5	78.5	78.7	79.6	79.7	78.7
Average annual percent change:							
1954-82	3.2	1.3	1.4	1.1	1.3	1.3	1.0
1977-82	-3.0	-4.9	-4.9	-4.4	-4.5	-4.5	-4.4

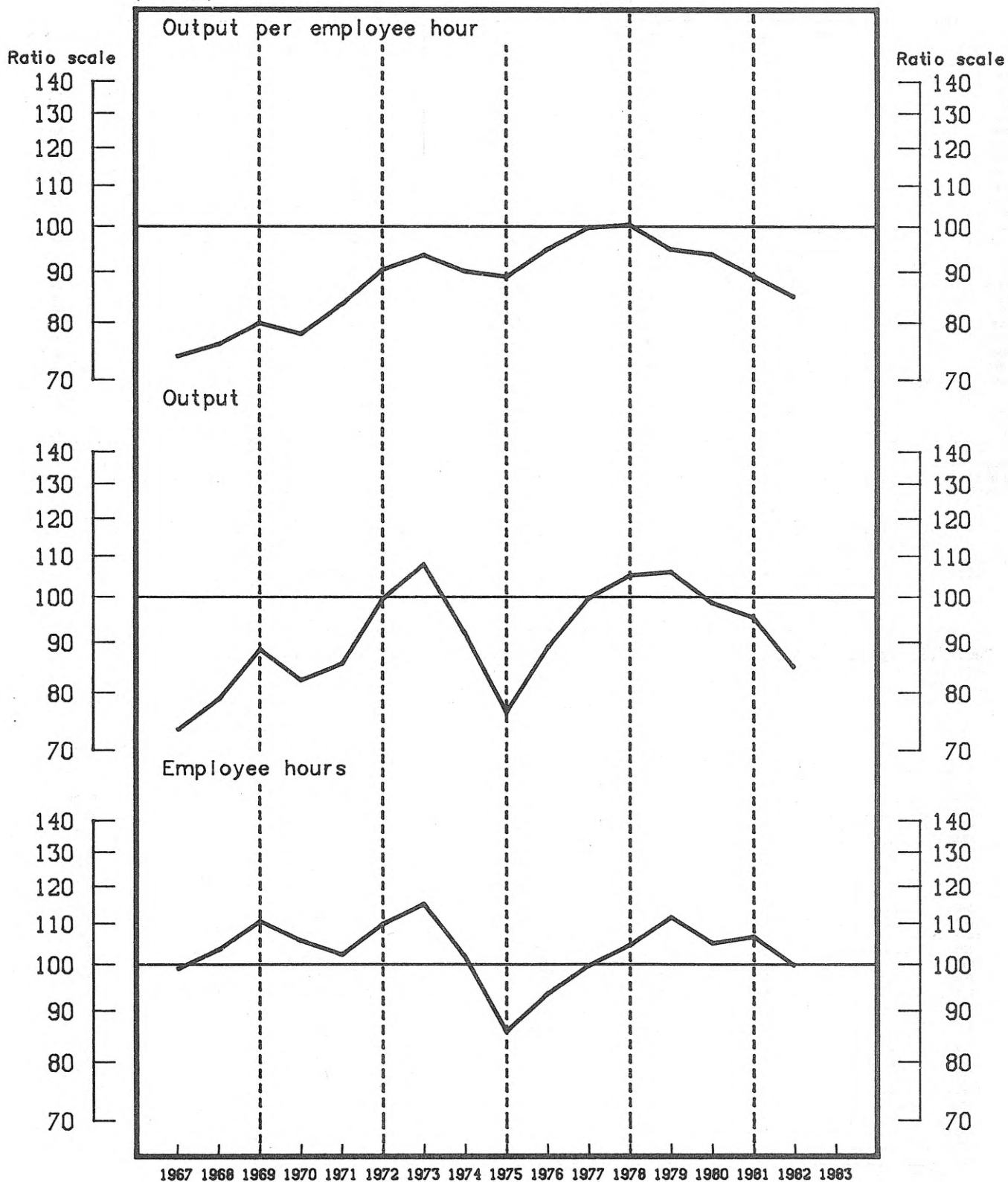
¹ Preliminary.

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

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

Chart 103. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 202. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Indexes of output per employee hour and output per employee, 1961-82
(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	100.6	99.4	104.0	100.4	99.2	104.2
1979	95.0	94.7	95.6	95.3	95.2	95.9
1980	93.9	95.7	88.7	93.8	95.6	89.3
1981	89.4	91.4	84.1	90.4	92.5	84.4
1982 ²	85.1	87.5	78.3	86.7	89.9	78.5
Average annual percent change:						
1961-82	2.0	2.4	.6	1.9	2.2	.7
1977-82	-3.3	-2.6	-5.4	-2.9	-2.1	-5.3

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

² Preliminary.

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

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

Table 203. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Indexes of output, employee hours, and employees, 1961-82
(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	104.8	106.0	101.3	105.0	106.2	101.2
1979	106.2	111.8	112.1	111.1	111.4	111.6	110.7
1980	98.8	105.2	103.2	111.4	105.3	103.4	110.7
1981	95.5	106.8	104.5	113.6	105.7	103.2	113.1
1982 ¹	85.0	99.9	97.1	108.5	98.0	94.6	108.3
Average annual percent change:							
1961-82	3.1	1.1	.7	2.5	1.2	.8	2.4
1977-82	-3.3	(²)	-.8	2.2	-.4	-1.2	2.1

¹ Preliminary.

² Less than .05 percent.

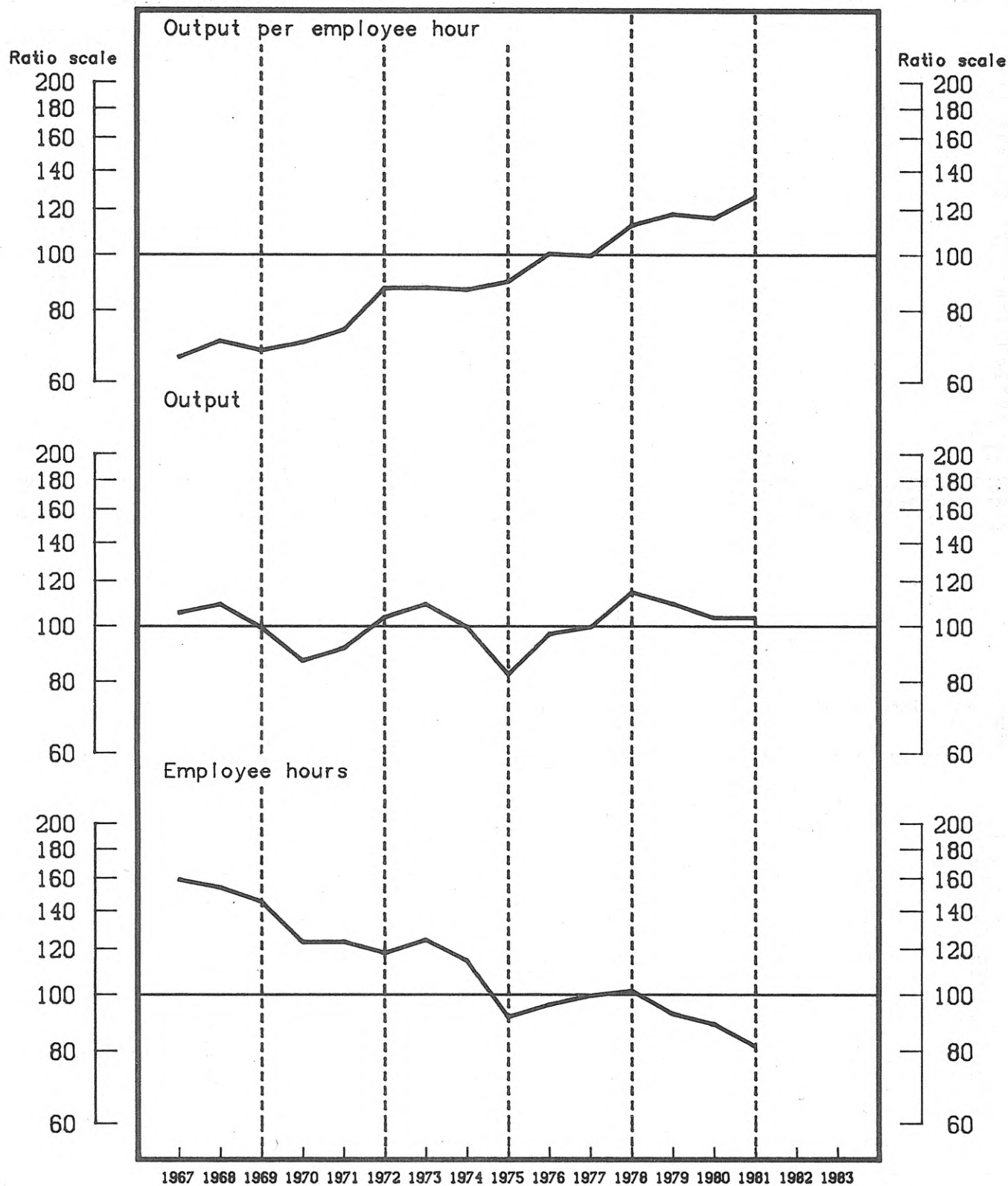
NOTE: Because of periodic revisions in source data, the measures in this table

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 104. Radio and television receiving sets (SIC 3651): Output per hour and related data, 1967-81

(1977 = 100)



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

Table 204. Radio and television receiving sets (SIC 3651): 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	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	116.7	102.1	112.1	115.4	102.0
1979	118.2	121.7	107.8	119.7	123.8	107.9
1980	116.4	121.7	101.3	119.2	125.4	102.0
1981 ²	126.9	133.1	110.0	127.8	134.1	110.3
Average annual percent change:						
1958-81	4.8	5.2	3.2	4.6	5.0	3.3
1977-81	5.2	6.3	1.8	5.7	6.9	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, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 205. Radio and television receiving sets (SIC 3651): 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	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	98.7	112.8	102.8	99.8	112.9
1979	109.8	92.9	90.2	101.9	91.7	88.7	101.8
1980	103.8	89.2	85.3	102.5	87.1	82.8	101.8
1981 ¹	103.8	81.8	78.0	94.4	81.2	77.4	94.1
Average annual percent change:							
1958-81	3.8	-9	-1.3	.6	-8	-1.1	.5
1977-81	-3	-5.2	-6.2	-2.1	-5.7	-6.8	-2.2

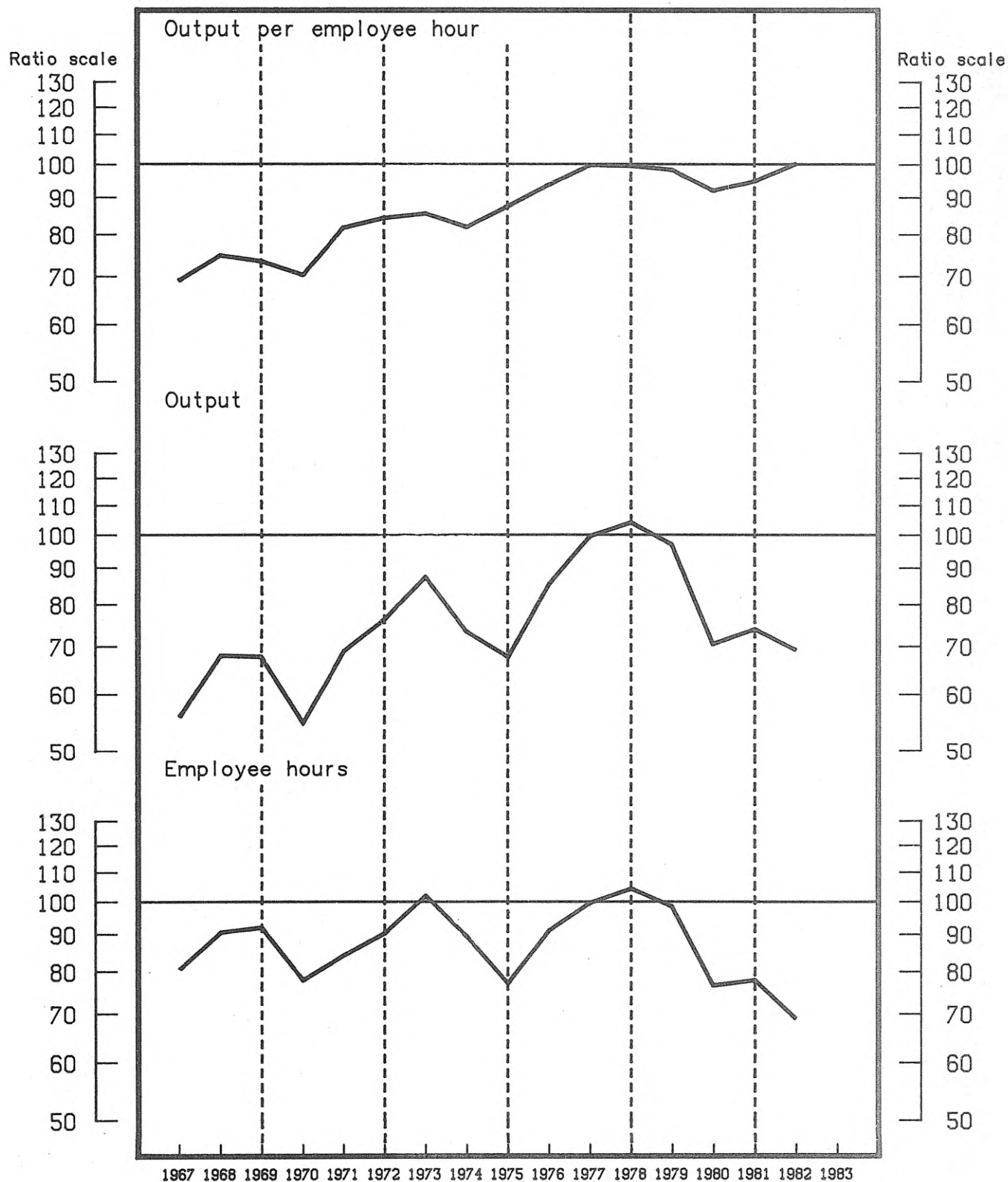
¹ Preliminary.

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

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

Chart 105. Motor vehicles and equipment (SIC 371): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 206. Motor vehicles and equipment (SIC 371): Indexes of output per employee hour and output per employee, 1957-82
(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	92.2	99.4	73.7	85.0	90.4	70.5
1981	95.0	100.1	80.7	89.1	93.0	77.9
1982 ²	100.4	107.4	82.2	93.3	98.9	78.1
Average annual percent change:						
1957-82	3.1	3.2	2.7	3.1	3.2	2.8
1977-82	-5	1.0	-5.2	-2.1	-7	-6.2

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

² Preliminary.

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

SOURCE: Output based on data from 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 207. Motor vehicles and equipment (SIC 371): Indexes of output, employee hours, and employees, 1957-82
(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	70.8	76.8	71.2	96.1	83.3	78.3	100.4
1981	74.2	78.1	74.1	92.0	83.3	79.8	95.3
1982 ¹	69.4	69.1	64.6	84.4	74.4	70.2	88.9
Average annual percent change:							
1957-82	4.1	1.0	.9	1.4	1.0	.9	1.3
1977-82	-8.7	-8.2	-9.6	-3.7	-6.7	-8.0	-2.6

¹ Preliminary.

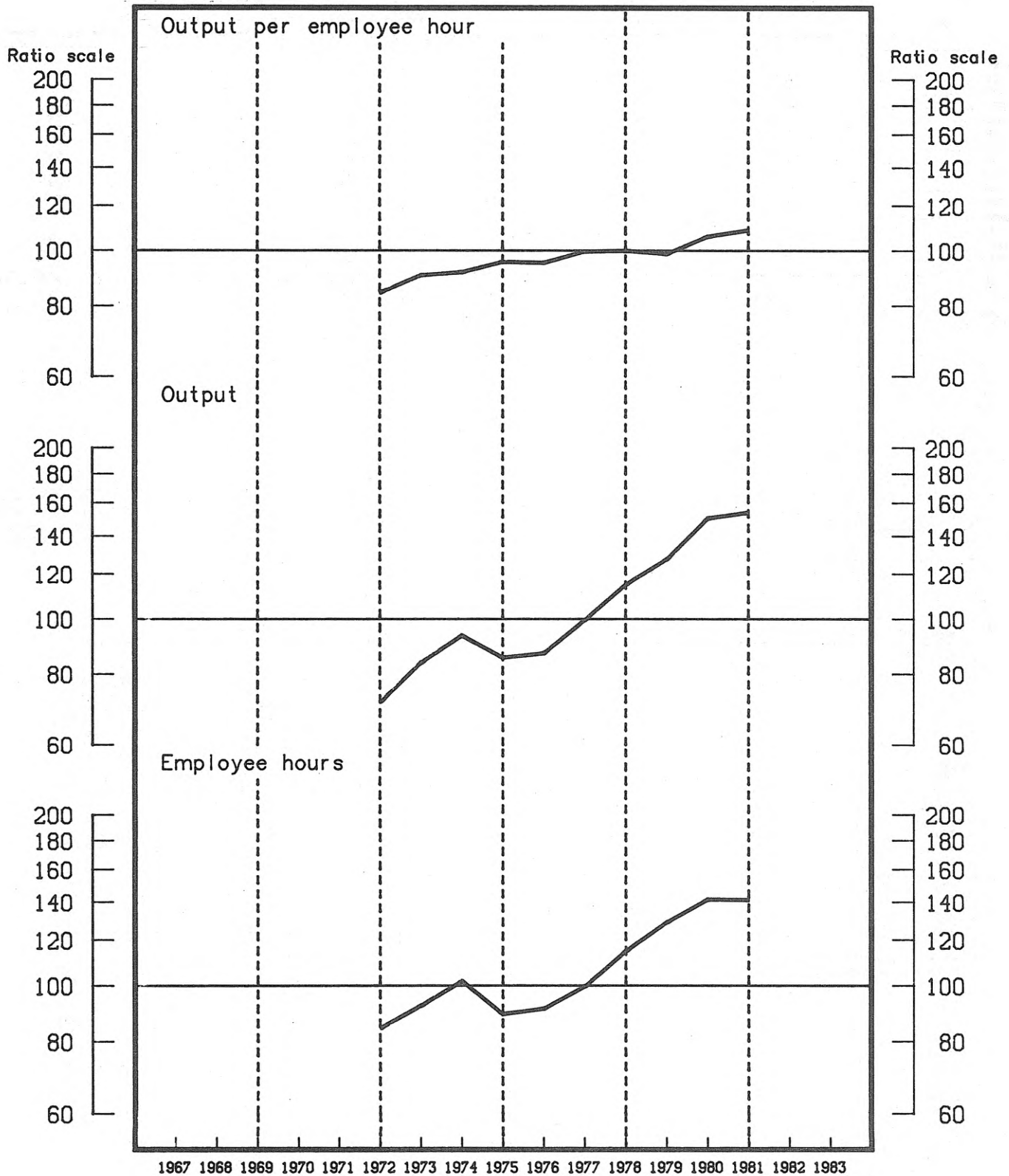
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output 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 106. Instruments to measure electricity (SIC 3825): Output per hour and related data, 1972-81

(1977 = 100)



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

Table 208. Instruments to measure electricity (SIC 3825): Indexes of output per employee hour and output per employee, 1972-81 (1977 = 100)

Year	Output per hour ¹			Output per employee ¹		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	84.7	81.8	90.0	87.1	83.8	93.1
1973	90.8	85.4	101.4	93.0	87.4	103.2
1974	92.0	87.1	101.2	92.1	87.1	101.0
1975	95.9	95.4	96.6	93.8	92.1	96.6
1976	95.5	94.7	97.0	95.1	93.7	97.4
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.3	102.0	97.3	100.3	102.3	97.2
1979	99.0	103.9	92.0	100.6	106.8	92.3
1980	106.3	117.4	92.1	105.8	116.4	92.8
1981 ²	109.1	125.2	90.1	108.4	124.4	90.5
Average annual percent change:						
1972-81	2.4	4.5	-7	2.2	4.3	-8
1977-81	2.4	6.1	-2.6	2.2	5.8	-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 209. Instruments to measure electricity (SIC 3825): Indexes of output, employee hours, and employees, 1972-81 (1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	71.7	84.7	87.7	79.7	82.3	85.6	77.0
1973	84.2	92.7	98.6	83.0	90.5	96.3	81.6
1974	94.0	102.2	107.9	92.9	102.1	107.9	93.1
1975	85.9	89.6	90.0	88.9	91.6	93.3	88.9
1976	87.4	91.5	92.3	90.1	91.9	93.3	89.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	115.5	115.2	113.2	118.7	115.2	112.9	118.8
1979	128.0	129.3	123.2	139.2	127.2	119.8	138.7
1980	151.0	142.0	128.6	163.9	142.7	129.7	162.8
1981 ¹	154.6	141.7	123.5	171.5	142.6	124.3	170.9
Average annual percent change:							
1972-81	8.6	6.0	3.9	9.3	6.3	4.1	9.5
1977-81	12.1	9.5	5.7	15.0	9.7	5.9	14.9

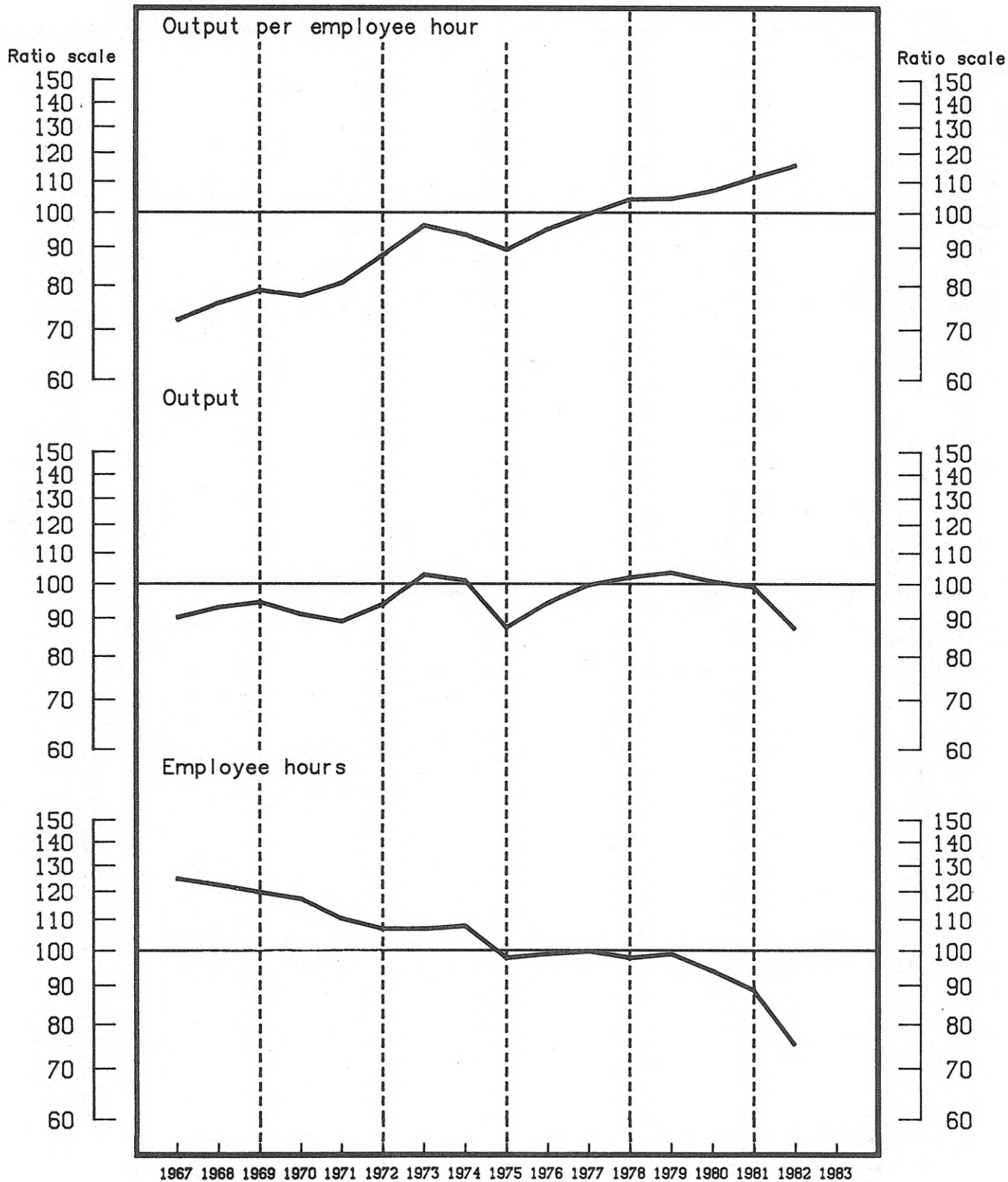
¹ Preliminary.

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 107. Railroad transportation, revenue traffic (SIC 401): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 210. Railroad transportation, revenue traffic (SIC 401)¹: Indexes of output per employee hour and output per employee, 1954-82
(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	107.3	108.4	101.4	105.5	106.2	101.0
1981	111.7	113.5	101.6	109.0	110.1	102.2
1982 ³	115.9	119.4	97.0	110.2	112.6	96.4
Average annual percent change:						
1947-82	4.5	4.7	2.6	4.0	4.3	2.0
1977-82	2.8	3.4	-7	1.8	2.2	-7

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; the Federal Railroad Administration, U.S. Department of Transportation; and the National Railroad Passenger Corporation. Employment and hours based on data from the Interstate Commerce Commission.

Table 211. Railroad transportation, revenue traffic (SIC 401)¹: Indexes of output, employee hours, and employees, 1954-82
(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	101.1	94.2	93.3	99.7	95.8	95.2	100.1
1981	99.3	88.9	87.5	97.7	91.1	90.2	97.2
1982 ²	87.3	75.3	73.1	90.0	79.2	77.5	90.6
Average annual percent change:							
1947-82 .....	.5	-3.8	-4.0	-2.0	-3.4	-3.6	-1.5
1977-82	-2.3	-4.9	-5.4	-1.6	-4.0	-4.3	-1.5

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

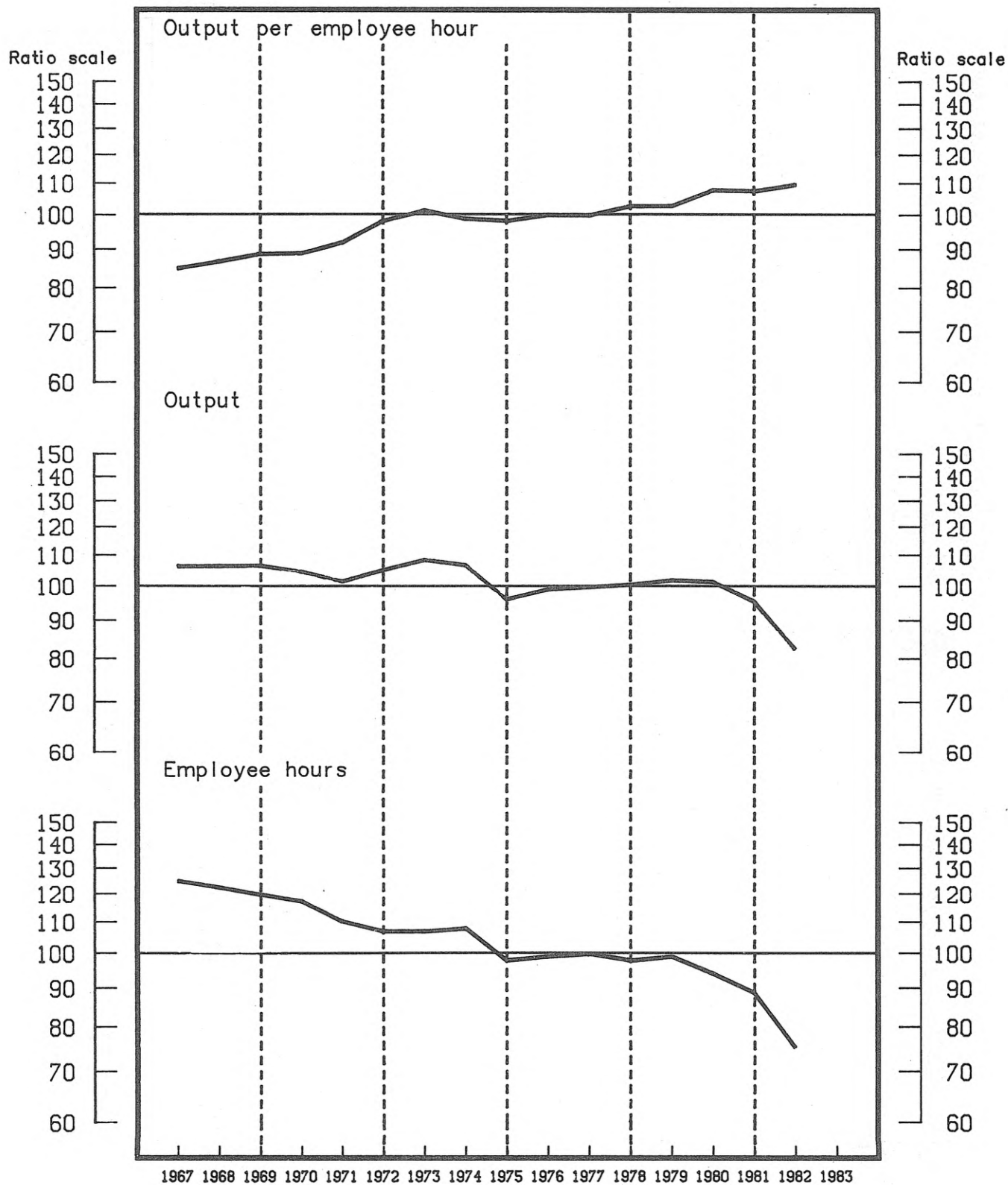
² Preliminary.

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; the Federal Railroad Administration, U.S. Department of Transportation; and the National Railroad Passenger Corporation. Employment and hours based on data from the Interstate Commerce Commission.

Chart 108. Railroad transportation, car miles (SIC 401): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 212. Railroad transportation, car miles (SIC 401)¹: Indexes of output per employee hour and output per employee, 1954-82
(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	107.9	108.9	101.9	106.1	106.7	101.5
1981	107.6	109.4	98.0	105.0	106.1	98.5
1982 ³	109.7	113.0	91.8	104.3	106.6	91.2
Average annual percent change:						
1947-82	3.4	3.6	1.4	2.9	3.1	.9
1977-82	1.9	2.5	-1.5	.9	1.3	-1.6

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 213. Railroad transportation, car miles (SIC 401)¹: Indexes of output, employee hours, and employees, 1954-82
(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	101.6	94.2	93.3	99.7	95.8	95.2	100.1
1981	95.7	88.9	87.5	97.7	91.1	90.2	97.2
1982 ²	82.6	75.3	73.1	90.0	79.2	77.5	90.6
Average annual percent change:							
1947-82	-6	-3.8	-4.0	-2.0	-3.4	-3.6	-1.5
1977-82	-3.1	-4.9	-5.4	-1.6	-4.0	-4.3	-1.5

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

² Preliminary.

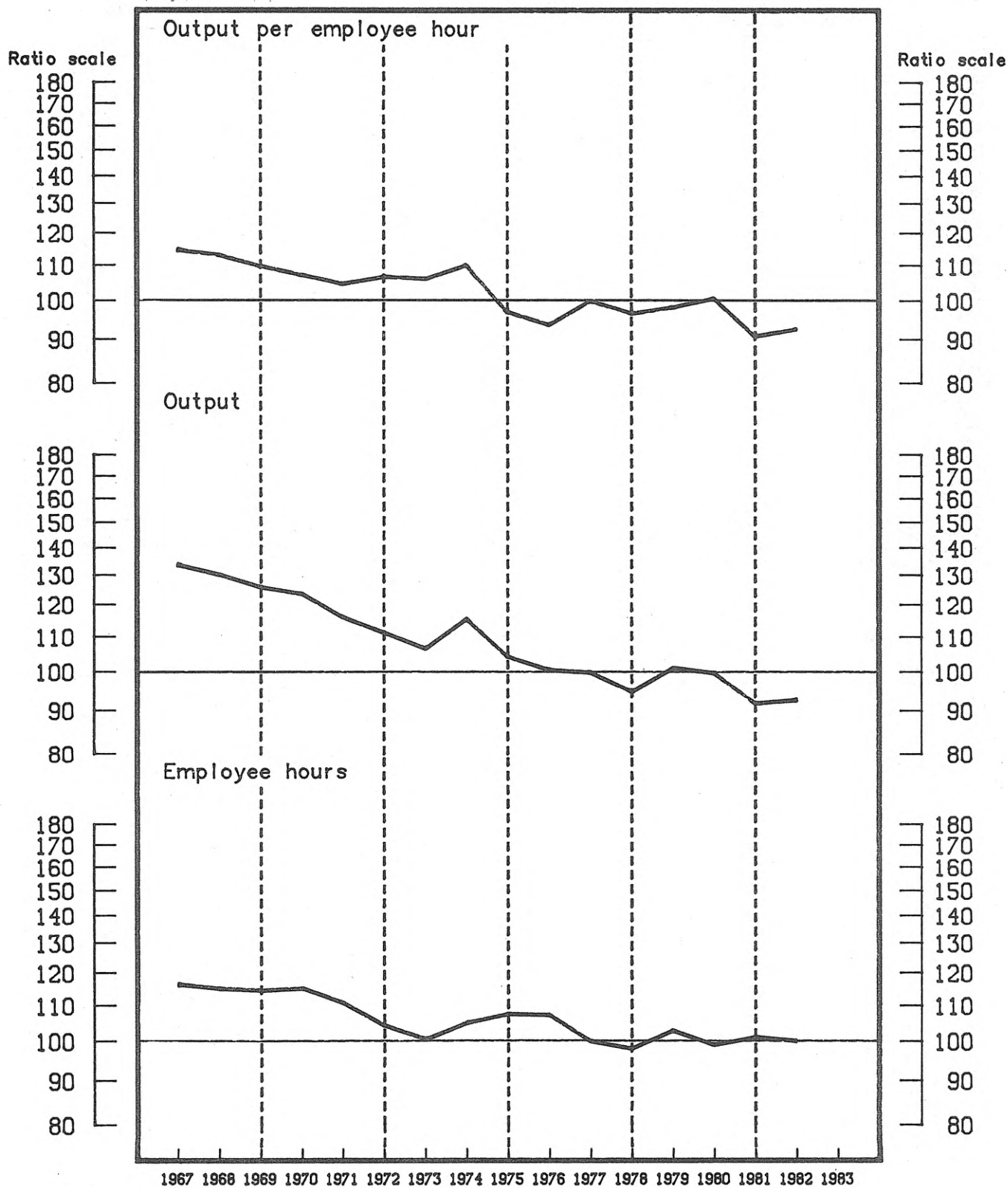
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

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

Chart 109. Bus carriers, class I (parts of SIC 4111, 4131, 414): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 214. Bus carriers, Class 1 (Parts of SIC 4111, 4131, 414): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1954-82
(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	104.8	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	96.7	94.9	94.9	98.1	100.0
1979	98.3	98.6	101.3	103.0	102.7
1980	100.8	94.1	99.9	99.1	106.2
1981	90.9	86.4	92.0	101.2	106.5
1982 ¹	92.7	87.8	92.9	100.2	105.8
Average annual percent change:					
1954-82 .....	.1	-.3	-.3	-.4	(²)
1977-82	-1.5	-2.8	-1.3	.2	1.5

¹ Preliminary.

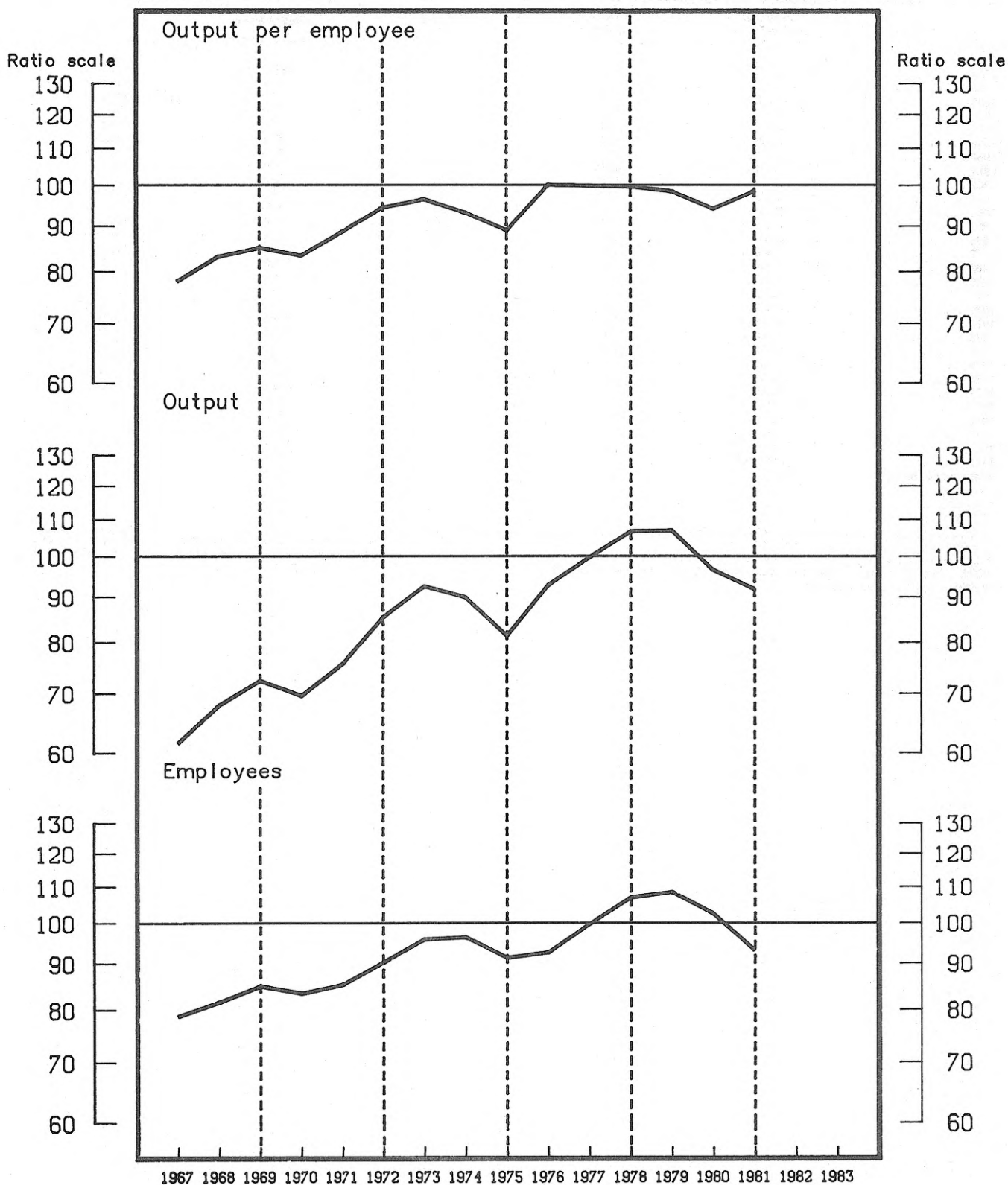
² Less than .05 percent.

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

SOURCE: Output, employment, and hours based on data from the Interstate Commerce Commission, the American Bus Association, and the Bureau of Labor Statistics.

Chart 110. Intercity trucking (SIC 4213 part): Output per employee and related data, 1967-81

(1977 = 100)



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

Table 215. Intercity trucking (SIC 4213 part)¹: Indexes of output per employee, output, and employees, 1954-81
(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	98.6	107.2	108.7
1980	94.3	96.8	102.7
1981 ²	98.7	92.1	93.3
Average annual percent change:			
1954-81	2.2	5.1	2.8
1976-81	-.8	-.4	.3

¹ Class I and II common and contract carriers.

² Preliminary.

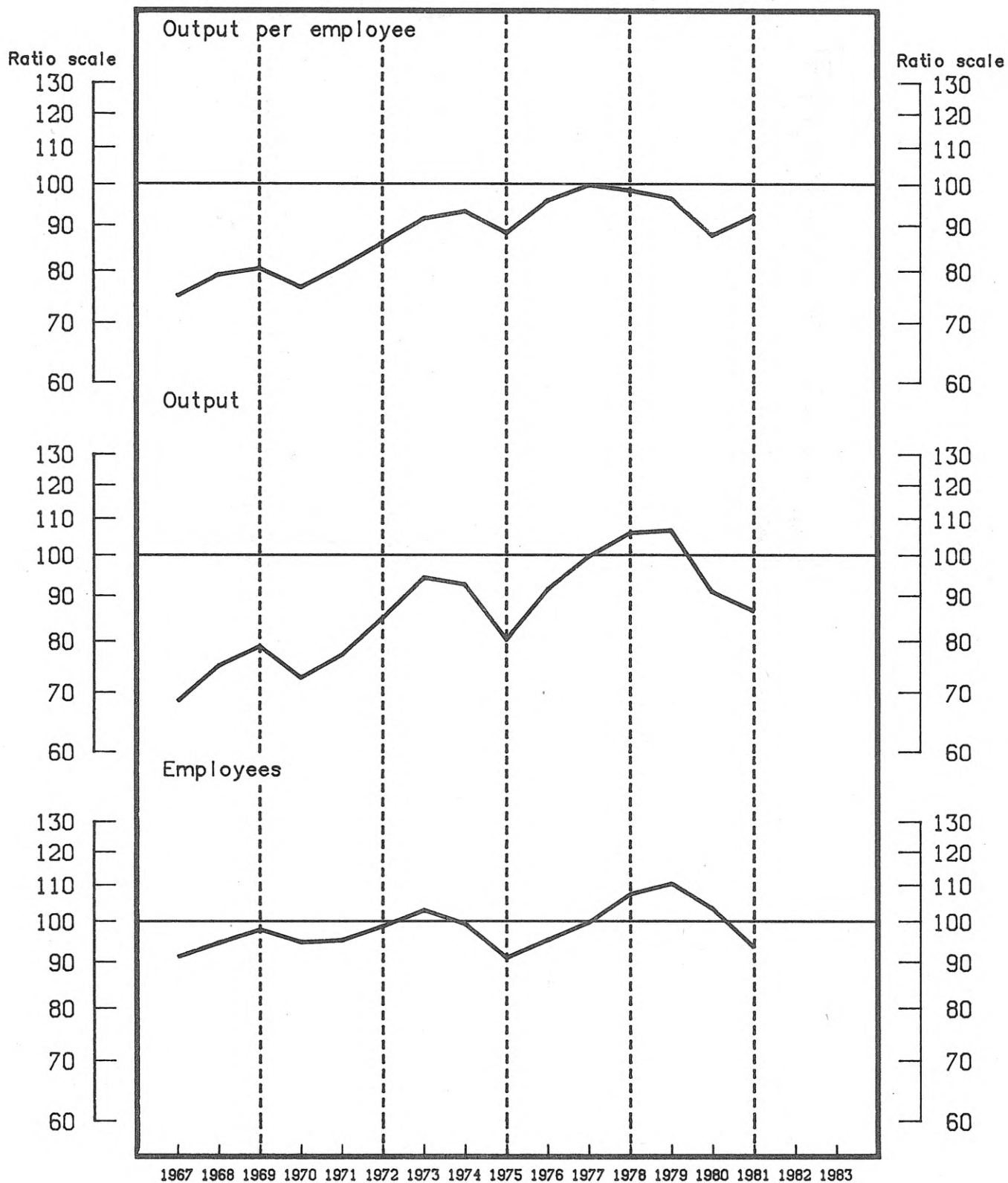
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those

previously published.

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

Chart 111. Intercity trucking, general freight (SIC 4213 part): Output per employee and related data, 1967-81

(1977 = 100)



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

Table 216. Intercity trucking, general freight (SIC 4213 part)¹: Indexes of output per employee, output, and employees, 1954-81
(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	96.6	106.9	110.7
1980	87.9	91.1	103.6
1981 ²	92.5	86.7	93.7
Average annual percent change:			
1954-81	2.0	4.0	1.9
1976-81	-1.7	-1.6	.1

¹ Class I and II common carriers of general freight.

² Preliminary.

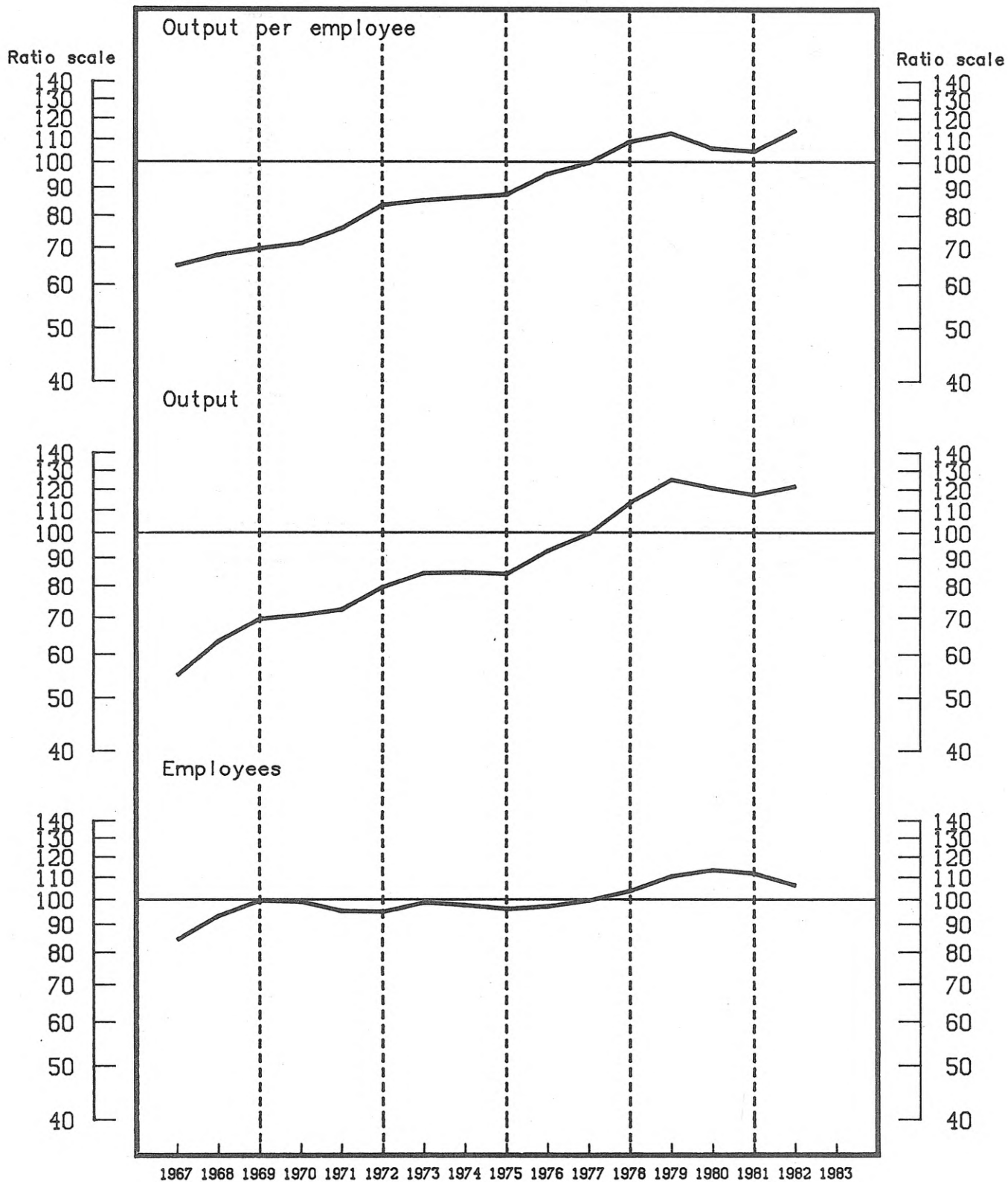
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those

previously published.

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

Chart 112. Air transportation (SIC 4511, 4521 part): Output per employee and related data, 1967-82

(1977 = 100)



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

Table 217. Air transportation (SIC 4511, 4521 part)¹: Indexes of output per employee, output, and employees, 1954-82
(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	106.2	121.0	113.9
1981	104.9	117.7	112.2
1982 ²	114.4	122.0	106.6
Average annual percent change:			
1947-82	6.5	11.4	4.5
1977-82	1.4	3.1	1.6

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

² Preliminary.

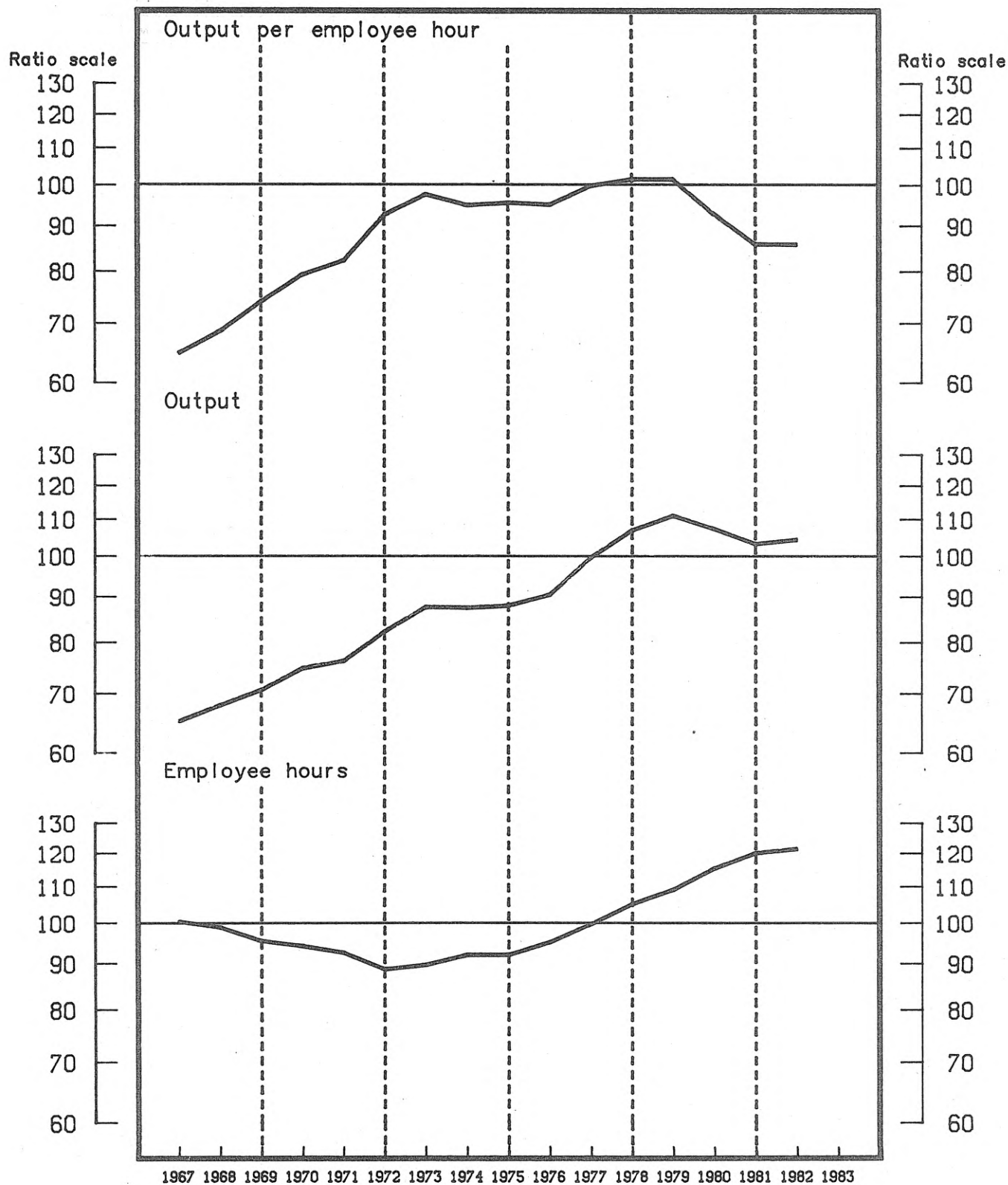
NOTE: Because of periodic revisions in source data,

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

SOURCE: Based on data from the Civil Aeronautics Board.

Chart 113. Petroleum pipelines (SIC 4612, 4613): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 218. Petroleum pipelines (SIC 4612, 4613): Indexes of output per employee hour and output per employee, 1958-82
(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	101.7	103.2	101.2	102.7
1979	101.7	105.1	102.5	105.9
1980	93.0	95.8	93.5	96.2
1981	86.0	90.1	87.9	92.0
1982 ³	85.9	91.8	87.5	93.6
Average annual percent change:				
1958-82	5.7	6.7	5.9	6.9
1977-82	-3.8	-2.6	-3.3	-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 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 Petroleum Institute and the Interstate Commerce Commission. Employment and hours based on data from the Bureau of Labor Statistics and the Interstate Commerce Commission.

Table 219. Petroleum pipelines (SIC 4612, 4613): Indexes of output, employee hours, and employees, 1958-82
(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	107.2	105.4	103.9	105.9	104.4
1979	111.3	109.4	105.9	108.6	105.1
1980	107.6	115.7	112.3	115.1	111.8
1981	103.5	120.4	114.9	117.8	112.5
1982 ²	104.6	121.7	113.9	119.5	111.8
Average annual percent change:					
1958-82	5.2	-5	-1.4	-6	-1.6
1977-82 .....	.2	4.2	2.9	3.7	2.4

¹ Represents nonsupervisory workers.

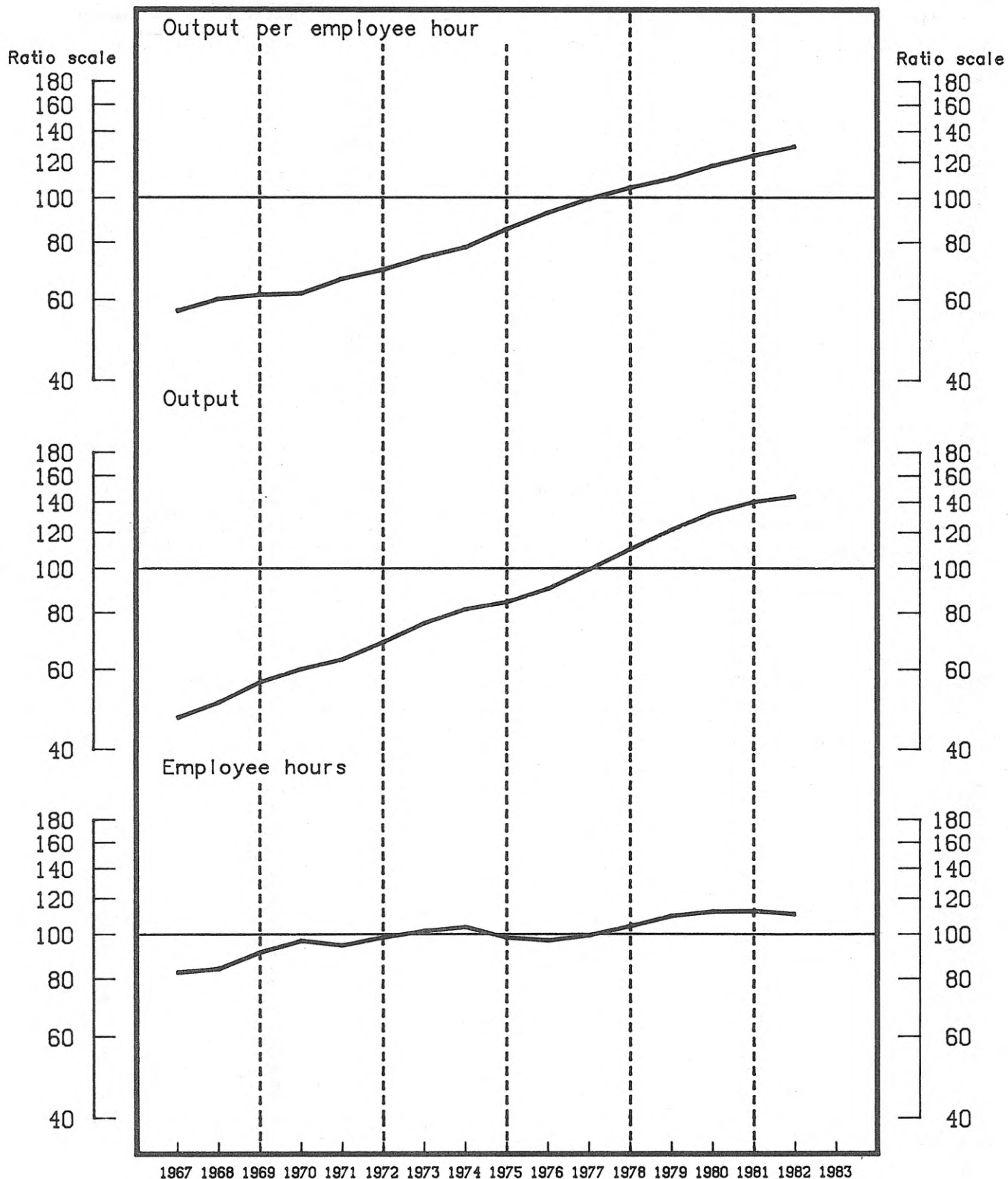
² Preliminary.

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

Chart 114. Telephone communications (SIC 4811): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 220. Telephone communications (SIC 4811): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1954-82
(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	110.8	111.6	122.2	110.3	109.5
1980	118.1	118.9	133.2	112.8	112.0
1981	124.4	125.1	140.7	113.1	112.5
1982 ¹	130.1	129.7	144.8	111.3	111.6
Average annual percent change:					
1951-82	6.2	6.3	8.1	1.8	1.7
1977-82	5.5	5.4	7.9	2.3	2.3

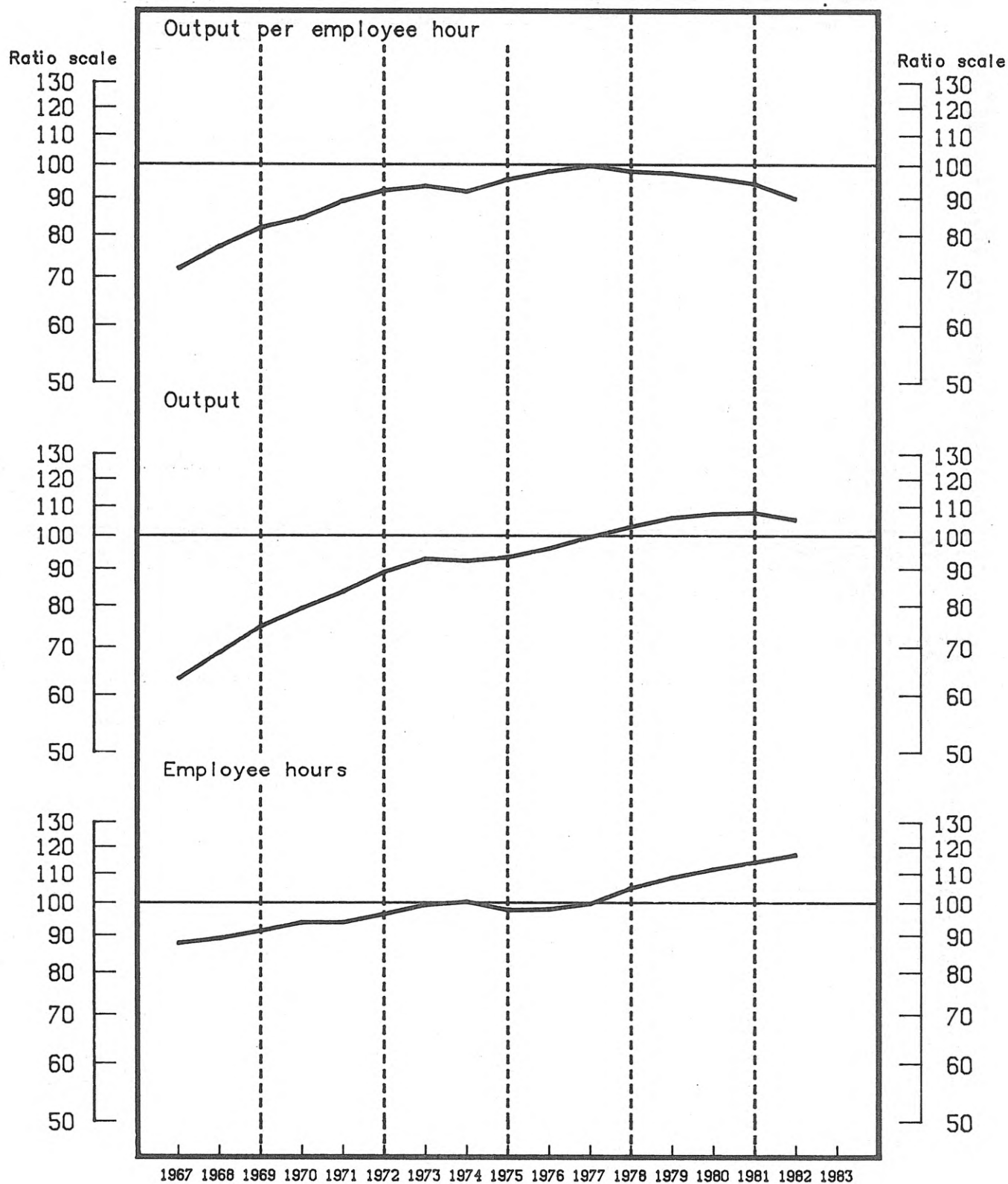
¹ Preliminary.

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

SOURCE: Output based on data from the Federal Communications Commission, the American Telephone and Telegraph Company, and the GTE Corporation. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 115. Gas and electric utilities (SIC 491, 492, 493): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 221. Gas and electric utilities (SIC 491, 492, 493): Indexes of output per employee hour and output per employee, 1954-82
(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	99.3	99.4	100.5
1979	97.6	98.7	98.8	99.9
1980	96.2	97.3	97.5	98.5
1981	94.4	95.5	94.9	95.9
1982 ³	90.0	91.9	90.5	92.4
Average annual percent change:				
1947-82	5.2	5.7	5.2	5.7
1977-82	-1.9	-1.6	-1.8	-1.6

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

² 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 222. Gas and electric utilities (SIC 491, 492, 493): Indexes of output, employee hours, and employees, 1954-82
(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	104.1	104.0	102.9
1979	106.4	109.0	107.8	107.7	106.5
1980	107.8	112.0	110.8	110.6	109.4
1981	108.2	114.6	113.3	114.0	112.8
1982 ²	105.7	117.4	115.0	116.8	114.4
Average annual percent change:					
1947-82	6.4	1.1	.7	1.1	.7
1977-82	1.2	3.1	2.8	3.1	2.8

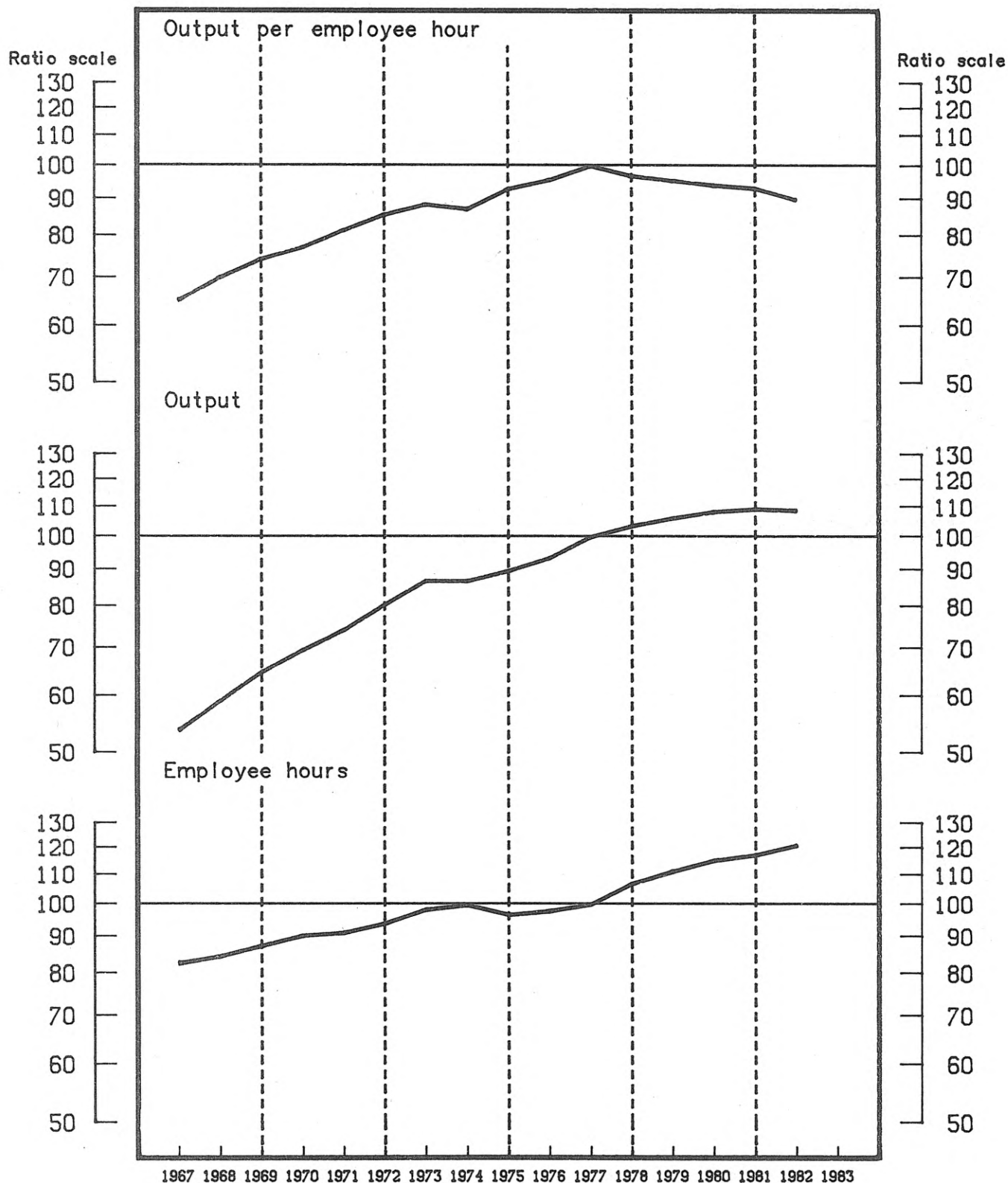
¹ Represents nonsupervisory workers.

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 116. Electric utilities (SIC 491, 493 part): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 223. Electric utilities (SIC 491, 493 part): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-82
(1977 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	34.7	34.4	27.4	78.9	79.7
1959	38.7	38.4	30.3	78.3	78.9
1960	41.3	41.0	32.4	78.5	79.0
1961	44.1	43.6	34.2	77.6	78.4
1962	47.6	47.3	36.8	77.3	77.8
1963	51.0	50.8	39.5	77.4	77.7
1964	54.9	54.7	42.8	77.9	78.3
1965	57.9	58.1	46.1	79.6	79.4
1966	62.5	62.8	50.4	80.7	80.2
1967	65.1	65.4	53.8	82.6	82.3
1968	70.1	70.4	59.2	84.5	84.1
1969	74.3	75.0	64.9	87.4	86.5
1970	77.1	77.6	69.7	90.4	89.8
1971	81.4	81.7	74.2	91.2	90.8
1972	85.6	86.3	80.5	94.0	93.3
1973	88.4	90.1	86.9	98.3	96.5
1974	87.1	87.9	86.8	99.7	98.8
1975	92.9	92.1	89.7	96.6	97.4
1976	95.6	95.4	93.5	97.8	98.0
1977	100.0	100.0	100.0	100.0	100.0
1978	96.8	98.6	103.6	107.0	105.1
1979	95.4	97.0	106.2	111.3	109.5
1980	94.0	95.6	108.4	115.3	113.4
1981	93.1	93.6	109.3	117.4	116.8
1982 ¹	89.8	90.4	108.8	121.1	120.3
Average annual percent change:					
1958-82	4.3	4.4	6.4	1.9	1.9
1977-82	-1.9	-1.9	1.7	3.7	3.7

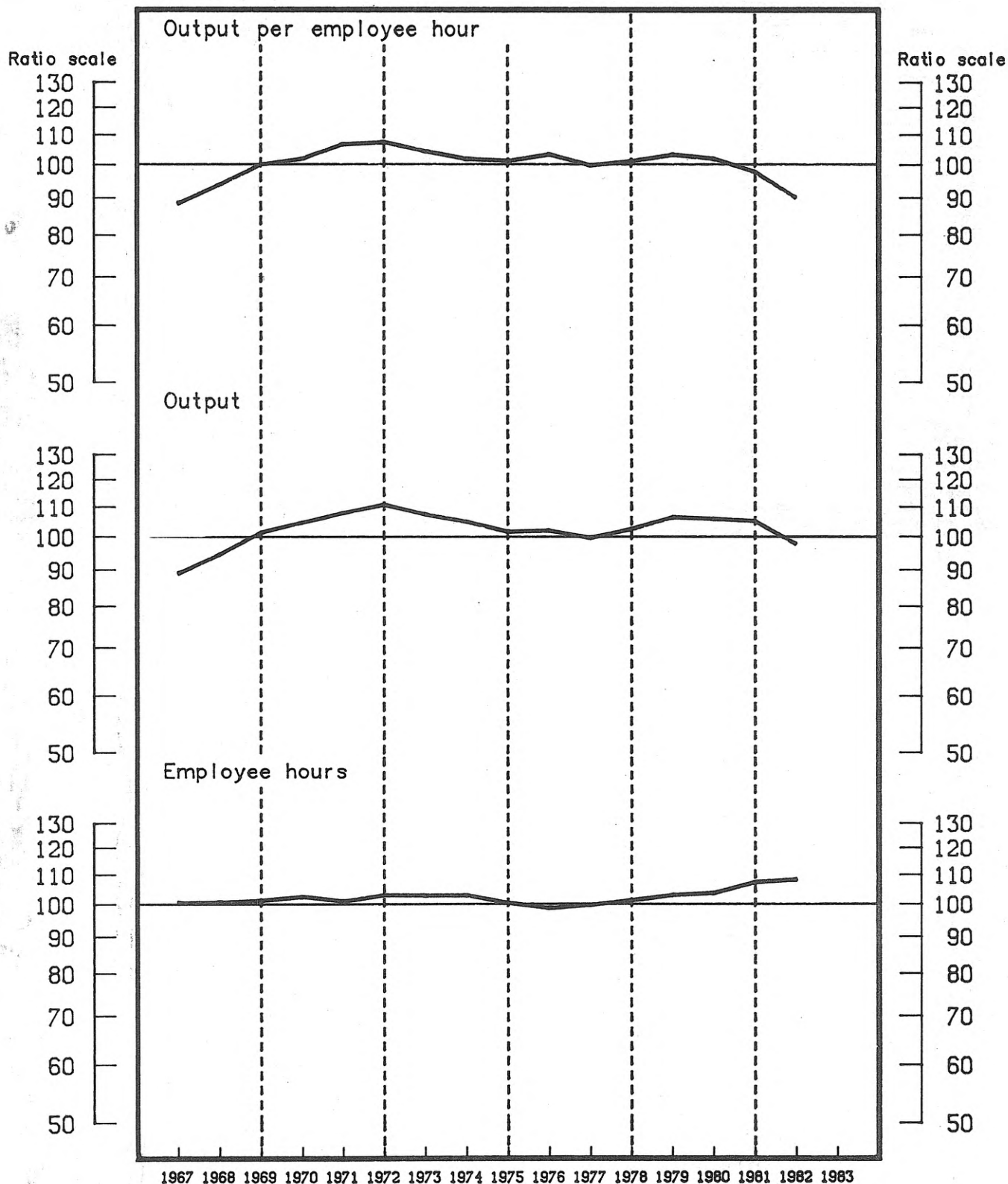
¹ Preliminary.

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

SOURCE: Output based on data from the 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 117. Gas utilities (SIC 492, 493 part): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 224. Gas utilities (SIC 492, 493 part): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-82
(1977 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	55.7	55.1	54.1	97.2	98.1
1959	58.4	58.3	58.3	99.9	100.0
1960	62.3	62.0	62.2	99.8	100.3
1961	64.6	64.4	64.5	99.9	100.2
1962	69.6	69.6	69.0	99.2	99.2
1963	72.6	72.9	72.2	99.5	99.1
1964	77.7	78.0	77.3	99.5	99.1
1965	79.6	80.3	80.1	100.6	99.7
1966	84.5	85.3	85.2	100.8	99.9
1967	88.6	89.2	89.2	100.7	100.0
1968	94.1	94.6	94.9	100.9	100.3
1969	100.3	100.6	101.8	101.5	101.2
1970	102.1	102.9	105.0	102.8	102.0
1971	106.9	106.9	108.2	101.2	101.2
1972	107.6	108.2	111.1	103.3	102.7
1973	104.5	105.0	107.7	103.1	102.6
1974	102.0	102.1	105.3	103.2	103.1
1975	101.4	101.4	102.0	100.6	100.6
1976	103.5	103.1	102.4	98.9	99.3
1977	100.0	100.0	100.0	100.0	100.0
1978	101.4	101.5	102.9	101.5	101.4
1979	103.4	103.4	106.8	103.3	103.3
1980	102.1	102.1	106.2	104.0	104.0
1981	98.0	98.2	105.5	107.7	107.4
1982 ¹	90.2	90.3	98.0	108.6	108.5
Average annual percent change:					
1958-82	2.4	2.4	2.6	.3	.2
1977-82	-1.8	-1.8	-1	1.7	1.7

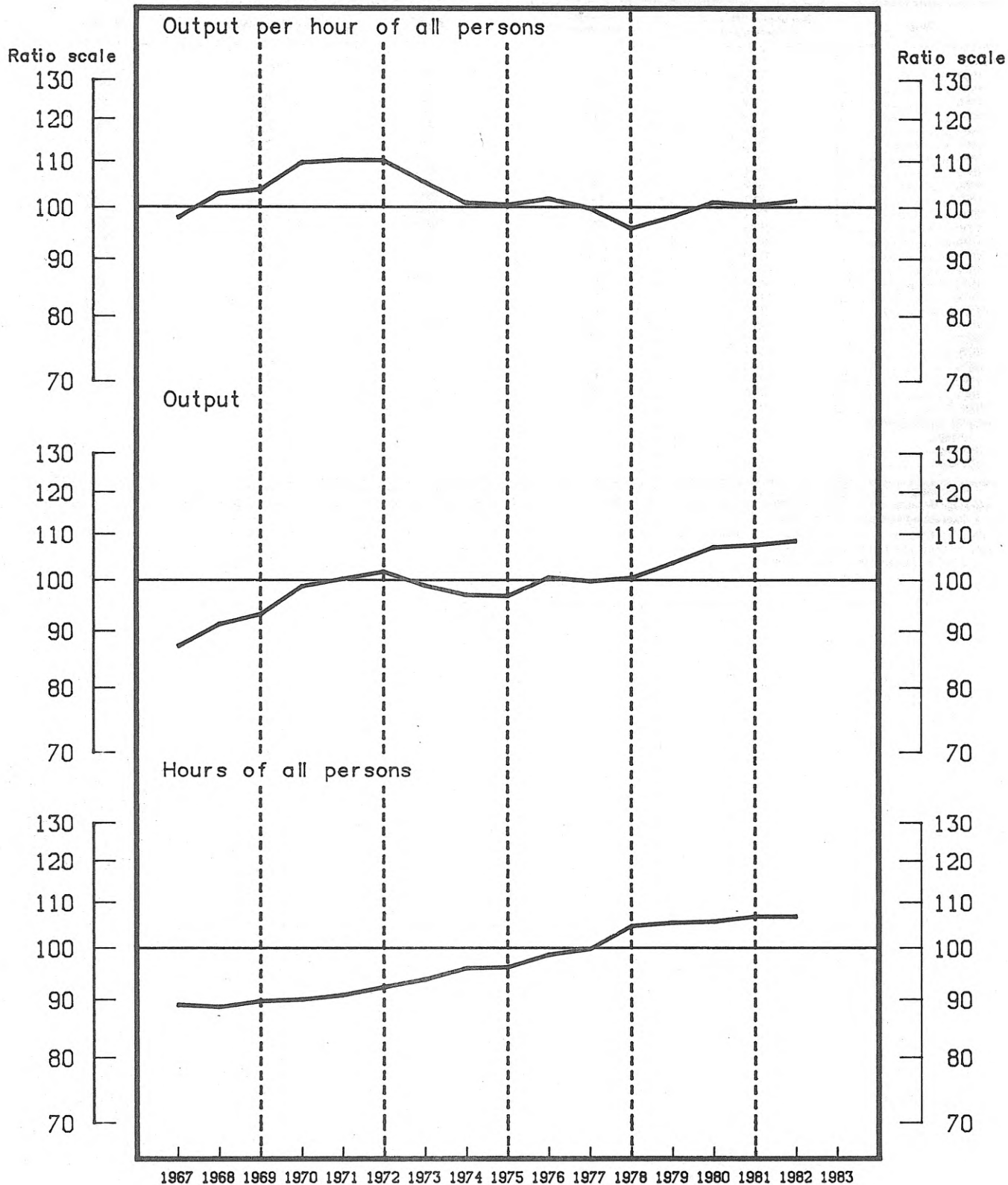
¹ Preliminary.

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

Chart 118. Retail food stores (SIC 54): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 225. 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 1958-82
(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	96.0	95.5	100.7	104.9	105.5
1979	98.3	96.2	103.8	105.6	107.9
1980	101.3	96.8	107.3	105.9	110.9
1981 ²	100.7	95.4	107.8	107.0	113.0
1982 ²	101.6	95.7	108.7	107.0	113.6
Average annual percent change:					
1958-82	1.1	.1	1.8	.7	1.7
1977-82 .....	.7	-.6	1.9	1.2	2.5

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

² Preliminary.

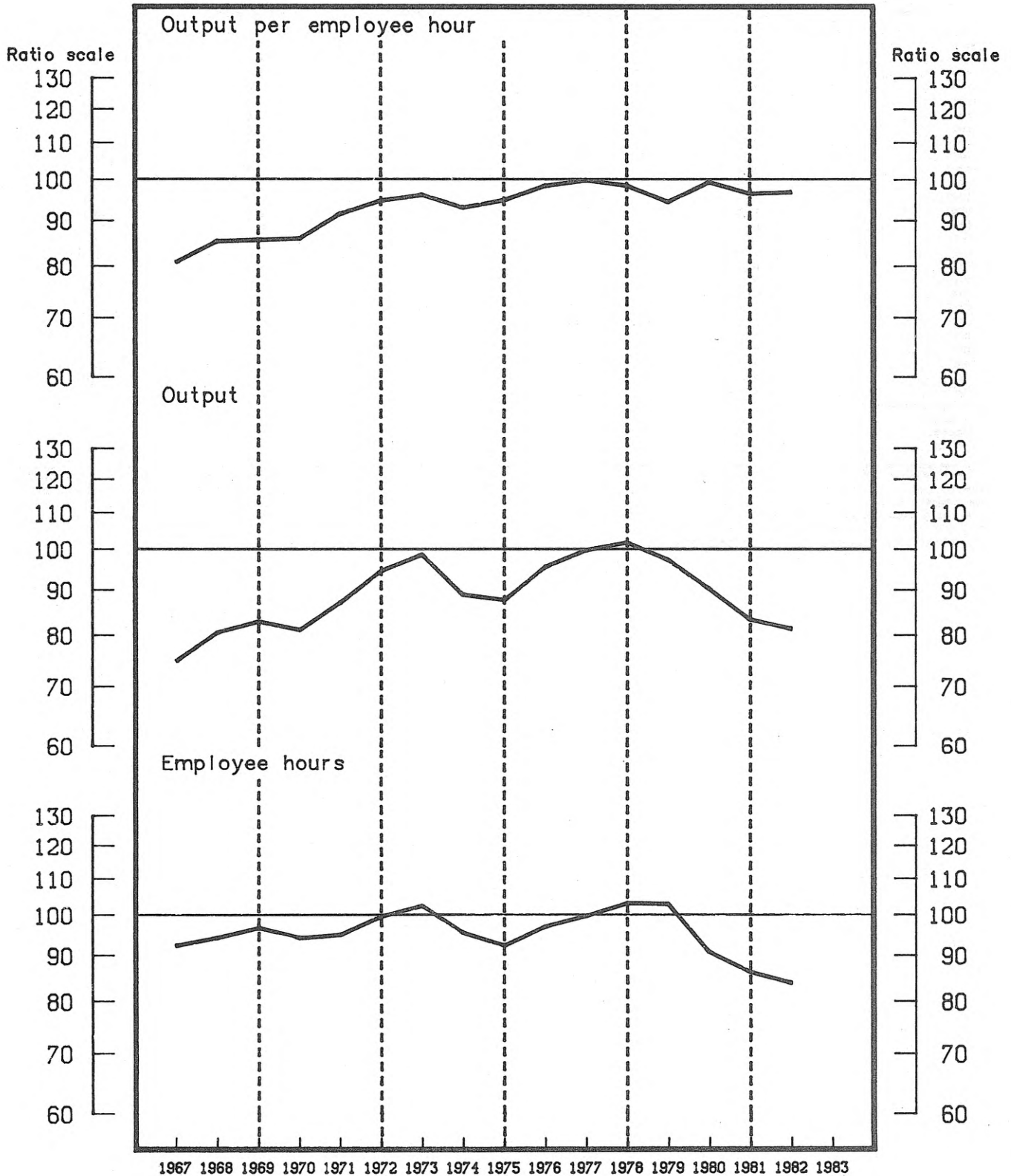
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of 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 119. Franchised new car dealers (SIC 5511): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 226. Franchised new car dealers (SIC 5511): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-82
(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	99.5	97.4	90.5	91.0	92.9
1981	96.6	94.7	83.5	86.4	88.2
1982 ¹	97.0	94.2	81.5	84.0	86.5
Average annual percent change:					
1958-82	1.8	1.1	2.3	.4	1.2
1977-82	-5	-1.0	-4.7	-4.3	-3.8

¹ Preliminary.

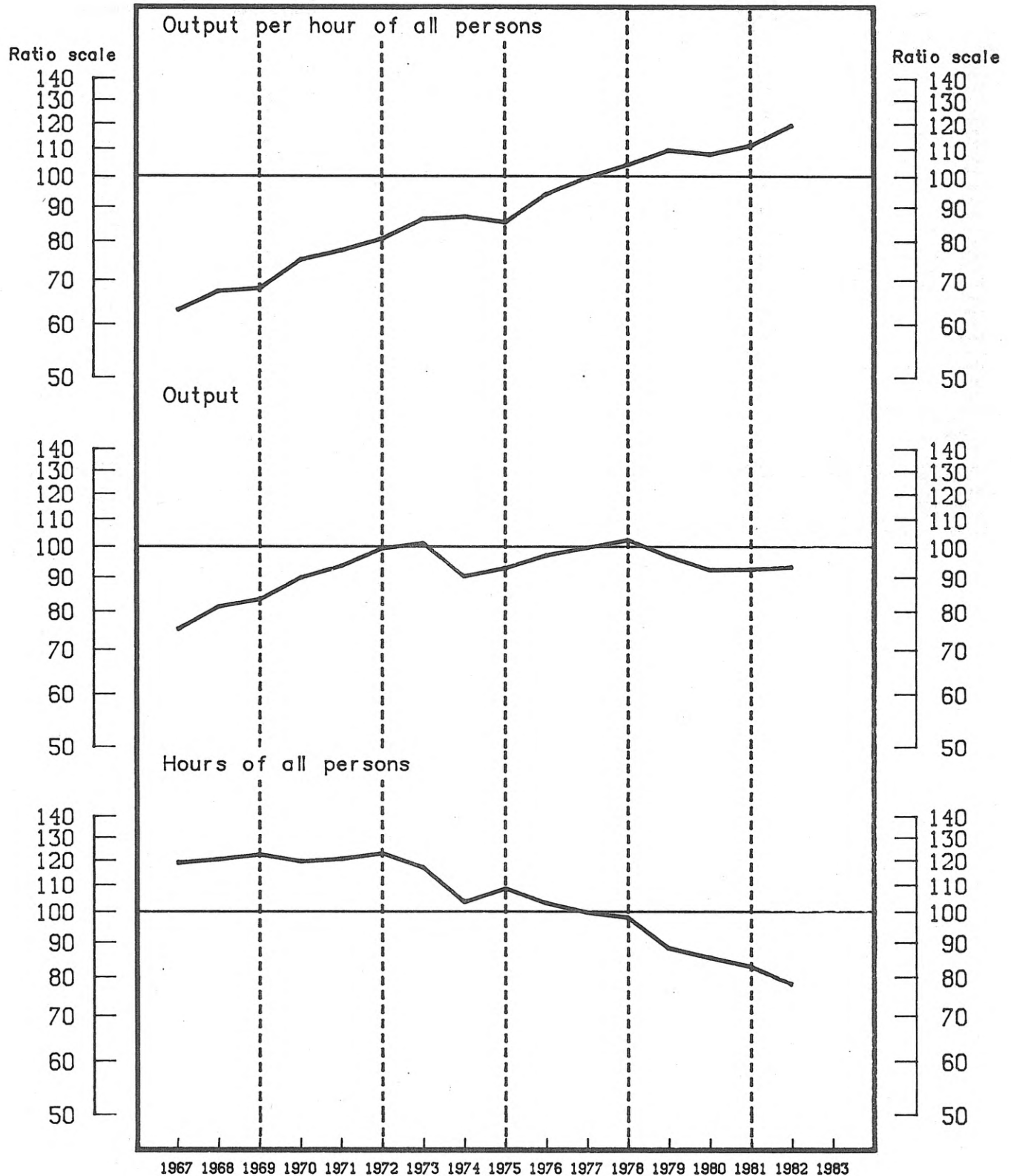
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census, 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 120. Gasoline service stations (SIC 5541): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 227. Gasoline service stations (SIC 5541): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons, 1958-82
(1977 = 100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	48.9	59.9	53.7	109.8	89.6
1959	50.7	61.9	55.8	110.0	90.2
1960	51.9	63.2	58.0	111.7	91.7
1961	53.5	65.1	60.5	113.1	92.9
1962	53.7	64.9	60.2	112.2	92.8
1963	56.3	67.8	64.4	114.3	95.0
1964	57.2	69.2	66.8	116.8	96.6
1965	59.2	70.8	70.4	119.0	99.5
1966	62.0	73.0	74.2	119.7	101.6
1967	63.2	73.3	75.4	119.3	102.8
1968	67.5	77.1	81.6	120.8	105.9
1969	68.2	76.7	83.7	122.8	109.1
1970	75.3	82.9	90.2	119.8	108.8
1971	77.7	85.8	93.9	120.9	109.4
1972	80.9	88.9	99.7	123.3	112.1
1973	86.6	91.9	101.5	117.2	110.5
1974	87.3	91.2	90.6	103.8	99.3
1975	85.6	90.0	93.2	108.9	103.5
1976	94.3	95.7	97.4	103.3	101.8
1977	100.0	100.0	100.0	100.0	100.0
1978	104.5	103.8	102.7	98.3	98.9
1979	109.8	106.8	97.1	88.4	90.9
1980	108.3	105.7	92.7	85.6	87.7
1981 ²	111.7	108.8	92.8	83.1	85.3
1982 ²	119.7	115.7	93.6	78.2	80.9
Average annual percent change:					
1958-82	3.9	2.8	2.7	-1.2	-1
1977-82	3.1	2.5	-1.9	-4.9	-4.3

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

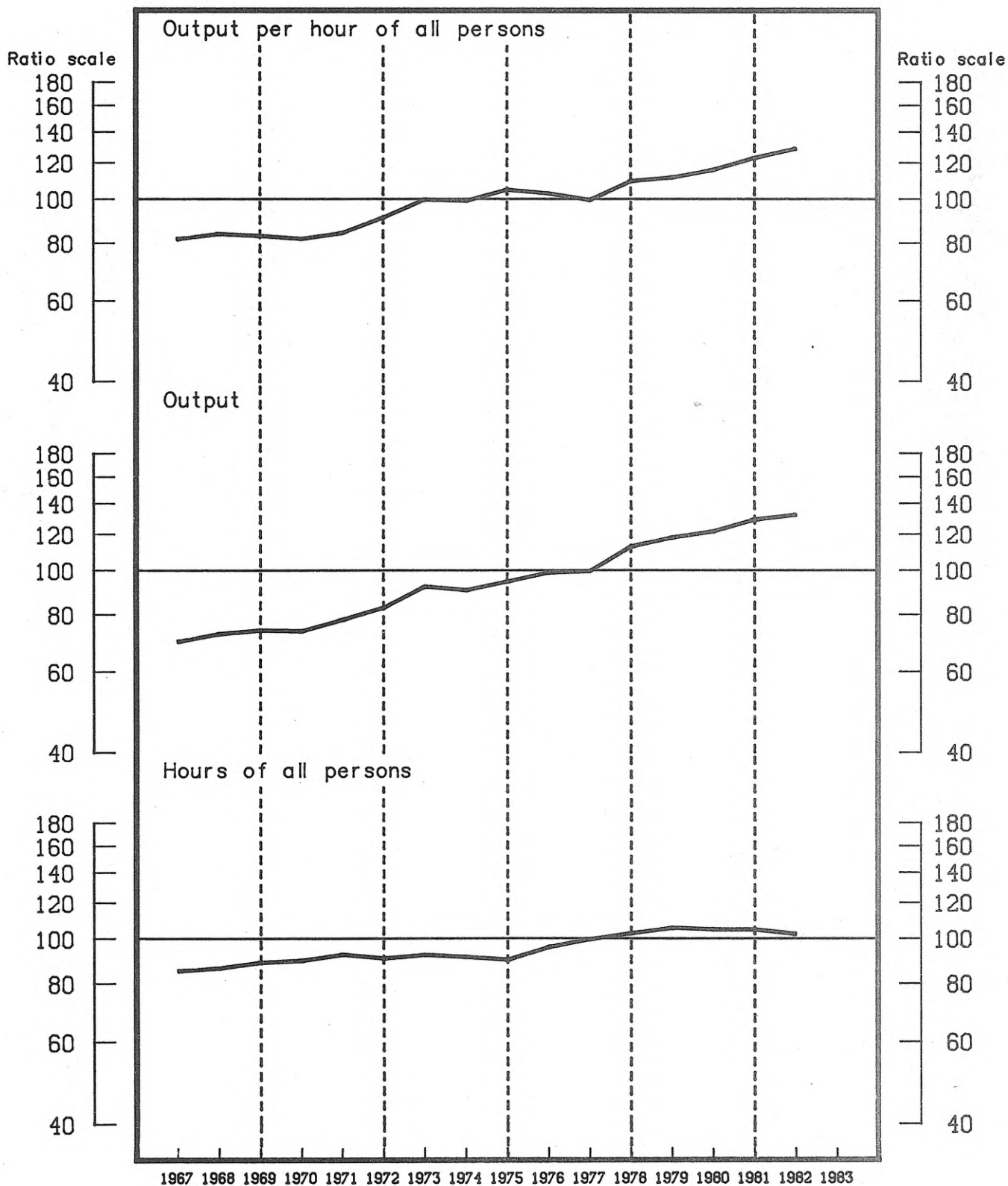
² Preliminary.

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 Labor Statistics and the Bureau of the Census. Persons and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 121. Apparel and accessory stores (SIC 56): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 228. Apparel and accessory stores (SIC 56): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1967-82
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1967	82.1	87.7	70.2	85.5	80.0
1968	84.2	88.0	73.0	86.7	83.0
1969	83.4	86.9	74.3	89.1	85.5
1970	82.2	85.9	74.0	90.0	86.1
1971	84.6	88.1	78.3	92.6	88.9
1972	91.5	93.2	83.2	90.9	89.3
1973	100.2	101.9	92.6	92.4	90.9
1974	99.5	100.6	90.9	91.4	90.4
1975	105.3	106.1	95.0	90.2	89.5
1976	103.3	104.1	99.3	96.1	95.4
1977	100.0	100.0	100.0	100.0	100.0
1978	110.0	109.1	113.4	103.1	103.9
1979	112.0	110.0	118.6	105.9	107.8
1980	116.4	113.1	122.3	105.1	108.1
1981 ²	123.6	119.7	129.8	105.0	108.4
1982 ²	129.4	125.0	132.9	102.7	106.3
Average annual percent change:					
1967-82	3.1	2.4	4.6	1.5	2.1
1977-82	4.9	4.1	5.5	.5	1.3

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

² Preliminary.

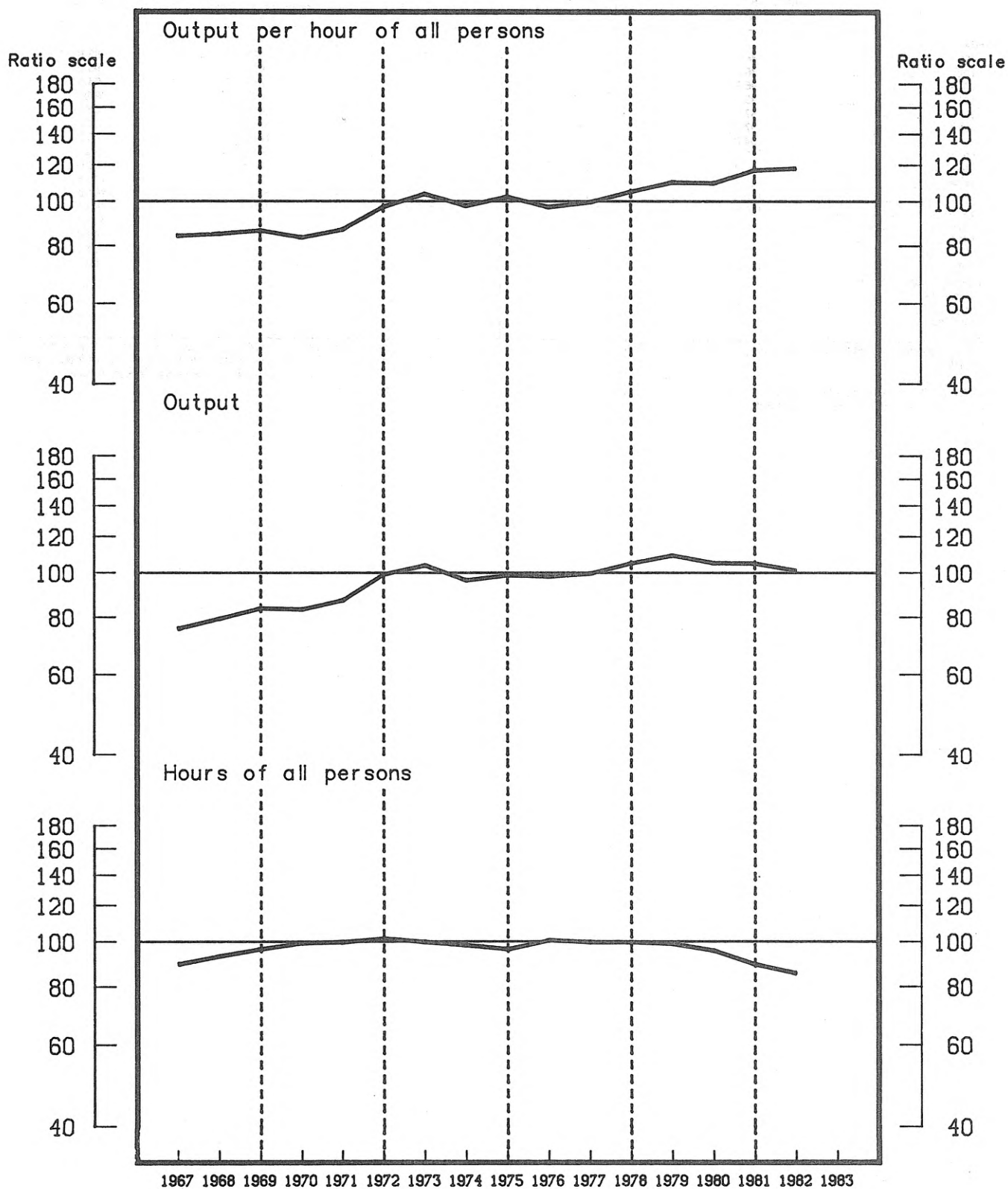
NOTE: Because of periodic revisions in source data, the measures in this table

may differ from those previously published.

SOURCE: Output, 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 122. Men's and boys' clothing stores (SIC 5611): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 229. Men's and boys' clothing stores (SIC 5611): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1967-82
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1967	84.5	88.4	75.9	89.8	85.9
1968	85.4	88.5	79.8	93.4	90.2
1969	86.8	89.3	84.0	96.8	94.1
1970	83.8	85.8	83.5	99.7	97.3
1971	87.2	88.6	87.4	100.2	98.7
1972	97.8	99.5	99.7	101.9	100.2
1973	104.2	105.6	104.3	100.1	98.8
1974	98.2	98.6	96.7	98.5	98.1
1975	102.7	103.8	99.2	96.6	95.6
1976	97.6	98.0	98.5	100.9	100.5
1977	100.0	100.0	100.0	100.0	100.0
1978	105.4	104.7	105.4	100.0	100.7
1979	110.5	109.4	109.6	99.2	100.2
1980	110.0	109.2	105.5	95.9	96.6
1981 ²	117.5	115.0	105.3	89.6	91.6
1982 ²	118.6	115.2	101.6	85.7	88.2
Average annual percent change:					
1967-82	2.3	1.9	2.1	-2	.2
1977-82	3.4	2.9	.1	-3.2	-2.7

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

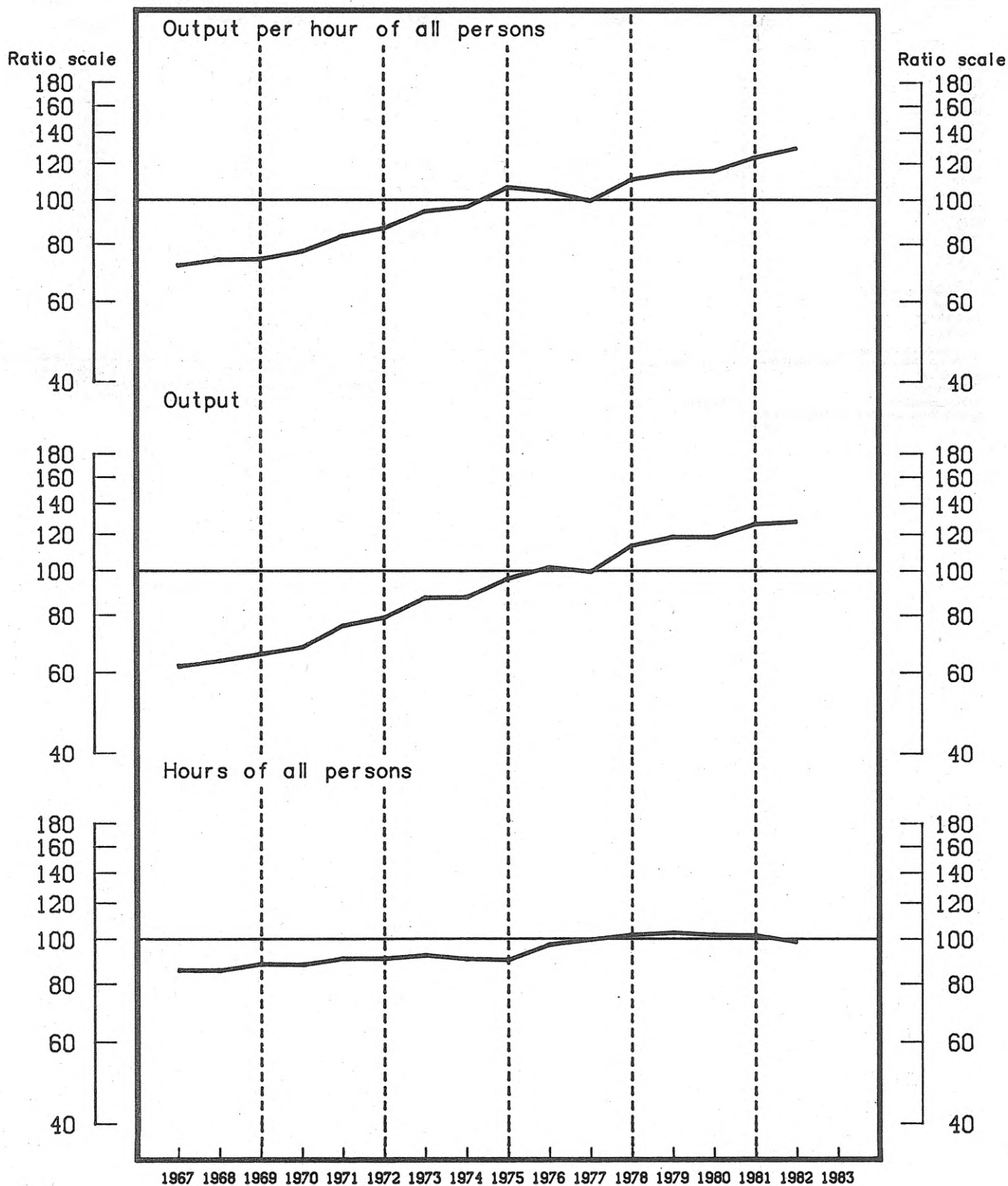
² Preliminary.

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

SOURCE: Output based on data from the Bureau of Labor Statistics and the Bureau of the Census. Persons and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 123. Women's ready-to-wear stores (SIC 5621): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 230. Women's ready-to-wear stores (SIC 5621): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1967-82
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1967	72.2	78.9	62.2	86.1	78.8
1968	74.4	78.8	64.0	86.0	81.2
1969	74.6	79.0	66.2	88.7	83.8
1970	77.5	81.3	68.5	88.4	84.3
1971	83.8	87.3	76.3	91.1	87.4
1972	87.2	89.5	79.4	91.1	88.7
1973	94.9	96.8	87.8	92.5	90.7
1974	96.9	97.9	88.0	90.8	89.9
1975	107.0	107.9	96.7	90.4	89.6
1976	104.9	106.3	102.3	97.5	96.2
1977	100.0	100.0	100.0	100.0	100.0
1978	111.3	109.5	114.0	102.4	104.1
1979	115.0	111.6	119.0	103.5	106.6
1980	116.2	111.6	119.0	102.4	106.6
1981 ²	124.3	119.1	127.0	102.2	106.6
1982 ²	130.1	124.5	128.5	98.8	103.2
Average annual percent change:					
1967-82	4.1	3.2	5.4	1.3	2.1
1977-82	4.8	3.9	4.6	-2	.7

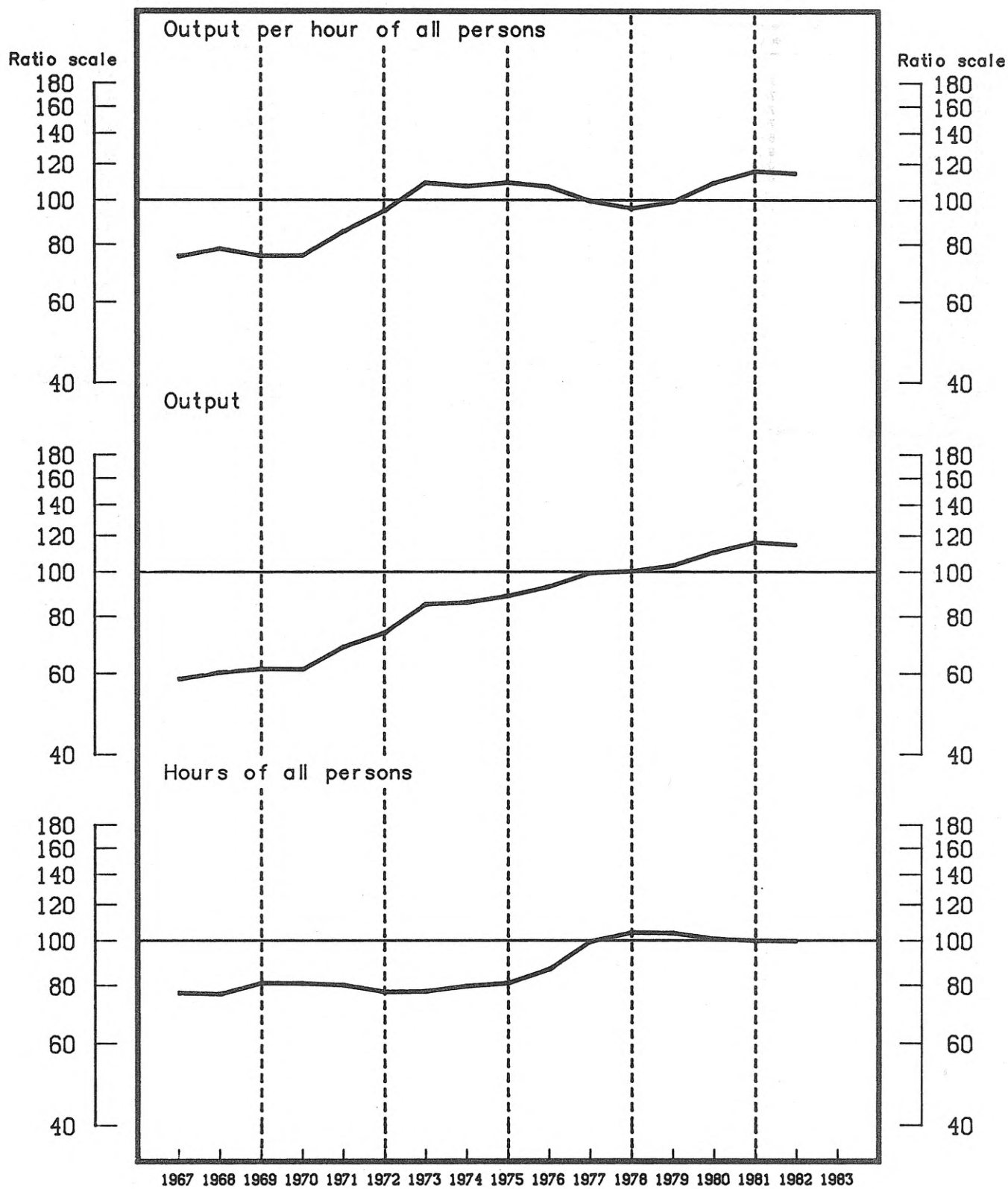
¹ All persons include paid employees, unpaid family workers, and the self-employed.

² Preliminary.

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

SOURCE: Output based on data from the Bureau of Labor Statistics and the Bureau of the Census. Persons and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 124. Family clothing stores (SIC 5651): Output per hour and related data, 1967-82
(1977 = 100)



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

Table 231. Family clothing stores (SIC 5651): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1967-82
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1967	75.7	81.3	58.6	77.4	72.1
1968	78.7	83.6	60.6	77.0	72.5
1969	75.9	81.9	61.7	81.3	75.3
1970	76.0	82.6	61.6	81.1	74.6
1971	85.8	90.4	69.0	80.4	76.3
1972	95.1	96.9	74.0	77.8	76.4
1973	109.6	109.8	85.5	78.0	77.9
1974	107.7	107.7	86.2	80.0	80.0
1975	109.7	109.5	89.1	81.2	81.4
1976	107.4	106.6	93.4	87.0	87.6
1977	100.0	100.0	100.0	100.0	100.0
1978	96.4	96.3	100.8	104.6	104.7
1979	99.6	96.6	103.8	104.2	107.5
1980	109.6	103.4	110.9	101.2	107.3
1981 ²	116.3	110.1	116.6	100.3	105.9
1982 ²	114.9	109.6	115.0	100.1	104.9
Average annual percent change:					
1967-82	2.8	1.9	5.2	2.3	3.2
1977-82	3.9	2.7	3.5	-4	.8

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

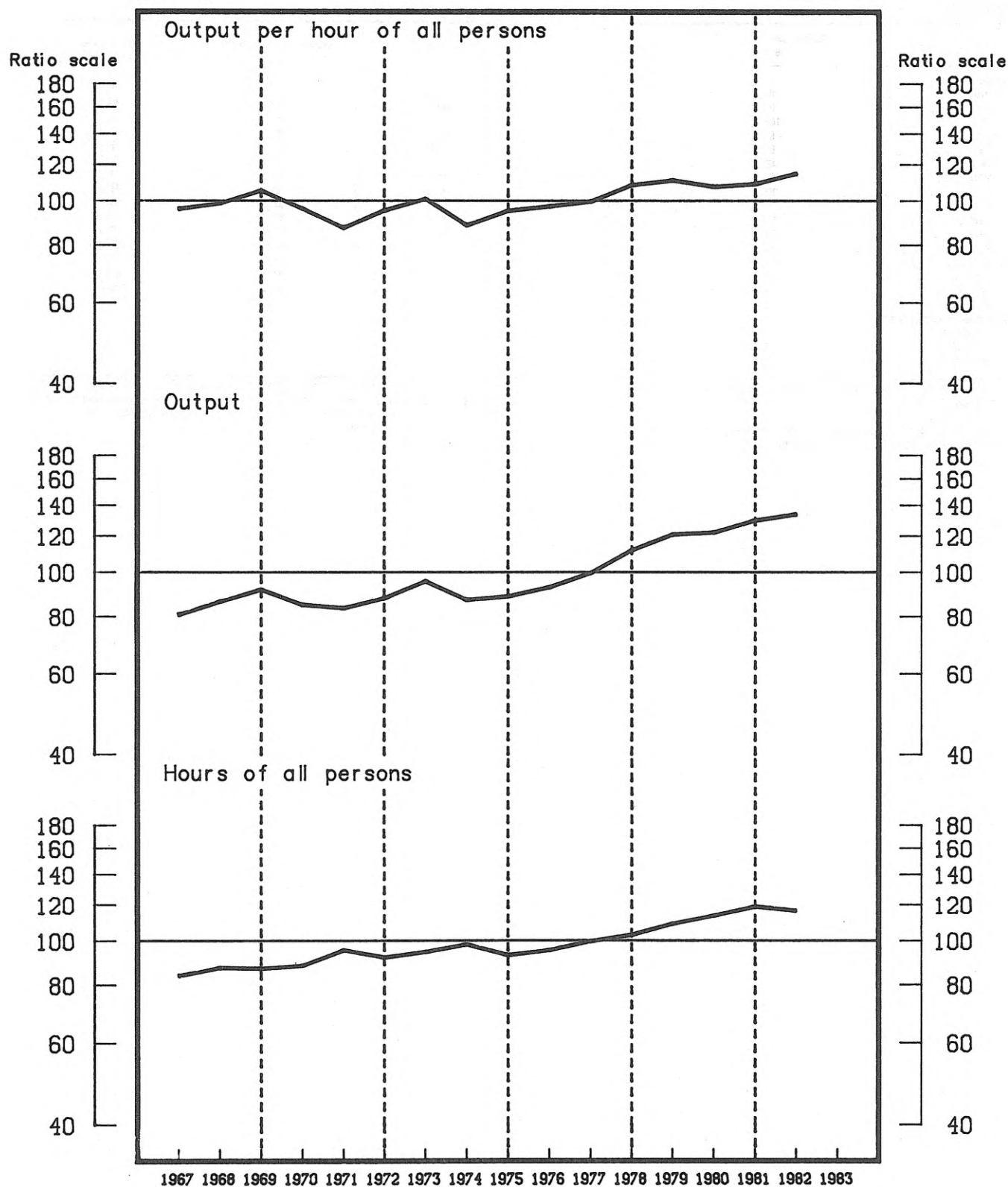
² Preliminary.

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

SOURCE: Output based on data from the Bureau of Labor Statistics and the Bureau of the Census. Persons and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 125. Shoe stores (SIC 5661): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 232. Shoe stores (SIC 5661): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,¹ 1967-82
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons ^a
Index:					
1967	96.4	101.1	81.1	84.1	80.2
1968	99.1	101.4	86.7	87.5	85.5
1969	105.7	105.3	92.1	87.1	87.5
1970	96.5	98.6	85.3	88.4	86.5
1971	87.7	90.3	83.9	95.7	92.9
1972	95.6	95.4	88.1	92.2	92.3
1973	101.4	102.5	96.1	94.8	93.8
1974	88.8	90.6	87.4	98.4	96.5
1975	95.5	95.3	89.0	93.2	93.4
1976	97.6	97.6	93.2	95.5	95.5
1977	100.0	100.0	100.0	100.0	100.0
1978	108.7	108.1	112.3	103.3	103.9
1979	111.2	109.9	121.5	109.3	110.6
1980	107.7	106.1	122.7	113.9	115.7
1981 ²	109.3	107.7	130.4	119.3	121.1
1982 ²	115.2	112.2	134.5	116.8	119.9
Average annual percent change:					
1967-82	1.1	.7	3.3	2.2	2.5
1977-82	2.0	1.5	5.7	3.6	4.1

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

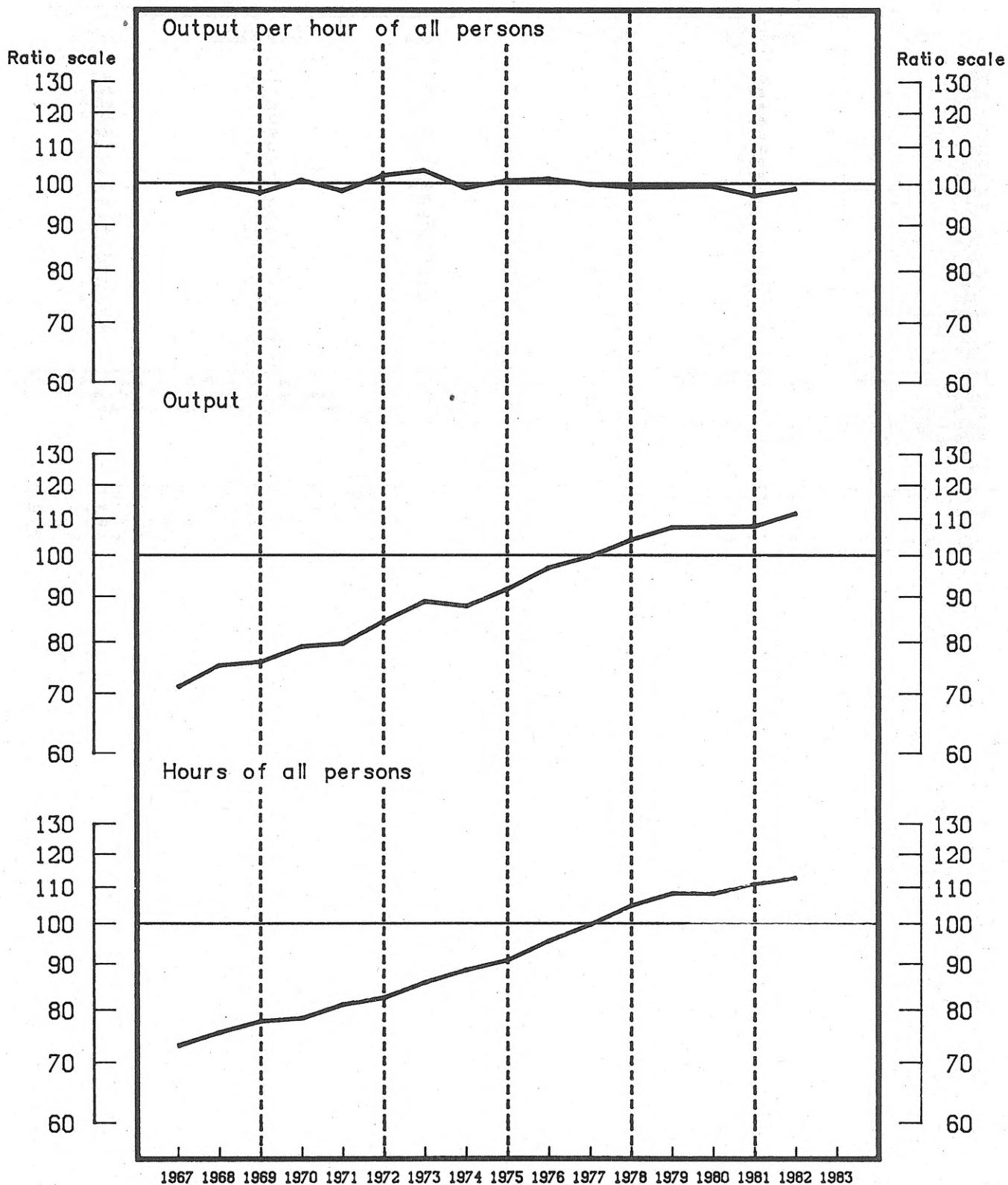
² Preliminary.

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

SOURCE: Output based on data from the Bureau of Labor Statistics and the Bureau of the Census. Persons and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 126. Eating and drinking places (SIC 58): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 233. 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 1958-82
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	89.5	120.6	56.3	62.9	46.7
1959	88.4	119.6	57.9	65.5	48.4
1960	88.1	118.3	58.3	66.2	49.3
1961	88.7	118.1	58.2	65.6	49.3
1962	89.3	118.1	60.0	67.2	50.8
1963	91.8	120.1	61.5	67.0	51.2
1964	90.9	119.8	64.2	70.6	53.6
1965	93.7	121.0	68.0	72.6	56.2
1966	94.6	118.4	70.2	74.2	59.3
1967	97.5	118.6	71.4	73.2	60.2
1968	99.7	119.5	75.5	75.7	63.2
1969	97.8	114.1	76.2	77.9	66.8
1970	101.0	114.6	79.3	78.5	69.2
1971	98.3	110.7	79.9	81.3	72.2
1972	102.3	112.2	84.6	82.7	75.4
1973	103.6	111.7	89.1	86.0	79.8
1974	99.1	104.9	88.0	88.8	83.9
1975	101.0	105.5	92.0	91.1	87.2
1976	101.4	104.0	97.1	95.8	93.4
1977	100.0	100.0	100.0	100.0	100.0
1978	99.3	97.5	104.4	105.1	107.1
1979	99.4	95.4	107.8	108.5	113.0
1980	99.5	93.7	107.9	108.4	115.1
1981 ²	97.2	91.8	108.1	111.2	117.8
1982 ²	98.9	93.6	111.8	113.0	119.5
Average annual percent change:					
1958-82 .....	.6	-1.2	3.2	2.6	4.4
1977-82	-.3	-1.5	1.9	2.3	3.5

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

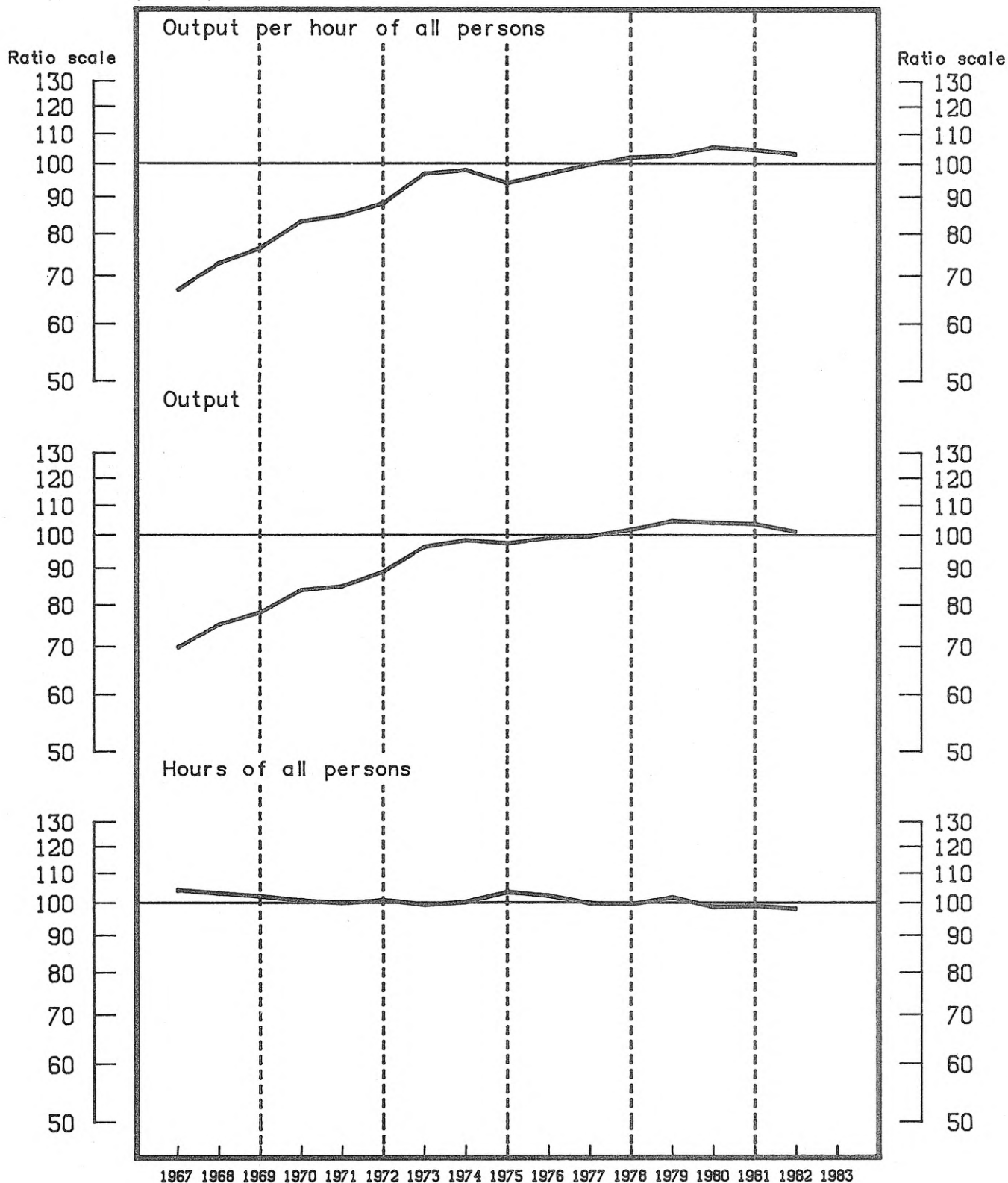
² Preliminary.

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

SOURCE: Output based on data from the Bureau of 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 127. Drug and proprietary stores (SIC 5912): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 234. 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 1958-82
(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	102.3	102.5	102.1	99.8	99.6
1979	102.9	103.9	105.0	102.0	101.1
1980	105.6	102.5	104.4	98.9	101.9
1981 ²	104.7	100.9	104.0	99.3	103.1
1982 ²	103.3	99.0	101.4	98.2	102.4
Average annual percent change:					
1958-82	4.0	2.9	3.9	-.1	1.1
1977-82 .....	.7	-.3	.3	-.4	.7

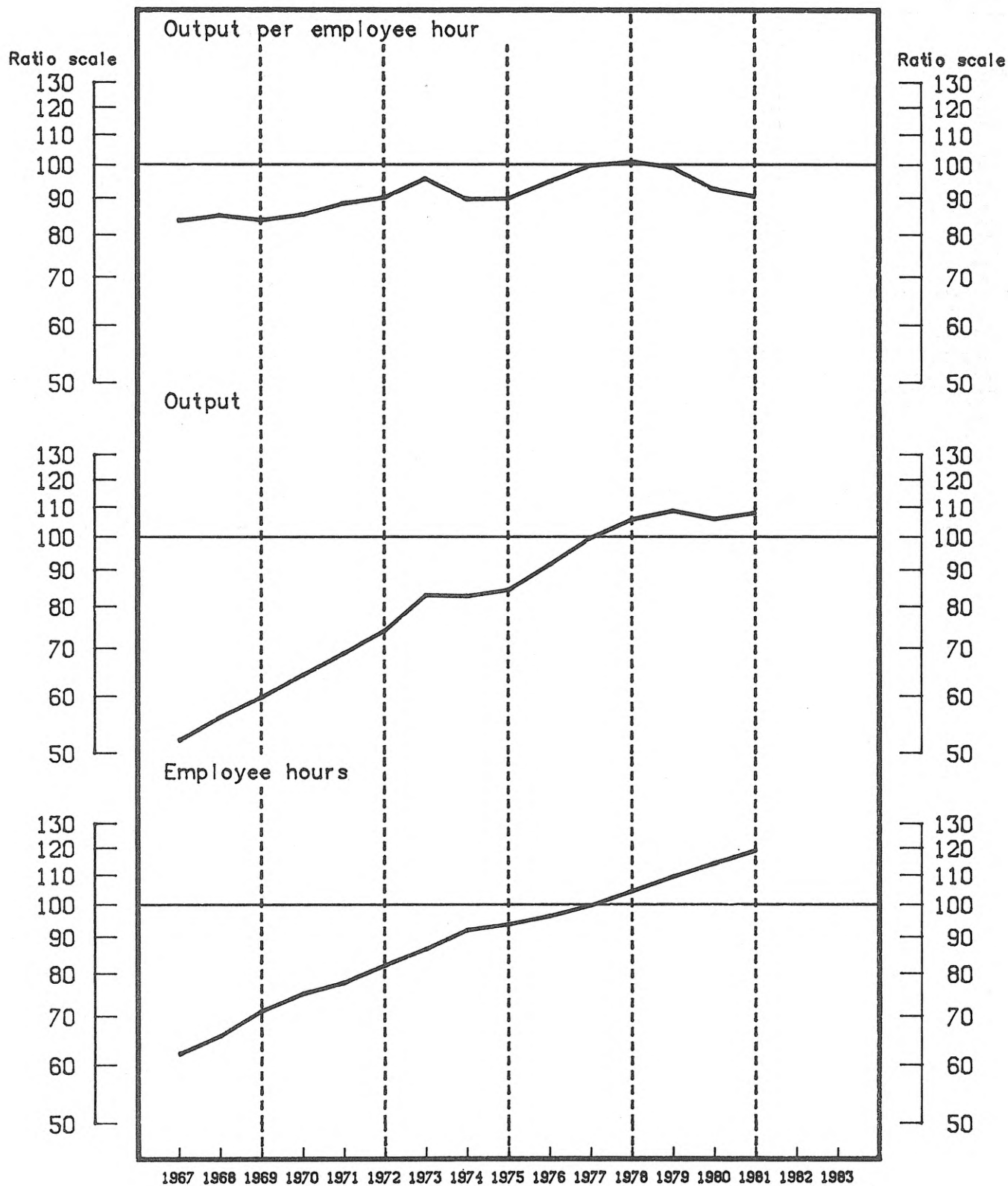
¹ All persons include paid employees, unpaid family workers, and the self-employed.

² Preliminary.

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

SOURCE: Output based on data from the Bureau of the Census and the Bureau of 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 128. Commercial banking (SIC 602): Output per hour and related data, 1967-81
(1977 = 100)



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

Table 235. Commercial banking (SIC 602): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1967-81
(1977 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1967	83.8	82.9	52.2	62.3	63.0
1968	85.3	84.4	56.3	66.0	66.7
1969	84.0	83.3	60.0	71.4	72.0
1970	85.5	84.2	64.5	75.4	76.6
1971	88.6	87.5	69.1	78.0	79.0
1972	90.3	89.6	74.3	82.3	82.9
1973	95.9	95.1	83.2	86.8	87.5
1974	89.8	89.5	82.9	92.3	92.6
1975	90.0	89.8	84.6	94.0	94.2
1976	95.0	94.8	91.8	96.6	96.8
1977	100.0	100.0	100.0	100.0	100.0
1978	101.2	101.0	106.0	104.7	104.9
1979	99.3	98.6	108.9	109.7	110.5
1980	92.7	91.7	106.1	114.5	115.7
1981 ¹	90.6	90.4	108.2	119.4	119.7
Average annual percent change:					
1967-81	1.1	1.1	5.7	4.6	4.5
1977-81	-2.8	-2.9	1.6	4.5	4.7

¹ Preliminary.

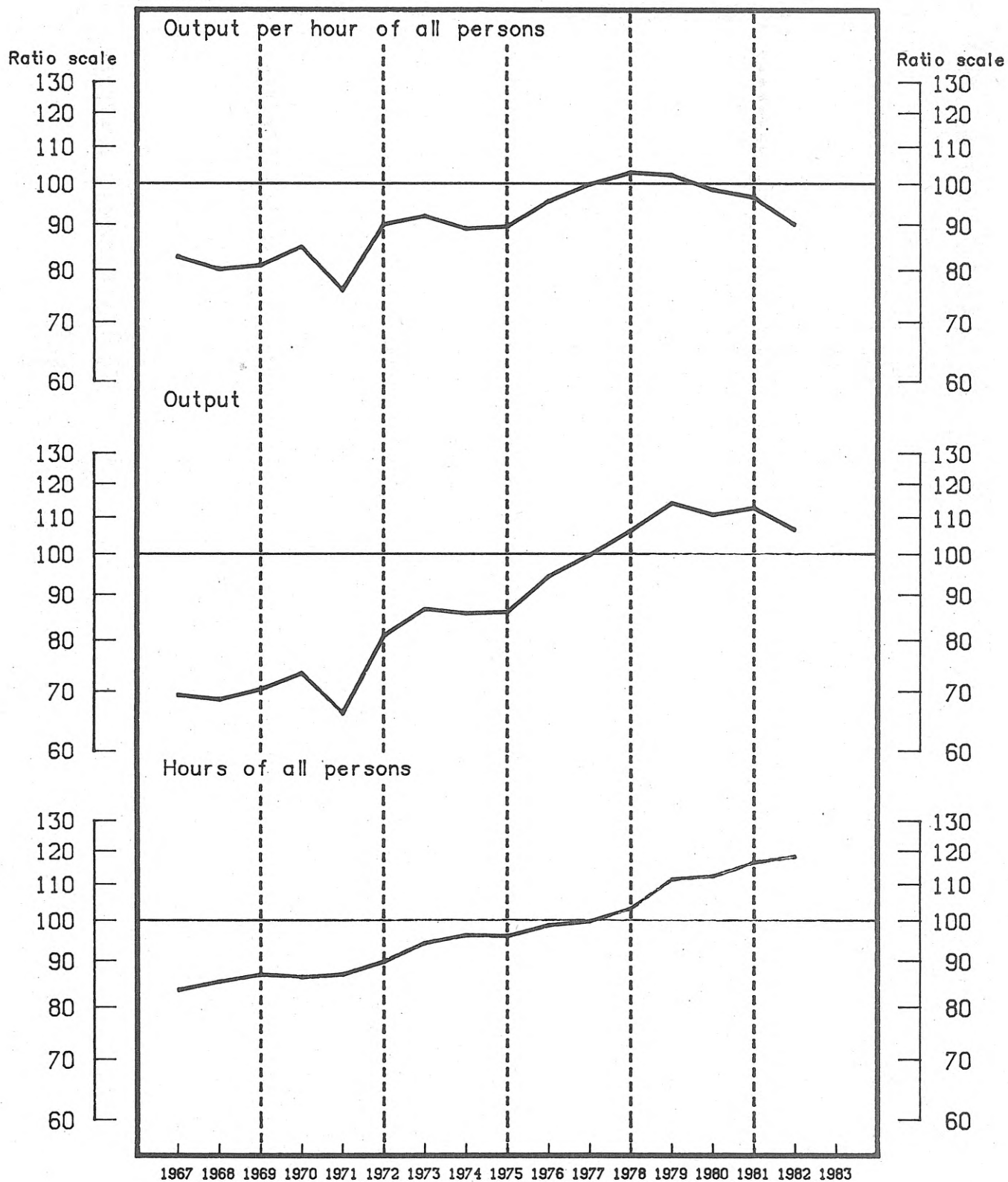
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Federal Reserve Bank of Atlanta; the Board of Governors, Federal Reserve System; the Federal Deposit Insurance

Corporation; the U.S. Department of Housing and Urban Development; the American Bankers Association; the VISA and Interbank Association; the American Council of Life Insurance; and the National Automatic Clearing House Association. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 129. Hotels, motels, and tourist courts (SIC 7011): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 236. 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 1958-82 (1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	63.7	80.1	47.8	75.0	59.7
1959	64.5	81.0	49.5	76.8	61.1
1960	66.0	82.6	51.7	78.3	62.6
1961	63.9	79.1	50.0	78.2	63.2
1962	68.3	83.5	53.6	78.5	64.2
1963	71.5	87.0	56.2	78.6	64.6
1964	71.7	86.3	57.9	80.7	67.1
1965	77.1	91.8	63.4	82.2	69.1
1966	77.3	90.3	64.6	83.6	71.5
1967	82.9	95.3	69.5	83.8	72.9
1968	80.3	90.9	68.7	85.6	75.6
1969	81.1	90.7	70.6	87.1	77.8
1970	85.1	93.3	73.6	86.5	78.9
1971	76.2	81.7	66.4	87.1	81.3
1972	90.2	95.4	81.2	90.0	85.1
1973	92.1	97.9	86.9	94.4	88.8
1974	89.2	93.5	85.9	96.3	91.9
1975	89.7	91.7	86.2	96.1	94.0
1976	95.7	97.6	94.6	98.9	96.9
1977	100.0	100.0	100.0	100.0	100.0
1978	103.1	103.2	106.6	103.4	103.3
1979	102.4	102.7	114.4	111.7	111.4
1980	98.6	98.1	111.0	112.6	113.2
1981 ²	96.7	96.2	113.0	116.8	117.5
1982 ²	90.1	89.4	106.8	118.6	119.4
Average annual percent change:					
1958-82	2.0	.8	3.9	1.9	3.0
1977-82	-2.1	-2.3	1.4	3.6	3.8

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

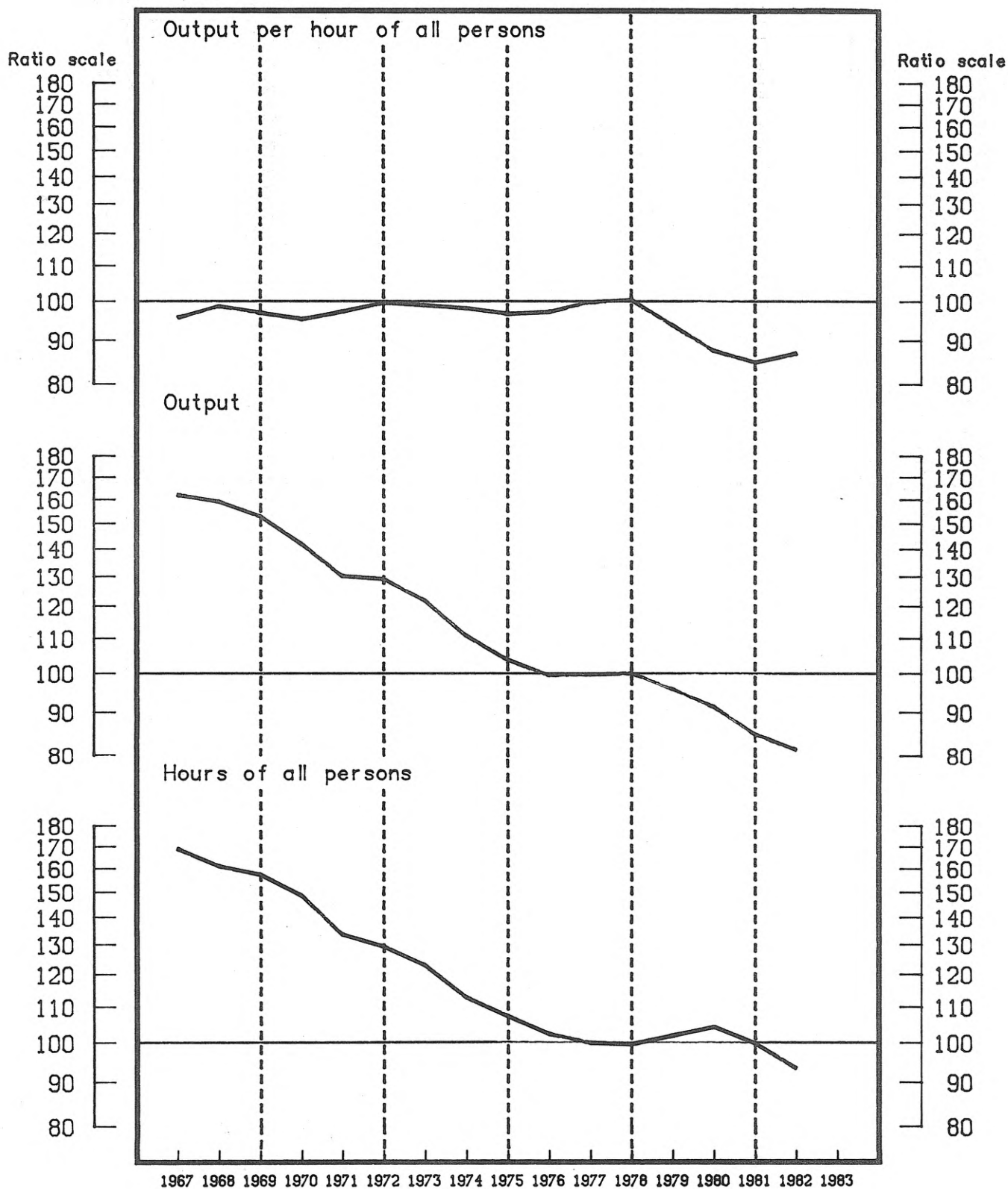
² Preliminary.

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

SOURCE: Output, persons, and hours based on data from the Bureau of Labor Statistics; Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 130. Laundry and cleaning services (SIC 721): Output per hour and related data, 1967-82

(1977 = 100)



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

Table 237. 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 1958-82
(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	94.0	94.0	96.0	102.1	102.1
1980	87.7	87.7	91.6	104.5	104.4
1981 ²	85.0	84.0	85.0	100.0	101.2
1982 ²	87.1	84.4	81.5	93.6	96.6
Average annual percent change:					
1958-82 .....	.6	-.2	-2.5	-3.1	-2.4
1977-82	-3.6	-4.1	-4.4	-.8	-.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, 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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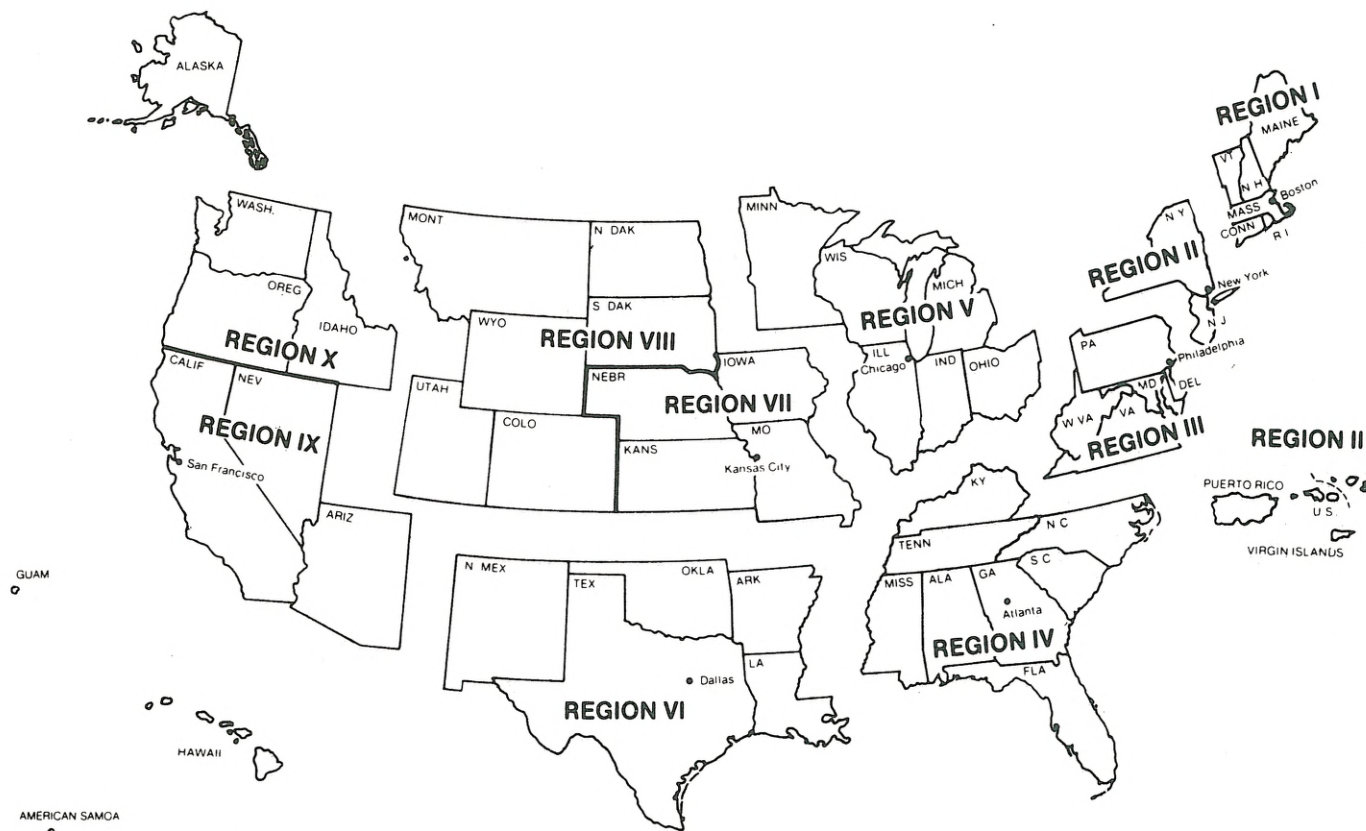
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